Sustainable Business Report 2018

Vodafone Group Plc
Chief Executive statement

Our products and services play a central role in the daily lives and livelihoods of more than half a billion people, across 25 countries.

With every passing day, mobile is enabling and accelerating a revolution in access to education, financial services and healthcare for millions of people, offering those living in some of the world’s poorest communities the opportunity to break free from a cycle of endemic poverty.

Simultaneously, our digital networks and technologies, including 4G+ mobile, fibre-optic broadband, cloud computing and the Internet of Things (IoT) are transforming businesses of all sizes, helping them to operate more efficiently and prosper. This year, we invested more than €7.3 billion to maintain and upgrade our digital infrastructure, investment that provides our customers, their families, communities and businesses with the means to connect, learn, share, trade and advance their ambitions.

We also have a duty to work within these communities to create better, more equal societies, an aim that is at the heart of Vodafone’s purpose: connecting everybody to live a better today and build a better tomorrow. Enabling positive social outcomes is integral to what we do and our approach to sustainable business ensures that we are committed to aligning our business goals with the delivery of societal benefits.

Our sustainable business strategy focuses our efforts in areas where we believe Vodafone can make the greatest impact: women’s empowerment; energy innovation; and youth, skills and jobs. We now have long-term goals in place for each of these areas and our progress on our women’s empowerment goals, launched in 2016, can be found later in this report.

Climate change remains a critical global challenge and we recognise, as a significant consumer of electricity, that we have an important role to play as part of the global effort to limit temperature rises. Our new 2025 targets are an indication of that commitment: to reduce our greenhouse gas emissions by 40%; and to purchase 100% of the electricity we use from renewable sources.

Within many of our markets, youth unemployment is one of the most significant social and economic challenges. New technologies are both replacing semi-skilled roles and creating new career paths but young people must have the right skills to adopt these digital technology jobs. Over the next four years, our new future jobs programme – What will you be? – will support 10 million young people across 18 countries to develop digital skills, get career guidance and access training content and job opportunities. In addition, we will provide up to 100,000 under 25s with a digital workplace experience inside Vodafone – the largest commitment to training and development in our 33-year history.

Just as important as our commitment to delivering positive social outcomes is our determination to act responsibly and with integrity wherever we operate; what we do matters but so does how we work. By paying close attention to the controls we put in place to ensure our operating practices meet our expectations and placing emphasis on corporate transparency, everyone associated with Vodafone, from our Plc Board to our smallest operating company and suppliers, can deliver the conduct and behaviours expected of a company of our size.

We believe we have good cause to be optimistic and excited about the future as the digital economy drives global progress but we recognise that the world continues to face a number of significant challenges. The UN Sustainable Development Goals (SDGs) set out a series of global ambitions to tackle these. We believe we can have the greatest impact on five of the SDGs through the delivery of our sustainable business strategy and the goals mentioned above, and highlight our progress and contribution in this report.

Finally, I would like to thank the many stakeholders – including employees, customers and shareholders – whose opinions and insights help us to accelerate our efforts to build and grow a purpose-led, sustainable Vodafone. Looking ahead to 2019 and beyond, I relish the prospect of our business playing an increasingly important role in building a better today as well as an exciting future for us and our planet.

Vittorio Colao
Group Chief Executive, Vodafone Group Plc
Our sustainable business strategy is built on an unwavering commitment to operating responsibly and a recognition that we have a role to play in contributing to the societies in which we operate. At the heart of this strategy, which we launched in 2016, are three global transformation areas, each of which has the potential to achieve positive socio-economic benefits for our customers and wider society, and each of which is aligned with and support our long-term business objectives.

Our strategy focuses on our ability to deliver progress at scale in the areas of:

- women’s empowerment;
- energy innovation; and
- youth skills and jobs.

In parallel, we remain committed to ensuring that Vodafone behaves responsibly and ethically wherever we operate, supported by our corporate transparency programme. Four areas, each a topic of intense public debate, form the focus of our efforts as we ensure detailed policies, practices and disclosures help to hold our businesses to account while contributing to the broader debate.

Our transparency focus areas are:

- taxation and total economic contribution;
- supply chain integrity and safety;
- mobiles, masts and health; and
- digital rights and freedoms.

Our purpose is to connect everybody to live a better today and build a better tomorrow.
Global transformation areas

Women's empowerment
The transformative effects of mobile technology for women in low-income emerging markets are well recognised. Owning a mobile phone for the first time can enhance a woman’s physical and economic security, education, skills, access to employment opportunities and her (and her dependents’) health and wellbeing.

To close the existing ownership gap and drive women’s ability to empower themselves, our goal is to connect an additional 50 million women living in 10 emerging markets to mobile by 2025. We also intend to use our mobile technologies to enhance the quality of women’s lives through programmes that enable financial inclusion, improve health and wellbeing, and build education, skills and entrepreneurship.

We are strongly committed to diversity and inclusion and believe that by improving the diversity of our global workforce we will better reflect our customer base and wider society. We believe our strong commitment to diversity is a source of business strength, as evidenced by our long-term goal to become an employer with such a strong track record for attracting, retaining and developing talented women that, by 2025, we are widely considered to be the world’s best employer for women.

Energy innovation
There is clear evidence that global temperatures are rising rapidly and a consensus that man-made greenhouse gases (GHGs) are having a direct impact on climate change. Communications companies are significant users of energy and are therefore a source of those emissions.

As a significant user of energy, our industry faces a growing GHG emissions challenge. We recognise that we have an important role to mitigate the consequences of this growth in demand for our services and have introduced two new goals: to reduce the GHG emissions associated with our operations by 40%; and to purchase 100% of the electricity we use from renewable sources, both by 2025.

We will also continue to help our customers to reduce their emissions through the use of our IoT products and services.

Youth skills and jobs
Many of the countries in which we operate continue to experience high levels of youth unemployment and consequently face a range of significant social and economic challenges. Simultaneously, some advances in technology, such as robotics and artificial intelligence, are enabling the automation of many categories of jobs, reducing employment opportunities and altering the nature of work.

We believe we can play an important role in helping young people gain the skills required to thrive in the global digital economy, and we have committed to support 10 million young people to access digital skills, learning and employment opportunities. We will also provide up to 100,000 young people with a digital workplace experience at Vodafone.

Read more on women’s empowerment
Read more on energy innovation
Read more on youth skills and jobs
Global transformation goals

Women’s empowerment
Equality of women remains a significant global challenge. By empowering women and promoting gender equality, we can enable communities, economies and businesses – including our own – to prosper.

Our 2025 goals
We aim to connect an additional 50 million women living in emerging markets to mobile

Our ambition is for Vodafone to become the world’s best employer for women

Energy innovation
Urgent action is needed to address climate change. This year, we have introduced two new goals that focus on achieving a significant reduction in the greenhouse gas emissions associated with our operations.

Our 2025 goals
To reduce our greenhouse gas emissions by 40%

To purchase 100% of the electricity we use from renewable sources

Youth skills and jobs
Persistently high youth unemployment and a growing digital skills gap are significant social and economic challenges. This year, we launched our What will you be? programme to help young people develop their digital skills and access learning and employment opportunities so they can thrive in the digital economy.

Our 2022 goals
To support 10 million young people to access digital skills, learning and employment opportunities

Our 2025 goals
To provide up to 100,000 young people with a digital workplace experience at Vodafone
Our sustainable business strategy is founded on Vodafone’s commitment to responsible behaviour in everything we do, and is essential to preserving the long-term success of our company. We strive to ensure we always act lawfully, ethically and with integrity wherever we operate. Our strong commitment to corporate transparency is evidenced through our programmes which address four areas that are the focus of intense public debate.

Taxation and total economic contribution
In 2013, we became the first communications company in the world (and one of very few in any sector) to report our total taxation and economic contribution on a country-by-country and actual cash-paid basis. We continue to extend the data we disclose to ensure our stakeholders have the most relevant information to understand our tax position and economic impact.

Read our 2017 tax transparency report

Supply chain integrity and safety
Our businesses rely on a very large global supply chain encompassing over 15,000 businesses. We recognise there are many different labour rights and safety and environmental risks inherent within such a complex supply chain and that similar risks can also arise in the business operations under our own direct control. Through our broad range of policies, training and audit programmes, we work with our suppliers to drive high standards and ensure the safety, wellbeing and ethical treatment of everyone who works with Vodafone in any capacity, across the world. Further details of our approach can be found in the Supply chain integrity and safety section of this Report.

See our Supply chain integrity and safety section for more information

Mobiles, masts and health
The health and safety of our customers and the wider public is an absolute priority for Vodafone and everyone who works with us. While our mobile devices and masts operate well within the guidelines set by the International Commission on Non-Ionizing Radiation Protection (ICNIRP), we recognise that in a number of countries there is still some public concern regarding the electromagnetic frequency (EMF) emissions from mobile phones and base stations. We always endeavour to address concerns openly and transparently through regular local community engagement and ensure the most up-to-date relevant information is available on our website.

See our Mobiles, masts and health section for more information

Digital rights and freedoms
In 2014, we published our first Law Enforcement Disclosure transparency report, explaining how we respond to lawful demands for access to our customers’ private data from law enforcement and intelligence agencies. This report has since been updated and expanded and is contained within our online Digital Rights and Freedoms Reporting Centre, which includes our policies, principles and approach on a wide range of topics including law enforcement surveillance, privacy, data protection, freedom of expression, censorship and the digital rights of the child.

Visit our Digital Rights and Freedoms Reporting Centre

Principles and practice
We believe that how we work is as important as what we do and what we achieve. We are committed to the highest standards of ethical behaviour, as set out in our Code of Conduct, which governs everything we do. Putting those principles into practice can sometimes lead to complex and difficult challenges where cultures and working environments may be in conflict with our corporate values and commitments. Our views and how we manage the risks to our business are explained further in this section of the Report.

See our Principles and practice section for more information
UN Sustainable Development Goals

Being part of something bigger

The United Nations Sustainable Development Goals (SDGs) set out a series of global ambitions to end poverty, fight inequality and injustice, and tackle climate change by 2030. By providing access to communications via our networks and innovative products and services, our core business enables people to improve their lives and livelihoods. Through our local businesses, our sustainable business strategy, our goals and programmes, and the work of the Vodafone Foundation, we estimate that we make the greatest impact on five of the UN SDGs and together indirectly contribute to UN SDG 1, to end poverty in all its forms everywhere. See http://www.vodafone.com/sdgs for more information.

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

Examples of our contribution
- Over 419,000 people have enrolled in the Vodafone Egypt Foundation’s Knowledge is Power adult literacy programme
- Over 500,000 refugee students have accessed free, quality education content with no data charges as part of the Vodafone Foundation’s Instant Schools for Africa programme

Achieve gender equality and empower all women and girls

Examples of our contribution
- We have connected an additional 13.3 million female customers to mobile in our emerging markets since 2016
- 29% of our management and leadership roles are held by women

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

Examples of our contribution
- Over 111,000 unique users completed of our Future Jobs Finder platform in the first 10 days since launch
- We estimate over 14,000 young people were provided with a digital workplace experience during the year

Build resilient infrastructure, promote sustainable industrialisation and foster innovation

Examples of our contribution
- Our network infrastructure comprises 310,000 base station sites, 65,000 computer servers, 4,200 buildings (including 500 technology centres)
- We invested €7.3 billion during the year to maintain and upgrade our digital infrastructure to deliver improved coverage and access to high speed networks

Take urgent action to combat climate change and its impacts

Examples of our contribution
- During the year, we reduced the amount of GHG emissions per petabyte of data carried on our network by 40%
- We have helped customers to save an estimated 2.1 tonnes of CO₂e for every tonne generated through our own activities
Engaging with our stakeholders

We work with a wide range of stakeholders, both individuals and organisations, to inform, shape and evaluate our approach to sustainable business. At the same time, many people and organisations have an interest in what we do and how we work. The following provides a summary of some of those we interacted with, alongside some examples of how we engaged and communicated with them during the year.

### Employees
- **Who they are**
  - We employ around 104,000 people with 136 nationalities, bringing together a diverse set of experiences and opinions to help us achieve our goals by better understanding the needs of our customers.

- **Why they’re important to us**
  - Our business performance and our customers’ experience of Vodafone depend on our ability to attract, develop and retain talented individuals at all levels.

- **Examples of how we engaged during the year**
  - Every year, we run an anonymous online Global People Survey across our entire workforce to assess employee concerns and aspirations. This year, 88% of our employees responded.
  - We invested more than €60 million in employee training and development. This included a focus on developing management skills in agile and digital working.
  - We believe that ethical conduct is just as important as high performance. During the year, our Doing What’s Right employee communication campaign promoted different areas of our Code of Conduct, such as anti-bribery and health and safety.
  - As part of our efforts to drive diversity and inclusion across the business, in March 2018 we ran a week-long campaign to recognise and support International Women’s Day, which engaged more than 17,000 employees.

### Customers
- **Who they are**
  - Our customers range from individuals living in some of the world’s poorest communities to some of the world’s largest multinational companies.

- **Why they’re important to us**
  - Delivering an outstanding and differentiated user experience for all of our customers is a strategic priority for our business.

- **Examples of how we engaged during the year**
  - Through our Customer eXperience eXcellence (CXX) programme we aim to deliver an outstanding and differentiated user experience for our customers. The My Vodafone app, which is now live across all of our markets, provides customers with a flexible way of monitoring and managing their services online.
  - Our Internet of Things (IoT) solutions can enable our Enterprise customers to improve efficiency, deliver cost savings and reduce their carbon emissions.

### Suppliers
- **Who they are**
  - We have more than 15,000 direct suppliers around the world – from small businesses and start-ups to multinational companies – who provide us with a range of products and services, from mobile devices to marketing services.

- **Why they’re important to us**
  - We rely on our suppliers to deliver high-quality products and services. At the same time, we know that poor behaviour by any one of our suppliers could have negative consequences for many businesses in the supply chain, including Vodafone.

- **Examples of how we engaged during the year**
  - Every year, we hold supplier safety forums to share best practice and discuss ways to reduce safety risks in our supply chain.
  - Vodafone and three other operators set up a supplier academy focusing on training to help suppliers assess and improve the social, ethical and environmental performance issues inherent within supply chains.
  - We launched a new ‘Modern Slavery’ e-learning course to support our suppliers to better manage this risk. The course informs users about modern slavery risks throughout the employment cycle, equipping them with the insights they need to identify and detect potential problems.
### Local communities

**Who they are**

- Vodafone has operations in 25 countries. Our products and services form part of every local community where we operate. These communities range from remote villages to some of the world’s largest cities.

**Why they’re important to us**

- Our business is dependent on gaining the trust and support of local communities. We aim to do this through being open, transparent and by respecting local cultures and traditions.

**Examples of how we engaged during the year**

- We work closely with local communities to ensure we understand any concerns they have about the location of our base stations. For example, this year in South Africa, Vodacom engaged with stakeholders on over 40 separate occasions to outline their plans, hear concerns and demonstrate compliance measurements.
- Our local businesses support the communities in which they operate in many different ways. For example, in India this year, Vodafone India supported local road safety programmes for citizens to understand safe driving behaviours and the importance of observing traffic rules. In the Czech Republic, we ran a public ‘Giving Tuesday’ fundraising campaign that raised over €65,000 for a local health charity.

### Regulators and governments

**Who they are**

- We engage proactively with policymakers to inform the policy frameworks that affect our customers, investments and competitive stance.

**Why they’re important to us**

- We have an opportunity and a responsibility to work with governments and regulators to ensure that regulation enables every citizen to benefit from the positive impact of our networks and services, as well as technological innovations including big data analytics, artificial intelligence and IoT.

**Examples of how we engaged during the year**

- This year, we continued our work to help make the Gigabit Society a reality, a vision that we share with the European Commission. In April 2017, Vodafone organised a stakeholder event with European Union institutions to advocate for future-proof gigabit networks in the context of the European Electronic Communications Code.
- Together with the Vodafone Institute, we held a series of events attended by European institutions exploring big questions about digitisation and a more connected future.
- In March 2018, we organised a high-profile event to launch our international future jobs programme What will you be?, aimed at helping young people to develop their digital skills and to access learning and employment opportunities.

### Non-governmental organisations (NGOs)

**Who they are**

- We engage and work with many different NGOs around the world, on a variety of topics that range from conflict minerals to digital human rights.

**Why they’re important to us**

- Engaging with NGOs is essential to help us understand broader societal concerns and perspectives.

**Examples of how we engaged during the year**

- Vodafone is a Board member of the multi-stakeholder Global Network Initiative, which brings together ICT companies, civil society groups, academics and investors with a shared commitment to promote and advance freedom of expression and privacy worldwide.
- This year, we engaged with ActionAid and Oxfam to ensure our approach to responsible tax practices and tax transparency are comprehensive and address the areas of greatest concern.
- We have worked with Transparency International through its Business Integrity Forum to inform our compliance and disclosure practices and strengthen our anti-bribery and corruption programme.
Women's empowerment

Equality of women remains a significant global challenge. By empowering women and promoting gender equality, we can enable communities, economies and businesses – including our own – to prosper.

Our 2025 goals

We aim to connect an additional 50 million women living in emerging markets to mobile

Our ambition is for Vodafone to become the world's best employer for women
Global context

Equality of opportunity between men and women supports long-term social stability and economic progress. Over the past two decades, the global ‘gender opportunity gap’ has narrowed, particularly in areas such as education and health; however, major challenges remain.

Women are disadvantaged economically across all cultures, societies and economies. While the gender gap is greatest in patriarchal societies within emerging economies, inequalities still persist even in the most developed economies. Globally, around 50% of women aged 15 or over are in paid employment, compared with around 75% of men. One study estimates that it will take another 217 years to close the economic ‘gender gap’ if significant changes are not made, while the comparative lack of women in senior, better-paid roles means that the global average for women’s earnings is just above half that for men.

In emerging markets, the gender gap tends to affect women at an earlier age than it does in mature economies. An estimated 130 million girls around the world are currently out of school and are more likely to remain excluded from education than boys. Evidence also suggests that women in emerging markets are more likely to live in poverty than men. It is estimated that every day approximately 830 women die from preventable causes related to pregnancy and childbirth.

In more developed economies, young women and men enter the workplace with equivalent skills and in broadly equal numbers, but subsequently a much greater proportion of men reach middle and senior-level roles. A significant proportion of women leave the workforce or continue working in more junior roles than their male peers.

Women also have an increased likelihood of being engaged in informal or other vulnerable forms of employment. This is particularly prevalent in developing markets, where only 13.6% of women benefit from wage and salaried employment, compared with 24.3% of men.

A lack of support during pregnancy and the challenge of balancing childcare with work account for many women deciding to leave paid employment. Some women experience difficulties in returning to work after a career break; others return to work but find fewer opportunities for promotion and progression than their male counterparts. This is a lost opportunity: for the many women affected and for the global economy deprived of their skills.

Globally, around 50% of women aged 15 or over are in paid employment...

compared with around 75% of men

Our alignment to the SDGs

It is estimated that measures to give women and girls equal rights and opportunities could improve public health, increase productivity and grow prosperity, adding US$12 trillion to global GDP by 2025.

Communications technology can play a critical role in empowering women to improve their lives and livelihoods. Through providing women with access to life-enhancing services, which help unlock socio-economic opportunities and championing the inclusion of women in the workplace, Vodafone is committed to SDG Goal 5. Our approach also aligns to Goals 4 and 8, as our mobile technologies also support improved education outcomes and drive financial inclusion.

Key SDGs and targets

4.3 By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university.

5.1 End all forms of discrimination against all women and girls everywhere.

5.3 Ensure women’s full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life.

5.8 Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women.

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

8.10 Strengthen the capacity of domestic financial institutions to encourage and expand access to banking, insurance and financial services for all.
Closing the ‘mobile gender gap’

The GSMA estimates that in low and middle-income countries, women are 10% less likely than men to own a mobile phone. This equates to a ‘mobile gender gap’ of approximately 184 million women deprived of the benefits of mobile ownership. In addition, over 1.2 billion women do not use the mobile internet. Some of the reasons for this are economic, but many others are linked to cultural norms.

Closing the mobile gender gap would have a positive socio-economic impact for women and society as a whole. It also represents a commercial opportunity equivalent to around US$15 billion annually to mobile operators in middle and low-income countries.

Communications technology plays a critical role in empowering women to improve their lives and livelihoods. Owning even the most basic mobile enables a woman to communicate, access information, learn, manage her finances, set up and run a business, and even get help if feeling threatened. Mobile technology also enhances many public and commercial services of value to women and girls in emerging markets, from accessing vaccinations and maternal healthcare to mobile banking and online support for smallholder farmers.

Changing women’s lives through mobile

We estimate that 113.7 million of the 354 million active customers we serve in emerging markets are women. We have already developed mobile technologies that can help women to change their lives. However, a disproportionate number of women still do not own a mobile phone.

We want to bring the benefits of mobile to women through a series of targeted commercial programmes, and in 2016 we set a goal to connect an additional 50 million women living in those markets to mobile. We are also committed to use our mobile technologies to enhance the quality of women’s lives through programmes that focus on:

- enabling financial inclusion;
- improving health and wellbeing; and
- building education, skills and entrepreneurship.

We believe this focus and our actions will make a material difference to women, families and communities within the societies in which we operate.

Our 2025 goal: We aim to connect an additional 50 million women living in emerging markets to mobile

3.9 million more female customers in emerging markets in 2018

Progress towards our 50 million women goal

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Focused on women living on low incomes. These include Vodafone India’s Smart Snehidi, which makes mobiles affordable for more women and enables them to use their devices to run small businesses. Other examples include our Business Women Connect programme in Tanzania and Mozambique and Vodacom’s Mum & Baby initiative in South Africa.
Enabling financial inclusion

More than 2 billion people in the world, most of them women, still have no access to banking facilities12. This makes it difficult for them to manage household finances, save money or run a business. Finding ways to improve their access to financial services will bring significant social benefits and economic opportunities.

In 2007, together with our Kenyan associate, Safaricom, we developed the first mobile money transfer service, M-Pesa – a simple, secure, cheap and convenient solution that we now offer to customers across eight markets: the Democratic Republic of Congo, Egypt, Ghana, India, Kenya, Lesotho, Mozambique and Tanzania. This year, following detailed reviews that found the service was no longer commercially viable, we withdrew M-Pesa in Romania and Albania.

As of March 2018, 34.7 million customers were using M-Pesa13. They made over 9 billion transactions, through a network of more than 356,000 agents.

With a mobile phone and an M-Pesa account, people on low incomes have more control over their financial affairs. It also reduces the associated risks of a cash-based society, such as robbery and corruption. Thanks to the development of additional services such as M-Shwari, M-Pawa and KCB M-Pesa, our customers can also save money, using interest-bearing accounts, and arrange micro-loans to help fund their businesses, for example. M-Pesa is also widely used to manage business transactions and to pay salaries, pensions, agricultural subsidies and government grants.

Access to M-Pesa helps women take greater control over their own and their family’s finances. They can use it to save money to pay for a child’s education or secure a small loan to set up a home business. In Kenya, research published this year estimated that 185,000 women have been able to switch from subsistence farming to business or sales as their primary occupation as a result of mobile money access through M-Pesa14. In addition, the research also found that M-Pesa has helped lift 194,000 households, or 2% of Kenyan households, out of poverty. We estimate that 14.9 million women were actively using M-Pesa in 2018, accounting for 43% of our M-Pesa customer base.

Ensuring that M-Pesa offers secure and reliable services that protect the rights of its customers is critical to maintain the trust and integrity of our mobile payments system. In April 2018, the GSMA awarded M-Pesa its Mobile Money Certification in Kenya and Tanzania, following independent tests conducted against nearly 300 stringent requirements.

Supporting businesswomen in Tanzania and Mozambique

In sub-Saharan Africa, we are helping women who run their own small enterprises to access financial services through M-Pesa, enabling them to grow their businesses and improve their livelihoods.

Since 2016, we have built on the success of our M-Pesa and M-Pawa mobile money services and are a partner in Business Women Connect (BWC), a service specifically designed for women who run micro-businesses. Created in partnership with the ExxonMobil Foundation, World Bank and Centre for Global Development, BWC enables businesswomen to save and access useful business skills training, delivered by the NGO TechnoServe. Since its launch, nearly 6,000 Tanzanian women have benefited from BWC’s business skills training and learned how to use M-Pawa.

Building on this success, we aim to bring the benefits of the BWC programme to business women in other sub-Saharan countries, including Mozambique, where we supported a successful pilot involving 500 women.
Improving health and wellbeing

It is estimated that at least half the world’s population lacks access to essential health services. Most of these people live in low to middle-income countries where access to screening, prevention and treatment services is often limited or nonexistent.

Through both Vodafone and the Vodafone Foundation, we have developed a range of mobile technologies that enhance primary healthcare and prevention services in emerging markets. Many of these programmes are particularly important for women and young children. They include the Vodafone Foundation’s Mobilising HIV Identification and Treatment programme, which uses mobile technologies to improve access to treatment for HIV-positive children and pregnant women in Lesotho. Over 139,000 people have been tested for HIV through this programme, with over 2,700 identified as HIV positive and subsequently offered HIV treatment.

Tackling violence against women

Global estimates indicate that around one in three women worldwide will experience physical or sexual violence in their lifetime, often at the hands of a partner or ex-partner. The Vodafone Foundation has developed a number of products and services designed to support people’s safety and security in vulnerable domestic circumstances. These include our Easy Rescue smartphone app, which enables women in Turkey to alert friends covertly that they need help, simply by shaking their phone. Another example is the TecSOS emergency alert service, which has been used across five countries by more than 100,000 people (predominantly women) at risk of domestic abuse.

Making healthcare more affordable in Kenya

In Kenya, only one in five of the population has some form of financial protection from healthcare costs. Safaricom’s M-TIBA is a service that allows anyone to send, save and spend funds specifically for medical treatment using their mobile phone. Money stored in M-TIBA can only be used to pay for treatment and medication at M-TIBA-registered clinics and hospitals.

M-TIBA is helping streamline the management of large-scale health financing schemes from insurers, the government and donors and is helping to make healthcare more accessible. There are now more than one million users of M-TIBA, almost half of whom are women. Since launching in 2016, partners using the service have processed over 210,000 healthcare visits and have paid out nearly €2 million in medical costs.

As mobile penetration in Kenya is above 95%, M-TIBA is emerging as a secure and scalable platform to roll out essential health finance products.

Providing mums and carers with free health advice

Internet access is often the key to finding a job, helping a child get a better education, getting health information, or keeping in touch with friends and family. In South Africa, Vodacom’s Siyakha (‘we are building’) platform aims to lower the cost of communicating while simultaneously seeking to increase people’s digital and social connectivity. Designed for people on a very low income, Siyakha offers free access to websites related to education and job searches, and offers lower priced products and services.

This year, Siyakha services were expanded to include a number of new features, including a mobile-based platform for pregnant women called Mum & Baby. This service provides parents and caregivers with free health information and includes videos that are useful at the different stages of pregnancy, through to the first five years of a child’s life. For many accessing this service, this is the first time such health information has been made easily available to them. Mum & Baby is designed to be user-friendly and is accessible online and via SMS. It is also available in five local languages.

Topics covered include sexual health and reproduction, pregnancy tips, breastfeeding, immunisation, mother-child bonding, early childhood development, nutrition and HIV/AIDS. During the year, 1.2 million registered users accessed this free health information – many of whom were fathers. In just one year, the Siyakha platform has reached 7.5 million people and continues to grow.

210,000 healthcare visits facilitated by M-TIBA in Kenya
Building education, skills and entrepreneurship

Enabling girls and women access to a good education can enhance their chances of thriving in life, yet many girls in emerging markets enter adulthood lacking basic literacy and numeracy skills. An estimated 16 million girls aged 6 to 11 will never even start school (twice the number of boys) and even more start school but drop out early. In rural India, one estimate suggests that only around one in 100 girls reaches the final year of school.

Studies confirm that low and middle-income and transition countries could add US$92 billion to their economies if girls receive 12 years of schooling. However, in these countries, access to education beyond basic primary school level can often be difficult and expensive.

Mobile technology increases access to quality education, especially for people living in remote areas. The Vodafone Foundation has pioneered the development of innovative digital teaching and remote learning technologies for deployment among some of the most vulnerable and disadvantaged communities in the world, including people living in refugee camps in sub-Saharan Africa.

Its Instant Network Schools programme connects classrooms to the internet, providing solar power, tablet computers and teacher training resources, together with access to educational content to remote and isolated communities. The Foundation is championing access to quality education for refugees and other marginalised learners, with a target to connect up to 3 million young people living in refugee camps to a digital education by 2020. You can read more about progress on page 37.

Supporting digital start-ups focusing on female empowerment

F-LANE, a seven-week acceleration programme for high-potential digital impact ventures, was developed by the Vodafone Institute in Germany as the first accelerator in Europe aimed exclusively at women. The programme’s mission is to foster the participation of women in technological development and to empower women of all ages around the world through technology. In the most recent round, 180 start-ups from 57 countries were initially identified for consideration and review.

The final five applicants took part in the full programme of support, which included mentorship, training, networking and funding. The finalists were: Mamabird (USA), which transports life-saving medical supplies via drones to women and children in remote African communities; FinMarie (Germany), an online investment platform created by women for women; BreastIT (Uganda), a start-up that has pioneered portable ‘ultrasound sensitive’ gloves to enable breast screening in inaccessible areas; Doctory (Pakistan), an innovative medical services and appointment booking search engine; and Free_D (London), which helps women involved in or at risk of trafficking to rebuild their lives by learning competences in 3D printing. All five participants pitched to international investors at an event in Berlin in May for the opportunity to further develop their business with an investment of €50,000, as well as access to coaching and mentoring support.

Women First in Entrepreneurship

Vodafone Turkey is helping thousands of women to understand the opportunities offered to them by digital communications technologies, specifically as entrepreneurs. Through the Women First in Entrepreneurship Programme, launched in 2015 by the Vodafone Turkey Foundation in partnership with Ministry of National Education and Turkish Informatics Foundation, more than 26,000 women have received training on entrepreneurship, communications and finance. Once trained, they can use their new skills to make and sell handmade items on a bespoke website, where more than 31,000 product entries are now listed.

Over the next year, a digital platform will be launched to enable women to access e-learning content, as well as advertise their products and reach more customers.
Gender equality in our workplace

Gender equality in our workforce
We seek to be a company whose global workforce reflects the customers we serve and the broader societies within which we operate. We employ over 38,500 women directly and provide employment opportunities for hundreds of thousands more across our global supplier base. We believe that achieving greater gender parity will strengthen our company significantly, as it enables us to better understand the needs of the women, men, families and businesses who rely on our networks and services.

Achieving gender equality in the workplace remains a significant challenge for most businesses, especially at the most senior levels. In order to help address this issue in our business, we set ourselves a long-term ambition to become an employer whose track record in attracting and retaining female talent is so strong that by 2025 we are widely considered as the world’s best employer for women. In addition, if we demonstrate leadership as a ‘beacon employer’ wherever we operate, we believe other businesses will emulate our approach, expanding the opportunities for women even further.

Our short-term goal is to increase the proportion of women in management and leadership roles globally to 30% by 2020 (2018: 29%). To help us meet this goal and recruit, retain and develop talented women at every level of our workforce, we have developed programmes, including our ground-breaking maternity policy and our ReConnect initiative, which make it easier for women to return to work after a career break.

29% of our management and leadership roles globally are held by women

Our commitment to gender equality begins at the top of the company. Vodafone’s diversity and gender equality activities are overseen by the Vodafone Group Board and are led directly by our Group Chief Executive, Vittorio Colao, who is one of 10 global chief executives who act as corporate champions for the UN Women’s global solidarity movement for gender equality, HeforShe.

Reducing gender bias in our recruitment ads
During the year we piloted a new approach that aims to reduce the potential for gender bias in our job adverts. Adjusting the vocabulary used in our advertisements in a three-month trial has helped us to increase the number of women who we’ve recruited into specific roles by 7%. This specialist technology is now used to avoid gender bias in an average of 840 Vodafone job adverts a month globally.

These results were achieved by reducing the amount of jargon, abbreviations and ‘macho’ language traditionally included in job ads. Words such as ‘win’, ‘kick’, ‘outstanding’ and ‘aggressive’ were replaced with words such as ‘bold’, ‘improve’, ‘top tier’ and ‘extraordinary’. The changes were subtle but they had a significant impact. Even removing a well-worn phrase such as ‘competitive salary’ from an advert can make it more appealing to women, as they are often more interested in being treated fairly.

Our 2025 goal: Our ambition is for Vodafone to become the world’s best employer for women by 2025

Companies often struggle to recruit and retain women in management and leadership roles. Innovations such as our global maternity policy and our ReConnect programme can make a real difference to women who work for us today and who will work for us in the future.”

Vittorio Colao, Vodafone Group Chief Executive
Embedding our commitment to diversity

Our mandatory Code of Conduct makes it clear that respect for diversity is integral to the behaviours expected from everyone who works for Vodafone. We do not tolerate discrimination in any form and strive to ensure that every colleague has the opportunity to thrive in a workplace that is welcoming and supportive.

We have a number of programmes in place that embed our commitment to diversity and gender balance. It is also included in our induction programme for senior leaders, who are also encouraged to complete unconscious bias training to help them recognise the assumptions and beliefs that can skew their decision-making. In addition, we have introduced new training programmes focused on the recruitment process and on skills required to manage diverse teams.

Ensuring women hold 30% of our management and leadership roles by 2020

On a quarterly basis, we assess our progress against our 2020 global target to increase the global proportion of women in management and leadership to 30%. HR directors in our local markets and professional functions use quarterly analysis to identify and address challenges to identify and address challenges. Twice a year, our Group Executive Committee (ExCo) reviews Vodafone’s gender balance; and the Vodafone Group Board is also regularly updated.

We now have active women’s networks operating in most of the countries in which we operate. These networks have been founded by employees and are managed by them. They offer women at all levels a supportive and informative environment in which to network, share and learn. As an example, our Women in Technology Network now has more than 1,600 members and holds quarterly webinars and local face-to-face meetings.

Celebrating International Women’s Day

We want to raise the profile of female role models and celebrate women’s achievements with visible support from our senior leaders. One way we do this is by running a week-long campaign to coincide with International Women’s Day.

More than 3,600 employees watched a global webinar on 8 March 2018, which was personally endorsed by our Group Chief Executive. This was just one event in a week-long global programme, which included over 60 events such as roundtable discussions, networking events, training, and role-modelling and mentoring sessions.

As part of the celebrations, 100 women within Vodafone received a ‘Women in Red’ award in recognition of their efforts in supporting gender equality initiatives and inspiring other women across the business. In total, we estimate that more than 17,000 employees engaged with the International Women’s Day campaign.
Flexibility and support for working parents

Research by KPMG estimates that the cost to the global economy of replacing women who do not stay in the workforce after having a baby could be as much as US$47 billion every year\(^2\). We are focused on encouraging and supporting our employees to return to work with us, after the birth or adoption of a child, confident that they can grow their careers while raising a family.

In 2016, we became one of the first organisations in the world to introduce a global minimum maternity policy covering all Vodafone employees. Over the past three years, more than 5,600 women working for Vodafone have gone on maternity leave; all were eligible to benefit from at least 16 weeks’ fully paid maternity leave, plus full pay for a 30-hour week for the first six months of their return.

One of the reasons why working mothers take on most of the childcare is the historical reluctance of many employers to extend maternal flexible working arrangements to include fathers. In March 2018, we launched a global paternity policy that set a minimum standard for all men (and secondary carers) who work for Vodafone to be entitled to two weeks’ paid paternity leave. In some cases, this was an increase from two days, and more support was needed to help them return successfully to the workplace\(^2\).

However, getting back into work after a substantial break can be difficult; in recent research, 80% of women who have taken a career break said more support was needed to help them return. Last year, Vodafone launched ReConnect, an initiative aimed at bringing talented women back into the workplace after a career break, across all our markets. The programme includes training, coaching and a specially designed induction to help returners refresh and enhance the professional skills they need to return to work and progress their careers. ReConnect joiners are also offered flexible working options and a phased return to work.

More than 5,600 employees in the past three years have benefited from 16 weeks’ fully paid maternity leave

ReConnect – bringing skilled people back into the workforce

Worldwide, there are an estimated 55 million women with valuable management experience who are not in work following a career break. This is a lost opportunity for women and for the global economy. Research from KPMG highlighted that if all these women were to re-enter the workplace without displacing others, the associated value of the additional economic activity generated globally could be around €151 billion\(^2\).

Our target is to hire 1,000 ReConnect women over three years across our markets, including 500 into management roles. To date, 186 women have been recruited through the programme, lower than anticipated. While there are a significant number of vacancies on offer at Vodafone at all times, it is important to ensure we match the skills the roles require with those of the candidates who have applied. We do not always find the appropriate skills mix in the ReConnect candidates who apply and are now working on more targeted campaigns to attract women with the skills we need for the future.

This year, a number of markets held ReConnect events to publicise the programme and to offer women access to the advice and training they need to feel confident to re-enter the workplace. We promoted ReConnect at career fairs, and in November 2017 we hosted a ReConnect event in the UK with 10 of our suppliers and Enterprise customers, and have also encouraged and supported one of our suppliers to establish their own returners’ programme. In March 2018, we held another event in the UK that included a careers fair, a CV drop-in clinic, an interview workshop and a LinkedIn masterclass.
Our performance

We continue to make progress towards our target of 30% women in management and leadership roles across our local markets and professional functions by 2020. As of 31 March 2018, women held 29% of our management and leadership roles. In 15 local markets – including the UK, Ireland, our joint venture in Australia and our associate, Safaricom, in Kenya – women already hold more than 30% of all management roles. In Ireland, they make up 60% of our senior leadership team and 49% of our management population.

The percentage of women in Vodafone’s global senior leadership – our top 175–225 employees, including ExCo members – has stayed the same at 25% in 2018. In our senior management community, it has increased from 25% in 2017 to 26% in 2018; similarly, women in middle management was 29% in 2018, one percentage point higher than the previous year.

This year, women took up 52% of the places available on our Discover graduate development programme and 45% of the places on our Columbus fast-track graduate scheme. These proportions give us confidence that over the coming years, women will play an increasingly important part in leading Vodafone.

As of 31 March 2018, 33% of the directors of the Vodafone Group Board were women. Twice yearly, senior management review the proportion of women serving as directors on our subsidiary company boards as we recognise that serving on a board can be a valuable experience. As part of this review, opportunities are identified for increasing gender diversity and progress is tracked. We also encourage greater female participation in non-executive and advisory roles outside Vodafone and provide support to senior women executives within Vodafone who would like to take on non-executive board roles with other companies to complement their Vodafone careers.

Female employees at Vodafone

<table>
<thead>
<tr>
<th>Year</th>
<th>Women in management and leadership</th>
<th>Women in senior leadership</th>
<th>Women in senior management</th>
<th>Women in middle management</th>
<th>Women (all non-management employees)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>27%</td>
<td>24%</td>
<td>27%</td>
<td>27%</td>
<td>37%</td>
</tr>
<tr>
<td>2017</td>
<td>28%</td>
<td>25%</td>
<td>28%</td>
<td>28%</td>
<td>38%</td>
</tr>
<tr>
<td>2018</td>
<td>29%</td>
<td>25%</td>
<td>26%</td>
<td>29%</td>
<td>38%</td>
</tr>
</tbody>
</table>

1. This includes women in senior leadership, senior management and middle management.
2. Our most senior employees (approx. 200 employees in total), including ExCo members.
Energy innovation

Urgent action is needed to address climate change. This year, we have introduced two new goals which focus on achieving a significant reduction in the greenhouse gas emissions associated with our operations. We are also helping our customers to reduce their emissions through the use of our IoT solutions.

Our 2025 goals

- To reduce our greenhouse gas emissions by 40%
- To purchase 100% of the electricity we use from renewable sources
Global context

There is clear evidence that global temperatures are rising rapidly and a consensus among scientists and policymakers that man-made greenhouse gases (GHGs) are having a direct impact on climate. We support the view that urgent action is needed to address climate change.

The 2016 Paris Agreement on climate change commits world leaders to implement responses that limit global temperature rises to no more than 2°C above pre-industrial levels, beyond which irreversible planetary changes are likely, and to pursue a more challenging target of a maximum 1.5°C increase.

However, the pledges made to date are insufficient to achieve the aims specified. Over the coming century, the world is predicted to experience temperature rises of 2.9°C to 3.4°C, with potentially catastrophic consequences. Achieving the required reductions in GHG emissions will be particularly challenging in the context of continuous economic and population growth, with most analysts predicting that global energy needs will be 30% higher than at present by 2040. With 80% of the world’s current energy requirements met from carbon-intensive fuel sources, there is a pressing need to phase out the use of fossil fuels and move to lower-carbon energy sources.

Security of energy supply is also of increasing concern. Many economies rely on energy sources imported from regions that are politically unstable; others depend on diminishing indigenous reserves. The potential for disruption to energy supply, particularly in countries that have poor electricity transmission infrastructure, is an issue that governments and businesses must address.

ICT and climate change

Providing communications services requires significant amounts of electricity. Every additional device connected to the network and every additional gigabit of data transmitted or stored represents a potential increase in each operator’s energy needs. Most of this energy is provided by power generation companies as ‘on grid’ electricity via national transmission and distribution networks; and most of this electricity is still generated by burning fossil fuels.

The telecommunications and information and communications technology (ICT) industry faces a growing GHG emissions challenge: it is estimated that, by 2030, it will account for around 2% of total global GHG emissions, comparable to the aviation industry. Vodafone and other operators must therefore develop innovative ways to mitigate the climatic consequences of this business growth.

Global telecoms operators spend hundreds of millions of euros on energy every year. The potential for future volatility in commodity prices, uncertainty over government fuel and renewable subsidies, and the widespread introduction of carbon pricing models, means there is a significant risk of cost inflation. Consequently, there is also a strong financial incentive, as well as a societal imperative, for communications companies to optimise their energy consumption.

Data and mobile growth

Mobile data traffic has grown 18-fold over the past five years and will continue to rise at a rapid rate.

It is predicted that:

- by 2020, mobile data traffic will be equivalent to 15 times the volume of all data carried in the global internet in 2005;
- global IP traffic will increase nearly 100-fold by 2020 from 2005, and
- there will be an increase to 5 billion mobile internet users and 9 billion mobile connections by 2025, up from 3 and 7.8 billion respectively in 2017.
Enabling clean, affordable solar power in eastern Africa

The number of people with access to electricity in sub-Saharan Africa is increasing over time; however, around 57% of the population – 590 million people – still lack access to reliable sources of power. Access to a reliable source of energy can impact people's ability to access information, health services, education resources and employment opportunities.

Mobisol aims to help to improve people's lives with a solution that provides low-income households with access to energy from mobile-enabled solar power generation systems. This solution is enabled by our IoT technology and can be paid for using a microfinancing solution available through M-Pesa – our world-leading mobile money service. The system comprises two parts: the solar panel and batteries that collect and store the solar energy; and a range of low-power devices, including LED lighting, a television and a mobile-charging device. After a series of microfinance instalments, the solar home system becomes the customer's property, giving them access to energy with no further cost.

More than 100,000 homes in Tanzania, Rwanda and Kenya, now use Mobisol systems. Our technology helps Mobisol to run applications for monitoring usage, managing devices, sending reminders and collecting payments.

“The children now have bright light to do homework. They do not use the kerosene lamp any more, the fumes made them cough at night. We feel more connected to the rest of the world through the radio and TV.”

Mary, a Mobisol customer in Tanzania
Vodafone, energy and climate change

In 2015, we made Energy innovation one of our three core global transformation areas, focusing on increasing our energy efficiency and our role in enabling businesses to reduce their energy use and costs.

This year, having met our target to help our customers reduce their CO\textsubscript{2}e emissions by two tonnes for every one tonne of emissions from our own operations (our 2 for 1 target), we have introduced two new targets. Both of these focus on achieving a significant reduction in the greenhouse gas (GHG) emissions associated with our operations.

Following on from our commitment to the Paris Pledge for Action, in support of the Paris Agreement, it is critical we support global efforts to mitigate climate change and put in place the actions necessary in our own operations to be in line with maintaining global temperature rises at no more than 2°C above pre-industrial levels. To do this, we have set a reduction target across our network and operations: to cut our total Scope 1 and 2 GHG emissions — from our owned or controlled sources and from the generation of purchased electricity — by 40%, by 2025, against a baseline of our emissions for the 2017 financial year.

As part of the process to set our new target we used a science-based approach, based on an absolute reduction of GHG emissions. Starting with our 2010 GHG emissions, we tracked a 40-year reduction trajectory to 2050, taken from the European 66% emission mitigation scenario (2010-50 Representative Concentration Pathway 2.6)\textsuperscript{11}. Our GHG emissions have increased between 2010 and 2017, so our target is set with the aim of acting sooner rather than later, to bring our emissions in line with the 66% reduction trajectory within eight years: by 2025, rather than meeting it at 2050. This results in a steeper 40% reduction from a 2017 baseline, by 2025, to bring us onto the 66% trajectory.

We will meet our GHG reduction target through a combination of energy efficiency and a shift to renewable energy. We will invest further in energy efficiency equipment across our networks and servers, particularly in power supply and cooling, and we plan to move towards purchasing 100% of our electricity from renewable sources (see page 26).

**Our 2025 goal:** To reduce our greenhouse gas emissions by 40%

**Our 2025 goal:** To purchase 100% of the electricity we use from renewable sources

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As one of the world’s largest mobile operators, we serve more than 536 million mobile and 20 million fixed broadband customers\textsuperscript{12}. We are also the leading global provider of IoT mobile services, with more than 68 million active connections.
Across our networks we have more than:
- 310,000 mobile base station sites and small cells;
- 65,000 servers;
- 375,000 fixed access nodes; and
- 4,200 buildings (including 500 technology centres) used by around 104,000 employees.

Focusing on energy efficiency, therefore, is critical. We spend approximately €1 billion a year on energy and there is a significant risk of energy cost inflation in future, so setting energy efficiency targets and switching to more sustainable energy sources makes business and environmental sense.

### Moving to 100% renewable electricity sources

We rely on on-grid power sources for much of our energy needs, and most of these on-grid sources burn fossil fuels to generate electricity. To date, the proportion of our electricity from renewable sources has been low, which is why we set a second goal to mitigate the GHG emissions associated with our electricity usage, by purchasing 100% of on-grid electricity from renewable sources by 2025.

We will work towards this goal by increasing the procurement of energy from renewable power generation sources via national electricity grids, using power purchase agreements (PPAs) and purchasing renewable energy certificates (RECs).

We have also joined RE100 – a collaborative initiative led by The Climate Group, in partnership with CDP, that brings together major businesses committed to switch to 100% renewable power.
Optimising our energy consumption

Unlike most ICT companies that tend to have a small number of large data centres, Vodafone has a much larger number of smaller technology sites spread across different countries and locations.

This means that much of the energy consumed across our businesses is disaggregated, with multiple sites consuming relatively small amounts of energy. Consequently, optimising our energy consumption is a complex challenge.

In order to meet our new GHG target we are prioritising new and existing measures to increase energy efficiency and reduce GHG emissions across our network operations. We will report against our GHG target in 2019.

Optimising our power-intensive equipment

We work with our equipment vendors to ensure that increased demand and business growth do not result in a similar percentage increase in electricity usage.

We have:

• worked with our suppliers to ensure that 5G network equipment meets our technical standards on energy efficiency and state-of-the-art energy management features from outset;

• made energy efficiency a priority when purchasing energy-intensive products and services;

• reviewed our suppliers’ product and service development plans to ensure they take our energy efficiency requirements into account; and

• evaluated emerging energy efficiency technologies that may help us improve energy efficiency or increase our use of renewable energy.

We incorporate power optimisation in design specifications for new infrastructure to ensure that each successive generation of equipment is more energy efficient.

We have also started to introduce new smart power management technologies across our networks. In five local markets – Germany, Greece, Ireland, Turkey and the UK – we have achieved ISO 50001 certification. The ISO 50001 standard provides a management framework with the aim of reducing energy consumption, costs and GHG emissions.

Improving energy efficiency across our network operations

This year, we have heightened our focus on energy efficiency across our networks, incorporating this into Fit for Growth – a three-year financial programme focused on the efficient use of resources. Through this initiative, local markets report their main energy-related investments and associated savings, with the aim of reducing operational energy use and associated expenditure.

We are committed to improve energy efficiency in our more than 310,000 base station sites and in our technology (data and switching) centres, which together account for the vast majority (94%) – 65% and 29% respectively – of our total global energy consumption.

### Vodafone energy use (GWh)

<table>
<thead>
<tr>
<th>Year</th>
<th>Network base station sites</th>
<th>Technology centres</th>
<th>Offices</th>
<th>Retail</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>3,817</td>
<td>1,731</td>
<td>438</td>
<td>57</td>
</tr>
<tr>
<td>2017</td>
<td>4,023</td>
<td>1,737</td>
<td>385</td>
<td>52</td>
</tr>
<tr>
<td>2018</td>
<td>4,031</td>
<td>1,806</td>
<td>340</td>
<td>56</td>
</tr>
</tbody>
</table>
This year, we have focused on implementing improved efficiency savings for power supply and cooling systems at our sites. We use large numbers of servers and other network equipment to manage the vast amount of data passing across our networks and the heat generated by all of those devices can be significant. Too much heat will destroy components and lead to network failure. Cooling technologies are therefore an essential part of our energy strategy.

This year we have exceeded our initial forecast for energy savings for upgrading power and cooling systems across our networks, delivering total savings of 98 GWh per year, equating to 2% of our total energy consumption.

Our power supply and cooling system projects this year included:
- connecting power supply and cooling systems at our sites to a central monitoring and management system. This increased visibility of performance at each site enables us to reduce energy consumption and maintenance visits. Remote management systems have been deployed successfully in Italy, Malta, South Africa, Turkey and Egypt;
- implementing dynamic thermal management (DTM) control systems to reduce energy consumption from cooling. These DTM systems use artificial intelligence (AI) algorithms to dynamically control cooling in technology centres. They ensure that servers receive the optimal amount of cooled air, while responding in real time to network demand and external environmental conditions. We have implemented DTM systems in 25 of our technology centres;
- upgrading and replacing power conversion equipment to more efficient technology; and
- upgrading and replacing conventional air conditioning units across our network sites to free-air cooling or adiabatic cooling solutions (see case study, right).

Using adiabatic cooling solutions in hot climates

We have been using free-air cooling systems in many of our technology centres for several years. They are more cost and energy efficient than conventional air conditioning solutions but are not always effective in hot climates. To address this limitation, we are introducing adiabatic cooling systems.

Adiabatic cooling works by spraying water into the air before entering the existing free cooling chillers. As the water evaporates, the air is chilled. In Portugal, we have trialled an adiabatic cooling system that switches on automatically whenever external temperatures rise above 24°C, approximately one fifth of the operating time.

The results of the trial are positive, with about 35 MWh (c.5% of total cooling energy required) saved in one year. On the basis of these results, we are planning to install adiabatic solutions in other markets where high temperatures are prevalent.
We have continued to improve the energy performance of our radio access network equipment. We are currently:

- continuing the installation of energy-efficient single radio access network (SRAN) equipment, which enables a single item of radio hardware to run multiple technologies (2G, 3G and 4G) – with SRAN equipment already deployed in 82% (253,847) of our base station sites and fully operational in 79% (201,544) of them;
- activating new energy-saving software features such as dynamic power allocation, automatic radio transceivers switch-off and self-organising network technologies that optimise radio resources and energy consumption to reflect voice and data traffic requirements in real time; and
- deploying active antennas – a technology which integrates radio equipment inside the antenna to eliminate power attenuation over cable runs – as part of the introduction of Massive MIMO technology (a key component of 5G technology) in Spain, the UK, Turkey and India.

At our technology centres additional energy efficiency measures this year included:

- increasing the use of virtual computer servers that make it possible to simultaneously run multiple applications on the same server. Our ‘virtualisation ratio’ (ratio of virtual servers that can run on each physical host machine) is now 75% for our IT equipment; Virtual servers increase the efficiency of our existing physical equipment;
- upgrading more than 50 legacy data storage systems in our data centres with eight energy-efficient storage systems;
- decommissioning or replacing more than 5,000 servers in our Group data centres with approximately 600 new servers; and
- rationalising our portfolio of buildings and technology centres, closing 3% of sites worldwide and opening a high-efficiency site in Germany.

The energy efficiency of technology centres is often assessed in terms of their power usage effectiveness (PUE) – an industry-standard metric that compares the amount of electricity used to operate computer equipment with the amount used for all other functions. This year, we made further improvements to our centres’ PUE, reaching an average of 1.61, improved from 1.63 in 2017.

We are planning to increase the efficiency savings in the coming years as our new Group energy team increases focus and awareness on the topic.

Our energy sources

The energy we consume comes mainly from on-grid electricity. To date, the proportion of our electricity taken from renewable sources has been low, accounting for just 13% of the energy we used in the 2018 financial year. This is delivered through green electricity sourcing in the Czech Republic, Ireland and Italy, where we purchase renewable electricity contracts.

Having set a new target to purchase 100% of our electricity from renewable sources by March 2025, we need to play an active role in stimulating the expansion of renewable power generation capacity, by:

- signing power purchase agreements (PPAs) with developers and suppliers of renewable energy assets to procure longer-term energy contracts.

This can help stimulate new renewable electricity generation, as well as providing excellent traceability and avoiding double-counting of renewable electricity. Under a PPA, the purchaser enters into a long-term (typically 10-year) contract with a renewable power developer, providing the necessary financial security for the project;
- purchasing renewable electricity backed by renewable energy certificates (RECs) – market-based instruments issued to power generators to track renewable electricity production and consumption; and
- purchasing RECs for the equivalent electricity consumed (unbundled RECs) to support an equal supply of renewable electricity production, when PPAs and renewable electricity contracts are not feasible due to local market conditions.

### Vodafone energy use by source (GWh)

<table>
<thead>
<tr>
<th>Year</th>
<th>Grid electricity</th>
<th>Grid renewable energy</th>
<th>On-site renewable energy</th>
<th>Diesel and petrol</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>4,904</td>
<td>712</td>
<td>7</td>
<td>301</td>
<td>120</td>
</tr>
<tr>
<td>2017</td>
<td>5,094</td>
<td>692</td>
<td>7</td>
<td>319</td>
<td>86</td>
</tr>
<tr>
<td>2018</td>
<td>5,015</td>
<td>804</td>
<td>9</td>
<td>322</td>
<td>83</td>
</tr>
</tbody>
</table>
Solar-powered headquarters in Lesotho
This year we opened our first green building in Lesotho – the new Vodacom Lesotho headquarters in Maseru. Thanks to an array of solar panels on the roof, the building utilises on-site renewable energy. In Vodacom Lesotho, more than 25% of our telecommunications network is powered by on-site solar panels.

This is the second green building Vodacom has completed: in 2012, we opened our Solution Site Innovation Centre (SSIC) in Midrand, Johannesburg, which achieved South Africa’s first ever six-star Green Star rating.

Verifying our renewable electricity purchases
In Ireland, Italy and the Czech Republic, we purchase renewable electricity from our suppliers. However, given the differing legislative environments in each country, we do not receive any associated RECs for our renewable purchases in Ireland or the Czech Republic.

This means we cannot directly verify the source of our renewable electricity by retiring the RECs in our name, which means there is a risk that the energy we purchase will be double, or triple counted – attributed to both Vodafone and the generator or another consumer. This is far from ideal, so we are working hard with our suppliers to develop a fully transparent and accountable solution in each market where this issue arises.

25% of our Vodacom Lesotho telecommunications network is powered by on-site solar panels
Our greenhouse gas emissions

Our total GHG emissions increased by just over 1% this year, predominantly as a consequence of a slight increase in our energy consumption and increased use of carbon-intensive on-grid power sources, particularly in the UK, Egypt and the Democratic Republic of Congo.

Our total global GHG emissions (including emissions over which we have direct control (Scope 1) and emissions from purchased electricity (Scope 2)) were 2.58 million tonnes CO\textsubscript{2}e. Emissions over which we do not have direct control (Scope 3), which include those from third-party base station sites in Ghana, India and Tanzania and those arising from the activities of our joint ventures in Australia, the Netherlands and our associate company in Kenya, are reported separately on page 29. In Vodafone Qatar, which was sold in March 2018\textsuperscript{15} and therefore no longer included in the total GHG emissions figure, GHG emissions were 0.03 million tonnes CO\textsubscript{2}e.

The international guidance for calculating Scope 2 GHG emissions\textsuperscript{16} requires reporters to publish two different numbers. The location-based method uses an average emission factor for the entire national grid through which energy consumption happens. The market-based method uses an emissions factor, for example, direct from the supplier providing the electricity, that is specific to the type of electricity purchased.

The numbers quoted on the left use the market-based method. Using location-based conversion factors for 2017, Scope 2 emissions were 2.71 million tonnes CO\textsubscript{2}e and total Scope 1 and 2 emissions were 3.09 million tonnes CO\textsubscript{2}e – again, largely static year on year. Further details of the methodology used (and the relevant emissions factors) are on page 86 of the Appendix.

Our key measure for GHG emissions intensity improved again this year, with a reduction in emissions per petabyte of traffic of 40%.

Scope 3 emissions

Scope 3 emissions are indirect emissions over which we have no direct control, but may be able to influence. They include supplier emissions from the production of goods and services provided to us, emissions from our joint ventures over which we do not have operational control, and emissions associated with the use of our products and services by our customers.

We have worked with the Carbon Trust to analyse our Scope 3 emissions in order to identify where emissions are highest and prioritise where we have the greatest opportunity to influence third-party GHG emissions. This analysis considered all of the categories defined in the international guidance for Scope 3 emissions published under the GHG protocol\textsuperscript{17}.

More details of the methodology used are in the Appendix on page 87.
Of the 15 Scope 3 emission categories, those most material to our business are:

- our suppliers’ emissions in producing the goods and services that we procure from them, particularly in our networks, IT equipment, handsets and other devices (these emissions are calculated based on how much we spend with each supplier as a proportion of their total revenue) – estimated to be 7.4 million tonnes CO$_2$e;
- customer use of our products and services, which includes emissions arising from the electricity used by network connection devices (such as routers) and when charging mobile device batteries – with our emissions for the devices we sold this year estimated to be 2.6 million tonnes CO$_2$e; and
- emissions arising from the operation of base stations owned by third-party tower companies where we lease space for our radio network equipment – which we estimate to be 1.7 million tonnes CO$_2$e.

Some other categories included in our Scope 3 reporting are less significant in terms of volume but are reported because we have more control of them than for those deemed most material. These are:

- our joint ventures in Australia, the Netherlands and our associate company in Kenya – with emissions estimated to be 0.7 million tonnes CO$_2$e; and
- business travel (predominantly air but also train, bus and taxi travel) – estimated to have generated 0.06 million tonnes CO$_2$e this year (of which air travel accounts for 0.05 million tonnes CO$_2$e); and
- treatment and disposal of waste from our operations, with emissions arising from the transportation, recycling and disposal of network and office waste estimated to be 0.001 million tonnes CO$_2$e.

We do not report on the other non-material Scope 3 categories.

### Scope 3 emissions sources

<table>
<thead>
<tr>
<th>Source</th>
<th>CO$_2$e (thousand tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchased goods and services</td>
<td>7,400</td>
</tr>
<tr>
<td>Use of sold products</td>
<td>2,600</td>
</tr>
<tr>
<td>Upstream leased assets</td>
<td>1,700</td>
</tr>
<tr>
<td>Fuel and energy-related activities</td>
<td>900</td>
</tr>
<tr>
<td>Joint ventures and associates</td>
<td>700</td>
</tr>
<tr>
<td>Business travel</td>
<td>60</td>
</tr>
<tr>
<td>Waste generated in our operations</td>
<td>1</td>
</tr>
</tbody>
</table>

### Action on Scope 3 emissions

Our supplier performance management programme covers environmental factors and suppliers’ GHG performance is one of the factors evaluated in our annual assessment process. We ask suppliers whether or not they publicly report their GHG emissions, have set targets to reduce emissions, and have identified the risks and opportunities associated with managing their GHG emissions. Their answers form part of the overall performance score that we use to assess their performance. We also ask selected suppliers to provide details of their GHG emissions and management programmes through CDP (formerly the Carbon Disclosure Project). This year, 130 (or 90%) of those suppliers asked to respond did so: 82% reported that they had set a target for GHG emissions, while 92% had implemented GHG emissions reduction programmes.

To help reduce emissions arising from business travel, we encourage employees to avoid flying on business if they can and to use remote working and teleconferencing technologies instead. Vodafone benefits from some of the most advanced enterprise collaboration capabilities in the world, with 3,200 video-conferencing end points and more than 100,000 laptops supporting 48 million minutes of effective online collaboration every month. We have not seen any significant growth in air travel; the total distance travelled by air this year increased slightly by 1%.
Enabling customers to reduce emissions

As a recognised world leader in IoT mobile services we are helping our customers to manage energy more efficiently and reduce their emissions. Over time, IoT technologies will transform every industry, most public services and many aspects of consumers’ daily lives.

In research conducted this year, 88% of IoT adopters surveyed said that they are seeing significant benefits from IoT and 79% think that IoT will have an enormous or sizeable impact on the whole economy in the next five years.¹⁰

We estimate that over 27% of the more than 68 million IoT connections we operate directly enable customers to reduce their emissions and we expect these connections to increase over time.

We calculate that in 2018, the total GHG emissions avoided as a consequence of our IoT technologies and services was 5.3 million tonnes CO₂e – more than double those avoided in 2013 when we made this calculation for the first time. The greatest CO₂e savings enabled were in smart metering and improvements in logistics and fleet management.

IoT applications that help our customers reduce emissions include:

- smart energy meters that enable businesses, municipal authorities and households to monitor, manage and reduce their energy use;
- smart cities – networked intelligently to improve the efficiency of energy-intensive services such as public transport, public road networks and street lighting; and
- smart logistics – IoT technologies embedded in vehicles to optimise route management, vehicle maintenance and driver behaviour, delivering cuts in fuel consumption of up to 30%.

Our 2018 goal: Help our customers reduce their GHG emissions by two tonnes for every one tonne of GHG generated from our operations

Vodafone’s global IoT connections (millions)

Improving fleet efficiency with Microlise

Since 2007, we have been providing Microlise, one of the UK’s largest providers of telematics solutions, with the connectivity it needs to support fuel savings in commercial fleets.

For all fleet operators, the cost of fuel is critical to the bottom line. For some fleets, vehicles can be on the road up to 22 hours a day, so any improvement in fuel efficiency, however small, can have a positive impact on profits. There are, therefore, strong commercial incentives for them to reduce fuel costs and consequently reduce overall emissions.

Microlise’s telematics use our IoT connections to transmit data from its vehicles to fleet managers. This enables the company to monitor driving style, safety and fuel consumption in order to identify opportunities for efficiencies and improvements. One Microlise customer, Bibby Distribution, achieved fuel savings of 11% after implementing the telematics solution in its UK fleet.

Microlise has now deployed more than 270,000 Vodafone IoT connections in 116 countries, enabling cost and emissions savings in its fleet operations worldwide.
We have met our 2018 GHG target

In 2015, we announced our intention to help our customers reduce their GHG emissions by two tonnes for every one tonne of GHG generated from our operations by March 2018. We have achieved our target, having enabled our customers to avoid 2.1 tonnes of CO₂e this year for every one tonne generated from our operations. We will continue to report on our customer savings in future reports, as well as our new goal to reduce our own GHG emissions by 40% by March 2025.

We enabled our customers to avoid 2.1 tonnes of CO₂e for every one tonne generated from our operations

Connecting smart meters in Spain

EDP HC ENERGÍA, one of Spain’s leading energy providers, has now installed more than 600,000 smart meters in homes across Spain to help people to reduce their energy use.

The meters will enable customers to see how much energy they are using in real time, adjusting their consumption as needed and consequently reducing both costs and emissions.

EDP HC ENERGÍA’s smart meters rely on our IoT technology to allow meters to be read remotely at any time. Estimated bills and meter reading visits are no longer necessary, reducing the company’s operating costs and travel-related emissions. In addition, sensors in the meters connected to our IoT technology help EDP HC ENERGÍA identify faults without dispatching engineers.

Our progress: ratio of GHG emission savings for customers to our own GHG footprint

<table>
<thead>
<tr>
<th>Year</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>1.4</td>
</tr>
<tr>
<td>2016</td>
<td>1.8</td>
</tr>
<tr>
<td>2017</td>
<td>1.9</td>
</tr>
<tr>
<td>2018</td>
<td>2.1</td>
</tr>
</tbody>
</table>

2018 goal: 2.1

Vodafone Group Plc Sustainable Business Report 2018

1. Emissions Gap Report, UN 2017
2. World Energy Outlook, 2017, IEA
3. Fifth IPCC Assessment report, 2015
5. Cisco Visual Networking Index (VNI) 2016
8. GSMA The Mobile Economy 2018
10. Energy Access Outlook, IEA, 2017
11. IPCC 5th Assessment Report
12. If we exclude our joint ventures and associates we have 498 million mobile customers and 16 million broadband customers.
13. Mobile data across our sites under our operational control and that contribute to our reported energy consumption; excludes Indus, NL Ziggo and Qatar.
14. Includes India (including Indus), Qatar and NL Ziggo.
15. On 29 March 2018 Vodafone sold its stake in Vodafone Qatar.
16. GHG Protocol Scope 2 guidance
17. GHG Protocol Scope 3 guidance
18. Vodafone IoT Barometer 2017/18
Supporting young people to succeed in the digital economy

High levels of youth unemployment and a growing digital skills gap are significant social and economic challenges. This year, we launched our *What will you be?* programme to help young people develop their digital skills and access learning and employment opportunities so they can thrive in the digital economy.

**Our 2022 goals**

To support 10 million young people to access digital skills, learning and employment opportunities

To provide up to 100,000 young people with a digital workplace experience at Vodafone
Global context

Youth unemployment remains a significant social and economic challenge in many of our markets. The International Labour Organization (ILO) estimates that more than 210 million young people are either unemployed or work but live in poverty. In many of the countries where we operate, youth unemployment remains at very high levels: 35% in Italy; 39% in Spain; 44% in Greece; and 53% in South Africa.

Unemployment can have a negative impact on young people's wellbeing, even a short period of unemployment can have a long-term effect on self-esteem and confidence. By tackling this issue and reducing the number of youth out of work, economies will have much to gain in terms of GDP growth and reducing costs associated with supporting unemployed young people.

The impact of technology

Mobile communications and digital technology are transforming every aspect of life for billions of people. For many, including the 5 billion who live in middle-income markets, this transformation is overwhelmingly positive, bringing increased access to information and services as well as the ability to share and learn. Businesses benefit too, as they are able to achieve productivity and efficiency gains unthinkable ten years ago.

However, not all advances in technology are unequivocally positive: robotics, artificial intelligence (AI) and the Internet of Things (IoT) may increase productivity and create new possibilities, but they are also likely to reduce employment opportunities for millions of people over time. While only a small proportion of jobs will be entirely automated, technology will have a profound impact on jobs, skills, wages and the nature of work itself. Current automation technologies could affect half of the world economy, or 1.2 billion employees and $14.6 trillion in wages.

In developed countries, these technologies have already replaced many semi-skilled roles and are impacting those in middle-management too. They are also predicted to become even more disruptive in the future. A study by the Oxford Martin Business School estimated that more than 47% of the professional, trade and craft roles it analysed will be displaced by AI and robotics by 2030. Data from the World Bank shows that this employment displacement may be even higher in emerging market economies, with an estimated 69% of jobs in India and 77% in China likely to be replaced by robotics and AI.

More than 210 million young people are either unemployed or work but live in poverty

Our alignment to the SDGs

Youth unemployment is a significant social and economic challenge in many of our markets, while some advances in technology, such as robotics and AI, result in the automation of many categories of job, reducing employment opportunities and altering the nature of work. We believe urgent action is needed to help young people develop their digital skills and access learning and employment opportunities that will help them thrive in the digital economy. Our commitment to help young people to address these dual challenges supports Goal 8, which aims to promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.

Key SDGs and targets

4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship.

4.5 By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations.

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

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

8.6 By 2020, substantially reduce the proportion of youth not in employment, education or training.
Displacement of this kind is having a significant impact in emerging market economies, which are already struggling to cope with growing numbers of under-skilled and unemployed young people. While some have benefited from the relocation of back-office and customer care roles from developed countries, their impact on the working population is limited as they tend to be filled by skilled graduates.

Working together, governments, educators and companies need to find ways to address the mismatch between future workplace needs and the current skills of the younger generation, enabling them to be better equipped and ultimately offering significant benefits for society as a whole.

The opportunity of technology

While digital technology is disrupting traditional work patterns and rendering some jobs unnecessary, this same disruption is also creating new employment opportunities. For example, in a future where AI and robotics are commonplace, certain skills and abilities will be highly valued.

This future is fast becoming a reality. Over the last 25 years, one-third of all new jobs created in the US were in niche or new categories, such as web and software design, mobile communications and app creation. As such examples become the norm, there will be an exponential increase in demand from every industry in every country for the skills required to design, develop, deploy and maintain these increasingly complex technologies. The European Commission predicts that in the near future around 90% of all jobs – from nursing to engineering to accountancy – will require some form of digital skills.

Closing the digital skills gap

Demand for digital skills already outstrips the supply of available talent despite high levels of youth unemployment and the ability for young people, in Europe, to move easily across the EU in search of work. While many young people are ‘digital natives’ – with an almost instinctive mastery of digital content and social media – most do not have the ability to write code, mitigate cybersecurity risks, or design, configure and maintain electronic devices and wireless or fixed-line networks.

The EU Digital Skills and Job Coalition reports that 37% of EU workers have insufficient digital skills and there are clear signs that the digital skills gap is widening. By 2020, there could be almost 500,000 unfilled digital technology jobs in Europe.

We believe that significant numbers of young people, who will account for a meaningful proportion of the global workforce by 2022, can be trained for a future in digital technology. This view is supported by the European Commission in its Skills Agenda for Europe, which calls on governments, industry non-governmental organisations (NGOs) and educators to work together towards this objective.

As one of the world’s largest communications companies and a leading global innovator in the deployment of digital technologies for enterprises and consumers, we have an opportunity to make a difference to young people’s lives right across our global footprint.

“The digital economy has enormous potential to create decent jobs for youth and act as a catalyst for sustainable development. This potential can only be realised if young people are equipped with the skills needed by our fast-changing economies.”

Guy Ryder, Director-General, ILO

There is a pressing need to close this skills gap to address the mismatch between future workplace needs and the current skills of the new generation.
Our future jobs strategy

Youth unemployment remains a challenge, while at the same time businesses of all types and sizes are struggling to fill a wide range of roles that are critical for future growth.

Currently, around 330 million young people live in Vodafone markets and we believe Vodafone is extremely well placed to support this group to prepare for and access these new digital opportunities. As a known brand, we have the chance to support young people gain the skills they need, whether or not they are currently Vodafone customers.

This year, we commissioned YouGov to conduct a major international public opinion survey. They asked 6,000 young people aged 18-24, living in 15 countries, for their views about the future world of work. The results reveal the extent to which young adults believe they are ill-equipped to participate in the digital economy despite being the first generation to be ‘born digital’. More than half (56%) said they believed the greatest struggle for their generation will be finding any kind of well-paid, permanent job; 67% said they had received insufficient careers advice; and 38% felt this advice was too narrowly focused on non-digital roles.

67% said they had received insufficient careers advice; and 38% felt this advice was too narrowly focused on non-digital roles.

In March 2018, we launched the programme at an event in Brussels where we brought together over 125 key policymakers, business representatives and NGOs to examine the causes, impacts and potential solutions to youth unemployment and the digital skills gap.

One in five young people feels underprepared for the digital economy

This research confirmed our belief that urgent action is needed to help young people develop their digital skills in order to access employment opportunities and ultimately thrive in the digital economy.

Vodafone’s What will you be? programme is our response to this challenge. It includes two ambitious targets: one that focuses on the impact we can have if we can support young people to understand how they can contribute to the digital economy; and one focused on what we can do within our business to provide workplace digital experiences:

- We will support 10 million young people to access digital skills, learning and employment opportunities by 2022.
- We will provide up to 100,000 young people with a digital workplace experience inside Vodafone by 2022. We will do this by expanding our existing bring your child to work days, placements, and graduate apprenticeship, internship and work experience schemes worldwide.

“Our over time, every workplace will go digital, creating accelerating demand for a wide range of specialist technology skills. We want to help connect the new generation to the world of work.”

Vittorio Colao, Group Chief Executive, Vodafone Group

As part of our What will you be? programme, we are providing young people with access to a new online platform, Future Jobs Finder, which offers a simple but comprehensive gateway to new skills and opportunities for employment in the digital economy. Users can identify their strengths and skills, and be matched to currently available digital jobs and training opportunities in their region and beyond. This platform is free to use for young people regardless of their mobile provider.
Future Jobs Finder

Over the past year, Vodafone has worked with psychologists, HR professionals, training providers and young people to develop a free smartphone-based service called Future Jobs Finder, designed to inspire and help young people to understand their strengths and skills and find the right job opportunity in the digital economy. The simple, yet comprehensive, gateway allows users to gain and practise new skills, understand more about their strengths, discover digital job opportunities and access digital training.

Launched in March 2018, Future Jobs Finder helps match users’ interests and skills to different digital job types and then displays the relevant available jobs and training opportunities in their location. All users need to do is answer a series of short general and psychometric tests, which have been designed to be fun and engaging.

Once a user has completed the first quiz – focusing on interests and affinities – the Future Jobs Finder matches the results to a set of five digital job types that best suit, for example, User Experience Designer, Cyber Security Engineer or Data Analyst. These five job types represent the best matches from a list of 147 digital job types. Each of the job types has a short description to help the user understand what that career entails. If a user is not interested in a particular choice, they can delete it and the next best match will replace it.

From these matched job descriptions, users are then offered the choice to view live job vacancies and training opportunities. If the user wants to see job opportunities, the Future Jobs Finder takes them through to an online jobs board, which has been pre-filtered for that particular job type and filtered for the user’s educational or work experience as well as favoured location. From here, users can apply for roles.

If a user is not quite ready to apply, the Future Jobs Finder also offers the ability to match training needs to online digital skill providers and access specific courses, many of which are free (including EdX, Coursera, Udemy, Cognitive Class AI, Udemy and the Khan Academy).

Finally, Future Jobs Finder summarises the user’s skills and interests based on their results so that they can be added to their CV or application form.

The Future Jobs Finder is available in ten languages, and in the first ten days after launch it had been completed by over 111,000 unique users.

You can visit the Vodafone Future Jobs Finder at www.vodafone.com/whatwillyoube
**Supporting education and building skills**

In recent years, several of our local operating companies and Vodafone Foundations have launched programmes to help young adults develop their skills, including digital ones, as well as programmes to support the development of young entrepreneurs.

In Egypt, the Vodafone Egypt Foundation built on its adult literacy programme, *Knowledge is Power*, to launch *Knowledge is Power Schools*. This focuses on helping public primary schools support pupils, teachers and parents through e-learning modules for the classroom. This includes literacy and information and communications technology (ICT) activities that aim to build pupils' confidence. The programme also provides teacher training and supports parents with literacy and vocational training classes. The project is now active in 100 schools and has reached 50,000 students, 2,500 teachers and 7,000 parents.

In six countries across Europe and Africa we have programmes that provide mentoring, seed capital and incubation support for digital entrepreneurs. In Germany, for example, the Vodafone Institute’s F-Lane Accelerator (see page 14) provides mentoring, insights and support for start-ups that focus on women’s empowerment. In South Africa, Vodacom’s youth skills development project delivers basic computer skills, IT essentials, enterprise development and business skills to young people. So far, over 1,200 young people have benefited from the programme over the last four years. In Ghana, the local Vodafone Foundation provides bursaries to enable young people to study ICT or science, technology, engineering and maths (STEM) subjects. In Spain, we have partnered with Young Business Talent (YBT) to run a competition open to 15 to 21-year-olds that provides a practical experience on running an enterprise. Teams of three or four each learn how to manage a fictitious enterprise, analyse information and take decisions just as real entrepreneurs would. So far, the programme has engaged over 7,500 students and more than 400 teachers in 440 schools.

**Instant Network Schools**

There are currently more than 65 million displaced people in the world; more than half of them are children and many of them have been in this situation since birth. Unsurprisingly, therefore, their access to quality education is often very limited.

**Instant Network Schools**, run by the Vodafone Foundation in partnership with the United Nations High Commission for Refugees (UNHCR), enables young refugees and teachers to access digital educational content and the internet – in refugee camps and in some marginalised communities where Vodafone operates. The **Instant Network Schools** programme is delivered using the Foundation’s Instant Classroom – effectively, a digital school ‘in a box’. Each box contains a laptop, 25 tablets pre-loaded with educational software, a projector, an amplifier and a hotspot modem with 3G connectivity that provides access to the internet and online educational resources.

The boxes, which can be charged off site when access to electricity is nonexistent or intermittent, have been specially designed to meet the needs of children and their teachers in the most challenging circumstances. More than 66,500 students and 900 teachers have benefited from the programme across 31 **Instant Network Schools** located across seven refugee camps in Kenya, Tanzania, South Sudan and the Democratic Republic of Congo (DRC).

During 2018, the Vodafone Foundation expanded its **Instant Schools for Africa**, taking its educational programme beyond refugee camps to support children and young people across Africa, including those who do not attend school. The programme is a free-to-access online platform that hosts quality educational resources in local languages in DRC, Ghana, Tanzania, Mozambique and South Africa (as e-School) and is benefiting over half a million children in those markets. There is no charge for the content or for the data to access the platform.
**Digital workplace experience**

We are a significant employer of young people: this year, 6,556 new recruits aged 25 or under joined our businesses across our global footprint. We also indirectly create employment opportunities for many young people in our supply chain and retail distribution networks. We run well-established apprenticeship, internship and graduate schemes across our business, and offer a wide range of work experience opportunities including coding classes for high school girls. At any time, around 2,000 young people are undertaking these programmes.

As a global business, we recognise there is more we can do and so we have committed to extend the opportunities we offer to experience work within our business. Over the next four years, we will increase the number of opportunities available to under-25s to experience the world of work at Vodafone, reaching a total of up to 100,000 by 2022. This represents the largest commitment Vodafone has ever made to the training and development of young people since our company was founded over 30 years ago.

**Internships, training and workplace experience**

This year, we expanded our workplace experience programmes significantly. In 2018, we provided opportunities for over an estimated 14,000 young people to experience the digital workplace at Vodafone, double the number we offered in 2017. This encompassed a number of different programmes, including bring your child to work days, one-week placements, job shadowing and insight into work days, alongside innovative experiences such as #Codelikeagirl, which offers 14 to 18-year-old girls immersive digital training during the school holidays.

Our internship programmes provide opportunities for undergraduate students to work with us while they complete their degree for up to six months. These opportunities help to expose students to challenging business-critical activities and projects, enabling them to gain relevant business experience to support their studies. Participants can return to Vodafone once they have graduated, for example, to participate in our Discover graduate programme. This year, 1,953 young people gained an experience of Vodafone's digital workplace through our internship programmes around the world.

**Helping girls prepare for a career in digital technology**

For centuries, women have played an important role in science. More recently, they have made key contributions to digital technology. Without pioneers like Hedy Lamarr and Barbara Liskov, we would not have WiFi or email, as we know them.

Despite this, women are still significantly under-represented in STEM careers. The same is true for girls in STEM education, with only 35% of girls in the UK choosing to study STEM subjects when they enter further education.

To help change this, Vodafone has formed a partnership with the social enterprise Code First: Girls to launch our #Codelikeagirl programme, across 18 markets in Europe, India, the Middle East, South Africa and Australasia.

#Codelikeagirl offers 14 to 18-year-old girls an immersive one-week digital experience where they learn to code a website – from planning stage to the delivery of a final product. Participants acquire a basic knowledge of computer languages and programs, including HTML, CSS, GitHub and Bootstrap. During the year, 550 girls had completed the programme and 1,000 more are set to participate during the coming year.

**Our 2022 goal:** To provide up to 100,000 young people with a digital workplace experience at Vodafone
Helping young people get started in telecoms in South Africa

South Africa’s persistently high unemployment rate has a particularly negative impact on young people, with 53% of under-25s unemployed. We have developed a one-year Vodacom Learnership programme that consists of classroom-based learning and on-the-job training at the offices and stores of our South Africa-based subsidiary, Vodacom Group.

The Vodacom Learnership programme covers all aspects of our operations, including business administration, marketing, finance, retail and project management. Vodacom provides a monthly stipend to students enrolled on the programme to enable participation by young people from all backgrounds. On completion, learners are either offered a permanent position with Vodacom or return to the job market with new and improved skills and capabilities.

Apprenticeships

We continue to expand our vocational training and apprenticeships across our business. These programmes enable young people who have chosen not to go to university to join Vodafone in permanent roles while being supported through continuous learning in order to gain a formal qualification in their chosen fields. These training and apprenticeship programmes offer opportunities for young people for whom traditional academic routes are either not an option or not desirable.

During 2018, we extended our scheme from eight to 19 markets, resulting in 696 young people gaining a place on the scheme. While our apprentices can be placed in any area of the business, we feel it’s important to offer opportunities at the heart of our operations and therefore focus on bringing them into our technology and customer care divisions.

We extended our apprenticeship scheme from eight to 19 markets

In the UK, we offer Advanced, Higher and Degree Apprenticeships to students aged over 16. These include a wide variety of apprenticeships across our business. For example, customer service and operations apprentices join to support our customer-facing activities, and technology apprentices are given the opportunity to work in areas such as cybersecurity and network engineering.

Bringing apprentices into Vodafone Germany

Apprenticeships are a good alternative for high school students who do not want to pursue an academic education before starting work. Vodafone Germany offers apprenticeship in three areas: consumer retail, customer care and technology. All our apprenticeships last between 2.5 and 3.5 years, during which time participants combine part-time work at Vodafone with their studies at vocational schools. Since 2013, Vodafone Germany has hired between 90 and 105 apprentices every year.

We also offer a Study & Work programme for degree-level students — with options to focus on consumer and enterprise sales, customer care or technology. Students can spend three-month periods working at Vodafone while also studying at the Baden-Württemberg Cooperative State University in Stuttgart. Vodafone Germany hires up to 40 Study & Work students every year.

Graduates

Our Discover graduate programme, which has been running for ten years, offers young people with a bachelor’s or master’s degree a series of assignments across our business areas and local markets. Over this time, it has brought over 4,500 graduates into our structured development schemes, with 857 recruited this year, providing us with a strong pipeline of future talent. Our Discover programme is highly diverse; more than 55% of new entrants are female, and recruits are drawn from 55 different countries. Over the last six years, we have offered permanent
roles to more than 3,500 Discover graduates, leaving those who did not progress into a full-time role with Vodafone at the end of their training well placed to secure good job opportunities elsewhere.

In addition, over the last eight years 170 individuals have joined our Columbus leadership fast-track graduate scheme. This programme offers graduates who have completed their Discover graduate scheme a two-year international assignment that aims to equip them with the knowledge and insights that will prepare them for the next stage of their Vodafone career. This year, 21 graduates joined the programme and will experience international career opportunities in 12 different locations.

We continue to reshape our graduate programmes for the coming year, in line with our new focus on developing digital and telecommunications skills for more young people. The next intake will comprise 935 graduates, with 50% of these going into technology streams (compared to 30% at present).
Supply chain integrity and safety

Our businesses rely on international supply chains that span multiple tiers. We work with our suppliers, partners and peers to drive responsible and ethical behaviour and high standards across our supply chain, and do our utmost to keep everyone working in our operations safe from harm.
Supply chain integrity

We spend approximately €24 billion a year with more than 15,000 direct suppliers around the world to meet our businesses’ and customers’ needs.

Our businesses rely on international supply chains that span multiple tiers and are complex to manage. Our direct suppliers often have many suppliers of their own; these in turn rely on a large number of suppliers and this dependency continues through several tiers. Intermediaries (such as distributors and wholesalers) are also involved at various points in our chains. In all, tens of thousands of businesses may be involved, across many countries. In addition, our suppliers change constantly as we award or change contracts throughout the chain.

Conduct that is at odds with our principles and beliefs can occur at any point in these supply chains; poor behaviour by any supplier can have negative consequences for a large number of businesses throughout the chain. Our efforts to ensure responsible and ethical behaviour throughout our supply chain span multiple jurisdictions and cultures and involve a vast number of individual workplaces and supplier employees.

We work to ensure integrity in our supply chains by managing many different legal, social, ethical and environmental risks. We also encourage those who work with us, directly or indirectly, to adopt sustainable business practices. Enhancing supplier performance in this area improves quality, boosts productivity, stimulates innovation and helps to secure a better working environment for everyone working in our supply chain.

Safety in our supply chain is also critically important. We have comprehensive measures in place in our own businesses that are designed to keep everyone who works for us safe from harm. We reinforce these measures across our supply chains.

15,000 direct suppliers around the world

Conduct that is at odds with our principles and beliefs can occur at any point in these supply chains; poor behaviour by any supplier can have negative consequences for a large number of businesses throughout the chain. Our efforts to ensure responsible and ethical behaviour throughout our supply chain span multiple jurisdictions and cultures and involve a vast number of individual workplaces and supplier employees.
A typical electronics supply chain for Vodafone

Our direct suppliers have a very large number of their own suppliers, each of which can have their own complex supply chain. This diagram is simplified, but it illustrates an example of a multi-tiered electronics supply chain.

**Tier 1: direct product suppliers**
Vodafone buys products and services from approximately 15,000 direct suppliers. Most of our expenditure is with large multinational companies supplying finished products. We have a direct contractual relationship with these Tier 1 suppliers and we work with them to develop innovative new products and services, engage their leadership, and assess how they assure compliance across their operations.

**Tier 2: electronics manufacturers and sub-assemblers**
The electronics manufacturers and suppliers we contract with have many suppliers of their own. We work with our Tier 1 suppliers to find out more about their direct suppliers (Tier 2 businesses) – particularly where we believe a supplier is high risk.

**Tier 3: component suppliers**
Our Tier 1 and Tier 2 suppliers source components from a significant number of suppliers to form parts of the products they manufacture.

**Tier 4+: commodity and raw material suppliers**
The electronic products we buy and use are made using commodities and raw materials sourced from many different suppliers even further down our supply chains.

Our network of suppliers and sub-suppliers is constantly changing. We are members of, and involved in, industry initiatives such as the Responsible Minerals Initiative (RMI) in order to improve transparency in supply chains. If we can influence the design or manufacture of products, we try to ensure that they do not contain metals and minerals that fund conflict in the Democratic Republic of Congo. We provide further details of our approach to this issue in our statutory Conflict Minerals Report and Artisanal Cobalt Statement.
Supply chain risks

Some of the gravest and most material risks in the information and communications technology (ICT) supply chains include injury to people working in field operations, the harmful effects of working long hours in electronics factories, corruption and human rights abuses in the mining of cobalt or other metals and minerals. These risks are linked to serious forms of unethical behaviour and maltreatment. This is why we have developed robust systems to seek to ensure that our suppliers share our values and strive to meet our mandatory ethical, labour and environmental standards. We expect all our suppliers to follow our Code of Ethical Purchasing and uphold the Business Principles that are integral to our Code of Conduct. We expect our suppliers to be accountable for managing risk in their operations and to understand that we expect them to hold their own suppliers accountable to the same high standards.

When choosing a new supplier, or choosing to continue to work with one, we assess the supplier's compliance with our rules on health, safety and responsible behaviour, just as we assess commercial factors such as quality, cost and ability to deliver on time.

Integrity in our supply chains

Ensuring integrity in our supply chains is an important priority for us. Our focus extends beyond effective risk management: we believe that our sustainable procurement policies and processes can give us a competitive advantage as our customers and partners also seek to minimise the reputation risks in their own supply chains. One example of this is our work with several of our suppliers to improve energy efficiency.

Network infrastructure and related services account for most of our procurement spending. These are procured from a small number of suppliers with the investment, capabilities and scale required to invent, build, install and maintain network infrastructure equipment for us and other providers. The products we sell to customers (for example, mobile devices such as phones and tablets) also account for a significant proportion of our procurement spending. As a large multinational with around 104,000 employees, we are also a significant purchaser of goods and services to support our general business and administrative functions.

Purchasing and supplier management are largely controlled centrally by the Vodafone Procurement Company (VPC). The VPC manages most of our spending with suppliers worldwide, supporting the needs of our operating companies and group functions. This approach helps to ensure objective and consistent supplier management across Vodafone’s businesses, making it easier to monitor and improve supplier performance.

We also have relationships with local suppliers that work on behalf of our local country businesses, particularly those involved in service-related procurement, such as merchandising or field operations. Our support for these local businesses has a positive impact on communities through providing employment in our local operating countries.

Levels of influence

Monitoring our suppliers' compliance with our rules can be challenging because so many businesses, often operating in multiple locations, are involved at different tiers of our supply chains.

The level of influence we can exert over businesses in our supply chain varies significantly. In most cases, we have the greatest level of influence over our Tier 1 suppliers with which we have direct contractual agreements. Many of these are substantial businesses with proven processes in place to ensure high standards and sustainable business practices. We also work closely with a limited number of strategic suppliers, which collectively account for a large proportion of total procurement expenditure. We can have less influence over suppliers where they dominate the marketplace with a particular product or service or where we are not a relatively significant purchaser.

We have less control over Tier 2 and other sub-suppliers operating further down our supply chains where the risks of non-compliance are higher – we have to work with our direct suppliers to monitor and manage the risks at this level. Consequently, our Code of Ethical Purchasing requires all our Tier 1 suppliers to ensure that their suppliers also have suitable policies, processes and verification in place to manage risks and ensure compliance in their own supply chains. We collaborate with some of our Tier 1 suppliers to monitor their supply bases directly and help them to improve standards.

We have greater influence over the infrastructure suppliers who supply, install and maintain our networks as well as over suppliers that provide branded products and services. Safety is a critical priority throughout our supply chain, and in particular during the installation, management and maintenance of our mobile and fixed-line networks. There are risks for our employees and suppliers when carrying out this work, including those related to driving, working at height or dealing with high-voltage equipment.

You can read more about our approach to safety management on page 51
Our policy

Our mandatory Code of Conduct makes it clear that we must require our suppliers to promote and encourage support for our Business Principles throughout their own operations. The obligations are specified in the Vodafone Code of Ethical Purchasing, which was developed following consultation with employees, suppliers, investors and NGOs.

We want to ensure safe and fair working conditions, along with responsible management of environmental and social issues across our supply chain, through a commitment to continuous improvement from all our suppliers. Our Code of Ethical Purchasing sets out clear expectations on topics such as: ensuring the safety of people working with us, no child labour, no forced labour, fair payment and working hours, fair disciplinary practices, no discrimination, anti-bribery, responsible sourcing of minerals and protection of the environment. Over time, this approach should support improvements in working conditions and quality of life for the people involved in our supply chain.

Our Slavery and Human Trafficking Statement also provides an overview of the measures we take to address the risk of modern slavery in our businesses and our supply chain.

Minerals in the supply chain

Vodafone does not directly own or operate factories or production plants, with the exception of a technology operation in Italy that is part of our Vodafone Automotive ‘Internet of Things’ (IoT) business. We do not directly purchase raw minerals, ores or metals. The vast majority of the smartphones and tablets that we resell to customers are made by major companies with internationally recognised brands that report on sustainability efforts in their own right. We also offer our customers a range of smartphones and tablets that carry the Vodafone logo. These devices are designed and manufactured on our behalf by suppliers, known as original design manufacturers (ODMs).

Some electronic products contain cobalt within lithium-ion batteries. Cobalt is mined, processed by smelters and refiners, and then supplied to component manufacturers, assemblers and sellers. These suppliers are a long way down the supply chain from Vodafone and our ODMs, but we understand how important it is to do all we can to ensure they operate responsibly and ethically.

This year, we have started work to investigate the potential human rights risks relating to cobalt mining further down our supply chain. We are taking a similar approach to the one we use for 3TG metals (tin, tantalum, tungsten and gold) and focusing on identifying products likely to contain cobalt and the locations of suppliers who manufacture or contract to manufacture those products. Typically, these are Vodafone-branded phones and tablets, power bank accessories and telematics control units for vehicles.

We have contacted the relevant suppliers and requested details of the cobalt smelters in the relevant supply chains. Where necessary, we have asked suppliers to contact their sub-suppliers in order to obtain this information. All the suppliers we approached have responded to our request, but the information provided is not yet complete as some suppliers are not yet able to trace cobalt back to the mine.

Based on the due diligence activities we have undertaken for 3TG metals, we know that it can be extremely difficult and take some time for our suppliers to trace sources right back to the smelter so they can provide us with reliable and complete information. In addition, our ODM device suppliers are limited in their ability to obtain information from suppliers of lithium ion batteries, due to a lack of leverage and influence with the small number of units they purchase on our behalf. We recognise the importance of this issue and we will continue working with our suppliers and through industry initiatives to try to obtain more complete, better quality information over time.

Further details on our approach and policies relating to modern slavery can be found in our Slavery and Human Trafficking Statement.

Read more in our Conflict Minerals Report 2017
Qualifying as a Vodafone supplier

To become a Vodafone supplier, a business must confirm that it understands, accepts, and commits to comply with the standards and requirements set out in our Code of Ethical Purchasing. This confirmation forms part of the standard terms and conditions included in all of our supplier contracts. These terms and conditions are non-negotiable.

We conduct pre-qualification due diligence on all new suppliers to ensure they meet our requirements. This year, approximately 2,900 companies qualified as Vodafone suppliers, a similar number to last year (2017: 3,000). Our due diligence and qualification process led to 19 prospective new suppliers being rejected due to not meeting our requirements based on operating in locations, or having working environments or areas of business activity, with potential ethical, social or environmental risks.

Our risk specialists assess all high-risk suppliers. These specialists operate completely separately from other Vodafone employees who may be involved in the commercial aspects of our relationship with a specific high-risk supplier. This separation ensures that the outcome of the due diligence process we implement is as objective as possible.

Ensuring suppliers match our standards

Vodafone Code of Conduct
Vodafone Code of Ethical Purchasing

- Contractual commitment to Code of Ethical Purchasing
- Due diligence

- Based on country, industry and type of activity

- Screening for reputational issues
- Validated questionnaires
- On-site audits
- Direct worker feedback

- Improvement plans
- Events and forums
- Sharing best practices
- Capability building

Recognition

- Offer further work
- Supplier awards

Consequences

- Reduce business
- Terminate contract
### Monitoring compliance

From the outset, we expect our suppliers to continuously monitor their compliance with the standards set out in our [Code of Ethical Purchasing](#) and to promptly rectify any failures to do so. We also require them to report serious breaches to Vodafone immediately, in order for us to ensure they take effective and timely corrective action.

We monitor compliance with the Code of Ethical Purchasing in a number of ways. High-risk suppliers, including those operating in industries, sectors or countries with a history of poor standards, are required to complete a detailed evaluation process. The approach we take to monitor compliance is determined by the nature of the risks and the kind of activity involved.

### Supplier questionnaires

We monitor our key suppliers’ health and safety and sustainable business performance standards, as well as their commercial, product and service performance, through our [Supplier Performance Management Programme](#). We define key suppliers in terms of the significance of our expenditure with them and the nature of their contribution to our business.

We require suppliers to complete an ethical, labour and environmental risk questionnaire – providing evidence to validate their responses. Suppliers can use the questionnaire to highlight ways in which they have shared best practice in their own business or their supply chains. This year, we evaluated 65 key suppliers in this way. Our supply chain team validates and uses the information they provide to assign each one an overall sustainability score and grade. These scores are used as the basis for the Vodafone Supplier Awards.

### On-site audits

We regularly undertake intensive on-site supplier audits, often taking several days to complete. They involve an examination of written policies and procedures, site inspections and discussions with managers and employees. The end result is a detailed insight into how suppliers’ policies translate into action.

Our industry peers face many of the same supply chain risks that we do and also use many of the same suppliers. It therefore makes sense for us to share on-site assessments, conducted to our minimum standards. We do this along with 16 other telecoms operators, through the Joint Audit Cooperation (JAC) initiative. Through the JAC process, each supplier undergoes a single audit. The results of this audit are shared between JAC members and one member leads the follow-up with the supplier.

Between January and December 2017, there were 81 JAC audits, of which 75 were within Vodafone’s supply chain. Of the 75, 24 Tier 1 direct suppliers, 33 Tier 2 suppliers, and 18 Tier 3 suppliers were audited. In parallel, we conduct our own on-site assessments for specific Tier 1 and Tier 2 suppliers that we have identified as high risk but that are not covered by the JAC initiative assessments. This year, we conducted 17 on-site assessments, all of which were focused on Tier 1 direct suppliers.

### Direct employee feedback

While the assessment of working hours and working conditions is important, it can be difficult because supervisors and managers can attempt to falsify timesheets and other workplace records. We are therefore continuing our efforts to obtain direct feedback from our suppliers’ employees in order to identify modern slavery risks and identify areas for improvement.

We use Laborlink, from Elevate, to gather confidential and unbiased feedback directly from our suppliers’ employees. Laborlink is a simple mobile phone-based worker survey that enables employees to reply anonymously to pre-recorded questions in their local language at any time and from any location. We require participating suppliers to allow their employees to respond to the Laborlink questions freely and privately. The responses provide us with important insights into our suppliers’ employees’ working hours and conditions so we can work with suppliers to put in place appropriate remedial measures. During 2018, 2,556 suppliers’ employees – in two Tier 1 and eight Tier 2 supplier factories – used Laborlink surveys to tell us about their working conditions. We believe worker surveys can be used more extensively across our supply chain in future and we are working with JAC members to continue to promote the use of Laborlink to conduct surveys to complement on-site assessments.

### Number of assessments conducted

<table>
<thead>
<tr>
<th>Number of assessments conducted</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of site assessments conducted by JAC*</td>
<td>61</td>
<td>69</td>
<td>81</td>
</tr>
<tr>
<td>Number of supplier site assessments conducted by Vodafone</td>
<td>24</td>
<td>26</td>
<td>17</td>
</tr>
<tr>
<td>Number of sites assessed using a mobile survey of workers</td>
<td>8</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total number of assessments</strong></td>
<td>93</td>
<td>102</td>
<td>108**</td>
</tr>
<tr>
<td>Number of factory workers surveyed using mobile survey</td>
<td>2,607</td>
<td>4,743</td>
<td>2,556</td>
</tr>
</tbody>
</table>

* JAC assessments are reported on a calendar-year basis.
** Three sites were assessed both on-site and via mobile surveys.
Detecting and tackling modern-day slavery

This year, we adapted our use of Laborlink to pilot a new way of detecting incidences of modern-day slavery. The approach identifies individuals who work for particular suppliers and then requests them to complete the survey at a time and place of their own choice. This community-based method has a greater reach and the potential to deliver deeper insights than conventional on-site audits and worker surveys.

Following a detailed geographical mapping exercise of all our Tier 1 suppliers, Laborlink selected and trained local NGOs to undertake anonymous mobile phone surveys in and around communities in Cochin and Chennai, India, where there were higher concentrations of direct suppliers located in Vodafone's supply chain. The results highlighted significant risks related to recruitment fees and freedom of movement that had not previously surfaced through on-site audits – with an estimated 3% of workers interviewed possibly subjected to some form of modern slavery.

We have used this new data to develop better supplier training and asked more than 8,000 supplier businesses to implement the training and cascade it through their supply chains. The training, which is delivered in English, Hindi and Chinese, is designed to increase workers' and line managers' awareness of modern slavery. It also promotes Speak Up as a way for workers to raise issues directly with Vodafone. The content of the training can be viewed (after a simple registration process) on the Vodafone supply chain website.
Providing our suppliers with direct support

This year, as part of the JAC initiative, Vodafone and three other operators set up a Supplier Academy. The academy focuses on developing training to help suppliers assess and improve the social, ethical and environmental performance issues inherent within supply chains. In an initial pilot, two managers from each of the five participating suppliers will join the academy to undertake a week of classroom training delivered by an internationally recognised audit and verification company. Using a ‘train the trainer’ approach, these suppliers will receive certification on completion of the training which will enable them to carry out similar assessments of their own and suppliers’ facilities.

Improving performance and building capability

Engaging directly with suppliers is one of the most effective ways of improving performance in our supply chain. Ways to do this include using our monitoring processes, follow-up discussions and briefings with suppliers’ managers and executives. If we identify evidence of non-compliance through JAC audits, our own on-site assessments, or worker surveys, we work with suppliers to develop corrective actions, to improve their policies and/or strengthen the processes they use to manage key risks.

This year, most of the recommendations made following Vodafone or JAC audits were related to health and safety, with an increase in those related to fire evacuation signage, evacuation lighting and fire exits. There was also an increase in environmental recommendations, mainly related to unsatisfactory management systems or emissions monitoring. We work directly and through the JAC governance process to ensure all recommendations are fully implemented.

The key factors underlying recommendations (ranked by frequency)

Health and safety
- Emergency preparedness (for example, poorly signposted or blocked fire exits).
- Lack of safety management policies and processes.
- Inadequate safeguards to prevent injury from machinery.
- Inadequate safeguards to prevent exposure to hazardous substances.
- Poor sanitation.
- Unsatisfactory food preparation.

Payment
- Improper overtime payments.
- Failure to comply with minimum wage requirements.
- Failure to keep accurate records on payment and other benefits.

Discrimination
- Inadequate policies to ensure equality.

Forced labour
- Further details are provided in our statutory Slavery and Human Trafficking Statement.

Disciplinary practices
- Lack of fair rules for disciplining employees.
- Wage deductions used as a disciplinary measure.

Young workers
- Inadequate young worker protection policies.
- Instances of young workers found to be doing overtime or night shifts.

Freedom of association
- Employees denied the opportunity to join representative bodies for collective bargaining where those bodies are permitted by law.

Recommendations for improvement from combined JAC audits* and Vodafone audits in 2018

Number of cases
- Health and safety 474
- Environment 132
- Working hours 115
- Business ethics 78
- Payment 32
- Discrimination 15
- Forced labour 15
- Disciplinary practices 11
- Young workers 10
- Freedom of association 7

* JAC audits are reported on a calendar year basis.
When corrective actions are agreed, we ensure that they are completed within the set timeframe. Generally, we accept documented evidence (including photos) that actions have been completed, but if necessary we will re-audit a site to ensure this is the case. All critical performance issues identified from the on-site audits were closed out during the year. The top three issues we continue to see are: health and safety, environmental management and excessive working hours. Through establishing the JAC Supplier Academy, we hope to drive greater capability-building in the supply base through training and enabling our suppliers to assess and improve their own operations to address improvement opportunities.

We believe that this approach of supporting suppliers will ultimately be of greater benefit to our suppliers’ employees than simply terminating supplier contracts following unsatisfactory initial audits. Doing so would effectively allow issues to remain unaddressed, leaving the employees working in an inappropriate environment without prospect of improvement. We will, however, terminate a contract if any supplier persistently fails to resolve compliance failures or if issues of gross misbehaviour occur.

We work with our peers and suppliers to share best practice and to strengthen compliance at the top tier of our supply chain. We work with our most important network suppliers to produce design specifications for network infrastructure that minimise health and safety risks; and every quarter we bring our top ten highest-risk network suppliers together to discuss best practice in safety.

You can read more about safety on page 51

Virtual reality and digital safety
This year, we started using virtual reality to provide immersive workplace safety training for our employees and suppliers. This training focuses on the potentially fatal dangers inherent in working at height on a mobile tower, to help participants appreciate the need to use personal protective equipment and take all other required precautions. Following positive feedback, we will be expanding the scope of this virtual reality training over the next year.

Automation and job retention in our supply chain
This year, we worked with one of our key suppliers on the use of automation to improve productivity. TCL Communications (TCL), one of Vodafone’s branded device suppliers, implemented automation within the assembly and test operations that are part of its product manufacturing process. Automation of these processes reduces the need for manual and repetitive labour and for shift work outside of typical working hours.

TCL developed and introduced the automation of moving goods and manual assembly steps such as fitting screws, gluing and labelling. TCL redeployed all the workers who were previously carrying out these tasks to other vacant positions in the business, allowing it to retain valuable knowledge, experience and skills. For TCL, automation has reduced safety risks and enabled it to better manage the challenges related to complying with working-hours requirements. This has also helped improve production efficiency and product quality levels for Vodafone.

“We have invested in automation to support sustainable development. Automation can further improve our competitiveness and thus create more value for our customers, create better opportunities for our workers and create more benefits for society.”

Lyu Xiaobin, Senior Vice President of TCL Communications and General Manager of TCL’s Global Manufacturing Centre
Safety

Keeping the people who work for us safe is one of our most fundamental responsibilities. We take safety extremely seriously in our operations and aim to promote our approach across our industry by having leading safety standards, and by insisting on high safety practices from our employees and our suppliers and engaging with customers and peers.

Our commitment to safety does not differentiate between our own employees, our contractors and our suppliers’ employees and contractors, all of whom benefit from the same focus on preventing harm, both on our worksites and when working or moving between sites. We want everyone working with Vodafone to return home safely every day. Any injury is one too many; any loss of life related to our operations is unacceptable.

It is with great regret that we report nine recordable fatalities\(^1\) this year. We provide the context for those deaths in this section on page 57, fully conscious of the burden of each loss for the families, friends and colleagues affected.

Policy

Our Code of Conduct makes it clear that everyone working for or on behalf of Vodafone must behave in a safe and responsible manner at all times. Our Group Health, Safety and Wellbeing Policy expands on the Code of Conduct, setting out our commitment to establish a robust and durable health, safety and wellbeing culture. This policy is accompanied by detailed standards setting out the specific steps that must be taken to manage our greatest risks.

Our Absolute Rules on safety

The Vodafone Absolute Rules on safety focus on risks that present the greatest potential for harm for anyone working for or on behalf of Vodafone. The Absolute Rules are clear and unambiguous and are underpinned by a zero-tolerance approach to unsafe behaviours in all of our businesses.

Our Code of Conduct emphasises the need for full compliance with the systems and processes designed to keep everyone who works for us safe at all times. Every Vodafone employee or contractor and every supplier employee and contractor must:

- abide by the Absolute Rules at all times;
- intervene if they see someone behaving in an unsafe manner;
- consider how their decisions and actions will affect the health and safety of others; and
- never compromise health and safety.

This year, we refreshed our global Code of Conduct training, which has been completed by 95% of employees\(^2\). The training includes a revised mandatory e-learning safety module, designed to ensure that employees know how to keep themselves and others safe at work. It also includes details of our Speak Up programme that enables anyone to report safety concerns anonymously, if they prefer not to raise them with colleagues.

In addition to the Absolute Rules, our Supplier Group Policy on Health, Safety and Wellbeing sets out additional safety requirements at an operating level, particularly for high-risk activities. The policy emphasises the need for suppliers to monitor compliance on a continuous basis, report about their safety performance to us and have in place robust mechanisms to manage safety in their own supply chain. It also requires suppliers to put in place a safety plan before they undertake a number of specified high-risk activities.

Our Absolute Rules on safety

Vodafone employees and contractors, and our suppliers’ employees and contractors, must:

- always wear seatbelts when travelling in or operating vehicles;
- always use suitable personal protective equipment, a safety harness and fall protection when working at height;
- never carry out electrical work on electrical equipment, circuits and gear if they are not qualified;
- never work under the influence of substances (alcohol or drugs) that are illegal or in excess of legal levels or where this impairs the individual’s ability to perform tasks;
- never exceed speed limits or travel at speeds that are dangerous for the type of vehicle or conditions;
- never use a hand-held phone while driving and only make calls by pulling over or using hands-free devices, when it is safe to do so; and
- never undertake any street or underground work activities unless competent to do so.
Managing key safety risks

Our safety strategy focuses on the most significant risks for people working in operational roles in our businesses. These risks are:

• road risk when driving for work;
• working with electricity;
• working at height;
• laying cables in the ground; and
• the management and control of suppliers.

Historically, these risks have accounted for the majority of serious incidents and fatalities that have occurred in Vodafone and in our supply chain. This reflects the general trend across the global telecommunications industry. Traffic-related incidents remain the greatest threat of harm on a daily basis, particularly in emerging markets.

We consider the management and control of suppliers to be a significant risk in its own right because much of the work relating to the risks identified is undertaken by our Tier 1 suppliers or Tier 2 sub-suppliers.

We require everyone who works for us to understand the safety risks inherent in their role and know exactly what they must do, and not do, to identify and mitigate those risks and to protect themselves, their colleagues and the wider public.

Road safety

Every year almost 1.25 million people worldwide die as a result of road traffic accidents. This risk is particularly significant in emerging markets. Around 90% of global road traffic-related fatalities occur in low and middle-income countries, where driving conditions are often hazardous, average vehicle conditions and driver standards are poor, and accident rates on public roads are very high. Traffic accidents on public roads in India account for 16.6 deaths per 100,000 people; the comparable statistic for the UK is 2.9.

Training in safe driving techniques is mandatory for anyone who drives a road vehicle while working on our behalf. However, mitigating road risk remains challenging because we have no direct ability to control external factors such as unsafe driving conditions, the lack of a prevalent safety-first culture, or the actions of third parties on public roads.

In 2018, road traffic accidents were once again a leading cause of work-related fatalities and major injuries in our supply chain, accounting for four of the nine recordable fatalities reported this year. We will continue to work closely with all of our suppliers to prioritise higher standards of road risk management and control during the year ahead.

In addition to our Absolute Rules, which are designed to minimise the likelihood and severity of driving-related incidents, we have introduced additional rules to address local issues in some high-risk countries. For example, in India we require Vodafone employees and suppliers who ride a motorcycle on our behalf to wear a helmet securely fastened with a chinstrap and a high-visibility reflective jacket or vest.

Implementing a safe driving programme in India

In India, drivers historically worked for Vodafone on an ‘on call’ basis, possibly making just one journey. This made it difficult to ensure they understood and complied with our road safety guidelines. To address this issue, we recognised the need to create a common pool of Vodafone-trained drivers and Vodafone-maintained vehicles.

Vodafone India created an incentive programme for drivers, which encourages them to work regularly for Vodafone and match our safety standards every time they do so. Following a pilot in 2016, the programme was rolled out across India in June 2017, with more than 800 drivers now participating in our logistics pool. All participating drivers are trained to operate a fleet comprising more than 1,360 GPS-enabled vehicles, which we can monitor on the road, 24 hours a day, every day.

Since we created this new pool of trained drivers, we have had no major incidents or fatalities. A second phase of the programme will involve the introduction of reward points, earned on the basis of kilometres safely driven, with penalties for any violations, for example night driving or speeding. Drivers will also be encouraged to improve their standards through a ranking system as a Bronze, Silver, Gold, Platinum or Diamond driver.
Safe driving behaviour

In Africa, where speeding is a major cause of road accidents, we are using Vodafone technology to reinforce the need for safe driving to anyone who drives on our behalf.

Back in 2015, we launched Road Guardian, a telematics tracking programme that uses mobile network geolocation, GPS and dashboard cameras. It enables us to monitor driver performance, detect unsafe behaviours and identify the causes of any accidents.

Drivers receive feedback and coaching to help them improve their driving and are rewarded for safe driving behaviour. In just three years, Road Guardian has helped Vodacom in South Africa reduce instances of speeding, harsh braking and swerving, from 43 reported incidents in 2015, to 19 in 2017. In-vehicle cameras have also been introduced in Vodacom vehicles in Mozambique and Lesotho this year.

The importance of communicating safe driver behaviour remains a priority and Vodacom have updated their ‘Expect the unexpected’ driver awareness campaign programme, reaching more than 10,000 suppliers and providing refresher training for more than 2,000 drivers this year.

Telematics is now a standard minimum requirement on all vehicles operated by or for Vodafone; local markets are required to comply if the local legal position allows them to do so.

Working with electricity

Our Absolute Rules stipulate that anyone working with electrical equipment must be qualified and authorised to do so. Our training module on working with electricity provides guidance to employees on how to recognise risks and implement appropriate safety controls.

This year, two incidents resulted in three fatal electrocutions (see page 57). These involved individuals who came into contact with live electricity, rather than being involved in electrical work at our sites. Consequently, we have taken the following actions:

- issued a global safety alert to all markets and suppliers, to reiterate our policies and controls with respect to electrical proximity risks;
- emphasised electrical proximity risk at our global supplier forum held in September 2017; and
- conducted monitoring checks during Group market visits.

We will continue working with suppliers to ensure that they always have a documented risk management process for working with electricity; that individuals working with electricity are authorised to do so, competent and medically fit; that electrical equipment is fit for its intended purpose; and that appropriate safety controls, such as ‘lock out – tag out’ are in place.

We have an electrical work permit scheme that requires all employees, contractors, and suppliers’ employees and contractors, to photograph the power isolation in place before starting work on equipment operating at medium or high voltage. The photograph must be sent to the manager accountable for the activity in question, who must verify that the correct standards have been met before authorising the work to proceed. This process is integrated into our global policy standard for electrical work.
Working at height

Mobile communications services rely on connectivity provided by antennae placed on towers, masts and rooftops. We try to ensure that Vodafone employees, contractors, and suppliers' employees and contractors, who work at height, are trained to understand and control the risks involved. Our Absolute Rules mandate the use of suitable personal protective equipment (PPE) when working at height, including a safety harness and fall-arrest system as well as helmet, safety boots and appropriate gloves.

Our network site design principles stipulate the need for safe access for people working at height and include guidance on the control measures required to manage the risks involved effectively. Fall-arrest equipment is checked regularly as part of each of our local businesses' preventative maintenance programmes.

This year a fatality was caused by a falling object in India. There were also a high number of major and high-potential working-at-height incidents in India and the Vodacom markets. We are working with the suppliers involved in these incidents to ensure remedial actions and effective controls are put in place and monitored. To date, we have:

- included a focus on supplier lifting operations in our 2018 technology objectives;
- ensured ongoing investment to maintain and certify fall-arrest equipment as part of every market's maintenance programme;
- continued third-party assessments of organisations that provide working-at-height training to Vodafone and our suppliers, with assessments of India, Egypt, Turkey, Greece, Albania, Romania and Qatar completed to date and more planned for next year; and
- completed follow-up visits in India and Romania to ensure that required improvement measures were implemented.

Laying cables in the ground

Expanding our fixed-line business has increased the amount of work undertaken to lay or maintain cables at street level or underground. At street level this work is inherently hazardous, with the risk of injury or death posed by penetrating electricity or gas lines, trenches collapsing during excavation and nearby road traffic.

Our Absolute Rules state that no one should undertake street or underground work unless competent to do so. All of our employees, contractors and suppliers' employees and contractors must comply with our Group Safety Standard and with guidance documents governing the laying of cables in the ground.

Fibre-to-the-Premises (FTTP) and cable broadband installations require employees and contractors to work on private residential and business property as well as in the street. Doing so also poses risks, for example, not knowing the location of buried utilities. We are working with our local businesses to ensure that they have the necessary safety plans and controls in place to mitigate these risks.

Improving safety together with non-technology suppliers

During the year, we completed two high-profile projects in Vodacom South Africa, which both involved working at height. Our non-technology suppliers can often lag behind on health and safety standards, so we implemented a series of supplier skills programmes, including approved training on working at height. Appointing a dedicated health and safety officer for each supplier throughout the project made a positive difference; the officers delivered training, site inspections and daily safety assessments.

We erected a large neon sign on the Ponte City skyscraper in Johannesburg and repainted two huge water-cooling towers in Soweto, without incident, demonstrating the success of shared efforts to improve the health, safety and wellbeing (HSW) standards of our non-technology suppliers in South Africa.
**Action on safety at warehouses**

After three fatalities relating to driving to and from warehouses in India over the last two years, we have taken action to stop similar incidents occurring in future. We have:

- supported our major warehousing partner to fit GPS-enabled driver monitoring technology on its dedicated vehicles;
- created a Health, Safety and Wellbeing manual in partnership with our warehousing supplier, which has been distributed across India;
- introduced routine alcohol testing;
- put in place local-language and pictorial road safety display boards, which are now used during driver induction;
- updated vehicle checklists and implemented regular vehicle monitoring;
- introduced a driver reward scheme in India to retain competent drivers and reduce the number of one-off hires;
- improved vehicle utilisation to reduce the number of vehicles on the road; and
- started to implement fixed electrical installation testing in all our India warehouses.

In addition, we have launched a Group-led review of minimum safety requirements at warehouses.

**Control of suppliers**

Suppliers’ employees and contractors working on masts, towers and other equipment undertake most of the highest-risk activities related to the deployment and maintenance of our networks. As a result, we seek to work with a smaller group of our Tier 1 and Tier 2 suppliers for any high-risk activities. In addition to our policies and Absolute Rules, we operate a consequence management system. This means we will terminate contracts if our suppliers or their sub-suppliers persistently fail to meet our standards.

Effective risk management starts at the top of any organisation, so we explain our safety expectations to the chief executives and senior leadership teams of our supplier businesses. We expect them to focus on the operational challenges our safety experts identify.

Four times a year, we host a Supplier Safety Forum for our major network suppliers, focusing on best practice and critical risks. Since the first Forum was held in 2016, collaboration with our suppliers has increased, with agreements reached to share minimum standards in key risk areas.

**Developing minimum training standards for suppliers**

In Portugal, the Vodafone Health and Safety Team has been working with other telecoms organisations to establish minimum supplier training standards for working at height. This collaborative approach and the success of the project in raising safety standards has been recognised by Agência Nacional para a Qualificação e o Ensino Profissional (ANQEP) – the national agency for qualifications and professional learning – resulting in our training requirements being adopted as national minimum standards.

**Compliance**

Rules are only effective if people follow them. This is why we take monitoring and enforcement seriously. We work hard to ensure everyone who works with us understands and complies with our Absolute Rules.

Employees who fail to do this face disciplinary action, which can lead to dismissal. Our absolute focus on compliance, and on the consequences of non-compliance, is widely recognised across our businesses: 94% of employees who responded to our Global People Survey in 2017 said they believed the Absolute Rules are taken seriously at Vodafone. This is a one percentage point increase on the 2016 survey.

We operate a formal consequence management process to address compliance issues but prefer to help non-compliant suppliers improve their performance, rather than terminate their contracts. However, if a supplier persistently fails to meet our safety standards, we will stop working with them and prohibit them from bidding for future work with Vodafone.

The risks we face remain fairly constant, but thinking about how best to mitigate them is evolving all the time. To stay in touch with best practice, we engage with our industry peers, our suppliers and other relevant bodies. We also recognise that local factors always need to be taken into account, so we formally review our most critical global standards every year, to ensure they as fit for purpose as they possibly can be.

**Governance**

Our Group Health, Safety and Wellbeing (HS&W) team oversees health and safety management across Vodafone. The team reports to the Group Human Resources Director, who is a member of the Executive Committee and reports directly to the Group Chief Executive.
The Group HS&W team provides specialist support for safety leaders in our local market businesses. They collaborate through a mutually supportive network, sharing best practice and knowledge, and work closely with other Group Technology and Procurement functions.

This year, our Group Internal Audit team conducted a seven-month cross-entity safety audit in India, Spain, Ghana, Albania, Egypt and Vodafone Shared Services (India). Group Internal Audit were supported by local-market auditors, third-party auditors and the Group HS&W team to ensure a thorough assessment of safety practices and compliance to Group policies. While issues were identified in each market, the overall grading was satisfactory. Markets are developing plans to address identified issues and will be supported and monitored by Group HS&W to ensure all remedial actions are closed.

**Investigating fatalities**

Whenever a work-related fatality is reported anywhere in our business we carry out a fatality review, regardless of whether the individuals involved were employees, contractors, suppliers’ employees or contractors, or members of the public. These reviews are chaired by the Group HR Director and attended by the Executive Committee member responsible for the relevant part of the business and the Chief Executive Officer of the local market. The key background points are shared with the Group Executive Committee (chaired by our Group Chief Executive) and discussed at the Committee’s next meeting. Biannually we update the Group Board on our Health, Safety and Wellbeing performance, including fatalities.

**Maturity Matrix**

We are committed to building a safety-first culture in Vodafone and throughout our supply chain: a culture in which safety considerations are instinctively hardwired into decision making at every level.

We use a Maturity Matrix to assess the status of the safety culture in each of our local markets. It assesses progress on the basis of safety leadership, safety learning, employee engagement, supply chain management, governance and assurance, and integrates elements of the International Safety Rating System – a worldwide framework to audit corporate safety performance. It also focuses on the most significant risks in our business with an emphasis on improving performance rather than simply complying with standards. In 2018, the Matrix included health and wellbeing for the first time. See page 66 in the Our people section for further details of our wellbeing framework.

Local markets integrate the results of the Matrix into their annual HS&W plans, setting clear and relevant objectives. Progress against these objectives is reviewed every quarter by their senior leadership team and the Group HS&W team. The Maturity Matrix this year shows strong scores globally for leadership, employee engagement and governance. Wellbeing and supplier engagement were identified as areas for improvement and have been included as market-specific objectives for the 2019 financial year.

**Leadership**

‘The tone from the top’ is a critical factor in determining how well any organisation embeds safety in its working behaviours. We expect our senior leaders to demonstrate personal leadership in this area and a focus on safety is a prerequisite for a senior role with Vodafone.

Safety is a part of all our leadership programmes and we run workshops for executives and senior managers to reinforce the leadership behaviours that support a strong health and safety culture. All of our Group executives, supply chain leaders, technology directors, human resources directors and other senior leaders work towards annual health, safety and wellbeing objectives.

Senior leaders, technology directors and supply chain managers in local markets are mandated to complete at least four management safety ‘tours’ every year, reinforcing the message that safety really matters. This year, our senior leaders completed more than 900 of these tours. We record the details of their discussions about safety issues and performance for subsequent analysis by local and Group safety teams.

**Performance**

Monitoring and reporting on our safety performance is essential to ensure the safety of everyone working with us – our employees, our contractors and suppliers, and their own employees and contractors. It also helps us to focus on and address risks that are inherent to our industry.

We want our own teams, our suppliers, our stakeholders and others in our industry to learn from the performance data we share. In the case of fatalities, we set a wide boundary for our in-scope reporting.

In contrast with many businesses, which only report employee fatalities on their own premises, we report fatalities involving any of our suppliers’ employees and contractors (across all Tiers) and members of the public, regardless of whether or not these fatalities occur on Vodafone premises or at other locations, for example, public roads. We investigate and report openly on our findings in the case of fatalities within our reporting boundary, including instances in which we conclude that our safety controls did not function as intended or that they could have been enhanced in any way.
Fatalities

It is with deep regret that we report nine fatalities during the past year. All occurred under circumstances in which, after investigation, we concluded that our supplier controls had been breached or were not operating effectively. Specifically:

- four people died in vehicle-related incidents: one employee of a supplier and two members of the public died when their vehicle was hit by an oncoming vehicle in the Democratic Republic of Congo, and in India, one employee of a supplier died in a road traffic incident while delivering materials to a Vodafone site;
- three people suffered fatal injuries after coming into contact with live electricity: two contractors of a supplier in Ghana came into contact with overhead electrical cables while moving materials at a site, and a young boy in India came into contact with live electricity at a base station site;
- one employee of a supplier was hit by a falling object at a site installation in India; and
- one employee of a supplier was killed in an assault in the Democratic Republic of Congo.

We have undertaken thorough investigations into the causes of each fatal incident and defined actions to help prevent a recurrence of a similar incident. These investigations were overseen by the respective local market chief executive, who is responsible for ensuring that the causes of the incident are widely understood and that any necessary corrective actions are implemented. We also share the lessons learned from each fatality across the relevant Group functions. These are discussed at the most senior levels and at Group-wide safety conferences, which we hold six times a year.

High-potential incidents

We track and investigate high-potential incidents (HPIs) – incidents that do not necessarily result in injury but have the potential to do significant harm. During the year, 501 HPIs were recorded, of which 120 involved employees, 197 involved suppliers’ employees or contractors, three involved members of the public and 181 were infrastructure related. Each HPI is investigated as an indicator of the potential for a more serious accident. We seek to identify the root cause and ensure suitable corrective action is taken, where necessary. An investigation into an HPI is conducted at a scale proportionate to the indicative level of risk.

Introduction | Women’s empowerment | Energy innovation | Youth skills and jobs | Supply chain integrity and safety | Principles and practice | Mobiles, masts and health | Appendix

Vodafone Group Plc Sustainable Business Report 2018

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* A fatal incident in Italy on 29 March 2018 is currently under investigation by national authorities. We are unable to gain access to the authorities’ findings or include in our reporting until this investigation is complete.

** Vodacom markets include South Africa, Democratic Republic of Congo, Lesotho, Mozambique and Tanzania.
Lost-time incidents

Lost-time incident (LTI) is the term we use when a Vodafone employee is injured while carrying out a work-related task and is consequently unable to perform his or her regular duties for a complete shift or period of time after the incident. We do not track LTIs for our suppliers’ employees and contractors.

In recent years, we have stepped up our efforts to capture and analyse all incidents of potential or actual harm to our employees. Greater compliance with mandatory rules on LTI reporting enables us to identify emerging trends in operating risks, increasing our scope to intervene and put the necessary controls in place. This year, our overall reported LTI rate decreased to 0.62 per 1,000 employees.

<table>
<thead>
<tr>
<th>Lost-time incidents* (employees only)</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
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<tbody>
<tr>
<td>Number of lost-time incidents</td>
<td>97</td>
<td>86</td>
<td>64</td>
</tr>
<tr>
<td>Lost-time incident rate per 1,000 employees</td>
<td>0.93</td>
<td>0.81</td>
<td>0.62</td>
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* Figures for 2016 and 2017 restated to exclude employees from our joint venture in the Netherlands.
Principles and practice

Trust is essential to our reputation and our long-term success, and we remain committed to ensuring that our business operates ethically, lawfully and responsibly. Our Code of Conduct, which is mandatory for everyone working for Vodafone, outlines the behaviours we expect, to ensure everyone performs their duties with integrity and respect at all times.
Principles and practice

In an era of public mistrust, in which digital communications enable consumers to share judgements on businesses and brands almost instantly, it is vitally important that we embed responsible behaviours throughout Vodafone. We believe that acting responsibly is integral to business success.

If we do this, we can prosper under the perpetual scrutiny that has become the new normal for all large businesses. If we fall short of our own standards and if there is a serious misalignment between our organisations’ aspirations and operating reality, we risk serious damage to our reputation.

We operate in a fiercely competitive industry where unsatisfied customers can switch suppliers easily. There is strong evidence of a linear connection between trust and value creation: companies that act responsibly and meet or exceed public expectations of good corporate behaviour grow value over time; those who fall short can destroy value.

Everyone who works for and with Vodafone must follow a set of rules designed to ensure that they perform their duties with integrity and respect at all times. We expect everyone to hold us accountable against these rules and welcome scrutiny of the way we put our principles into practice.

“At Vodafone, nothing is more important than conducting our business with integrity; it is essential to preserving the long-term success of the company.”

Vittorio Colao, Vodafone Group Chief Executive Officer

This chapter contains the following sections:

- **Our people**
  Our business performance and our customers’ experience of Vodafone depend on our ability to attract, develop and retain talented individuals at all levels: people who are empowered to exercise good judgement and are expected to act with integrity at all times.

- **Human rights**
  Respect for human rights, including those that extend into the digital realm, is critical to the long-term success of our business.

- **Bribery and corruption**
  Vodafone does not tolerate bribery and corruption in any form. We would rather walk away from a business opportunity than engage in actual or even perceived corruption.

- **Political engagement**
  Interaction with governments, political parties and political commentators, civil servants, regulators and independent statutory bodies is an essential aspect of managing our businesses around the world.
Our people

We employ around 104,000 people and work with 24,000 contractors globally. Our business performance and our customers' experience of Vodafone depend on our ability to attract, develop and retain talented individuals at all levels: people who are empowered to exercise good judgement and are expected to act with integrity at all times.

Developing our culture for digital transformation

A business that treats all its employees and contractors honestly, fairly and with respect is more likely to succeed than one that does not. We strive to create an open, diverse and inclusive environment in which all employees feel equally valued and understand that ethical conduct is critical to our business success.

We are very clear about the behaviours we expect from everyone who works for Vodafone. These are defined by our global policies and set out in our Business Principles and Code of Conduct. During this year, we updated The Vodafone Way – the guidance we provide to all employees about how they should behave in order to ensure Vodafone is admired and respected by our customers and wider society – to incorporate new ways of working for a digital world.

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Building organisational capability for a digital age

Our industry is evolving at great speed. Over the past three years, developments such as artificial intelligence (AI), consumer cloud services, robotics, big data, gigabit fibre-optic networks and the Internet of Things (IoT) have all transformed the business landscape. At the same time, customers' use of digital, social and online media to engage with us has increased exponentially. These two factors have prompted us to review how we approach marketing, sales and customer care as well as the day-to-day management of our operations including training, performance development and recruitment.

This year, we launched a strategy to increase our internal information technology (IT) capabilities and adopt agile ways of working so we can respond more quickly to the needs of our customers. There has been an increased focus on building capabilities for digital analytics (the ability to analyse and interpret large volumes of data), robotics and automation. Teams in our Group operations and in seven local markets have been established to provide big data analytical capability, with more than 70 specialist positions offered.
Equipping people with the skills they need to succeed

Building our employees’ skills through continuous development programmes is an essential component of driving business performance and this year we invested more than €60 million in training and development. Our programmes take many forms, from structured learning and formal training, to personal coaching and mentoring.

Throughout this year, a core focus has been to develop digital skills across the organisation and on developing leadership and management skills in agile and digital working. The Group Executive Committee completed a learning experience, to examine how different organisations have adopted agile working. All of our senior leadership team completed The Digital Vodafone Way programme, to learn about new digital products and services and digital business transformation. Over 700 senior managers attended digital boot camps, focusing on ways to improve our customers’ digital experience.

Overall, more than 9,000 employees have received training on agile working techniques. Key learnings have been cascaded via new learning resources offered by Vodafone University – our learning platform that offers thousands of e-learning opportunities and is accessible to all employees, on any digital device.

More than 9,000 employees have received training on agile working techniques

Developing future leaders

Strong, effective, responsible and trustworthy leadership is a prerequisite for business success. All of our leaders, from the most junior supervisor to the most senior global executive, are expected to serve as positive role models for their teams and to focus continuously on our customers’ needs.

We review our leadership talent pool every year in order to identify high-performing managers, match their skills to our business needs, and then help them achieve their development goals. More than 400 newly appointed managers attended our Leadership Essentials programme this year. The programme emphasises the importance of inspiring and leading colleagues effectively, simplifying internal processes, and ensuring that all decisions and actions are taken with the customer in mind.

These programmes are acknowledged and welcomed by our employees; in the 2017 Global People Survey, 81% of employees surveyed said that they benefited from opportunities to learn the skills they needed to do their jobs well.

Engaging our employees on our policies

Everyone who works with us makes a formal commitment to follow our Code of Conduct at all times. Our Doing What's Right training and communication programme is key to embedding a shared understanding of the Code of Conduct across Vodafone. Throughout the year, Doing What’s Right employee communications promoted different areas of our Code of Conduct, from Speak Up, Anti-bribery and Privacy to Competition Law, Security, and Health and Safety. Doing What’s Right training is incorporated into our standard induction processes and current employees complete refresher training every two to three years. This year, we updated our e-learning training and by the end of March 2018, the new component had been completed by more than 95% of employees who had access to the training¹. During the year, we also ran line manager training events covering key aspects of the Code across 14 of our local markets and held a Group awareness event, led by our Group HR Director.

Building a diverse and inclusive business

Our commitment to diversity and inclusion is led and championed by our Vodafone Group Chief Executive and is embedded in every one of our businesses worldwide, at every level.

Our commitment is acknowledged and supported by our employees worldwide: in our 2017 annual Global People Survey, 89% of employees who responded said they felt they were treated fairly, irrespective of age, gender, disability, sexual orientation, gender identity, cultural background or beliefs. During this year, we added new metrics to the Survey to measure how effectively we are creating an inclusive culture at Vodafone: 88% of our employees felt they were able to be themselves at work. And in the UK, we tracked information provided voluntarily on ethnicity, sexual orientation and gender identity to better understand engagement and participation from these specific groups.
We expect everyone who works with us to conduct themselves with dignity and respect in their dealings with customers, co-workers, partners, suppliers, local communities and any other stakeholders affected by, or with an interest in, Vodafone’s activities. This expectation, mandated in our Code of Conduct, applies across all of our businesses, to our employees’ interactions with all individuals irrespective of gender, sexual orientation, gender identity, disability, age or any other factor. We are committed to ensuring fair and equal treatment for everyone across all of our businesses. This year, we reviewed and updated our Code of Conduct in order to emphasise our zero-tolerance stance towards sexual harassment and abuse of authority.

How we put our commitment to diversity and inclusion into practice varies from country to country. Cultural norms, local customs and legislative requirements all influence how we approach diversity and inclusion initiatives locally.

Across our Group and UK functions this year we launched Perspectives, an interactive video learning experience designed to challenge bias. The training highlights our approach to diversity and inclusion and addresses a range of (typically unintended) actions or cultural norms that can hamper progress towards an inclusive workplace. The training covers topics including age, gender, sexual orientation, gender identity, disability and cultural background and has been completed by over 7,500 people.

Increasing the proportion of women in management and senior leadership roles is a core focus of our global diversity and inclusion programmes, as we aspire to become the world’s best employer for women by 2025. You can read more about our goals and programmes to achieve our aspiration in the Women’s empowerment section of this Report and in our Gender Pay Gap Report, produced for our UK businesses.

We also run development programmes for young people who want to work in the communications and technology industry. We have set a new global target to increase the number of young people who spend time in Vodafone through workplace experience, internships, apprenticeship placements and our graduate scheme to 100,000, by 2022. You can read more about our work with young people in the Youth skills and jobs section of this Report.
**Focusing on LGBT+ inclusion**

In recent years, we have increased our focus on creating an inclusive working environment for employees who identify as lesbian, gay, bisexual, transgender, or other sexual orientation and gender identity categories (LGBT+). Our global executive sponsor for LGBT+ matters, who is a member of our senior leadership team, provides leadership on LGBT+ inclusion and raises the profile of LGBT+ topics. A further 20 senior leadership team members in local markets and at Group level support his efforts.

We believe that organisations can make a difference, and to show our public support we were an early adopter of the UN Conduct for Business Standards for LGBTI inclusion, launched in November 2017. Our commitment to progressing LGBT+ inclusion throughout our international operations was recognised by Stonewall in 2017, with Vodafone listed as a top 12 Global LGBT+ employer. And in 2018, Vodafone UK was ranked 42nd, up from 159 in 2017, in the Stonewall Top 100 Workplace Equality Index, while our local LGBT+ employee network was recognised as the Best Employee Network in the UK. As part of our benchmarking activities, more than 1,300 UK employees completed a confidential engagement survey.

Read more about our LGBT+ inclusion in the UK on our website

**Supporting LGBT+ employees in Italy**

Vodafone Italy is committed to creating an equal and inclusive workplace for its LGBT+ employees. Its policies and practices provide the foundation for this, with equal benefits for employees in same-sex relationships and zero-tolerance policies on discrimination and harassment based on sexual orientation and gender identity.

To bring these policies to life, Vodafone Italy collaborates with the non-profit organisation Parks Diversity to set up training activities on inclusion for employees. This includes a one-day training session for managers focused on building an inclusive workplace culture and introducing participants to a range of LGBT+ related toolkits.

To make sure that LGBT+ employees feel supported to be themselves at work, Vodafone Italy runs an LGBT+ Friends network. A senior executive LGBT+ sponsor, our Commercial Director, provides leadership support and sponsorship for the network’s in-country activities.

Vodafone Italy also works to support LGBT+ equality beyond the workplace. In 2017, the company was an official sponsor of the Milan and Rome Pride events, and on Valentine’s Day ran a TV advert featuring a same-sex kiss.
Our established global LGBT+ employee network, LGBT+ Friends, supports managers and employees and connects them with active networks in 14 countries. During the year, LGBT+ colleagues met with our Group Chief Executive to share ideas and insights about how to increase support for LGBT+ employees across our local markets.

“Whatever your sexual orientation and gender identity, we treat everyone equally – and we value the contribution everyone makes to serving our customers better.”

Vittorio Colao, Vodafone Group Chief Executive

Increasing understanding and awareness of LGBT+ topics is key to further inclusion. This year, in partnership with Stonewall, we launched a series of development initiatives. For example, 60 employees completed our Digital Friends of LGBT+ training, which focused on empowering non-LGBT+ international leaders to lead on inclusion.

During the year, we supported Pride events in 12 of our local markets. Our Group Chief Executive also hosted a global webinar that was joined by local market chief executives from 16 of our local markets and joint ventures. In addition, we participated in Spirit Day (which highlights challenges such as bullying for young LGBT+ people), holding events in nine countries.

Increasing cultural understanding and awareness across countries

Vodafone is a multicultural company. We employ people from 136 different nationalities across 22 local markets; members of our global senior leader team are drawn from more than 26 different nationalities.

Although Vodafone Group is UK-domiciled, UK nationals account for only 20% of our global senior leadership team, and the professional functions based in the Group’s headquarters in London include people from more than 53 nationalities.

We encourage our managers to broaden their understanding of other cultures and believe they benefit professionally from assignments outside their home nation. More than 40% of our senior leaders have completed an international assignment at some point during their career with Vodafone.

Employee engagement

Every year, we run our online Global People Survey across our entire workforce. It is anonymous, confidential and conducted by a third-party provider. This year, 88% of our employees responded; a three percentage point increase on the previous year.

The 2017 survey demonstrated that 87% of employees who responded are proud to work for Vodafone. The overall Engagement Index score – demonstrating employees’ desire to continue working with Vodafone and their inclination to recommend us as an employer – stayed the same on a like-for-like basis this year, at 80%.

Respondents are also asked for their views on the individual line managers; the Manager Index score also remained high, at 84%, increasing by one percentage point compared to the previous year, and 91% of employees said they felt they are treated with respect as an individual.

The Global People Survey helps us to assess our employees’ concerns and aspirations. Our senior leadership team uses it to identify shortcomings highlighted by employees and to plan remedial action. Managers and their teams also discuss and implement changes based on the findings.

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<tr>
<th>Vodafone’s Global People Survey results (%)</th>
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<tr>
<td></td>
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<tr>
<td>2016</td>
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<tr>
<td>-------------------------------------------</td>
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<tr>
<td>Overall response rate</td>
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<tr>
<td>Employee Engagement Index</td>
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<tr>
<td>Manager Index score</td>
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<tr>
<td>Engagement and values</td>
</tr>
<tr>
<td>I am proud to work for Vodafone</td>
</tr>
<tr>
<td>Vodafone is socially responsible</td>
</tr>
<tr>
<td>Training</td>
</tr>
<tr>
<td>I have opportunities to learn the skills and knowledge I need to do my job well</td>
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<tr>
<td>Diversity and inclusion</td>
</tr>
<tr>
<td>People in my team are treated fairly regardless of their age, gender, disability, sexual orientation, cultural background or beliefs</td>
</tr>
<tr>
<td>People have an equal opportunity to succeed at Vodafone, regardless of their age, gender, disability, sexual orientation, cultural background or beliefs</td>
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<tr>
<td>I am treated with respect as an individual</td>
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<tr>
<td>I feel able to be myself at worki</td>
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<tr>
<td>I’m comfortable expressing my views and opinions at workii</td>
</tr>
<tr>
<td>Health, safety and wellbeing</td>
</tr>
<tr>
<td>The Absolute Rules for Health and Safety are taken seriously at Vodafone</td>
</tr>
<tr>
<td>My manager takes genuine interest in the wellbeing of his/her employees</td>
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</tbody>
</table>

i. The survey was conducted in October 2017. ii. New questions for financial year 2018.
Wellbeing

People perform at their best when their working lives are fulfilling, stimulating and well balanced between family and home commitments. We recognise the value of helping everyone who works with us to find the appropriate work-life balance and pursue a healthy lifestyle.

Our health, safety and wellbeing framework was launched in 2016. The framework focuses on six key aspects of wellbeing and is designed to support the development and implementation of employee wellbeing activities in all of our major markets.

All markets have launched wellbeing strategies and wellbeing initiatives, using the framework as a reference point. These include financial literacy sessions for employees in Ghana, a wellbeing programme in Italy, and a programme promoting the importance of digital detox for children, in Egypt.

Managing change

Our industry never stands still. Every new development in communications technology brings new opportunities as well as challenges; and Vodafone must continue to respond to the changing world around us.

When we need to reorganise part of our business, we engage with employees directly to discuss the implications of the planned reorganisation and the options available to those individuals potentially affected by it. Proposed changes are communicated clearly in team briefings and (when appropriate) one-to-one meetings led by line managers and human resources teams.

Where proposed changes will result in redundancies, we aim to help affected employees find new jobs through outplacement services and recruitment events. We also offer them training to improve their interview techniques and CV-writing skills. Any reorganisation is carried out in compliance with local legislation and in consultation with employee representatives, works councils and local unions.

Employees in various markets were affected by organisational changes during the year, including the decision to form a joint venture in India and the announcement of the sale of our stake in Vodafone Qatar.

In the latest Global People Survey, 86% of respondents said that their local manager showed genuine interest in their wellbeing.

Employee statistics*

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<th>2016</th>
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<th>2018</th>
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<tbody>
<tr>
<td>Average number of employees</td>
<td>104,553</td>
<td>105,870</td>
<td>103,564</td>
</tr>
<tr>
<td>Part-time employees</td>
<td>8,017</td>
<td>8,178</td>
<td>7,966</td>
</tr>
<tr>
<td>Total number of voluntary leavers</td>
<td>14,963</td>
<td>14,379</td>
<td>13,611</td>
</tr>
<tr>
<td>Total number of involuntary leavers</td>
<td>4,432</td>
<td>4,981</td>
<td>5,573</td>
</tr>
<tr>
<td>Newly hired employees</td>
<td>21,379</td>
<td>18,584</td>
<td>16,067</td>
</tr>
<tr>
<td>Average turnover rate (%)</td>
<td>19</td>
<td>18</td>
<td>18</td>
</tr>
</tbody>
</table>

* 2016 and 2017 data has been restated to exclude employees from our joint venture in the Netherlands.

Employee consultation

We recognise the rights of employees to join trade unions, although we prefer to consult with our employees directly to ensure everyone is treated fairly, whether or not they are represented by a trade union. The leadership teams in all of our local markets will respect the wishes of the majority of their employees when deciding whether or not to recognise a trade union’s right to negotiate terms and conditions of employment, where legislation permits. Where representation by trade unions is conferred automatically by legislation, these rights are upheld.

In Europe, we also consult with our employees through the Vodafone European Employee Consultative Council (EECC), which meets twice a year and gives employee representatives an opportunity to raise any concerns with our executive management team.
We enable citizens to share information widely, extending freedom of expression as well as enabling greater scrutiny of people in power. We also provide millions of people with access to education, employment, finance, healthcare and other life-enhancing opportunities.

However, communications technologies can also be used by people who wish to cause harm. Terrorists and criminals can benefit from the freedom to associate, coordinate, learn and share information. Policymakers, intelligence agencies and law enforcement bodies in many countries are increasingly concerned that public safety is being put at risk as a consequence. Other groups and individuals argue, however, that state actions to address criminals’ use of communications technologies erode their right to privacy and, in many countries, are intended to suppress dissent and curtail legitimate public debate.

You can read more about these issues and access a range of relevant views, statements and policies in our Digital Rights and Freedoms Reporting Centre.

**Our responsibility to respect human rights**

Respect for human rights, together with robust systems to reduce risk and address abuses, are critical to our long-term success. Human rights that extend into the digital realm are important priorities for Vodafone. However, we are also fully aware of other kinds of human rights risks in our operations. Our Code of Conduct makes clear that these risks are also the focus of senior management scrutiny across all of our businesses. As a very large multinational company with a complex global supply chain, we recognise the need to fulfil a wide range of social and environmental obligations. Specifically, we have a responsibility to respect the rights and freedoms of every individual who works for us, either as an employee or through our supply chain, and of the communities close to our operations. We fully acknowledge our responsibility to respect human rights as set out in the International Bill of Human Rights and eight International Labour Organization (ILO) fundamental conventions on which the United Nations Guiding Principles on Business and Human Rights (UNGPs) are based.

**Human rights that extend into the digital realm are important priorities for Vodafone**

**Relevant human rights issues**

Our respect for individuals’ human rights is enshrined in our Code of Conduct, which underpins everything we do. Our Code states:

“We respect all internationally proclaimed human rights, including the International Bill of Human Rights and the principles concerning fundamental rights set out in the International Labour Organization’s Declaration on Fundamental Principles and Rights at Work. We strive to ensure that we are not complicit in human rights abuses. We shall, in all contexts, seek ways to honour the principles of internationally recognised human rights, even when faced with conflicting requirements. We are also committed to implementing the United Nations Guiding Principles on Business and Human Rights throughout our business operations.”

Our Group Executive Committee oversees our commitment to human rights, with detailed governance scrutiny provided by the Audit and Risk Committee of the Vodafone Group Board. In our local markets, the chief executives of our operating companies oversee human rights matters, with governance support from the appropriate professional functions.

We have identified the salient human rights issues that Vodafone’s operations and supply chains may have an impact on, and we have established policies, governance and due diligence processes to avoid, reduce and mitigate these risks. These are summarised overleaf.
<table>
<thead>
<tr>
<th>Salient human rights risks</th>
<th>Relevant policies and further information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Labour rights</strong></td>
<td>Our approach to the management of relationships with, and between, employees is based on a commitment to respect each individual's human rights. Our Group employment policies are enshrined in our Code of Conduct and are in line with the UN Universal Declaration of Human Rights and the ILO Core Conventions. We recognise the rights of employees to join trade unions. Our preference, though, is to consult with our employees directly in order to ensure that everyone is treated fairly, whether or not they are represented by a trade union. We have developed and implemented policies and processes to extend our human rights commitments throughout our supply chain.</td>
</tr>
<tr>
<td><strong>Civil and political rights</strong></td>
<td>We consider the impact our decisions have on the privacy of our customers and employees. When we design products, launch campaigns, sign a contract with a new supplier, collect information or share such information with our partners and others, we require everyone in our company to abide by Vodafone’s Privacy Commitments. We have individuals who are responsible for compliance with privacy rules in each of our local markets who seek to ensure that all employees understand fully why those Commitments are so important for Vodafone – and our customers. Over the past year, Vodafone undertook significant work and introduced robust measures in order to prepare for the European General Data Protection Regulation, which became effective on 25 May 2018.</td>
</tr>
<tr>
<td><strong>Rights of the child</strong></td>
<td>We support a common industry-wide approach to promoting child safety online. Vodafone is a signatory to the ICT Coalition for Children Online, which we helped to develop. The Coalition sets out a common code of conduct for the development of products and services that protect children on the internet.</td>
</tr>
<tr>
<td><strong>Economic, social and cultural rights</strong></td>
<td>We adopt a zero-tolerance approach to bribery and corruption. This is outlined in our Code of Conduct and put into effect through our global anti-bribery programme.</td>
</tr>
</tbody>
</table>
Human rights and new market entry

Human rights risks are a critical factor in determining whether or not we will make an investment, establish an operating business or enter into a commercial relationship with a third-party communications operator in a country where Vodafone currently has no such presence. As part of our standard due diligence process for potential acquisitions, licence applications or new local operator partnerships, we conduct a formal assessment of key human rights before we enter a new country. This assessment covers: freedom of expression and privacy; internet freedom; freedom of association; political participation; rule of law; gender and minority rights; and labour rights.

The actions taken as a result of the assessment depend on the nature of the business relationship at issue. For example, we seek to develop mobile roaming relationships and international communications cable connections with as many countries as possible to ensure our customers can communicate wherever they are in the world. We believe there is a clear social good arising from providing citizens with the ability to connect with others around the world. In some cases, this means interacting with partners in countries that have poor human rights records. However, at the other end of the commercial spectrum – where Vodafone is considering acquiring an operating business, bidding for a telecommunications licence or making an equity investment – a country’s human rights record is as likely to influence our decision as any commercial aspect of the proposed transaction.

In some countries, the presence of multinational companies that operate to high ethical standards (including greater levels of disclosure) under international scrutiny can occasionally (and under limited circumstances) have a positive influence on prevailing attitudes to human rights matters.

Employee reporting

Everyone who works for or on behalf of Vodafone must report any behaviour at work that may be unlawful or criminal or could amount to an abuse of our policies, systems and processes and therefore a breach of our Code of Conduct. Using our Speak Up process, employees are encouraged to report a wide range of unlawful and unethical activities, including: bribery; fraud; price-fixing; potential abuses of human rights; privacy breaches; safety risks; bullying; harassment; conflicts of interest; and the potential for serious harm to the environment.

Employees can report suspected breaches in three ways:

• via their line manager;
• via the local human resources team; or
• via confidential external hotline in their own language and by phone or online.

Our Group Risk and Compliance Committee reviews reports about the effectiveness of the Speak Up process and benchmarks it against those used by other multinationals. You can read more about Speak Up on page 73.
Privacy and freedom of expression
Our most salient human rights risks relate to the individual's right to privacy and freedom of expression. Our Digital Rights and Freedoms Reporting Centre contains information related to the protection of our customers’ private communications and the actions of government agencies and authorities to ensure public safety.

The Digital Rights and Freedoms Reporting Centre includes our views, policies and approach on:
- Law Enforcement Disclosure
- Law Enforcement Demands: Country-by-Country
- Customer Privacy
- Digital Rights of the Child
- Freedom of Expression Statement
- Legal Annex: Overview of legal powers

Vodafone is a Board member of the multi-stakeholder Global Network Initiative (GNI), which was established in 2008. It brings together information and communications technology companies, civil society groups (including human rights and media freedom groups), academics and investors with a shared commitment to promote and advance freedom of expression and privacy worldwide. Prior to this, Vodafone was a member of the Telecommunications Industry Dialogue and has reported its Alignment with Industry Dialogue Guiding Principles in previous years, in the Digital Rights and Freedoms Reporting Centre.

Modern slavery
In 2015, the UK government introduced legislation requiring all companies that supply goods or services or have a business in the UK to make a public statement regarding the measures they take to address the risk of forced, bonded or compulsory labour, human trafficking, and other kinds of slavery and servitude in their businesses and supply chains. Vodafone will not tolerate any such activities within our own operations or our supply chain. We are fully committed to taking the appropriate steps to ensure that everyone who works for Vodafone in any capacity, anywhere in the world, benefits from a working environment in which their fundamental rights and freedoms are respected.

Introducing modern slavery training
In February 2018, Vodafone launched a new Modern Slavery e-learning course in English, Chinese and Hindi. Intended for our suppliers, the 20-minute digital course informs users about modern slavery risks throughout the employment cycle (recruitment, working, leaving) and equips the user with the insights they need to identify potential problems linked to modern slavery. Since its launch in February 2018, it has been completed by 623 participants in 36 different countries, and will continue to be rolled out more widely across the supply chain during the 2019 financial year.

We encourage all our stakeholders to register and access the free training on their desktop or mobile device.
Vodafone does not tolerate bribery and corruption in any form. We would rather walk away from a business opportunity than engage in actual or even perceived corruption.

We have invested tens of billions of euros in building sustainable businesses around the world. These businesses provide direct and indirect employment for hundreds of thousands of people and deliver services that hundreds of millions rely on every day. So doing everything we can to ensure widespread prosperity, social stability and respect for the law, wherever we operate, makes good commercial sense.

Our anti-bribery and corruption policy

Our policy is summarised in our Code of Conduct. It states that employees or others working on our behalf must never offer or accept any kind of bribe. Our anti-bribery and corruption policy is consistent with the UK Bribery Act and the US Foreign Corrupt Practices Act and any breaches can lead to dismissal or termination of contract.

The policy provides guidance about what constitutes a bribe and prohibits giving or receiving of any excessive or improper gifts and hospitality. It also makes clear that where our policy differs in degree from an equivalent local law, the more stringent of the two must be followed.

Our Group Chief Executive and the chief executives of our respective businesses play active roles in stressing the need for compliance with our policy.

We regularly monitor the way it is implemented through a combination of risk assessment, policy compliance reviews and internal audits.

Governance and risk assessment

Our Group Chief Executive and Group Executive Committee oversee our efforts to prevent bribery and corruption. They are supported by our local market chief executives, who are responsible for ensuring that our anti-bribery and corruption programme is implemented effectively in their local market. They in turn are supported by local specialists and by a dedicated Group team that is solely focused on anti-bribery and corruption policy and compliance.

As an example of some of the key elements of our anti-bribery programme, every Vodafone business must put in place:

- a process for due diligence of suppliers and business partners, at the start of the business relationship;
- mandatory employee training and awareness programmes; and
- an approval and registration process for gifts and hospitality, sponsorships and charitable contributions.

The implementation of the anti-bribery and corruption policy is monitored regularly in all local markets as part of the annual Group Policy Compliance Review assurance process, which reviews key anti-bribery controls. Visits to local markets on a rotating basis enable us to formally review the implementation of the anti-bribery programme. This year, reviews conducted in Ghana and Greece found good implementation of key controls; however, some areas for improvement in relation to supplier management and monitoring were identified and are now being addressed. In addition, the anti-bribery programme is also within the scope of our internal audit team’s review and therefore is subject to internal audit on a rotational basis.

Vodafone’s Risk and Compliance Committee assists the Group Executive Committee to fulfil its accountabilities with regard to risk management and policy compliance. The anti-bribery programme was one of the compliance programmes reviewed by the Risk and Compliance Committee during the year, as part of the risk associated with legal and regulatory compliance. The outputs of the Risk and Compliance Committee meetings are always reported to the Group Executive Committee. In addition, the Audit and Risk Committee held a deep dive on the anti-bribery programme during the year that included a discussion by the Committee with the policy owner on the key bribery risks facing Vodafone and the results of all assurance conducted on the bribery controls in local markets, including the local reviews and the internal audit results. The key actions for the programme for the coming year are documented in the bribery risk, line of sight report, which is regularly updated by the policy owner.

The risks we face are constantly evolving. The table overleaf summarises the principal risk categories and the measures we take in mitigation.
<table>
<thead>
<tr>
<th>Risk</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High-risk markets</strong></td>
<td>We operate in a number of countries where there is a heightened risk of bribery and corruption.</td>
</tr>
<tr>
<td></td>
<td>We undertake biennial risk assessments in each of our local operating companies and at Group level, so we can understand and limit our exposure to risk. The principal risk categories are included below.</td>
</tr>
<tr>
<td><strong>Business acquisition and integration</strong></td>
<td>When we acquire or merge with another entity we risk inheriting its bribery and corruption risks. These may persist if we do not identify and promptly address them.</td>
</tr>
<tr>
<td></td>
<td>Our due diligence process before any decisions to acquire, or merge with, another entity takes into account its current and past anti-bribery and corruption processes and performance. Red flags identified during the due diligence are reviewed and assessed. Following any acquisition, we implement our anti-bribery and corruption programme.</td>
</tr>
<tr>
<td><strong>Spectrum licensing</strong></td>
<td>Communications operators require access to sufficient radio spectrum to deliver mobile and some fixed-line services. Spectrum is a limited sovereign resource and therefore valuable. Whenever governments allocate spectrum to operators there is a risk of bribery.</td>
</tr>
<tr>
<td></td>
<td>We encourage governments and regulators to release spectrum to the market through competitive, transparent and well-managed auctions. To reduce the risk of attempted bribery, a specialist spectrum policy team oversees our participation in all negotiations and auctions. We provide appropriate training and guidance for employees who interact with government officials on spectrum matters. We have also published our Spectrum policy in emerging markets report, which provides further support for employees in these markets.</td>
</tr>
<tr>
<td><strong>Building and upgrading networks</strong></td>
<td>Communications networks are infrastructure-intensive. They require access to, and leasehold arrangements on, both public and private land. We currently have more than 310,000 mobile base-station sites across multiple countries, and ensuring we can maintain and upgrade them requires constant engagement with landowners, community leaders and municipal authorities. This engagement must be undertaken in compliance with our anti-bribery and corruption policy.</td>
</tr>
<tr>
<td></td>
<td>Our anti-bribery and corruption policy makes it clear that we never offer any form of inducement to secure a permit, lease or access to a site. We regularly remind all employees and contractors in network roles of this prohibition, through tailored training sessions and communications.</td>
</tr>
<tr>
<td><strong>Working with third parties</strong></td>
<td>With a complex supply chain, involving more than 15,000 vendors, contractors and subcontractors, there is a risk of improper conduct when third-party services are procured and delivered. This is particularly so in countries where corruption is endemic.</td>
</tr>
<tr>
<td></td>
<td>Everyone who works for or on behalf of Vodafone, including suppliers and other relevant third parties, must comply with our Code of Conduct. Select high-risk third parties are trained to ensure awareness of our zero tolerance policy.</td>
</tr>
<tr>
<td></td>
<td>We screen our potential suppliers for anti-bribery compliance and ensure they understand our anti-bribery and corruption policy. We regularly remind current suppliers of our policy requirements and complete detailed compliance assessments across a sample of higher-value and higher-risk suppliers.</td>
</tr>
<tr>
<td><strong>Winning and retaining business</strong></td>
<td>Enterprise accounts for around 29% of our global revenues and we now serve some of the world’s largest companies and public sector organisations. Enterprise contracts are appointed through competitive tenders and there is a risk that improper inducements may be sought or offered by either party.</td>
</tr>
<tr>
<td></td>
<td>In addition to mandatory anti-bribery and corruption training, which is completed by all Vodafone employees, we provide targeted training for our enterprise sales teams and other employees in higher-risk roles. This training is also mandatory. In addition, we also maintain and monitor a global register of gifts and hospitality to ensure that inappropriate offers are not accepted or extended by our employees.</td>
</tr>
</tbody>
</table>
Engaging employees to raise awareness of bribery risk

Every Vodafone employee has an obligation to help us address the risk of bribery and corruption. To ensure they understand how they can each play a part, we run a high-profile communications programme, Doing What’s Right.

Doing What’s Right uses a range of materials to highlight some of the most common compliance challenges facing employees, including handling personal data, accepting gifts and conflicts of interests. This year, we launched an updated version of our Doing What’s Right e-learning training programme, which included a specific module on anti-bribery. To date, over 80,000 employees around the world have completed the e-learning training.

In addition, for higher-risk employees, such as those working in procurement, network operations, Enterprise sales and government relations, tailored face-to-face training programmes are used to cover relevant scenarios for those employees.

Training in our Code of Conduct is incorporated into our standard induction processes for new recruits and all employees compete refresher training every two to three years.

‘Speak Up’

All Vodafone employees are encouraged to report any suspected breaches of our Code of Conduct as soon as possible. We call this our Speak Up process and we make it as easy to use as we can for any kind of employee concern.

In most instances, employees feel comfortable about raising concerns with a line manager or human resources colleague. However, if they prefer not to do so, they can use a confidential third-party hotline, accessible online or by telephone, in their local language. Speak Up operates under a non-retaliatory policy: everyone who raises a concern in good faith is treated fairly with no negative consequences for their employment with Vodafone, regardless of the outcome of any subsequent investigation.

Senior executives review every Speak Up report and the whole programme is reviewed by the Group Risk and Compliance Committee. This year, 748 separate concerns were reported using Speak Up on a wide range of issues (only a very small fraction were related to bribery and corruption). In our latest Global People Survey, 86% of respondents said they would use Speak Up to report unethical behaviour of any kind.

Engaging suppliers and third parties

Through their contracts with us, our suppliers, partners and other third parties make a commitment to comply with our anti-bribery and corruption policy. Every year, we review the anti-bribery and corruption controls put in place by a sample of suppliers, using a collaborative approach to ensure they understand what we expect and to share best practice. This works both ways, because we often learn from our suppliers’ experiences in this area.

If one of our supplier reviews highlights inadequacies, and assuming there is no immediate risk of improper conduct, we support the supplier involved to ensure that these inadequacies are rectified in good time.

Engaging civil society

We want to play our part in tackling bribery and corruption along with other stakeholders who share our concerns and standards. This is why we are actively involved in the Transparency International Business Integrity Forum, the Institute of Business Ethics and the Good Governance Forum.

Challenging corruption in Egypt

According to Transparency International’s latest Corruption Perceptions Index, Egypt is considered as a country with high levels of corruption. Its persistence has a negative impact on the country’s economy and investment climate, so action on this issue is vital to building a more prosperous, sustainable Egypt.

Vodafone Egypt is supporting a business-driven response, the Integrity Network Initiative (INI), which encourages small and medium-sized enterprises (SMEs) to take an ‘Integrity pledge’ and provides the resources they need to live up to it – everything from compliance manuals, policy templates and direct training. In addition, a growing support network that includes larger businesses, government and public sector bodies offers more indirect support, such as promoting the benefits of ethical business, running roundtables and producing white papers on the challenges faced.

Vodafone Egypt was an official supporting partner at an event run by INI on World Anti-Corruption Day in December 2017. In this capacity, we participated in a number of INI roundtables, shared best practice with SMEs, and committed to provide anti-corruption training for SME management teams in the future.
Our approach to political engagement

A lack of transparency in the interactions between governments and multinational companies is one of the root causes of the growth of public mistrust.

There is a widespread belief in many countries that large businesses are able to secure greater advantages from policymakers than other individuals and organisations without such access. Many of those suspicions are unfounded: whatever the sector or circumstance, representatives from both multinationals and government are typically mindful of, and respectful towards, their obligation to behave responsibly and ethically at all times. However, this is not always the case, and every instance of inappropriate conduct that emerges into the public domain strengthens further the perception that large multinationals exert undue influence through private bilateral or closed-group engagement with elected leaders and their advisors.

At Vodafone, everyone who works for and with us must follow rules designed to reduce the risk of improper behaviour – and the perception of such behaviour, even when this has not actually occurred – in our dealings with politicians, civil servants, regulators, advisors and others involved in determining policy or managing the affairs of state. For example:

- we have specific rules under our Code of Conduct regarding gifts, hospitality and sponsorship involving politicians and government officials;
- our Group policy is that no political donations be made or political expenditure incurred;
- we will not intervene in party political matters; and
- we review relationships with government officials in our supplier on-boarding due diligence processes.

While we are happy for our employees to take an active interest in local and international politics, everyone must also abide by rules governing political activity conducted in a personal capacity. Employees are not allowed to use any Vodafone resources – from communications services and meeting rooms to their own working time – to provide support for any political campaign, political party, political candidate or any affiliated organisation. We also focus on political engagement under our anti-bribery and corruption programme, providing specific training to employees whose roles involve interacting with policymakers and advisors.

Why and how we engage politically

Interactions with ministers, opposition politicians, elected representatives, civil servants and independent statutory bodies, such as regulators and political or sector specialist advisors, are an essential aspect of managing our businesses around the world. Our discussions address topics including:

- the operating challenges (such as planning restrictions) that arise from obligations specified under the telecommunications licences awarded by governments and without which we cannot lawfully function;
- proposed legislation and new or amended regulations that would affect how we operate or would have an effect on our customers' experience;
- spectrum matters;
- provision of communications services by Vodafone as a major supplier to government bodies and other public sector customers;
- security matters, particularly those focused on Vodafone's role as an operator of critical national infrastructure;
- privacy and data protection matters (discussed in detail in our Digital Rights and Freedoms Reporting Centre);
- online child protection and the digital rights of the child, referred to in detail in our Digital Rights and Freedoms Reporting Centre;
- financial inclusion and mobile money services such as our M-Pesa service; and
- industrial policy and the growth of the IoT – the development of intelligent networking across a wide variety of devices, services and processes in the home and workplace.

The vast majority of political meetings involve senior Vodafone executives rather than external lobbyists. We define lobbyists as third-party individuals or organisations contracted to represent Vodafone's interests in discussions with public policy audiences (including ministers, politicians, officials and advisors) where Vodafone executives are not present for those discussions.

While we do use external political consultancies for internal advisory support and back-office activity such as monitoring of parliamentary debates, wherever possible our strong preference is to ensure that Vodafone is represented in public policy and political meetings by senior individuals from within our businesses.
We also generally find that public policy and political stakeholders strongly prefer direct discussions with Vodafone executives.

On the infrequent occasions when our interests are represented by a third party in a public policy or political meeting with no Vodafone executive present, the third party must comply with a number of internal political engagement processes and approval mechanisms. We also maintain an internal register of any external parties who engage in policy discussions on our behalf.

**Offers of hospitality for government representatives**

When appropriate and for justifiable relationship-building purposes, we may invite government representatives to business meals or a hospitality event. We apply a number of internal governance rules to invitations of this kind. Those rules are strictly enforced under our global Code of Conduct.

Where a regulatory decision relating specifically to our business is under consideration or imminent, we expressly prohibit gifts and hospitality of any kind to any parties involved in making that decision. We also stipulate that every gift or offer of hospitality for a government representative or sponsorship with government over the value of €100 must be approved (prior to acceptance) by our Group External Affairs Director, who sits on the Vodafone Group Executive Committee.

**Engaging with the EU institutional stakeholders**

We actively engage with all European Union institutions to contribute to discussions on the future of the digital economy in Europe. As a company with significant businesses in 12 Member States, we believe we are well positioned to comment on policy initiatives intended to drive economic growth and create better-quality services for customers across Europe.

During the year, Vodafone engaged with EU institutions on the main proposals relating to the Digital Single Market, including the European Electronic Communications Code, the ePrivacy Regulation and cybersecurity. The Brexit negotiations were also a topic of engagement for Vodafone in Brussels and London.

In April 2017, Vodafone organised a stakeholder event with EU institutions to advocate for future-proof Gigabit networks in the context of the European Electronic Communications Code. Attendees included Vodafone’s Chief Executive, Members of the European Parliament, Permanent Representations of EU Member States and representatives from the European Commission.

We disclose these political activities and related expenditure, as mandated, through the EU Transparency Register.

**Political engagement in Africa, Middle East and Asia-Pacific**

During the year in Vodafone’s Africa, Middle East and Asia-Pacific (AMAP) region, Vodafone engaged with governments and regulators on a number of topics, including data, security, net neutrality, payments, SIM registration and consumer issues.

In South Africa, Vodacom engaged with the South African government to contribute towards the development of the government’s proposals for spectrum licensing. In Turkey, Vodafone Turkey engaged with the Ministry of Transportation and regulatory agencies to contribute to the National Broadband Plan of Turkey, which was declared in December 2017.

In India, Vodafone has engaged with the relevant authorities about the proposed merger between Vodafone India and Idea Cellular.

**Hiring former public servants**

Vodafone recognises that potential (or perceived potential) conflicts of interest can arise when Vodafone or its subsidiaries hire people whose most recent prior employment was in a government or other public sector role. The potential for a perceived or actual conflict of interest is particularly acute if the individual is subsequently employed by Vodafone to work on projects that are directly relevant to their previous role.

We believe that every individual should be free to apply their skills – and choose who they work for – as they see fit. However, we also believe it is important to have rules in place to ensure that former government or other public sector employees do not have undue influence over, or inappropriate levels of access to, their former colleagues on relevant issues.

In April 2018, Vodafone published its Revolving Doors Statement, which introduced a mandatory global approach that prohibits former government or other public sector employees from working on projects for Vodafone that are relevant to their former role, from engaging directly with any former colleagues, or from interacting directly with departments or other bodies with whom they worked in their previous role. This formal ‘cooling-off’ period lasts a minimum of six months or for the duration of any local market government or public sector ‘purdah’ rules, whichever is the longer. It applies to all employees at all levels.

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1 Employees in our local market in Germany do not yet have access to the updated training.
Ensuring the health and safety of the communities in which we operate

Mobiles, masts and health

We are committed to responding openly and transparently to public concerns about mobiles, masts and health and comply with all applicable laws in every jurisdiction in which we operate.
Mobile devices use radio waves to send and receive calls and data from a network of base stations. These radio waves are a type of electromagnetic field (EMF). They occur naturally or are produced from man-made sources and are around us all the time. They are produced whenever an electrical appliance is connected to the mains power supply and switched on. Most experts agree that there is no evidence that mobile phones or base stations adversely affect human health when operated within international science-based guideline compliance limits.

International science-based guidelines

A World Health Organization (WHO) factsheet, ‘Electromagnetic fields and public health: mobile phones’, last updated in October 2014, concludes that “to date, no adverse health effects have been established as being caused by mobile phone use”. This conclusion is based on an in-depth meta-review of thousands of scientific studies. The World Health Organization (WHO) is currently conducting its latest review of the guidelines, which will include a public consultation. Its draft revised guidelines are expected to be published in 2018.

Despite the current scientific consensus, we recognise that some people are concerned about mobiles, masts and health. We always endeavour to address their concerns, openly and transparently, through regular local community engagement and reporting about the latest research on our website.

Our goals and commitments

Our vision is to lead within the industry in responding to public concerns about mobile phones, masts and health, by demonstrating leading-edge practices and encouraging others to follow. Through our local community engagement, our Group-wide risk management and compliance assessment, together with coordinated regular best practice sharing throughout the year, we ensure that we deliver on our commitment to:

- openness and transparency;
- constantly protecting the health and safety of our customers, local communities, and our employees and contractors;
- open debate based on published scientific evidence;
- sharing significant scientific developments; and
- complying with all applicable laws wherever we operate.

Monitoring scientific research

We review research conducted into mobiles, base stations and health on an ongoing basis. On our website and in our reports, we focus on research that is designed, carried out and reported independently by experts on behalf of a national or international health agency, with all published results and conclusions subjected to peer review. We publish links to many of those scientific research publications on our Group website.

In February 2018, the US National Toxicology Programme (NTP Cell Phone Studies) released the draft conclusions in their Technical Report into the effects of radio-frequency radiation in rats and mice, with a peer review due to be completed by the end of March 2018. This was a ten-year, $25 million toxicological study funded by the US Government.
The NTP concludes that “high exposure to radiofrequency radiation (RFR) in rodents resulted in tumors in tissues surrounding nerves in the hearts of male rats, but not female rats or any mice”. John Bucher, NTP senior scientist, has stated that “levels and duration of exposure to RFR were much greater than what people experience with even the highest level of cell phone use and exposed the rodents’ whole bodies”. This resulted in mixed results with the rodents that were exposed. The variations included some cases in which some male rats and none of the female rats were affected. Similarly, male rats and male mice were not affected in the same way. These inconsistencies lead us to question whether or not any conclusion can be drawn from the results. Following a peer review by an external expert panel at the National Institute of Environmental Health Sciences, the Technical Report will be published in Autumn 2018, at which point we will review the research.

National, regional and international research programmes are undertaken in response to the priorities set by the WHO, which does not undertake research itself. Ensuring that well-funded research programmes are carried out is essential to properly understand potential risks. Consequently, we contribute funds indirectly – for example, through national government research programmes – to some of these independent studies. This is to make sure that we have no involvement in, or influence over, any aspect of methodology, outcomes, analysis or publication.

A number of recent studies have contributed to the ongoing dialogue and research in this area. However, gaps in scientific knowledge remain and more research is underway, including studies prioritised by the WHO that monitor the health effects on children of their mobile use, and any health effects from long-term use of mobiles.

Research underway includes:
- Started in 2009 – an international cohort study (COSMOS) looking at the long-term use of phones over a period of up to 25 years. The study’s stated aim is to investigate possible health risks associated with long-term use of mobile phones and other wireless technologies. Around 250,000 people across five European countries (including 105,000 from the UK) were recruited between 2009 and 2012 to participate in the study. There have been a number of publications about the design of the study (February and March 2011), and in July 2015 the UK team published a paper about lessons learned for a 21st-century cohort study.
- Started in 2014 – the Study of Cognition, Adolescents and Mobile Phones (SCAMP) aims to find out if children’s use of mobile phones and/or other technologies that use radio waves (for example, portable landline phones and wireless internet) can affect their cognitive or behavioural development. This study, run by Imperial College, London, is monitoring approximately 5,500 London-based school children aged 11 to 12 years. It is funded jointly by the UK government’s Department of Health and the mobile telecommunications industry.

Governance and compliance
Our Group EMF Leadership Team, chaired by the policy owner and Group Director for Health, Safety and Wellbeing, sets our strategy on mobiles, masts and health and oversees compliance by all our businesses. The team meets regularly and reports twice a year to the Group Executive Committee and to the Vodafone Group Plc Board about developments in science, policy and compliance.

Designated EMF leaders in all our markets liaise with communities who express concern about base station sites, implement radio-frequency safety training, and enforce local-level compliance with our Group EMF policy. These local market EMF leaders meet every year to discuss key international developments and share best practice.

Once every two years we carry out a review of compliance with the Vodafone Group EMF policy across all local markets. The Group EMF Manager evaluates compliance with three identified controls based on evidence provided by the local EMF leader. A rating of full, partial or non-compliance is given. When necessary, we implement remedial actions to address areas of partial or non-compliance. In addition, every year, our Group EMF Manager conducts in-depth on-site compliance assessments in two local markets. This year, the local markets assessed were Spain and Ghana.

In Spain, the assessments showed that all our controls were being implemented correctly (Rating A). Two recommendations were made, both of which have already been actioned: to update the Vodafone Spain policy to reflect changes to national regulation and to engage with other EMF leaders to enable best practice sharing and development.

In Ghana, the assessment showed that managers are generally risk conscious, routinely monitor key business areas and implement mitigation plans on a timely basis with effective oversight (Rating B+). A remedial action was required to improve record keeping and laboratory accreditation for phone testing. Implementation of these actions is being tracked to ensure completion.

This year, we began the development of an e-learning tool, which will be available to all employees to help raise their understanding of radio frequency and enable them to discuss it confidently with friends and family.
Appendix

Find out more about our governance process, the scope of our reporting, environmental management, materiality and read KPMG’s Assurance Statement.

- Managing and reporting on sustainable business 80
- Materiality 82
- Environmental management 83
- Scope of reporting 84
- How we report our key performance indicators 85
- Independent Limited Assurance Report 93
Managing and reporting on sustainable business

Vodafone’s sustainable business management and reporting systems focus on activities and risks that are both potentially material to our business and are of greatest interest to our many and diverse stakeholders. In this Appendix to the Report, we provide an overview of the governance processes that underpin our approach and summarise the methodology used to identify the most important business and socio-economic themes that are now at the centre of our sustainable business strategy.

We report on progress against our sustainable business strategy annually, in parallel with the Vodafone Group Plc Annual Report, which contains key highlights and progress on our sustainable business strategy. During the year, we also publish separate transparency reports on two areas of significant public debate: Tax and our total economic contribution to public finances and on law enforcement and freedom of expression matters within our Digital Rights and Freedoms Reporting Centre. Additionally, we provide detailed information regarding electromagnetic frequency emissions from mobile devices and base stations in a dedicated area of our website.

We publish an annual statutory Conflict Minerals Report (in line with US regulatory requirements) and an annual Slavery and Human Trafficking statutory statement (in line with the requirements of the UK Modern Slavery Act 2015). This year, we also published Vodafone’s first UK Gender Pay Gap Report as required under the Equality Act 2010 (Gender Pay Gap Information) Regulations 2017. These statutory documents are available on the Sustainable business section of our website.

In this Appendix, we provide an overview of our governance, an overview of our environmental management approach, a summary of the scope of our sustainable business reporting, a list of our key performance indicators and an Assurance Statement from KPMG. In addition, our Index of Conformance with the Global Reporting Initiative (GRI) Standards can be found on our website here.

GRI Standards index

Our 2018 Sustainable Business Report has been prepared in reference to the Global Reporting Initiative’s (GRI) Sustainability Standards 2016. The GRI Standards allow companies to report their material impacts for a range of economic, environmental and social issues.

Read our 2018 GRI Standards index
**Governance**

Our sustainable business strategy has been designed to ensure a close alignment between our business goals and the maximum possible socio-economic benefit achievable as a consequence of those goals. Realising that ambition requires strong corporate governance at multiple levels of our businesses. Leadership vision is critically important – so too is ensuring a commitment to effective operational implementation.

The Group Sustainable Business team defines and leads Vodafone’s activity in this area. The strategy summarised in the Report was created with input and advice from a wide range of stakeholders – as we explain below – and was formally approved by the Group Executive Committee in November 2015.

The Group Sustainable Business team works with Vodafone's local market and professional function teams to advance the various programmes, projects and initiatives discussed in this Report. Implementation of the sustainable business strategy relies on leadership within the relevant business areas together with a strong partnership with the Vodafone Group Sustainable Business team. The team provides expert advice and guidance to core business owners within the Group’s global senior leadership team while supporting operational delivery of Vodafone’s sustainable business agenda in conjunction with sustainable business specialists in each of our local markets.

The Group Executive Committee (ExCo) – chaired by the Group Chief Executive – has overall accountability to the Vodafone Group Plc Board for Vodafone’s sustainable business performance. The Group Director of Corporate Affairs defines and leads Vodafone’s sustainable business strategy worldwide and is responsible for the activities of the Group Sustainable Business team. The Group Director of Corporate Affairs reports to the Group External Affairs Director who is a member of the ExCo.

The ExCo regularly reviews the progress of the sustainable business strategy. All external publications – including this Report – are reviewed by the Vodafone Group Disclosure Committee. That Committee is responsible for ensuring the accuracy and timeliness of Group disclosures, and approves – on behalf of the Group Chief Executive – the controls and procedures related to the release of financial and non-financial information. The Vodafone Group Plc Board receives an update on the progress of the Group sustainable business strategy once a year.
During 2016, we conducted a materiality assessment of our ten priorities, using the GRI Principle of Materiality, to identify the most important social, economic, environmental and ethical factors of greatest relevance to our businesses and to society as a whole. That assessment was informed by the views of a wide range of stakeholders and, in turn, led to the creation of our sustainable business strategy.

Understanding stakeholder views

Many people and organisations have an interest in what we do and how we work. Our stakeholders include:

- consumer and enterprise customers;
- shareholders;
- employees;
- suppliers and partners;
- governments and regulators;
- local communities;
- non-governmental organisations (NGOs) and civil society activists; and
- industry peers.

For further details of our stakeholder engagement please see page 7.

In designing our sustainable business strategy, we took into account factors including:

- insights from our engagement with peers, NGOs and civil society activists and sustainable business specialists;
- a review of existing and emerging issues that are the focus of ongoing public debate in multiple countries;
- global socio-economic trends, such as climate change and youth unemployment;
- a review of the issues covered in the GRI Standards;
- the priorities identified in the United Nations Sustainable Development Goals (SDGs); and
- an evaluation of how the Principles of the Blueprint Framework for Better Business would apply to Vodafone.

We used the Global e-Sustainability Initiative’s materiality tool (specifically designed for use within the communications industry) to analyse these factors and then rank them in a materiality matrix. That analysis resulted in the identification of 24 issues that we considered to be the most material, both for Vodafone and for society as a whole. We then mapped those 24 issues against the five Principles of the Blueprint Framework for Better Business to identify ten overarching priorities of equal impact and importance:

<table>
<thead>
<tr>
<th>Our ten priorities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital rights including privacy, data protection and security</td>
</tr>
<tr>
<td>Socio-economic benefits arising from our products and services</td>
</tr>
<tr>
<td>Management of supply chain risks</td>
</tr>
<tr>
<td>Health and safety</td>
</tr>
<tr>
<td>Business conduct and ethics</td>
</tr>
<tr>
<td>Corporate taxation and total economic contribution</td>
</tr>
<tr>
<td>Public concerns regarding electromagnetic frequency emissions</td>
</tr>
<tr>
<td>Employee equality and diversity</td>
</tr>
<tr>
<td>Energy consumption and greenhouse gas emissions</td>
</tr>
<tr>
<td>Customer relationships</td>
</tr>
</tbody>
</table>
Compliance with environmental regulations

Our environmental management systems are designed to ensure compliance with relevant legislation in each local market as well as with European regulations.

- the EU’s Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) Directive;
- the Waste Electrical and Electronic Equipment (WEEE) Directive in EU countries;
- the EU’s Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) Directive; and
- the EU’s Energy Efficiency Directive.

Managing our energy use

We set out the details of our approach to energy innovation and carbon emissions reduction in the Energy innovation section of this Report.

Managing waste and water

We implement resource efficiency and waste management programmes in all our local markets in order to minimise emissions from the end-of-life treatment of network waste, IT equipment and other office waste.

Our Group policy on waste management prioritises the reuse or recycling of unwanted equipment, safely and responsibly. This year, we completed a self-assessment of local market compliance with our waste management policy that highlighted an overall improvement in performance compared to our 2014 audit.

In developed markets, we use specialist e-waste contractors that comply with international regulations, but in emerging markets managing waste can be more challenging. Access to appropriate waste facilities is often limited and there may be few legal safeguards in place to ensure that potentially hazardous substances are handled responsibly. All our local markets are required to keep records of their e-waste equipment and to use recycling suppliers that are regulated, licensed, or have been assessed and approved through our supplier qualification processes. This year, 97% of our e-waste was sent for reuse or recycling.

Compared with businesses in other industries, we do not use water intensively. This year, we used just under 1.3 million m³, a decrease of 13% on last year. We attribute this reduction to water-saving measures and the impact of water stress in markets such as South Africa.
Scope of reporting

Performance data included in the scope of this Report:

- our operational companies in 21 countries where we have operational control: Albania, Czech Republic, Egypt, Germany, Ghana, Greece, Hungary, Ireland, Italy, Malta, New Zealand, Portugal, Romania, Spain, Turkey, the UK, Vodacom in South Africa, and Vodacom Group's subsidiaries in the Democratic Republic of Congo, Lesotho, Mozambique and Tanzania;
- our company in India (however, see exceptions below);
- Vodafone Qatar (however, see exceptions below); and
- operations under Vodafone Global Enterprise and Vodafone Group Services.

Performance data excluded from the scope of this Report:

- joint ventures where Vodafone does not have operational control: VodafoneZiggo in the Netherlands, Vodafone Australia and our associate in Kenya, Safaricom;
- Partner Market networks in which Vodafone neither has any equity interests nor holds an operating licence, including those Partner Markets that operate under the Vodafone brand;
- countries in which we are required to hold an operating licence in order to provide local customer support to multinational enterprise customers but where we neither own nor operate any licensed telecommunications network infrastructure; and
- retail stores that are Vodafone-branded by way of franchise and exclusive dealer arrangements but are not owned or operated by Vodafone.

Exceptions:

- our M-Pesa customer numbers and our 50 million women emerging market target, which both include our associate Safaricom in Kenya; and
- our workplace experience numbers include VodafoneZiggo, our joint venture in the Netherlands, and exclude the Vodacom Group subsidiaries in the Democratic Republic of Congo, Lesotho, Mozambique and Tanzania.

Any additional exclusions are noted in the text.

The scope of the Vodafone Group Sustainable Business Report (which is focused on matters over which we have a degree of operational control) is different to the scope of the Vodafone Group Plc Annual Report and Accounts (which is based on financial accounting rules under International Financial Reporting Standards (IFRS)). For example, Vodafone India is considered a discontinued operation in line with IFRS as we have announced our intention to merge Vodafone India with Idea Cellular. However, as that transaction was pending subject to approvals at 31 March 2018 — and as Vodafone retains full operational control over our business in India in the interim period — we have included Vodafone India within the data presented within this Report.

On 29 March 2018, Vodafone announced the sale of its stake in Vodafone Qatar and therefore no longer has operational control of this business. In line with the Greenhouse Gas (GHG) Protocol, Vodafone Qatar is therefore no longer consolidated into Group energy and emissions data (though the total Scope 1 and 2 GHG emissions for Qatar are reported separately on page 28). However, as the transaction occurred so close to the end of the year, performance from Vodafone Qatar has been included in the scope for all other metrics in the Sustainable Business Report 2018.

The Vodafone Foundation

Within this Report, we highlight some of the activities of the Vodafone Foundation as these complement much of the Group's sustainable business strategy. However, the Vodafone Foundation's activities overall are not within the scope of this Report. The Vodafone Foundation supports projects around the world that are run in partnership with charitable organisations and NGOs. The Vodafone Foundation is a UK registered charity (1089625) and receives annual contributions from Vodafone Group Plc. Through its Connecting for Good programme, the Vodafone Foundation leverages the technology and expertise within Vodafone to maximise its charitable impact. The Vodafone Foundation's independence is key to its ability to work globally with a wide range of partners in order to meet its charitable objectives. The Vodafone Foundation also sits at the centre of a network of 27 local social investment programmes, referred to as the local Foundations. The Vodafone Foundation has a funding partnership with these local foundations to provide public benefit by investing in programmes that support communities in Vodafone’s operating countries.

Setting revised baselines after acquisitions, disposals and changes in operational control

The inclusion or exclusion of data from business units that have been acquired or sold or where there is change in operational control (for example, through a merger) is determined by the date that the transaction in question is formally concluded with all approvals received.

Our policy on environmental data reporting is to include performance data from newly acquired businesses at the end of their first full year of new ownership. In terms of setting a revised baseline to reflect acquisitions, disposals or a change of control, our policy is that:

- acquisitions are built into the baseline using either actual or estimated data at the end of their first full year as a controlled subsidiary;
- disposals are removed from the baseline in the year of disposal; and
- any identified errors >1% of the Group total are re-baselined wherever possible.

Trade mark notice

Vodafone, the Vodafone Speech-mark and Vodacom are trade marks of Vodafone. M-PESA, M-Shwari, M-Tiba, ICB M-Pesa and M-Pawa are trade marks of Vodafone and Safaricom. Other product and company names mentioned in this document may be the trade marks of their respective owners.
How we report our key performance indicators

This section of the Report outlines the basis of preparation of the key performance indicators (KPIs) reported in the Women’s empowerment, Energy innovation, and Supply chain integrity and safety sections of the Sustainable Business Report.

We publish our reporting definitions and methodology so that readers can understand the basis upon which the disclosures have been prepared and be in a position to make comparisons across different reports. There are no global regulatory standards for reporting sustainability impacts; for example, there is, as yet, no global mandated benchmark comparable to IFRS. While there are detailed voluntary standards such as the GHG Protocol and RIDDOR, these still leave decisions regarding definitions, inclusion or exclusion, and assessments of stakeholder impacts up to the judgement of the business.

1. Women’s empowerment

Diversity performance: % of female employees

We report the percentage of female employees across our four global employment bands:
- senior leadership (our top 175–225 employees) including ExCo members;
- senior management (1,100–1,600 employees);
- middle management (6,000–7,500 employees); and
- the non-management employees who make up the rest of the population.

Each of these categories is defined through a consistent global role-banding process overseen by the Vodafone HR function.

Calculation of progress against our target of 30% women in management and leadership roles includes the diversity figures for all management bands.

The diversity figures are based on the number of employees (full time/part time) as at 31 March. However, an exception this year is that employees from Qatar have been included in the year end diversity figures.

These numbers are not pro-rated. An employee is defined as a person with an employee (as opposed to consultant or contractor) relationship with Vodafone (or its operating companies), who is paid by Vodafone (or its operating companies) through the payroll. This includes graduates and people on international assignments as well as people on work experience who are on the payroll or have been at Vodafone (or an operating company) for longer than six months. The numbers exclude pensioners and non-employees.

Progress against the goal of bringing the benefits of mobile to an additional 50 million women in emerging markets over the next decade

For the purposes of this goal, the definition of a connected woman is a SIM connection that is estimated to belong to a female primary user.

The number of women connected is then estimated by calculating the percentage of female customers as a proportion of the total number of Vodafone connections in each local market, aggregated across the 10 countries listed above.

Given the nature of the target demographic – typically, women on very low incomes in poor communities – it is assumed that the very large majority will not have a mobile phone in their own right and will not therefore be customers of competitor mobile networks. However, it is not possible to distinguish between women who are new to mobile and women who already have a mobile and are switching networks. Conversely, churn rates (the proportion of subscribers leaving the network) are not accounted for in the figures.

The calculation via customer survey of the proportion of women reached is subject to the risks inherent to this kind of sampling and does not distinguish between existing and new customers. Assumptions are therefore made based on the entire customer population in a market.
2. Energy innovation

Overview

We report energy and GHG emissions data for the following indicators:

- energy consumption by fuel source (in GWh);
- energy consumption by asset type (in GWh);
- renewable energy consumption (as a percentage);
- Scope 1 GHG emissions (in carbon dioxide equivalent (CO₂e));
- Scope 2 GHG emissions (in CO₂e) using both the location and market-based methods of calculation;
- Scope 3 GHG emissions (in CO₂e);
- total GHG emissions (in CO₂e); and
- total GHG emissions per unit of data (in tonnes CO₂e/petabyte data).

Standards and guidance

Our methodology for the reporting of GHG emissions has been developed using the following guidance and standards:

- GHG Protocol standards and guidance, including the Corporate Standard, Scope 2 Guidance and Scope 3 Calculation Guidance;
- CDP guidance including the 2017 Climate Change Responders Pack and the Technical Note on Accounting of Scope 2 Emissions; and
- the Climate Disclosure Standards Board Climate Change Reporting Framework.

Data gathering process and methods

We use an electronic data collection process to gather our data. In the majority of the countries where we operate, energy usage data is based on invoices from our energy suppliers. In some countries, those bills are based on the supplier’s estimated readings.

Where data does not match our reporting period exactly – for example, where we only have 11 months of data – we forecast this information by extrapolation. For sites where energy invoices are unavailable, we estimate this information based on typical site consumption.

Increasingly, we measure our energy consumption through smart metering, a technology that uses mobile communications to collect real-time consumption data from energy meters.

Renewable energy definition

Our figures for renewable energy include all renewables generated by Vodafone on site (for example, through solar or wind power where we use all of the energy generated) as well as electricity from third-party renewable suppliers which is traceable to Vodafone through a signed contract or provision of surrendered renewable energy certificates. The figures exclude any renewables for which Renewable Energy Certificates have been passed on and retired by a third party.

Scope 1

These are emissions within our direct control and include those from:

- diesel, petrol and other fuel used by cars and commercial vehicles owned by Vodafone or leased for six months or more;
- diesel and petrol used for generators in off-grid areas, or where back-up capacity is required; and
- fugitive releases of refrigerants or fire suppressants used for air-conditioning or fire control systems in network buildings and offices.

Conversion factors from the UK government department for the environment, food and rural affairs (DEFRA) have been used to calculate GHG emissions from other fuel sources such as diesel, petrol, natural gas and fuel oil as well as from emissions from vehicles. A conversion efficiency of 30% has been used for diesel generators.

Scope 2

These are emissions from electricity purchased to power our networks, technology centres, offices and retail stores. In January 2015, the guidance on the reporting of Scope 2 GHG emissions under the GHG Protocol was updated. The guidance provides a methodology for how emissions from electricity, heat, cooling and steam should be accounted for.
Location-based emissions
Emissions are calculated using a kWh to CO\(_2\)e conversion factor provided by the International Energy Agency (IEA) for the calendar year 2016, which was the latest dataset available at the time of publication. Under the terms of our commercial licence with IEA, we are no longer allowed to publish individual conversion factors.

Market-based emissions
Emissions are calculated using a kWh to CO\(_2\)e conversion factor based on one of the following sources (in order of priority):
- supplier conversion factors specific to our contract; these include some markets where supplies are 100% renewable, and where this is the case we have sought evidence of singularity of supply;
- residual mix figures for 2016 – where the conversion factor reflects the removal of certificates, contracts and supplier-specific factors claimed by other organisations; and
- location-based conversion factors as described above.

Scope 3
With the help of the Carbon Trust, we have conducted an in-depth analysis of our Scope 3 emissions. These are indirect emissions that we do not directly control but that we may be able to influence. They include emissions from our suppliers in providing us with goods and services; emissions from our joint ventures where we do not have full operational control; and emissions associated with the use of our products and services by our customers.

The GHG Protocol Scope 3 Standard defines 15 categories of emissions as detailed in the table overleaf. We have undertaken a qualitative assessment of the extent to which we can influence and reduce emissions in the most material categories. Further details of the methodology and results for each relevant category are shown.

The estimation of Scope 3 emissions is a very approximate process. The values given in the table are not precise, and are not intended to be read as absolute figures. Rather, they provide an indication of where the most significant emissions in our value chain arise, and help us to target our action.

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### Local market source conversion factor (kg CO\(_2\)e/kWh)

<table>
<thead>
<tr>
<th>Local market</th>
<th>Source</th>
<th>Conversion factor (kg CO(_2)e/kWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albania</td>
<td>IEA</td>
<td></td>
</tr>
<tr>
<td>Czech Republic</td>
<td>Supplier factor and residual mix</td>
<td>Zero and 0.6198</td>
</tr>
<tr>
<td>DRC</td>
<td>IEA</td>
<td></td>
</tr>
<tr>
<td>Egypt</td>
<td>IEA</td>
<td></td>
</tr>
<tr>
<td>Germany</td>
<td>Supplier factor and residual mix</td>
<td>Various and 0.7268</td>
</tr>
<tr>
<td>Ghana</td>
<td>IEA</td>
<td></td>
</tr>
<tr>
<td>Greece</td>
<td>IEA</td>
<td></td>
</tr>
<tr>
<td>Hungary</td>
<td>IEA</td>
<td></td>
</tr>
<tr>
<td>India</td>
<td>IEA</td>
<td></td>
</tr>
<tr>
<td>Ireland</td>
<td>Supplier factor and residual mix</td>
<td>Zero and 0.7611</td>
</tr>
<tr>
<td>Italy</td>
<td>Supplier factor and residual mix</td>
<td>0.411 and 0.2892</td>
</tr>
<tr>
<td>Lesotho</td>
<td>IEA</td>
<td></td>
</tr>
<tr>
<td>Malta</td>
<td>IEA</td>
<td></td>
</tr>
<tr>
<td>Mozambique</td>
<td>IEA</td>
<td></td>
</tr>
<tr>
<td>New Zealand</td>
<td>Supplier factor and IEA</td>
<td>0.1000</td>
</tr>
<tr>
<td>Portugal</td>
<td>Supplier factor and residual mix</td>
<td>0.411 and 0.2892</td>
</tr>
<tr>
<td>Qatar</td>
<td>IEA</td>
<td></td>
</tr>
<tr>
<td>Romania</td>
<td>Supplier factor and residual mix</td>
<td>Various and 0.5390</td>
</tr>
<tr>
<td>South Africa</td>
<td>Supplier factor and IEA</td>
<td>1.010 and IEA</td>
</tr>
<tr>
<td>Spain</td>
<td>Supplier factor and residual mix</td>
<td>0.1500 and 0.3995</td>
</tr>
<tr>
<td>Tanzania</td>
<td>IEA</td>
<td>0.557 and IEA</td>
</tr>
<tr>
<td>Turkey</td>
<td>Supplier factor and residual mix</td>
<td></td>
</tr>
<tr>
<td>UK</td>
<td>Supplier factor and residual mix</td>
<td>Various and 0.3905</td>
</tr>
</tbody>
</table>
### Our Scope 3 emissions according to the GHG Protocol emission categories

<table>
<thead>
<tr>
<th>GHG Protocol category</th>
<th>What does this mean for Vodafone?</th>
<th>Emissions (million tCO₂e)</th>
<th>Methodology for assessment</th>
<th>Ability to influence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchased goods and services; capital goods and services</td>
<td>Emissions from the extraction, production and transportation of goods and services purchased by Vodafone (includes capitalised goods and services).</td>
<td>7.4</td>
<td>Calculated using an Environmentally Extended Economic Input Output (EEIO) approach – this uses macro-economic modelling to determine the GDP value of different sectors of the economy, and to associate that with the GHG emissions incurred by those sectors. At its simplest, the total GHG emissions of the sector are divided by the total GDP value generated by the sector to produce an emissions factor of x kg CO₂e/€ value. By multiplying these emissions factors by the amount we spend on goods and services in each sector, we can obtain a rough estimate of our emissions for purchased goods and services.</td>
<td>High for some suppliers, more limited for others</td>
</tr>
<tr>
<td>Fuel and energy-related activities</td>
<td>Emissions from the extraction, production and transportation of fuels and energy purchased by Vodafone and not already included in Scopes 1 and 2. Includes emissions from electricity transmission and distribution.</td>
<td>0.9</td>
<td>Upstream fuel and energy emissions are calculated by applying emissions factors produced by DEFRA to Vodafone fuel and energy consumption data.</td>
<td>Moderate</td>
</tr>
<tr>
<td>Upstream transportation and distribution</td>
<td>Not calculated, as not material.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waste generated in operations</td>
<td>Disposal and treatment of waste generated by our activities.</td>
<td>0.001</td>
<td>Calculated by applying emissions factors from DEFRA to data for waste generated by Vodafone ready for treatment and disposal.</td>
<td>High</td>
</tr>
<tr>
<td>Business travel</td>
<td>Transportation of employees for business-related activities.</td>
<td>0.06</td>
<td>Calculated by applying emissions factors from DEFRA to distances travelled for business by different modes (air, rail and personal car). This year we estimated the rail, train and road travel based on the 2017 data.</td>
<td>High</td>
</tr>
<tr>
<td>Employee commuting</td>
<td>Not calculated, as not material.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upstream leased assets</td>
<td>Operation of assets leased by Vodafone, including third-party network sites. This includes sites leased from: • Indus Towers (who are also a joint venture); and • other tower companies in India, Tanzania and Ghana.</td>
<td>1.7</td>
<td>Emissions have been estimated either by dividing the cost of electricity and diesel for these sites by unit price/kwh, or by extrapolating based on number of leased sites and an average emission value per site obtained from Vodafone-owned sites.</td>
<td>Moderate</td>
</tr>
<tr>
<td>Downstream transportation and distribution</td>
<td>Not calculated, as not material.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use of sold products</td>
<td>Emissions from the use of goods and services sold by Vodafone, principally from the energy used by network equipment — such as routers — and the energy required to charge mobile devices.</td>
<td>2.6</td>
<td>Calculated by multiplying the number of products sold by the energy usage for that product and electricity emissions factors on a country basis. The total is the sum of all values.</td>
<td>Low</td>
</tr>
<tr>
<td>End-of-life treatment of sold products</td>
<td>Not calculated, as not material.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Downstream leased assets</td>
<td>Not relevant to Vodafone – we do not have equipment or assets that we own and lease to third parties.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Franchises</td>
<td>Not calculated, as not material.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investments</td>
<td>Operation of investments not included in Scope 1 or 2 – our joint ventures in Australia, Kenya and the Netherlands. Our tower company joint ventures in India (Indus) are included in Scope 3 leased assets and the UK (CTIL) and Greece (Victus) are included in Scope 1 and 2 emissions.</td>
<td>0.7</td>
<td>For joint ventures in Australia, Kenya and the Netherlands, Scope 1 and 2 emissions are based on actuals and Scope 3 emissions are extrapolated from Vodafone’s emissions. A percentage of Scope 1 and 2 emissions is reported based on our equity share.</td>
<td>High</td>
</tr>
</tbody>
</table>
GHG savings for customers enabled by our products and services

Our IoT products and services help our customers to reduce electricity, gas and the consumption of other fuels through applications such as smart meters, road navigation systems, fleet management and mobile health. In each of these applications, our IoT services are providing the connectivity, enabling our customers to reduce their GHG emissions. More examples are provided in the Energy innovation section of the Report.

To quantify the GHG savings for our customers enabled by our products and services, we have calculated – in conjunction with the Carbon Trust – the total quantity of emissions that we have helped our customers to avoid. The concept of the enabling effect of information and communications technology (ICT) was introduced in the SMART 2020 report, and the methodology has been developed since then by Global e-Sustainability Initiative (GeSI) and others. One of the most relevant studies is the GeSI Mobile Carbon Impact Report, and many of our calculations, according to the Carbon Trust methodology, use a similar approach.

The starting point for the calculation is a list of our products and services that help customers avoid using energy or fuel. The full list is provided in the following table. For each product or service, a GHG-saving mechanism has been identified and quantified based on an external study, an internal Vodafone study or documented expert assumptions. For example, we know that smart electricity meters can typically reduce a domestic customer’s electricity usage by 3% per year – so the GHG abatement from one of our IoT smart meter connections is 3% of annual GHG emissions from a domestic home.

For each product and service, a unit of sale has been identified – for example, the number of smart electricity meter connections that we have sold. This unit of measurement is then multiplied by the GHG abatement savings for each type of application to provide the total saving for that application. The value for each product and service category is then added together to give the total GHG emissions abated by our technology.

It should be noted that a number of suppliers will contribute to providing an IoT application that enables a customer to avoid or reduce GHG emissions. We have not attempted to apportion emissions savings between ourselves and other suppliers in the value chain. We are careful in our reporting not to claim the avoided emissions as our own. Instead, we are clear that we are one of a number of parties who have helped our customers reduce their GHG emissions. Further details of products and services, the mechanism for abating emissions and the abatement factors used are provided in the table overleaf.

Our GHG target: we will help our customers reduce their GHG emissions by two tonnes for every tonne of GHG we generate from our own operations.

We set a target that, by March 2018, the quantity of GHG emissions that we are enabling our customers to avoid – as calculated by the methodology laid out above – will be twice that of our total Scope 1 and 2 GHG emissions.
## Summary of methodology for calculating Internet of Things (IoT) abatement factors for GHG customer savings

<table>
<thead>
<tr>
<th>IoT application</th>
<th>Description</th>
<th>GHG abatement mechanism</th>
<th>GHG abatement factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smart metering (domestic)</td>
<td>IoT-enabled meters, which regularly record utility consumption (gas, electricity or water) and communicate the information back to the energy or utility company to allow remote reporting.</td>
<td>Smart meters are seen as an important tool to reduce domestic utility consumption and manage utility networks more efficiently. Many studies have demonstrated that the installation of smart meters and associated initiatives have resulted in energy consumption reductions.</td>
<td>Average electricity and gas usage reduction assumed is 3% per annum².</td>
</tr>
<tr>
<td>Smart metering (commercial)</td>
<td>As per above but for commercial properties, which often have multiple smart meters to isolate different areas of consumption.</td>
<td>Smart meters in commercial properties provide visibility to building managers as to where and when an organisation is consuming energy or water. Smart meters have been shown to lead to energy savings, as consumption can be optimised remotely.</td>
<td>Average electricity and gas usage reduction assumed is 16.8% per annum³.</td>
</tr>
<tr>
<td>Smart logistics &amp; fleet management (bus)</td>
<td>Connected telematics system that consist of an in-vehicle unit (IVU) connected to a central server. This feedback back real-time information on the GPS location of the vehicle, and may include other performance metrics such as fuel consumption and driver performance.</td>
<td>Connected buses can communicate with traffic light systems to prioritise bus routes, improving fuel efficiency. GPS location services can also be used to inform passengers of bus arrival times. Both features can help to increase bus patronage and improve emissions per passenger.</td>
<td>Fuel saving assumed is 6%. This is applied to average annual emissions for a bus.</td>
</tr>
<tr>
<td>Smart logistics &amp; fleet management (cars)</td>
<td>Connected telematics system that consist of an IVU connected to a central server. Within a car fleet this is primarily used for satellite navigation and feedback on driver behaviour. Information may also be used for usage-based insurance.</td>
<td>Fleet management systems may be used for optimised routing and avoiding congested areas, which directly reduces fuel consumption. Telematics systems can offer real-time feedback to drivers on their driving performance and behaviour. This technology is an enabler; the efficiency gains can only be realised if the driver acts in response to the feedback.</td>
<td>Fuel saving assumed is 6%. This is applied to average annual emissions for a car⁴⁵.</td>
</tr>
<tr>
<td>Smart logistics &amp; fleet management (light and heavy goods vehicles)</td>
<td>As per above but for LGVs and HGVs. Commercial vehicle applications include optimised delivery and dispatch routing, tracking of fuel consumption and monitoring of driver performance.</td>
<td>Optimised delivery and dispatch routing for goods vehicles ensures that unnecessary journeys are minimised, resulting in improved fuel efficiency. Telematics systems can offer real-time feedback to drivers on their driving performance and behaviour. This technology is an enabler; the efficiency gains can only be realised if the driver acts in response to the feedback.</td>
<td>Fuel saving assumed is between 2% and 10%, dependant on classification and application. This is applied to average annual emissions for an LGV or HGV.</td>
</tr>
<tr>
<td>Smart logistics &amp; fleet management (taxis)</td>
<td>Connected telematics system that consists of an IVU connected to a central server. This is usually connected to passenger mobile applications to locate and summon nearby taxis. Multiple users may be connected to pool journeys.</td>
<td>Carbon savings are achieved by taxis having fewer miles travelled without a customer, based on optimised central control and dispatch of the taxis.</td>
<td>Fuel saving assumed is 5%. This is applied to average annual emissions for a taxi.</td>
</tr>
<tr>
<td>Smart logistics &amp; fleet management (smart bin)</td>
<td>IoT-enabled units within smart bins communicate with waste collection services to notify when full and also to prevent unnecessary journeys being made by waste collection vehicles.</td>
<td>The primary enablement mechanism is reduced journeys by waste collection vehicles, resulting in fuel saving.</td>
<td>Abatement factor of 5kg CO₂e per smart bin was used⁶.</td>
</tr>
<tr>
<td>Street lighting</td>
<td>IoT-enabled street lighting allows variable levels of lighting, depending upon time of day and the extent to which people are nearby.</td>
<td>The carbon saving is achieved through avoiding the use of street lighting when it is not necessary. Lower levels of lighting may also be used in less busy areas.</td>
<td>Reduction in energy consumption of street lights assumed is 20%².</td>
</tr>
<tr>
<td>Electric vehicle charging</td>
<td>IoT-enabled EV charging points interact with electric vehicles or driver mobile apps to direct drivers to the most appropriate EV charging point, giving drivers the confidence to carry out more journeys in electric vehicles.</td>
<td>The use of an electric vehicle over a traditional fuelled vehicle has significant carbon savings. It is assumed each electric vehicle journey provided by the charging point replaces a traditional fuel journey.</td>
<td>Annual distance driven was calculated from the charge provided by a charging point⁵. The saving is the difference in emissions for that distance between an average petrol car and an electric car.</td>
</tr>
<tr>
<td>Healthcare</td>
<td>Connected devices allow chronic or high-risk patients to be monitored within their own home. This prevents excess journeys to and from hospital by both patients and healthcare professionals, as well as freeing up hospital beds.</td>
<td>The emissions associated with one hospital stay are avoided by allowing the patient to remain at home. There are also the avoided emissions from not having to make the car journey to and from the hospital.</td>
<td>Assumed 42% reduction in hospital admissions⁷.</td>
</tr>
</tbody>
</table>

¹. Average electricity and gas usage reduction assumed is 3% per annum.  
². Average electricity and gas usage reduction assumed is 16.8% per annum.  
³. Fuel saving assumed is 6%. This is applied to average annual emissions for a bus.  
⁴. Fuel saving assumed is 6%. This is applied to average annual emissions for a car.  
⁵. Fuel saving assumed is between 2% and 10%, dependant on classification and application. This is applied to average annual emissions for an LGV or HGV.  
⁶. Fuel saving assumed is 5%. This is applied to average annual emissions for a taxi.  
⁷. Fuel saving assumed is 5%. This is applied to average annual emissions for a taxi.

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### References

3. Youth skills and jobs

We report on the number of opportunities we offer to under-25s at Vodafone. This number is broken down into five categories, each of which is defined through consistent global guidelines (see table left).

Vodafone’s target to expand its existing graduate, apprenticeship, internship and work-experience schemes worldwide to reach a total of up to 100,000 young people by 2022 has the following markets and entities in scope:

Albania, Czech Republic, Egypt, Germany, Ghana, Greece, Hungary, India, Ireland, Italy, Malta, Netherlands, New Zealand, Portugal, Qatar, Romania, South Africa, Spain, Turkey, UK and Vodafone Group.

4. Supply chain integrity performance

Selection process for assessment

Any supplier that provides a product or service to Vodafone is screened for potential social, ethical and environmental risks, as defined by the Code of Ethical Purchasing. Existing or new suppliers are then selected for assessment depending on a number of different risks, including the supplier’s scale, the countries in which the activity takes place and the nature of the activity.

Suppliers to Vodafone who also supply two or more other members of the Joint Audit Cooperation (JAC) initiative (an association of telecom operators aiming to verify, assess and develop supply chain practices in the industry) are audited through JAC assessments. Vodafone audits are typically focused on suppliers of network infrastructure products and services, Vodafone-branded consumer equipment (such as mobile phones or set-top boxes) and Vodafone Automotive IoT products. We also use anonymous mobile phone-based surveys of workers to complement an on-site audit or as a standalone assessment.

Joint Audit Cooperation assessments

JAC audits are reported on a calendar-year basis while Vodafone audits are reported on a financial-year basis. The majority of JAC audits focus on suppliers in Vodafone’s supply chain. The JAC audits are conducted by independent auditors paid for by the JAC member companies. Reports are issued in a standard format focused on verifying social, environmental and ethical factors. Audits that are funded and conducted by Vodafone on behalf of the JAC initiative are not reported under the total number of Vodafone audits to avoid double-counting.

The JAC companies hold quarterly steering committee meetings to review progress in remediating shortcomings identified in JAC audits.

<table>
<thead>
<tr>
<th>Opportunity</th>
<th>Sub category</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct hires</td>
<td>N/A</td>
<td>Any individual hired into full or part-time employment who is under the age of 25 at the point of joining Vodafone.</td>
</tr>
<tr>
<td>Workplace experience and training</td>
<td>Bring your kids to work</td>
<td>This includes children of any age who come to Vodafone premises for 1–2 days or for Vodafone family days. They are supervised by parents/guardians at all times.</td>
</tr>
<tr>
<td>Work experience</td>
<td>N/A</td>
<td>Offered to individuals between 14 and 19 years of age. This is an opportunity to join Vodafone for 1–2 weeks unpaid to gain experience of the working world.</td>
</tr>
<tr>
<td>Apprentice</td>
<td>N/A</td>
<td>Open to individuals aged 16+ who will join Vodafone for between 1 and 3 years to study for a professional qualification and work at the same time.</td>
</tr>
<tr>
<td>Internship</td>
<td>N/A</td>
<td>Open to individuals aged 18+, offering short-term assignments from between 1 and 6 months.</td>
</tr>
<tr>
<td>Graduate recruitment</td>
<td>N/A</td>
<td>Our Discover programme offers graduates a 2-year placement with Vodafone, where they will rotate across business divisions.</td>
</tr>
</tbody>
</table>
Vodafone audits

Vodafone audits are conducted by either Vodafone's internal auditors or by independent auditors on site at the supplier's operation or factory using the JAC methodology and checklists. Follow-up audits are counted as individual audits.

Anonymous mobile phone-based surveys

Anonymous and confidential mobile phone-based surveys of supplier employees and contractors are carried out by an independent survey service provider, Laborlink, using pre-recorded questions and an Interactive Voice Response (IVR) system. The independent provider is present on site distributing calling cards directly to groups of workers in factories and other work sites. The mobile phone-based survey figures represent the number of unique mobile phone callers registering a survey response. The IVR questions are provided in audio form in the workers' local language, and their responses are captured using touch-tone keypads. The service works on all mobile phones, including very low-cost basic devices.

Tier

In the context of the Sustainable Business Report, a 'Tier' is defined as the level of contractual separation between Vodafone and its suppliers downstream in the supply chain. Tier 1 is defined as a direct supplier to Vodafone with whom a contract or purchasing terms are established. Tier 2 is defined as an entity with whom a Tier 1 supplier has a contract or relationship. Tier 3 is defined as an entity that has a contract or relationship with a Tier 2 supplier, and so on for tiers downstream in the supply chain. 'Tier' in this context does not signify strategic importance or segmentation.

5. Safety performance data

Safety data is collected by the local markets and then shared with the Group Health, Safety and Wellbeing team. The local market must report, record and investigate all incidents. An incident management system is used for the reporting, recording, investigation and action tracking of incidents.

Recordable fatalities

We report all fatal incidents related to our operations when – after investigation and review – we conclude that our controls were not operating as effectively as required. We also consider circumstances where it is reasonable to assume that if our controls could have been enhanced, the outcome may have been different, including potentially preventing the incident from occurring at all. We therefore report accidents both on our owned sites and also in areas that are outside our full control – for example, on public roads. We report every life lost within the control definition stated above, irrespective of the individual's status – whether an employee, contractor, suppliers' employee or contractor (of any Tier) or a member of the public.

Where a fatal incident is under investigation by national authorities, we are typically unable to gain access to the authorities' findings and therefore unable to conclude our internal investigation or include in our reporting until any investigations are complete. We note any fatal incidents in our reporting that are still under investigation.

Lost-time incidents

Lost-time incident (LTI) is the term used when a Vodafone employee is injured while carrying out a work-related task and is unable to perform his or her regular duties for a complete shift or period of time after the incident.

The lost-time injury rate is calculated as the percentage of lost-time incidents compared to the average number of employees over the reporting year.
KPMG LLP ('KPMG' or 'we') were engaged by Vodafone Group Services Limited to provide limited assurance to Vodafone Group Plc ('Vodafone') over the Selected Information described below for the year ended 31 March 2018.

**Our conclusion**

Based on the work we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that the Selected Information listed in Appendix 1 to our report has not been properly collated in all material respects, in accordance with the Reporting Criteria.

This conclusion is to be read in the context of the remainder of this report, in particular the inherent limitations explained below and this report's intended use.

**Selected Information**

The scope of our work includes only the information included within Vodafone's Sustainable Business Report ('the Report') for the year ended 31 March 2018 listed in Appendix 1 to our report ('the Selected Information').

We have not performed any work, and do not express any conclusion, over any other information that may be included in the Report or displayed on Vodafone's website for the current year or for previous periods unless otherwise indicated.

**Reporting Criteria**

The Reporting Criteria we used to form our judgements are Vodafone's Basis of Reporting as set out in the Appendix of the Report ('the Reporting Criteria'). The Selected Information needs to be read together with the Reporting Criteria.

**Inherent limitations**

Our procedures were designed to consider the collation of the Selected Information and were not designed to test the underlying market level data. Our procedures were conducted at the Vodafone Group Head Office and remotely at KPMG offices, physical visits to other Vodafone locations did not take place.

The nature of non-financial information; the absence of a significant body of established practice on which to draw; and the methods and precision used to determine non-financial information, allow for different, but acceptable evaluation and measurement techniques and can result in materially different measurements, affecting comparability between entities and over time. In particular we draw attention to the methodological and assumption based limitations Vodafone have disclosed in the Reporting Criteria.

**Directors' responsibilities**

The Directors of Vodafone are responsible for:

- designing, implementing and maintaining internal controls relevant to the preparation and presentation of the Selected Information that is free from material misstatement, whether due to fraud or error;
- selecting and/or developing objective Reporting Criteria;
- measuring and reporting the Selected Information in accordance with the Reporting Criteria; and
- the contents and statements contained within the Report and the Reporting Criteria.

**Our responsibilities**

Our responsibility is to plan and perform our work to obtain limited assurance about whether the Selected Information has been properly collated in accordance with the relevant part of the Reporting Criteria and to report to Vodafone in the form of an independent limited assurance conclusion based on the work performed and the evidence obtained.

**Assurance standards applied**

We performed our work in accordance with International Standard on Assurance Engagements 3000 – 'Assurance Engagements other than Audits or Reviews of Historical Financial Information' ('ISAE 3000') and, in respect of the greenhouse gas emissions information included within the Selected Information, in accordance with International Standard on Assurance Engagements 3410 – 'Assurance Engagements on Greenhouse Gas Statements' ('ISAE 3410'), issued by the International Auditing and Assurance Standards Board.

The work performed in a limited assurance engagement varies in nature and timing from, and is less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

**Independence, professional standards and quality control**

We comply with the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants and we apply International...
Standard on Quality Control (UK) 1, ‘Quality Control for Firms that Perform Audits and Reviews of Financial Statements, and Other Assurance and Related Services Engagements’. Accordingly, we maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements and professional standards (including independence, and other requirements founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour) as well as applicable legal and regulatory requirements.

Summary of work performed
Considering the level of assurance and our assessment of the risk of material misstatement of the Selected Information, whether due to fraud or error, our work included, but was not restricted to:

• assessing the appropriateness of the Reporting Criteria for the Selected Information;
• conducting interviews with Vodafone management to obtain an understanding of the key group collation processes, systems and controls in place over the collation of the Selected Information;
• agreeing a selection of the collated Selected Information to a selection of the Vodafone market level data submissions submitted by Vodafone markets to the Vodafone Group Head Office;
• agreeing the relevant prior period and baseline data to previously reported data where these were used in the calculation of the Selected Information, including re-performing the calculation;
• considering the appropriateness of the carbon conversion factor calculations and other unit conversion factor calculations used by reference to widely recognised and established conversion factors;
• reperforming a selection of the calculations used to collate the Selected Information;
• performing analytical review procedures over the collated Selected Information, including a comparison to the prior period's amounts having due regard to changes in business volume and the business portfolio; and
• reading the Report and narrative in the Report accompanying the Selected Information with regard to the Reporting Criteria, and for consistency with our findings.

This report’s intended use
This assurance report is made solely to Vodafone in accordance with the terms of the engagement contract between us. Those terms permit disclosure to other parties, solely for the purpose of Vodafone showing that it has obtained an independent assurance report in connection with the Selected Information.

We have not considered the interest of any other party in the Selected Information. To the fullest extent permitted by law, we accept no responsibility and deny any liability to any party other than Vodafone for our work, for this assurance report or for the conclusions we have reached.

Paul Holland
for and on behalf of KPMG LLP
Chartered Accountants
London
1 June 2018

The maintenance and integrity of Vodafone’s website is the responsibility of the Directors of Vodafone; the work carried out by us does not involve consideration of these matters and, accordingly, we accept no responsibility for any changes that may have occurred to the reported Selected Information, Reporting Criteria or Report presented on Vodafone’s website since the date of our report.
Selected Information (Appendix 1)

The Underlying Subject Matter and Subject Matter Information (‘the Selected Information’) are listed here. The information in this Appendix needs to be read together with the attached limited assurance report and the Reporting Criteria.

<table>
<thead>
<tr>
<th>Underlying Subject Matter</th>
<th>Subject Matter Information ('the Selected Information')</th>
</tr>
</thead>
<tbody>
<tr>
<td>Progress towards our 50 million women goal: number of estimated additional female customers (million)</td>
<td>13.3</td>
</tr>
<tr>
<td>(Note – this figure represents the cumulative progress to date, not just the performance in the current year)</td>
<td></td>
</tr>
<tr>
<td>Women in senior leadership team (SLT) and senior management roles (%)</td>
<td>25</td>
</tr>
<tr>
<td>Women in senior leadership team (top 117–225, including ExCo members) (%)</td>
<td>25</td>
</tr>
<tr>
<td>Women in senior management (%)</td>
<td>26</td>
</tr>
<tr>
<td>Women in middle management (%)</td>
<td>29</td>
</tr>
<tr>
<td>Women in management and leadership roles (%)</td>
<td>29</td>
</tr>
<tr>
<td>Women all non-management employees (%)</td>
<td>38</td>
</tr>
<tr>
<td>Women in management and leadership roles (%)</td>
<td>29</td>
</tr>
<tr>
<td>Vodafone energy use: Total (GWh)</td>
<td>6,233</td>
</tr>
<tr>
<td>Vodafone GHG emissions: Scope 1 (million tonnes CO₂e)</td>
<td>0.38</td>
</tr>
<tr>
<td>Vodafone GHG emissions: Scope 2 (market-based method) (million tonnes CO₂e)</td>
<td>2.20</td>
</tr>
<tr>
<td>Vodafone GHG emissions: Total Scope 1 and 2 (market-based method) (million tonnes CO₂e)</td>
<td>2.58</td>
</tr>
<tr>
<td>Vodafone GHG emissions: Scope 3 (air travel only) (million tonnes CO₂e)</td>
<td>0.05</td>
</tr>
<tr>
<td>Vodafone GHG emissions: Scope 2 (location-based method) (million tonnes CO₂e)</td>
<td>2.71</td>
</tr>
<tr>
<td>Vodafone GHG emissions: Total Scope 1 and 2 (location-based method) (million tonnes CO₂e)</td>
<td>3.09</td>
</tr>
<tr>
<td>Energy and greenhouse gas emissions: Energy from renewable sources (%)</td>
<td>13</td>
</tr>
<tr>
<td>GHG emissions per petabyte of traffic on Vodafone’s networks (million tonnes CO₂e)</td>
<td>682</td>
</tr>
<tr>
<td>Number of total emissions avoided as a consequence of IoT technologies and service (million tonnes CO₂e)</td>
<td>5.3</td>
</tr>
<tr>
<td>Ratio of GHG emission savings for customers to own GHG footprint (ratio)</td>
<td>2.1</td>
</tr>
<tr>
<td>Number of supplier site assessments conducted by the Joint Audit Committee</td>
<td>81</td>
</tr>
<tr>
<td>Number of supplier site assessments conducted by Vodafone</td>
<td>17</td>
</tr>
<tr>
<td>Number of sites assessed using a mobile survey of workers</td>
<td>10</td>
</tr>
<tr>
<td>Number of factory workers surveyed using mobile survey</td>
<td>2,556</td>
</tr>
<tr>
<td>Total recordable fatalities</td>
<td>9</td>
</tr>
<tr>
<td>Recordable fatalities – Members of the public</td>
<td>3</td>
</tr>
<tr>
<td>Recordable fatalities – No. of suppliers’ contractors/employees</td>
<td>6</td>
</tr>
<tr>
<td>Recordable fatalities – No. of employees</td>
<td>0</td>
</tr>
<tr>
<td>Lost Time Incidents (LTI): No. of LTIs</td>
<td>64</td>
</tr>
<tr>
<td>LTI rate per 1,000 employees</td>
<td>0.62</td>
</tr>
<tr>
<td>Number of young people gaining experience of Vodafone’s digital workplace through apprenticeships</td>
<td>696</td>
</tr>
<tr>
<td>Number of young people gaining experience of Vodafone’s digital workplace through internships</td>
<td>1,953</td>
</tr>
<tr>
<td>Number of young people gaining experience of Vodafone’s digital workplace through the graduate programme</td>
<td>857</td>
</tr>
<tr>
<td>Number of young people (under 25) directly hired by Vodafone</td>
<td>6,556</td>
</tr>
</tbody>
</table>