Mondi Group
Sustainable Development
report 2018

Sustainable packaging and paper by design

mondi

Contributing to a better world

As business leaders we need to seize the opportunity to make a positive difference, not only for the world we live in today, but for future generations too.

This report provides a comprehensive view of our approach to sustainable development and our performance in 2018, across our 10 Growing Responsibly Action Areas. ERM CVS has provided assurance on selected information and key performance indicators as well as checked that the report is in accordance with the Global Reporting Initiative (GRI) Standards: Core option.

External recognition

Our sustainability performance has been disclosed in or received recognition by a number of external corporate ratings and indices, including:

UN Global Compact
→ Advanced Reporter

CDP
→ A- score for Climate Change
→ B scores for Forests and Water Security

Ethibel Sustainability Index (ESI)
→ Constituent of the ESI Excellence Europe

The CEO Water Mandate
→ Joined 2015

ISS-oekom
→ Prime status in the ISS-oekom Corporate Rating indices

Euronext Vigeo Indices
→ UK 20
→ Europe 120
→ World 120

FTSE4Good
→ Member of the FTSE4Good Index Series

EcoAct
→ Ranked sixth FTSE100 company

Ecovadis
→ GOLD recognition level
→ Top 1% of all companies

MSCI
→ ESG Rating AA

ECPI Indices
→ Constituent of ECPI Indices

FTSE/JSE Responsible Investment Index
→ Constituent of the FTSE/JSE Responsible Investment Top 30 Index
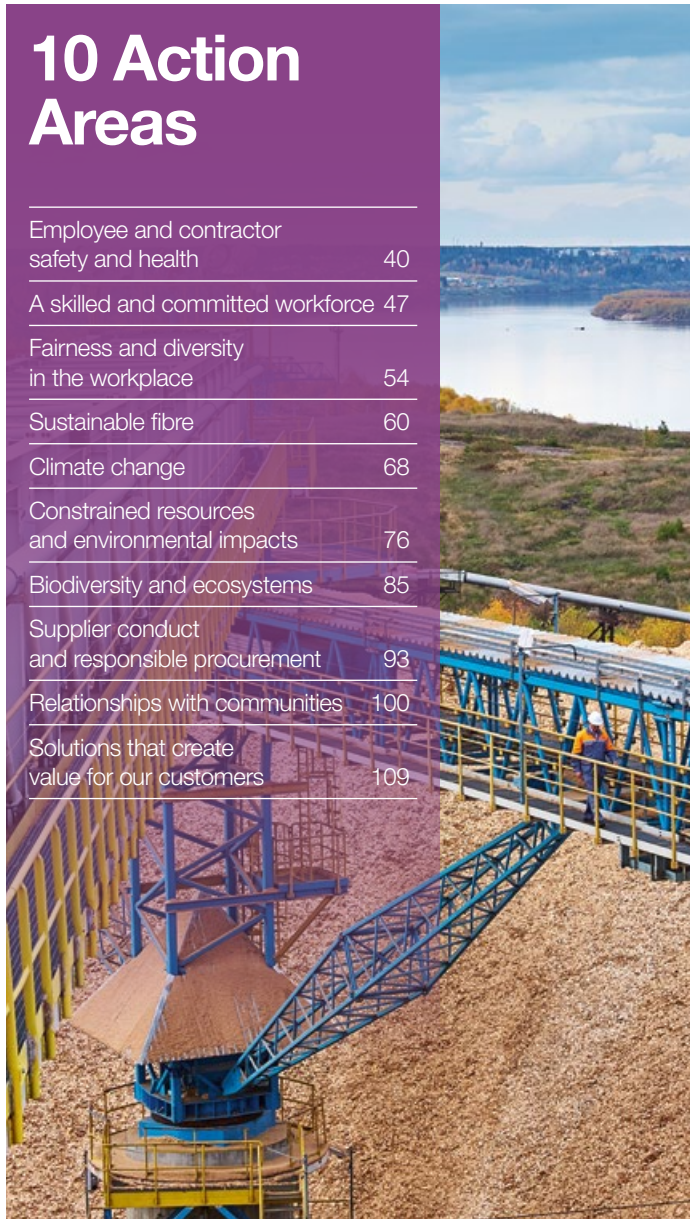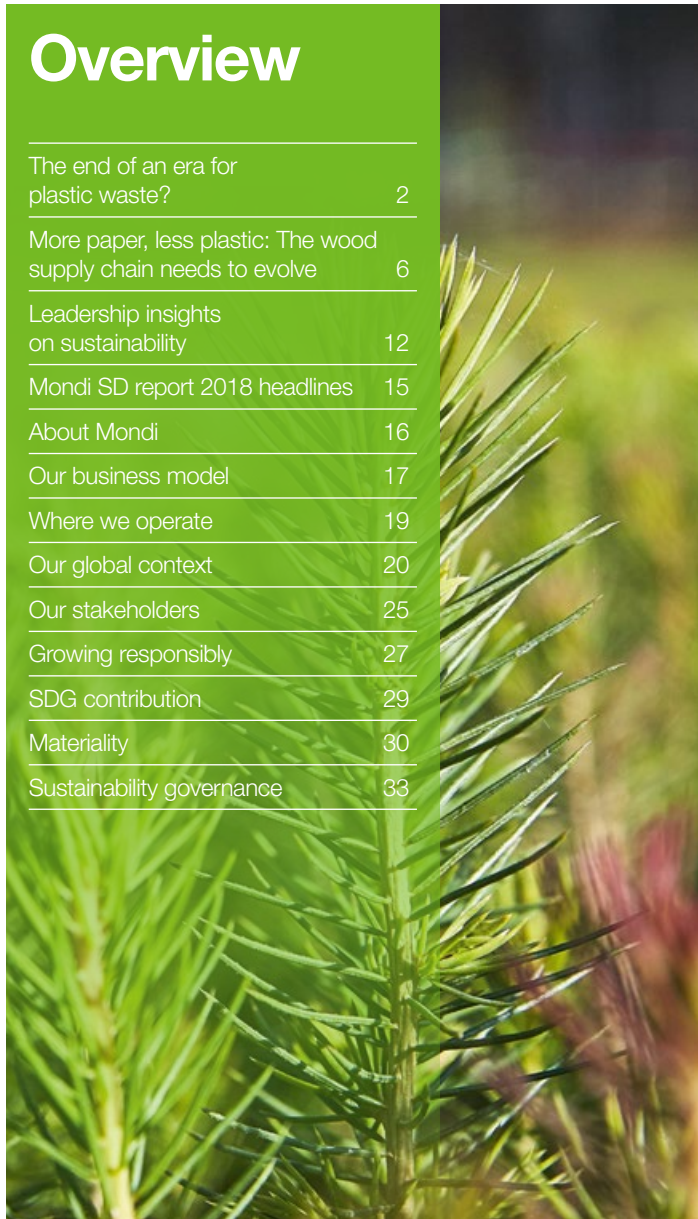
What's inside

Overview

10 Action Areas

Performance

Overview

Sustainable packaging

The end of an era for plastic waste?

In recent years, plastics – and plastic packaging in particular – have been at the forefront of global media attention. As it comes under increasing scrutiny for its impact on our planet, we ask: What needs to be done to ensure a circular plastics economy?

Sustainable packaging

It would have been difficult to have missed the public debate around plastics over the past year. It's an issue that's gone global – from the BBC's Blue Planet[1] and the Financial Times' coverage of the world's waste crisis[2] to the #breakfreefromplastic global movement[3], plastic is firmly under the spotlight and it's driving a new level of collaboration and innovation.

Waking up to the price of plastic

Did you know...

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Read more

A circular economy that reduces waste could yield billions in cash just by improving efficiency. It's an ambitious challenge facing society and, we believe, a great opportunity. The need for litter recovery and recycling will open the door to innovative new business models and multi-stakeholder partnerships that span the entire value chain. For a company like Mondi – a leader in developing sustainable paper-based and flexible plastic packaging solutions, which typically use less material compared to rigid plastic packaging – we're uniquely positioned to develop new packaging products that consider the needs of each customer, their products and the planet.

A circular economy is an industrial system that is restorative or regenerative by intention and design.

This includes using more recycled materials and designing our products with their next life in mind, to making the most of our expertise in paper and flexible plastics to enhance product design.

It replaces the 'end-of-life' concept with restoration, shifts towards the use of renewable energy, eliminates the use of toxic chemicals, which impair reuse, and aims for the elimination of waste through the superior design of materials, products, systems and within this, business models[4].

A global problem exposed

When we look back at developments over the past year, the need for full-scale collaboration and innovation across entire sectors – from consumers to brand owners, manufacturers to waste collectors and governments – is clear.

The global extent of the waste challenge came into sharper focus at the start of 2018 when the Chinese government banned 24 types of waste imports, including household waste plastics, unsorted waste paper and waste textiles.

It created disruption across markets and the recycling industry; China had imported some two-thirds of the world's plastic waste in recent years, with most of it coming from developed nations[5].

In the short term, the ban exposed acute challenges facing countries where limited infrastructure to recycle plastic may mean they will struggle to meet their recycling targets.

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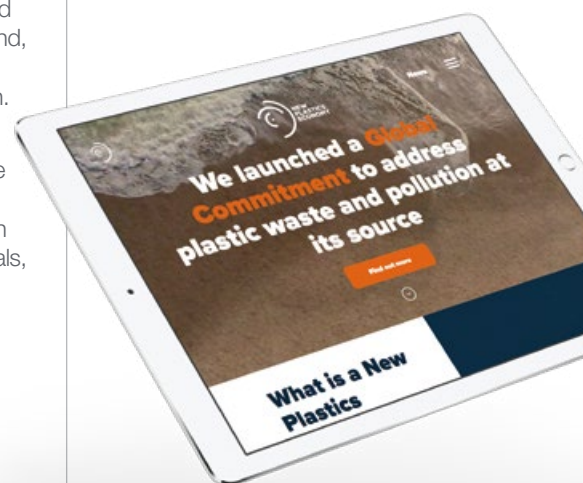
Read about the New Plastics Economy

The lack of effective recycling systems for many of today's plastics is compounded by widely differing understanding of and commitment to waste disposal around the world.

This is a key reason why plastics have built up in landfills, oceans and natural habitats. We believe these recent developments have created an opportunity for countries to develop more sustainable, harmonised recycling infrastructure and to actively work together to find solutions for plastics, as part of a circular economy.

1   BBC, Blue Planet 2: How plastic is slowly killing our sea creatures, fish and birds, http://www.bbc.co.uk/newsbeat/article/42030979/blue-planet-2-how-plastic-is-slowly-killing-our-sea-creatures-fish-and-birds
2   Financial Times, Why the world's recycling system stopped working, https://www.ft.com/content/360e2524-d71a-11e8-a854-33d6f82e62f8
3   https://www.breakfreefromplastic.org/
4   The Ellen MacArthur Foundation (2013), Towards the circular economy – Economic and business rationale for an accelerated transition, https://www.ellenmacarthurfoundation.org/assets/downloads/publications/Ellen-MacArthur-Foundation-Towards-the-Circular-Economy-vol.1.pdf
5   National Geographic (2018), https://news.nationalgeographic.com/2018/06/china-plastic-recycling-ban-solutions-science-environment/

Waking up to the price of plastic:

Did you know...

→ the world produces more than **400 million tonnes** of plastics every year
and 36% of it is for plastic packaging[6];

→ plastic, including fishing gear, makes up **80-85%** of visible marine litter[7] and it's a growing global problem, with acute environmental, social and economic impacts.
In some areas, microplastics (mainly tyre wear)[8] already outnumber plankton by six to one[9];

→ for at least 20% of plastic packaging, reuse provides an economically attractive opportunity[10];

→ only 14% of plastic packaging waste is collected for recycling and only **5%**
is reused after sorting. That means **95%** of its material value is lost to the economy after a single use – accounting for **$80-120 billion** annually[11]; and

→ if all rigid plastic packaging was replaced by flexible plastic packaging
(and nothing else changed), there would be **26 million tonnes** less packaging waste in the world, **77%** less packaging needing to be recovered or recycled,
and up to **45%** reduction in the carbon and water footprints of packaging[12].

6   UN Environment (2018), Single-use plastics – A Roadmap for Sustainability, https://wedocs.unep.org/bitstream/handle/20.500.11822/25496/singleUsePlastic_sustainability.pdf?isAllowed=y&sequence=1
7   European Commission (2018), Single-use plastics and fishing gear: Reducing marine litter, http://www.europarl.europa.eu/thinktank/de/document.html?reference=EPRS_BRI%282018%29625115
8   https://friendsoftheearth.uk/plastics/tyres-and-microplastics-time-reinvent-wheel
9   Our Ocean 2018, https://ourocean2018.org/?I=areas-of-action&#pollution
10 The Ellen MacArthur Foundation (2017), The New Plastics Economy: Catalysing action, https://www.ellenmacarthurfoundation.org/assets/downloads/New-Plastics-Economy_Catalysing-Action_13-1-17.pdf
11 The Ellen MacArthur Foundation (2016), The New Plastics Economy: Rethinking the future of plastics Report, https://www.ellenmacarthurfoundation.org/publications/the-new-plastics-economy-rethinking-the-future-of-plastics-catalysing-action
12 Ifeu - Institut für Energie- und Umweltforschung Heidelberg GmbH, comissioned by Flexible Packaging Europe (FPE) (2014), https://www.flexpack-europe.org/files/FPE/sustainability/IFEU_exec_summary_%20Waste_Prevention.pdf,
    http://www.flexpack-europe.org/files/FPE/sustainability/FPE_Prevention_Infographic.jpg

Sustainable packaging

55%

of all plastic packaging should be recyclable by 2030.[14]

In 2018, the Ellen MacArthur Foundation announced a commitment by leading brands, retailers, and packaging companies to work towards using 100% reusable, recyclable or compostable packaging by 2025[13].

The EU Strategy for Plastics in the Circular Economy came into force in 2018. It states that all plastic packaging should be recyclable by 2030, with a 55% recycling rate by 2025[14].

Seizing the opportunity

Soon after the China ban came into force, the World Economic Forum meeting in Switzerland saw over 2,500 leaders from business, government, international organisations and civil society set an agenda to drive multi-stakeholder collaboration to address the most urgent political, economic and societal challenges of our times.

The timing couldn't have been better. At the meeting, as part of its New Plastics Economy initiative, the Ellen MacArthur Foundation announced a commitment by leading brands, retailers, and packaging companies to work towards using 100% reusable, recyclable or compostable packaging by 2025[13]. That same month, the EU Strategy for Plastics in the Circular Economy came into force. It states that all plastic packaging should be recyclable by 2030, with a 55% recycling rate by 2025[14]. A number of countries – including the UK, Austria, France and India – are currently planning to, or have already, introduced their own regulations around single-use plastics and plastic waste.

Working together to lead the change

We are working with partners across the value chain to redesign plastic packaging so that it is fit for a circular economy. We know that for many applications, our high-quality paper packaging is the best choice. By taking an holistic view, we develop customised packaging products including both paper-based and flexible plastic packaging.

📖 **We have refocused our Sustainable Products criteria to promote a circular economy**
Page 111

📖 **Read more about our EcoSolutions**
Page 112

We believe that working alongside other businesses and governments is key to finding a solution for plastic waste and for driving innovation and broad systemic change throughout the plastics value chain.

We have pledged to increase our investment in research and development and drive deeper collaboration throughout our supply chain to move away from non-renewable and non-recyclable plastic.

We will use our expertise in paper-based and flexible plastic packaging to enhance product design, using paper where possible and plastic when useful.

We are one of the signatories of The New Plastics Economy Global Commitment – committing to 100% of plastic packaging being reusable, recyclable or compostable, and to include, where possible, 25% recycled content by 2025 (where it does not compromise functionality or food health requirements).[15]

🖥 Read more on the
New Plastics Economy initiative

> Our collective inability to secure inclusive growth and preserve our scarce resources puts multiple global systems at risk simultaneously. Our first response must be to develop new models for cooperation that are not based on narrow interests, but on the destiny of humanity as a whole.

Klaus Schwab
Founder and Executive Chairman, World Economic Forum

We are one of the signatories of The New Plastics Economy Global Commitment – committing to 100% of plastic packaging being reusable, recyclable or compostable, and to increase recycled content by 2025.[15]

A future for plastic packaging?

Plastic packaging plays a vital role in stemming global food waste by protecting and extending food's shelf life and flexible plastic, which uses less material than rigid plastic alternatives, and provides essential functionality for specific uses.

Innovation in flexible plastic-based packaging offers many opportunities to promote a circular economy, but broad and systemic change is urgently needed to address the challenges related to its recovery, reuse and recycling. We agree that society needs to move away from making, using and disposing of plastic and, instead, puts its joint efforts into developing a sustainable, circular plastics economy.

The evidence shows that plastic can offer a sustainable solution over the course of its life cycle, but only if it is reused, recycled or disposed of responsibly.

13 New Plastics Economy initiative, https://newplasticseconomy.org/projects/global-commitment
14 European Commission, http://ec.europa.eu/environment/waste/plastic_waste.htm
15 Applicable where the appropriate quantity and quality of material is available, where there is minimal reduction in functionality and processing with no reduction in health and safety compliance

Sustainable packaging

> In 2018, we focused on defining actions to move closer to a circular economy approach. We will continue to make progress by fast-tracking the development of EcoSolutions – using paper where possible, and plastic when useful.

Peter Oswald
Chief Executive Officer, Mondi

Calling for system-level change to tackle plastic leakage

The awareness and urgency to solve the world's plastics crisis is reaching critical mass, but raising recycling rates and stopping plastic from becoming litter and leaking into the environment is a complex global issue. In 2018, we initiated a round table to engage 30 experts from NGOs, businesses, global institutions and academics with interests and expertise spanning the entire plastic value chain.

From the insights they shared, it was clear that a credible incubation, funding and project support mechanism to support solutions is missing. Feasible projects are struggling to access private sector funding and funders complain about lack of access to front-line leakage prevention projects and to a trusted platform or channel to broker these opportunities.

We see three critical gaps that need to be addressed to achieve a meaningful reduction of plastic leakage:

1

Effective front-line action at scale

Most existing front-line initiatives for collection and sorting processes are small and were not designed to operate at scale.

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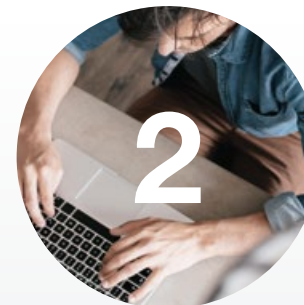
2

Accountability and transparency

The lack of ability to verify execution and quality of plastic leakage projects deters private sector companies from investing in available options.

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Read more

3

Coordination

Projects are fragmented, limiting their effectiveness without efficient channels for connecting and sharing.

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Read more

Effective front-line action at scale

Most existing front-line initiatives for collection and sorting processes are small and were not designed at scale. Also, much of the current action is focused on remediation, not prevention. The mitigation sector has yet to reach 'industrialisation', when there will be more investable opportunities.

Accountability and transparency

The lack of ability to verify execution and quality of plastic leakage projects deters private sector companies from investing in available options. It needs to make good economic sense for businesses to invest and they need to be confident that their money will be put to good use and its impact will be measured and reported accurately. There is also a lack of connection between a company's impact, scale and contribution to finding solutions – greater transparency and accountability is needed across all industry players. New legislation and packaging assessments will influence commercial activity in future.

Coordination

Projects are fragmented, without efficient channels for connecting and sharing, limiting their effectiveness. We are missing out on huge opportunities for acceleration of learning, consistency, measurement, talent development and professionalisation. Given the complexity of the plastics issue, solutions that are aligned and coordinated across both value chains (collection, sorting, recycling, etc.) and regions are urgently needed. Through our memberships in CEFLEX and the New Plastics Economy initiative, we are contributing to help develop products and frameworks that will drive the change that is needed to achieve a circular plastics economy.

Sustainable wood and fibre

More paper, less plastic:
The wood supply chain needs to evolve

What needs to change in the fibre supply chain? With the global debate around plastics driving business to explore new solutions, we are expecting a trend towards paper-based packaging. This is an exciting opportunity to contribute to a better world as around 70% of our packaging business revenue today is fibre-based. But to maximise the potential for sustainable wood, there are crucial issues that must be addressed in the wood supply chain.

Sustainable wood and fibre

We need a robust approach to sustainable fibre sourcing that makes use of multiple tools – beyond just certification – to increase availability and apply standards using a risk-based approach. We also need to ensure traceability across the entire wood supply chain – from forest to customer – along with clear evidence of what constitutes sustainable fibre. This is the only way we can protect the world's forests and meet society's rising demand for sustainable fibre.

At Mondi, we're committed to ensuring that the only fibre we use is sustainable fibre. Leading the development of sustainable forest management and improving availability of credibly certified wood and fibre are among our top priorities. But as the role of forests and wood products becomes increasingly critical, confusion over what constitutes sustainable wood and fibre threatens to limit progress. Certification can only be part of the answer.

Deforestation[1] is a major global problem that contributes to biodiversity loss, climate change and poverty. The challenges relating to sustainable sourcing of fibre and prevention of deforestation vary dramatically across regional and national contexts.

As things stand, only 11% of forests globally are certified and the lowest certification rates are in the regions where such significant threats as deforestation, forest degradation, illegal logging, disruption of livelihoods and violation of human rights are most prevalent[2].

11%
of forests globally are certified.

80% of deforestation by 2030 will be concentrated in the southern hemisphere[3]. Land conversion for agriculture and other crops is a key driver causing almost 80% of deforestation[4].

80% of deforestation by 2030 will be concentrated in the southern hemisphere[3].

Deforestation can be limited by reducing reliance on primary forests through sustainably-managed, highly productive forest plantations.

Best practices are shared via the New Generation Plantations (NGP) platform, which promotes a balanced, inclusive approach to plantation forestry at a landscape level. This includes design and management of conservation networks to preserve ecosystem services and biodiversity, as well as engaging other land users for driving changes at scale.

In European countries, where we source most of our wood, two-thirds of forests are certified. In the temperate and boreal zones, forest cover is either stable or increasing moderately[5]. Key issues in Europe are natural disturbances and environmental calamities, which can result in unplanned and devastating tree cover loss. The risks are heightened by the impacts of climate change. Despite decreased deforestation rates in some regions, forest ecosystems are still under great threat. According to the World Resources Institute, 30% of global forest cover has been cleared, while another 20% has been degraded. Most of the rest has been fragmented, leaving only 15% intact[6].

According to the World Resources Institute, 30% of global forest cover has been cleared, while another 20% has been degraded.[6]

1 Food and Agriculture Organization of the United Nations (FAO): The conversion of forest to other land use independently whether human induced or not, http://www.fao.org/3/I8661en/I8661en.pdf
2 https://www.unece.org/fileadmin/DAM/timber/publications/FPAMR2017.pdf
3 http://wwf.panda.org/our_work/forests/deforestation_fronts/
4 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/65505/6316-drivers-deforestation-report.pdf
5 http://www.fao.org/3/a-i4793e.pdf
6 https://www.wri.org/our-work/topics/forests

Sustainable wood and fibre

Deforestation and certification globally

80% of certified forests are in the northern hemisphere.

The challenge for Mondi is ensuring responsible sourcing in our supply chain.

Global forestation heat-map

Net gain or loss
Thousand ha/year

Net forest increases
have been mostly in the temperate and boreal zones.

>500	↑
250/500	
50/250	

No change | ±50

The largest forest loss
has occurred in the tropics, particularly in Africa and South America.

-50/-250	
-250/-500	
>-500	↓

North America
31% certified forests

Europe
59% certified forests

CIS*
7% certified forests

Asia
3% certified forests

Latin America
2% certified forests

Africa
1% certified forests

Oceania
7% certified forests

Northern hemisphere

Southern hemisphere

Source: Based on FAO's Global Resources Assessment 2015 and UNECE's Forest Products Annual Market Review 2016-2017

* Commonwealth of independent states (CIS) consists of Azerbaijan, Armenia, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Uzbekistan and Ukraine.

Sustainable wood and fibre

Fit for purpose certification and due diligence management systems

When it comes to protecting the world's forests and meeting demand for sustainable fibre, we're convinced that one system can't do it all. We see credible certification as the best available tool for assuring wood is harvested ethically and sustainably, but there is an urgent need to increase the availability of certified wood to protect forests in the face of rising demand.

Read more
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We're actively engaged in both global forest certification schemes – Forest Stewardship Council™ (FSC™) and Programme for the Endorsement of Forest Certification™ (PEFC™) – with the goal of making certification more accessible and improving standards and their practicality. These certification schemes must be fit for purpose for the specific roles and challenges faced in different parts of the world.

Our customers and other stakeholders want absolute assurance that the wood and fibre we use are sustainable, and that means increasing transparency across the entire wood supply chain.

To achieve this level of traceability across the large volume of sustainable fibre we need, we rely on a combination of credible certification and other mechanisms, embedded in a robust due diligence process. Our Due Diligence Management System (DDMS) enables us to make effective use of multiple tools, based on country-level risk ratings, to define the appropriate level of assurance we require in different locations and conditions.

Read more
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Controlled Wood (CW) is the minimum assurance level we accept for any wood and fibre we source. Used alongside certification, and if properly implemented, we have found CW to be a powerful tool for engaging suppliers and ensuring responsible sourcing to improve standards among suppliers that are not certified.

Read more
Page 64-65
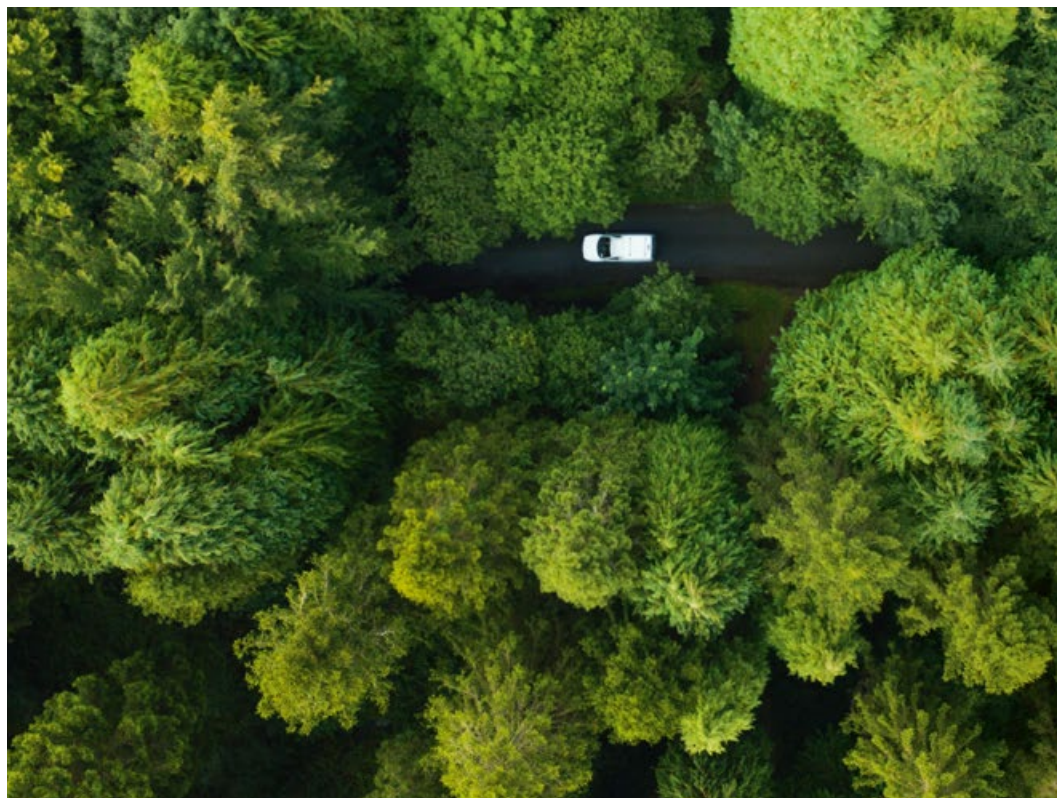
The smallholders' challenge

About half of forest land in Europe is privately owned, mostly by small and medium forest owners[7] and they are impacted by an increasingly competitive wood market. While in Europe, PEFC appears to be the certification system of choice for small forest owners, globally this group is largely absent from certification schemes. FSC certification is perceived by smallholders to be unachievable due to issues ranging from cost and lack of economic incentives to the complexity of certification itself. Certification must be made more inclusive to secure local livelihoods, forestry traditions and economic prosperity – and ensure the long-term supply of sustainably sourced wood and fibre globally.

7   http://www.unece.org/fileadmin/DAM/timber/publications/SP-26.pdf

Sustainable wood and fibre

When challenges arise, should we walk away or face them head on?

We don't believe that relying on certified sources alone (and excluding uncertified suppliers), or applying broad-brush exit strategies to countries where supply chain challenges arise, provides a responsible long-term solution. It might seem like the simple response and it is an approach some have taken, but we prefer to support positive change in responsible forest management to the benefit of society.

We choose to engage openly with stakeholders in wood supply regions where there is room for improvement. Legal enforcement in high-risk countries where corruption and weak governance may exist, is a challenge and illegal logging remains a risk in some eastern European countries. We believe the solution lies in working transparently and collaboratively with our partners and stakeholders to overcome regional issues, mitigate risks and enable more forests to be managed as sustainable working forests. We're working with WWF to improve the application of a risk-based approach in our DDMS and contribute to the development of practical control measures appropriate for different countries from which we source.

The future of our global forests relies on securing their better governance, management, restoration, and protection. If we don't brave trying to take these steps where the threats to forests are highest, and be part of the solution, not part of the problem, then many forest habitats with their natural and social value, and connected livelihoods will be lost to the past. Distancing ourselves from risks feels safer, but the real challenge still lies in helping achieve a more sustainable future, to be present, and collaborate to find long-term solutions.

Julia Young
Director – Global Forest Sector Transformation, WWF

Managing emerging risks in Ukraine

Read more

Managing emerging risks in Ukraine

Tackling risks in our supply chain is not without its challenges, and ensuring transparency and traceability is especially important. When issues are brought to our attention, we act quickly to manage them. An example occurred in Ukraine, which we define as a high-risk country, when a corruption case relating to the export ban of round wood was highlighted to the media. Although we already only accepted FSC-certified wood in Ukraine, rather than applying a blanket ban on wood fibre from the region, we implemented additional measures defined within our DDMS framework. These included proactively engaging with the local FSC office, appointing an independent legal expert to investigate and verify the legality of our purchased wood, and temporarily reducing the volume of wood sourced from Ukraine while increasing our due diligence. The legal review confirmed that our wood was legally sourced and not in contravention of the ban. We're now exploring further practical actions to mitigate risks more effectively.

Sustainable wood and fibre

We believe in a collaborative, risk-based approach to meet the need for sustainable wood and fibre. Increased dialogue and greater cooperation is needed between certification schemes, certification bodies and stakeholders, including forest companies and smallholders, NGOs, scientists, policy makers and authorities.

In the coming years – as society shifts consumption patterns and moves away from reliance on plastics – we are likely to face even greater demand for fibre-based solutions. We must work together now to develop robust frameworks and tools that will ensure we can meet this need sustainably and transparently.

The role of responsible forestry within a sustainable economy has never been more vital than it is today.

No deforestation

We source wood and fibre only from responsibly managed forests and we are committed to zero deforestation and no illegal logging. We don't use tropical species or those listed by the Convention on International Trade in Endangered Species (CITES). Most of the wood we source comes from South Africa, north west Russia and Europe, where deforestation is not a common challenge. For us, the key issue is ensuring responsible sourcing through transparency and traceability across the supply chain for our customers.

Leadership insights on sustainability

In conversation with...

Dominique Reiniche, Chair of Mondi's Sustainable Development Committee and Peter Oswald, Mondi Group Chief Executive Officer

Transparent leadership is key to fostering trust, both with our employees and our external stakeholders.

Peter Oswald
Chief Executive Officer

Mondi has the ambition, position and expertise to be able to lead change across the supply chain.

Dominique Reiniche
Chair of the Mondi DLC sustainable development committee

Leadership insights on sustainability

Q **2018 was quite a momentous year in terms of sustainability, what have been the biggest headlines for you?**

Peter: One of the big headlines for Mondi has been the impact of plastic waste, capturing the attention of media and consumers around the world as we all look for answers on why so much plastic is ending up in our oceans. The other key topic has been climate change. We saw a real shift in 2018, and in my view there's never been such broad consensus that something urgently needs to be done. Reassuringly, it's been high on Mondi's agenda for a long time. We've cut specific CO_2e emissions by 38% since 2004 and now we're setting long-term targets to make sure we minimise our impact on climate change in a transparent way.

Dominique: I agree with Peter on plastics and climate change – both issues are receiving more attention than ever, which is an important development and a good thing for our planet. There are other issues we mustn't lose sight of because Mondi has a clear role to play. I'm thinking about how we can protect food by having solutions that have the right mix of paper and flexible plastic content; how we meet the challenge of an ageing population by continuing to focus on convenience; the emphasis on health and wellness and how we deliver for our local communities; and of course being a responsible employer relentlessly focused on safety, human rights and the promise of diversity and inclusion. These are key focus areas that need to stay centre stage.

Q **Let's talk more about the issue of plastics in the environment. What does it mean for Mondi?**

Dominique: The good thing is that Mondi has the ambition, position and expertise to be able to lead change across the supply chain. The shift in the plastics debate gives us an advantage because of the nature of the products we produce. Sustainable packaging is good for society, and also good for Mondi as a business. Facilitating a circular economy makes sense as the benefits are considerable.

Peter: Overall, I see opportunity for Mondi. Sustainable packaging has been on our agenda for a long time. We're uniquely placed as we can offer a wide range of EcoSolutions – paper where possible, plastic when useful. In 2018, we set up a cross-functional EcoSolutions team to fast-track the development of paper-based products to replace plastic packaging and to look at where we can use flexible plastic packaging to replace rigid plastic. There is still an important role for plastic. Think about food waste – it's really vital to reduce waste by protecting food while it's being transported, having the right portion size and extending its shelf life. Plastic has the capability to do that. Think about a flexible stand-up pouch: in Europe it accounts for 10% of all food packaging materials but packs more than 40%[1] of all food products – thereby avoiding waste, including the CO_2 emissions that went into producing the food.

What we need is a step change in the volume of plastic we use and its recyclability – there simply shouldn't be any plastic which isn't recyclable. Because we specialise in flexible packaging as opposed to rigid plastics, we have a real opportunity to make a difference by helping customers move from rigid plastics to flexible plastic packaging. By doing so, we can reduce plastic consumption by about 70%. We need holistic solutions that are driven by our own sector, recycling providers, customers – especially FMCGs – and consumers. At the end of the day, it's going to take the buy-in and collaboration of many different players across the value chain to deliver the change that is needed.

> What we need is a step change in the volume of plastic we use and its recyclability – there simply shouldn't be any plastic which isn't recyclable.
>
> **Peter Oswald**
> Mondi Chief Executive Officer

1   https://www.flexpack-europe.org/en/sustainability_start_2018/flexible-packaging-accounts-for-only-10-of-all-packaging-materials-used-for-food-in-europe-but-packs-m.html

Leadership insights on sustainability

Q **Turning our attention to Mondi's employees, how do you see the wider global workforce changing in coming years and what are you doing to support people?**

Dominique: Securing and retaining appropriate skills is a key part of sustainability – Mondi has to attract and retain the right talented people, and enable them to deliver the right level of performance. With the disruption brought about by new technologies, the best way to bring employees along with you is by developing their employability so that they are up to date with the marketplace evolution. This keeps our internal talent at the top of their game and gives us a competitive advantage in terms of talent attraction by believing in and investing in the future, and having the scale to do it properly.

Peter: I completely agree. In terms of workforce change, we've already started to experiment with new ways of doing things because we know our industry will look different in 10 years. We're investing in data science and advanced analytics to drive a step-change in productivity and quality, and improve the experience for our customers. It's not about replacing people, but rather about using digital solutions to make us more efficient so that our people have more time to focus on important things that machines can't do. We're rolling out training to our leaders and their teams to embrace digitalisation as part of our successful future.

> With the disruption being brought about by new technologies, the best way to bring employees along with you is by developing their employability so that they are up to date with the marketplace evolution.

Dominique Reiniche
Chair of the Mondi DLC
sustainable development
committee

Dominique: The other thing Mondi focused on in 2018 is diversity and inclusion. It's difficult to overcome the sort of bias that is ingrained in many companies – you have to change the whole corporate culture. It's not just about bespoke projects – diversity and inclusion has to become an integral part of how things are done every day. I think Mondi has a culture which lends itself to embracing diversity and inclusion, and we need to support our leaders across the world to develop and create an environment where diversity is truly the only way of life.

Peter: Yes that's right, diversity and inclusion covers multi-dimensional issues including ethnicity, gender, cultures and lifestyles. Although we've made some progress in recent years, we know it's not nearly enough. Gender diversity is an area I want to pay particular attention to. Looking back 15 years, only 2-3% of our leadership were women.

We've worked our way up to 27% of women in our executive committee and its direct reports, but we certainly shouldn't feel proud of this figure. In 2018, we defined 10 work streams, realising that – while we have policies in place – many areas of our organisation still have a way to go to address unconscious bias and really embed diversity and inclusion into every decision we make.

The last thing I'd like to add is that, despite all these developments, many of the priorities we have as an employer remain the same, and safety comes top of the list. We've invested a huge amount of time and effort into achieving our ambition of zero harm over the years, so it's devastating for all of us that a colleague lost his life in 2018 and another more recently in January 2019. No matter how fast things change in terms of technology, it's always the people we work with that matter most – and keeping ourselves and each other safe needs to be the first and last thing we think about each day.

Q **Looking ahead, what is the one development you would like to see over the coming year?**

Peter: I'd like 2019 to be the year that some of our recent and in-progress breakthrough innovations become mainstream sustainable packaging solutions, adding to our existing range of EcoSolutions. We're eager to show how versatile paper packaging can be, and how flexible plastics, when used in the right way, can play a meaningful role in a sustainable, circular economy.

Mondi Sustainable Development report 2018 headlines

Safety and health

11%

reduction in total recordable case rate since 2015

'Think twice' – Safety campaign brings safety home to our employees

1,315 people

have completed first-line managers safety training since 2015

Training and development

30+ hours

average training per employee in 2018

Climate change and energy

14.5%

reduction in total specific CO$_2$e emissions in our mills against our 2014 baseline

64%

fuel consumed in our mills from renewable biomass-based sources

100%

electricity self-sufficiency in our mills

WWF Climate Savers Programme

membership in 2018

Diversity and inclusion (D&I) roadmap launched in 2018

27%

women in our executive committee and its direct reports

25%

women on our Boards

FSC™- or PEFC™-certified wood

71%

Collaborating with partners

WWF
SUSTAINING ECOSYSTEMS THROUGH RESPONSIBLE BUSINESS PRACTICES
mondi

NEW PLASTICS ECONOMY
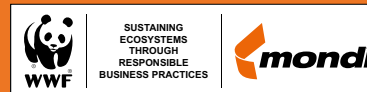
€7.9m

invested in community initiatives in 2018

Socio-economic assessment toolbox (SEAT) at Frantschach

79%

of our mills and forestry operations assessed to date

Our vision

Contributing to a better world

Mondi Leadership Forum, Berlin 2018

Not everything goes to plan... but transparency is key

Our performance in some key indicators deteriorated due to unforeseen challenges

As a result, compared to our 2015 baseline:

1.3%

Specific waste to landfill increased

6.1%

Specific COD emissions increased

2.0%

Specific contact water from our mills decreased

About Mondi
Our businesses

Fibre Packaging

Our virgin and recycled containerboard is used to make corrugated packaging designed to protect our customers' products and display them in-store and online. We produce a full range of corrugated packaging from traditional boxes to fully customised multi-piece solutions, appealing point-of-sale displays and heavy-duty shipping containers.

As the global leader in sack kraft paper and industrial bags, we create strong, light-weight and sustainable products for cement and building materials, agricultural, chemical and food products.

Our speciality kraft paper is used to make a variety of packaging solutions from industrial applications to retail shopping bags and more sustainable food packaging. Extrusion coatings provide high-quality barriers for a range of products from food packaging to building insulation.

Segment revenue
€4,108m

Underlying EBITDA
€1,086m

Leading market positions

#1 virgin containerboard producer in Europe

#1 containerboard producer in emerging Europe

#3 corrugated packaging producer inemerging Europe

#1 kraft paper producer globally

#1 industrial bags producer globally

Consumer Packaging

Our consumer goods packaging products extend shelf-life and improve end-user experience. We offer a range of flexible packaging such as stand-up pouches and re-closable bags.

Personal care components form part of diaper, femcare and adult incontinence products. They include soft nonwovens, stretchy elastic films and laminates, mechanical fastening components and wrapping films.

Our release liners are used for tapes, fibre composites and graphic arts; and our technical films provide solutions from high-barrier films to surface protection films.

Segment revenue
€1,611m

Underlying EBITDA
€194m

Leading market positions

#3 consumer flexible packaging producer in Europe

#1 commercial release liner producer in Europe

Uncoated Fine Paper

We transform responsibly sourced raw materials into innovative paper products that meet customer needs in a cost-effective and sustainable way. Our extensive range of office papers is designed to achieve optimal print results on laser, inkjet and copy machines.

High-performance professional printing papers are dedicated for offset presses and the latest digital print technologies.

With our wide range of high-quality papers we aim to provide customers a one-stop-shop solution for their needs.

Segment revenue
€1,877m

Underlying EBITDA
€516m

Leading market positions

#1 uncoated fine paper supplier in Europe

#1 uncoated fine paper producer in South Africa
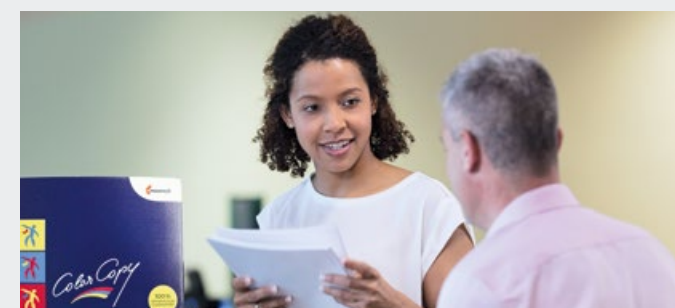
Our award winning products

In the 2019 WorldStar Packaging awards, Mondi won 8 awards, more than any other packaging company worldwide. BarrierPack Recyclable has also been shortlisted as one of three finalists for their special Sustainability Award (winner to be announced in May 2019).

The WorldStar awards are run by the World Packaging Organisation (WPO) and are considered to be the pre-eminent international award in packaging. 2019 winners were announced in December 2018.

WPO WORLDSTAR WINNER 2019

Glass7Box
Designed for premium glass brand Riedel, featuring a shock-absorbent structure.

Pick up tray
Fully recyclable tray and handle that can carry a 71% higher product load.

Side support
Insert which acts as corner support when transporting heavy content.

Packaging closing optimisation
Semi-automatic solution for closing the bottom of boxes, saving time and materials.

Recyclable waste separation system
Corrugated bins that can be disposed of along with the waste.

Pal-bridge pallet support system
Easy-to-fold system that fills the gaps in the top layer of pallets to support further stacking.

Yoghurt tray with tear tape
Corrugated tray with a unique integrated tear tape that makes it easy to divide if required.

BarrierPack Recyclable
Highly functional, fully recyclable flexible plastic laminate for pre-made pouches.

Our business model

Creating value the Mondi Way

The Mondi Way is our unique framework for creating sustainable value.

Our purpose drives our vision and provides context for our strategy, which we then execute through our operating framework, in line with our culture and values.

The Mondi Way is the foundation for our integrated value chain and it guides the strategic, operational and stakeholder-related decisions we make across our business.

Purpose and vision

Our purpose states what we do and why we do it.

Our vision sets out our long-term aspirations as we bring our purpose to life.

Our purpose	Our vision
We delight you with innovative and sustainable packaging and paper solutions. Every day.	→ To contribute to a better world → To be an employer of choice → To be the global industry benchmark for packaging and paper

Strategy

Our strategy is our plan of action designed to build on our competitive advantages so that we can achieve our purpose.

We drive value accretive growth via our four strategic value drivers:

Drive performance along the value chain

Invest in assets with cost advantage

Inspire our people and grow responsibly

Partner with customers for innovation

Operating framework

Our operating framework, the Mondi Diamond, converts strategy into clear objectives that drive performance at an operational level.

Cutting-edge solutions

Sustainable development

Inspired people

Operational excellence

Successful customers

Culture and values

Our culture and values connect, guide and inspire our people.

Passion for performance
We are dynamic, entrepreneurial and empowered

Caring
We are respectful and responsible

Acting with integrity
We encourage honesty and transparency

Our business model

Our key resources

High-quality, well-invested, cost-advantaged integrated assets

80%
pulp & paper capacity in two lowest cost quartiles

€6bn
capital employed

Engagement and collaboration with customers and suppliers

9,000
customers

1,500
key suppliers

Responsible procurement of raw materials and other inputs

71%
wood procured from FSC- or PEFC-certified sources

64%
mill fuel consumption from biomass-based renewable sources

Diverse and talented people

26,100
employees

21%
women employed across our operations

Strong financial position and cash flow generation

€1,226m
cash flow generated

BBB+/Baa1
S&P/Moody's credit rating

Key stakeholder relationships

Numerous
strategic partnerships, memberships & collaborations

79%
of mills & forestry operations completed a SEAT assessment to date

Our integrated value chain

Integrated across the value chain

Our integrated value chain provides us with competitive advantage and creates long-term value by converting raw materials into innovative and sustainable packaging and paper solutions, using the Mondi Way as our framework.

Managing our risks

Successfully managing our risks and appropriately setting our risk appetite is also critical to ensuring we continue to generate long-term value. We categorise our risks into strategic risks, financial risks, operational risks and compliance risks.

Resins, films and other raw materials

Wood (internal and external)

Paper for recycling

Pulp and paper mills

Converting operations

Packaging and paper solutions

Recycling

Our key outputs

High-performing operations

23.6%
ROCE

13
production records on pulp/paper machines

Innovative products and solutions

€22m
spent on research & development

8
WorldStar Packaging awards (2019)

Sustainably managed natural resources and outputs

10mGJ
energy provided to communities & public grid

100%
managed forests certified

Inspired and skilled people

30+
average annual training hours per employee

89%
participation in global employee survey

Capital appreciation and dividends to shareholders

23%
increase in ordinary dividend per share

74%
total shareholder return (5 years)

Support to regional economies and local communities

€248m
direct taxes paid

€7.9m
community investments

Where we operate

Our global presence

Mondi has around 100 production sites across more than 30 countries, with key operations located in Europe, North America and Africa.

Russia

Employees	Production sites
5,500	4

Revenue by location of:

Production	Customer
12%	9%

Western Europe

Employees	Production sites
7,300	37

Revenue by location of:

Production	Customer
36%	38%

Emerging Europe

Employees	Production sites
8,900	32

Revenue by location of:

Production	Customer
35%	23%
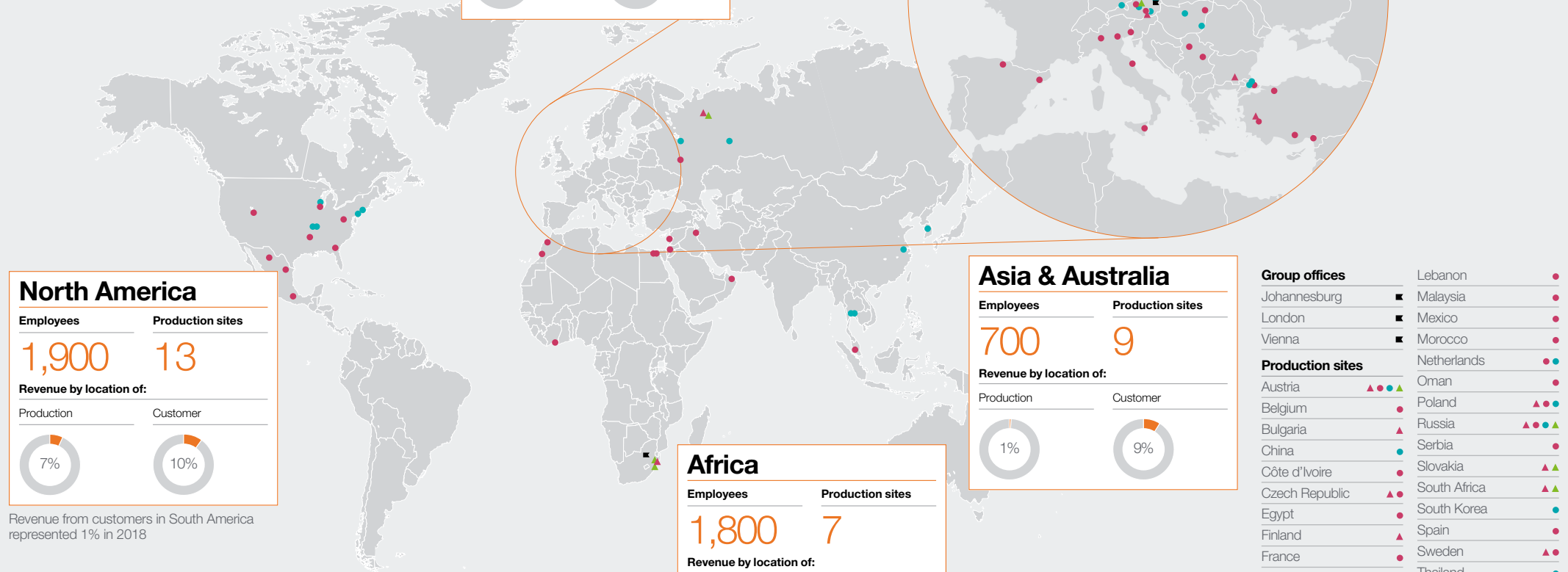
North America

Employees	Production sites
1,900	13

Revenue by location of:

Production	Customer
7%	10%

Revenue from customers in South America represented 1% in 2018

Asia & Australia

Employees	Production sites
700	9

Revenue by location of:

Production	Customer
1%	9%

Africa

Employees	Production sites
1,800	7

Revenue by location of:

Production	Customer
9%	10%

Key

Fibre Packaging
▲ Paper mills
● Converting operations

Consumer Packaging
●

Uncoated Fine Paper
▲

Group offices
Johannesburg
London
Vienna

Production sites
Austria
Belgium
Bulgaria
China
Côte d'Ivoire
Czech Republic
Egypt
Finland
France
Germany
Hungary
Iraq
Italy
Jordan

Lebanon
Malaysia
Mexico
Morocco
Netherlands
Oman
Poland
Russia
Serbia
Slovakia
South Africa
South Korea
Spain
Sweden
Thailand
Turkey
Ukraine
UK
US

Our global context

Unprecedented, systemic and complex change

Increasingly diverse and complex issues are impacting on society, the planet and business. Achieving a sustainable future depends on wholescale system change – driven by new industry models and innovative solutions, and underpinned by 'always on' transparency.

Businesses today are recognised more than ever before as having a leading role to play in developing responses to global challenges. Tackling climate change has become a cornerstone of sustainable business leadership, connecting issues from water, energy and food security to biodiversity and community resilience.

This momentum is leading to surprising cross-industry and stakeholder partnerships. All of this is happening against a backdrop of the UN Sustainable Development Goals (SDGs), which have come to be seen as a platform for business to deliver value for wider society.

Here we set out some of the global themes affecting society and our business. These insights are informed by our materiality assessment (see page 30) and have been considered in the development of our Growing Responsibly commitments (see page 119).

Product-oriented innovation for sustainability

With customers wanting products that are sourced, produced and disposed of responsibly, product innovation and redesign is key to minimising negative environmental impacts and transitioning to a circular economy. Creating solutions that are manufactured within the limits of the planet and enable society to address its challenges, makes clear social, environmental and business sense and opens up opportunities for brand growth on a global scale. The first-ever European Strategy for Plastics in a Circular Economy, adopted in January 2018, will transform the way plastic products are designed, used, produced and recycled in the EU. By 2030, all plastics packaging should be recyclable[1]. Applying circular economy principles could unlock up to €1.8 trillion of value for Europe's economy.

1 http://ec.europa.eu/environment/circular-economy/index_en.htm

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Growing Responsibly action areas

Solutions that create value for our customers
Page 109

Applying circular economy principles could unlock up to €1.8 trillion of value for Europe's economy.

Click here for more information on the circular economy

Producer responsibility across the value chain

Stakeholders are recognising that the impact of business happens all the way along the value chain, from suppliers to customers and beyond. While global socio-economic shifts provide business opportunities, they can also mean greater exposure to risks such as human rights violations, poor environmental practices or controversial sourcing practices. With production moving to emerging markets and business models changing dramatically, we need to work collaboratively to make sure that economic prosperity is achieved without harm to workers, communities or the environment.

To drive true sustainability, businesses need to rethink every element of the supply chain in line with the circular economy model.

A rising interest among stakeholders in reducing, reusing, recycling and the end-of-life disposal of products and packaging, means businesses are under increasing pressure to take account of the full life cycle of a product, from the design phase to end-of-life.

Growing Responsibly action areas

Supplier conduct and responsible procurement
Page 93

Sustainable fibre
Page 60

Fairness and diversity in the workplace
Page 54

Climate change
Page 68

Constrained resources and environmental impacts
Page 76

Our global context

The future of work

Today's socially conscious employees want purposeful, rewarding careers with companies that contribute clear social, economic and environmental value. As a result, business is facing growing pressure to align its commercial interests with social and environmental principles that reflect the priorities of the current and future workforce[2].

Like other industries in the EU, Europe's pulp and paper sector has noticed that fewer young people are joining its workforce than in the past. The EU's population is ageing, which is an additional concern for its future workforce.

Women in industry is also a key area for attention in a sector traditionally dominated by men. The focus on improving gender diversity highlights ongoing concerns over gender bias and balance in specific roles, particularly considering the need to attract skilled work from all demographics and genders to meet the future gap in skills and labour[3].

Skills development will be critical in areas where automation, digitalisation, artificial intelligence and other trends could reduce or remove the need for lower-skilled jobs. These trends are occurring against a background of rapid change in the industry in terms of decarbonisation, new technologies and business models, as well as innovative products.

The economic and environmental potential of new technology – from artificial intelligence to automation – is enormous, but unless it is properly managed and regulated, we risk unintended and adverse impacts, such as growing inequality[2]. Preparing for these changes and enhancing talent pipelines and employee development, provides long-term and sustainable opportunities for business to create the skills capacity they need[4]. Engaging employees and providing inspiring opportunities for personal and professional growth also helps to boost productivity and commitment, and attracts talented people.

6/10
of job seekers choose companies to work for based on their purpose[5].

'Always on' transparency

The need for transparency has reached new levels. Global agreements and frameworks – from stock exchange listing requirements to the UN Global Compact, the UN SDGs and the Taskforce on Climate-related Financial Disclosure (TCFD) – are moving transparency into the mainstream[2]. Transparency and product traceability are becoming standard requirements, helping to build long-lasting trust with all stakeholder groups. In certain industries, transparency is considered to be the fourth supply chain success metric beyond cost, quality and on-time delivery[6]. New technologies like blockchain, radio-frequency identification (RFID) and big data are making transparency for all actors in a supply chain both possible and powerful.

Growing Responsibly action areas

Sustainable fibre **Page 60**	Supplier conduct and responsible procurement **Page 93**	Climate change **Page 68**

The average internet user now spends around six hours each day using internet-powered devices and services – that's roughly one-third of their waking hours.

We Are Social

Growing Responsibly action areas

A skilled and committed workforce **Page 47**	Fairness and diversity in the workplace **Page 54**	Relationships with communities **Page 100**

2   https://www.cisl.cam.ac.uk/resources/sustainability-leadership/8-business-and-sustainability-trends-that-will-define-2018
3   http://www.tappi.org/womenindustry/
4   http://www.cepi.org/publication/future-skills-paper-industry
5   Deloitte's Millennial Survey, 2015
6   https://www.greenbiz.com/article/transparency-fourth-supply-chain-success-metric

Our global context

Respecting human rights

Respect for human rights is now a global standard of conduct for all businesses, not only within their own operations, but also across their supply chains, wherever they operate. The issues include child or forced labour within the supply chain, safety and security practices, relationships with local communities and environmental pollution causing harm to people's health. There's an increasing expectation of businesses to proactively tackle their human rights issues, particularly in areas of weak governance, which is reflected in expanding legislation. Occupational safety and health is a key element in achieving sustained decent working conditions and a strong safety culture[7].

Close to 80% of all International Labour Organization (ILO) standards and instruments are either wholly or partly concerned with issues related to occupational safety and health. As a minimum, stakeholders expect businesses to apply robust risk management controls and procedures to keep people safe – including employees, contractors and other people who are impacted by their operations.

Growing Responsibly action areas

Fairness and diversity in the workplace
Page 54

Employee and contractor safety and health
Page 40

Supplier conduct and responsible procurement
Page 93

Relationships with communities
Page 100

24.9 million

people are victims of forced labour globally[11]

The rise of consumer power

More than ever before, consumers are driving change, meaning customer-facing impacts are coming to the fore. Consumers remain the most effective way for NGOs to drive change, and growing public consciousness of sustainability issues and political leadership gaps pave the way for business to step up to the challenge of sustainability leadership, and either 'lead, adapt or fail'[8]. The impact of consumer reaction to the ocean plastics crisis is a case in point. Going forward, consumer-facing issues such as packaging and recycling will be key issues for businesses to address.

Growing Responsibly action areas

Solutions that create value for customers
Page 109

66%

of consumers are willing to pay more for sustainable brands.[9]

7 https://osha.europa.eu/en/themes/good-osh-is-good-for-business

8 https://www.cisl.cam.ac.uk/resources/sustainability-leadership/8-business-and-sustainability-trends-that-will-define-2018

9 https://www.nielsen.com/content/dam/nielsenglobal/dk/docs/global-sustainability-report-oct-2015.pdf

Increasing impact through partnerships

Partnerships and collaboration deliver more sustainable solutions for customers and facilitate opportunities for businesses to tackle complex problems and develop innovative solutions across the value chain. We are seeing a rise in cross-sector, cross-industry and cross value chain partnerships as stakeholders recognise the power of collaboration, including among competitors, as they seek to find new ways to drive innovation. The UN SDGs have become an important platform for business to deliver a coordinated approach to sustainable development. They transcend borders and apply across the workplace, marketplace and community requiring multi-stakeholder collaboration; thus bringing together business opportunity and positive impact[10].

Growing Responsibly action areas

Relationships with communities
Page 100

Sustainable fibre
Page 60

Solutions that create value for our customers
Page 109

Climate change
Page 68

Biodiversity and ecosystems
Page 85

Read how we are engaging with our stakeholders
Page 25

Read about the WWF-Mondi global partnership
Page 137

10 http://blueprint.unglobalcompact.org/sdgs/intro/

11 International Labour Organization, https://www.ilo.org/global/topics/forced-labour/lang--en/index.htm

Our global context

Climate change risks and opportunities

Climate change is arguably one of the most pressing issues facing society. Its impacts can be devastating and people expect business to take action both in terms of reducing emissions and helping society to adapt. In 2018, the UN's IPCC[12] Report highlighted the likelihood that, at the present rate of warming, we will hit a 1.5°C rise in temperature some time around 2040. Despite international action through frameworks like The Paris Agreement, emissions continue to rise with knock-on effects for biodiversity, water and food security.

Curbing the current trajectory requires urgent and unprecedented action beyond business as usual. Setting Science Based Targets would be an important step in achieving this, setting a pathway for curbing emissions to levels that would limit temperature rise below 1.5°C. This requires businesses to identify the opportunities in transitioning to a low-carbon world.

Growing Responsibly action areas

Climate change
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Constrained resources and environmental impacts
Page 76

Global CO$_2$ emissions per year since 1960
Million kt
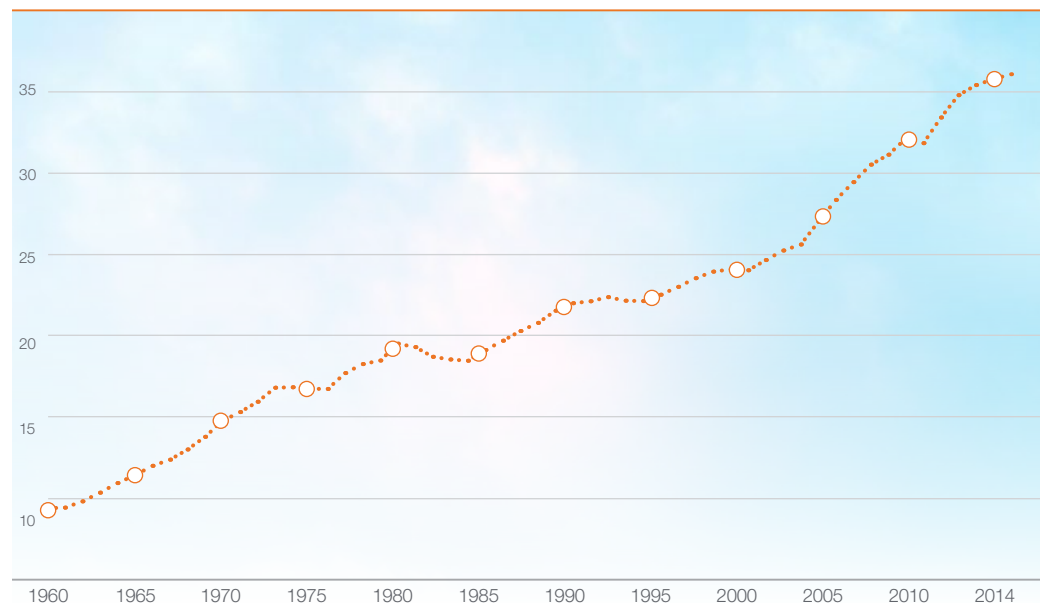
Source: The World Bank

A tipping point for environmental impact

According to WWF's Living Planet report 2018, science has never been clearer about the consequences of human impact on our planet; our ever-increasing consumption, and the resulting increased demand for energy, land and water is pushing the planet's natural systems that support life on Earth to the edge. It's the first time in the Earth's history that a single species has had such a powerful impact on the planet[13].

The global human population is still growing at a rapid pace, especially in urban areas, with overall trade volumes and disposable incomes rising. These demographic and economic shifts are driving further increased demand for basic materials, energy and natural resources such as water.

Growing Responsibly action areas

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Resource efficiency underpins a majority of the material issues relevant to the paper and packaging sector and our business.

Every year an estimated 11.2 billion tonnes of solid waste are collected.[14] Using raw materials and energy more efficiently will be crucial to business growth while tackling material impacts going forward. Solving the challenges around plastics is also a key issue when it comes to reducing our industry's impacts on oceans, land and air.

Access to water is a basic human right, but competing demands for its use in agriculture, households and industry are impacting both water quality and availability, particularly for the most vulnerable.

The world could face a 40% supply gap for water by 2030.[15]

According to the 2030 Water Resources Group, without improvements in how water is managed and used, the world could face a 40% supply gap by 2030.[15] The last remaining Intact Forest Landscapes, like those in Russia, also face increasing pressure. Sustainable management of secondary boreal forests is crucial to ensuring their future. Additionally, freshwater ecosystems are under pressure, especially in water-stressed areas such as South Africa. Responsible stewardship of wetlands and freshwater ecosystems is the only sustainable way to meet the needs of communities and business.

12 Intergovernmental Panel on Climate Change
13 https://s3.amazonaws.com/wwfassets/downloads/lpr2018_summary_report_spreads.pdf
14 UN Environment, https://www.unenvironment.org/explore-topics/resource-efficiency/what-we-do/cities/solid-waste-management
15 https://www.2030wrg.org

Our global context

Driving system change

Industry needs to adapt to new and interconnected pressures; today's sustainability issues are both globally complex and systemic – meaning the solutions must address interdependencies and interrelationships that cover many different issues and areas. From the rise of automation and digitalisation and their impact on the future workforce, to the shift towards circular models of consumption and production and what that means for traditional manufacturing – every business and every sector needs to respond. The changes required call for new models of decision-making, governance, strategy development and innovation to accommodate a broader range of factors that are evolving at a rapid pace.

Our stakeholders

Working together
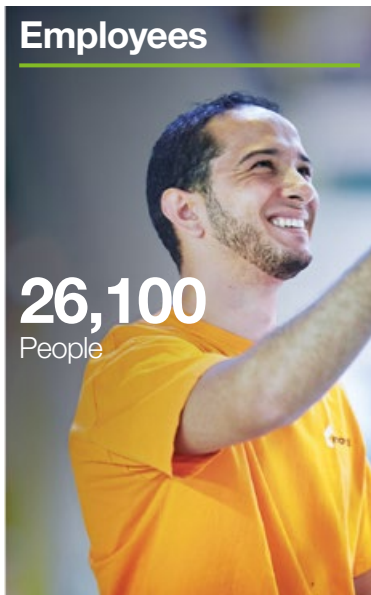
Listening to, communicating with and working together with our stakeholders is an important enabler of positive change. It helps us understand global developments, challenges and market expectations to identify potential opportunities and principal risks for our business. Engaging with our stakeholders also helps us promote transparency and build strong, trusting relationships.

We define our stakeholders as internal or external individuals, groups, organisations or authorities that can be categorised as interested or influential parties who can affect, or be affected (positively or negatively) by our business decisions, policies and objectives.

We determine our stakeholder groups through consultation with internal business functions and experts. In 2018, we carried out a materiality analysis to update our understanding of the relative importance of Mondi's sustainable development issues and topics among key internal and external stakeholders (see page 30). We also conducted a high-level review of corporate stakeholder groups, which remained the same as our existing groups.

For a full list of our stakeholders and how we engage with them
Page 131

Employees
26,100
People

Customers
8
WorldStar Packaging Awards

Investors
74%
Five-year total shareholder return
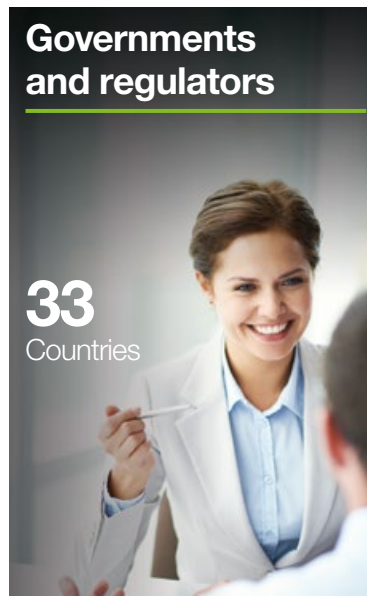
Communities
€7.9m
Community investments

Suppliers and contractors
1,500
Key suppliers

Governments and regulators
33
Countries

Industry associations and NGOs

wbcsd
WWF
cepi
NEW PLASTICS ECONOMY

Research institutions and academia

UNIVERSITEIT STELLENBOSCH
UNIVERSITY OF CAMBRIDGE
IUFRO
TU Graz

Customers

As part of our strategy, partnering with customers for innovation is a key value driver for our joint success.

Consumer interest in the sustainability criteria of products and services is greater than ever. We are uniquely positioned to offer our 9,000+ customers a range of innovative and sustainable solutions that exceed their expectations and help them to meet their sustainability commitments. We also continue to strive for excellent customer service and quality, with a focus on digital acceleration initiatives.

Employees

We have a diverse team of 26,100 people with a broad range of skills and expertise. We want to be an employer of choice and to attract and retain the necessary skills for our business to succeed. We aim to achieve a consistent culture of values across our operations.

In addition to on-the-job informal communication, we regularly engage with our employees through formal communication channels to provide an opportunity for open dialogue and we invest in training programmes, including safety training, to support their development and ensure they return home safe to their families. We also actively work with employee representation bodies during restructuring and closure of operations to jointly develop compensation plans and support continued employment of affected employees.

It is through this collaborative effort that we connect, cooperate and resolve challenges together, enabling shared success through an engaged workforce and a performance-driven approach across the business.

Suppliers and contractors

Collaboration with our suppliers and contractors is essential to deliver responsible, innovative, sustainable packaging solutions.

Transparent reporting, evaluation and monitoring of sustainability performance across our supply chains is of increasing interest to our customers. We follow a practical, risk-based approach when engaging with our suppliers. We operate a central procurement function in a number of our key spend categories and manage the remainder regionally or locally. We engage with our suppliers to develop solutions to the social and environmental challenges we all face across the value chain.

We encourage supply chain transparency and promote fair working conditions together with our suppliers by developing a responsible, inclusive and sustainable supply chain.

We work closely with our contractors to mitigate risks, improve practices and ensure they follow Mondi protocols and practices in areas such as safety, transparency and business ethics.

Investors

It's a positive development that, as the global pool of socially responsible investors expands, there is wide and growing recognition of the links between sustainable operations and long-term financial success.

We regularly engage with our investors and analysts, primarily relating to our financial performance, governance, risk management, strategy and ESG[1] performance. Active dialogue with our shareholders and investors helps us to understand their expectations, while giving us the opportunity to explain our strategy. We've seen rising interest in our sustainability performance among investor and ESG analysts.

Fund managers' and investors' choice of companies with a strong sustainability performance is often based on external indices and rankings. We regularly share our sustainability performance and take feedback from investors and analysts to inform our management and reporting practices.

We are also members of, among others, the FTSE4Good Index Series and the FTSE/JSE Responsible Investment Index Series.

1   Environmental, social and governance

Communities

We depend on thriving local communities to ensure our continued social licence to operate and this makes good business sense as it contributes to our mutual long-term stability and prosperity.

We work with urban and rural communities in and around our operations, so it's vital that we understand and respect their concerns. We understand that local stakeholders need to be heard and we take their needs into account in our response and business planning. Ongoing, transparent dialogue helps us to address challenges, understand and manage our risks, generate opportunities and improve our business performance.

We use several different engagement approaches to understand where our impacts lie and what our stakeholders expect. We also carry out impact assessments of our voluntary community investments and programmes to determine the effectiveness and success of our interventions. Local partnerships are key to our approach.

Industry associations and NGOs

We are a member of a number of industry associations and we work with local and global NGOs through multi-stakeholder collaborations that seek sustainable solutions along the entire value chain.

Through our memberships and partnerships, we are involved in developing industry best practices related to climate change, circular economy, sustainable forestry, human rights and business ethics. Our key collaborations and memberships include, among others, WWF International, the United Nations Global Compact (UNGC), the World Business Council for Sustainable Development's (WBCSD) Forest Solutions Group, the New Plastics Economy initiative, FSC™, PEFC™, and the Confederation of European Paper Industries (CEPI).

Research institutions and academia

Science plays an essential role in informing our management practices and establishing the value of our work on the ground.

To see the real impact of our activities and to make it more effective and targeted, we depend on robust evidence provided by scientific research. We support wide-ranging partnerships and collaborations with academic and research institutions, including The Cambridge Institute for Sustainability Leadership (CISL) and the Mondi Ecological Network Programme in partnership with the University of Stellenbosch, South Africa.

Governments and regulators

We are required to comply with permit requirements and to meet local, national and international laws.

Non-compliance with legal and governance requirements and globally established responsible business conduct in any of the jurisdictions in which we operate, including within our supply chain, could expose us to significant risk. These requirements include laws relating to the environment, exports, price controls, taxation, human rights, and labour. We engage with local and national regulators and governments on a wide range of issues relevant to our business.

We also partner with local government departments and other public organisations such as working with the South African government to settle forestry land claims. Additionally, we support the consultation process of new laws and directives and we lobby government bodies on a number of issues relevant to our business, mainly via our industry associations.

Our stakeholders

We also regard media and labour unions/employee representative bodies as important stakeholders. Engagement with these stakeholder groups is predominantly managed locally by our operations. This ensures local-specific issues are addressed appropriately and effectively.

We draw on a range of information sources and mechanisms to understand what is important to our stakeholders and our business and to receive feedback on how we're performing.

These include: meetings; conferences, forums and exhibitions; surveys; road shows; social media; our anonymous grievance channel, 'Speakout'; socio-economic impact assessments; and discussions with NGOs and organisations such as the WBCSD and the CEPI.

We also gain insights from our internal teams and internal benchmarking exercises. This feedback ensures that the issues we've identified are complete, relevant and significant, which in turn supports our strategic decision-making and directs our reporting. Current activities suggest that additional sustainability-related legislation and increased stakeholder expectations will continue, driven by initiatives such as the Task Force on Climate-related Financial Disclosures and the UN SDGs.

Multi-stakeholder partnerships are key to how we address global challenges. Given the scale and nature of the challenges we face, it's only by working together that we will achieve the impact, innovation and scale necessary to bring about change. We work closely with others to build a common understanding of sustainability issues (both challenges and the opportunities) and to maximise the shared value we create.

For a detailed list of our stakeholders, topics most important to them and our response
Page 131

The One Young World 2018 Summit in The Hague (Netherlands)

Growing responsibly

Growing responsibly

Our Growing Responsibly model remains the framework through which we respond to our sustainability challenges and opportunities and is an integral part of our future success. As one of the Group's strategic value drivers, it shapes our long-term response to sustainability challenges and enables us to demonstrate, monitor and improve our performance across the value chain.

The Growing Responsibly model guides Mondi to continuously improve its sustainability performance while making the most of its opportunities to address societal challenges, especially through contributing to the UN SDGs.

Dominique Reiniche
Chair of the Mondi DLC sustainable development committee

Growing responsibly applies to all our operations group-wide. It is designed to clearly articulate the focus and value of our sustainability commitments to our business and our stakeholders, including employees and contractors, customers, communities, suppliers and others.

The model covers 10 Action Areas which reflect the aspects of sustainability that are most relevant for Mondi and our stakeholders. Within these Action Areas, we have made 16 public commitments to be achieved by 2020, along with a carbon emissions commitment that runs to 2030. In addition to driving our response to the sustainability issues that are most relevant to our business, our commitments demonstrate Mondi's positive contribution to achieving the UN SDGs and other global initiatives.

In 2018, we completed a new materiality assessment to understand the relative importance of our material issues to our stakeholders and to identify new and emerging issues. The assessment combined qualitative and quantitative inputs from internal and external stakeholders, and met GRI guidance and best-practice standards. Our updated list of material issues will inform our commitments beyond 2020.

See our material issues mapped against our supply chain and our Growing Responsibly Action Areas

Mondi has a strategy and a willingness to move forward in an authentic way. This is why we talk about growing responsibly. It is not an add-on, or something to look good. It runs much deeper within the organisation.

John Lindahl
Mondi Group Technical & Sustainability Director

Because we see it as a key responsibility of business to help deliver the UN SDGs, we take a strong stance in how we contribute to them. This year, in addition to highlighting the strongest links between our 10 Action Areas and respective SDG targets, we have included a comprehensive index that references SDG links throughout the report.

Our reporting focus remains on the six SDGs where we believe we have the greatest impact and the greatest opportunity to make a real and lasting difference: SDGs 7, 8, 9, 12, 13 and 15.

See our SDG index

Read more about our six strategically important SDGs

Growing responsibly

Our Growing Responsibly model

10 Action Areas

Solutions that create value for our customers

We encourage sustainable, responsibly manufactured products and closer collaboration with our customers and partners.

UN SDGs

Read more on page 109

Relationships with communities

We aim to enhance our social value to communities through effective stakeholder engagement and meaningful social investments, using global frameworks that enable us to address local priorities.

UN SDGs

Read more on page 100

Supplier conduct and responsible procurement

We're taking steps to encourage greater transparency and promote fair working conditions by developing a responsible, inclusive and sustainable supply chain.

UN SDGs

Read more on page 93

Biodiversity and ecosystems

We promote ecosystem stewardship to sustain services that our businesses and communities rely on through sharing best practices and continued, long-term collaboration with our stakeholders.

UN SDGs

Read more on page 85

Constrained resources and environmental impacts

Our focus on operational excellence drives efficiency improvements to ensure responsible use of water, reduction of waste and emissions, the cascading use of wood and development of resource-efficient products.

UN SDGs

Read more on page 76

Employee and contractor safety and health

Our goal is zero harm to employees and contractors, and a safe and healthy workplace.

UN SDGs

Read more on page 40

A skilled and committed workforce

We're developing a culture that aims to inspire, engage and develop all our people to reach their full potential, while ensuring our business can continue to grow and succeed.

UN SDGs

Read more on page 47

Fairness and diversity in the workplace

The diversity of our workforce is one of our greatest strengths. We promote fair working conditions for a better, more diverse workplace.

UN SDGs

Read more on page 54

Sustainable fibre

We're promoting positive change to support credible certification systems that will meet increasing demand for sustainable fibre. We also manage our own forests sustainably.

UN SDGs

Read more on page 60

Climate change

We consider climate change in our business decisions through sound investments to improve energy efficiency and responsible procurement of wood and fibre. Our sustainably managed forests also play an important role in storing carbon.

UN SDGs

Read more on page 68

Our Action Areas are mapped here against our 6 strategic SDGs.
See the SDG index for links to all other SDGs.

SDG contribution

Purpose, impact and scale: Making a real contribution to the UN SDGs

We believe that the primary contribution of any business to the SDGs is through job opportunities, taxes and social and economic development. Beyond these however, real and lasting positive change can only be achieved by considering our impacts, targeting our response, collaborating with key players and stakeholders and scaling our efforts.

Each year we report on the SDGs that have the strongest links with our Growing Responsibly activities all over the world, as shown on page 28. This year, we've gone a step further to look at where we believe we have the biggest potential to make a difference, at scale. These strategically important SDGs are shown on the right. Strategic importance is based on where we can have negative impacts and also where we are uniquely positioned to drive positive change together with our stakeholders. It also includes factors such as the relevance of the goal and target to our value chain, alignment with our ambitions of growing responsibly, our ability to use our skills, competencies and resources to drive change and the importance of the issues to our stakeholders.

We have also introduced a comprehensive index that references SDG links throughout this report, enhancing the accessibility, transparency and navigability of our disclosures.

7 AFFORDABLE AND CLEAN ENERGY ⊕ Read more

8 DECENT WORK AND ECONOMIC GROWTH ⊕ Read more

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE ⊕ Read more

12 RESPONSIBLE CONSUMPTION AND PRODUCTION ⊕ Read more

13 CLIMATE ACTION ⊕ Read more

15 LIFE ON LAND ⊕ Read more

Goal 7

Ensure access to affordable, reliable, sustainable and modern energy for all

7 AFFORDABLE AND CLEAN ENERGY

7.2
By 2030, increase substantially the share of renewable energy in the global energy mix

7.3
By 2030, double the global rate of improvement in energy efficiency

7.a
By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology

Goal 8

Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

8.3
Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalisation and growth of micro-, small- and medium-sized enterprises, including through access to financial services

8.4
Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-Year Framework of Programmes on Sustainable Consumption and Production, with developed countries taking the lead

8.5
By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value

8.6
By 2020, substantially reduce the proportion of youth not in employment, education or training

8.7
Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms

8.8
Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment

Goal 9

Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation

9.1
Develop quality, reliable, sustainable and resilient infrastructure, including regional and trans-border infrastructure, to support economic development and human wellbeing, with a focus on affordable and equitable access for all

9.2
Promote inclusive and sustainable industrialisation and, by 2030, significantly raise industry's share of employment and gross domestic product, in line with national circumstances, and double its share in least developed countries

9.3
Increase the access of small-scale industrial and other enterprises, in particular in developing countries, to financial services, including affordable credit, and their integration into value chains and markets

9.4
By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities

9.5
Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per one million people and public and private research and development spending

Goal 12

Ensure sustainable consumption and production patterns

12 RESPONSIBLE
CONSUMPTION
AND PRODUCTION

12.2
By 2030, achieve the sustainable management
and efficient use of natural resources

12.3
By 2030, halve per capita global food waste at the retail
and consumer levels and reduce food losses along
production and supply chains, including post-harvest losses

12.4
By 2020, achieve the environmentally sound management
of chemicals and all wastes throughout their life cycle,
in accordance with agreed international frameworks,
and significantly reduce their release to air, water and soil
in order to minimise their adverse impacts on human health
and the environment

12.5
By 2030, substantially reduce waste generation
through prevention, reduction, recycling and reuse

12.6
Encourage companies, especially large and transnational
companies, to adopt sustainable practices and to integrate
sustainability information into their reporting cycle

Goal 13

Take urgent action to combat climate change and its impacts

13 CLIMATE ACTION

13.2
Integrate climate change measures into national policies, strategies and planning

13.3
Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning

Goal 15

15 LIFE
ON LAND

Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

15.1
By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements

15.2
By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally

15.5
Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species

15.8
By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species

15.9
By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts

Materiality

Identifying what matters

We work to understand the shifting global sustainability landscape and the issues that will influence Mondi's future strategic direction to secure the continued success of our business. We also monitor business developments, risks and opportunities facing the Group, changes in legislation and our stakeholders' views and needs.

Our material issues articulate what matters most to our business and our stakeholders. This awareness is crucial to manage our risks and opportunities and respond effectively and responsibly to our stakeholders.
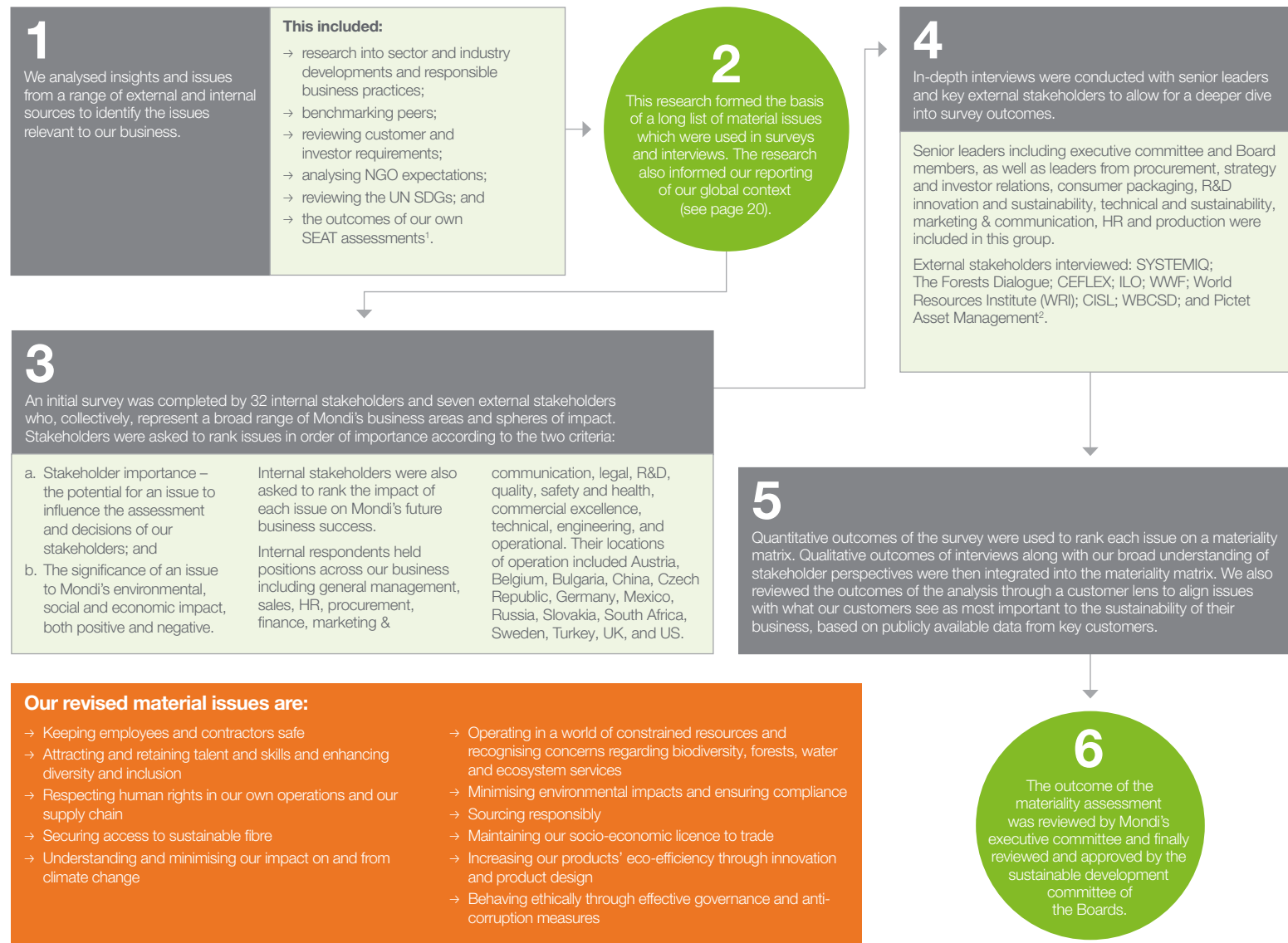
This year, we carried out a new assessment of our material issues to understand their relative importance and identify new and emerging issues. While there were no significant changes from previous reporting periods in the list of material topics and topic boundaries, some matters have been regrouped or refocused to reflect the interconnectedness of these issues, and others have been placed more prominently within our material issues to reflect their increasing importance to stakeholders. Our updated list of material issues will inform our commitments beyond 2020.

📖 **Read more about our approach, methodology, assumptions and limitations** Page 157

1 Socio-economic Assessment Toolbox (SEAT) – see page 101

2 Via email correspondence

Our assessment comprised six key steps:

1 We analysed insights and issues from a range of external and internal sources to identify the issues relevant to our business.

This included:
→ research into sector and industry developments and responsible business practices;
→ benchmarking peers;
→ reviewing customer and investor requirements;
→ analysing NGO expectations;
→ reviewing the UN SDGs; and
→ the outcomes of our own SEAT assessments[1].

2 This research formed the basis of a long list of material issues which were used in surveys and interviews. The research also informed our reporting of our global context (see page 20).

3 An initial survey was completed by 32 internal stakeholders and seven external stakeholders who, collectively, represent a broad range of Mondi's business areas and spheres of impact. Stakeholders were asked to rank issues in order of importance according to the two criteria:

a. Stakeholder importance – the potential for an issue to influence the assessment and decisions of our stakeholders; and
b. The significance of an issue to Mondi's environmental, social and economic impact, both positive and negative.

Internal stakeholders were also asked to rank the impact of each issue on Mondi's future business success.

Internal respondents held positions across our business including general management, sales, HR, procurement, finance, marketing & communication, legal, R&D, quality, safety and health, commercial excellence, technical, engineering, and operational. Their locations of operation included Austria, Belgium, Bulgaria, China, Czech Republic, Germany, Mexico, Russia, Slovakia, South Africa, Sweden, Turkey, UK, and US.

4 In-depth interviews were conducted with senior leaders and key external stakeholders to allow for a deeper dive into survey outcomes.

Senior leaders including executive committee and Board members, as well as leaders from procurement, strategy and investor relations, consumer packaging, R&D innovation and sustainability, technical and sustainability, marketing & communication, HR and production were included in this group.

External stakeholders interviewed: SYSTEMIQ; The Forests Dialogue; CEFLEX; ILO; WWF; World Resources Institute (WRI); CISL; WBCSD; and Pictet Asset Management[2].

5 Quantitative outcomes of the survey were used to rank each issue on a materiality matrix. Qualitative outcomes of interviews along with our broad understanding of stakeholder perspectives were then integrated into the materiality matrix. We also reviewed the outcomes of the analysis through a customer lens to align issues with what our customers see as most important to the sustainability of their business, based on publicly available data from key customers.

6 The outcome of the materiality assessment was reviewed by Mondi's executive committee and finally reviewed and approved by the sustainable development committee of the Boards.

Our revised material issues are:

→ Keeping employees and contractors safe
→ Attracting and retaining talent and skills and enhancing diversity and inclusion
→ Respecting human rights in our own operations and our supply chain
→ Securing access to sustainable fibre
→ Understanding and minimising our impact on and from climate change

→ Operating in a world of constrained resources and recognising concerns regarding biodiversity, forests, water and ecosystem services
→ Minimising environmental impacts and ensuring compliance
→ Sourcing responsibly
→ Maintaining our socio-economic licence to trade
→ Increasing our products' eco-efficiency through innovation and product design
→ Behaving ethically through effective governance and anti-corruption measures

Materiality

Internal stakeholder priorities

The areas where Mondi's impact is perceived as most significant among internal survey participants included environmental compliance, sustainable forest management, employee and contractor safety and health, anti-corruption and respecting human rights. Customer satisfaction, innovation and product design, skills retention, quality management and employee engagement were highlighted as most important for Mondi's business success over the next 5-10 years. The internal stakeholders highlighted the following as priority material issues: sustainable forest management, traceability and transparency, access to sustainable fibre, circular economy and partnerships, closely followed by diversity, sustainable packaging and responsible sourcing.

External stakeholder priorities

External survey respondents highlighted employment, sustainable forest management, access to sustainable fibre, customer relations and customer satisfaction, and food waste and loss as the issues on which Mondi has the most significant impact. They ranked respecting human rights in our operations and our supply chain, environmental compliance, sustainable forest management, rights of communities and indigenous peoples, and other environmental impacts from operations as most important to Mondi as a responsible business. During the external interviews, climate change and sustainable forest management were identified as the most important issues for Mondi to focus on, closely followed by biodiversity, consumption, community investments, responsible sourcing, traceability and transparency, and water.

Issues mapped to the value chain[3]
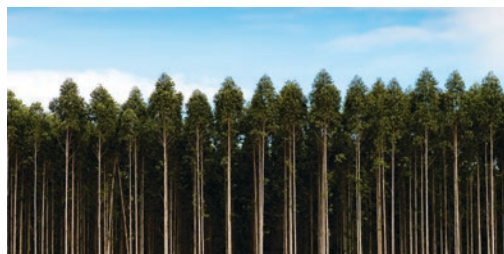
Raw materials

Production processes
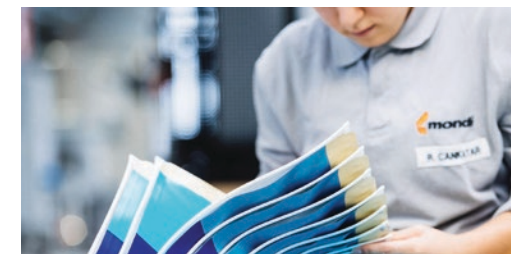
Products

Cross cutting issues along the value chain
Anti-corruption, Business ethics and governance, Circular economy, Community investment, Diversity and inclusion, Employee and contractor safety and health, Employee engagement, Employment, Innovation and product design, Skills retention, Sustainable development related economic value.

Raw materials	Production processes	Products
→ Access to sustainable fibre	→ Air quality and pollution	→ Customer relations and customer satisfaction
→ Biodiversity and ecosystems management	→ Climate change and GHG emissions	→ Food waste and loss
→ Respecting human rights	→ Energy use and efficiency	→ Product safety
→ Responsible sourcing	→ Environmental compliance	→ Quality management
→ Rights of communities and indigenous people	→ Other environmental impact from operations	→ Traceability and transparency
→ Sustainable forest management	→ Resource efficiency/constrained resources	
	→ Innovation and product design	
	→ Respecting human rights	
	→ Rights of communities and indigenous people	
	→ Socio-economic licence to trade	

What our stakeholders told us:

Access to fibre is an existential risk to their business. But it has to be part of an Enterprise Risk Management framework going forward. They need to look at where fibre is coming from in the future.

Peter White
Ambassador for Biodiversity and CBD COP15 World Business Council for Sustainable Development

If we don't adopt new technologies and decarbonise dependencies, then there will be enormous environmental consequences.

Paul Begley
Programme Director, University of Cambridge Institute for Sustainability Leadership

Plastic packaging faces a major disruption, with big risks and also big opportunities for packaging converters with the right strategy.

Ben Dixon
Partner, SYSTEMIQ

3   The issues listed here are among the wider group of topics which were considered in identifying our final list of material issues

Materiality

Mondi is uniquely positioned to consider the whole system of packaging – to reduce use, use alternative materials and to develop circular economy options that create more economic value for plastics and other materials. Mondi is the business that can do this.
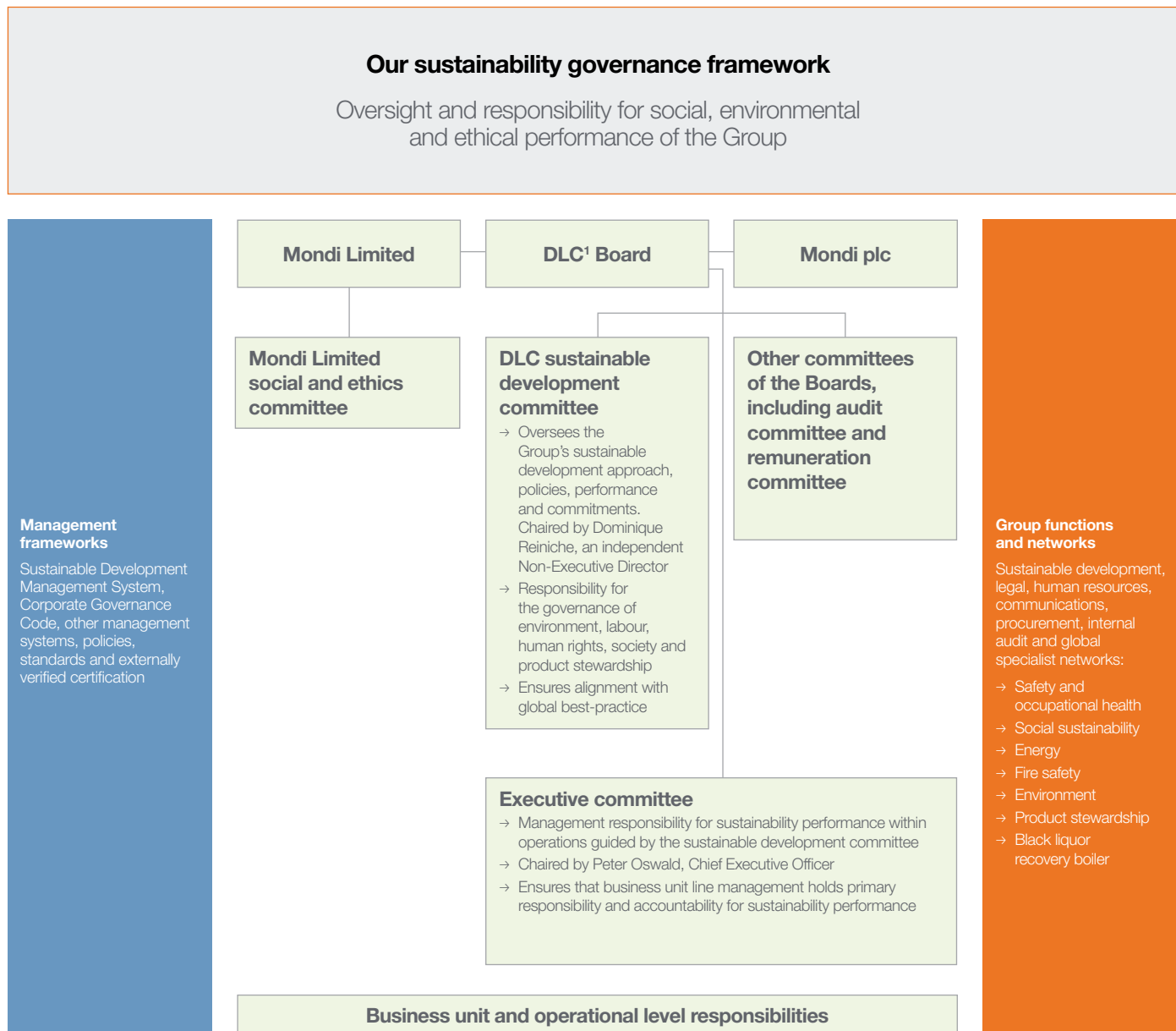
Kavita Prakash-Mani
Global Conservation
Director, WWF

Material issues mapped to our Growing Responsibly Action Areas

Solutions that create value for our customers
→ Increasing our products' eco-efficiency through innovation and product design

Relationships with communities
→ Maintaining our socio-economic licence to trade

Supplier conduct and responsible procurement
→ Respecting human rights in our own operations and our supply chain
→ Sourcing responsibly

Biodiversity and ecosystems
→ Operating in a world of constrained resources and recognising concerns regarding biodiversity, forests, water and ecosystem services

Constrained resources and environmental impacts
→ Minimising environmental impacts and ensuring compliance
→ Operating in a world of constrained resources and recognising concerns regarding biodiversity, forests, water and ecosystem services

10 Action Areas

1
2
3
4
5
6
7
8
9
10

Employee and contractor safety and health
→ Keeping employees and contractors safe

A skilled and committed workforce
→ Attracting and retaining talent and skills and enhancing diversity and inclusion

Fairness and diversity in the workplace
→ Attracting and retaining talent and skills and enhancing diversity and inclusion

Sustainable fibre
→ Securing access to sustainable fibre

Climate change
→ Understanding and minimising our impact on and from climate change

Sustainability governance

Operating responsibly

Responsible governance is fundamental to building a resilient and successful organisation in which sustainability is embedded at all levels. We aim to work openly and transparently with our stakeholders across the value chain to create an inclusive and fair business. Robust policies, standards and management systems help us meet our commitments and guide our businesses to address the risks and opportunities facing them.

Our sustainability governance framework

Oversight and responsibility for social, environmental and ethical performance of the Group

Management frameworks

Sustainable Development Management System, Corporate Governance Code, other management systems, policies, standards and externally verified certification

Mondi Limited

DLC[1] Board

Mondi plc

Mondi Limited social and ethics committee

DLC sustainable development committee
→ Oversees the Group's sustainable development approach, policies, performance and commitments. Chaired by Dominique Reiniche, an independent Non-Executive Director
→ Responsibility for the governance of environment, labour, human rights, society and product stewardship
→ Ensures alignment with global best-practice

Other committees of the Boards, including audit committee and remuneration committee

Executive committee
→ Management responsibility for sustainability performance within operations guided by the sustainable development committee
→ Chaired by Peter Oswald, Chief Executive Officer
→ Ensures that business unit line management holds primary responsibility and accountability for sustainability performance

Group functions and networks

Sustainable development, legal, human resources, communications, procurement, internal audit and global specialist networks:
→ Safety and occupational health
→ Social sustainability
→ Energy
→ Fire safety
→ Environment
→ Product stewardship
→ Black liquor recovery boiler

Business unit and operational level responsibilities

1   Dual listed company

Sustainability governance

Key sustainability topics discussed by the Boards and committees

In 2018, the Boards and associated committees discussed a range of sustainability-related topics.

Safety and health

The safety of our employees and contractors continued to be a priority with safety performance reviewed in detail at each meeting. The committee discussed the safety performance of the Group, including the fatality experienced at the Syktyvkar mill (Russia) (see page 41) and five life-altering injuries during 2018. In all instances, the committee was kept fully up to date by management of the outcomes of investigations. We will continue to strive for zero harm because it is fundamental to the way we do business. The committee also received an overview of the focused safety training for managing directors, first-line managers and SHE professionals and the working groups established for each risk area. The committee discussed a powerful safety campaign launched towards the end of 2018 aimed at the behavioural causes of serious incidents. The campaign involves employees that have experienced life-altering injuries telling their stories via videos and posters, demonstrating the impact of decisions in the workplace and the sometimes severe consequences of unsafe behaviour.

Material issues, risks and opportunities

The SD committee discussed the process and outcomes of the 2018 materiality assessment (see page 30). It reviewed the findings and the resulting materiality matrix and discussed the changes compared to the 2017 materiality list. It was noted that certain issues that are important to Mondi – such as quality and employee engagement – had been ranked as less important in a sustainability context by stakeholders. Human rights was highlighted as the most highly ranked material issue by both internal and external stakeholders, with environmental impact and compliance also ranking highly. The committee also reviewed the key SD risks and opportunities for 2018 and discussed the assessment and classification of risk associated with climate change in light of increasing stakeholder expectations of companies to improve disclosure on the evaluation and quantification of climate risks and opportunities.

It was confirmed that the risks and opportunities would be included in the wider Group risk assessment process. This will remain a focus for the SD committee in 2019 as we work towards a more integrated approach to managing risks and opportunities and develop our commitments beyond 2020.

Consideration of long-term GHG targets

The SD committee received a proposal for a greenhouse gas (GHG) target for production-related emissions calculated using a science-based methodology (see page 71). It was noted that there is increasing investor focus on, and stakeholder interest in, such targets. A target of reducing production-related scope 1 and 2 GHG emission intensity to 0.25 tonnes of CO_2/tonne of production by 2050 against a 2014 baseline of 0.59 tonne of CO_2/tonne of production was proposed and agreed by the committee.

Modern slavery

The SD committee conducted a review of Mondi's response to the UK Modern Slavery Act, including Mondi's second statement and an overview of progress in developing processes and procedures to minimise the risk of human trafficking and modern slavery. The identification of KPIs to measure progress was discussed, with appropriate KPIs under consideration with guidance from specialists. Progress on this will be submitted to the DLC sustainable development committee for consideration in 2019. The committee noted the importance of ensuring access for all employees, contractors and suppliers to Speakout (our anonymous whistleblowing service). After consideration, the committee confirmed its agreement with the statement and agreed to recommend it to the DLC Board for approval and publication.

Mondi's commitment to key global initiatives

The committee considered the proposal to sign up to the New Plastics Economy Global Commitment to eliminate plastic waste at source, which would require Mondi to make certain public commitments (see page 115). The committee discussed the commitments and Mondi's ability to meet the targets set. After consideration, it was agreed that Mondi should make the required commitments to show continued leadership in addressing the challenges related to plastics. It was noted that a number of other companies had also signed up and that achieving the commitments would require efforts across the entire plastics sector value chain.

The committee went on to consider the recommendations of the Task Force on Climate-related Financial Disclosures. It was noted that Mondi was already compliant with many of the recommendations through its reporting to CDP, but work is being undertaken to quantify the financial impact of climate change, with a focus on two scenarios: a 2ºC scenario and a business as usual scenario, both within a 2030 timeline. The key risks to be considered were reviewed and discussed, noting in particular the impact of extreme weather events and how such events could affect Mondi's wood supply. It was confirmed that quantifying the financial implications of risks and opportunities related to climate change would be an iterative process.

Social and ethical values

The SD committee works together with the social and ethics committee in addressing Mondi's social and ethical values. The Group Heads of Sustainable Development and Safety and Health attend all meetings of the committee and provide the link between the committee, management and operations.

Sustainability governance

Embedding sustainability

Our Boards and committees provide the leadership necessary to implement the principles of good corporate governance across the Group, ensuring that all our decisions and actions are based on integrity, responsibility, accountability, fairness and transparency. The Boards approve our approach and review performance.

Together, members of the Boards bring a wealth of experience and expertise to the Group. They are diverse in respect of origin, gender, race and education, reflecting the broad nature of our activities and our operational territories. At the end of 2018 we had two female directors (representing 25% of the composition of the Boards) and one director of ethnic minority.

The Boards delegate specific areas of responsibility to a number of committees, which have authority to make decisions according to their terms of reference.

At the end of 2018, we had two female directors representing

25%

of the composition of the Boards, and one director of ethnic minority.

The Boards have ultimate responsibility, however accountability at Group level for our sustainable development policies, systems, practices, commitments and actions, as well as the effectiveness of our approach to managing all aspects of sustainability, is monitored on three levels:

→ The sustainable development committee chaired by Dominique Reiniche, an independent Non-Executive Director

→ The executive committee chaired by Peter Oswald, Chief Executive Officer

→ The operational management team which consists of senior executives from across Group operations

Seven global specialist network groups provide expert insight and support to the business on specific sustainable development issues.

See our sustainability governance framework
Page 33

Various internal and external mechanisms regularly evaluate and report on our performance, including on the effectiveness of our management approach and systems. These mechanisms include our reporting systems and benchmarks, as well as stakeholder engagement and collaboration at various levels. The results of this evaluation can lead to adjustments to the management approach where necessary, subject to the approval of the relevant executives and ultimately the Boards. Examples of these adjustments may be found throughout this report and in our 10 Action Areas.

Mondi's Group Sustainable Development function

The Group SD function provides guidance and helps define the actions required to achieve our goal of growing responsibly. This includes monitoring and assessing material risks and opportunities facing the Group. The SD function monitors and reviews emerging changes to the regulatory environment, developments in our social and environmental operating context, and evolving stakeholder needs and expectations as they relate to our businesses. It also informs, challenges and supports our businesses in responding to stakeholder needs and expectations and shaping our long-term response to global megatrends.

It oversees the management of the Sustainable Development Management System (SDMS) and facilitates all Group sustainability reporting and external assurance.

Internal and external engagement is a key responsibility of the SD function. Internally, this means supporting businesses to better identify, understand and address relevant sustainability-related topics, business risks and opportunities, as well as reporting our positions and performance across the 10 Growing Responsibly Action Areas.

Externally, it is about overseeing and fostering engagement and collaboration with stakeholders to develop a shared understanding of the SD landscape and help tackle the issues no single sector or organisation can solve alone. This includes engaging stakeholders on emerging issues that are important to our business.

This also maximises Mondi's influence through sharing best practice, knowledge and resources as well as supporting and working with scientific and academic institutes, underlining our belief that science plays a crucial role in creating more sustainable and equitable societies and businesses.

Sustainability governance

Policy developments are informed by current best practice and aligned with our Growing Responsibly model. Our Sustainable Development Governance Policy supports our overall approach and is further supported by policies for:

→ Safety and Occupational Health;

→ Labour and Human Rights;

→ Sustainable Forestry;

→ Energy and Climate Change;

→ Environment;

→ Supply Chain and Responsible Procurement;

→ Product Stewardship, and

→ Communities.

These include some of our longer-term sustainability commitments and inform the setting of targets and commitments for each new period.

View our policies listed above

The Boards, through the SD committee, review the Group's SD policies on an annual basis. The Boards approved the updated Group SD policies, which included minor updates to meet the needs of our stakeholders such as investors, analysts and customers and to ensure that our policies remain relevant and comprehensive.

In 2018, we commenced the review of our operating standards, the second tier of our SDMS, which set minimum requirements for Mondi operations to comply with Group policies. Draft operating standards and their supporting practice notes are currently being developed. These will go through a thorough process of internal review at various levels of the organisation. This review is being carried out to acquire expert input into the standards the Group should adopt to be in line with industry good practice, and to assess our operations' readiness to meet the upcoming requirements contained in the standards.

Our central reporting system captures and consolidates monthly and annual data on key safety and health, energy, environmental, wood procurement, forestry and other sustainability parameters from our global operations and we independently assure selected KPIs annually. This data allows us to benchmark individual operations and identify opportunities for improvement and best practice sharing across the Group.

Our Sustainable Development Management System

Our established policies, procedures and management systems support our goal to apply a consistent and standard approach to sustainability throughout our operations. We consider the key environmental, social and governance implications of our business decisions. Our SDMS guides the effective governance of all aspects of sustainability and the implementation of our policies and standards. It covers all facilities and activities that we manage and operate (including those in which

we hold a controlling interest), new developments, and mergers and acquisitions. Activities undertaken by contractors, either on Mondi sites or while under our management, are incorporated into our SDMS. This requires them to comply with our policies, standards and requirements, particularly in relation to safety and health at work.

A sustainable development governance standard provides the link between our management standards and our corporate governance structure. Management standards define our governance requirements and provide a basis for the development, enhancement and application of our sustainable development principles.

Operating standards define the minimum requirements for good operational management and control across all policy areas and provide guidance on the implementation of the SDMS at Group, business unit and operational levels.

Sustainability governance

How we manage risks and opportunities

Our group-wide risk management framework is designed to address all significant strategic, sustainable development, financial, operational and compliance risks that could undermine our ability to achieve our business objectives in the future. We exercise due diligence prior to the introduction of new operations, practices, processes and products.

Our sustainable development risk and change management standard guides the way sustainable development risks are identified and managed. Our risk management approach – particularly relating to environmental issues – incorporates the precautionary principle, which implies our responsibility to protect the natural environment from harm where there is a plausible risk.

We update our sustainable development risk register annually to ensure appropriate mitigation plans are in place for those risks with a high likelihood of occurrence and/or impact potential. These risks include inherent operational and strategic risks. In addition to the key impacts on our business and our stakeholders, we identify sustainability trends and opportunities and seek to mitigate risks that affect our longer-term prospects and financial performance.

Our risk management process informs the identification of our material sustainability issues and the commitments we set to monitor and improve our performance in addressing them. Please refer to page 30 for more information on our material issues and page 119 for progress against our commitments.

You can read more about our principal risks on page 38 of our Integrated report and financial statements 2018.

Mondi's internal audit function

Our internal audit function is an integral part of the Group's governance. Its purpose, as an independent assurance function, is to evaluate whether business risks are being managed effectively within the context of business objectives. A system of internal control is one of the primary means of managing risk and the evaluation of its effectiveness is central to internal audit responsibilities. Mondi's system of internal control comprises the policies, procedures and practices, as well as organisational culture that collectively support effective operation in the pursuit of our objectives. This system of internal control enables us to respond to significant business risks and is the direct responsibility of the Boards and executive management. The assurance provided by internal audit assists the Boards in fulfilling their duties and obligations under the corporate governance codes of South Africa and the UK, and in reporting annually to shareholders on the effectiveness of Mondi's systems of control. The audit committee has primary responsibility for monitoring and reviewing the effectiveness of the Group's internal audit function.

Our Speakout hotline

The Boards, supported by the audit committee, oversee the adequacy of Speakout, our group-wide anonymous whistleblowing system (see Speakout on our website). Internal audit is responsible for the day-to-day monitoring of the Speakout process, ensuring management is appropriately informed about reported issues and related risks are adequately managed.

Summaries of all reported issues and the status of unresolved items are presented at each meeting of the audit committee and to the Boards to ensure appropriate investigation has been undertaken and responses given, with actions taken where any allegation proves to have some foundation.

In 2018, we received 104 Speakout messages (2017: 120) relating to 65 cases (2017: 74). These covered a number of topics, in particular the reporting of HR-related concerns, potential business irregularities and perceived fraudulent activities.

104

Speakout messages received in 2018.

Sustainability governance

Political donations, gifts and bribes

Mondi is opposed to all forms of corruption and illegal practices. The Group does not tolerate the giving or receiving of bribes, nor does it condone anti-competitive practices in its dealings with governments or in the marketplace. Mondi does not permit contributions or donations for political purposes. Our approach to preventing corruption is published in company guidelines and policies, on the local and group-wide intranets, and on the Group website. Mondi requires any lobbying undertaken to be in line with the Group's business ethics and policies. Our policies on these matters are set out in our Business Integrity Policy. Mondi's definition of bribery, as defined in this Policy, includes facilitation payments.

Fines, non-monetary sanctions and significant legal issues

Mondi was not the subject of any legal actions for anti-competitive behaviour, anti-trust or monopoly practices during 2018.

In the year under review, the Group was subject to 57 inspections by environmental regulatory agencies across its pulp and paper mills in 10 countries (2017: 51). These inspections related mainly to legal compliance, permit requirements, emission levels, water and waste management, pollution controls and odour levels. Findings of non-compliance with permit limits were noted in the course of some of these inspections. In some instances, action plans were agreed with the relevant agencies and implemented. In four instances, feedback was being awaited from the relevant agency at the time of publication. The Group was subject to one non-monetary sanction related to improvements in handling hazardous materials in our Karaman plant (Turkey). The Group is not aware of any impending prosecutions.

In 2018, Mondi paid fines totalling approximately €37,000 involving five cases. The largest amount, approximately €20,000, was paid by our Richards Bay mill (South Africa) for exceeding contractually agreed effluent quality parameters, as a result of the impacts of the extended shut and mill instability.

Anti-corruption

Reputational risk, which includes corruption risk, forms part of the annual Group risk assessment process, which identifies the Group's principal risks. This is reviewed by the audit committee and the Boards. All our businesses feed their risks into this process. No significant risks related to corruption were identified through the risk assessment process in 2018 (see page 38 of our Integrated report).

All Board members have received and have access to our anti-corruption policies and procedures, which are covered by our Business Integrity Policy, and they were briefed on anti-corruption requirements as per the UK Bribery Act when it came into force.

All our employees have access to our organisational policies, which include our Business Integrity Policy (covering anti-corruption), through planetmondi (our global intranet page) and our website. Annual updates on the organisational policies are communicated to our employees through planetmondi. All relevant employees (employees in sales and marketing roles and those in positions that have, or may have, contact with competitors) complete competition compliance and business integrity training which covers anti-corruption.

The number of relevant employees in 2018 was 2,865, all of whom received online training and testing during the year.

Our Business Integrity Policy is available through our website to all our business partners. Non-compliance with it can be reported through our Speakout tool, available to internal and external stakeholders. Our Business Integrity Policy is included in all contracts with suppliers.

In 2018, there were a total of 20 cases related to business integrity aspects identified through Speakout (9 cases) and other channels (11 cases). All were investigated and closed out according to our policy. There were no public legal cases brought against Mondi or our employees during 2018.

10 Action Areas

Employee and contractor safety and health

When it comes to our safety performance, we've come a long way over the last 10 years. Open and honest discussions have seen a step change in the way we engage in and take responsibility for safety. But while we're among the safety leaders in our industry, unsafe behaviour was a common factor in incidents occurring in 2018. Ultimately, if we want to turn our zero harm ambition into a reality, we need to create a safety culture where people act safely in everything they do, every day.

Why is this important to our stakeholders?

→ The human cost of occupational accidents, diseases and major industrial disasters has a major global impact: the International Labour Organization (ILO) estimates that more than 2.78 million people die every year as a result of occupational accidents and diseases[1]

→ Beyond the impact on people, the economic burden of occupational accidents, diseases and major industrial disasters is estimated at around 4% of global GDP each year[1]

→ Our operations involve high-risk activities that could affect people's safety and health. As a minimum, stakeholders expect us to apply robust risk management controls and procedures to keep people safe

Why is this important to Mondi?

→ It's a moral and a business imperative that we do everything we can to avoid harm to people's safety and health while working at Mondi – including our employees, contractors and other people who have reason to be on Mondi sites

→ We have a caring culture; when an incident occurs it can have a devastating impact on the injured and their family, as well as on their Mondi colleagues

→ Safer operations are more efficient, profitable and successful, with employees and contractors enjoying higher levels of engagement and motivation

→ People are more likely to choose to work for us over those companies with poor safety performance or sub-standard working conditions
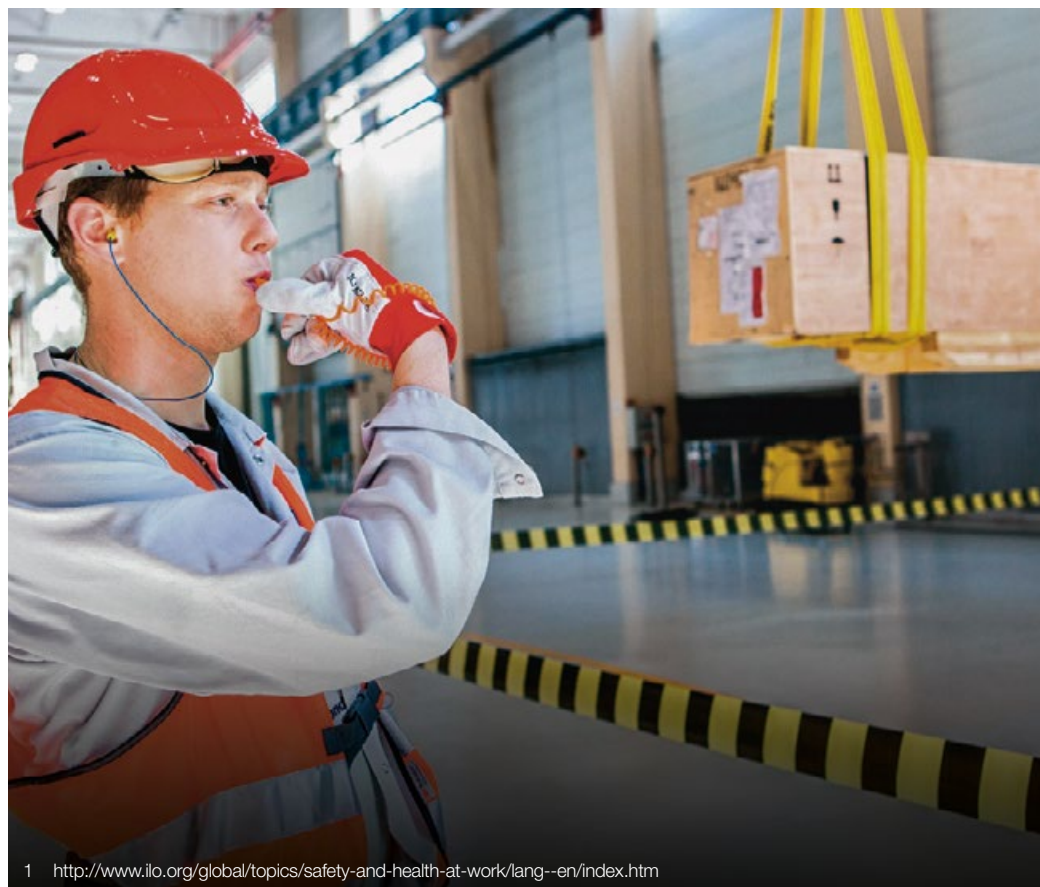
Our commitments to 2020

→ Avoid work-related employee and contractor fatalities

→ Prevent life-altering employee and contractor injuries

→ Reduce TRCR by 5% compared to 2015 baseline, including new acquisitions

Discover how we are…

→ Embedding a 24-hour safety mindset among all our people

→ Taking a risk-based approach to manage safety and health

→ Using training and engagement to drive progress

Next steps

→ Continue working on the top risks at each site to engineer relevant safety and health risks out of the business and implement robust controls

→ Focus on improving the behavioural and unconscious elements of our safety culture so that safety becomes an unconscious behaviour 24 hours a day, every day

→ Set up working groups to tackle key challenges such as moving and rotating equipment, energy isolation and locking out, occupational health, hazardous chemicals, and visitor induction programmes

Our strategic SDGs and targets

SDG 8 Decent work and economic growth

→ Target 8.8 Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment

For links to SDG 3 see the full index

1 http://www.ilo.org/global/topics/safety-and-health-at-work/lang--en/index.htm

Employee and contractor safety and health

Ensuring the safety of our people

Our employees and contractors often work in potentially hazardous environments. To ensure they and other people who have reason to be on Mondi sites stay safe, we have embedded clearly defined methodologies, procedures and robust controls that everyone is required to adhere to.

These include: close call and incident reporting and investigation; risk assessments; audits; permit to work requirements; energy isolation and lock out systems; specialist training programmes; safety procedures; and contractor safety management.

We continue to focus on the top risks at each site, implementing engineering controls where feasible and possible, and on ensuring continuous improvement in our safety and health controls and programmes. We carry out detailed investigations into all recordable cases to identify root causes and contributing factors and to develop suitable action plans in response.

We are deeply saddened that we experienced a fatality in April 2018 when a contractor lost his life at our Syktyvkar operation (Russia) during maintenance of a conveyor in the wood yard. Unfortunately we also suffered another fatality in January 2019 during drilling works at the construction site of our new paper machine in

Ružomberok (Slovakia). Our deepest condolences have been extended to family members and colleagues.

We also regret to have experienced five life-altering injuries; an employee at our Štětí mill (Czech Republic) suffered a life-altering injury when his arm was pulled into a nip point of a winder on a paper machine; an employee's finger was caught while attempting to move a drive belt at our Świecie mill (Poland); an employee's arm was pulled into an embossing line at our Gronau operation (Germany); an employee's finger was injured after tripping and his ring caught on a chain that he was servicing at our logging operations (Russia); and a fifth incident occurred in our forests operations (South Africa) when a contractor's arm was pulled up against an impeller shaft while refilling a container.

We had 262 recordable cases in our operations in 2018 (2017: 255[2]). This equates to a total recordable case rate (TRCR) of 0.68 (2017: 0.68[2]). This represents an 11% decrease compared to our 2015 baseline of 0.76 (adjusted to include acquisitions).

Creating an interdependent safety culture is key in our drive to send everybody home safely, every day.

Brian Darlington
Mondi Group Head
of Safety and Health

Total recordable case rate (TRCR)
per 200,000 hours worked
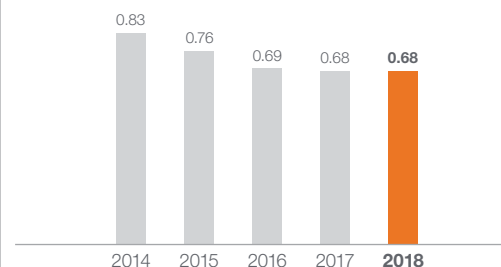
2015–2017 restated to include acquisitions, and 2017 includes a confirmed fatality of a missing person in Syktyvkar

The total number of hours worked (employees and contractors) in 2018 was 77.6 million hours (2017: 75.3 million hours)

2018 excludes Powerflute and Egyptian industrial bag plants acquired in 2018

Total fatalities of contractors and employees
numbers

■ Contractors　■ Employees
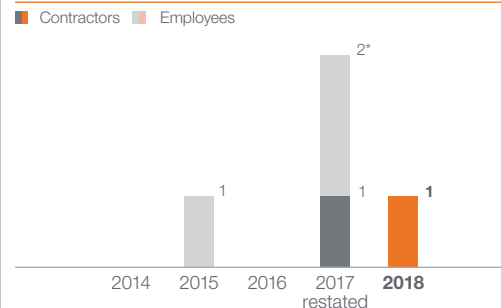
The fatality rate in 2018 was 0.003 (per 200,000 hours worked)
* 2017 figure restated to include a confirmed fatality of a missing person in Syktyvkar

2　2017 restated to include acquisitions and a confirmed fatality of a missing person in Syktyvkar

Soft approach poster campaign

In 2018, we launched a soft approach poster campaign showing employees with their children in situations related to our potentially fatal risk tasks. Many of our operations aligned their communication programmes with the campaign, and some developed videos to support the messages. Several implemented behaviour-focused training and coaching sessions.

⊕ **See all campaign posters**

Major Close Call rate
per 200,000 hours worked

Employee and contractor safety and health

74%

of our converting operations have the OHSAS 18001 system in place.

We saw one newly compensated occupational disease case in 2018. This was a case of Reactive Airways Dysfunction Syndrome (RADS) at our Richards Bay mill (South Africa) which was reported to the workmen's compensation commissioner in 2014.

In all instances, investigations were carried out and communicated to understand the events involved and identify ways we might prevent such incidents in the future.

Embedding a 24-hour safety mindset

We introduced the 24-hour safety mindset approach in 2017, whereby safety is seen as something we do for ourselves, for our families, and for our colleagues and their families. The concept is designed to tap into people's awareness on an emotional, unconscious level by applying safety to all aspects of their lives, not just to work. It is based on the premise that there is no difference between being safe at work or at home – the outcome is the same – and if we develop our habits so that safety becomes an unconscious behaviour, then we'll ensure our own safety and that of those around us.

Also in 2018, we launched a hard-hitting safety communication programme to address the risk of serious injuries relating to moving and rotating equipment. The programme, which will run until March 2019, includes posters and video interviews with three employees who have suffered life-altering injuries in the past.

Injuries from high-risk activities
instances
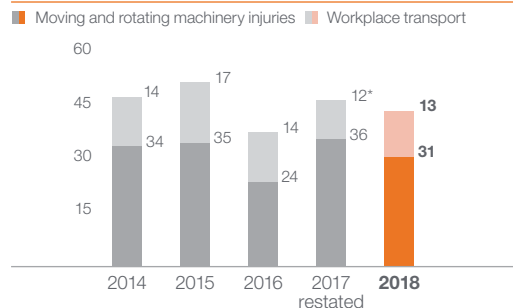
■ Moving and rotating machinery injuries ■ Workplace transport

* 2017 figure restated to include a confirmed fatality of a missing person in Syktyvkar

Total recordable cases by injury classification
cases

■ Business travel	0
■ Assault	0
■ Equipment failure	0
■ Road traffic accident	1
■ Contact with energy sources	1
■ Attack by animal	1
■ Ignition source	1
■ Environmental hazards	1
■ Horseplay	1
■ Occupational disease	1
■ Working at heights	3
■ Moving machinery (other body parts)	5
■ Slips, trips and falls (forestry)	7
■ Housekeeping	9
■ Workplace transport	13
■ Falling objects	14
■ Moving machinery (hands, arms, fingers)	26
■ Exposure to chemicals etc.	27
■ Manual materials handling	30
■ Tool use	30
■ General personal awareness	91

We are now exploring options for implementation of internal and or external programmes that will focus on the conscious as well as unconscious safety behaviour of employees. Through these efforts, we will continue to strengthen our safety culture and our engagement and training to make safe habits a way of life and in turn prevent serious incidents.

Certification and management systems

We use internationally accredited safety management systems to ensure appropriate procedures and systems are applied across our entire business. The safety and health of all our employees and contractors is covered by our management systems, methodologies and initiatives. Audits of our management systems are conducted internally and externally. These systems have been implemented based on recognised risk management standards and guidelines including OHSAS 18001 and the National Occupational Safety Association (NOSA).

Our operations and equipment are also subject to ongoing internal and external audits, designed to identify strengths and weaknesses in procedures and control systems and guide necessary changes and improvements. Regular audits of our plant and equipment standards help to drive improvements in process controls and systems.

All our mills[3] and 74% of our converting operations (64 of 86) have the OHSAS 18001 system in place. Going forward, we will focus on ISO 45001 for recertification.

3 Dynäs mill (Sweden) is certified to AFS 2001:01 (the Swedish Work Environment Authority's standard)

Risk-based approach

We take a risk-based approach to managing safety and health. Risk assessments are an important tool for identifying hazards and putting necessary control measures in place. Teams are trained in our methodologies to ensure understanding and alignment with the requirements.

We introduced our Top 5 Fatal Risks approach to address the key risks in our operations in 2013. In 2018, we commenced the third phase to identify the next set of top risks for each operation, and develop management plans to engineer them out of the business. Where the latter is not feasible or possible, we introduce robust controls and procedures to reduce the risks. Our nine safety rules cover hazards that pose a risk of high-consequence injuries and include work at heights, mobile plant, chemicals, confined spaces, work in forests, permit to work activities, lifting activities, moving and rotating equipment.

This is also supported by our Task Risk Management Methodology, which provides a practical, easy-to-understand approach for conducting pre-task risk assessments. It enables us to assess probability and severity of a potential incident and shape action plans based on a hierarchy of controls to address the risks. The approach aims firstly to prevent incidents and then, if they do occur, to reduce their severity. Operations are required to consider the top three risk controls – elimination, substitution and engineering – before looking at administrative controls or issuing personal protective equipment. Employees are engaged during the risk assessment processes and assessments are revised at predefined frequencies, or as a result of an incident. Our new Permit to Work Methodology was also rolled out at all operations in 2018.

Employee and contractor safety and health

Reducing the risks to pedestrians posed by forklift trucks

In 2014, an employee working in the Cut Size Line production department of our Syktyvkar mill was seriously injured when she was hit by a forklift working in the repulper area. Following investigations, we identified a number of safety measures to reduce the risk of a similar incident ever happening again.

A key priority was to enable forklift drivers to detect workers in the danger zone around the vehicle during operation. We chose a British-made system, called ZONE SAFE, which fixes a detector to the cab. The detector can be programmed to alert the driver with a light and sound should anyone carrying a transponder card enter the danger zone of up to 9m radius. Secondly, we planned safe pedestrian areas and installed solid barriers, including electrical doors with traffic lights, to keep pedestrians and vehicles

a safe distance apart. We also installed an access system to the Cut Size Line, whereby only employees who have been trained and are carrying entry cards and ZONE SAFE transponder cards can gain access to the area.

Based on the success of the project, we have now applied the measures to all areas of the mill where forklift trucks operate. A similar system has been developed for woodyard loaders with surveillance cameras installed in cabs to improve driver visibility and a detection zone of 25m. Next steps in 2019 will see the installation of ZONE SAFE in the forestry nursery stock area and application of site access control systems in other areas. Since installing the equipment, the risk has been engineered out and we have experienced no further forklift-related incidents.

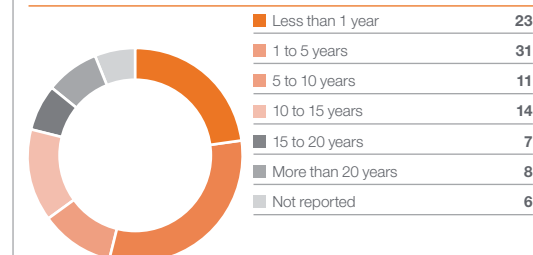## Life-altering injuries
numbers

■ Contractors   ■ Employees
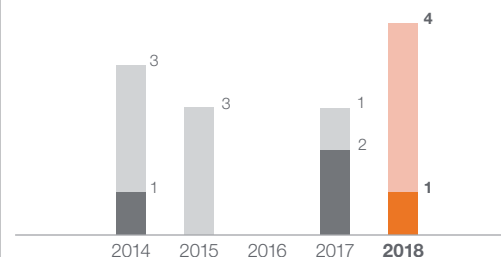
In 2018 a tragic incident occurred on one of our South African plantations which resulted in the death of a driver. Unfortunately, there were no witnesses at the scene and Mondi's investigating team had to rely on circumstantial evidence to try to establish what had happened. One of the action items that emerged from the investigation was to assess the potential benefits of on-board cameras in forestry harvesting vehicle cabs. A three-month trial found the technology brings significant benefits, including improved driver behaviour and overall safety. We have now approved the installation of on-board cameras on all short-haul timber trucks operated by Mondi contractors on Mondi forestry land in South Africa.

Incident investigations

Our well-established formal investigation methodology (MICE) and its supporting definitions cover the reporting and investigation of all incidents including major close calls and injuries. Lessons relating to contributing factors are also shared amongst our operations. We assess and monitor key trends in incident categories including types of injuries of contractors and employees, and experience of employees. This information is used in developing communication and improving controls to address the relevant issues. Employees and contractors also have the right to refuse to work should their safety and or health be compromised. They are protected against reprisals through Speakout, our confidential hotline for reporting grievances and whistleblowing.

All incidents are escalated to Group level for information and guidance purposes. Lessons relating to contributing factors are also shared among our operations. We assess and monitor key trends in incident categories including types of injuries, contractors and employees, and experience of employees.

Length of service in job of injured person
%

■ Less than 1 year	23
■ 1 to 5 years	31
■ 5 to 10 years	11
■ 10 to 15 years	14
■ 15 to 20 years	7
■ More than 20 years	8
■ Not reported	6

Employee and contractor safety and health

Measuring progress – lead, current and lag indicators

In addition to conventional safety performance metrics which focus on incidents and total recordable case rate TRCR, known as 'lag indicators', we use 'current' and 'lead' indicators which allow us to monitor proactive efforts and improvements aimed at preventing incidents. Current indicators measure the degree to which safety has been institutionalised and how well our management systems have been executed. These include management risk-focused audits, first-line manager task audits, Safety, Health and Environment (SHE) professional focus audits, and peer observations. Lead indicators concentrate on issues that are key to successful safety performance such as action tracking, critical safety training, revision of risk assessments using our Task Risk Management Methodology, and the implementation of our new Permit to Work Methodology. We also track the actions taken and closed, including SHE improvement plans, top risk action items and actions identified after incidents occur.

Performance against current and lead indicators form part of our senior managers' bonus scheme, with targets assigned to each indicator as part of the annual performance and development reviews (PDR) process.

In 2018, we carried out 106,290 safety audits including management risk-focused audits, first-line manager task audits, SHE professional focus audits and peer observations against a target of 77,673 (2017: 106,840). More than 95% of action items were closed out. In addition to 267,028 hours of general safety training, we conducted 59,995 hours of critical safety training against a target plan of 47,392 hours (2017: 58,594).

Working with contractors

Our contractors work for companies with varying safety requirements and cultures. We work closely with them to manage their safety and health risks and ensure they align with Mondi requirements. Using a risk-based approach, we appoint contract managers to facilitate liaison between contractors and the Mondi team. These managers work with Mondi SHE professionals and contracting companies to provide support and guidance, monitor contractor safety performance, and support contractors to address gaps and improve practices.

Our defined six-step process is summarised in a Safe Practice Note, which provides guidance on the management of contractors prior to and during their time on-site at Mondi, as well as during post-contract evaluation. The six-step process covers: the selection of the Mondi contract manager; the pre-tender phase; preparation and awarding of contracts; engagement prior to entering the site; on-site engagement; and post-contract evaluation and guidance. In 2019, we will trial a newly developed contractor management audit tool at selected sites.

Inspiring a diverse workforce to improve safety

SHE goes Hollywood

24 nations, 18 languages, one site

challenge:
How to engage a diverse workforce with Safety & Health

solution:
Keep it simple and put them in the picture Literally!

CUT INJURIES FROM 5 TO 0

EMPLOYEE ENGAGEMENT 89%

The Consumer Packaging shop floor team in Korneuburg, Austria, includes employees from 24 countries who speak 18 different languages. This can pose quite a challenge when it comes to engaging people and delivering safety training. Although the safety culture of the team had steadily improved over the last decade, the traditional approach of delivering training had reached its limit; we needed to find a more inspiring and accessible way to deliver training. The result was a special task force under the title, 'SHE goes Hollywood' with a clear target: to significantly reduce the number of safety incidents. The team came up with an innovative idea to create videos using safety champions as screenwriters and employees as actors. These were to premier on Making a Difference Day to deliver training in a modern way, and with a sense of humour. The project was a great success. People were emotionally engaged by the content leading to a change in mindset due to their personal identification with safety. Language and education barriers were removed and the outcome was a drop in injuries from cuts from 5 in 2016 to 0 in 2018.

Employee and contractor safety and health

1,315
people have attended the three-day first-line managers training programme to date.

106,290
safety audits were carried out in 2018 including management risk-focused audits, first-line manager task audits, SHE professional focus audits and peer observations against a target of 77,673.

2 million
hours worked during the shutdowns and the Štětí recovery boiler project was completed without any serious injuries.

182
people attended the four-day safety and health professionals training programme.

**Work safe.
Home safe.
Everybody, every day.**

Safe maintenance shuts and other projects

Our mills are subject to scheduled annual shuts to allow for machinery and equipment to be maintained, replaced or upgraded. Other complex and large projects can also involve non-routine work with many employees and contractors working on-site at the same time. Some of our highest risk activities occur during these times.

To manage the risks, Mondi site managers and SHE professionals maintain a visible presence on site and at key meetings, providing guidance and support where required. In addition to continuously monitoring performance on site, we apply our top risks approach and engage with contracting companies to align activities and agree common standards of work. We held pre-shut risk assessment sessions at the mills in 2018 to identify all high-risk activities and implement suitable management controls. We also continued to engage with SHE leaders of our larger suppliers and we conducted joint site visits with suppliers of our large projects, with a focus on safety and health.

Our annual shuts and major projects in 2018 saw between 200 and 3,200 contractors working on-site at any one time. We have achieved a good performance overall across our projects, with more than 2 million hours worked (>14,000 contractors) during the shuts, with 7 recordable cases and no serious injuries experienced. The Štětí modernisation project related to the recovery boiler construction was completed on time and without injury.

Training

Our training and skills development programmes address all aspects of safety and health including management, risk assessment, competency, policies, methodologies and procedures, incident investigation, and auditing techniques. Training is carried out in formats ranging from formal to on-the-job training and toolbox talks. We've improved engagement with employees and contractors around safety and health-related issues, coaching them to take personal responsibility for their own safety and that of others.

In 2018, we continued to provide training to first-line managers to enable them to manage the safety and health of their teams. 1,315 people have now attended the three-day first-line managers training programme (2017: 1,125). When we acquire new assets and operations, SHE professionals form part of the acquisition team to ensure quick alignment with Mondi systems, methodologies, culture and approach.

In 2018, we developed the next module of our training programme for safety and health professionals, which focuses on Mondi safety and health methodologies and requirements. The first training session of the new module was delivered in October 2018 and all safety and health professionals are required to complete it by 2020. The new module includes a video of a complex task and attendees practice developing comprehensive risk assessments, safe working procedures and permits to work as well as role-playing of safety audits. The training also requires attendees to submit a post-training project for final evaluation. A cumulative total of 182 people have now attended the four-day safety and health professionals training programme (2017: 151).

Safety and Health committees

The Mondi SD steering committee is attended by the Group Head of Safety and Health along with Group Technical Director, Business Unit CEOs, Business Segments COOs and the Group Head of Sustainable Development among others. They meet twice a year to agree on focus areas and provide updates on progress, including on safety and health.

The senior safety and health team meets on a quarterly basis to address relevant safety and health issues and align efforts on the Safety and Health Strategic Plan. These meetings are chaired by the Group Head of Safety and Health and attended by senior safety and health professionals from each business unit and segment, along with other invited participants. In 2018, one of these meetings was used to deliver the new module of the safety and health professionals training programme to senior safety and health professionals.

To ensure the consistent cascading of safety and health information from Group level, business unit and business segment, senior safety and health professionals meet with safety and health professionals from operations, who in turn ensure alignment across individual sites and allow for employee participation and consultation. These site-level committees have responsibility to align the efforts of the site with Group requirements, assess incidents at their site and provide guidance to the departments in preventing incidents and ensuring continuous improvement. The frequency of these meetings vary by site.

Employee and contractor safety and health

Health and wellbeing

We promote awareness of diseases such as HIV/AIDS, diabetes and tuberculosis among the people who work for us. We do this by encouraging testing, counselling and treatment for employees and contractors, and by offering advice to avoid onward infection.

In our South African forestry operations, mobile clinics provide medical services for all contractor employees. Several of our operations have on-site health and wellbeing facilities, such as our wellness centre at Syktyvkar, and many offer health monitoring services. We also offer wellness programmes at several locations, for example the Štětí 'Mondi for Life' initiative which promotes sports, health and recreation.

Some of our mills have on-site medical clinics and/or doctors while others use service providers and private medical practitioners to provide occupational health services. Medical practitioners maintain doctor-patient confidentiality and do not disclose confidential information to the employer.

Our occupational health programmes are designed to eliminate risks to health in the workplace, prevent occupational illness and diseases, and provide a healthy working environment. This includes optimising ergonomics, regular health screening, reducing noise impact and occupational health hygiene surveys. Action plans are developed using the hierarchy of controls approach, i.e. reducing the noise before issuing of hearing protection.

1,099

people benefited from the ART programme in 2018.

At our South African operations, we run communication initiatives to raise awareness and prevent diseases such as HIV and AIDS. We facilitate access to free voluntary counselling and testing (VCT) and anti-retroviral treatment (ART) and our peer support programme trains employee and contractor representatives to engage with and train the workforce on health issues.

In 2018, 3,465 employees and contractors (2017: 3,530) participated in the HIV/AIDS voluntary programme in our South African operations, with 1,156 opting for testing (2017: 3,307). In addition, 12 employees (2017: 40) and 1,087 contractors (2017: 485) benefited from the ART treatment programme. The higher participation and testing in 2018 was due to Mondi's support of national efforts to increase HIV/AIDS testing in South Africa.

Dumbe Peer Educators acknowledged/Thanksgiving, KwaZuilu Natal, December 2018

A skilled and committed workforce

With around 26,100 employees across 33 countries, our vision is to be an employer of choice and we aim to inspire and empower our global workforce to deliver our Group strategy. Engaging and developing our people to reach their full potential and providing inspiring opportunities for their personal and professional development ensures our business continues to grow and succeed.

Why is this important to our stakeholders?

→ Today's socially conscious employees want purposeful, rewarding careers that contribute social, economic and environmental value

→ Stakeholders expect business to contribute to employment, skills and technical capacity in the markets where they operate

→ Creating meaningful employment is one of the most significant ways that business contributes to the livelihoods of individuals and communities[1]

Why is this important to Mondi?

→ Europe's pulp and paper sector has seen fewer young people joining its workforce than in the past[2]

→ Socio-economic and demographic trends are occurring against a background of rapid change across technologies, business models and product innovation; we depend on a skilled workforce to lead on a global stage

→ Engaging and inspiring our employees boosts productivity and increases our appeal to those who seek purposeful careers

Our commitment to 2020

→ Engage with our people to create a better workplace

Discover how we are…

→ Engaging employees to strengthen our 'Inspire' culture

→ Enabling volunteers to flourish in South Africa

→ Developing a strong talent pipeline for our operations in Russia

Next steps

→ Address areas for improvement from our 2018 employee survey

→ Run further pulse check surveys to follow up the actions arising from our 2018 employee survey

→ Launch the Digital Academy to support employees in developing their digital skills

Our strategic SDGs and targets

SDG 8 Decent work and economic growth
→ Target 8.6 By 2020, substantially reduce the proportion of youth not in employment, education or training

SDG 9 Industry, innovation and infrastructure
→ Target 9.2 Promote inclusive and sustainable industrialisation and, by 2030, significantly raise industry's share of employment and gross domestic product, in line with national circumstances, and double its share in least developed countries

For links to SDG 4 see the full index

1 https://www.bitc.org.uk/campaigns-programmes/employment-diversity
2 http://www.cepi.org/publication/future-skills-paper-industry

A skilled and committed workforce

Employee engagement

Employee engagement is integral to our culture. By listening, respecting and responding to what our people say, we create an inspiring work environment where people feel valued for their contribution. Creating open, two-way communication channels throughout our business is fundamental to our long-term success.

We communicate and engage with employees using formal and informal channels and regular performance and development reviews. In addition to our intranet platform and electronic communications, managers deliver face-to-face briefing sessions on topics ranging from safety and performance to values and culture. We consult employees through group-wide surveys to better understand their views on key issues. This enables us to take their views into account during decision-making. Employee survey results enable us to track progress against actions arising from previous surveys and to understand how we are progressing on our Inspire journey.

3   Employees as of 1 December 2017 with a minimum of a two-month contract and excluding those on leave, and external contractors

Inspire – the Mondi way

'Inspire' is our programme for engaging people to live Mondi's three core values – passion for performance, acting with integrity, and caring. Launched in 2011, our 'Inspire' culture is organised around six cultural characteristics: dynamic, respectful, responsible, entrepreneurial, empowered and transparent. 'Inspire' remains at the heart of developing our people and our organisation. It guides our approach to training and development, operational transparency, and the way we engage and motivate our employees.

Employee survey

Our most recent group-wide employee survey was carried out in February 2018, following the last survey in 2015. It was conducted by a third party to ensure 100% confidentiality and completed online by employees with email access and on paper by those without. All Mondi employees[3] were invited to take part, with the survey covering 100+ operations in over 30 countries and available in 24 languages.

Our industrial bags plant in Sulaymaniyah, northern Iraq, is the first industrial bags plant in the country. It serves a growing cement industry, which is rebuilding the country.

Employees at Mondi Kaso, Iraq

Inspiring people against the odds in Iraq

Our industrial bags plant in Sulaymaniyah, northern Iraq, is the first industrial bags plant in the country. It serves a growing cement industry, which is rebuilding the country. In 2014, our business in Iraq faced major challenges due to the political situation and its impact on local infrastructure and social cohesion. A new management team needed to turn the company around in the midst of significant uncertainty – not just due to political and market instability but also logistical challenges and low productivity. With a high dependency on expat employees – many of whom had left the country – our committed local team decided to begin by building employee morale and encouraging teams to work together and keep each other safe across a diverse, multicultural environment. They set out to inspire the workforce by setting strategic goals, and focusing everyone on working together on activities with high impact to meet stakeholders' expectations. By the end of 2018, sales volumes were up 120% and ROCE also increased significantly. Mondi Kaso now has excellent financial and operational results, delighted shareholders and customers and, very importantly, inspired employees.

A skilled and committed workforce

The 2018 survey included around 50 questions, mostly linked to our 'Inspire' culture and values. Specific topics of importance to the Group's vision, culture, performance and success featured in the questions, including innovation, collaboration and quality.

The group-wide response rate was 89% (2015: 90%). More than 22,000 employees provided opinions and we received over 15,000 comments in response to two open questions:

→ The one thing that would most help my company be more successful is…?

→ Based on the results of the last survey, what has improved?

The results highlighted the following areas as key strengths (achieving favourable ratings of between 80-92%):

→ Employees feel comfortable to stop others from working unsafely

→ Management enforces safe behaviour in the workplace

→ Expectations of employees are clear

→ Thinking ahead and acting quickly in teams is common

→ Employees perceive a positive attitude among leadership

Opportunities emerging as improvement areas (achieving favourable ratings of between 51-79%):

→ Teams receiving high-quality support from other teams with which they work

→ The belief that quality is everyone's responsibility

→ Management doing what it says

→ Employees feeling cared for by the Group

→ Action taken on issues raised in the previous survey

Survey results were shared at different organisational levels across the Group to enable the development of targeted action plans. Key activities planned in response to the 2018 survey results include:

Care and recognition with a focus on good practice sharing through an interview series with four plant MDs, development of an Employee Assistance Programme and piloting a new recognition programme in the Fibre Packaging business.

Fostering a learning culture and strong people development introducing 360º FlexiFeedback and further rollout of the new people development/ talent management process, first-line manager programme and Sales Excellence Academy as well as the introduction of Competency Potential Training.

Pulse check surveys

Between our global employee surveys, we also conduct pulse check surveys at our larger mills to track progress of actions. Following the previous employee survey in 2015, we carried out pulse check surveys at three mills in 2017. We plan further pulse check surveys in 2019 to follow up on the actions arising from our 2018 employee survey.

Integration surveys

In 2018, we continued to engage employees of recently acquired operations. Integration surveys, conducted by an external partner, aim to gather feedback on the integration process and identify opportunities to strengthen engagement. All employees at the acquired operation and the central integration project team are invited to participate.

Employees and their families on Making a Difference Day 2018 at Mondi Taicang, China

We ran seven such surveys last year for newly acquired operations, and ran one in 2018 in our newly acquired Powerflute mill (Finland).

⊕ **Read key results**

Overall, the response rate to these surveys has been good and the results have been communicated back to employees. Activity planning workshops are a standard follow-up in response to the findings. Learnings show that we can improve the extent to which employees are involved in the integration process. The results bear witness to people's pride in, and commitment to, delivering high-quality products and services. Their role in providing active input and feedback is essential and it is important to keep them informed about what integration means for each individual and how it will affect their job.

89% Group-wide response rate to the Employee survey with **more than 22,000 employees participating**

Key results of the integration survey at Powerflute mill

Strengths:

→ Trust that in the long term the integration will be of greater benefit for the Group

→ Trust in the local plant management

→ Trust to speak out and ask questions

Areas for improvement:

The survey showed that we could have done better in keeping the new employees informed about the development affecting them:

→ The 'big picture' might be partly lost in the pace and amount of ongoing action

→ The personal consternation 'what does it mean for me' could be addressed more clearly

→ The ambivalence of losing/finding one's identity as a company

A skilled and committed workforce

Making a Difference Day

Making a Difference Day (MADD) is our group-wide employee engagement initiative that focuses on what people can do personally to improve our collective safety, health, environmental and social performance. In addition to raising awareness, it is an important opportunity to implement shared measures to prevent harm to people, communities and the environment. Annual MADD topics are defined at Group level, with sites encouraged to include their own local safety, health and sustainability priorities.
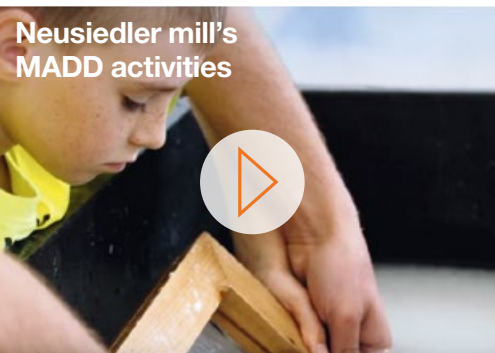
Neusiedler mill's MADD activities

Forklift training on MADD 2018 at Mondi Deeside, UK

24hr
safety mindset.

In 2018, MADD activities focused on:

→ Embedding a 24-hour safety mindset

→ Staying safe near moving and rotating machinery

→ Preventing unplanned release of substances to safeguard people and the environment

→ Reducing our carbon footprint through collective and individual action

Additional activities around the topics of safety, health and sustainability were identified by local operations. Examples include:

→ At our Gronau mill in Germany, the local energy supplier provided tips to employees on sustainable energy use

→ At Neusiedler in Austria, the mill raised awareness of its MADD on social media through a video that showcased its activities on the day, including the mill's fire brigade demonstration on preventing leaks and spills, a papermaking station, and a crash simulation to raise safety awareness

→ At Ružomberok in Slovakia, energy as a by-product of the papermaking process was a theme and people had the opportunity to learn more about the paper production process

→ At Zeltweg in Austria and Halle and Steinfeld in Germany, employees cycled to work to reduce carbon emissions

→ In the corporate office in Vienna, Austria, WWF led a Climate Savers workshop. Other activities included fire training and a first aid course for employees

Making a Difference Day is a great chance for all employees to celebrate Mondi's performance and ongoing efforts to reduce our impact on the environment and learn more about safety and health. It's an opportunity to reflect on the big picture topics that matter. It is an important annual event at our mill. We are especially pleased to have expanded the day to include the active participation of local schools and universities.

Bernhard Peschek
Managing Director,
Mondi Ružomberok
in Slovakia

A skilled and committed workforce

Transparency, assessment and feedback

Annual Performance and Development Reviews PDRs are an important tool for employees and their managers to reflect on the past year's performance and set goals for employees' immediate and long-term development. We also include a mid-year PDR review to assess the status of individual objectives and half-year performance. The target group for the PDR process is all office employees, as well as production employees with leadership roles (including team leaders, plant foremen or shift leaders). In 2018, approximately 13,000 employees were part of this group, representing 50% of total employees. Since 2018, the PDR process has been digitalised across Mondi with the group-wide Digital#PDR tool. All employees in the PDR target group conducted PDRs in 2018.

360° feedback is another important tool for people to understand their behaviours (perceived or otherwise) and areas for improvement. Senior leaders and line managers with at least three direct reports receive 360° feedback every three years. Anonymous feedback is collected from direct reports and colleagues via a questionnaire that is structured around the six cultural pillars and leadership competencies.

New leaders receive 360° feedback around six to eight months from being appointed, with the focus on their behaviour in the new role, understanding of the business and engagement with employees. We expanded the opportunity for 360° feedback to a wider group of employees across the business in 2017. This has been well-received, especially for personal development planning among employees who do not have a leadership role. In 2018, we introduced the 360° SHE feedback, a new version of the standard 360° feedback targeting the safety performance of our first-line managers, including how they support and lead on safety within their operations. In 2018, 531 employees received 360° SHE feedback and 604 received a standard 360° feedback (2017: 358).

We have also launched a flexible feedback tool, called FlexiFeedback, to support managers in continuously working on their leadership behaviour. Managers and employees can select questions from the 360° feedback question library and receive feedback in a quick and flexible way, compatible with smartphones and tablets to enable mobile access. This tool allows easy and instantaneous feedback and supports our managers and employees in their personal development, as well as fostering an open, appreciative and transparent feedback culture.

We also use external independent assessment of employees to inform their personal and professional development, strengthen our organisational culture and support succession planning.

In 2018, 531 employees received 360° SHE feedback and 604 received a standard 360° feedback.

875 sales employees have completed our Global Sales Assessment since 2012, including 42 employees in 2018.

These assessments look at competencies, skills, personality, strengths and development areas, with a focus on the strategic skills needed to move up the organisational structure. They help us identify the right employee fit for each position, and the right job fit for each employee.

Formal assessment is a mandatory part of the recruitment process for certain roles, such as our Senior Leaders Assessment. It is also relevant for some specialist areas, such as our Global Sales Assessment, which has been completed by 875 sales employees since 2012, including 42 employees in 2018 (14% female). Another targeted approach uses 'a day in the life of' assessment, which simulates a particular job, and assesses an employee against the challenging situations that may arise and how they deal with them.

Mondi Diversity and Inclusion conference 2018 (Austria)

A skilled and committed workforce

Training and development

By enhancing the skills of our people, we support them to realise their potential while meeting our business needs. Personal development and training also enables our employees to be accountable to our standards, principles and policies.

Coverage of safety in training hours
%

▮ Safety-focused training	**40**
▮ Other training	**60**
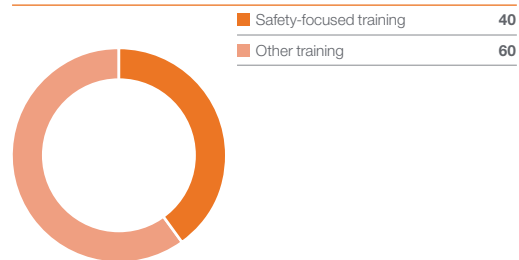
In 2018, we devoted around 819,200 hours of employee and contractor time to training and development (2017: 829,900 hours), representing an average of 31.4 hours of training per employee per year (2017: 31.6). This does not include informal and on-the-job training, where much of our employee learning happens.

Some 40% of this training was dedicated to safety and health issues (2017: 37%). In addition to 267,028 hours of general safety training (2017: 247,965), we conducted 59,995 hours of critical safety training (2017: 58,594).

Our employee induction includes training related to the business, its strategic value drivers, products and our approach to sustainable development, including human rights aspects. We plan to assess the requirements for training on our new operating standards in 2019, including how to identify potential risks of violating human rights in our operations and supply chain and how to mitigate/remedy the risks.

Specific training schemes are designed to empower and support diversity, particularly gender diversity. These include Success Management training, which focuses on career strategies for higher management positions and was completed by 22 people (59% female) in 2018 (2017: 20, with 50% female).

Talent management and development initiatives include training modules delivered through the Mondi Academy such as 'Intercultural Diversity and International Business Competence'.12 people (42% female) participated in this training in 2018 (2017: 11, 73% female).

Employees in sales and marketing roles – and those in positions that have, or may have, contact with competitors – complete competition compliance training (completed by 2,865 in 2018, 2017: 514). This test includes Group Organisational Policies, Business Integrity and Competition Compliance. The complete test is repeated every year.

The Mondi Academy

The Mondi Academy International is our global training facility, established in Vienna, Austria, in 1998. It provides core business-related training programmes for leaders, line managers and employees. Along with group-wide training networks and local academies (currently in Poland, Russia, Slovakia, the Czech Republic and South Africa) the Mondi Academy plays a key role in employee development, offering high-quality training, networking and knowledge sharing opportunities. It also develops customised training programmes – for example for procurement and sales teams and finance managers, which place increasing emphasis on global topics and leadership. The Project Management Academy is part of the Mondi Academy and was developed to support project managers and project team members with a comprehensive set of skills, from project management to risk and quality assessments.

Mondi Diversity and Inclusion conference 2018 (Austria)

As well as delivering training and events, the Mondi Academy provides strategic recommendations to senior management on local and international business schools with a focus on general management, strategy, sales, and marketing.

In 2018, the Mondi Academy, together with business representatives from Consumer Packaging, developed the 'Quality Academy' to develop the skills and competencies of employees working in roles related to quality assurance. Comprising of several modules, it provides in-depth training on functional skills as well as skills for implementation through coaching.

A skilled and committed workforce

The Mondi Academy is increasingly focused on providing digital learning tools. In 2018, we introduced the language learning app 'busuu', the audio nugget app 'Audiocont' and 'bookboon', an eLibrary that provides books on functional and soft skills that are available for download. This work lays the foundation for the Digital Academy, which is due to be launched in 2019 to support employees in developing their digital skills.

The Mondi Academy International conducted 126 seminars and programmes in 2018 (2017: 148) which were attended by 1,196 Mondi employees globally, 26% female (2017: 1,180, 25% female). Across local academies, participants totalled 2,391 in Russia[4] (2017: 2,400), 4,652 in Slovakia, 15% female (2017: 3,633, 18% female), 570 in the Czech Republic, 24% female (2017: 298, 24% female), 218 in Poland, 40% female (2017: 336, 30% female), and 452 in South Africa, 23% female (2017: 452, 14% female).

Mondi Academy international conducted

126

seminars and programmes in 2018, which were attended by

1,196

Mondi employees.

Developing leaders from within

We maintain a strong focus on developing high performing and mobile employees, many of whom have worked for us in different geographical and cultural contexts. We enhance their leadership skills through dedicated development centres. In 2018, there were four such events (2017: nine) which were attended by a total of 36 participants, 41% female (2017: 92, 25% female).

Mentoring and coaching

Our internal mentoring programme sees senior leaders and cultural role models from across the business mentor younger employees and advise them on managerial, technical and cultural topics. In the past, this was mostly targeted at senior management, but the programme is now available to all management and leadership roles and other employee groups. Mentors receive regular training to ensure that the mentoring provided is relevant and of high quality. We are working to raise awareness of the opportunities and benefits of mentoring among employees.

Our coaching programme is mainly delivered by a network of external coaches who fit with the Mondi culture and organisation. Coaching targets interpersonal, cultural and work/life balance skills as well as developing personal strengths and supporting people to adapt to new roles, working environments and challenges. For privacy reasons, we do not collect information on our coaching programmes, although we do receive positive feedback on the value and benefits of coaching, both professionally and personally.

4 Gender split not available

The DST-NYS Volunteering Programme is a partnership between Mondi, the Department of Science and Technology (DST) and the National Youth Service (NYS).

Growth, performance and efficiency are all vital for business success, but to build a sustainable future you also need great leadership and talented, inspired people.

Mapule Mohlamme, Mondi South Africa

From seed to success at Mondi Forests, South Africa

The DST-NYS Volunteering Programme is a partnership between Mondi, the Department of Science and Technology (DST) and the National Youth Service (NYS). It enables unemployed Science, Engineering and Technology graduates and postgraduates to acquire practical work experience through mentoring and exposure. Mondi has been part of the programme since 2014, providing opportunities for qualified youth to get work experience, while identifying promising individuals who can benefit the business.

Bandile Maduna is seed production supervisor at Mt Home Nursery. He was originally placed in the Land Department, working under the supervision of Thokozile Maphula, Mondi community development facilitator.

"My education involved a mixture of community development and agricultural science, so the position was perfect. Thokozile mentored me very well and I learned how Mondi relates to communities in its operational areas. I even got the opportunity to establish an agricultural project, thus contributing to food security in the area. My life and my family's lives have changed. I'd like to thank NYS and DST for the support and Mondi for giving me the opportunity."

Mapule Mohlamme is wood quality supervisor at Mt Home Nursery. She applied for the DST-NYS Volunteering Programme and received an opportunity to volunteer at Mondi Forests, before moving to the Mt Home Nursery to work in the Wood Quality Department at the Trahar Technology Centre. Mapule flourished and grew in confidence under the guidance of research scientist Nicci Edwards, and she was offered a permanent job as wood quality supervisor. Mapule is now doing her Bachelor of Technology in Biotechnology at Durban University of Technology.

"I love my work. It's a unique job. I study the chemical and physical components of wood – making improvements to ensure that the mills get the best quality and pulp yield. Students must work hard and learn everything they can; if you prove yourself, it will open up opportunities and lead to success."

Project NEXT, Mondi Syktyvkar, Russia

NEXT – building a talent pipeline at Mondi Syktyvkar, Russia

Growth, performance and efficiency are all vital for business success, but to build a sustainable future you also need great leadership and talented, inspired people. At Mondi Syktyvkar, historic analysis had revealed a shortfall in technical talent resources, critical succession gaps, inconsistent leadership and lack of people development. External factors such as location and lack of interest in technical jobs among young people added to the challenge. We launched NEXT (New thinking, Expertise and Talent) to turn the situation around. It is a broad programme focused on attracting and retaining new talent, strengthening employee development and career opportunities, promoting leadership excellence and partnering with universities – with our 'Inspire' culture acting as the glue.

In 2017, we were recognised by Russia's prestigious Graduate Award, taking second place in the best student engagement category. This contest has the reputation as one of the most significant events in the area of Human Resources.

Since the launch of the project in 2014, 88 technical students have graduated in five schools, with half of them already in employment. During the four-year course of the NEXT project, Mondi Syktyvkar has improved sustainable engagement scores by 15% and promoted more than 70 talents (10 within Mondi Group). Mondi Academy Russia has now 50 internal trainers and offers more than 75 courses. Leadership courses supported by 360° feedback and coaching have enhanced the leadership skills of 370 line managers.

Fairness and diversity in the workplace

We greatly value the diversity of our workforce which enables us to meet the needs of our customers, communities and shareholders. To maintain a fair, diverse and inclusive workplace, we promote good working conditions and uphold high standards of employment and human rights.

Why is this important to our stakeholders?

→ Equality, employment and human rights issues are central to the public debate about how business interacts with society

→ Our commitment to human rights across our operations and supply chain supports customers in managing their own supply chain risks

→ Women in industry is outlined as a key area for attention in the traditionally male dominated packaging industry

Why is this important to Mondi?

→ A diverse and inclusive workforce inspires innovation and creativity, while ensuring we understand and can meet the needs of our global stakeholders

→ By respecting human rights, we act with integrity, reduce our reputational and business risks and improve employee engagement, commitment and effectiveness

→ We rely on a strong pipeline of talented employees from all backgrounds; increasingly, people want to work for companies that uphold high ethical standards

Our commitment to 2020

→ Promote fair working conditions and diversity in the workplace

Discover how we are…

→ Making progress in improving women's representation in senior leadership positions

→ Supporting diversity at Mondi with a new roadmap informed by the insights and experiences of our people

→ Working with legal authorities and employee representatives to secure employment for those impacted by restructuring or closure of operations

Next steps

→ Finalise specific metrics to measure and track our commitment to fair working conditions

→ Develop internal guidelines on human rights to support our operations in identifying, mitigating and managing potential human rights risks

→ Develop and implement tangible actions for our Diversity and Inclusion roadmap

Our strategic SDGs and targets

SDG 8 Decent work and economic growth

→ Target 8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value

→ Target 8.7 Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers and by 2025 end child labour in all its forms

→ Target 8.8 Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment

For links to SDG 5 see the full **index**

Fairness and diversity in the workplace

Diversity and equal opportunities

Our objective is to engage, involve and inspire everyone who is part of the Mondi Group. We strive to create an inclusive environment where differences are valued and embraced and we apply a zero tolerance policy towards discrimination and harassment. Equal opportunities for all is a priority across our operations.

Nationalities represented on the Boards

South African	2
British	3
Austrian	1
French	1
American	1
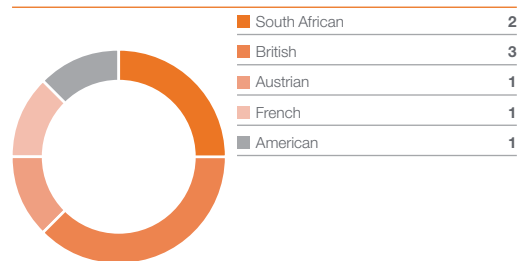
1 An independent review body which builds on the work of the Davies Review to increase the number of women on FTSE boards and includes a focus to improve women's representation in senior leadership positions
2 Our Group offices in London (UK), Johannesburg (South Africa) and Vienna (Austria) and plants/mills with more than €70 million annual sales turnover located in Austria, Bulgaria, Czech Republic, Germany, Finland, Poland, Russia, Slovakia, South Africa, Sweden and the US
3 Lesbian, gay, bisexual and transgender

Promoting diversity and inclusion

Our policy is to treat everyone – including our employees and contractors, whether part-time, full-time or temporary – fairly and with respect. Opportunities for employment, engagement, promotion, training or any other benefit are based on skills and ability.

We monitor gender diversity across the business and among our senior management. In line with our philosophy of encouraging diversity and inclusion, we provide equal opportunities for all genders regardless of race, age, sexual orientation, ethnicity or any other difference. We are working to increase the representation of women at all levels.

Our Diversity & Inclusion Policy, updated in 2017, takes into account evolving regulatory requirements and stakeholder expectations. The policy was informed by the Hampton-Alexander Review[1] recommendation that boards, as well as executive committees and their direct reports combined, should be 33% women by 2020.

The policy also provides a greater focus on ethnic and racial diversity across our board and executive committee members and it continues to support our Labour and Human Rights Policy.

At the end of 2018, 21% of employees were female (2017: 22%). We had two female directors representing 25% of the composition of the Boards and one director of ethnic minority background. In June 2018, we reported to the Hampton-Alexander Review that we had 27% female representation across our executive committee and its direct reports (2017: 27%). The number of women on our executive committee remained unchanged during the course of 2018, and we still have work to do to progress towards 33%. 22% of the executive committee members are between 30 and 50 years old, with the remaining 78% being over 50.

In our significant locations of operation[2] we have:

→ 14,358 permanent employees (18% female); in Europe (8,120), Russia (4,414), South Africa (1,408) and the US (416);

→ 699 temporary employees (21% female); in Europe (441), Russia (227), South Africa (27) and the US (4);

→ 14,741 full-time employees (16% female) and 200 part-time employees (82% female);

→ 1,267 new employee hires during the year (22% female); in Europe (897), Russia (192), South Africa (70) and the US (108); and

→ 8% turnover during the year, with 7% in Europe, and 9% in Russia, South Africa and the US, respectively.

We had approximately 16,000 contractors working for Mondi across our operations. While there are no significant variations in the numbers reported above for our employees during the year, the harvesting activities at our forestry operations and maintenance shutdowns at our pulp and paper mills involve considerable variations to our contractor numbers. Other than in our forestry operations and during maintenance shutdowns, most activities at Mondi are performed by our own employees.

93 out of 120 Group senior leaders at Mondi are from senior management at our significant locations of operation. In the Group office in Vienna, 60% of the senior management are Austrian and 40% are other nationalities, whereas in London, 62.5% of senior management are British and 37.5% other nationalities.

Across all other significant locations, 100% of our senior management are nationals of the countries we operate in, with the exception of Syktyvkar (60% Russian); Ružomberok (60% Slovakian);

Štětí (60% Czech); Dynäs (0% Swedish); and Stambolijski (0% Bulgarian).
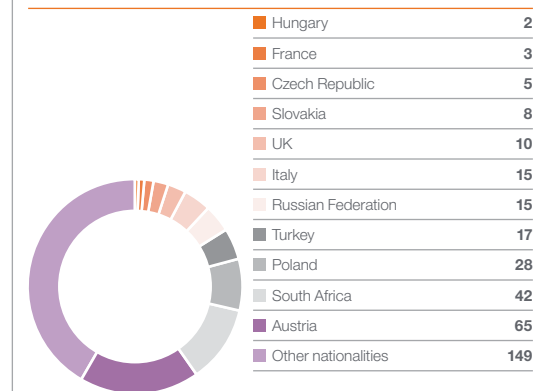
At the end of 2018, 60% of Mondi South Africa's management team (six out of 10 operational committee members) were previously disadvantaged individuals (2017: 57%).

Diversity initiatives across the Group support our approach. Talent management and development initiatives include training modules such as 'Intercultural Diversity and International Business Competence', delivered through the Mondi Academy, which aim to enhance the understanding of the benefits of diversity for the business.

Other initiatives include mentoring and development programmes, flexible working practices, an active LGBT+[3] network and consultancy in order to support diversity and employee integration across the business.

We are developing metrics that can more clearly monitor, measure and track our commitment to promoting fair working conditions in the workplace.

Management by origin
number

Hungary	2
France	3
Czech Republic	5
Slovakia	8
UK	10
Italy	15
Russian Federation	15
Turkey	17
Poland	28
South Africa	42
Austria	65
Other nationalities	149

Fairness and diversity in the workplace

Equal opportunities for all

We consider all applications for employment in a fair and balanced way and we seek to cater for individual requirements, disabilities and needs. We also consider vulnerable groups in our workforce, such as migrant and temporary workers. Our Labour and Human Rights Policy commits us to consistent and fair training, career development and promotion, including for people with disabilities. In the event of an employee suffering a life-altering or life-threatening injury at work, we facilitate appropriate medical treatment, transportation to and from the hospital for their families and ongoing rehabilitation. We have supported continued employment at Mondi for all employees that have suffered life-altering injuries by finding alternative equivalent jobs for them.

We base our recruitment decisions on candidates' capabilities, skills and experience. Our hiring policies include a specified percentage of female candidates on long and short lists depending on the type of role, and forward-looking strategic recruitment searches for a pool of female top candidates.

We continue to focus our succession planning on building a pipeline of high-calibre candidates of different backgrounds to meet our business needs. We strive to ensure succession planning is fair, equitable, non-discriminatory and in compliance with local legislation across the Group.
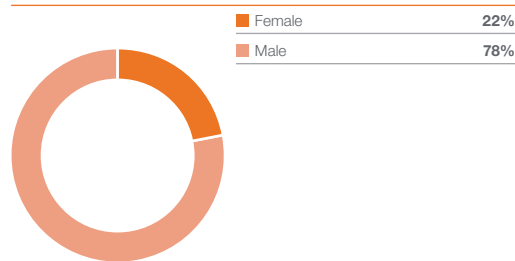
Employment and training opportunities

We've strengthened the Mondi leadership and training programmes to promote gender diversity. 'Success Management' training focuses on supporting career strategies for higher management positions for all genders. In some locations, targeted training supports young female employees in career planning and balancing professional and personal goals.

Nationalities represented on the executive committee

South African	**2**
British	**1**
Austrian	**3**
German	**2**
Finnish	**1**
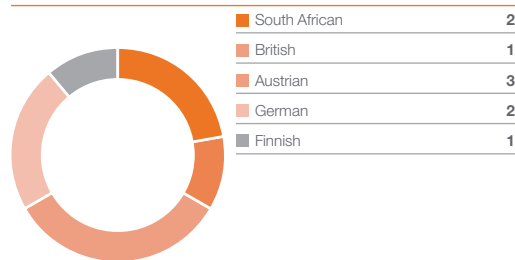
Diversity of the executive committee
%

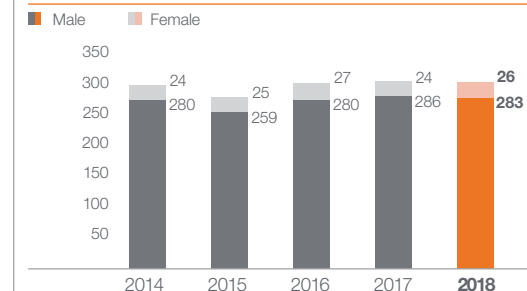|	
Female	**22%**
Male	**78%**

We provide mentoring opportunities and aim to increase the visibility of female talent through targeted exposure to senior leadership meetings. We also regularly feature successful female employees in internal newsletters to promote internal role models.

We want our employees to feel empowered to make important life choices without the fear that their career progression will be jeopardised.
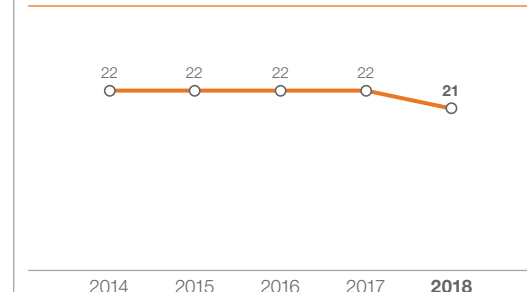
We support all employees to fulfil their career ambitions during and after maternity/paternity leave, offering guidance, training and flexible working packages to help them return to their roles. Examples include a male senior leader taking two years of parental leave while staying connected to key projects remotely, and returning to his own position after leave. Another example involves two employees returning to work after leave, using a job-sharing scheme that enabled them both to work part-time (one day and two days a week respectively). Some operations support or provide child day-care programmes and facilities; for example the kindergarten at our Vienna head office, which can accommodate 95 children up to six years of age. At the end of 2018, 376 employees (62% female) took parental leave across our significant locations; 229 employees (69% female) returned from parental leave; and 246 employees (68% female) were still in Mondi's employment 12 months after their return from parental leave.

We offer inter-cultural training to help embed and promote cultural diversity and we provide cultural training and local coaches for employees posted to new countries, where possible and appropriate, to help them adapt to their new home and working environment.
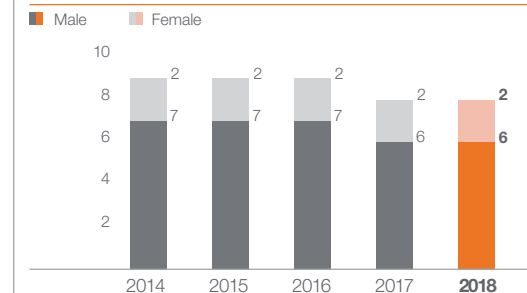
Gender diversity among senior managers
numbers

■ Male   ■ Female

Year	Male	Female
2014	280	24
2015	259	25
2016	280	27
2017	286	24
2018	**283**	**26**

Female % of total employees
%

Year	%
2014	22
2015	22
2016	22
2017	22
2018	**21**

Gender diversity among Board members
numbers

■ Male   ■ Female

Year	Male	Female
2014	7	2
2015	7	2
2016	7	2
2017	6	2
2018	**6**	**2**

Fairness and diversity in the workplace

One example is at Korneuburg in Austria where the workforce includes 24 nationalities and 18 languages. Employees of different nationalities are paired up with a 'language buddy' to support them during the on-boarding phase and we offer English classes in some locations for employees who speak English as their second language.

We offer non-verbal safety videos, which demonstrate safe behaviour in a visual and easy to understand form. We also offer language training for free via our cooperation with busuu, a leading language learning company offering a language learning app. Mastering a language is an asset in business life and supports collaboration as well as performance.

In September 2018, Mondi held its first Diversity & Inclusion conference in Austria, bringing 75 colleagues from around the world together over two days to shape the vision of a diverse and inclusive culture at Mondi.

Employment and human rights

Employment rights

We comply with all applicable laws and industry standards on working hours and we aim to create a culture that fosters workplace flexibility and work/life balance. Mondi does not tolerate the inhumane treatment of employees or any form of forced labour, slavery, human trafficking, physical punishment or other abuse. Responsibility for implementing these principles lies with local line management and training is fundamental to our approach. We protect the safety and health of our employees with a goal of zero harm (see page 40) and invest in promoting the health and wellbeing of our employees and communities (see page 106).

Human rights

The UN Guiding Principles on Business and Human Rights provide an effective framework for business. We're strengthening our monitoring and reporting of potential issues in our operations and supply chain, beginning with clearly identifying our human rights risks. This work also includes embedding sustainability criteria relating to labour and human rights across our procurement processes – including fibre procurement due diligence and audit processes, purchasing policies, Code of Conduct for Suppliers, and audit protocols (see page 97). We report annually at 'Advanced Level' on our compliance with the 10 principles of the United Nations Global Compact (UNGC). Our Communication on Progress is publicly available.

View our Communication on Progress
www.mondigroup.com/ungc_cop

Mondi Diversity & Inclusion conference 2018, Austria

Impacts on people and their human rights can potentially occur in many ways, including but not limited to: worker safety and health; recruitment and employment practices; product safety; air or water pollution; contamination of natural ecosystems; inequitable use of natural resources; use of forced or child labour; discrimination; misuse of private employee and customer data; use of force by security personnel; disregard for land tenure and indigenous rights; and depletion of resources that communities rely on.

Respecting and protecting human rights is embedded in many existing practices and initiatives across our business, including: ensuring safety and health at work; engaging employees and treating them fairly; respect for the law; engaging with and investing in communities; minimising our environmental footprint; producing our products to the highest safety, health and hygiene standards; and working with suppliers and contractors to meet high standards of business conduct.

None of our operations or significant investment agreements and contracts have been subject to human rights reviews or impact assessments. However, we are investigating the need for formal human rights training based on risk and are developing tools and guidance in 2019 and beyond.

The upcoming Operating Standard will support our operations in identifying, mitigating and managing potential human rights risks. In addition, we are working to implement comprehensive mechanisms to identify and address human rights incidents in our supply chain (see page 97).

There were no reports of human rights incidents in our operations or supply chain through our Speakout tool or any other reporting mechanisms in 2018 (see also Grievance mechanisms on page 58).

Mondi Diversity & Inclusion conference 2018, Austria

Inspiring a roadmap for diversity and inclusion

In September 2018, Mondi held its first Diversity & Inclusion conference in Austria, bringing 75 colleagues from around the world together over two days to shape the vision of a diverse and inclusive culture at Mondi. The outcome of the conference was a roadmap to create a work environment that fosters and respects a culture of diversity and inclusion.

Diversity and Inclusion is one of the core pillars of our Group CEO, Peter Oswald's vision, communicated to employees at the Leadership Forum in early June. We have established a new Diversity and Inclusion (D&I) committee, which includes four executive committee members, supported by a diverse taskforce of global colleagues.

At the conference, external contributors shared valuable insights on industry trends, good practice, the implementation of change agents to foster D&I initiatives and outcomes from business case studies supported by statistics demonstrating effectiveness.

The input collected on day one formed the basis for discussions on day two when the participants translated what they had learned into tangible actions. Overall, more than 100 actions were identified. These have been consolidated into 10 priority work streams for 2019, based on the five Mondi D&I framework pillars.

→ Recruitment and retention: Reviewing our recruitment guidelines to reflect learnings from the conference

→ Training and development: Unconscious bias training, starting with our senior leaders; Inclusivity training for Mondi Academy trainers and reviewing existing materials to eliminate bias

→ Leadership: Reverse mentoring (pairing senior leaders with diverse employees around specific topics); developing a D&I recommendation list for managers to promote good practice and ideas on how to improve D&I

→ Culture and mindset: Knowledge sharing; embedding D&I in our 'Inspire' culture and adding behavioural aspects to our cultural characteristics; creating and sharing guidance on gender inclusive language; and launching '2 + 1' in all plants whereby each plant will choose two local and one global action to embed in their activities

→ Infrastructure and enablers: Defining the baseline relating to policies, commitments and KPIs

The taskforce is developing tangible actions for our D&I roadmap. The conference has created a new network of Mondi employees who have shown their passion for the topic and their willingness to support Mondi's ambition to be an employer of choice.

Fairness and diversity in the workplace

Child labour and forced and compulsory labour

We do not tolerate any form of child labour in our operations or supply chain. We do not employ people who are below the age of 15 or below the local minimum employment/mandatory school age – whichever is higher and relevant to the particular country.

Where we provide apprenticeships for young people, we put in place special protection. An apprentice is usually a young person of 15 to 18 years of age who has agreed to work for a skilled person for three years for limited pay to learn that person's skills. In Austria and Germany we have approximately 200 apprentices. These apprenticeships are regulated by law through a special contract. We control the working conditions of our apprentices across Mondi to ensure that they are not exposed to hazardous work.

See page 98 for our measures to identify and tackle risk of modern slavery in our supply chain.

Collective bargaining and freedom of association

Mondi respects the rights of all employees to form and join trade unions and to take part in collective bargaining. We abide by legally binding collective agreements and, in locations where the right to freedom of association and collective bargaining is restricted by law, we can facilitate parallel means of independent and free employee representation. This includes ensuring employee representatives do not suffer discrimination and that they have open access to members in the workplace. We do not collect or report information on employee union membership at Group level due to differences in national legislation in the countries where we operate.

We do collect information from our local entities on salary increases resulting from collective bargaining agreements and the proportion of employees covered by these agreements.

In 2018, an estimated 69% of our employees were covered by collective bargaining agreements (2017: 76%).

Remuneration

We provide fair wages and benefits that meet or exceed legal or industry minimum standards. Reward and recognition is based on performance; the Group has a number of performance-related pay schemes and the majority of employees participate in them.

Total compensation consists of base salary plus benefits and incentives. These are determined by global rules, local legislation, market practice, seniority and individual performance. The average ratio of basic salary and remuneration to variable pay across all employees in significant operations is 84% to 16% and varies by each operation.

Our organisation is decentralised and we do not collect information centrally on local remuneration schemes. Instead, we run an annual remuneration survey through which local entities provide information on incentive and pay schemes and salary increases resulting from collective bargaining agreements.
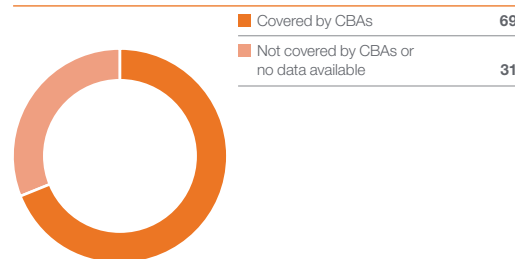
An estimated 65% of employees received a bonus of some kind in 2018 (2017: 64%). 37% of employees received the Mondi standard bonus (2017: 36%), which is measured based on financial, personal and safety targets. For our approach to executive and board remuneration, please click on the link below.
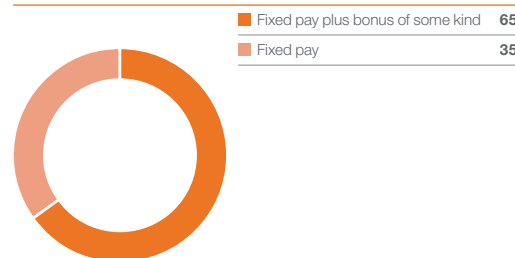
📖 **Integrated report and financial statements 2018**
Page 122

69%
of employees covered by collective bargaining agreements.

Estimated coverage of employees by collective bargaining agreements (CBAs)
%

■ Covered by CBAs	69
■ Not covered by CBAs or no data available	31

Employees receiving bonus
%

■ Fixed pay plus bonus of some kind	65
■ Fixed pay	35

📖 **More information on performance management processes**
Page 51

Grievance mechanisms

We have embedded strong internal processes and tools to facilitate the reporting, investigation and resolution of grievances. Speakout is our confidential hotline for reporting grievances and whistleblowing. It is operated by an independent third party and provides a confidential channel through which employees and other stakeholders can raise concerns. Social media channels are also increasingly used by external stakeholders and employees to engage with us, share ideas and raise concerns. We monitor these and investigate and respond as appropriate.

In 2018, we received 104 Speakout messages (2017: 120) relating to 65 cases (2017: 74 cases). These covered a number of topics, in particular the reporting of HR-related concerns, potential business irregularities and perceived fraudulent activities. All Speakout messages were forwarded to the respective Mondi management team in accordance with our standard procedures. We responded and took appropriate corrective action.

Fairness and diversity in the workplace

In 2018 we closed one of our UK sites, in Scunthorpe, impacting 79 employees.

Restructuring and closures

We constantly review opportunities to ensure the long-term sustainability and growth of our business. This process involves careful consideration and any decision about business restructuring requires director-level approval. Where employees are affected, we follow our own HR policies and local labour rules as a minimum, including consultation, notice periods, regular briefings and trade union involvement where feasible/available. If roles are at risk, we seek to provide retraining, re-employment and relocation of the affected employees, supporting entrepreneurship as well as severance payments depending on local regulations and available legal schemes.

Active measures to promote employment and retraining are carried out in close cooperation with relevant authorities and other appropriate third parties.

The restructuring/closure of our Louisville facility (US) at the end of the year impacted about 100 employees (out of a total of 1,300 people employed by our North America – Industrial Bags operations). The impacted employees were provided with transition benefits and severance packages. We communicated with our employees throughout the process and employees had the opportunity to apply for relevant jobs at other Mondi facilities as available. We provided separation benefits and offered outplacement services for the impacted employees. In addition, we worked with local government agencies to offer services available.

At the end of 2018 we stopped production of industrial bags at Zeltweg (Austria). The restructuring activities impacted 100 employees. We were able to offset the loss of some jobs by carrying out transfers to other areas at the Zeltweg site, where we operate two more plants.

For the other employees, the works council and management concluded a social plan according to legal requirements and Group standards which provided for transition benefits and severance packages for the impacted employees. In future, the Zeltweg site will focus on production of coatings and films. We are also in the process of merging our industrial bags plants in the city of San Pietro in Gu (Italy) on to one site with the majority of employees retaining their jobs.

Following the closure of a paper machine at Mondi Merebank in South Africa, we launched a transition service called 'Restructuring with Care'. Impacted employees were offered access to career guidance and support, psychological counselling, upskilling programmes, relocation support, as well as assistance with job market preparation. This included CV writing, online portals and interview skills. In addition, some were trained in setting up a small business and others either redeployed internally or assisted with external placements. 119 positions were impacted by the closure, and only five employees remain unplaced.

Notice periods provided to employees and their representatives prior to implementation of significant operational changes that could substantially affect them follow the respective local jurisdictions and vary by operation. We typically apply a minimum number of two weeks of notice period.

For the organisations with collective bargaining agreements, the notice period and provisions for consultation and negotiation are specified in collective agreements and/or by law.

We need to reflect on, and commend, the attitude and commitment of all the team in Scunthorpe during what was a very challenging and personally difficult period. From the time when the closure was announced to the point of leaving, people accepted and acknowledged all the efforts that Mondi put into place to provide support, particularly when many of our employees had not had experience with job searching, CV writing and interview preparation for many years.

Andrew Frith
Continuous Improvement Manager,
Mondi Scunthorpe

Supporting employees through plant closure in the UK

In 2004 Mondi acquired an operational site in Scunthorpe (UK) – with capabilities in extruded film, flexographic printing, lamination and finishing. The site employed 79 people across roles including technical and quality, shift managers, finance, customer service, human resources, printer and ink technicians and warehouse. In 2017, we made the decision to restructure the UK operations, which led to the closure of our Scunthorpe site in 2018 and redundancy for all employees.

To support people through this change, we helped them find employment. We worked with the local authority to deliver a CV workshop which was attended by 70 employees. We also provided interview skills training and advice on self-employment, as well as inviting other employers in the area to attend a job fair at our site to meet with employees and present opportunities to them.

As a result, all Mondi Scunthorpe employees either secured employment or became self-employed. Our Scunthorpe employees were commended for showing continued high levels of professionalism and performance during the progressive shutdown of machines and work functions throughout the change.

Sustainable fibre

4
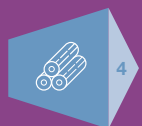
Commitment by global business to deforestation-free supply chains is critical for the conservation and sustainable use of forests[1] and to achieve the UN SDG target of zero net deforestation and degradation by 2020. We procure wood and fibre only from responsibly managed sources and are committed to zero deforestation and no illegal logging.

Why is this important to our stakeholders?

→ Forests are core to the cultures and livelihoods of communities worldwide: some 300 million people live in them and more than one billion directly depend on them[2]

→ Deforestation and illegal logging contribute to biodiversity loss and climate change, impacting ecosystem services and local livelihoods

→ Increasingly aware consumers and our customers are demanding responsible products and driving transparency across the wood supply chain

→ Demand for wood will continue to grow due to population growth, changes in consumer habits, development of biotechnology and the increasing role of wood in providing sustainable solutions for society

Why is this important to Mondi?

→ Based on revenue, our packaging and paper business is around 80% fibre-based

→ We have a clear business imperative to contribute to a sustainable, fair and transparent wood supply chain, including being able to provide robust evidence of compliance with legislation as well as meeting social and environmental requirements

→ Wood is one of our primary raw materials and sustainable sources of wood and fibre are essential to our business

Our commitment to 2020

→ Procure at least 70% of our wood from FSC- or PEFC-certified sources[3] with the balance meeting our company minimum wood standard that complies with FSC's requirements for Controlled Wood

→ Maintain FSC certification for 100% of our owned and leased forest lands and promote sustainable forest management

Discover how we are...

→ Working with our partners, including certification schemes, to increase the long-term supply of credibly certified fibre

→ Assessing risks, developing risk mitigation measures and specifically adapting our approach to responsible fibre sourcing in different countries

→ Supporting small and medium enterprises to be effectively included in the market of certified wood

Next steps

→ Further refine our own Due Diligence Management System (DDMS), including continued testing of new control measures and approaches

→ Through our partnership with WWF and other stakeholders, we will develop a deeper understanding of country-specific risks and related mitigation measures

→ We will continue to explore practical ways to make certification more relevant to specific socio-economic and natural conditions, including climate change impacts, with more active integration of risk-based approaches

Our strategic SDGs and targets

SDG 12 Responsible consumption and production

→ Target 12.2 By 2030, achieve the sustainable management and efficient use of natural resources

SDG 15 Life on land

→ Target 15.2 By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally

For links to SDG 17 see the full index

1   http://wwf.panda.org/our_work/forests/deforestation_fronts/
2   http://wwf.panda.org/our_work/forests/importance_forests/
3   The Forest Stewardship Council (https://www.fsc.org/) and The Programme for the Endorsement of Forest Certification (https://www.pefc.org/)

Sustainable fibre

Responsible sourcing

Wood and fibre are our primary raw materials and we work hard to provide the best assurance for our stakeholders that we source responsibly.

Where do our raw materials come from?

About one quarter of the wood we use originates in our own or leased forests in Russia and South Africa, all of which are certified. Around half of all wood comes from external certified sources and the remainder is procured as Controlled Wood (CW) using the robust risk-based approach set out in our DDMS.

The biggest global threat to forests is concentrated in South America, South-Eastern Asia and Central Africa, where deforestation is a significant challenge.[4] Mondi's wood is sourced from South Africa, North-West Russia and Europe, where deforestation with permanent loss of tree cover is not a common challenge (see page 7-8). However, it is of utmost importance to ensure that wood comes only from sustainably managed forests through responsible supply chains.

Since 2014, the percentage of certified wood in our supply has increased by 5% from 66% to 71%, exceeding the target by 1%.

In 2018, 71% of our total procured wood was certified to FSC or PEFC (2017: 71%).

Our own wood

We manage some 2.4 million hectares of forest lands in Russia and South Africa. Sourcing wood from our own forestry operations gives us maximum assurance that our wood is sustainable. It also provides opportunities to test new sustainable forestry practices and landscape stewardship approaches (see page 88-91).

We develop these practices with our local partners and engage other forestry companies and land users across operational landscapes. We also support cross-border, cross-sectoral sharing of best practice and knowledge via global platforms (see page 86-87).

Our South African forests are FSC-certified and our Russian forests are FSC- and PEFC-certified. The environmental management systems applied in our forestry operations are also ISO 14001 certified.

Purchased wood

A significant portion of our wood is procured externally. The largest volumes come from central Europe. We combine forest certification with risk-assessment as part of our DDMS (see page 62-63).

Our aim is to increase the proportion of our wood that comes from certified sources and to support efforts to increase its overall availability in the supply chain. Currently, only 11% of global forests are certified by FSC and PEFC.[5]

There is a need to increase the share of certified wood to protect the world's forests and meet rising global demand for sustainable fibre.

In Europe, some two-thirds of forests are certified. This enables us to maintain a corresponding level of certification in the wood and fibre we source.

We are working hard to increase certified volumes from external suppliers and reduce Controlled Wood volumes. As a result, since 2014 the share of CW purchased has decreased by 8% from 45% to 37%.

Pulp

In 2018, we procured 0.3 million tonnes of pulp from external suppliers. We ensure that all externally procured pulp has its origin in sustainable forests by complying with the relevant regulations, applying third-party-verified traceability systems and forest certification systems and meeting the requirements of our DDMS. Certification currently provides the best proof of responsible pulp sources. In 2018, 94% of the pulp procured externally by Mondi's mills was FSC- or PEFC-certified.
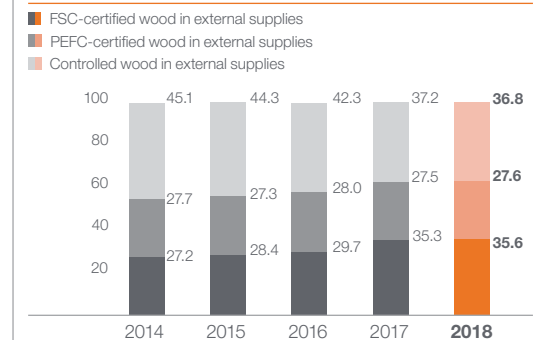
Containerboard and kraft paper

We also buy containerboard and kraft paper, which we then convert into packaging products such as corrugated packaging, industrial bags, extrusion coatings and consumer packaging. In 2018, we externally procured 0.7 million tonnes of containerboard and kraft paper. Chain-of-Custody certification ensures that the input wood and fibre are properly documented, registered and converted into a corresponding amount of certified products, which can be sold and labelled with a certification claim to provide transparency for customers.

94% of our externally procured pulp was from FSC- or PEFC-certified sources (2017: 93%).

Certification of externally procured wood
%

- ■ FSC-certified wood in external supplies
- ■ PEFC-certified wood in external supplies
- ■ Controlled wood in external supplies

	2014	2015	2016	2017	2018
Controlled wood	45.1	44.3	42.3	37.2	36.8
PEFC-certified	27.7	27.3	28.0	27.5	27.6
FSC-certified	27.2	28.4	29.7	35.3	35.6

4 http://www.fao.org/3/a-i4868e.pdf
5 https://www.unece.org/fileadmin/DAM/timber/publications/FPAMR2017.pdf

Sustainable fibre

100%

of our mills are certified to FSC and/ or PEFC Chain-of-Custody standards.

Managing emerging risks in Russia

Due diligence for responsible sourcing: a risk-based approach

Our Due Diligence Management System (DDMS) ensures that our wood and fibre is sourced and transferred through the supply chains with due regard for relevant local, national and international laws. Our DDMS provides assurance that our wood and fibre comes only from responsible sources, and meets the CW requirements as a minimum. It ensures that none of our sourcing contributes to deforestation or illegal logging and that we don't use tropical species or those listed by the Convention on International Trade in Endangered Species (CITES). It also covers social and other environmental issues.

We continued to update our DDMS in 2018 to address the requirements of evolving legislation including: the European Union Timber Regulation (EUTR); U.S. Lacey Act; the Australian Illegal Logging Prohibition Act; Japan's Clean Wood Act; and the UK Modern Slavery Act. The certification company SGS, the WWF and our consultant ERM provided input and expertise in the DDMS update. In 2019, we will pilot the updated DDMS for our wood and pulp supply chain, supported by group-wide training.

While forest and supply chain certification alone does not provide proof of legal compliance with EUTR, it is without doubt a very strong tool when used within a corporate Due Diligence Management System. If properly implemented through a thorough risk-based approach certification can also highlight and help companies mitigate social and environmental risks. If certification is challenged or leaves open any EUTR compliance requirements, then additional measures can be taken to address these issues.

Charles Townsend
FSC/PEFC Lead Auditor, EUTR Consultant,
SGS United Kingdom Limited

Due diligence management systems are often perceived as a tool for legal assurance. However, stakeholders increasingly expect companies to go beyond legal compliance to ensure that they are sourcing responsibly. Due diligence management systems therefore could consider critical sustainability risks such as human rights violations, environmental pollution, ecosystem degradation, and climate change risk.

Peter Hayward
Principal Consultant and Project Manager
for Sustainable Sourcing Project, ERM

© Veselov Alexey

Managing emerging risks in Russia

Mondi's DDMS process classifies Russia as a high-risk country. We have our own forestry operations in Russia where we source wood domestically and we are very familiar with the national legislation, environment and society. In accordance with our DDMS, in Russia we therefore require FSC-certified wood, but given our comprehensive local knowledge base we also accept CW addressing the risks specified in the National Risk Assessment. In 2016-2017 Greenpeace[6,7] criticised FSC by stating that its standards do not necessarily ensure the protection of Intact Forest Landscapes (IFLs). In response, we defined the following actions to resolve the issue, instead of questioning the overall credibility of FSC in Russia:

→ Mondi, together with WWF Russia and Silver Taiga, agreed and published a landscape-level map of the IFLs in the Komi Republic and adjacent areas. The map defined areas for strict protection and defined systems and procedures for those areas allocated for logging[8,9].

→ Within Mondi's Global Partnership, we support WWF's efforts to ensure the protection of IFLs in other regions of Russia, particularly a process to agree the Dvinsko-Pinezhsky IFL in the Arkhangelsk Region. Within the Partnership, WWF is also developing guidelines for forest management practices within the buffer zones that surround the IFLs.

→ Mondi actively uses and promotes WWF's online Geographic Information System (GIS) 'HCVF.RU' as an effective tool for forest planning and monitoring, which assists us to monitor, manage and/or control boundaries, conservation systems and to detect any changes in the IFLs and other High Conservation Value (HCV) areas.

→ In order to ensure long-term security of IFLs beyond voluntary agreements, Mondi, together with WWF Russia and Silver Taiga, launched the Boreal Forest Platform. The BFP aims to catalyse changes in the legal framework to enable sustainable intensification of management of secondary forests to reduce reliance on primary forests, and to ensure official conservation status for IFLs.

→ Mondi actively participated in the FSC General Assembly and FSC's IFL Solutions Forum, where practical experience with other regions (Canada, Congo and Amazon) was shared. The Boreal Forest Platform field tour saw alignment strengthened with Canada on approaches to sustainable management of vast boreal forest landscapes.

6 https://www.greenpeace.org/international/story/7533/too-long-to-wait-russias-dvinsky-forest-could-be-lost-in-a-decade/
7 https://www.greenpeace.org/international/publication/7355/eye-on-the-taiga/
8 http://wwf.panda.org/?326513/Precedent-setting-moratorium-helping-protect-over-a-million-hectares-of-intact-boreal-forest
9 https://wwf.ru/en/resources/news/lesa/wwf-i-mondi-sokhranyayut-samye-tsennye-lesa-/

Sustainable fibre

How we assess risk

We have developed a methodology for evaluating country risk ratings within our DDMS. Based on these ratings, we have defined the level of assurance or certification grade of materials we believe is sufficient to comply with legal requirements in each country. This country-level risk-based approach to sourcing allows us to manage the availability of responsible wood and fibre for our mills and converting operations.

When assessing risk, we evaluate the strength of national governance systems[10], the prevalence of legality risks within countries[11] and a number of independent external sources. When issues of concern are identified in any of the wood and fibre sources, we conduct targeted investigations to confirm that our sourcing is in compliance with our DDMS.

In most European countries, we believe that PEFC is the preferable solution for balancing the needs and requirements of certification. The PEFC certification standards reflect the specific socio-economic and environmental conditions, forest ownership structures and forestry governance in these countries. They also adequately consider and address sustainability factors, such as forestry traditions, regulations and practices.

For countries identified as high-risk through our DDMS, where we do not have expertise on the national legislation, society and environment and where we lack experience working with local suppliers, we only accept FSC-certified wood or wood that is verified by a credible auditing company.

10 Transparency International Corruption Perceptions Index and World Bank Governance Indicators
11 Centralized National Risk Assessments (CNRAs) and NEPCon Timber Risk Assessment Methodology
12 http://www.unece.org/fileadmin/DAM/timber/publications/SP-26.pdf

For all non-certified sources, we ensure compliance with our CW standard as a minimum, implement appropriate control measures and consult local expert organisations.

For high-risk countries where we have good local expertise – for example, due to the location of our operations, a long history of wood sourcing and/or availability of comprehensive analyses of specific risk factors – we work to increase the amount of FSC-certified wood.

Read more about managing emerging risks in Ukraine
Page 10-11

Supporting certification that is fit for purpose

We actively support the enhancement of global certification schemes to meet the demand for sustainable fibre and support responsible suppliers. We promote credible forest certification that is robust and accessible to different forest users and which applies a balanced, risk-based approach to different forest types and supply chain conditions.

While we support the approach of setting global standards for environmentally appropriate, socially beneficial and economically prosperous forest management, we don't believe that 'one size fits all'.

Different types of forests, silviculture systems and ownership structures require very different approaches. This is a fundamental principle in our DDMS and Sustainable Working Forest model.

See our Sustainable Working Forest Model
Page 86

Certification systems must reflect this by accommodating the major forest types and applying a risk-based approach to simplify requirements and procedures. Without this practical change, the risk is that many smallholders will continue to be excluded due to the complexity and resource demands of certification, and many forests will remain uncertified. About half of forest land in Europe is privately owned, mostly by small and medium forest owners.[12] We work closely with both FSC and PEFC. Mondi has international FSC and PEFC memberships and we participate actively to improve their governance systems and certification standards.

We also collaborate with WWF to develop a deeper understanding of country-specific risks, the FSC CW Strategy and the performance of FSC and PEFC certification schemes at national levels.

We were delighted to accept Mondi as a PEFC International Stakeholder at our 2018 General Assembly. It is an important time, as we roll out our new sustainable forest management standard, extending the benefits of certification beyond the forest and promoting fair wages, gender equality and human rights, in addition to the many existing environmental, social and economic safeguards. The support and input of our international stakeholders is vital.

Ben Gunneberg
CEO, PEFC International

Sustainable fibre

We work with FSC and PEFC to increase the availability of credibly certified fibre. We use both to assure our sustainable fibre, considering the specific conditions in different countries in line with our risk-based approach in our DDMS. Half of all Mondi's externally procured certified wood is PEFC certified, so it was only logical that we contribute as a PEFC international member.

Manfred Schachenmann
Mondi Head of Wood Supply

In Russia, we are on the FSC Management Board and in South Africa we work actively with the FSC Africa and its office in South Africa. We have contributed to the development of FSC national standards in both South Africa and Russia. These country-specific standards adapt FSC's international generic indicators to reflect local conditions and issues.

We also participated in the public consultation on the development of the South African Forestry Assurance Scheme, which has now been endorsed by PEFC. In Russia, we are contributing to the work of the PEFC Advisory Committee, which aims to improve the functionality of the system in Russia.

In 2018, Mondi and the Silver Taiga Foundation participated in a project led by Assurance Services International (ASI) to pilot test Geographic Information System (GIS) tools to support and increase the effectiveness and quality of FSC-certification audit processes and outcomes[13].

The project, supported by the ISEAL Innovations Fund, helped to shape a new GIS self-starter kit for auditors. For Mondi, this was an opportunity to share our experience in using GIS to support the development of a risk-based approach, which is very important for effective forest management and certification.

Supporting an effective Controlled Wood system

We work with certification schemes to improve Forest Management and Chain-of-Custody certification. We also support their standards that regulate the control of uncertified wood entering certified wood supply chains. Any uncertified wood we purchase has to meet the CW requirements. This is our minimum requirement for procuring fibre-based products from acceptable sources and it is an important tool for managing the supply-demand dynamics of available responsible fibre.

Applying CW standards enables us to sustain production while avoiding risks of purchasing wood or fibre from sources that involve any of the following unacceptable activities: violation of national and international legislation; violation of traditional and human rights; destruction of high conservation values; conversion of natural forest land to plantations or non-forest use; introduction of genetically modified trees; and violation of any ILO Core Conventions.

To continue to improve CW standards, we believe the standards require further consultation and a practical, risk-based approach is needed. A clear definition of major country-related risks would support forest owners and downstream users of wood and fibre products to implement practical control measures to mitigate these risks and improve forestry practice.

13 http://www.asi-assurance.org/s/post/a1J1H000001mGENUA2/p0665

Sustainable fibre

We are actively supporting the FSC CW Strategy review process. For many years, there has been dissatisfaction expressed by some social and environmental stakeholders about the quality of CW. In 2018, attention was paid to the future of FSC Controlled Wood and FSC MIX products, which was thoroughly reviewed by a multi-stakeholder group during the year, and at the FSC CW strategy workshop in Portugal, which Mondi attended.

We believe that FSC must use the new CW strategy to clarify and communicate the value of an effective and efficient CW system in the long term. The current system can be simplified and improved to provide a more effective tool for assuring responsible sourcing from uncertified suppliers. To be more results-oriented than process-oriented, it must address the most significant issues and lead to improvements, but the process must be simpler and less demanding than forest management certification.

In recent years, the CW process has become more complex with the implementation of the new CW standard and with the phasing out of company risk assessments with the introduction of Centralized National Risk Assessments (CNRAs)[14]. Practical implementation of the new standards is a challenge for certified companies due to complex forest ownership structures and supply chains. However, we are taking a proactive approach and have reviewed our local due diligence systems and their application to ensure the uncertified wood that we procure meets the new CW requirements in a practical way.

14 The new CNRAs include an extended range of risks for a number of European countries from 'low' to 'specified' and have introduced significantly more onerous due diligence requirements

Collaborative approach to implement Controlled Wood in Slovakia

Slovakia is one of our main wood sourcing countries in Europe and it is also home to one of our pulp and paper mills. Two-thirds of Slovakian forests are certified, with the national forest certification system endorsed and certified by PEFC. Still, there are many suppliers that are not certified – mostly smallholders and municipal forests. Forest ownership and supply chains in Slovakia are relatively complex and the accuracy of the current Centralized National Risk Assessment (CNRA) has been questioned, many specified risks are considered by foresters as being minor and occasional in Slovakia. This has led to frustration and uncertainty among forest companies on how to implement appropriate practical control measures.

In 2018, we initiated a 'Joint Control Measures' pilot project to identify practical solutions and control measures to manage the risks in wood supply chains in Slovakia. The project required that local stakeholders work together to develop practical solutions. With the support of WWF this has led to increased dialogue and collaboration among stakeholders in Slovakia to work on the development of appropriate control measures and may lead to establishment of a multi-stakeholder working group to develop a comprehensive and thorough National Risk Assessment (NRA).

Until development of the NRA, there is still a clear need to have a functional CW system in place. Mondi is one of two companies with operations in Slovakia that is actively working with FSC to implement CW requirements based on the existing CNRA. Together with FSC, we have reviewed our approach to mitigate risks. This work served as the basis for a calibration workshop in 2018 between FSC, ASI and certification bodies, the outcomes of which are supporting implementation of CW in Slovakia and other countries in central Europe. The outcomes may also support the development of the NRA.

As a result of this work, Mondi's wood supply organisation in Slovakia successfully passed the surveillance audit. We will remain fully engaged in the process to ensure continued improvement of the CW system in Slovakia and in central Europe.

Sustainable fibre

Use of recycled fibre

Recycled fibre is an important raw material for our packaging and paper products. We consider virgin and recycled fibres as complementary. We assess the balance between virgin and recycled fibres in our products on a case-by-case basis, using the optimum solutions to create high-quality, resource-efficient products for our customers.

Both virgin and recycled fibres are key elements of an integrated wood fibre system. Because recycled fibre degrades each time it is recycled, this system is only sustainable with the systematic introduction of virgin fibre to provide the required product quality and strength.

+ **Explore the Integrated Wood Fibre System**

By sourcing our wood only from responsibly managed forests and by using recycled fibres, we make an important and sustainable contribution to this fibre cycle, supporting the principles of a circular economy. However, we're currently limited by the availability and quality of recovered material for recycling and we actively oppose the burning of recovered paper as an energy source, which is often prioritised and subsidised[15]. In adopting the cascading use of wood principle, we aim to optimise our own use of virgin and recycled fibres.

In 2018, we used around 1.3 million tonnes of paper for recycling (recovered paper) (2017: 1.3 million tonnes).

Cascading use of wood

We believe that sustainable consumption of wood needs to be at the heart of the circular economy and government policy (such as the European Commission's policy on bioenergy) to meet projected demand for wood-based products.

+ **Explore our cascading use of wood process**

Wood used for paper making is 2.38 times more resource-efficient than simple energy generation with the same amount of wood, based on the cascading use of wood principle[16].

The cascading use of wood principle sets out to maximise the value society gains from the world's forests through the complementary use of virgin and recycled fibre. It prioritises value-adding non-fuel uses first and ensures wood is only burnt for energy after it has been used, reused or recycled for other purposes, wherever possible. This realises the full value and potential wealth creation of forests, supporting livelihoods associated with the sustainable use of forest products.

Woody biomass is an important source of renewable energy that can be burnt in existing power stations, making it a convenient choice for energy companies and governments. Substantial subsidies for producers of renewable energy have encouraged a new type of biomass business in some European countries.

We recognise biomass as a renewable energy source in principle, but almost half of Europe's renewable energy consumption now comes from woody biomass, significantly increasing the demand for wood. This, in turn, leads to increased prices and additional pressure on the world's forests. In effect, we're seeing a shift away from the principle of the cascading use of wood.

The EU Renewable Energy Directive sets a binding target of 20% final energy consumption from renewable sources by 2020. To achieve this, EU countries have committed to reaching their own national renewables targets.

Renewables will continue to play a key role in helping the EU meet its energy needs beyond 2020. EU countries agreed on a new renewable energy target of at least 27% of EU's final energy consumption by 2030, as part of the EU's energy and climate goals for 2030[17].

Published in November 2018, the new guidelines on cascading use ignore the firm call documented in the revised Renewable Energy Directive to avoid raw material market distortions. Through the Confederation of European Paper Industries (CEPI), we continue to support the view that wood should be primarily used for high-quality products and not burnt for bioenergy.
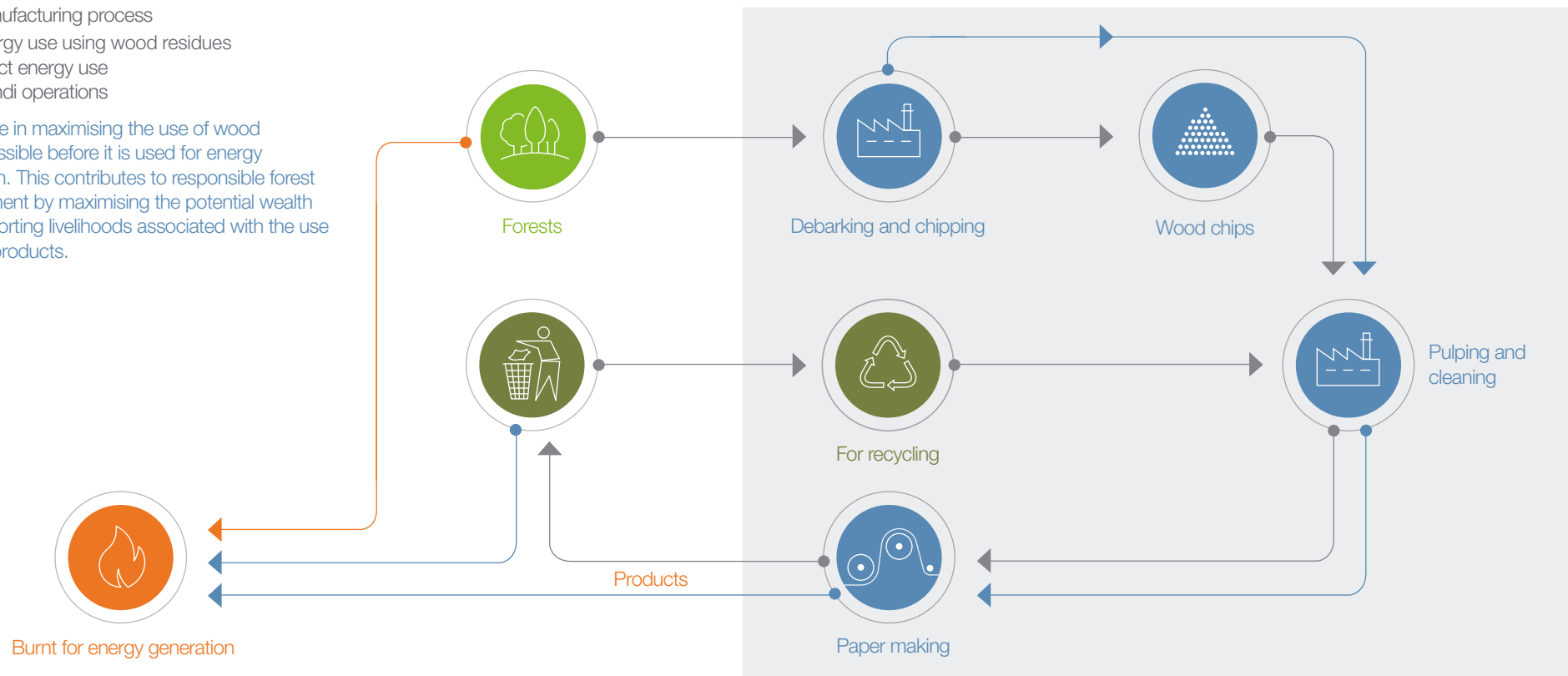
🖵 **Read more**
on the cascading use of wood by CEPI

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15 Woody Biomass for Power and Heat: Impacts on the Global Climate, Duncan Brack, Chatham House, 2017, https://www.chathamhouse.org/sites/default/files/publications/research/2017-02-23-woody-biomass-global-climate-brack-final2.pdf

16 CEPI, Resource efficiency in the Pulp and Paper Industry: Making More from Our National Resources, http://www.cepi.org/system/files/public/documents/publications/othertopics/2014/RESOURCES_EFF_CEPI.pdf

17 European Commission (EC), Renewable energy – Moving towards a low carbon economy, https://ec.europa.eu/energy/en/topics/renewable-energy

The cascading use of wood process

Manufacturing process
Energy use using wood residues
Direct energy use
Mondi operations

We believe in maximising the use of wood where possible before it is used for energy generation. This contributes to responsible forest management by maximising the potential wealth and supporting livelihoods associated with the use of forest products.

Forests

Debarking and chipping

Wood chips

For recycling

Pulping and cleaning

Products

Paper making

Burnt for energy generation

Integrated Wood Fibre System

Production

Virgin fibre

Reprocessed

Use

Lost fibre
→ Fibre age
→ Contamination

Sorting by users

Not collectable
→ Archive papers
→ Sanitary papers

The integrated wood fibre system*

Discard

Recycling collection

Post-consumer fibre

Sort

Other beneficial uses
→ Compost
→ Fibre products (e.g. moulded pulp, insulation, animal bedding)
→ Energy

Landfill/incineration
→ Litter
→ Unsorted
→ Sanitary papers
→ Combined with refuse
→ Contaminated (organics, glues, plastics, etc.)

Source of diagram:
Christine Burrow Consulting and Boxfish Group (2011). Options for Increasing the Recovery of Paper Products in Canada. Environment. Canada.

*   Read more about this process in the World Business Council for Sustainable Development (WBCSD) Forest Solutions Group paper on Fresh & Recycled Fibre Complementarity

Sustainable fibre

External collaboration

We believe that collaboration is key to achieving changes at scale.

Mondi is a member of the Confederation of European Paper Industries (CEPI) and our Group CEO, Peter Oswald, was chairman until 31 December 2017. CEPI plays an important role in representing the interests of the paper industries in different regulatory bodies. In 2018 a working group from CEPI contributed actively in the preparation for the FSC Controlled Wood Strategy workshop, where the future of FSC MIX labeling and the role of CW were discussed. CEPI also supported the preparation of a consolidated business view on the effective functioning of the CW system.

Mondi is also a member of the World Business Council for Sustainable Development (WBCSD) Forest Solutions Group (FSG). In 2017, the FSG updated its strategy, extending its scope from natural capital and forestry issues to include the wider circular and bio-economy agenda. In 2018 the FSG started the development of the Forest Sector SDG Roadmap to articulate a joint vision with respect to the most impactful contributions the sector can make through process, product and partnership innovation. The roadmap sets out attainable pathways to help achieve the ambitions that are defined within the SDGs.

First European Paper Bag Day

⊡ **Read more**
http://www.paperbagday.eu/paper-bags/
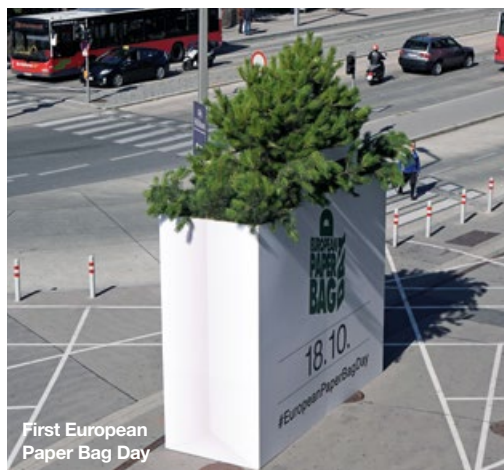
Mondi is a member of the World Business Council for Sustainable Development (WBCSD) Forest Solutions Group (FSG).

In October 2018, we participated in the first European Paper Bag Day. The annual action day was initiated by The Paper Bag platform, a collaboration of Europe's leading kraft paper manufacturers and paper bag producers and CEPI Eurokraft. The purpose of the event is to highlight the advantages of paper bags and invite consumers to combine their personal packaging requirements with sound environmental choices.

Supporting small and medium enterprises

We believe that supporting small and medium enterprises (SMEs) in the forestry sector will help to meet projected demand for wood-based products. They are also crucial to local livelihoods and the wellbeing of forest communities.

We offer training, support and long-term partnerships to SMEs and we actively explore opportunities to develop business enterprise and prioritise local suppliers. We hold regular meetings and training events to help the local companies fulfil environmental, safety and social requirements in line with our minimum CW sourcing standards.

If a supplier is not able to meet our minimum requirements, we may work with them to implement appropriate corrective actions. We reserve the right to suspend sourcing from the supplier until we are satisfied with their performance.

In Russia, our Syktyvkar mill supports small-scale forest enterprises in rural areas that would normally have limited access to resources.

Local companies are given access to forest stands in Mondi's leased areas, together with a permit to reserve saw logs for their own sawmills and a guarantee that we will purchase pulpwood from them. In 2018, we renewed contracts with seven small and medium companies covering about 100,000 m³ of standing wood in our forests around Syktyvkar.

Mondi Zimele, our South African enterprise development arm, delivers a range of initiatives that provide financial support and skills transfer

Mondi Zimele, our South African enterprise development arm, delivers a range of initiatives that provide financial support and skills transfer to emerging forestry growers.

Ikhasi (Pty) Ltd forestry contractors, community owned silviculture in KwaZulu-Natal South Africa

to emerging forestry growers (see pages 99 and 107). Portions of our landholdings in South Africa are subject to community land claims under the Restitution of Land Rights Act (22 of 1994). Once a claim is settled, the community gains legal ownership of the land and has the opportunity to generate a sustainable income by leasing the property back to Mondi and developing forestry contracting businesses. Mondi provides post-settlement support to the claimants as well as discounted funding and business mentorship to support their contracting businesses. Another initiative is the Mondi community woodlot scheme, which aims to develop community woodlot growers in KwaZulu-Natal through education, secure markets and other inputs such as quality seedlings. Mondi sources approximately 90,000 tonnes per annum from these growers, which is a significant lever for participation and local economic development.

Climate change

Climate change is one of the greatest threats facing society, the environment and the global economy. Despite international action, emissions continue to rise – impacting on biodiversity, ecosystem services and economic development and amplifying risks for communities. In 2018, we committed to reducing our production-related GHG emissions using the science-based target setting methodology.

Why is this important to our stakeholders?

→ The latest report from the Intergovernmental Panel on Climate Change states that global warming is likely to reach 1.5°C between 2030 and 2052 if it continues at the current rate[1]
→ Stabilising the temperature increase to below 2°C[2] will require drastic action far beyond business as usual[3]
→ Businesses are expected to play a key role in reducing emissions and limiting and adapting to climate change
→ Investors require climate-related financial disclosures to understand an organisation's risks

Why is this important to Mondi?

→ Climate changes affects our operations and supply chain through its impact on water, weather, sea levels, carbon regulation and taxation, and energy availability and affordability
→ Our forests may be impacted by more frequent forest fires, pests and diseases
→ We are committed to demonstrating progress in reducing emissions
→ Increasing our energy self-sufficiency provides financial savings and increases our energy security

Our commitments

→ Reduce specific CO_2e emissions from our pulp and paper mills by 15% by 2030 against a 2014 baseline
→ Reduce production-related specific Scope 1 and 2 GHG emissions from our pulp and paper mills to 0.25 tonnes CO_2 per tonne of saleable production by 2050 against a 2014 baseline

Discover how we are…

→ Defining our climate change risks, opportunities and financial implications
→ Identifying science-based targets to drive down our emissions

Next steps

→ Increase the accuracy of our Scope 3 emissions reporting to be able to set reduction targets
→ Further increase our on-site energy generation and the share of biomass in our energy mix

Our strategic SDGs and targets

SDG 7 Affordable and clean energy
→ Target 7.2 By 2030, increase substantially the share of renewable energy in the global energy mix
→ Target 7.3 By 2030, double the global rate of improvement in energy efficiency
→ Target 7.a By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology

SDG 9 Industry, innovation and infrastructure
→ Target 9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities

SDG 13 Climate action
→ Target 13.2 Integrate climate change measures into national policies, strategies and planning
→ Target 13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning

See the full index for links to other relevant SDGs

1 http://report.ipcc.ch/sr15/pdf/sr15_spm_final.pdf
2 Relative to pre-industrial levels
3 Climate Change 2014 Synthesis Report, IPCC

Climate change

What climate change means for our business

The production of pulp, paper and packaging is energy-intensive and energy generation is the major source of our greenhouse gas (GHG) emissions. We invest significantly in optimising energy and process efficiencies and replacing fossil fuel-based energy with renewable biomass sources. We also manage our impacts by using low carbon energy technologies, reducing the carbon footprint of our products and refining our approach to responsible, sustainable forestry.

Our group-wide risk management framework ensures the effective governance of all our material risks[4] and opportunities. It includes pre-determined risk tolerance limits which take the likelihood and severity of risk factors into consideration. Short-term planning is influenced by climate-related regulatory risks and current issues such as droughts and water scarcity, or changing energy providers. Medium-term planning (4-7 years) delivers more permanent solutions and considers upcoming climate taxes and legal requirements, while long-term planning (8-12 years) considers the achievement of long-term goals and resolution of material risks, such as decisions on the future of energy generation and supply.

Assessing our climate-related risks and opportunities

We are committed to adhering to internationally accepted recommendations – such as those published by the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD) – to investigate and report on climate-related risks and opportunities. In 2018, we made progress in defining Mondi's climate-related risks and opportunities and investigated their financial implications according to the recommendations of the TCFD.

We established a cross-functional team including financial control specialists, risk specialists, technical experts and sustainability specialists to evaluate the financial impact of climate-related risks and opportunities on our operations in Europe, South Africa and Russia until 2030. We also consulted with external experts and collaborated with other companies to improve our understanding of reporting requirements and best-practice.

The TCFD recommends applying widely used reference scenarios that are publicly available and peer reviewed.

We use the following scenarios:

The International Energy Agency's 2°C Scenario (2DS)

This scenario is based on limiting global temperature rise to below 2°C above pre-industrial levels under an emissions trajectory that allows CO_2 emissions to be reduced by almost 60% by 2050 compared with 2013. Under this scenario, carbon emissions are projected to decline after 2050 until carbon neutrality is reached.

The Representative Concentration Pathway's 8.5 (RCP8.5) scenario

This business-as-usual scenario projects the global mean temperature to rise by 2.6 to 4.8°C and the global mean sea level to rise by 0.45 to 0.82 meters by the late-21st century.

We have identified three key risks and two opportunities and have consulted detailed background information and outlook scenarios to calculate our first estimate of the financial implications of these risks and opportunities.

4   A risk is seen as having a significant financial impact on Group level when the financial impact is higher than 5% of the Group's average underlying operating profit over the trailing five-year period (about €50 million)

Climate change

Our climate-related risks

Regulatory changes
Reduced EU ETS allowances in period IV may result in the demand for additional GHG credits

Many of our sites fall under the EU Emissions Trading Scheme (EU ETS)[5]. While these operations have enough allowances to comply with the current regime, the EU has published benchmarking figures for the period 2020+ which significantly limit the CO_2 allowances of EU paper and pulp producers. By our calculations, based on a worst case scenario until 2025, the potential financial implications of the reduced EU ETS allowances would be approximately €5 million per annum[6]. Overall, this does not represent a significant financial risk to our business. In South Africa, the government has committed to introduce a carbon tax which will affect our mills at Richards Bay and Merebank. This also does not represent a significant financial risk for the Group. Our commitment to reduce our GHG emissions in line with our long-term targets will help to mitigate these risks.

Supply chain impacts
Extreme weather conditions may reduce tree growth yields as a consequence of drought, fire, erosion loss and pests and disease

Increased severity of extreme weather events may financially impact our operations. In water-scarce countries, we may see decreased production capacity as a result of limited water availability for production processes and fibre supply chain interruptions. Extreme weather conditions may also impact forests where we source wood and our plantations, for example sustained higher temperatures may lead to stronger winds and increased windfalls. Our South African plantations are vulnerable to changes in rainfall patterns, including drought and may suffer from erosion caused by heavy rainfall events. In addition, higher temperatures increase vulnerability of forests to pests and diseases. Our current understanding puts the estimated potential financial impact of yield losses in our plantations, based on droughts happening more frequently in future, at between €1 million and €13 million.

Chronic changes in precipitation
Water scarcity may affect water resources required for production in our mills and lead to increased expenses for water and/or higher investments costs

Extended water shortages are a concern, especially in South Africa. Our mill in Richards Bay consumes some 20 million m³ water annually, mostly abstracted from the Goedertrouw Dam on the uMhlatuze river, which is already under pressure. Demand is expected to increase due to urban development. During the recent extended drought, we reduced specific water consumption at our Richards Bay mill by 27% (in 2017 compared to 2015) through organisational measures, closed loops and increased recycling. Future challenges around water availability may require further investment in water recycling to substitute fresh water with secondary waste water in the production process. Preliminary investigations indicate that reduced production as a result of water security is not expected to be significant and potential financial impact is estimated at less than €1 million. It should be noted that we continue to work on improving our understanding of potential financial impacts related to water shortages on our business.

Our climate change-related opportunities

Reduced operating costs through energy efficiency
Improved energy efficiency leads to reduced operating costs

The pulp and paper industry is energy-intensive. Mondi has invested significantly in improving the energy efficiency of its operations, currently we are investing €125 million in the modernisation of the energy plant of our mill in Syktyvkar (Russia). Mondi has an internal energy experts' network (DIANA Energy) which meets regularly to focus on reducing the energy intensity of our operations, increasing profitability and competitiveness by cost optimisation, efficiency improvements, and knowledge-sharing.

We see an opportunity to improve energy efficiency of newly acquired operations. Our energy experts, while supporting the technical teams of the acquired operations, are often able to implement energy efficiency measures based on expertise acquired through previous implementation of energy efficiency initiatives across our Group.

Avoided GHG emissions and secondary raw materials
Instead of incinerating by-products from pulp production, these low-carbon, biomass-based chemicals can be sold as secondary raw materials

When wood is converted into pulp in the kraft pulping process, by-products include turpentine and tall oil. These are renewable by-products which can be used internally for energy generation or extracted and purified to create higher value raw materials for other industries to use as a substitute for fossil fuel-based products[7]. Some of our mills already extract and sell these by-products. As industry becomes increasingly interested in renewable raw materials, the sales price of these by-products is rising. We value the revenue potential of by-product turpentine from our mills at €7 million annually, although investment would be required to realise the full benefit of such sales.

Reduced operating costs through resource efficiency
Reduced water consumption translates into reduced operating costs and secures our licence to operate

Water is a critical resource for the pulp and paper industry. We have completed water impact assessments (WIAs) at our mills and forest operations to better understand our impacts on water sources and our risks in terms of water availability, allocation and costs. For example, our Merebank mill uses wastewater from the local community as process water, which replaces 95% of the potable water formerly used at the mill. A similar system could be considered at other mills where water supply is a challenge.

To date, we have realised most of our internal recycling and reuse opportunities, delivering an annual saving in water costs of around €1 million. This has helped us secure our operations and avoid restrictions in production capacity due to water shortages.

5 9 out of 13 material Mondi operations: Austria (3), Poland (1), Czech Republic (1), Sweden (1), Bulgaria (1), Slovakia (1), Finland (1)
6 Assuming an average price of 35 €/t CO_2
7 For example, turpentine can be used as a solvent for thinning oil-based paints, for producing varnishes, and as a raw material for the chemical industry

Climate change

Increasing energy efficiency and reducing carbon emissions

We combine strategic energy-related investments across our pulp and paper mills with good management and sharing of best-practice. Our aim is to reduce emissions, improve energy efficiency and replace fossil fuels with renewable biomass-based energy, where it is practical and economically feasible.

Energy and related input costs contribute significantly to our variable costs. Our investments have focused primarily on: increasing our electricity self-sufficiency and energy efficiency by using biomass to produce primary energy; reducing our carbon footprint; and participating in carbon disclosure benchmarking.

Climate change is one of the biggest threats of our future, with fundamental impacts on places, species and people everywhere. To change things for the better, we need to start acting now. We welcome Mondi's efforts to help build a more sustainable business world and are happy to have them join the Climate Savers programme.

Manuel Pulgar-Vidal
WWF's Global Climate & Energy Practice Leader

Mondi joins WWF's Climate Savers

In 2018, we joined the ranks of global climate leaders by signing up to Climate Savers, WWF's climate leadership programme for businesses. Climate Savers members aim to transform businesses into low-carbon economy leaders. Our participation is part of our strategic global partnership with WWF. We have committed to working to further reduce GHG emissions across our entire value chain and to taking actions to positively influence the packaging and paper sector as well as policy makers. Taking action to reduce GHG emissions is also in line with the 'Unfold the future' roadmap set out by member companies of the CEPI to reduce its carbon footprint by 80% by 2050 compared to 1990[8].

In 2017, we defined a new long-term GHG reduction target for production-related GHG, calculated using the science-based target setting methodology. The emissions covered by this target represent about 72% of our total Scope 1 and 2 emissions in 2018.

Our GHG reduction target, calculated using the science-based target setting methodology, is:

→ Reduce production-related specific GHG emissions to 0.25 tonnes CO_2 per tonne of saleable production by 2050, against a 2014 baseline of 0.59 tonnes CO_2 per tonne of saleable production with a 2025 milestone: 0.44 tonnes CO_2 per tonne of saleable production.

→ As part of our global partnership with WWF, we are also investigating an energy sales related science-based GHG reduction target which would capture an additional 400,000 tonnes of our total Scope 1 and 2 emissions by 2025 against a 2014 baseline of 1,400,000 tonnes CO_2.

More information:
CEPI unfold the future

8   http://www.cepi.org/system/files/public/documents/publications/innovation/2016/roadmap_2050_summary_final_single_lowres.pdf

Climate change

Modernising the energy plant at our Syktyvkar mill

Since 2013, we have invested over €400 million in energy efficiency measures and increasing biomass-based energy in our mills, including biomass boilers in Syktyvkar and Świecie and new recovery boilers at Frantschach (Austria), Ružomberok and Świecie. In addition, we invested in a new recovery boiler as part of the €335 million modernisation investment at Štětí, and are investing €125 million in the upgrade of the energy plant at our Syktyvkar mill. In the long term, we will continue to invest in our energy infrastructure at key operating facilities to improve energy efficiency and electricity self-sufficiency, as well as to reduce our environmental footprint.

We investigate potential energy efficiency projects through our ongoing internal energy efficiency programme (DIANA). Projects are assessed based on investment, financial savings, energy savings, CO_2 reduction and their contribution to securing a sustainable energy supply for our operations. A group-wide network of energy experts collaborate to increase profitability and competitiveness by optimising costs, efficiency and productivity improvements.

Delivering our GHG commitments

Our GHG reduction commitments related to saleable production volume are limited to our pulp and paper mills. This is due to different dimensions in reporting saleable production volume of our converting operations[9]. This means around 91.5% of Mondi's total Scope 1 and 2 GHG emissions are covered by Mondi's GHG reduction target.

Mondi's climate change performance is monitored and disclosed through:

→ internal and external reporting on our GHG commitments;

→ third-party verification of our GHG and energy data to reasonable assurance level;

→ participation in public carbon disclosure projects (e.g. CDP: Mondi scored A- in the 2018 CDP Climate Change); and

→ provision of detailed product carbon footprint information to our customers.

Since 2013, Mondi has invested over €400 million in our mills to improve energy efficiency and increase biomass content. This is in addition to the Štětí modernisation project.

John Lindahl
Mondi Group
Technical &
Sustainability
Director

9   Our pulp and paper mills report saleable production volume in tonnes while our converting operations report saleable production volume in units that better fit their business (e.g. in thousand square meters, thousand sacks etc.)

Modernising the energy plant at our Syktyvkar mill

Our €125 million investment at Syktyvkar includes the replacement of three old biofuel boilers and four turbines. The new biofuel boiler and turbine are due to start up in 2019. The project will significantly increase the energy efficiency and reduce the carbon intensity of the mill. It enables the mill to use its bark and sewage sludge for energy generation without additional drying. The investment will also substitute some 128 million m^3 of natural gas, resulting in a total capacity for green energy generation of 170 MW. Scope 1 emissions will be reduced by some 87,700 tonnes per annum, about 4% of the current total, mainly through higher electrical efficiency and fuel switching.

Climate change

In 2018 our mill's specific GHG emissions have increased by 0.74% to 0.72 tonnes CO_2e per tonne of saleable production, due to increased energy sales (2017: 0.72).

Absolute Scope 1 emissions have increased due to increases in energy sales and a slightly reduced renewables content, a consequence of start-ups with heavy fuel oil after the extended mill shut in Richards Bay.

Specific Scope 1 emissions from our mills increased by 3.4% to 0.63 tonnes CO_2e per tonne of saleable production (2017: 0.61).
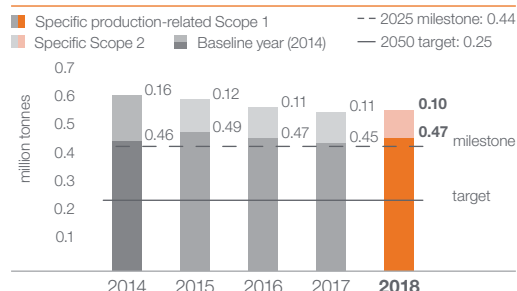
Specific Scope 2 emissions reduced by 13.5% to 0.10 tonnes CO_2e per tonne of saleable production in 2018 (2017: 0.11), mainly due to increased on-site electricity generation and the reduction of electricity purchased at our Merebank mill as a consequence of the closure of a paper machine.

📖 **Read more on energy consumption and energy intensity**
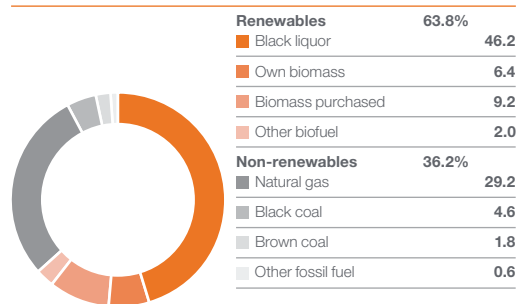Page 151

We use internationally accepted standards and methodologies to monitor and report energy consumption. Details are explained in our public CDP disclosure. All data are externally verified to reasonable assurance level.

🖥 **More information:**
www.cdp.net

Specific production-related GHG*
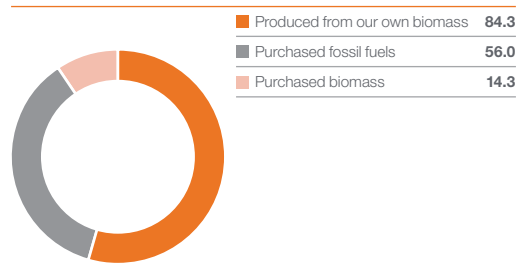tonnes CO_2 per tonne of saleable production

Legend:
- Specific production-related Scope 1
- Specific Scope 2
- Baseline year (2014)
- – – 2025 milestone: 0.44
- — 2050 target: 0.25

million tonnes

	2014	2015	2016	2017	**2018**
Scope 1 (upper)	0.16	0.12	0.11	0.11	**0.10**
Scope 2 (lower)	0.46	0.49	0.47	0.45	**0.47** milestone

target

* From our pulp and paper mills

Fuel sources for our pulp and paper mills
renewable vs non-renewable (%)

Renewables	63.8%
Black liquor	46.2
Own biomass	6.4
Biomass purchased	9.2
Other biofuel	2.0
Non-renewables	**36.2%**
Natural gas	29.2
Black coal	4.6
Brown coal	1.8
Other fossil fuel	0.6

Fuel consumption of our pulp and paper mills
million GJ

Produced from our own biomass	84.3
Purchased fossil fuels	56.0
Purchased biomass	14.3

In 2018, the total energy use by our mills was 148.7 million GJ (2017: 151.6). Some 91.6 million GJ was consumed for pulp and paper core processes in the form of heat and electricity at our operations (2017: 93.1) and 8.5 million GJ was sold to the local grids (2017: 8.4). Total energy sales including green fuel sales amounted to 10.2 million GJ (2017: 10.1).
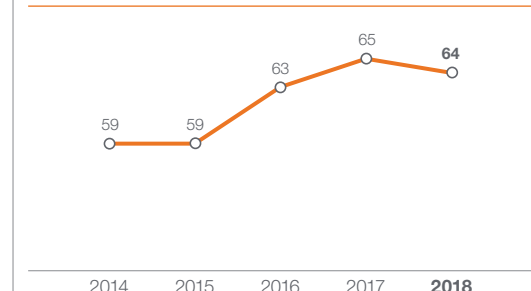
In our mills we purchased 4.3 million GJ electricity from external sources (2017: 5.2). Our total electricity requirements for producing pulp and paper amounted to 19.3 million GJ in 2018 (2017: 20). Our total heat requirements for producing pulp and paper core processes were 72.2 million GJ (2017: 73). The share of biomass-based renewable fuels to the total fuel consumption of our mills increased from 59% in 2014 to 64% in 2018.

The new biomass boiler at our mill in Świecie and production increases at Syktyvkar allowed higher utilisation of black liquor and bark. In combination with reduced energy sales from natural gas the ratio of biomass-based energy production at Syktyvkar is higher in 2018.
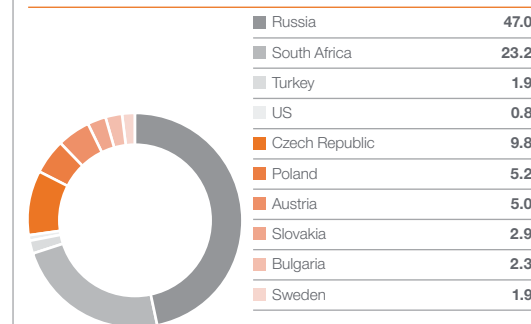
Our mills' electricity self-sufficiency was 100% in 2018, up from 96% in 2017. This increase was due to higher electricity generation at our Syktyvkar mill as a consequence of increased heat consumption by the community, especially during winter months.

Since 2016, we have reported a more applicable electricity self-sufficiency figure, calculated by capping each mill's electricity self-sufficiency at 100% and excluding its energy sales beyond that limit. This equated to 85% in 2018, 83% in 2017 and 2016.
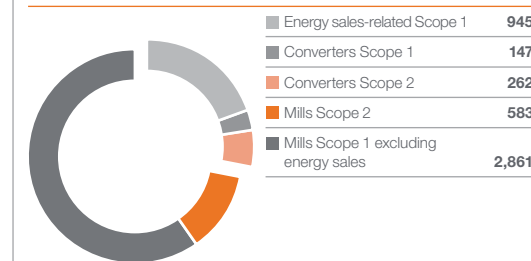
Renewable energy in mills' fuel consumption
%

2014	2015	2016	2017	**2018**
59	59	63	65	**64**

GHG emissions by country
%

Russia	47.0
South Africa	23.2
Turkey	1.9
US	0.8
Czech Republic	9.8
Poland	5.2
Austria	5.0
Slovakia	2.9
Bulgaria	2.3
Sweden	1.9

European mills are shown in orange

CO_2e emissions by activity
thousand tonnes CO_2e

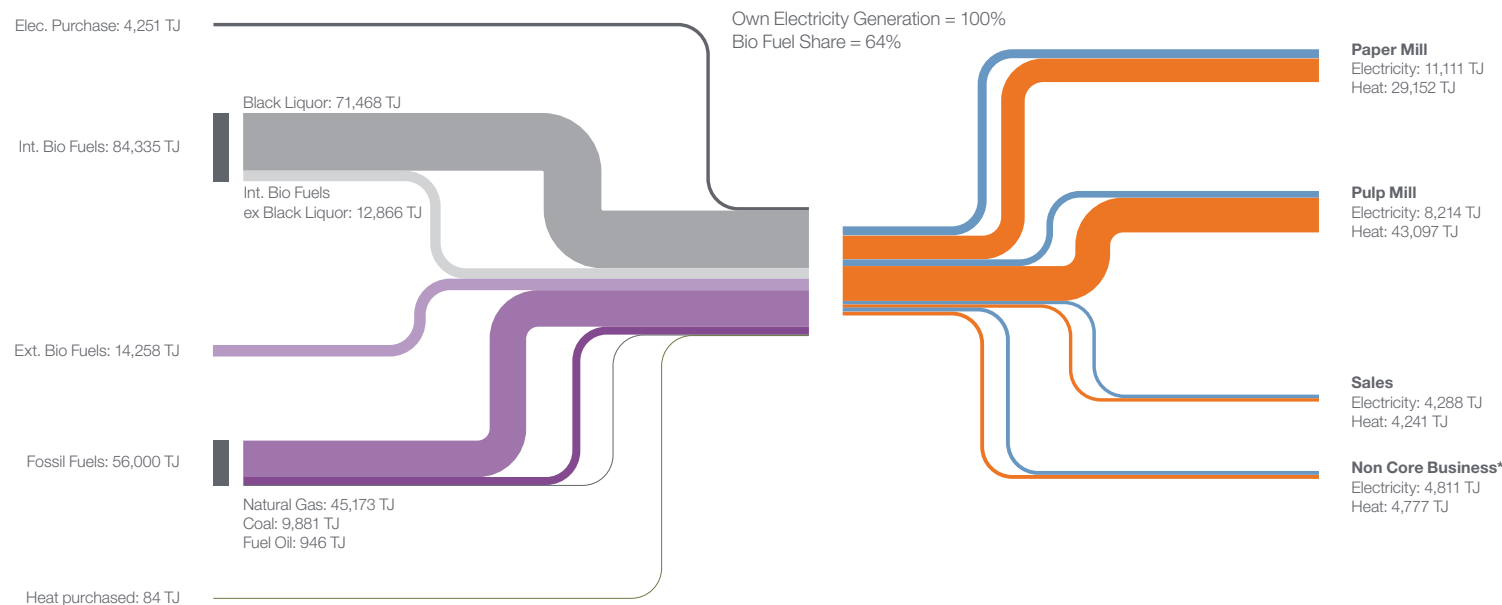| Energy sales-related Scope 1	945
Converters Scope 1	147
Converters Scope 2	262
Mills Scope 2	583
Mills Scope 1 excluding energy sales	2,861

For the production-related GHG reduction target only the Scope 1 and Scope 2 emissions related to the manufacturing process in our pulp and paper mills are included

Climate change

Energy balance from our pulp and paper mills
TJ

Elec. Purchase: 4,251 TJ

Own Electricity Generation = 100%
Bio Fuel Share = 64%

Int. Bio Fuels: 84,335 TJ

Black Liquor: 71,468 TJ

Int. Bio Fuels
ex Black Liquor: 12,866 TJ

Ext. Bio Fuels: 14,258 TJ

Fossil Fuels: 56,000 TJ

Natural Gas: 45,173 TJ
Coal: 9,881 TJ
Fuel Oil: 946 TJ

Heat purchased: 84 TJ

Paper Mill
Electricity: 11,111 TJ
Heat: 29,152 TJ

Pulp Mill
Electricity: 8,214 TJ
Heat: 43,097 TJ

Sales
Electricity: 4,288 TJ
Heat: 4,241 TJ

Non Core Business*
Electricity: 4,811 TJ
Heat: 4,777 TJ

* including Finishing, Power Generation, Utilities and Others

GHG emissions from our pulp and paper mills

We have defined our GHG reporting boundaries according the 'operational control' principle[10]. This is in line with the recommendations of the WBCSD GHG Protocol. See page 156 for further details of our GHG emissions scope and boundaries.

Pulp and paper mills

In 2018, the Scope 1 emissions of our mills have increased to 3.81 million tonnes CO_2e compared to 3.78 million tonnes in 2017, mainly due to increased on-site electricity generation. This equated to 0.63 tonnes CO_2e per tonne of saleable production (2017: 0.61).

Increased on-site electricity generation helped us to reduce our electricity purchased and as a consequence, our mills' Scope 2 emissions from 0.69 million tonnes CO_2e in 2017 to 0.58 in 2018, equating to specific emissions of 0.10 tonnes per tonne of saleable production (2017: 0.11).

GHG emissions from our pulp and paper mills

- Scope 1 (million tonnes)
- Scope 2 (million tonnes)
- Specific Total CO_2e
- Baseline year (2014)
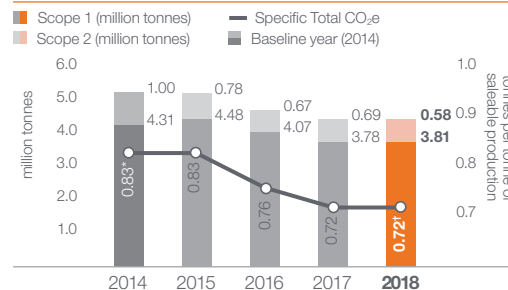
* To calculate progress on GHG reduction target, 0.844t/t has been used as the 2014 baseline, which excludes a divested mill
† 0.722t/t excludes Powerflute (acquired in 2018) but includes Pine Bluff (USA) until date of divestiture

The closure of a paper machine in Merebank in South Africa, a non-integrated mill which purchases coal-based electricity from the national grid, also reduced the Group's Scope 2 emissions. All our mills use market-based emission factors for reporting Scope 2 emissions.

Converting operations

The Scope 1 emissions from our converting operations totalled 0.15 million tonnes CO_2e in 2018 (2017: 0.15). Their Scope 2 emissions totalled 0.26 million tonnes CO_2e (2017: 0.27). Our converting operations contributed 31% of the Group's total Scope 2 emissions. Two of these converting operations, which contribute 25% of total converting operations' Scope 2 emissions, use market-based factors. The rest of the converting operations use location-based (country-specific) average grid factors to calculate their Scope 2 emissions.

10 We report emissions from operations where we have day-to-day management control over GHG emission sources, including any key sub-contracted operations which are a core part of the business. All activities of our global production operations in which we hold a minimum 50% shareholding or over which we have management control are covered

Climate change

Energy sales-related GHG emissions

Our energy sales-related GHG emissions totalled 0.9 million tonnes CO_2e in 2018 (2017: 1.0 million tonnes). This accounts for 20% of the Group's total CO_2e emissions (2017: 20%). Our energy efficiency investments allowed us to generate energy with a lower carbon intensity, resulting in an 8% reduction in our energy sales-related CO_2 factor and a reduction in CO_2e emissions, despite an increase in energy sales.

Scope 1 GHG emissions related to production (for pulp and paper mills) and energy sales.

	Production-related emissions from fuel combustion (tonnes)	Energy sales-related CO_2e (tonnes)	Total emissions from fuel combustion (tonnes)
2014	2,807,250	1,396,321	4,203,570
2015	2,966,879	1,399,185	4,366,065
2016	2,806,949	1,121,871	3,928,820
2017	2,613,509	1,000,772	3,614,281
2018	**2,661,504**	**944,750**	**3,606,254**

Scope 3 emissions

Our indirect (Scope 3) emissions arise from transportation of products and raw materials, employee commuting, business travel, disposal of waste and production of fuels and raw materials. All other Scope 3 categories referred to in the GHG Protocol are not relevant for Mondi.

In 2018, our Scope 3 emissions were estimated to amount to 3.24 million tonnes CO_2e (2017: 3.01). Over the last few years, we have increased the number of categories we report as Scope 3 emissions to provide a more complete picture of our indirect emissions. We are currently working with WWF and an external consultant to replace some of the secondary data with primary data[11].

Scope 3 emissions
thousand tonnes CO_2e

Legend:
- Fuel and energy-related activities
- Purchased goods and services
- Employee commuting
- Upstream transportation and distribution
- Downstream transportation and distribution
- Business travel
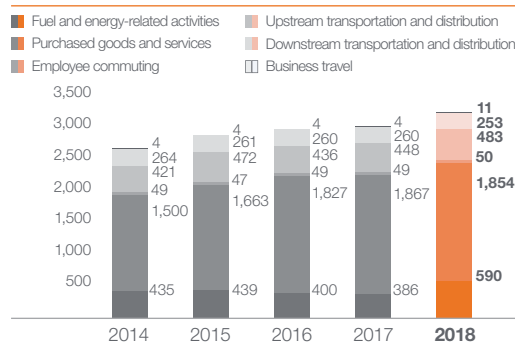
For example, we have undertaken surveys with a representative number of employees to get a more precise picture of the GHG emissions attributed to people commuting.

We have updated the CO_2 factors from transportation of our raw materials and products by developing a more detailed primary database on upstream and downstream transportation.

0.13 million

tonnes of CO_2e emissions avoided through the sale of green fuels.

Avoided emissions

We sell the excess energy we generate from our pulp and paper processes, usually to the public grid for district heating and electricity in the vicinity of our mills. In 2018, we avoided emissions of some 0.13 million tonnes of CO_2e through the sale of approximately 1.7 million GJ green fuels (including pitch fuel, sulphate soap, tall oil and turpentine). We also avoided emissions by substituting natural gas with the biogas generated in anaerobic wastewater treatment plants at our mills. In 2018, we used about 0.07 million GJ of biogas as fuel to replace natural gas, avoiding around 4 thousand tonnes of CO_2e.

We also avoided waste by using waste streams with high biomass content for energy generation and reusing and recycling waste. We avoided about 0.04 million tonnes of CO_2e in 2018 by sending about 33,000 tonnes of foil waste from the recycled pulp process to a nearby company that generates energy from waste.

Transparency and benchmarking

We participate in a wide range of benchmarking and transparency initiatives including CDP, Paper Profile, and WWF's Environmental Paper Company Index (EPCI), last conducted in November 2017, and the Check Your Paper database.

We can provide our customers with detailed product carbon footprints for all our fibre-based products on request, based on the principles of CEPI's 10 Toes Framework for the development of carbon footprints for paper and board products. We disclose our energy and climate performance in our annual reports.

We are a member of the We Mean Business Coalition and we support its Responsible Corporate Engagement in Climate Policy initiative. This includes an internal audit programme for all activities that influence climate policy (thereby ensuring consistency) as well as communicating on actions and outcomes via our CDP disclosure and membership of Climate Savers (see page 71).

11 Primary data includes data provided by suppliers or other value chain partners related to specific activities in our value chain. Secondary data includes industry-average data (from published databases, government statistics, literature studies, and industry associations), financial data, proxy data, and other generic data
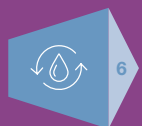
Constrained resources and environmental impacts

Over the past century, the global economy has undergone unprecedented growth. Using and discarding raw materials at an ever-increasing rate has led to resource scarcity, pollution, biodiversity loss, degradation of land and water, and climate change. Today, using raw materials and energy efficiently is crucial for sustainable business growth to meet stakeholders' expectations.

Why is this important to our stakeholders?

→ Economic activity depends on services provided by nature, estimated to be worth around US$125 trillion a year[1]

→ Business must play a key role in reversing environmental degradation and developing sustainable models of growth

→ As population increase drives competition for natural resources, companies must use them fairly and efficiently

Why is this important to Mondi?

→ Our business is resource intensive and we impact on water, air and land

→ Water is vital to our production processes and we operate in water scarce regions where its availability can be a risk factor

→ Stricter regulation is driving investments in environmental abatement technology

→ Environmental incidents pose a risk to people, the environment, our reputation and financial liabilities

Our commitments to 2020

Against a 2015 baseline we'll reduce:

→ Specific[2] contact water consumption from our pulp and paper mills by 5%

→ Specific waste to landfill by 7.5%

→ Specific NOx emissions from our pulp and paper mills by 7.5%

→ Specific effluent load to the environment (measure COD) by 5%

Discover how we are…

→ Investing in our mills to reduce our environmental impact

→ Promoting water security at our operations

→ Developing our processes and technologies that support a circular economy

Next steps

→ Improve understanding of our indirect environmental footprint

→ Develop a group standard linking water risk of operations with water stewardship assessment

Our strategic SDGs and targets

SDG 8 Decent work and economic growth

→ Target 8.4 Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-Year Framework of Programmes on Sustainable Consumption and Production, with developed countries taking the lead

SDG 9 Industry, innovation and infrastructure

→ Target 9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities

SDG 12 Responsible consumption and production

→ Target 12.2 By 2030, achieve the sustainable management and efficient use of natural resources

→ Target 12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimise their adverse impacts on human health and the environment

→ Target 12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse

For links to SDG 6 see the full index

1   From WWF Living Planet Report 2018
2   Specific is the measurement of emissions or consumption, normalised for tonnes of saleable production

Constrained resources
and environmental impacts

Resource efficiency

Resource efficiency underpins many of our material issues – from product design to minimising our environmental impacts and sourcing responsibly. We adhere to the principle of Resource Efficiency as defined by the United Nations Environment Programme (UNEP)[3]. We consider solid waste and emissions to air and water as wasted resources and we work to minimise them across our operations. Our investments in Best Available Techniques (BAT)[4] have enabled us to achieve significant improvements in resource efficiency.

Our approach to resource efficiency includes:

→ optimising processes and products to reduce emissions to air and water and encouraging the recycling, reuse and substitution of resources page 79;

→ increasing our energy efficiency and reducing the energy intensity of our processes where possible page 71;

→ increasing our use of renewable energy page 73;

→ using by-products of the pulping process for internal energy generation or selling them for use in biofuels and renewable raw materials in the chemical industry page 73;

→ using water efficiently and responsibly page 78; and

→ working to address the challenges of recycling flexible plastics with respect to circular economy page 114.

Water

Access to fresh water is essential to human life and wellbeing and is recognised by the United Nations as a basic human right. The paper and pulp industry is water intensive; paper and pulp mills impact on water resources through their withdrawal and consumption of water. Our approach to managing water impacts includes: assessing and managing our water-related risks; reducing water consumption; investing in water recycling in our mills and forestry operations; investing in best available technology to treat our waste water; and developing partnerships with other water users to manage the risks across entire catchments.
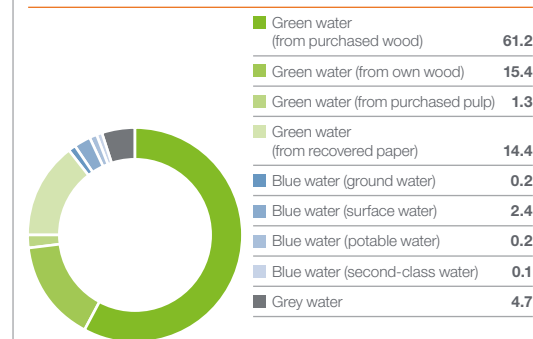
Find our CDP water response 2018
www.cdp.net

Our water footprint

Mondi's indirect water footprint is around 10.3 billion m³, consisting mainly of green water used for fibre production in our forests. The water footprint of our timber supply chain is calculated using accepted data sources[5] and we ask our pulp suppliers to provide water footprint data annually.

The water footprint chart shows our freshwater use for production and our indirect water use. According to the Water Footprint Network[6], blue water represents surface and ground water use, green water relates to rainwater necessary for growing our fibre, and grey water is the volume of fresh water required to assimilate the load of pollutants based on existing ambient quality standards.

Total water footprint 2018:

Green water:
9.5 billion m³

Blue water:
0.3 billion m³

Grey water:
0.5 billion m³

Total:
10.3 billion m³

Water footprint by type*
%

Green water (from purchased wood)	61.2
Green water (from own wood)	15.4
Green water (from purchased pulp)	1.3
Green water (from recovered paper)	14.4
Blue water (ground water)	0.2
Blue water (surface water)	2.4
Blue water (potable water)	0.2
Blue water (second-class water)	0.1
Grey water	4.7

* Representing a total of approximately 10.3 billion m³

We are committed to improving our water use efficiency, especially in operations located in water-stressed regions.

Gladys Naylor
Mondi Group Head of Sustainable Development

3   www.unep.org/resourceefficiency/
4   In support of the EU Directive on Industrial Emissions (IED, 2010/75/EU), Best Available Techniques (BAT) reference documents, the so-called BREFs, have been published under http://eippcb.jrc.ec.europa.eu/reference/
5   P.R. Oel, A.Y. Hoekstra: The green and blue water footprint of paper products (July 2010)
6   http://waterfootprint.org

Constrained resources and environmental impacts

Managing our water-related risks

Our water risk management approach involves conducting water impact assessments of our forest operations and pulp and paper mills. These assessments help to mitigate water risks, understand shared challenges in the catchment, and identify measures to manage future risks. Based on the findings of the water impact assessments we have conducted so far, we are not significantly affecting any water bodies and related habitats.

As part of our global partnership with WWF, we supported the development of the pulp and paper questionnaire for the Water Risk Filter to make it more useful for the sector. We tested a high-resolution Water Risk Filter for South Africa and now we're testing the newly revised Water Risk Filter tool 5.0, at our pulp and paper mills to categorise our operations according to their water risk. Through discussing our conclusions and suggested measures with WWF, we have increased our understanding of our current and potential future water impacts, as well as potential risks to our business relating to water availability, allocation and costs.

We are exploring the links between potential water basin and production-related water risks with the need to undertake further water stewardship assessments.

In prior years, we have also conducted water stewardship assessments against the International Alliance for Water Stewardship Standard[7] in some catchments and for our Richards Bay mill in South Africa. This included discussions with other water users in the assessed area. Outcomes are being used to inform meaningful, cost-effective improvements to our management systems and interactions with other water users to improve water security in the catchment. By way of an example, we recently reviewed our policy on controlled burning to protect soil quality through improved planning and implementation of burning plans.

Reducing water consumption

Withdrawals from the water system can affect the environment by lowering the water table, reducing the volume of water available to other stakeholders and altering the ability of an ecosystem to perform its natural functions.

Such changes have wide implications for quality of life in the area, including economic and social consequences for the local communities for whom the water source is important.

From a business perspective, the cost of the water we use and treat as effluent can be significant. Uncertainties over water availability in some of the areas where we operate can also be a risk factor. We expect water regulation to become stricter in coming years due to the impacts of climate change on rainfall patterns and related regulatory changes. For these reasons, reducing freshwater consumption in every location and especially in water-stressed regions is a priority.

We monitor the water consumption of our operations using calibrated water flow meters and water bills (consumption of potable water provided by the municipality). Every pulp and paper mill has calculated a detailed water balance and reports monthly water consumption, withdrawal and discharge data via the Group's reporting tool. Data is externally verified to a limited assurance level. We disclose our detailed water methodologies and calculations in our CDP Water Response, which is publicly available online:
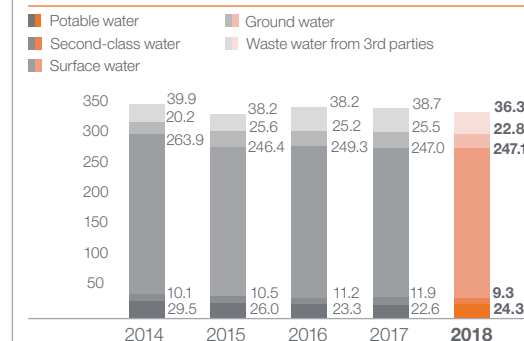
Read more
www.cdp.net

In 2018, total Group water input was around 303 million m³ (2017: 307 million m³), of which 203 million m³ was directly used as contact water[8] and 97 million m³ used indirectly for cooling purposes, which does not come into contact with production processes. For more information on our water withdrawal and discharge please see page 153.
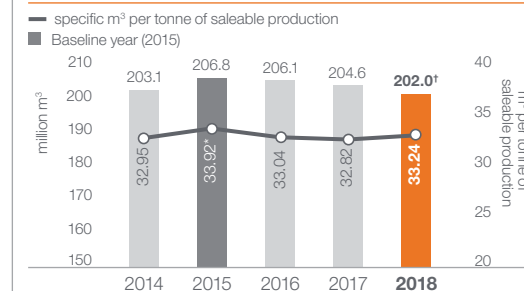
25 million m³ of our water input was in water scarce areas in South Africa (2017: 26 million m³). We saw a 2.2% reduction in our water withdrawal in water-stressed regions in 2018 – mainly due to the closing of our newsprint production capacity at our Merebank mill.

Our Richards Bay mill has also reduced water consumption sustainably over the past few years, with an increase this past year compared to 2017 related to the impacts of an extended shut in February.

Total water input
million m³

- Potable water
- Second-class water
- Surface water
- Ground water
- Waste water from 3rd parties

Contact water from our pulp and paper mills
million m³

— specific m³ per tonne of saleable production
■ Baseline year (2015)

* The 2015 baseline of 33.92 excludes a divested mill
† Powerflute paper mill, which was acquired in 2018, is excluded from 2014–2018 data. This data still include performance until May 2018 from Pine Bluff, which was then sold

7 https://a4ws.org/
8 Sum of all water volumes used on the production site as process water for washing and as product input, for sanitary purpose and for non-industrial operation (e.g. in kitchens, toilets and bathrooms), as well as in boilers for steam production

Managing water risks in South Africa

Managing water risks in South Africa

In South Africa, we manage approximately 254,000 hectares of eucalyptus and pine plantations which supply timber to our Richards Bay mill. Our plantations are vulnerable to reduced water supply and climate change may reduce rainfall and increase temperatures in coming decades, potentially affecting timber yield. Extended water shortages in South Africa also remain a concern for the operation of our mills. To manage the risks, we have reduced our total freshwater consumption in our South African mills by 8% and our specific water consumption in our Richards Bay mill by 4% from 2015 to 2018. This has been achieved mainly by implementing closed loops and increased recycling of water used in our processes.

We also work hard to reduce the water consumption in our nurseries, which provide us with seedlings for replanting after harvesting trees in our plantations. We upgraded the greenhouse irrigation systems from the traditional misting system to a more efficient fogging system and installed a precision fertiliser dosing machine with drip irrigation in the sand beds. We also introduced rainwater harvesting, with an overall capacity to store two million litres of rain water, to reduce our dependence on boreholes and potable water sources. These measures have helped us improve water efficiency in the greenhouses.

Constrained resources and environmental impacts

Water recycling

Water reuse and recycling is important to reduce water withdrawal and discharge and wastewater treatment costs. It also contributes to local, national and regional goals for managing water supply. This is especially important in water scarce areas such as South Africa, which has experienced sustained below-average monthly rainfall since 2015[9]. Recycling water can also reduce the energy consumption of a mill by utilising the heat content of water to improve energy efficiency.

In 2017, we developed and communicated a new guidance standard to support our operations in consistently calculating their recycling of water. To calculate water recycling rates, we consider internally used contact and non-contact water and the reuse of purified water after internal and/or external wastewater treatment. Our calculation methodology was based on the BAT Reference Document for the Production of Pulp, Paper and Board[10], an internal CEPI Guideline on calculation of water recycling in the paper mill as well as our experience from pilot tests carried out at our Frantschach and Hausmening mills in Austria.

By way of example, at our Merebank mill, we reuse community waste water for industrial purposes after it has been cleaned by ultrafiltration. This has replaced more than 95% of the potable water formerly used at the mill. Our investment is proof that a combination of innovation, sound environmental principles and BAT water treatment technology can deliver significant improvements in water resource management.

Effluent and waste water quality

To minimise our impact on the aquatic environment, we monitor the volume of water discharged from our operations and the pollutant parameters of our discharged waste water. The water we use in production is treated in wastewater treatment plants before it is released back to the aquatic environment. Over the last five years, we have invested some €75 million in the modernisation of our wastewater treatment plants, including at our mills in Świecie and Syktyvkar.

We monitor and manage a number of key indicators of water discharge quality from our pulp and paper mills, most importantly COD and AOX. Our operations measure and report on the quality of effluent water every month. We use methodologies in line with ISO standards and assess primary data[11] to calculate the magnitude of wastewater pollutants. We provide detailed internal guidance on the reporting of environmental parameters and set out mandatory methodologies for our operations. Consolidated data is externally verified and reported annually in our Sustainable development report and our public CDP Water response.
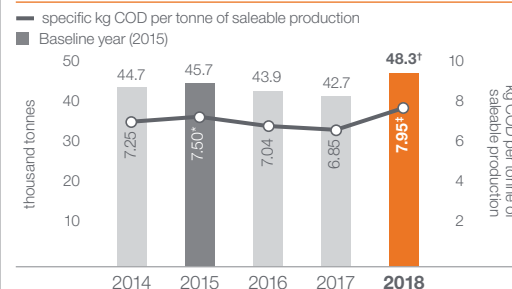
In 2018, we released a total of 229 million m³ of treated waste water back to the aquatic environment (2017: 232 million m³). This includes around 36 million m³ from third parties such as the local community which is treated in our wastewater treatment plants.

Our commitment is to reduce the specific effluent load (COD) of waste water by 5% by 2020 (against a 2015 baseline) by avoiding spills of chemicals in production processes and by investing in wastewater treatment plants. Specific COD after wastewater treatment was 7.95 kg per tonne of saleable production (2017: 6.85).

This represents a 6.1% increase against 2015 and a 16.1% increase against 2017, due to the extended shut at our Richards Bay mill.

We have achieved a 12% reduction of AOX to 150 tonnes in 2018 against 2017 (170 tonnes).

COD emissions
thousand tonnes

— specific kg COD per tonne of saleable production
■ Baseline year (2015)

Year	thousand tonnes	specific kg COD per tonne
2014	44.7	7.25
2015	45.7	7.50*
2016	43.9	7.04
2017	42.7	6.85
2018	**48.3†**	**7.95‡**

kg COD per tonne of saleable production

* The 2015 baseline of 7.50 excludes a divested mill
† Powerflute paper mill, which was acquired in 2018, is excluded from 2014–2018 data. This data still include performance until May 2018 from Pine Bluff, which was then sold
‡ In 2018, specific COD emissions increased, mainly due to Richards Bay's extended shut

9 JRC Technical Reports, 2018 – Drought and Water Crisis in Southern Africa
10 http://eippcb.jrc.ec.europa.eu/reference/BREF/PP_revised_BREF_2015.pdf
11 Including analysis by accredited institutes, regularly calibrated measuring equipment and bills from external wastewater treatment companies etc

Modernising our wastewater treatment plant at Syktyvkar, Russia

In 2018, we commissioned a large-scale project to modernise the mill's wastewater treatment facilities. This strategic project is vital to the community as well, since we are treating 100% of the waste water from Syktyvkar and Ezhva district (with the total population of almost 250,000 people), and effluents from a number of neighbouring industrial companies. Mondi's investments in best available technologies enabled us not only to increase the efficiency of the wastewater treatment facilities but also to contribute to the infrastructure development of the mill, ensuring its continuous future operation at a state-of-the-art level.

Klaus Peller,
Managing Director,
Mondi Syktyvkar, Russia

Modernising our wastewater treatment plant at Syktyvkar, Russia

About a fifth of Mondi's total COD is generated by our mill in Syktyvkar. The wastewater treatment plant at our Syktyvkar mill in Komi treats the mill's industrial waste water and also the waste water from the surrounding community, including other industrial operations. In our 2017 Sustainable development report, we reported on improvements acheived due to the upgrading of clarifiers, rabble rakes and disc filters and as a result of mixing municipal and industrial waste water before entering the treatment plant, increasing the efficiency of the nutrient dosing system. This investment resulted in a 22% reduction in specific COD emissions in 2017, compared to 2015. In 2018, we completed the final phase of the project bringing the overall investment in improving wastewater treatment at Syktyvkar to over €60 million. Specific COD has now reduced by 24% since 2015, an absolute reduction of about 1,635 tonnes of COD.

Key outcomes of the investment include (against a 2015 baseline):

→ specific COD emissions down 24%;

→ specific AOX emissions down 19%;

→ increase of N by 23% and reduction of P nutrients by 31%; and

→ all biosludge from the wastewater treatment is dewatered to such an extent that it can be reused as biofuel in our energy plants.

Constrained resources
and environmental impacts

Air emissions

We are committed to minimising environmental impacts related to air emissions from our sites. We carefully manage our air emissions and use ISO standards for monitoring, analysing and calculating absolute emissions of pollutants.

Our recovery, bark and auxiliary boilers and our lime kilns are significant sources of air pollutants such as dust, NOx, SO_2 and CO_2. In some cases, they also emit malodorous gases, despite high efficiency combustion and efficient flue-gas cleaning. Air emissions associated with the combustion of fuels for energy production remain a challenge for the pulp and paper sector. Directive 2001/81/EC of the European Parliament and of the Council[12] aims to limit emissions of acidifying and eutrophication pollutants and ozone precursors. We are working to further reduce these emissions from our production processes.

Persistent organic pollutants (POP) and hazardous air pollutants (HAP) are not reported as significant air emissions. Volatile organic compounds (VOC), mainly terpenes, are emitted to the atmosphere from wood chips stored in the open air. VOC emissions from chip piles vary according to the length of time chips are stored, temperature and wood species and can only be monitored as fugitive emissions.

16.3%
reduction of specific NOx emissions (against 2015 levels).

TRS emissions and malodorous gases

Reducing emissions of malodorous gases (monitored as total reduced sulphur (TRS) compounds) from kraft pulp mills is a priority as they can create an odour nuisance for local communities, resulting in public complaints. These emissions usually contain hydrogen sulphide, methyl mercaptan, dimethyl-sulphide and dimethyl-disulphide. Concentrated gases are emitted from the digester, evaporation plant and condensate stripper, and diluted gases mainly arise from chip pre-steaming, screening, pulp washing, smelt dissolver and ventilation of various tanks containing black liquor. We strive to reduce these emissions by burning TRS-containing off-gases in our recovery boilers and installing TRS monitoring both within and, at some locations, beyond our operational boundaries.

In 2018, we emitted 55 tonnes of TRS (2017: 56), a slight decrease compared with 2017. Ongoing and future investments, including Štětí's modernisation project (see page 72) will help reduce these emissions in the future.
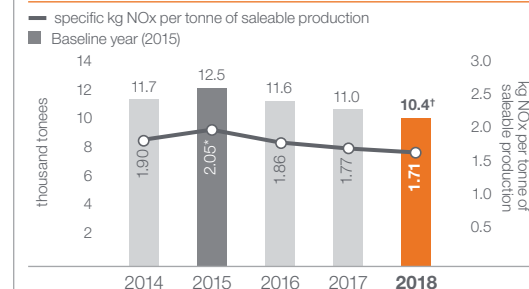
SO_2 emissions

Reducing SO_2 and NOx emissions from the combustion of fossil fuels and biomass at our on-site energy generation plants is necessary due to their association with adverse environmental and health impacts. We do this by increasing the efficiency of our boilers and the systems used in the purification of exhaust gases.

SO_2 is emitted mostly as a result of the combustion of coal for energy generation. In 2018, our SO_2 emissions were 1,567 tonnes (2017: 1,447). This represents a 72% reduction against 2015 levels, mainly due to the new biomass boiler and the fuel switch from coal and heavy fuel oil to natural gas at our Świecie mill (Poland).

NOx emissions

NOx emissions arise mainly from combusting black liquor, which contains nitrogen-compounds in the recovery boiler. Thermal NOx makes up only a small portion of overall NOx emissions, as temperatures in the recovery boiler and auxiliary boilers are too low for significant thermal NOx formation.

NOx emissions
thousand tonnes

- specific kg NOx per tonne of saleable production
- Baseline year (2015)

Values: 2014: 11.7 (1.90); 2015: 12.5 (2.05*); 2016: 11.6 (1.86); 2017: 11.0 (1.77); 2018: 10.4[†] (1.71)

* The 2015 baseline of 2.05 excludes a divested mill
† Powerflute paper mill, which was acquired in 2018, is excluded from 2014–2018 data. This data still include performance until May 2018 from Pine Bluff, which was then sold

Our commitment is to reduce specific NOx emissions by 7.5% by 2020 against a 2015 baseline. In 2018, our specific NOx emissions amounted to 1.7 kg per tonne of saleable production (2017: 1.8 kg), down 16.3% against 2015 levels. The reduction is mainly achieved due to reduced coal consumption at Richards Bay mill (South Africa), the new biomass boiler and the fuel switch from coal and heavy fuel oil to natural gas at our Świecie mill (Poland). There were also other projects to increase efficiency in our boilers and introduce de-NOx systems in the purification of exhaust gases. We are further reducing NOx emissions by investing in the modernisation of our energy plant in Syktyvkar (see page 72).

12 https://publications.europa.eu/en/publication-detail/–/publication/5723340b-4d97-4a75-86bc-e47910295a27/language-en

Constrained resources and environmental impacts

Fine dust emissions

Reducing fine dust emissions is an increasing priority for the pulp and paper industry. This issue is receiving rising public and industry attention and stricter legislation will increase the need for investments in emissions reduction. We reduce our particulate emissions by modernising our energy boilers, which also reduces NOx and SO_2 emissions.

In 2018, we emitted 1,023 tonnes of fine dust emissions (particulates) (2017: 921), an 11% increase compared to 2017 mainly caused by problems with our electrofilters at the recovery boiler in Syktyvkar.

Ozone depleting substances

Some chemical substances can severely harm humans and the environment – these include ozone depleting substances (ODS)[13]. The production and use of ODS is regulated by the Montreal Protocol which targets the global phase-out of ODS. We strive to minimise our priority substance emissions and we monitor our ODS emissions to the environment, both during the operation of equipment and during product use in accordance with legal requirements.

We report the GHG impact of ODS emissions in accordance with the World Resources Institute (WRI)/WBCSD GHG Protocol[14].

We emitted 11 tonnes of ODS emissions in 2018 (2017: 6 tonnes), an increase to the previous year mainly due to the ongoing maintenance and replacement of old ODS containing cooling equipment.

For more information on our air emissions and ozone depleting substances, please see page 154.

Energy efficiency and renewable energy

Please refer to our Climate change action area on page 71 to discover how we are improving energy efficiency and increasing our use of renewable energy throughout our operations.

Promoting the circular economy

We actively support the transition to a circular economy, working closely with partners such as the WBCSD, WWF and the CEPI. Our activities include developing initiatives that will enable our business and the packaging and paper sector to achieve greater resource efficiency, along with promoting the most efficient use of biomass resources.

We strongly support CEPI's call for the EU to place the 'cascading use of wood' principle (see page 66) at the core of its climate and energy policy. We also work with CEPI to lobby for European waste policies that promote paper recovery to improve the flow of recycled fibre into the supply chain. Progress requires improvement in the recyclability and the de-inkability of paper-based products, reduced bureaucracy, and the removal of cost barriers to recycling.

Other ways we support the transition to a circular economy include:

→ pursuing a goal of 'zero waste to landfill' by reducing waste from our operations;

→ where a waste stream cannot be avoided, promoting recycling and reuse – mainly as a secondary fuel for energy or by diverting waste to other manufacturing companies for use as secondary raw material;

→ increasing our use of renewable biomass-based energy;

→ increasing recycling of water during production;

→ investing in technology and processes that help to reduce our water and energy intensity;

→ investigating ways to reduce packaging weight and improve recyclability;

→ developing innovative packaging solutions that extend the shelf life of packaged goods; and

→ working across the value chain to address challenges related to the commercial viability of recycling flexible plastics at the scale and quality required.

13 Substances that contribute to the depletion of the natural ozone layer in the stratosphere

14 ODS emissions are reported in metric tonnes of CO_2 equivalents (CO_2e) according to their GHG transformation factors for the various ODS. Transformation factors are listed in detail in our Practice Note 'Reporting on greenhouse gas emissions'. Usually, measurement of ODS losses is not possible so information about refilling of ODS (carried out by Mondi personnel or specialised third-party companies) is used. If the ODS are collected and incinerated they are to be reported as waste, not as ODS losses
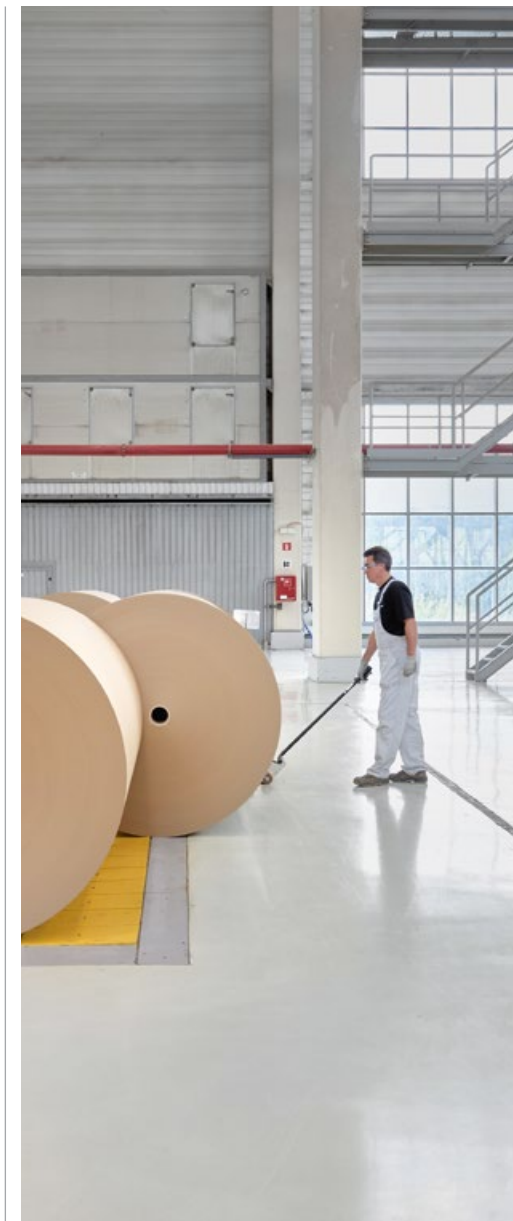
Constrained resources and environmental impacts

Waste

Monitoring waste streams

We monitor the volume of operational wastes (waste types and waste routes) across all our sites. Hazardous wastes pose a direct threat to the environment and can create future liabilities for a company, particularly when deposited in landfills. There are strict laws in most countries about how hazardous waste must be managed – including storage, treatment, transportation, and disposal. Non-hazardous wastes can also have a detrimental environmental impact and may give rise to significant costs for treatment and disposal. Waste is lost value, and therefore considered to be a cost factor. Debris (including soil) from construction is monitored and reported separately. If construction work is carried out by a third party, debris and soil is reported as Mondi's own debris.

Our operations measure and report their waste volumes monthly. Key waste streams include green liquor dregs, boiler ash, lime mud, rejects from the generation of recycled pulp and fibre sludge. In the case of Mondi-owned landfills, waste is disposed of directly by our operations. Otherwise, we use authorised disposal companies to transport and dispose of our waste. Mondi does not ship, import or export hazardous waste internationally.

We define our waste streams according to local legislation and we use primary data (such as bills and transport documents from disposal companies and data from regularly calibrated measuring equipment) to calculate waste volumes. Calculation methodology is set out in our mandatory guidance on reporting of environmental parameters. Waste data is externally verified.

Our zero waste ambition

We are constantly looking for ways to avoid, reuse or recycle our remaining waste streams as we pursue a goal of zero waste to landfill. We work with industry partners to investigate opportunities for them to use our waste as secondary raw material in their production processes. For example, some of our ashes are utilised as a secondary raw material in the production of cement or bricks.

Where it is not possible to reuse or recycle a particular waste stream, we dispose of it responsibly using options including: treatment such as drying and filtration to change its physical status and/ or chemical composition; treatment to change hazardous waste into non-hazardous waste; combustion in incineration facilities (preferably in combination with energy recovery); and, as the last option, disposal to landfill. Waste is either disposed of directly by Mondi according to our waste permits, or by waste disposal contractors who provide information on the waste disposal method.

We have committed to reduce the waste we send to landfill by 7.5%[15] by 2020, against a 2015 baseline. In 2018, we sent 38.2 kg of waste to landfill per tonne of saleable production (2017: 30.8 kg). This is a 1.3% increase against 2015 (37.7 kg per tonne of saleable production) and a 24.2% increase compared to 2017.

The main factors contributing to the increase were the extended shut at our Richards Bay mill when about 16,000 m³ of fibre sludge had to be dewatered and landfilled and our Syktyvkar mill had to increase its waste to landfill due to finalisation of the re-cultivation of its sludge pond.

📖 **For more information on waste**
Page 154

Biodiversity assessments at our operations

We manage the biodiversity impacts of our manufacturing operations. In 2015, we used the Integrated Biodiversity Assessment Tool (IBAT) to identify a number of mills located near protected areas, which could potentially affect important biodiversity. We have further improved our internal biodiversity assessment guidelines by also including the recommendations of the recently launched Natural Capital Protocol – Forest Products Sector Guide[16], launched in August 2018.

In 2018, Mondi signed a contract with the Institute of Biology of the Komi Science Centre of the Russian Academy of Sciences to explore potential impacts on biodiversity of our pulp and paper mill in Syktyvkar, including the study of available biodiversity documentation and the preparation of cartographic material. Subject to the findings, we will develop a biodiversity monitoring programme, including monitoring of species and habitats of aquatic and terrestrial flora and fauna in the area affected by the mill, if required by the study.

15 kg waste per tonne saleable production
16 Natural Capital Protocol – Forest products sector guide
17 In 2015, 193 countries adopted the Sustainable Development Goals, an ambitious roadmap to create a better world by 2030. Formed by One Young World, Lead2030 is the first coalition of global businesses working together to support youth-led innovation for the Sustainable Development Goals

Lead2030 initiative

In 2018, we supported the Lead2030[17] initiative, with the objective of making a tangible contribution to SDG12 'Responsible Consumption and Production'. Mondi committed $50,000 to fund a youth-led project that aims to turn waste generated by the packaging industry into raw materials of inherent value. The aim is to demonstrate how current retail, collection, sorting and recycling infrastructure can be adapted to generate raw materials of inherent value and how consumers can be incentivised and encouraged to improve sorting and collection of packaging waste. The goal is to explore ways cross-industry collaboration can make reuse/recycling mechanisms more efficient and widely used.
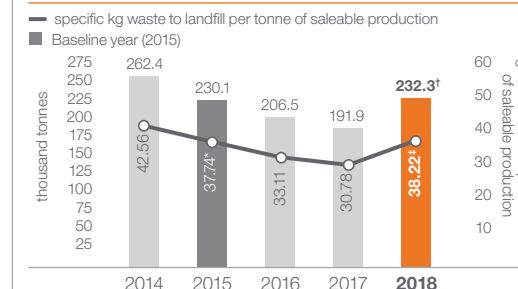
🖥 **Read more on Lead2030**

📖 **One Young World case study**
Page 107

Waste to landfill
thousand tonnes

— specific kg waste to landfill per tonne of saleable production
■ Baseline year (2015)

	2014	2015	2016	2017	2018
thousand tonnes	262.4	230.1	206.5	191.9	232.3†
specific kg	42.56	37.74*	33.11	30.78	38.22†‡

* The 2015 baseline of 37.74 excludes a divested mill
† Powerflute paper mill, which was acquired in 2018, is excluded from 2014–2018 data. This data still include performance until May 2018 from Pine Bluff, which was then sold
‡ In 2018 specific waste tp landfill increased mainly due to Richards Bay and Syktyvkar

Constrained resources
and environmental impacts

Managing our impacts

We apply a precautionary approach[18] to our decision-making, investigating potential negative impacts on people and the environment resulting from our emissions, use of natural resources, discharges and waste before potential harm can occur. Once an impact is identified, we set appropriate measures to reduce it.

Management systems and certification

To manage our impacts and improve environmental performance across our operations, we use tools such as environmental management systems and certification. Our mills and converting operations are governed by our sustainable development management system (SDMS) which sets global policies, standards and requirements in relation to all aspects of sustainable development. All our pulp and paper mills and forestry operations and 59% of our converting operations, are certified to the international environmental management system standard, ISO 14001 (2017: 56%).

Environmental incidents

As a responsible member of society, we are committed to meeting all the requirements and standards set out in our policies and SDMS.

Safety and environmental incidents and failure to comply with legal requirements pose a risk to people and the environment and can result in direct consequences for our business such as fines, damage to our reputation and demotivation of our workforce. In some circumstances, non-compliance can result in costly clean-up obligations and other environmental liabilities. We require all our operations to comply with local and regional environmental laws, regulations, and other standards such as site permits. In 2018, our operations reported 1,414 minor non-compliances (2017: 346). This increase in non-compliances is mainly due to exceeding wastewater quality parameters at our Richards Bay mill during upset conditions following the extended shut in February, and also non-compliance with air quality parameters from the lime kiln in our Richards Bay mill.

Environmental incidents mainly arise from the unexpected release of chemicals or 'loss of primary containment' (LOPC) in our operations. We have well-established management systems and procedures in place to avoid such incidents. When they do occur due to unforeseen circumstances or gaps in our internal systems, we monitor and thoroughly investigate every incident and take corrective action to avoid reoccurrence[19]. Lessons learned are communicated to ensure we avoid similar incidents across our operations.

In 2015, we introduced a new procedure to categorise LOPC occurrences based on the nature and amount of the chemicals released. In 2016, we developed a process for formalising and automating the reporting of safety and environmental incidents. Our web-based reporting tool, launched in 2017, has simplified and standardised the generation, distribution and communication of incident reports and corrective actions. It has also enabled more robust statistical analysis of incidents to identify potential systematic underlying causes.

In 2018, we had four major environmental incidents[20] with impacts outside our boundaries:

Date	Location	Details of the incident
28.02.2018	Richards Bay, South Africa	The continuous digester suffered an unexpected breakdown which resulted in it being taken offline while still full. The vessel needed to be emptied to carry out the required repair work. This resulted in approximately 30,000 m³ of black liquor and pulp entering the effluent drains. This volume was mostly captured in the emergency basins and released after treatment in the wastewater treatment plant. As a consequence of the unstable conditions following this incident, COD and true colour limits in the waste water were exceeded for about eight weeks, and our emergency basins were filled. The clean-up following the incident resulted in 16,000 tonnes of waste being landfilled. In order to avoid recurrence, the digester's maintenance plan has been revised and new parts have been ordered, which will be installed in the 2019 annual shut.
09.08.2018	Izmit, Turkey	Due to heavy rain, more than five tonnes of waste water contaminated with biocides and inks spilled from the wastewater treatment plant and contaminated farm land next to the water treatment plant. Just over 2,000 tonnes of contaminated soil from the area was sent to an authorised waste incineration plant. The rainwater channel and sewer have been repaired and the sludge removal capacity has been checked and improved.
14.09.2018	Richards Bay, South Africa	Problems in the lime kiln caused instability which resulted in a significant increase in TRS emissions, leading to around 300 odour complaints from the surrounding community during one event. As a consequence the current flare will be replaced by a more efficient burner.
27.09.2018	Štětí, Czech Republic	After chemical washing of the new recovery boiler, more than 100 m³ waste water was discharged to the rain water sewer (bypassing the wastewater treatment plant) instead of being directed to the chemical sewer. The waste water contained ammonium ions which resulted in approximately 20 kg of small fish dying downstream of the wastewater discharge in the Labe river. A fixed pipe connected to the chemical sewer was installed for boiler washing. Sewer decks have been colour-coded to prevent mixing rain sewer and chemical sewer in the future.

100%

of our pulp and paper mills and forestry operations certified to ISO 14001.

18 Introducing the precautionary approach, Principle 15 of the 1992 Rio Declaration which states that where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent

19 All environmental incidents are recorded, categorised and classified according to our 'Guide to major incident cause evaluation (MICE)'

20 A major environmental incident, previously called a Level II environmental incident, is any occurrence that has actually resulted in the loss of primary containment of at least 1 kg GHS hazard category 1 substance or > 10 kg of all other GHS classified substances. GHS is the 'Globally Harmonized System of Classification and Labelling of Chemicals' used to categorise chemicals by their hazardous characteristics. GHS is an internationally agreed upon system, created by the United Nations

Constrained resources and environmental impacts

Compliance

Regulatory compliance across our operations reflects the ability of management to ensure operating sites conform to strict performance parameters. We closely monitor occurrences of non-compliance, including those that result in monetary penalties and violations of the environmental requirements set out in our SDMS. Incidents of non-compliance are reported following due legal processes[21].

In 2018, Mondi reported one non-monetary sanction for non-compliance with environmental laws and regulations. In 2018, Mondi paid fines totalling approximately €37,000 involving five cases. The largest amount, approximately €20,000, was paid by our Richards Bay mill for exceeding contractually agreed effluent quality parameters, as a result of the impacts of the extended shut and mill instability.

Listening to stakeholder concerns and complaints

Our production processes have the potential to give rise to concerns or grievances from local communities, NGOs and other stakeholders. Complaints arise primarily due to odour or noise or, in some cases, as a result of an environmental incident.

As well as our formal Speakout mechanism, some operations provide the community with dedicated telephone lines that connect the complainant directly to the relevant person at the operation. Emission monitoring stations are also provided at a number of our pulp and paper mills. Our Socio-economic Assessment Toolbox (SEAT) process at our mills and forest operations provides a formal, strategic mechanism to address environmental grievances by local stakeholders over the longer term.

Complaints are managed locally; we try to contact complainants where required to better understand the grievance and investigate the cause. All complaints are investigated, reported and corrective actions are defined. The success of the corrective action is verified and where appropriate the complainant is contacted for follow-up.

In 2018, we received 520 complaints (2017: 194) with more than 300 of these related to a single short-term event at our Richards Bay mill. Problems in the lime kiln meant we had to introduce methanol into the flare, resulting in burner temperature instability; emissions of uncombusted concentrated non-condensable gases; which led to the odour complaints.

	2014	2015	2016	2017	2018
Total complaints	237	263	187	194	**520**
Odour complaints	206	241	152	108	**457**
Noise complaints	12	10	24	82	**41**
Other complaints	19	12	11	4	**22**

21 We report on fines exceeding €1,000
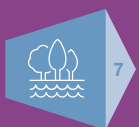
Biodiversity and ecosystems

Forests are home to up to 80% of the world's land-based animal and plant species. They provide benefits – such as regulating water and absorbing carbon – and over 2 billion people rely on them for food and other services[1]. Despite this, more than 7.5 million hectares[2] of forests are permanently lost every year due to deforestation, contributing to an estimated 15% of all GHG emissions[3].

Why is this important to our stakeholders?

→ Efforts to stem the loss of biodiversity have not yet proven effective and climate change adds to the uncertainties[4]

→ The last remaining intact forest landscapes face increasing pressure from human activities; sustainable management of secondary boreal forests is crucial to balance conservation and wood fibre production

→ Responsible stewardship of freshwater ecosystems is vital to meet the needs of all, especially in water-stressed areas such as South Africa

Why is this important to Mondi?

→ Wood is one of our primary raw materials and access to sustainable and responsible sources is essential to our business

→ We manage 2.1 million hectares of natural boreal forests in Russia and approximately 254,000 hectares of landholdings with plantation forests in South Africa

→ We must secure the long-term productivity of forests and maintain the water, soils, biodiversity and social value of our production landscapes

Our commitment to 2020

→ Promote ecosystem stewardship in the landscapes where we operate through continued multi-stakeholder collaboration

Discover how we are...

→ Embedding the Sustainable sWorking Forest model in our forestry operations

→ Promoting ecosystem stewardship at a landscape level, including across entire river catchments

→ Going beyond our forest boundaries by increasing external outreach and multi-stakeholder cooperation to achieve positive change in ecosystem stewardship

Next steps

→ Continue to address knowledge gaps and opportunities to embed the Sustainable Working Forest model

→ Catalyse best-practices through a landscape-level, multi-stakeholder approach

→ Explore cost-effective and practical ways to measure and monitor natural capital and ecosystem services

→ Engage scientific organisations in strategic planning in the forest sector

Courtesy Ministry of Natural Resources and Environmental Protection of the Republic of Komi © Trier Igor

Our strategic SDGs and targets

SDG 8 Decent work and economic growth
→ Target 8.4 Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-Year Framework of Programmes on Sustainable Consumption and Production, with developed countries taking the lead

SDG 12 Responsible consumption and production
→ Target 12.2 By 2030, achieve the sustainable management and efficient use of natural resources

SDG 15 Life on land
→ Target 15.1 By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements

SDG 15 Life on land
→ Target 15.2 By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally

→ Target 15.5 Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species

→ Target 15.8 By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species

→ Target 15.9 By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts

For links to SDGs 6, 11 and 17 see the full index

1 http://wwf.panda.org/our_work/forests/importance_forests/
2 https://www.worldwildlife.org/threats/deforestation
3 https://wwf.panda.org/knowledge_hub/all_publications/living_planet_report_2018/
4 https://www.worldwildlife.org/threats/effects-of-climate-change

Biodiversity and ecosystems

The sustainable working forest

We support resilient production landscapes and work to optimise wood production in balance with other components of natural capital and thriving ecosystem services.

Proactive multi-stakeholder engagement across the entire operational landscape and continuous practical training and mentoring all the way to the front-line is key to our success. Our long-lasting partnership with Mondi is a great example of how long-term collaboration enables the achievement of tangible improvements for all.

Yuri Pautov
Director of Silver Taiga Foundation and Chairman of the Council of the Ministry of Natural Resources and Environment of the Komi Republic, Russia

We use our forests to apply best practice and develop new practical solutions for sustainable forest management, taking into account the specific features and needs in different forest types.

Our largest wood volumes are sourced in Russia and South Africa, where Mondi has its own forestry operations. These supply more than half of our domestic wood consumption in these countries respectively.

The sustainable working forest concept

Our sustainable working forest concept shows the positive contribution that well-managed production landscapes make to society by integrating commercial forests and conservation networks. It is of utmost importance to secure a sustainable increase of our wood supply in the long term, while at the same time maintaining biodiversity and essential ecosystem services.

For Mondi, the sustainable working forest concept includes the three main forest types that we source wood from, namely:

→ intensively managed plantations in the temperate region of South Africa;

→ extensive areas of slow-growing boreal forests in Russia with long rotation periods; and

→ historically small- and medium-scale temperate forests of central Europe.

🖥 **Read about the The Sustainable Working Forest**

Since its launch, we have used the sustainable working forest concept to promote landscape stewardship. The concept has gained external recognition among global stakeholders and is supported by our partners, strengthening its wider outreach.

In 2018 we finalised the alignment of all our activities with the Sustainable Working Forest model, including the main forest types and the main components of natural capital. This has helped us identify knowledge gaps and opportunities for shared learning among our local partnerships as we work together to achieve consistent best-practice standards across all types of forests.

Maximising our positive impact: thinking globally, acting locally

To have a meaningful impact on biodiversity and ecosystems, we need to act at different levels – from local to global and across different forest types and landscapes.

Engaging with local stakeholders

Locally, we develop sustainable practices in our operational landscapes. Here we explore new approaches with our partners. Examples include our partnerships with the Silver Taiga Foundation in Russia and the Mondi Ecological Networks Programme in South Africa.

In 2018, we completed a 10-year review of our main partnerships in Russia and South Africa to identify key achievements and insights, align objectives with current trends and challenges, and define future activities.

For all local biodiversity and ecosystem projects, there are some common principles which we have found to be essential for achieving positive impact. They include action on a landscape level, proactive multi-stakeholder engagement, assessment of natural capital and support for effective, practical implementation.

We research the key design and management principles required to maintain or enhance biodiversity in ecological networks (ENs). These ENs are critically important to ensure biodiversity and ecosystem service benefits within highly productive plantation landscapes. In so doing, we identify how sustainable plantation forestry could contribute to the Aichi Biodiversity Targets.

Michael Samways
Head of the Mondi Ecological Networks Programme (MENP) and a Distinguished Professor at the Department of Conservation Ecology & Entomology, Stellenbosch University, South Africa

Biodiversity and ecosystems

Engaging with multi-stakeholder platforms

To scale up our impacts, we share best practice and local experience through regional and global platforms, designed to catalyse action on a wider scale. These platforms include the Russian Boreal Forest Platform (BFP)[5], New Generation Plantations Platform (NGP)[6] and The Forest Dialogue (TFD)[7].

The **NGP** was established in 2007 as a partnership between WWF and key companies working in plantation forestry, including Mondi. NGP actively promotes collaboration with other networks on common issues. It is engaged in TFD, which held its first dialogue on intensively managed planted forests in Brazil 10 years ago.

A decade later, in March 2018, **TFD** with the support of NGP brought participants back to Brazil for a dialogue on Tree Plantations in the Landscape, where they discussed the changes since the first field seminar. In October 2018, linked to the International Congress on Planted Forests[8], NGP arranged a joint session with the International Union of Forest Research Organizations (IUFRO) to explore practical links between science and business. NGP has agreed with BFP to arrange a joint cross-border China-Russia field trip, linking plantation forestry and sustainable intensification of natural forests.

The **BFP** was established in 2015 by WWF, Mondi and Silver Taiga, following the example of NGP. It builds on a foundation of multi-stakeholder engagement on forestry-related issues that has developed since TFD hosted the first international seminar, with support from Silver Taiga and Mondi, in the Komi Republic in 2008.

The BFP Study Tour 2018 in Russia. David Lindley (WWF South Africa) and Nikolay Shmatkov (WWF Russia)

The first BFP field seminar in 2015 in the Komi Republic, led by Silver Taiga and Mondi with support from Ilim Group, set a precedent for effective precompetitive collaboration. It convened Russian stakeholders to demonstrate how sustainable intensification of secondary forests can secure and protect the last remaining Intact Forest Landscapes (IFLs). BFP played a significant role in the adaptation of a national regulatory framework to make sustainable intensification possible.

In 2018, Mondi and Ilim hosted over 60 BFP participants in their forests to illustrate progress over the past three years, including compliance with the new regulations.

Engaging with global stakeholders

Globally, we work with stakeholders to develop and promote new concepts and a common approach to sustainable management of natural resources across different land uses and industrial sectors. We are members of the FSG of the WBCSD, the Natural Capital Impact Group (NCIG) at the Cambridge Institute for Sustainability Leadership (CISL)[9] and the HCV Resource Network (HCVRN)[10].

A common approach across forestry and other land uses is important because it enables consistent measurement of environmental impacts and dependencies and ensures effective monitoring to inform decision-making and target setting.

Mondi is a member of the **WBCSD's FSG**. In 2017, the FSG developed a new strategy, extending its scope from natural capital and forestry issues to include the wider circular and bio-economy agenda. In 2018 the FSG started the development of the Forest Sector SDG Roadmap to articulate a joint vision with respect to the most impactful contributions the sector can make through process, product and partnership innovation and provides attainable pathways to help realise and achieve the ambitions that are set out within the SDGs.

Launched by the WBCSD in July 2016, the Natural Capital Protocol (NCP) is a framework designed to help generate trusted, credible, and actionable information. The Protocol aims to support better decision-making by enabling business managers to consider their interactions with nature or, more specifically, natural capital. We were actively involved in providing technical expertise to help develop the Forest Products Sector Guide to NCP. A case study on our Model River Mezen project with the Silver Taiga Foundation was highlighted to demonstrate how natural capital can be assessed and measured.

In 2018, we provided input and a case study for WBCSD's Business Case for Investing in Soil Health publication, which addresses Climate Smart Agriculture[11].

The case study was taken from our work with Stellenbosch University and their research into the importance of ecological networks for soil, biodiversity and productivity of forest plantations.

We are a long-standing member of **CISL's NCIG**, the purpose of which is to promote resilient productive landscapes and develop comparable metrics to measure and value impacts on natural capital. NCIG launched the Healthy Ecosystem Metric Framework[12] in 2018, which aims to ensure a consistent approach to measuring natural capital across different land uses and industrial sectors.

Mondi is also a member of **HCVRN**, which aims to promote the HCV approach across different land uses and to help stakeholders identify, manage and monitor HCV areas. The network brings together a wide range of users of the HCV approach, including certification schemes, private sector representatives, multilateral organisations, environmental and social NGOs, HCV practitioners and other stakeholders. In 2017, HCVRN embedded a High Carbon Stock (HCS) approach into its HCV Network's Assessment Licensing Scheme, which focuses on achieving 'no deforestation' in commodity production, although in practice the two approaches already substantially overlap.

5   http://borealforestplatform.org/en/
6   www.newgenerationplantations.org
7   https://theforestsdialogue.org/
8   https://www.iufro.org/fileadmin/material/science/divisions/div8/80000/icpf18-beijing18-report.pdf
9   www.cisl.cam.ac.uk/business-action/natural-capital/natural-capital-impact-group/
10 https://hcvnetwork.org/who-we-are/
11 https://www.wbcsd.org/Programs/Food-Land-Water/Food-Land-Use/Climate-Smart-Agriculture/Resources/The-Business-Case-for-Investing-in-Soil-Health
12 www.cisl.cam.ac.uk/resources/working-papers-folder/healthy-ecosystem-metric-framework

Biodiversity and ecosystems

Ecosystems and biodiversity

Ecosystem degradation and the resulting loss of habitats and species have a significant negative effect on the ecosystem services that sustain communities and businesses. Mondi is committed to managing key natural ecosystems in its forestry operations in a way that allows ongoing representation of biodiversity and delivery of key ecosystem services. We do this by maintaining an effective network of conservation areas, representing priority ecosystems and imitating natural dynamics wherever possible. The management of our conservation areas is guided by our environmental management system and site-specific requirements are reflected in a series of map-based Environmental Management Plans (EMPs).

We set aside around 24% of our owned and leased land for conservation purposes; the rest of our managed land is used for production purposes. In Russia, these are predominantly old-growth forests and river ecosystems. In South Africa, these are predominantly grassland and wetland ecosystems, with a smaller proportion set aside for woodland and natural forest ecosystems. Our conservation area networks include HCV areas, corridors, and other patches of natural ecosystems, and habitats of various species, including rare and endangered species. We maintain a GIS with maps that show all conservation areas across our entire managed landscape. This allows us to support spatial planning at a landscape level by defining areas to be excluded from production; these areas are instead managed for biodiversity conservation and the maintenance of ecosystem services. The important aspects to be considered in the design of a conservation area network are the key types of ecosystems, natural landscape and terrain boundaries and how to ensure connectivity between conservation areas.

For both our Russian and South African operations, we have defined and are updating lists of rare, threatened and endangered species. These include IUCN Red List species and national conservation list species. We do not have our own species-specific monitoring programmes, but we follow provincial and/or national monitoring of certain species. We recognise the dependence of certain species on habitats and ecosystems present within our operational landscapes and we aim to ensure that these are maintained.

We are primarily focused on ensuring functionality and health of our conservation network. In Russia, our HCV areas are set aside and the main risk is their lack of legal status and protection. We monitor the consistency and integrity of these areas annually, using earth observation data and GIS with selective field surveys where necessary. In South Africa, we implement more intensive and regular management treatments to maintain our conservation area networks. This includes controlling the extent and spread of invasive alien species, controlling risks from fire, and assessing the health of rivers and wetlands.

We continue to develop best practices across our main forest types through the Ecosystems Stewardship work stream of our global partnership with WWF in South Africa, Russia and Bulgaria, as well as through our local partnerships with Silver Taiga Foundation in Russia and the WWF-Mondi Water Stewardship Partnership (WWF-Mondi WSP) and MENP in South Africa.

In addition to our landscape-level approach to biodiversity conservation on our owned and leased landholdings, we also extend the scope into our manufacturing operations, covering protected and HCV areas in the surroundings (see page 82).

What is an Intact Forest Landscape?

An IFL is a seamless mosaic of forest and naturally treeless ecosystems within the zone of current forest extent, which exhibits no remotely detected signs of human activity or habitat fragmentation and is large enough to maintain all native biological diversity, including viable populations of wide-ranging species. IFLs have high conservation value and are critical for stabilising terrestrial carbon storage, harbouring biodiversity, regulating hydrological regimes, and providing other ecosystem functions[13].

13 http://www.intactforests.org

What is a High Conservation Value area?

HCVs are areas with biological, ecological, social or cultural values which are outstandingly significant or critically important at the national, regional or global level. One of the six categories of the HCV areas include intact forest landscapes as large landscape-level ecosystems and ecosystem mosaics that are significant at global, regional or national levels, and that contain viable populations of the great majority of the naturally occurring species in natural patterns of distribution and abundance[14].

14 https://hcvnetwork.org/how-it-works/

The Midlands endemic Brunsvigla undulata © Good Hope Estate LvdMerwe

Biodiversity and ecosystems

Conserving biodiversity in South Africa

Conserving biodiversity in Russia

Certification and compliance

Credible third-party certification of our forests is an important part of our management approach. It assures compliance with globally recognised standards for sustainable forest management. We apply a complementary combination of recognised certification schemes to our forestry operations.

Our managed forests are not associated with any form of deforestation or illegal logging. We do not undertake forestry in the tropics and we do not use tropical species or those listed by the CITES. We also do not use wood from genetically modified (GM) trees or grow GM crops.

In 2018, our forest management system in South Africa successfully passed the FSC surveillance audit. Work of our certification body in South Africa was also assessed by ASI and compliance to FSC procedures was confirmed.

Our forest management system in Russia also maintained certification in compliance with FSC and PEFC standards, including new forest areas that were leased in 2017 (38,900 hectares). In 2018, both our Russian and South African forestry operations reconfirmed compliance with the new ISO 14001 (2015) certification standard.

We have participated in the CDP Forests global disclosure system[15] since its inception. Read more about how we ensure all our wood and fibre comes from responsible sources under our Sustainable fibre action area on page 60.

In 2018, both our Russian and South African forestry operations reconfirmed compliance with the new ISO 14001 (2015) certification standard.

15 https://www.cdp.net/en/forests

Conserving biodiversity in South Africa

One of the biggest threats to biodiversity on our landholdings in South Africa is from invasive alien plants (IAP). Mondi has an intensive programme to monitor and control the spread of IAPs within the conservation network of our landholdings. As of April 2018, approximately 67% of our conservation area network was in a 'maintained' state.

Our freshwater ecosystems are also rich in biodiversity. In South Africa, we have a systematic wetlands monitoring programme, which Mondi and a wetlands specialist developed by building on the 'state of the wetlands' assessment, originally carried out by the WWF-Mondi Wetlands Programme (WWF-MWP). This improved monitoring programme assesses the state of our wetlands at a finer scale (operational units) so that we can use the results to better direct future management activities.

Conserving biodiversity in Russia

The main threat to biodiversity in our Russian forestry operations is the loss and fragmentation of habitats from logging operations. That is why Mondi ensures that rare ecosystems and endangered species are set aside at each level, from landscape down to logging site. Mondi has developed this comprehensive approach together with Silver Taiga Foundation.

In 2018, Mondi and WWF also started working on the development of practical guidelines for biodiversity conservation in the Komi Republic, which will be available for all stakeholders. This work will include the latest knowledge relating to impacts on species and practical measures for their protection at different spatial levels.

In 2018, Mondi Syktyvkar provided financial support to the Institute of Biology of the Komi Science Centre to support the updating of a registry of red-listed species[16]; this third edition is planned for publication in 2019.

16 https://ib.komisc.ru/add/rb/introduction/

Biodiversity and ecosystems

Long-term productivity of forests

We work to uphold the long-term productivity and stability of our forests and secure the sustainable wood supplies our business depends upon. Minimising losses from forest disturbances[17] – which may be intensified by climate change and other external factors – is important for securing long-term productivity. Negative impacts may include increased frequency and intensity of pests and diseases, droughts, forest fires, and management impacts on soil, water and biodiversity.

South Africa

We manage some 254,000 hectares of landholdings with plantations of eucalyptus and pine tree species in South Africa. As the need to mitigate and adapt to the impacts of climate change comes to the fore, our comprehensive tree improvement programme is focused on producing stronger, more adaptable and robust varieties that are better able to resist disturbances such as drought, pests and disease.

Fire remains an ongoing challenge for our South African plantations, exacerbated by drought conditions and socio-economic factors. We mitigate fire risks with naturally vegetated open corridors (ecological networks), which act as fire breaks between forest plantations to help prevent the spread of fires. In recent years, we have made significant improvements to our fire-fighting fleet, including upgrading vehicles, improving safety specifications and increasing our mobile water-carrying capacity.

We manage biomass that remains behind at logging sites after harvesting operations because this combustible material can increase the risk of fire. Management activities include prescribed burning of logging residues in compliance with legal requirements and our own standards. In 2018, we improved our procedures for pre- and post-burning assessments at harvesting sites, based on expertise provided by scientists from the University of Stellenbosch. The assessments aim to mitigate the risks of erosion and nutrient loss after prescribed burning to ensure healthy soils, which are critical for productive plantation forestry operations.

Russia

In Russia, we manage 2.1 million hectares of natural forests. We place emphasis on sound silviculture to improve yields and output of high-quality logs from secondary forests[18]. These secondary forests are managed within a landscape layout where IFLs and other HCV areas are protected. In addition to growing seedlings for planting, we are developing effective methods to support successful natural regeneration of forests. The strength of tree growth in boreal forests depends on the free space they have and their access to light, water and nutrients. In both naturally regenerated and planted forests, the most important step is to tend young forest stands, keeping the strongest and best trees and eliminating competition from undesirable vegetation during pre-commercial thinning.

Our Russian forests demonstrate a relatively strong resistance to pests and diseases, largely due to the presence of only native species, which are adapted to local conditions for forest regeneration. There are no monoculture forest stands and all forests have a heterogeneous structure and composition, with a mix of several primary tree species, including spruce, pine, birch and aspen. In the Komi Republic, mean annual evapotranspiration is significantly lower than annual rainfall. Higher temperatures enhance evapotranspiration, which has a positive effect on tree growth[19].

Forest fires are a significant threat to our Russian forests. Although their likelihood is relatively low, they have the potential to be large-scale. The main challenge is the complexity of physically extinguishing fires within vast areas of largely inaccessible forests.

We therefore place great emphasis on fire prevention and ensure adequate fire-extinguishing equipment and machinery. Regular activities include maintaining fire breaks, arranging forest monitoring and patrolling, maintaining forest fire roads and firewater ponds, and arranging equipped places for visitors and safety equipment for fire brigades.

17 A forest disturbance is a temporary change in environmental conditions that noticeably alters the physical structure of a forest ecosystem. These changes can be sudden and can have a significant impact – for example a fire or a pest outbreak
18 A secondary forest is a forest that has been logged and reforested by natural or artificial methods
19 http://www.sisef.it/iforest/pdf/?id=ifor0447-0010013

Biodiversity and ecosystems

Water stewardship

Water stewardship is a high priority in both our forestry and manufacturing operations. We collaborate with stakeholders through a multi-stakeholder approach at a landscape or catchment scale. This enables us to incorporate the bio-physical and social elements within a landscape as well as the different land uses that impact on the freshwater ecosystem across the catchment.

Our approach has helped catalyse multi-stakeholder participation in the landscape approach to freshwater stewardship, for example in the uMhlathuze River catchment in our South African operations. By involving key organisations and stakeholders who share an interest in a catchment, the approach aims to develop and implement shared solutions and actions to secure water-related ecosystem services at scale. In this way, Mondi promotes water stewardship across water catchments well beyond its forest boundaries.

> We need to recognise our common humanity and that the solution to global challenges rests with not one of us. Not the corporates, not government, not the NGOs. It rests with all of us. I'm quite sure one of the biggest mobilising forces of the world is going to be young people, who are going to drive us to do better things. So that together we co-create science-based solutions.

Viv McMenamin
CEO Mondi South Africa

Evolution of the WWF-Mondi WSP

The WWF-Mondi WSP working in the field to secure better governance of water resources
Michelle Hiestermann, Brent Corcoran, Candice Webb, David Lindley, Denis Popov, Hlengiwe Ndlovu, and Jane Burt

In recent years, the WWF-Mondi WSP has broadened its focus convening stakeholders on a catchment basis to collectively better manage water resources, through an innovative social learning approach. This is critical, as isolated good practice by a single player cannot address the complex challenges that face water resource management in these catchments.

Our partnership with WWF brings key stakeholders together who have a shared interest in maintaining freshwater ecosystems and services at the landscape level – including farmers, local government and corporate land users (forestry and industry). Applying social learning helps to engage key water users and stakeholders more effectively, and to ensure effective adaptive management in the rollout of these catchment partnerships.

Over the past decade, what started as a local partnership between Mondi and WWF in South Africa, has grown into a global partnership.

Its work has expanded beyond the original boundaries of wetlands restoration within Mondi's own plantations to provide a wide, cross-functional, landscape-level focus that is establishing links between our pulp and paper mills, our forestry operations and sourcing areas, and the water-catchments in which they are located. In the uMhlathuze and upper uMngeni catchments and the Southern Drakensberg Water Source Area, our work is successfully engaging other sectors such as forestry companies, citrus and sugar cane growers and the dairy sector.

The success of our partnership has been widely recognised in some key forums. For example, in October 2018, Viv McMenamin, CEO of Mondi South Africa, was a keynote speaker at the Financial Times Water Summit in London, which focused on how companies can collaborate to solve shared water challenges and generate better returns on investments in river basins where they operate.

Biodiversity and ecosystems

Engaging with science

Science plays an essential role in informing our management practices and establishing the value of our work on the ground. We support scientific research and gather robust evidence and data, which helps us to see the impact of our activities and improve our effectivenes. Our wide-ranging partnerships and research collaborations with academic and research institutions, NGOs and other stakeholders include:

In Russia: the Institute of Biology of Komi Science Centre of the Russian Academy of Sciences; Syktyvkar Forest Institute of St. Petersburg's State Forest Technical University; and Syktyvkar State University.

In South Africa: the University of Stellenbosch; the University of KwaZulu-Natal; and the University of Pretoria's Forestry and Agricultural Biotechnology Institute (FABI).

📖 **For details of our work with key scientific partners**

Driving future-focused forest research

The Cool Forests at risk?/IBFRA18 Conference Chair Florian Kraxner (IIASA) and Denis Popov (Mondi)

In September 2017, Mondi hosted an open dialogue at the 125th Anniversary Congress of the IUFRO[20], which set out to identify strategies and options for long-term, structured collaboration between business and science, aimed at moving closer to achieving the United Nations Sustainable Development Goals (SDGs).

The dialogue between business and science continued throughout 2018. There was a joint NGP-IUFRO session arranged at the ICPF2018 in China, which maintained momentum for science and the forest sector to continue narrowing down a list of critical topics for focused engagement.

We supported the international scientific conference 'Cool Forests at risk?/IBFRA18', hosted in Austria by the International Institute for Applied Systems Analysis (IIASA), together with other scientific networks[21]. The conference focused on exploring the links between climate change, bioeconomy, and people and the Cool Forests (boreal and mountain forests). The importance of Cool Forests for regulating climate was considered, as well as the type of adaptive management that will be needed to manage climate impacts on Cool Forests in the future. The conference brought scientists together from all over the world, along with global NGOs and forest companies, to develop joint messages for consideration by policy makers.

We will continue researching climate-related risks both internally within our main wood sourcing areas and with our scientific partners. Our main focus is on climate change impacts affecting the growth and resilience of forests.

IUFRO seeks to contribute to tackling major global challenges by advancing research collaboration, sharing knowledge and fostering the development of science-based solutions. In pursuing this mission, we see the private sector as an important stakeholder. Likewise, Mondi is committed to sustainable development and strives for collaboration with the scientific community which can provide the latest scientific findings about issues of common concern, emerging trends and future priorities. One of the fields of mutual interest is a reliable assessment of mid-term and long-term impacts from socio-economic and climatic changes on forests and markets.

Alexander Buck
Executive Director of IUFRO

20 https://www.iufro.org
21 The conference was organised by the International Boreal Forest Research Association (IBFRA), the Pan-Eurasian Experiment (PEEX), and IIASA, supported by IUFRO

Supplier conduct and responsible procurement

In an increasingly globalised and connected economy, transparency has become a key supply chain success metric for stakeholders worldwide. It's a complex challenge for business that involves players spanning the entire value chain. We're taking steps to improve transparency and manage our impacts by partnering with suppliers to build a responsible, inclusive and sustainable supply chain.

Why is this important to our stakeholders?

→ Our business impacts both upstream and downstream of our operations
→ Stakeholders expect businesses to manage their adverse impacts and bring about positive change, including tackling issues such as labour and human rights in their supply chains
→ Our customers require increasingly detailed information about how we manage our supply chain to manage their own risks

Why is this important to Mondi?

→ A responsible supply chain is crucial to sustainable growth, benefiting our business in far-reaching ways
→ Working collaboratively helps us drive meaningful responses to issues like labour rights and achieve positive change
→ As suppliers shift production to emerging markets, it's crucial we manage our risks in countries of potentially weaker governance

Our commitment to 2020

→ Encourage supply chain transparency and promote fair working conditions together with our key suppliers

Discover how we are…

→ Developing our supplier sustainability risk management system through a new responsible procurement process
→ Extending our Code of Conduct for Suppliers around key issues such as labour rights, environmental impact and water stress
→ Engaging with partners across the entire value chain

Next steps

→ Communicate the updated Code of Conduct for Suppliers
→ Roll out the new responsible procurement process to all tier one suppliers of direct material

Our strategic SDGs and targets

SDG 8 Decent work and economic growth
→ Target 8.7 Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms

See the full index for links to other relevant SDGs

Supplier conduct and responsible procurement

Our global supply chain

Our global supply chain spans more than 17,000 tier one suppliers[1] in 63 countries around the world. We focus on sourcing responsibly, ensuring no human rights violations and improving our understanding of climate change and of water-related risks.

Our businesses' activities span the entire packaging and paper value chain – from managing forests and producing pulp, paper and plastic films to developing and manufacturing industrial and consumer packaging solutions.
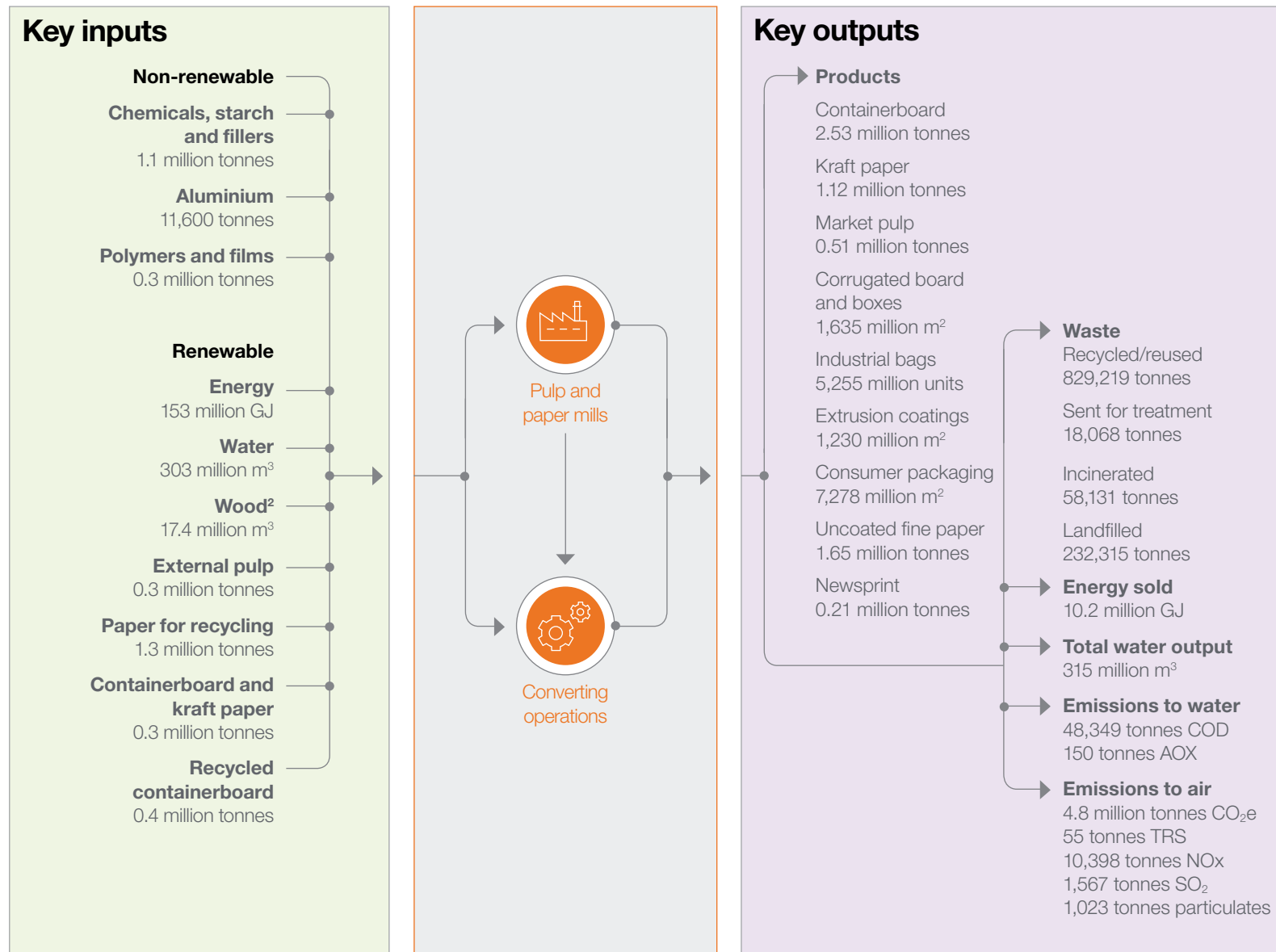
In 2018, we defined 'local suppliers' of products and services as suppliers that are located close to our significant operations (all Mondi production sites such as mills and converting plants) within the same country. Products and services purchased locally represented 58% of our overall spend in 2018.

We participated in CDP's Supplier Engagement Rating (SER) in 2018 and we received a rating of A-.

Read more
www.cdp.net

1 Direct suppliers that were active in 2018 with at least one purchase order
2 Environmental performance data (including raw material inputs) exclude our recently acquired operation Powerflute; Outputs include Powerflute to align with our Integrated report and financial statements 2018

Energy and materials flow 2018

Key inputs

Non-renewable

Chemicals, starch and fillers
1.1 million tonnes

Aluminium
11,600 tonnes

Polymers and films
0.3 million tonnes

Renewable

Energy
153 million GJ

Water
303 million m^3

Wood[2]
17.4 million m^3

External pulp
0.3 million tonnes

Paper for recycling
1.3 million tonnes

Containerboard and kraft paper
0.3 million tonnes

Recycled containerboard
0.4 million tonnes

Pulp and paper mills

Converting operations

Key outputs

Products

Containerboard
2.53 million tonnes

Kraft paper
1.12 million tonnes

Market pulp
0.51 million tonnes

Corrugated board and boxes
1,635 million m^2

Industrial bags
5,255 million units

Extrusion coatings
1,230 million m^2

Consumer packaging
7,278 million m^2

Uncoated fine paper
1.65 million tonnes

Newsprint
0.21 million tonnes

Waste
Recycled/reused
829,219 tonnes

Sent for treatment
18,068 tonnes

Incinerated
58,131 tonnes

Landfilled
232,315 tonnes

Energy sold
10.2 million GJ

Total water output
315 million m^3

Emissions to water
48,349 tonnes COD
150 tonnes AOX

Emissions to air
4.8 million tonnes CO_2e
55 tonnes TRS
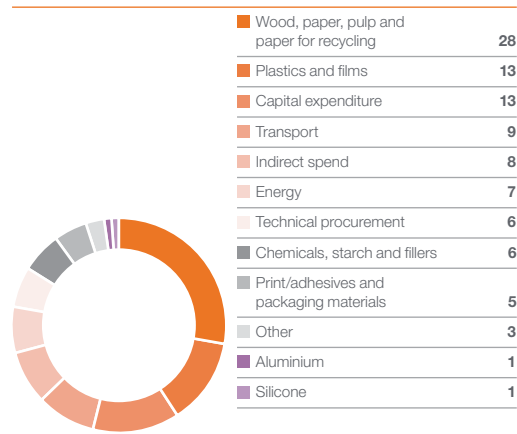10,398 tonnes NOx
1,567 tonnes SO_2
1,023 tonnes particulates

Supplier conduct and responsible procurement

Mondi uses recycled fibre input material in our containerboard, corrugated packaging and extrusion coatings products. In 2018, the Group externally procured 0.4 million tonnes of recycled containerboard, mainly for its corrugated packaging products. In our Consumer Packaging business we started trials testing resins and films with recycled content. These trials will be concluded in 2019, allowing us to use recycled plastics in a number of products for our Consumer Packaging business.

We have focused on developing our approach to identifying sustainability risks and assessing supplier performance. This work supports our response to the UK Modern Slavery Act and similar modern slavery legal requirements in other jurisdictions. It will enable us to improve transparency in our supply chain, minimising risk to our business and meeting stakeholder expectations for global supply chain transparency (see page 96).

Breakdown of supply spend
%

Wood, paper, pulp and paper for recycling	28
Plastics and films	13
Capital expenditure	13
Transport	9
Indirect spend	8
Energy	7
Technical procurement	6
Chemicals, starch and fillers	6
Print/adhesives and packaging materials	5
Other	3
Aluminium	1
Silicone	1

We manage our sourcing of products and services via procurement categories. Each category presents a unique set of sustainability-related risks that we must manage, related to the nature of the product or service and the geographies of our suppliers. In countries of weaker governance, there may be a greater risk of labour and human rights violations, weaker regulation of environmental practices or waste disposal, and/or controversial sourcing of raw materials. Other risks are inherent in the nature and production of the product or service, for example the risk of illegal logging and deforestation in wood and fibre supply chains (see page 6). We consider these issues when we determine the overall risk for each category, alongside other business considerations, such as magnitude of spend, our dependency and the strategic nature of our relationship with each supplier.

Our key areas of spend and major procurement categories are described below.

Wood, pulp and paper

Fibre is one of our primary raw materials. In 2018, we externally procured 17.4 million m^3 of wood, 0.3 million tonnes of pulp, 1.3 million tonnes of paper for recycling (recovered paper) and 0.7 million tonnes of containerboard and kraft paper, representing 28% of our overall spend. We only procure fibre from sustainable sources and we use forest certifications and our DDMS to assure that the fibre we source comes from sustainably managed forests. Our long-term aim is to increase the proportion of our fibre that comes from credibly certified sources and to support efforts to increase its long-term availability in the supply chain (see page 60).

Plastics

The plastics category includes different types of polymers, films and fabrics. Our Group procurement team develops the strategy, implements strategic sourcing projects and conducts negotiations with our Group suppliers in this category. They work closely with local procurement teams to create visibility on spend and implement the aligned strategies and processes.

Our strategy focuses on responsible sourcing and enhancement of quality requirements to support our high-quality products. Regular audits of plastics suppliers ensure they meet our quality, hygiene, environmental and safety standards. To support our businesses in sustainable product development, we purchase plastics that are suitable for downgauging, lightweighting and recycling – such as mono-material solutions that qualify for existing recycling streams, bio-based packaging for the food industry and laminates made from recycled content raw material (read more on page 113).

Chemicals, starch and fillers

We use starch, fillers and other chemicals in the pulp- and papermaking process, and in combination with other input materials for creating high performance paper and packaging products. These amounted to 1.1 million tonnes in 2018. Managed by our Group procurement team, chemicals and polymers are sourced through a number of large companies as well as local suppliers close to our operations (see 'Local suppliers' on page 94). The majority of these suppliers are based in Europe with subsidiaries in Asia, Middle East and the US. Our procurement teams conduct audits of key suppliers on the basis of risk or strategic interest to ensure they meet our commercial, quality and sustainability (mostly safety, health and hygiene) standards. In 2018, these audits included two paper chemicals suppliers and one starch supplier.

Transport and logistics

To transport our supplies and our products, we use rail transport and combined rail-road transport solutions as well as rail transport to ports for onward shipping. Road and sea-based logistics accounted for 78% of our total logistics in 2018. The transport and logistics category is managed by the Group procurement team. We monitor indirect CO_2 emissions (Scope 3 emissions) arising from our supply chain, of which transport emissions – from both upstream and downstream activities – is a significant contributor (see page 75). We continue to look for opportunities to reduce these emissions, for example by working with shipping companies that are investing in new equipment including vessels and trucks, and redesigning our packaging solutions to reduce their transport impacts. All our transport tenders include Mondi's safety requirements according to the specific needs of our mills and converting operations.

Modes of transport
%

Road	55.0
Rail	22.2
Ocean	22.6
Air	0.2
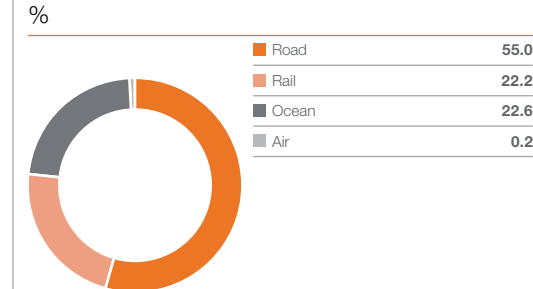
Supplier conduct and responsible procurement

Managing risks and increasing transparency

Responsible procurement process

We started work on the development of our group-wide responsible procurement process in 2017. It will be rolled out in a phased approach to all Mondi businesses and procurement categories. The approach provides a consistent framework for selecting, monitoring, managing and developing our supplier base. It enables us to identify risks and opportunities, establish strategic partners, build long-term relationships, drive collaboration and improvements, enhance transparency, and better manage the impacts of our supply chain and products.

In 2018, we developed a comprehensive methodology for assessing sustainability risks in our supplier base and conducted training for procurement specialists. Developments include better integration of the responsible procurement process by linking the supplier risk assessment process with supplier classification. This will help increase transparency in our supplier base and deliver efficient strategies for supplier development.

We also developed a process to assist us in identifying key sustainability risks associated with our supply chain – namely labour rights, climate change, water-related and biodiversity risks. In future, additional risks may be added if they have the potential to impact on our business and our ability to maintain continuity of supply.

In 2018, we carried out a pilot screening of 100 suppliers from across all procurement categories using the new methodology. 25 suppliers received a scoring of medium or high risk in one or more of the areas of labour rights, environmental or water risk. These suppliers were requested to complete a questionnaire and based on their answers,

their risk rating was reviewed. Those remaining at high risk (10 suppliers) will now enter the follow-up process. We are using our learnings from the pilot to improve the supplier questionnaire and ongoing engagement.

The training for procurement teams began in 2018 and will continue in 2019. The responsible procurement process[2] will be rolled out to first tier suppliers in various procurement categories during 2019 and 2020. We will engage with our suppliers on our approach, principles and goals.

Sustainability is a key element of Mondi's business strategy. With the responsible procurement approach, we have developed a process, a tool and clear accountability to ensure that our supply base meets the legal, social and environmental requirements and minimises our risk exposure.

Beatrix Praeceptor
Chief Procurement Officer
Mondi

The new process sets out steps to evaluate existing and new suppliers within the Mondi procurement categories as follows:

Step 1
Gathering Baseline Information for Risk Screening

Basic information about our suppliers is collected to perform the risk screening.

Step 2
Risk Screening

A risk screening of suppliers is conducted based on country of production, supply or service during the on-boarding process and repeated annually for existing suppliers.

Step 3
Responsible Procurement Supplier Questionnaire

A targeted questionnaire gathers more detailed information on those suppliers that are considered to be high risk at the risk screening stage.

Step 4
Further Evaluation and Follow-up

Where a high risk is identified through the supplier questionnaire, short-term and longer-term actions may be taken to mitigate the risk where possible.

Step 5
Escalation Process

Escalation may be required to determine an appropriate strategy to manage risk, including further engagement with the supplier. Where a critical risk is identified and not adequately mitigated or managed, Mondi will take appropriate action.

Step 6
Monitoring and Tracking

Ongoing monitoring and tracking of suppliers' agreed actions is undertaken until closure.

Sourcing decisions have significant impact on people and environment, and contribute to cultivating and developing high ethical and environmental standards, especially in complex supply chains. We believe that Mondi is on a very good path to mitigating risks by also working closely together with its suppliers.

Andrian Kryachok
Director Interstarch Ukraine LLC
Member of the Supervisory Board
Interstarch GmbH

2   We have changed the name from 'Supplier Relationship Management' to 'responsible procurement process'

Supplier conduct and responsible procurement

Risk-based approach

We take a targeted, risk-based approach to prioritise areas in our supply chain that require attention. When assessing supplier risk, we consider risks based on geography, product type, the significance of a raw material or service to Mondi, and the spend involved. We use credible third-party risk ranking data such as the Corruption Perception Index, Global Slavery Index, the World Bank's Worldwide Governance Indicators and other public sources.

Our responsible procurement process includes the on-boarding, evaluation, risk assessment and follow-up stages. We conduct regular assessments of key suppliers of wood, fibre and other raw materials, working with local procurement teams, including our wood procurement network. This allows us to evaluate the reliability of supply and quality of service, as well as the environmental and social practices of suppliers, which is being included during implementation of our updated approach.

Our procurement excellence and sustainable development teams have identified four further key risk areas: labour rights, climate change, water and biodiversity. To manage these, our responsible procurement process is designed to identify high-risk suppliers who we will work with to resolve or effectively mitigate risks (see page 96).

Our Code of Conduct for Suppliers

We expect every company in our supply chain to adhere to our Code of Conduct for Suppliers, which covers social, environmental, governance, legal and ethical aspects.

We updated the Code in 2017 to include a stronger and more explicit human rights element, addressing the issues of human trafficking and modern slavery risks as part of our response to the UK Modern Slavery Act of 2015. In 2018, we updated the Code again to include additional risk areas related to labour rights, environmental impact and water stress. The updated Code will be rolled out to new suppliers from 2019 and to existing suppliers in the course of the contract renewal process. Once it is implemented across operations and procurement categories, compliance with the Code – including acceptance by our suppliers, and link to audits and annual evaluation processes – will be managed through our responsible procurement process by Group procurement category heads and local procurement heads.

Due diligence for fibre-based products

Our DDMS for fibre-based products, including pulp, helps to ensure that we and our customers can be confident that our fibre is sustainably harvested or purchased from sustainable sources. In 2017, we extended the DDMS beyond EU Timber Regulation compliance to include the requirements of the U.S. Lacey Act, Australia's Illegal Logging Prohibition Act, Japan's Clean Wood Act and the UK's Modern Slavery Act. The content has been updated in line with recent legislation. In 2018, we worked with internal and external experts to identify how we could improve our DDMS to make it more practical and easier to use. We have worked on defining our methodology to evaluate country-risk more clearly. We will review and, where required, update this assessment annually (see page 62).

Human rights in the supply chain

Understanding and managing our human rights impacts enables us to reduce risks, anticipate consumer demand, build positions in growth markets, secure access to resources, and strengthen our supply chains[3]. Human rights risks are not limited to our own operations – they can occur at any point along the value chain through our business impacts, relationships and suppliers. Impacts on people and their human rights can potentially occur in many ways, including but not limited to: worker safety and health; recruitment and employment practices; product safety; air or water pollution; contamination of ecosystems; inequitable use of natural resources; use of forced or child labour; discrimination; misuse of private employee and customer data; use of force by security personnel; disregard for land tenure and indigenous rights; and depletion of resources that communities rely on. If left unmanaged, human rights issues can pose critical reputational risk to our business.

Transparency and collaboration are key to improving performance and to managing our collective risks and opportunities. The UN Guiding Principles on Business and Human Rights provides an effective framework for businesses to manage their human rights risks. We're strengthening our monitoring and reporting of potential issues in our operations and supply chain, including through better integration of sustainability criteria relating to labour and human rights.

Human rights-related reporting requirements across countries continue to evolve. Several countries are drafting laws governing Business and Human Rights reporting and many others are expected to develop National Action Plans or to translate their existing plans into national legislation.

3   WBCSD, https://www.wbcsd.org/Programs/Redefining-Value/External-Disclosure/Reporting-matters/Resources/Reporting-matters-human-rights

Supplier conduct and responsible procurement

UK Modern Slavery Act

The UK Modern Slavery Act, introduced in 2015, addresses the crimes of holding another person in slavery, servitude, forced or compulsory labour, or trafficking a person. It is a clear example of the need for businesses, suppliers and other stakeholders to work together to develop a joint approach to risk. We support the Act and its requirement for commercial organisations to prepare an annual slavery and human trafficking statement. Our first statement outlining the steps we have taken to ensure that slavery and human trafficking are not present in our business activities or supply chain was published in June 2017 for the financial year 2016. The latest statement was published on our website in June 2018 for the financial year 2017, with the next update due in June 2019. Our statements are confirmed by all obligated companies under the Act and by our Group CEO, and published on Mondi's website.

Our latest statement details progress made in 2018 in identifying and managing potential risks related to human rights, including modern slavery and human trafficking. The two key pillars of our response are the development of our responsible procurement process (see page 96) and the upcoming SDMS Operating Standard, designed to address human rights and working conditions in our operations. We continued to communicate internally our policy, legal obligations, risks, and response. During our annual global procurement meeting, our Group Head of Sustainable Development, Gladys Naylor, delivered a keynote speech on human rights in the supply chain, including the business case, debunking the myths and describing our response. This was followed by dedicated workshops targeted at our procurement community across the Group.

We have also strengthened the integration of supply chain sustainability issues, with an emphasis on human rights and modern slavery, into our risk and opportunities (feeding into our principal risks) and materiality processes (see page 30). We will take into account human rights and supply chain issues when we define our commitments beyond 2020.

Next steps include: rolling out the responsible procurement approach; defining appropriate human rights and modern slavery KPIs to measure progress in our operations and supply chain; strengthening human rights due diligence systems across functions and operations; conducting self-assessment by operations; and finalising the Human Rights and Working Conditions Operating Standard along with internal communication and training.

In 2018, our Fibre Packaging business brought members of the shopping bag industry together to share views and build understanding of the full value chain to help identify risks and opportunities.

European shopping bag summit 2018

Let's paper the world – exploring the shopping bag value chain

In 2018, our Fibre Packaging business brought members of the shopping bag industry together to share views and build understanding of the full value chain to help identify risks and opportunities. On 19 April in Prague, we held the first ever European shopping bag summit, which was attended by leading shopping bag converters, suppliers, customers, retailers and brand owners. Around 110 industry professionals came together to hear speakers from companies, including Curioni Sun, Rewe and Benetton share their views on issues related to shopping bags, ranging from international legislation, sustainability, quality standards for food safety, the future of wood certification systems and the challenges facing the paper industry to meet consumers´ expectations. The key takeaways can be summarised as follows:

→ Today's shopping bags are high-tech products

→ Sustainability is no longer an option. It is a necessity

→ Demand for certified fibre outstrips supply: sustainable forestry needs more focus

→ More collaboration in the value chain is needed to meet new challenges in the paper bag industry

Supplier conduct and responsible procurement

Engaging with our partners in the supply chain

Supporting enterprise development

Working with our partners in the supply chain also means enabling local businesses through financial or management support, for example by providing practical training or developing contracts with local businesses. Many success stories have started in Zimele, a Mondi-owned subsidiary, which aims to accelerate community empowerment in the forestry value chain in South Africa (see page 67).

The greatest reward in this job is knowing we are providing jobs and impacting the lives of our employees and their families, contributing to a better economy.

Dudu Gumede
Amahlathi Ethu

Amahlathi Ethu is a silviculture contractor operating in KwaZulu Natal, South Africa.

M. Ngubane, D. Gumede, S. Ngubane, T. Gumede, contractor Amahlathi Ethu

Mondi Zimele supports businesses to become high-performance suppliers

Amahlathi Ethu is a silviculture contractor operating in KwaZulu Natal, South Africa. The company was formed in 2014 when two emerging contractors (Siyathuthuka and Dubumthuzi) joined forces to pool resources and modernise operations, purchase equipment and improve productivity.

Mondi Zimele started providing business support and development to Amahlathi Ethu in 2014. This included coaching and mentoring with a Mondi Zimele Forestry Development Manager and offering training across diverse operational, business and human resources functions. Mondi Zimele also provided the company with a low interest loan for the purchase of three tractors, a planter trailer and a 35-seater personnel carrier, which has been repaid in full.

Amahlathi Ethu has created employment for 197 people from neighbouring communities and won numerous awards for its commitment. Testament to its success, Mondi recently awarded Amahlathi Ethu a new five-year contract, which will increase its scope of work from January 2019.

Relationships with communities

As a global company employing more than 26,000 people, we play an important role in communities around the world – creating employment and business opportunities and investing in local infrastructure. We're developing our approach to measure the social value we create through our investments in communities.

Why is this important to our stakeholders?

→ Mondi is a major employer and people rely on us for their livelihoods, both directly and through our supply chain

→ We also use natural resources and local infrastructure and we have an impact on the environment

→ In more remote areas, we supply services like energy and wastewater treatment and support infrastructure and community development

Why is this important to Mondi?

→ Our businesses are more likely to succeed when they are part of healthy, prosperous and dynamic communities

→ Local communities supply our operations with talent, skills, goods and services

→ By engaging with local communities, we better understand potential conflicts and opportunities while protecting our 'social licence to operate'

→ Working with local stakeholders helps leverage our positive impact and share know-how and skills

Our commitment to 2020

→ Enhance social value in our communities through effective stakeholder engagement and meaningful social investments

Discover how we are…

→ Investing in education to develop the future workforce in Poland

→ Support early childhood development in South Africa with our Mobile Clinics programme

→ Using our Socio-economic Assessment Toolbox (SEAT) to better understand our stakeholder perceptions in Austria

Next steps

→ Continue to develop our understanding of the impact of our social programmes and investments

→ Develop standard guidelines to ensure greater consistency in our investments and reporting

→ Define meaningful, practical metrics to help us measure progress against our 2020 commitment

A group of students from the secondary technical school of paper making, attending a class at Mondi Świecie, Poland

Our strategic SDGs and targets

SDG 8 Decent work and economic growth

→ Target 8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalisation and growth of micro-, small- and medium-sized enterprises, including through access to financial services

→ Target 8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value

→ Target 8.6 By 2020, substantially reduce the proportion of youth not in employment, education or training

SDG 9 Industry, innovation and infrastructure

→ Target 9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and trans-border infrastructure, to support economic development and human wellbeing, with a focus on affordable and equitable access for all

→ Target 9.3 Increase the access of small-scale industrial and other enterprises, in particular in developing countries, to financial services, including affordable credit, and their integration into value chains and markets

For links to SDGs 1, 2, 3, 4, 11 and 17 see the full **index**

Relationships with communities

Mutually beneficial relationships with communities

The social, economic and environmental health of local communities is important to our success and we work hard to maintain positive and open relationships. Transparent engagement helps us address challenges, understand and manage risks, generate opportunities, identify material issues and improve our business performance.

Defining our local communities

We focus our community engagement, initiatives and investments on the people who live adjacent to our operations, on or around our landholdings, or within our zone of influence. The locality of communities and our zone of influence are geographically determined based on the social, economic and environmental footprint of our operations and supply chain, the social materiality of our operations, and local development needs. This is decided locally by each operation through a consistent group-wide approach. Our stakeholders include local residents, employees, contractors and suppliers, customers, neighbours, community members, trade unions, NGOs and government authorities.

Understanding our impact and the expectations of our stakeholders

We have a significant socio-economic impact on our surrounding communities. Our pulp and paper mills and forestry operations[1] are generally larger and employ more people than our converting operations. Some of our mills and forestry operations are in remote regions where there may be high levels of poverty and unemployment and where access to jobs and infrastructure may be more limited, making Mondi a key employer. The size and nature of our mills and forestry operations means our social and environmental footprint is relatively high, involving potential negative impacts such as spills and leaks and other environmental incidents, environmental nuisances such as odour and noise, waste and emissions, land use and natural resource consumption, and job losses due to restructuring or closure of the mills. Our converting operations are smaller and involve a much lower social and environmental footprint. Our environmental and

social management systems help us operate legally and responsibly and mitigate negative impact on local communities that occurs as a result of our operations (see also pages 57 and 78-84). Our values help us to act with integrity and care with the ambition to create a sustainable future for Mondi and for the community.

We continuously aim to improve our understanding of our social, environmental and economic impacts on local communities – be they positive or negative, actual or potential, short-term or long-term, direct or indirect, and intended or unintended. We do this through various forms of impact assessment, monitoring and reporting.
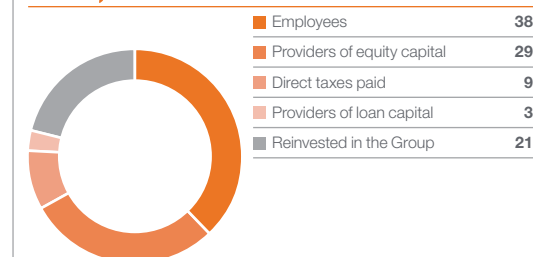
As well as providing direct employment, we support local livelihoods by creating indirect employment and business opportunities. We also contribute to local development by supporting infrastructure improvements, paying local and regional taxes, and through voluntary social investments that target health, education, infrastructure and enterprise (see page 104).

We aim to be an active member of the communities where we operate. Ongoing transparent dialogue helps us to address challenges, understand and manage our risks, opportunities and business performance.

Value distribution*
%

€2,773m

Employees	38
Providers of equity capital	29
Direct taxes paid	9
Providers of loan capital	3
Reinvested in the Group	21

* Value distribution defined as operating profit before taking into account personnel costs and depreciation, amortisation and impairments

Impact assessment

We use a number of impact assessment mechanisms to understand our relationships with local communities. They include our tailored SEAT and learnings from ongoing formal and informal stakeholder engagement. The immediate outputs include SEAT reports and action plans and community/stakeholder engagement plans. We use these to inform and target our community development programmes, investments in local projects and initiatives, community forums, and training for our community and human resource professionals. Committees and functions such as works councils, health and safety committees and others contribute to shape our response to the findings of local impact assessments.

1 Located in Russia, South Africa, Poland, Czech Republic, Slovakia, Bulgaria, Turkey, Finland, Sweden and Austria

Relationships with communities

SEAT

In 2018, we conducted a SEAT at our Frantschach mill in Austria – the first for the mill. The SEAT approach was introduced in 2005 to support our pulp and paper mills and forestry operations in creating open and transparent dialogue with their local communities. Facilitated by an independent third party, SEAT assessments enable us to improve our understanding of where our impacts lie and what our stakeholders expect. We make all SEAT reports publicly available on our website and our local operations openly discuss the contents of community engagement plans (CEPs) with their stakeholders during their development. In relevant locations, SEAT assessments are used to inform CEPs. 11 of our 14 mills and forestry operations (79%) have done a SEAT assessment at least once.

Examples of where we have acted on the information provided through the SEAT process include the infrastructure projects and investments in our Russian and South African forestry operations.

View SEAT reports

In 2018, we started the work on updating our SDMS operating standard related to stakeholders to provide group-level guidance on where and how often we need to conduct a SEAT.

SEAT can enhance engagement with the local community and support targeted investments. Further SEAT reviews may need to be conducted should the context change.

We plan to do further SEATs at our pulp and paper mills in Poland and Sweden in 2019.

SEAT assessments help us enhance our understanding of our local impacts, what our stakeholders expect, and plan our response.

Other processes include targeted stakeholder surveys, impact assessments, legally required stakeholder engagement at our mills,

Stage 1
Profile our operation

Basic information about the operation's history, finances, employment, production and existing community interactions and initiatives.

Stage 2
Profile local stakeholders

Define our zone of influence, profile local areas and communities, identify our stakeholders and engage for SEAT participation.

Stage 3
Assess our impacts

Using independently facilitated stakeholder dialogue.

Stage 4
Develop our response

To improve our social performance and identify plans for action.

Stage 5
Report results

Report SEAT results and share with local stakeholders.

for acquisitions and investments, and regular direct engagement with local stakeholders.

Social and environmental due diligence

Through stakeholder-inclusive processes, we apply due diligence to our operational investments to enhance positive environmental and social benefits to the business and the community, and mitigate negative impacts.

In 2018, our Ružomberok mill commenced investment in a new paper machine to diversify its product portfolio by adding a new containerboard grade named Kraft Top White for corrugated packaging applications. Prior to project execution, an extensive environmental impact assessment was carried out. The result of this assessment concluded that there would be 'no appreciable adverse effects on the integrity of the territory'. Based on the results of the impact assessment, the Ministry of Environment approved the implementation of the project after considering the state of the surrounding environment and the significance of the expected impacts on the quality of surface and ground water, air, surrounding biota and population health. The assessment highlighted numerous environmental and social benefits to the mill and surrounding community. Environmental benefits include diversified raw material base for the mill, which will include the use of paper for recycling. The project will also involve the application of best available technology. Social benefits include the increased stability of Mondi as a key regional employer, the introduction of over 100 new permanent jobs and a considerable number of secondary jobs (sub-contractors), as well as temporary job opportunities during the construction phase.

In 2018, we conducted a SEAT at our Frantschach mill involving a wide range of stakeholders.

Monitoring, measurement and reporting

To manage and improve our performance, we monitor, and report on our approach, stakeholder needs, investments, initiatives and community grievances, and measure – where possible – the inputs, outputs and impacts of our investments.

View the case study on investment at Štětí mill

Employees at SEAT 2018 in Frantschach, Austria

SEAT at Frantschach

Founded in 1881, our mill at Frantschach in Austria employs some 430 people and produces sack kraft paper, specialty kraft paper and unbleached market pulp. It is one of the biggest employers in the region, making a significant contribution to the local economy. There is a strong historical connection between Mondi Frantschach and the municipality of Frantschach-St. Gertraud. The mill has greatly influenced the infrastructure of the town and many of the 2,800 residents and their relatives are active or retired employees of the mill.

In June 2018, we conducted the mill's first SEAT assessment, involving a wide range of stakeholders, including employees, contractors, suppliers, works council, local and regional authorities, neighbours and communities, local fire brigade, local music band, media, educational institutes and customers. The process was well-received and positive reference was made to Mondi's strong social licence to operate, proactive communication and focus on safety. The mill was also recognised for providing a family-type atmosphere and being a reliable business partner, as well as for its investments in the community.

The process uncovered some useful areas and ideas for improvement, in particular:

→ employment aspects such as longer training periods in succession planning, retaining contractor knowledge and providing stronger feedback mechanisms;

→ community interaction such as regular open days;

→ communication through more frequent Managing Director information forums, regular updates in local media and communication on social activities; and

→ environmental issues such as prioritising and communicating about odour abatement.

The mill management has responded to the issues raised and is now defining its action plan. The report will be published in 2019 in German and English languages on our website and provided to local stakeholders in printed form.

Relationships with communities

Community engagement plans

CEPs are annual plans of engagement with local stakeholders, which set out the specific topics, stakeholders and engagement activities to be undertaken by our pulp and paper mills and forestry operations. In 2018, our mills and forestry operations continued working on a global CEP template that is more comprehensive and ensures consistency, facilitating the sharing and benchmarking of information. It provides a clear global framework for local monitoring and communication of our footprint and programmes, both internally and externally. The template will be introduced more widely in the form of a Practice Note in 2019, supporting our 'Stakeholders' operating standard.

Due to the potential inconsistencies in the existing approach to CEPs across our operations, we do not currently collect the percentage of our operations that have a CEP in place.

Impact Pathway measurement and reporting

To inform our community investment decisions and demonstrate their effectiveness, we need to measure the real impacts and outcomes they have achieved. This year, we continued to develop our 'Impact Pathway' methodology. Launched in 2016, the approach takes us beyond just looking at direct inputs and outputs of projects and aims to provide a more holistic assessment of meaningful outcomes, impacts and value created by our initiatives and projects. This is important for our business and for the intended community beneficiaries.

Based on the Impact Pathway methodology pilot carried out in two of our operations in 2016, we have developed a toolkit to measure the social and business value created by our community investments. The toolkit will be introduced more widely in the form of a Practice Note in 2019.

Feedback and grievance mechanisms

All our operations make formal grievance mechanisms available to employees and the general public to ensure we are aware of and respond to issues. These include local hotlines and our group-wide anonymous whistleblowing system, Speakout.

The SEAT process at our mills and forestry operations provides a further opportunity for local stakeholders to inform us of potential grievances. Impact assessments and measurements are another platform for communities and beneficiaries to give feedback, along with community open-door days, community liaison forums and other meetings. These initiatives allow us to receive feedback, understand community and environmental concerns, and initiate a formal and appropriate response. We have had no reports of any violation by our operations of the rights of indigenous people during 2018.

Meeting our 2020 commitment

As part of our Growing Responsibly commitments, we aim to enhance social value in our communities through effective stakeholder engagement and meaningful social investments. While our existing mechanisms of community and stakeholder engagement and impact assessments support this goal, we also need a more consistent and credible methodology, applied across our operations, to support us in making meaningful improvements to our response.

Given our diverse geographic, socio-economic and business context, achieving this continues to be a challenge. We're currently working towards a common methodology, based on the Impact Pathway toolkit. Importantly, we're looking to provide sufficient consistency across the Group while allowing for local flexibility to review the impact of community projects and develop action plans to address findings. Our aim is to review key community projects by 2020 and develop action plans for operations to address findings. We are developing internal guidance related to impact measurement, which will provide a consistent group-wide methodology for our operations to conduct the review and assessment as stated by the commitment.

Historically, community reporting has been done locally but we have seen an increasing need for digitalised and auditable reporting of our community work.

© Stefan Arno Moehl

Noxolo Ngwenya, an INGWE youth leader at a training session, Eshane, Greytown (South Africa)

Digitalising community and social reporting

Our group-wide internal non-financial reporting system hosts reporting of key performance indicators (KPIs) related to environment, safety and health, wood procurement, energy and quality. It doesn't, however, include any social or community indicators. Historically, community reporting has been done locally but we have seen an increasing need for digitalised and auditable reporting of our community work to be able to simplify, automate and streamline processes, bring about more transparency and accountability, ensure data quality, exchange learnings, benchmark performance and, most importantly, measure the impact of our work to be able to maintain and improve it.

In 2018, we began to introduce community KPIs. Recognising the local nature of our projects and investments, we realised that we needed to tailor KPIs to each operation. Reporting will be done by local specialists who work closely with communities and who have in-depth knowledge of the initiatives. Strategic and long-term planning will be made easier through the improved reporting capabilities.

We have started with a pilot in South Africa, which includes 10 reporting entities for community reporting. Following the logic of our Impact Pathway methodology, pilot KPIs initially cover the inputs and outputs of each project. Inputs are reported in monetary, in-kind and staff-time. We capture Mondi's contribution and that of partners, contractors and others. Outputs are designed to include dimensions such as age groups, gender, race and other attributes of the target groups (anonymously), in order to monitor and improve impact where it's most needed.

Looking ahead, we will expand the pilot to include outcome and impact-type KPIs once input-output reporting is well-established. Our aim is to roll out a similar standardised but locally-tailored approach to our mills and forestry operations over the coming years.

Relationships with communities

Investing in communities

We base our community investment decisions on the principles of sustainable development, considering the needs of the community, our own business objectives and the potential effectiveness of projects. The majority of our initiatives and investments are targeted at promoting education, health, employment and enterprise support, as well as supporting local infrastructure and community development. These are the areas where we believe we can make the greatest difference.

We've invested some €39.6 million in local community initiatives over the past five years, including contributing employee time and gifts in kind. Our investments in 2018 totalled €7.9 million (2017: €9.6 million). The primary reason for the 18% reduction in our investments compared with last year is the conclusion of our Food4Forest programme, a feeding programme for Mondi's forestry contractors in South Africa initiated in 2008. The subsidy provided for the Food4Forests programme has now been directly incorporated into increased wages.

Our activities supported a wide range of outcomes including: building healthier communities and improving their future prospects; securing our supply chain; strengthening local relationships; engaging employees; and building trust in the Mondi brand. Our voluntary investments go beyond monetary contributions. Through Mondi employees giving their time and expertise, we create social value by sharing our core skills, networks and influence.

€7.9m

invested in local community initiatives across the Group in 2018.

A Mondi Mobile Clinic with a Toy Library, Mkhondo (South Africa)

Community and social investments* ('000 €†)

	2014	2015	2016	2017	2018
Health and wellbeing	85	172	653	1,959	2,079
Education	2,078	1,775	565	731	724
Infrastructure and development	4,996	5,044	6,425	6,509	4,697
Enterprise and employment support			254	432	431
Total‡	**7,159**	**6,991**	**7,897**	**9,631**	**7,931**

*   In 2016, we revised our investment categories. Our 'Health and wellbeing' and 'Education' categories correspond to equivalent previous categories and therefore their historic data were not restated. Our 'Infrastructure and development' combines the previous categories 'Environment', 'Community development', 'Arts, culture and heritage', 'Housing' and 'Other', and is a wider, more comprehensive category. Our 'Enterprise and employment support' category does not include any historic data prior to 2016, but investments in support of employment and enterprise have effectively been part of the scope in past years, even though it was not formally reflected as an individual category prior to 2016

†   The figures reported represent financial, in-kind and staff time contributions, converted to euros

‡   Changes in investment levels over the years do not necessarily represent a change in investment strategy. They are sometimes reflective of the commencement or closure of projects. Most initiatives run over several years and require different levels of investment for each development phase

Relationships with communities
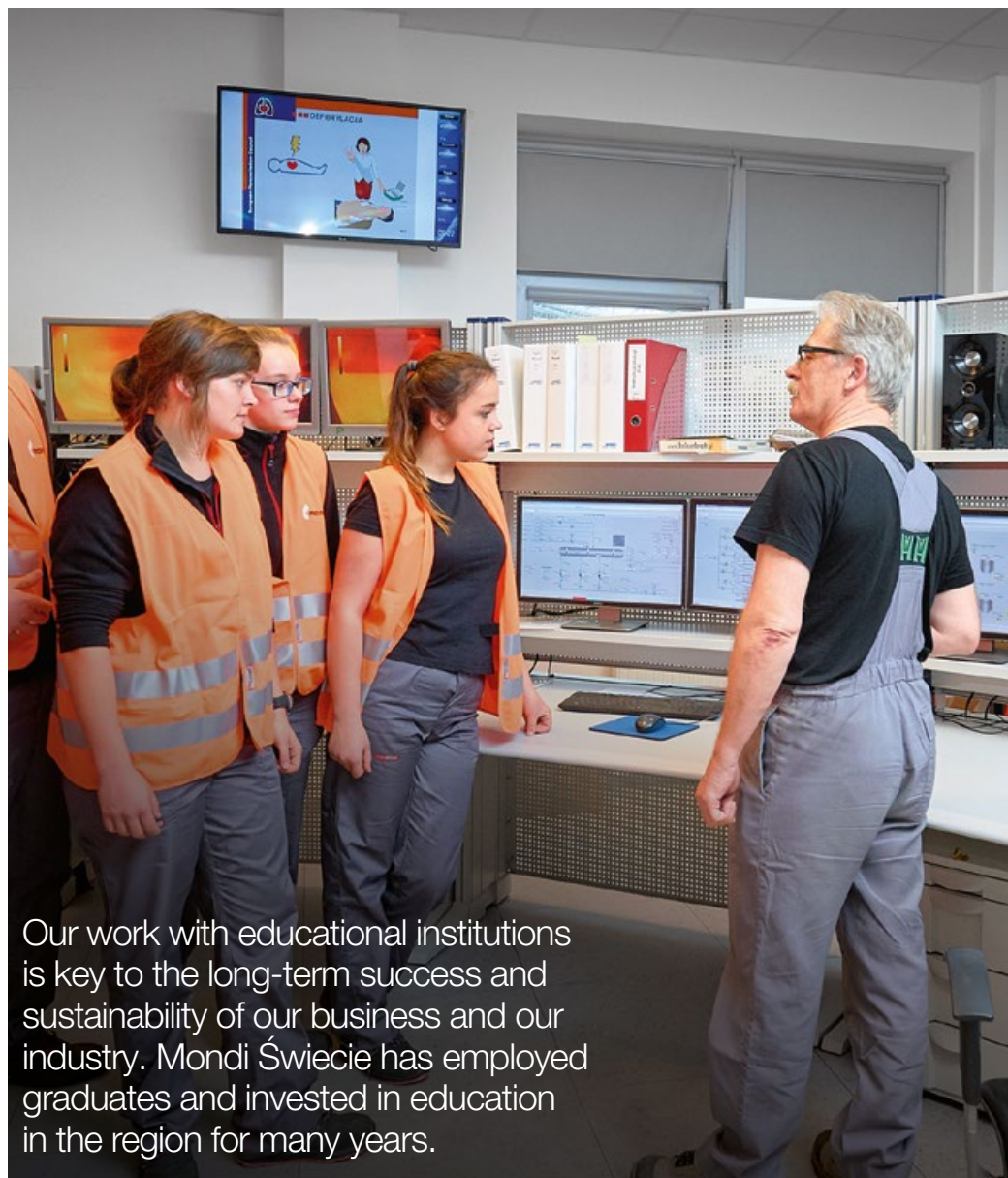
Our work with educational institutions is key to the long-term success and sustainability of our business and our industry. Mondi Świecie has employed graduates and invested in education in the region for many years.

Development focus areas

Our commitment to empowering local communities is brought to life through practical support and assistance focused on the following key development enablers:

Education

Educational programmes help to secure talent and skills for the future of our business and address the need for technical knowledge in the areas where we operate. This is all the more important because the focus on paper making among educational and scientific entities is relatively limited compared with other branches of industry, and competition for talent and skills is high. Attracting people can be a particular challenge in rural locations and our mills engage and collaborate with schools and educational institutions to create a healthy flow of talent in these areas. The programmes we support help to develop the skills of young people, reduce unemployment, provide a pathway to higher quality jobs and careers, and incentivise young people to opt for technical studies.

Educational initiatives sometimes also serve to promote social cohesion, reduce crime and set the foundation for community development. INGWE, our youth development programme in South Africa, is a two-year public-private-partnership agreement between Mondi and the GIZ Inclusive Violence and Crime Prevention Programme. It has provided opportunities for young people by encouraging positive relationships and strengthening their leadership skills.

🖥 **Click here to view our 2017 case study on INGWE**

During the course of the programme, INGWE trained 46 youth leaders, each influencing between 500 and 2,000 people in their community.

Youth groups are active in addressing social challenges. Some groups have also created opportunities for small enterprise development in their communities. They continue to positively influence the communities they live in.

Today, thanks to our shared commitments and partnerships, interest in technical education has increased and it is demonstrated by higher numbers of candidates for papermaking technician and electrical technician classes. The fact that so many young, talented people are choosing to have a career in the papermaking industry is very encouraging.

Maciej Kunda
CEO of Mondi Świecie

A group of students from the Secondary Technical School of Papermaking, attending a class at Mondi Świecie, Poland

Championing technical education and career development in Poland

Our work with educational institutions is key to the long-term success and sustainability of our business and our industry. Mondi Świecie has employed graduates and invested in education in the region for many years. Its primary goals are to secure a regular inflow of highly qualified employees, including young engineers and operators, and to build a scientific intellectual base for the papermaking industry. This focus on education has added benefits, supporting young people to reach their personal goals and raising competence levels in the local labour market – whether people go on to work in our mill, for our suppliers and customers, or in other areas of industry.

In 2018, Mondi Świecie supported a wide range of educational activities, including:

→ visits to secondary schools in partnership with the Secondary Technical School of Papermaking and to all upper-level secondary schools in the region to encourage students to choose further technical education and develop careers as engineers and operators;

→ an open-door event at the Secondary Technical School of Papermaking and Electrical Engineering, which resulted in an increase in interest among potential candidates;

→ a teaching module on 'Production process equipment and process control in the papermaking industry' as part of our cooperation with Secondary Technical Schools of Mechanical and Mechatronic Engineering in Świecie. So far, more than 150 students have graduated from this programme, with seven receiving university scholarships from Mondi and more than 50 gaining employment with us;

→ 'paper products' classes for students of the Upper Secondary School Complex in Świecie, conducted by our employees. Students learn about areas of production and see processes in action at our facilities. Many become valuable job candidates later on;

→ work with a number of universities including Łódź University of Technology, Poznań University of Life Sciences, the University of Science and Technology in Bydgoszcz and Gdańsk University of Technology;

→ occupational training and individual practical training for graduate students who would like to broaden their practical knowledge; and

→ scientific scholarships and funds for students who wish to study for a masters degree, including supporting them with learning English.

Relationships with communities

Health

Public health provision can be a challenge in some of the more remote communities where we operate. We actively promote the health and wellbeing of our people, improving the health of our workforce and local communities is an important element of our community strategy.

In Bulgaria, our Stambolijski mill provides a medical facility within the mill premises for the benefit of the employees and the local community. In the Czech Republic, our Štětí mill's 'Mondi for Life' project, a club of 185 members from employees and the community, addresses a healthy work-life balance and a healthy and active lifestyle. In Russia, our Syktyvkar mill provides specific and targeted health programmes through its medical treatment facility and delivers various family care programmes for employees and their children.

> I am happy to see so many students interested in mathematics. Apart from motivating students' passion in math and inspiring them to excel, such competitions also train kids to deal with success and failure, handle stress and teach them that effective performance requires practice.

Alexander Krickler
Managing Director
of Mondi Stambolijski

In Austria, Mondi provides an Austria-wide health management programme in collaboration with 'Fonds Gesundes Österreich' (Fund for a Healthy Austria) and the regional health insurance funds of the respective provinces. The programme focuses on safe and healthy working conditions, and sustainable health management for employees. In South Africa, our mobile clinics were developed in partnership with local NGOs and the Department of Health to provide comprehensive health care for our forestry contractors and communities.

Math with Mondi – inspiring school children to have more fun with mathematics

In 2018, Mondi Stambolijski hosted an arithmetic competition, 'Math with Mondi', to promote maths education in elementary schools and inspire children to have fun with mathematics. Fifteen employees of Mondi Stambolijski volunteered to support the event, which was developed in partnership with the municipality of Stambolijski and the Union of Mathematicians in Plovdiv.

The competition was open to students from first to fourth grade from all the schools in the municipality of Stambolijski. Around 180 students took up the challenge to test their mathematical and problem-solving skills. The 43 highest scoring students received medals and certificates of merit, presented by senior members of Mondi's management team and volunteers during an official award ceremony at Mondi Stambolijski.

Our seven mobile clinics provide voluntary HIV/AIDS testing and counselling, primary health care for medical conditions such as tuberculosis, diabetes and high blood pressure, and critical vaccination programmes for children. The mobile clinics recorded more than 71,800 community member visits and 9,200 contractor visits in 2018, as well as launching an early childhood development programme (below).

Across our other global operations, most sites also offer various health support programmes and/or services.

Infrastructure and community development

We invest in improving infrastructure and development in some of the communities where we operate. High-quality infrastructure promotes access and opportunities, empowers enterprise, facilitates improved levels of health and education, and supports efficient business operations. In some cases, impact assessments (for example through SEAT) also highlight the need to support the improvement of local infrastructure.

In Russia, we build or maintain more than 100km of forest roads annually. In South Africa, we continue to invest in agri-villages – sustainable rural developments in which residents benefit from agriculture-based livelihoods. A pioneering public-private partnership launched in 2007, the agri-villages project aims to improve living conditions for people in isolated villages on our land and find sustainable solutions to alleviate poverty. The Jabulani agri-village is completed and eight other agri-villages are in progress, which will provide permanent residence in sustainable human settlements with secure tenure (see page 83 of our Integrated report and financial statements 2018).

Employment and enterprise support

Mondi supports local enterprise, which in turn creates wealth and employment, strengthens the local supply chain, enables independence and builds community resilience.

> The community is very excited about this project. Parents help out with the setting up and packing up after each session and they also assist by observing the children to ensure safety during play sessions. The community values the project as it offers crucial services and creates job opportunities for the unemployed youth in the villages.

Thabo Shange
Cotlands Project Manager

A springboard for early childhood learning

Children attending a Toy Library session during a Mondi Mobile Clinic visit, Mpumalanga (South Africa)

© Wendy McSeveny

A springboard for early childhood learning

The first 1,000 days of a child's life are the most crucial in terms of development. These are the foundation years for literacy, maths and emotional development[2]. But early childhood development is lacking in many communities. The Mkhondo municipality in South Africa is a predominantly rural area with a population of approximately 172,000. Studies show that there are 21,686 children under the age of four in the area, 18,000 of whom do not have access to early learning and stimulation[3]. Mondi has been involved in providing access to health care for the Mkhondo community for a number of years through the highly successful Mobile Clinic Programme in partnership with the Mpumalanga Department of Health and Thol'ulwazi Thol'impilo[4]. In 2018, we launched an exciting new project with government and NGO partners to bring early childhood development services to 35 remote villages using the mobile clinics as an entry point. A toy library is packed into a trailer which is hitched to the mobile clinic, enabling the librarian and the nurse to visit the same service points together. While the nurse provides health services, the librarian provides play-based learning sessions for children under the age of five. This new service is reaching around 400 children at 35 villages every month. Parents and caregivers are invited to learn about the resources and why early childhood development is so important.

The next phase of the project is to set up 35 early learning playgroups across the region in partnership with Cotlands and funded by the Mpumalanga Department of Social Development. This will create 35 jobs and provide more children with the opportunity to learn through play. They will also be given a nutritious snack to promote health benefits, and be referred to local nurses and social workers where necessary.

2   https://www.unicef-irc.org/article/958-the-first-1000-days-of-life-the-brains-window-of-opportunity.html
3   Integrated ECD plan for the Mkhondo sub-district, 'ECD: everyone's business' by Patricia Martin-Wiesner, Advocacy Aid, July 2016
4   Thol'ulwazi Thol'impilo is an NGO Project in South Africa initiated in 2005 which offers HIV/AIDS education, support and assistance to farm workers and their families in their target areas

Relationships with communities

Mondi Zimele

© Wendy McSeveny

Ben Shange, a community small timber grower in Zululand, South Africa

In South Africa, our main channel for supporting enterprise is through Mondi Zimele[5], a Mondi-owned subsidiary which aims to accelerate community empowerment in the forestry value chain and support small businesses around Mondi's operations. In 2018, Mondi Zimele continued to drive local participation through job creation, development of competitive local contractors and by supporting emerging forestry growers. Since 2012, Mondi Zimele has provided approximately €10.2 million in loan funding to assist over 200 local businesses in the creation of more than 2,800 jobs. This was enabled through the Mondi Zimele Jobs Fund, an enterprise development initiative co-funded by the South African Government Treasury Jobs Fund. Mondi Zimele has also been instrumental in establishing several land claimant community contractors, where we continue to emphasise productivity improvement, business administration and compliance as the key to success for these SMEs. The Mondi Zimele and department of Trade and Industry (DTI) Forestry Contractor Incubator Programme, now in its third year of operation, focuses on 30 small businesses (four of which are owned by land claimants), with eight having graduated from the incubator. The incubator focuses on growing skills, management capability and improving operational know-how.

5 http://www.mondizimele.co.za
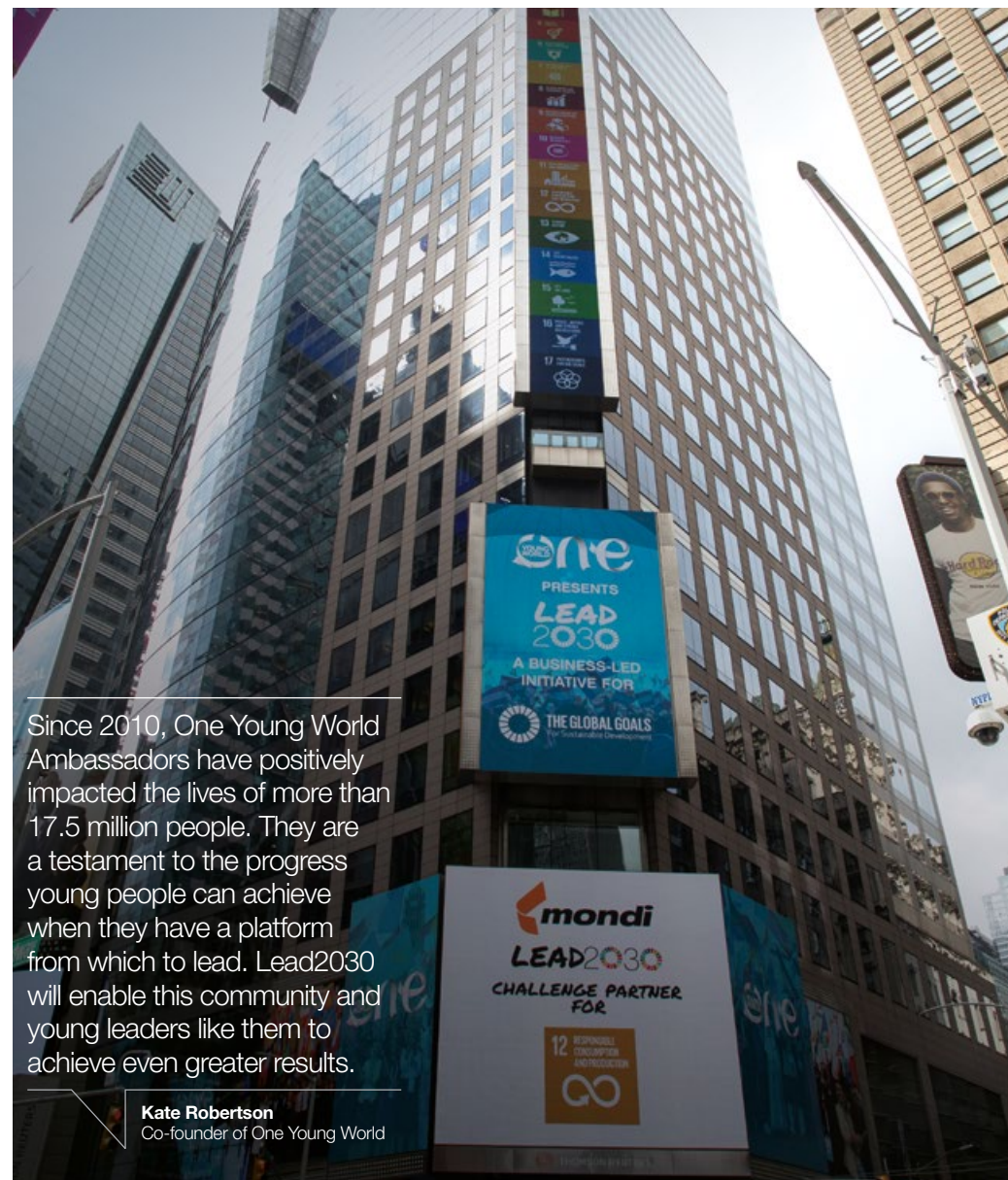
Since 2010, One Young World Ambassadors have positively impacted the lives of more than 17.5 million people. They are a testament to the progress young people can achieve when they have a platform from which to lead. Lead2030 will enable this community and young leaders like them to achieve even greater results.

Kate Robertson
Co-founder of One Young World
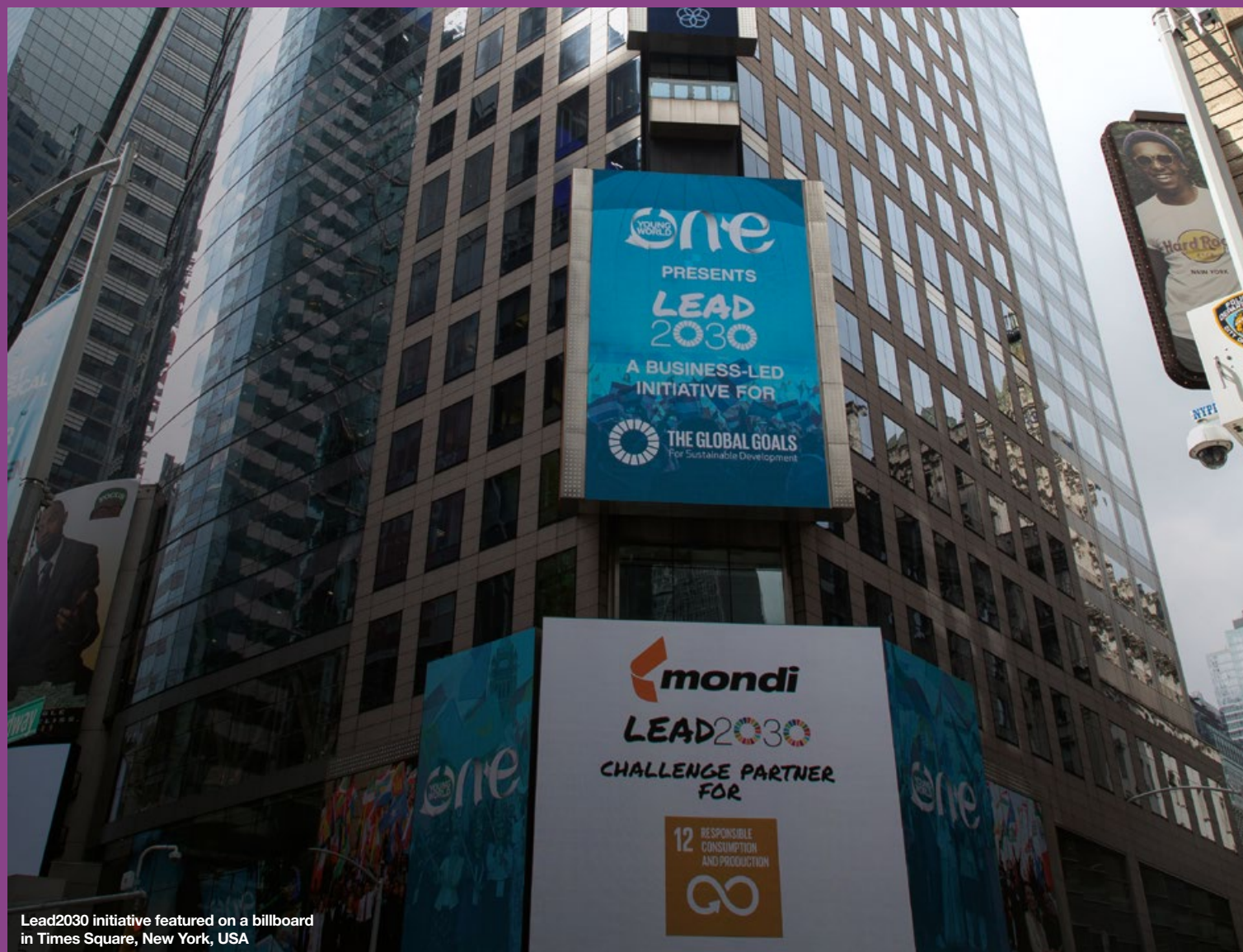
Lead2030 initiative featured on a billboard
in Times Square, New York, USA

Funding youth-led enterprises for solutions to the SDGs

In 2018 we partnered with One Young World, the global forum for young leaders, on the Lead2030 initiative – a competition to find youth-led practical solutions to drive progress on the United Nations' SDGs. Our aim is to raise awareness of 'responsible consumption and production' and drive greater innovation across both our own business and industry more broadly.

We committed $50,000 to fund a project that will make a tangible contribution to SDG12 'Responsible Consumption and Production'. Applications are open to 18-30 year-olds from around the world to apply for a chance to receive funds and business mentoring from senior figures in Mondi. With Mondi's help, the winning candidate will have the opportunity to turn their concept into a viable solution for tackling waste in manufacturing and make a positive contribution to achieving SDG12.

The One Young World 2018 Summit took place in The Hague (Netherlands) in October 2018. The Summit brought together 1,800+ young leaders from 190+ countries to debate, exchange and devise solutions to the world's most pressing issues.

Relationships with communities

Collaboration

We work with others to maximise the value we create in our communities. Wherever possible, our investments and initiatives are delivered in partnership with local stakeholders, charitable institutions, NGOs, government institutes and municipalities, universities and other stakeholders. This helps to scale our impact, contributes to transparency, gives more credibility to projects, leverages know-how and funds, and strengthens our relationships with local stakeholders.

Driving performance through sharing best practice

Driving performance is one of our strategic value drivers. To achieve it, we depend on strong internal networks that support the management and delivery of best practice across our operations. The Mondi Social Sustainability Network brings together human resources and community specialists from across our mills and forestry operations.

Now in its fourth year, the network is helping to develop and communicate best practice and measure the effectiveness of our community investments across the Group. Key activities this year have included: continuing to work on and share community engagement and investment best practice; benchmarking our approach to community and social initiatives against industry best practice; defining actions to improve our performance; and exploring the potential value of larger, cross-operational or group-wide social projects with closer ties to our operational impact – such as female empowerment, climate change awareness and resilience, and STEM[6] education. Looking ahead, the network will continue to scale-up our positive impact by helping local teams implement their ideas within a global framework and sharing best practice knowledge and tools.

Respecting indigenous rights

The cultural heritage of indigenous communities is an important consideration, particularly in our forestry areas. We're sensitive to local concerns and we endeavour to resolve any issues in a spirit of respect, trust and dialogue. We respect the rights of indigenous people and, where relevant, we cooperate with stakeholders to address historical injustices that pre-date our involvement in an area.

21 land claims settled.

Land reform in South Africa

Portions of our landholdings in South Africa are subject to community land claims under the Restitution of Land Rights Act. We cooperate with government around the settlement of all legitimate land claims affecting our land. Following a successful land claim model and process, communities gain ownership of the land and derive a sustainable income from it, while at the same time progressively developing their own businesses to operate within the forestry value chain.

We ensure that land claim beneficiaries receive post-settlement support and gain meaningful and sustainable benefits, while also ensuring sources of fibre are both assured and sustainably managed to retain credible certification. Our baseline for reporting progress in settling these claims is 66 claims covering 119,244 hectares of our owned land. This baseline relates to claims received during the first window of opportunity opened by the government in 1998 to lodge claims[7].

By the end of 2018, we had settled 21 out of 66 claims, covering approximately 37,000 hectares. We continue to work with stakeholders to settle the remaining claims.

2018 status:

→ 31% of land settled to date[8]

→ Number of additional claims published in the South African government gazette during 2018: 0[9]

→ 44% of our owned land under claims to date[10]

6   Science, technology, engineering, and mathematics
7   As new claims may be added, or existing claims de-gazetted, or due to land acquisitions and disposals this figure may change in future
8   Based on settled land (in hectares) out of a total of gazetted, pre-gazette and settled land
9   No new claims published in the government gazette, but one claim's area has increased by 343 ha due to a new acquisition
10 Based on the total of pre-gazette and gazetted land out of current owned land holdings

Solutions that create value for our customers

With interest in responsible products and the drive to reduce plastics increasing among consumers and businesses, sustainable packaging – and plastics in particular – has become a hot topic for stakeholders. We see this as an opportunity to grow our business by engaging partners across the value chain to unlock new innovations in plastic and paper-based products that support the transition to a circular economy.

Why is this important to our stakeholders?

→ Today's informed consumer considers sustainability and transparency an imperative rather than a benefit

→ Stakeholders increasingly expect businesses to consider end-of-life and focus on product innovation and redesign to minimise negative environmental impacts

→ Our customers look to us to help them deliver their sustainability commitments by reducing the impacts of their packaging and paper products and tackling food waste and emissions

Why is this important to Mondi?

→ As stakeholder interest continues to rise, companies able to respond to socially conscious consumers can unlock new opportunities for brand growth

→ We are well-positioned to develop the next generation of innovative, sustainable products through collaboration between our fibre-based and plastic businesses and in partnership with our customers

→ By developing sustainable solutions, we enable society to address its social and environmental challenges while managing our risks and ensuring our long-term viability and economic success

Our commitment to 2020

→ Encourage sustainable, responsibly produced products

Discover how we are…

→ Developing our Sustainable Products criteria to drive design of transparent, sustainable and responsibly produced products

→ Supporting the Global Commitment made by leading brand owners, retailers and packaging producers to increase reusable, recyclable or compostable packaging

Next steps

→ Carry out a group-wide customer satisfaction survey in 2019

→ Continue to define specific actions to move closer to a circular economy approach across all our businesses

→ Increase our number of sustainable packaging solutions through EcoSolutions

Our strategic SDGs and targets

SDG 9 Industry, innovation and infrastructure

→ Target 9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities

→ Target 9.5 Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending

SDG 12 Responsible consumption and production

→ Target 12.3 By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses

For links to SDGs 14 and 17 see the full **index**

Solutions that create value for our customers

Sustainable solutions

Responsibly produced and innovative packaging and paper products have a crucial role to play in tackling issues such as climate change, resource scarcity, food waste and plastics in the environment.

We've been making sustainable packaging solutions for our customers for over 50 years. Today, Mondi is uniquely positioned to combine its expertise in plastic- and paper-based packaging products and partner with customers to find the best packaging for each application – be it a high-performance paper-based, a plastic-based or a plastic-paper hybrid solution.

Rethinking the use of plastics

Flexible plastic-based packaging is one of the fastest growing packaging segments in the world. It combines the best qualities of film, paper and foil – typically in the shape of a bag, pouch, liner or overwrap – to deliver a broad range of protective properties while using a minimum quantity of material[1].

Innovation in flexible plastic-based packaging offers many opportunities to promote the circular economy. They include superior barrier properties that extend the shelf life of products and help to reduce food contamination and spoilage, reduced overall packaging volume and features such as being reclosable to support sustainable consumer behaviour and reduce food waste.

We acknowledge that flexible plastic packaging can have negative environmental impacts and that broad systemic change is needed to address the challenges related to its recovery, reuse and recycling.

Plastic was invented as a lightweight and long-lasting material with a multitude of useful applications. Although single-use plastics have a typical life span of only six months, they take hundreds of years to degrade[1]. The lack of proper and harmonised recycling systems at scale for many of today's plastics, compounded by widely differing approaches to waste disposal across the world has resulted in plastics building up in landfills, oceans and natural habitats.

The EU Strategy for Plastics in the Circular Economy states that all plastic packaging should be recyclable by 2030 with a 55% recycling rate by 2025[2]. A number of countries such as the UK, France or India have introduced or are planning on enforcing their own regulations around single-use plastics and plastic waste.

There is an urgent need for society to rethink how we make, use and dispose of plastic and for stakeholders to work collaboratively across the value chain to drive innovation and leadership in circular thinking (see page 2).

Nevertheless, evidence shows that plastic can be the most sustainable solution in many applications over the course of its life cycle, if it is disposed of responsibly. For example, when comparing a flexible plastic drinks pouch with a composite carton, an aluminium can and a glass bottle, the flexible pouch has the best product-to-package ratio and also scores top in the categories fossil fuel consumption, GHG emissions and water consumption[3].

Flexible plastic, which typically uses less material than rigid plastic, and innovative plastic-paper combinations can provide essential functionality that is critical to fulfil the purpose of the packaging. We are working with partners across our value chain to reinvent plastic packaging so that it is fit for a circular, sustainable economy. We also know that for many applications our high-quality paper packaging is the best choice. By taking a holistic view, we can develop solutions that consider the needs of each customer, their products and the planet (see page 112).
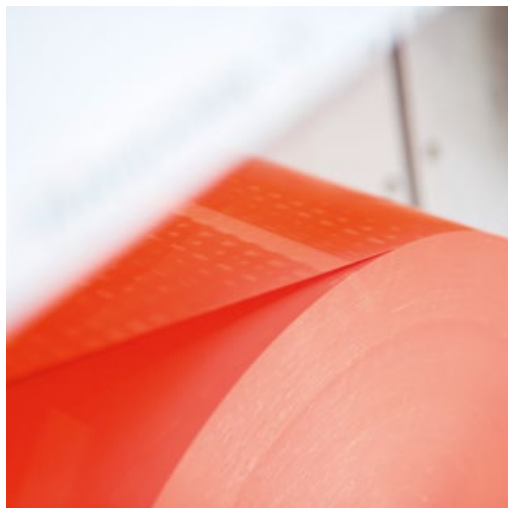
Our Sustainable Products criteria

We aim to offer solutions that create value for our customers through sustainable, responsibly produced products. In 2018, we identified the need to refocus certain elements of our Responsible Products criteria definitions to support our circular economy approach and make the criteria more relevant to all fibre packaging and plastic products. The criteria have been critically reviewed, updated and renamed our Sustainable Products criteria.

We have set a benchmark for our sustainable products to meet a minimum of two criteria, one of them being 'responsible sourcing'. Our businesses have started to define business-specific criteria and develop a corresponding scorecard to track progress. This will increase transparency for our customers and partners on our sustainable products portfolio (see our Sustainable Products criteria on page 111).

For Uncoated Fine Paper (UFP), we have an existing labelling system in place since 2006, Green Range, which we use to communicate sustainability criteria specific to our uncoated fine paper products (see page 111). Our Green Range products also meet the requirements for our Sustainable Products criteria.

1   Flexible Packaging Association (2018), A Holistic View of the Role of Flexible Packaging in a Sustainable World – A Flexible Packaging Report
2   European Commission, http://ec.europa.eu/environment/waste/plastic_waste.htm
3   National Oceanic and Atmospheric Association (NOAA)/Woods Hole Sea Grant, https://www.weforum.org/agenda/2018/11/chart-of-the-day-this-is-how-long-everyday-plastic-items-last-in-the-ocean/

Solutions that create value for our customers

Our Sustainable Products criteria reflect all stages of the value chain:

Responsible sourcing
Products using responsibly sourced raw materials and services from suppliers that meet our standards on social, environmental, legal and ethical criteria

Renewable materials
Products made with renewable material or feedstock

Recycled materials Products made with recycled content without compromising quality or safety

Resource optimisation
Products designed, engineered and manufactured to best utilise all available resources including reduced emissions to air, water or land

Enhanced product performance
Products and solutions (including substitution of materials) with sustainable features to reduce product loss and/or environmental impact in the supply chain

Next life
Products are optimised for the most desirable end-of-life scenario to retain value into their next life, such as reusability and recyclability, or compostability and biodegradability

Green Range

Green Range is Mondi's trademark for sustainable uncoated fine paper solutions. These products are produced from Forest Stewardship Council™ (FSC™)- or Programme for the Endorsement of Forest Certification™ (PEFC™)-certified wood from sustainably managed forests or 100% recycled paper, or are produced totally chlorine free (TCF).

The Green Range trademark falls within our Sustainable Products criteria with the most important criteria being:

Responsible sourcing: Green Range focuses on promoting sustainable forestry management practices that optimise wood and fibre production while maintaining important ecosystem services. We use FSC and PEFC as a benchmark.

Recycled materials: Green Range includes products made with 100% recycled content from post-consumer waste.

Resource optimisation: Green Range products that are totally chlorine free (TCF) bleached put the focus on reduced emissions.

Green Range products also meet other criteria, such as renewable materials and next life, but these are not differentiating criteria for uncoated fine paper. We have therefore focused on creating additional value and differentiation through our Green Range, retaining the three criteria highlighted above.

We have increased the sales volume of Green Range products by 5.1% in 2018 compared to 2017. In 2018, we included 82 products in our Green Range:

→ **PERGRAPHICA® Infinite Black** – with this new FSC-certified quality product, we are committed to helping our customers create premium creative print and packaging, including shopping bags, gift boxes, covers or liners, to name a few.

→ **Color Copy Go Office** is our newest addition to the Color Copy product family, specifically for the office segment. It is a newly developed, FSC- and EU Ecolabel-certified, best-in-class multifunctional product for high contrast colours. Color Copy Go Office is the first product in the Color Copy portfolio explicitly guaranteed for both laser and inkjet printing, featuring ColorLok® technology.

→ **NEUJET® silk book white**, a silky paper ideal for highly productive printing presses that is targeting the book production and publishing segment.

→ Premium office papers **MAESTRO® beat** and **IQ SMART**, which are available with FSC or PEFC certification; and our new universal office papers **MAESTRO® standard+** and **IQ ECONOMY+** offered with PEFC certification.

> Sustainability in the supply chain is vital for our success. More and more of our customers are opting for Mondi's Green Range products as they are either FSC- or PEFC-certified, 100% recycled or TCF-bleached. The consumers can be assured that they have a sustainably produced product in their hands.

Helmut Limbeck
CEO Europapier Group

Solutions that create value for our customers

Sustainable paper-based, plastic-based and hybrid packaging solutions

We're actively leading the future of a sustainable packaging industry by showing that contributing to a better world makes good business sense. Mondi is uniquely positioned to offer a range of high-performance paper-based, flexible plastic and hybrid packaging solutions. For us sustainable packaging meets our Sustainable Products criteria and is designed to maximise functionality and recyclability and minimise waste. Our approach to sustainable packaging focuses on four key areas:

Creating sustainable solutions across our product portfolio

Providing tailored sustainable paper-based packaging, plastic packaging and plastic-paper hybrid solutions – using paper where possible, plastic when useful. We are also developing a product portfolio of sustainable packaging solutions under EcoSolutions.

Innovating to create circular products

Every day we're working with our customers to create useful products that maximise functionality while supporting a circular economy.

Working collaboratively across the value chain

We aim to be a leader in circular thinking by actively collaborating with our customers and by engaging in multi-stakeholder initiatives such as CEFLEX and the Ellen MacArthur Foundation's New Plastics Economy initiative (see).

Promoting the importance of useful plastics

We're eager to share how plastics, when used for the right purpose, can play a meaningful role in a sustainable, circular economy.

Examples of our packaging solutions

Advantage Formable Brown

A new product with important paper properties for the specific end-use of forming and embossing applications. We are uniquely positioned to offer this material in a natural brown colour to meet customers' growing demand for sustainable food packaging solutions with a natural look and feel.

ProVantage Powerflute®

A containerboard product with 100% virgin fibre fluting which ensures a high box strength and delivers world-leading results in terms of long-distance logistics and shipping.

Corrugated packaging for bumpers

Innovative bumper-shaped boxes which use 25% less packaging material and optimise truck loads by 87%, thus reducing the carbon footprint.

Shoppingworld by Mondi

A broad variety of virgin and recycled fibre speciality kraft paper grades for functional and attractive food and non-food shopping bags.

Advantage Kraft White Print and Semi Extensible White Print

These two variants combine the excellent printability of calandered machine finished grades with the strength properties for which sack kraft paper is valued. Those properties lead to less ink consumption and additional material savings due to the use of one paper quality instead of two.

BarrierPack Recyclable

An award-winning mono-polyethylene laminate suitable for mechanical recycling which reduces plastic waste without compromising on quality or functionality.

Solutions that create value for our customers

Examples of our packaging solutions

Recycled Content Washing Powder Packaging

A new plastic solution for washing powder that is designed to aid recycling, replaces 30% of the polyethylene (PE) layer with post-industrial waste material containing approximately 10% regrind material.

Advantage Smooth White paper shopping bags

Brands like Benetton use our Advantage Smooth White speciality kraft paper for their shopping bags. It is FSC and/or PEFC-certified, has a high percentage of long fibres and offers good printability as well as tensile strength and tear resistance.

perFORMing

A thermoformable paper-based packaging solution for various applications in food packaging, such as shallow trays, to safely and naturally pack food like cheese, fish or meat while using up to 70% less plastic.

MailerBAG

A patented recyclable paper bag for e-commerce equipped with double adhesive strip and easy opening, allowing fast processes at the logistic centres and easy returns for the end-consumers. The bag adjusts to the content inside minimising the need for filling materials and reducing CO_2 emissions during transportation.

HYBRID[PRO]

A bag with a hybrid construction which combines high-density polyethylene (HDPE) outer ply with Advantage ONE sack kraft paper which leads to less raw material used. It can resist rain and protect the primary product yet still be fillable on conventional paper bag filling systems. The plastic and paper plies are easily separated and recycled.

Pouch for household detergents

Roughly 85% of the total packaging material low-density polyethylene (LDPE), including spout and cap, is unprinted. Therefore it can be recycled without degradation of quality. The remaining 15% is free of glues and adhesives and also fully recyclable.

https://www.mondigroup.com/en/newsroom/introducing-the-frog-prince-of-packaging/

We consider our brand values and our strong commitment towards social and environment issues of utmost importance for the creation and support of a responsible society. Paper that we use for our bags must be FSC-certified, with a dominant percentage of long fibres, chlorine free and offer good printability and technical characteristics.

Benetton

Transparency and engagement

In January 2019, we will conduct a new customer satisfaction survey covering all businesses. This will include sustainability-related questions around the certification of sustainable products. The results will be available in the first quarter of 2019.

We also measure our performance by participating in a wide range of external benchmarking initiatives that aim to increase transparency, including WWF's biennial Check Your Paper, the Environmental Paper Company Index (EPCI)[4] and Paper Profile.

Our most recent results from EPCI were published in our 2017 report. We will participate in WWF's next Check Your Paper and will report on our results in our 2019 Sustainable Development report.

4   WWF Environmental Paper Company Index, https://epci.panda.org/results/mondi

Solutions that create value for our customers

Supporting the circular economy

As we respond to increasing customer demand for paper-based as well as sustainable flexible plastic solutions, we're facilitating the transition to a circular economy that supports modern-day lifestyles. Our approach is characterised by collaboration with customers and other partners who share our commitment.

The circular economy is relevant to many areas of our business including sourcing, product design, production processes, product use from reusability, recyclability, compostability to waste management. We are committed to working with our partners to achieve 100% reusable, recyclable or compostable plastic packaging by 2025. We believe that working together with other businesses, partners and governments is key to finding a solution for plastic waste. It is essential for us to drive innovation and broad systemic change throughout the plastics value chain and we are looking for more partners who want to join forces in this area. In 2018, we focused on defining actions to move closer to a circular economy approach and we will continue to develop this work stream in 2019.

Innovative. Every Day.

At Mondi, innovation spans the entire value chain – solving problems and developing solutions that create value for our customers, our business and society. The manufacturing footprint of our packaging products is only part of their total environmental footprint and we use the life cycle approach to understand and improve their sustainability performance and impacts throughout the value chain.

'Innovative. Every Day.' is our R&D philosophy. It supports our commitment to strengthening competencies and sharing insights and expertise among internal and external specialists. There is cooperation among Mondi research centres, which support all Mondi businesses. They include the Uncoated Fine Paper Product and Process Development Centre at Hausmening (Austria), the R&D Innovation Centre and Bag Application Centre at Frantschach (Austria) and the Consumer Packaging R&D Centre at Gronau (Germany). We also cooperate with external partners to maximise the potential of our R&D efforts to lead to new ideas, designs, technologies, procedures, markets and, ultimately, deliver products and solutions that enable our customers to succeed. Creating sustainable value and delivering efficient production processes is key and we collaborate with customers and leading research institutes to conduct research and development, test new raw materials and design high-quality products.

In 2018, we invested €22 million in R&D (2017: €23 million), including a number of projects with external partners. We have pledged to increase investment in research and development and drive deeper collaboration throughout our supply chain to move away from non-renewable and non-recyclable plastic.

€22m
invested in R&D by Mondi in 2018.

For R&D Consumer Packaging we have analysed core sustainability trends (including design for recycling, using recycled materials or second-generation renewable resources, and using compostable or biodegradable resources) and empowered our key internal teams to be sustainability champions in their own fields. We have developed internal procedures and capabilities to address these sustainability trends and consumer demands. We will continue to focus on internal training and communication on this topic in 2019.

In 2018, R&D teams from our paper business worked with our partners Océ, Kelheim and SIG, to continue our joint research into fibre swelling and its effect on fibre network performance. The three focus areas of the research are liquid absorption, dimensional stability of fibre networks and fibre network mechanics. All of this work is focused on improving the mechanical performance, quality and sustainability of our paper.

Find out more online
https://www.tugraz.at/institutes/ipz/research/cd-laboratory-for-fiber-swelling-and-paper-performance/

We also continued our work aimed at developing a radically new, sustainable and economically feasible pulping technology for wood and agro-based lignocellulose raw materials, utilising deep eutectic solvents. These are a new class of natural solvents, which have the unique ability to dissolve and fractionate lignin, hemicellulose and cellulose at low temperature and under atmospheric pressure for further processing into high added-value materials and chemicals. We are conducting this work in collaboration with 27 partners – from large industrial companies in the pulp and paper industry to universities and research institutes.

Find out more online
http://www.providespaper.eu/about/

Media reports on sustainability often send mixed and incomplete messages to consumers who are trying to educate themselves on the topic. This in itself has posed a significant challenge – but also served as a powerful catalyst – in developing a stream of actionable innovation projects that meet constantly shifting expectations and priorities.

Graeme Smith
Innovation and Sustainability Manager, Mondi Consumer Packaging

Solutions that create value for our customers

Collaboration across our value chain

Making sustainable packaging a reality will require collaboration and investment by suppliers, customers, NGOs and governments to drive new initiatives and systemic change across the value chain. We're a leading member of multi-stakeholder initiatives that are working together to develop solutions to challenges, including plastic waste.

Championing the New Plastics Economy Global Commitment

Over the past four years, the Ellen MacArthur Foundation's New Plastics Economy initiative has rallied together governments, polymer manufacturers and 20% of the global plastic packaging suppliers behind a positive vision for a circular economy. In this past year, their new action plan, the Global Commitment, has been developed and created a coalition of leaders with the power to prevent plastic pollution. At its heart is a vision of a circular economy for plastic, where plastics never become waste.

In October 2018, we signed up to the Global Commitment made by leading brand owners, retailers and packaging companies – announced by the Ellen MacArthur Foundation at the World Economic Forum in Davos and at the Our Ocean Conference in Bali.

Becoming a signatory means that we commit to:

1. Take action to eliminate problematic or unnecessary plastic packaging by 2025

2. Take action to move from single-use towards reuse models where relevant by 2025

3. 100% of plastic packaging to be reusable, recyclable, or compostable by 2025

4. Set an ambitious 2025 recycled content target across all plastic packaging used (where it does not compromise functionality or food heath requirements)

Signatories will collaborate towards increasing reuse, recycling and composting rates for plastics and will report on progress towards meeting these commitments, as well as on annual volumes (tonnes) of plastics in production/use.

Through the Ellen MacArthur Foundation's New Plastic Economy initiative we are working with partners from across the value chain as part of a Mondi-led pioneer project to innovate on new sustainable FMCG packaging solutions that prove the concept of design for recycling.

We have started a process to report on recycled content of our final products and will provide the consolidated figures in our next report. This year we have included the externally procured recycled containerboard volume which makes up a significant proportion of the input material used in our fibre-based converting operations (see).

One of the first to sign the Global Commitment was our customer, Werner & Mertz, with whom we have collaborated over a number or years to innovate products that enable them to meet their sustainability targets. For example, Werner & Mertz was looking for packaging for its line of household detergents and needed an option that could be recycled without downcycling and would not compromise on product safety. In response, our R&D team developed a product superior to conventional packaging – a flexible spouted pouch with detachable label panels that is recyclable in existing streams. The mono-material bag consists of 100% recyclable plastic, 85% of which is ink-free. Compared to a rigid package, this product achieves a 70% material reduction.

> The innovation process for this mono-material bag was fairly radical. It involved learning by doing and had never been done in this way. This project is a lighthouse for all industries for how new products can be created.
>
> **Albin Kälin**
> CEO of EPEA Switzerland

The mono-material bag, compared to a rigid package, achieves a 70% material reduction.

Solutions that create value for our customers

Tackling plastics in the environment

Plastic waste has a significant impact on the environment. Every day, a staggering amount of plastic leaks into the environment, including oceans. It can stay there for hundreds of years, damaging ecosystems that support life on earth (see page 2). To prevent this leakage, we need to manage waste better and start to see plastic waste as a valuable resource. We aim to meaningfully contribute to solving the ocean plastic crisis by supporting mechanisms that scale action, build trust, improve coordination and increase industry accountability. In 2018 we initiated a roundtable to explore new partnerships for engagement on this topic. The discussions confirmed that many of the stakeholders in the plastics value chain share the desire to contribute to meaningful action, however the workshop did not result in the identification of a new mechanism to meet the desired criteria.

We will continue to work across our networks, such as CEFLEX and the New Plastics Economy initiative, to identify appropriate actions to achieve systemic change.

1.3bn
tonnes of food production is lost or wasted every year.

Avoiding food loss and food waste

Roughly one-third of global food production – approximately 1.3 billion tonnes – is lost or wasted every year.[5] Effective packaging can protect food on its journey from field to market, reducing loss en route and extending shelf life to minimise food waste. Flexible packaging is an important part of the solution as it protects and delivers food safely, retains freshness and offers convenience that may help prevent food waste. Paper-based packaging solutions also contribute to food safety and reduce food waste along the value chain. Virgin fibre speciality kraft paper grades are designed to protect sensitive food packaging applications and containerboard grades can stand up to high humidity environments, hot temperatures and cold storage. They protect fresh fruits and vegetables from harsh conditions and reduce food waste. Industrial bags are also suitable for sensitive food packaging, like infant milk powder.

Effective packaging can extend the shelf life of different foods significantly, for example ground beef by 3 to 20 days; bananas by 15 to 36 days, chicken by 7 to 20 days and zucchini by 1 to 5 days[6]. Plastic pouches designed for single-servings help prevent food waste by providing smaller portion sizes. Plastic packaging that divides contents – such as meats – into separate, sealed, portion-size compartments also extends shelf life and can help to reduce food waste. Portioned food packaging has been shown to reduce food waste in large-scale European studies involving schools and food service[7].

Mondi has been a member of the SAVE FOOD initiative since 2014, a campaign supported by the UN Food and Agriculture Organization, the UN Environment Programme, Messe Düsseldorf (one of the leading export platforms worldwide) and the Interpack trade fair. Member companies seek to tackle global food losses by developing solutions across the entire food value chain.

Effective packaging can extend the shelf life of ground beef by over six times from 3 to 20 days.

5   Food and Agriculture Organization of the United Nations (2018), http://www.fao.org/food-loss-and-food-waste/en/
6   McEwen, Laurel, (2014), McEwen Associates and Sealed Air Corporation 2014 Study on Grocery Shoppers and Food Waste in the US
7   Bel Foodservice (2016), http://www.belfoodservice.fr/actualites/de-nouveaux-chiffres-sur-le-gaspillage-du-fromage-40.php

Solutions that create value for our customers

Compliance as a minimum requirement

We offer our customers high-quality, sustainable packaging and paper solutions and maintain relevant and credible certification at our operations based on the requirements for different sectors and applications. Ensuring our products and operations meet all required safety, health and hygiene standards and other regulations is a basic need for our operations worldwide.

Compliance across our portfolios

Where applicable, we communicate sourcing standards and production and product certification through our own and external product labelling schemes.

In 2018, we were not made aware of any:

→ complaints about breaches of customer privacy and losses of customer data;

→ non-compliance with marketing, advertising, promotion and sponsorship regulations and voluntary codes;

→ fines for non-compliance in the provision and use of our products;

→ incidents of non-compliance with the product information and labelling regulations and voluntary codes to which we subscribe; or

→ incidents of non-compliance with regulations and voluntary codes on customer safety and health.

Mondi Group Food Safety Laboratory

Food hygiene standards and product safety

Our products are subject to voluntary and compulsory testing to maintain a high level of safety and quality. We ensure production processes and product characteristics are communicated clearly to our stakeholders along the value chain.

The Mondi Group Food Safety Laboratory in Frantschach supports the business in developing smart and customised packaging solutions that are optimised for food contact. Given the increasingly stringent regulatory requirements, our expertise in the sustainable sourcing of raw materials for innovative finished products creates great value for our customers.

One focus area is the interaction of packaging and the packaged goods, depending on the intended application (dry, wet, fatty or frozen foodstuffs, or foods handled at ambient conditions or microwave heated). We assess more than 10,000 chemical parameters every year. Mondi Group Food Safety Laboratory is an accredited testing laboratory for the detection of mineral oil-based hydrocarbons in recovered based paper and paper-based packaging. The Mondi Group Food Contact database contains information on products and raw materials, suppliers, internal and external data, and current regulatory requirements to ensure compliance of Mondi's products.

The Mondi Group Food Safety Laboratory supports our operations to build up and maintain the required good manufacturing practice system by using central databases and knowledge sharing. Numerous product safety laws need to be considered to ensure compliance. Second-party hygiene audits are conducted regularly for all operations that hold a hygiene management certificate as part of certification requirements.

Of the 74 Mondi sites producing food contact packaging in 2018, 78% were certified to a recognised food hygiene standard (2017: 74%).[8] The Mondi paper mill Ružomberok, was certified to EN ISO 22000:2005 in 2018.

Significant product categories for which health and safety impacts are assessed (91% of all product categories) include products for the food industry.

Find out more online about the Mondi Group Food Safety Laboratory

The following types of information are covered by our procedures for product information and labelling as legally required:

→ The sourcing of components of the product

→ Content, particularly with regard to substances that might produce an environmental impact

→ Safe use of the product

→ Disposal of the product and environmental impacts

100% of our significant product categories are covered by and assessed for compliance with such procedures.

We assess more than 10,000 chemical parameters every year, focusing on the interaction of packaging and packaged goods.

8   The food hygiene standards that Mondi's operations are certified against include: ISO 22000, EN 15593, BRC, HACCP and AIB

Performance

Our 2020 commitments

Figures reported in 'specific' terms are normalised to saleable production. Specific CO_2e emissions are reported in tonnes per tonne of saleable production; specific contact water in m^3 per tonne of saleable production; and specific waste to landfill, specific COD and specific NOx all in kg per tonne of saleable production.

Progress percentages are calculated excluding the performance of our Powerflute paper mill (Finland), which was acquired in 2018, and is excluded from baseline data. Progress percentages still include performance data until 05/2018 from Pine Bluff (USA), which was then sold.

- ● performance worse than or the same as the base year; measures in place to be back on track[1]
- ● achievement of the commitment behind target
- ● achievement of the commitment on track

Action area
Employee and contractor safety and health

What we said	What we did in 2018	Performance in brief	Progress	2016	2017	2018	2019	2020
Avoid work-related employee and contractor fatalities	We were deeply saddened to have had a fatality at our Syktyvkar operation (Russia) during maintenance work in the woodyard. Regretfully, we also experienced a contractor fatality at our Ružomberok mill (Slovakia) in January 2019, during drilling activities on site. Investigations were conducted to identify the causes and contributing factors in order to prevent similar incidents from happening again.	One fatality		●	●	●		
Prevent life-altering employee and contractor injuries	We also regret that we had five life-altering injuries during the year at our Štětí mill (Czech Republic), Gronau operation (Germany), logging operations (Russia), Forests (South Africa), and Świecie mill (Poland). We continued to focus on the top risks at all our operations in 2018 to prevent serious injuries from happening again. As behaviour is a common contributing factor in our serious injuries, we continue to place focus on improving the behaviour and safe habits of all.	Five life-altering injuries		●	●	●		
Reduce TRCR by 5% compared to 2015 baseline, including new acquisitions	Our total recordable case rate (TRCR) was 0.68 in 2018, an 11% improvement against the 2015 baseline of 0.76 (which included acquisitions). Looking ahead, we will continue to address the top risks in all our operations in order to engineer them out of the business. We will also continue to strengthen our risk assessment procedures and our cultural focus on the behavioural aspects of safety to make sure that not only our TRCR improves, but that fatalities and serious injuries are prevented.	0.68 TRCR		●	●	●		

Action area
A skilled and committed workforce

What we said	What we did in 2018	Performance in brief	Progress	2016	2017	2018	2019	2020
Engage with our people to create a better workplace	Our most recent group-wide employee survey was carried out in February 2018. All Mondi employees were invited to take part, with the survey available in 24 languages. We are encouraged by the group-wide response rate of 89% (2015: 90%), reflecting the engagement of our employees in achieving a better, more inspiring workplace together. Positive findings included employee empowerment in stopping unsafe behaviour, employees' perception of a positive attitude among leadership, and the common characteristic of 'thinking ahead and acting quickly' in teams. Areas considered as opportunities for improvement included teams receiving high-quality support from other teams with which they work, the belief that quality is everyone's responsibility, management doing what they say, action being taken on the previous survey, and employees feeling cared for by the Group. Key actions in response to the findings include increasing focus on care and recognition for our employees, and strengthening a culture of people development. Read more on page 48. We are working on developing specific metrics that can more clearly monitor, measure and track our commitment to engaging our employees to create a better workplace.	Carried out 2018 employee survey, and undertook actions in response to findings		●	●	●		

Our 2020 commitments

Action area
Fairness and diversity in the workplace

What we said	What we did in 2018	Performance in brief	Progress	2016	2017	2018	2019	2020
Promote fair working conditions and diversity in the workplace	In 2018, we developed a Diversity and Inclusion (D&I) roadmap to create a work environment that fosters and respects a culture of diversity and inclusion. We have established a new D&I committee, which includes four executive committee members, supported by a taskforce comprising a diverse mix of colleagues. Overall, more than 100 actions were identified. These have been distilled into 10 priority work streams for 2019, based on the Mondi D&I framework pillars. Read more on page 55. We are working to develop specific metrics that can more clearly monitor, measure and track our commitment to promote fair working conditions in the workplace.	D&I roadmap developed and 10 priority work streams identified to support and enhance diversity and inclusion in the workplace		🟡	🟢	🟢		

Action area
Sustainable fibre

What we said	What we did in 2018	Performance in brief	Progress	2016	2017	2018	2019	2020
Maintain FSC certification for 100% of our owned and leased forest lands and promote sustainable forest management	In 2018, our forest management system in South Africa successfully passed the Forest Stewardship Council™ (FSC™) surveillance audit against the FSC standards. The work of our certification body in South Africa was also assessed by Assurance Services International (ASI) and compliance to FSC procedures was confirmed. Our forest management system in Russia also maintained certification in compliance with FSC and Programme for the Endorsement of Forest Certification™ (PEFC™) standards, including new forest areas that were leased in 2017 (38,900ha). Both our Russian and South African forestry operations maintained ISO 14001 certification in 2018. In 2018, Mondi together with Silver Taiga Foundation, participated in an ASI project to pilot-test Geographic Information System (GIS) tools to support the auditing process and increase the effectiveness and quality of audits. We shared our experience in using GIS to support the development of a risk-based approach, which is very important for effective forest management certification.	100% of owned and leased forests certified		🟢	🟢	🟢		
Procure at least 70% of our wood from FSC- or PEFC-certified sources with the balance meeting our company minimum wood standard that complies with FSC's requirements for Controlled Wood (CW)	We continued efforts to increase the share of certified fibre from external suppliers. Since 2014, the percentage of FSC- and PEFC-certified wood in our supply has increased by 5% from 66% to 71%. Read more on page 61. We continued work with WWF to support the development of forest certification in the State Forests of Bulgaria, where availability of certified fibre is limited. We participated in work to develop FSC's CW Strategy, together with WWF. We also actively supported a pilot project on Joint Control Measures for practical implementation of the Centralized National Risk Assessment (CNRA) in Slovakia. Read more on page 65. All our mills maintained their CoC certification. Our operations embedded the new requirements of the CW standards into their due diligence systems. We further developed our Due Diligence Management System (DDMS) to include social and environmental performance indicators in addition to the EUTR and U.S. Lacey Act requirements. We improved our country-level risk approach, updating applicable assurance levels for different risks, based on existing certification schemes, and defining additional tools for implementation beyond certification in the cases of special risk. Read more on pages 62-63.	71% of wood certified All CoC certifications with CW requirements were maintained		🟡	🟢	🟢		

Our 2020 commitments

Action area
Climate change

What we said	What we did in 2018	Performance in brief	Progress	2016	2017	2018	2019	2020
Reduce specific CO₂e emissions from our pulp and paper mills by 15% by 2030 against a 2014 baseline	In 2018, we are close to achieving our 2030 target against the 2014 baseline[2]. This improvement was mainly achieved through our investments in a biomass boiler and recovery boiler at our Świecie mill (Poland), and a new biomass boiler at our Syktyvkar mill (Russia). Read more on page 72.	14.5%[3] reduction of specific CO₂e emissions against the 2014 baseline		red	green	green		
Reduce production-related specific Scope 1 and 2 GHG emissions from our pulp and paper mills to 0.25 tonnes CO₂ per tonne of saleable production by 2050 against a 2014 baseline	In 2018, we committed to reduce our production-related specific Scope 1 and 2 CO₂ emissions to 0.25 tonnes of CO₂ per tonne of saleable production by 2050 against a 2014 baseline of 0.59. The first milestone to be achieved is 0.44 tonnes of CO₂ per tonne of saleable production in 2025. This reduction target has been calculated with WWF, using the science-based target setting methodology.	7.7% reduction of specific production-related CO₂ emissions against the 2014 baseline		red	green	green		

Action area
Constrained resources and environmental impacts

What we said	What we did in 2018	Performance in brief	Progress	2016	2017	2018	2019	2020
Reduce specific contact water consumption of our pulp and paper mills by 5% compared to a 2015 baseline	We achieved a slight reduction of 2.0% against the 2015 baseline, with our specific contact water reduced to 33.2 m³ per tonne of saleable production, compared to the 2015 baseline (33.9 m³/t). We have seen an increase in specific contact water consumption in 2018 compared to 2017. Our Richards Bay (South Africa) mill significantly increased its specific contact water consumption because of upset conditions following an extended shut in February. Our water consumption was also impacted by the higher ambient temperatures experienced in an unusually hot summer in Europe.	2.0%[4] reduction of specific contact water consumption against the 2015 baseline		red	green	yellow		
Reduce specific waste to landfill by 7.5% compared to a 2015 baseline	We have increased our specific waste to landfill to 38.2 kg per tonne of saleable production, compared to the 2015 baseline. This increase in specific waste to landfill is mainly caused by our Syktyvkar mill, which has successfully finished recultivation of its sludge pond. In June 2019, recultivation of a second sludge pond will start, in the meantime waste has to be landfilled. Waste to landfill also increased significantly at our Richards Bay mill as a consequence of the emptying of the emergency basins after the extended shut in February.	1.3%[5] increase of specific waste to landfill against the 2015 baseline		red	green	red		
Reduce specific NOx emissions from our pulp and paper mills by 7.5% compared to a 2015 baseline	Our specific NOx emissions amounted to 1.7 kg per tonne of saleable production, a 16.3% decrease against the 2015 levels (2.0 kg/t). The reduction was mainly achieved due to our investments in energy efficiency measures and increasing biomass-based energy in our mills, including biomass boilers in Syktyvkar and Świecie and new recovery boilers at Frantschach, Ružomberok, and Świecie.	16.3%[6] reduction of specific NOx emissions against the 2015 baseline		green	green	green		

Our 2020 commitments

Action area
Constrained resources and environmental impacts

What we said	What we did in 2018	Performance in brief	Progress	2016	2017	2018	2019	2020
Reduce specific effluent load to the environment (measure COD) by 5% compared to a 2015 baseline	We released a total of 229 million m³ of treated waste water back to the aquatic environment. Specific COD after wastewater treatment was 8.0 kg per tonne of saleable production, a 6.1% increase against 2015 (7.5 kg/t). The increase was caused mainly by the release of process water and increased washing after the extended shut at our Richards Bay mill in February. Our Kematen (Austria) mill also increased its COD levels due to short-term market-based downtime.	6.1%[7] increase of specific effluent load against the 2015 baseline		🟢	🟢	🔴		

Action area
Biodiversity and ecosystems

What we said	What we did in 2018	Performance in brief	Progress	2016	2017	2018	2019	2020
Promote ecosystem stewardship in the landscapes where we operate through continued multi-stakeholder collaboration	We continued to develop and promote our Sustainable Working Forest model, using a multi-stakeholder engagement and landscape-level approach to look at managing biodiversity and ecosystem services, key types of natural capital (trees, water, soils), long-term productivity, and the resilience of production landscapes. We reviewed our long-term local partnerships – Silver Taiga Foundation in Russia and the Mondi Ecological Networks Programme (MENP) in South Africa – to identify key achievements and insights, align objectives with current trends and challenges, and define future activities. Read more on page 86. In Russia, we continued efforts to develop landscape stewardship for the protection of Intact Forest Landscapes (IFLs) and other High Conservation Value (HCV) areas. Read more on page 62. In South Africa, we continued efforts to develop water-catchment level engagement to enhance collaboration with other sectors in water stewardship. Read more on page 91. We continued to support collaboration platforms – New Generation Plantations Platform (NGP), Boreal Forest Platform (BFP), and The Forest Dialogue (TFD). In 2018, the members of the platforms revisited sites to assess progress made since the first initiatives were implemented. Read more on page 87. The World Business Council on Sustainable Development's (WBCSD's) Forest Sector Guide to Natural Capital Protocol was launched. Mondi provided technical expertise and a case study to demonstrate how natural capital can be assessed and measured. We also provided input and a case study for WBCSD's publication, Climate Smart Agriculture, to communicate the business case for investing in soil health. We continued collaboration with international stakeholders to develop and promote new sustainability concepts and approaches across different land uses and industrial sectors. WBCSD's Forest Solutions Group (FSG) extended its strategy from natural capital to circular bio-economy and also commenced work on the Forest Sector Sustainable Development Goals Roadmap. The Cambridge Institute for Sustainability Leadership's (CISL's) Natural Capital Impact Group (NCIG) launched Healthy Ecosystems Metrics to review different approaches to measuring biodiversity, water and soils. The HCV Resource Network (HCVRN) has embedded a High Carbon Stock approach into its assessments to help achieve no-deforestation in commodity production. We engaged with scientific organisations to enhance the inclusion of scientific research into strategic planning and decision-making processes in the forest sector. We supported the IIASA Cool Forest conference, which addressed the interactions between Forest and Climate and we participated in the joint NGP-IUFRO seminar within the International Congress on Planted Forests. Read more on page 92.	Extended the work of the WWF-Mondi Partnership in South Africa and Russia and carried out a 10-year review of our local partnerships, Silver Taiga and MENP. Continued to actively support collaborations, including NGP, BFP, TFD, CISL NCIG, HCVRN, WBCSD FSG and International Union of Forest Research Organziations		🟢	🟢	🟢		

Our 2020 commitments

Action area
Supplier conduct and responsible procurement

What we said	What we did in 2018	Performance in brief	Progress	2016	2017	2018	2019	2020
Encourage supply chain transparency and promote fair working conditions together with our key suppliers	In 2018, we developed a comprehensive methodology to assess sustainability risks in our supplier base and conducted training for procurement specialists. Developments include better integration of the responsible procurement process by linking the supplier risk assessment process with supplier classification. This will help increase transparency in our supplier base and deliver efficient strategies for supplier development. Read more on page 96. We also developed the responsible procurement process to assist us in identifying key sustainability risks associated with our supply chain – namely labour rights, climate change, and water and biodiversity-related risks. In future, additional risks may be added if they have the potential to impact on our business and our ability to maintain continuity of supply. In 2018, we carried out a pilot screening of 100 suppliers from across all procurement categories using the new methodology. Twenty-five suppliers received a scoring of medium or high risk in one or more of the areas of labour rights, environmental or water risk. These suppliers were requested to complete a questionnaire and, based on their answers, their risk rating was reviewed. Those remaining at high risk will now enter the follow-up process. We are using our learnings from the pilot to improve the supplier questionnaire and supplier engagement. In 2018, we updated the Code of Conduct for Suppliers (Code) again to include additional risk areas related to labour rights, environmental impact and water stress. The updated Code will be rolled out to new suppliers from 2019, and to existing suppliers in the course of the contract renewal process (see page 97).	Continued development of the responsible procurement process to identify sustainability risks in our supply chain and carried out a pilot screening of 100 suppliers to test the methodology		🔴	🟡	🟢		

Action area
Relationships with communities

What we said	What we did in 2018	Performance in brief	Progress	2016	2017	2018	2019	2020
Enhance social value to our communities through effective stakeholder engagement and meaningful social investments	We continued working towards a common methodology, based on the Impact Pathway toolkit, to provide sufficient consistency across the Group while allowing for local flexibility to review the impact of community projects and develop action plans to address findings. Our aim is to review key community projects by 2020 and develop action plans for each operation to address findings. We are developing internal guidance related to impact measurement, which will provide a consistent group-wide methodology for our operations to conduct the review and assessment as stated by the commitment.	Progress made on a toolkit to measure the social and business value of community investments		🟢	🟢	🟢		

Our 2020 commitments

Action area
Solutions that create value for our customers

What we said	What we did in 2018	Performance in brief	Progress	2016	2017	2018	2019	2020
Encourage sustainable, responsibly produced products	In 2018, we identified the need to refocus certain elements of our Responsible Products criteria to promote our circular economy approach and make the criteria more relevant to all fibre packaging and plastic products. The criteria have been reviewed, updated and renamed our Sustainable Products criteria (see page 110). We signed up to the Global Commitment made by leading brand owners, retailers and packaging companies – announced by the Ellen MacArthur Foundation at the World Economic Forum in Davos. Becoming a signatory means that we commit to: → Take action to eliminate problematic or unnecessary plastic packaging by 2025 → Take action to move from single-use towards reuse models where relevant by 2025 → 100% of plastic packaging to be reusable, recyclable, or compostable by 2025 → Set an ambitious 2025 recycled content target across all plastic packaging used	Updated and renamed our Sustainable Products criteria and signed up to the Global Commitment launched by the Ellen MacArthur Foundation		●	●	●		

1 Except for fatalities and life-altering injuries where we compare our performance to our goal of zero harm
2 Based on 0.722 (2018) and 0.844 (2014)
3 Progress including Raubling (Germany) in the commitment's base year: 13.3% reduction; 2014 figure: 0.83
4 Progress including Raubling in the commitment's base year: 0.3% increase; 2015 figure: 33.15
5 Progress including Raubling in the commitment's base year: 4.7% increase; 2015 figure: 36.52
6 Progress including Raubling in the commitment's base year: 13.5% reduction; 2015 figure: 1.98
7 Progress including Raubling in the commitment's base year: 8.9% increase; 2015 figure: 7.31

SDG index

In this index we have mapped the SDGs and their respective targets against this report, and provided references to where supporting information on our contribution to each target may be found.
Those SDGs and targets that fall under our six strategically important SDGs are highlighted in orange. See page 29 for our thinking on strategically important contributions to SDGs.

Goals	Targets	Relevant section within the reporting suite	Relevant sub-section within this report
Goal 1 End poverty in all its forms everywhere	1.4: By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance	Relationships with communities	Mondi Zimele page 107 Infrastructure and community development – agri-villages page 106 Land reform in South Africa page 108
Goal 2 End hunger, achieve food security and improved nutrition and promote sustainable agriculture	2.a: Increase investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technology development and plant and livestock gene banks in order to enhance agricultural productive capacity in developing countries, in particular least developed countries	Relationships with communities	Infrastructure and community development – agri-villages page 106
Goal 3 Ensure healthy lives and promote wellbeing for all at all ages	3.3: By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases	Employee and contractor safety and health	Health and wellbeing page 46
		Relationships with communities	Health – Mobile Clinics page 106
	3.8: Achieve universal health coverage, including financial risk protection, access to quality essential health care services and access to safe, effective, quality and affordable essential medicines and vaccines for all	Relationships with communities	Health page 106
Goal 4 Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	4.2: By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education	Relationships with communities	Case study: A spring board for early childhood learning page 106
	4.4: By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship	Relationships with communities	Education page 105
		A skilled and committed workforce	Case study: NEXT – building a talent pipeline at Mondi Syktyvkar, Russia page 53
			Case study: From seed to success at Mondi Forests, South Africa page 53
	4.b: By 2020, substantially expand globally the number of scholarships available to developing countries, in particular least developed countries, small island developing States and African countries, for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programmes, in developed countries and other developing countries	Relationships with communities	Case study: Championing technical education and career development in Poland page 105

SDG index

Goals	Targets	Relevant section within the reporting suite	Relevant sub-section within this report
Goal 5 Achieve gender equality and empower all women and girls	5.5: Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life	Fairness and diversity in the workplace	Promoting diversity and inclusion (page 55); including the case study: Inspiring a roadmap for diversity and inclusion page 57
Goal 6 Ensure availability and sustainable management of water and sanitation for all	6.3: By 2030, improve water quality by reducing pollution, eliminating dumping and minimising release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally	Constrained resources and environmental impacts	Effluent and wastewater quality page 79
	6.4: By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of fresh water to address water scarcity and substantially reduce the number of people suffering from water scarcity	Constrained resources and environmental impacts	Water page 77
	6.5: By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate	Constrained resources and environmental impacts	Managing our water-related risks page 78
		Biodiversity and ecosystems	Water stewardship page 91
	6.6: By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes	Biodiversity and ecosystems	Ecosystems and biodiversity – WWF-Mondi Water Stewardship Partnership page 88
			Ecosystems and biodiversity – Mondi Ecological Networks Programme page 88
			Water stewardship, including the case study: Evolution of the WWF-Mondi Water Stewardship Partnership page 91
Goal 7 Ensure access to affordable, reliable, sustainable and modern energy for all	7.2: By 2030, increase substantially the share of renewable energy in the global energy mix	Climate change	Increasing energy efficiency and reducing carbon emissions page 71
	7.3: By 2030, double the global rate of improvement in energy efficiency	Climate change	Increasing energy efficiency and reducing carbon emissions page 71
	7.a: By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology	Climate change	Increasing energy efficiency and reducing carbon emissions (page 71) including the case study: Modernising the energy plant at our Syktyvkar mill page 72

SDG index

Goals	Targets	Relevant section within the reporting suite	Relevant sub-section within this report
Goal 8 Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	8.3: Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalisation and growth of micro-, small- and medium-sized enterprises, including through access to financial services	Relationships with communities	Mondi Zimele page 107
			Case study: Funding youth-led enterprises for solutions to the SDGs page 107
	8.4: Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-Year Framework of Programmes on Sustainable Consumption and Production, with developed countries taking the lead	Constrained resources and environmental impacts	Resource efficiency page 77
		Biodiversity and ecosystems	The sustainable working forest page 86
	8.5: By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value	Fairness and diversity in the workplace	Employment and human rights page 57
		Relationships with communities	Employment and enterprise support page 106
	8.6: By 2020, substantially reduce the proportion of youth not in employment, education or training	Relationships with communities	Education page 105
			Case study: Funding youth-led enterprises for solutions to the SDGs page 107
		A skilled and committed workforce	Case study: NEXT – building a talent pipeline at Mondi Syktyvkar, Russia page 53
			Case study: From seed to success at Mondi Forests, South Africa page 53
	8.7: Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms	Fairness and diversity in the workplace	Employment and human rights, child labour and forced and compulsory labour page 58
		Supplier conduct and responsible procurement	Human rights in the supply chain page 97
	8.8: Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment	Employee and contractor safety and health	Ensuring the safety of our people page 41
		Fairness and diversity in the workplace	Employment and human rights page 57
Goal 9 Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation	9.1: Develop quality, reliable, sustainable and resilient infrastructure, including regional and trans-border infrastructure, to support economic development and human wellbeing, with a focus on affordable and equitable access for all	Relationships with communities	Infrastructure and community development page 106
	9.2: Promote inclusive and sustainable industrialisation and, by 2030, significantly raise industry's share of employment and gross domestic product, in line with national circumstances, and double its share in least developed countries	Integrated report and financial statements 2018 and Sustainable development report 2018	Entire reports
		Fairness and diversity in the workplace	Promoting diversity and inclusion page 55
	9.3: Increase the access of small-scale industrial and other enterprises, in particular in developing countries, to financial services, including affordable credit, and their integration into value chains and markets	Relationships with communities	Employment and enterprise support page 106

SDG index

Goals	Targets	Relevant section within the reporting suite	Relevant sub-section within this report
Goal 9 Continued	9.4: By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities	Climate change	Increasing energy efficiency and reducing carbon emissions (page 71) including the case study: Modernising the energy plant at our Syktyvkar mill page 72
		Constrained resources and environmental impacts	Resource efficiency – investments in BAT page 77
		Solutions that create value for our customers	Innovative. Every Day. page 114
	9.5: Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending	Stakeholder engagement matrix	Research institutions and academia page 141
		Solutions that create value for our customers	Innovative. Every Day. page 114
Goal 10 Reduce inequality within and among countries			
Goal 11 Make cities and human settlements inclusive, safe, resilient and sustainable	11.1: By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums	Relationships with communities	Infrastructure and community development – agri-villages page 106
	11.4: Strengthen efforts to protect and safeguard the world's cultural and natural heritage	Biodiversity and ecosystems	Maximising our positive impact: thinking globally, acting locally page 86
			Ecosystems and biodiversity page 88
		Stakeholder engagement matrix	WWF partnership page 137
Goal 12 Ensure sustainable consumption and production patterns	12.2: By 2030, achieve the sustainable management and efficient use of natural resources	Constrained resources and environmental impacts	Entire section page 76
		Biodiversity and ecosystems	Entire section page 85
		More paper, less plastic: The wood supply chain needs to evolve	Entire article page 6
		Sustainable fibre	Entire section page 60
	12.3: By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses	Solutions that create value for our customers	Avoiding food loss and food waste page 116

SDG index

Goals	Targets	Relevant section within the reporting suite	Relevant sub-section within this report
Goal 12 Continued	12.4: By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimise their adverse impacts on human health and the environment	Constrained resources and environmental impacts	Water – effluent and waste water quality page 79
			Air emissions page 80
			Waste page 82
	12.5: By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse	Constrained resources and environmental impacts	Waste page 82
	12.6: Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle	Sustainable Development report 2018 and Integrated report and financial statements 2018	Entire reports
Goal 13 Take urgent action to combat climate change and its impacts	13.2: Integrate climate change measures into national policies, strategies and planning	Climate change	Entire section page 68
	13.3: Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning	Climate change	Transparency and benchmaking page 75
Goal 14 Conserve and sustainably use the oceans, seas and marine resources for sustainable development	14.1: By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution	The end of an era for plastic waste?	Working together to lead the change page 4
		Solutions that create value for our customers	Tackling plastics in the environment page 116
Goal 15 Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	15.1: By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements	Biodiversity and ecosystems	Entire section page 85
	15.2: By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally	More paper, less plastic: The wood supply chain needs to evolve	No deforestation page 11
		Biodiversity and ecosystems	Maximising our positive impact: thinking globally, acting locally page 86 Long-term productivity of forests page 90 Certification and compliance page 89
		Sustainable fibre	Where do our raw materials come from? page 61

SDG index

Goals	Targets	Relevant section within the reporting suite	Relevant sub-section within this report
Goal 15 Continued	15.5: Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species	Biodiversity and ecosystems	Ecosystems and biodiversity page 88
	15.8: By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species	Biodiversity and ecosystems	Ecosystems and biodiversity page 88
	15.9: By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts	Biodiversity and ecosystems	Maximising our positive impact: thinking globally, acting locally page 86
Goal 16 Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels			
Goal 17 Strengthen the means of implementation and revitalise the Global Partnership for sustainable development	**Systemic issues** Multi-stakeholder partnerships		
	17.17: Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships	The end of an era for plastic waste?	Working together to lead the change page 4
			Calling for system-level change to tackle plastic leakage page 5
		Sustainable fibre	Collaborative approach to implement Controlled Wood in Slovakia page 65
		Solutions that create value for our customers	Collaboration across our value chain page 115
		Relationships with communities	Case study: A spring board for early childhood learning page 106
			Education – INGWE page 105
		Biodiversity and ecosystems	Maximising our positive impact: thinking globally, acting locally page 86
			Ecosystems and biodiversity page 88
			Water stewardship page 91
		Stakeholder engagement matrix	Industry associations and NGOs page 134
			Collaborative platforms and initiatives page 135

Stakeholder engagement matrix
Key stakeholders in 2018

Key stakeholders in 2018[1]	Reason for engagement	Key engagement activities in 2018	What's next?
Customers	**Partnering with our customers for innovation is a key value driver towards our joint success. This collaboration is important to help us deliver innovative, sustainable packaging solutions that meet our customers' needs and support the transition to a circular economy. We also remain committed to providing excellent customer service and quality across our global business.**	We work with our customers to better understand their needs, design products that meet their sustainability objectives and to communicate the sustainability value of our products. We report additional examples of product solutions created together with our customers on pages 111, 112 and 113. To promote transparency, we measure our performance and participate in a wide range of benchmarking initiatives. These include CDP, Paper Profile, and WWF's biennial Check Your Paper and Environmental Paper Company Index (EPCI) (see pages 75, 113 and 136). In 2018, we updated our Sustainable Products criteria, which help create and communicate value for our customers through sustainable, responsibly sourced and produced products (pages 110 and 111). Our businesses conduct regular surveys to measure customer satisfaction, inform our design, production, labelling, distribution and management processes, and identify any sustainability challenges and opportunities. We usually receive good response rates to our customer surveys. No formal sustainability-focused customer surveys were conducted in 2018. We use the supplier sustainability rating company, EcoVadis, as a tool for customers that request it. In 2018, we achieved the highest Gold recognition level for our CSR assessment. We also responded to all customer sustainability questionnaires and assessments and we continue to seek collaborative solutions with our customers to improve sustainability performance in our supply chains.	Together with our customers, we will continue to explore business opportunities and new solutions that a circular economy brings. We will continue our work to increase our number of sustainable solutions through EcoSolutions. We will carry out a group-wide customer satisfaction survey in 2019. We will participate in WWF's next Check Your Paper and EPCI and will report our results in our 2019 Sustainable development report. We will continue to respond to customer surveys and questionnaires and will work with them to help meet the requirements of their own policies and codes of conduct.
Employees	**Open and honest dialogue with our employees is crucial. By hearing, respecting and responding to what our people say, we connect, cooperate and resolve challenges together. This promotes shared success through an engaged workforce and performance-driven approach across the business. We aim to achieve a consistent culture and values through our Inspire programme, which guides the way we engage and motivate our employees. Informal channels of communication and formal surveys give employees a voice and help us to understand their concerns and improve our performance, particularly around working conditions. We also want to be a good employer so that we can attract and retain the necessary skills.**	All our operations make formal grievance mechanisms available to employees. Additionally, our independent, confidential and anonymous hotline, Speakout, enables the reporting of grievances and whistleblowing. It provides a simple, accessible and confidential channel through which employees and other stakeholders can raise concerns. Our last group-wide employee survey took place in February 2018. A summary of the results can be found on pages 48 and 49. We also conduct integration surveys for new employees to gather feedback on the integration process and opportunities to strengthen engagement (see page 49). Making a Difference Day (MADD) was celebrated across the Group in May 2018. It focused on embedding a 24-hour safety mindset, safety around moving and rotating machinery, unplanned releases of substances, and reducing our carbon footprint (see page 50). Performance Development Reviews (PDRs) and 360° feedback are conducted every year to reflect on employees' performance and set goals for immediate and long-term development (see page 51).	We will work on the focus areas identified in the 2018 survey and conduct further pulse check surveys in 2019. MADD is an ongoing annual event across the Group. The next MADD will take place in May 2019. In 2019, we will introduce a group-wide virtual employee meeting to discuss our focus areas in 2019 and beyond.

1   We engage regularly with these stakeholder groups, the frequency of which is determined by the requirements of the project schedules, scope and/or partnership agreements

Stakeholder engagement matrix
Key stakeholders in 2018

Key stakeholders in 2018	Reason for engagement	Key engagement activities in 2018	What's next?
Suppliers and contractors	**We operate a central procurement function for a number of key spend categories and manage the remainder either regionally or locally. The reporting, evaluation and monitoring of the sustainability performance of our supply chains are of increasing interest to customers and investors.** **Collaboration with suppliers and contractors is essential to develop solutions to shared social and environmental challenges across the value chain.** **We encourage supply chain transparency and promote fair working conditions, together with our suppliers, by developing a responsible, inclusive and sustainable supply chain.** **It is important that contractors who work on our sites understand and accept our safety standards and ways of working.**	Our independent, confidential and anonymous hotline, Speakout, enables the reporting of grievances and whistleblowing. It provides a simple, accessible and confidential channel through which stakeholders can raise concerns (see page 37). We expect every company in our supply chain to adhere to our Code of Conduct for Suppliers (the Code), which covers social, environmental, governance, legal and ethical aspects. We updated the Code in 2017 to include a stronger and more explicit human rights element, addressing the issues of human trafficking and modern slavery risks as part of our response to the UK Modern Slavery Act of 2015. In 2018, we updated the Code again to include additional risk areas related to labour rights, environmental impact and water stress (see below and page 97). Our responsible procurement approach (pages 96 and 97) includes the on-boarding, evaluation, risk assessment and follow-up stages of assessing supplier performance. We conduct regular assessments of key suppliers of wood, fibre and other raw materials, working with local procurement teams including our wood procurement network. This allows us to evaluate reliability of supply and quality of service, as well as the environmental and social practices of suppliers, which is being included as we implement our updated approach. In 2018, we developed a comprehensive methodology for assessing sustainability risks in our supplier base and conducted training for procurement specialists. Developments include better integration of the responsible procurement process by linking the supplier risk assessment process with supplier classification. This will help increase transparency in our supplier base and deliver efficient strategies for supplier development. We also developed a process to assist us in identifying key sustainability risks associated with our supply chain – namely labour rights, climate change, water-related and biodiversity risks. In future, additional risks may be added if they have the potential to impact on our business and our ability to maintain continuity of supply. In our wood and fibre supply chain, we updated our DDMS with input and expertise from SGS, WWF and ERM (page 62). Together with external stakeholders, including the WBCSD, we continue to engage with certification systems such as FSC and PEFC to encourage practical improvements to independent certification systems that will drive sustainable forestry practices and secure long-term wood fibre supplies. We work closely with our contractors, supporting them to manage their safety and health risks to align with Mondi requirements. We appoint contract managers to facilitate liaison between contracting companies and Mondi SHE professionals to provide support and guidance, monitor contractor safety performance, and work with contractors to help address gaps and improve practices (page 44). In June 2018, we published our statement on Modern Slavery in response to the UK Modern Slavery Act on our website. We offer training, support and long-term partnerships to small and medium enterprises (SMEs) and local businesses and we actively explore opportunities to develop business enterprise and prioritise local suppliers. In 2018, we renewed contracts with seven small and medium companies covering about 100,000m³ of standing wood in our forests around Syktyvkar (page 67).	The updated Code of Conduct for Suppliers will be rolled out to new suppliers from 2019, and to existing suppliers in the course of the contract renewal process. Training of procurement teams on the responsible procurement approach began in 2018 and will continue in 2019. The responsible procurement process will be rolled out to tier one suppliers in various procurement categories during 2019 and 2020. We will pilot the updated DDMS in 2019 for our wood and pulp supply chain. We will continue to promote credible forest and Chain-of-Custody (CoC) certification which is fit for purpose and inclusive for smallholders. We will continue to work closely with contractors on safety and health aspects. We will be setting human rights and modern slavery KPIs to measure progress in our operations and supply chain and strengthening human rights due diligence systems across functions and operations. The next UK Modern Slavery Act statement is due to be published in June 2019.

Stakeholder engagement matrix
Key stakeholders in 2018

Key stakeholders in 2018	Reason for engagement	Key engagement activities in 2018	What's next?
Investors	**Active dialogue with our shareholder and investor community helps us understand their expectations and explain our strategy. Financial and non-financial performance indices help investors assess companies across sectors, and provide us with benchmarks against which we can measure our sustainability performance. This feedback also informs our management and reporting practices.**	We engage with our shareholders and investors through the AGM, results presentations and trading updates, regular road shows, one-on-one meetings, questionnaires and surveys. We also host a Capital Markets Day (CMD) or an in-depth site visit every two years, giving investors and analysts further insight into our business, growth strategy and capital expenditure programme. Our last event was held in London in 2017. During the year, we proactively engaged with a number of investors and Environment, Social and Governance rating companies via teleconference calls and online meetings to gain a better understanding of their requirements. We receive increasingly more focused queries relating to our sustainability practices from analysts and the investor community, particularly in the areas of sustainable wood supply and forestry management practices, carbon and energy performance, plastics and the circular economy, and human rights in the supply chain. Two key requests from investors are for us to measure and evaluate our sustainability impacts and report the financial implications of climate change related to our business' risks and opportunities (for example to meet the recommendations of Task Force on Climate-related Financial Disclosures (TCFD) – see page 69). Our engagement has also led to the development of the concept of the 'working forest' (page 86), a more detailed and concise disclosure of some areas of our reporting – such as our labour practices, supply chain and our carbon performance – and it continues to inform our annual policy review process. In 2018, we maintained our memberships in the FTSE4Good and FTSE/JSE Responsible Investment indices. We were also included in a number of other ESG-related indices (see inside front cover).	We will conduct our next site visit in 2019. We will continue to respond to requests to measure and evaluate our sustainability impacts and report the financial implications of climate change related to our business risks and opportunities. We have set up a cross-functional team (including financial controlling specialists, risk specialists, technical experts and sustainability specialists) to report on the financial impact of our climate-related risks and opportunities. We will continue to engage with our investors and remain open to discussion and questions.
Communities	**The social, economic and environmental health of local communities is important to our success and we work hard to maintain positive and open relationships. Transparent engagement helps us to address challenges, understand and manage risks, generate opportunities, identify material issues and improve our business performance.**	All our operations make formal grievance mechanisms available to employees and the general public to ensure we are aware of and respond to issues. These include local hotlines and our group-wide anonymous whistle-blowing system, Speakout. We continue to monitor and report on legal non-compliances. Some operations provide the community with dedicated telephone lines that connect the complainant directly to the relevant person at our operation. Emission monitoring stations are also provided at a number of our pulp and paper mills (see page 84). We use our formal Socio-economic Assessment Toolbox (SEAT) process, alongside annual community engagement plans (CEPs) to listen to and respond to our local stakeholders. In 2018, we conducted a SEAT at Frantschach mill, the first for the mill. Please read page 102 for further details on the outcomes. In 2018, we continued working on a global CEP template that is more comprehensive and consistent to enable the sharing and benchmarking of information. Based on the Impact Pathway methodology carried out in two of our operations in 2016, we have developed a toolkit to measure the social and business value created by our community investments. We continued to invest in and engage with local communities. Our investments in 2018 totalled €7.9 million. See page 104 for more details.	We will roll out the global CEP template for use by our operations in 2019. The new CEP template and the Impact Pathway toolkit will both be introduced in the form of a Practice Note more widely throughout the Group in 2019, supporting our 'Stakeholders' operating standard. We plan to do further SEATs at our pulp and paper mills in Poland and Sweden in 2019.

Stakeholder engagement matrix
Key stakeholders in 2018

Key stakeholders in 2018	Reason for engagement	Key engagement activities in 2018	What's next?
National and local governments and regulators	**Non-compliance with legal and governance requirements and globally established responsible business conduct in any of the jurisdictions in which we operate could expose us to significant risk. We are also required to comply with permit requirements and to meet local, national and international laws.** **We engage with national and local governments, working together with our local operations teams.**	We regularly monitor and report on any legal non compliances. We also support the consultation process of new laws and directives, mainly via our industry associations. In Russia, there is an annual agreement in place between Mondi Syktyvkar, the Komi Republic authority and relevant municipal administrations. This agreement covers a number of topics with commitments for all parties. We engage with federal ministries in Russia, such as the Ministry of Industry and Trade and the Federal Forest Agency. In South Africa, many of our community investments and initiatives are in partnership with local government departments, institutes and other public organisations. Examples include our Agri-villages project (page 106) and our mobile clinics, which were developed in partnership with local NGOs and the Department of Health to provide comprehensive health care for our forestry contractors and communities (page 106). We also work with the South African government to settle forestry land claims (see page 108). Through CEPI, we continue to lobby government bodies on a number of issues. We continue to support the view that wood should be primarily used for high-quality products and not burnt for bio-energy. We also work with CEPI to lobby for European waste policies that promote paper recovery (page 81).	We will continue to monitor legal and regulatory developments relevant to our business. Our SD policies require us to meet, as a minimum, all laws and directives and internationally accepted standards relevant to our operations. We will continue to revise our policies and operating standards to ensure they align with all laws, directives and internationally accepted standards. Through regular engagement and local community engagement plans, we will continue to work with local, regional and national authorities to address mutual topics and to help support development and livelihoods in the communities where we operate.
Industry associations and NGOs	**We are a member of a number of industry associations and we work with local and global NGOs in multi-stakeholder collaborations that seek sustainable solutions along the entire value chain.** **We are involved in developing industry practices related to climate change, the circular economy, sustainable forestry, human rights and business ethics.** **Our investments and initiatives are almost always delivered in partnership with local stakeholders, charitable institutions, NGOs, government institutes and municipalities, universities and other stakeholders.**	Our key collaborations and memberships include, among others, the United Nations Global Compact (UNGC), the WBCSD's FSG, and CEPI. In 2018, we partnered with One Young World, the global forum for young leaders, on the Lead2030 initiative – a competition to find youth-led practical solutions to drive progress on the United Nations' Sustainable Development Goals (SDGs). Our aim is to raise awareness of 'responsible consumption and production' and drive greater innovation across both our own business and industry more broadly. With Mondi's help, the winning candidate will have the opportunity to turn their concept into a viable solution for tackling waste in manufacturing, and make a positive impact on achieving SDG12 (see page 82).	Our partnerships with industry associations and NGOs are ongoing and fundamental to help scale our impact, contribute to transparency, give more credibility to projects, leverage know-how and funds, and strengthen our relationships with local stakeholders.
Research institutions and academia	**Science plays an essential role in informing our management practices and establishing the value of our work on the ground. To see the impact of our activities and to improve our effectiveness, we depend on robust evidence provided by scientific research.**	We support wide-ranging partnerships and research collaborations with academic and research institutions, including IUFRO, The Cambridge Institute for Sustainability Leadership (CISL) and the MENP in partnership with the University of Stellenbosch, South Africa. Please see pages 141 and 142.	We will continue to actively engage with academia.

Stakeholder engagement matrix
Collaborative platforms and initiatives

Collaborative platforms and initiatives	Reason for engagement	Key engagement activities in 2018	What's next?
United Nations Global Compact (UNGC)	**A voluntary initiative to encourage businesses worldwide to reinforce socially responsible business practices and demonstrate commitment to universal principles in the areas of human rights, employment, environment and anti-corruption.**	In 2018, our Communication on Progress (CoP) met the requirements for an Advanced Level of reporting. We continue to support the UNGC's CEO Water Mandate. The CoP reporting requirements are incorporated into our annual Sustainable Development report.	We will continue to submit a CoP to the UNGC, which includes the requirements of the UNGC CEO Water Mandate.
World Business Council for Sustainable Development (WBCSD)	**The WBCSD is a global, CEO-led organisation that works to deliver high-impact business solutions to the most challenging sustainability issues. Mondi is a member, alongside 200 other global companies, including many of our key customers.**	Mondi is a member of WBCSD FSG. In 2018, the FSG's focus was on implementing its new strategy, which extends its scope from natural capital and forestry issues to include the wider circular and bio-economy agenda. As part of the FSG, we continue to promote dialogue on the complementary nature of virgin and recycled fibre. Our Sustainable Working Forest model has also gained support within this group which increased its outreach in promotion of a landscape approach to forestry (see page 86). In 2017-2018, Mondi was actively involved in development of two Forest Sector Guides to the Natural Capital Protocol and to Social Capital Protocol providing case studies and its expertise. In 2018, we provided input and a case study to communicate the business case for investing in soil health for the WBCSD publication, Climate Smart Agriculture. The case study was taken from our work with Stellenbosch University and their research. In 2018 the FSG started the development of the Forest Sector SDG Roadmap to articulate a joint vision with respect to the most impactful contributions the sector can make through process, product and partnership innovation. The roadmap sets out attainable pathways to help achieve the ambitions that are defined within the SDGs. In 2018, we participated in the WBCSD's initiatives related to implementing the TCFD recommendations.	We will continue to actively work with WBCSD as a member of the FSG, providing input into its key focus areas – the sustainable working forest and the sustainable bio-economy.
Confederation of European Paper Industries (CEPI)	**Mondi is a member of CEPI, a Brussels-based organisation that champions the pulp and paper industry and the benefits of its products. CEPI speaks on behalf of 495 companies operating more than 900 European pulp and paper mills.**	Mondi is a member of CEPI and our Group CEO, Peter Oswald, was chairman until 31 December 2017. In addition, we are part of the CEPI Environmental Footprint and Certification Network teams. A number of Mondi personnel participate in other CEPI committees. In 2018, key stakeholders participated in an FSC Controlled Wood (CW) strategy workshop, to discuss the future of FSC Mix products and the role of FSC CW. CEPI played a very important role in collecting information on CW in the supply chains, the role of CW for pulp and paper business, and in providing a consolidated business view on effective measures to improve the system. We continue to support CEPI's call for the EU to place the 'cascading use of wood' principle at the core of its climate and energy policy to promote the most efficient use of the available biomass resource. We also work with CEPI to develop initiatives that will enable our business and the packaging and paper sector to achieve greater resource efficiency and to lobby for European waste policies that promote paper recovery to improve the flow of recycled fibre into the supply chain.	Continue to work with CEPI to address industry-related issues.
The Ellen MacArthur Foundation	**The Ellen MacArthur Foundation works with business, government and academia to accelerate the transition to the circular economy. Since its creation, the charity has emerged as a global thought leader, establishing the circular economy on the agenda of decision makers globally.**	In 2017, Mondi became a member of the Ellen MacArthur Foundation's New Plastic Economy initiative, which brings together leading businesses and experts to rethink and redesign the future of plastics, starting with packaging. Mondi participates in several pioneer projects. In October 2018, we signed up to the Foundation's Global Commitment, made by leading brand owners, retailers and packaging, to work towards a 100% reusable, recyclable or compostable packaging target by 2025 (see page 115).	Mondi will continue to engage with the New Plastics Economy initiative and actively participate in pioneer projects to support the transition to a circular economy for plastics packaging. As signatories to the commitment, we will collaborate to increase reuse, recycling and/or composting rates for plastics and report on progress towards meeting these commitments.

Stakeholder engagement matrix
Collaborative platforms and initiatives

Collaborative platforms and initiatives	Reason for engagement	Key engagement activities in 2018	What's next?
Flexible Packaging Europe (FPE)	**Flexible Packaging Europe's (FPE) core activity is representing the European flexible packaging industry on the international stage. FPE deals with a wide range of issues relevant to the flexible packaging industry, most notably food contact, sustainability and environmental issues.**	Mondi has been a member of Flexible Packaging Europe's (FPE) Sustainability Committee since 2004. FPE has commissioned several scientific studies on the sustainability of flexible packaging that clearly demonstrate the resource efficiency of flexible packaging versus other packaging formats.	FPE will continue to commission the development of product category rules for the life cycle assessment of flexible packaging in 2019. Enhancing the circularity of flexible packaging will continue to be a point of discussion with FPE.
CEFLEX	**A Europe-wide, multi-stakeholder consortium which aims to enhance the performance of flexible packaging in the circular economy, from packaging design to waste sorting and infrastructure reprocessing.**	As a project stakeholder, we participate in and contribute to three of the seven work streams: Design Guidelines; Sustainable End Markets; and Facilitating Technologies.	We will continue our participation in these three work streams in 2019.
SAVE FOOD	**SAVE FOOD is a campaign supported by the UN Food and Agriculture Organization, the UN Environment Programme, Messe Düsseldorf (a global export platform) and Interpack (a leading trade fair for process and packaging). It aims to encourage dialogue on food waste across industry, academia, politics and civil society.**	Mondi became a member of SAVE FOOD in 2014. We are helping to develop a wide range of innovative solutions to food packaging challenges, including re-closable bags, single-serve pouches, extrusion-coated barrier material and water-resistant containerboard. Please refer to page 112 of this report for further examples.	Contribute further to SAVE FOOD's work, addressing food waste with our customers and supply chain partners.
CDP	**CDP is a corporate transparency initiative. It plays an important role in disclosing high-quality, comparable data on company environmental performance to investors. The data covers climate change, water security, forests and supply chain (climate change and forests).**	In 2018, we disclosed on all metrics – climate change, water security, forests and supply chain (climate change and forests). We scored an A- in the CDP climate change disclosure, a B in the forests disclosure and a B in the water security disclosure.	Continue to disclose information to CDP. We will continue our work to assess and report on the financial impact of our climate-related risks and opportunities within our internal cross-functional team (including financial controlling specialists, risk specialists, technical experts and sustainability specialists).
Paper Profile	**Paper Profile is a global, voluntary declaration scheme for presenting uniform environmental product information related to pulp and paper production. It enables the professional paper buyer to make well-informed product choices.**	Mondi's Group environmental manager is a member of the Paper Profile steering committee. Mondi is also a member of the technical working group which is helping to generate and improve a standardised description of paper product characteristics.	We will continue to actively support the Paper Profile steering committee and working group meetings.

Stakeholder engagement matrix
Collaborative platforms and initiatives

Collaborative platforms and initiatives	Reason for engagement	Key engagement activities in 2018	What's next?
WWF	**Our Partnership with WWF allows us to share perspectives and experiences and leverage skills and influence from both networks.**	In 2017, we extended our global Partnership with WWF by another three years. Our collaboration will continue to focus on the stewardship of climate and energy, fresh water and forests – both within our own operations and across sectors through engaging others. In the climate and energy work stream, we continued to work together with WWF and ERM to replace some of our literature-based assumptions with primary data for scope 3 emissions. We are also investigating a science-based target for GHG emissions from energy sales (page 71). In the freshwater work stream, we continued to support the development of The Water Risk Filter. We tested a high-resolution Water Risk Filter for South Africa and now we're testing the newly revised Water Risk Filter tool 5.0, developed by WWF, to categorise our operations according to their water risk. Through discussing our conclusions and suggested measures with WWF, we have improved our understanding of our current and potential future water impacts, as well as potential risks to our business relating to water availability, allocation and costs (see page 78). We also continued our work with the WWF-Mondi Water Stewardship Partnership, which focuses on catchment-based water stewardship (page 91). In the responsible wood sourcing work stream, we are working with WWF to develop a deeper understanding of country-specific risks, the FSC CW Strategy and the performance of FSC and PEFC certification schemes at national levels (see pages 62-65). Obvious synergies with the NGP platform have been realised and there has been close cooperation to promote social learning and freshwater stewardship as part of a landscape approach, both within the global NGP and WWF networks.	We will continue with our existing work streams. Specifically, we will explore the links between potential water basin and production-related water risk and the need to undertake further water stewardship assessments. In terms of wood sourcing, we will continue to address the issues related to high-risk countries and appropriate risk mitigation measures.
New Generation Plantations (NGP) platform	**The NGP platform was established in 2007 as a partnership between WWF and the main companies working in plantation forestry, including Mondi. It aspires to an ideal form of plantations that contribute positively to both people and nature. It promotes well-managed, inclusive and profitable plantations by sharing knowledge and experience. This helps to maintain global credibility for plantations.**	Mondi was a cofounder of the NGP and is now an active member of the advisory group. We have worked closely with WWF and other NGP participants to help promote the NGP concept to wider audiences and expand the use of the concept to other forest types and agriculture. We remain committed to the NGP, which continues to make good progress in promoting and seeking solutions for small and medium enterprises and communities. In March 2018, TFD and NGP brought participants back to Brazil for a dialogue on Tree Plantations in the Landscape where they discussed the changes since the first field seminar a decade earlier. In October 2018, linked to the International Congress on Planted Forests (ICPF), NGP arranged a joint session with the IUFRO to explore practical links between science and business.	Mondi and WWF continue to explore how the NGP concept and principles might be applied to include other forest types and agriculture. We will continue to participate in and support the NGP platform and to promote biodiversity and ecosystem stewardship through a landscape approach. The NGP platform will be exploring the latest technology to support SMEs and communities with certification and best practice. In 2019, Mondi will actively engage in the NGP-IUFRO working group's activities, which will continue to further align research interests between forest companies and scientific institutions.

Stakeholder engagement matrix
Collaborative platforms and initiatives

Collaborative platforms and initiatives	Reason for engagement	Key engagement activities in 2018	What's next?
Boreal Forest Platform (BFP)	**Established in 2015 by WWF, Mondi and Silver Taiga Foundation, the BFP aims to bring stakeholders together across the boreal forest to develop a shared understanding of responsible forest management and optimise yields from commercial forests, while conserving intact forest landscapes (IFLs) and other HCV areas.**	The BFP has attracted 22 members to date, including the regional forestry and nature authorities. It is making progress on addressing IFL issues while working to increase productivity in commercial forestry areas. WWF-Russia continues to make steady progress in securing protection for IFLs in north west Russia, complementing Silver Taiga Foundation's work in Komi. The current focus is on developing a sustainable forestry model for Russia, based on best practices in Canada and Scandinavia. In 2018, Mondi and Ilim hosted more than 60 BFP participants in their forests to illustrate progress over the past three years, including how current practices comply with the new regulations.	We will continue to support the BFP and contribute to the development of the Boreal Forest Academy and best practices database. In 2019, BFP and NGP plan to arrange a joint cross-border Russia-China field seminar to enhance knowledge exchange.
WWF-Mondi Water Stewardship Partnership (WWF-Mondi WSP)	**The WWF-Mondi Water Stewardship Partnership (WWF-Mondi WSP) is the next evolutional phase of the WWF Mondi Wetlands Programme (WWF-MWP), which focused on the restoration of wetlands in forest plantations. This scope has been extended beyond the boundaries of our own plantations to include the agricultural sector and small forest growers. The approach brings together key stakeholders who have a shared interest in maintaining freshwater ecosystems and services at the landscape level. It promotes the landscape approach to water stewardship through collective action across whole water catchments.** **South Africa is a water-stressed country and freshwater ecosystems are vital to wildlife, people and our business.**	The WWF-Mondi WSP brings stakeholders together to tackle the challenges facing freshwater ecosystems in three catchments in South Africa that are important to stakeholders. Using social learning tools and cooperating with the NGP platform globally, we continue to share best practice through the WWF network. In 2017, the focus was extended to include the uMhlathuze catchment, where our Richards Bay mill is located and where forestry, sugar, citrus and communal land holdings are prominent. We are successfully bringing together small forest growers and large plantation forestry companies, citrus and sugar cane growers and dairy processors in the Mhlathuze and Greater uMngeni catchments in South Africa to promote best practice in water use and freshwater conservation. In October 2018, Viv McMenamin, CEO of Mondi South Africa, presented the project at the Financial Times Water Summit in London, where she was a keynote speaker. The summit focused on providing practical, action-focused content to help companies whose businesses rely on clean water to succeed.	Continue to work within the Mondi-WWF Partnership to promote freshwater stewardship, building on the good work with key land users and stakeholders. Continue to promote water stewardship in two catchments – the uMngeni and the uMhlathuze – where Mondi's operations are located. Continue to use the NGP platform to promote freshwater stewardship and responsible forestry practice around the world.
WWF Climate Savers programme	**Climate Savers is a climate leadership programme that seeks to transform businesses into leaders of the low carbon economy by inspiring a change in thinking about climate solutions, and as agents of change within their sphere of influence.**	In 2018, we joined Climate Savers and have set a carbon emission target using the science-based target setting methodology. We are committed to reducing our specific production-related GHG emissions to 0.25 tonnes CO_2 per tonne of saleable production volume by 2050, against a 2014 baseline. As part of our global partnership with WWF, we are also investigating an energy sales related science-based GHG reduction target. We have committed to working to further reduce GHG emissions across our entire value chain and to taking actions to positively influence the packaging and paper industry, as well as policy makers. This participation is part of our strategic global partnership with WWF.	We will continue our work to investigate a 2050 science-based target for energy sales GHG emissions and to improve the quality of our Scope 3 calculations. We will continue to seek opportunities to increase renewable energy use in our pulp and paper production and operate in the most sustainable way possible.

Stakeholder engagement matrix
Collaborative platforms and initiatives

Collaborative platforms and initiatives	Reason for engagement	Key engagement activities in 2018	What's next?
Forest Stewardship Council (FSC)	**Since it was founded in 1993, the FSC has played a significant role in promoting responsible forest management. Despite progress, only 11% of the world's forests are currently certified and there isn't enough certified wood to meet demand. We are working closely with the FSC to address these challenges within the pulp and paper industry.**	During the year, we continued work with FSC and others to improve the FSC certification system as they implement their new strategy. Mondi continues to advocate that FSC uses the new CW Strategy to clarify the value of CW to all stakeholders and address the long-term need for an efficient and effective CW system. We actively support the CW strategy review process. In 2018, the future of FSC CW and FSC MIX labelling was discussed at the FSC CW strategy workshop in Portugal, which Mondi attended. In Russia, Mondi is represented on the FSC Russia Management Board and we work actively with the FSC Africa and its office in South Africa. We have contributed to the development of FSC national standards in both South Africa and Russia. These country-specific standards adapt FSC's current international generic indicators to reflect local conditions and issues. In Slovakia, we are one of two companies actively working with FSC to try to implement CW requirements based on the existing CNRA. Together with FSC, we have reviewed our approach to mitigate risks. This work served as the basis for a calibration workshop in 2018 between FSC, ASI and certification bodies, the outcomes of which are supporting implementation of CW in Slovakia and other countries in central Europe. The outcomes may also support development of the National Risk Assessment (NRA). As a result of this work, Mondi's wood supply organisation in Slovakia successfully passed the surveillance audit.	We will continue to encourage and support implementation of the global strategy and promote and organise risk-based forest-type regional meetings. This should help to streamline the FSC AGM in the future. We will continue to work with FSC, focusing on the development and improvement of simplified risk-based approaches and the improvement of accessibility of certification to SMEs. We will continue to advocate the importance of CW as a minimum standard in wood and fibre supply chains. We will remain fully engaged in the development of national standards to ensure continued improvement of the CW system in Slovakia and in central Europe.
The Programme for the Endorsement of Forest Certification (PEFC)	**The PEFC is an international non-profit, non-governmental organisation dedicated to promoting Sustainable Forest Management (SFM) through independent third-party certification.**	In 2017, Mondi applied for a membership to PEFC and in 2018, participated in its General Assembly as a member for the first time. We actively participate in their processes and improvement of governance systems and certification standards. We are working with WWF-International to develop a deeper understanding of country-specific risks and the performance of PEFC certification schemes at national levels. We also participated in the public consultation on the development of the South African Forestry Assurance Scheme, which has now been endorsed by PEFC. In Russia, we are contributing to the PEFC's Advisory Committee's work, which aims to improve the functionality of the system in Russia.	We will continue to strengthen collaborations with PEFC at national and international levels.

Stakeholder engagement matrix
Collaborative platforms and initiatives

Collaborative platforms and initiatives	Reason for engagement	Key engagement activities in 2018	What's next?
Silver Taiga Foundation	**Silver Taiga Foundation was founded in 2002 to promote sustainable management of forest landscapes and renewable natural resources in the Komi Republic and other regions of the Russian Federation. We work with Silver Taiga Foundation to develop best boreal forestry practice for the Komi Republic. We also participate in shared projects with WWF Russia.**	Mondi has been a sponsor of Silver Taiga Foundation's work since 2008. They continually provide us, and most other forest stakeholders in Komi, with relevant environmental information and technical support. In 2018, we completed a 10-year review of our partnership with Silver Taiga Foundation to identify key achievements and insights, align objectives with current trends and challenges, and define future activities. Some of our joint projects include: → Model River Mezen: It is a joint project to catalyse improvement in the regulatory framework regarding the management and monitoring of fish resources, developing fish restoration programmes. This project supports local communities to implement sustainable practices; → High Conservation Value Forests (HCVF) project: In 2017 Mondi, WWF Russia and Silver Taiga signed an agreement, which summarised results of 10 years of work on an inventory of IFLs in Komi Republic and adjacent territories and firmly defines the boundaries of their cores. It is the first landscape-level agreement in the history of IFL protection; → the assessment on the long-term impacts of logging operations on soil and water resources: a regional web-based GIS platform was developed and launched for landscape planning, which summarised the data on the harvested logging areas, the hydrological characteristics and landscape transformation within water catchments; → an environmental and landscape basis for sustainable and intensive forest management: Silver Taiga developed guidelines on the use of remote sensing and GIS, and a two-year field training was conducted across the Syktyvkar logging operations. In 2018, Mondi and Silver Taiga Foundation participated in a project led by Assurance Services International (ASI) to pilot test GIS tools to support and increase the effectiveness and quality of FSC-certification audit processes and outcomes. The project helped to shape a new GIS self-starter kit for auditors. The work supports the development of a risk-based approach, which is very important for effective forest management and certification; and → social projects: Silver Taiga Foundation provides support in developing approaches to implementing Free Prior and Informed Consent (FPIC) to support participatory planning with settlements where Mondi Syktyvkar has new forest sites. Mondi is one of the main supporters of the regular regional Komi Forest Dialogue.	We will continue to support and fund key Silver Taiga Foundation projects that benefit Komi and north west Russia. New focus areas of support include training and development, increased participation in social projects and implementation of the Natural Capital Protocol. Silver Taiga Foundation will continue to share its learnings to a wider audience, including our suppliers and contractors, administrations and authorities.
We Mean Business Coalition	**We Mean Business is a global non-profit coalition working with the world's most influential businesses to take action on climate change. They aim to catalyse business leadership to drive policy ambition and accelerate the transition to a low carbon economy.**	Mondi is a member of the We Mean Business Coalition. We support its Responsible Corporate Engagement in Climate Policy initiative by setting up a process to internally audit all activities that influence climate policy, ensuring consistency of those activities and communicating on actions and outcomes via the CDP disclosure or and Climate Savers membership.	As part of our WWF-Mondi Partnership. we will continue to support the We Mean Business Coalition through activities planned together with WWF (as part of our Climate Savers membership).
The Forests Dialogue (TFD)	**TFD is a WBCSD/World Bank initiative which provides a global multi-stakeholder process for dealing with contentious social and environmental issues in forestry. Mondi is an active participant.**	We continue to contribute to TFD where relevant. Mondi values TFD and continues to contribute financially to the secretariat. TFD currently runs four initiatives – Tree Plantations in the Landscape, Land and Forest Tenure Reform, The Land Use Dialogue and Understanding Deforestation-free. The work complements our landscape work and maintains links to the TFD stakeholders.	Mondi will continue to support initiatives of TFD.
The High Conservation Value Resource Network (HCVRN)	**The HCVRN works closely with the FSC, NGOs, inter-governmental organisations (IUCN, World Bank, FAO, UNEP etc.) and companies to bring a consistent HCV approach across all land uses.**	Mondi continues to participate in the HCV Resource Network. Since 2017, the HCV Resource Network has embedded a High Carbon Stock (HCS) approach into its assessments to help achieve no-deforestation in commodity production.	Mondi will continue to support the HCVRN in promoting the HCV concept in various types of land uses and industries.

Stakeholder engagement matrix
Scientific institutes and universities

Scientific institutes and universities	Reason for engagement	Key engagement activities in 2018	What's next?
Stellenbosch University	**We support research which makes a significant contribution to biodiversity and ecosystem stewardship in production landscapes.**	The MENP at Stellenbosch University continues to provide important supporting science and management recommendations on biodiversity conservation and planning in our landscapes. In 2018, we completed a 10-year review of our partnership with MENP to identify key achievements and insights, align objectives with current trends and challenges, and define future activities. We are working to further support the management of ecological networks (ENs) in our plantation forests, expanding the scope to include a focus on biodiversity of freshwater ecosystems and soil. MENP recommendations have been globally peer reviewed and promoted through the NGP platform and they will be a practical and useful tool for other relevant stakeholders. In 2018, we provided input and the MENP case study for the WBCSD's Business Case for Investing in Soil Health publication, which addresses Climate Smart Agriculture. The case study highlighted the university's research into the importance of ecological networks for soil, biodiversity and productivity of forest plantations.	We will continue to support and promote the MENP initiative and expand the scope to include biodiversity aspects of freshwater ecosystems and soil in production landscapes. We will continue to focus on communicating the value of ENs to a wider audience. We will also continue to support new research on the value of soil biota in maintaining crop productivity.
Cambridge Institute for Sustainability Leadership (CISL)	**We joined the Natural Capital Leadership Platform in 2015, currently known as the CISL Natural Capital Impact Group (CISL NCIG). It is a global network of companies working collaboratively to determine how business can sustain the natural world and its resources through its strategies and operating practices.**	The NCIG launched the Healthy Ecosystem Metric Framework in 2018, which aims to ensure a consistent approach to measuring natural capital across different land uses and industrial sectors. Metrics are being developed for biodiversity, water and soil. Mondi is participating in testing the biodiversity metric tool by applying it to forestry and wood supply.	We will continue to support the work of the CISL NCIG, particularly the work on developing healthy ecosystem metrics, focused on biodiversity.
International Union Of Forest Research Organizations (IUFRO)	**IUFRO is a non-profit, non-governmental international network of forest scientists which promotes global cooperation in forest-related research and enhances the understanding of the ecological, economic and social aspects of forests and trees. It unites more than 15,000 scientists in almost 700 member organisations in over 110 countries.**	IUFRO hosted an open dialogue in September 2017 in Germany, which aimed to identify strategies and options for a long-term structured collaboration between business and science towards achieving the SDGs. Mondi presented its experiences from the MENP to illustrate how science can help business to find practical solutions to address challenges. In 2018, we supported the global scientific conference, 'Cool Forests: at risk?', held in Austria by IIASA with IBFRA, PEEX and IUFRO, which focused on exploring the links between climate change and cool forests (boreal and mountain forests). The importance of cool forests for regulating climate was considered as well as the type of adaptive management that will be needed to manage climate impacts on cool forests in the future. The conference brought scientists from all over the world, together with global NGOs and forest companies, to develop joint messages for consideration by policy makers (page 92).	We will continue tracking scientific events globally to stay up to date on developments related to sustainable forest management. We will also continue to explore and align research interests between scientific organisations and forest companies.
University of Pretoria	**We work with the University of Pretoria to stay informed of the most recent scientific trends and developments related to tree breeding and control of pests and diseases.**	The prevailing dry conditions in South Africa have increased stress on our trees and exacerbated pest and disease risks in our plantation forests. We are continuing with our tree protection partnership with the University of Pretoria through sponsorship of the Mondi Chair for Plant Pathology. Our ongoing participation in the Tree Protection Co-operative Programme (TPCP) at the University of Pretoria has greatly assisted us in developing practical measures to manage the Sirex and Chalcid wasps, which damage pine and eucalyptus respectively. This work also feeds into our tree improvement programme and enables selection of more resistant trees for our plantation forests.	We will continue to partner with the University of Pretoria's Forestry and Agricultural Biotechnology Institute (FABI) and in particular with the TPCP. Focus remains on keeping our trees healthy and productive.

Stakeholder engagement matrix
Scientific institutes and universities

Scientific institutes and universities	Reason for engagement	Key engagement activities in 2018	What's next?
University of KwaZulu-Natal (UKZN)	**We work with UKZN on the Two Streams catchment project located on our land and sponsor part of the long-term research.**	The Two Streams catchment research project focuses on the impact of plantation trees on the hydrological cycle of the site and has reached the closing stage of the acacia tree-planting phase. We partner with the South African Environmental Observation Network (SAEON) to ensure regular maintenance of the long-term monitoring equipment, and the download and storage of the monitoring data. Mondi also funds research conducted at the Institute of Commercial Forestry Research (ICFR), a formal association of the UKZN. The institute conducts applied research for the forest sector in South Africa.	We're committed to the next phase of the Two Streams research, which will compare water use of eucalyptus, Mondi's main commercial species for its plantations, with previous results on acacia. We will continue to support the ICFR.
Institute of Biology of the Komi Science Centre	**We engage with Komi scientists who conduct research to understand long-term impacts of our operations on the environment.**	In 2018, we continued our engagement with the Institute of Biology. We support research on the long-term trends in reforestation and soil recovery. In 2018, Mondi signed a contract with the Institute of Biology of the Komi Science Centre to assess the impact on biodiversity of our pulp and paper mill in Syktyvkar (Russia), including the study of available biodiversity documentation and the preparation of cartographic material. Key site-permanent observation points for in-situ survey in the impact zone of Mondi Syktyvkar shall be selected as well as biodiversity indicators at species and ecosystem level. In 2018, Mondi Syktyvkar provided financial support to the Institute of Biology of the Komi Science Centre for research to update a list of red-listed species, which will be published in the third edition of the Red Book of Komi Republic.	Based on the findings from the biodiversity impact assessment, we will develop a biodiversity monitoring programme in the area affected by the mill. The updated Red Book of the Komi Republic will be published in 2019.
Regional Komi Republic Universities (Syktyvkar Forest Institute of St. Petersburg's State Forest Technical University and the Syktyvkar State University)	**We actively engage with the Komi Republic universities where we have our Syktyvkar pulp and paper mill.**	We support the development of young experts and engage with students and academic staff. In 2012, together with the Komi Republic Authorities, we developed a Komi Forest Academy Award to motivate young researchers. Engaging with young researchers enables us to use the results of the research to practically support our own operations.	We will continue to support research at the universities and to promote the practical application of their research findings, where relevant and appropriate.

Consolidated performance data

Financial performance

€ millions unless otherwise stated	2014	2015	2016	2017 Restated[1]	2018
Group revenue	6,402	6,819	6,662	7,096	**7,481**
Underlying EBITDA	1,126	1,325	1,366	1,482	**1,764**
Underlying operating profit	767	957	981	1,029	**1,318**
Operating profit	728	900	943	968	**1,192**
Basic underlying earnings per share (EPS) (euro cents)	107.3	133.7	137.8	148.9	**189.1**
Basic EPS (euro cents)	97.4	124.0	131.8	137.9	**170.1**
Capital expenditure cash outflows	(562)	(595)	(465)	(611)	**(709)**
Net debt	1,613	1,498	1,383	1,532	**2,220**
ROCE (%)	17.2	20.5	20.3	19.3	**23.6**

1   The Group adopted the new 'Leases' accounting standard (IFRS 16) for the financial year beginning on 1 January 2018. All 2017 comparative figures have been restated where applicable

People and communities

Gender diversity 2018	Male	%	Female	%
Directors	6	75	2	25
Senior managers	283	92	26	8
Employees	20,708	79	5,468	21

Management by origin 2018	number
Hungary	2
France	3
Czech Republic	5
Slovakia	8
United Kingdom	10
Russian Federation	15
Italy	15
Turkey	17
Poland	28
South Africa	42
Austria	65
Other nationalities	149

Consolidated performance data

	2014	2015	2016	2017	2018
Employee and contractor training hours	871,000	827,000	790,000	829,900	**819,200**

Coverage of safety in training hours in 2018					%
Safety-focused training					**40**
Other training					**60**

Safety

Number of work-related fatalities	2014	2015	2016	2017	2018
Employees	0	1	0	2[2]	**0**
Contractors	0	0	0	1	**1**

TRCR (per 200,000 hours worked)[3]	2014	2015	2016	2017	2018
	0.83	0.76	0.69	0.68	**0.68**

2   2017 figure restated to include a confirmed fatality of a missing person in Syktyvkar

3   2015–2017 restated to include acquisitions, and 2017 includes a confirmed fatality of a missing person in Syktyvkar

Communities

Community and social investments[4] ('000 €)	2014	2015	2016	2017	2018
Health and wellbeing	85	172	653	1,959	**2,079**
Education	2,078	1,775	565	731	**724**
Infrastructure and development	4,996	5,044	6,425	6,509	**4,697**
Enterprise and employment support			254	432	**431**
Total[5]	7,159	6,991	7,897	9,631	**7,931**

4   In 2016, we restructured and revised our investment categories. Our new 'Health and wellbeing' and 'Education' categories correspond to equivalent previous categories and therefore their historic data were not restated. Our new 'Infrastructure and development' combines the previous categories 'Environment', 'Community development', 'Arts, culture and heritage', 'Housing' and 'Other', and will be a wider, more comprehensive category going forward. Our new 'Enterprise and employment support' category will not include any historic data, but investments in support of employment and enterprise have effectively been part of the scope in past years, even if it is not formally reflected as an individual category

5   Changes in investment levels over the years do not necessarily represent a change in investment strategy. They are sometimes reflective of the commencement or closure of projects. Most initiatives run over several years and require different levels of investment for each development phase

Consolidated performance data

Forests and fibre procurement

Forestry data 2018	Russia	South Africa	Total
Total area of land (ha)	2,116,699	254,328	**2,371,027**
Proportion of land set aside for conservation (%)	24	27	**24**
Number of seedlings planted	3,200,000	24,897,933	**28,097,933**
Wood self-sufficiency potential (%)			**46.6**

Fibre use	2014	2015	2016	2017	2018
Wood (internal and external) (million m³)	16.3	16.4	16.6	16.9	**17.4**
Pulp (externally procured) (million tonnes)	0.4	0.3	0.4	0.3	**0.3**
Paper for recycling (million tonnes)	1.5	1.4	1.3	1.3	**1.3**

Fibre procured from FSC- or PEFC-certified sources 2018 (%)	FSC	PEFC	Total
Wood	49	22	**71**
Pulp (procured externally)	85	9	**94**

Certified wood procured (%)	2014	2015	2016	2017	2018
FSC	46	45	46	50	**49**
PEFC	20	21	21	21	**22**
Total	**66**	**66**	**67**	**71**	**71**

Energy and climate

CO₂e emissions from our pulp and paper mills (tonnes)	Scope 1	Scope 2	Total CO₂e
2014	4,308,655	998,807	5,307,462
2015	4,477,666	777,329	5,254,995
2016	4,067,788	671,247	4,739,035
2017	3,777,282	691,649	4,468,931
2018	**3,805,696**	**583,031**	**4,388,727**
CO₂e emissions from Powerflute	97,271	20,388	117,659

Consolidated performance data

Specific CO$_2$e emissions from our pulp and paper mills (tonnes per tonne of saleable production)		Scope 1	Scope 2	Specific total (Scope 1 and 2) CO$_2$e
2014		0.68	0.16	0.83
2015		0.71	0.12	0.83
2016		0.65	0.11	0.76
2017		0.61	0.11	0.72
2018		**0.63**	**0.10**	**0.72**[6]

6 Progress against 2030 commitment is calculated based on excluding Raubling mill from 2014 as per 0.844 (2014) and 0.722 (2018)

GHG emissions from our pulp and paper mills, by country 2018 (tonnes)		Tonnes
Russia		2,065,885
South Africa		1,018,664
Czech Republic		427,945
Poland		229,512
Austria		218,720
Slovakia		127,966
Bulgaria		100,006
Sweden		82,437
Turkey		81,454
US		36,137
Pulp and paper mills total		**4,388,727**
Finland (Powerflute)		117,659

Electricity self-sufficiency of our pulp and paper mills (%)	2014	2015	2016	2017	2018
Own electricity produced	95.4	100.9	97.9	95.6	**100.2**
Electricity purchased	30.1	27.9	25.2	20.9	**17.5**
Electricity sold	25.5	28.7	23.1	16.5	**17.7**

Fuel consumption for our pulp and paper mills (million GJ)	2014	2015	2016	2017	2018
Produced from our own biomass	81.7	83.3	87.2	87.8	**84.3**
Purchased fuel	71.5	75.6	71.2	68.6	**70.3**

Consolidated performance data

Energy use, pulp and paper mills (GJ)	2014	2015	2016	2017	2018
Electricity purchased	7,580,154	6,930,935	6,277,050	5,217,232	**4,250,850**
Own biomass	81,697,138	83,286,981	87,193,849	87,791,377	**84,334,769**
Purchased biomass	7,947,595	10,204,981	12,613,917	13,690,293	**14,258,347**
Fossil fuels consumed	63,535,990	65,348,140	58,616,253	54,887,101	**55,999,985**
Heat purchased	84,752	63,558	16,206	63,996	**83,545**
Energy sales	12,842,350	13,143,550	11,609,519	10,081,724	**10,198,309**
Total energy use	148,003,278	152,691,044	153,107,757	151,568,275	**148,729,187**
Powerflute electricity purchased					**277,981**
Powerflute biomass consumed					**1,756,942**
Powerflute fossil fuels consumed					**990,110**
Powerflute energy sales					**1,256**

Energy use, converting operations (GJ)	2014	2015	2016	2017	2018
Electricity purchased	1,657,052	1,786,181	1,881,472	1,965,292	**1,948,379**
Fossil fuels consumed	1,916,421	2,037,447	2,168,157	2,287,791	**2,278,825**
Heat purchased	170,687	183,093	187,220	174,977	**182,561**
Total energy use	**3,744,160**	**4,006,722**	**4,236,850**	**4,428,060**	**4,409,764**

Scope 3 emissions (tonnes)	2014	2015	2016	2017	2018
Fuel and energy-related activities (not included in Scope 1 or 2)	435,000	439,291	399,966	385,613	**589,834**
Purchased goods and services	1,499,524	1,663,253	1,826,793	1,867,405	**1,853,798**
Employee commuting	48,705	47,177	48,514	49,469	**49,851**
Upstream transportation and distribution	421,137	471,914	435,692	447,613	**483,037**
Downstream transportation and distribution	263,869	260,980	260,035	259,998	**253,453**
Business travel	3,936	4,134	4,303	3,904	**11,007**
Total	**2,672,171**	**2,886,749**	**2,975,303**	**3,014,002**	**3,240,979**

Consolidated performance data

Water, air and waste

Water

Water input (m³)	2014	2015	2016	2017	2018
Total water input (m³)	**323,647,294**	**308,530,242**	**309,031,879**	**307,071,545**	**303,459,107**
Potable water input	**29,451,135**	**25,997,450**	**23,315,191**	**22,620,731**	**24,332,544**
Non-potable water	**294,196,159**	**282,532,792**	**285,716,688**	**284,450,814**	**279,126,563**
Second-class water	10,065,008	10,534,946	11,217,052	11,928,377	**9,290,059**
Surface water	263,893,523	246,398,245	249,275,693	246,973,299	**247,081,374**
Ground water	20,237,628	25,599,600	25,223,943	25,549,137	**22,755,130**
Waste water from third parties and other Mondi operations	**39,919,055**	**38,249,896**	**38,229,853**	**38,669,589**	**36,288,548**
Powerflute total water input					**10,770,785**

Total water input (%)	2014	2015	2016	2017	2018
Non-potable water	91	92	92	93	**92**
Potable water	9	8	8	7	**8**

Emissions to water (tonnes)	2014	2015	2016	2017	2018
Emissions to water, COD (tonnes)	44,901	46,043	43,879	42,711	**48,349**
Emissions to water, AOX (tonnes)	150	147	155	170	**150**
Emissions to water, TSS (tonnes)	10,678	9,450	9,503	7,259	**11,417**
Powerflute emissions to water, COD (tonnes)					**1,771**
Powerflute emissions to water, AOX (tonnes)					**0**
Powerflute emissions to water, TSS (tonnes)					**66**

Consolidated performance data

Effluent (water discharges) (m³)	2014	2015	2016	2017	2018
Water discharge via on-site or off-site treatment	230,690,929	238,401,299	235,945,906	231,652,362	**228,523,805**
Effluent direct to surface water without treatment	97,652,438	77,880,033	83,381,085	88,590,582	**85,031,235**
Effluent to irrigate land	6,637	52,236	51,367	50,645	**54,660**
Effluent sent to third parties for recycling or reuse of water	0	0	738,358	7,747,028	**1,634,045**
Total water output	**328,350,004**	**316,333,567**	**320,116,716**	**328,040,616**	**315,243,745**
Waste water from third parties and other Mondi operations	39,919,055	38,249,896	38,229,853	38,669,589	**36,288,548**
Total water output (excluding third parties)	**288,430,949**	**278,083,672**	**281,886,862**	**289,371,027**	**278,955,197**
Water discharged to ocean/sea	25,361,672	23,753,340	22,631,496	21,429,777	**22,095,268**
Water discharged to rivers	302,988,331	292,580,228	297,485,220	306,610,839	**293,148,477**
Powerflute total water output					**10,836,950**

Contact and non-contact water use (m³)	2014	2015	2016	2017	2018
Non-contact water	105,153,432	85,388,509	91,897,722	98,448,861	**97,438,070**
Contact water	205,733,272	209,551,234	206,763,090	205,435,261	**202,783,297**

Air

Air emissions (tonnes)	2014	2015	2016	2017	2018
Total NOx emissions from processes	11,705	12,468	11,591	11,048	**10,398**
TRS from processes	67	71	52	56	**55**
Total particulate emissions	1,570	1,500	963	921	**1,023**
Total SO$_2$ emissions from processes	5,107	5,604	1,985	1,447	**1,567**
Powerflute total NOx emissions from processes					**515**
Powerflute TRS from processes					**3**
Powerflute total particulate emissions					**115**
Powerflute total SO$_2$ emissions from processes					**106**

Emission of ozone-depleting substances (kg)	2014	2015	2016	2017	2018
HFC	4,146	6,383	6,262	4,289	**10,101**
HCFC	999	995	628	1,420	**740**
CFC	2	2	0	1	**0**
Halons	0	0	0	0	**0**
PFC	0	0	0	0	**0**
Total loss of ozone-depleting substances	**5,147**	**7,379**	**6,890**	**5,710**	**10,841**

Consolidated performance data

Waste

Waste to landfill (tonnes)	2014	2015	2016	2017	2018
Non-hazardous waste landfilled	260,697	229,253	205,251	191,462	**231,261**
Hazardous waste landfilled	1,671	814	1,230	455	**1,054**
Total waste to landfill	**262,368**	**230,068**	**206,481**	**191,917**	**232,315**

Hazardous waste (tonnes)	2014	2015	2016	2017	2018
Hazardous waste treated	8,387	8,059	9,273	11,445	**11,061**
Hazardous waste incinerated	2,467	2,668	3,473	3,593	**5,683**
Hazardous waste recycled/reused	3,102	2,539	2,829	2,298	**3,854**
Hazardous waste landfilled	1,671	814	1,230	455	**1,054**
Total hazardous waste	**15,627**	**14,081**	**16,806**	**17,792**	**21,653**
Powerflute total hazardous waste					**38**

Non-hazardous waste (tonnes)	2014	2015	2016	2017	2018
Non-hazardous waste treated	2,454	1,948	2,949	7,247	**7,007**
Non-hazardous waste incinerated	90,994	85,039	61,346	49,400	**52,447**
Non-hazardous waste recycled/reused	699,304	735,083	831,846	846,862	**825,364**
Non-hazardous waste landfilled	260,697	229,253	205,251	191,462	**231,261**
Total non-hazardous waste	**1,053,449**	**1,051,323**	**1,101,392**	**1,094,972**	**1,116,080**
Powerflute total non-hazardous waste					**39,424**

Total debris (tonnes)	2014	2015	2016	2017	2018
Non-hazardous debris	9,600	20,488	22,102	57,911	**74,928**
Hazardous debris	1,205	14	0	91	**153**
Total debris	**10,805**	**20,503**	**22,102**	**58,002**	**75,081**

Total solid waste (tonnes)	2014	2015	2016	2017	2018
	1,079,881	1,085,907	1,140,299	1,170,765	**1,212,814**

Consolidated performance data
Additional data tables according to GRI requirements

Energy consumption and energy intensity

					Change 2017-2018
GRI parameter	**Details**		**2017**	**2018**	**%**
Total fuel consumption from non-renewable sources[8]	Black coal		9,066,155	**7,044,927**	(22.3)
	Brown coal		2,653,284	**2,836,275**	6.9
	Diesel/Gas oil		38,970	**40,529**	4.0
	Heavy Fuel oil		729,227	**863,764**	18.4
	Light Fuel oil	GJ	66,007	**86,847**	31.6
	Natural gas		44,025,729	**46,785,317**	6.3
	Used Solvents		538,193	**578,792**	7.5
	Propane		57,281	**42,294**	(26.2)
	Low Pressure gas		46	**66**	43.5
Total fuel consumption from renewable sources	Biomass purchased		13,360,345	**13,939,473**	4.3
	Other external bio fuel		329,949	**318,874**	(3.4)
	Biogas		94,289	**71,497**	(24.2)
	Black liquor/base liquor – thickened		74,032,219	**71,468,423**	(3.5)
	Methanol	GJ	287,834	**270,678**	(6.0)
	Other internal biomass		86,181	**90,767**	5.3
	Own biomass		10,674,486	**9,872,304**	(7.5)
	Sludge		1,331,360	**1,398,403**	5.0
	Sulphate soap		1,243,355	**1,121,651**	(9.8)
	Turpentine		41,655	**41,046**	(1.5)
Total energy purchased	Total energy purchased	GJ	7,421,496	**6,465,334**	(12.9)
	– electricity purchased internal use	MWh	1,995,146	**1,722,008**	(13.7)
	– heat purchased	GJ	238,972	**266,106**	11.4
Specific Energy consumption (of products)[9]	Total energy consumption in our pulp and paper mills	GJ/t	16.46	**16.64**	1.1
	– electricity consumption	GJ/t	3.98	**3.97**	(0.3)
	– heat consumption	GJ/t	12.48	**12.67**	1.6
Energy sales	Total energy sales	GJ	10,081,724	**10,198,309**	1.2
	– electricity sales	MWh	1,143,590	**1,191,228**	4.2
	– green fuel sales	GJ	1,729,214	**1,669,038**	(3.5)
	– heat sales	GJ	4,235,587	**4,240,850**	0.1

7   For Mondi overall (with exemption of specific energy consumption)
8   Fuels are reported according their lower heating value (LHV); the emissions factor source is taken from ÜBPV (BGBl II Nr. 339/2007)
9   Only for paper and pulp mills' production due to different dimensions of saleable production volume of pulp and paper mills and converters. To calculate the intensity ratio, the energy required for manufacturing has been divided by the saleable production volume.
     Heat and electricity consumption used within the production are included in the calculation. Energy consumption outside Mondi is not included

Consolidated performance data
Additional data tables according to GRI requirements

GHG emissions from our pulp and paper mills

GRI parameter	Details	2014	2015	2016	2017	2018	Change 2017-2018 %
Scope 1 GHG emissions	Total t	4,308,655	4,477,666	4,067,788	3,777,282	**3,805,696**	0.8
	CO_2 emission t	36,747	37,969	53,764	83,496	**106,551**	27.6
	CO_2 emission out of C t	4,178,781	4,341,481	3,898,490	3,582,148	**3,578,512**	(0.1)
	CO_2 emission out of CH4 t	10,863	11,452	12,036	12,155	**12,046**	(0.9)
	CO_2 emission out of N2O t	82,265	86,763	91,332	91,366	**88,932**	(2.7)
	CO_2 emission out of ozone depleting substances t	Not available	Not available	12,167	8,117	**19,655**	142.1
	CO_2 emission out of SF6 t	0	0	0	0	**0**	0.0
Scope 2 GHG emissions[10]	market-based t	998,807	777,329	671,247	691,649	**583,031**	(15.7)
	location-based t	1,208,812	1,195,572	1,083,687	806,945	**570,382**	(29.3)
Specific Scope 1 GHG emissions	t CO_2e/t saleable production	0.68	0.71	0.65	0.61	**0.63**	3.4
Specific Scope 2 GHG emissions	t CO_2e/t saleable production	0.16	0.12	0.11	0.11	**0.10**	(13.5)
Scope 3 GHG emissions	Total	2,672,171	2,886,749	2,975,303	3,014,002	**3,240,979**	7.5
	Fuel and energy-related activities (not included in Scope 1 or 2)	435,000	439,291	399,966	385,613	**589,834**	53.0
	Purchased goods and services	1,499,524	1,663,253	1,826,793	1,867,405	**1,853,798**	(0.7)
	Employee commuting	48,705	47,177	48,514	49,469	**49,851**	0.8
	Upstream transportation and distribution	421,137	471,914	435,692	447,613	**483,037**	7.9
	Downstream transportation and distribution	263,869	260,980	260,035	259,998	**253,453**	(2.5)
	Business travel	3,936	4,134	4,303	3,904	**11,007**	181.9
Biogenic GHG emissions	Total	11,514,602	11,985,743	12,752,816	12,954,968	**12,571,767**	(3.0)

10 Market-based method: A method to quantify Scope 2 GHG emissions, based on GHG emissions emitted by the generators from which the reporter contractually purchases electricity bundled with instruments, or unbundled instruments on their own (CDP, 'Accounting of Scope 2 emissions', V3, 2016). Location-based method: A method to quantify Scope 2 GHG emissions based on average energy generation emission factors for defined locations, including local, sub-national, or national boundaries (CDP, 'Accounting of Scope 2 emissions', V3, 2016)

Consolidated performance data
Additional data tables according to GRI requirements

Quality of water released

GRI parameter		2014	2015	2016	2017	2018	Change 2017-2018 %
Quality of water released (t)	COD	44,901	46,043	43,879	42,711	**48,349**	13.2
	AOX	150	147	155	170	**150**	(11.7)
	TSS	10,678	9,450	9,503	7,259	**11,417**	57.3

Water withdrawal and discharge

		2014	2015	2016	2017	2018	Change 2017-2018 %
Total volume of water withdrawn (m³)	Surface water	263,893,523	246,398,245	249,275,693	246,973,299	**247,081,374**	0.0
	Ground water	20,237,628	25,599,600	25,223,943	25,549,137	**22,755,130**	(10.9)
	Secondary water	10,065,008	10,534,946	11,217,052	11,928,377	**9,290,059**	(22.1)
	Potable water (from municipality)	29,451,135	25,997,450	23,315,191	22,620,731	**24,332,544**	7.6
Total water discharges (m³)	Discharged after treatment in wastewater treatment plant	230,690,929	238,401,299	235,945,906	231,652,362	**228,523,805**	(1.4)
	Discharged without treatment	97,652,438	77,880,033	83,381,085	88,590,582	**85,031,235**	(4.0)
Total water discharges (destination) (m³)	Discharged to ocean/sea	25,361,672	23,753,340	22,631,496	21,429,777	**22,095,268**	3.1
	Discharged to rivers	302,988,331	292,580,228	297,485,220	306,610,839	**293,148,477**	(4.4)
Water from municipality to be treated in our wastewater treatment plants (m³)		39,919,055	38,249,896	38,229,853	38,669,589	**36,288,548**	(6.2)

Consolidated performance data
Additional data tables according to GRI requirements

Breakdown of waste

GRI parameter		2014	2015	2016	2017	2018	Change 2017-2018 %
Total weight of hazardous waste (tonnes)	Total	15,626	14,081	16,806	17,792	**21,653**	21.7
	– Reuse/Recycling	3,102	2,539	2,829	2,298	**3,854**	67.7
	– Incineration, including energy recovery	2,467	2,668	3,473	3,593	**5,683**	58.2
	– Landfill	1,671	814	1,230	455	**1,054**	131.7
	– Physical/chemical treatment	8,387	8,059	9,273	11,445	**11,061**	(3.4)
Total weight of non-hazardous waste (tonnes)	Total	1,053,449	1,051,323	1,101,392	1,094,972	**1,116,080**	1.9
	– Reuse/Recycling	699,304	735,083	831,846	846,862	**825,364**	(2.5)
	– Incineration, including energy recovery	90,994	85,039	61,346	49,400	**52,447**	6.2
	– Landfill	260,697	229,253	205,251	191,462	**231,261**	20.8
	– Physical/chemical treatment	2,454	1,948	2,949	7,247	**7,007**	(3.3)
Total weight of debris (tonnes)	Total	10,805	20,503	22,102	58,002	**75,081**	29.4

Air emissions

GRI parameter		2014	2015	2016	2017	2018	Change 2017-2018 %
Significant air emissions (tonnes)	NOx	11,705	12,468	11,591	11,048	**10,398**	(5.9)
	SO$_2$	5,107	5,604	1,985	1,447	**1,567**	8.3
	TRS	67	71	52	56	**55**	(2.0)
	Particulate matter (PM10)	1,570	1,500	963	921	**1,023**	11.0
Ozone depleting substances (kg)	Total ozone depleting potential[11]	5,146	7,379	6,890	5,710	**10,841**	89.9
	– Chlorofluorocarbons (CFCs)	2	2	0	1	**0**	(100)
	– Hydro-chlorofluorocarbons (HCFCs)	999	995	628	1,420	**740**	(47.9)
	– Halons	0	0	0	0	**0**	0
	– Hydrofluorocarbons (HFCs)	4,146	6,383	6,262	4,289	**10,101**	135.5
	– Perfluorocarbons (PFCs)	0	0	0	0	**0**	0

11 The ozone depleting potential of ozone depleting substances is reported in metric tonnes of CFC-11 (trichlorofluoromethane) equivalent

About this report

About this report

This 2018 Sustainable Development report covers the financial year 1 January 2018 to 31 December 2018 and should be read in conjunction with our Integrated report and financial statements 2018. Our previous report was published in April 2018 for the financial year 1 January 2017 to 31 December 2017.

Reporting standards and format

This report provides a comprehensive view of our approach to sustainable development and our performance in 2018 with regard to environmental, social and governance issues. It has been prepared in accordance with the Global Reporting Initiative (GRI) Standards: Core option.

We have applied the GRI guidelines to our annual sustainable development reports since 2009 and believe that they offer us the best way to present our most important sustainability information in a fully transparent, accurate and reliable way.

Guided by the GRI framework for structure and principles of reporting, the content is defined through various internal and external processes including risk management (see Sustainability governance on page 33), materiality assessment (see the discussion on page 30) and stakeholder engagement at various levels (see page 25).

We also report our performance against the sustainability metrics defined in our non-financial reporting system (SIM) for internal and external reporting of key performance indicators (covering safety and health, wood procurement, forestry, environment, energy and products).

In addition, we report on progress against the commitments we made for the period 2016 to 2020 against a 2015 baseline, with the exception of our climate commitment that covers the period from 2014 to 2030. For the first time, we are also reporting the progress of our newly launched commitment to reduce specific production-related GHG emissions against a 2014 baseline, which has been calculated using the science-based target-setting methodology.

As a signatory to the United Nations Global Compact (UNGC), this report aligns with the UNGC's 10 universally accepted principles in the areas of human rights, labour, environment, and anti-corruption and highlights key actions implemented and progress made in 2018 against these principles. Our annual Communication on Progress to the UNGC can be found at www.mondigroup.com/ungc_cop.

Disclosures of management approach based on GRI Standards methodology

The action areas in this report reflect the Group's sustainable development management areas, which usually include more than one GRI material topic. For example, the 'Constrained resources and environmental impacts' action area includes information relating to the material topics water, emissions, effluents and waste; and the 'Fairness and diversity in the workplace' action area includes the material topics employment, labour/management relations, human rights assessment and diversity and equal opportunity.

Using the GRI 103 Standards: Management Approach, we have described topic-specific disclosures of management approach in a separate table within our GRI Standards index. Some information which applies across all material aspects is provided here and includes our approach to policies, commitments, goals and targets, responsibilities and resources.

Statements provided in the Sustainability governance section (see page 33) on the governance and accountability of sustainability at Mondi are valid for all reported focus areas and all GRI material topics included in this report.

Our Sustainable Development Management System (SDMS), including policies, standards and performance requirements, governs our approach and we have systems in place to support the monitoring and measurement of our performance. Our group-wide reporting systems include key performance indicators across our focus areas and reported material topics, and our performance is guided by our public commitments – a set of mid- and long-term goals that shape our approach and track our progress.

Please see the GRI Standards index on page 161 for a more detailed overview of our reporting according to GRI Standards core criteria, and page 119 for a more detailed overview of performance against our 2020 and 2030 commitments.

Roles and responsibilities for managing our focus areas and material aspects are described in the Sustainability governance section (page 35) under 'Embedding sustainability'.

About this report

The resources that we use to manage our focus areas and material aspects include:

→ Our well-invested, low-cost, high-quality mills and converting operations

→ A strong financial position to fund our business and pursue relevant growth opportunities

→ Our talented and committed people

→ Access to natural resources such as fibre and water, as well as fuels and electricity

→ Strong partnerships with our suppliers and our customers

→ Our constructive working relationship with communities, governments, NGOs and other stakeholders

Please refer to our business model on page 17 and see our 10 Action Areas for a more detailed overview of how we manage each material aspect.

Reporting scope

In terms of performance data, the following should be noted:

→ No significant changes from previous reporting periods in the scope, boundary or measurement methods were applied in the report this year. The performance of our newly acquired Powerflute mill is excluded from Group performance data and progress against 2020 and 2030 commitments. Performance of this mill has been added in a separate line in consolidated performance data tables where data is available.

→ No material restatements have been made to data in this report. Reported data remains comparable with last year's data, unless noted otherwise.

→ No material changes to reporting scope and methodologies have been made in this report.

→ Our environmental performance covers all our manufacturing operations (including converting operations), unless stated that they are limited to 'our pulp and paper mills' or otherwise. Examples include some energy and climate-related data. See page 121 for more details.

→ Greenhouse gas (GHG) emissions are reported according to the GHG Protocol, published by the WBCSD and the World Resources Institute.

→ Safety data includes all employees and contractors, but usually excludes service suppliers such as catering, office cleaning or telecommunications and management consultants (a number of our operations include service providers in their performance where relevant).

→ Financial information is reported in euros (€), for ease of reading and to allow comparisons.

→ Where we have reported wood volumes in m³, this figure reflects solid cubic metres (SCM).

GHG emissions scope and boundaries

Transport of raw materials and products are taken into account as direct emissions (Scope 1) when carried out by Mondi itself. Mondi takes into account hydrofluorocarbon (HFC) and Hydrochlorofluorocarbons (HCFC) emissions from refrigerant leakage, as well as emissions from Sulphur hexafluoride (SF_6 leakage) from old electrical switch gears.

Our operations report all direct emissions as well as those indirect emissions attributable to imported electricity, steam, and heated or cooled water on a monthly basis[1].

Scope 1 and Scope 2 emissions are calculated according to the GHG Protocol, published by the WBCSD and WRI, EU ETS monitoring and reporting regulations, and ISO 14064-1 based on primary data (such as energy bills, meters with defined accuracy) and are externally verified with reasonable assurance.

Scope 3 emissions are calculated and reported at Group level based on the GHG protocol's 'Corporate Value Chain (Scope 3) accounting and reporting standard' (Oct 2011). Due to lack of primary data, in many cases secondary data (such as data bases like Ecoinvent) have to be used for the calculation. Scope 3 data are annually externally verified with limited assurance. Currently we are running a programme as part of our Climate Savers Partnership to improve the accuracy of our Scope 3 data by including primary data where feasible.

Biogenic emissions are calculated on basis of biomass input in our energy plants. This includes purchased biomass incinerated in our biomass boilers, bark and by-products from the pulp process such as black liquor, pitch fuel, tall oil, turpentine, methanol, biogas from anaerobic wastewater treatment plants and others.

Specific GHG factors used are taken from the GHG Protocol for the paper and pulp industry as well as from regulatory directives (such as EU ETS) and supplier information (e.g. Scope 2 emissions for electricity purchased).

The calculation of our Scope 1 emissions is based on the fuel consumption in our energy plants as well as in Mondi owned vehicles. In the calculation of our Scope 2 emissions, details such as inclusion of CO_2, CH_4, N_2O, HFCs, PFCs, SF_6 are currently not reflected.

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1 GHG emissions addressed:
   – CO_2, CH_4 and N_2O emissions from fossil fuel-fired units, recovery furnaces, biomass-fired boilers, and lime kilns
   – CO_2 emissions from make-up $CaCO_3$ or Na_2CO_3 used in the pulp mill
   – CO_2, CH_4, and N_2O emissions from transportation and mobile sources
   – CH_4 emissions attributable to mill wastes in landfills and anaerobic waste treatment operations
   – GHG emissions from mobile sources (e.g., company-owned harvesting equipment and company-owned truck fleets)
   – fossil fuel-derived CO_2 emissions exported to satellite precipitated calcium carbonate (PCC) plants imports of CO_2 (e.g. for pH neutralisation)
   – GHG emissions associated with power and steam that is imported and consumed
   – GHG emissions attributable to power and steam exports
   – GHG emissions attributable to losses of ozone-depleting substances

About this report

Approach and methodology used in our materiality assessment

Our materiality assessment methodology was designed to combine qualitative and quantitative inputs, balance internal and external perspectives, and meet GRI guidance and best practice standards.

The GRI definitions that informed the criteria for our materiality assessment:

Issue impact: The social and environmental effects of Mondi's activities on stakeholder groups.

Issue influence: The ability for different issues to impact the perception of different stakeholders of Mondi as a business.

Stakeholder engagement was designed to quantitatively and qualitatively capture the views of internal and external stakeholders.

Assumptions and limitations

To arrive at a consolidated perspective of our stakeholders' priorities, we applied a number of assumptions throughout the materiality process which we highlight below to show the limitations of our conclusions:

→ Small stakeholder sample size means that, on certain topics, insight and ranking was by a limited number of stakeholders, potentially shifting the ranking on those topics disproportionately.

→ Participant expertise did not cover all of Mondi's diverse areas of impact, potentially leading to certain topics being under or over represented.

→ Participants may have had different understandings of the meaning of certain questions, based on knowledge, background, focus area, local context or language barriers.

→ A mix of primary (interviews and surveys) and secondary data (desk research) was used in conducting the study.

→ Our short list of material issues and the external stakeholders we engaged intentionally placed the focus on material social and environmental issues related to the sustainability of the business rather than basic commercial principles. As a result, issues such as taxation, product quality, customer data security, customer relations, IT security and employee engagement do not feature in our list of highly material issues, although they remain important to our business.

→ Our approach was aligned with GRI's guidance which defines 'impact' as the effect that an organisation has on the economy, the environment, and society as opposed to a risk-based approach that prioritises the issues that pose the greatest risk to the business.

→ We carried out a 'sense check' review at Stage 5 of the assessment, based on our long-term understanding of stakeholder perspectives and taking into account assessment limitations. As a result two topics, highlighted as important by internal stakeholders, were added to our final list of material issues. These were 'Employee and contractor safety and health' and 'product innovation and design'.

While the limitations and assumptions stated above apply, we are comfortable that outcomes of our assessment represent the views of our stakeholders, strategic business areas and the realities of our global context, and that they will help us focus on the most important sustainability issues beyond 2020.

External assurance

External assurance plays an important part in the way we work and it provides stakeholders with assurance in respect of our performance. Our policy and practice is to seek external assurance of our Sustainable development report on an annual basis. The Boards (through the SD committee) and the executive committee approve the approach to and scope of external assurance every year, oversee the overall reporting progress, and are informed of the assurance observations and recommendations.

Environmental Resources Management Certification and Verification Services (ERM CVS) provided limited assurance on selected KPIs that we report, on the status of compliance of this report with GRI Standards core criteria and verification of GHG data in accordance with ISO 14064 to reasonable (pulp and paper mills) and limited (converting operations) levels of assurance. PricewaterhouseCoopers, our appointed statutory auditors, provided an unqualified audit opinion on our 2018 financial statements.

Additional information

In addition to our online Sustainable Development report 2018, other information – including policies and standards, report archives, governance of sustainability, case studies library, associations we support, useful links and sustainability contacts – can be found at: www.mondigroup.com/sustainability

Independent Assurance Statement

Independent Assurance Statement to Mondi Group

ERM Certification and Verification Services (ERM CVS) was engaged by Mondi Group ('Mondi') to provide assurance in relation to Mondi's 2018 Sustainable Development report ('the Report').

Scope of our assurance engagement:

1. Whether the Report is fairly presented in accordance with the GRI Standards Core option.

2. Whether the 2018 data for the following key performance indicators ('KPIs') are fairly presented, in all material respects, with the reporting criteria:

→ Total energy usage (GJ)

→ Total Scope 1 and total Scope 2 (location-based and market-based) GHG emissions (tonnes CO_2e)

→ Total Scope 3 GHG emissions from employee commuting, downstream transportation and distribution, business travel, purchased goods and services, upstream transportation and distribution, and fuel and energy-related activities not included in Scope 1 or Scope 2 (tonnes CO_2e)

→ Total water input (pulp and paper mills) (m^3)

→ Total water output (pulp and paper mills) (m^3)

→ Total contact and non-contact water use (m^3)*

→ Total hazardous and non-hazardous waste (tonnes)*

→ NOx emissions (tonnes)*

→ COD emissions (tonnes)*

→ Total Recordable Case Rate (number/200,000 hours)*

→ Fatalities and Life-altering Injuries (number)*

→ Management risk focused safety audits conducted (number)

→ Supervisor critical task audits conducted (number)

→ Critical safety training completed (hours);

→ Certified wood procured (percentage, m^3)*

→ Certified pulp procured (percentage, tonnes)

→ Managed land set aside for conservation purposes (percentage)

→ Forestry operations with an ecosystem management plan in place (number and percentage)

→ Total training hours (number of hours)

→ Number of employees in the Performance and Development Review (PDR) target group who conducted a PDR in 2018

→ Social and community investment, per category (€)

3. Whether the reported progress since the 2015 baseline for those KPIs associated with a 2020 commitment (marked with * above) is fairly stated in accordance with the reporting criteria.

4. Whether the disclosures relating to the above KPIs in the Report are consistently presented in Mondi's 2018 Integrated report and financial statements ('Integrated Report').

5. Whether the disclosures relating to GHG emissions presented in the section 'Climate change' on pages 56 and 57 of the Integrated report comply with the requirements of the UK Companies Act 2006 (Strategic Report and Directors' Report) Regulations 2013.

* KPIs asscociated with a 2020 commitment

Reporting criteria:

GRI Standards (2016) and internal indicator criteria developed by Mondi and described in the section 'About this report' and the relevant performance sections of the Report.

Assurance standard:

ERM CVS' assurance methodology, based on the International Standard on Assurance Engagements ISAE 3000 (Revised).

ISO 14064-3:2006 for the Scope 1 and Scope 2 GHG emissions.

Assurance level:

Reasonable assurance: Total energy usage and Scope 1 and Scope 2 GHG emissions for Mondi's pulp and paper mills.

Limited assurance: Scope 1 and Scope 2 GHG emissions for Mondi's converting operations, and all other scopes set out above.

Respective responsibilities:

Mondi is responsible for preparing the Report and for the collection and presentation of the information within it.

ERM CVS's responsibility is to provide conclusions on the agreed scope based on the assurance activities performed and exercising our professional judgement.

Our opinion:

In our opinion, the 2018 Scope 1 and Scope 2 GHG emissions and energy usage for Mondi's pulp and paper mills are fairly presented, in all material respects, in accordance with the reporting criteria.

Independent Assurance Statement

Our conclusions

Based on our activities:

→ nothing has come to our attention to indicate that the Report is not fairly presented in accordance with the GRI Standards Core Option;

→ nothing has come to our attention to indicate that the 2018 data for the other KPIs, as listed under 'Scope' above are not fairly presented, in all material respects, with the reporting criteria;

→ nothing has come to our attention to indicate that the reported progress since the 2015 baseline for those KPIs associated with a 2020 commitment (marked with * under 'Scope of our assurance engagement' above) is not fairly stated in accordance with the reporting criteria;

→ nothing has come to our attention to indicate that the disclosures relating to the above KPIs in the Report are not consistently presented in the Integrated Report; and

→ nothing has come to our attention to indicate that the disclosures relating to GHG emissions presented in the section 'Climate change' on pages 56 and 57 of the Integrated Report do not comply with the requirements of the UK Companies Act 2006 (Strategic Report and Directors' Report) Regulations 2013.

Our assurance activities

A multi-disciplinary team of sustainability, GHG and assurance specialists performed the following activities:

→ A review of external media reporting relating to Mondi to identify relevant sustainability issues in the reporting period.

→ A review of the internal reporting guidelines, including conversion factors used.

→ Two visits to Mondi Head Office in Vienna, Austria to:

– Interview relevant staff to understand Mondi Group's Sustainable Development (SD) strategy, policies and management systems for the KPIs

– Interview relevant staff to understand and evaluate the data management systems and processes (including IT systems and internal review processes) used for collecting and reporting SD data

– Verify the source data underlying the Scope 3 GHG emissions

→ Physical and virtual visits to 10 production sites in Germany, Hungary, Sweden, South Africa, Slovakia, Poland and Russia to verify the source data underlying the Scope 1 and Scope 2 GHG emissions, the other environmental and safety indicators, and the indicators for certified wood and pulp, training hours, employees with a PDR, and social and community investment.

→ An analytical review and desktop testing of the year-end data submitted by all sites included in the consolidated 2018 group data for the KPIs.

→ A review of selected evidence related to the design, information collection, and production of the Report in accordance with the GRI Standards.

→ A review of the presentation of information relevant to the scope of our work in the Report to ensure consistency with our findings.

→ A review of the consistency of the assured disclosures between the Report and the Integrated Report.

→ A review of the GHG disclosures in the Integrated Report against the requirements of the UK Companies Act 2006 (Strategic Report and Directors' Report) Regulations 2013.

In addition, for the Scope 1 and Scope 2 GHG data:

→ An assessment of the conclusions of accredited third-party verification bodies relating to the verification of Scope 1 GHG emissions for 2018 from Mondi's pulp and paper mills that fall within the scope of the EU emissions trading scheme (EU ETS) and checking consistency of the verified emissions with the data for these operations included in the consolidated data in the Report.

→ Desktop verification of underlying source data for GHG emissions from a sample of pulp and paper mills and converting operations not covered by our site visits or the EU ETS verification process.

→ A test of the calculation of the Scope 1 and Scope 2 GHG emissions and a review of the uncertainties associated with the measuring and reporting of GHG emissions data for Mondi's pulp and paper mills at site and Group levels.

Independent Assurance Statement

The limitations of our engagement

The reliability of the assured information is subject to inherent uncertainties, given the available methods for determining, calculating or estimating the underlying information. It is important to understand our assurance conclusions in this context. Our independent assurance statement provides no assurance on the maintenance and integrity of the website, including controls used to achieve this, and in particular whether any changes may have occurred to the information since it was first published.

Our observations

We have provided Mondi with a separate detailed management report. Without affecting the conclusions presented above, we have the following key observations:

→ Whilst Mondi's Total Recordable Case Rate (TRCR) has improved against the 2015 baseline, there was a fatality and a number of life-altering injuries in 2018. We strongly encourage Mondi to continue its programme of identifying and addressing the top safety risks at its operations, to further strengthen its risk assessment procedures, and to enhance its safety culture through an increased focus on the behavioural aspects of safety in order to reduce the risk of harm for all of its employees and contractors.

→ We note the prominence given by Mondi in the Report to the issue of the negative environmental impacts of plastics and the challenges related to their recovery, reuse and recycling. In order to achieve its commitments of 100% reusable, recyclable or compostable plastic packaging and increased recycled content by 2025, Mondi will need to take significant action in areas such as product innovation and collaboration with key stakeholders to bring about systemic change to prevent the leakage of plastics into the environment, particularly the aquatic environment.

→ In 2018 Mondi has achieved its target of procuring a minimum of 70% of its wood from certified sources. Maintaining this level of procurement in future will be challenging as demand for sustainable fibre is expected to increase, and in this regard we recognise Mondi's ongoing efforts in collaboration with other stakeholders to promote a sustainable wood supply chain through the use of credible certification schemes and other tools.

→ We note the work done by Mondi in 2018 to investigate and report on its climate-related risks in response to the TCFD recommendations. We encourage Mondi to continue to monitor and report on these risks, taking into account any changes in the reference scenarios which inform its evaluation of climate-related risks, as well as to continue its efforts to reduce the carbon intensity of its operations towards meeting its 2050 climate change target.

→ Mondi has set a number of targets to reduce the environmental impacts of its operations, to be achieved by 2020. Whilst some progress has been made towards meeting these targets, through actions such as investment in infrastructure and improvements in production processes, significant additional effort will be required to achieve all of these targets by 2020, particularly those relating to contact water and waste to landfill.

Jennifer Iansen-Rogers
Head of Corporate Assurance

26 March 2019

ERMCVS
Informed Assured

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ERM CVS is a member of the ERM Group. The work that ERM CVS conducts for clients is solely related to independent assurance activities and auditor training. Our processes are designed and implemented to ensure that the work we undertake with clients is free from bias and conflict of interest. ERM CVS and the staff that have undertaken work on this assurance exercise provide no consultancy related services to Mondi Group in any respect.

GRI Standards content index
General disclosures

Disclosure		Location in reporting suite
Organisational profile		
102-1	Name of the organization	Front cover
102-2	Activities, brands, products, and services	About Mondi – Our businesses (page 16)
102-3	Location of headquarters	Where we operate – Our global presence (page 19)
102-4	Location of operations	Where we operate – Our global presence (page 19)
102-5	Ownership and legal form	Integrated Report: Financial statements note 1 'Basis of preparation' (page 163), Strategic performance – Simplification of corporate structure (page 35)
102-6	Markets served	About Mondi – Our businesses (page 16), Where we operate – Our global presence (page 19)
102-7	Scale of the organization	About Mondi (page 16) & Integrated Report: Mondi at a glance (page 1), Joint Chair statement (page 8), Our strategy and strategic performance (page 26), Our businesses (page 4), Business reviews (page 68), Financial statements (page 144), Production statistics (page 229)
102-8	Information on employees and other workers	Fairness and diversity in the workplace – Promoting diversity and inclusion (page 55)
102-9	Supply chain	Supplier conduct and responsible procurement – Our global supply chain (page 94)
102-10	Significant changes to the organization and its supply chain	Integrated Report: Our strategy and strategic performance (page 26), Financial statements note 3 'Special items' (page 168) and note 24 'Business combinations' (page 191)
102-11	Precautionary Principle or approach	Sustainability governance – How we manage risks and opportunities (page 37)
102-12	External initiatives	Stakeholder engagement matrix (page 131)
102-13	Membership of associations	Stakeholder engagement matrix (page 131)
Strategy		
102-14	Statement from senior decision-maker	Leadership insights on sustainability (page 12), Growing responsibly (page 27)
Ethics and integrity		
102-16	Values, principles, standards, and norms of behavior	Our business model (page 18), Integrated Report: Introduction from Joint Chairs – Culture & values (page 87)
Governance		
102-18	Governance structure	Sustainability governance (page 33)

Disclosure		Location in reporting suite
Stakeholder engagement		
102-40	List of stakeholder groups	Stakeholder engagement matrix (page 131) & Our stakeholders (page 25)
102-41	Collective bargaining agreements	Fairness and diversity in the workplace – Collective bargaining and freedom of association (page 58)
102-42	Identifying and selecting stakeholders	Our stakeholders (page 25) & Stakeholder engagement matrix (page 131)
102-43	Approach to stakeholder engagement	Stakeholder engagement matrix (page 131) & Our stakeholders (page 25)
102-44	Key topics and concerns raised	Stakeholder engagement matrix (page 131) & Materiality (page 30)
Reporting practice		
102-45	Entities included in the consolidated financial statements	Integrated Report: Mondi Limited parent company financial statements note 6 'List of subsidiaries and associated undertakings and other significant holdings' (page 220) and Mondi plc parent company financial statements note 11 'List of subsidiaries and associated undertakings and other significant holdings' (page 224)
102-46	Defining report content and topic Boundaries	About this report (page 155) & Materiality (page 30)
102-47	List of material topics	GRI Standards content index – Material topic boundaries and management approach (page 162)
102-48	Restatements of information	About this report (page 155)
102-49	Changes in reporting	Materiality (page 30)
102-50	Reporting period	About this report (page 155)
102-51	Date of most recent report	About this report (page 155)
102-52	Reporting cycle	About this report (page 155)
102-53	Contact point for questions regarding the report	Back cover
102-54	Claims of reporting in accordance with the GRI Standards	About this report (page 155)
102-55	GRI content index	GRI Standards content index (page 161)
102-56	External assurance	About this report (page 155) & Independent assurance statement (page 158)
Management approach		
103-1	Explanation of the material topic and its Boundary	GRI Standards content index – Material topic boundaries and management approach (page 162)
103-2	The management approach and its components	GRI Standards content index – Material topic boundaries and management approach (page 162)
103-3	Evaluations of the management approach	Sustainability governance – Embedding sustainability (page 35)

GRI Standards content index

Material topic boundaries and management approach

Material topics		Explanation of why topic is material	Boundary			Material outside Mondi	Management approach
			Pulp and paper mills	Converting operations	Forestry operations		
Economic	Economic Performance	Mondi is a major employer in many of the markets we operate in, and people rely on us for their livelihoods, both directly and through our supply chain	✓	✓	✓	Payments to shareholders, lenders, governments, communities, suppliers, contractors, etc.	The purpose of our management approach is mostly to enhance positive economic impact, by understanding and assessing our socio-economic impact on local communities, employees, shareholders and other stakeholders. Information on our management approach can be found in: Sustainability governance – Our Sustainable Development Management System (page 36), Relationships with communities (page 100), and Integrated report and financial statements 2018
	Market Presence	We strive to include the local community in senior management wherever we operate to enhance our positive market presence and increase the economic benefit to the local community. This also helps us better understand local needs and local context, and supports the diversity of thought in our leadership teams	✓	✓	✓	Communities	The purpose of our management approach is to enhance diversity in leadership, ensure appropriate representation of local context and needs, and enhance benefits to local communities. Information on our management approach can be found in: Sustainability governance – Our Sustainable Development Management System (page 36) and Fairness and diversity (page 54)
	Indirect Economic Impacts	The explanation of why this topic is material is covered within Relationships with communities – Understanding our impact and the expectations of our stakeholders (page 101)	✓	✓	✓	Communities	The social, economic and environmental health of local communities is important to our success and we work hard to maintain positive and open relationships. Information on our management approach can be found in: Sustainability governance – Our Sustainable Development Management System (page 36) and Relationships with communities (page 100)
	Procurement Practices	The explanation of why this topic is material is covered within Supplier conduct and responsible procurement (page 93)	✓	✓	✓	Suppliers	The purpose of our management approach is to mitigate negative impacts. Information on our management approach can be found in: Sustainability governance – Our Sustainable Development Management System (page 36) and Supplier conduct and responsible procurement (page 93)
	Anti-corruption	Regrettably, bribery and corruption is a feature of corporate and public life in many countries across the world. Even the suggestion of corruption may damage the reputation of a company or Group and affect its ability to do business. Mondi is aware of its corporate responsibility and supports the actions being taken to create sustainable corporate integrity	✓	✓	✓	Our Business Integrity policy must be considered when entering into new business relationships, either through mergers, acquisitions, joint ventures or new customers and suppliers	Regional and international institutions, such as the OECD, the United Nations and the African Union, have responded to fight the negative impact of corruption with conventions intended to harmonise anti-corruption laws across jurisdictions. Mondi is aware of its corporate responsibility and supports the actions being taken to create sustainable corporate integrity. Information on our management approach can be found in: Sustainability governance – Our Sustainable Development Management System (page 36) and Political donations, gifts and bribes (page 38) and Integrated Report: Corporate governance report (page 90) and Sustainability performance 'Code of business ethics' (page 63)
	Anti-competitive Behaviour	Anti-competitive behaviour, anti-trust, and monopoly practices can affect consumer choice, pricing, and other factors that are essential to efficient markets. At Mondi we support the assumption that competition between enterprises also promotes economic efficiency and sustainable growth	✓	✓	✓		We recognise our responsibility for fair cooperation with our customers in order to become and remain their preferred partner. Our Group as a matter of policy shall comply in letter and in spirit with the competition law regimes in all countries where we operate. Our management approach sees that the basic provisions of EU competition law are understood across the Group, and to set forth clear and simple rules on how to comply with it. Training, monitoring and incident reporting/grievance mechanisms are part of our approach
Environmental	Materials	Mondi uses renewable and non-renewable materials in our products. Based on revenue about 80% of our business is fibre-related. Mondi recognises our dependency on natural resources such as land, air, water and ecosystems. Further detail is covered within Constrained resources and environmental impacts (page 76)	✓	✓	✓	Suppliers, customers	The purpose of this management approach is to mitigate our negative impacts and enhance positive impacts in relation to the sourcing and use of materials. Information on our management approach can be found in: Sustainability governance – Our Sustainable Development Management System (page 36) and Supplier conduct and responsible procurement – Our global supply chain (page 94)

GRI Standards content index

Material topics		Explanation of why topic is material	Boundary			Material outside Mondi	Management approach
			Pulp and paper mills	Converting operations	Forestry operations		
Environmental	Energy	This topic is material because of the energy intensity of the pulp and paper industry. Mondi purchases energy (mainly in the form of electricity) and also generates a significant amount of energy on-site	✓	✓		Indirect energy use (in the supply chain) and resulting carbon emissions	Mondi is continually working on increasing our energy efficiency by investing in the modernisation of plants and reducing consumption of fossil fuels by substituting with biomass based energy. Information on our management approach can be found in: Sustainability governance – Our Sustainable Development Management System (page 36) and Climate Change – Increasing energy efficiency and reducing carbon emissions (page 71)
	Water	This topic is material because the pulp and paper industry is water-intensive. Mondi consumes water in the manufacture of pulp and also within the fibre supply chain	✓	✓		Impact on communities and other local stakeholders and natural ecosystems through consumption and discharges	Mondi is committed to reducing our water consumption by improving water management and by increasing our water recycling rate. Information on our management approach can be found in: Sustainability governance – Our Sustainable Development Management System (page 36) and Constrained resources and environmental impacts – Water (page 77)
	Biodiversity	The explanation of why this topic is material is covered within Biodiversity and ecosystems (page 85)	✓	✓	✓	Impact on communities and other local stakeholders and natural ecosystems through managing our land in Russia and South Africa and procuring fibre for our operations	The purpose of this management approach is to reduce any negative impacts and enhance our positive impact on biodiversity and ecosystems. Information on our management approach can be found in: Sustainability governance – Our Sustainable Development Management System (page 36) and Biodiversity and ecosystems (page 85)
	Emissions	Due to the size of its pulp and paper mills Mondi's operations have significant air emissions. Those emissions may affect the neighbourhood and may cause nuisance, mainly in form of odour or noise. Mondi complies with all regulations and permits. In addition environmental incidents may cause emissions which impact the neighbourhood and environment	✓	✓		Indirect energy use (in the supply chain) and resulting carbon emissions. Impact on communities and other local stakeholders and natural ecosystems through emissions	Mondi invests in the modernisation of its plants in order to reduce negative impacts from emissions. Mondi is also committed to introducing BAT standards as part of its new investments. Mondi strives to minimise and eliminate nuisance to its neighbours, and is committed to environmental compliance. Complaints and environmental incidents are thoroughly investigated, and measures set to avoid any recurrence. Information on our management approach can be found in: Sustainability governance – Our Sustainable Development Management System (page 36) and Climate Change – Increasing energy efficiency and reducing carbon emissions (page 71)
	Effluents and Waste	This topic is material as Mondi produces waste and discharges water through our operations. We see landfilling as wasted raw material, therefore we commit to avoiding landfilling where possible and feasible. Mondi is committed to returning water to the aquatic environment after treatment at the quality level which ensures the receiving water body is not negatively impacted	✓	✓		Impact on communities and other local stakeholders and natural ecosystems through discharges and waste	The purpose of this management approach is to avoid negative impacts from waste and water discharges. Mondi uses the waste hierarchy to avoid waste and recycle/reuse as much as possible. We have set commitments to reduce contact water by modernisation of our plants and by closing loops. Wastewater is thoroughly treated before it is released to the aquatic environment. Information on our management approach can be found in: Sustainability Governance – Our Sustainable Development Management System (page 36) and Constrained resources and environmental impacts – Effluent and waste water quality (page 79), – Monitoring waste streams (page 82) and – Managing our impacts (page 83)
	Environmental Compliance	Mondi has a considerable environmental footprint and therefore environmental compliance is material and important to us and our stakeholders. Mondi strives to be a responsible neighbour, minimising and eliminating any nuisance to the community and environment. Every complaint and every major environmental incident is thoroughly investigated and reported	✓	✓	✓		The purpose of this management approach is to comply with all applicable environmental regulations and permits and minimise/eliminate negative impacts on the environment. All our pulp and paper mills and forestry operations are ISO14001 certified and we have introduced detailed guidance in our SDMS to support operations in ensuring compliance. Information on our management approach can be found in: Sustainability governance – Our SOMS (page 36) and Constrained resources and environmental impacts – Managing our impacts (page 83) and – Compliance (page 84)
	Supplier Environmental Assessment	The explanation of why this topic is material is covered within Supplier conduct and responsible procurement (page 93)	✓	✓	✓	Suppliers	The purpose of this management approach is to mitigate any negative impacts in our supply chain. Information on our management approach can be found in: Sustainability governance – Our Sustainable Development Management System (page 36) and Supplier conduct and responsible procurement – Responsible procurement process (page 96)

GRI Standards content index

Material topics		Explanation of why topic is material	Boundary			Material outside Mondi	Management approach
			Pulp and paper mills	Converting operations	Forestry operations		
Social	Employment	Mondi is a major employer in many of the markets we operate in, and people rely on us for their livelihoods, both directly and through our supply chain. Our stakeholders expect us to contribute to employment, skills and technical capacity in the markets where we operate. We assess our impact on employees in various ways including employee surveys to be able to enhance positive impact and mitigate negative impacts to our employees	✓	✓	✓	Indirect employment through the supply chain (induced labour)	The purpose of our management approach is to enhance positive impact and mitigate negative impacts on our employees. Information on our management approach can be found in: Sustainability governance – Our Sustainable Development Management System (page 36) and A skilled and committed workforce (page 47) and Fairness and diversity (page 54)
	Labour/ Management Relations	It is important both for us and our employees to ensure timely discussion of significant operational changes and engaging with our employees and their representatives to negotiate and implement these changes, which can have positive or negative implications for employees	✓	✓	✓		Timely and meaningful consultation allows the affected employees to understand the impacts of the changes, such as possible loss of employment. It also gives us the opportunity to work collectively to avoid or mitigate negative impacts as much as possible. This also helps to provide positive working environment, reduce turnover, and minimise operational disruptions. Information on our management approach can be found in: Sustainability governance – Our Sustainable Development Management System (page 36) and Fairness and diversity – Collective bargaining and freedom of association (page 58) and Restructuring and closures (page 59)
	Occupational Health and Safety	The explanation of why this topic is material is covered within Employee and contractor safety and health (page 40)	✓	✓	✓	Contractors working on our premises	The purpose of this management approach is reduce any negative impacts on our employees and contractors. Information on our management approach can be found in: Sustainability governance – Our Sustainable Development Management System (page 36) and Employee and contractor safety and health (page 40)
	Training and Education	The explanation of why this topic is material is covered within A skilled and committed workforce – Training and Development (page 52) and Transparency, assessment and feedback (page 51)	✓	✓	✓		Programmes for upgrading employee skills help us plan skills acquisition that equips our employees to meet strategic targets in a changing work environment. More skilled employees enhance our human capital and contribute to employee satisfaction, improving performance. For those facing retirement, confidence and quality of work relations is improved by the knowledge that they are supported in their transition from work to retirement. Performance and career development reviews support the personal development of individual employees and contribute to skills management and to the development of human capital within Mondi. Information on our management approach can be found in: Sustainability governance – Our Sustainable Development Management System (page 36) and Skilled and committed workforce (page 47) and Fairness and diversity (page 54)
	Diversity and Equal Opportunity	The explanation of why this topic is material is covered within Fairness and diversity (page 54)	✓	✓	✓		The management approach explains how we strive to promote diversity, eliminate gender bias, and support equal opportunity across our operations. Information on our management approach can be found in: Sustainability governance – Our Sustainable Development Management System (page 36) and Fairness and diversity – Promoting diversity and inclusion (page 55)

GRI Standards content index

Material topics		Explanation of why topic is material	Boundary			Material outside Mondi	Management approach
			Pulp and paper mills	**Converting operations**	**Forestry operations**		
Social	Human Rights Assessment	Impacts on people and their human rights can potentially occur in many ways, including but not limited to: worker safety and health; recruitment and employment practices; product safety; air or water pollution; contamination of natural ecosystems; inequitable use of natural resources; use of forced or child labour; discrimination; misuse of private employee and customer data; use of force by security personnel; disregard for land tenure and indigenous rights; and depletion of resources that communities rely on. The explanation of why this topic is material is covered within Fairness and diversity – Human rights (page 57)	✓	✓	✓	Our supply chain (on a risk-basis). Mondi focuses on high-risk areas and suppliers, so our boundary does not cover all tiers, geographies and industrial sectors in our supply chain	The purpose of this management approach is to support our operations in identifying, mitigating and managing potential human rights risks in our operations and our supply chain. Information on our management approach can be found in: Sustainability governance – Our Sustainable Development Management System (page 36) and Fairness and diversity – Human Rights (page 57)
	Local Communities	The explanation of why this topic is material is covered within Relationships with communities (page 100)	✓		✓	Communities	The purpose of this management approach is to mitigate negative impacts from our operations on the local community, and to enhance the positive impacts. Information on our management approach can be found in: Sustainability governance – Our Sustainable Development Management System (page 36) and Relationships with communities (page 100)
	Supplier Social Assessment	The explanation of why this topic is material is covered within Supplier conduct and responsible procurement (page 93)	✓	✓	✓	Suppliers	The purpose of this management approach is to mitigate any negative impacts in our supply chain. Information on our management approach can be found in: Sustainability governance – Our Sustainable Development Management System (page 36) and Supplier conduct and responsible procurement – Responsible procurement process (page 96)
	Customer Health and Safety	The explanation of why this topic is material is covered within Solutions that create value for our customers – Compliance as a minimum requirement (page 117)	✓	✓		Customers	The purpose of this management approach is to avoid negative impacts on our customers. Information on our management approach can be found in: Sustainability governance – Our Sustainable Development Management System (page 36) and Solutions that create value for our customers – Compliance as a minimum requirement (page 117)
	Marketing and Labelling	The explanation of why this topic is material is covered within Solutions that create value for our customers – Compliance as a minimum requirement (page 117)	✓	✓		Customers	The purpose of this management approach is to avoid negative impacts on our customers. Information on our management approach can be found in: Sustainability governance – Our Sustainable Development Management System (page 36) and Solutions that create value for our customers – Compliance as a minimum requirement (page 117)
	Customer Privacy	The explanation of why this topic is material is covered within Solutions that create value for our customers – Compliance as a minimum requirement (page 117)	✓	✓		Customers	The purpose of this management approach is to avoid negative impacts on our customers. Information on our management approach can be found in: Sustainability governance – Our Sustainable Development Management System (page 36)
	Socioeconomic compliance	We strive to always operate within the boundaries of our legal permits and to prevent non-compliances. Other than reputational impacts, non-compliance can lead to remediation obligations or other costly liabilities or affect our ability to expand operations or gain permits	✓	✓	✓	Customers	The purpose of this management approach is to help us operate legally, and to be able to respond accordingly (to remediate any negative impact and to prevent future occurrences). Information on our management approach can be found in: Sustainability governance – Our Sustainable Development Management System (page 36)

GRI Standards content index

Topic-specific standard disclosures

Disclosure		Location in reporting suite
Economic		
201-1	Direct economic value generated and distributed	Relationships with communities – value distribution (page 101)
201-2	Financial implications and other risks and opportunities due to climate change	Climate change – Assessing our climate-related risks and opportunities (page 69) & CDP climate change 2018 response
201-3	Defined benefit plan obligations and other retirement plans	Integrated Report: Financial statements note 23 'Retirement Benefits' (page 187)
201-4	Financial assistance received from government	Integrated Report: Tax (page 67) and Note 7 (page 170); Tax credit (pages 168, 170, 171 and 207); Subsidies (subsidy applications) (page 113); Export Credit Agency (page 182); Financial incentives (tax incentive) (pages 67 and 170); Shareholding structure (page 142)
202-2	Proportion of senior management hired from the local community	Fairness and diversity in the workplace – Promoting diversity and inclusion (page 55)
203-1	Infrastructure investments and services supported	Relationships with communities – Investing in communities (page 104)
203-2	Significant indirect economic impacts	Relationships with communities – Understanding our impact and the expectations of our stakeholders (page 101)
204-1	Proportion of spending on local suppliers	Supplier conduct and responsible procurement – Our global supply chain (page 94)
205-1	Operations assessed for risks related to corruption	Sustainability governance – Anti-corruption (page 38)
205-2	Communication and training about anti-corruption policies and procedures	Sustainability governance – Anti-corruption (page 38)
205-3	Confirmed incidents of corruption and actions taken	Sustainability governance – Anti-corruption (page 38)
206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	Sustainability governance – Fines, non-monetary sanctions and significant legal issues (page 38)
Environment		
301-1	Materials used by weight or volume	Supplier conduct and responsible procurement – Our global supply chain (page 94)
301-2	Recycled input materials used	Supplier conduct and responsible procurement – Our global supply chain (page 94)
302-1	Energy consumption within the organization	Additional data tables according to GRI requirements – Energy consumption and energy intensity (page 151), CDP climate change 2018 response
302-3	Energy intensity	Additional data tables according to GRI requirements – Energy consumption and energy intensity (page 151)

Disclosure		Location in reporting suite
303-1	Water withdrawal by source	Constrained resources and environmental impacts – Reducing water consumption (page 78), CDP water 2018 response
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Supplementary biodiversity information on our website
304-2	Significant impacts of activities, products, and services on biodiversity	Supplementary biodiversity information on our website
304-3	Habitats protected or restored	Supplementary biodiversity information on our website
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	Supplementary biodiversity information on our website
305-1	Direct (Scope 1) GHG emissions	Additional data tables according to GRI requirements – GHG emissions (page 152), CDP climate change 2018 response
305-2	Energy indirect (Scope 2) GHG emissions	Additional data tables according to GRI requirements – GHG emissions (page 152), CDP climate change 2018 response
305-3	Other indirect (Scope 3) GHG emissions	Additional data tables according to GRI requirements – GHG emissions (page 152), CDP climate change 2018 response
305-4	GHG emissions intensity	Additional data tables according to GRI requirements – GHG emissions (page 152), CDP climate change 2018 response
305-5	Reduction of GHG emissions	Climate change – Delivering our GHG commitments (page 72), CDP climate change 2018 response
305-6	Emissions of ozone-depleting substances (ODS)	Constrained resources and environmental impacts – Ozone depleting substances (page 81), Additional data tables according to GRI requirements – Air emissions (page 154)
305-7	Nitrogen oxides (NO_X), sulfur oxides (SO_X), and other significant air emissions	Constrained resources and environmental impacts – Air emissions (page 80), Additional data tables according to GRI requirements – Air emissions (page 154)
306-1	Water discharge by quality and destination	Constrained resources and environmental impacts – Effluent and waste water quality (page 79), Additional data tables according to GRI requirements – Quality of water released (page 153)
306-2	Waste by type and disposal method	Constrained resources and environmental impacts – Our zero waste ambition (page 82), Additional data tables according to GRI requirements – Breakdown of waste (page 154)

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Disclosure		Location in reporting suite
306-3	Significant spills	Constrained resources and environmental impacts – Environmental incidents (page 83)
306-5	Water bodies affected by water discharges and/or runoff	Constrained resources and environmental impacts – Managing our water-related risks (page 78), CDP Water 2018 Response
307-1	Non-compliance with environmental laws and regulations	Sustainability governance – Fines, non-monetary sanctions and significant legal issues (page 38)
308-1	New suppliers that were screened using environmental criteria	Supplier conduct and responsible procurement – Responsible procurement process (page 96)
308-2	Negative environmental impacts in the supply chain and actions taken	Supplier conduct and responsible procurement – Responsible procurement process (page 96)
Social		
401-1	New employee hires and employee turnover	Fairness and diversity in the workplace – Promoting diversity and inclusion (page 55)
402-1	Minimum notice periods regarding operational changes	Fairness and diversity in the workplace – Restructuring and closures (page 59)
403-1	Occupational health and safety management system	Employee and contractor safety and health – Certification and management systems (page 42)
403-2	Hazard identification, risk assessment, and incident investigation	Employee and contractor safety and health – Risk-based approach (page 42), Incident investigations (page 43)
403-4	Worker participation, consultation, and communication on occupational health and safety	Employee and contractor safety and health – Safety and Health committees (page 45)
403-5	Worker training on occupational health and safety	Employee and contractor safety and health – Training (page 45)
403-6	Promotion of worker health	Employee and contractor safety and health – Health and wellbeing (page 46)
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Employee and contractor safety and health – Working with contractors (page 44)
403-8	Workers covered by an occupational health and safety management system	Employee and contractor safety and health – Certification and management systems (page 42)
403-9	Work-related injuries	Employee and contractor safety and health – Ensuring the safety of our people (page 41)
404-1	Average hours of training per year per employee	A skilled and committed workforce – Training and development (page 52)
404-2	Programs for upgrading employee skills and transition assistance programs	A skilled and committed workforce – Training and development (page 52) & Fairness and diversity in the workplace – Restructuring and closures (page 59)
404-3	Percentage of employees receiving regular performance and career development reviews	A skilled and committed workforce – Transparency, assessment and feedback (page 51)

Disclosure		Location in reporting suite
405-1	Diversity of governance bodies and employees	Fairness and diversity in the workplace – Promoting diversity and inclusion (page 55)
412-1	Operations that have been subject to human rights reviews or impact assessments	Fairness and diversity in the workplace – Employment and human rights (page 57)
412-2	Employee training on human rights policies or procedures	Fairness and diversity in the workplace – Human rights (page 57)
412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	Fairness and diversity in the workplace – Employment and human rights (page 57)
413-1	Operations with local community engagement, impact assessments, and development programs	Relationships with communities – Mutually beneficial relationships with communities (page 101)
414-1	New suppliers that were screened using social criteria	Supplier conduct and responsible procurement – Responsible procurement process (page 96)
414-2	Negative social impacts in the supply chain and actions taken	Supplier conduct and responsible procurement – Responsible procurement process (page 96)
416-1	Assessment of the health and safety impacts of product and service categories	Solutions that create value for customers – Food hygiene standards and product safety (page 117)
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	Solutions that create value for customers – Compliance across our portfolios (page 117)
417-1	Requirements for product and service information and labeling	Solutions that create value for customers – Food hygiene standards and product safety (page 117)
417-2	Incidents of non-compliance concerning product and service information and labeling	Solutions that create value for customers – Compliance across our portfolios (page 117)
417-3	Incidents of non-compliance concerning marketing communications	Solutions that create value for customers – Compliance across our portfolios (page 117)
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	Solutions that create value for customers – Compliance across our portfolios (page 117)
419-1	Non-compliance with laws and regulations in the social and economic area	Sustainability governance – Fines, non-monetary sanctions and significant legal issues (page 38)

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Omissions

Disclosure		Reason for omission	Explanation
201-4	Financial assistance received from government	Information unavailable	Information related to investment grants, research and development grants, and other relevant types of grant; awards; and royalty holidays, if and where relevant, are not available centrally due to higher thresholds of materiality applicable at the Group level. This information is also not available by country as it is not required by financial reporting requirements in our Integrated report.
308-1	New suppliers that were screened using environmental criteria	Information unavailable	This year we are unable to report the number or percentage of suppliers assessed for environmental impacts. After a successful pilot testing this year we have finalised the development of our new Responsible Procurement process. In 2019, we will roll out the process to the first procurement categories. We will be able to report on the results in our future reports.
308-2	Negative environmental impacts in the supply chain and actions taken		
403-3	Occupational health services	Information unavailable	We are not able to report information on the quality of the health services that the sites use as these are professional service providers. We use accredited occupational health practitioners to guide and assist in identifying occupational health hazards in our Group. We have recently developed a working group made up of a medical practitioner and an occupational health practitioner to assess the services we have in place and address any gaps going forward.
404-1	Average hours of training per year per employee	Information unavailable	The number of training hours by gender and employee category is not available. This is because this information is not centrally collected/monitored but done at a local level for each operation. We are assessing the value of collecting this information centrally in our DigitalHR tool; if implemented we would be able to report this information in future.
405-1	Diversity of governance bodies and employees	Information unavailable	Some information relating to diversity of employees is not centrally collected/monitored but done at a local level for each operation. We are assessing the value of collecting this information centrally in our DigitalHR tool; if implemented we would be able to report this information in future.
414-1	New suppliers that were screened using social criteria	Information unavailable	This year we are unable to report the number or percentage of suppliers assessed for social impacts. After a successful pilot testing this year we have finalised the development of our new Responsible Procurement process. In 2019, we will roll out the process to the first procurement categories. We will report the results in our future reports.
414-2	Negative social impacts in the supply chain and actions taken		

Glossary

Aichi Biodiversity Targets
The Aichi Biodiversity Targets were adopted by the Convention on Biological Diversity in Nagoya (Japan) in 2010, during which the parties adopted a revised and updated Strategic Plan for Biodiversity, including the Aichi Biodiversity Targets, for the 2011-2020 period.

AOX
Adsorbable organic halogen compounds is a metric for emissions to water and is measured in tonnes.

ART
Anti-retroviral treatment.

BAT
Best Available Technique. Technically and economically feasible environmental technology that is efficient and advanced, generally to reduce emissions and the impact on the environment as a whole. The BAT values are defined by IPPC (The European Integrated Pollution Prevention and Control Bureau) in the 'Reference Document on Best Available Technique for the Pulp and Paper Industry'.

BFP
The Boreal Forest Platform was launched in Russia by WWF Russia with the support of Mondi and Silver Taiga Foundation. The platform aims to bring stakeholders together across the boreal forest to develop a shared understanding of responsible forest management and optimise yields from commercial forests, while conserving intact forest landscapes (IFLs) and other HCV areas.

Blue water
Potable, surface, second-class and groundwater.

CDP
CDP is an international not-for-profit organisation providing a global system for companies to measure, disclose, manage and share information on climate change, water security and forests.

CEO Water Mandate
The United Nations Global Compact CEO Water Mandate mobilises business leaders to advance water stewardship, sanitation, and the Sustainable Development Goals – in partnership with the United Nations, governments, peers, civil society, and others.

CEP
Community Engagement Plans provide the basis of our engagement and support for local communities and are updated manually by our mills.

CEPI
The Confederation of European Paper Industries is a Brussels-based not-for-profit organisation that champions European pulp and paper industry, monitoring and analysing activities and initiatives in the areas of industry, environment, energy, forestry, recycling and competitiveness in general, and providing a unique source of information both for and on the industry.

CFCs
Chlorofluorocarbons.

CISL
Cambridge Institute for Sustainability Leadership is an institution within the University of Cambridge that challenges, informs and supports leaders from business and policy across complex and connected issues to deliver change towards sustainability.

CITES
The Convention on International Trade in Endangered Species is an international agreement between governments with the aim of ensuring that international trade in specimens of wild animals and plants does not threaten their survival.

Circular economy
A circular economy is an industrial system that is restorative or regenerative by intention and design. It replaces the 'end-of-life' concept with restoration, shifts towards the use of renewable energy, eliminates the use of toxic chemicals which impair reuse and aims for the elimination of waste through the superior design of materials, products, systems, and within this, business models.

CO_2e
Non-CO_2 GHGs (such as CH_4 or N_2O) can be converted into an amount of CO_2 with an equivalent warming potential. Total GHG emissions are the sum of the equivalent amount of CO_2 for each GHG, abbreviated as CO_2e.

Chain-of-Custody
Chain-of-Custody is a tracking system that allows manufacturers and traders to demonstrate that wood comes from a forest that is responsibly managed in accordance with credible standards.

COD
Chemical oxygen demand is a measure of the oxygen consuming capacity of inorganic and organic matter present in the waste water. It is a metric for emissions to water and is measured in tonnes.

Contact water
The sum of all water volumes used on the production site for use in processes, for washing and as product input; for sanitary purpose and for non-industrial operations (e.g. in kitchens, toilets and bathrooms); and for use in boilers for steam production.

Controlled Wood
Controlled Wood is special category of wood material in FSC certification, which comes only from acceptable sources and that can be mixed with FSC-certified material in products that carry the FSC Mix label.

Controversial sources
Mondi defines controversial sources as wood that is illegally harvested, harvested in violation of traditional and civil rights, harvested in forest management units in which HCVs are threatened by management activities, harvested in areas in which forests are being converted to plantations or non-forest use or harvested from forests in which genetically modified trees are planted.

Converting operations
Operations for the conversion of corrugated packaging, industrial bags, extrusions coatings, release liner, consumer packaging and advanced films.

CoP
Communication on Progress. Business participants in the UN Global Compact commit to issue an annual CoP, a public disclosure to stakeholders on progress made in implementing the 10 principles of the UN Global Compact, and in supporting broader UN development goals.

Country-level risks
Country-level risks are identified by Mondi as a combination of indexes characterising strength of national governance (Transparency International Corruption Perception Index and the World Bank's Worldwide Governance Indicators) and prevalence of forestry-related legality issues in the country (Centralised National Risk Assessments and NEPCon Timber Risk Assessment Methodology).

CPI
Corruption Perception Index, an annual ranking provided by Transparency International, of countries by their perceived levels of corruption, as determined by expert assessments and opinion surveys.

DDMS
Due Diligence Management System is used to govern our approach to responsible sourcing of wood and fibre.

Deforestation
The conversion of forest to other land use independently, whether human induced or not. This definition implies permanent tree-cover loss.

DLC
Dual listed company.

Ecosystem services
Ecosystem services are the multitude of benefits that nature provides to society. These include provisioning services such as food and water; regulating services such as regulation of floods, drought, land degradation, and disease; supporting services such as soil formation and nutrient cycling; and cultural services such as recreational, spiritual, religious and other non-material benefits.

The Ellen MacArthur New Plastics Economy initiative
An initiative led by the Ellen MacArthur Foundation to build momentum towards a plastics system that works. Applying the principles of the circular economy, it brings together key stakeholders to rethink and redesign the future of plastics, starting with packaging.

EMP
Ecosystem management plan.

EN
Ecological network is a system of corridors and nodes which maintains compositional biodiversity and ecosystem services in an agro-forestry setting.

ERM CVS
Environmental Resources Management Certification and Verification Services is a provider of a full suite of sustainability assurance services, verification and certification of EHS programmes.

ESG
Environmental, Social and Governance.

EU ETS
European Union's Emissions Trading System.

EUTR
The EU Timber Regulation came into effect on 3 March 2013. It prohibits the placing on the EU market for the first time of illegally harvested timber and products derived from such timber. It requires EU traders who place timber products on the EU market for the first time to exercise due diligence.

Glossary

FABI
Forestry and Agricultural Biotechnology Institute aims to help the development of novel food and fibre crops that will contribute to global economic development and food security.

FAO
Food and Agriculture Organization of the United Nations' mandate is to raise levels of nutrition, improve agricultural productivity, better the lives of rural populations and contribute to the growth of the world economy.

FMCGs
Fast moving consumer goods.

Forest degradation
Forest degradation is the reduction of the capacity of a forest to provide goods and socio-cultural and environmental services, which is caused by disturbances.

Forest disturbance
A temporary change in environmental conditions that noticeably alters the physical structure of a forests ecosystem. These changes can be sudden and can have a significant impact – for example a fire or a pest outbreak.

FSC
The Forest Stewardship Council Is an international not for-profit, multi-stakeholder organisation established in 1993 to promote socially and environmentally responsible management of the world's forests by way of standard setting, third-party certification and labelling of forest products.

FTSE4Good
The FTSE4Good Index Series has been designed to objectively measure the performance of companies that meet globally recognised corporate responsibility standards.

FTSE/JSE Responsible Investment Index
The FTSE/JSE Responsible Investment Index is an index series that aims to promote greater transparency by corporates on environmental, social and governance considerations, and enabling investors to integrate these considerations into investment and stewardship.

GHG
Greenhouse gases are gases listed in the Kyoto Protocol of the United Nations Framework Convention on Climate Change (UN-FCCC) that contribute to the greenhouse effect.

GIS
Geographic information system is a system designed to capture, store, analyse, manage, and present all types of spatial or geographical data.

GM
Genetically modified.

Green water
Rainwater stored in vegetation or soil as moisture. Water consumption during fibre growth in forests is counted and reported as green water.

Grey water
Waste water that is generated from all streams such as baths, showers, washing machines and hand basins, but excludes all waste water from toilets.

GRI
The Global Reporting Initiative is a not-for-profit organisation that produces one of the world's most prevalent standards for sustainability reporting.

HCFCs
Hydrochlorofluorocarbons.

HCV
High Conservation Values are biological, ecological, social or cultural values which are outstandingly significant or critically important at the national, regional or global level.

HCVRN
HCV Resource Network is a global network which promotes a practical, consistent approach to HCV methodology.

IFL
An Intact Forest Landscape is a seamless mosaic of forest and naturally treeless ecosystems within the zone of current forest extent, which exhibit no remotely detected signs of human activity or habitat fragmentation and is large enough to maintain all native biological diversity, including viable populations of wide-ranging species. IFLs have high conservation value and are critical for stabilising terrestrial carbon storage, harbouring biodiversity, regulating hydrological regimes, and providing other ecosystem functions.

ILO
The International Labour Organization is a UN agency dealing with labour issues, particularly international labour standards, social protection, and work opportunities for all.

IPCC
Intergovernmental Panel on Climate Change.

ISO 14001
International standard created by the International Standards Organization (ISO) for formal and certified environmental management systems.

IUFRO
The International Union of Forest Research Organizations is a non-profit, non-governmental international network of forest scientists, which promotes global cooperation in forest-related research and enhances the understanding of the ecological, economic and social aspects of forests and trees.

JSE
Johannesburg Stock Exchange Limited.

KPI
Key performance indicator.

Land claims
Land claims in South Africa stem from a complex legacy of state-led forestation and forced removals of indigenous peoples, first initiated in 1913. The 1994 Restitution of Land Act aims to redress the deprivation of many indigenous South Africans of their rightful heritage. Restitution can take one of three forms, including restoration of land, payment of compensation, or a combination of the two.

LGBT
Lesbian, gay, bisexual, and transgender.

Life-altering injuries
A life-altering injury resulting in permanent or significant loss of a major body part or organ function that permanently changes or disables the person's normal life activity.

LOPC
Loss of Primary Containment is an unplanned or uncontrolled release of any material from primary containment, including non-toxic and non-flammable materials (e.g. steam, hot condensate, nitrogen, compressed CO_2 or compressed air).

LTI
Lost-time injury.

MADD
Making a Difference Day is Mondi's annual employee engagement initiative.

Major close call
An unplanned, undesired event, which under slightly different circumstances, could have resulted in a high consequence injury.

MENP
Mondi Ecological Networks Programme, is a joint programme of Mondi and the Department of Conservation Ecology and Entomology at Stellenbosch University in South Africa, which aims to undertake sound scientific research for conservation of biodiversity and maintenance of ecosystem processes concurrent with sustainable production.

Natural capital
The stock of renewable and non-renewable natural resources (for example, plants, animals, air, water, soils and minerals) that combine to yield benefits to people.

NGO
Non-governmental organisation.

NGP
The New Generation Plantations Platform was established in 2007 as a partnership between WWF and the main companies working in plantation forestry, including Mondi. It aspires to an ideal form of plantation that contribute positively to both people and nature. It promotes well-managed, inclusive and profitable plantations by sharing knowledge and experience.

NOx
Nitrogen oxide.

OHSAS 18001
An internationally applied British standard for occupational health and safety management systems.

Paper for recycling
Also known as 'recovered paper', this is a term used by CEPI to highlight the intended use of this secondary raw material for paper recycling only. It is defined as natural fibre-based paper suitable for recycling, consisting of paper in any shape or product made predominantly from paper, which may include other constituents that cannot be removed by dry sorting, such as coatings, laminates, spiral bindings, etc.

Paper Profile
A global, voluntary declaration scheme for presenting uniform environmental product information related to pulp and paper production that enables the professional paper buyer to make well-informed product choices.

PDI
Previously disadvantaged individuals, a term used in South Africa.

PDR
Performance and development review.

PEFC
Programme for the Endorsement of Forest Certification is an international not-for-profit non-government organisation dedicated to promoting sustainable forest management through independent third-party certification.

Glossary

Plantation forest
Planted forest that is intensively managed and meets all the following criteria at planting and stand maturity: one or two species, even age class, and regular spacing.

Primary forest
Naturally regenerated forest of native tree species, where there are no clearly visible indications of human activities and the ecological processes are not significantly disturbed.

Recovered paper
See 'paper for recycling'.

Resilient production landscapes
Production landscapes integrating commercial forests and conservation networks that have the capacity to recover from disturbances such as climate change, intensive management, poverty-induced overuse, drought, fire, floods, pests and disease.

RFID
Radio-frequency identification.

SAVE FOOD
A campaign supported by the UN Food and Agriculture Organization, the UN Environment Programme, Messe Düsseldorf, and the Interpack trade fair to address challenges related to global food waste.

Scope 1 emissions
Total GHG emissions from sources owned or controlled by Mondi and its subsidiaries. This includes CO_2e from fossil fuels and processes, company leased/owned vehicles, waste and wastewater treatment, make-up chemicals, and other GHGs.

Scope 2 emissions
Total GHG emissions from sources that are related to generation of purchased energy outside the company boundaries.

Scope 3 emissions
Total GHG emissions from the production of fuel and raw materials business travel; raw materials; transport of products and raw materials; and employee commuting.

SDGs
The United Nations Sustainable Development Goals, a set of universal goals that meet the urgent environmental, political and economic challenges facing our world.

SDMS
Sustainable Development Management System is used to govern our approach to sustainability and implement our sector policies.

Science-based target
A carbon emission target is defined as 'science-based' if it is in line with the scale of reductions required to keep global temperature increase below 2°C compared to pre-industrial levels.

Secondary forest
A secondary forest is a forest that has been logged and reforested by natural or artificial methods.

SEAT
Socio-economic Assessment Toolbox process is a formal, strategic mechanism fostering an open and honest dialogue so we can improve our understanding of where our impacts lie and what our local stakeholders expect.

SGS
Formerly known as Société Générale de Surveillance, SGS is the world's leading inspection, verification, testing and certification company.

SHE
Safety, health and environment.

Silver Taiga Foundation
The Silver Taiga Foundation for Sustainable Development was founded in 2002 as a spin-off of the Syktyvkar branch of WWF. The main goal of the Foundation is the promotion of sustainable management of the forest landscapes and renewable natural resources in the Komi Republic and other regions of Russia.

Silviculture
The growing and cultivation of trees.

SMEs
Small and medium enterprises.

Social learning
Collaborative learning, sharing knowledge and exploring solutions that create shared value. This process can lead to enhanced understanding and changes in outlook and behaviour. This, in turn leads to informed and inclusive decision making, innovative solutions, constructive relationships and trust.

Speakout
Mondi's confidential reporting hotline and whistleblowing programme.

Specific
Measurement of emissions or consumption normalised to saleable production tonnes.

TCFD
The Task Force on Climate-related Financial Disclosures.

TFD
The Forests Dialogue is a multi-stakeholder dialogue platform and process focused on developing mutual trust, a shared understanding, and collaborative solutions to challenges in achieving sustainable forest management and forest conservation around the world.

TRCR
Total recordable case rate is calculated as the number of total recordable cases (the sum of fatalities, lost-time injuries, restricted work cases, medical treatment cases and occupational diseases) divided by the number of hours worked per 200,000 man hours.

Traceability
The ability to verify the source or origin of wood in the supply chain by means of documented recorded identification.

Transparency
The accurate, clear and complete reporting of information that facilitates collaboration and collective decision-making.

TRS
Total reduced sulphur compounds are the sum of the following reduced malodorous sulphur compounds generated in the pulping process: hydrogen sulphide, methyl mercaptan, dimethylsulphide and dimethyldisulphide expressed as sulphur. It is a metric for emissions to air and is measured in tonnes.

UK Modern Slavery Act (MSA)
An Act of the Parliament of the United Kingdom, which became a law in 2015 and was the first of its kind in Europe, and one of the first in the world, to specifically address slavery and trafficking in the 21st century.

UNECE
The United Nations Economic Commission for Europe (UNECE) – one of five regional commissions of the United Nations – aims to promote pan-European economic integration between 56 member States in Europe, North America and Asia.

UNEP
United Nations Environment Programme provides leadership and encourages partnerships in caring for the environment by inspiring, informing and enabling nations and people to improve their quality of life, without compromising future generations.

UNGC
United Nations Global Compact is a strategic policy initiative for businesses that are committed to aligning their operations and strategies with 10 universally accepted principles in the areas of human rights, labour, environment and anti-corruption.

U.S. Lacey Act
A United States law that bans trafficking in illegal wildlife, including plants and plant products such as timber and paper.

VCT
Voluntary Counselling and Testing.

WBCSD
World Business Council for Sustainable Development is a CEO-led, global association of over 200 international companies dealing exclusively with business and sustainable development.

WRI
World Resources Institute is a global environment think tank that goes beyond research to put ideas into action with projects working on aspects of global climate change, sustainable markets, ecosystem protection and environmentally responsible governance.

WWF
WWF is one of the world's largest and most experienced independent conservation organisations. WWF's mission is to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.

WWF Climate Savers
A leadership programme that seeks to transform businesses into leaders of the low carbon economy.

WWF-MWSP
Formerly the WWF-Mondi Wetlands Programme, the WWF-Mondi Water Stewardship Partnership is a joint programme between WWF-SA and Mondi Limited. It is a wetland conservation programme in South Africa, the scope of which has now been extended beyond the boundaries of our own plantations to include the agricultural sector and small forest growers.

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Our 2018 suite of reports

Please visit our Group website where copies of our reports can be downloaded:
https://www.mondigroup.com/en/investors/results-and-reports/

Integrated report and financial statements 2018
A balanced overview of Mondi's performance in 2018 and insight into how our approach to strategy, governance, people and performance combine to generate value in a sustainable way. Also available online at www.mondigroup.com/ir18

Sustainable Development report 2018
A comprehensive view of our approach to sustainable development and our performance in 2018, prepared in accordance with GRI Standards: Core option. Available online as an interactive pdf at www.mondigroup.com/sd18

Design and production: Radley Yeldar | www.ry.com