Sustainability Report

2013/14

Vodafone Group Plc
Power to you

Contents

Welcome to Vodafone's Sustainability Report. Explore the report to find out more about our approach to key sustainability issues and our performance in 2013/14.

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Our vision and approach

We aim to use our products and services to help transform societies and contribute to more sustainable living. Find out more about our vision and how we manage sustainability

Our vision sets out our ambition to deliver connectivity and innovative services to improve people's livelihoods and quality of life. Central to achieving this vision is our longstanding commitment to manage our operations responsibly and ethically.

Read an introduction from our Chief Executive and find out more about our vision, how we manage sustainability and our reporting.

CEO introduction

The beliefs, aspirations and concerns of our diverse stakeholders shape our performance as much as any business decision. Everyone we deal with – our customers, shareholders, partners, suppliers, employees, elected representatives, regulators, NGOs and the media – rightly expects everyone at Vodafone to act responsibly and with integrity at all times. Financial results alone are not enough: the societies and communities within which we operate want companies to focus on enhancing lives and livelihoods, not just enhancing returns to their shareholders. Overlooking that expectation would risk undermining our prospects for long-term value creation.

Our core business is founded on a powerful social good: we exist to help more than 430 million customers in more than 27 countries communicate, share, create, learn and grow. The rapid expansion of communications networks is having a profound impact on the way people manage their daily lives. The social consequences are significant: for example, as we explain in a new section in this report, mobile can be enormously empowering for many women in emerging markets. High-speed data networks are also changing how companies and public sector organisations operate, enhancing productivity and effectiveness and in many cases reducing energy needs, therefore helping to address global warming. The report sets out how our technologies enable our customers to reduce their climate change impact, and gives an overview of our continuing efforts to reduce our operational energy consumption and CO_2 emissions.

The data revolution is shaping household habits and enterprise strategies in ways that were little more than science fiction a generation ago. However, radical change often leads to complexity, new emerging risks and new kinds of concerns. Foremost amongst the latter is growing public anxiety about access to citizens' private information by commercial entities and government authorities. As we explain in this report, the protection of our customers' privacy is one of our

highest priorities. We also reflect the public debate arising from allegations regarding government surveillance with the publication of our first Law Enforcement Disclosure report. This illustrates our approach to responding to law enforcement demands across 29 countries, including information about intelligence agency and authority demands on a country-by-country basis, where statistical data can lawfully be disclosed.

Corporate taxation is also an ongoing focus of public debate. Here, too, we have sought to inform discussions by producing a detailed and transparent insight into our views and approach. Our Tax and Total Economic Contribution report – updated in December 2013 – provides a detailed overview of our role in funding public finances, including a country-by-country breakdown of cash taxes paid: Vodafone is the first international communications operator to do so.

These issues – and others also addressed in this report – are of interest to a wide range of stakeholders. We are accountable to all of you. We hope this report is informative and we look forward to further discussions over the year ahead.

Vittorio Colao,
Chief Executive, Vodafone Group Plc

Our vision

Vodafone's ambition is to contribute to sustainable living by delivering connectivity and innovative services to our 434 million customers – 70% of whom live in emerging markets.

Communications technology is already a vital tool in people's lives and is helping to transform large parts of the world. It is also contributing to global trends, such as first-time access to the internet for people in emerging markets and the ability to connect not just people but things like machinery and vehicles via the 'internet of things'. Researching and developing opportunities that can contribute to sustainable living through our technology remains at the core of our vision.

We see significant opportunities to grow and enhance our business by developing commercially viable, scalable services that support sustainable development and differentiate our brand. Vodafone's mobile money transfer product, M-Pesa, is already a well-established and growing part of the business and has become the basis for a range of other services that can also improve livelihoods.

We continue to build on the work we are doing in areas such as agriculture, education and health, where technology is recognised as a critical tool that can make a significant difference to people's lives, and we are working with partners to develop this further. We are also exploring how mobiles can improve working lives and livelihoods in emerging markets and the role they can play in empowering women to be able to contribute economically and access improved outcomes in healthcare and education.

In developed markets, our products and services continue to play an important role in tackling one of the biggest global challenges we face – climate change. Smart working and our machine-to-machine (M2M) technologies offer significant potential to help organisations and individuals reduce their energy use and carbon emissions, enabling them to live, work and operate more sustainably.

Maintaining the trust of our customers and other stakeholders and remaining accountable to them is critical to our brand and vital to achieving our vision. To earn and retain that trust we continue to build on our longstanding commitment to manage our operations responsibly – from keeping our people safe and managing our carbon footprint, to protecting our customers' privacy and conducting our business in an ethical and transparent way.

Our vision

Unleash the power of Vodafone to contribute to sustainable living for all

Our approach and current focus areas

Delivering transformational solutions

Mobile technology is improving livelihoods and quality of life globally. We are exploring commercial opportunities where our products and services can bring further benefits to society and we are researching the potential for our technology to further contribute to sustainable living.

Finance

Women

Low carbon solutions

Smart working

Agriculture

Health

Education

Operating responsibly and ethically

Operating responsibly is essential to our licence to operate and delivers commercial advantages to the business, helping to turn potential risks into opportunities and enhancing the contribution of our products and services to sustainable living. By acting with honesty and integrity we can secure the trust of our customers, which is integral to the long-term success of our business.

Privacy and security
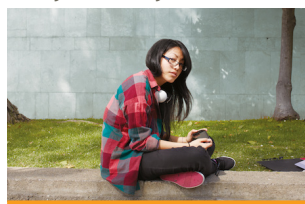
Responsible supply chain

Tax and our total economic contribution

Environmental footprint

Health and safety

Human rights

Mobiles, masts and health

Managing sustainability

Find out more about how we listen to our stakeholders, identify material issues and manage sustainability across the Group

We have robust policies and systems in place to manage the wide range of sustainability issues we encounter in our business activities. Listening to our stakeholders helps us prioritise these issues by identifying those that are most important to them and to us.

Managing sustainability

Governance

The Group Executive Committee (ExCo) is responsible for our sustainability performance and receives a formal update on sustainability at least once a year as well as a monthly written update. A report is also made annually to the Vodafone Group Plc Board.

The Group Director of Sustainability and Vodafone Foundation reports to the Group External Affairs Director (an ExCo member) and heads a team of experts who act as trusted advisors to our local market sustainability leads and issue owners, who implement sustainability initiatives across the business.

Managing sustainability across the Group

We have an established framework for implementing our sustainability programme across the Group through a network of issue owners within different functions and dedicated teams in each market. The Chief Executives of individual operating companies have overall responsibility for their sustainability performance and the Group Director of Sustainability and Vodafone Foundation regularly meets members of their executive teams. Quarterly formal meetings are also held with our regional CEOs and Directors of key Group functions.

Our Group Sustainability team focuses on:

- Compliance – issues management and data collection to ensure we operate responsibly and comply with external regulations and internal policies

- Commercial opportunities – to leverage the sustainability credentials of our business and our products and services as a commercial differentiator

- Communications – researching and improving understanding of the role of communications technology in the societies and communities in which we operate, and in addressing global trends.

Our local operating companies align their strategy to the Group but have the flexibility to focus on issues that are important to their local stakeholders. The Group Sustainability team runs monthly teleconferences and annual global workshops for sustainability managers and issue owners from our local markets to align with the Group Sustainability strategy, share best practice, ensure consistency across the business and drive progress towards our vision.

We report progress publicly in our Group and our local markets' sustainability reports. Our performance at Group level is independently assured (see Assurance).

Vodafone Group PLC Board

Annual reporting

Responsible for:
- Ultimate supervision of Vodafone's sustainability performance

Chief Executive & Executive Committee (ExCo)

Group Director of Sustainability & Vodafone Foundation reports to Group External Affairs Director (ExCo member responsible for sustainability)

Responsible for:
- Sustainability policy
- Discussing sustainability issues
- Vodafone's sustainability performance

Group Sustainability team

works closely with

Local operating companies

Group operational functions

Responsible for:
- Formulating sustainability strategy, policies and goals
- Maintaining sustainability performance across the Group
- Stakeholder engagement
- Raising awareness among employees
- Sustainability reporting
- Helping management to ensure that sustainability standards are consistent across the Group

Managing sustainability

Code of Conduct and other policies

Our policies help to ensure that our Business Principles are put into practice in our day-to-day business.

The Code of Conduct, which incorporates the Business Principles, is our central policy document. The Code outlines the requirements that every single person working for and with Vodafone must comply with.

- Code of Conduct

Other key policies include:

- Health, Safety and Wellbeing
- Code of Ethical Purchasing
- Conflict Minerals Policy
- Tax Risk Management Strategy

Stakeholder engagement

Communicating with and listening to our stakeholders – the people who can affect our business or who are affected by it – is important to help us understand their views and explain our perspectives.

The feedback we receive from external stakeholders informs our judgment about sustainability priorities for our business and feeds into our sustainability strategy as appropriate. Our aim is for Vodafone and its stakeholders to find the process mutually beneficial and in cases where we do not agree or cannot respond to the feedback we have received, we aim to explain our position honestly and openly.

Our stakeholders include investors, employees and suppliers – who are directly affected by our business performance – as well as consumers and enterprise customers (small and large businesses and organisations) who relate to us as a service provider. Many more people in communities see our network infrastructure and some object to where we put our mast sites. Non-governmental organisations and sustainability opinion formers are often concerned about specific issues. Governments and regulators can affect our business through new legislation and regulations (see Public policy).

We tailor our engagement processes to suit each different stakeholder group. Our local markets play an important role in forming relationships with local stakeholders.

Stakeholder group	How we engage	Further information
Investors	We meet with investors through events, conference calls and one-to-one meetings to understand their concerns about sustainability risks and help us identify potential future issues.	We use our engagement with investors to understand what information they want and to explain our strategy for managing sustainability across the business. We also provide information for investors on our Group website (see Investor Relations).
Opinion formers and experts	We consult with experts on a wide range of issues to gain feedback about our practices and inform our strategy on sustainability. Our Sustainability Expert Advisory Panel was established in 2007 to provide feedback on our strategy, performance and issue management. The forum comprises experts from sustainability organisations, NGOs and industry, with a mutual interest in debating relevant issues and finding solutions for Vodafone to put into practice.	Our Sustainability Expert Advisory Panel met once in 2013/14 to discuss the role of sustainability at Vodafone now and in the future. We interviewed opinion formers as part of our Connected Women research and Vodafone Group CEO, Vittorio Colao, hosted a discussion panel with four opinion formers at the launch event.

Managing sustainability

Stakeholder group	How we engage	Further information
Non-governmental organisations (NGOs)	We consult with NGOs when their campaign or focus is relevant to our business. We do this by organising face-to-face meetings and meeting representatives at sustainability events. Our engagement with individual NGOs is mainly focused on specific issues.	NGOs are included in many of our dialogues with experts and are included on Vodafone's Sustainability Expert Advisory Panel. We also consult with NGOs on particular issues. In 2013/14, these included engaging with the multi-stakeholder Ranking Digital Rights project, which is developing a methodology to rank ICT companies on respect for free expression and privacy. We continued to engage with NGOs and the Global Network Initiative through our participation in the Telecommunications Industry Dialogue on Privacy and Freedom of Expression.
Enterprise customers	We work with our enterprise customers to help them meet their sustainability needs. Partnering with them will also play an important role in helping us to deliver transformational products and services. It will support us in creating commercially viable services with sustainability benefits that can be scaled up and rolled out across different markets.	We work with enterprise customers to develop products and services that promote sustainability, for example through Low carbon solutions and Smart working.
Consumers	We communicate with consumers in many ways as part of our normal business operations, for example, through our retail outlets, contact centres and customer research. Understanding the attitudes of consumers towards sustainability issues is critical to getting our strategy right.	We run regular perception surveys across our markets to evaluate our reputation in local markets and globally. In 2013/14, we surveyed consumers (and opinion formers) to understand their expectations in relation to privacy (see Privacy and security). We also engage consumers on the environmental and social impacts of mobile phones through our Eco-rating scheme (see Customers and the environment).
Industry	We collaborate with industry peers through our participation in industry forums on sustainability issues. These include: ● Global e-Sustainability Initiative (GeSI) ● International Telecommunications Union ● Joint Audit Cooperation (JAC) ● Telecommunications Industry Dialogue on Freedom of Expression and Privacy ● GSM Association (GSMA) and GSM Europe	Through GeSI, we participate in industry initiatives such as the Conflict Free Sourcing Initiative which aim to tackle conflict minerals by increasing transparency and traceability in the supply chain. Through JAC, we collaborate with other telecoms companies to assess and improve the social and environmental performance of common suppliers. In 2013/14, we participated in JAC's third annual conference on sustainability and corporate social responsibility in China (see Responsible supply chain). We continued to engage with others in our industry through the Telecommunications Industry Dialogue on Freedom of Expression and Privacy. We also chair the GSMA Europe Health and Environment working group, which met four times in 2013/14, and participated in the GSMA Europe EMF Forum 2014 in Brussels to share best practice and engage in dialogue with industry peers on mobiles, masts and health.

Managing sustainability

Stakeholder group	How we engage	Further information
Communities	We consult local people to help us understand and address any concerns they may have with the deployment of our network in their communities.	Our local operating companies continued to consult with communities in the rollout of our networks in 2013/14 (see Network deployment for more on our approach). We also explored ways to expand our 'community power' model, which uses our network infrastructure to bring additional benefits to communities by increasing access to energy in remote areas of emerging markets (see Low carbon solutions).
Governments and regulators	Vodafone engages with regulators and governments on a wide range of issues relevant to our business and contributes to consultations on sustainability issues.	See Public policy for more on our engagement with governments and regulators.
Employees	We gain feedback from employees on how we're doing through our annual Global People Survey, as well as engaging informally through internal communications channels and regular meetings with managers.	In 2013/14, our efforts to engage employees across the Group helped us to maintain strong scores in our annual Global People Survey (see Our people).
Suppliers	We work closely with suppliers to ensure they maintain high standards by conducting assessments and holding workshops to help them improve. We also collaborate with key network suppliers to help us cut climate impacts by improving the energy efficiency of our operations.	We participate in the Carbon Disclosure Project Supplier programme to encourage suppliers to disclose and set targets to reduce energy use and carbon emissions (see Responsible supply chain).

Public policy

Vodafone engages with regulators and governments on a wide range of issues directly relevant to our company and industry, as well as issues of broad public interest. We aim to be direct and transparent about our views, and base our opinions on evidence. All engagement with governments and regulators is subject to our Group Public Policy Principles.

We seek to inform policymakers – including legislators, government officials and regulators – about the nature of our business, the telecommunications industry and the business environment generally. Vodafone develops policy positions that explain the outcomes the company seeks from the public policy process and how we believe policy makers should approach issues.

Many of our written submissions are made public by the government organisation to which they are submitted. Vodafone believes in transparency in government relations and will provide copies of any formal submissions in the public domain to regulators and governments on request. The views expressed within our website and in this Sustainability Report are consistent with the views presented by Vodafone to governments.

We work with key industry trade associations on public policy issues. For example, Vodafone is a member of the World Economic Forum, GSM Association, GSMA Europe and the International Telecommunication Union. Vodafone is also commonly a member of national telecommunications industry associations in the countries where we operate if these associations exist.

It is Vodafone's policy not to make political donations or support particular party political interests.

We engage with regulators on general industry issues and sustainability-related issues such as privacy and climate change.

See our public policy website for position papers, policy papers and our responses to government consultations on specific issues.

Managing sustainability

Vodafone's position on public issues

General industry issues

Vodafone local operating companies are generally subject to regulation governing the activities of our industry in individual countries, as well as general competition (anti-trust) laws applicable to all activities.

Our engagement with regulators and governments mainly focuses on the following issues relevant to our industry:

- Mobile and fixed telecommunications market competitiveness
- International roaming
- Mobile call termination
- Spectrum policy
- Universal service policy
- Privacy and data security.

Broader public issues

Vodafone seeks to help governments meet their objectives on a number of issues of broader public interest. These include:

- Socio-economic potential of communications technology and its contribution to employment
- Innovation and prosperity
- Public service delivery and effectiveness
- National and public security.

Sustainability issues

We also engage with governments to develop appropriate regulations related to specific sustainability issues. This is covered in the relevant sections of this report.

Material issues

We focus our sustainability activities and reporting on the issues of greatest concern to Vodafone and our stakeholders.

Feedback from regular engagement with stakeholders feeds into our process to identify the issues that are most significant – or 'material' – to Vodafone.

We use a 'materiality matrix' (see below) to map the issues that our stakeholders are most concerned about against those that have the biggest financial or operational impact on our business. We then apply the materiality principle to each key issue to help us identify and prioritise the most significant sub-topics.

To create the matrix, we use a tool developed specifically for the ICT industry by the Global e-Sustainability Initiative (of which Vodafone is a member), combined with Vodafone's own criteria to assess and quantify risk. The assessment is done at Group level with input from teams in each of our local markets.

The matrix below shows our most material issues at Group level based on our assessment in February 2013. You can find out more about the action we are taking to mitigate the risks and realise the opportunities associated with these issues in each online section.
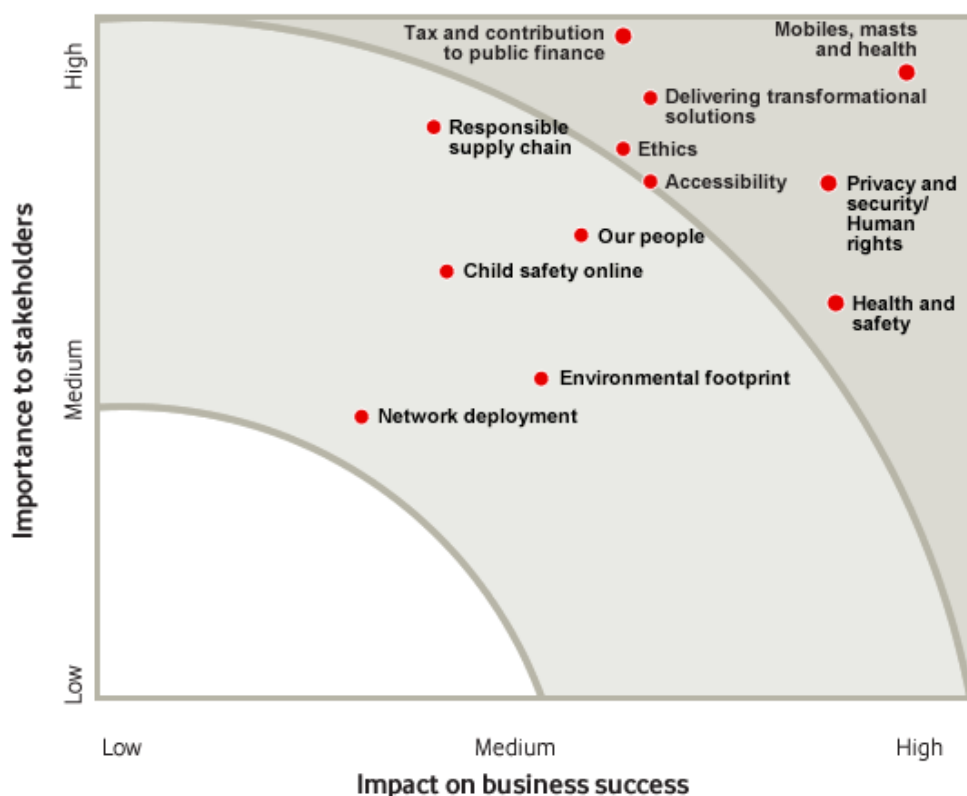
Managing sustainability

Awards and recognition

Our solutions, programmes and reporting have been recognised by a number of external awards and Vodafone is included in several corporate sustainability rankings and indices.

These include:

GSMA Global Mobile Awards:

- 2014: Best Mobile Product, Initiative or Service in Emerging Markets (for the Vodafone Foundation's RUDI Sandesha Vyavhar project)

- 2014: GSMA mWomen Award (as above)

- 2013: Best Use of Mobile in Emergency or Humanitarian Situations (for the Vodafone Foundation's Instant Network)

- 2012: Nomination for Best Mobile Health Innovation (for Nompilo mobile health enablement platform in **South Africa**)

- 2011: Best Mobile Money for the Unbanked Service (for M-Pesa)

Guardian Sustainable Business Awards:

- 2014: Social Impact Award (for the Vodafone 'Connected' series of publications)

Ethical Corporation Awards:

- 2013: Best Business-to-Business (B2B) Partnership (with Unilever in developing the ECOTAB application)

FTSE4Good Index:

- 2013: Member

Carbon Disclosure Project:

- 2013: Disclosure 85 – Performance B

- 2012: Disclosure 73 – Performance C

- 2011: Disclosure 81 – Performance B

Corporate Register Corporate Responsibility Reporting Awards:

- 2012: 1st runner up for Best report, 1st runner up for Best carbon disclosure

- 2011: Best carbon disclosure (not eligible for Best report award after winning three years running)

- 2010: Best report, 1st for Relevance & Materiality and 3rd for Credibility through Assurance

PWC Building Public Trust Awards:

- 2013: Tax Reporting in the FTSE100

Local Market Awards:

2014

- **Vodafone Germany:** certified as a top employer (for exceptional employee conditions, talent development and leadership in HR)

2013

- **Vodafone Greece:** Environmental Awards 2013 – Gold Award in the Sustainable Business category (for the development of products and services that reduce environmental footprint)

- **Vodafone Hungary Foundation:** CSR Hungary Award (for Mobile for Good initiatives)

- **Vodafone Netherlands:** Reputation Management Award (for transparency)

- **Vodafone Romania:** Award for Excellence at the People for People Gala (for supporting the NGO environment and community)

- **Vodafone Spain:** Social Enterprise Award (for strategic and innovative actions that create value for society and business)

- **Vodacom:** best performer on Johannesburg Stock Exchange's Socially Responsible Investment Index (JSE SRI) (for our regard for society, governance and environment in our corporate strategy)

- **Vodacom:** included in the Global 500 CDP report (for performance and transparent reporting on carbon emissions).

About our reporting

Find out more about the scope of our reporting, read the assurance statement and view our benchmarking against GRI reporting guidelines

Our annual Sustainability Report considers the full range of material economic, environmental and social impacts of our business and explores the way in which our technology is contributing to sustainable living.

About our reporting

Scope of reporting

The data on this 2013/14 sustainability reporting website covers the financial year ended 31 March 2014. In our view, the boundary and scope of the online report addresses the full range of material economic, environmental and social impacts of the organisation.

Local markets

The data this year covers 24 markets: Albania, Czech Republic, Egypt, Germany, Ghana, Greece, Hungary, India, Ireland, Italy, Malta, the Netherlands, New Zealand, Portugal, Qatar, Romania, Spain, Turkey, the UK, Vodacom in South Africa and Vodacom's subsidiaries in the Democratic Republic of Congo, Lesotho, Mozambique and Tanzania.

Data for operations formerly owned by Cable and Wireless Worldwide and TelstraClear are included in the 2013/14 environmental footprint, but not for previous years. Data for any acquisitions made during 2014 is not included in the environmental footprint as our policy is to publicly report performance data from newly acquired businesses at the end of their first full year as a controlled subsidiary. Please refer to the notes accompanying the data for further clarification. Within the Sustainability Report and our sustainability website, we refer to our businesses in all these countries as 'our markets'.

Joint ventures, associated undertakings, other investments and partner markets

Vodafone has mobile operations in 27 countries and partners with mobile networks in 48 more, and fixed broadband operations in 17 markets. Our sustainability reporting covers the mobile and fixed networks in the 24 local markets listed above and does not include our joint ventures, our associate Safaricom (Kenya) or partner networks. Exceptions to this are our employee figures which include joint ventures in Australia and Fiji, and the Law Enforcement Disclosure section which covers 29 markets (see Our people and Law Enforcement Disclosure report for further details).

However, we do work with our joint venture companies and associated undertakings on sustainability programmes and some case studies from these markets are included in our sustainability reporting.

Outsourcing partners

We are increasingly outsourcing certain elements of our operations, in particular the deployment and management of our networks. We collect sustainability performance information from these companies where we have either ownership or operational control of the assets they manage. We also report data on contractor fatalities.

Shared sites

We co-locate many of our sites with other operators in some markets. In these markets we agree the best approach to account for this data with our auditors based on our operational control.

Non-Vodafone branded companies

In addition to the companies mentioned above, some of our local markets own smaller, non-Vodafone branded companies that provide services to their business. Data from these companies is excluded from the scope of our sustainability reporting as data from non-Vodafone branded companies is considered less reliable.

Other Vodafone entities

Vodafone has various corporate entities and representative offices that are not material to our reporting (eg a small sales office), and so are not included within the scope of our sustainability reporting.

Retail operations and branded stores

The Group has a mix of owned retail operations and Vodafone branded stores by way of franchise and exclusive dealer arrangements. Our sustainability data only includes our owned retail operations.

Energy data and emissions reporting

We use an electronic data collection process to gather our data. In the majority of our markets, energy usage data is based on invoices from our energy suppliers. In some markets, these bills are based on the supplier's estimated readings. Where data does not match our reporting period exactly, we forecast this information. For sites where energy invoices are unavailable, we extrapolate this information based on typical site consumption. Increasingly, we measure our energy efficiency through 'smart metering' — a tool using our own mobile communications to collect real-time data from energy meters on consumption levels, which we have rolled out to many of our sites.

Trademark notice

Vodafone, the Vodafone Speech Mark, the Vodafone Portrait, Vodacom, Vodafone Red, Vodafone Guardian, Vodafone WebBox, Vodafone BuyBack, and Vodafone Locate are trademarks of the Vodafone Group. The Vodafone Rhombus is a registered design of the Vodafone Group. Other product and company names mentioned herein may be the trademarks of their respective owners.

About our reporting

GRI compliance

We have benchmarked our 2013/14 sustainability reporting against the Global Reporting Initiative (GRI) G3.1 sustainability reporting guidelines.

Download our GRI index from our website.

Assurance

The online Vodafone Group Sustainability Report 2013/14 (the Report) has been prepared by the management of Vodafone, who are responsible for the collection and presentation of the information within it. Our responsibility, in accordance with Vodafone management's instructions, is to carry out a limited assurance engagement on the following subject matter:

Collection, consolidation and presentation of:

Sustainability data relating to:

- Energy
- Carbon (CO_2) emissions
- Greenhouse gas (GHG) emissions
- Network waste
- Fatalities
- Lost time incidents (LTIs)
- Gender diversity

Tax disclosures relating[1] to:

- Direct revenue contribution: taxation
- Direct revenue contribution: other non-tax
- Indirect revenue contribution
- Capital investment
- Direct employment

The balance and accuracy of claims made in the following sections of the Report, marked with an Ernst & Young footnote:

- Environmental footprint
- Health and safety
- Our people – diversity & inclusion
- Human rights
- Tax and our total contribution to public finances[1]
- Privacy and security – Vodafone's alignment with the industry dialogue guiding principles on freedom of expression and privacy

Our responsibility in performing our assurance activities is to the management of Vodafone Group only in accordance with the terms of reference agreed with them. We do not accept or assume any responsibility for any other purpose or to any other person or organisation. Any reliance any such third party may place on the Report is entirely at its own risk.

What we did to form our conclusions

Our assurance engagement has been planned and performed in accordance with the International Federation of Accountants' International Standard for Assurance Engagements Other Than Audits or Reviews of Historical Financial Information (ISAE3000). The subject matter has been evaluated against the following criteria:

- Coverage of the material issues determined through a review of documentation and an assessment of coverage against Vodafone's own materiality process.
- Consistency of performance claims and selected data with underlying company level documentation and explanation provided by relevant managers.
- Completeness of the data in terms of coverage of material reporting entities.
- Accuracy of data collation and presentation (including limitations) of data within the report.

In order to form our conclusions we undertook the steps outlined below:

1. **Interviewed Vodafone executives and senior managers to understand the current status of social, ethical, environmental and health & safety issues, and understand the progress made during the reporting period.**

2. **Reviewed Vodafone's representation of material issues included in the 'in scope' sections of the Report.** We re-assessed prior year conclusions on the coverage of material issues and conducted media analysis across the reporting period to enable us to test the coverage of topics within this year's Report.

3. **Reviewed information or explanations supporting Vodafone's reporting of progress** in the 'in scope' sections of the Report. Supporting documentation was sought and reviewed for a sample of 75 sustainability performance claims.

About our reporting

4. **Reviewed the collection, consolidation and presentation of data relating to energy; CO$_2$ emissions; GHG emissions; network waste; fatalities; LTIs and gender diversity.** This included:

   a. Interviewing staff responsible for managing, collating, and reviewing data at group level for internal and public reporting purposes.

   b. Testing evidence provided by Group to support the reported figures, for example, reviewing energy and GHG emissions calculation spreadsheets, incident reports for a sample of safety incidents and HR dashboards for diversity data.

   c. Remotely reviewing energy and network waste data reported by six operating companies (OpCos) on a sample basis, to assess whether the data had been collected, consolidated and reported accurately. The six OpCos selected for review were Egypt, Germany, India, South Africa, Turkey and Italy.

   d. Testing whether energy; carbon; GHG emissions; network waste; fatalities; LTIs and gender diversity data has been collected, consolidated and reported appropriately at Group level.

   e. Reviewing a selection of management documentation and reporting tools including guidance documents.

   f. Reviewing the Report for the appropriate presentation of the data including the discussion of limitations and assumptions relating to the data presented.

5. **Reviewed the narrative and supporting data in the tax section of the Report in order to confirm consistency with the online publication from December 2013. The worksteps that we undertook in order to form our conclusions on the tax report from December 2013 can be found on our website.**

Level of assurance

Our evidence gathering procedures have been designed to obtain a sufficient level of evidence to provide a limited level of assurance[2] in accordance with ISAE3000.

The limitations of our review

- Our work included headquarters based activities and limited remote testing of six OpCos for Environmental data and six OpCos for tax disclosures.

- Our review was limited to the following sections of the Report which is found in the sustainability section of the Vodafone Group website on www.vodafone.com: Environmental footprint; Health and safety; Our people – diversity and inclusion; Human rights; Tax and our total contribution to public finances; and Privacy and security – Vodafone's alignment with the industry dialogue guiding principles on freedom of expression and privacy. Our review covered a limited number of claims selected on a risk basis and only the pages marked with an **Ernst & Young** verification footnote formed part of our assurance.

- As part of our scope in 2013/14 we reviewed Vodafone's alignment with the Telecommunications Industry Dialogue Guiding Principles on freedom of expression and privacy. Our review was limited to assessing whether relevant policies and procedures are in place and did not extend to assessing Vodafone's implementation or effectiveness of these within the business.

Our conclusions

Based on our review:

Balance and accuracy of sustainability performance claims
- Nothing has come to our attention to suggest that the claims on performance in the sections of the Report included within our scope of review are not fairly stated.

- We are not aware of any material aspects of Vodafone's sustainability performance which have been excluded from the Report.

Completeness
- With the exception of the points below, we are not aware of any OpCos that have been excluded from the environmental, safety, diversity and tax data presented in the Report.

  – 2013/14 network waste figures exclude data from the following OpCos: Ghana, India, Qatar and Tanzania.

Accuracy
- Nothing has come to our attention that causes us to believe that the data included within the scope of our review has not been collated and presented properly in the Report.

- With the exception of the points below we are not aware of any matters that would materially affect the data presented in the Report.

  – 2013/14 energy, CO$_2$ and GHG emissions data for Ghana has been estimated using 2012/13 figures.

Observations from our work

Our detailed observations and areas for improvement will be raised in a report to Vodafone management. The following observations do not affect our conclusions on the Report as set out above.

Safety performance
- Vodafone has continued to make improvements to its safety performance during the reporting year. However, the number of fatalities and LTIs remain high, particularly relating to traffic incidents. Vodafone needs to continue its focus on workforce safety in order to achieve further progress.

About our reporting

Environmental Data

- We noted an improvement in the review activities conducted by the OpCos to support the accuracy and completeness of the data submitted to Group. This included clear accountability and sign off for material KPIs.

- Reporting network waste remains a challenge in a number of markets. This is set in the wider context of immature waste infrastructure in many emerging markets. Vodafone should consider providing more information in the future into how it is supporting local governments and SMEs to support this important area.

Progress against targets

- With limited targets in place Vodafone needs to consider how to communicate its sustainability ambition and measure progress. It will need to consider how this can be done across both mature and emerging markets so as to engage the business and create ownership to help deliver the long term ambition.

Tax[3]

- Vodafone has demonstrated a positive intention to engage its stakeholders and the public in relation to the tax and economic contribution that the business makes.

- This is the second time that Vodafone has sought to report such a detailed level of tax data. We have noted several process improvements in how the data required for the Report has been gathered, reviewed and consolidated. This included:

  - A formal and documented methodology in place that sets out the process for data collection.

  - Local teams were provided with sufficient time and improved guidance to enable effective collation of country data.

  - The local reporting template is more intuitive to use due to improved instruction and providing greater detail within captions.

- Consideration could be given to further improvements to the level of automation used to extract and consolidate the data.

Our independence

This is the fourth year that Ernst & Young LLP has provided independent assurance services in relation to the Vodafone Group Sustainability Report. We have provided no other services relating to the sections of Vodafone Group's Sustainability Report which are included within our scope of work.

Our assurance team

Our assurance team has been drawn from our global Climate Change and Sustainability Services and Tax network, which undertakes engagements similar to this with a number of significant UK and international businesses.

Ernst & Young LLP

London

June 2014

Notes:

1. Tax disclosures within the Report were previously reported in December 2013 and were subject to a separate independent assurance statement by Ernst & Young LLP.

2. The extent of evidence gathering procedures for a 'limited level' of assurance is less than that of a 'reasonable' assurance engagement (such as a financial audit) and therefore a lower level of assurance is provided.

3. These observations are also found in the tax assurance statement in December 2013.

About our reporting

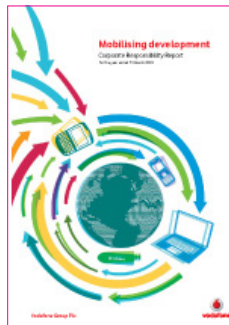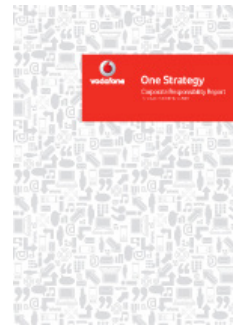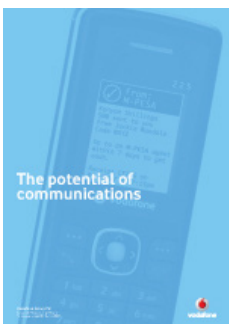### Report archive

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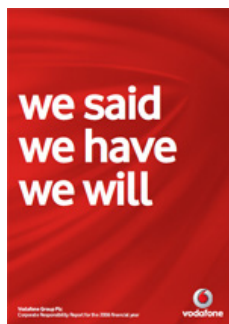2011/12

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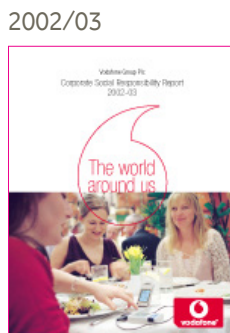2008/09

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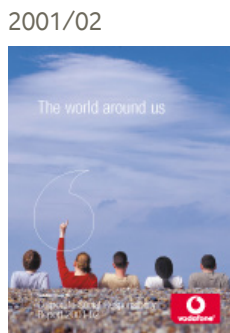
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About our reporting

Local market reports

A number of Vodafone local markets produce sustainability reports. These include:

- Greece
- Hungary
- India
- Italy
- Malta
- Netherlands
- New Zealand
- Portugal
- South Africa
- Spain
- Turkey
- UK

Transformational solutions

Vodafone's products and services can help to transform people's lives and contribute to global sustainable development goals. Find out about the areas we're focusing on where we can make the biggest difference

Vodafone's products and services can contribute to sustainable living and help improve people's livelihoods and quality of life. Over 70% of our customers live in emerging markets, where simply expanding the coverage of our networks and building our customer base is extending the socio-economic benefits that come with access to communications.

Communications technology is already a vital tool in people's lives and is helping to transform large parts of the world. It is also contributing to global trends, such as first-time access to the internet for people in emerging markets and the ability to connect not just people but objects, such as machinery and vehicles, via the 'internet of things'. Researching and developing opportunities that can contribute to sustainable living through our technology remains at the core of Our vision (see more on our Research).

We are working with customers and other partners to create commercially viable products and services that bring further benefits to societies and can be scaled up and rolled out in different markets. Our solutions are focused on seven key areas — finance, women, low carbon solutions, smart working, agriculture, health and education — and these help to strengthen our relationship with our key stakeholders, supporting our long-term business success.

Solutions in some areas are more developed than others. Our financial services, low carbon and smart working solutions are an established and growing part of the business. Other areas, such as health and education, require further development and we continue to build on the pilot programmes we are running in individual markets.

Finance – Our approach

Mobile money services are driving financial inclusion, offering people without a bank account access to financial services. In this way our mobile money transfer and payment product, M-Pesa, enhances the ability of people to improve their livelihoods.

M-Pesa began in 2007, enabling people to transfer small amounts of money to friends and family via their mobile phone; it is now a well-established part of our business with over 16.8 million active users[1].

Many people still have no access to financial services, especially in emerging markets. M-Pesa offers people a way to transfer funds that is cheaper than traditional alternatives such as wiring money, and safer than carrying or sending cash.

M-Pesa continues to evolve. Our partnership with the Commercial Bank of Africa, for example, is enabling people to save money and access loans via their mobile phones. In 2013/14, we launched the service in Mozambique, Lesotho, Romania, Egypt and India.

Read on to find out more about M-Pesa and our performance in 2013/14.

Extending access to M-Pesa

M-Pesa is available in a number of markets where the population includes a high percentage of the 'unbanked' – people who do not have access to a bank account. In 2013/14, we launched the service in Mozambique, Lesotho, Romania, Egypt and India. M-Pesa also continues to have a strong and growing presence in other states in Africa.

There are now 16.8 million active users of M-Pesa. In 2013/14, the number of active users increased by 18% and we processed 2.8 billion transactions, up 27% from 2012/13[1].

Investing in distribution agents and outlets is critical to the success and accessibility of M-Pesa. We have approximately 200,000 agents across all M-Pesa markets, extending access to mobile finance services as well as offering employment opportunities.

We are also investing in ambassador programmes to help new customers feel confident and comfortable using the service. In 2013/14, our ambassador programme in Tanzania helped to increase the number of women in our distribution network. So far 2,000 women have completed their training. To learn more about how we are creating other employment opportunities for women around the world, see Women.

Stakeholder views

" Services like M-Pesa are exciting because formal financial services of any kind have been available to only 23% of the 2.5 billion people who live on less than US$2 per day. A recent study[2] found that M-Pesa allows users to maintain steady levels of consumption, particularly of food, through shocks such as job loss, illness, harvest failure and livestock deaths."

Bill Gates, The Bill & Melinda Gates Foundation

Did you know?

There are over 16.8 million

active M-Pesa users

Finance – Our approach

M-Pesa in practice

The range of applications for M-Pesa is most extensive in Kenya, where the service was first launched in 2007, and has been enabling millions of people to improve their lives since then. M-Pesa is also making an impact in India, where in states like Tamil Nadu fewer than 5% of villages have access to banking services.

Partnering to develop new mobile money solutions

We are working to develop and extend M-Pesa services beyond basic transactions to enable people to save and borrow money, regardless of whether they have a bank account. In a collaboration between Vodafone, our associate Safaricom and the Commercial Bank of Africa, M-Pesa customers in Kenya can now access interest-bearing savings accounts through a mobile money service known as M-Shwari. M-Shwari customers can take out small loans and earn interest on savings as little as one shilling (equivalent to around a tenth of a US cent).

In India, Vodafone has collaborated with ICICI Bank to support M-Pesa's growing presence in states in India, from West Bengal to Goa and Haryana. Domestic money transfers are essential to many families in India whose wage-earners have migrated to cities for work. M-Pesa offers a safe, secure and inexpensive way for money to be sent home.

A new service in Kenya, Lipa Na M-Pesa, is enabling merchants to accept payments for goods and services from their customers using the M-Pesa Buy Goods functionality. Lipa Na M-Pesa payments make business owners less susceptible to risks associated with cash handling, such as theft and fake currency, as transactions are processed using mobile phones.

Providing a platform for transformational services

M-Pesa is being used as a payment mechanism to enable many other services that can improve people's lives.

One example of a company using our payments technology to bring innovative new services to consumers is M-KOPA in Kenya, which has used M-Pesa to launch a solar-charged home power service. M-KOPA customers can buy a solar-powered lighting and mobile phone charging kit by making an initial upfront payment using M-Pesa, followed by payments of any size, at any time (24/7) to top up their 'credits'. After a year of repayments customers own the system outright, giving them access to free, renewable energy for lighting and phone charging in place of costly, high carbon kerosene lights that affect air quality and can harm people's health. In its first 18 months, M-KOPA has acquired 65,000 customers and aims to reach one million homes by 2018. This is just one of the ways Vodafone is extending access to energy in emerging markets. Find out more in Low carbon solutions.

Applications of M-Pesa are diverse and the payments platform is at the heart of many new agriculture and health services, from access to insurance against crop failure for smallholder farmers, to sending money to help people in remote areas travel to hospital. Find out more about how M-Pesa is improving people's lives in the areas of Agriculture, Health and Education.

Notes:

1. In 2013/14 we changed the way we measure active customers, and now measure those who have made a potentially chargeable transaction in the last 30 days, rather than the last 90
2. The Economics of M-Pesa, Georgetown University and MIT (2010)

Women – Our approach

Mobile technology has the potential to transform people's lives and create significant opportunities to improve economic development and individual wellbeing – for women in particular. Our products and services can help women fulfil their potential by increasing their ability to access healthcare and education, contribute economically and feel safer.

With around 300 million fewer women than men owning a mobile phone, access to the opportunities mobile technology brings is not yet equal[1]. We estimate that 91 million of these women without a mobile phone live in markets where we operate, which represents a substantial unfulfilled market and a significant opportunity for our business. Addressing this imbalance could help women improve their own lives and those of their children and communities.

We are exploring the barriers that prevent women from using mobile technology and are working with governments and non-governmental organisations to develop services tailored to their needs.

Read on to find out more about our mobile services for women and our performance in 2013/14.

Assessing the potential for women

In March 2014, we published our Connected Women report, which explores the impact of increasing women's mobile phone ownership and how mobile services provided by Vodafone and the Vodafone Foundation are enabling women to access new opportunities and improve their lives and livelihoods. Our research suggests that increasing women's access to mobile and scaling up the five services explored in the report could have positive annual economic benefits worth $28.9 billion across Vodafone's markets by 2020[2].

We estimate that the five services we modelled could benefit 8.7 million women by 2020. The opportunities we explored were:

- **Education:** mobile literacy for adult learning
- **Health:** using mobile payments to cover travel costs to receive maternal healthcare
- **Safety:** an alert system for women at high risk of domestic violence
- **Work:** a mobile inventory management system for rural female retailers
- **Loneliness:** new services to connect elderly people to their family, friends and carers (see Accessibility).

For more information, see the Connected Women report.

Women – **Our approach**

TecSOS Handset

Incident! → **Button pushed** → **Alert activated** → **Police alerted** → Environment recording begins → User identified with profile and case history → Location coordinates direct police to address → Police/emergency services arrive at designated location
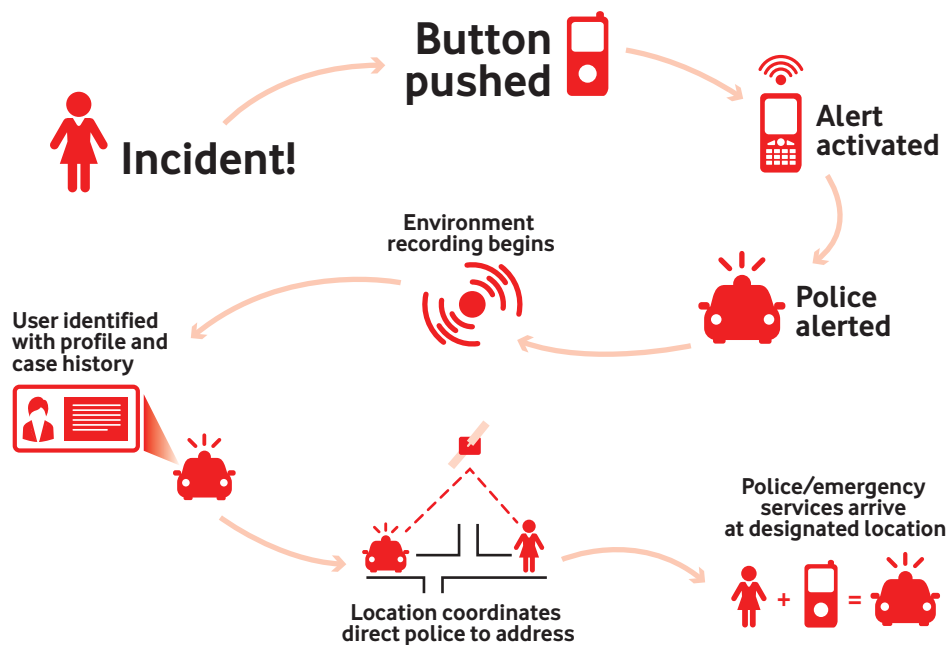
In focus: Helping women at risk of domestic violence through TecSOS

One in four women in the UK will experience domestic violence at some point during their life. The TecSOS device, launched in the UK by the Vodafone Foundation and Thames Valley Partnership, is helping women at high risk of abuse connect to emergency services at the touch of a button.

The TecSOS service was originally developed by the Spanish Red Cross, the TecSOS Foundation and Vodafone Spain Foundation, where a nationwide TecSOS programme now operates. In the UK, it has now been adopted by around half of the country's police forces, whose response times have improved by an estimated 11%.

Feedback from the users clearly highlights the role that TecSOS plays in helping victims feel safer and more secure when dealing with the trauma of domestic violence, with one user commenting that she felt like she had a police officer by her side.

The TecSOS system recognises and prioritises emergency calls, identifying the caller, their case history and location, enabling the police to respond even if the user is unable to speak. It also records what is happening helping to provide legal evidence if required.

Since 2011, over 5,600 women have been issued with the TecSOS device in the UK, over 31,900 victims in six European countries have already benefited from a TecSOS device and the programme will continue to be rolled out across Europe.

Women – Our approach

Supporting women's economic empowerment

Turkey

Using our mobile technology and services, we are connecting women to education and skills training, expanding access to job opportunities, and helping them improve their livelihoods.

In 2013/14, Vodafone Turkey launched the Vodafone Women First programme which helps women use mobile technology, access information, acquire new skills and increase their incomes. The Women First Advertisement Service, a key part of the programme, is enabling women with little experience of mobile technology to sell their handicrafts and products on one of Turkey's biggest online marketplaces, sahibinden.com. Using SMS messages, they can send information about their products to a third party, funded by Vodafone, which verifies the information and then posts an advert online on their behalf. To encourage women to subscribe, the service also provides promotional offers and information services on topics such as child health and wellbeing. In the first nine months alone, 4,700 adverts were placed, which were viewed by over 240,000 people and generated average sales of $51 per user.

" **For years I have been interested in making handcraft arts. Producing and designing my work was time consuming and I had to spend most of my day travelling to neighbouring villages and cities to sell my artwork. Thanks to Women First Mobile Advertisement Service, I started to advertise my work through my mobile phone which triggered my sales. Joining the service allowed me to save time, money, run my business effectively and get access to a wider consumer group. Ultimately, my earnings increased approximately by 500%.**"

Muazzes Özer, Turkey

Launched in 2013, it attracted 75,000 women customers in its first nine months, of which 15% were new customers for Vodafone.

Watch the video to find out how the Vodafone Women First Advertisement Service is helping Muazzes' sewing business thrive.

India

We are also helping female entrepreneurs in India manage their businesses more efficiently as well as increase their incomes. In 2013/14, the Vodafone Foundation, in collaboration with the Self-Employed Women's Association of India (SEWA) and the Cherie Blair Foundation for Women, rolled out an SMS-based service, known as the RUDI Sandesha Vyavhar (RSV). RSV enables small-scale retailers to place orders, record their transactions and manage stock levels in real time – reducing the time spent collecting their stock from central warehouses and improving their productivity. Since it started in 2013, over 1,300 women involved in the pilot have increased their incomes, some by up to three times. We are now extending this service to more districts of Gujarat, India. In 2013/14, RSV won the GSMA Global Mobile Award for the Best Mobile Product, Initiative or Service in Emerging Markets.

" **Previously I'd never even seen a mobile phone. Now I have my own mobile with the RUDI Sandesha Vyavhar technology. Thanks to the training I can use it to place orders and record sales and other transactions. I used to have to come to the centre to get my stock and waste the whole day and a lot of money on travelling. Now I can just send a text message and stock is delivered to me. I'm more productive and have saved a lot of time that I'm using to approach more customers and increase my sales.**"

Ramilaben Somabhai Parmar, RUDIben entrepreneur since 2005, Gujarat

As well as using our technology and services to encourage female entrepreneurship, we are expanding job opportunities for women in our own stores in India. Our Vodafone Angel Stores are run and managed exclusively by female employees – from security guards to senior management. As well as creating a great place to work for women, it also helps our female customers feel comfortable visiting our stores and buying our products. In 2013/14 we expanded our network of Vodafone Angel Stores to 26 across India.

Increasing gender diversity in our own business is a priority across the Group (see Our people).

Stakeholder views

" **My income has gone up to around Rs.5,000, out of which I save Rs.500 regularly in a savings group and pay for part of our household expenses to provide a better life for my family. I've also been able to take out a loan to buy cattle and to invest in farming. I'm repaying this in instalments with my income from my RUDI business. Being a part of the RUDI network and a member of SEWA has changed my life and my family are proud to see how capable I am.**"

Ramilaben Somabhai Parmar, RUDIben entrepreneur since 2005, Gujarat

Women – Our approach

Enhancing women's access to health and education

Mobile products and services can help women access essential services such as healthcare and education.

In Tanzania, we are helping women with obstetric fistula, a debilitating condition that can occur following childbirth, to access treatment through the Vodafone Foundation's partnership with the Comprehensive Community Based Rehabilitation Tanzania (CCBRT), an NGO. The Text to Treatment service, developed by the Vodafone Foundation, uses our mobile money transfer service, M-Pesa, to transfer the money required to pay for the women's travel to hospital. In 2013, 70% of obstetric fistula patients treated came to hospital through the Text to Treatment programme (see Health for more).

In 2013/14, our Connected Women report (see above) found that an estimated 5.3 million women across Vodafone's markets could improve their literacy by 2020 through mobile learning. Working in partnership with Egypt's General Authority for Literacy and Adult Education and local NGOs, the Vodafone Egypt Foundation is improving the literacy skills of people in Egypt through its Knowledge is Power project, which uses classroom and mobile learning. The app uses pictures and a talkback function to improve learning, and also enables women to learn at a time that suits them. By the end of 2013, around 187,000 people had enrolled in the Knowledge is Power classes and over 94,000 people had successfully completed the literacy programme – over 60% of them women (see Education).

" **I faced lots of problems due to my lack of education. I signed a document for my neighbour without knowing what it contained. I signed away my house, my jewellery and my little shop. Since then, I challenged myself to learn and be cautious before I sign any document. I have changed a lot, I feel that I came out from darkness to light."**

Wafaa Mohamad Ramadan, Egypt.

Notes:

1. Women & Mobile: A Global Opportunity (2010), GSMA Development Fund and the Cherie Blair Foundation for Women
2. Based on research conducted by Accenture Sustainability Services for our Connected Women, published in March 2014

Low carbon solutions – Our approach

Communications technology can play a significant role in tackling the global climate challenge by enabling businesses and consumers to reduce their carbon footprints. Our machine-to-machine (M2M), smart working and access to energy solutions are helping customers achieve considerable carbon savings while bringing wider social and economic benefits.

Vodafone is a leading provider of M2M solutions which enable our enterprise customers to cut costs and carbon emissions by reducing their energy and fuel use and improving the efficiency of their operations. Other products and services, such as video conferencing, cloud hosting and collaboration technologies can also bring carbon savings by reducing the need for travel and office space (see Smart working).

In emerging markets, where our telecoms networks often extend beyond the electricity grid, we are developing solutions to bring reliable, renewable power to people in remote areas – supporting the growth of our business by enabling easier charging and use of mobile phones.

Read on to find out more about our approach and our performance in 2013/14. For more on how we are managing our own carbon footprint, see Environmental footprint.

Quantifying carbon savings from M2M solutions

Building on our Carbon Connections research, we worked with the Carbon Trust in 2013 to quantify the carbon savings that Vodafone products and services can bring for our customers. We focused our analysis on four different types of solutions that enable carbon savings: smart metering, smart logistics and fleet management, call conferencing, and cloud and hosting services.

Based on this analysis, we estimate the total carbon savings of Vodafone's solutions in these areas was 2.29 million tonnes of CO_2 equivalent for contracted connections in 2012/13.

We aim to increase the carbon savings we can help our customers achieve by increasing uptake of existing carbon-saving products and services and developing new ones. We also plan to further develop the methodology for measuring these carbon savings and publish case studies demonstrating specific examples working with our customers.
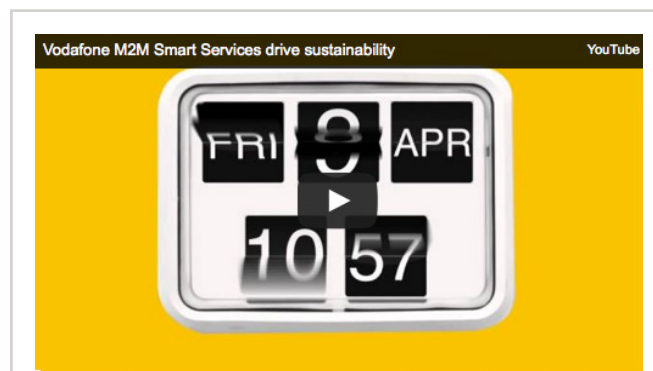
In focus: M2M technology

Machine-to-machine (M2M) solutions connect physical objects, enabling them to send and receive real-time information which can then be acted upon. This offers significant potential to reduce carbon emissions by giving businesses the ability to monitor and control devices remotely, saving energy and fuel and increasing efficiencies. Watch our video to find out more.

Find out more about our M2M solutions

Find out more about the M2M products and solutions we offer or follow us @Vodafone_M2M on Twitter.

Low carbon solutions – **Our approach**

Building our M2M business to bring cost and carbon savings for customers

By the end of 2020, there will be an estimated 2.6 billion mobile M2M connections worldwide[1] as the ability to connect not just people but objects, such as machinery and vehicles, via the 'internet of things' matures. As a market leader in M2M solutions, Vodafone has an opportunity to deliver significant efficiencies for enterprise customers using M2M connections and related services – many of which have the potential to reduce carbon emissions. This is an area where Vodafone is already seeing growth, as customers use M2M to reduce wastage and inefficiency.

Reducing operating costs is a clear selling point for M2M services, but the potential for carbon reductions is also an important motivation for many businesses to invest in this technology. Carbon-reducing applications for M2M technology are wide-ranging – from improving fleet operations and making utilities more efficient to enabling wider use of electric vehicles and monitoring stock levels in vending machines remotely.

We now have contracts in place to supply approximately 13.8 million M2M connections for smart metering, transport and logistics. Many of these will enable carbon reductions by reducing energy and fuel consumption (see right).

We offer these services through our dedicated M2M business, supported by a team of specialists and an in-house technology platform that enables us to offer customers centralised data collection and analysis. We work with enterprise customers to tailor our products and services to meet their needs in this area and increasingly offer them a 'one-stop shop' for M2M products and services.

In 2013/14, we strengthened partnerships with hardware and software companies like NetComm Wireless and Device Insight to offer customers an end-to-end service, making it simpler for them to implement M2M technology.

In focus: The role of M2M in electric vehicle charging

M2M technology plays an important part in the rollout of electric vehicles by offering the infrastructure needed for charging. In partnership with Bosch, we have produced a white paper on electric vehicles in commercial fleets and the role of M2M in achieving commercial 'eMobility'. The paper considers the current state of the electric vehicle markets, and identifies the potential and the benefits of electric vehicle charging and monitoring. Download the white paper on our website.

Reliable M2M connectivity has also helped make electric vehicle manufacturer Mahindra Reva's vision of a new breed of 'connected' car a reality. The new design enables owners and service teams to remotely access essential features and functions of their vehicle, such as battery charging and air-conditioning. Read more on our website.

Low carbon solutions – Our approach

Smart metering

Smart metering uses M2M technology to collect and analyse data about energy consumption. This data enables consumers and businesses to understand how they use energy, and helps them identify ways to save costs and carbon emissions through better energy management in homes and businesses. ASB Bank in New Zealand used real-time data on energy consumption – collected via our M2M connections – in its network of branches to target energy efficiency initiatives. These initiatives have enabled the bank to save over 1,000 tonnes of CO_2 per year – equivalent to flying from London to New York over 1,700 times. See more on our support for ASB Bank.

By enabling excess power to be sold back to the grid, smart meters also promote small-scale generation of renewable power from, for example, rooftop wind turbines or solar panels. M2M-connected smart meters are also central to the development of more efficient 'smart' grids, enabling utilities to transform the way they deliver energy.

Vodafone is supporting the rollout of domestic smart meters in several countries, working with energy suppliers such as Enexis in the Netherlands. Enexis has rolled out over 320,000 smart meters to date, up from 100,000 in 2012/13. In India, utilities provider CESC has improved customer service and cut operational costs by achieving meter reading accuracy of over 99% using smart meters connected by Vodafone networks. See more on our work with CESC.

Using Vodafone M2M connections, Spillsure Solutions is enabling real-time remote monitoring of domestic oil use in the UK. Spillsure Solutions uses an ultra-sonic device to measure oil use every half hour. The device helps to improve householders' understanding of their fuel use, enabling them to better manage its use, costs and related carbon emissions – cutting annual fuel bills by 15–20%. See more on our support for Spillsure Solutions.

Smart logistics

As part of our work with the Carbon Trust, we determined that our smart logistics products and services offer the biggest carbon saving potential for our customers. Tracking devices use M2M connections to communicate vehicle movements to fleet management systems, and central software responds with route revisions that save fuel costs and emissions. Information about vehicle loads means spare capacity can be used more efficiently, and vehicle condition reports can spot problems so they can implement preventative maintenance. Drivers are also encouraged to drive in a more fuel efficient way.

TomTom's navigation technology, connected by Vodafone's networks, allows companies to track vehicles and monitor driving habits – contributing to Zenith Hygiene Group cutting its average carbon emissions from 15kg to 11kg per day, thanks to more efficient driving techniques.

In focus: The world's smartest bin

With limited residential waste collections in Seoul, South Korea, many people resort to putting household rubbish in public bins. With support from Vodafone, Ecube Labs created a solution called the Clean Cube bin. The bin uses Vodafone M2M technology to communicate wirelessly when it needs to be emptied and includes a solar-powered compressor to compact rubbish, reducing the number of collections required. The Clean Cube has the potential to reduce the number of waste collections by 20% and therefore reduce the CO_2 emissions associated with transporting waste. Find out more here.

Around 1,500 buses in the Netherlands have been fitted with tracking devices provided by telematics solutions provider Sycada, which deliver real-time feedback on driver performance. These tracking devices, connected using Vodafone's M2M technology, are expected to improve fuel efficiency by more than 5% over a year, saving the Connexxion transport group €3 million. Read case studies on how our M2M solutions are being used by Sycada, TomTom and Zenith Hygiene Group.

Improving access to energy in emerging markets

Globally, more than 1.3 billion people live without electricity. The 600 million mobile users living out of reach of the power grid spend around US$10 billion a year on charging their phones using diesel generators and car batteries. The telecoms infrastructure that we provide and our extensive reach in emerging markets offers significant opportunities for us to bring social and economic benefits by extending access to energy. By using renewable energy to do this, we can also bring environmental benefits. This also supports the growth of our business by enabling more people to use mobile phones, and to use them more often by making it easier to charge them.

Low carbon solutions – **Our approach**

Community power

As we expand our networks to more rural areas in emerging markets, we are exploring opportunities to use renewable power generated at our base stations to bring power to remote communities without electricity.

We have seen a number of benefits for both the local community and our business as a result of our Community Power pilot in South Africa (see case study). In 2013/14, we reviewed options for additional sites with the help of a replication guide we developed through the GSMA mobile operators' industry body that builds on insights from the initial trial. We will extend this model to a second site in South Africa in 2014/15.

In focus: Powering communities through our networks in South Africa

In our Community Power pilot in the village of Emfihlweni, South Africa, we installed thin-film flexible solar panels to the roof of the school near our base station to generate up to 60kWh of energy from the sun daily, providing cleaner power to the base station, school and a community water pump, as well as a free mobile phone charging station.

The pilot brought substantial savings for Vodafone, cutting monthly diesel use by 90%, labour maintenance costs by 24% and CO_2 emissions by 90% from the site. For the people of Emfihlweni, Community Power has provided access to lighting, computers, printing and internet services for the local school, helping teachers improve the standard of education – and a photocopier which members of the community are also able to use.

Less diesel is needed to pump water for the village and community members no longer need to travel more than 15km to the closest town to charge their mobile phone. The free phone charging service saves users around US$1 every time they charge their phone.

Solar charging solutions

Access to power remains a key issue for many of our customers in emerging markets. For example, of the 46 million people who live in Tanzania, only 14% are connected to an electricity grid. Solar powered charging solutions can provide an efficient way of lighting and mobile phone charging for homes. We have now launched two solar-powered solutions:

ReadySet, a portable, solar-powered mobile phone charging system developed by Fenix International, is able to charge up to eight mobile phones a day. The system also powers the LED light that comes with it for up to three hours a day – all from a single solar charge. This offers a cleaner, greener and cheaper alternative to the kerosene lamps used in many remote regions. ReadySet was launched in Tanzania through Vodafone retail outlets in April 2013, and has already provided an estimated 1.2 million phone charges to people who live off the grid. Entrepreneurs, airtime sellers and M-Pesa agents can buy the ReadySet and set themselves up to offer phone charging services to their local community, earning an additional $44 a month, while increasing sales of other products and saving $5 to $10 per month on kerosene for lighting by using the in-built light (see video below).

We also offer a solar-powered home lighting kit in partnership with M-KOPA in Kenya, using our M-Pesa system to make payments (see Finance). M-KOPA, together with M-Pesa, offers modern, cleaner and cost-efficient lighting and mobile phone charging for homes.

Notes:

1. Machina Research, M2M Global Forecast & Analysis 2011–22

Low carbon solutions – Data

Our contribution to a low carbon future

	2011/12	2012/13	**2013/14**
Number of smart metering, transport and logistics M2M connections (million)[1]	6.4	9.5	**13.8**

Notes:

1. These are the contracts Vodafone has in place to supply M2M connections in the areas of smart metering, transport and logistics

Smart working – Our approach

Vodafone's communications technology helps businesses boost productivity and cut costs and carbon emissions, enabling people to work flexibly, and can improve working lives and livelihoods by connecting workers and organisations.

Our products and services give people the freedom to access information and systems, connect with colleagues around the world and work effectively wherever they are – whether in the office, at home or working on the move.

By enabling people to work more flexibly and on the go, smart working technologies can help improve employees' productivity in the field and balance their work and home life better. This brings organisations significant benefits through increased efficiency, productivity and cost savings. Mobile technology can also cut carbon emissions by reducing the need for office space and daily commuting, and benefits workers and organisations by supporting training and feedback mechanisms.

Smart working technologies are a key part of our core business in developed markets and we continued to promote their uptake in 2013/14 as well as quantifying and publishing the benefits. The Flex Factor report we published in July 2013 with the think tank RSA, estimated that organisations in the UK alone could save up to £8.1 billion annually by improving their approach to flexible working.

In emerging markets, we see significant potential for communication technology solutions to bring shared value for both organisations and workers – delivering wide social and economic benefits. Our Connected Worker research, published in May 2013, detailed six mobile solutions that together could save organisations US$30.6 billion through improved productivity, while providing US$7.7 billion of financial benefits to workers by 2020, across 12 markets.

Read on to find out more about our smart working solutions, our Connected Worker research and our progress in 2013/14.

Promoting smart working solutions in developed markets

More and more organisations are seeing the benefits of flexible working. In a survey of over 17,000 senior business people in 80 countries, 60% regarded flexible working as more cost-efficient and environmentally sustainable, 41% said productivity increased and more than 30% pointed to improved staff motivation[1]. Over 77% of the 2,828 employees and senior managers we surveyed in the UK, as part of our Flex Factor report, were offered some form of flexible working[2].

We continue to offer and strengthen our smart working solutions for enterprise customers, helping them find better ways of working to reduce costs and improve their use of space, time and resources.

In 2013/14, for example, we continued to work with the UK Government Department for Transport (DfT) to build on their flexible working arrangements and help improve employee productivity. We helped the Department launch a 'Model Office' pilot to enforce a clear desk policy, create work space that better supports collaboration and introduce managed printing solutions. If it is rolled out across the Department, Model Office could save DfT up to 30% in space and an estimated £4 million annually. See Vodafone Global Enterprise for more on our smart working solutions.

Stakeholder views

" **The traditional workplace is dead and British business needs to adopt a new mind-set and find better ways of working. Better ways of working means more than what business today has classed as flexible working. It is far more than just working from home; it's about working from wherever your business needs to be.**"

Jeroen Hoencamp, Enterprise Director at Vodafone UK, July 2013 (see The Flex Factor).

Smart working – Our approach

Smart working solutions are also supporting more effective management of field workers. This helps to improve productivity by enabling them to connect with colleagues, information and systems and work 'on the go'. As well as linking field staff with their operations centre and each other, our cloud-based solution, Vodafone Locate, is helping to improve personal safety for those working alone by enabling organisations to keep track of employees by locating the SIM cards in their mobile phones. Our Location Privacy Design Principles ensure that privacy protection is built into every location-based product we offer (see Privacy and security).

Helping people work more efficiently 'in the field' can also offer significant benefits in public sector services such as the police (see feature below) and healthcare (see Health), by reducing administration time so staff can spend more time supporting communities.

**In focus: Improving efficiency and time for the community for New Zealand Police**

In partnership with the New Zealand Police, we provided mobile technologies to help officers cut 30 minutes of administration time per shift, equating to 520,000 hours of time saved a year. Using smartphones, 8,500 officers can access information on suspects, vehicles and locations while on duty. Almost 4,000 officers who need to undertake more complex data entry have been provided with a tablet and cost savings have been made by replacing desktop phones with smart phones for 2,700 corporate personnel. The time saved on administration allows officers to spend more time in their communities and less time behind a desk – productivity benefits are estimated to be worth around NZ$304 million compared with a cost of around NZ$163 million for providing this technology (over a 10 year period).

Showcasing better ways of working in our own operations

We are using our own operations to showcase these solutions as we continue to implement better ways of working within Vodafone. This is delivering cost and carbon savings for our business by reducing office space as well as benefits for our employees (see case study below). By implementing better ways of working at our UK headquarters we have achieved a 20% improvement in productivity, cost savings of £40.7 million and carbon reductions of 617 tonnes of CO_2 over the last five years. Our mobile working policy in the Netherlands led to an estimated 25% cut in emissions from employee commuting.

Flexible working environments are well established in our offices in the UK and the Netherlands, and in 2012/13 we made significant strides towards better ways of working in Ireland and Germany. This has involved rationalising our office space, introducing 'hot desking' and using our technology to implement unified communications systems – integrating fixed and mobile communications – and enable seamless working on different devices. Changing our culture is also an important part of promoting flexible working to gain the full benefits of these changes.

Working with the sustainability consultancy Environmental Resources Management (ERM), we developed a tool to measure the sustainability benefits of flexible working. The tool, targeted at our own operations, is available to all our local markets and allows them to assess and compare carbon emissions, costs, employee satisfaction and productivity – before and after implementing flexible working initiatives.
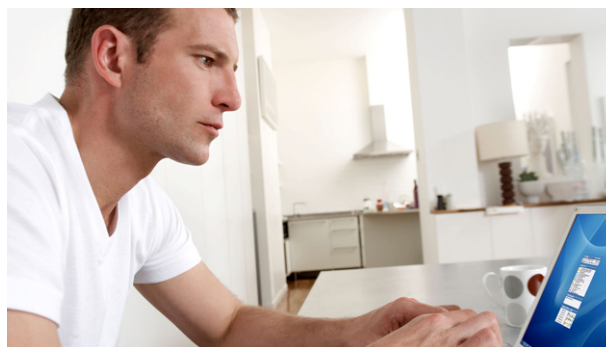
In focus: Employee views of flexible working in Germany

In 2013, we conducted a survey of more than 1,430 people in our business in Germany to understand the impact of introducing more flexible working practices, which allow employees to work outside the office for up to 50% of their time, or at over 4,000 workplaces on the campus. Almost 80% agreed that their managers were supporting their teams to be more mobile and flexible in their work. Nearly half of respondents are using the flexible working space on the campus and 87% felt that the new IT equipment helped them work more flexibly and efficiently.

Smart working – **Our approach**

Assessing the potential in emerging markets

Our Connected Worker report, published in May 2013, explored opportunities for mobile technology to deliver commercial benefits for organisations and improve working life and livelihoods for people in emerging markets.

We found that across 12 markets, the six opportunities identified could increase workers' incomes by US$7.7 billion by 2020, while enabling a further US$30.6 billion in benefits to organisations through improved productivity. The six key opportunities are:

- **Job Finder:** linking workers with jobs through a subscription-based service using a simple SMS-based platform including sign-up, worker profile creation and job notification

- **Field Force Enablement:** improving productivity, safety and effectiveness of workers by enabling them to plan and execute a wide range of tasks while they are 'in the field'. Find out how we are putting this technology into practice in Health

- **mIdentity:** enhancing corporate security and providing additional credibility and authentication for workers when dealing with customers or other third parties

- **mLearning:** delivering basic skills and job-related training via mobile and supporting skills building through quizzes and reminders

- **Worker Panel:** allowing information about working conditions to be gathered directly from workers (anonymously) to enhance visibility across global supply chains. Find out how we plan to use this approach in our own supply chain in Responsible supply chain

- **mPayroll:** using mobile technology to enable secure, cost-effective and reliable wage payments to unbanked workers through platforms such as Vodafone's M-Pesa.

We identified these six key opportunities – from an initial list of over 90 – through a process of desk-based research, two workshops held in South Africa and India involving over 30 external stakeholders from private, public and not-for-profit sectors, and in-depth interviews with over 40 stakeholders. Each of the six opportunities were then modelled across 12 emerging markets where Vodafone has a presence – the Democratic Republic of Congo, Egypt, Fiji, Ghana, India, Kenya, Lesotho, Mozambique, Qatar, South Africa, Tanzania and Turkey.

For more information, see the Connected Worker report.

Notes:

1. Regus, Flexible Working Goes Global Report, 2011
2. Representative survey conducted as part of our research with RSA for The Flex Factor report

Agriculture – Our approach

Communications technology is now one of the most effective ways to reach remote farmers, helping them to improve productivity and increase efficiency throughout the agricultural supply chain.

By 2050, the world will need to produce 70% more food to satisfy a global population of 9 billion[1] and it must do so with increasingly limited land and water resources. Vodafone aims to help meet this challenge with the introduction of specially designed mobile products and services.

We are partnering with enterprise customers, NGOs and government agencies to develop commercially viable propositions that can boost food production, improve farmers' livelihoods and bring efficiencies for consumer goods companies. These include mobile information services, access to financial services and insurance against crop failure, as well as solutions to improve efficiency in agricultural supply chains.

Scaling up from pilots to long-term financially viable customer propositions remains the greatest challenge we face in this area, but we are encouraged by the continuing success of existing programmes.

Read on to find out more about our mobile agriculture services and our performance in 2013/14.

Assessing the potential

Applying mobile technology to the agricultural sector brings many potential benefits to farmers and their families, as well as to companies seeking to improve their supply chains. Our Connected Agriculture report, conducted in 2011, found that mobile technology could boost farmers' productivity enough to increase agricultural income by US$138 billion by 2020 across our markets, primarily in India, Africa and the Middle East.

Mobile technology can raise farmers' productivity, lifting smallholder farmers out of poverty and contributing to economic development in emerging markets. By promoting sustainable farming practices and improving the efficiency of food distribution, mobile technology can also help reduce food waste, carbon emissions and the amount of water needed for irrigation.

See the Connected Agriculture research report for more information.

Developing solutions

We are already working with enterprise customers in the fast moving consumer goods and retail sectors to explore opportunities to develop viable commercial propositions that can benefit farmers, communities and our enterprise customers by:

- **Improving access to finance and agricultural inputs:** Vodafone's mobile money transfer service, M-Pesa, offers a platform for our work with partners to build new solutions specific to the agricultural sector. M-Pesa improves access to financial services for farmers and fieldworkers, enabling them to save and borrow small amounts of money and buy essential inputs, such as seeds. Through services such as Kilimo Salama (see below), farmers can access insurance to cover the cost of replanting if crops are destroyed by drought or flooding.

- **Providing information to farmers via SMS text and helplines:** Services such as the Vodafone Farmers' Club in Turkey (see case study below) include local weather forecasts, crop prices and guidance on topics such as pest control, sustainable agriculture and resource management.

- **Improving supply chain efficiency:** Mobile technology can improve communication between smallholders, distributors and retailers. Farmers and field agents can share information with retailers and distributors via mobile and distributors can track and trace the movement of produce and manage their fleets using machine-to-machine (M2M) technology.

Our SMS text messaging, mobile payments and M2M services are increasingly enabling farmers and enterprise customers to improve productivity, efficiency, security and visibility of the agricultural supply chain. We also offer special price plans and information services for farmers in emerging markets and we are looking at ways to increase access and affordability of financial services tailored for agricultural purposes.

Agriculture – Our approach

In focus: Vodafone Farmers' Club in Turkey

The Vodafone Farmers' Club service in Turkey uses mobile technology to give farmers the information they need to improve their harvests and livelihoods – leading to an estimated US$140 million in efficiency savings in 2013/14 alone. Farmers who sign up to the service receive SMS alerts with weather forecasts, crop prices and other information that is tailored to their local area and crop types.

In 2013/14, more than 790,000 farmers subscribed to the Farmers' Club – 20,000 more than the previous year – and around 695 million SMS alerts were sent to farmers.

Farmers' Club members use specially designed rugged mobile phones that can be dropped in mud or trodden on and will still work. Bespoke payment schedules help farmers manage their cash flow, including an annual billing option to pay at harvest time, when their income is highest.

Partnering with others to develop solutions

In 2013/14, we announced a new partnership with Sibesonke, a Finnish-based mobile services company, to provide farmers in Tanzania with agricultural information directly to their mobile phones. This cost-effective and scalable solution will connect remote farmers to real-time information, such as weather forecasts and advice on pest treatment, helping them increase their yields and incomes.

Working with Unilever, we have developed the mobile application ECOTAB, which is replacing manual, paper-based field audits. ECOTAB has been piloted in Turkey as part of the Sustainable Tea Agriculture project run by Unilever's Lipton brand. Using the mobile application, Unilever can audit over 15,000 smallholder farmers and upload all data to a central database, saving time and money, while improving the quality of information provided. The ECOTAB application was recognised as Best Business to Business Partnership by the Ethical Corporation Responsible Business Awards in 2013/14.

We continued working with Syngenta Sustainable Agriculture Foundation and UAP Insurance to provide micro-insurance for farmers in Kenya through an initiative called Kilimo Salama. In 2013/14, over 185,000 farmers were insured against drought, heavy rain and disease. With their farms and incomes protected, smallholder farmers invested 20% more in quality seeds and fertiliser, and increased their incomes by 16%, compared with uninsured farmers. Kilimo Salama offers protection to farmers' investment in seeds and fertiliser and chemicals, or insures their harvests against the financial impact of crop failure. Find out more about Kilimo Salama on the syngenta website.

Agriculture – **Our approach**

Delivering mobile solutions through the Connected Farmer Alliance

IIn 2013/14, we continued our work with the US Agency for International Development (USAID) and the development NGO, TechnoServe, on a three year partnership known as the Connected Farmer Alliance. By promoting commercially viable mobile agricultural solutions, the partnership aims to increase the productivity, incomes and resilience of half a million smallholder farmers across Kenya, Mozambique and Tanzania. It will also improve supply chain efficiency and increase the ability of farmers to access payments and other financial services.

Vodafone is matching USAID's US$5 million funding through in-kind investment in the partnership. We are piloting the solutions developed with our enterprise customers and building on our existing technology platforms (see feature). M-Pesa will be the critical mechanism for developing mobile financial services that enable rural farmers to save, invest in productivity and reduce their financial risks.

In 2013/14, the Alliance completed its first pilot of a supply chain solution with Kilombero Plantations Limited (KPL) that tested how mobile technology could improve engagement with smallholder rice farmers in Tanzania. Through the pilot, around 600 smallholder farmers were registered on one central database, making it easier to notify them about crop prices and collection days, and remind them of their loan balance and repayment dates using SMS messages. The system was also used to track 29 trucks that pick up crops from collection centres, helping KPL plan and manage deliveries more efficiently.

The Alliance is currently piloting this supply chain solution with Ndumberi Dairy Cooperative, based in Kiambu, Kenya. The technology will help the cooperative run more efficiently, while increasing productivity and incomes for its farmer members that supply the milk. Using SMS messages – rather than relying on hand-delivered communications – to confirm receipt of milk deliveries and payments has reduced the cooperative's operating costs by around 40%.

Notes:

1. UN Food and Agriculture Organization, How to feed the world, 2009

Stakeholder views

" **The SMS messages are very good. I have a record in my phone that constantly reminds me of my loan balance, which I used to forget a lot. Now I am almost through with my loan repayment. This is really good.**"

Mama Cecilia Chawala, Smallholder farmer, Tanzania (Connected Farmers Alliance)

In focus: Connected Farmer Alliance brings opportunities for seed producers in Tanzania

In 2013/14, the Connected Farmer Alliance launched a pilot with the flower cutting and flower seed agribusiness, Multiflower, based in Arusha, Tanzania. Using a business-to-business (B2B) supply chain management solution, Multiflower can now communicate with the smallholder farmers contracted to grow seeds for the business more efficiently and effectively. It also manages and distributes loans and payments to farmers via our mobile payment platform, M-Pesa, resulting in significant time and cost savings for both the business and the farmers.

Mzee Ayo is one of the 4,000 smallholder farmers working with Multiflower. He was able to apply for a loan worth 600,000 Tanzanian shillings (around €265) that he received through M-Pesa. Without the system, he would have had a time-consuming and expensive journey to Multiflower's offices to collect the loan – resources which can now be invested in his seed production. Mzee expects to bring in 7 million Tanzanian shillings (around €3,100) from the seeds he produces on his five acre plot.

Health – Our approach

Communications technology can help to transform how healthcare is delivered in both developed and emerging markets. Our partnerships with enterprise customers, NGOs and governments are improving access to healthcare services and quality of care for patients, by making it easier for them to get treatment, or by increasing the amount of time health workers can spend with patients.

Our mobile health solutions help governments and healthcare providers respond to global health challenges in four key areas:

- **Access to healthcare:** helping patients in emerging markets access treatment, medicines and vaccines, by facilitating travel to hospitals, supporting the management of drug stock levels and improving the effectiveness of vaccination programmes

- **Remote care:** enabling doctors to treat patients remotely and improving quality of life for people with chronic diseases, by enabling them to monitor and manage their conditions at home

- **Assisted living:** using mobile technology to support assisted living, helping elderly people to live independently, in their own homes, for longer

- **Smart working:** enabling healthcare workers to access patient records and hospital systems remotely to improve quality of care, reduce administration time and increase the time they can spend with patients, as well as helping to keep lone healthcare workers safer.

Read on to find out more about our mobile health solutions and our performance in 2013/14.

Meeting the global health challenge

The burden on healthcare systems is increasing as the world's population grows and ages and long-term medical conditions become more prevalent.

In emerging markets, where the worldwide shortfall of 4.3 million health workers is felt most acutely[1], millions of people do not have access to even basic healthcare services. In developed markets, the cost of caring for an ageing population and the rise of chronic diseases such as diabetes, is adding to the strain on healthcare budgets. Over the last 50 years, healthcare spend has outpaced GDP growth by around 2% a year in several OECD countries and could reach 15% of GDP in these countries by 2030[2].

Communications technology can help healthcare providers respond to these challenges. With the mobile health industry (mHealth) predicted to be worth US$50 billion by 2020[3], this offers a significant business opportunity for Vodafone.

We are working with pharmaceutical companies, medical technology companies, health insurers, NGOs and government agencies in both emerging and developed markets to create successful partnerships and, ultimately, commercially viable products and services that meet the needs of those who need treatment.

Health – **Our approach**

Partnering to improve healthcare in emerging markets

In 2013/14, we continued to use mobile technology to improve healthcare in emerging markets. As a founding partner of the mHealth Alliance, the Vodafone Foundation is working with the United States Agency for International Development (USAID) on an innovative public-private partnership to improve child health by accelerating the use of mobile technology by millions of health workers globally. The initiative, known as mPowering Frontline Health Workers, aims to improve health workers' opportunities to share information, knowledge and experience through technology.

Increasing vaccination rates

Worldwide, around 20% of children do not receive vital vaccinations. We are exploring how health ministries in sub-Saharan Africa can use mobile technology solutions to improve access to vaccines and rates of immunisation as part of our three year partnership with the GAVI Alliance. Vodafone is providing an in-kind contribution of US$1.5 million to this partnership. Additionally, we formed a partnership with global healthcare provider GSK and, in 2014, we launched a pilot with the Mozambique Ministry of Health that aims to boost vaccination rates (see case study right).

In India, we launched a new free SMS-based service, in collaboration with the Indian Academy of Paediatrics, to remind parents that they need to get their children vaccinated. According to a study by Cochrane, vaccination reminders are effective in improving vaccination rates by up to 20%, reminders by phone being the most effective[4]. Parents across the country can opt into the service by sending a message from any mobile network in India. They receive immediate confirmation followed by reminders about their child's immunisation schedule for a period of 12 years. We aim to help prevent 500,000 child deaths and disabilities by the end of 2018 and two months after launch, 20,000 children were already enrolled, exceeding the targets set.

Supporting health workers

Frontline health workers, such as community healthcare workers, nurses and midwives, are often the first and often only link to healthcare for millions of people across the developing world.

In South Africa, we continue to use our mobile health enablement platform to support healthcare workers (see video), as well as the largest national HIV prevention initiative, loveLife. The platform is now available in Kenya and will be used to provide maternal and newborn child health information and services (see below: Improving maternal health).

In focus: Partnership for vital vaccines in Mozambique

In March 2014, we launched mVacciNation, a pilot project in the Nampula province of Mozambique that aims to boost child vaccination rates by approximately 5%. With approximately 80% of the province's population covered by mobile networks, Vodafone's solutions can effectively support data capture, patient compliance and supply chain failures, using mobile phones as a readily available technology.

Working in partnership with GSK, the Mozambique Ministry of Health and USAID, mobile technology will be used to raise awareness of the importance of vaccinations among caregivers – focusing particularly on children under one year old – and send them reminders about scheduled appointments.

Our mobile health solutions will also enable healthcare workers to keep accurate records more efficiently and will support health facilities by providing more accurate real-time data of vaccine stock levels which can inform management decisions to address supply challenges. We are conducting an external evaluation of this programme and aim to use the lessons learnt to create a model that can be scaled up and rolled out across the country and beyond – enabling thousands more children to receive life-saving vaccinations. Watch the video to hear feedback from those involved in the pilot.

Stakeholder views

" No matter where I am working, I have all the patient information I need to act faster and more efficiently."

Community healthcare giver using Nompilo, Limpopo, South Africa

Health – Our approach

Mobile health platform helps improve patient care in South Africa

Field-based community healthcare workers in South Africa are using Vodafone's end-to-end mobile health monitoring and evaluation platform to reduce administration time and improve patient outcomes. This platform helps healthcare workers to reduce the time spent on administration thereby enabling them to see more people. It also helps them to identify and address issues more quickly, leading to better health outcomes for their communities.

Initially a pilot (and previously known as Nompilo), the project's success has grown substantially over the last five years and has been extended to over 500 field-based healthcare workers. Following a renewed contract with the Ministry of Health, in excess of 1,200 healthcare workers will be able to access the system by July 2014, increasing to 3000 over the coming three years.

Smart solutions

loveLife is South Africa's largest national HIV prevention initiative for young people. Vodacom helped loveLife put in place a modern and reliable monitoring system that tracks all the activities of the programme's 1,250 young community leaders, who work in over 880 communities nationwide. Being able to capture data in real time and report back on work done has really helped to drive the programme's success. Vodacom also provided mobile phones to all the community leaders and 3G-enabled laptops to loveLife's 154 regional programme leaders. This resulted in data being available almost instantaneously, rather than taking around two months, helping to ensure that the programme's time and resources are spent on turning the tide on HIV/AIDS.

Enhancing access to diabetes treatment

The increasing incidence of chronic diseases such as diabetes and heart disease is becoming a major health challenge in emerging markets – in Africa alone it is estimated the incidence of diabetes will nearly double by 2030. Working in collaboration with the pharmaceuticals company Sanofi Aventis, we have launched a Patient Support Platform which helps patients with diabetes access treatment. In 2013/14, this platform was used to support the rollout of MyStarCare™ in South Africa, an interactive mobile patient programme that will provide real-time monitoring of diabetic patients.

Improving maternal health

Our mobile health services are also being used to improve maternal health – a key focus of our contribution to the UN Millennium Development Goals.

In 2013/14, the Vodafone Foundation extended its maternal health programme to rural regions in Tanzania. Working with Swiss Re Foundation and Pathfinder International (an NGO), the Foundation is providing training to community healthcare workers in maternal, neonatal and child health to better connect pregnant women to healthcare facilities and prevent maternal deaths.

Since 2010, the Vodafone Foundation has been working with the Comprehensive Community Based Rehabilitation in Tanzania (CCBRT), an NGO, to treat women with obstetric fistula, a maternal health condition that leaves women incontinent following childbirth and consequently outcast from their communities (see video below). The CCBRT hospital uses the M-Pesa mobile transfer system, to send travel funds to ambassadors around the country, who use the money to pay for some of the poorest and most marginalised women to get to hospital for life-changing surgery (see feature below).

This programme, known as Text to Treatment, helped 713 women receive treatment in 2013 compared with just 168 in 2009, before we introduced this initiative. More than 70% of the women receiving surgery used the M-Pesa Text to Treatment programme to get to the hospital. The Vodafone Foundation and USAID have also committed $5 million to develop the Text to Treatment programme to help rural health workers identify women at risk of complicated births and transport them to hospital where they can give birth safely.

Tackling obstetric fistula in Tanzania

Vodafone Foundation is working with Comprehensive Community Based Rehabilitation in Tanzania (CCBRT) to support women with obstetric fistula. The programme is delivered by the Vodafone Foundation as part of its Mobile for Good programme[5].

"Mobile technology changes lives," says Erwin Telemans, CEO of CCBRT. "Many women simply cannot afford transport to hospital. Vodafone M-Pesa allows CCBRT to cover these costs in advance. In 2013, over 70% of our fistula patients would still be living in shame and isolation if it weren't for Text to Treatment."

Health – Our approach

In Kenya, our mobile health enablement platform has been used as part of KimMNCHip, a programme that aims to reduce infant and maternal mortality, as part of a partnership between our associate Safaricom, and NGOs AMREF, NetHope, CARE Kenya and World Vision. KimMNCHip is helping to improve mother and child health records in clinics and to strengthen community outreach services, such as health referral services, and tracking of nutrition and HIV information.

mHealth in developed markets

Global ageing demographics and a worldwide chronic disease epidemic are driving a vast economic cost burden to healthcare. This means healthcare providers are having to find new ways to maintain the current quality of patient care. Moving costs and care away from the hospital and primary care environment, we are providing a modern approach to healthcare.

Through our remote care services solutions in condition management, hospital to home, and assisted living, we are not only addressing productivity and cost challenges, but also enabling improvements in both patient care and quality of life for patients. M2M monitoring and tracking solutions also help to maintain medical and lab equipment more effectively through real-time notification of potential issues.

In the area of clinical research, Vodafone M2M health solutions offer a more effective way of collecting data to speed up testing and compliance, reduce development time and enhance the quality of information used in bringing a new and effective treatment to market.

Our solutions combine mobile health (mHealth) services and machine-to-machine (M2M) technology to improve healthcare provision and patients' lives by enabling our enterprise customers to operate more efficiently. These include:

- **Remote monitoring devices** allowing patients to report on their condition, and their doctors or carers to then access this information in real time

- **Remote care services** enable more effective treatment and better use of health resources by, for example, allowing doctors to conduct examinations remotely on a computer or smartphone

- **Patient adherence services** help patients with complex drug treatment programmes get the right amounts of medication at the right time

- **Hospital to home solutions** provide care for patients receiving long-term treatment in their own homes

- **Stock management services** enable hospitals to track medicine stock levels.

Find out more about our mHealth solutions on our website.

Improving patient care

Together, Vodafone and TRxCARE are delivering an innovative treatment and adherence support service, customised specifically for patients with HIV, a condition that requires strict adherence to medication regimes. Achieving the necessary minimum rate of adherence is very challenging to many patients, prompting clinicians to report growing concerns about increasing numbers of patients failing to stick to their programmes.

The TRxE™ programme enables patients to maintain and better manage their treatment via a smart phone application. By providing medication prompts, personalised contact and regular broadcasts of information, advice and guidance, patients can receive comprehensive, ongoing treatment support.

In 2013/14, we announced a global partnership with the pharmaceutical company, AstraZeneca, to develop new mobile and internet-based services to support patients with cardiovascular conditions during treatment. We will provide the technology and our expertise on mobile health services to develop solutions that will, for example, help patients adhere to their medication schedule.

We continued to work with Baxter Healthcare to provide a mobile system for patients with immune deficiencies in three cities in the UK. The system enables patients to receive long-term treatment at home rather than travelling to hospital and clinicians to monitor patients' treatment process remotely – improving their quality of life and freeing up hospital resources. We also continued to partner with medical device company Boston Scientific Corporation to develop technology to remotely monitor patients' heart conditions.

In the UK, our smart working solutions enabled healthcare workers to spend less time on paperwork and more time with patients. In Cumbria, the National Health Service used our mobile solutions to help staff access clinical information and update patient records on the move. Services such as an app to update patient records remotely via smartphone and a digital pen to collect data have helped nurses cut administration time by around 15%, allowing more time for community visits in rural areas.

Notes:

1. World Health Report (2006), World Health Organization
2. mHealth: A new vision for healthcare (2010), GSMA and McKinsey
3. Future Agenda: The role of mobile (2011), Vodafone
4. http://onlinelibrary.wiley.com/doi/10.1002/14651858. CD003941.pub2/pdf
5. Vodafone Foundation registered charity number 1089625. For more information, please go to the Vodafone Foundation

Education – Our approach

We are exploring ways to use communications technology to extend access to education and offer a positive and interactive learning environment for children and adults studying remotely.

Education is critical to people's future prospects, yet many people living in rural areas of emerging markets never even enter the education system.

Our focus on mobile education is still in its early stages but we see significant potential for communications technology to improve people's learning prospects and teacher–student engagement in emerging markets. As well as providing opportunities for our business, this is one of the ways Vodafone can contribute to the UN Millennium Development Goals.

Our mobile education solutions combine the power of Vodafone technology with the know-how and support of local organisations. In 2013/14, we partnered with specialist education organisations to expand new learning solutions and address illiteracy in several emerging markets. Read on to find out more about our approach and our performance in 2013/14.

Improving classroom learning and efficiency

In India, our biggest market, a third of children never attend school, one in four adults are illiterate and most qualified teachers are concentrated in urban areas. Almost one in five people in India access the internet via a Vodafone mobile connection, so we are well-positioned to improve access to education in this way.

Our Learn out of the box programme, being implemented by the Vodafone Foundation in India in partnership with Pratham Education Foundation, aims to improve the standard of education at 1,000 low income schools, targeting 50,000 underprivileged children in India over three years. The service uses innovative software and the mobile internet to train

teachers and help them engage students with interactive learning materials and multi-media content. The service makes education more accessible to students whether they are using mobile phones, tablets or the Vodafone WebBox (a low-cost internet-enabled device that connects to a television). Together with Pratham Education Foundation, we provide all the necessary equipment and learning materials and train teachers to use the service. As of March 2014, a total of 948 schools are fully operational.

In focus: The first Instant Network School in the Democratic Republic of Congo

In 2013, the Vodafone Foundation, in partnership with Italian NGO, Don Bosco and the Qatar Foundation's Educate a Child programme, opened the first Instant Network School in the Democratic Republic of Congo. The school, in Goma, is enabling 400–500 children aged 7–17 to access online educational content via tablets provided through the Instant Networks mobile education programme. Following the success of this pilot, plans are underway to open additional schools that will benefit more children living in refugee camps in Africa.

Education – Our approach

Promoting reading and language skills

Communications technology is being used to tackle illiteracy in Egypt, where 17 million adults are unable to read and write. The Vodafone Egypt Foundation, in partnership with Egypt's General Authority for Literacy and Adult Education and local NGOs, is using classroom and mobile learning to improve lives through their Knowledge is Power project. A free Vodafone Literacy App is a key component of the project, enabling people to learn when and where they want, using pictures and a talkback function to make learning easier and more accessible. More than 187,000 people have enrolled in Knowledge is Power classes, with over 94,000 having already graduated from the programme, which is supported by Vodafone's technology and 12,000 youth worker volunteers. Four million people found out about the programme via the Vodafone Egypt Facebook page. The classes are now being rolled out to an additional 120,000 people by the end of 2014.

In South Africa, Vodacom partnered with Microsoft, Cisco, Intel, Mindset Learn and the Department of Basic Education to establish the Vodacom Mobile Education Programme. This programme is a nationwide teacher development initiative aimed at improving the quality of instruction in all subjects at every level, with particular emphasis on mathematics, mathematical literacy and physical science, in Grades 10 to 12. The professional development teacher training courses focus on ICT Literacy, as well as the effective use and integration of digital content in the classroom. To support the training, educators are provided with the necessary ICT infrastructure and tools.

The programme has provided continuous training, equipment, digital content and connectivity to 890 schools and nine teacher centres. Since its inception, the Vodacom Mobile Education programme has trained 10,000 teachers to use information and communications technology (ICT), has improved teaching methods in maths and science, has provided computers, laptops and e-readers, and established an online information library, educational content (including curriculum content) and teaching aids, via cloud computing.

In 2013, in partnership with Read A Book SA, the largest book club in South Africa, Vodacom also launched an e-reader programme, and installed an e-reader app on 45 tablets which are freely available at the nine Vodacom ICT Resource Centres. The app will enable learners and community members to read e-books at the centres, as access to reading material is otherwise limited.

In focus: First Arabic e-reader app unleashes learning potential

In 2013/14, Vodafone Egypt, together with Intertrust Technologies Corporation, launched Kotobi, the first dedicated Arabic online bookstore and mobile app. Kotobi aims to make Arabic language e-books more accessible, as reading is a key ingredient to help raise literacy levels. Vodafone's Kotobi (which means 'my books' in Arabic) is a significant step forward in providing electronic books for the Arab market and also gives readers across the world the opportunity to consume e-books in Arabic on tablets and smartphones seamlessly. The app is part of Vodafone's ongoing efforts to promote literacy in Egypt. So far, Kotobi offers e-books, periodicals and a wide variety of free titles, as well as translations of well-known classics from authors such as Aldous Huxley and Charles Dickens.

As well as helping improve reading and writing skills in Egypt and South Africa, we also deliver educational programmes to improve language and professional skills in Albania and Ghana.

In Albania, we are promoting English-language apps, developed by the British Council, to spread the message that mobile technology can be a learning tool and offer convenient and affordable access to education. In Ghana, more than 1,000 people have subscribed to practical e-learning courses provided via our 3G broadband. These range from IT management, sales, and customer service to health and social issues, and are offered in English and African languages.

Stakeholder views

" Our aim is to use our technology to help make a difference in the communities where our customers live. Access to reading material is a major challenge in South Africa, as many learners do not have access to libraries and reading material. Vodacom, together with Read A Book SA, believes that we can help address this problem by broadening access to literacy in this way."

Maya Makanjee, Chief Officer, Corporate Affairs at Vodacom

Vodafone's contribution to the Millennium Development Goals

By extending access to our networks and developing innovative products and services tailored to emerging market needs, we are contributing to sustainable development and helping to improve people's lives and livelihoods.

Vodafone is contributing to the global effort to alleviate poverty as defined by the UN Millennium Development Goals. We channel social investment in programmes that promote sustainable development through our Foundation.

The sections below set out examples of how we are contributing to each of the eight Millennium Development Goals.

For more on how our products and services are contributing to sustainable development, see Transformational solutions in this report. For highlights of our Foundation programmes, see our Foundation website, Mobile for Good.

Goal 1: Eradicate extreme poverty and hunger

Research shows that mobile telecommunications contribute to Research shows that mobile telecommunications contribute to economic development by increasing productivity and raising national GDP in emerging markets. It is estimated that a 10% expansion in mobile penetration leads to a 4.2% increase in GDP in developing markets[1].

Mobile solutions in specific areas such as finance and agriculture also support economic development. Vodafone's mobile money transfer and payment product, M-Pesa, does so by providing access to basic financial services in emerging markets for people without bank accounts – including sending and receiving funds to friends and family, saving even small amounts and the ability to take out loans or insurance. In 2013/14, we launched the service in Mozambique, Lesotho, Romania, Egypt and India. There are now 16.8 million active M-Pesa users, up 18% from 2012/13. See Finance.

Our Connected Agriculture research estimated that mobile solutions could improve farmers' productivity to help meet growing global demand for food and increase agricultural income by US$138 billion by 2020 across our markets. It also highlighted the potential for mobile track and trace technology to help reduce food waste by improving food supply chain logistics. We are partnering with other organisations to develop solutions that can contribute to delivering these benefits.

We continue to work with the US Agency for International Development (USAID) and the development NGO, TechnoServe, in a three year partnership known as the Connected Farmer Alliance. The partnership aims to increase the productivity, incomes and resilience of half a million smallholder farmers across Kenya, Mozambique and Tanzania. In 2013/14, the Alliance launched a pilot with the flower cutting and flower seed agribusiness, Multiflower, based in Arusha, Tanzania. Using a business-to-business supply chain management solution, Multiflower can now communicate with the 4,000 smallholder farmers contracted to grow seeds for the business more efficiently and effectively.

In Turkey, the Vodafone Farmers' Club service uses mobile technology to give farmers the information they need to improve their harvests and livelihoods – leading to an estimated US$140 million in efficiency savings in 2013/14 alone. In 2013/14, more than 790,000 farmers subscribed to the Farmers' Club – 20,000 more than the previous year – and around 695 million SMS alerts were sent to farmers. See Agriculture for more information.

Goal 2: Achieve universal primary education

Mobile technology can be used to extend the reach of education by enabling students in rural areas to join lessons remotely, and by helping teachers manage student attendance and performance and access educational content.

Our Learn out of the box programme, being implemented by the Vodafone Foundation in India, and developed in partnership with Pratham Education Foundation, aims to improve the standard of education at 1,000 low income schools and targeting 50,000 underprivileged children in India over three

Vodafone's contribution to the Millennium Development Goals

years. The service uses innovative software and the mobile internet to train teachers and help them engage students with interactive learning materials and multi-media content.

In 2013, the Vodafone Foundation, in partnership with Italian NGO, Don Bosco, and the Qatar Foundation's Educate a Child programme, opened the first Instant Network School in the Democratic Republic of Congo. The school, in Goma, is enabling over 400–500 children aged 7–17 to access online educational content via tablets provided through the Instant Network mobile education programme. Plans are underway to open additional schools that will benefit more children living in refugee camps in Africa. See Education.

Goal 3: Promote gender equality and empower women

Using our mobile technology and services, we are connecting women to education and skills training, expanding access to job opportunities, and helping them improve their livelihoods (see Women).

Our Connected Women report explores the impact of increasing women's mobile phone ownership and how mobile services provided by Vodafone and the Vodafone Foundation are enabling women to access new opportunities and improve their lives and livelihoods. Our research suggests that increasing women's access to mobile and scaling up the five services explored in the report could benefit 8.7 million women and have positive annual economic benefits worth $28.9 billion across Vodafone's markets by 2020[2].

We are helping female entrepreneurs manage their businesses more efficiently and increase their incomes. In 2013/14, Vodafone Turkey launched the Women First programme, which helps women use mobile technology, access information, acquire new skills and increase their incomes. The Women First Mobile Advertisement Service, a key part of the service, is enabling women with little experience of mobile technology to sell their handicrafts and products on one of Turkey's biggest online marketplaces using SMS messages.

In India, the Vodafone Foundation, in collaboration with the Self-Employed Women's Association of India (SEWA) and the Cherie Blair Foundation for Women, rolled out an SMS-based service that enables small-scale retailers to manage their businesses more efficiently and increase their income. The service enables users to place orders, record their transactions and manage stock levels in real time – reducing the time spent collecting their stock from central warehouses and improving their productivity. Since it started in 2013, over 1,300 women involved in the pilot have increased their incomes, some by up to three times. We are now extending the service to more districts of Gujarat, India.

Helping women at risk of domestic violence through TecSOS

We are also empowering women in more developed markets. The TecSOS mobile phone system, developed by the Vodafone Spain Foundation with the Spanish Red Cross and the TecSOS Foundation, is helping women at high risk of abuse connect to emergency services at the touch of a button. More than 31,900 victims (both male and female) in six European countries have already benefited from a TecSOS device.

In our own operations, gender equality is a priority in our Diversity and Inclusion agenda. We have a wide range of initiatives, which are part of our Diversity and Inclusion strategy, to ensure we support female employees in developing their careers, and that women represent a growing proportion of management positions. See Our people.

Goal 4: Reduce child mortality

Mobile technology can significantly improve the efficiency of healthcare services, particularly in remote areas. As a founding partner of the mHealth Alliance – a public private partnership designed to improve child health by accelerating the use of mobile technology by health workers around the world.

The Vodafone Foundation is working with the United States Agency for International Development (USAID) on an innovative public-private partnership to improve child health by accelerating the use of mobile technology by millions of health workers globally. The initiative, known as mPowering Frontline Health Workers, aims to improve access to information, technology and help health workers share their experience and expertise.

Our three year partnership with the GAVI Alliance is exploring how health ministries in sub-Saharan Africa can use mobile technology solutions to improve rates of immunisation and access to vaccines for children.

We have also formed a partnership with global healthcare provider GSK and in March 2014 we launched mVacciNation, a pilot project in the Nampula province of Mozambique that aims to boost child vaccination rates by approximately 5%. Mobile technology will be used to raise awareness of the importance of vaccinations among caregivers – focusing particularly on children under one year old – and send them reminders about scheduled appointments.

In India, we launched a new free SMS-based service, in collaboration with the Indian Academy of Paediatrics, to remind parents when they need to get their children vaccinated. Parents across the country can opt into the service by sending a message from any mobile network in India. They receive immediate confirmation followed by reminders about their child's immunisation schedule for 12 years. We aim to help prevent 500,000 child deaths and disabilities by the end of 2018.

Vodafone's contribution to the Millennium Development Goals

Our mobile health enablement platform is improving access to healthcare and supporting the treatment of children (see video below) by helping healthcare workers to reduce time spent on administration, enabling them to see more patients and improve health outcomes by identifying issues more quickly, in South Africa, Kenya and Tanzania.

For more information on our mobile health solutions, see Health.

Helping improve patient care in South Africa

but a lot of men hours can be spend dealing with paperwork

Goal 5: Improve maternal health

The Vodafone Foundation has been working with the Comprehensive Community Based Rehabilitation in Tanzania (CCBRT), an NGO, to treat women with obstetric fistula, a maternal health condition that leaves women incontinent following childbirth and consequently outcast from their communities (see video below). The CCBRT hospital uses the M-Pesa mobile transfer system to send money to local ambassadors who arrange travel for women who would otherwise be unable to reach the hospital for corrective surgery. Known as the Text to Treatment programme, this initiative has helped to increase the number of women receiving treatment significantly – 713 women were treated in 2013, compared with just 168 in 2009, before this initiative was introduced. More than 70% of the women receiving surgery used the M-Pesa Text to Treatment programme to get to the hospital.

In 2013/14 the Vodafone Foundation extended its maternal health programme to rural regions in Tanzania. Working with Swiss Re Foundation and Pathfinder International (an NGO), the Foundation is providing training to community healthcare workers in maternal, neonatal and child health to better connect pregnant women to healthcare facilities and prevent maternal deaths.

In Kenya, our mobile health enablement platform has been used as part of KimMNCHip, a programme that aims to reduce infant and maternal mortality. KimMNCHip is helping to improve mother and child health records in clinics and to strengthen community outreach services, such as health referral services, and tracking of nutrition and HIV information.

For more information, see Health.

Tackling obstetric fistula in Tanzania

Vodafone Foundation is working with the Comprehensive Community Based Rehabilitation in Tanzania (CCBRT) to support women with obstetric fistula.

The programme is delivered by the Vodafone Foundation as part of its Mobile for Good programme[3].

Goal 6: Combat HIV/AIDS, malaria and other diseases

Training and awareness-raising, coupled with innovative distribution and administration services, can play a role in addressing the world's most pressing health problems.

We also began a three-year partnership with the GAVI Alliance to explore how health ministries in sub-Saharan Africa can use mobile technology solutions to improve access to vaccines and rates of immunisation as up to 20% of children worldwide do not receive vital vaccinations. We have pledged an in-kind contribution of US$1.5 million to the partnership. Additionally, we formed a partnership with global healthcare provider GSK and in 2013 will launch a pilot with the Mozambique Ministry of Health that aims to boost vaccination rates (see case study), (See Goal 4).

Our mobile health enablement platform is supporting more than 1,200 young community volunteers, who work in over 880 communities, as part of South Africa's largest national HIV prevention initiative, loveLife.

For more information, see Health.

Vodafone's contribution to the Millennium Development Goals

Goal 7: Ensure environmental sustainability

Our solutions in four key areas – smart metering, smart logistics and fleet management, call conferencing, and cloud and hosting services – are helping organisations to tackle climate change by helping them to reduce their energy and fuel use, work more efficiently, and therefore cut costs and carbon emissions. Our research in 2013 with the Carbon Trust found that Vodafone's solutions in these areas could save an estimated 2.29 million tonnes of CO_2e in 2012/13, which is almost the same as the net carbon footprint of 2.36 million tonnes of CO_2e for our own operations in the same year.

Access to power remains a key issue for many of our customers and a barrier to economic development. We are developing solutions to bring reliable, renewable power to remote communities in emerging markets using our own network infrastructure and tailored solar-charging solutions. We have launched two solar-powered solutions, ReadySet and M-KOPA, to help provide more efficient ways of lighting and mobile phone charging for homes without electricity.

ReadySet, a portable, solar-powered mobile phone charging system has provided an estimated 1.2 million phone charges to people who live off the grid. We also offer a solar-powered home lighting kit in partnership with M-KOPA in Kenya, using our M-Pesa system to make payments, which provides modern, cleaner and cost-efficient lighting and mobile phone charging for homes.

ReadySet brings renewable charging to remote areas

In a pilot in South Africa we installed solar panels at a school near our base station in Emfihlweni in order to provide cleaner power to the base station. The excess power generated was used by the local school to provide access to lighting and power, and to power a community water pump.

See more on our Low carbon solutions, and the measures we are taking to reduce our own Environmental footprint.

Goal 8: Develop a global partnership for development

Telecommunications network operators can help bridge the digital divide through the provision of equipment and infrastructure to people who live at the margins of society. Working in collaboration with organisations, NGOs and governments is central to our strategy to deliver transformational products and services.

We are collaborating with major public and private sector organisations such as, the GAVI Alliance, the Pratham Education Foundation, TechnoServe, GSK, UNICEF, Unilever, USAID and the World Health Organisation, to develop and implement solutions in the areas of agriculture, education and health.

For more information, see Transformational solutions.

Measuring our contribution

We remain committed to making a significant contribution to achieving the Millennium Development Goals (MDGs).

◉ Ongoing   ● Achieved   ◐ Partial   ○ Not achieved

Objective	Our performance in 2012/13	Status
Be recognised as a communications company making one of the most significant contributions to achieving the MDGs by March 2015	We continued to contribute to the MDGs by increasing our network coverage to bring access to communications in emerging markets, while partnering with others to develop products and services that promote development in areas such as Agriculture, Education, Finance and Health. We also contribute to Goal 7 on environmental sustainability through our Low carbon solutions and our efforts to reduce our own Environmental footprint.	◉

Notes:

1. A report by Deloitte and the GSMA: What is the impact of mobile telephony on economic growth? (2012)
2. Based on research conducted by Accenture Sustainability Services for our Connected Women Report, published in March 2014
3. Vodafone Foundation registered charity number 1089625. For more information, please go to the Vodafone Foundation

Operating responsibly

To earn and retain the trust of our customers and other stakeholders we need to manage our operations responsibly and conduct our business in an ethical and transparent way

The trust of our customers and other stakeholders is essential to Vodafone and critical to the value of our brand. To earn and retain that trust we need to manage our operations responsibly and conduct our business in an ethical and transparent way, ensuring we comply with legislation, customer requirements and stakeholder expectations.

We also aim to go beyond compliance. We are ambitious in the way we manage our wide-ranging responsibilities, turning potential risks into opportunities to differentiate our brand for commercial advantage and to enhance the contribution that our products and services make to sustainable living.

Follow the links below to find out more about the issues we manage as part of our commitment to being responsible and ethical and our progress in 2013/14.

Privacy and security – Our approach

The way we handle privacy and security is a vital part of our responsibility to our customers and essential to the success of our business.

Privacy and security are often viewed by organisations merely as compliance or risk management responsibilities, but we see significant opportunities for Vodafone to differentiate what we offer and strengthen our reputation through our efforts in these areas.

Our customers trust us with their personal information and their privacy. Protecting that information and respecting their privacy is fundamental to maintaining that trust. Our privacy and security programmes govern how we collect, use and manage customers' information – from ensuring the confidentiality of their personal communications and respecting their permissions and preferences, to protecting and securing their information.

Personal data also has enormous potential to create economic and social value, both for the individuals concerned and for the businesses who serve them. In order to ensure this opportunity is executed well, we are using technology to make it easier and more intuitive for customers to take control of how their data is used.

Read on to find out more about our approach. Or go to Performance to read about our progress in 2013/14.

Understanding customers' concerns about how communications technology can impact privacy and security

We understand that customers may be concerned about the privacy and security of their personal information as they use communications technology more often and for different purposes. We help customers manage a wide range of privacy and security risks that may impact them when using mobile and other devices.

The confidentiality of customers' personal and private communications is a fundamentally important requirement for any communications company as the company will manage a great deal of sensitive information including customers' personal communications, their location and how they use the internet. The complexity of technology, threats from hackers and the potential for human error can lead to information being lost or deleted or getting into the wrong hands.

Law Enforcement Disclosure report

The issue of government surveillance has come under increased scrutiny. For the first time, we have published a Law Enforcement Disclosure report which details Vodafone's approach to responding to government demands for access to customer information, along with a breakdown of the legal powers governments hold. We also publish statistics on the number of law enforcement demands we received on a country-by-country basis, where it is legal to do so and the government does not already publish such information.

Vodafone is one of the first communications operators in the world to provide this kind of country-by-country analysis of law enforcement demands, based on data gathered from our local licensed communications operators. We have committed to update the information disclosed in this report annually. We expect the contents and focus of the report to evolve over time and we will be working with key stakeholders on the best way to do this.

The report is intended to:

- explain the principles, policies and processes we follow when responding to demands from agencies and authorities that we are required to assist with their law enforcement and intelligence-gathering activities

- explain the nature of some of the most important legal powers invoked by agencies and authorities in our countries of operation

- disclose the aggregate number of demands we received over the last year in each of our countries of operation unless prohibited from doing so or unless a government or other public body already discloses such information

- cite the relevant legislation which prevents us from publishing this information in certain countries.

Read our Law Enforcement Disclosure report.

Privacy and security – Our approach

As more services use mobile and communications related data for an ever-expanding range of uses, customers need to be able to understand and be able to control how information about them is used. Smartphones, tablets, e-readers, apps and new technologies using the 'internet of things' (such as connected cars, smart grids and mHealth) offer many economic and social benefits, but also raise some complex privacy issues. For example, mHealth services may enable physicians to monitor patients round the clock by having remote access to their health devices and data, but by doing so sensitive health data may need to be transmitted across communications networks, hosted in the cloud, and processed by a range of applications used by medical staff.

Governments also have legal powers to demand access to customer communications and data. See our new Law Enforcement Disclosure report for more information.

Creating the right culture

Everyone at Vodafone must have a clear understanding of how important protecting and respecting our customers' information is to our business. We continue to create a strong internal culture where our employees understand the critical nature of privacy and security risks and know how to manage them. This focus helps us to retain the trust of our customers and the respect of our colleagues, stakeholders and peers.

We have set out our commitment to privacy and security at the highest level in our global Code of Conduct, which all Vodafone employees are bound by. Our Privacy Commitments, which are part of our Code of Conduct, set out the principles that govern our approach to privacy (see feature below).

These Privacy Commitments encapsulate three key elements of building customer trust:

- Transparency: Being more open about what we do (Commitment 2: Openness and Honesty)

- Empowerment: Using our technology to empower our customers and give them control over their personal information (Commitment 3: Choice)

- Reassurance: Making sure that we do what we promise to and that we are doing what's right (Commitment 7: Accountability).

We can only ensure our customers' privacy if we first ensure the security of their information and communications. Information security is an essential part of our business. Our Key Principles on Information Security (see feature below) set out how we securely create, use, store or dispose of all information we manage, so that it cannot be lost, stolen or manipulated, or used without Vodafone's authorisation. We expect our employees to know how to protect customer information and to challenge others who fail to do so. Our global awareness and transformation strategy, Protect and Secure, is further deepening our security culture at Vodafone, raising employee awareness of security risks and what they can do to mitigate them.

In focus: Privacy Commitments

1. **Respect:** We value privacy because of its value to people. It's about more than legal compliance – it's about building a culture that respects privacy and justifies the trust placed in us.

2. **Openness and honesty:** We communicate clearly about actions we take that may impact privacy, we ensure our actions reflect our words, and we are open to feedback about our actions.

3. **Choice:** We give people the ability to make simple and meaningful choices about their privacy.

4. **Privacy-by-design:** Respect for privacy is a key component in the design, development and delivery of our products and services.

5. **Balance:** When we are required to balance the right to privacy against other obligations necessary to a free and secure society, we work to minimise privacy impacts.

6. **Laws and standards:** We comply with privacy laws, and we will work with governments, regulators, policy makers and opinion formers for better and more meaningful privacy laws and standards.

7. **Accountability:** We are accountable for living up to these principles throughout our corporate family, including when working with our partners and suppliers.

In focus: Key Principles on Information Security

Customer information is one of the greatest assets we are entrusted with and must be protected appropriately. We handle vast amounts of customer information in a variety of forms – written, spoken, electronic and on paper – on a daily basis. It is vital that we secure and manage this information and can ensure its:

- **Confidentiality:** Customer information must not be disclosed to, or accessed by, unauthorised people

- **Integrity:** Customer information and software must be accurate, complete and authentic so that it can be relied upon

- **Availability:** Customer information must be available when needed – including to our customers – and information systems and networks must function when required.

Privacy and security – Our approach

Recognising opportunities, not just obligations

Not managing the privacy and security of our customer's data appropriately can pose risks to our customers and our business. However, we also see the potential to differentiate our brand by managing these risks well and by offering products and services designed to support customers in improving control over their data.

These include free apps such as Vodafone Protect that keep consumers safer online by enabling them to lock and wipe their mobile remotely if it is lost or stolen, and Vodafone Guardian that helps parents keep children safer when using their mobile phones. We also support our enterprise customers with products such as Vodafone Device Manager and Profile Manager, which enable employees to have separate work and personal areas on a single device, and our innovative Vodafone Locate tracking service which has privacy controls inbuilt.

We are developing tools that will enable our customers to set permissions and preferences for all their devices, apps and interactions with Vodafone in a single tool, to make it easier for them to see and control their settings.

See Performance for more on how we are putting customers in control.

Understanding and responding to risks

Risk management is at the heart of Vodafone's approach to privacy and security. Identifying emerging issues and risks – as well as opportunities (see Performance) – is essential to help us understand and manage those risks. We do this by examining the implications of our business strategy, new technologies and business models, areas of concern for customers and industry developments within our own and related markets.

Many of the latest developments in the ICT sector raise privacy and security issues, concerns and opportunities. These include 'big data' analytics (see below), connected cars, smart cities, smart metering (see Low carbon solutions), mHealth, Mobile payments and Smart working.

We conduct regular formal reviews of the most significant privacy and security risks affecting our business at Group level. Based on these reviews, we develop strategies to respond to the most critical risks (see below), which may include developing new internal policies, investing in new capabilities, technologies and programmes, or influencing the positions of our industry peers and partners, through associations such as the GSMA.

To help shape our strategy on privacy and security and ensure robust responses to stakeholder concerns, we regularly engage with external stakeholders and draw on their expertise.

In focus: Vodafone Germany's Ombudswoman for Data Protection – Ms Renate Schmidt

Vodafone Germany's dedicated Data Ombudswoman acts as a trusted advisor to the business on the rights and interests of Vodafone Germany's customers regarding privacy and data protection. Former federal minister Renate Schmidt, appointed in 2008, brings a wealth of knowledge and experience to the role. Her guidance and insight is also sought more widely for input on the Vodafone global privacy programme and specific privacy initiatives.

Managing strategic risks

Based on our strategic risk review, some of the most critical privacy and security risks we face include:

Cloud services and hosting

As we deliver better services faster, expand our cloud-based services to enterprises and customers and reduce costs by avoiding duplication of infrastructure in different markets, we increasingly need to move data across international borders.

We must ensure that the movement of customer data across borders is conducted lawfully, legitimately and securely, both within our own organisation and between Vodafone and its suppliers.

We operate a global information governance system that enables us to track the flow of customer data and ensure we apply appropriate governance and legal processes. We have robust, standardised security processes within our own operations (see below) and employ specialist teams to evaluate the governance and controls of our suppliers.

As cloud-based solutions become increasingly widespread, we must continue to optimise the benefits of this technology, while effectively managing the risks. We are developing new tools to ensure the systematic management of all cloud capabilities and conformance to security and data management requirements.

Traffic management

To deliver the quality of service customers expect, we need to manage the flow of communications traffic across our network. For example, we may need to prioritise an uninterrupted video call over an email (which is not so time critical). To do this, we need to examine some of the information, or data packets, attached to the communication, in order to know what type of communication it is, although the actual 'content' of a communication (such as the text in a text message) is not inspected. This type of technique is sometimes referred to as deep packet inspection.

Privacy and security – Our approach

Knowing more about these data packets – and thus about the nature of our customers' communications – naturally raises privacy concerns. We have clear, specified governance and policy requirements around the use and deployment of these types of techniques. Other than for the lawful purpose of managing traffic across our networks, our policy prohibits any application of network technologies involving the inspection of data packets until they have been subjected to an in-depth privacy impact assessment. As well as ensuring any use of deep packet inspection complies with the law, this assessment evaluates the potential impact on the customer and enables us to identify and develop solutions to avoid or minimise any impacts. Any use of these technologies must be authorised by a senior executive at Group level.

Advertising, analytics and 'big data'

The vast amount of data generated by our customers on mobile devices, services and networks has enormous potential value for mobile commerce, as well as for programmes with societal benefits, such as analysing trends in public health. The expansion of mobile connectivity into new fields, such as connected cars, smart metering and mHealth, means ever greater volumes of data are being generated. Even when this information is anonymised and aggregated, concerns arise about how the value of such 'big data' can be unlocked while protecting individual privacy.

Our internal policies, guidelines and design principles for applications and services that make use of personal data help us to ensure that we provide customers with transparent information and clear choices about how their data is used. We also research consumer perceptions and concerns to inform our strategy and explore and develop techniques that can enhance privacy (see Performance).

Law enforcement assistance and human rights

In every country where Vodafone operates, governments retain law enforcement powers that can limit privacy and freedom of expression. These include legal powers that require telecommunications operators to provide information about customers or users or to put in place the technical means to enable information to be obtained for law enforcement purposes, such as lawful interception. Governments also retain powers to limit network access, block access to certain sites and resources or even switch off entire networks or services.

These powers have many legitimate purposes, including fighting crime and terrorism, and protecting public safety. However, use of these powers must be balanced with the respect for civil liberties and freedoms, including individuals' privacy and freedom of expression. We closely manage and monitor compliance with these legal obligations and our relationship with law enforcement authorities to ensure human rights are respected. We also engage with governments to seek to ensure that legal provisions governing use of these powers contain adequate protection for human rights.

In focus: Privacy-by-design

We are committed to building privacy considerations into our products and services from the outset, and using our influence to shape the technologies of our partners and peers.

Our series of privacy design principles guide product development teams in shaping and designing products. For instance, our Visible Privacy Design Principles provide a framework to make sure we give users control over how they manage their privacy and how their data is collected, used and shared.

We provide privacy resources and guidance to third party developers, which are published on our Developer portal. We also work with industry organisations and application developers to create guidelines and policies, such as the GSMA's Mobile Application Privacy Guidelines, to ensure our partners and suppliers build privacy into the products and services they design.

Vodafone's Global Policy Standard on Law Enforcement Assistance sets out our principles and standards on assisting law enforcement, including processes to ensure our actions are accountable at the most senior level.

We are a founding member of the Telecommunications Industry Dialogue on Freedom of Expression and Privacy, a group of global telecoms companies working together and in collaboration with the Global Network Initiative to address issues of privacy and freedom of expression. We are a signatory to the Industry Dialogue's Guiding Principles on Freedom of Expression and Privacy, which define a common approach to dealing with demands from governments that may affect privacy and freedom of expression in a principled, coherent and systematic way across the industry.

Our Law Enforcement Disclosure report details our approach to responding to law enforcement demands for access to customer information, along with a breakdown of the legal powers governments hold. We also publish statistics on the number of law enforcement demands we received on a country-by-country basis, where it is legal to do so and the government does not already publish such information.

Managing operational risks

Our network of privacy officers across the Group use our comprehensive Privacy Risk Management System (see box below) to help us live up to our Privacy Commitments in our day-to-day operations, while ensuring that we are prepared to respond to new privacy and security concerns and risks as they emerge. This system provides the flexibility to respond to local privacy concerns, legal requirements or stakeholder expectations, while providing a common framework to build and measure the maturity of our programme and implement improvements across all key areas of our business operations.

Privacy and security – Our approach

Our privacy programme is underpinned by extensive information and network security practices and technologies designed to secure the infrastructure and systems on which our business' and our customers' privacy is based. These include:

- Advanced security monitoring systems to detect and respond to cyber security issues in real time (see feature below)

- Physical controls including appropriate vetting of people to manage against misuse of access or privileges by our own staff, contractors or third parties

- Significant investment in security technologies.

The robust information security policies, processes and procedures supporting these controls are regularly audited and tested.

Our approach is based on the principles outlined in ISO 27001, the international standard for information security management systems. Our core data centres in Germany, India, Ireland and Italy are certified to this standard. We require our external suppliers and partners to meet defined minimum security standards and we conduct risk assessments and due diligence exercises to provide assurance that these are being met in practice.

In focus: Taking action on global cyber security

Cyber security threats pose a significant risk to our business, infrastructure and customers' information. Remaining vigilant in anticipating attacks, defending against them and planning for the future, are essential elements of our strategic risk management. The threats are posed by a range of agents, from nation states and commercial competitors through to 'hacktivists', cyber criminals and terrorists.

Risk management is at the centre of our approach. We analyse and review the most significant security risks affecting the business at Group level and based on this we develop strategies to respond to the most critical risks and determine future investment.

Vodafone's Global Security Operations Centre (GSOC) is designed to detect attacks as they happen and minimise their impact. This centralised security centre monitors our IT systems 24 hours a day, seven days a week, to enable us to respond to cyber threats in real time and provide the highest level of protection. We identify and deal with tens of millions of IT security attacks every month, to protect the information of over 400 million customers and ensure the best network performance.

We recognise that some attacks may be successful and may result in data being compromised. The management of these incidents when they happen is as critical as their prevention. As a result we piloted a new customer privacy impact service this year to ensure that we always put the customer first when incidents occur.

In focus: Vodafone Privacy Risk Management System

- **Supplier review:** Process to review suppliers, such as outsourced call centres and companies that provide hosting platforms and customer data and ensure measures are in place to protect privacy

- **Product and service review:** Processes for taking privacy into account when developing products and services (such as privacy-by-design in mobile applications)

- **Incident management:** Process for managing incidents, such as data security incidents and losses of data

- **Disclosure:** Processes for governing all disclosures of personal information, such as in response to legally mandated government requests and assisting law enforcement authorities

- **Data management and retention:** Processes for managing the lifecycle of data, including destruction and retention of data

- **Privacy impact assessment:** Processes for identifying, prioritising and conducting privacy impact assessments, such as for specific business units, technologies or products

- **Personal information location register:** A register of personal information assets, enabling the effective management of all personal information

- **Critical privacy risk management:** Processes for ensuring that strategies and policies developed to address critical privacy risks are effectively implemented

- **Review and reporting:** Processes to ensure that all the above are reviewed and reported to executive management, with identified improvements included in business plans.

Operational risk management is as much about prevention as it is about detection and treatment. We continue to run a series of coordinated global awareness and engagement programmes designed to ensure our staff understand the vital importance of privacy to our customers, including the role that individual employees have in protecting the security of customers' information.

Our Group Privacy and Security Governance Forum ensures coordination and alignment between our Group-level privacy and security functions, to provide end-to-end protection of customer information throughout its lifecycle within Vodafone's business.

Privacy and security – Performance in 2013/14

Ensuring privacy and security and putting customers in control of their information is critical. Gaining our customers' trust is essential to unlock the potential benefits of using customer data to help grow our business in areas such as mobile commerce and analytics.

At the same time, our continued investment in security measures is becoming more critical as the threat of targeted cyber attacks to businesses and their customers' information increases, as have social engineering attacks as a result of wider use of social media.

Government access to individuals' private communications has come under increased scrutiny. Our policy on law enforcement assistance has been in place since 2010 and we published our Law Enforcement Disclosure report to increase transparency and improve understanding on this issue.

Putting customers in control

Research tells us customers are increasingly concerned that their information is being misused or sold to third parties. The most strongly stated concern is a lack of control and transparency[1]. In 2013/14, we continued our programme of research to improve our understanding of what our customers expect from us in relation to privacy and how we can meet their expectations. We surveyed over 6,500 consumers, 1,500 opinion formers and 150 stakeholders, such as politicians and regulators, across Europe, Africa and Asia to understand their views, attitudes and expectations.

Our research revealed that stakeholders believe companies are abusing their position by taking advantage of consumer ignorance and apathy and that many existing initiatives are seen by stakeholders as companies putting their own interests ahead of consumers. However, consumers conveyed a sense that as the scale of information use changes, they will increasingly trust and use companies that are willing to offer them greater control through tools that are easy to use.

In the UK, a survey of over 1,600 consumers on their attitudes to receiving targeted offers and their views on apps and services that use their data found that customers are comfortable with internet companies, social media and some smartphone apps using their information to target personalised offers and adverts, but are concerned that companies are using their data for more than was initially agreed. While they see value in location services, or services which take into account their gender and age, they dislike sharing information about calling patterns and are more likely to share data in exchange for services which they perceive as valuable.

Our research feeds into our business strategy and is particularly important in shaping our efforts to provide customers with effective tools to manage their personal data. In 2013/14, we developed new tools and capabilities to empower our customers to take more control over their personal information and provide greater transparency. We ran focus groups across five European markets to help us refine these tools to better meet the needs of our customers, and they will be rolled out during 2014/15.

The tools will enable our customers to set their permissions and indicate their preferences across all touch points, including smartphone apps, tablets, online and in store. Bringing all the different choices and information together into a single tool will improve customers' experiences by increasing visibility about how their information is used and shared and putting them in control. It will also help us prepare for the European reform of data protection law by building our technical capability to comply with the anticipated new regulation regarding the way permission to use information is sought from customers.

In addition, we have been investigating how to build privacy management capabilities into our machine-to-machine (M2M) platform and embed privacy features into the next generation of M2M technology (also known as the 'internet of things'). This is forming the foundation of many of the most important developments in our industry, including smart metering, connected cars and wearable technology.

Privacy and security – Performance in 2013/14

Recognising opportunities, not just obligations

Privacy and security can pose risks to our customers and our business, but we also see potential to differentiate our brand not just by managing these risks but by offering products and services designed to support customers in improving their privacy and security.

In 2013/14, we launched and expanded a number of products that demonstrate the potential of privacy and security as a business opportunity:

- **Secure Call:** Vodafone has developed a high-level security app, in partnership with Secusmart, called Secure Call, which uses government-level encryption to help companies of all sizes protect the confidentiality and privacy of their voice calls

- **Secure SIM Data:** Vodafone is the first telecommunications company to introduce a SIM card-based, end-to-end encryption solution for the mobile workplace. Developed in collaboration with Giesecke & Devrient, a leading provider of SIM cards and mobile security solutions, Secure SIM Data encrypts and signs e-mails, documents, data media and VPN connections, offering companies and other organisations enhanced security in their mobile data communications

- **Secure Family:** Vodafone has introduced a new service which helps parents manage their children's access to the internet by, for example, blocking access to certain websites, allocating 'quiet times' when children cannot access the internet at all and alerting parents when children download new apps. This product was carefully designed to prevent it being misused to covertly monitor the online activities of another person. It has launched in Italy and will be introduced in other markets during 2014.

We also continued to explore the economic potential of the vast amount of data that flows across our networks. In March 2014, we publicly outlined the key actions that support Vodafone's overall strategy on big data and analytics at the Cebit industry trade conference. Our privacy and permissions programme (outlined above) is central to this strategy. We believe that putting our customers in control of their personal data is not only essential to ensuring that Vodafone is trusted by our customers, but that we are trusted and respected by potential partners in big data and analytics.

Strengthening our programmes

In 2013/14, we introduced a series of new metrics to measure the maturity of our privacy approach across the Group, extending beyond compliance controls in our Privacy Risk Management Framework (see Our approach) to include employee engagement activities, new research carried out and external engagement with stakeholders. We also introduced a new requirement for local markets to report any major events in 'real time' as part of our commitment to implement the Guiding Principles of the Telecommunications' Industry Dialogue on Freedom of Expression and Privacy (see below).

We continued to focus on developing the competence and professional skills of privacy professionals within the business. In 2013/14, we launched the Vodafone Privacy Learning Centre for our privacy community, and we sponsored 10 privacy officers from our local markets to become Certified Information Privacy Managers through the International Association of Privacy Professionals (IAPP), an internationally recognised qualification in privacy management.

In 2013/14 we focused on strengthening our programme in a number of key areas:

- **Law enforcement and privacy** – We carried out a global audit of compliance with our Law Enforcement Assistance Policy, which included detailed on-site reviews of operational management of law enforcement assistance and compliance with our policy standard, in certain markets. We also reviewed the powers governments have across our markets to order the disclosure of information about our customers, block access to services or prevent the publication of statistics on the number of orders we are subjected to. This review fed into our new Law Enforcement Disclosure report

- **Big data and analytics** – We conducted privacy impact assessments for big data and analytics projects in various countries and issued further guidelines to our local markets on how to increase transparency and provide customers with meaningful choices about how their data is used. We engaged with privacy NGOs to explain our approach and seek their input on innovative ways to build consumer confidence in data analytics applications. We also worked with our local privacy teams to ensure our global policy on the permissions and transparency required to use customer information, adopted in 2013, is integrated in our processes across the business

- **Connected car** – Working closely with Vodafone's machine-to-machine (M2M) team, we conducted an extensive privacy impact assessment which helped to shape the development and design of our connected car platform, Vodafone Vehicle Connect, and usage-based insurance proposition. We will publish a white paper in 2014 on how we designed privacy into our connected car proposition, including recommendations for establishing industry standards around privacy for the emerging connected car and usage-based insurance sectors.

Privacy and security – Performance in 2013/14

> **In focus: Recognition for privacy leadership**
>
> Vodafone's Chief Technology Security Officer in India, Burgess Cooper, received the 2013 Privacy Leader of the Year Award from the Data Security Council of India (DSCI), a not-for-profit organisation that develops and promotes security and privacy best practice. The DSCI stated that:
>
> "Positioning privacy as a brand differentiator and having ensured that a few operating circles [telecoms regions] of Vodafone India are already certified against the BS10012 standard, Mr Burgess Cooper stands out as a leader in the privacy domain."
>
> Find out more about the DSCI Excellence Awards 2013 on their website.

Our efforts to ensure the privacy of our customers' information would be meaningless without our measures to ensure the security of that information. In 2013/14, we continued to strengthen our information security controls and systems and emphasise the link between privacy and security functions at Group and local level. Senior Technology Security Heads improve oversight and mitigation of information security risks, reporting directly to the Chief Technology Security Officers in each local market and working closely with their local Head of Corporate Security.

In 2013/14, we continued to proactively address emerging threats and vulnerabilities through ongoing monitoring and compliance programmes. Remediation plans have been put in place to address deficiencies identified through these programmes. We also recognise that if things do go wrong, we need to act quickly and transparently to protect our customers. We piloted a new customer privacy impact service to ensure that we always put the customer first when incidents occur (see feature below).

> **In focus: Responding quickly and transparently to protect our customers**
>
> In September 2013, Vodafone Germany suffered a highly sophisticated and illegal intrusion into one of its servers in Germany, which resulted in the theft of a limited amount of our German customers' data. In order to ensure that we had the best advice and information about the potential impact of this theft on our customers, we initiated a new rapid investigation service using a specialist independent security consultancy. Within eight hours of the details of the incident being obtained, we had received a report detailing the potential impact on our customers, including the risks of identity theft or fraud, and had received independent advice on the steps we could take to protect our customers. Our communications to our customers referenced this independent advice and we offered our customers free use of an identity theft service to minimise any risk of harm to them.

Creating a cultural shift

Creating awareness of privacy and security across Vodafone is vital to ensure that we provide the best experience for our customers and our global employee awareness campaign, Doing What's Right, was extended across all markets in 2013/14.

We have launched a global security awareness online portal accessible to all employees, containing guidance, policies and procedures on how to work securely at home, in the office and on the move, building on our global security awareness strategy, Protect and Secure.

A series of e-learning courses were developed in 2013/14 and are being rolled out globally in 2014/15, including a course on security and three modules on privacy – Privacy Basics, Privacy-by-Design and Privacy and Human Rights.

In 2013/14, we provided tailored training for all employees in high risk roles, including those who deal with highly confidential information on a daily basis, with particular attention to employees working in call centres and retail stores, and senior leaders.

Our Secure World Award, launched in 2013, gives our security teams from across the Group the opportunity to share inspirational stories on how we are protecting and securing our business, customers and the wider community. The winner of the 2013 award was Vodafone UK, which worked with our distribution partner to establish a new system to prevent the delivery of fraudulent orders, saving Vodafone £1.6 million.

> **In focus: Training employees on security in Turkey**
>
> **Vodafone Turkey launched a new training app in 2013/14 that uses a game to raise employee awareness and understanding of information security practices.**
>
> Many security breaches are the result of human error. By training our people on security best practice, we can prevent these breaches and protect our customers and our business. With this in mind, Vodafone Turkey developed and launched a training app that can be accessed on any tablet device, which aims to promote and engage employees in our Five Simple Steps on information security.

Privacy and security – Performance in 2013/14

In 2013, we ran a year-long Privacy Dialogue to raise awareness and help people across the business live up to the Vodafone Privacy Commitments (see Our approach). Using internal communications tools and social media, this featured a series of activities to bring privacy to life including a global competition inviting employees to respond and vote on a series of dilemmas, illustrating the importance of our commitment to choice, and a campaign that highlighted examples of how important good design is to solving problems, linking to our commitment to Privacy-by-Design.

We also held our fourth annual global Privacy Summit, a week-long series of events in London, Dusseldorf, Johannesburg and Mumbai with workshops and external speakers. The theme of the Summit this year was 'Seizing the Opportunity', emphasising the importance of our privacy programme to the long-term commercial success of the business. Over 500 people from across Vodafone participated in person or online.

Contributing to policy and debate

In 2013/14, we continued to participate in dialogue and debate about the proposed EU Data Protection Regulation and the EU's Cyber security Strategy and the Commission's proposal for a Directive on Network and Information Security.

Following intense public scrutiny, government surveillance has been a topic of much debate. We have a well established policy on assisting law enforcement authorities and throughout 2013/14, we have engaged extensively on this issue with stakeholders in government and across civil society and the media, including through our participation in the Telecommunications' Industry Dialogue on Freedom of Expression and Privacy (see more below).

We participated in the first joint learning forum of the Telecommunications' Industry Dialogue on Freedom of Expression and Privacy and the Global Network Initiative in December 2013. We also took part in workshops in London and Brussels, as part of the Center for Democracy & Technology's project, examining Systematic Government Access to Private-Sector Data, which aims to improve understanding of the nature and scope of government legal powers to order access to data held by private sector organisations. Our inaugural Law Enforcement Disclosure report, and accompanying legal annex, represents Vodafone's latest contribution to this complex and controversial area.

Another emerging issue is the increasing concern about the risks and challenges to consumer privacy from the growth and popularity of mobile apps. Regulators around the world have issued a range of new guidelines to tackle the 'applification' of society. As one of the founder companies behind the GSMA's Mobile Privacy Initiative in 2010, Vodafone has played a leading role in articulating appropriate standards and accountability mechanisms for mobile app deployment, including Vodafone's Mobile Application Privacy Principles and the GSMA's Privacy design guidelines for mobile applications.

In 2013/14, we worked with the Mobile Entertainment Forum, an industry association for companies seeking to monetise their products and services using mobile technology, to create a tool to help mobile app developers implement privacy-by-design requirements. The AppPrivacy tool is available to developers free of charge and includes an automated privacy policy generator that creates a short, simple, user-friendly statement explaining how the app uses personal data.

Vodafone also participates in external programmes to strengthen cyber security standards and define minimum standards that industry and nation states should be expected to adhere to, including government programmes in the EU and US and those run by NGOs such as the Internet Security Alliance.

Implementing industry principles on freedom of expression and privacy

Vodafone is a founding member of the Telecommunications' Industry Dialogue on Freedom of Expression and Privacy, which was launched in March 2013, alongside a collaboration with the Global Network Initiative (GNI) to advance freedom of expression and privacy rights in the telecoms industry. Find out more about the work of the Industry Dialogue during its first year here.

In March 2013, we adopted the Guiding Principles on Freedom of Expression and Privacy, which set out a common approach to dealing with privacy and freedom of expression in a principled, coherent and systematic way across the industry.

The Guiding Principles are closely aligned with Vodafone's own existing Global Law Enforcement Assistance Policy Standard. We continue to work to embed this and the table below sets out Vodafone's status and activities on each of the principles.

Our Law Enforcement Disclosure report also provides more detail on our approach to responding to law enforcement demands.

Privacy and security – Performance in 2013/14

Vodafone's alignment with the Industry Dialogue Guiding Principles on Freedom of Expression and Privacy

Guiding Principle	Vodafone's alignment
Telecommunications companies should, to the fullest extent that does not place them in violation of domestic laws and regulations, including licence requirements and legal restrictions on disclosure:	
1. Create relevant policies, with Board oversight or equivalent, outlining commitment to prevent, assess, and mitigate to the best of their ability the risks to freedom of expression and privacy associated with designing, selling, and operating telecommunications technology and telecommunications services.	Our Privacy Commitments (see Our approach) and Global Policy Standard on Law Enforcement Assistance, with Executive Committee sponsorship, set out the requirements for balancing the potentially conflicting requirements of respecting privacy and assisting law enforcement. During 2013/14, we carried out a global audit of compliance with the policy, which included detailed on-site reviews of operational management of law enforcement assistance and compliance with our policy standard, in certain markets.
2. Conduct regular human rights impact assessments and use due diligence processes, as appropriate to the company, to identify, mitigate and manage risks to freedom of expression and privacy – whether in relation to particular technologies, products, services, or countries – in accordance with the Guiding Principles for the Implementation of the UN 'Protect, Respect and Remedy' framework.	A range of due diligence processes are in place. These include: ● The Strategic Privacy Risk Register (see Our approach), which is at the centre of a formal review process used regularly to assess the most significant privacy risks affecting our business ● A due diligence process undertaken before entering new markets, acquiring businesses or establishing new partnerships. This process incorporates human rights issues such as corruption, respect for privacy, internet freedom, freedom of expression and workers' rights, to assess and highlight the potential impacts or risks associated with entering new markets. In 2013/14, we further strengthened our human rights impact assessment process for potential new markets identified as high risk ● Our Global Advisory Forum brings together a cross-functional group of experts from across Vodafone Group to provide input on potential new products, services and technologies, ensuring that privacy and freedom of expression are taken into account at the earliest stage of the design process.
3. Create operational processes and routines to evaluate and handle government requests that may have an impact on freedom of expression and privacy.	Our Global Policy Standard on Law Enforcement Assistance includes guidance for evaluating and, where necessary, escalating demands and requests from law enforcement agencies.
4. Adopt, where feasible, strategies to anticipate, respond and minimise the potential impact on freedom of expression and privacy in the event that a government demand or request is received that is unlawful or where governments are believed to be misusing products or technology for illegitimate purposes.	The Global Policy Standard on Law Enforcement Assistance provides requirements on challenging law enforcement where we have reasonable grounds to believe the request is not legally mandated or is unlawful. It requires operating companies to bring together the right people to consider the possible impacts and actions and use their judgement.
5. Always seek to ensure the safety and liberty of company personnel who may be placed at risk.	Vodafone's Code of Conduct includes a high-level commitment to protect the health, safety and wellbeing of our employees, and the Global Policy Standard on Law Enforcement Assistance requires potential personal risk to individuals to be considered in any decision to challenge law enforcement demands.

Privacy and security – Performance in 2013/14

| Guiding Principle	Vodafone's alignment
6. Raise awareness and train relevant employees in related policies and processes.	Our Global Policy Standard on Law Enforcement Assistance includes a requirement on training and awareness and we continually raise awareness as part of our wider privacy communications campaigns (see above). A series of e-learning courses were developed in 2013/14 including a module on Privacy and Human Rights. This is being rolled out globally in 2014/15.
7. Share knowledge and insights, where relevant, with all relevant and interested stakeholders to improve understanding of the applicable legal framework and the effectiveness of these principles in practice, and to provide support for the implementation and further development of the principles.	We regularly share knowledge and engage with stakeholders on these issues, for example through the stakeholder engagement activities of the Telecommunications Industry Dialogue. This included a GNI/Industry Dialogue joint learning forum involving approximately 100 participants from companies, government and non-governmental organisations held in Brussels in November 2013. We also provide information through this Group Sustainability Report, our online Privacy Centre and in our new Law Enforcement Disclosure report.
8. Report externally on an annual basis, and whenever circumstances make it relevant, on their progress in implementing the principles, and on major events occurring in this regard.	The Law Enforcement Disclosure report and this Privacy and security section of our Group Sustainability Report covers Vodafone's approach and activities on these issues. During 2013/14, we developed and communicated to our operating companies, guidance on the definition and reporting process for major events. This process will continue to be rolled out during 2014.
9. Help to inform the development of policy and regulations to support freedom of expression and privacy including, alone or in cooperation with other entities, using its leverage to seek to mitigate potential negative impacts from policies or regulations.	The Global Policy Standard on Law Enforcement Assistance covers engagement with government on these issues and we regularly contribute to dialogue on the development of policies on a national and international level.
10. Examine, as a group, options for implementing relevant grievance mechanisms, as outlined in Principle 31 of the UN Guiding Principles for Business and Human Rights.	During 2013/14, the Industry Dialogue companies have shared ideas of how to implement operational-level grievance mechanisms and reviewed examples and guidance from other sectors.

Notes:

1. The Data Dialogue report from UK Think Tank DEMOS

Vodafone's alignment with the Industry Dialogue Guiding Principles on Freedom of Expression and Privacy in this section is included within EY's assurance of Vodafone's Sustainability Report.

For more details see our Assurance Statement.

June 2014

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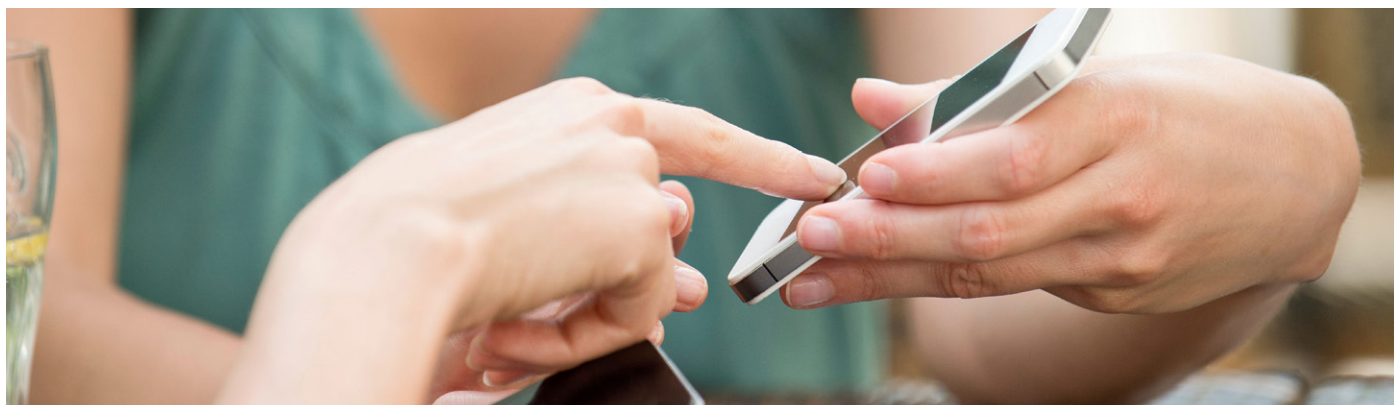
Law Enforcement Disclosure report

Our customers have a right to privacy which is enshrined in international human rights law and standards and enacted through national laws. Respecting that right is one of our highest priorities: it is integral to the Vodafone Code of Conduct which everyone who works for us has to follow at all times.

However, in every country in which we operate, we have to abide by the laws of those countries which require us to disclose information about our customers to law enforcement agencies or other government authorities, or to block or restrict access to certain services. Those laws are designed to protect national security and public safety or to prevent or investigate crime and terrorism, and the agencies and authorities that invoke those laws insist that the information demanded from communications operators such as Vodafone is essential to their work.

Refusal to comply with a country's laws is not an option. If we do not comply with a lawful demand for assistance, governments can remove our licence to operate, preventing us from providing services to our customers. Our employees who live and work in the country concerned may also be at risk of criminal sanctions, including imprisonment. We therefore have to balance our responsibility to respect our customers' right to privacy against our legal obligation to respond to the authorities' lawful demands as well as our duty of care to our employees, recognising throughout our broader responsibilities as a corporate citizen to protect the public and prevent harm.

Complex, controversial – and constantly changing

Communications technologies have evolved rapidly over the last 20 years. Almost three billion people[1] now communicate and share information over electronic communications networks on a regular basis, and vast volumes of data are created and exchanged every second. However, many of the legal powers relied upon by law enforcement agencies, intelligence agencies and other government authorities were first drafted in a much simpler era, when a household shared a single telephone landline, mobile phones were relatively rare and the internet as we understand it today did not exist. Our views on the legislative challenge in many countries are set out later in this report.

The use of those legal powers in the context of today's far more complex electronic communications has proven to be highly controversial. All governments have incorporated national security exceptions into national legislation to give legal powers to agencies and authorities. Some governments have constrained those powers to limit the human rights impact; others have created much wider-ranging powers with substantially greater human rights impacts. Meanwhile, agencies and authorities have the scope to apply advanced analytics techniques to every aspect of an individual's communications, movements, interests and associations – to the extent that such activity is lawful – yielding a depth of real-time insights into private lives unimaginable two decades ago.

In a number of countries, these changes have created tensions between the protection of the citizen's right to privacy and the duty of the state to ensure public safety and security. Those tensions have been heightened as a consequence of the allegations made by the former US National Security Agency (NSA) contractor Edward Snowden. Media reports of widespread government surveillance and data 'harvesting' by intelligence agencies have triggered a significant public debate about the transparency, proportionality and legitimacy – even lawfulness – of the alleged activities of a number of high-profile agencies.

Questions have also been asked about the role of communications operators such as Vodafone in support of those activities. We hope that this report will provide some of the most important answers, although there will undoubtedly be some questions that we cannot answer for reasons that we explain later in this report.

What we are publishing, and why

This is our inaugural Law Enforcement Disclosure report. We are also one of the first communications operators in the world to provide a country-by-country analysis of law enforcement demands received based on data gathered from local licensed communications operators. We will update the information disclosed in this report annually. We also expect the contents and focus to evolve over time and would welcome stakeholders' suggestions as to how they should do so.

Privacy and security – Law Enforcement Disclosure report

The report encompasses all 29 operating businesses directly controlled by Vodafone (including our joint ventures in Australia, Kenya and Fiji), in which we have received a lawful demand for assistance from a law enforcement agency or government authority between 1 April 2013 and 31 March 2014. We have not included countries in which we operate where no such demands were received, nor have we included countries where there may be some form of Vodafone brand presence (for example, through a partner market relationship) but where Vodafone does not own or control a licensed communications operator.

We have focused on the two categories of law enforcement demands which account for the overwhelming majority of all such activity: lawful interception; and, access to communications data. Both of these terms are explained later in this report. We have not included statistical data on the number of orders received to block or restrict access to content or services (further details of which are addressed below). We are exploring options to include this information in future reports, although it is important to note that there are complexities involved in collating the information required (content filters can be applied at various points within a country's various networks, some of which may not be visible to Vodafone) and a number of countries are likely to prohibit publication of this information.

The report is intended to:

- explain the principles, policies and processes we follow when responding to demands from agencies and authorities that we are required to assist with their law enforcement and intelligence-gathering activities;

- explain the nature of some of the most important legal powers invoked by agencies and authorities in our countries of operation;

- disclose the aggregate number of demands we received over the last year in each of our countries of operation unless prohibited from doing so or unless a government or other public body already discloses such information (an approach we explain later in this report); and

- cite the relevant legislation which prevents us from publishing this information in certain countries.

Compiling this report has been a very complex and challenging endeavour. Given the sensitivity of any discussion of agency or authority activity in certain countries, it has also not been without risk. We set out to create a single disclosure report covering 29 countries on a coherent basis. However, after months of detailed analysis, it has become clear that there is, in fact, very little coherence and consistency in law and agency and authority practice, even between neighbouring EU Member States. There are also highly divergent views between governments on the most appropriate response to public demands for greater transparency, and public attitudes in response to government surveillance allegations can also vary greatly from one country to another.

The transparency challenge

Law enforcement and national security legislation often includes stringent restrictions preventing operators from disclosing any information relating to agency and authority demands received, including disclosure of aggregate statistics. In many countries, operators are also prohibited from providing the public with any insight into the means by which those demands are implemented. These restrictions can make it very difficult for operators to respond to public demand for greater transparency. We provide further insight into the nature of those prohibitions later in this report.

We respect the law in each of the countries in which we operate. We go to significant lengths to understand those laws and to ensure that we interpret them correctly, including those that may be unpopular or out of step with prevailing public opinion but which nevertheless remain in force. In this report, we have therefore set out the laws and practices, on a country-by-country basis, that limit or prohibit disclosure. We believe this form of transparency is as important as the publication of aggregate demand statistics themselves in terms of ensuring greater public understanding in this area.

In a number of countries, the law governing disclosure is unclear. Under those circumstances, we have approached the authorities to seek clarity, wherever feasible. Some have given their assent to disclosure of aggregate statistical information about demands received. However, others have told us that we cannot publish this information. If we were to defy the responses received from the latter, we believe it is likely that our local businesses would face some form of sanction and that in some countries, individual Vodafone employees would be put at risk. Therefore, in our report this year we make no disclosure wherever the authorities have told us that we cannot do so. Similarly, where the authorities have not responded to our request for guidance or where the security situation means that any form of engagement with the authorities carries an unacceptable level of risk, we have not disclosed aggregate demand information out of concern for the safety of our employees. However, wherever possible, we will re-engage with the relevant authorities to seek updated guidance ahead of the publication of this report in future years. It is therefore possible that the level of disclosure permitted within the countries concerned may change over time as a result of that process.

Who should publish: governments or operators?

In our view, it is governments – not communications operators – who hold the primary duty to provide greater transparency on the number of agency and authority demands issued to operators. We believe this for two reasons.

First, no individual operator can provide a full picture of the extent of agency and authority demands across the country as a whole, nor will an operator understand the context of the investigations generating those demands. It is important to capture and disclose demands issued to all operators: however, based on our experience in compiling this report, we believe it is likely that a number of other local operators in some of our countries of operation would be unwilling or unable to commit to the kind of disclosures made by Vodafone in this report.

Privacy and security – Law Enforcement Disclosure report

Second, different operators are likely to have widely differing approaches to recording and reporting the same statistical information. Some operators may report the number of individual demands received, whereas others may report the cumulative number of targeted accounts, communications services, devices or subscribers (or a varying mixture of all four) for their own operations. Our views on the scope for considerable inconsistency in this area are explained later in this report. Similarly, multiple different legal powers may be invoked to gain access to a single customer's communications data: this could legitimately be recorded and disclosed as either multiple separate demands, or one.

To add to the potential for confusion, an agency or authority might issue the same demand to five different operators; each operator would record and disclose the demand it received in its own way (with all of the variations in interpretation explained below); and the cumulative number of all operators' disclosures would bear little resemblance to the fact of a single demand from one agency. Moreover, in countries where the law on disclosure is unclear, some operators may choose not to publish certain categories of demand information on the basis of that operator's appetite for legal risk, whereas another operator may take a different approach, leading to two very different data sets in the public domain.

Shortly before this report was published, other local operators in two of the countries in which we operate – Germany and Australia – began to publish their own law enforcement disclosure reports. Those reports included statistical information about some (but not all) types of agency and authority demands for assistance received by the operator in question. In both countries, the authorities also publish statistical information spanning all operators.

We have compared the statistical information we hold for our own operations in the two countries in question with the information recently published by other local operators in those countries. For some categories of agency and authority demand, the volumes involved seem closely comparable between Vodafone and other local operators, although as explained above, there is a significant risk of under or over-counting overlapping demands issued to multiple operators. Furthermore, it is also clear that certain categories of agency and authority demand have been omitted from local operators' publications, either to comply with legal restrictions (in the case of Australia) or (in Germany) for reasons not disclosed to us.

In our view, inconsistent publication of statistical information by individual operators amounts to an inadequate and unsustainable foundation for true transparency and public insight. There is a substantial risk that the combination of widely varying methodologies between operators (leading to effectively irreconcilable raw numbers) and the potential for selective withholding of certain categories of agency and authority demand (for reasons which may not themselves be fully transparent) would act as a significant barrier to the kind of meaningful disclosure sought by the public in an increasing number of countries.

We believe that regulators, parliaments or governments will always have a far more accurate view of the activities of agencies and authorities than any one operator. However, our belief is not without qualification. In order for publication of this statistical information by the authorities to be meaningful and reliable, in our view it must:

- be independently scrutinised, challenged and verified prior to publication;

- clearly explain the methodology used in recording and auditing the aggregate demand volumes disclosed;

- encompass all categories of demand, or, where this is not the case, clearly explain those categories which are excluded together with an explanation of the rationale supporting their exclusion; and

- encompass demands issued to all operators within the jurisdiction in question.

We believe governments should be encouraged and supported in seeking to adopt this approach consistently across our countries of operation. We have therefore provided links to all aggregate statistics currently published by governments in place of our own locally held information (where disclosure is legally permissible at all) and are already engaged in discussions with the authorities in a number of countries to enhance the level of transparency through government disclosure in future.

Separately, where the authorities currently do not publish aggregate statistical information but where we believe we can lawfully publish in our own right, we have disclosed the information we hold for our own local operations. In at least 10 of the 29 countries covered, the disclosures we make in this report represent the first time that this kind of information has been placed into the public domain by a locally licensed operator. However, our concerns about the inadequacy of this kind of disclosure remain. Wherever possible, we will therefore seek to work with other local operators to develop a consistent cross-industry recording and reporting methodology and will engage with governments to make the case for a central, independent and verified source of statistical information spanning all operators. We look forward to updating this report with the outcomes from those discussions.

Finally, we would emphasise that it is not possible to draw any meaningful conclusions from a comparison of one country's statistical information with that disclosed for another. Similar types and volumes of agency and authority demands will be disclosed (where public reporting is permitted at all) in radically different ways from one country to the next, depending on the methodology used. Similarly, changes in law, technology or agency or authority practice over time may make year-on-year trend data comparisons difficult in future reports.

Privacy and security – Law Enforcement Disclosure report

What statistics should be reported: warrants or targets?

In our country-by-country law enforcement disclosure section, we have focused on the number of warrants (or broadly equivalent legal mechanism) issued to our local businesses as we believe this is the most reliable and consistent measure of agency and authority activity currently available. The relatively small number of governments (9 out of the 29 countries covered in this report) that publish aggregate statistics also collate and disclose this information on the basis of warrants issued.

Each warrant can target any number of different subscribers. It can also target any number of different communications services used by each of those subscribers and – in a modern and complex all-IP environment – it can also target multiple devices used by each subscriber to access each communications service. Additionally, the same individual can be covered by multiple warrants: for example, more than one agency or authority may be investigating a particular individual. Furthermore, the legal framework in some countries requires agencies and authorities to obtain a new warrant for each target service or device, even if those services or devices are all used by the same individual of interest. Note that in the majority of countries, warrants have a time-limited lifespan beyond which they must either be renewed or allowed to lapse.

As people's digital lives grow more complex and the number of communications devices and services used at home and work on a daily basis continues to increase, the ratio of target devices and services accessed to warrants issued will continue to increase. To illustrate this with a hypothetical example:

- a single warrant targets five individuals;

- each individual subscribes to an average of eight different communications services provided by up to eight different companies: a landline phone line, a mobile phone, two email accounts, two social networking accounts and two 'cloud' storage accounts; and

- each individual owns, on average, two communications devices fitted with a SIM card (a smartphone and a tablet) in addition to a landline phone and a laptop.

In the hypothetical example above, that one warrant could therefore be recorded as more than 100 separate instances of agency and authority access to individual services on individual devices used by individual subscribers. The scope for miscounting is immense.

In our view, the most robust metric available is the number of times an agency or authority demand for assistance is *instigated* – in effect, a formal record of each occasion that the state has decided it is necessary to intrude into the private affairs of its citizens – not the extent to which those warranted activities then range across an ever-expanding multiplicity of devices, accounts and apps, access to each of which could be recorded and reported differently by each company (and indeed each agency or authority) involved.

We therefore believe that disclosure of the number of individual warrants served in a year is currently the least ambiguous and most meaningful statistic when seeking to ensure public transparency. However, over time it is possible that an alternative means of providing accurate and reliable aggregate statistical data will emerge as a result of our engagement with other operators and with governments in those countries where publication of this information is permitted.

Privacy and security – Law Enforcement Disclosure report

Security and secrecy: The limits on what local licensed operators can disclose

Beyond a small group of specialists, very few people understand the laws invoked by agencies and authorities when requiring a local licensed communications operator such as Vodafone to provide assistance. In part, that lack of understanding arises because those laws also impose strict secrecy obligations on those involved in the processes: the more you know, the less you are allowed to say.

Our decision to make the disclosures set out in this report is therefore not without risk. In some countries, providing what to many observers would seem to be relatively anodyne information about the legal powers and processes used by agencies and authorities could lead to criminal sanctions against Vodafone employees. The main restrictions on disclosure are set out below.

Obligations on individual employees managing agency and authority demands

In each of our operating companies around the world, a small number of employees are tasked with liaising with agencies and authorities in order to process demands received. Those employees are usually security-cleared to a high level and are bound by law to absolute secrecy. They are not permitted to discuss any aspect of a demand received with their line management or any other colleagues, nor can they reveal that a demand has been received at all, as doing so could potentially compromise an active criminal investigation or undermine measures to protect national security. Additionally, in some countries, they cannot even reveal that specific law enforcement assistance technical capabilities have been established within their companies. In many countries, breaching those restrictions would be a serious criminal offence potentially leading to imprisonment.

Furthermore, even the limited number of employees aware of a demand will have little or no knowledge of the background to, or intended purpose of, that demand. Similarly, the individual employees involved will not be aware of all aspects of the internal government approval process involved, nor will they know whether or not an agency or authority is cooperating with – or working on behalf of – an agency or authority from another jurisdiction when issuing a demand using Mutual Legal Assistance Treaty (MLAT) arrangements concluded between governments.

All such demands are processed 'blind' with no information whatsoever about the context. Whilst we can – and do – challenge demands that are not compliant with legal due process or seem disproportionate, it is therefore not possible for Vodafone to ascertain the intended purpose of any demand received. Equally, we cannot assess whether or not the information gathered as a result of a demand will be used in a manner which is lawful, nor, in most cases, can we make any judgement about the potential consequences of complying (or failing to comply) with an individual demand.

It is also important to note that in seeking to establish whether or not an individual has been involved in unlawful activity, agency and authority demands may encompass access to information regarding many other individuals who are not suspected of any crime. The confidentiality obligations imposed on operators are therefore also intended to prevent inadvertent disclosure of private information related to individuals who are not suspects but whose data may help further an investigation or prove that they are a victim.

Restrictions on disclosing technical and operational systems and processes

Many countries require communications operators such as Vodafone to comply with specific technical and operating requirements designed to enable access to customer data by agencies and authorities. There are wide-ranging legal restrictions prohibiting disclosure of any aspect of the technical and operating systems and processes used when complying with agency and authority demands. In some countries, it is unlawful even to reveal that such systems and processes exist at all.

The small number of Vodafone employees familiar with the systems and processes involved are prohibited from discussing details of these with line management or other colleagues, and the circulation within the company of general information related to those systems and processes is heavily restricted or classified.

Restrictions on disclosing details of the aggregate number of demands received

In some of our countries of operation, we are prohibited in law from disclosing aggregate statistics relating to the total number of demands received over a 12 month period. In others, the law may expressly prohibit the disclosure that law enforcement demands are issued at all. In a number of countries where the law on aggregate disclosure is unclear, the relevant authorities have told us that we must not publish any form of aggregate demand information. We believe that defying those instructions could lead to some form of sanction against our local business and – in some countries – would also present an unacceptable level of risk for individual employees, to whom Vodafone owes a duty of care.

Whilst we have included factors relevant to national security powers in compiling this report, it is important to note that many countries prohibit the publication of any form of statistical information relating to national security demands.

Further details can be found in the country-by-country law enforcement disclosure section.

Privacy and security – Law Enforcement Disclosure report

How we work with law enforcement agencies and government authorities

At Vodafone, our customers' privacy is paramount. We have strict governance controls in place across all of our businesses worldwide to ensure the protection of our customers' data and communications. We are committed to following the UN Guiding Principles for Business and Human Rights. We are also a founding member of the Telecommunications Industry Dialogue on Freedom of Expression and Privacy (the 'Industry Dialogue'). The Industry Dialogue is a group of global communications operators who work together and in collaboration with the Global Network Initiative to address a range of human rights and privacy challenges. We are a signatory to the Industry Dialogue's Guiding Principles on Freedom of Expression and Privacy, which defines a common approach to be taken by operators when dealing with demands from governments, agencies or authorities that may affect our customers' privacy and freedom of expression. Further details of Vodafone's policies and principles in these areas can be found in the Privacy and security section of the sustainability report.

As we explain in our Privacy and law enforcement principles below, Vodafone is committed to meeting its obligations to respond to agencies' and authorities' lawful demands but will not go beyond what is mandated in law (other than under specific and limited circumstances, again outlined below).

Abiding by those principles can be challenging in certain countries at certain times. In practice, laws governing agencies' and authorities' access to customer data are often both broad and opaque, and – as explained below – frequently lag the development and use of communications technology. Furthermore, the powers in question are often used in the context of highly sensitive and contentious developments – for example, during major civil unrest or an election period – which means that Vodafone colleagues dealing with the authorities in the country in question can be put at risk for rejecting a demand on the basis that it is not fully compliant with the law.

We can – and do – refuse to comply with demands that are unlawful. The majority of rejections tend to be for defects in the legal process or documentation or in response to demands which appear to be issued under an inappropriate legal power. We do not yet have sufficiently robust reporting mechanisms to record all such refusals, so these are not listed in this report. We will consider how best to address this shortcoming where possible, in future reports.

Demands for assistance made by agencies or authorities acting beyond their jurisdiction will always be refused, in line with our principles. It is important to note that we have not, in fact, received any such cross-border demands. Were we ever to receive such a demand, in providing our refusal in response, we would inform the agency or authority that they should consider any MLAT processes to seek the cooperation of the relevant domestic agency or authority with the necessary lawful mandate.

As a general principle, our dealings with agencies and authorities fall into one of the three categories below. If we receive a demand for assistance which falls outside these three categories, we will challenge it and refuse to comply.

Mandatory compliance with lawful demands
We will provide assistance in response to a demand issued by an agency or authority with the appropriate lawful mandate and where the form and scope of the demand is compliant with the law. Each of our local operating businesses is advised by senior legal counsel with the appropriate experience to ensure compliance with both the law and with our own principles.

Emergency and non-routine assistance
Our policy allows for the provision of immediate emergency assistance to agencies and authorities on a voluntary basis where it is clear that it is overwhelmingly in the public interest for us to do so. These are very specific circumstances where there is an imminent threat to life or public safety but where existing legal processes do not enable agencies and authorities to react quickly enough. Common examples include a police request for assistance whilst a kidnapping is in progress or to locate a missing child.

Under these circumstances, we will respond immediately to a request for assistance so long as we are satisfied that the agency making the request has the legal authority to do so. We will then require the formal lawful demand to follow soon thereafter with retrospective effect. We are clear in our policy that discretionary assistance is granted on an exceptional basis and cannot be used by agencies and authorities as a routine alternative to compliance with legal due process. All such instances are scrutinised carefully under our governance rules.

Protecting our customers and our networks
We work with law enforcement agencies on a voluntary basis to seek to prevent or investigate criminal and hacker attacks against our networks and to prevent or investigate attempts to defraud our customers or steal from Vodafone. We also cooperate on a voluntary basis on broader matters of national infrastructure resilience and national security. We have similar arrangements with banks and our peers under which we share intelligence on how best to protect our customers and our businesses from illegal acts. We believe that this form of cooperation – which does not involve providing agencies with any access to customer data – is strongly in the interests of our customers and the public as a whole. It is important to note that this form of cooperation does not involve providing agencies and authorities with any access to customer data: moreover, we believe it is strongly in the interests of our customers and the public as a whole.

Privacy and security – Law Enforcement Disclosure report

The Vodafone privacy and law enforcement principles

We do not:

- allow any form of access to any customer data by any agency or authority unless we are legally obliged to do so;

- go beyond what is required under the law when responding to demands from any agency or authority for access to customer data; or

- accept any instruction from any agency or authority acting beyond its jurisdiction or legal mandate.

We do:

- insist that all agencies and authorities comply with legal due process;

- scrutinise and, where appropriate, challenge the legal powers used by agencies and authorities in order to minimise the impact of those powers on our customers' right to privacy and freedom of expression;

- honour international human rights standards to the fullest extent possible whenever domestic laws conflict with those standards;

- communicate publicly any threats or risks to our employees arising as a consequence of our commitment to these principles, except where doing so would increase those risks; and

- seek to explain publicly the scope and intent of the legal powers available to agencies and authorities in all countries where it is lawful to do so.

Our policy provides everyone who works for Vodafone with a global governance framework and a set of criteria which must be applied to all interactions with agencies and authorities. In defining our policy (which we update regularly as laws and technologies evolve), we have three objectives, to:

Ensure a robust assessment of the scope of the law
We seek to have as clear an understanding as possible of the scope of – and limits on – the legal powers granted to each country's agencies and authorities in order to ensure we do not exceed what is lawfully required when responding to a demand for assistance.

Ensure appropriate internal oversight and accountability
Vodafone's overall approach to engagement with agencies and authorities is overseen at the most senior level of executive management to ensure effective governance and accountability. However, it is important to note that individual directors' knowledge of specific demands, systems and processes will be limited as a consequence of the restrictions on internal disclosure outlined above.

Address the complexities of law enforcement across multiple countries
Laws designed to protect national security and prevent or investigate crime vary greatly between countries, even within the EU. As a global business operating under local laws in multiple countries and cultures, Vodafone faces a constant tension in seeking to enforce a set of global principles and policies which may be at odds with the attitudes, expectations and working practices of governments, agencies and authorities in some countries. Our global governance framework is designed to manage that tension in a manner which protects our customers and reduces the risks to our employees without compromising our principles.

Privacy and security – Law Enforcement Disclosure report

Communications technology and governments

It is inevitable that legislation lags behind technological innovation in the fast-moving and complex era of internet protocol-based networks, cloud technologies and the proliferation of connected devices in an 'internet of things'. We recognise that agencies and authorities can face significant challenges in trying to protect the public from criminals and terrorists within a legislative framework that pre-dates many of the technologies that are now central to people's daily lives.

We think many governments could do more to ensure that the legal powers relied upon by agencies and authorities are fit for the internet age. In our view, legislative frameworks must be:

- tightly targeted to achieve specific public protection aims, with powers limited to those agencies and authorities for whom lawful access to customer data is essential rather than desirable;

- proportionate in scope and defined by what is necessary to protect the public, not by what is technically possible; and

- operationally robust and effective, reflecting the fact that households access the internet via multiple devices – from games consoles and TVs to laptops, tablets and smartphones – and each individual can have multiple online accounts and identities.

We also believe that governments should:

- balance national security and law enforcement objectives against the state's obligation to protect the human rights of all individuals;

- require all relevant agencies and authorities to submit to regular scrutiny by an independent authority empowered to make public – and remedy – any concerns identified;

- enhance accountability by informing those served with demands of the identity of the relevant official who authorised a demand and by providing a rapid and effective legal mechanism for operators and other companies to challenge an unlawful or disproportionate demand;

- amend legislation which enables agencies and authorities to access an operator's communications infrastructure without the knowledge and direct control of the operator, and take steps to discourage agencies and authorities from seeking direct access to an operator's communications infrastructure without a lawful mandate;

- seek to increase their citizens' understanding of the public protection activities undertaken on their behalf by communicating the scope and intent of the legal powers enabling agencies and authorities to access customer data; and

- publish regular updates of the aggregate number of law enforcement demands issued each year – meeting the proposed criteria we specify earlier in this report – or at the least allow operators to publish this information without risk of sanction and – as we also explain earlier – on the basis of an agreed cross-industry methodology.

Separately, it is important to note that there can be considerable capital costs associated with technical compliance with law enforcement demands, which an operator is usually unable to recover. There are also considerable operating costs, which an operator may be able to recover from the government in a minority of cases, but most of which cannot be recovered. Vodafone therefore does not – and cannot – seek to make a profit from law enforcement assistance.

Privacy and security – Law Enforcement Disclosure report

Agency and authority powers: The legal context

Vodafone is headquartered in the UK: however, in legal terms, our business consists largely of separate subsidiary companies, each of which operates under the terms of a licence or authorisation issued by the government of the country in which that subsidiary is located. Whilst there are some laws which apply across some or all of our businesses (for example, our European operating companies are subject to EU law as well as local laws, and laws such as the UK Bribery Act apply to all our operations), it is important to note that each subsidiary is established in, and operated from, the local market it serves and is subject to the same domestic laws as any other local operator in that country.

All countries have a wide range of domestic laws which govern how electronic communications networks must operate and which determine the extent to which law enforcement agencies and government authorities can intrude into or curtail privacy or freedom of expression.

In some countries those powers are contained within specialist statutes. In others, they may be set out in the terms of a communications company's operating licence. They may also be distributed across a wide range of legislative orders, directives and other measures governing how agencies and authorities carry out their functions.

However enacted, these powers are often complex, opaque and convoluted. A comprehensive catalogue of all applicable laws across all of our countries of operation would be so vast as to be inaccessible to all but the most determined of legal academics: for that reason, in our country-by-country law enforcement disclosure section we have focused on the most salient legislation only. Even with a focus on the most relevant legislative elements alone, the laws can be difficult for anyone other than a specialist lawyer to understand – and sometimes even the specialists can struggle. A summary of the relevant legislation, country by country, can be found in the Annexe.

Despite this complexity, there are a number of areas which are common to many of the legislative frameworks in our countries of operation, the most significant of which we summarise below.

Provision of lawful interception assistance

In most countries, governments have powers to order communications operators to allow the interception of customers' communications. This is known as 'lawful interception' and was previously known as 'wiretapping' from a past era when agents would connect their recording equipment to a suspect's telephone line. Lawful interception requires operators to implement capabilities in their networks to ensure they can deliver, in real time, the actual content of the communications (for example, what is being said in a phone call, or the text and attachments within an email) plus any associated data to the monitoring centre operated by an agency or authority.

Lawful interception is one of the most intrusive forms of law enforcement assistance, and in a number of countries agencies and authorities must obtain a specific lawful interception warrant in order to demand assistance from an operator. In some countries and under specific circumstances, agencies and authorities may also invoke broader powers when seeking to intercept communications received from or sent to a destination outside the country in question. A number of governments have legal powers to order an operator to enable lawful interception of communications that leave or enter a country without targeting a specific individual or set of premises.

Technical implementation of lawful interception capabilities

In many countries, it is a condition of an operator's licence that they implement a number of technical and operational measures to enable lawful interception access to their network and services quickly and effectively on receipt of a lawful demand from an agency or authority with the appropriate legal mandate.

Wherever legally permitted to do so, we follow the lawful interception technical standards set down by the European Telecommunications Standards Institute (ETSI), which define the separation required between the agency or authority monitoring centre and the operator's network. The ETSI standards are globally applicable across fixed line, mobile, broadcast and internet technologies, and include a formal handover interface to ensure that agencies and authorities do not have direct or uncontrolled access to the operators' networks as a whole. We continuously encourage agencies and authorities in our countries of operation to allow operators to conform to ETSI technical standards when mandating the implementation of lawful interception functionality within operators' networks.

In most countries, Vodafone maintains full operational control over the technical infrastructure used to enable lawful interception upon receipt of an agency or authority demand. However, in a small number of countries the law dictates that specific agencies and authorities must have direct access to an operator's network, bypassing any form of operational control over lawful interception on the part of the operator. In those countries, Vodafone will not receive any form of demand for lawful interception access as the relevant agencies and authorities already have permanent access to customer communications via their own direct link. We describe above our views on those arrangements and explain the restrictions imposed on internal discussion of the technical and operational requirements on the Vodafone website.

Vodafone's networks are designed and configured to ensure that agencies and authorities can only access customer communications within the boundaries of the country in question. They cannot access customer communications on other Vodafone networks in other countries.

Privacy and security – Law Enforcement Disclosure report

Disclosure of communications-related data ('metadata')

Whenever a device accesses a communications network, small packets of data related to that device's activities are logged on the systems of the operator responsible for the network. This 'metadata' is necessary for the network to function effectively; for example, in order to route a call to a mobile phone, the network needs to know the mobile network cell site that the device is connected to. Operators also need to store metadata – such as information about call duration, location and destination – to ensure customers are billed correctly. This metadata can be thought of as the address on the outside of an envelope; the communications content (which can be accessed via a lawful interception demand, as explained above) can be thought of as the letter inside the envelope.

It is possible to learn a great deal about an individual's movements, interests and relationships from an analysis of metadata and other data associated with their use of a communications network, which we refer to in this report generally as 'communications data' – and without ever accessing the actual content of any communications. In many countries, agencies and authorities therefore have legal powers to order operators to disclose large volumes of this kind of communications data.

Lawful demands for access to communications data can take many forms. For example, police investigating a murder could require the disclosure of all subscriber details for mobile phone numbers logged as having connected to a particular mobile network cell site over a particular time period, or an intelligence agency could demand details of all users visiting a particular website. Similarly, police dealing with a life-at-risk scenario, such as rescue missions or attempts to prevent suicide, require the ability to demand access to this real-time location information.

In a small number of countries, agencies and authorities have direct access to communications data stored within an operator's network. In those countries, Vodafone will not receive any form of demand for communications data access as the relevant agencies and authorities already have permanent access to customer communications via their own direct link.

Retention of communications data

Communications operators need to retain certain communications data for operational reasons, as described above. Subject to any applicable privacy or data protection laws, operators may also use communications data for marketing and other business purposes, for example, to promote certain products or services likely to appeal to a particular customer based on their previous activity. Vodafone has developed strict rules governing the use of communications data for marketing purposes which we explain in detail in the Privacy and security of our sustainability report.

In some countries, operators are required by law to retain communications data for a specific period of time solely in order to fulfil the lawful demands of agencies and authorities who require access to this data for investigation purposes. For example, since 2006, EU legislation (the Data Retention Directive 2006/24/EC) has required Member States to implement laws that mandate the retention of certain communications data. However, a recent European Court of Justice ruling has found that the Data Retention Directive is incompatible with the Charter of Fundamental Rights of the European Union. The full implications of this ruling for Member States with data retention laws derived from the Directive are still being considered by governments at the time of the publication of this report.

In addition, in many countries mobile operators are obliged to collect information to verify customers' identities. This is primarily to counter the use of anonymous pre-paid mobile phone services where no identity information is otherwise needed to bill for the service.

Decryption of protected data

Electronic communications may be encrypted in some form. This can prevent agencies and authorities from reading the data disclosed to them under applicable legal powers. Encryption can be applied by the operator of the communications network, or it can be applied by the many devices, services and applications used by customers to encrypt data that is transmitted and stored. Several countries empower agencies and authorities to require the disclosure of the encryption 'keys' needed to decrypt data. Non-compliance is a criminal offence. It is important to note that an operator typically does not hold the key for data that has been encrypted by devices, services and applications which the operator does not control: furthermore there is no legal basis under which the operator could seek to gain access to those keys.

Search and seizure powers

In most countries, the courts have the power to issue a variety of search and seizure orders in the context of legal proceedings or investigations. Those orders can extend to various forms of customer data, including a company's business records. The relevant legal powers may be available to members of the public in the course of civil or criminal legal proceedings as well as to a wide range of agencies and authorities.

Privacy and security – Law Enforcement Disclosure report

National security orders

The protection of national security is a priority for all governments. This is reflected in legislative frameworks which grant additional powers to agencies and authorities engaged in national security matters which typically exceed those powers available for domestic law enforcement activities.

For example, in many countries, domestic law enforcement legislation seeks to achieve some form of balance between the individual's right to privacy and society's need to prevent and investigate crime. Those considerations have much less weight in the context of threats to the state as a whole, particularly when those threats are linked to foreign nationals in foreign jurisdictions.

Powers to block or restrict access to communications

IP/URL content blocking and filtering

Some forms of internet content may infringe a country's laws or social norms. Consequently, many countries have laws which enable agencies and authorities to mandate a block on access to content on certain sites (identified by their IP address ranges or URLs), typically by ordering communications providers to apply a filter on their networks. Child abuse content is widely blocked – including on a voluntary basis under the system administered by the Internet Watch Foundation – but other content may be filtered according to a 'block list' maintained by the relevant agencies or authorities.

Take-down of particular services

Many countries empower agencies and authorities to order the take-down of specific electronic communications services for reasons such as a government's desire to restrict access to information it considers harmful to social order. Messaging services and social networks are familiar targets for these take-down actions, although short of a complete network shutdown (addressed below) these measures rarely prove effective over the long-term given the ease with which internet traffic can be re-routed dynamically.

A number of countries also retain legal powers requiring mobile operators to prioritise communications from designated SIMs in mobile phones used by the emergency services at the scene of a major incident where networks can become congested. Whilst such powers are relatively commonplace, in reality they are rarely used and are only effective if the emergency services have supplied operators with an up-to-date list of the SIMs to be prioritised.

Emergency or crisis powers

Many countries have special legal powers that can be invoked at a time of national crisis or emergency, such as a major natural disaster or outbreak of violent civil unrest. The use of those powers typically requires formal approval from the country's parliament (or legislative equivalent). Once invoked, agencies and authorities are empowered to take direct control of a wide range of activities in order to respond to the crisis or emergency.

Whilst emergency or crisis powers are intended to be used for a limited period of time, their effects can be significant. These laws can be used to restrict or block all forms of electronic communication, either in a specific location or across the country as a whole. In January 2011, the Egyptian government ordered all operators – including Vodafone – to shut down their networks entirely. An overview of these events and Vodafone's response can be found on the Vodafone website.

Further details about the legal powers available to agencies and authorities in each of our countries of operation are set out in our country-by-country law enforcement disclosure section, together with statistical information about the number of demands received.

Notes:

1. Source: ITU: www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx

Privacy and security – Law Enforcement Disclosure report

Country-by-country disclosure of law enforcement assistance demands

Introduction

As explained earlier in this report, Vodafone's global business consists largely of a group of separate subsidiary companies, each of which operates under the terms of a licence or other authorisation issued by the government of the country in which the subsidiary is located, and each of which is subject to the domestic laws of that country.

In this section of the report, we provide a country-by-country insight into the nature of the local legal regime governing law enforcement assistance, together with an indication of the volume of each country's agency and authority demands wherever that information is available and publication is not prohibited. In addition, a summary of some of the most relevant legal powers in each of our countries of operation can be found in our legal Annexe.

As we explain earlier in this report, this has been a difficult section to compile. There is no established model to follow: few international communications operators have published a country-by-country report of this kind; and very few have done so on the basis of data gathered by the local licensed communications operator. Additionally, there are no standardised methods for categorising the type and volume of agency and authority demands; different governments, parliaments, regulators, agencies and authorities apply a variety of definitions when authorising or recording the types of demands outlined earlier in this report, as do operators themselves when receiving and recording those demands.

The need for governments to balance their duty to protect the state and its citizens against their duty to protect individual privacy is now the focus of a significant global public debate. We hope that – despite the shortcomings described above – the country-by-country disclosures in this report will help inform that debate.

How we prepared this report

Each of our local operating businesses has a nominated Disclosure Officer responsible for the management and administration of law enforcement assistance in response to a demand. The information collated and published here (wherever available and wherever publication has not been prohibited) has been overseen by the relevant Disclosure Officer. As explained earlier in this report, only local Vodafone employees with a high level of government security clearance will ever be made aware of specific lawful demands issued by agencies and authorities, and even then they will not typically be made aware of the context of any demand. It is therefore not possible for the external assurers for the Vodafone Group Sustainability Report, EY, to provide any form of independent verification of the statistical information published in this section. However, the integrity and operation of our law enforcement disclosure systems are subject to verification under Vodafone's own internal audit controls.

For the two categories of agency and authority demand reported here – lawful interception and communications data (as explained earlier in this report) – we have robust processes in place to manage and track each demand and to gather statistical information on aggregate volumes.

It should be noted that, whilst the statistics for communications data demands are overwhelmingly related to communications metadata, the statistics we report also include demands for other types of customer data such as name, physical address and services subscribed. Our reporting systems do not necessarily distinguish between the types of data contained in a demand, and in some countries a single demand can cover several different types of data.

We have also conducted a global internal review to analyse, on a country-by-country basis, the extent to which we can lawfully publish aggregate volumes of law enforcement assistance demands at a local level. That review involved Vodafone's senior local legal counsel in each of the 29 countries covered here.

Additionally, we instructed the international law firm, Hogan Lovells[2], to support us in reviewing and verifying the legal opinions received from each of our operating country businesses. Hogan Lovells coordinated this work through its network of local law firms across Vodafone's countries of operation, with each firm selected for its expertise in the areas of law relevant to this report. Hogan Lovells subsequently supported Vodafone in creating a legal report for each country (extracts of which are published below, where relevant), and the legal Annexe also sets out a more detailed overview of some of the most important legal powers in each country.

In many countries, there is a lack of legal clarity regarding disclosure of the aggregate number of law enforcement demands. We have therefore contacted governments to ask for guidance. Some have responded, and their views are summarised in this report. Others have simply declined to reply to our enquiries altogether or have been reluctant to provide an indication of their perspectives. In a small number of countries where the government does publish statistics but where there are concerns regarding the methodology used in recording and/or reporting this information, we summarise in this report the measures underway to enhance transparency in future. Further information about our approach under those circumstances are set out earlier in this report. Finally, in countries experiencing periods of significant political tension, it has proven to be challenging to ask any questions related to national security and criminal investigation matters without potentially putting Vodafone employees at risk of harassment or some form of sanction.

Privacy and security – Law Enforcement Disclosure report

Explanation of the information presented

In each country and for each of the two categories of law enforcement demands issued, there are a number of different outcomes arising from our enquiries.

Wherever there are no restrictions preventing publication and there are no alternative sources of information indicating total demand volumes across all operators in the country as a whole, we have published the data available from our own local operating business indicating the cumulative number of demands received by Vodafone during the period under review. However, note our concerns about the shortcomings inherent to this approach, as explained earlier in this report.

There are six circumstances under which we have not published Vodafone's own statistical information for a specific country, as set out below.

1. **Vodafone disclosure unlawful**
   The law prohibits disclosure of the aggregate demand information held by Vodafone as well as any disclosure related to the mechanisms used to enable agency and authority access, as explained earlier in this report. This is particularly the case in matters related to national security. Wherever this is the case, we cite the relevant law that restricts us from disclosure, either in the main text or in the Annexe.

2. **No technical implementation of lawful interception**
   In some countries, there is no legal provision for implementation or we have not been required to implement the technical requirements necessary to enable lawful interception and therefore have not received any agency or authority demands for lawful interception assistance. This includes circumstances under which lawful interception powers exist under the law but the technical arrangements to conduct this have not been mandated.

3. **Awaiting guidance**
   The law on disclosure is unclear, and we are still awaiting guidance from the government or a relevant agency or authority as to whether or not we can disclose this information.

4. **Unable to obtain guidance**
   The law on disclosure is unclear and we have been unable to engage with the government or a relevant agency or authority to discuss options for publication during a period of political tension and consequent risk to our employees.

5. **Cannot publish**
   Although local laws do not expressly prohibit disclosure, the authorities have told us directly that we cannot disclose this information.

6. **Government publishes**
   In a number of countries, the government, parliament or a credible independent body such as a regulator already publishes statistical information for certain types of demand issued to all operators in that country. Wherever this is the case, we provide a link to the information available online. In some countries – and where relevant – we also provide additional commentary on the status of that third-party information. Our views on disclosure of relevant information by governments rather than by operators are summarised earlier in this report.

Notes:

2. Vodafone are grateful to Hogan Lovells for its assistance in collating the legal advice underpinning this report including the country-by-country legal annexe. However, in doing so, Hogan Lovells has acted solely as legal adviser to Vodafone. This report may not be relied upon as legal advice by any other person, and neither Vodafone nor Hogan Lovells accept any responsibility or liability (whether arising in tort (including negligence), contract or otherwise) to any other person in relation to this report or its contents or any reliance which any other person may place upon it.

Privacy and security – Law Enforcement Disclosure report – Country-by-country section

Country-by-country disclosure

The following tables offer a country-by-country insight into the nature of the local legal regime governing law enforcement assistance, together with an indication of the volume of each country's agency and authority demands, wherever that information is available and publication is not prohibited. The links to the individual government reports that are referenced in many of the country tables can be found in the online report at www.vodafone.com/sustainability/lawenforcement

A summary of the relevant legislation, on a country-by-country basis, can be found in the legal annexe, which can also be found in the online version of this report.

Albania		
Type of demand		
	Lawful Interception	**Communications Data**
Statistics	Vodafone disclosure unlawful (1)	5,778 (2)
Key Note (1)	It is unlawful to disclose any aspect of how lawful interception is conducted.	
Key Note (2)	The legal position is unclear regarding whether or not it would be lawful for Vodafone to disclose statistics related to agency and authority communications data demands. We asked the authorities for guidance and have been informed that we can disclose this information.	

Australia		
Type of demand		
	Lawful Interception	**Communications Data**
Statistics	Government publishes (1) Further action to follow (2)	Government publishes (1) Further action to follow (2)
Key Note (1)	The Australian Communications and Media Authority and the Australian Attorney General's Department publish statistical information related to lawful interception and communications data demands issued by agencies and authorities.	
Key Note (2)	During the course of preparing this report, another local operator published information relating to some of the statistical data it holds for its own operations. We have approached the Attorney General's Department to work with industry and government on a common methodology to be followed in the recording and disclosure of this information. We will update this section of the report in future once we have further information as a consequence of that process.	

Belgium		
Type of demand		
	Lawful Interception	**Communications Data**
Statistics	No technical implementation (1)	2
Key Note (1)	We have not implemented the technical requirements necessary to enable lawful interception and therefore have not received any agency or authority demands for lawful interception assistance.	

Czech Republic		
Type of demand		
	Lawful Interception	**Communications Data**
Statistics	7,677	Government publishes (1)
Key Note (1)	The Czech Telecommunications Office publishes statistical information related to communications data demands issued by agencies and authorities.	

Democratic Republic of the Congo		
Type of demand		
	Lawful Interception	**Communications Data**
Statistics	No technical implementation (1)	436
Key Note (1)	We have not implemented the technical requirements necessary to enable lawful interception and therefore have not received any agency or authority demands for lawful interception assistance.	

Privacy and security – Law Enforcement Disclosure report – Country-by-country section

Egypt	
Type of demand	
Lawful Interception	**Communications Data**
Statistics — Vodafone disclosure unlawful (1)	Vodafone disclosure unlawful (1)
Key Note (1) — Whilst the precise legal position regarding disclosure of aggregate statistical information is unclear, local criminal laws contain a large number of provisions prohibiting the disclosure of national security-related material and other matters related to law enforcement. The disclosure of statistical information related to agency and authority demands is therefore very likely to be considered to be a violation of such provisions.	

Fiji	
Type of demand	
Lawful Interception	**Communications Data**
Statistics — No technical implementation (1)	760
Key Note (1) — We have not implemented the technical requirements necessary to enable lawful interception and therefore have not received any agency or authority demands for lawful interception assistance.	

France	
Type of demand	
Lawful Interception	**Communications Data**
Statistics — No technical implementation (1)	3
Key Note (1) — We have not implemented the technical requirements necessary to enable lawful interception and therefore have not received any agency or authority demands for lawful interception assistance.	

Germany	
Type of demand	
Lawful Interception	**Communications Data**
Statistics — Government publishes (1) Further action to follow (2)	Government publishes (1) Further action to follow (2)
Key Note (1) — The German Federal Office of Justice publishes annual statistics related to agency and authority lawful interception demands. The German Federal Office of Justice publishes annual statistics related to agency and authority demands for access to communications data. In its annual report, the Federal Network Agency (Bundesnetzagentur) publishes statistics related to access by the Regulatory Authority to communications data stored in accordance with Article 112 of the German Telecommunications Act (TKG).	
Key Note (2) — The legal position is unclear regarding whether or not it would be lawful for Vodafone to disclose statistics related to agency and authority lawful interception and communications data demands. Section 113(4) of the German Telecommunications Act (TKG) outlines that communication service providers must not disclose the fact that there was a request for information or that they provided such information to the concerned person or third parties. Section 15(2) of the Telecommunications Interception Ordinance (TKÜV) prohibits the operator of a telecommunication system from disclosing information related to lawful interception, the number of present or past lawful interceptions, as well as the time periods in which lawful interception measures were conducted. Although there is no legal precedent, the confidentiality obligation in Section 113(4) TKG could be interpreted by German courts or authorities to extend to a prohibition of the disclosure of aggregate demand statistics. If it is unlawful to disclose the existence of a single or particular demand for communications data, to disclose aggregate statistics would indicate that there have clearly been a number of such demands. Given the lack of clarity in the law, we asked the authorities for guidance and were advised that we were not permitted to disclose any of the information we hold related to agency and authority demands for lawful interception and access to communications data. Subsequent to this, other operators in Germany began to publish information related to some of the law enforcement demands they have received and we understand that publication may now be permissible. However, we are concerned that the information disclosed to date may in fact act as a significant barrier to the kind of meaningful transparency necessary to maintain public trust in Germany. Whilst other operators appear to be following a methodology similar to that used by Vodafone Germany in recording statistics related to law enforcement demands (and indeed the demand volumes recorded for Vodafone Germany are closely comparable to those reported by other operators of a similar scale), other operators' disclosures to date: • present only a partial view of law enforcement demands (for example, they exclude the effect of German agency and authority automated access systems which allow rapid and large-scale interrogation of a central database of customer records); • cannot be reconciled with the authorities' publication of the number of warrants issued each year (with the potential for significant confusion as a result of wide variations in recording and reporting approaches, as explained earlier in this report); and • remain potentially unlawful and therefore subject to prohibition in future, notwithstanding the authorities' assurances received immediately prior to publication of this report. We will therefore engage with other German operators and the German authorities to seek consensus on a more robust and consistent local disclosure framework in future. We will update this section of the report once we have further information as a consequence of that process.	

Privacy and security – Law Enforcement Disclosure report – Country-by-country section

Ghana	
Type of demand	
Lawful Interception	**Communications Data**
Statistics No technical implementation (1)	Awaiting guidance (2)
Key Note (1) We have not implemented the technical requirements necessary to enable lawful interception and therefore have not received any agency or authority demands for lawful interception assistance.	
Key Note (2) The legal position is unclear regarding whether or not it would be lawful for Vodafone to disclose statistics related to agency and authority communications data demands.	
Under the Electronic Communications Act, 2008 ("ECA"), certain classes of information which are deemed to be of importance to the protection of national security may be declared to be critical electronic records and subject to restrictions in respect of access, transfer and disclosure. Under section 56 of the ECA, the Minister for Communications may by notice in the Gazette (the official government publication) declare certain classes of information which are deemed to be of importance to the protection of national security to be critical electronic records. Section 59 of the ECA therefore provides for the setting of minimum standards in respect of access to, transfer and control of a critical database.	
Additionally, section 60 of the ECA imposes restrictions on the disclosure of information in a critical database to persons other than the employees of the National Information Technology Agency, a law enforcement agency, a ministry, department or other government agency. As a result, if the aggregate data in respect of the above agency and authority demands are designated as critical electronic records, the government will be able to prevent Vodafone from publishing them.	
We have asked the authorities for guidance: however, we have not yet received a reply. We will update this section of the report in future if further information becomes available.	

Greece	
Type of demand	
Lawful Interception	**Communications Data**
Statistics Government publishes (1)	Government publishes (1)
Key Note (1) The Hellenic Authority for Communication Security and Privacy (ADAE) publishes statistical information related to lawful interception and communications data demands issued by agencies and authorities.	

Hungary	
Type of demand	
Lawful Interception	**Communications Data**
Statistics Vodafone disclosure unlawful (1)	75,938 (2)
Key Note (1) It is unlawful to disclose any aspect of how lawful interception is conducted.	
Key Note (2) Under s.62 of the National Security Service Act, if the intelligence services demand information from communications service providers, the service provider is not allowed to disclose any information (including aggregate data or statistics) in relation to such cooperation without the prior explicit permission of the competent minister or director general of the particular intelligence agency. The statistics disclosed here therefore do not include demands for access to communications data related to matters of national security.	

India	
Type of demand	
Lawful Interception	**Communications Data**
Statistics Vodafone disclosure unlawful (1)	Vodafone disclosure unlawful (1)
Key Note (1) Section 5 (2) of the Indian Telegraph Act 1885 – read with rule 419 (A) of Indian Telegraph (Amendment) Rules 2007 obliges telecommunications service providers to "maintain extreme secrecy" in matters concerning lawful interception.	
Further, under Rule 25(4) of the IT (Procedure and Safeguards for Interception, Monitoring and Decryption of Information) Rules, 2009 (Interception Rules) and Rule 11 of the IT (Procedure and Safeguards for Monitoring and Collecting Traffic Data or Information) Rules, 2009 (the 'Traffic Data Rules'), "strict confidentiality shall be maintained" in respect of directions for lawful interception, monitoring, decryption or collection of data traffic. These prohibitions extend to the very existence of such directions, and could therefore authorise the government to prevent the publication of aggregate data relating to the number of directions received by the licensee.	
In addition, in respect of lawful interception directions made under the Information Technology Act, 2000 (IT Act) and its associated Rules, the government can prevent the publication of aggregate data in relation to lawful interception and other data disclosure demands from the government and law enforcement agencies. Finally, under Clause 40.5 of the Unified Access Service License (UASL: the licence governing access service in India), and Clause 33.5 of the Internet Service Provider (ISP) License (the licence governing internet access service in India), the licensee is bound to maintain the secrecy and confidentiality of any confidential information disclosed to the licensee for the proper implementation of the licences. Aggregate data regarding agency and authority demands come under the purview of these provisions.	

Privacy and security – Law Enforcement Disclosure report – Country-by-country section

Ireland	
Type of demand	
Lawful Interception	**Communications Data**
Statistics Cannot disclose (1)	4,124
Key Note (1) Whilst local laws do not expressly prohibit disclosure, we asked the authorities for guidance and have been informed that we cannot disclose this information.	

Italy	
Type of demand	
Lawful Interception	**Communications Data**
Statistics Government publishes (1)	605,601
Key Note (1) The Italian Ministry of Justice publishes statistics on the number of lawful interception demands issued by agencies and authorities.	

Kenya	
Type of demand	
Lawful Interception	**Communications Data**
Statistics No technical implementation (1)	Unable to obtain guidance (2)
Key Note (1) Local operators are legally prohibited under s.31 of the Kenya Information & Communication Act from implementing the technical requirements necessary to enable lawful interception. We have therefore not received any agency or authority demands for lawful interception assistance.	
Key Note (2) The legal position is unclear regarding whether or not it would be lawful for Safaricom (Vodafone's local associate operator) or Vodafone to disclose statistics related to agency and authority communications data demands. Section 3 of the Official Secrets Act provides certain instances where publication or disclosure of information is deemed an offence. The broad language of this Act includes publication of data collected by the security agency in Kenya. In addition, Section 37 of the National Intelligence Service Act (Act No. 28 of 2012) ("NIS Act") limits a person's constitutional right of access to information where such information is classified. When read with the Official Secrets Act (Cap. 187 Laws of Kenya), the government can prevent the publication of such data if such publication will be prejudicial to safety and the interest of the Republic of Kenya. The NIS Act defines "classified information" as information of a particular security classification, whose unauthorised disclosure would prejudice national security. While the NIS Act does not define what would be deemed to prejudice national security, the 2010 Constitution of Kenya provides how national security shall be promoted and guaranteed. A National Security Council exists to exercise supervisory control over national security matters in Kenya and to determine what may prejudice national security. It is therefore under this umbrella (prejudice to national security) that the government can prevent the publication of various agency and authority demands. It may follow that where there is no prejudice to national security that these restrictions do not apply, albeit that what amounts to a prejudice to national security is legally undefined. Under the current circumstances, we have concluded that it will not be possible to engage with government, agencies and authorities on these matters at this point. We will update this section of the report in future if circumstances change.	

Lesotho	
Type of demand	
Lawful Interception	**Communications Data**
Statistics No technical implementation (1)	488
Key Note (1) We have not implemented the technical requirements necessary to enable lawful interception and therefore have not received any agency or authority demands for lawful interception assistance.	

Malta	
Type of demand	
Lawful Interception	**Communications Data**
Statistics Vodafone disclosure unlawful (1)	3,773 (2)
Key Note (1) It is unlawful to disclose any aspect of how lawful interception is conducted.	
Key Note (2) The legal position is unclear regarding whether or not it would be lawful for Vodafone to disclose statistics related to agency and authority communications data demands. We asked the authorities for guidance and have been informed that we can disclose this information.	

Privacy and security – Law Enforcement Disclosure report – Country-by-country section

Mozambique	
Type of demand	
Lawful Interception	**Communications Data**
Statistics No technical implementation (1)	Unable to obtain guidance (2)
Key Note (1) We have not implemented the technical requirements necessary to enable lawful interception and therefore have not received any agency or authority demands for lawful interception assistance.	
Key Note (2) The legal position is unclear regarding whether or not it would be lawful for Vodafone to disclose statistics related to agency and authority communications data demands. Under the current circumstances, it has not been possible to engage with the government on these matters. We will update this section of the report in future if further information becomes available.	

Netherlands	
Type of demand	
Lawful Interception	**Communications Data**
Statistics Vodafone disclosure unlawful (1) Government publishes (2) Further action to follow (3)	Government publishes (2) Further action to follow (3)
Key Note (1) Article 85 of the Intelligence and Security Services Act 2002 ('Wet op de inlichtingen en veiligheidsdiensten 2002' or 'ISSA'), requires all persons involved in the execution of the ISSA to keep the data obtained confidential. It would be unlawful for Vodafone to disclose statistical information related to lawful interception demands issued by agencies and authorities under the ISSA.	
Key Note (2) The Dutch Ministry of Justice publishes statistical information related to lawful interception and communications data demands issued by agencies and authorities.	
Key Note (3) As explained earlier in the report, we believe that the wide variations in methodology used by operators, governments and others in recording and reporting this statistical information amounts to a serious barrier to meaningful public transparency. We wrote to the Ministry of Security and Justice to urge further action by government in this area. In response, the Ministry outlined its aim to improve public transparency and committed to form a cross-functional working group – including Dutch operators – to consider options to increase the quality of public transparency. We will update this section of the report in future once we have further information as a consequence of that process.	

New Zealand	
Type of demand	
Lawful Interception	**Communications Data**
Statistics Government publishes (1)	Government publishes (1)
Key Note (1) Statistical information related to lawful interception and communications data demands issued by agencies and authorities is published by the following four organisations: The New Zealand Police The New Zealand Security Intelligence Service The New Zealand Serious Fraud Office The New Zealand Customs Service	

Portugal	
Type of demand	
Lawful Interception	**Communications Data**
Statistics Government publishes (1)	28,145 (2)
Key Note (1) The Portuguese Ministry of Internal Affairs publishes statistical information related to lawful interception demands issued by agencies and authorities.	
Key Note (2) We asked the authorities for guidance and have been informed that we can disclose this information.	

Privacy and security – Law Enforcement Disclosure report – Country-by-country section

Qatar	
Type of demand	
Lawful Interception	**Communications Data**
Statistics Vodafone disclosure unlawful (1)	Cannot disclose (2)
Key Note (1) It is unlawful to disclose any aspect of how lawful interception is conducted.	
Key Note (2) The legal position is unclear regarding whether or not it would be lawful for Vodafone to disclose statistics related to agency and authority communications data demands. Article 59 of the Qatar Telecommunication Law states that telecommunications service providers must comply with the requirements of the security authorities which relate to the dictates of maintaining national security and the directions of the governmental bodies in general emergency cases and must implement orders and instructions issued by the General Secretariat regarding the development of network or service functionality to meet such requirements. Any government department interested in "State security" can rely on Article 59 alongside use any enforcement powers vested directly in that government authority. We asked the authorities for guidance and have been informed that we cannot disclose this information.	

Romania	
Type of demand	
Lawful Interception	**Communications Data**
Statistics Vodafone disclosure unlawful (1)	Awaiting guidance (2)
Key Note (1) It is unlawful to disclose any aspect of how lawful interception is conducted.	
Key Note (2) The legal position is unclear regarding whether or not it would be lawful for Vodafone to disclose statistics related to agency and authority communications data demands. Article 142(3) and Article 152 (3) of the Criminal Procedure Code (Law 135/2010) states that communication service providers are required to cooperate with criminal prosecution authorities with regard to lawful interception and the supply of retained communications data must keep the relevant operation a secret. Publishing aggregate statistics could potentially violate this obligation. We have asked the authorities for guidance however, we have not yet received a reply. We will update this section of the report in future if further information becomes available.	

South Africa	
Type of demand	
Lawful Interception	**Communications Data**
Statistics Vodafone disclosure unlawful (1)	Vodafone disclosure unlawful (1)
Key Note (1) Section 42 of the Regulation on Interception of Communication and Provision of Communication-related Information Act 2002 prohibits the disclosure of any information received pursuant to the Act. This includes, by virtue of Section 42(3), the disclosure of the fact that any demand for lawful interception or communications data has been issued under the Act. Accordingly, to publish aggregate statistics would be to disclose the existence of one or more lawful interception or communications data demands.	

Spain	
Type of demand	
Lawful Interception	**Communications Data**
Statistics 24,212 (1)	48,679 (1)
Key Note (1) The legal position is unclear regarding whether or not it would be lawful for Vodafone to disclose statistics related to agency and authority lawful interception and communications data demands. We asked the authorities for guidance and have been informed that we can disclose this information.	

Tanzania	
Type of demand	
Lawful Interception	**Communications Data**
Statistics No technical implementation (1)	98,765
Key Note (1) We have not implemented the technical requirements necessary to enable lawful interception and therefore have not received any agency or authority demands for lawful interception assistance.	

Privacy and security – Law Enforcement Disclosure report – Country-by-country section

Turkey		
Type of demand		
	Lawful Interception	**Communications Data**
Statistics	Vodafone disclosure unlawful (1)	Vodafone disclosure unlawful (1)
Key Note (1)	It is unlawful to disclose any aspect of how lawful interception or access to communications data are conducted.	

United Kingdom		
Type of demand		
	Lawful Interception	**Communications Data**
Statistics	Vodafone disclosure unlawful (1) Government publishes (2)	Government publishes (2)
Key Note (1)	Section 19 of the Regulation of Investigatory Powers Act 2000 prohibits disclosing the existence of any lawful interception warrant and the existence of any requirement to provide assistance in relation to a warrant. This duty of secrecy extends to all matters relating to warranted lawful interception. Data relating to lawful interception warrants cannot be published. Accordingly, to publish aggregate statistics would be to disclose the existence of one or more lawful interception warrants.	
Key Note (2)	The Interception of Communications Commissioner's Office publishes statistical information related to lawful interception and communications data demands issued by agencies and authorities.	

For a summary of the most important legal powers relating to law enforcement demands on a country-by-country basis, see our Law Enforcement Disclosure report country-by-country legal annexe which is available on our website at www.vodafone.com/sustainability/lawenforcement

Responsible supply chain –
Our approach

We work with our suppliers to help them meet our ethical, health and safety, social and environmental standards and improve their performance through monitoring, assessments and improvement activities.

We spend billions of euros each year with suppliers on network and IT equipment and services that enable us to operate our network, and on products such as mobile phones, SIM cards and other devices that we sell to our customers.

We demand high ethical, health and safety, social and environmental standards of all our suppliers. These are set out in our Code of Ethical Purchasing and integrated right from the start of our engagement with suppliers, from the initial qualification process to ongoing supplier performance management. We conduct regular site assessments to ensure compliance and we work directly with our suppliers to help improve their sustainability performance.

To target improvements further down the supply chain, we require our suppliers to demand similar standards of their own suppliers and check this through audits and supplier performance management processes. We also participate in industry initiatives to raise standards across the sector.

Read on to find out more about our approach to this issue. Or go to Performance to read about our progress in 2013/14.

Becoming a Vodafone supplier

Vodafone's Code of Ethical Purchasing and other supplier policies are based on our Code of Conduct and policies for our own business, extending relevant requirements to suppliers. Sustainability is embedded throughout our procurement process across our global supply chain, including the assessment of new suppliers.

Our Group-wide tendering process (also known as a request for quotation or RFQ) includes criteria for relevant suppliers – identified based on risk – to assess the likelihood of them meeting our standards for operating responsibly. The results are then factored into our decision to work with any given supplier.

Sustainability criteria include labour standards, health and safety, environmental management and prevention of bribery and corruption. These are weighted according to the level of risk associated with the contract. For example, suppliers' health and safety performance is a key factor for projects involving high-risk activities such as working at height and suppliers that do not meet our minimum requirements are not awarded work (see Health and safety).

We carry out risk assessments to identify new suppliers that are high risk, based on the product or service supplied and the degree of association with our brand and customers. Suppliers identified as high risk are selected for on-site assessments, conducted by our own auditors or independent audit firms, to identify any instances of non-compliance with the Code of Ethical Purchasing.

Everyone in our supply chain organisation globally, as well as relevant people who work closely with suppliers, are trained on our key policies and ethical conduct requirements. This includes training on how to observe and report non-compliances when visiting supplier sites and how to effectively communicate our expectations on operating responsibly.

Responsible supply chain – Our approach

Monitoring and improving supplier performance

Suppliers' performance is regularly assessed to identify areas for improvement. Health and safety and sustainability form two key pillars of our evaluation of suppliers' performance, alongside others such as delivery, quality, technology and commercial. Performance evaluations enable us to identify and prioritise specific areas for improvement for our suppliers.

Suppliers' performance on health and safety is rated using a series of criteria, including:

- Engagement on health and safety, leadership and organisation
- Effective implementation of safety plans
- Monitoring and supervision of operations
- Performance measures, audits and contractor management
- Incidents and accidents.

Suppliers' sustainability performance is evaluated using the E-TASC external sustainability assessment platform (powered by EcoVadis), that members of the Global e-Sustainability Initiative (GeSI) use as a common industry tool. This covers a wide range of criteria, including:

- The policies that they have in place, for example on child and forced labour
- Public reporting of their performance on social, environmental and health and safety issues
- Certification of environmental management systems to ISO 14001 or EMAS standards
- Certification of health and safety management systems to OHSAS 18001 or equivalent
- Evidence that the supplier manages social, environmental and health and safety issues in its own supply chain
- Evidence that the supplier manages the risks and opportunities associated with climate change
- Evidence of steps to manage and prevent bribery and corruption
- Evidence that a supplier is managing its environmental footprint
- Evidence that a supplier manages equality, diversity and inclusion
- Evidence of how suppliers are adding social, ethical and environmental value to society.

Based on suppliers' responses, the evidence is checked and scored by EcoVadis, giving Vodafone an independent assessment. We then make recommendations for improvements and work with suppliers to address any issues. Follow-up assessments or on-site audits – by Vodafone or through joint industry audits – are used to monitor the performance of high-risk suppliers. Solutions using mobile technology are also being implemented to improve our assessment process by gaining direct input from workers in the supply chain (see case study on using mobile technology to gain direct input from supplier workers to improve conditions in Performance).

For mobile phone suppliers, EcoVadis scores also feed into the rating of their products in our Eco-rating scheme, which enables customers to choose their phone according to sustainability criteria (see Customers and the environment).

We work with suppliers and conduct workshops for high-risk suppliers on specific issues such as health and safety in many of our local markets. However, suppliers that fail to meet our standards are investigated further and if they consistently fail to meet our standards we will not work with them in the future.

We also recognise suppliers that are performing well through our Responsible Supplier of the Year award which is decided based on scoring in our Supplier Performance Management programme.

Most of our supply chain information is consolidated in a central system to provide effective oversight and control. This also allows us to screen existing suppliers and means we are alerted to incidents through recognised third party watch lists and reports.

See Performance to read about supplier assessments and awards in 2013/14.

A consistent industry approach

By participating in industry initiatives such as those led by GeSI, we aim to encourage standardisation across the industry. Using common tools such as EcoVadis reduces the burden of reporting on suppliers and offers consistent independent assessments for the industry.

Through the Joint Audit Cooperation (JAC) initiative, we collaborate with other telecoms operators to assess and improve the social and environmental performance of common suppliers. JAC has established a set of standard criteria to assess performance. Joint audits are conducted by independent specialists based on internationally recognised social and environmental standards including the social accountability standard SA 8000 and the environmental management standard ISO 14001. Results are shared between JAC member companies and one member leads the follow-up with regular updates to the other JAC companies. As well as establishing common standards and helping to improve performance, collaborating on audits also saves time and money for both suppliers and customers by removing the need for duplicate audits and duplicate follow-up processes.

We also encourage suppliers to report their climate impacts and targets through the CDP Supply Chain Programme.

See Performance for more on our participation in industry initiatives in 2013/14.

Responsible supply chain – Our approach

Tackling conflict minerals further down our supply chain

The issue

'Conflict minerals' are minerals from mines that directly or indirectly finance or benefit armed groups in conflict regions, generally referring to the eastern provinces of the Democratic Republic of Congo (DRC).

Conflict minerals generally refer to columbite-tantalite (coltan), cassiterite, wolframite and gold. These minerals are refined at smelters or refiners to produce metals – tantalum, tin, tungsten and gold respectively (often referred to collectively as '3TG') – which are used by many industries including in components for electronic products, such as mobile phones.

Several of the numerous components in the mobile phones, SIM cards and other electronic devices that Vodafone sells contain one or more of the 3TG metals which may come from many different smelters. Both the smelters and the mines from which the minerals are originally sourced are several steps away from Vodafone in the supply chain.

Vodafone's view

We believe mining activities that fuel conflict are unacceptable. Our global Conflict Minerals Policy sets out our position on this issue.

We are optimistic that industry efforts will help to improve supply chain transparency across the industry and tackle the human rights abuses connected with mining of conflict minerals. However, it is likely to take time to establish effective systems to determine the conflict-free status of products.

We recognise that ceasing to source minerals from legitimate mines, as well as those funding armed groups, is likely to have a negative impact on economic development and people's livelihoods in the region. Therefore, we want our suppliers to be able to source validated conflict-free minerals from the DRC and adjoining countries and we support industry initiatives that are putting systems in place to make this possible.

Our approach

Vodafone does not manufacture any products itself and does not purchase 3TG metals directly. We must therefore work with suppliers to ensure that conflict minerals originating in the DRC or adjoining countries do not end up in the products we sell or the electronic equipment that we buy and use in our own operations.

Our Conflict Minerals Policy sets out our requirements for suppliers of electronic products. For products where we influence the design and manufacture, we conduct due diligence activities to determine the sources of the 3TG metals they contain, and disclose the results in our Conflict Minerals Report in line with US legislation (see below).

Our direct (Tier 1) suppliers do not source these minerals straight from the smelters and must therefore conduct due diligence processes with their own suppliers to determine the smelter from which minerals are sourced. Industry initiatives have also established systems to verify smelters as 'conflict-free' (see below).

Industry collaboration

As part of our efforts to tackle the issue of conflict minerals, we participate in industry initiatives led by the Global e-Sustainability Initiative (GeSI) and the Electronic Industry Citizenship Coalition (EICC). Vodafone is a long-standing member of GeSI and participated in the GeSI/EICC Extractives Working Group which led to the development of the Conflict Free Smelter Initiative (CFSI), in which we still participate. The CFSI works to validate smelters and refiners as conflict-free and offers a variety of tools and resources to support companies in making informed decisions about conflict minerals in their supply chain.

GeSI and the EICC support improved transparency and traceability of mineral sourcing from the final product back to the smelter and, from there, all the way back to the mine. Programmes include:

- **From product to smelter:** Vodafone participated in the development and pilot of the CFSI's Conflict Minerals Reporting Template in 2011 and we now use this as part of our due diligence process to find out from suppliers which smelters 3TG metals are sourced from

- **To certify conflict-free smelters:** The CFSI validates smelters and refiners that source conflict-free minerals and publishes the names of certified smelters on its website

- **From mine to smelter:** GeSI supports the Public Private Alliance (PPA) for Responsible Minerals Trade which is developing systems to validate, certify and trace minerals from conflict-free mines in the region to address concerns about conflict minerals while benefiting those involved in responsible trade in the region.

Responsible supply chain – **Our approach**

Regulatory requirements

As a company with shares listed on the NASDAQ in the US that uses 3TG in our manufactured products, from 2014 Vodafone is required under Section 1502 of The Dodd-Frank Wall Street Reform and Consumer Protection Act and the Security and Exchange Commission's (SEC) related Final Rule to disclose whether metals in products where we influence the manufacturing and design originated in the DRC or adjoining countries. These products make up a very small proportion of our total spend with suppliers.

A product is considered to be 'DRC conflict-free' when it does not contain metals from minerals that directly or indirectly finance or benefit armed groups in the DRC or an adjoining country. This means that metals can be sourced from mines in countries outside the DRC or adjoining countries, or mines within the DRC or adjoining countries if the appropriate certification and traceability is in place.

See more on our due diligence process and findings in Performance and in our Conflict Minerals Report.

Looking beyond conflict minerals

Sourcing of minerals (beyond 3TG from the DRC and adjoining countries) remains a concern for the electronics industry. Through the due diligence activities we are developing to target conflict minerals usage from the DRC and adjoining countries, we aim to build a strong foundation of information and systems that promote traceability for the future which can be used to help ensure minerals in our products are from responsible sources.

Responsible supply chain – Our approach

We have continued to drive improvements in supplier performance, to work towards a common industry approach and to enhance traceability of metals in our products to tackle conflict minerals.

Strengthening requirements for suppliers

In 2013/14, we updated our requirements for suppliers based on our Code of Conduct and policies for our own business. We updated requirements and simplified policies that we expect our suppliers and partners to sign up to. These policies are published on our supplier website. Updates to our Code of Ethical Purchasing included strengthening requirements on conflict minerals, environmental standards, anti-bribery and anti-money laundering.

In 2013/14, we also updated key supplier contracts to include our revised consequence management process for contractors who fail to act responsibly on health and safety (see Health and safety). Guidance on applying this process was included in annual training on our Code of Ethical Purchasing completed by all our supply chain employees globally (more than 1,000 staff).

Developing a consistent industry approach

We continued working with other members of the Global e-Sustainability Initiative (GeSI) in 2013 to evaluate a range of tools for assessing and managing suppliers, and explore the potential to adopt a common tool across the industry. We also work with GeSI and the Electronic Industry Citizenship Coalition (EICC) to tackle conflict minerals in the ICT supply chain (see below).

Following a pilot in 2012/13, we began using the EcoVadis platform as an industry standard approach to evaluate supplier performance on sustainability and develop improvement plans, helping to reduce the reporting burden on suppliers. As Vodafone is itself a supplier to other companies, we also complete the EcoVadis assessment for our own business – achieving the Gold Standard in 2013 – and share the results with relevant enterprise customers.

Membership of the Joint Audit Cooperation (JAC) initiative has grown to 10 telecoms operators since we joined in 2011/12: Belgacom, Deutsche Telekom, France Telecom, KPN, Swisscom, Telecom Italia, Telenor, TeliaSonera, Verizon and Vodafone. This has strengthened our ability to establish and conduct common audits across our industry and to develop joint follow-up plans for improvement, while reducing the burden of multiple audits on suppliers. In 2013, JAC conducted a total of 38 joint audits.

In January 2014, together with the nine other telecoms operators, we launched the JAC Supply Chain Sustainability Guidelines – a set of common requirements expected from the telecommunications industry – at the third JAC Conference on Sustainability and Corporate Social Responsibility in Chengdu, China. More than 130 people representing telecom operators, industry forums, suppliers, audit firms, non-governmental organisations and institutions from all over the world participated in the conference to discuss how to improve issues identified by JAC's work and provide feedback to the initiative.

The JAC guidelines cover a range of topics based on international laws, standards and guidelines and dialogue with a range of stakeholders. The sections within the topics define expectations on child labour, forced labour, fair remuneration, disciplinary practices, discrimination, freedom of association, health and safety, the environment and ethics. Along with other members of the JAC initiative, we shared our intention to develop and measure key performance indicators (KPIs) to accompany the guidelines. The first KPI to be developed will focus on working hours.

We also continued to participate in the CDP Supply Chain programme, which helps large companies and their suppliers report climate impacts transparently, share information and target carbon reductions. In 2013/14, 74 suppliers disclosed information through the CDP. In addition, we work closely with some of our key suppliers to improve the efficiency of equipment used in our networks (see Environmental footprint).

Recognising strong performance

Our annual Supplier Awards recognise strong performance from suppliers in a range of areas including health and safety and sustainability. In 2013, our Responsible Supplier of the Year award was presented to Huawei in recognition of its performance in health and safety across our markets, and its engagement with our sustainability and health and safety requirements. Find out more about our Supplier Awards here.

Responsible supply chain – Performance in 2013/14

Driving improvements through supplier assessments

In 2013/14, we improved our process to assess suppliers based on sustainability criteria at the qualification stage, as this is the most effective point to influence which suppliers we choose to work with. Taking a risk-based approach, we asked for additional information relating to acting responsibly during supplier qualification. We assessed 180 potential new suppliers on sustainability criteria during the qualification process in 2013/14. To work for Vodafone, suppliers must also agree to our policies. In 2013/14 we rejected one potential new supplier based on an issue of integrity raised during the qualification process.

We performed 30 on-site assessments of suppliers identified as high-risk to check compliance with our standards and monitor their performance on sustainability in 2013/14. Twenty-two of these audits were performed at Tier 2 suppliers' sites as we continued our focus further down the supply chain, working together with our Tier 1 (direct) suppliers to assess their suppliers' performance and help them improve.

Based on the 30 site assessments, we made 172 recommendations for improvements to suppliers in 2013/14. Management of health and safety remains by far the most common area identified for improvement – and this is a key focus of our capability building efforts with suppliers (see below) – followed by working hours and environmental issues (see Data for more detail on audit findings). Working hours is a common industry issue and we are working through the Joint Audit Cooperation (JAC) to develop a key performance indicator to help monitor improvements over the long term and tackle root causes. We are also using the Labor Link tool (see below) to obtain more meaningful information directly from supplier workers on this issue.

Our general approach on issues related to performance findings is to request the supplier for a corrective action plan, typically following up by re-audit to confirm closure. As an example, we identified three instances related to child labour where people under the age of 18 but of legal working age were found to be working on late shifts, which is non-compliant with our policy. In these cases, which related to two suppliers, one supplier resolved the issue (checked on repeat audit) and the other supplier was informed their qualifying audit failed to meet our requirements. We wait to engage any business with them until such time as they correct the issues and the performance issues are validated as closed on re-audit.

In addition to our own audits, 38 additional on-site assessments of suppliers were conducted jointly with other telecoms operators through the JAC – 30 of which related to Vodafone suppliers.
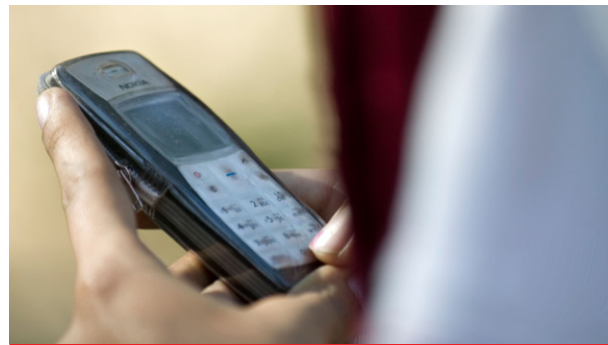
In focus: Using mobile technology to gain direct input from supplier workers to improve conditions

We are working with Good World Solutions to implement technology that enables our suppliers' workers to provide direct, anonymous feedback on working conditions using their mobile phones.

The tool, known as Labor Link, aims to use mobile solutions to enhance the visibility of working conditions in our supply chain by obtaining feedback directly from workers. Voice surveys will be used to give workers an opportunity to feedback on topics such as their working conditions, and suggestions about their jobs. Their responses will be aggregated anonymously and provided directly to Vodafone and the supplier to identify areas for improvement. Data will be collected from a large number of workers who have volunteered to participate in an anonymous panel.

This is one example of the concepts featured in our Connected Worker research report (see Smart working).

Responsible supply chain – Performance in 2013/14

Working with suppliers to build capability

Working with suppliers to develop improvement plans is a critical and lengthy part of the audit and follow-up process. We engage with suppliers to improve their performance on specific issues such as working hours and health and safety.

In China, we worked with one of our key suppliers to improve its sustainability performance from being unsatisfactory on its first EcoVadis assessment to increasing their rating by 26 points, obtaining a silver badge rating on reassessment during 2013/14. Our team (Asia Sourcing Centre), located in Hong Kong, guided the supplier to establish governance structures and processes and to focus on improvements in labour standards, environmental management, fair business practices and management of its suppliers.

We also work closely with high-risk suppliers, particularly those supporting the deployment and maintenance of our networks, to improve health and safety. In 2013/14, we fully embedded our consequence management process globally to make it clear that failing to demonstrate a robust safety procedure is directly linked to termination of purchase orders or contracts. When red cards are issued, suppliers are excluded from tendering for new work for a period of up to 12 months. In 2013/14, we issued eight red cards and eight yellow cards, and excluded suppliers from tendering for new work for a total of 23 months. The system is intended to help protect the people working in our supply chain.

We invited 15 key network suppliers to a workshop on health and safety held in April 2014. See Health and safety for more examples of our work with contractors.

Tackling conflict minerals

In 2013/14, to meet the requirements of new US legislation (see Our approach), we carried out due diligence to determine the source of any tantalum, tin, tungsten or gold ('3TG') contained in the products where we have influence over manufacturing and design. We set up a cross-function working group to help drive our conflict minerals programme, established a due diligence framework (aligned with the internationally recognised framework developed by the Organisation for Economic Cooperation and Development) and engaged with relevant suppliers regularly throughout the year to raise awareness of due diligence requirements.

We identified 53 products considered to be within the scope of the requirements in 2013, sourced from 12 suppliers. We asked these suppliers to complete the Conflict-Free Sourcing Initiative's Conflict Minerals Reporting Template to determine the source of the 3TG in their products. We received responses from all 12 suppliers, covering approximately 81% of individual in-scope products. We analysed their responses and followed up with all these suppliers to request improvement plans.

Through this due diligence process, we determined that all Vodafone's products that fall within the scope of the regulation are 'DRC Conflict Undeterminable'. This is partly because the information we received from suppliers is not sufficiently complete or reliable to determine the origin of the 3TG contained in these products with certainty and partly because the vast majority of smelters identified through the process are not currently certified as conflict-free. These are industry-wide challenges and we are supporting industry initiatives to overcome them, as well as continuing to engage with our own suppliers to improve the completeness and quality of information provided and to seek their commitment to develop and implement improvement plans in relation to due diligence processes.

For more information on the due diligence process and findings, see our Conflict Minerals Report, published as part of our legal filing to the US Securities and Exchange Commission.

Responsible supply chain – Data

Number of supplier site assessments conducted

	2011/12	2012/13	2013/14
Number of supplier site assessments conducted	33	33	**30**
Number of site assessments conducted by JAC[1]	–	35	**38[2]**
Total	**33**	**68**	**68**

Notes:

1. Vodafone joined JAC in October 2011. JAC assessments are reported on a calendar basis
2. This figure refers to the 2013 calendar year when 30 of the 38 JAC audits related to Vodafone suppliers

Number of recommendations for improvement in 2013/14[1]

Category	Policy	Performance	Total
Health and safety	3	88	**91**
Environment	0	26	**26**
Working hours	1	19	**20**
Implementation of Code of Ethical Purchasing or equivalent	10	10	**20**
Payment	0	8	**8**
Child labour	0	3	**3**
Discrimination	1	1	**2**
Forced labour	1	0	**1**
Disciplinary practices	1	0	**1**
Freedom of association	0	0	**0**
Individual conduct	0	0	**0**
Total	**17**	**155**	**172**

Notes:

1. This data excludes the results of the audits conducted through JAC which are subject to a non-disclosure agreement
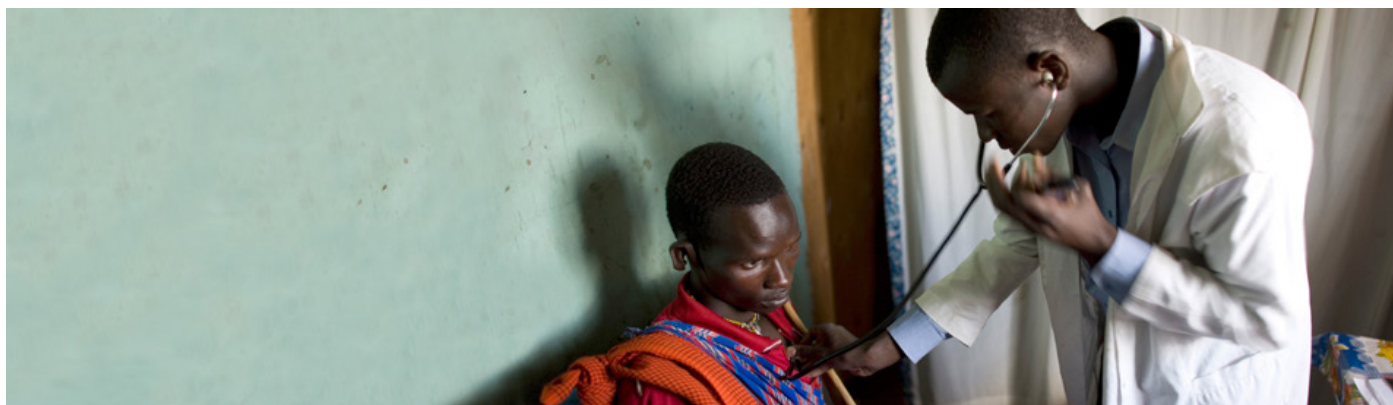
Tax and our total economic contribution to public finances

This report was first published in December 2013 and the next version will be available in December 2014 on our corporate website.

The amount of tax paid by large companies is a matter of significant public debate and scrutiny.

Individuals and companies have legal obligations to pay tax; but those obligations do not extend to paying more than the amount legally required. Companies also have a legal obligation to act in the interests of their shareholders. Vodafone's shareholders include many of the investment funds relied upon by tens of millions of individual pensioners and savers.

At the same time, individuals and companies must meet their responsibilities to contribute to the funding of public services and infrastructure, without which societies cannot operate effectively.

Achieving a transparent and effective balance between those obligations and responsibilities is therefore integral to operating sustainably.

£13.5 billion

In 2012/13, Vodafone contributed more than £13.5 billion in cash to the public finances in our countries of operation.

Understanding tax

When considering a company's tax contributions, there are several important factors to take into account.

- In many countries and for many companies, corporation tax payments only account for a small proportion of businesses' total tax contribution to national governments. For example, corporation tax accounts for around one-tenth of total tax paid to the UK Exchequer and one-third of total taxes paid to the UK Exchequer by the UK's largest 100 companies[1]. Businesses also pay a very wide variety of additional taxes: as the Appendix demonstrates, corporation tax is only one of almost 50 different types of taxation paid by Vodafone's operating businesses every year.

- Corporation tax is paid on profits, not on revenues. If a company makes little or no profit — for example, as a consequence of declining sales, competitive market conditions or a period of intense capital investment, particularly if funded through borrowing, it will generally incur lower tax charges than another similar company with higher profits. This approach is common to all countries as without it, companies enduring periods of low profitability would be faced with disproportionate tax demands and significant disincentives for investment in infrastructure. In a number of Vodafone's markets, including the UK, the cost of acquiring radio spectrum from the government, high operating costs, substantial levels of capital expenditure and sustained competitive and regulatory pressures, have a significantly negative effect on the profits of our local businesses. In addition, in some markets, other taxes that are levied on revenue (together with non-taxation-based contributions such as spectrum fees) have the effect of depressing profit and so reducing corporation tax liabilities.

Tax and our total economic contribution to public finances

- Taxation is local. Taxes generally fall due wherever profits are generated, and the tax liabilities that arise as a result are decided under the rules of the country that is host to the business in question. So, for example, a company operating in South Africa pays taxes to the South African government under tax rules determined by that country's government and a company operating in Italy pays taxes under Italian rules to the Italian government. Vodafone pays all taxes due under the law in all our countries of operation; in 2012/13, these amounted to more than £4 billion. For further details, see 'Multinationals, governments and tax'.

- Taxation is not the only route used by governments to raise revenue from businesses. Governments also use other mechanisms to derive revenues from business activities, including a wide range of licensing regimes, revenue or production-sharing agreements and, for communications companies, radio spectrum fees and auction proceeds. These additional sources of government revenue are often substantial – sometimes exceeding the monies raised through taxation – and represent a critically important contribution to public finances. It is therefore essential to take those government revenue-raising mechanisms into account when assessing the extent to which a company is playing its part in funding wider civil society.

- Large companies are an important source of investment and employment. Governments seeking to stimulate investment often develop corporate taxation regimes which are intended to attract the capital necessary to deliver key policy objectives. Those measures also have the effect of stimulating job creation, in turn leading to higher government revenues from employment taxes and increased levels of consumer spending on the part of an expanded workforce. This is particularly relevant when considering multi-billion pound, multi-year programmes to build critical national infrastructure, such as the UK government's target for universal broadband coverage by 2015. Political leaders make an active choice to incentivise corporate investment by offering capital allowances – to be offset against future corporate tax liabilities – in order to achieve a wider national benefit that would otherwise have to be funded directly by the state, invariably through public borrowing. These allowances are not 'loopholes': they reflect the public policy choices made by governments and also – wholly intentionally – have the effect of reducing tax liabilities for companies whose investment decisions support those policy choices.

In focus: Multinationals, governments and tax

Within the European Union and in many other territories, companies have a legal right to set up businesses in different countries and to trade freely across borders. All governments therefore seek to balance the need for tax revenues with the need to encourage companies to do business in and from their jurisdictions, through the development of competitive tax regimes.

Multinational companies choose from a range of locations when setting up certain centralised global operations, such as procurement or IT support. Their decisions are influenced by a wide range of factors beyond the local tax environment, including:

- the stability and predictability of the political, regulatory and social environment, including respect for the rule of law and compliance with international human rights conventions

- the availability of relevant skills within the local labour force

- labour costs, and the cost of operations

- the effectiveness of transport links

- the quality and reliability of communication networks

- the range and value of the real estate market.

In an international context, various treaties and inter-governmental agreements ensure multinational companies are not subject to 'double taxation' by paying tax twice over in two different countries in relation to the same economic activity. Governments also maintain measures that restrict companies from entering into artificial arrangements to move profits from one country to another lower-tax destination. These include requiring multinational companies to apply 'transfer pricing' rules to inter-company activities to ensure that profits are allocated to countries where the relevant economic activity takes place. Vodafone does not enter into artificial arrangements – for example, by artificially diverting profits to minimise tax payments to the UK Exchequer – and will only adopt business structures that reflect genuine and substantive commercial and operational activities.

Tax and our total economic contribution to public finances

Why does Vodafone pay little or no UK corporation tax?

As we explained above, all over the world, governments seeking to encourage companies to create jobs and build infrastructure develop a range of tax incentives to attract new capital investment. The UK is no different.

Vodafone makes huge investments in the UK. We spent over £1 billion in 2012/13 – up from £767 million in 2011/12 – building and upgrading the networks relied upon by millions of UK consumers and businesses. We also paid the UK government more than £7 billion for our UK radio spectrum licences. We raised the money for those licences from UK banks and capital markets, further increasing our overall UK borrowings: we're now paying more than £600 million a year in interest costs to UK banks and financial institutions.

As the UK government wants more investment in UK infrastructure and jobs, it allows all businesses to claim relief for the cost of assets used in the business against their profits when determining their corporation tax bills. The government also provides relief to all businesses for the cost of interest on their debts to UK banks and financial institutions. These allowances and reliefs are intentional, long-established and carefully considered: they reflect deliberate policy decisions by successive UK governments and are a cornerstone of UK taxation policy. Vodafone is no different to any other UK business, whatever its size: if a self-employed trader buys a new computer or a large UK business borrows money to build a new warehouse, exactly the same rules apply.

Corporation tax is charged on profits, not revenues. The UK is an expensive and highly competitive country in which to do business and has one of the least-profitable mobile markets anywhere in the world. Many people confuse revenues with profits. However, our UK profit is a small fraction of our gross UK revenues; below £300 million in 2012/13, which is significantly less than the interest costs on our UK debt and just over one-quarter of the amount of our annual UK capital investment programme.

Vodafone's UK corporation tax position is therefore determined by UK capital allowances for UK investment and UK debt interest relief on borrowings from UK banks and financial institutions, set against a (relatively very low) level of UK profit. As we explained earlier, our overseas financing subsidiaries have no bearing on our UK corporation tax position and we do not artificially transfer profits to minimise tax payments to the UK Exchequer.

Finally, as explained above, UK corporation tax accounts for a small proportion of the total taxes paid by UK businesses. In 2012/13, we paid the UK government £275 million in direct taxes and, as we show in the table below, our total cash contribution to the UK government was over £1.8 billion.

Tax conduct and principles

We are committed to acting with integrity in all tax matters. We always seek to operate under a policy of full transparency with the tax authorities in all countries in which we operate, disclosing all relevant facts in full, while seeking to build open and honest relationships in our day-to-day interactions with those authorities, in line with our Tax Code of Conduct, which is contained within our Tax Risk Management Strategy.

In forming our own assessment of the taxes legally due for each of our businesses around the world, we follow the principles stated in our publicly available Tax Risk Management Strategy. We have two important objectives: to protect value for our shareholders, in line with our broader fiduciary duties; and to comply fully with all relevant legal and regulatory obligations, in line with our stakeholders' expectations.

However, tax law is often unclear and subject to a broad range of interpretations. Furthermore, the financial affairs of large multinational corporations are unavoidably complex; we typically process and submit more than 12,000 tax returns to tax authorities around the world every year. The assessment and management of tax uncertainty is therefore a significant challenge for any company of Vodafone's scale, and the key issues are subject to review by the Board and Audit and Risk Committee.

Our overarching approach is to pursue clarity and predictability on all tax matters wherever feasible. We will only enter into commercial transactions where the associated approach to taxation is justifiable under any reasonable interpretation of the underlying facts, as well as compliant in law and regulation. Our Tax teams around the world are required to operate according to a clearly defined set of behaviours, including acting with integrity and communicating openly. These are aligned with the Vodafone Group Code of Conduct and the values set out in The Vodafone Way.

Tax and our total economic contribution to public finances

Contributing to the development of tax policy

When governments seek to develop or change tax policy, they invariably seek input from a wide range of interested stakeholders, including business advocacy groups and a large number of individual companies. Vodafone regularly engages with governments – typically through public consultation processes or in our role as a member of an industry group – to provide our perspective on how best to balance the need for government revenues from taxation against the need to ensure sustainable investment.

For example, we are active participants in the tax policy committee of the European Telecommunications Network Operators' Association (ETNO) and the Groupe Speciale Mobile Association (GSMA), which represents the industry when looking at emerging issues across the EU. In this role, we have shared our insights as a multinational operator with the European Commission Taxation and Customs Union Directorate-General (TAXUD). We are also one of the few companies in Italy to enter into the new cooperation compliance mechanism with the Italian Ministry of Finance.

We contribute to the tax committees of telecommunications industry organisations in Germany, which work on legal developments with tax policy and on tax administration, including the interpretation and application of tax law. In the UK, our Group Chief Financial Officer is a leading industry representative in the Government's Business Forum on Business Tax and Competitiveness, working to build a more competitive UK tax system. Vodafone also chairs the Finance Committee of the Cellular Operators Association in India and is a member of the South African Institute of Chartered Accountants (SAICA), which engages on a wide range of tax issues.

In December 2013, Vodafone won the PwC Building Public Trust Award 2013 for best Tax Reporting in the FTSE 100. These awards are designed to recognise 'truly outstanding tax reporting' and reflect 'a clear commitment' by the winning organisations to 'explain the tax environment in which they operate, as well as offering a detailed explanation of their goals, strategies, policies and wider economic contribution'.

In focus: India and tax

In 2007, Vodafone purchased an indirect stake in a company in India from Hutchison Telecommunications International Limited. After the acquisition was completed, the Indian tax authorities sought to raise a tax demand against Vodafone, even though the transaction took place outside India between two non-Indian entities and Vodafone was the buyer, not the seller.

The Indian tax authorities' actions led to a protracted legal dispute, which culminated in a hearing before the Indian Supreme Court. The Supreme Court examined all the facts related to the transaction before concluding unambiguously and unanimously, in January 2012, that no tax was due. The Court also highlighted that it was important for the Indian government to avoid penalising international investment in the country.

Although the country's highest court had vindicated Vodafone's position, the Indian government subsequently changed the law to introduce retrospective taxation rules. Those rules, which were backdated to 1962, were designed to require taxes to be paid retrospectively which, as the Supreme Court had concluded, could not be levied against Vodafone under any reasonable interpretation of the evidence or the law.

All businesses depend on tax policy predictability and certainty in order to plan investments for the long term. The Indian government's decision to rewrite half a century of tax legislation with immediate, retrospective effect was widely condemned worldwide, greatly damaged global business confidence in the Indian government and led to a marked reduction in the flow of investment into the country.

As a result, the Indian government commissioned an independent inquiry, led by the economist Parthasarathi Shome, to recommend a way forward. The Shome Committee concluded that retrospective tax rules should be introduced only in the 'rarest of rare' cases, and that, if applied to capital gains tax cases, the authorities should pursue the seller, not the buyer (Vodafone being the latter not the former in the case at issue).

While we maintain that no tax is due on the 2007 acquisition, we have informed the Indian government that as a committed long-term investor in India, we are willing to explore the possibility of a mutually acceptable solution. We continue to have constructive discussions with the Indian government regarding options for conciliation and have made it clear that any solution would need to be comprehensive in resolving the core of the dispute.

Over the last five years, Vodafone has become one of India's largest investors: we have spent more than £12.8 billion in building our business in the country since 2007. We are also one of the country's largest taxpayers: as we set out under our country-by-country total economic contribution table, in 2012/13 our direct and indirect contributions to Indian public finances exceeded £1.7 billion.

Tax and our total economic contribution to public finances

In focus: The HMRC/Vodafone Controlled Foreign Companies settlement

In 2010, Vodafone and Her Majesty's Revenue and Customs (HMRC) concluded a long-running legal dispute, focused on a specific point of UK and European tax legislation, with a full and final settlement of £1.25 billion.

The background to this settlement is highly complex. It was focused on an area of law whose application was unclear and which successive UK governments agreed needed to be rewritten. It involved nine years of legal argument, three court cases and two independent appeals, followed by a detailed HMRC review and settlement in 2010. That settlement was then followed by a National Audit Office (NAO) inquiry in 2012, assisted by a former High Court judge, Sir Andrew Park. The NAO report concluded that the HMRC/Vodafone settlement was a good outcome for the UK taxpayer and that if Vodafone had chosen to continue litigation instead of settling with HMRC "there was a substantial risk that the Department [HMRC] would have received nothing".

The dispute focused on the UK tax authorities' interpretation of Controlled Foreign Companies (CFC) legislation and began when Vodafone bought the Mannesmann conglomerate in Germany in 2000. This was an all-share transaction involving no borrowings or loans from Vodafone's UK business. Importantly, there was no reduction in Vodafone's UK tax contributions as a consequence and the dispute was not related in any way to the tax liabilities arising from our UK operations. We therefore questioned the UK tax authorities' application of the rules on both factual and legal grounds, in common with a number of other companies who had also challenged the UK's approach to CFC legislation.

As explained below, Vodafone's subsidiary in Luxembourg is the main financing company for our many operations around the world. The UK tax authorities argued that, had those financing activities been established and undertaken in the UK, they would have attracted tax in the UK, and that therefore tax should be payable under UK CFC provisions. Vodafone argued that, as a matter of European law, we were freely entitled to establish activities wherever we chose, and that as a matter of fact, these were neither artificial arrangements nor did they have any impact on Vodafone's UK tax liabilities.

The underlying facts were scrutinised by the UK tax authorities and the points of law involved were examined in detail by the European Court of Justice, the UK High Court and the UK Court of Appeal, prior to the decision to reach a settlement. Subsequently, the UK government sought to address a number of inconsistencies and flaws in UK CFC legislation, clarifying the UK's approach to this complex area of international taxation in new rules, which took effect in January 2013.

In focus: Vodafone and Luxembourg

Vodafone has a long-established and significant presence in Luxembourg. Our subsidiaries in that country manage the financing of many of the Group's international operating activities. In addition, the Group's global supplier contractual relationships are determined and controlled by our Luxembourg-based Vodafone Procurement Company and our international roaming team is also based in the country.

These are not 'brass plate' activities. Luxembourg is an attractive EU location for substantive business operations. Vodafone employs more than 300 people there to coordinate and manage more than €7 billion of global purchasing and 650 international roaming agreements. These enable Vodafone customers to communicate when travelling across more than 190 countries. Furthermore, and in line with international best practice, our Luxembourg subsidiary oversees the provision of financing to Vodafone's international businesses on a commercial 'arm's length' basis, reflecting the costs of borrowing from an external bank.

The Luxembourg tax regime is largely in line with that of many other EU member states, including a standard corporate tax rate of 29.22%. However, there is one important difference: under Luxembourg tax rules, write-downs on the book value of a company's assets are recognised as tax losses to be offset against company profits.

Those rules mirrored similar rules in place in Germany 13 years ago. When Vodafone's acquisition of the Mannesmann conglomerate in Germany in 2000 was followed by the dotcom crash, tens of billions of euros were wiped off the value of the former Mannesmann business, resulting in significant losses for the Luxembourg subsidiary involved and ultimately for all of Vodafone's shareholders.

Those historical losses more than offset our income in Luxembourg, leading to a low cash tax rate in that country. It is those losses which give rise to the £17.7 billion additional tax asset announced in our recent interim results. However, it is important to note that changes to the UK Controlled Foreign Company (CFC) rules introduced in 2013 mean that a proportion of profits from our Luxembourg subsidiary's global financing activities are also taxable in the UK.

Tax and our total economic contribution to public finances

In focus: Verizon Wireless

In September 2013, we announced our intention to sell the US group, whose principal asset is Vodafone's 45% shareholding in Verizon Wireless, to our US joint venture partners, Verizon Communications Inc., for a total consideration of $130 billion.

Our US group structure is predominantly a legacy of prior mergers and acquisitions dating back more than 14 years. Together with our Verizon Wireless shareholding, it also owns a range of minority non-US interests acquired in the merger with AirTouch Communications Inc. in 1999, together with other non-US interests acquired over time.

We will be exiting our principal US business as a result of the transaction and it would not make sense to leave these legacy non-US interests – which are not included in the sale to Verizon Communications – stranded in US jurisdiction. We will therefore undertake a rationalisation and reorganisation prior to completion of the transaction to ensure these non-US interests will be held by Vodafone outside the US in the future. That reorganisation will give rise to an estimated $5 billion US tax liability under standard US tax rules. The amount to be paid to the US Treasury in due course will depend on the valuation of those non-US interests when the transaction completes in the first quarter of 2014.

Our US group has always been owned by one of Vodafone's European holding companies, based in the Netherlands, which also owns many of our other international assets. Our European holding company will sell the US group to Verizon Communications in its entirety once the rationalisation and reorganisation, described above, has been completed.

The sale of our US group is not taxable under standard US tax rules: under the US tax code, US tax is not imposed on these types of sales of shares by non-US-based entities. Such treatment is also consistent with US tax treaties. The sale is also not taxable under standard Dutch rules: long-established tax law in the Netherlands provides a participation exemption on dividends received and capital gains arising from the sale of shares by any Dutch company, whatever their size or the size of the transaction involved.

Whilst the UK is not a relevant jurisdiction for tax purposes, given the locations of the buyer and the seller, under rules established in 2002, the UK has similar shareholding disposal exemptions to those of the Netherlands.

A number of other EU countries have similar provisions in place, all of which are designed to stimulate long-term corporate investment and consequential broader benefits for the wider economy.

Notes:

1. See Analyses of Corporation Tax receipts and liabilities and Total tax contribution: results of The Hundred Group 2012 survey

This section was first published in December 2013 and was subject to a separate independent assurance by EY.

For more details see our December 2013 Assurance Statement.

June 2014

Tax and our total economic contribution to public finances

Our economic contribution, country by country

This report was first published in December 2013 and the next version will be available in December 2014 on our corporate website.

Vodafone plays an important role in helping to develop the economies of the countries in which we operate. We are a major investor, taxpayer, employer and purchaser of local goods and services. We also make a vital contribution to the delivery of governments' policy objectives through our substantial capital expenditure in building the next generation of digital infrastructure.

We contribute directly to public finances through a wide range of taxes, as well as non-taxation revenue mechanisms, such as licence and regulatory fees. We also make a significant indirect contribution through the taxes paid by our employees and the suppliers that our businesses support (many of which are effectively dependent on the fact that we do business in the country in question), as well as through taxes collected on governments' behalf, such as sales taxes and VAT.

Assessing our contribution to public finances

The following table sets out the data for five of the most relevant indicators of Vodafone's total overall contribution to the public finances and wider economies within which we operate.

Certain data is only gathered and reconciled some time after the end of the previous financial year, for example, in relation to some non-taxation-based fees paid to national governments. Therefore, to ensure the most effective comparisons between different types of contribution within the same period, all the data presented in the table below is for the 2012/13 financial year and is drawn from our audited accounts.

In the 2012/13 financial year, Vodafone's businesses around the world paid more than £4.2 billion in direct taxes to governments in our countries of operation, plus more than £3.2 billion in other non-taxation-based fees and levies. Our businesses also made a total indirect tax contribution to national governments of £6.1 billion. Our total cumulative contribution to the public finances of our countries of operation was therefore more than £13.5 billion. We also invested more than £6 billion in the networks and services now relied upon by more than 400 million customers worldwide.

In the table below, the direct tax contributions to governments are reported on an annual actual cash paid basis for each local market as, in our view, these are among the most meaningful and transparent metrics to consider when assessing a company's tangible role in helping to fund public services. International accounting rules governing the reporting of a multinational company's profit and loss tax liabilities and charges are complex, reflecting a wide range of factors such as deferred taxation, losses, group-level taxation and various provisions related to uncertain tax positions. The cash payments or reliefs arising from those factors may be several years in the future. As a result, there can be a variance between a multinational company's statutory reported numbers over a specific time period – particularly in territories with holding companies as well as a local operating company – and the actual cash paid numbers set out below[1].

For more detailed information about our financial performance in 2012/13, see our Annual Report.

The columns in the table are explained below.

- **Direct government revenue contribution: taxation.** This encompasses Vodafone's total direct tax contribution in each country, including corporation tax, business rates or equivalent, employers' national insurance contributions or equivalent, municipal and city taxes, sector-specific taxes (such as 'special' taxes, 'telecoms' taxes or 'crisis' taxes), stamp duty land tax, stamp duty reserve tax, irrecoverable Value Added Tax (VAT), insurance premium tax, climate change levy, environmental taxes, customs duties, fuel excise duties, vehicle excise duty and acquisition taxes. An illustrative list of the types of taxes paid is set out in the Appendix.

- **Direct government revenue contribution: non-taxation mechanisms.** This encompasses all other forms of government revenue raised in addition to a country's direct taxation regime, including telecoms licence fees, radio spectrum management fees, proceeds from revenue-sharing agreements, usage fees and proceeds from radio spectrum auctions. Examples of these payment types are listed in the Appendix.

- **Indirect government revenue contribution.** This encompasses taxes collected by companies on behalf of national governments, including Pay As You Earn (PAYE) income tax, employees' national insurance contributions, withholding taxes, sales and consumption taxes and VAT. These indirect contributions to government revenue would not be collected (or generated to the same extent) if the company did not employ people and offer services or products to the customers responsible for paying the tax in question, or procure goods and services from its suppliers on which such taxes are due.

- **Capital investment.** Our significant investments in building the networks and services relied upon by more than 400 million Vodafone customers around the world are often taken into account by local tax authorities when determining corporate tax liabilities.

Tax and our total economic contribution to public finances

- **Direct employment.** Vodafone is an important source of employment and skills transfer worldwide. We provide incomes, benefits and the potential for a high-technology sector career path for 91,272 people in more than 30 countries as of end March 2013 (2011/12: 86,373). In addition, we have contractual relationships with many thousands of suppliers and partner companies around the world, each of which relies to a greater or lesser extent on revenues from Vodafone to pay their employees' wages.

This data is intended to provide a broader insight into Vodafone's significant economic contribution to the societies in which we operate. We have no view on the merits of direct versus indirect taxation, nor on the distinction between the revenues that flow to governments from taxation versus those obtained through other means, such as spectrum fees. Governments – not companies – determine the rules.

The figures set out in the table below will vary widely from country to country and from year to year as a result of local differences between, and annual movements in, factors such as levels of profit and capital investment. There are also wide variations in local taxation regimes and other government revenue-raising mechanisms, many of which change from year to year.

Notes:

1. For example, see CBI – Tax and British Business: Making the Case and CBI – UK Corporation Tax system: 12 misunderstood concepts

Total Economic Contribution – country by country

	Direct revenue contribution: taxation		Direct revenue contribution: other non-tax		Indirect revenue contribution		Capital investment		Direct employment	
	FY 12/13 £m	FY 11/12 £m	FY 12/13 £m	FY 11/12 £m	FY 12/13 £m	FY 11/12 £m	FY 12/13 £m	FY 11/12 £m	FY 12/13	FY 11/12
Europe[1]										
Albania	4	6	1	1	16	12	20	22	420	438
Czech Republic	25	43	9	8	66	74	69	85	2,517	2,974
Germany	106	160	0	0	1,068	892	1,246	1,044	11,088	12,115
Greece	25	25	6	6	178	217	66	78	1,756	2,122[5]
Hungary	43	33	61	0	70	45	52	55	1,454	1,543
Ireland	24	22	149	8	92	84	102	117	1,081	1,122
Italy	425	668	12	1,069	903	1,333	579	653	5,750	5,838
Malta	37	5	2	2	9	6	26	9	312	312
Netherlands	65	43	1,124	0	233	217	219	243	3,456	3,034
Portugal	65	71	7	91	133	149	129	151	1,484	1,505
Romania	68	64	195	13	91	92	79	80	3,308	3,515
Spain	172	225	255	71	314	334	367	429	4,223	4,379
UK	275	338	825	21	776	523	1,076	767	7,850	8,151
Total	**1,334**	**1,703**	**2,646**	**1,290**	**3,949**	**3,978**	**4,030**	**3,733**	**49,469[3]**	**47,151**

Tax and our total economic contribution to public finances

	Direct revenue contribution: taxation		Direct revenue contribution: other non-tax		Indirect revenue contribution		Capital investment		Direct employment	
	FY 12/13 £m	FY 11/12 £m	FY 12/13 £m	FY 11/12 £m	FY 12/13 £m	FY 11/12 £m	FY 12/13 £m	FY 11/12 £m	FY 12/13	FY 11/12
AMAP Region[2]										
Australia	7	7	26	26	33	49	281	347	2,060	2,656
DR Congo	23	54	16	5	25	3	49	24	606	585
Egypt	108	100	54	57	173	170	211	209	5,091	4,425[4]
Fiji	2	1	1	0	2	2	7	4	120	114
Ghana	6	6	3	2	38	46	36	57	1,279	1,392
India	289	257	442	414	986	802	555	815	11,996	11,234
Kenya	80	98	8	29	18	92	12	71	2,666	2,701
Lesotho	5	6	2	2	1	2	8	7	123	131
Mozambique	1	1	0	0	4	3	47	45	284	236
New Zealand	46	57	1	1	78	57	117	106	2,531	1,922
Qatar	1	0	0	1	0	0	69	69	420	378
South Africa	375	374	20	18	318	291	506	603	5,118	5,147
Tanzania	42	16	8	1	40	31	92	43	480	477
Turkey	454	299	0	19	375	446	247	266	3,340	3,312
Total	**1,439**	**1,276**	**581**	**575**	**2,091**	**1,994**	**2,237**	**2,666**	**36,114**	**34,710**

Tax and our total economic contribution to public finances

	Direct revenue contribution: taxation		Direct revenue contribution: other non-tax		Indirect revenue contribution		Capital investment		Direct employment	
	FY 12/13 £m	FY 11/12 £m	FY 12/13 £m	FY 11/12 £m	FY 12/13 £m	FY 11/12 £m	FY 12/13 £m	FY 11/12 £m	FY 12/13	FY 11/12
Non-OpCo	1,466	400	2	0	38	10	11	13	600	494
Global total	**4,239**	**3,379**	**3,229**	**1,865**	**6,078**	**5,982**	**6,278**	**6,412**	**86,138[6]**	**82,355[6]**

Notes:

The table above includes all contributions from countries within the Group's Europe and AMAP regions, as set out on page 5 of the Group's 2012/13 Annual Report and Accounts. Non-controlled interests and common functions are included within the 'Non-OpCo' line, unless the contribution is from a country already listed in the regions above.

1. Europe is now a combination of N&CE Europe and SE Europe, with the exception of Turkey which has moved to AMAP region
2. AMAP now includes Turkey, which was originally in N&CE region, along with Australia and Fiji, which are new countries to be included in this edition
3. The total figure for Europe includes 4,524 Cable and Wireless employees that cannot be apportioned by country
4. Egypt – the 11/12 figure was under-reported – it is corrected here (an increase of 41 people)
5. Greece – the 11/12 figure was over-reported – it is corrected here (a decrease of 103 people)
6. The global total direct employment numbers do not include some roles in global functions and some joint venture/ non-controlled assets

'Non-OpCo' includes (i) subsidiaries in countries where the Group does not have an equity interest in a company which holds a licence to provide mobile telecommunications services and (ii) the US group which owns the 45% shareholding in Verizon Wireless.

'Non-OpCo' includes a direct revenue contribution of £17 million and an indirect revenue contribution of £29 million attributable to our activities in Luxembourg in 2013.

The source data is predominantly drawn from information included within the publicly available Vodafone Group Annual Report & Accounts, the public accounts of the Group's listed operating company subsidiaries and the accounts of various non-listed Group operating company subsidiaries. The Vodafone Group public accounts are certified by the Group's external auditors Deloitte and the public accounts of the Group's listed operating company subsidiaries are certified by those companies' external auditors. Additional data is subject to assurance by EY, in line with the approach taken for other metrics disclosed in this Sustainability Report.

Tax and our total economic contribution to public finances

Key Vodafone Group financials and statistics at global level

	2010/11	2011/12	2012/13
Revenue (£m)	45,884	46,417	**44,445**
Adjusted operating profit (£m)	11,818	11,532	**11,960**
Free cash flow (£m)	7,049	6,105	**5,608**
Market capitalisation (as at 31 March) (£m)	91,034	85,490	**91,300**
Group customers (million)	370.9	404.7	**403.9**

For more detailed information about our latest financial performance in 2012/13, see our Annual Report.

Tax and our total economic contribution to public finances

Appendix: Taxation types

The table below provides an illustrative overview of the types of taxation paid by Vodafone operating companies around the world every year.

Direct taxation

Advertisement tax

Air passenger duty

Airtime excise tax

Business rates

Capital gains tax

Climate change levy

Commission levy

Communications services tax

Construction tax

Corporation tax

Customs duty

Donations tax

Economic activity tax

Education tax

Employers' national insurance contributions

Environment tax

Excise duty

Expatriate tax

Fuel duty

Garbage tax

ICA/turnover tax

Import duty

Insurance premium tax

Interconnect tax

International inbound call termination surtax

Irrecoverable VAT

Judicial tax

Mobile telecoms services VAT

Mobile telecoms VAT (higher rate)

Municipal and city rates

Municipal tax on immovable property

Municipal waste tax

National health insurance levy

Numbering tax

PAYE settlements

Site rental tax

Social security tax

Special communications tax

Special consumption tax

Sprint payments

Stamp duty land tax

Stamp duty reserve tax

Tax on public domain/fixed lines

Technology tax

Universal service tax

Vehicle excise duty

Withholding tax

Workers' compensation insurance levy

Non-taxation-based fees

Chamber of commerce fees

IMEI number registration fees

Licence renewal fees

National Copyright Collecting (SIAE) fees

Network usage fees

Proceeds from revenue-sharing agreements

Radio link fees

Spectrum auction receipts

Spectrum management fees

Telecoms levy

Telecoms licence fees

Usage fees

Wireless connection fees

Wireless usage fees

This section was first published in December 2013 and was subject to a separate independent assurance by EY.

For more details see our December 2013 Assurance Statement. June 2014

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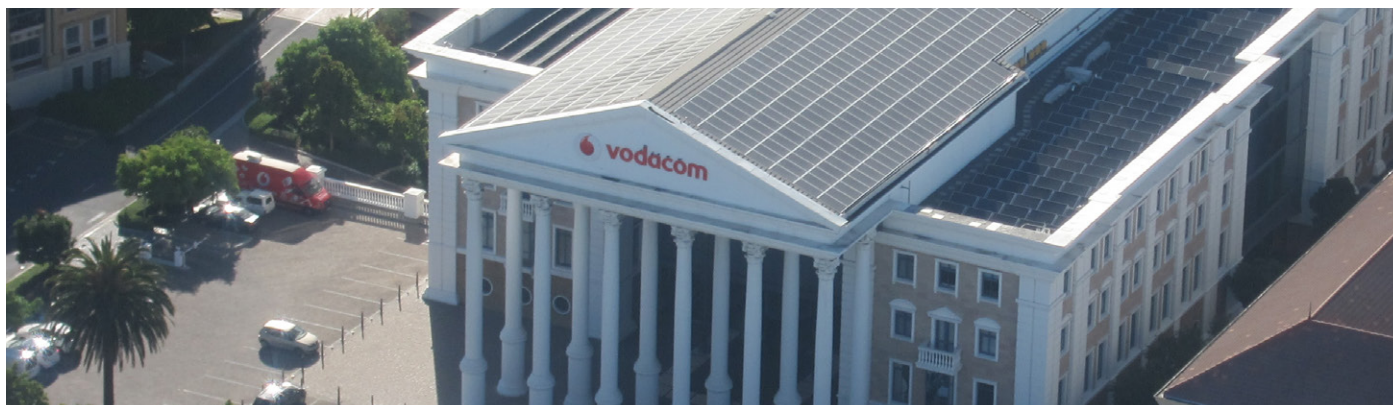
Environmental footprint –
Our approach

We aim to minimise the environmental footprint of our operations to enable us to do more with less: less energy, less carbon, less waste and less use of resources. We focus on improving the energy efficiency of our network, using renewable energy where viable and developing innovative solutions that enable our enterprise customers to significantly reduce their own carbon footprints.

Our main focus is on using energy more efficiently in our networks, data centres and operations. This is where we can make the biggest difference to our environmental footprint – by tackling related carbon dioxide (CO_2) emissions – and where we can make the strongest business case by saving energy costs.

We have environmental management systems in place to manage our energy use and carbon emissions as well as a range of other environmental impacts, such as electronic waste from our network equipment, office waste, emissions of ozone-depleting substances and water use.

Read on to find out more about our approach. Or go to Performance to read about our progress in 2013/14.

Minimising our carbon footprint

We are committed to minimising our carbon footprint as our business grows. Our priority is to manage CO_2 emissions from our networks and our data centres, which together account for more than 85% of our footprint. We are doing this by investing in more efficient technologies and exploring innovative solutions that cut CO_2 emissions by reducing energy consumption or using renewable energy.

As we grow our business, we are also enabling more businesses and organisations to reduce their carbon emissions using our mobile services (see Low carbon solutions).

See Performance to find out about our progress in 2013/14.

Network efficiency

We are working with suppliers to develop and install more efficient components across our entire network – including our base stations, mobile telephone exchange centres, data centres and fixed line facilities.

Across our markets, we are rolling out technology such as single RAN base stations (which combine 2G, 3G and 4G technologies), more efficient power amplifiers, free cooling – using fresh air to cool network equipment to reduce the need for energy-intensive air conditioning – and high capacity voice and data switching nodes.

Our hybrid power systems, which combine diesel generators with batteries for greater fuel efficiency, use smart controls to cut diesel use by up to 70% at sites that depend on diesel generators for primary or back-up power in areas with limited access to reliable grid electricity. For sites with higher power requirements, batteries can be supplemented with solar and wind power (see below).

The Vodafone Site Solution Innovation Centre in South Africa provides a base for our network innovation teams to collaborate with external partners and suppliers to develop and test new technologies that will help us reduce our energy use and carbon footprint.

Sharing network equipment with other operators can also deliver energy savings (see Network deployment).

Environmental footprint – Our approach

Renewable energy

Our main focus is on using less energy, however in some markets we also switch to renewable energy sources to reduce our reliance on fossil fuels and cut related carbon emissions. A small but growing number of our base stations use renewable energy, mostly solar and wind power. Renewable energy sources are most economically viable for sites in emerging markets, where they help us reduce the need for diesel generators as we expand our reach to remote areas where grid supplies may be unavailable or unreliable.

As we roll out more on-site renewable power, we are also exploring the use of our network to provide not just telecommunications services but clean energy to remote communities. This brings climate benefits, by replacing carbon-intensive fossil fuels, and provides an opportunity for us to contribute to development by extending access to energy (see Low carbon solutions).

In addition to using small-scale renewable energy to power parts of our network, we purchase some electricity from the grid that is generated from renewable sources (green tariff electricity). To address the risk of double counting emission reductions due to uncertainties surrounding the carbon accounting of green tariff electricity in some European countries, we report both a gross and net total for our CO_2 emissions (see Data). We continue to monitor regulations around this issue, such as the Greenhouse Gas Protocol Scope 2 Guidance published in March 2014. While we buy green tariff energy in some markets, at a Group level we prioritise improving the energy efficiency of our networks and working to help our enterprise customers reduce their CO_2 emissions (see Low carbon solutions).

Data centre efficiency

Our data centres – which account for around 10% of our total CO_2 emissions – must become more efficient to reduce energy use and handle increasing traffic as cloud data services, mobile internet and other data applications become more popular.

Three data centres located in Germany, Ireland and Turkey have third-party certifications for energy efficiency. We are implementing efficiency measures at these and our other data centres including:

- Installing more efficient hardware and innovative technology, such as dry coolers, which optimise energy efficiency

- Reducing the number of physical servers needed to store the same or more data by increasing the amount of virtual servers used

- Cutting energy needed for air-conditioning by increasing our use of free air cooling, and upgrading equipment with new, more energy efficient models.

Business travel

Our employees often need to meet with colleagues from other countries. We are working to reduce the need for business travel – and associated greenhouse gas emissions – by equipping our offices with state-of-the-art technology to enable our people to communicate and work together. Our unified communications system combines internal voice, data and video applications into one online experience so employees can contact colleagues through voice, video, instant messaging or web-based conferencing programmes.

Managing electronic waste produced by our networks

Replacing network equipment as technology advances helps us provide the best service for our customers as well as giving us the opportunity to install new, more energy-efficient equipment to reduce the carbon footprint of our operations. However, upgrading our network also generates electronic waste (e-waste), some of which is potentially hazardous and must be disposed of responsibly.

We recycle the majority of our network waste. In our mature markets, we often have a choice of expert e-waste recycling contractors that comply with international regulations on e-waste. However, this is more challenging in emerging markets with limited facilities to recycle and manage electronic waste. Finding the most sustainable solution in these markets is not always easy. For example, we may have to choose between:

- Allowing e-waste to be processed within the emerging market despite a lack of suitable facilities, and helping to build recycling capacity for the future, or

- Transporting e-waste back to mature markets for processing, which enables the use of high-quality facilities but increases carbon emissions from transport and does not help to build capacity in emerging markets.

See Performance to find out about our progress in 2013/14.

Environmental footprint – Our approach

Managing our environmental impacts

Accountability for environmental performance rests with the senior management of our local markets and Vodafone Group functions, including the Technology and Supply Chain teams. Ultimate accountability rests with local market Chief Executives and the Group Executive Committee.

The issues most relevant to our business are identified through our materiality process (see Material issues). Our environmental management systems provide a framework for managing these issues and reducing our impacts across the Group. This includes monitoring risks, setting targets, reviewing progress and reporting performance.

Our local markets' environmental management systems in the Czech Republic, Greece, the Netherlands, Portugal, Romania, South Africa, Spain and the UK are certified to international standard ISO 14001. In 2013/14, the certification for Vodafone UK was extended to cover the integrated activities of the Cable & Wireless Worldwide business, which was acquired by Vodafone in 2012/13.

In addition to our focus on managing our carbon footprint and network e-waste (see above), we also manage a range of other issues. These include:

Office waste

We are committed to reduce, reuse and recycle the waste we produce where possible. The main waste produced by our offices, call centres and shops is paper, printer toner cartridges, packaging material and IT equipment. We provide recycling points in offices to encourage employees to recycle, and promote double-sided printing to save paper. See Performance for information on our Less Paper Office project.

Water

Our operations use relatively little water compared with other industries and we do not consider this one of our key environmental impacts. However, we recognise that water is becoming an increasingly important issue, particularly in water-stressed regions of the world. We monitor and aim to reduce water use locally by, for example, installing low-flow toilets in offices. See Data for our performance in water use.

Ozone depletion

Some of our network cooling systems and air conditioning systems in our offices and shops use refrigerants. We have phased out the use of CFCs and are working to phase out the use of HCFCs in accordance with the Montreal Protocol, an international agreement on the phasing out of ozone-depleting substances. See Data for our performance in reducing ozone-depleting substances.

Complying with environmental regulations

We have taken steps to assist the local markets in complying with applicable legislation on electronic waste. These include national legislation in each market and European regulations such as:

- 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, which requires companies to take back and recycle used electrical and electronic equipment at the end of their useful life

- The EU's Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) Directive which restricts the use of certain substances of high concern in any of the products we sell.

See Data for our performance in environmental compliance.

Energy use, carbon, greenhouse gas emissions and network waste data, as well as selected supporting statements in this section were reviewed as part of EY's assurance of Vodafone's Sustainability Report.

For more details see our Assurance Statement.

June 2014

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Environmental footprint – Performance in 2013/14

We continue to invest in new high performance technologies such as smart metering, hybrid generators and tri-generation (combined heat, power and cooling) systems to make our network more energy efficient. This enables us to minimise increases in our carbon emissions as our business grows to meet the needs of our growing customer base and rising demand for mobile internet and data services.

Our carbon footprint

In 2013/14, our net Group carbon emissions expressed as carbon dioxide equivalents (CO_2e) totalled 2.55 million tonnes. This 8% increase from 2012/13 was due almost entirely to the inclusion of carbon data from our newly acquired businesses, Cable & Wireless Worldwide (CWW) and Telstra, on which we have not previously reported. Excluding the emissions from our new acquisitions, our total CO_2 emissions increased only slightly by 1% despite significant increases in our customer's use of data and the expansion of our network. CO_2 emissions for pre-existing operations were stable across both developed and emerging markets, partially as a result of energy efficiency measures balancing the growth in energy demand from increased use of our network; and partially due to the greening of electricity supply grids in some of our major markets.

The volume of traffic across our network since 2007 has increased more than ten-fold, and the number of base stations servicing this traffic has increased three-fold. In spite of this huge growth, and a number of significant acquisitions, our carbon emissions have been held to a two-fold increase, due to a proactive strategy to improve the energy efficiency across our networks and data centres. As a result, the efficiency of our operations has greatly improved with the average CO_2 emissions per base station now almost 40% lower than in 2007.

Using our M2M and other Low carbon solutions enables our customers to reduce their carbon footprint. Our research with the Carbon Trust in 2013 found that four Vodafone solutions — smart metering, smart logistics and fleet management, call conferencing, cloud and hosting services — delivered total carbon savings for our customers of 2.29 million tonnes of CO_2e in 2012/13, which is almost equal to the net carbon footprint of 2.36 million tonnes of CO_2e for our own operations in the same year. We now have contracts in place to supply approximately 13.8 million M2M connections for smart metering, transport and logistics. Many of these will enable carbon reductions by reducing energy and fuel consumption (see Low carbon solutions).

To reduce our reliance on carbon intensive energy sources, we promote the use of small-scale renewables to power our network. We installed solar power at a further 210 sites (mostly in India) in 2013/14, although solar is still only used at a small proportion of our base station sites across the Group. We also purchase 15% of our grid electricity from renewable sources, and in 2013/14 we established an agreement with Energiekontor AG, a major European renewable power developer, to buy the power produced from its wind farm in Northamptonshire, UK, for the next 15 years. This agreement, the first of its kind for Vodafone, is designed to reduce risks related to energy price increases as well as supporting the development of renewable energy by investing in this wind farm.

See Data for detailed carbon accounts.

○ Ongoing ● Achieved ◑ Partial ○ Not achieved

Objective	Our performance in 2013/14	Status
Reduce CO_2 emissions by 50% against the 2006/07 baseline by March 2020 for mature markets[1]	When emissions from fixed line acquisitions are taken into account, net CO_2 emissions in our mature markets have decreased by 5% since 2006/07. Based on current projections we are unlikely to meet the 50% reduction target by 2020, but we continue to deploy energy efficiency measures to minimise our carbon footprint in the context of business growth.	◉
Reduce CO_2 per network node[2] by 20% against a 2010/11 baseline by March 2015 for emerging markets[3]	We reduced our emissions per network node to 15 tonnes of CO_2, a 19% reduction from the 2010/11 baseline — coming very close to achieving this 2015 target a year early.	◉

Notes:

1. Mature markets are defined as those obligated under the Kyoto Protocol: Czech Republic, Germany, Greece, Hungary, Ireland, Italy, the Netherlands, New Zealand, Portugal, Romania, Spain and the UK
2. A single base station site may contain more than one node for each type of network served (eg 2G, 3G or 4G)
3. Emerging markets are defined as those not obligated under the Kyoto Protocol: Albania, Egypt, Ghana, India, Malta, Qatar, South Africa and Turkey

Environmental footprint – Performance in 2013/14

Understanding energy use in our networks

In 2013/14, we extended the rollout of smart meters. Now installed at 50,000 of our base stations, these meters provide detailed information on energy use, helping us identify and target opportunities to reduce consumption – and improving the accuracy of our billing which allows us to negotiate better tariffs with utility companies. All newly constructed base stations now have smart meters installed as standard, and we will continue to roll out smart meters over the next few years.

Around 45% of our mobile telephone exchange sites are sub-metered, providing us with a detailed understanding of the energy use inside the mobile telephone exchange centres, such as the air conditioners and lighting equipment. We are using this insight to help us identify opportunities to significantly improve energy efficiency at these sites.

In addition to monitoring our own energy use, we also offer smart metering solutions to our enterprise customers to help them monitor and reduce their energy use. See Low carbon solutions.

Improving energy efficiency in our networks

In 2013/14, we continued to apply relevant energy efficiency measures across some of our network, which includes more than 263,400 base station sites and 343 core facilities such as mobile telephone exchanges. Initiatives include:

- Rolling out free air cooling at a further 13,997 base station sites, saving between 2,000kWh and 3,500kWh of energy per year per site by reducing the need for air conditioning

- Introducing batteries that can withstand higher temperatures (up to 35°C) at around 600 sites, to reduce the need for air conditioning in hot countries

- Deploying hybrid solutions – a combination of diesel generators and batteries that cut diesel use by up to 70% per site – at a further 656 sites, so these are now in place at more than 3,600 base station sites across the Group

- Installing efficient Single RAN technology (allowing multiple network radio technologies, 2G, 3G and 4G to be run from a single base station) at a further 33,162 sites – now installed at 45% of our sites in total

- Deploying a further 50,000 energy-saving software features at our base stations – such as transceivers that switch-off automatically in periods of low traffic – reducing energy use of each base station by up to 10%

- Adopting free air cooling at 45% of our mobile telephone exchange sites, changing the layout of equipment and increasing the temperature at which air conditioning is triggered to 25°C to further benefit from free cooling at 36% of these sites

- Extending tri-generation (combined heat, power and cooling), piloted at one of our mobile telephone exchange sites in Italy, where it enabled us to reduce energy use by 20% and related CO_2 emissions by 15%.

Energy efficiency in our data centres and operations

Carbon emissions from energy use in our data centres accounted for approximately 10% of our total emissions in 2013/14, and are projected to increase in the future as consumer demand for mobile internet and data services grows.

A common measure of data centre efficiency is power use effectiveness (PUE), the proportion of energy used to power computer equipment as opposed to ancillary functions such as cooling. At our global and regional data centres in Germany, Ireland, Italy and the UK, we have achieved an average PUE of 1.49 by introducing a range of energy efficiency initiatives. Examples include:

- Integrating energy efficiency requirements in our requests for proposals for data centre equipment from suppliers

- Replacing the air conditioning units used to cool our computer rooms with new more efficient models

- Increasing maximum air temperature before air conditioning turns on from 20°C to 28°C at data centres in Germany, India, Ireland, Italy and South Africa to reduce the amount of energy needed for cooling

- Improving the virtualisation ratio – the number of virtual servers compared with physical servers – from 52% in 2012/13 to 55% in 2013/14, making more effective use of space at our data centres and reducing the need for physical infrastructure

- Achieving third-party certification for energy efficiency of our new data centre in Turkey, and retaining third party certification for the third year running of our major data centres in Germany and Ireland – all three data centres have a premium rating (more than 85%) for energy efficiency.

We also target reductions in CO_2 emissions from other parts of our operations, including employee travel, office and IT impacts. In 2013/14, carbon emissions from our business air travel increased by 3.5% in line with the number of employees. We have increased the use of our remote collaboration technologies by almost 35%[1] in 2013/14 with employees using video conferencing for an estimated 100,000 hours a month.

Our flexible working programmes in several markets are helping to reduce energy use and emissions from offices and employee commuting. We are using these programmes to showcase the potential of our technology to bring similar benefits for our customers (see Smart working).

We also aim to reduce overall environmental impacts from our office buildings. In 2013/14, for example, our offices in Germany achieved gold level certification from the LEED green buildings organisation and our Site Solution Innovation Centre in South Africa has previously been awarded the maximum six stars from the South African Green Building Council.

Environmental footprint – Performance in 2013/14

In focus: Targeting reductions in office energy and paper use

We continued to extend our Less Paper Office initiative in 2013/14. It has already enabled us to reduce the amount of paper we use, our annual printing costs, energy and related CO_2 emissions. This initiative is based on using large, multifunctional devices – each shared by around 60 people – to replace individual printers, photocopiers, scanners and fax machines. Default settings promote double-sided and black-and-white printing.

Targeting emissions reductions through innovation

In 2013/14, we continued to trial a number of innovative technologies by partnering with suppliers at our Site Solution Innovation Centre in South Africa. These include:

- A compact hybrid generator developed by Vodafone, known as a 'power cube', which can reduce the running time of a diesel generator by up to 82%, save up to 93% on servicing costs and cut fuel consumption by more than 50% – four types of power cube have been tested at sites in South Africa

- More efficient filters that extend the life of base station equipment and reduce the number of maintenance trips required, cutting operating costs and travel emissions

- Air conditioners that use up to 75% less energy by running on both alternating current (AC) and direct current (DC) power

- Solar upgrade kits, which enable us to attach solar panels to existing sites that already use hybrid generators to further reduce diesel consumption – the design of the kits will be finalised following a trial at some sites in 2013/14.

As we expand our networks to more rural areas, we are exploring opportunities to use renewable power generated at our base stations to bring power to remote communities without electricity. In the first two years of operating a trial site in South Africa, we cut our monthly diesel use by 90%, labour maintenance costs by 24%, and reduced CO_2 emissions from the site by 90%. There have also been significant benefits to the community. Following its success, we are planning to open a second trial site in 2014 that will provide power to a local school (see Low carbon solutions).

Managing waste from our networks

As we introduce new technologies to our network that help improve its speed and efficiency, we replace outdated equipment, most of which is reused or recycled.

Electronic waste (e-waste) is an ongoing concern, particularly in emerging markets, which often lack sufficient facilities and legal safeguards for recycling and disposing of it safely. We aim to ensure network waste is disposed of responsibly as we expand our operations in these markets. In 2013/14, we published a Group-wide policy on e-waste management to ensure consistently high standards across the Group. When fully implemented, the policy will require local markets to record all waste streams and only use regulated or licensed, screened suppliers.

See Data for more on our network waste performance.

Notes:

1. Estimate based on Group and Italian video conference facilities, comparing figures for March 2013 to March 2014

Energy use, carbon, greenhouse gas emissions and network waste data, as well as selected supporting statements in this section were reviewed as part of EY's assurance of Vodafone's Sustainability Report.

For more details see our Assurance Statement.

June 2014

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Environmental footprint – Data

Business travel

Distance flown on business flights

	2011/12	2012/13	**2013/14**
Distance flown on business flights (thousand km)	269,364	202,857[1]	**216,719[2]**

Notes:

1. Excludes data from India, Qatar and Democratic Republic of Congo (DRC)
2. Excludes data from India and Qatar

Number of video-conferencing units available

	2011/12	2012/13	**2013/14**
Number of video-conferencing units available	1,621	1,887	**2,069**

Resource use

Total volume of water used

	2011/12	2012/13	**2013/14**
Total volume of water used (million litres)	1,092	1,037[1]	**1,472[2]**

Notes:

1. Data for Qatar, India and Tanzania is based on estimates from previous records. Data from Lesotho and DRC was not available, and is therefore excluded
2. Data for India and New Zealand based is on estimates from previous records (approximately 10% of the total figure). Data from DRC was not available and is therefore excluded from the total

Total Ozone Depleting Potential (ODP) of refrigerants and fire suppressants replenished during the year

	2011/12	2012/13	**2013/14**
Total Ozone Depleting Potential (ODP) of refrigerants and fire suppressants replenished during the year (kg CFC-11 equivalent)	625[1]	102[2]	**547[3]**

Notes:

1. 2011/12 data does not include India, Qatar or South Africa
2. 2012/13 data does not include Czech Republic, Ghana, India, Lesotho, Mozambique, Qatar or Tanzania
3. 2013/14 data does not include India, Lesotho or Mozambique

Environmental footprint – Data

Network equipment waste generated

	2011/12	2012/13	2013/14
Network equipment waste generated (tonnes)	14,532[1]	10,995[2]	**11,477[3]**

Notes:

1. Data for India and Egypt is based on receipts from authorised waste contractors which only include large consignments of waste
2. Data excludes DRC, India, Lesotho, Mozambique, Qatar and Tanzania. Data for Egypt is based on receipts from authorised waste contractors which only include large consignments of waste. Value restated since last year to correct value from UK
3. Data excludes Ghana, India, Lesotho, Qatar and Tanzania. Data for Egypt is based on receipts from authorised waste contractors which only include large consignments of waste

Network equipment waste sent for reuse and recycling

	2011/12	2012/13	2013/14
Network equipment waste sent for reuse and recycling (%)	98	99	**99**

Environmental compliance

Environmental compliance

	2011/12	2012/13	2013/14
Amount of fines for environmental regulation breaches (£)	80,225	131,511	**139,234**

Energy use[1,2]

Total energy consumption

	2011/12	2012/13	2013/14
Total energy consumption (GWh)	4,454	4,723	**5,218[3]**
of which, energy sourced from renewables (%)	18	16	**15**

Notes:

1. Data for Qatar for 2011/12 and 2012/13 is estimated based on an extrapolation of data from 2010/11 aligned with network growth
2. Data includes energy used to power our network and buildings, but does not include fuel for travel
3. Data for Ghana has been estimated at the same value as for 2012/13

Environmental footprint – Data

Total network energy use by source

	2011/12	2012/13	2013/14
Total network energy use by source (GWh)	3,946	4,180	4,687
Grid	2,957	3,163	3,651
Grid renewable	730	714	738
Local market-owned renewable (micro-renewable)	3	3	5
Diesel	247	293	280
Other	8	6	12

Minimising our carbon footprint

We report our total carbon emissions with and without green tariff electricity due to uncertainties that remain around the carbon accounting of green tariff electricity in Europe. Green energy purchased from the grid ('green tariff') is rated as having zero carbon emissions when the net CO_2 emissions figure is being considered. However, we also report this energy as producing carbon emissions at the prevailing national grid rate (i.e. gross CO_2 emissions) due to the external uncertainty about carbon accounting for green tariff energy. Please see notes 2–3 to the CO_2 emissions reporting table (below) for further information on how we report gross and net CO_2.

Net CO_2e emissions (Scope 1 and 2)

	2011/12	2012/13	2013/14
Net CO_2e emissions[1] (Scope 1 and 2) (millions of tonnes) (emissions of greenhouse gases from energy to power our network and buildings, from fuel used by fleet and air travel, and losses from refrigerants and fire suppressants, expressed as CO_2-equivalents)	2.23[2]	2.36[3]	2.55[4]

Notes:

1. Green tariff energy is included with a carbon intensity of zero
2. Data excludes refrigerants and fire suppressants data from India
3. Data excludes refrigerants and fire suppressant data from Czech Republic, India, Lesotho, Mozambique, Qatar or Tanzania
4. Data excludes refrigerants and fire suppressant data from India, Lesotho, Qatar or Tanzania. Ghana data has been estimated at the same values as for 2012/13

Environmental footprint – Data

Gross CO_2 emissions

	2011/12	2012/13	2013/14
Gross CO_2 emissions[1] (Scope 1 and 2) (million tonnes) (CO_2 emissions from the energy to power our network and buildings and from fuel used by our vehicle fleet)	2.59	2.67	**2.86**
of which, net total CO_2 emissions (millions of tonnes)[2]	2.20	2.32	**2.48**
of which, CO_2 emissions from green tariff energy (millions of tonnes)	0.39	0.35	**0.38**

Notes:

1. Green tariff energy is included with emissions being calculated using the conversion rate for normal grid electricity
2. Green tariff energy is included with a carbon intensity of zero

Net CO_2 emissions (mature markets)

	2011/12	2012/13	2013/14
Net CO_2 emissions (mature markets)[1] (millions of tonnes)	1.00	1.01	**1.18**

Notes:

1. Green tariff energy is included with a carbon intensity of zero

Net CO_2 emissions (emerging markets)

	2011/12	2012/13	2013/14
Net CO_2 emissions (mature markets)[1] (millions of tonnes)	1.20	1.31	**1.30**

Notes:

1. Green tariff energy is included with a carbon intensity of zero

Environmental footprint – Data

CO$_2$ emissions reporting (tonnes CO$_2$)

		Mature markets[1]			Emerging markets[1]		Total	
		2006/07 base year	2012/13	**2013/14**	2012/13	**2013/14**	2012/13	**2013/14**
Gross emissions[2]								
Base stations	Electricity	695,292	872,715	**906,223**	556,748	**577,739**	1,429,462	**1,483,962**
	Diesel	24,532	16,445	**14,378**	228,475	**223,822**	244,920	**238,200**
	Other	1,938	141	**105**	2,426	**2,421**	2,566	**2,526**
	Total	**721,762**	**889,301**	**920,705**	**787,648**	**803,982**	**1,676,949**	**1,724,688**
Other network	Electricity	308,871	281,950	**450,632**	317,081	**319,561**	599,031	**770,193**
	Diesel	473	634	**1,155**	15,349	**9,475**	15,983	**10,629**
	Natural gas	6,943	472	**1,770**	19	**0**	491	**1,770**
	Other	0	37	**33**	70	**70**	107	**103**
	Total	**316,287**	**283,093**	**453,589**	**332,519**	**329,106**	**615,612**	**782,694**
Offices	Electricity	128,309	94,099	**91,923**	130,659	**112,890**	224,758	**204,812**
	Diesel	1,439	115	**120**	3,135	**2,679**	3,250	**2,799**
	Natural gas	11,361	8,567	**12,371**	58	**57**	8,625	**12,428**
	Other	0	14,715	**12,068**	9	**9**	14,724	**12,077**
	Total	**141,108**	**117,497**	**116,482**	**133,861**	**115,635**	**251,358**	**232,117**
Retail	Electricity	23,546	21,121	**19,891**	15,871	**14,698**	36,992	**34,589**
	Diesel	0	9	**1**	1,639	**1,105**	1,648	**1,106**
	Natural gas	1,236	1,615	**1,618**	0	**0**	1,615	**1,618**
	Other	0	185	**145**	5	**5**	190	**150**
	Total	**24,782**	**22,931**	**21,654**	**17,515**	**15,807**	**40,446**	**37,462**
Travel	Road	61,496	48,038	**42,622**	39,499	**38,250**	87,537	**80,871**
	Total	**1,265,435**	**1,360,859**	**1,555,052**	**1,311,042**	**1,302,780**	**2,671,901**	**2,857,832**
Emissions from renewable tariffs[3]								
Base stations	Green tariff	-148,689	-236,734	**-272,401**	0	**0**	-236,734	**-272,401**
Other network	Green tariff	-54,186	-93,382	**-87,391**	0	**0**	-93,382	**-87,391**

Environmental footprint – Data

		Mature markets[1]			Emerging markets[1]		Total	
		2006/07 base year	2012/13	**2013/14**	2012/13	**2013/14**	2012/13	**2013/14**
Emissions from renewable tariffs[3] (continued)								
Offices	Green tariff	-19,320	-17,727	**-15,953**	0	**0**	-17,727	**-15,953**
Retail	Green tariff	-5,489	-3,112	**-1,480**	0	**0**	-3,112	**-1,480**
	Total	**-227,683**	**-350,955**	**-377,224**	**0**	**0**	**-350,955**	**-377,224**
Total net emissions[4]								
	Total	**1,037,752**	**1,009,904**	**1,177,828**	**1,311,042**	**1,302,780**	**2,320,946**	**2,480,607**
Scope 3 emissions[5]								
Travel	Air	0	44,521	**41,397**	9,363	**14,386**	53,883	**55,783**
Indian shared base station sites					1,648,095	**1,463,170**	1,648,095	**1,463,170**

Notes:

1. CO_2 emissions are provided for mature markets (Czech Republic, Germany, Greece, Hungary, Ireland, Italy, the Netherlands, New Zealand, Portugal, Romania, Spain, UK) and emerging markets (Albania, DRC, Egypt, Ghana, India, Lesotho, Malta, Mozambique, Qatar, South Africa, Tanzania and Turkey)
2. Gross CO_2 emissions are total CO_2 emissions before accounting for any emissions reductions that have been purchased or sold. For grid electricity, emissions have been calculated using a kWh to CO_2 conversion factor based on one of the following sources (in order of priority):
   • Conversion factors provided by our energy suppliers
   • Conversion factors provided by governments or other national bodies
   • DEFRA conversion factors (2013) or IEA (2011) where unavailable.
   For the purposes of calculating gross CO_2 emissions, electricity generated from renewables purchased under a green tariff and transmitted through the national grid has been included, with emissions being calculated using the conversion rate for normal grid electricity
3. CO_2 emissions associated with renewable tariffs have been reported separately using the conversion factor for normal grid electricity. Renewable tariffs include electricity purchased under 'green' energy tariffs backed by evidence of renewable supply and transmitted through the national grid
4. Net CO_2 emissions have been calculated by subtracting emissions associated with renewable energy and emissions from sales of renewable energy back to the grid from gross CO_2 emissions. This means that CO_2 emissions associated with green tariff energy are assumed to be zero. It is unlikely that renewable energy is truly zero carbon; for example, there will be carbon associated with manufacturing and maintaining the renewable energy generator equipment. However, due to the current lack of clear international guidance on how to estimate the carbon emissions associated with renewable energy, it is counted as zero carbon here
5. Scope 3 emissions are those associated with activities which are outside of Vodafone's direct control

Energy use, carbon, greenhouse gas emissions and network waste data, as well as selected supporting statements in this section were reviewed as part of EY's assurance of Vodafone's Sustainability Report.

For more details see our Assurance Statement.

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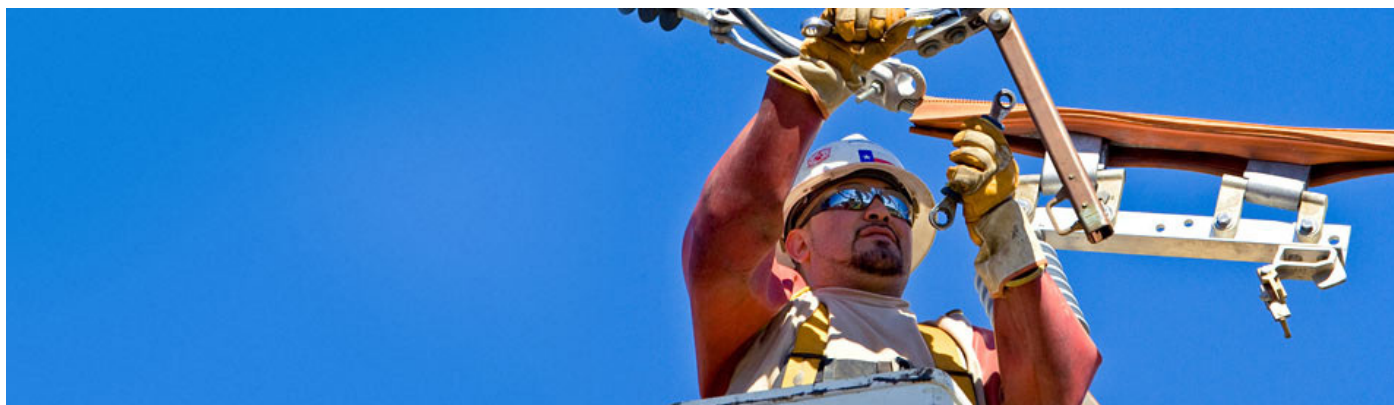
Health and safety – Our approach

Health and safety – Our approach

Ensuring the safety of everyone involved in our operations is a core value for Vodafone. We believe all accidents and injuries are preventable, and we are driving a culture where safety is an integral part of every business decision across the Group.

Loss of life or injury related to our operations is unacceptable. Our strategy is designed to tackle the root causes of major incidents and to create a mature safety culture across the Group. We are working hard to ensure employees and contractors know how to identify and manage risks, and take personal responsibility for their own safety and the safety of those around them. This vigilance is essential to our vision not just of eliminating major incidents, but preventing any incidents that could affect the health and safety of our people.

We have already achieved improvements and continue to push ourselves with challenging objectives. Our suppliers consistently tell us that Vodafone's expectations exceed those of other operators, and we believe we have an opportunity to lead our industry on health and safety. We are determined to be admired for our approach and our performance on health and safety.

Read on to find out more about our approach to this issue or go to Performance to read about our progress in 2013/14.

Managing key risks

Our focus is on reducing the impact of our top five risks across all operations: occupational road risk, working with electricity, working at height, control of contractors and legacy infrastructure. We ask each of our markets, our supply chain teams, and our group technology teams to clearly demonstrate what they are doing to reduce or eliminate these risks.

We have a wide range of programmes and systems to tackle each of these key risks, often tailored to the particular needs of each market (see Performance for some examples). By concentrating on these key risks and understanding the risk profile of our business, we are tackling the safety issues that are most likely to arise in our day-to-day operations.

In focus: Absolute Rules

Our Absolute Rules on safety focus on high risk activities and zero tolerance of unsafe behaviours.

- Always wear seat belts 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 you 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.

Health and safety – Our approach

Occupational road risk

Road traffic accidents involving employees, contractors or members of the public account for a high proportion of our major incidents in emerging markets. These usually occur on public roads as a result of poor driving conditions and unsafe driving behaviour. Rates of road traffic injuries in low- and middle-income countries are twice those in high-income countries and 80% of road traffic deaths occur in middle-income countries[1].

Although reducing risk related to driving on public roads is challenging, we can help to minimise the severity and likelihood of accidents by raising awareness, training and reinforcing our strict rules on driving. Our road risk programmes include driver training for the most-at-risk employees and we aim to improve safety by addressing driving behaviour among employees, contractors and the wider community.

We discipline employees who fail to comply with our Absolute Rules (see feature box above) and we use GPS vehicle tracking systems to monitor and therefore deter speeding violations, which are an internationally recognised major cause of accidents.

Go to Performance to read about our progress in 2013/14.

Working with electricity

The risk of injury from electric shock is a major concern for those deploying or maintaining our network equipment, and ensuring only qualified people work on electrical equipment is one of our Absolute Rules.

We work with contractors to make sure they have a documented risk management process for working with electricity, that those working on electrical equipment are authorised, competent and medically fit, that electrical equipment is fit for its intended purpose, and that appropriate safety devices are in place before work starts.

We also provide an e-learning module for employees working with electricity that ensures they have a basic awareness of how to detect and manage electrical hazards, as well as instruction on how to deal with incidents should they arise.

Go to Performance to read about our progress in 2013/14.

Working at height

The danger of falling when working at height is a particular risk for employees and contractors working on rooftops, towers and masts. Our priority is to make sure that anyone operating at height is trained on the risks involved, follows agreed procedures and always uses the appropriate safety equipment.

Our network site design principles include criteria to make sure all sites are designed with safe access in mind and our policy standard on working at height includes guidance on how to implement control requirements. We also have an ongoing programme to replace ladder cages with fall-arrest systems to reduce incidents related to working at height.

Go to Performance to read about our progress in 2013/14.

Managing our contractors

We require all our suppliers and contractors to meet strict health and safety requirements, and we monitor their performance through our supplier management programme (see Supply chain).

Our procurement team works closely with key contractors to help them improve safety management in their own teams and among sub-contractors. We hold workshops for key network suppliers to promote collaboration and raise standards across the industry. A particular focus is on working with suppliers to ensure their design specifications for network infrastructure meet our requirements and minimise health and safety risks.

Examples of the ways we aim to improve safety management among our suppliers include:

- A Safety Passport system for high-risk projects, which has been introduced for one major supplier. This system only allows sub-contractors on site if they have documentation showing they have completed appropriate health and safety training before starting work

- Our health and safety contractors team website in Greece which provides information for contractors and sub-contractors on health and safety including the Absolute Rules, Safety Passports and Safety Alerts to help them train their employees

- Our ONESAFETY database in Italy, which provides information on key risks and environmental characteristics of network sites to registered contractors and professionals. The database enables communication between field technicians and our Network Monitoring Centre so users can raise potential problems and update site risk information.

Go to Performance to read about our progress in 2013/14.

In focus: Red card for safety

Our consequence management system for suppliers who do not meet our health and safety requirements makes it clear that failing to demonstrate robust safety management is linked to the termination of purchase orders and contracts. Suppliers receive a warning for any high-potential or near-miss incident. Incidents that could have been prevented or those that lead to injury or fatality may result in the termination of our contract with the supplier or in the supplier being excluded from bidding for new work with us for a probationary period. To work with us in future, the supplier must repeat our full qualification process.

Health and safety – Our approach

Legacy infrastructure

Through the acquisition of other companies, particularly in emerging markets, we have inherited some infrastructure that does not meet our safety standards. In addition, some of our own infrastructure was built prior to the introduction of our safety standard on design.

We therefore carry out improvement programmes and checks to masts, towers and other equipment, modifying or replacing it where necessary. Technology Directors in each market have annual targets to upgrade and replace infrastructure, and are audited to make sure they fulfil these targets.

Go to Performance to read about our progress in 2013/14.

Reporting and investigating incidents

On a quarterly basis we monitor and audit our local markets against our Group safety strategy and objectives, and each market reports health and safety incidents through our global online reporting system. All major or high-potential incidents must be reported within 48 hours to the Group Director of Health, Safety and Wellbeing and a full investigation is undertaken into the causes. Local market CEOs are required to oversee these investigations personally and to ensure corrective actions are implemented.

We share these findings across the Group to prevent similar incidents happening elsewhere. Safety Alerts notify our employees, local markets and relevant suppliers of any incidents or near misses that might have implications for other parts of the business. We also share lessons on good practice that we believe should be emulated.

Go to Performance to read about our progress in 2013/14.
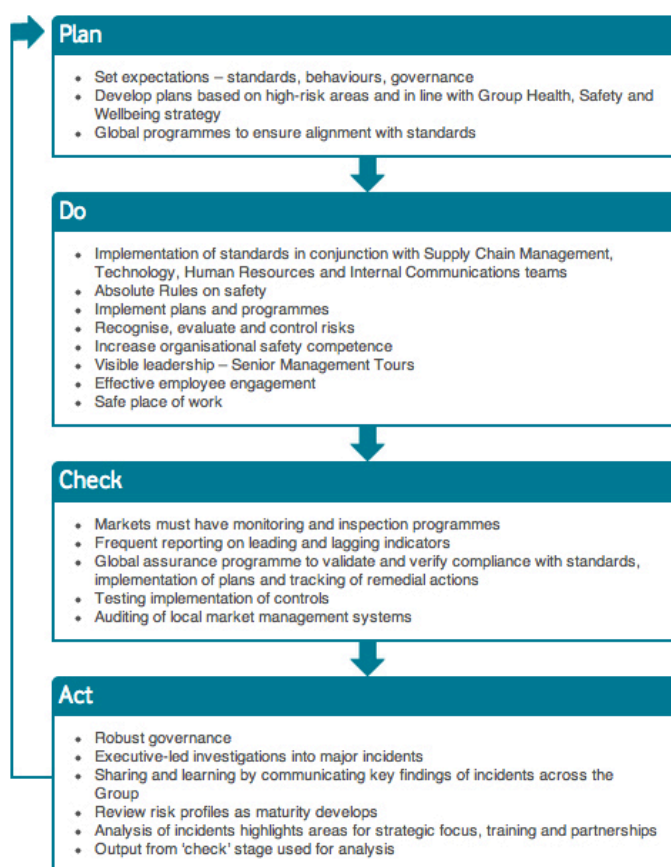
Health and safety management

Our Group Health, safety and wellbeing team, which reports to the Group Human Resources Director, oversees health and safety management across Vodafone. The team works closely with key Group functions and local market representatives, who share best practice through a health, safety and wellbeing network. For more on wellbeing, see Our people.

Senior leaders across the Group conduct safety tours to raise awareness, personally assess health and safety standards and make recommendations for improvement. We hold leadership workshops for executives and senior managers to reinforce leadership behaviours that contribute to a strong health and safety culture.

Our Group Health and Safety Policy and accompanying suite of standards on specific risks sets out our expectations across our markets with clear guidance on risk assessment, incident reporting and management of key risks. We have strong management systems in place to ensure compliance in all our markets, and managers across the Group receive health and safety training appropriate to their role.

Management systems in our local markets are aligned with internationally recognised standards and our operations in Greece, Italy, South Africa and the UK are accredited to OHSAS 18001. Employees are trained to ensure management systems are used effectively. A maturity matrix tailored to our business helps us consistently assess the maturity of how we manage health and safety across the Group, and set targets to improve our safety culture.

Our approach to health and safety management operates on a cycle of four key elements: plan, do, check and act (see graphic).

Plan
- Set expectations – standards, behaviours, governance
- Develop plans based on high-risk areas and in line with Group Health, Safety and Wellbeing strategy
- Global programmes to ensure alignment with standards

Do
- Implementation of standards in conjunction with Supply Chain Management, Technology, Human Resources and Internal Communications teams
- Absolute Rules on safety
- Implement plans and programmes
- Recognise, evaluate and control risks
- Increase organisational safety competence
- Visible leadership – Senior Management Tours
- Effective employee engagement
- Safe place of work

Check
- Markets must have monitoring and inspection programmes
- Frequent reporting on leading and lagging indicators
- Global assurance programme to validate and verify compliance with standards, implementation of plans and tracking of remedial actions
- Testing implementation of controls
- Auditing of local market management systems

Act
- Robust governance
- Executive-led investigations into major incidents
- Sharing and learning by communicating key findings of incidents across the Group
- Review risk profiles as maturity develops
- Analysis of incidents highlights areas for strategic focus, training and partnerships
- Output from 'check' stage used for analysis

Notes:

1. Global Status Report on Road Safety 2013, World Health Organization

Fatalities and LTI data, as well as selected supporting statements in this section, were reviewed as part of EY's assurance of Vodafone's Sustainability Report.

For more details see our Assurance Statement.

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Health and safety – Performance in 2013/14

Health and safety – Performance in 2013/14

We are working hard to instil a culture of safe behaviour and strive towards our objective of zero fatalities.

We have a wide range of programmes and systems to tackle our key risks, often specifically tailored to the particular needs of our markets. Despite this we greatly regret to report that 12 people died while undertaking work on behalf of Vodafone last year. Strengthening programmes to target occupational road risk – one of our biggest risk areas and the main cause of these fatalities – remains a major focus for all markets. However, through increased awareness and a strong focus on managing our top five safety risks, our injury rates have continued to decline in 2013/14.

Making safety part of leadership

At Vodafone, we make it clear that if you want to be a leader in our business, you must personally value safety. We continued to embed safety into leadership programmes such as our Technology Excellence programme, Leading in The Vodafone Way and induction training for senior leaders.

Executives across the Group, local market Technology Directors and local market HR Directors now have annual personal objectives on health, safety and wellbeing, and similar objectives have been extended to senior leadership teams in every local market. This is reinforcing health and safety as the responsibility of our key decision makers, as a core part of what they do and what others need to do to be considered for senior positions.

In 2013/14, executives and senior leaders in each local market were required to conduct at least one site tour per quarter to show that safety is important to them and ensure people know that Vodafone cares about their personal safety.

⬤ Ongoing   ⬤ Achieved   ◐ Partial   ◯ Not achieved

Objective	Our performance in 2013/14	Status
Ensuring local and regional executives complete at least two senior management site tours a year	An average of one site tour per quarter was conducted by senior management in each market	⬤

In focus: Mission Reach makes safety personal in India and Qatar

Our Mission Reach programme in India is raising awareness of our Absolute Rules (see Approach) on safety, checking employees have completed their safety induction and letting them know we care about their personal safety.

People across our business in India each make weekly calls to 10 employees and contractors working in high-risk roles, holding a scripted conversation with them on safety, asking questions depending on what they are doing that day such as "Are you wearing your helmet?" or "Does someone know where you are going?". In 2013/14, more than 100,000 calls were made.

In Qatar, we ran a week-long awareness raising campaign in 2013/14 to make safety personal for employees. The main focus was the value of being safe for your family, to emphasise the importance of following our Absolute Rules on safety.

Health and safety – Performance in 2013/14

Occupational road risk

In 2013/14, introducing and strengthening programmes to reduce occupational road risk, one of our biggest risks and the main cause of fatalities, remained a major focus for all local markets. Road risk programmes tailored to local needs have now been implemented in all our local markets – two years ahead of our 2016 target. Programmes include:

- Piloting Speed Governor in **India** which is a device that was fitted onto all field staff's motorbikes to limit their speed to 60km. Reflector jackets are now included as part of mandatory personal protective equipment for our motorbike riders and travel during the hours of darkness is banned to reduce accidents

- Launching a Driving Safety Campaign in **Portugal** to raise employee awareness about responsible driving and the importance of our Absolute Rules – initiatives included inviting employees to try simulators that replicated the experience of rolling over in a car, driving under the influence of alcohol and driving at high speeds, and a Q&A session with a representative of the National Authority for Road Safety

- Holding a Road Safety Action Day in **Germany** to educate employees on braking and reaction distances, bike safety and the risks of drink driving – participants wore 'drunken-glasses' in a driving simulator to understand how alcohol affects vision and reactions

- Discouraging texting behind the wheel through our network application, DriveSafe, in **New Zealand** – the app sends an automated response to all text messages received while driving, to let the sender know the person they have contacted is driving and will not respond immediately

- Conducting an online assessment for all fleet drivers and employees with a company car in **Spain** to raise awareness of our Absolute Rules on safe driving and ensure they have the necessary driving qualifications

- Assessing more than 1,100 of our vehicles and training over 2,360 of our drivers in **Turkey** as part of our certification to international traffic management standard, BS ISO 39001, for developing and maintaining a road traffic safety management system. Vodafone is the first company to achieve this standard in Turkey.

● Ongoing ● Achieved ◐ Partial ○ Not achieved

Objective	Our performance in 2013/14	Status
Implement occupational road risk programmes in all local markets by 2016	Road risk programmes tailored to local needs are now in place in all our markets.	●

As well as raising awareness among our employees and contractors, we are consulting with international motoring organisations and other multinational companies about how we can help to improve standards of road safety and share lessons learnt more widely in the countries where we operate. Through our involvement in Fleet Forum, which has over 200 member organisations, we are working with others to improve road safety in emerging and middle-income countries in a coordinated and efficient way.

Working with electricity

We continued to roll out our e-learning module on working with electricity in 2013/14 to provide employees with a basic awareness of electrical hazards and risks. Designed to reinforce local training requirements, the module includes information on how to recognise risks as well as appropriate interventions and controls to be used when working with electricity. It is available for all employees.

Working at height

Research has shown that ladder cages used to prevent falls from height can lead to a false sense of security when climbing, cause additional injury in the event of a fall and hinder rescue attempts. In 2013/14, we achieved our target to complete installation of fall-arrest systems on all cages on vertical ladders over four metres high across all our local markets.

Managing our contractors

Contractors' safety performance is monitored through a combination of site inspections, formal audits and assurance programmes that require them to verify that appropriate safety systems are in place.

Our consequence management system, which clearly shows that if suppliers fail to meet our safety standards they risk termination of contracts, has been communicated to suppliers and is now being implemented across our markets. In 2013/14, 16 warnings were issued to suppliers as a result.

We are also continuing to assess the effectiveness of our Safety Passport system for high-risk projects, which requires sub-contractors to show that they have received appropriate safety training before they are allowed on site to begin work.

See Responsible supply chain for more on our work with our contractors to manage and improve their health and safety performance.

Health and safety – Performance in 2013/14

Legacy infrastructure

Our legacy infrastructure upgrade programme aims to improve the safety of base stations built prior to the introduction of our new design standards. In 2013/14, we continued to extend our programme of preventative maintenance across our markets. We estimate that this process was complete for 88% of our sites at the end of its third year, putting us on track to complete the four-year programme as planned. As part of this process, the safety standards we have established for the installation of all new base stations will be progressively rolled out to existing sites.

Reporting and investigating incidents

Lost time injury rates fell by a further 16% to 1.03 per 1,000 employees in 2013/14 as a result of our continued efforts to prevent incidents across the Group by targeting key risks (see examples outlined above). The number of high-potential incidents we recorded – those that do not cause a major accident but could have under different circumstances – has increased by 14%. This increase in general reporting of incidents is a strong indication that awareness of safety is continuing to increase and our management systems are working.

We deeply regret that 11 contractors and one employee lost their lives in 2013/14 while working for Vodafone. Nine of these fatalities were the result of road traffic accidents and three from working at height. The majority (eight) were in India, with two in Egypt, one in Portugal and one in the UK. In addition, three members of the public died as a result of vehicle accidents in Ghana and Mozambique.

Any fatality is unacceptable and we continue our efforts to drive a culture of zero fatalities across the Group. Every fatal incident was fully investigated to determine root causes, and reviewed by Vodafone Executives at Group and local market level. Action plans have been put in place to prevent recurrence and lessons learned have been shared across the Group. We also issued three Group-wide Safety Alerts to raise awareness of the causes of major incidents in 2013/14. These were related to lifting operations (using equipment such as cranes), working at height and street works (involving digging up roads and managing traffic).

See Data for more detailed, year-on-year performance.

Strengthening health and safety management

In 2013/14, we established a new safety maturity matrix that provides consistent criteria to measure and compare health and safety management across the Group. The matrix integrates elements of the International Safety Rating System (ISRS), used previously, but is tailored to our business and puts greater emphasis on improving performance rather than simply complying with standards.

The matrix helps our senior leaders measure the health and safety culture in the business against a set of consistent criteria. Results of the assessment will be used to create a tailored improvement plan for each local market, which is regularly reviewed by the relevant Leadership Team. Maturity levels of each market are being assessed to establish a baseline, and these levels will be validated annually through internal audits every three to five years.

In focus: Vodafone India recognised for health and safety standards

In July 2013, Vodafone India was recognised as the winner of the Golden Peacock Occupational Health and Safety award 2013 for our commitments to the highest standards of health and safety for both our employees and contractors.

Fatalities and LTI data, as well as selected supporting statements in this section, were reviewed as part of EY's assurance of Vodafone's Sustainability Report.

For more details see our Assurance Statement.

June 2014

Health and safety – Data

Total number of fatalities (employees and contractors)

	2011/12	2012/13	2013/14
Employee fatalities	1	0	1
Contractor fatalities	20	12	11
Total	**21**	**12**	**12**

Cause of fatalities (employees and contractors)

	2011/12	2012/13	2013/14
Electrocution	4	3	0
Work at height	2	2	3
Road traffic accident	13	6	9
Criminal activity	1	0	0
Plant, product or equipment related	1	0	0
Slip/trip/fall	0	1	0

Total number of fatalities by country (employees and contractors)

Country	2011/12	2012/13	2013/14
Czech Republic	1	0	0
Egypt	2	1	2
India	14	7	8
Portugal	0	0	1
Romania	1	1	0
Turkey	0	1	0
UK	0	0	1
Vodacom[1]	3	2	0

Notes:

1. Vodacom markets include South Africa, Democratic Republic of Congo, Lesotho, Mozambique and Tanzania

Health and safety – Data

Number of lost-time incidents

	2011/12	2012/13	2013/14
Number of lost-time incidents (employees)	146	112	**101**

Lost-time incident rate per 1,000 employees

	2011/12	2012/13	2013/14
Lost-time incident rate per 1,000 employees	1.69	1.23	**1.03**

Fatalities and LTI data, as well as selected supporting statements in this section, were reviewed as part of EY's assurance of Vodafone's Sustainability Report.

For more details see our Assurance Statement.

June 2014

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Customers and the environment –
Our approach

We aim to reduce the environmental impacts of our products and services, empowering our customers to make more sustainable choices. We are also helping our enterprise customers achieve their sustainability goals through our low carbon solutions.

We work with both our suppliers and our customers to reduce the impacts of our products across their lifecycle. Our focus with suppliers is on improving their sustainability performance in sourcing raw materials and manufacturing products. With our customers, we help them to make an informed choice about which mobile phone they buy and encourage them to recycle it when they no longer need it.

Read on to find out more about our approach and our performance in 2013/14.

Empowering customers to make more sustainable choices

We want to empower our customers to make informed decisions about the phones they choose. Vodafone's Eco-rating scheme, now launched in 12 markets, helps them do just that.

The Eco-rating scheme assesses mobile phones on a scale between 0 and 5, with 5 being the most ethical and environmentally responsible. The Eco-rating scheme forms part of our marketing material, and scores are displayed next to phones in our retail stores and our online shop.

In 2013/14, we continued to engage with others in our industry to standardise how Eco-ratings are measured, for example through working groups of the International Telecommunications Union and the GSMA.

Eco-rating is now available in Albania, Australia (through our joint venture), Czech Republic, Germany, Greece, Hungary, Ireland, the Netherlands, New Zealand, Portugal, Romania, Spain, and is being launched in the UK in 2014. In 2013/14, we launched a new consumer website on Eco-rating, which includes a quiz to raise awareness.

In focus: How does Eco-rating work?

Manufacturers are asked to complete a self-assessment by responding to questions covering the environmental and social impacts of each phone across its lifecycle – from the mining of raw materials used to make components to consumer use and disposal – and the level of commitment of the manufacturer to managing its own impacts, which is reassessed annually. These self-assessments are validated by expert agency SKM Enviros, who requests further evidence if needed.

The scheme has received support from NGOs such as Planet Ark which endorsed the launch of Vodafone's Eco-rating in Australia, and the social enterprise Fairphone has used it in the development of an environmentally and socially fairer phone.

For more on how we are working with suppliers to reduce the impacts of mobile phones and other devices, see Supply chain.

Customers and the environment – Our approach

In focus: Promoting Eco-rating in the Czech Republic

In 2013/14, we ran a campaign to promote Eco-rating among consumers in the Czech Republic through an interactive website designed to bring environmental and social issues to life through fun quizzes and animations. Those who completed the quiz were entered into a competition to win a mobile phone with a high Eco-rating.

We also ran a roadshow around the country using a 'pop-up' store where consumers could find out more about Eco-rating of different mobile phones. The store itself was made from a large shipping container and used recycled materials, such as packing crates for seats.

### Retaining, reusing and recycling mobile phones

Mobile technology advances rapidly and many of our customers regularly replace their phones to stay up to date with the latest technology, especially in our mature markets.

Research through our Eco-rating scheme shows that the biggest environmental impact across the lifecycle of a mobile phone is from its production, partly because mobile phones are often only used by consumers for a relatively short period of time compared with other consumer electronics.

Through Vodafone Buyback, we offer both consumer and business customers attractive incentives to return used phones and tablets, including discounts on new devices, charity donations or store credit. Returned mobile phones are refurbished and resold. In cases where equipment cannot be refurbished or resold, we work with specialist partners to separate and recycle the components. Buyback is a great example of how operating responsibly can directly support our business. It gives customers the option to return unneeded equipment and has a significant commercial benefit for Vodafone. We are now exploring further opportunities to put this type of 'circular economy' thinking into practice (see below).

We also encourage customers to return their unwanted mobile phones, other devices and accessories by raising awareness about our recycling programmes through posters, leaflets, in-store collection points and prepaid envelopes provided with new mobile phones. We collected 1.29 million devices in 2013/14 through our recycling programmes in 13 markets. This is less than 5% of the number we sell. However, there are many other recycling options available to customers in European markets and in many of our emerging markets there is limited demand for recycling programmes as unwanted mobile phones are typically reused by family and friends.

As part of our efforts to reduce electronic waste, Vodafone is a signatory to the GSMA's industry-wide commitment to introduce a universal charger which eliminates the need for consumers to replace their charger when they buy a new phone.
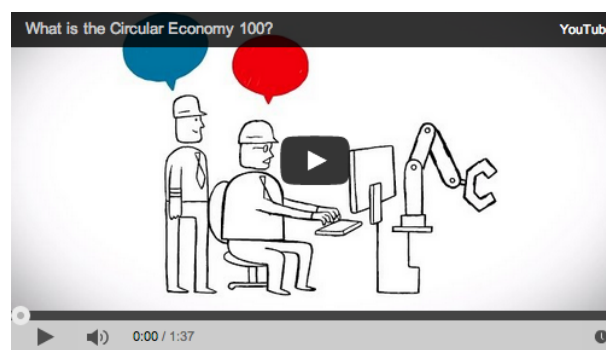
In focus: Old mobile devices as a resource

Today's economy is mainly based on a linear model of 'take, make and dispose', where raw materials are used to make products, which customers use and then dispose of when they are no longer useful. This is not, however, an efficient use of resources or a sustainable long-term model.

In contrast, a 'circular economy' is regenerative, or circular, by design, where waste is treated as a resource. Vodafone sees significant opportunities in the circular economy model, not only to reduce the environmental impacts of the products our customers use, but to support our business and enhance our ability to deliver more innovative products to meet customers' changing needs.

In 2013/14, Vodafone joined the Circular Economy 100, a global platform bringing together leading companies, to accelerate the transition to a more circular-based economy, through collective problem solving. See video above on Circular Economy 100.

Through our mobile phone buyback and leasing schemes – which provide incentives for customers to return their old phones for reimbursement – we have already incorporated some of the principles behind the circular economy. In 2014/15, we will be exploring what the model means for mobile devices through a research programme with the Delft University of Technology. This project is expected to help us incorporate these new principles into our business model, from the development of new products and services, to greater reuse and recycling at the end of a device's life.

Customers and the environment – Data

Phones collected for reuse and recycling

	2011/12	2012/13	**2013/14**
Phones collected for reuse and recycling (millions)	1.37	1.62	**1.29**
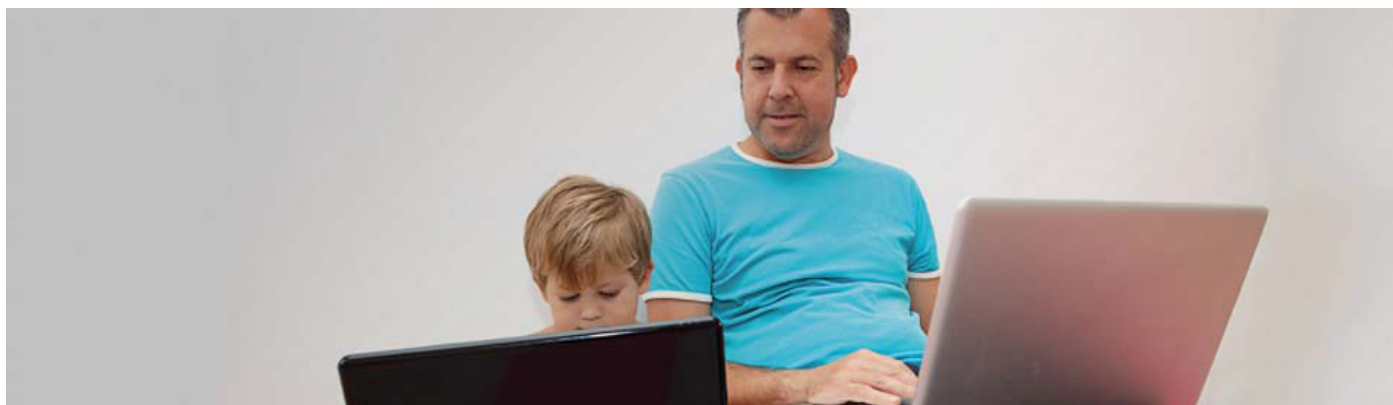
Child safety online – Our approach

Vodafone helps parents protect their children from inappropriate content and contact on the internet to make their children's online world safer. Our industry-leading initiatives offer advice for parents and guardians to help them understand new technologies and to help young people use those technologies safely.

Some of the content and services accessible via the internet are inappropriate for younger users, such as age-rated games, gambling, sexual material and some social networking sites. Children and younger teenagers also need to understand the potential risks of chatting to strangers or giving out their personal information when using social networking and location-enabled services, and what to do if they think they are being bullied online.

Many parents find it challenging to protect children from these risks. Typically, parents have a lower level of understanding of new technologies than their children and welcome support to make informed decisions about how to help their children stay safe online.

Digital Parenting

Our Digital Parenting website provides up-to-date guidance on protecting children from inappropriate content and the risks associated with social media sites. The accompanying magazine, also available as an app, offers views from experts as well as practical information, such as step-by-step guides on how to set up parental controls on handsets.

We published a special edition of the magazine in July 2013, which includes advice for grandparents on how to help young people stay safe online and views from experts on digital privacy and sexual grooming. Following its success, we plan to publish a third issue in 2014. The magazine is available online and we printed 400,000 copies for distribution in schools across the UK.

In 2013/14, we also launched Web Super Skills – free internet safety cards designed with the creators of Moshi Monsters – to help parents teach young children good habits to ensure they stay safe online (see feature). For more examples of initiatives across Vodafone, click here.

In focus: Web Super Skills Cards

Web Super Skills cards are helping parents teach children between the ages of four and 10 safe online habits as soon as they start using the internet. The cards are available from Vodafone stores in Ireland, New Zealand, Spain and the UK. Developed with the Vodafone Foundation and Mind Candy, the creators of the safe online game Moshi Monsters, they are easy for children to understand. The cards set out a simple set of rules on how children should behave online – including being polite and talking to parents about friends they meet. Download the free cards here.

For more guidance, visit our Digital Parenting website.

Child safety online – Our approach

Promoting a common industry approach

Network operators such as Vodafone provide consumers with a means of connecting to the internet to view content in a web browser, or to access content and services via apps on their devices. While we can control the content made available within the small number of apps we have created ourselves, the vast majority of the content and services accessible via our network is not created, hosted or controlled by Vodafone in any way.

Smartphones and tablets can access online content and services via a variety of different types of provider, including the 3G and 4G networks operated by Vodafone and our competitors, public WiFi networks and ADSL or cable networks via private WiFi networks.

Additionally, some device manufacturers maintain their own controls and filters. For example, Blackberry maintains its own servers to provide customers with access to the internet, Apple offers on-device child protection measures which allow parents to limit their child's access to certain kinds of content, and third-party app stores operated by Blackberry, Apple, Google and Microsoft limit access to apps on an age-rating basis. However, these measures are also beyond Vodafone's direct control.

Keeping children safe online therefore requires an integrated approach across the broader technology industry.

Vodafone has been a leading force in online child protection since 2002, working closely with other organisations in the industry and beyond, to drive common approaches to safe browsing and app use. In 2004, Vodafone UK was the first company anywhere in the world to deliver an online child protection filter across its own 3G mobile network, which included integration of the Internet Watch Foundation (IWF) Child Sexual Abuse Content Block list (see below). In 2007, similar 3G network-level filters were rolled out across our networks in our local markets, where permitted by law and accepted as necessary and desirable according to the prevailing culture of the country. In some countries, network-level filtering by operators is viewed as an unacceptable restriction of a citizen's freedom to communicate, even when such measures are intended to protect children from harmful content.

Vodafone is one of 22 companies that have signed up to the guiding principles of the ICT Coalition for a Safer Internet for Children and Young People, which we helped to develop. The principles set out a common code of conduct for the development of products and services that promote child safety online. We submitted a self-declaration report of our status in September 2013, and an independent assessment of all the companies' declarations was published in May 2014.

Vodafone is also a signatory to the European Commission's CEO Coalition on Child Safety Online, which commits us to making it easier for users to report harmful content, ensure that privacy settings are age-appropriate and offer parental controls. In January 2014, we delivered our status report to the EU outlining our progress against our commitments to online safety.

In 2013/14, we joined the Board of the UK Council for Child Internet Safety, a policy advisory group chaired by government ministers and representing organisations from government, industry, law, academia and charity sectors that work in partnership to help keep children safe online. Vodafone also became a member of the Family Online Safety Institute.

Blocking illegal content

The internet contains large amounts of material that is not suitable for under 18s. A much smaller proportion of the material accessible on the internet is also illegal in many countries, particularly content related to the sexual abuse of children.

Vodafone is committed to doing all it can to remove such content from the internet. We have 'Notice and Takedown' procedures in place to ensure this illegal content is removed or dealt with appropriately, should it be found on our servers, and to coordinate with law enforcement agencies on any subsequent investigation.

Additionally, as a member of the Internet Watch Foundation, we maintain filters on our own networks that block access to web pages known to host child sexual abuse content using a blacklist provided by the IWF. We do this in the majority of our markets in the EU, with the exception of the Netherlands and Germany, where it is not legal to use such a block list.

Much of this illegal content is hosted in countries where Vodafone and other major operators do not have an operating business. We are a founding member of the Mobile Alliance Against Child Sexual Abuse Content, established by the global industry body the GSM Association (GSMA) and supported by more than 67 operators.

The Alliance provides best-practice advice and support to mobile operators worldwide in order to obstruct the use of mobile networks and services by individuals or organisations wishing to consume or profit from child sexual abuse content, and also provides support for law enforcement agencies seeking to investigate such activities. The Alliance is active in more than 51 countries and seeks to protect more than 757 million mobile phone users from exposure to illegal content accessed via the member operators' own networks.

Human rights – Our approach

Wherever we operate, we work to ensure that we do not infringe human rights through our operations or business relationships.

We believe that communications technology supports human rights by enabling the exchange of ideas and access to information, which in turn supports economic and social opportunity, fosters development, advances knowledge and increases openness and transparency. See Transformational solutions for more on how our products and services are improving lives.

We recognise that Vodafone has a responsibility to respect human rights, as articulated in the Universal Declaration of Human Rights, and we are aligning our approach with the UN Guiding Principles on Business and Human Rights. This responsibility is embodied in our Business Principles and our Code of Conduct.

Aligning with the UN Guiding Principles

The UN Guiding Principles on Business and Human Rights provide a clear framework to guide companies and other stakeholders. The 'Protect, Respect, Remedy' framework assigns responsibility to corporations to respect human rights, to avoid infringing on the rights of others and to address adverse human rights impacts they are involved with.

We worked with the sustainability organisation Business for Social Responsibility to conduct a gap analysis of our Group-level approach to human rights against the UN Guiding Principles. This identified the categories of human rights most relevant to Vodafone's business as: labour rights; civil and political rights; rights of the child; economic, social and cultural rights; land and property acquisition; and the environment.

Each of these categories is managed through well established policies and programmes, described in detail in the relevant sections of this report (indicated below).

In addition, human rights issues are integrated in the due diligence process we conduct before entering new markets (either as an operator ourselves or through partnerships with other operators). This process uses internationally recognised indexes and evaluations of particular issues such as corruption, political affiliations, respect for privacy, internet freedom, freedom of expression and workers' rights to assess and highlight the potential impacts or risks associated with entering new markets. In 2013/14, we further strengthened our human rights impact assessment process for potential new markets identified as high risk. The findings are considered in the decision-making process before entering a new market.

Labour rights

We are committed to respecting the human rights of everyone working for Vodafone either directly as an employee, or indirectly as someone employed by one of our suppliers.

Our Code of Conduct clearly states that we will base relationships with and between employees on respect for individuals and their human rights. We will not tolerate any form of discrimination. Our Group employment policies are consistent with the UN Universal Declaration of Human Rights and the International Labour Organization's Core Conventions. These policies require consistent standards across the Company. For more details on issues including health and safety, the right to join trade unions, equal opportunities and diversity, see Our people.

With an extensive global supply chain, there is a risk that some suppliers or sub-contractors might not meet acceptable standards of working conditions and human rights. Our Code of Ethical Purchasing sets out the labour, health and safety, ethical and environmental standards we expect our suppliers to meet. The Code is based on Vodafone's values and international standards, including the Universal Declaration of Human Rights and the International Labour Organization's Conventions on Labour Standards. For more on how we monitor suppliers' compliance and tackle issues such as conflict minerals, see Responsible supply chain.

Vodafone does not tolerate forced, compulsory or child labour.

Human rights – Our approach

Civil and political rights

We believe that access to communications technology can support greater freedom of expression, which in turn depends upon the right to privacy if it is to be exercised effectively. However, the rights to freedom of expression and privacy must be balanced with the protection of vulnerable groups, such as children, and the protection of public safety or security in certain exceptional circumstances.

In every country where Vodafone operates, governments retain law enforcement powers that impact rights to privacy and freedom of expression. These include legal powers that require telecommunications operators to provide information about customers or users, or to put in place the technical means to enable information to be obtained for law enforcement purposes, such as lawful interception. Governments also retain powers to limit network access, block access to certain sites and resources, or even switch off entire networks or services.

These powers have many legitimate purposes, including fighting crime and terrorism, or protecting public safety. However, these powers must be balanced with respect for civil liberties and freedoms, including individuals' rights to privacy and freedom of expression. We closely manage and monitor compliance with these legal obligations and our relationships with law enforcement authorities to ensure human rights are respected.

Vodafone's Global Policy Standard on Law Enforcement Assistance sets out our principles and standards on assisting law enforcement, including processes to ensure our actions are accountable at the most senior level. See our Law Enforcement Disclosure report for more on our approach to responding to government demands, along with a breakdown of the legal powers governments hold. We also publish statistics on the number of law enforcement demands we received on a country-by-country basis, where it is legal to do so and the government does not already publish statistics.

Vodafone is a founding member of the Telecommunications Industry Dialogue on Freedom of Expression and Privacy, a group of global telecoms companies working in collaboration with the Global Network Initiative to address issues of privacy and freedom of expression. Vodafone is a signatory to the Industry Dialogue's Guiding Principles on Freedom of Expression and Privacy, which define a common approach to dealing with demands from governments that may affect privacy and freedom of expression in a principled, coherent and systematic way across the industry.

See our Law Enforcement Disclosure report and Privacy and security for more details on how we manage privacy and freedom of expression.

Rights of the child

We support a common industry approach to child safety online. Vodafone helped develop, and has signed up to guiding principles of the ICT Coalition for a Safer Internet for Children and Young People. The principles set out a common code of conduct for the development of products and services that promote child safety online. We submitted a self-declaration report of our status in September 2013, and an independent assessment of all the companies' declarations was published in May 2014. Download the report.

Vodafone is a signatory to the European Commission's CEO Coalition on Child Safety Online, which commits us to: make it easier for users to report harmful content; ensure that privacy settings are age-appropriate; and offer parental controls.

Vodafone is a founding member of the Mobile Alliance Against Child Sexual Abuse Content, which aims to obstruct the use of mobile networks and services by individuals or organisations wishing to view or profit from child sexual abuse content. We are committed to doing all we can to remove such content from the internet.

We have Notice and Takedown procedures in place to ensure this illegal content is removed or dealt with appropriately, should it be found on our servers, and to coordinate with law enforcement agencies on any subsequent investigation. As a member of the Internet Watch Foundation, we maintain filters on our own networks which block access to web pages known to host child sexual abuse content using a blacklist provided by the Internet Watch Foundation. We use these filters in the majority of our markets in the EU, with the exception of the Netherlands and Germany, where it is not legal to use such a block list.

In addition, our industry-leading initiatives such as the Digital Parenting Magazine and Web Super Skills cards for children provide advice for parents and tools to help young people use mobile phones and internet services safely.

See Child safety online.

Human rights – Our approach

Economic, social and cultural rights

We are increasing access to telecommunications by extending our network access across emerging markets and offering solutions tailored to low-income markets, including those that can help to increase access to healthcare, education and finance. See Transformational solutions.

Vodafone has a zero tolerance approach to any form of bribery. This is embedded across the Group through our robust global anti-bribery programme. This programme targets bribery and corruption that, if used to influence public officials for example, could threaten the rule of law and realisation of economic rights. See Ethics.

Our approach to managing radio frequency safety is based on all available scientific evidence to ensure we safeguard our customers, employees and the public. Mobile devices, and the masts that enable them to communicate calls and data, operate well within guideline safety limits. See Mobiles, masts and health.

Land and property acquisition

We consult communities in the selection of our sites, as part of the applicable planning permissions in each market for installing antennas or other equipment. See Network deployment.

Environment

We have strong processes in place to manage the environmental impacts of our operations including our carbon footprint and disposal of electronic waste. See Environment.

Our Low carbon solutions are also helping to reduce carbon emissions in other sectors.

Selected statements in this section were reviewed as part of EY's assurance of Vodafone's Sustainability Report.

For more details see our Assurance Statement.

June 2014

EY
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Our people – Our approach

We support, train and encourage more than 92,000 people working across Vodafone to ensure they have the right capabilities, commitment and enthusiasm to achieve our business goals.

Our aim is to attract, develop and retain the very best people by offering a motivating and inclusive workplace in which talent is recognised and developed, and wellbeing is promoted.

We make it a priority to listen to our employees, to understand their views and respond to their feedback by taking action to improve. We monitor employee engagement and satisfaction levels through our annual Global People Survey, and use this to assess managers according to the experience they create for their team.

Read on to find out more about our approach or go to Performance to read about our progress in 2013/14.

The Vodafone way

The Vodafone Way sets out a consistent way of working for everyone at Vodafone. It is supported by our Code of Conduct which sets out the high ethical standards all employees must uphold. We actively promoted our Code of Conduct throughout the year via our global 'Doing what's right' campaign. The aim was to improve understanding of and engagement with key topics including health and safety, anti-bribery, privacy, security and competition law and to ensure that people managers know what's expected of them and their teams.

The Vodafone Way is part of all employees' performance objectives and those demonstrating outstanding commitment to it are recognised as The Vodafone Way Heroes each year.

In focus: The Vodafone Way

The Vodafone Way helps us strengthen our position as an admired company in the eyes of our customers, shareholders and employees. To achieve this objective, we must be customer obsessed, innovation hungry, ambitious and competitive, and operate with:

- **Speed** – bringing products and services to market quickly and prioritising the things that really matter

- **Simplicity** – making things simpler for our customers, business partners and colleagues

- **Trust** – acting with honesty, integrity and fairness, being reliable and transparent, and valuing the confidence that people place in us as a company.

Our people – Our approach

Employee engagement

Open and regular communication is fundamental to employee engagement. Our intranet keeps employees up to date on company strategy, internal news and events, provides videos from around Vodafone and promotes discussion through Vodafone Circle, our internal social network. Group and local market Chief Executives also communicate directly with employees through regular webinars and videos.

We use our annual Group-wide people survey to assess engagement levels and identify opportunities to improve ways of working and support employees to do their best. From the survey, we calculate an Employee Net Promoter Score which provides a key indicator of employee commitment to promote our products and services.

Our Employee Engagement Index gauges how committed employees are to Vodafone, their desire to continue working for us and their willingness to recommend Vodafone as an employer. The accompanying Manager Index provides a measure of the experience our managers create for their teams. For the latest survey results, see Performance.

Employee consultation

Vodafone recognises the rights of our employees to join trade unions, however, we prefer to consult with our employees directly to ensure everyone is treated fairly, whether represented by a trade union or not.

Where representation by trade unions is conferred automatically by legislation, these rights are upheld. All our local businesses respect the wishes of the majority of their employees in deciding whether to recognise a trade union's right to negotiate terms and conditions of employment, where legislation permits.

In focus: Vodafone European Employee Consultative Council

We consult directly with our employees on changes to the business and other relevant issues through, among other channels, round tables and employee representatives.

If two or more countries in Europe are affected we also consult with our employees through the Vodafone European Employee Consultative Council (EECC). The EECC meets at least once a year and gives employee representatives an opportunity to raise any concerns with our executive management team.

Employee delegates also hold two interim meetings a year, elect Select Committees and can request translation services. Founded in 2003, the EECC meets the requirements of Article 13 of the EU Directive on Multinational European Works Councils. Employees from 14 countries within the European Union are represented. The number of representatives per market is in proportion to the number of employees in each market.

Managing organisational change

We are committed to treating employees fairly and with respect during periods of organisational change. Any reorganisation is carried out in compliance with local legislation and in consultation with employee representatives, works councils and local unions.

Changes are communicated clearly to employees through team events and affected employees meet with their line managers and human resources teams. In cases where changes result in redundancies, we offer support to help affected employees find new jobs either within the company or externally. This includes outplacement services, recruitment events, and training on interview techniques and CV writing skills.

See Performance to find out about organisational changes in 2013/14.

Development and training

Our development and training programmes ensure we have the skills and talent needed to grow our business now and in the future. The programmes help our employees gain new skills and experiences through formal training, on the job experience, coaching and mentoring.

We conduct an annual analysis of learning needs across the business to identify priorities and ensure that learning plans support our business strategy. Each employee has a formal Performance Dialogue once a year with their line manager to review their performance and set clear goals and development plans for the year ahead.

Our global learning Academies in Marketing, Technology, Sales, Retail and Finance enable people to develop the critical skills they need to work in particular functions. We work with leading business schools and accredited external providers to develop and deliver the training, most of which is online. Training for our sales teams focuses on customer interactions and building customer relationships.

Developing the leadership capabilities of high-potential employees is a key focus to strengthen our succession planning. High-potential employees across the Group are identified through our annual Talent Review Process and, where appropriate, they are given the opportunity to take part in our global leadership development training programme, Inspire. Inspire is designed to accelerate the progress of high-potential managers into senior leadership roles. It provides a combination of learning programmes, executive coaching and mentoring from senior Vodafone leaders over a period of 18 months, and may include an assignment to another Vodafone local market or function.

Our people – Our approach

We want people to grow at Vodafone and encourage people to develop their careers in the company, either through promotion or a change of role to broaden their experience. Vacancies across the Group are advertised on our intranet, which encourages the transfer of talent between local markets. We also conduct quarterly Talent Reviews for senior leaders to identify high-potential leaders, match their skills to business needs and help individuals achieve their development goals.

See Performance to find out about development and training in 2013/14.

Diversity and inclusion

We believe that diversity plays an important role in a successful business. Our Group-wide diversity and inclusion strategy outlines our commitment to creating an inclusive work environment which respects, values, celebrates and makes the most of the individual differences our people bring to Vodafone. Our Group Head of Diversity drives the agenda at a senior level.

Key to our diversity and inclusion strategy is our recognition of diversity as a business asset that fosters innovation and helps us better understand and meet the needs of our customers.

Inclusive leadership

Inclusive leadership workshops for our most senior leaders highlight the business benefits of diversity and encourage them to act as role models to promote diversity and inclusion across Vodafone. Similar workshops for their direct reports and human resources professionals, together with a dedicated online diversity and inclusion resource centre, support efforts to improve diversity within each of our local markets.

Valuing diversity

We value all types of diversity, but one global focus is on gender balance within teams and at all levels of the business. To understand and strengthen our female talent pipeline, we analyse the proportion of male and female promotions, new hires and leavers through a talent management dashboard.

With operations worldwide, Vodafone is not only multinational but multicultural. We recognise the value that international experience brings by opening up new perspectives and spreading best practice. As part of our strategy to invest in talented employees, managers are encouraged to gain experience working in different countries.

Individual responsibility

All employees have a duty to act with integrity and respect for their colleagues and customers at all times. We do not condone unfair treatment or discrimination on any grounds. This applies to anyone working for Vodafone whether they are employees, contractors, agency workers or self-employed.

We promote an open culture that encourages people to raise issues to ensure that any behaviour which excludes or discriminates against individuals does not go unchallenged.

See Performance to find out about our progress on diversity and inclusion in 2013/14.

Reward and recognition

We offer competitive and fair rates of pay and benefits to attract and retain the best people.

Our global short- and long-term incentive plans reward employees based on their performance, potential and contribution to the success of the business. An ownership mentality is also a cornerstone of our reward programme and senior executives are expected to build up and maintain a significant holding in Vodafone shares.

Each of our markets offer a competitive range of benefits, which vary according to local market conditions and regulations. These include medical insurance, subsidised mobile phones, share plans and retirement benefits. For more information, see our Annual Report.

Employee wellbeing

We want to help employees balance work and family commitments, manage stress and have a healthy lifestyle. Supporting our employees' physical and mental wellbeing improves their performance, reduces absence rates and helps to make Vodafone a great place to work.

Our Group Health, Safety and Wellbeing Policy sets out our global commitment to wellbeing. Local markets develop initiatives tailored to the needs of their employees and share information through our Health, Safety and Wellbeing Network.

Employees can get advice on how to improve their own wellbeing such as reminders to set up workstations properly, tips on safe driving and how to limit stress through clear goal setting and good time management. Best-practice guidance is available for managers to promote wellbeing among their staff.

We measure the effectiveness of our wellbeing programmes by asking employees what they think through our annual Global People Survey (see Performance). For more on our approach to employee safety, see Health and safety.

Our people – Performance in 2013/14

We have continued to focus on embedding The Vodafone Way to improve the way we operate and on developing high-potential employees to build the skills we need to drive business growth and expand into new areas. Our Global People Survey shows employees remain engaged and our ongoing commitment to improving diversity and developing an inclusive workplace demonstrates our recognition of the value this brings to our business.

Employee engagement

In 2013/14, we maintained high levels of employee engagement, although our annual Global People Survey revealed a slight decline in some scores compared with the previous year. Around 87% of employees across the Group responded to the Survey, compared with 90% in 2012/13. Our overall engagement score decreased by one point, but remained strong at 77 points out of 100. Employees responding positively to specific survey questions on health and safety, diversity and ethics all increased. See Data for more detail on the survey results.

Results from our Global People Survey demonstrate high levels of awareness of The Vodafone Way among employees, which remained central to our employee engagement activities in 2013/14. Following a series of workshops on Leading in The Vodafone Way for our global leadership team, which focused on the effective transformation of our business and how to achieve operational excellence, we piloted a toolkit designed for all employees to help drive simplicity – a key part of The Vodafone Way. In 2014/15, we will roll out workshops and training on this across the Group, tailored to local market needs. We also encouraged employees to upload videos sharing how The Vodafone Way is being put into practice across the business through the Vodafone Hub intranet site.

Managing change

The way we are working is changing to meet the evolving needs of our customers. We continue to make our business more efficient, simplify processes across our markets and target business growth in new areas such as fixed line telecommunications and Enterprise. Employees in various markets were affected by organisational changes in 2013/14, including:

- Integrating around 7,000 former Cable and Wireless Worldwide (C&WW) employees into our UK and Global Enterprise business following Vodafone's acquisition of the C&WW fixed line telephone business

- Building our Global Enterprise business to support evolving customer needs and improve operational efficiency and scale, including the creation of a single enterprise product management team and global carrier service which affected employees in several markets

- Creating a Group Transformation and Operations organisation to improve customers' experience, quality and efficiency across our markets by developing common processes and implementing best practices

- Continuing the transition of transactional and back office activities around the Group to our shared service centres in Egypt, Hungary and India, including bringing some previously outsourced customer contact centres in-house to improve service.

We supported employees through these organisational changes in a range of ways. Where roles were impacted, we helped people find new jobs elsewhere in the company or arranged for them to work for a partner company where possible. We also helped those who were made redundant search for new jobs, offering them training on job applications and interview skills, and advice on how to start their own business. Vodafone aims to treat all employees fairly, consulting with those affected and clearly communicating developments.

Development and training

We invested around £30 million in the training and development of our people during 2013/14, and 77% of our people agreed that they had opportunities to learn the skills that they need to do their jobs well.

We focused on developing the capabilities of people working in customer-facing roles, to ensure they deliver exceptional customer service. In 2013/14, over 5,000 employees and managers completed The Vodafone Way of Retail Training and 5,000 employees and managers working in our Enterprise Sales teams participated in The Vodafone Way of Selling programme.

To reward and retain talent we continue to develop the leadership capabilities of high-potential employees. In 2013/14, 85 employees participated in Inspire, our 18-month programme designed to develop our future leaders. We also launched Leadership Essentials, a programme to improve the coaching skills of new managers and enable them to motivate their teams effectively.

In addition to tailored training and development programmes, we offer over 10,000 programmes that are relevant and accessible to all employees. In 2013/14 around 180,000 online courses were completed by employees globally.

See Our approach for more on our development and training programmes.

Our people – Performance in 2013/14

Diversity and inclusion

Increasing diversity and inclusion in our workforce continues to be a major focus. In 2013/14, we rolled out our Inclusive Leadership programme to further markets, helping more than 200 Executives and senior leaders value diversity better and develop inclusive teams. Among this top management band a total of 24 nationalities are represented (see Data).

Since 2011, trained facilitators delivered workshops in their local markets to over 2,200 managers across the Group – achieving our target for 2013/14. In addition, we created a new training module on unconscious bias and piloted this with 10% of our Senior Leadership team. Workshops in Ireland, the UK and for members of our Women in Technology forum will reach another 600 managers on this topic.

To help increase the diversity of Senior Leadership teams in all markets and across all functions, we have developed a Global Diversity and Inclusion Toolkit that helps managers assess their team's performance and use examples of best practice to make improvements that foster a diverse and inclusive workforce.

Our 2013 Global People Survey showed continued improvements in employee perceptions of diversity and inclusion within Vodafone. Of those surveyed, 86% believe their local market or Group function values diversity, 85% agreed that a person's background does not stop them progressing and 89% agreed that people are treated fairly regardless of their gender, background, age or belief at Vodafone.

In focus: Teaching telesales to people with visual impairment in India

The National Federation of the Blind in India reports that the unemployment rate among working-age blind adults is 70%. Through project Drishti, a partnership between the National Association for the Blind and Vodafone India, we are training visually impaired people to become skilled telesales operators. Following a pilot in Mumbai, in 2012, this project has been rolled out to a further seven regions. Vodafone India now employees 162 visually impaired people, who are making an exceptional contribution to our sales teams. This project continues to expand and will shortly move into the Haryana region.

Gender diversity

Increasing female representation in the workplace remained a priority for us in 2013/14, especially increasing the number of women in management.

Women represent a growing proportion of management positions. We have two female executive committee members, two female local market CEOs and three female non-executive directors on the Board. The proportion of female leaders in management continued to increase in 2013/14 – from 20% in 2012/13 to 22% of our top senior management, and from 24% to 25% in middle management. See Data.

We aim to achieve a 50:50 male/female split in our graduate and MBA recruitment programmes and in 2013/14 our female graduate intake was 47%. We also increased female representation on our middle management development programme from 26% in 2012/13 to 50% in 2013/14, and from 22% to 50% on our senior management programme.

Examples of how we are driving greater gender diversity across our business in 2013/14 include:

- Encouraging team leaders to take action to increase the number of women in their teams through internal promotions and external recruitment through our 'Plus 1' principle if the gender balance is less than 50% female

- Introducing goals in emerging markets to increase the number of women hired and promoted. Within a year of introducing such goals in India, the proportion of women in middle management increased from 11% to 21%, and we plan to extend this approach to further markets in 2014/15

- Increasing membership of our women's networks, which offer coaching and career support and create local forums for female employees to connect with and learn from senior role models both inside and outside of Vodafone

- Identifying senior female employees suitable to serve with non-executive boards of other companies through our membership of the European Round Table of Industrialists (ERT). We also disclose our gender diversity targets and progress against these as part of the ERT's voluntary targets initiative

- Providing senior Vodafone women with the opportunity to learn about life as a non-executive director through our sponsorship of the Professional Boards Forum

- Launching a global partnership with the women's networking organisation, everywoman, to help female employees access resources that support their personal and career development and enable them to engage with female role models in the workplace. Since its launch, over 2,000 female employees have registered across 24 markets

- Publishing a 'gender toolkit' to outline a consistent approach to improving gender diversity across all markets, which includes examples of best practice and guidelines on setting goals to increase gender balance.

As part of our celebration of International Women's Day in March 2014, our local markets shared a series of best practices. We also launched our Connected Women report in March 2014 to showcase our research into the ways mobile technology is transforming women's lives (see Women).

Our people – Performance in 2013/14

Lesbian, gay, bisexual and transgender inclusion

We are committed to helping promote equal and fair treatment of employees irrespective of sexual orientation or gender identity. Our lesbian, gay, bisexual and transgender (LGBT) networks offer confidential support and advice to our employees on a variety of LGBT topics such as fear of coming out and opportunities that the LGBT community can bring to our business.

Following the launch of our first LGBT network in the UK last year, in 2013/14 we established similar networks in Greece and the Netherlands. We also continued to support other countries to engage their LGBT employee communities, while recognising the need to be sensitive to local laws and cultures.

Employee wellbeing

In 2013/14, 69% of employees agreed that their local market or Group function takes a genuine interest in their wellbeing. Our wellbeing programmes are managed locally to suit the needs of employees in different markets. Examples of how we promote wellbeing include:

- Launching our first global wellbeing challenge that encouraged 8,724 employees to collectively walk, run, dance and cycle a total of 205,000 miles

- Making it easier and simpler for employees at our Newbury headquarters in the UK to get medical attention at a time that suits them using our doctor and nurse service, and on-site contact centres

- Our walk-to-work campaign in Lesotho to encourage employees to stop driving and walk to work to get fit instead. This campaign was used to raise awareness of cardiovascular disease, cancer and diabetes

- Holding dietary awareness webinars in Italy to provide employees with advice on how to eat well and improve their diets in ways that may prevent chronic disease, such as diabetes.

Our people – Data[1]

Notes:

1. Numbers shown are for Vodafone permanent employees

Total number of employees

	2011/12	2012/13	2013/14
Total number of employees[1]	86,373	91,272	**92,812**

Notes:

1. Represents the average number of employees in our controlled markets and our share of employees in jointly controlled markets during the year

Diversity and inclusion

Women in management

	2011/12	2012/13	2013/14
Women in top senior leadership roles (top 200–250 employees) (%)	19	20	**22**
Women in senior management (top 1,100–1,600 employees) (%)	21	22	**24**
Women in middle management (top 4,500–6,400 employees) (%)	23	24	**25**
Women (all non-management employees) (%)	39	37	**38**

Nationalities in top management bands

	2011/12	2012/13	2013/14
Nationalities in top management bands (top 200–250 employees)	25	26	**24**

Employee turnover[1]

	2011/12	2012/13	2013/14
Part-time employees	8,479	8,802	**8,318**
Number of voluntary leavers	7,746	9,621	**9,647**
Number of involuntary leavers[2]	4,019	4,234	**4,355**
Newly hired employees	11,913	15,597	**21,586**
Average turnover rate (%)[3]	15	16	**15**

Notes:

1. Represents the average number of employees in our controlled markets and our share of employees in jointly controlled markets during the year and includes Cable and Wireless Worldwide for 2013/14 only.
2. Involuntary leavers include those who leave the business through redundancy, Vodafone-initiated separation or death in service
3. Includes voluntary and involuntary leavers

Our people – Data

Vodafone Global People Survey

	2011/12	2012/13	2013/14
Overall response rate (%)	90	90	**87**
Employee Net Promoter Score[1]	42	43	**43**
Employee engagement index	77	78	**77**

Notes:

1. The employee Net Promoter Score is calculated from the number of promoters minus the number of detractors

Employees responding positively to key sustainability-related questions (%)

	2011/12	2012/13	2013/14
Engagement and values			
I am proud to work for Vodafone	85	86	**85**
My local market/Group function operates ethically	83	83	**84**
Health, safety and wellbeing			
The Absolute Rules are taken seriously at Vodafone	–	87	**89**
My local market/Group function takes a genuine interest in the wellbeing of its employees	68	70	**69**
Diversity and inclusion			
People in my team are treated fairly regardless of their gender, background, age or belief	88	89	**89**
My local market/Group function values diversity	84	85	**86**
A person's background does not stop them progressing	84	85	**85**
Training			
Opportunities to learn skills and knowledge to do job well	75	77	**77**
Reward			
Total reward package is fair	52	54	**53**

The percentage of women in leadership data as well as selected supporting statements in the diversity and inclusion section were reviewed as part of EY's assurance of Vodafone's Sustainability Report.

For more details see our Assurance Statement.

June 2014

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Ethics – Our approach

Vodafone's success is underpinned by our strong commitment to ethical behaviour in the way we do business. We expect our employees to uphold the high standards set out in our Code of Conduct, which also includes our Business Principles.

To meet these standards we must create a culture where employees understand what we require of them, recognise their responsibility to raise concerns, and have the confidence to do so. Our anti-bribery programme, supported by training and monitoring, is a particular focus.

Setting high standards

Our Code of Conduct explains what is expected of everyone working for and with Vodafone, including employees, contractors, subsidiaries, joint ventures and suppliers. It also sets out Vodafone's responsibilities to our people, partners and shareholders. An external review by Corpedia, the corporate governance division of the New York Stock Exchange, ranked Vodafone's Code of Conduct in the 99th percentile for our sector, awarding it an 'A minus' grade.

Available in 14 languages, the Code requires employees to act ethically, comply with legal requirements, apply our Business Principles and speak up if they suspect any breaches of the Code. The Code is designed to be a one stop shop for employees to find all the policies they need to understand, and is clearly linked with working in The Vodafone Way (see Our people).

Some codes are made to be broken. Not ours.

Working in The Vodafone Way

Training

We want to create a culture where employees do the right thing automatically, not just because they were told they have to or because they are afraid of potential consequences. Employees across the Group receive regular communications, online refresher training, face-to-face sessions and team briefings on various aspects of our compliance programme, depending on their role.

A 15-minute online training course on the Code of Conduct uses a series of scenarios to encourage employees to act in The Vodafone Way and directs them to the Code of Conduct for further information.

We also provide face-to-face training sessions for line managers on what the Code of Conduct means for them.

The Code of Conduct learning and awareness programme, Doing What's Right, was designed to be used worldwide, so our employees across the Group understand their responsibilities to our people, partners and shareholders.

As part of this programme we developed new e-Learning courses, available for the first time on tablets and mobile devices, that ask employees to apply the Code to real life scenarios to boost their practical understanding of it. We are enhancing our global policies to better support the Code by ensuring they are risk-focused, easily understood, and consistent across our operations.

Reporting concerns

All employees and contractors have a duty to report any breaches of our Code of Conduct, which is known as our Speak Up policy. Our global external reporting scheme allows employees and contractors from all local markets to report through a third party, and is part of our effort to promote a culture of transparency. This process ensures a consistent approach in responding to concerns raised from across the organisation.

Concerns may be reported anonymously and the protection of innocent people is our priority at all times. Whistle-blowers can identify themselves to our external partner using a PIN in order to receive feedback. Vodafone has a 'non-retaliation' policy and will not take action against anyone reporting a genuine concern.

Details of how to report concerns are included in our Code of Conduct Suppliers website and on our Code of Conduct and on our Suppliers website.

Ethics – Our approach

Taking action

We investigate reported concerns to resolve issues promptly and take disciplinary action where appropriate. Any issue involving bribery, corruption or breaches of competition law must be reported immediately. Investigations into these issues are led by a senior member of the Group Legal team. Speak Up reports are subject to a triage process and a decision on the appropriate response is made based on the seriousness of the allegation and where the alleged breach took place.

Local markets must inform Group Corporate Security about any serious cases of fraud or dishonesty, data loss, breach or incident affecting multiple markets, and are required to escalate these reports within 48 hours.

See our Data on the number of dismissals and final warnings for employees and contractors, as a result of our investigations, along with the types of fraud reported.

Anti-bribery

Vodafone has a zero tolerance approach to any form of bribery. This is embedded across the Group through our robust global anti-bribery programme, which is aligned with the principles of the UK Bribery Act (2011) guidance:

- **Proportionate procedures:** The programme is managed centrally to ensure a consistent approach, but also requires each market to tailor it to address specific risks and meet local needs, through training and other methods

- **Top-level commitment:** Vodafone's senior managers take an active role in implementing the programme. The Executive Committee receives regular updates on performance and progress from across the Group, and a new initiative in 2013/14 requires local CEOs in high-risk markets to commit to a set of specific anti-bribery programme actions (see below). Nominated Policy Champions are also responsible for implementing the anti-bribery programme in their market and sharing their practices

- **Risk assessment:** We further developed our global risk assessment model across the Group in 2013/14, whilst continuing to identify and put in place anti-bribery procedures that are appropriate to the local operating environment. This process is reviewed and updated annually

- **Due diligence:** Our risk-based approach extends to identifying high-risk suppliers and business partners. Bribery requirements are included in the terms of our contracts with suppliers and anti-bribery questions are included in the qualification process for high-risk suppliers, as well as our performance management programme for strategic suppliers (see Supply chain)

- **Communication and training:** Our anti-bribery policy is included in our Code of Conduct, promoted on a dedicated intranet page with supporting guidance, and supported by a global training and communication programme that includes an anti-bribery e-Learning tool available to all employees.

Face-to-face workshops in all our markets help ensure employees working in high-risk areas (such as procurement, enterprise and government relations) have a practical understanding of the key issues. In 2013/14, our global Doing What's Right programme included communications on our Code of Conduct policies and offered additional training for line managers on our main policies, including anti-bribery. To promote further engagement with our policies, we established a community webpage on our internal social media site, Circle, which allows users to post short updates and links to documents and useful websites

- **Corporate gifts and hospitality:** Employees are required to comply with specific procedures and gain appropriate approval levels prior to giving and receiving corporate gifts and hospitality, and record these in our global Gift and Hospitality Register. To raise awareness of this issue, we run campaigns tailored to different cultures in our local markets. In India, for example, employees were sent a 'Happy Divali' message with a reminder to send back any gifts other than consumables (which should be shared with colleagues)

- **Monitoring and review:** Our global Anti-bribery Working Group includes representatives from each of our markets, and meets bi-monthly to discuss our anti-bribery programme and share best practice. The group regularly monitors and reviews compliance with anti-bribery requirements and addresses any new or emerging risks. In 2013/14, the group hosted a global event to share successes and challenges of the programme and refreshed the related intranet site to improve internal communications and encourage sharing of topical news stories and issues.

In focus: CEO Action plan drives anti-bribery engagement

Senior executives in local markets where bribery poses a higher than normal risk committed to a year-long CEO Action Plan in 2013/14. The Action Plan aimed to encourage participants to lead by example to drive employee engagement with the anti-bribery compliance programme. Results were reported quarterly to Regional CEOs. The initiative successfully increased employee awareness of anti-bribery activities and has been extended for a second year.

Ethics – Data

Internal fraud by type that resulted in dismissal

	2011/12	2012/13	2013/14
Total number of confirmed cases of internal fraud which resulted in dismissal	623	482	**701**
Manipulation of customer account[1]	324	234	**377**[4]
Theft	78	77	**83**
Unauthorised release of customer data	78	79	**112**
False documents for fraud[2]	47	29	**35**
Fraudulent invoicing	6	7	**0**
Technical fraud	2	0	**0**
Procurement fraud	5	2	**2**
Other fraud[3]	83	54	**92**

Notes:

1. Unauthorised credits, removing call charges, manipulating loyalty points etc
2. False documents or reporting to inflate overtime, commissions etc
3. Includes false insurance claims, test SIM abuse, unauthorised sale of network unlock codes, misuse of company PBX, falsifying employment application, expenses fraud etc
4. The increase principally relates to an issue detected in a single market in one quarter, resulting in the dismissal of 171 contract staff for fraudulently activating customer data plans

Accessibility – Our approach

We want to make the mobile phones and services we provide easier to use for elderly customers and people who have a disability.

The number of people excluded from communications technology due to profound disabilities is relatively small, although the potential for technology to improve their quality of life is substantial. We partner with accessibility organisations to understand the needs of people with severe disabilities and work with handset manufacturers to develop specialist assistive products and services.

Much of this work is led by Vodafone Spain and its Foundation, which together act as a centre of excellence for accessibility within Vodafone. We also promote the creation of accessible apps through the Vodafone Foundation Mobile for Good Europe Awards.

Many more people experience difficulty using mobile devices due to minor impairments, particularly as they get older. With ageing populations in many of our markets, meeting the needs of elderly customers is an important opportunity for Vodafone.

Specialist products

Our specialist products and services include:

- Handsets that are compatible with hearing aids and special price plans (such as the Sign Plan from Vodafone Spain) that offer customers who are deaf or hard of hearing a reduced cost text messaging service and data and video calls to facilitate use of sign language

- Easy-to-use handsets that will dial designated emergency numbers at the touch of a button

- Customer service advisers trained on disability issues and the range of products and services available to customers with disabilities.

We are conscious that customers often want easy-to-use phones without the stigma of a 'special' handset. Handsets such as the Alcatel 20.00, Alcatel 2010G, Emporia RL2 and Vodafone Smart III offer accessibility features such as large keypads, clear keys, large colour displays, adjustable volumes and voice-activated dialling, while maintaining an attractive design.

In focus: Improving the accessibility of our stores in Spain

Building on our Accessible Shop project, we have been working to improve the accessibility of our stores in Spain, in accordance with the criteria and requirements of the Spanish Universal Accessibility Standard (UNE 170001). Through the Accessible Shop project, we aim to offer our products and services in stores that are accessible to everyone, irrespective of their physical and sensory capabilities.

Initiatives include improving access by installing automatic sliding doors, ramps and elevators, lowering the height of counters and installing loop systems for use with hearing aids. We also redesigned the layout of some stores to improve the contrast of displays and create areas where customers can sit, rest and watch commercials and advertising.

We have already implemented solutions to comply with the Spanish Universal Accessibility Standard – certified by an external certification body – in around 94% of Vodafone stores in Spain.

Accessibility – Our approach

Accessibility apps

Smartphones offer an opportunity to improve accessibility through tailored apps for people with disabilities. Building on the success of the Vodafone Foundation's Smart Accessibility Awards, accessibility is one of four categories in the Vodafone Foundation Mobile for Good Europe Awards introduced in 2013. The new awards – a joint initiative between the Vodafone Foundation, the AGE Platform Europe and the European Disability Forum – offer a total prize fund of €200,000 to promote the development of apps that benefit society more broadly.

In 2013, winners included:

- **ColorADD®** – designed to enable colour-blind people to understand colours through a simple coding system. An estimated 350 million people are colour blind, around 10% of the global male population. The ColorADD® Universal code ensures equal accessibility for all when colour is a factor in identification, orientation or choice

- **MindTags** – uses speech-to-text and text-to-speech capabilities to enable people with hearing or visual impairments to take advantage of new wireless technology called Near Field Communication (NFC). NFC allows users to leave information and reviews at a particular location, and access those left by others

**In focus: Tackling loneliness among older customers**

Loneliness affects a lot of older people, but it is a particular problem for women, since they are more likely to live longer and live alone in old age. Vodafone Spain Foundation, in partnership with the Spanish Red Cross and the TecSOS Foundation, launched SocialTV to connect older people to their friends, families and carers. Simply installing a TV set top box allows users to make video and voice calls, as well as giving them access to an online network where they can share photos and videos with each other. Following a pilot with 100 elderly people in Spain, around 94% agreed communication with others became easier and 85% felt the service enabled them to expand their social network. In 2013/14, this service evolved and is now known as Enred@te. It can be accessed through a PC, tablet or smartphone. We are exploring the potential to use this service to help organisations reach more elderly people and support virtual volunteering.

- **Simple Tweet** – a simplified Twitter app designed to meet the needs of users with low technical skills, visual or motor disabilities, and older people. The app includes special features to enable universal access to Twitter.

In focus: Projects for special needs users

In 2013, we launched three new projects for people with special needs in Spain: aMiAlcance, Enred@te and AudescMobile. aMiAlcance from #ASPACEnet aims to make smartphones and instant messaging applications accessible for people with cerebral palsy; Enred@te is a social network designed to improve communication for elderly users; and the AudescMobile app (developed in association with the ONCE Foundation) allows visually impaired users to follow Spanish films and TV series on mobile devices. The app works with multiple platforms, including cinema screening, internet, television and DVDs, to provide audio descriptions that can be played back at the same time as the visuals.

Watch the videos below for more information:
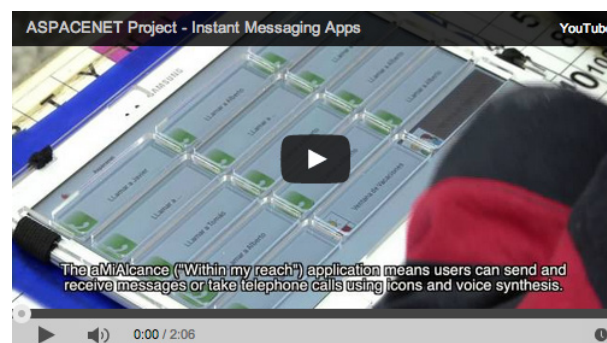
Mobiles, masts and health –
Our approach

Mobile devices, and the masts that enable them to transmit calls and data, operate well within guideline safety limits.

We manage any perceived health issues based on all available scientific evidence, to ensure we safeguard our customers, employees and the public. Our vision is to lead within the industry in responding to public concern about mobile phones, masts and health by demonstrating leading-edge practices and encouraging others to follow.

Find out more on the dedicated section of our website which explains how mobiles work, answers frequently asked questions about mobiles, masts and health, and provides summaries and links to the latest expert reviews of scientific research.

To read about our progress in 2013/14, go to Performance.

Mobiles, masts and health – Performance in 2013/14

Vodafone's reputation for acting responsibly in relation to mobiles, masts and health remains strong, as confirmed by our annual survey of opinion leaders.

Since we began this survey in 2008, we have consistently remained ahead of competitors in this area (see Data for year-on-year survey results).

In 2013/14, we shifted the geographical scope of our survey to monitor opinion outside Europe, where the issue of mobiles, masts and health is managed well across the industry so stakeholders tend not to differentiate individual companies' approaches. Instead, we focused on our markets in Africa, the Middle East and Asia Pacific, where we are working to promote engagement between mobile operators and stakeholders on this issue. The findings of the survey will help us understand where we can most effectively concentrate our efforts.

The survey, conducted by an external agency, involved interviews with more than 70 key stakeholders and opinion leaders in Africa, the Middle East and Asia Pacific, including national politicians, local authority decision makers, health bodies, government departments, media representatives, NGOs, academics, industry associations, and handset or technology suppliers.

Of these, 81% consider that Vodafone takes its responsibilities on mobiles, masts and health 'very' or 'fairly' seriously. We recognise that there is still more work to be done to engage and educate key stakeholders in these markets and we believe that Vodafone has an important role to play in sharing our global experience in these markets.

Mobiles, masts and health – Data

	2011/12 Global	2012/13 Global	2013/14[1] AMAP only
Vodafone[2] (%)	87	73	**81**
Leading device manufacturer(s)[3] (%)	61	36	**40**
Other operators (%)	61	35[4]	**53**

Notes:

1. 2013/14 survey of 71 stakeholders in seven markets in Africa, the Middle East and Asia Pacific was conducted between March and May 2014
2. Q: How seriously do you believe the following organisations are taking their responsibilities in relation to mobile phones, masts and health?
3. This score for 2012/13 and 2013/14 is based on an average of three leading device manufacturers rated in the survey. Scores in previous years are for the single leading device manufacturer
4. This score for 2012/13 has been restated to include an average of other mobile operators and the leading local competitor, in order to be the same as 2013/14

Network deployment – Our approach

We are deploying innovative technical solutions to extend and improve the capacity of our networks while minimising the impact of our base stations on communities and the environment.

Our mobile services rely on a network of more than 263,400 base station sites to send and receive calls and data. The network continues to expand as we extend coverage in emerging markets and improve capacity for new services in developed markets. We are working to reduce the overall number of base stations needed to achieve the desired coverage by deploying innovative technical solutions and cooperating with other operators to share sites.

When choosing a base station site, we must balance many, often conflicting, factors – including technical considerations, community concerns and visual impact. Most people welcome improved coverage and services but we recognise some have concerns about the location of new base stations, which we aim to understand and address through community consultation.

Some people are also concerned about potential health issues relating to radio frequency fields and we have a dedicated website on mobiles, masts and health to address these concerns, including links to independent, scientific reviews.

Read on to find out more about our approach to responsible network deployment.

Improving our network

We want all our customers to access fast and reliable data services wherever they are. In 2013, we launched Project Spring, a £7 billion investment to improve our voice and data service offering in both mature and emerging markets. Over the next two years, we plan to upgrade and expand our networks to boost our 3G mobile coverage and further roll out 4G technology in Europe. Find out more about how Project Spring is supporting Vodafone's strategy in our Annual Report.

Responsible network deployment

Our Site Planning and Implementation Guidelines, along with our EMF and Health and Safety standards, set consistent standards for all our markets in five key areas: legal compliance, environmental impact, radio frequency emissions, site planning and selection, and health and safety. Accompanying guidelines demonstrate best practice and help each market adapt the Group guidelines and standards to local needs.

The standards and guidelines also apply to contractors and their sub-contractors, who carry out much of the work involved in network deployment – from the planning and acquisition of sites to the construction and maintenance of base stations. Contractor compliance is a priority and we have an audit programme in place to monitor contractors' performance in the key area of health and safety.

When selecting base station sites, we always aim to comply with local planning regulations. In some markets, complex local and national planning regulations (sometimes conflicting) mean it can take up to 18 months to obtain local permits for individual sites. However, Vodafone's national operator licences often require coverage to be expanded sooner. As a result, some base stations may not have a local permit (see Data on violations of planning regulations). All our base station sites are designed and built to comply with international and local safety guidelines regardless of whether they are licensed as part of local or regional planning regimes.

In many countries we have signed up to recognised national codes of conduct for responsible network deployment. These codes are often in partnership with other service providers, local authorities, governments and consumer associations.

Community consultation

We want to roll out our network quickly, but community consultation is vital and can take time. We aim to balance technical considerations with community concerns, which can conflict. For example, higher masts can sometimes improve coverage but can also have greater visual impact.

Clear communication is key to alleviating concerns by keeping communities informed of plans. Training and information packs aim to help employees respond to questions clearly and openly.

Network deployment – our approach

We tailor our communications and consultations in each market depending on local regulations and public attitudes – what is acceptable in one country may not be in others. When people do raise objections to planned base stations, we listen and accommodate their views as far as possible. The table shows some of the main factors we consider when deciding where to put our base stations.

Community considerations	Technical considerations
• Public concern relating to schools, hospitals, nature reserves and other such areas • Visual impact on the landscape • Compliance with local planning regulations • Minimal disturbance to the community • Access to information • Consultations	• Compliance with local RF field strength guidelines • Good coverage, capacity and improved services • Strong and safe construction • Efficient rollout • Appropriate positioning to connect to the network • Easy access and maintenance • Access to power supply

Reducing visual impact

We use a range of base station designs to ensure we can choose the most suitable for each situation and blend in with the local environment. Each base station consists of antennas that emit and receive radiofrequency signals, a supporting structure and a cabinet to house network equipment.

Some are purpose built, some use masts shared with other operators and some are placed on existing structures such as rooftops or lamp posts. Some local communities prefer a bespoke design such as a tree mast to disguise the base station, while other communities prefer a discreetly sited standard design.

Examples of best practice for reducing visual impact are included in our guidelines on responsible network deployment and shared among local markets through internal conferences and our intranet. These include:

• Sharing sites with other mobile phone operators

• Using existing structures to support antennas and house equipment where possible

• Designing masts to blend into the surrounding street furniture, for example by looking like street lamps or flagpoles

• Constructing equipment cabinets from materials that match the environment or painting them to blend in

• Positioning masts so they are shielded from the most obvious viewpoint

• Ensuring small cell base stations meet our design criteria and fulfil local council requirements related to weight, size and the way they look.

Network sharing

More than 65% of base station sites across the Group are shared with other networks. By cooperating with other operators to share sites, we can accelerate the deployment of our network, limit the total number of sites required to provide coverage and cut costs by around 20%. Energy use and environmental impacts are reduced, making site sharing an important element of our strategy to improve network efficiency (see Environmental footprint). In Europe, the EU Commission also sees network sharing as a means to support the fast deployment of (new) mobile networks.

Sharing sites also relieves pressure on planning authorities because there are fewer sites to review. Sharing also helps us respond to communities' desire to reduce the need for additional structures in their area. However, we recognise that we must also take into consideration that shared sites can raise other concerns because they are often larger and therefore more noticeable.

The majority of our network sharing is 'passive' – sharing site and infrastructure such as masts or poles and air conditioning units (see diagram). 'Active' network sharing arrangements – where radio equipment is also shared – can be much more difficult to agree due to technical issues and the need to establish a high level of trust between competitor operators. We are, however, pursuing active network sharing in some markets despite these challenges. In some cases, licence agreements also require separate radio equipment to preserve full competition between operators.

In March 2014, we committed to working with seven other major mobile operator groups on network sharing initiatives that will provide internet, mobile broadband access and affordable mobile services to unserved rural communities across Africa and the Middle East.

There are three types of network sharing:

Passive sharing	Active sharing	Regional roaming
The site and mast are shared but each operator maintains its own network equipment.	All infrastructure is shared at a certain site, including the mast and network equipment.	Individual base station sites are maintained by individual operators with an agreement to use each other's sites in different regions, expanding the coverage of each operator's network without the need for more base stations.

Network deployment – data

Base station sites

	2011/12	2012/13	2013/14
Total number of base station sites	238,000	248,000	**263,400**
Number of violations of planning regulations in relation to masts / base station sites[1]	292	239	**182**

Notes:

1. The majority of these cases relate to base stations being moved or not built due to planning restrictions