HARNESSING TECHNOLOGY TO CREATE A BETTER WORLD

Corporate Responsibility

Summary Report 2018

LIBERTY GLOBAL

CONTENTS

ABOUT THIS REPORT

Welcome to Liberty Global's 2018 Corporate Responsibility (CR) Summary Report.

This annual report provides an overview of our economic, social and environmental impacts and performance. Additional details, including our latest CR stories, can be found on our website: www.libertyglobal.com/responsibility/connected-purpose/

This report has been prepared in accordance with the Global Reporting Initiative (GRI) Standards: Core option. All data in this report covers the period January 1 to December 31, 2018, unless otherwise stated. We report on our operations in 10 countries of our world class consumer brands Virgin Media, Unitymedia, Telenet and UPC. Our policy is to include any new subsidiaries that have been acquired in the first six months of the reporting period.

In terms of disposals, our policy is to exclude any subsidiaries where we no longer have operational control during the reporting period. In 2018, we completed the UPC Austria transaction. Therefore, we have excluded this operation from our 2018 reporting.

We engaged KPMG LLP to perform independent limited assurance, reporting to Liberty Global plc, using the assurance standards ISAE 3000 and ISAE 3410, for the energy consumption and greenhouse gas emissions data presented in Liberty Global plc's Annual Report and Accounts for the year ending December 31, 2018. This information is included in this report and is highlighted on page 16. KPMG's full statement, including a summary of the work they performed, is available on our website.

Our 2018 GRI Standards Content Index, Environmental Reporting Criteria and KPMG Independent Limited Assurance Statement can be found here: www.libertyglobal.com/responsibility/reporting-and-performance

For more information on our governance structure, Board Committees and our commitment to the United Nations Sustainable Development Goals, please see our website.

Your views are important to us. Please send comments and suggestions: cr@libertyglobal.com

CEO WELCOME

At Liberty Global, we understand the importance of doing business in a responsible and sustainable way. Because of that, we are focused on managing the impact of our business on the environment and society, as well as developing strategies to ensure this approach is ingrained in every aspect of our organization.

We are committed to empowering our customers to make the most of their video, internet and communications services by making significant, multi-billion dollar annual investments in our digital platforms and broader infrastructure. We are the speed leader at scale in the markets we operate in, and by delivering faster speeds and greater bandwidth, we're boosting economies, transforming businesses and improving people's lives.

Through market-leading research we've found that consumers truly value having access to fast, reliable and secure broadband. So in 2018 we continued to heavily invest to extend the reach of our next generation networks and to promote innovations that create a positive impact across every aspect of our business.

We remain focused on empowering positive change through technology. We call this our Connected Purpose Strategy. This strategy requires us to increase the depth and understanding of complex environmental and societal issues, combined with both technical and commercial expertise, so that we implement solutions that deliver long-term business and societal value.

We also know that providing children with the skills and knowledge needed to excel in our expanding digital world isn't just the responsibility of parents, it also lies with the very organizations providing the connectivity. We must ensure that children are able to enjoy the same protections and privileges online as they do offline, hence our focus on educating and empowering children, parents and teachers.

Our flagship program, Digital Imagination, is a collective, collaborative movement designed to fuel imagination and promote digital solutions that benefit society. Through our Future Makers program, we give young people exciting ways to learn the skills needed to thrive in the digital economy and generate a positive social impact. In 2018, we scaled our awards to five of our markets.

In Germany, the Digital Imagination Challenge was specifically focused on finding innovative ideas and projects that facilitate and support the lives of people living with disabilities. Through this initiative we strengthened our call on innovators and others to remove barriers for people with disabilities so they can access, participate and engage in the digital world.

We also remain firmly committed to responsible procurement, which means collaborative, intentional relationships with suppliers that both mitigate risk and identify opportunities for improvement across the supply chain.

Separately, sustainability is paramount. We improved our overall energy efficiency by 27 percent in 2018, almost double our annual target of 15 percent. We have committed to reduce our Scope 1 and 2 emissions by a minimum of 50 percent by 2030 and 80 percent by 2050. These targets will help us become more efficient and bring real innovation and creativity in how we use energy across our operations.

To achieve our sustainability goals we need the buy-in and support of our people at every level of the organization. Throughout this report you'll find inspiring examples of all the amazing work they're doing to empower positive change and bring our Connected Purpose strategy to life. You can also find and explore more powerful stories on our corporate website. As always, your thoughts, suggestions and feedback are welcome.

Sincerely,

Michael T. Fries,
Chief Executive Officer
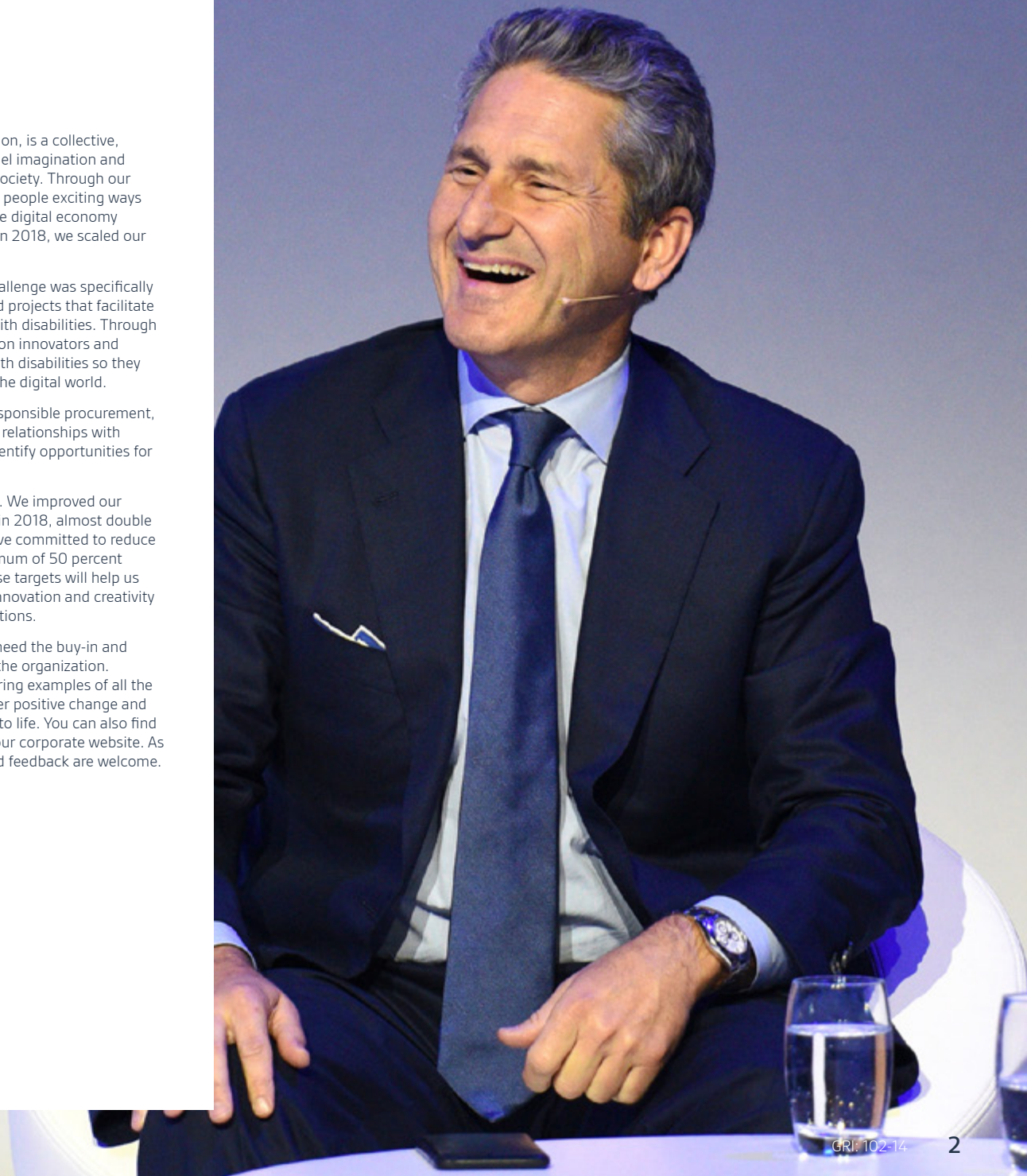
CONNECTED PURPOSE

About Liberty Global

Liberty Global is one of the world's leading converged video, broadband and communications companies, with operations in six European countries under the consumer brands Virgin Media, Telenet and UPC. We invest in the infrastructure and digital platforms that empower our customers to make the most of the digital revolution. Our substantial scale and commitment to innovation enable us to develop market-leading products delivered through next-generation networks that connect 11 million customers subscribing to 25 million TV, broadband internet and telephony services. We also serve 6 million mobile subscribers and offer WiFi service through millions of access points across our footprint.
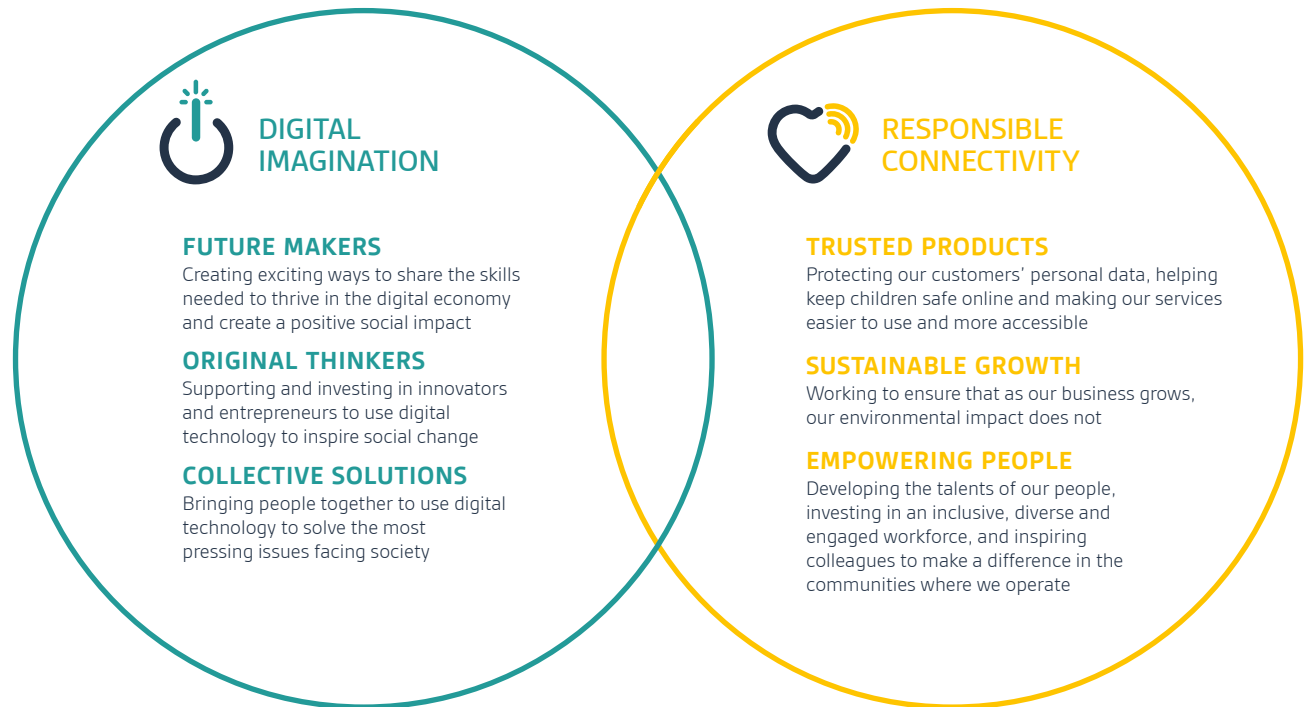
In addition, Liberty Global owns 50% of VodafoneZiggo, a joint venture in the Netherlands with 4 million customers subscribing to 10 million fixed-line and 5 million mobile services, as well as significant investments in ITV, All3Media, ITI Neovision, LionsGate, the Formula E racing series and several regional sports networks.

EMPOWERING POSITIVE CHANGE THROUGH TECHNOLOGY

We engage with key internal stakeholders and external experts to shape our CR strategy. This approach allows us to maximize our potential for guiding digital technology towards creating positive change in our world today. Connected Purpose is how we structure our response to this opportunity.

The internet is one of the most powerful tools ever invented. But it's what you do with it that counts — and that's up to all of us. We need people who embrace opportunity, who want to learn and grow and who want to make the world a better place. We're focused on the positive, enabling potential of connectivity, digital entertainment and technology. We're investing, innovating and helping to empower people so they can make the most of the digital revolution.

DIGITAL IMAGINATION

FUTURE MAKERS
Creating exciting ways to share the skills needed to thrive in the digital economy and create a positive social impact

ORIGINAL THINKERS
Supporting and investing in innovators and entrepreneurs to use digital technology to inspire social change

COLLECTIVE SOLUTIONS
Bringing people together to use digital technology to solve the most pressing issues facing society

RESPONSIBLE CONNECTIVITY

TRUSTED PRODUCTS
Protecting our customers' personal data, helping keep children safe online and making our services easier to use and more accessible

SUSTAINABLE GROWTH
Working to ensure that as our business grows, our environmental impact does not

EMPOWERING PEOPLE
Developing the talents of our people, investing in an inclusive, diverse and engaged workforce, and inspiring colleagues to make a difference in the communities where we operate

OUR MATERIAL ISSUES

We want to ensure that we're constantly focused on the most significant sustainability impacts of our business as they affect our stakeholders and communities.

We reassessed our material issues in 2017 to ensure that our strategic direction continues to reflect the changing interests and expectations of our business leaders and stakeholders. We engaged stakeholders including employees, customers, industry associations, sustainability experts and the media to understand their priorities. To do this, we conducted an analysis of factors that affect our material impacts including:

- **The material priorities generated through engagement with local stakeholders by our operating companies: Virgin Media, Unitymedia and Telenet;**

- **General and sector priorities defined by sustainability frameworks such as the Global Reporting Initiative (GRI) and the Sustainability Accounting Standards Board (SASB);**

- **Reputational impacts across the European markets where Liberty Global is active;**

- **A review of leading telecommunications companies and the issues they present as material for their businesses and their associated social impacts; and**

- **Employee feedback collected as part of a survey on CR and employee priorities.**

The results confirmed that the six material topics identified continue to be the most relevant for our business, our industry and our stakeholders. In addition, two new topics were identified as being important: customer experience and service quality and employee engagement and equality.

We therefore recognize all eight topics as key impacts to be addressed by our CR framework and strategy, as well as the focus of our sustainability reporting to stakeholders.

We are aiming to reassess our strategic Materiality Matrix in 2019 to make sure that we are meeting the interests and expectations of our business leaders and stakeholders.

Further details can be found at:
www.libertyglobal.com/responsibility/connected-purpose/

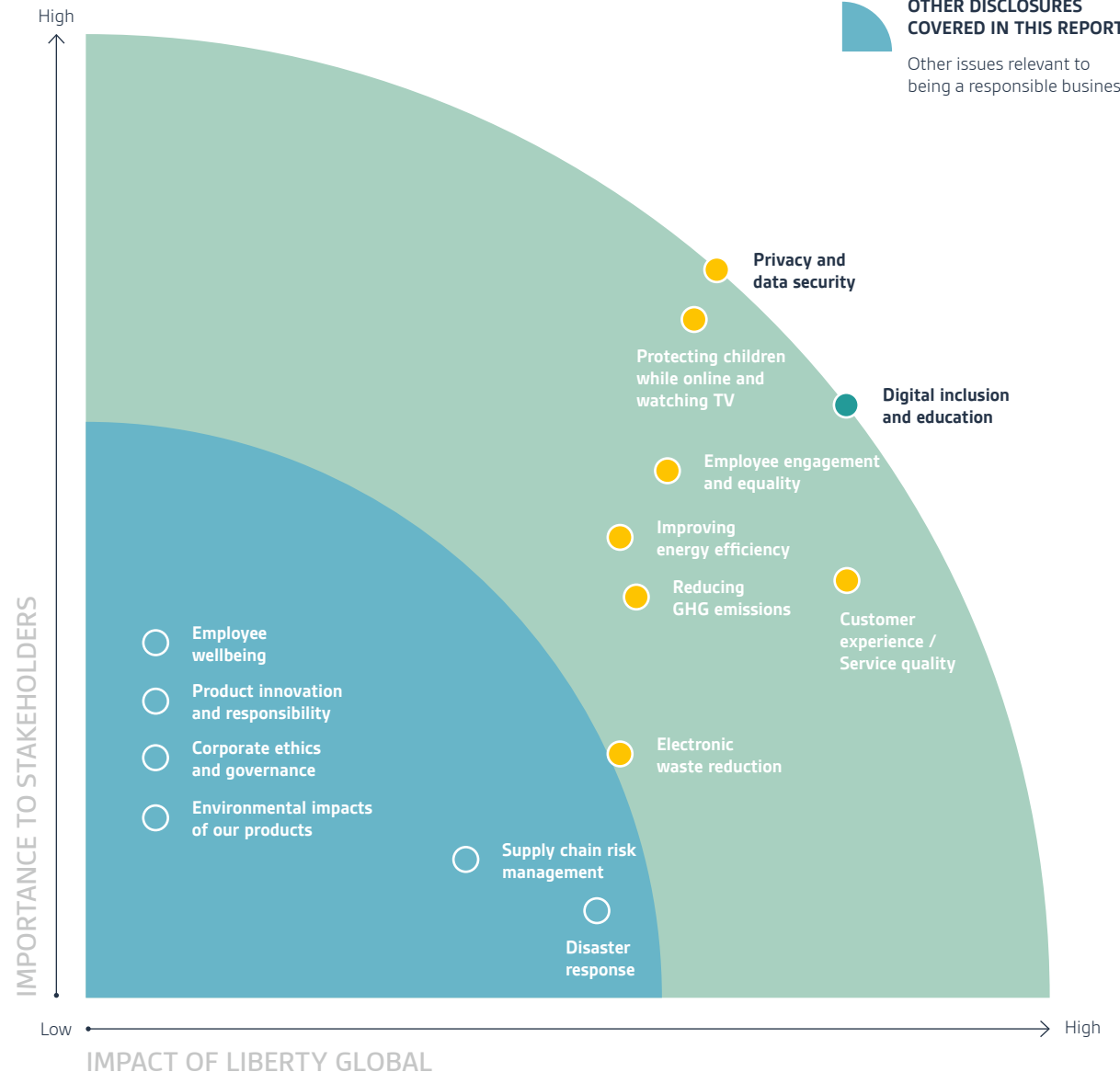## MATERIALITY MATRIX

COLOR KEY
- Digital Inclusion
- Responsible Connectivity
- Other responsible business issues

OUR AREAS OF FOCUS
Priority issues that matter most to our business and stakeholders.

OTHER DISCLOSURES COVERED IN THIS REPORT
Other issues relevant to being a responsible business.

High

IMPORTANCE TO STAKEHOLDERS

- Privacy and data security
- Protecting children while online and watching TV
- Digital inclusion and education
- Employee engagement and equality
- Improving energy efficiency
- Reducing GHG emissions
- Customer experience / Service quality
- Employee wellbeing
- Product innovation and responsibility
- Corporate ethics and governance
- Environmental impacts of our products
- Electronic waste reduction
- Supply chain risk management
- Disaster response

Low

Low   IMPACT OF LIBERTY GLOBAL   High

2018 IN BRIEF

Throughout 2018, our people once again came together in support of our Connected Purpose strategy. Their collective efforts were rewarded with results that made a significant difference across all our operating regions. Here are some of this year's highlights.

We invested almost
$5 BILLION
IN PRODUCT AND NETWORK INNOVATION

Virgin Media in the UK launched a campaign with charity partner Scope to support
1 MILLION
DISABLED PEOPLE TO GET INTO AND STAY IN WORK
by the end of 2020

Served
6.4 MILLION
MOBILE SUBSCRIBERS

Achieved **C-score in the Leadership category** as part of CDP's Climate Program

Supported **26,000 employees** globally

Provided
12 MILLION
WiFi hotspots

Refurbished 2.6 million set-top boxes and modem units, **avoiding 4,213 metric tons of waste** that would otherwise have ended up in landfill

Became over
20X MORE
CARBON EFFICIENT
than 2012

Received
BRONZE CLASS
distinction in the Dow Jones Sustainability Index for excellent sustainability performance
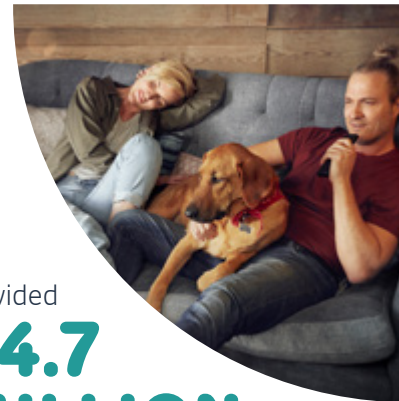
Provided
44.7 MILLION
VIDEO,
broadband and **communications services**

We avoided **4,809 metric tons** of carbon emissions and saved close to **$290 million** through environmental initiatives

Connected
21 MILLION
customers

Committed to **Science Based Targets** in line with COP 21 Paris Agreement. Reduced our Scope 1 and 2 emissions by **60%**, exceeding our 2030 goal and setting a solid base to reach our 2050 goal faster

LAUNCHED TWO ADDITIONAL
DIGITAL IMAGINATION
CHALLENGES
in Poland and Germany, engaging 70 social entrepreneurs

DIGITAL IMAGINATION

EMPOWERING PEOPLE TO HARNESS THE POWER OF TECHNOLOGY TO SOLVE SOME OF SOCIETY'S BIGGEST CHALLENGES

Why it matters

The internet is changing our world like never before. It lets us connect together to experience meaningful moments and has shifted the way we shop, work, communicate and live our lives. It's the greatest tool that's ever been invented. But it's what we do with it that counts.

That's why we're committed to using technology to fuel people's imaginations, help them be their best and empower them to create positive change. We do this by helping young people develop the digital skills of the future, supporting entrepreneurs to develop ideas that drive social change and inspiring collective solutions to society's most pressing issues.

Our Digital Imagination program is rooted in a deep belief that technology can help people do great things. After all, the internet is nothing without people.

Future makers

We're creating exciting ways for young people to thrive in the digital economy and use essential new skills to generate a positive social impact. Our Future Makers Awards challenges 7 to 17-year-olds to use their coding superpowers to make positive changes in their communities. In 2018, we had awards and programs in Ireland, Romania, Belgium, Germany and Hungary. Harvey Brezina Conniffe (14), from Dublin scooped the 'Future Maker' prize at the seventh annual Coolest Projects International 2018 in Dublin for his project Intelligentia.

"Every year 9,179 people go missing in Ireland alone. A large percentage of these are at-risk people (the elderly and ill people). What if we could quickly locate these people before it's too late? Approximately 1.2 trillion photos were taken worldwide in 2017 and this number is just growing annually. Intelligentia is an app which when downloaded will passively monitor your photos and try to identify missing persons in the background. When the system locates these people it instantly notifies the relevant authorities. Who knows? Maybe your selfie could save a life." – Harvey, describing his award winning project.

We also created a social innovation online tool to reach even more young people through our partnership with Coderdojo. **coderdojo.com/future-makers-social-enterprise-bento-box/**

Original thinkers

In 2018, our Spark team conducted two innovation training programs to support and invest in our own innovators at Telenet and at UPC Poland. Some of the ideas that emerged from these training programs are great examples of how we can use digital technology to solve social problems and inspire social change. For example, two ideas developed by our colleagues at Telenet focused on improving the living conditions of elderly people by reducing malnutrition and through non-intrusive monitoring. Another idea focused on using Radio Frequency Identification technology to reduce biking accidents.

Collective solutions

We're bringing people together who can harness the power of digital technology to solve societal issues. We've sparked conversations throughout society that get people thinking about issues like smart living, lifelong learning, healthcare monitoring and digital inclusion. In 2018, we partnered with Unitymedia in Germany to launch our second challenge in Germany, where entrepreneurs submitted solutions to remove social barriers. The three winners earned seed funding and support to help them scale their solutions. See for more information on this year's winners.

DIGITAL IMAGINATION CASE STUDY

DI Germany

The digital transformation has revolutionized our everyday lives. However, innovative products and creative solutions often can't be used by everyone or unknowingly exclude people.

Websites can be inaccessible, app functionality can often be overly complex and very few digital solutions are designed to help disabled people overcome the barriers of the physical world.

At Liberty Global we passionately believe in the power of digital technology as a force for good. That's why we created The Digital Imagination Challenge. There is a significant opportunity for new ideas to help drive positive change for society.

For a second year, Unitymedia has launched the Digital Imagination Challenge in Germany. Together with Sozialhelden, a not-for-profit organization that develops creative projects to address social problems, and Impact Hub Berlin, a network of collaborators focused on creating positive impact, Unitymedia has sought to make digital inclusivity a reality.

The social innovation competition focused on the development of digital solutions which minimize the barriers to inclusivity. The winner of the second Digital Imagination Challenge was EiS app. EiS is an inclusive language learning app created to help young people with speaking difficulties communicate with their peers. The app describes words through a combination of symbols, audio, written word and video, making it accessible for all users, and giving children the opportunity to better communicate through the use of gestures.

Other submissions included a magazine for deaf people that integrates sign language and links text, image and video in a multimedia way and an online platform that brings together makers, people with disabilities and more creative minds across disciplines to develop collaborative and affordable tools for social inclusivity.

At Liberty Global we want to make the digital world accessible for everyone. We are proud to support these fantastic organizations to deliver real change for the community.

> Together with our partners Sozialhelden and Impact Hub Berlin, we continue to support and mentor even more amazing solutions that are really making a difference. The winning submissions — an inclusive language-learning app for children, an interactive lifestyle magazine for the deaf community and an online maker platform for affordable assistive devices — are not only highly innovative, but have the potential to change the lives of many people with disabilities.
>
> **Clare Bromiley**
> Corporate Responsibility Manager, Unitymedia

RESPONSIBLE CONNECTIVITY

Why it matters

Our world is becoming even more connected. With over 4.3 billion internet users around the globe, connectivity is now an essential part of everyday life for over 56% of the world's population. As the world's largest international TV and broadband company, we have a responsibility to ensure everyone, no matter where they are or what barriers they face in life, can make use of digital technology to achieve their full potential.

That means delivering exceptional service, protecting our customers' privacy and ensuring that as the bandwidth we provide grows, our impact on the planet doesn't grow with it. To provide outstanding connectivity while running a responsible, sustainable business, we focus on three main themes.

Trusted products

We're focused on delivering the best customer experience possible by transforming the way we help and support customers. We're investing in making our products and services more accessible while also being committed to protecting customer privacy and maintaining data security. Read more about our approach to securing customers' personal data on page 9.

We aim to make the digital world safe for everyone, especially our children, so we ensure our products and services offer parental control features that help parents keep children safe online. Our internet safety toolkits guide parents and teachers alike on how to empower young people of all ages to protect themselves as they explore the online world. You can find out more about this on page 10 and on our website.

Sustainable growth

We're working to ensure that as our business grows, our environmental impact doesn't grow with it. In 2018, our overall energy efficiency improved by 27% (per terabyte of data traffic generated). Our electricity consumption remained relatively flat, falling by 1% compared to 2017, and we decreased our total market-based emissions (scope 1, 2 & 3) by 36%, which takes into account the GHG intensity of the electricity we source. We also refurbished 2.6 million set-top boxes and modem units, avoiding 4,213 metric tons of waste that would otherwise have ended up in landfill. In 2018, we set science-based targets, in line with the COP 21 Paris agreement. We have committed to reducing our Scope 1 and 2 emissions by a minimum of 50% by 2030 and 80% by 2050 from our 2012 base year.

Our global environmental statement sets out our commitment to enhancing the energy efficiency of our operations, with a focus on energy use, carbon emissions and the management of electronic waste. We're committed to achieving a 15% energy efficiency improvement every year through to 2020.

Empowering people

To us, empowering people means developing the talents of our employees, investing in an inclusive, diverse and engaged workforce, and inspiring colleagues to make a difference in the communities where we operate.

A diverse and inclusive culture is critical to performance, and it takes many different ideas and initiatives to build. This year we partnered with the celebrated US non-profit organization - Women in Cable and Telecommunications - to support the establishment of a new chapter for Europe.

With over 10,500 members globally, the network recognizes and celebrates our industry's great female leaders and develops female talent within our industry via networking, development programs and recognition. We're proud to sponsor membership for our employees to drive diversity both within Liberty Global and across the industry, as WICT Europe also welcomes champions from across the telco, media and tech sectors.

As part of our commitment to helping our people achieve their potential, we invested nearly $13.8 million, achieving over 555,000 hours in employee training during 2018. In addition, our Step Forward graduate program enables graduates to spend two to three years rotating through teams, working on a breadth of projects. Last year, 108 graduates were hired as part of the graduate trainee program. By the end of 2018, a total of 183 were on the program.

We also continued to celebrate our employees' dedication to community causes. In 2018, 500 employees cycled and ran at the Big Ride for Africa event and together they raised €1.3M for our charity partner Lessons for Life.

TRUSTED PRODUCTS

Customer privacy

As a provider of internet, telephone and television services, our customers' digital lives are entrusted to us. So every decision we make comes with an obligation to keep personal data safe. 'Digital safety' comprises two main strands, customer privacy and data security, and because they're closely linked, our teams work together to protect them.

In 2018, we implemented a GDPR readiness program, in which more than 250 employees across our footprint worked together to further automate privacy processes. Making sure all employees were informed about the GDPR and its implications, an internal awareness campaign was launched, including videos, resource centre and business briefings.

We lived up to our promise to give customers more control over their data by enhancing our Data Subject Access Request processes. Additionally, our privacy statements have been updated to be more transparent about what we do with our customers' data.

Every organization in the Liberty Global family has now appointed their own Data Protection Officers, to oversee privacy and data protection issues. These DPOs report directly to our most senior people, ensuring privacy remains a topic on the agenda in the board rooms.

Data security

We define data security as the measures that we take to protect the confidentiality and integrity of our customers' data. It's a priority for us because our customers trust us with their data and we work hard to maintain that trust. Today, with awareness of the importance of data security at an all-time high, there is increased demand from customers, shareholders and regulators for stronger, more secure practices.

In 2018, we continued to develop our security policies across Liberty Global and addressed a number of security risks and issues. In the ever evolving threat landscape, security is a constant challenge and we work closely across all of our entities to ensure that we implement appropriate security controls to protect our assets and our customers' assets. We continued to expand our Global Security team and invested in new tools and systems across our business areas. Additionally, we stepped up the security training that we provide to staff and continued building strong external partnerships with the public and private sector to enhance our capabilities.

OUR SUPPLY CHAIN

In 2018, we strengthened the four-step process we utilize in collaboration with suppliers to improve products and services, mitigate risk and identify new opportunities.

Requirements

We updated our Responsible Procurement and Supply Chain Principles to reinforce what we expect from our suppliers in terms of labor practices, forced labor, collective bargaining and privacy and security.

Alignments

All new procurement employees now have access to responsible training and we incorporate responsible procurement updates in our quarterly Procurement newsletter. We've continued to integrate Environmental, Social and Governance indicators into our procurement processes. Suppliers' EcoVadis assessment scores are now weighted and form part of our Procurement Supplier Risk Assessment Framework. This allows us to monitor and react to high-risk suppliers more effectively.

Assessments

In 2018, we used the EcoVadis tool to assess 156 suppliers. Suppliers were selected using our own risk-based framework that identifies our highest-risk suppliers against pressing issues such as conflict minerals, modern slavery and environmental sustainability.

Dialogue

In 2018, 33 suppliers were issued 117 corrective actions to improve their performance, based on our assessments.

TRUSTED PRODUCTS

Customer experience

Customer behavior is changing and, at Liberty Global, we're changing with it. Our Customer Experience Operations team has launched an exciting new project to simultaneously strengthen customer relationships, improve customer satisfaction and increase our operational efficiency.

Because we're committed to providing our customers with the best experience possible, we want them to be able to contact us however and whenever they choose. That means making a range of more flexible communication tools available, starting with a new service for customers to be able to contact us. Rather than waiting for an agent to become free, customers now have the opportunity to start a messaging conversation with us. Alongside this, we're also introducing in-app messaging as a key component of our future apps and providing greater management of our social media channels.

In 2018 we continued to launch new projects to accommodate the changing customer behaviour we have seen over the last years. After our successful implementation at Virgin Media Ireland in 2017, we have started rolling out our messaging capability in Switzerland, Germany and the UK.

This will enable our Customer Care Organizations to support the way our customers want to interact with us on a daily basis. Integration will happen with existing customer apps like Facebook Messenger, WhatsApp and Apple iMessage and at the back end our customer relationship management and knowledgebase platforms will seamlessly provide the right information to any customer query.

Next to that, Liberty Global has invested significantly in modernizing its existing customer care support systems bringing the latest care technologies to its contact centers. This includes a best in class customer communication platform aimed at routing our customer to the right contact center agent who can support them and new cutting edge analytical tools that can truly identify the reasons our customers are contacting us. With successful launches in our major markets such as the UK and Germany, we also leveraged these technologies in our smaller markets. Today the Czech Republic, Poland and Romania are using them to take their customer support to the next level.

Looking forward, Liberty Global continues to seek new opportunities in the digital world, where emerging technologies such as Artificial Intelligence and Robotics will increase our commitment to provide a best in class customer experience.

Protecting children online

Our strategy focuses on educating and empowering children, parents and teachers. We provide online parental controls and safety educational materials while taking an active role in the development of self-regulating practices that ensure children's privacy and safety.

We build privacy and protection into the foundation of every new technology product. Our 'Privacy by Design' process introduces a range of protective measures, from stringent vulnerability checks to built-in prevention against hacking. Our Horizon 4 TV Box, for example, includes configurable parental controls to stop children accessing certain content.

Since 2007, we've supported the annual Safer Internet Day campaign that promotes safe and responsible use of online and mobile technologies in over 100 countries, From the same year, we began working with European Schoolnet to create toolkits for families, educators and children of all ages to keep children safer online. To date, we've produced and distributed more than 1.8 million of these toolkits.

We're also a founding member of the eSafety Label project, an accreditation scheme helping schools review and implement eSafety practices. The associated portal, used by over 4,500 teachers in Europe, provides resources like suggested lesson plans and classroom policies. This scheme gives us the opportunity to reach up to 1.6 million children who are attending schools already signed up to the eSafety Label project.

In the UK, Virgin Media's Switched on Families site offers parents, grandparents and caregivers practical guidance about staying safe online. Additionally, Virgin Media have joined forces with other industry members to support Internet Matters, the UK-based organization offering advice and information on tackling e-safety issues.

Meanwhile, Virgin Media Ireland has begun a three-year partnership with the National Parents Council Primary to deliver internet safety sessions. So far, the combined initiative has delivered almost 800 sessions to more than 12,500 parents.

Our determination to help formulate self-regulating practices that ensure children's privacy and safety online meant that in 2017, we joined our industry peers and NGO'S, in the European Commission's Alliance to Better Protect Minors Online. As part of signing up to the Alliance, we took the opportunity to publicly state our commitment to protecting young people in the digital world.

Our long-term ambition

In a rapidly evolving digital landscape, our ambition is to protect children from any potential risks while encouraging them to explore and enhance all that is positive within their online world. We intend to integrate child safety features in all our new products at the same time as we help to create a better internet for children by empowering them to be digitally respectful and confident citizens.

As our digital world continues to expand, it is our young people who are at the forefront of change. Children now start their digital journey before they can even walk or talk and they are society's most connected age group. With this great opportunity comes an important responsibility to protect the next generation, and teach them how to use the internet as a force for good.
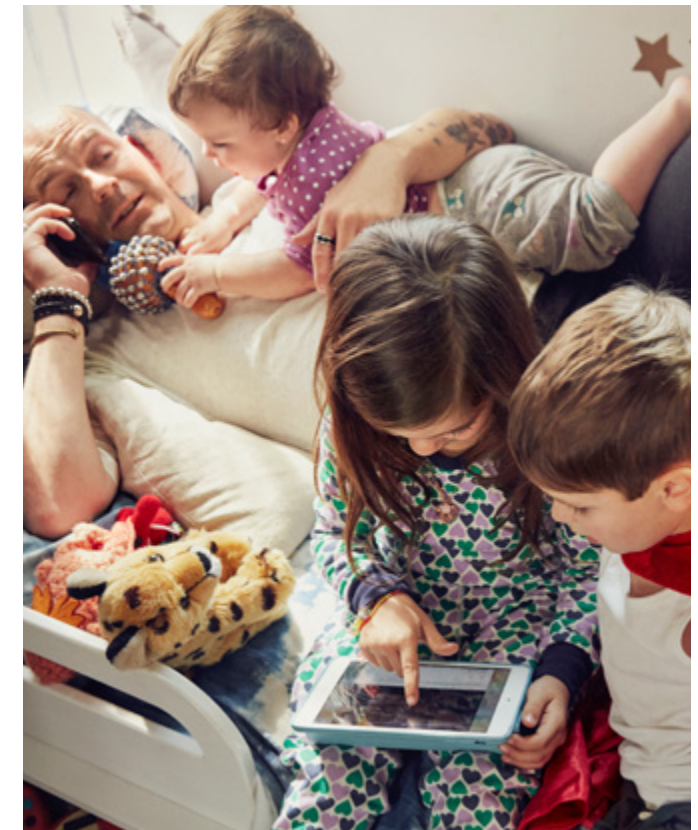
SUSTAINABLE GROWTH

Adaptive Power Challenge

The cable industry is at a turning point when it comes to network energy consumption. There's a huge opportunity to embrace adaptive power and create a more efficient way for broadband providers to use energy.

Our Liberty Global Connected Purpose strategy commits us to making sure that as our business grows, our environmental impact doesn't. Energy is currently responsible for 2% of our operational expenditure and 90% of our carbon emissions come from the energy that powers our networks. Efficient use of energy is an essential step in Liberty Global's journey towards environmental and social sustainability.

To help realize this ambition we created The Adaptive Power Challenge, in partnership with Comcast and SCTE+ISBE. More than just an ideas contest, we're empowering the brightest minds to unlock their imagination and harness the power of technology to create real change.

In 2018, our first round of applicants submitted ideas across the following focus areas: Monitoring and measurement, demand and response and supply and control. Six submissions were selected by a panel of judges and experts to take part in a final pitch during October 2018 in Atlanta. The innovative winners of The Adaptive Power Challenge 2018 were Teleste and SOFC.nl Holding BV.

As part of the Enterprise Category, Teleste presented their project 'Make Sense'. This offered three alternatives for operating existing amplifiers with lower bias current, when lower network usage allows amps to run below their 1.2GHz maximum capacity, while keeping the quality of end-use experience intact.

In the Breakthrough Category, SOFC.nl Holding BV were successful with their Distributed Negative Emission SOFC Power submission. The innovation has the potential to address increasing energy demands by using small Solid Oxide Fuel Cells to directly supply additional power at the required location.

Through collaboration with entrepreneurs and SMEs, we can scale and fund innovations that are good for our industry, the environment and for society. Our first cohort of Adaptive Power Challenge applicants are delivering creative responses to the challenge of efficient energy use in the cable industry and we are excited to support them.

> We're grateful to our partners after winning the Adaptive Power Challenge in the Breakthrough Category! We look forward to serving the cable sector with our distributed power solution, offering negative CO_2 emissions and drastically reducing the industry's carbon footprint.
>
> **Diederik Jaspers, SOFC.nl Holding BV**
> Winner of the Adaptive Power Challenge in the Breakthrough Category

SUSTAINABLE GROWTH

Science based targets

Liberty Global has become the world's first cable operator to set ambitious science-based targets to reduce Scope 1, 2 and 3 carbon emissions.

Significant reductions in greenhouse gas emissions are crucial if we are to achieve the goals of the COP21 Paris Agreement – to limit global warming to below 2°C above pre-industrial levels and pursue efforts to limit warming to 1.5°C, while creating a world that is environmentally safe and socially just. We understand our responsibility, recognize how we're contributing to the problem and are acting now to set an example for our industry and beyond.

We have committed to reducing our Scope 1 and 2 emissions by a minimum of 50% by 2030 and 80% by 2050 (at a 2012 base year). We will reduce our Scope 3 emissions by 15% by 2030 (at 2012 base year). Our Scope 3 target is an efficiency target measured in tons of CO_2e per total number of homes passed. We chose homes passed as a measure as it indicates the size of our network.

We have set these targets for the good of the planet and society but also for the health of our business. The targets will help drive us to develop and adopt innovations in our operations, become more efficient in our energy use and increase our renewable energy mix.

Our commitments are supported by action right across our business. For example, we introduced free air technology and phase changing material to our sites to reduce the total energy expenditure of cooling. Investments in new technologies such as Remote-PHY, a distributed cable access architecture, provides a network that is faster, more scalable and easier to operate for our customers while also reducing energy expenditure. We're also working with teams across the business to identify old equipment to be replaced with energy efficient innovations.

But this is just the start. To credibly tackle our targets, we're putting long-term plans in place that engage teams from across the business to significantly cut our carbon emissions, from product to operations.

EMPOWERING PEOPLE
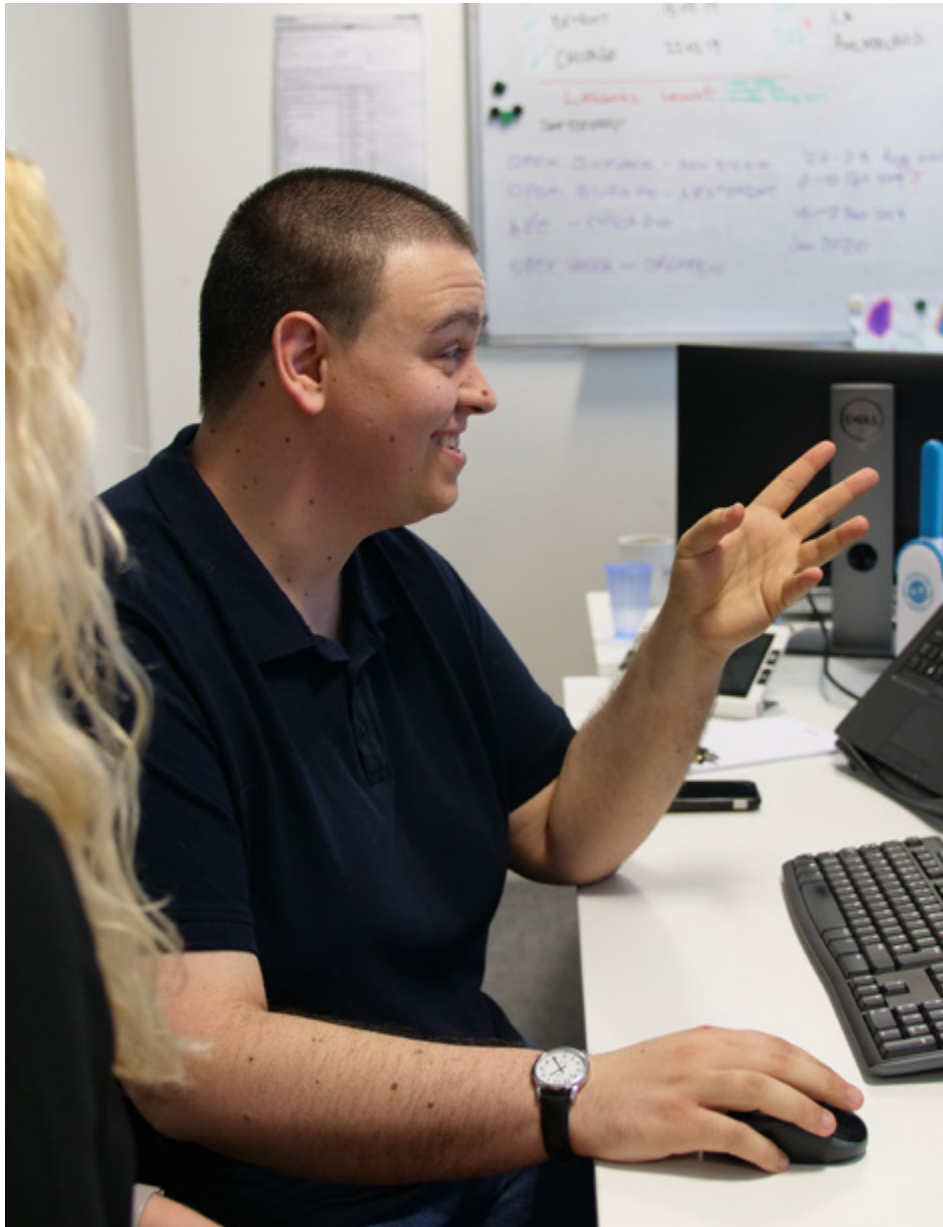
Virgin Media Inclusion

At Virgin Media (UK) we are working to create a more inclusive culture that represents the customers and communities we serve, while enabling our people to thrive at work.

We've made significant progress to remove internal barriers for our disabled employees, including overhauling our workplace adjustments process and reducing the delivery time for adjustments in volume recruiting from 12 weeks to one. We've also launched our first employee disability network and are empowering our line managers with disability guides.

Much of our work to make Virgin Media more inclusive for our disabled employees and customers has been delivered through our long-standing partnership with pan-disability charity, Scope. But we don't just want to stop there. This year we're developing a platform for other businesses to transform their own organizations to be more inclusive for disabled people through our #WorkWithMe community.

Our work with Scope has moved beyond a traditional charity partnership to one with an aligned strategic purpose. Scope exists to make the UK a place where disabled people have the same opportunities as everyone else. We recognize that with our digital capability we can help accelerate that positive change and Scope are the perfect partners to help us better understand what we need to do to transform the support we give to our disabled employees and customers.

Last year with Scope we launched a new innovative digital employment service. 'Support to Work' provides individual tailored support and a suite of online content for individuals and organizations. In 2018, the service provided 121,525 disabled people with the skills, advice and confidence they need to get into and stay in work.

'Support to Work' not only helps impact the people that need it the most, but also creates evidence for a more disruptive employment support system that can be delivered digitally and voluntarily. We believe that our work with Scope will continue to revolutionize the wider employment support market, highlighting new and innovative ways to tackle the limitations of more traditional approaches and mandatory schemes.

> " Over the years we have heard many reasons disabled candidates don't apply for jobs. They may not believe employers value their skills or are set up to accommodate physical conditions. This definitely isn't the case at Philips and it is the reason we have signed up for the #WorkWithMe pledge. We believe organizations can and should do more to share best practices about how to integrate talent regardless of physical, mental or learning abilities. We want to be a part of and to also inspire new and more inclusive ways of working. Although we are constantly looking for ways to improve our own programs, we also hope that some of what we have already implemented can help set an example for others.
>
> **Jonathan Coles**
> Head of HR, Philips UKI, #WorkWithMe Pledgee "

PERFORMANCE SUMMARY

Community Investments*

Community Investments[1]	Measure	2018	2017	2016	2015	2013
Total Community Investments	$ million USD	6.7	10.5	16.1	13.6	9.6
Cash	%	79%	84%	39%	44%	71%
Time	%	7%	5%	4%	5%	6%
In-kind	%	14%	11%	56%	51%	23%
Employee volunteering time	hours	16,643	18,377	26,856	25,092	18,791

*Our CR Scope changed from 2017 to 2018. UPC Austria was divested. The table above is the restated table removing Austria from 2013-2018

Empowering People

Total workforce and breakdown by employee category (GRI 102-8, 405-1)	Measure	2018			2017			2016			2015			2014			2013		
Workforce including outsourced employees (Headcount, year end)																			
Employees	Number		27,489			27,938			28,104			27,609			27.705			28,432	
Outsourced employees	Number		24,328			25,224			23,312			18,054			16,951			18,549	
Total[2]			51,817			53,162			51,416			45,663			44,656			46,981	
Employees by region and gender (headcount, year end)		Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
North America	Number	67	66	133	93	84	177	82	70	152	79	64	143	71	58	129	66	56	122
Europe	Number	17,841	9,515	27,356	18,094	9,715	27,809	18,237	9,715	27,952	18,076	9,390	27,466	18,245	9,331	27,576	18,663	9,647	28,310
Total (LG)	Number %	17,908 (65%)	9,581 (35%)	27,489	18,187 (65%)	9,799 (35%)	27,986	18,319 (65%)	9,785 (35%)	28,104	18,155 (66%)	9,454 (34%)	27,609	18,316 (66%)	9,389 (34%)	27,705	18,729 (66%)	9,703 (34%)	28,432
Employees by contract type (headcount, year end)																			
Employees on permanent contracts	Number		26,308			26,678			26,942			26,170			26,298			26,742	
Employees on temporary contracts	Number		1,181			1,261			1,162			1,439			1,407			1,690	
Employees by employment type (headcount, year end)																			
Employees in full-time employment	Number		25,527			25,369			25,398			25,083			25,371			25,415	
Employees in part-time employment	Number		1,962			2,570			2,706			2,526			2,334			3,017	
Employees by age group (headcount, year end)																			
Employees under 30 years old	Number		5,823 (21%)			6,142 (22%)			6,184 (22%)			6,299 (23%)			6,544 (24%)			7,726 (27%)	
Employees 30 - 50 years old	Number		17,357 (63%)			17,496 (63%)			17,757 (63%)			17,637 (64%)			17,601 (64%)			17,347 (61%)	
Employees over 50 years old	Number		4,309 (16%)			4,300 (15%)			4,163 (15%)			3,673 (13%)			3,560 (13%)			3,359 (12%)	
Women in management																			
Percentage of management positions filled by women	%		30%			31%			30%			28%			29%			30%	
Percentage of Executive Management positions filled by women	%		12%			6%			11%			13%			9%			11%	
Employee training (GRI 404-1)																			
Average training hours (Hours per FTE)	Number		21			25			29			27			24			21	
Average training investment ($USD per FTE)	USD		523.45			469.9			536.77			657.01			682.5			618.34	
Occupational health & safety (GRI 403-2)[3]																			
Injury rate (per 200,000 hours worked)	Number		0.81			0.71			0.79			3.32			2.37			2.51	
Occupational disease rate (per 200,000 hours worked)	Number		5.04			4.81			4.4			5.79			5.93			0.42	
Lost day rate (per 200,000 hours worked)	Number		23.99			25.85			32.56			30.14			33.34			75.7	
Absentee rate (% of total workdays)	%		6%			5%			6%			5%			5%			5%	
Work-related fatalities	Number		0			0			0			1			0			0	

Empowering People

New employee hires and employee turnover (GRI 401-1)	Measure	2018			2017			2016			2015			2014			2013
New employee hires by region and gender (headcount, year end)		Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Total
North America	Number	18	18	36	26	21	47	10	17	27	13	13	26	8	7	15	24
Europe	Number	3,472	2,114	5,586	3,382	2,310	5,692	3,503	1,891	5,394	3,092	1,951	5,133	2,559	1,519	4,078	4,604
Total	Number	3,490	2,132	5,622	3,408	2,331	5,739	3,513	1,908	5,421	3,154	2,005	5,159	2,567	1,526	4,093	4,628
Rate of new hires (%)[4]				20%			21%			19%			18%			15%	16%
New employee hires by age group (headcount, % of total)																	
under 30 years old	Number			2,828 (50%)			2,933 (51%)			2,763 (51%)			2,478 (49%)			2,109 (52%)	2,569 (56%)
30 - 50 years old	Number			2,465 (44%)			2,451 (43%)			2,327 (43%)			2,303 (45%)			1,830 (45%)	1,936 (42%)
over 50 years old	Number			329 (6%)			344 (6%)			3381 (6%)			288 (6%)			154 (4%)	123 (3%)
Employee turnover by region and gender (number of leavers)		Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Total
North America	Number	11	20	31	17	6	23	11	15	26	6	7	13	3	5	8	7
Europe	Number	3,710	2,277	5,987	3,762	2,389	6,151	4,162	2,146	6,308	3,204	1,720	4,924	2,971	1,758	4,729	4,483
Total	Number	3,721	2,297	6,018	3,779	2,395	6,174	4,173	2,161	6,334	3,210	1,727	4,937	2,974	1,763	4,737	4,490
Rate of total employee turnover (%)[4]				22%			22%			23%			18%			17%	16%
Employee turnover by age group (number of leavers, turnover rate by age)																	
Total leavers — under 30 years old	Number			2,207 (38%)			2,254 (37%)			2,066 (33%)			1,715 (27%)			1,732 (26%)	1,720 (22%)
Total leavers — 30 - 50 years old	Number			3,155 (18%)			3,213 (11%)			3,494 (12%)			2,702 (9%)			2,564 (9%)	2,279 (8%)
Total leavers — 50+ years old	Number			656 (15%)			800 (3%)			867 (3%)			605 (2%)			502 (2%)	532 (2%)
Employee performance reviews (GRI 404-3)																	
Employees reviewed	%			98%			96%			95%			97%			97%	95%
Employee performance review — by gender & employee category	%																
Percentage of appraisal — executive management (men)	%			100%			100%			100%			98%			100%	94%
Percentage of appraisal — executive management (women)	%			100%			100%			100%			100%			100%	100%
Percentage of appraisal — senior management (men)	%			95%			99%			94%			96%			98%	100%
Percentage of appraisal — senior management (women)	%			97%			96%			93%			98%			99%	95%
Percentage of appraisal — managers/supervisors (men)	%			99%			97%			95%			97%			97%	95%
Percentage of appraisal — managers/supervisors (women)	%			98%			95%			94%			97%			97%	96%
Percentage of appraisal — non-management (men)	%			99%			98%			98%			97%			98%	96%
Percentage of appraisal — non-management (women)	%			97%			94%			90%			96%			96%	93%

Sustainable Growth

Energy intensity (GRI 302-3)	Measure	2018	2017	2016	2015	2012 (base year)
Energy intensity	kWh of electricity / TB of data usage	30	42	66	88	278
Electricity generated from onsite renewables	GWh	0.57	0.42	0.38	0.23	0.13
Waste by type and disposal method (GRI 306-2)						
Total waste generated — reuse	metric tons	n/a	905	140	262	174
Total waste generated — recycling onsite waste (excl. composting)	metric tons	11,430	11,961	9,363	9,747	6,385
Total waste generated — incineration	metric tons	2,609	2,758	2,394	2,063	1,621
Total waste generated — landfill	metric tons	2,809	2,449	2,626	2,750	5,030
Total waste generated — composting	metric tons	79	81	108	144	177
Total waste generated	**metric tons**	**16,927**	**18,154**	**14,632**	**14,966**	**13,387**
% of waste recycled & reused	%	68%	71%	65%	67%	49%

Sustainable Growth

Energy consumption (GRI 302-1, 302-4)	Measure	2018	2017	2016	2015	2012 (base year)
Non-renewable fuel						
Diesel	GWh	117.73	115.55	115.29	115.47	60.01
Petrol	GWh	12.13	11.95	12.69	16.66	19.68
Natural gas	GWh	34.94	38	36.29	38.74	47.49
Burning oil	GWh	0.03	0.04	0.01	0.01	0.05
Gas oil	GWh	1.6	1.59	1.84	2.06	2.52
Fuel oil	GWh	0.37	0.31	0.41	0.44	2.67
Aviation fuel	GWh	6.09	9.47	11.07	11.1	12.7
CNG	GWh	0.01	0.01	0	0	0
LPG	GWh	0	0	0	0	0
Total	**GWh**	**172.88**	**176.92**	**177.59**	**184.48**	**145.13**
Electricity, heating & cooling						
Electricity	GWh	1,051.94	1,065.49	1,054.87	1,034.44	990.52
Heating & cooling	GWh	4.1	3.38	2.12	2.29	n/a
Total	**GWh**	**1,056.04**	**1,068.87**	**1,056.99**	**1,036.73**	**990.52**
Electricity sold						
Electricity sold	GWh	0.01	0.01	0.01	0.01	0.05
Total energy consumption[5]	**GWh**	**1,228.91** ⊚	**1,245.78**	**1,234.57**	**1,221.20**	**1,135.59[5]**
Carbon emissions (GRI 305-1, 305-2, 305-3, 305-4)						
Scope 1 emissions	metric tons CO_2e	60,216 ⊚	59,151	55,131	54,586	68,346
Scope 2 market-based emissions	metric tons CO_2e	137,436 ⊚	283,788	386,907	418,002	435,933
Scope 2 location-based emissions	metric tons CO_2e	311,063 ⊚	350,953	379,424	351,373	418,007
Scope 3 emissions	metric tons CO_2e	61,341 ⊚	59,893	59,671	57,776	16,590
Total Scope 1, 2 & 3 market-based emissions	**metric tons CO_2e**	**258,992**	**402,831**	**501,708**	**530,365**	**520,869**
Total Scope 1, 2 & 3 location-based emissions	**metric tons CO_2e**	**432,619**	**469,997**	**494,226**	**463,736**	**502,943**
Carbon credits	metric tons CO_2e	8,627	8,473	8,627	12,306	n/a
Emissions intensity (scope 1 & 2 market-based)	metric tons CO_2e / TB of data usage	0.006 ⊚	0.013	0.028	0.04	0.142
Emissions from business travel	metric tons CO_2e	22,696	18,879	20,811	22,253	13,395
Emissions from 3rd party services and install vehicles	metric tons CO_2e	36,600	39,160	37,472	33,974	17,814
Water withdrawal by source (GRI 303-1)						
Total water use (municipal only)	m³ (water)	278,097	259,023	259,973.15	266,768.32	270,107.08
Total water use (onsite capture only)	m³ (water)	5,318	5,862	4,847.90	4,470.59	0
Total water use (inc. onsite capture)	**m³ (water)**	**283,415**	**264,885**	**264,821.05**	**271,238.91**	**270,107.80**
Environmental Initiatives (GRI 305-5)						
Emissions reductions from initiatives	metric tons CO_2e	4,809	4,051	4,446	1,729	n/a
Energy saved from initiatives	GWh	18	4	11	5	n/a
Cost savings from environmental initiatives	$ USD	286,810,618	259,010,198	297,088,440	368,676,816	n/a
Revenue generated from environmental initiatives[6]	$ USD	3,661,381	5,720,084	0	1,242,014	n/a

Total employee figures reported in the table are based on headcount at year end. In the text of the report, we have used the total number of full-time equivalent (FTE) employees including outsourced employees, which is 51,817.

1. Virgin Media UK's community investment data is not included in our 2012 results.
2. Aside from this total workforce figure, our social performance data does not include outsourced employees. (GRI 405-1).
3. Injury rate, Occupational disease rate & Lost days rate are calculated by dividing the total number of incidents by the total number of hours worked and multiplying the calculated figure by 200,000.
4. Rate of new hires & rate of total employee turnover are calculated by dividing the total number of new hires/leavers by the total number of employees.

For more information on our environmental reporting criteria, please visit: www.libertyglobal.com/responsibility/reporting-and-performance/

⊚ Data extracted from Liberty Global plc Annual Report and Accounts for year ending 31 December 2018 which was included within KPMG LLP's independent limited assurance scope.

5. Sum of total energy consumption from non-renewable fuel and electricity, heating and cooling, minus electricity sold.
6. In 2018, the scope of our reported data to includes only the top 20 global environmental initiatives.

n/a – data not available.

FORWARD LOOKING STATEMENT

This report contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, including statements with respect to our CR strategy and Connected Purpose. See pages I-4 and I-5 of the 2018 Annual Report on Form 10-K for a description of other forward-looking statements that are included in this CR Report and certain of the risks and uncertainties that could cause actual results to differ materially from those expressed or implied by such statements.

These forward-looking statements speak only as of the date of this CR Report. Liberty Global expressly disclaims any obligation or undertaking to disseminate any updates or revisions to any forward-looking statement contained herein to reflect any change in Liberty Global's expectations with regard thereto or any change in events, conditions or circumstances on which any such statement is based.

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