

HARNESSING TECHNOLOGY TO CREATE A BETTER WORLD

Corporate Responsibility
Summary Report 2019



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WELCOME TO LIBERTY GLOBAL'S 2019 CORPORATE RESPONSIBILITY (CR) SUMMARY REPORT.

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.

About this report

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

This report has been prepared in accordance with the reporting criteria and GRI standards: Core option. All data in this report covers the period January 1 to December 31, 2019, unless otherwise stated.

We report on our operations in 6 European countries under the consumer brands Virgin Media, 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 2019, we completed the sale of our operations in Germany, Hungary, Romania, Czech Republic and Luxemburg. Therefore, we have excluded these operations from our 2019 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 (U.K. Companies Act Annual Report, page 58) for the period ended December 31, 2019. This information is included in this Corporate Responsibility report and is highlighted on page 18. KPMG's full statement, including a summary of the work they performed, is available on our website.

Our 2019 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

2019 was an important year for Liberty Global. We significantly reshaped our business, creating and enabling national champions to challenge telco incumbents in our core markets, while strengthening our focus on being a purpose-driven company. Our Connected Purpose aims to affect positive change through technology, break down barriers through the power of connectivity, and ensure we are strong corporate citizens and environmental stewards in the communities in which we operate. Following are some of our key achievements during 2019.

We remained a leader in our sector on climate change with an unwavering commitment to reduce our impact on the environment. In 2019 we continued to improve our operations to meet our 2030 and 2050 science-based targets in line with the Paris Climate Accord. In fact, we were 40 times more carbon efficient compared to 2012. We also avoided more than 11,000 metric tons of carbon emissions and 2,500 metric tons of waste through our various environmental initiatives. Our Gigabit broadband deployments in cities throughout our operating territories and efforts to accelerate the transition to 5G will underpin a low-carbon economy, while revolutionizing healthcare, flexible working regimes and countless other aspects of our lives.

Our commitment to diversity and inclusion was paramount to many of our 2019 initiatives, including Virgin Media's partnership with Scope to transform the lives of disabled people through digital technology. The partnership's ground-breaking campaign, "Work with Me," tackled the discrimination many disabled people face while seeking employment. By end of 2019, we helped over 540,000 disabled people find and stay in work opportunities. In other areas, we continued to strengthen our Responsible Procurement & Supply Chain principles, actively monitoring the employment practices, slave labor, collective bargaining and privacy policies of our suppliers. We were a founding partner of the newly-launched Women in Cable and Telecommunications European Chapter, focusing on gender diversity and inclusion in our industry. And last year, more than 340 Liberty Global colleagues raised over €1 million for our charity partner Street Child, working to create educational opportunities for some of the most vulnerable children in Africa and Asia. Diversity, equity and inclusion will continue to be major focus areas for us in 2020 and beyond.

At the heart of our Connected Purpose framework, our longstanding initiatives spark social innovation and entrepreneurship. In the past year, our flagship "Digital Imagination" program, with its Future Makers Awards and Coolest Projects events, continued to promote the creativity of young people.

Our sponsorship of the STEAM Cup Challenge in the Netherlands, for example, virtually brought together over 400 young coders who showcased their "Smart City" inventions. In addition to our investments enabling and recognizing young innovators, our foundational programs to keep children safe online and protect data privacy, among many other initiatives, remained core to our Responsible Connectivity programs. In fact, in 2019 we created a toolkit to engage educators to address online safety at schools and have delivered more than two million toolkits to date.

Finally, the COVID-19 pandemic has provided a powerful reminder of the critical role that connectivity plays in our lives. As an essential service provider to families and businesses, our COVID-19 response has been strong and well-received in our markets. We have prioritized the safety and well-being of our employees and customers while maintaining the highest-quality video, voice and broadband services, despite exceptional demands on our networks. For employees, we expanded work-from-home plans and increased health measures within our offices. We also established a \$4 million Liberty Global Response Fund to help employees and their families significantly affected by the crisis. Our executive leadership team and board of directors pledged \$2 million to the Fund, which was matched by the company to support our employees in need. I am particularly proud of the creative ways we have also supported our markets. Telenet opened up free internet access for students in Belgium; VodafoneZiggo collaborated to launch a free telephone help desk for the elderly in The Netherlands; Virgin Media offered 2.7 million UK customers unlimited minutes to landlines and mobile numbers; and UPC Poland offered children's programming free of charge. In these ways, we've been helping alleviate some of the hardship, navigating the COVID-19 crisis together.

In summary, 2019 was a pivotal year for Liberty Global. We are proud of the work we are doing to be good corporate citizens and we are actively pursuing initiatives to ramp up and improve the impact we have on the world. Thank you for your interest in this report – we welcome your suggestions and comments.

Sincerely,



Michael T. Fries,
Chief Executive Officer



THE CHALLENGES OF TODAY



ENVIRONMENTAL PROTECTION

Changes to the Earth's climate are affecting our lives in an increasingly profound way.

The World Economic Forum's 2019 Global Risk Report¹ notes that five of the top ten global risks are related to climate change. Oceans filled with plastic waste, and scattered mountains of electronic waste highlight the ongoing planetary stress that humanity is creating. Around 50 million metric tons of e-waste is generated globally every year, with an average of more than 6 kg per person². As humanity continues to pressure the safe operating space constrained by our planetary boundaries we are seeing increased rate of biodiversity loss, increasing ocean acidification, water stress due to global freshwater use, and so on. Businesses are contributing to these problems, so they have a responsibility to be part of the solution. We must protect our planet and our environment now, for the sake of our future.

¹ http://www3.weforum.org/docs/WEF_Global_Risks_Report_2019.pdf
² Future E-Waste Scenarios 2019 <https://globalewaste.org/publications/>
³ <https://www.statista.com/statistics/617136/digital-population-worldwide/>

KEEPING EVERYONE SAFE ONLINE

The internet is possibly the most transformational phenomenon of our lives. It brings us access to news, entertainment, social media, education, research, trade and so much more.

The internet brings people together, which has become even clearer during the COVID-19 pandemic. Being online gives people new experiences through multimedia. It brings us opportunities to realise our potential through e-learning and helps us develop businesses with e-commerce. Now, we can even take a trip to the Doctor via e-health platforms.

With 4.57 billion unique internet users around the world³, the internet has become part of almost everything we do. Alongside the limitless benefits of internet activity, we advocate for vigilance and appropriate safeguards so everyone's internet presence can remain a positive, empowering experience. Just like there are threats in real life, there are those who pose threats to our safety online – cyberbullies, identity thieves, malicious data hackers, and cyber criminals.

The risk of internet abuse exists, and we want to protect everyone that uses the internet, from school children searching homework topics to e-commerce companies protecting their customer's data. We need to do everything we can to ensure a safe internet for all.



DIVERSITY & INCLUSION

We're happy our global community is made up of people with diverse backgrounds, cultures, preferences, perspectives, abilities and physical features.

Many of these people, for different reasons, have been historically disadvantaged by society. Their rights have been challenged and their access to meaningful work and economic activity has been limited. A well-known example of exclusion is gender - although women form half the global population, only 29% of senior business management is female. Ethnic minorities, LGBTQ groups and differently-abled people face similar challenges in realising their full potential because of social barriers. Real systemic change will come when we accept that our collective success depends on welcoming others and valuing the difference they bring in all walks of life. Research is telling companies that workplaces with more culturally and ethnically diverse executive teams are 33% more likely to see better-than-average profits. It's so important for businesses like ours to take the lead in creating a culture of inclusion. We want to continue celebrating diversity in our workplace, communities and society as a whole.



OUR MATERIAL ISSUES

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

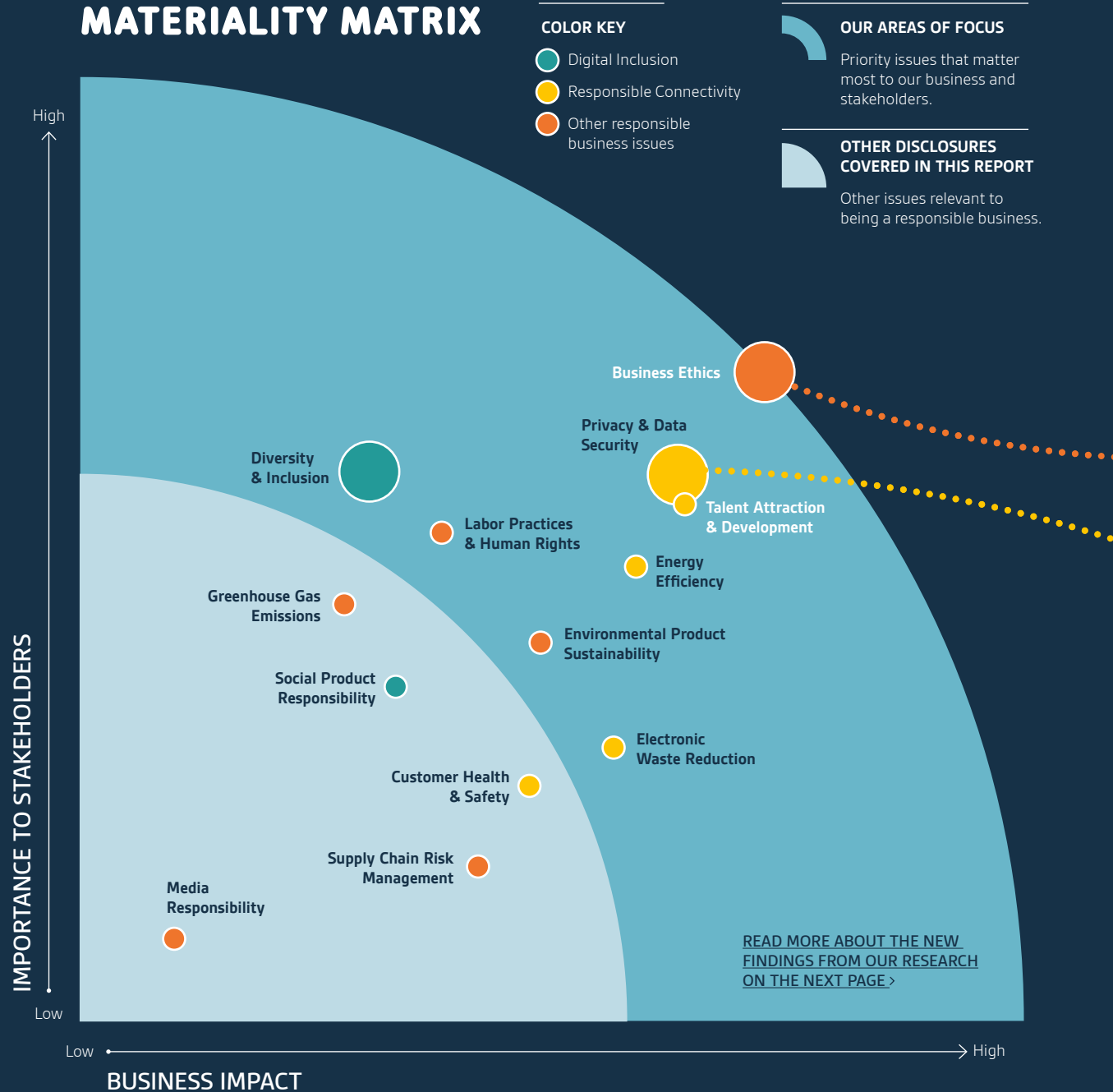
In 2019 we conducted a new materiality study to ensure that our strategic direction continues to reflect the changing interests and expectations of our business leaders and stakeholders. We consulted stakeholders including, customers, employees, investors, policy makers, suppliers, industry associations, and NGO's to understand their priorities and expectations. To do this, we conducted an analysis of factors that affect our material impacts including:

- The material priorities generated through engagement with local stakeholders in our operating companies: Virgin Media, UPC, Telenet and VodafoneZiggo;
- A peer review of leading telecommunications companies and the issues they present as material for their businesses and their associated social impacts;
- General priorities defined by sustainability frameworks such as the Global Reporting Initiative (GRI) and the Sustainability Accounting Standards Board (SASB);
- Material issues identified by ESG ratings and standards Global E-Sustainability Initiative (GeSI) materiality report; and
- Identified our business impact on society (ESG) with cross functional team of experts in our operations.

We therefore recognize the top 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.

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.

[READ MORE ABOUT THE NEW FINDINGS FROM OUR RESEARCH ON THE NEXT PAGE >](#)

OUR AREAS OF FOCUS EXPLAINED



RENEWED FOCUS ON BUSINESS ETHICS

Business ethics have become essential to trust - we want to be the best business we can possibly be.

A high standard of corporate governance, transparency and responsible business policies and practices is what's expected of businesses today, and rightfully so. A fully embedded commitment to doing business ethically brings considerable benefits such as improved consumer perception, greater investment, and increased employee motivation and engagement. Sound governance is now paramount in generating trust, ensuring we operate with integrity, honesty, and transparency.

DIVERSITY AND INCLUSIVITY IS KEY TO SUCCESS

Diversity and inclusion are about creating communities where everyone is welcome and everyone has the same opportunity to thrive.

At Liberty Global our core strength lies in our diverse workforce. This powerful building block is rooted in the many different nationalities, races and cultural backgrounds of our people. Our corporate office in Amsterdam, for instance, is made up of 1,500 people from more than 50 different countries from Europe, the Americas, Africa, Asia, the Middle East and Australia. This mix of races, ethnicities and genders from virtually every part of the globe, each with unique talents and strengths, inspires and empowers one another. During these challenging, uncertain times, a diverse workforce has helped us live our core values of "United" and "Limitless." We know this is a journey and we are redoubling our commitment to further build out this foundation while encouraging and empowering our operating companies, vendors and partners to create more diverse, equitable and inclusive cultures.

DATA AND PRIVACY HAVE BEEN IDENTIFIED AS A RISK FACTOR

As the world is becoming increasingly more dependent on technology to engage in normal daily activities, we must ensure that privacy remains a fundamental right.

Protecting the right to privacy starts with ensuring customers' personal data is secure. GDPR has established a strong standard for privacy and data protection by empowering people to take control of their personal information. Securing personal data and being transparent to customers about their data options and usage is essential to ensuring trust and mitigating risk.



ENVIRONMENTAL TOPICS HAVE REACHED PEAK IMPORTANCE

Climate change is the most significant global challenge of today. Our job as a responsible business is to address it.

As outlined in the Paris Climate Agreement, keeping temperatures at 1.5°C requires unprecedented climate action. It is imperative that businesses like ours take action to reduce greenhouse gas emissions, improve energy efficiency and substantially reduce waste generation. If we don't, the climate risks would be catastrophic. While the inherent risks are reason enough, there is also a clear business case for working towards improving environmental performance. Improving operational efficiency means long-term financial savings for the business and has a positive impact on reputation.

CONNECTED PURPOSE

EMPOWERING POSITIVE CHANGE THROUGH TECHNOLOGY

The internet is one of the most powerful tools ever invented. But it's what we do with it that counts – that's up to all of us.

We're focused on the positive, enabling the 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. We engage with key internal stakeholders and external experts to shape our strategy. Our 'Connected Purpose' approach helps us maximise our potential for guiding digital technology towards positive change in the world today.



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

**READ MORE ABOUT ABOUT
DIGITAL IMAGINATION**

P.8



**PERFORMANCE
SUMMARY**

P.18



Future Ambition

As the digital world keeps expanding, we want to focus on protecting the data and privacy of our customers. We aim to grow our business in a responsible, sustainable way and continue to ensure digital access for everyone in our communities. We truly believe in the power of technology to drive social change.



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

**READ MORE ABOUT
RESPONSIBLE CONNECTIVITY**

P.10



WHAT HAPPENED IN 2019?

Throughout 2019, our people came together to support our Connected Purpose strategy. Their collective efforts were rewarded with results that make a significant difference across all our operating regions. Here are some of that year's highlights:

342 EMPLOYEES PARTICIPATED IN THE BIG RIDE FOR AFRICA, raising over €1 Million for Street Child



Virgin Media in the UK has supported

542,549 DISABLED PEOPLE TO GET INTO AND STAY IN WORK

through their partnership with Scope, over halfway to reaching their 2020 goal of 1 Million

DIGITAL IMAGINATION

RESPONSIBLE CONNECTIVITY



Served **6.3 MILLION MOBILE SUBSCRIBERS**

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



Supported over **20,000 employees** globally

Provided **9 MILLION** WiFi hotspots in Europe

Refurbished **1.5 million** set-top boxes and modem units combined, avoiding **2,515 metric tons** of waste that would have otherwise ended up in landfill

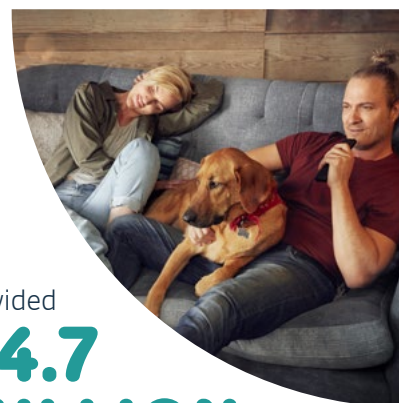
PERFORMANCE SUMMARY



Became over

40X MORE CARBON EFFICIENT than in 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 **11,207 metric tons** of carbon emissions and saved **\$141 million** through environmental initiatives



Connected **10.7 MILLION** customers

Remodelled our **Science Based Targets** in line with new business structure. Reduced our Scope 1 and 2 emissions by **7%**, exceeding our annual goal and setting a solid base to reach our 2050 goal faster



LAUNCHED DIGITAL IMAGINATION CHALLENGES

in Ireland, the Netherlands and Poland

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



Why it matters

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.

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 to develop digital skills and supporting entrepreneurs to develop ideas that drive social change and inspire collective solutions to some of society's most pressing issues.

DIGITAL IMAGINATION



Future Makers

We're coming up with some exciting ways for young people to thrive in the digital economy and use their new skills to make 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. We hosted awards and programs in Ireland, Hungary and the Netherlands throughout 2019.

Bence Boér, Ambrus Tóth and Péter Szigeti took 1st prize at UPC Hungary's local Future Makers competition with their FoodOverflow website which aims to use technology to end food waste and starvation. Their project was so impressive that they went on to win the top Future Makers prize at the eighth annual International Coolest Projects competition in Dublin. The judges were excited with the potential it has to have a large impact on society. It is estimated that nearly one third of all food produced is wasted globally; this equates to around 1.6 billion tonnes of waste (that's enough to end starvation). Food Overflow has gone on to create an active community website where they are engaging the local community to give food that would otherwise have been thrown away to those in need.



Original Thinkers

The Spark Innovation Team expanded its portfolio with more ways to improve and inspire innovation throughout the company. Through the idea collection platform, the Spark team hosted ideation campaigns in multiple languages, across all of the operations. Lots of colleagues contributed their ideas to help solve business challenges.

During the four-week-long ideation campaign, the "Help Our Street Cabinets Beat the Heat", colleagues searched for solutions to prevent outages in our nodes from overheating. Four ideas made it through for trialling and concepting. One stand-out idea was submitted by Dani Taboada Parga, Director of Digital Confidence. It has resulted in using pads made from phase-changing material which absorb the heat during the day and release it during the night. Applying these to our street cabinets not only reduces costs for the company, but also contributes towards a more sustainable world.

Matchbox is Spark team's two-day innovation training program where colleagues are trained in Lean Start-Up methodology. They work for the opportunity to pitch their ideas (Dragon's Den style!) to senior management to win funding. One successful pitch came from Mike Robinson, Director of Entertainment Service Testing & Operational Effectiveness, who is creating an app that allows customers to return their leftover materials like plugs and cables to us, helping to reduce our carbon footprint and unclutter many wire-tangled households.



Collective Solutions

We're bringing digitally savvy people together to help solve societal issues. We've already sparked conversations throughout society that get people thinking about issues like smart living, lifelong learning, healthcare monitoring and digital inclusion.

In 2019, UPC Poland launched their 6th annual THINK BIG challenge. They added a new category called Think Social; looking at digital technology solutions that respond to social challenges like digital exclusion, accessible education, and participation in society. The category was won by Leżę i Pracuję, a marketing agency setup to give work to people with mobility disabilities. You can read more about the winning solution on the next page.



DIGITAL IMAGINATION CASE STUDY

UPC Poland

Digital transformation has revolutionised our everyday lives. However, innovative products and creative solutions often can't be used by everyone or unknowingly exclude people. We passionately believe in the power of digital technology as a force for good. That's why we created The Digital Imagination Challenge.

For a sixth year UPC Polska, in collaboration with Polish Ministry of Entrepreneurship and Technology, has launched the THINK BIG programme. THINK BIG was set up to support the development of new digital technology by young, innovative entrepreneurs, and for the first time, social innovators were awarded in the ThinkSocial category. This is a continuation of UPC Polska's commitment to support projects responding to social challenges under the Digital Imagination Challenge.

The Think Social category for new digital technology solutions that respond to social challenges like digital exclusion, accessible education, and participation in society, was won by Leżę i Pracuję, a marketing agency set up to give work to people with mobility disabilities. Leżę i Pracuję have developed an online system that connects employers looking for remote working employees with candidates with disabilities. The insight behind the idea is the belief that decent work changes life for the better – work is a space where we can learn, meet new people, and grow – but is often difficult for disabled people to access.

We want to make the digital world accessible for everyone and we're proud to support fantastic organizations like Leżę i Pracuję to deliver real change for the community.

We have been developing Think Big since 2013 because we strongly believe that new technologies, besides effectively supporting business efficiency, can also improve the quality of life in the social sphere. Through Think Big ecosystem we successfully support innovative entrepreneurs and social innovators in winning bigger in the marketplace and therefore in helping others to use the unlimited potential of the digital world to grow faster, smarter and bolder. Together with our partners we have once again awarded the most innovative and inspiring solutions, also in the Think Social category, which is the continuation of our commitment to support projects responding to social challenges under the Liberty Global Digital Imagination Programme.

Patrycja Gołos
VP Corporate Affairs, UPC Poland



DELIVERING OUTSTANDING CONNECTIVITY WHILE RUNNING OUR BUSINESS RESPONSIBLY AND SUSTAINABLY



Why it matters

With over 4.5 billion internet users around the globe, connectivity is now an essential part of everyday life for over 58% of the world's population.

As the world's largest international TV and broadband company, we have a responsibility to ensure everyone can make use of digital technology to achieve their full potential. This means delivering exceptional service, protecting our customers' privacy and ensuring that as the bandwidth we provide grows, our impact on the planet doesn't increase. To provide outstanding connectivity while running a responsible, sustainable business, we focus on the following areas:

RESPONSIBLE CONNECTIVITY

Trusted products

We're focused on delivering the best customer experience possible. 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 12.

As a provider of connectivity, we know our responsibility goes beyond providing superfast broadband speeds. It means ensuring our network is safe and secure for all users (especially our younger ones). We ensure our products and services offer parental control features that help parents keep their 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.

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.

As part of our commitment to helping our people achieve their potential, we've invested nearly \$10.4 million to date, achieving over 437,000 hours in employee training in 2019. Our Step Forward graduate program provides the opportunity for recent graduates to spend two-to-three years rotating through various roles within our operations. The graduates benefit from accelerated development by covering core business skills and technical capabilities. This gives them the ability to grow within our business. In 2019, we added 74 new graduates to the program, of which 38% are female and from those finishing the program, 67% are still working with us.

A diverse and inclusive culture is critical to our performance, reputation, innovation and brings us closer to our community. This year we celebrated the official launch of the Women in Cable and Telecommunications European chapter. We are proud to be a founding sponsor of the European Chapter and provide membership for our employees to strive for inclusivity and diversity in our industry. We have supported 349 members so far throughout our businesses and have another 300+ colleagues taking part. The many learning opportunities provided with the mission is to develop and empower women to maximize their potential.

We also continued to celebrate our employees' dedication to community causes. In 2019, 342 employees cycled and/or ran at the Big Ride for Africa event and together raised over €1 million for our charity partner Street Child.

Sustainable growth

We're working to ensure that as our business grows, our environmental impact doesn't grow with it. In 2019, our overall energy efficiency improved by 7% (per terabyte of data traffic generated). Our electricity consumption dropped 3% compared to previous year, and we decreased our total location-based emissions (scope 1, 2 & 3) by 5%. We also refurbished over 1.5 million set-top boxes and modem units, avoiding 2500 metric tons of waste that would otherwise have ended up in landfill. We have remodelled our science-based targets to reflect our new business structure, 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 2019 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.



TRUSTED PRODUCTS

Customer privacy

As a provider of internet, telephone and television services, our customers have trusted us with their digital lives. Every decision we make comes with an obligation to keep their personal data safe. 'Digital safety' comprises two main strands, customer privacy and data security.

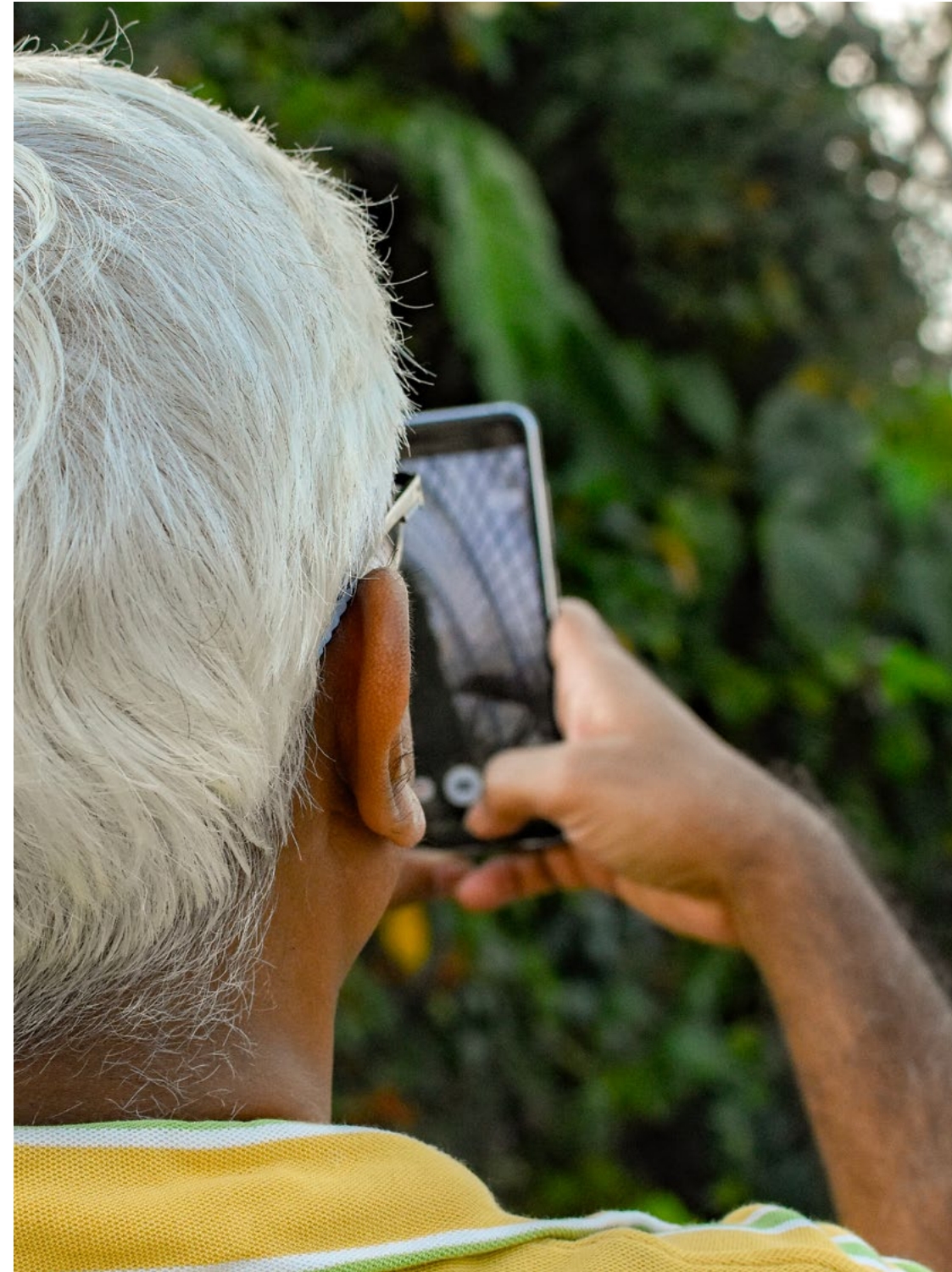
In 2019, we launched updated privacy training, which is mandatory every year for all employees. Additionally, our GDPR efforts have been reviewed across the entire footprint by an external consulting firm. All entities came out strong from the review and improvement areas were identified. We have since created a program to address those improvement areas in 2020.

We continue to live 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 an appointed Data Protection Officer 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 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, awareness of the importance of data security is at an all-time high, there is increased demand from customers, shareholders and regulators for stronger, more secure practices. We abide by the General Data Protection Regulation, Sarbanes Oxley Act, ISO 27001, CAS(T) and Payment Card Industry DSS legislation in order to ensure this.

In 2019, we continued working on our security measures across Liberty Global and addressed a number of security risks and issues. Threats are always evolving, and security is a constant challenge. We work closely across all of our entities to ensure that we implement appropriate security controls to protect our assets. We continue to resource an effective team of security professionals and to invest in new tools and systems across our business unit such as the CPE security testing team dedicated to ensuring the safety of our customer premise equipment against cyber-attacks. All of our employees complete annual training on data security. Processes are refreshed and followed to make sure security policy is always adhered to. Additionally, we work with multiple internal and external partners to ensure security strategy is always fully embedded into our business goals.





TRUSTED PRODUCTS

OUR SUPPLY CHAIN

Our suppliers are an integral part of our business and we rely on them to provide high quality products and services. This is why we're committed to collaborating with our suppliers to improve products and services, mitigate risk and identify new opportunities. Our procurement team manages around 4,300 suppliers; which represents €4 billion of spend in 2019. 80% of this spend is with our top 145 suppliers. Our Responsible Procurement and Supply Chain Principles outline our ambition for being a responsible business and the process we adhere to with our suppliers.

In 2019, we strengthened the four-step process we use in collaboration with suppliers to improve products and services, mitigate risk and identify new opportunities.

01



Requirements

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

02



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.

03



Assessments

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.

04



Dialogue

In 2019, 34 suppliers were issued 382 corrective actions to improve their performance. Based on our assessments, 74 of the 382 actions were focused on improving policies and processes related to the monitoring of labour and human rights.



TRUSTED PRODUCTS

Customer experience

Customer Experience is at the heart of Liberty Global and we are dedicated to bringing the very best to our customers. Our Customer Experience Operations Team has embarked on an exciting new project to ensure we continue to deliver exceptional customer experience through strengthening customer relationships, improving customer satisfaction and increasing our operational efficiency.

In 2019, Team Consumer was created with the aim of collating consumer insights to better understand our customers, their needs and how to best serve them. To that end, Team consumer has interacted with more than 6,100 customers to educate our brand to become more consumer-centric.

Team Consumer uses consumer insights to drive mid to long-term innovation propositions which then drives Liberty Global's investments in networks and the latest technologies. The team has employed new techniques from a research POV to connect with the customer and create a better understanding of their needs. The team deployed ethnographic studies to immerse themselves with the consumer and introduce co-creation, where customers were invited to discuss new ideas and technologies. These actions led to the creation of a rich trend framework in which customer's opinions, data analytics and consumer research were combined to understand consumers current and future needs.

In the UK, Virgin Media built on their 2016 Talk Protected Plan by introducing new measures to protect vulnerable customers, ensuring they have access to bespoke customer service. Expansions include tailored engineer visits and annual package reviews. Vulnerable customers now benefit from price freezes and contact with trained customer service agents who assess whether or not the customer is on the best tariff available to them based on the services they use. If no contact can be made, the customer is automatically moved to the most appropriate and best available package. This level of customer attention goes beyond Ofcom's regulations and ensures customers who struggle to shop around are always given the best package for their needs.

Our group wide Net Promoter Score (NPS) was -26.24 in 2019. 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 digital world should be safe for everyone, especially children, which is why our strategy focuses on educating and empowering young people to explore the online world safely. We want to inspire a new, responsible generation of digital citizens. 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.

Our 'Privacy by Design' approach ensures that privacy and protection are embedded in the core foundation and architecture of every new technology product. We ensure a range of protective measures, from stringent vulnerability checks to built-in prevention against hacking and 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 170 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. In 2019, we created a new toolkit specifically to engage educators to address online safety education at school. To date, we've produced and distributed more than 2 million of these toolkits.

We're also a founding sponsor of the eSafety Label project, an accreditation scheme helping schools review and implement eSafety practices. The associated portal is used by over 7,500 teachers from over 54 different countries, and provides us the opportunity to reach up to 1.7 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 organisation 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 981 sessions to more than 15,287 parents.

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



EMPOWERING PEOPLE



Virgin Media Ireland

At Virgin Media (Ireland) and Virgin Media Television, we believe in the power of digital technology and media. This unique combination creates a positive impact on society to inform, inspire and connect. The digital economy is growing at an unprecedented level, but some people are being left behind. We recognise this juxtaposition and take action to improve every community where we live and work by fostering digital inclusion and developing the future ready skills of young people entering the workforce.

Recently we have become an Industry Partner of the P-TECH (Pathways in Technology) pilot across schools in North-East Dublin. Working alongside the Irish Government and the Minister for Education and Skills and the Minister for Finance and Public Expenditure and Reform, we aim to provide students with the academic, technical, and professional skills required for work and ongoing education, all whilst helping students to gain relevant work experience.

11 P-TECH volunteers from across Virgin Media (Ireland) have been working tirelessly and are united in creating something really special and something different for our contribution to the pilot. The team has run a structured learning programme that has included 1-2-1 mentoring with young people, workplace visits to Virgin Media sites and operations, led talks on topics like media production and social media, and run project days in participating schools. With P-TECH, we are reminded that giving back to the community where our colleagues live and work is not only important and empowering for our incredible volunteers, it is also crucially important for the success and prosperity of the community.

Our volunteers are growing in numbers to sign up to P-TECH for the new school term. This is just the beginning and we look forward to continuing our role to boost students' opportunities in the Digital Economy.

We want to give all children and young people the best possible start in life, whatever part of the country they are growing up in. According to a recent UNICEF report, Ireland is ranked second out of 41 wealthy nations in promoting educational equality. But there's always more we can do. The P-TECH model helps tackle disadvantage through integrated education. It's all aimed at getting students ready for the workforce. I'm delighted this pilot is being launched in the North East Inner City; if young people in this area are given the best possible chance to succeed, the entire community will benefit.

An Taoiseach

Minister for Education and Skills and the Minister for Finance and Public Expenditure and Reform



SUSTAINABLE GROWTH

Free Air

As we expand our network on the back of the ever-growing demand for our services we have been searching for more sustainable innovations for our business. One key part of our business is to ensure we provide the best and most advanced connectivity products to our customers. The technologies that enable amazing experiences all use electric power and therefore generate a lot of heat.

Although heat is considered essential for enjoyable summers in many parts of the world, when it comes to technical facilities that house computer servers, switches and other equipment, heat is a challenge that needs to be dealt with. In our facilities, the heat the computers produce needs to be expelled quickly so performance doesn't drop and components are not damaged.

In order to address this challenge, we have deployed systems that use "free air" to do the job of cooling many of our technical sites. This solution is highly effective in regions with average low temperature weather. Our operations teams have been using direct free air cooling for many years, resulting in a huge energy saving. This also results in big reductions of greenhouse gas emissions, as the electricity required for cooling can be an average of 40% of the total site electricity consumption.

Another environmental benefit of this technology compared to traditional compressor-based cooling is the absence of refrigerants that are harmful greenhouse gases. Free air is (as its name suggests) free of charge which therefore also contributes directly to financial savings. In Belgium and Ireland we started using free air cooling back in 2013 and 2014 respectively. So far, many of our network facilities run on free air alone or in combination with the Phase Change Material (PCM) technology which is another exciting, environmentally friendly technology we have started to harness.

The savings so far are estimated at €625k in Belgium. In Ireland, the savings since installation in 2014 have reached over €6 million in cost savings and more than 46 GWh in energy savings.

PCM

For truly energy efficient cooling, our technical sites have taken a further step with our technology partners. In many operations we use Phase Change Material (PCM) combined with free air to cool our indoor facilities, reducing greenhouse gas emissions and bringing financial benefits. However, as you have probably experienced, summers are getting hotter. The summer of 2018 set record temperatures across Europe. This heat has a negative impact on our network components in street cabinets. With high temperatures, many cabinets shut down to protect the equipment from permanent damage meaning a potential loss of services to our customers for longer periods. Street cabinets are traditionally made of metal, and the mix of solar radiation and heat produced by equipment inside the cabinet creates an oven-like environment.

In order to improve our ultrafast network, we started an innovation platform and SPARK campaign whilst asking our employees for ideas. PCM was the winning outcome of the SPARK campaign "Cooling our Street Cabinets". As part of the campaign, our teams used previous research that has shown Phase Change Material can be a possible solution to regulate the internal temperature of street cabinets. The technology is free of electronics and can best be described as Thermal Time Shifting by thermal energy storage in Phase Change Material (PCM). It can be compared to a thermal battery. PCM uses the ambient temperature changes of day and night to charge and discharge. The battery normally charges, using heat during the day and discharges the heat overnight.

We chose technology partners Tizzin and Tizzon for that challenge. They have been involved in various cooling applications for the past ten years, bringing many great results with their PCM applications in our technical facilities. We use salt hydrates as PCM, and for the application in the cabinets we changed the structure of the salt hydrates to prevent segregation. PCM has a lifetime of around 30 years, requires no maintenance and can be used without modifications of the street cabinets.

During lab tests in the heat chamber and the field test, cabinets equipped with PCM-Cool Bricks and comparable reference cabinets were measured. The test clearly indicates that cabinets with PCM have a significantly lower inside temperature than similar cabinets without PCM. The Phase Change Material is used as a Thermal Energy Store to absorb the day heat and avoid overheating street cabinets and network equipment.

We have now moved the test beyond the lab and have equipped close to 30 cabinets with this technology to test in the field. Although this application does not directly benefit electricity savings, it will reduce the potential outages caused by heat and improve our customers connectivity and experience.





SUSTAINABLE GROWTH



Science based targets

Liberty Global has continued to build its position among the world's most progressive businesses by setting ambitious science-based targets to reduce Scope 1, 2 and 3 carbon emissions. We have remodeled our target strategy to reflect the recent divestment of a number of our operations across Europe.

As a company with a strong M&A portfolio it is important that we do keep enhancing our environmental activities despite changes to our company business structure because we believe in the mission set by the Paris Agreement. 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 renew our pledge 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 2019 base year). Furthermore, in this exercise we have screened for all scope 3 emissions and increased the scope beyond what is currently available through our annual data collection process (page 20). We have committed to reduce these by 50% by 2030 (at 2019 base year).

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 which we already see taking shape, become more efficient in our energy usage and increase our renewable energy mix across the footprint.

Our commitments are supported by action right across our business. We've 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. It also reduces energy expenditure. We're also working with teams across the business to identify old equipment to be replaced with energy efficient innovations. These clever new ideas are helping us to identify more areas of use. From our innovation platform, SPARK, our employees identified the phase-changing material as the most environmental and effective solution to tackle overheating in some of our street cabinets. This solution is currently being piloted in the field. If successful, this solution would enhance the customer experience while tackling one of the challenges we face when operating the network.

But this is just the beginning. In order 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.

THE DATA BEHIND RESPONSIBLE CONNECTIVITY



E-waste is now the fastest-growing waste stream in the world with approximately 50 million tonnes being produced a year, of which around only 20% is recycled.

This is why we are doing our part to ensure that our products are not going to landfill or harming the environment. In 2019, we refurbished 1.5 million set-top boxes and modem units, avoiding 2,515 metric tons of waste that would have otherwise ended up in landfill. Not only is this a benefit for the environment, it is a huge opportunity for our business, saving us \$134 million in 2019 alone. In addition, we also recycle our office IT equipment, donating refurbished computers, printers and screens to benefit schools and hospitals in need through Close the Gap, a non-profit organisation. In 2019, we donated 4 metric tons of IT equipment.

Energy efficiency is one of our main focus domains and we are constantly innovating to increase that efficiency.

With the many projects we run throughout our business and best practice sharing through the SCTE Energy 2020 program, we are increasing productivity while eliminating energy waste. These programs have brought tangible benefits such as reducing greenhouse gas emissions, expanding our network and services and reducing operational costs. Our electricity efficiency is now 10 times more than our base year 2012, measured by the terabytes of data used by our customers.



In 2019, we conducted our bi-annual Zoom survey to measure employee engagement and are pleased with the high participation rate.

15,844 of our global employees contributed their feedback which sends a strong signal that our people are engaged. In addition, 86% of our people felt that Liberty Global embraced individual differences cultivating an inclusive culture; and 81% said that our senior leadership supports and values diversity.

Protecting privacy is about handling people's personal data responsibly, securely and in line with applicable laws and regulations.

Respecting and protecting the privacy rights of our customers, our employees and other parties with whom we do business, is important to building and maintaining trust. That's why we require that all our employees receive mandatory training on our privacy and data security policies and standards.



PERFORMANCE SUMMARY

Community Investments*

Community Investments ¹	Measure	2019	2018	2017	2016	2013
Total Community Investments	\$ million USD	5.4	4.6	9.4	6.3	N/A
Cash	%	68%	83%	89%	87%	71%
Time	%	4%	8%	4%	9%	6%
In-kind	%	28%	9%	6%	4%	23%
Employee volunteering time	hours	8,883	13,523	15,581	21,575	14,871

* Our CR Scope changed from 2018 to 2019 due to the sale of our operations in Germany, Hungary, Romania, Czech Republic and Luxemburg. The table above is the restated figures removing the divested operations from 2013 - 2019.

Empowering People

Total workforce and breakdown by employee category (GRI 102-8, 405-1)	Measure	2019	2018	2017	2016	2015	2014	2013														
Workforce including outsourced employees (Headcount, year end)																						
Employees	Number	20,710	21,355	22,092	22,400	21,539	21,430	21,942														
Outsourced employees	Number	16,888	18,851	19,683	19,485	14,333	13,111	14,575														
Total		37,598	40,206	41,775	41,885	35,872	34,541	36,517														
Employees by region and gender (headcount, year end)																						
North America	Number	60	63	123	67	66	133	93	84	177	82	70	152	79	64	143	71	58	129	66	56	122
Europe	Number	13,944	6,643	20,587	14,370	6,852	21,222	14,728	7,187	21,915	14,956	7,292	22,248	14,450	6,946	21,396	14,363	6,938	21,301	14,702	7,118	21,820
Total (LG)	Number	14,004	6,706	20,710	14,437	6,918	21,355	14,821	7,271	22,092	15,038	7,362	22,400	14,529	7,010	21,539	14,434	6,996	21,430	14,768	7,174	21,942
	%	(68%)	(32%)		(68%)	(32%)		(67%)	(33%)		(67%)	(33%)		(67%)	(33%)		(67%)	(33%)		(67%)	(33%)	
Employees by contract type (headcount, year end)																						
Employees on permanent contracts	Number	20,065	20,543	21,201	21,634	20,571	20,463	20,945														
Employees on temporary contracts	Number	645	812	891	766	968	967	997														
Employees by employment type (headcount, year end)																						
Employees in full-time employment	Number	19,250	19,765	19,885	20,071	19,476	19,413	19,577														
Employees in part-time employment	Number	1,460	1,590	2,208	2,329	2,063	2,017	2,365														
Employees by age group (headcount, year end)																						
Employees under 30 years old	Number	4,390 (21%)	4,599 (22%)	4,939 (22%)	5,159 (23%)	5,120 (24%)	5,283 (25%)	6,244 (28%)														
Employees 30 - 50 years old	Number	12,944 (63%)	13,524 (63%)	13,816 (63%)	14,102 (63%)	13,729 (64%)	13,593 (63%)	13,206 (60%)														
Employees over 50 years old	Number	3,376 (16%)	3,232 (15%)	3,337 (15%)	3,139 (14%)	2,690 (12%)	2,554 (12%)	2,492 (11%)														
Women in management																						
Percentage of management positions filled by women	%	29%	30%	32%	31%	28%	28%	29%														
Percentage of Executive Management positions filled by women	%	13%	13%	6%	11%	13%	6%	9%														
Employee training (GRI 404-1)																						
Average training hours (Hours per FTE)	Number	21.33	20.76	21.98	26.51	23.26	22.11	25.13														
Average training investment (\$USD per FTE)	USD	505.2	506.23	453.94	553.95	701.68	745.71	720.62														
Occupational health & safety (GRI 403-2)²																						
Injury rate (per 200,000 hours worked)	Number	0.74	0.94	0.84	0.91	4.06	2.85	2.97														
Occupational disease rate (per 200,000 hours worked)	Number	6.24	6.49	6.07	5.53	7.43	7.68	0.54														
Lost day rate (per 200,000 hours worked)	Number	14.92	30.42	29.72	39.42	35.18	33.02	91.43														
Absentee rate (% of total workdays)	%	6.00%	6.00%	5.00%	6.00%	5.00%	5.00%	0.05														
Work-related fatalities	Number	0	0	0	0	0	0	0														







Empowering People

New employee hires and employee turnover (GRI 401-1)			Measure	2019	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							
North America			Number	7	4	11	18	18	36	26	21	47	10	17	27	13	13	26	8	7	15	10	14	24
Europe			Number	2,295	1,191	3,486	2,630	1,319	3,949	2,610	1,560	4,170	2,869	1,426	4,295	2,587	1,389	3,976	1,984	1,089	3,073	2,077	1,153	3,230
Total			Number	2,302	1,195	3,497	2,648	1,337	3,985	2,636	1,581	4,217	2,879	1,443	4,322	2,600	1,402	4,002	1,992	1,096	3,088	2,087	1,167	3,254
Rate of new hires (%) ³				17%			19%			19%			19%			19%			14%			15%		
New employee hires by age group (headcount, % of total)																								
under 30 years old			Number	1,766 (51%)			1,950 (49%)			2,150 (51%)			2,262 (52%)			1,997 (50%)			1,578 (51%)			1,786 (55%)		
30 - 50 years old			Number	1,530 (44%)			1,776 (45%)			1,774 (42%)			1,776 (41%)			1,769 (44%)			1,379 (45%)			1,357 (42%)		
over 50 years old			Number	201 (6%)			259 (6%)			293 (7%)			284 (7%)			236 (6%)			131 (4%)			111 (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	Male	Female	Total	Male	Female	Total	
North America			Number	11	7	18	11	20	31	17	6	23	11	15	26	6	7	13	3	5	8	6	1	7
Europe			Number	2,811	1,460	4,271	2,935	1,618	4,553	3,059	1,679	4,738	3,140	1,525	4,665	2,399	1,268	3,667	2,385	1,225	3,610	2,295	1,285	3,580
Total			Number	2,822	1,467	6,018	2,946	1,638	4,584	3,076	1,685	4,761	3,151	1,540	4,691	2,405	1,275	4,737	2,388	1,230	3,618	2,301	1,286	3,587
Rate of total employee turnover (%) ³				21%			21%			22%			21%			17%			17%			16%		
Employee turnover by age group (number of leavers, turnover rate by age)																								
Total leavers — under 30 years old			Number	1,295 (29%)			1,545 (34%)			1,774 (36%)			1,628 (32%)			1,359 (27%)			1,295 (25%)			1,354 (22%)		
Total leavers — 30 - 50 years old			Number	2,398 (19%)			2,521 (19%)			2,422 (18%)			2,393 (17%)			1,923 (14%)			1,898 (14%)			1,822 (14%)		
Total leavers — 50+ years old			Number	596 (18%)			518 (16%)			565 (17%)			670 (21%)			398 (15%)			424 (17%)			411 (16%)		
Employee performance reviews (GRI 404-3)																								
Employees reviewed			%	97%			99%			98%			96%			97%			97%			95%		
Employee performance review – by gender & employee category																								
Percentage of appraisal – executive management (men)			%	100%			100%			100%			100%			98%			100%			93%		
Percentage of appraisal – executive management (women)			%	100%			1%			100%			100%			100%			100%			100%		
Percentage of appraisal – senior management (men)			%	99%			94%			99%			93%			96%			97%			98%		
Percentage of appraisal – senior management (women)			%	97%			98%			97%			93%			98%			98%			94%		
Percentage of appraisal – managers/supervisors (men)			%	99%			98%			98%			94%			96%			96%			96%		
Percentage of appraisal – managers/supervisors (women)			%	99%			97%			97%			93%			98%			96%			95%		
Percentage of appraisal – non-management (men)			%	94%			99%			99%			98%			98%			97%			96%		
Percentage of appraisal – non-management (women)			%	100%			99%			97%			94%			97%			95%			92%		

Sustainable Growth

Energy intensity (GRI 302-3)		Measure	2019	2018	2017	2016	2012 (base year)
Energy intensity		kWh of electricity / TB of data usage	32	35	47	73	312
Electricity generated from onsite renewables		GWh	0.35	0.49	0.34	0.30	0.09
Waste by type and disposal method (GRI 306-2)							
Total waste generated – reuse		metric tons	365	38	905	140	174
Total waste generated – recycling onsite waste (excl. composting)		metric tons	6,958	8,232	9,619	7,115	5,447
Total waste generated – incineration		metric tons	1,689	2,671	2,658	1,498	857
Total waste generated – landfill		metric tons	2,075	2,066	2,241	1,764	1,615
Total waste generated – composting		metric tons	685	1,073	832	1,054	2,690
Total waste generated		metric tons	143	78	80	107	175
% of waste recycled & reused		%	10,226 (72%)	11,487 (72%)	13,678 (77%)	10,181 (71%)	10,101 (56%)

Sustainable Growth

Energy consumption (GRI 302-1, 302-4)	Measure	2019	2018	2017	2016	2012 (base year)
Non-renewable fuel						
Diesel	GWh	85.61	99.25	92.17	90.82	38.15
Petrol	GWh	8.37	6.93	6.17	6.88	10.51
Natural gas	GWh	22.46	22.65	25.84	24.24	31.36
Burning oil	GWh	0.00	0.00	0.02	0.00	0.02
Gas oil	GWh	0.94	1.51	1.51	1.77	2.03
Fuel oil	GWh	0.32	0.37	0.31	0.41	2.67
Aviation fuel	GWh	4.35	6.09	9.47	11.07	12.70
CNG	GWh	0.01	0.01	0.01	0.00	0.00
LPG	GWh	0.00	0.00	0.00	0.00	0.00
Total	GWh	122.07	136.80	135.50	135.18	97.45
Electricity, heating & cooling						
Electricity	GWh	820.41	846.98	862.97	859.47	820.13
Heating & cooling	GWh	1.08	1.29	1.41	2.02	-
Total	GWh	821.50	848.27	864.38	861.49	820.13
Electricity sold						
Electricity sold	GWh	0.06	0.01	0.01	0.01	0.01
Total energy consumption⁴	GWh	943.51 	985.06	999.87	996.65	917.57
Carbon emissions (GRI 305-1, 305-2, 305-3, 305-4)						
Scope 1 emissions ⁵	metric tons CO ₂ e	47,969 	55,354	52,231	48,608	58,333
Scope 2 market-based emissions	metric tons CO ₂ e	39,364 	38,424	192,135	287,724	342,486
Scope 2 location-based emissions	metric tons CO ₂ e	207,654 	227,481	268,528	300,063	321,532
Scope 3 emissions	metric tons CO ₂ e	55,799 	46,056	49,849	46,799	14,749
Total Scope 1, 2 & 3 market-based emissions	metric tons CO₂e	143,132	139,835	294,216	383,131	415,567
Total Scope 1, 2 & 3 location-based emissions	metric tons CO₂e	311,421	328,891	370,609	395,470	394,613
Carbon credits	metric tons CO ₂ e	8,627	8,627	8,473	8,627	N/A
Emissions intensity (scope 1 & 2 market-based)	metric tons CO ₂ e / TB of data usage	0.003 	0.004	0.013	0.029	0.153
Emissions from business travel	metric tons CO ₂ e	17,196	21,413	17,433	19,401	12,269
Emissions from 3rd party services and install vehicles	metric tons CO ₂ e	23,995	23,716	31,596	26,743	17,814
Water withdrawal by source (GRI 303-1)						
Total water use (municipal only)	m ³ (water)	185,345	220,257	206,124	204,871	209,632
Total water use (onsite capture only)	m ³ (water)	583	278	1,062	1,453	N/A
Total water use (inc. onsite capture)	m³ (water)	185,928	220,535	207,186	206,324	209,632
Environmental Initiatives (GRI 305-5)						
Emissions reductions from initiatives	metric tons CO ₂ e	11,207	4,742	3,862	4,356	N/A
Energy saved from initiatives	GWh	39	18	4	11	N/A
Cost savings from environmental initiatives	\$ USD	141,564,499	286,136,761	257,220,280	296,409,812	N/A
Revenue generated from environmental initiatives ⁶	\$ USD	67,937	3,661,381	5,702,449	0	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 37,598.

1. Aside from this total workforce figure, our social performance data does not include outsourced employees. (GRI 405-1).
2. 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.
3. 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.
4. Sum of total energy consumption from non-renewable fuel and electricity, heating and cooling, minus electricity sold.

5. Scope 1 emissions figures have been restated for prior years to reflect the use of a corrected emissions factor for diesel fleet. This increase is equivalent to 1% of our total location based emissions.
6. In 2019, the scope of our reported data to includes only the top 20 global environmental initiatives. n/a – data not available.

 Data extracted from Liberty Global plc Annual Report and Accounts for year ending 31 December 2019 which was included within KPMG LLP's independent limited assurance scope.

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



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-3 and I-4 of the 2019 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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