



Vodafone Group

# Sustainability 2012 Summary Report



*power to you*

# Welcome

This Summary Report introduces Vodafone's new sustainability vision, highlighting the potential we see for our products and services to contribute to sustainable living as well as raising some of the challenges we face in realising this potential.

We are focusing on opportunities in six key areas (see page 4).

Our solutions are more developed in some of these areas than others.

For example, our finance solution, M-Pesa, is already well established within the business, whereas other new products and services are being trialled in individual markets. We are working with partners in the public and private sectors to overcome the challenges we face in developing and scaling up these solutions.

Three of the six key areas are discussed in more detail on pages 5–10: agriculture, health and low carbon societies. The 'in practice' sections outline our progress so far in each.

Operating responsibly is critical to earning the trust we need to achieve our vision and in this report we update readers on some of the areas that have been high on stakeholders' agendas in 2011/12: privacy, responsible supply chain, health and safety, and our carbon footprint (see pages 12–17). In managing these potential risks to our business, we also see opportunities to differentiate our brand and work with partners towards our sustainability goals.

We continue to report openly on our performance. This Summary Report includes an overview of progress against objectives and key performance indicators, while more detail can be found in our full Sustainability Report online. We are considering how best to measure our progress towards our new vision and will update you on this next year.

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## Read our full Sustainability Report online

Our full Sustainability Report is available [online](#). This provides a comprehensive account of our performance in 2011/12, including our approach to managing material issues, activity and progress against objectives during the year, and data on a wide range of indicators.

### Issue by issue:

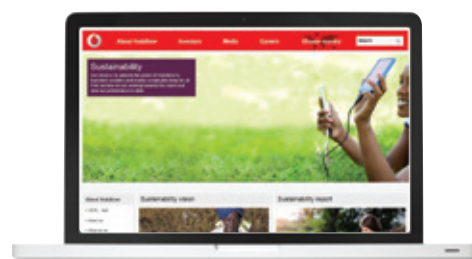
- Accessibility
- Child safety online
- Environmental footprint
- Ethics
- Health and safety
- Human rights
- Mobiles, masts and health
- Network deployment
- Our people
- Privacy
- Responsible supply chain
- Tax
- Transformational solutions

We also publish an index of conformance with the Global Reporting Initiative guidelines and information about the scope of our reporting.

### Tell us what you think...

We want to hear your views on our sustainability vision, performance and reporting.

Email us at [sustainability@vodafone.com](mailto:sustainability@vodafone.com).



# Our vision

Vodafone has a unique opportunity to transform societies by bringing innovative services to the 1.5 billion people covered by our networks worldwide – 1.1 billion of them in emerging markets.

Our mobile solutions in finance, health and agriculture are already making a difference to people's lives. In emerging markets, more than 30 million people without bank accounts are accessing financial services via our M-Pesa mobile money transfer service; our mHealth solutions are helping medical centres across Tanzania and The Gambia make sure they don't run out of essential medicines; and our mobile information service has enabled Turkish farmers to improve their productivity by an estimated €100 million.

In mature markets, our solutions are playing an important role in tackling one of the most significant global challenges we face – climate change. Smart working and machine-to-machine (M2M) connections offer the biggest potential here by enabling people to live and work more sustainably, and businesses to operate more efficiently. At least 6.4 million of the M2M connections we provide are helping companies cut their costs and carbon footprint through better energy and fleet management.

Our new vision captures the far-reaching ambition we need to support sustainable living on a grand scale. It is being

championed by our sustainability teams who will harness the enthusiasm of our employees around the globe. With the commitment of everyone at Vodafone, I'm confident we can bring sustainable living a step closer.

As we focus on sustainable development and transforming lives, we recognise that we must continue to operate responsibly and ethically wherever we do business. By doing so, we will maintain the trust of our stakeholders, which will be vital to achieve our vision. We are building on our longstanding commitment to corporate responsibility – from keeping our people safe and managing our carbon footprint to protecting customers' privacy – and on our significant achievements to date.

This document sets out how we are working towards our vision, highlighting some of the key opportunities and challenges. I look forward to updating you on our progress next year.

**Vittorio Colao**  
Chief Executive



## Our Vision






**Unleash the power of Vodafone to transform societies and enable sustainable living for all**



## Our approach and current focus areas

	<b>Delivering transformational solutions</b>	
Agriculture		Finance
		
Health	Low carbon societies	Smart working

We will innovate to extend access to finance, education and healthcare; improve efficiency in agriculture and working practices; and deliver low carbon solutions.

	<b>Operating responsibly and ethically</b>	
Health and safety		Mobiles, masts and health
		
Privacy, freedom of expression and human rights	Supply chain	Environment

By acting with honesty and integrity, we know we will achieve more for our business and for our customers, and gain the trust needed to transform society.



# Building on our established infrastructure

We are building on strong foundations as we work towards our vision to help transform societies and enable sustainable living for all.

The global scale and coverage of our network is bringing access to communications to millions of people worldwide. The social and economic benefits of voice and text communications are well known, and we are further enhancing these with services such as mobile payments and low-cost internet.

## Our network

Vodafone has 404 million customers worldwide. In the markets where we operate, our 2G and 3G network already covers 99% and 89% of the population in Europe respectively. For Asia Pacific Middle East and Africa, our 2G network covers 83% of the population, and while 3G coverage is lower, it is growing, currently reaching 23% of the population.

More than 60% of our customers are in emerging markets, where we are extending communications to people in rural and remote communities – often for the first time. We have invested nearly US\$13 billion in networks in these markets over the past three years. Our networks provide coverage to 81% of the population in India and 99% in Egypt and South Africa.

We are exploring opportunities to use our network to provide clean energy to remote communities by offering access to excess electricity from solar panels used to power our base stations (see carbon footprint, page 17).



## Low-cost mobile internet

Vodafone's range of low-cost mobile phones is helping to put the social and economic benefits of communications (voice, text and internet) within the financial reach of more people in emerging markets. Our cheapest internet-enabled phone, the Vodafone 340 (around US\$30), provides quick and easy internet access on 2G networks which are dominant in emerging markets.

Vodafone's WebBox has a QWERTY keyboard and connects directly to a television set to provide low-cost access to the internet over our network, without the need for a computer. Although sales to homes have been lower than expected, we are now using WebBox in schools to enable students and teachers to access the internet.



### M-Pesa



Vodafone's M-Pesa mobile payment service has expanded access to financial services to millions of people without bank accounts in emerging markets. M-Pesa allows people to send money to their families, pay for goods and services, and receive salary, pension and aid payments via their mobile phones. The system is cheaper than traditional alternatives, such as wiring money, and safer than carrying or sending cash.



There are now over 32 million registered users in seven markets, of which 14 million are actively<sup>1</sup> using the service. The number of registered users has increased by more than 10 million since 2010/11. In 2011/12, we processed more than 1.5 billion transactions. Potential applications for M-Pesa are diverse – from providing smallholder farmers with insurance against crop failure to sending money to people in remote areas so they can travel to hospital.

“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. M-PESA showed me a new world of possibility brought by that great piece of technology, the mobile phone. A recent study<sup>2</sup> found, among other things, 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<sup>3</sup>

### Smart working

Our unified communications systems integrate fixed and mobile communications to enable people and teams to work efficiently no matter where they are.

Many of these systems are already widely used and have helped organisations save money and boost their productivity. Reducing the need to travel is helping to cut carbon emissions and improve work-life balance for employees.

We already offer smart working options for businesses in several markets and we are exploring ways to use our systems to bring broader economic and social benefits. For example, mobile services are helping community healthcare workers spend more time with patients and less on administration by managing health records on the move (see page 8).



### Machine-to-machine (M2M) connections

Using wireless signals to help machines talk to each other is increasingly being used to manage transport fleets, provide remote maintenance and enable smart metering. M2M technology helps to cut costs and improves efficiency, which can reduce energy use and related carbon emissions.

M2M is integral to many of our products and services, providing carbon reductions and saving energy (see page 9) as well as other social and environmental benefits. Doctors, for example, can monitor patients' heart conditions remotely, and farmers can connect irrigation systems to moisture detectors in the fields, watering only when necessary.



<sup>1</sup> Defined as using the service between 1 January and 31 March 2012

<sup>2</sup> The Economics of M-PESA, Georgetown University and MIT (2010)

<sup>3</sup> Bill Gates quoted on <http://www.thegatesnotes.com/Topics/Development/Mobile-Phones-and-Savings-A-Powerful-Pair>



# Delivering transformational solutions

We aim to deliver products and services that can transform people's lives and contribute to more sustainable living. We do this by empowering individuals, contributing to wider development goals and reducing environmental impacts.

We are focusing on six areas where we believe Vodafone's solutions can make the biggest difference (see table below). Our work in these areas also strengthens our relationships with consumers and corporate customers, supporting our long-term business success.

Our objective is to create commercially viable services in each area that can be scaled up and rolled out in different markets, adding value for customers and society. We will achieve this by working with our business customers and other partners who are experts in these fields.

Our approach is to enhance and expand established products and services, while continuing to explore potential new services through pilots. The following sections highlight our progress in agriculture, health and low carbon societies.



**More information is available on our website**

[www.vodafone.com/sustainability](http://www.vodafone.com/sustainability)

## Agriculture



Mobile services can boost food production and reduce food waste by improving supply chain efficiency and providing information for farmers on market prices, crop advice and the weather. We are working with corporate customers in the agriculture, consumer goods and retail sectors to provide services that improve efficiency throughout the agricultural supply chain.

See page 5

## Health



Mobile technology has the potential to transform healthcare. For example, patients with chronic diseases can monitor their conditions at home, and rural medical centres can ensure they don't run out of essential medicines. Our mHealth business is working with partners to trial or roll out more than 50 services that will improve the quality of care and reduce costs for healthcare providers.

See page 7

## Low carbon societies



Our M2M business is helping corporate customers reduce their carbon emissions by making their operations more efficient. Carbon reductions can also be achieved through our innovations in other areas such as smart working and health by improving efficiency and reducing the need for travel.

See page 9

## Education



Using mobile technology to improve education for teachers and their students in emerging markets can make a significant contribution to sustainable development and create new business opportunities for us. In India we are working with an education provider to trial a 'virtual classroom' that helps students learn without needing to travel.

## Financial services



By bringing financial services to people without bank accounts, mobile payments contribute to economic development in emerging markets. Our mobile payment service, M-Pesa, forms the foundation of many of our services in other areas, for example, enabling people in emerging markets to make small payments for agriculture and health services.

See page 2

## Smart working



Helping people to work efficiently wherever they are provides economic, social and environmental benefits. Smart working can cut overhead costs and drive productivity for businesses; make public services more efficient; reduce costs and carbon emissions from business travel and commuting; and improve quality of life by helping people balance work and home commitments.

See page 3





# Agriculture



**Nick Read,**  
Vodafone Chief Executive  
Officer, Africa, Middle East  
and Asia Pacific Region

“Vodafone’s customers include farmers in remote areas of Africa and India, and major food and agriculture businesses. Mobile can connect them all. It makes sense to explore how our technology can boost farmers’ productivity and livelihoods, while offering efficiencies for the companies that buy and sell their produce.”

## Vodafone Farmers’ Club in Turkey

Farmers in Turkey can sign up for our Farmers’ Club to receive SMS alerts with weather forecasts, crop prices and other relevant information that is tailored to their local area and crop types. More than 600,000 farmers in Turkey (almost twice as many as in 2010) now subscribe to this service.

Farmers’ Club members use specially designed mobile phones that can be dropped in mud or trodden on, and still do their job. Bespoke payment schedules help them manage their spending, including an annual billing option to pay at harvest time, when their income is highest.

Farmers have received more than 72 million SMS text messages through the Club since its launch in 2009 in partnership with the Turkish Ministry of Food, Agriculture and Livestock. We estimate this has increased Turkish farmers’ productivity by around €100 million in 2011/12.

Vodafone Turkey won two silver awards for Community Relations and Market Growth at the 2011 Mercury Awards, which recognise outstanding achievements in the communications sector globally. The service has helped increase customer retention in this segment.

By 2050, the world will need to produce 70% more food to satisfy a global population of 9 billion.<sup>1</sup> And it must do so with increasingly limited land and water resources. Vodafone can help meet this challenge by providing mobile technology to improve productivity and increase efficiency throughout the agricultural value chain.

## Assessing the potential

Using mobile technology could boost farming productivity enough to increase agricultural income by US\$138 billion by 2020 across our markets, primarily in India, Africa and the Middle East.<sup>2</sup> This was the finding of our Connected Agriculture research, published in 2011, which looked at how mobile technology can be used to:

- **Provide information to farmers via SMS text and helplines:** Services include local weather forecasts, crop prices and guidance on topics such as pest control, sustainable agriculture and resource management.
- **Improve access to financial services:** Mobile money transfer systems, such as M-Pesa, enable farmers to exchange, save and borrow small amounts of money, and help them access insurance against crop failures.
- **Enhance access to markets:** Online marketplaces enable trading and bartering of agricultural produce and skills. This helps farmers get better prices for their crops.
- **Improve supply chain efficiency:** Mobile technology can improve communication between smallholders, distributors and retailers. For example, 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 M2M technology.

<sup>1</sup> UN Food and Agriculture Organization, How to feed the world, 2009

<sup>2</sup> Vodafone and Accenture, Connected Agriculture: The role of mobile in driving efficiency and sustainability in the food and agriculture supply chain, 2011



By raising farmers' productivity, these services can help to transform rural communities by increasing food supplies and improving incomes, lifting smallholders from poverty and contributing to economic development in emerging markets.

Sustainable agricultural practices and efficient food distribution also reduce food waste, carbon emissions and the amount of freshwater needed for irrigation.

These findings are helping us target our approach, apply services such as M-Pesa and M2M to agriculture, and find partners to help us develop and scale up products and services in the agricultural sector.

### Identifying opportunities

We are working with expert NGOs and government agencies, such as TechnoServe, USAID and the World Economic Forum, to identify opportunities for mobile services in agriculture. By partnering with corporate customers in the fast moving consumer goods (FMCG) sector, we aim to develop viable commercial propositions in the areas described on the previous page to improve the agricultural value chain. In April 2012, we held a workshop in the UK to explore opportunities to develop projects with our leading FMCG customers.

### In practice

We already have several pilot programmes in place. We will use mobile technology to collect and share information that supports farmers' use of pesticides and helps them meet the prescribed residue levels in food. We are also exploring the potential for companies to use mobile technology to track food from farms to stores and help distributors move food through the supply chain faster, reducing food spoilage.

In partnership with insurance providers, M-Pesa is helping farmers to access low-cost insurance against crop failure, known as micro-insurance. For example, the Kilimo Salama partnership between the Syngenta Sustainable Agriculture Foundation and UAP Insurance uses M-Pesa to offer micro-insurance to farmers in Kenya. Insuring over 22,000 farmers in 2011, this service helped farmers protect their investment in seeds, fertilisers and chemicals against crop failure due to drought.

We have already established information services for farmers in several markets that are paid for through special tariffs such as the Vodafone Farmers' Club in Turkey (see box on page 5). We have introduced similar services for farmers in Egypt, India and Kenya. In Egypt, for example, we are partnering with the Ministry of Agriculture to provide 1 million SIM cards for farmers to receive tips on farming techniques – from irrigation to harvesting – and on marketing their products. Around 80,000 farmers are already using the service. In Tanzania, we are exploring several mobile services for farmers, including a mobile marketplace solution for farmers to list their produce and connect with buyers.

The next step is to build more of our pilot programmes into commercially viable solutions that will help to grow our business while bringing benefits to farmers and food businesses.

“ We are encouraged that Vodafone seeks to provide solutions at scale, as too many programmes remain in pilots. The key challenge is building the business case for mobile solutions and we need to find innovative financing models where the costs and rewards are shared across all partners and stages of the value chain.”

**Simon Winter,**  
SVP Development, TechnoServe Inc





# Health



**Nick Jeffery,**  
Vodafone Global Enterprise  
Chief Executive

“ Mobile services empower both doctors and patients, extending access to vital treatment and enhancing quality of care while reducing costs and inefficiency. Vodafone is well placed to play a substantial role in the mobile health industry, which is predicted to be worth US\$50 billion by 2020.”<sup>1</sup>

### SMS for Health

We are partnering with pharmaceutical company Pfizer and International Health Partners (a medical supplies NGO) to roll out our mobile stock management service in The Gambia, following a seven-month pilot in 2010/11. It is already in use at 55 facilities and we have agreed a two-year contract for the service with The Gambia Ministry of Health and Social Welfare. This builds on the success of the service in Tanzania (see page 8).

Known as 'SMS for Health', the service uses mobile phones to monitor drug stocks and expiry dates for more than 20 medicines. The Gambia Ministry of Health uses data gathered on the number and type of medicines prescribed at health facilities to track disease rates, anticipate future treatment needs and make sure medicines are available where they are needed most.

SMS for Health improves availability of medicines by reducing the incidence of drugs going out of stock. Managers of remote health facilities use their mobile phones to provide updates on stock levels every week via SMS text message – and are sent reminder texts if they forget. This data is used by the central National Pharmacy Store to order and redistribute medicines.

Mobile services can transform healthcare in developed and emerging markets. Our mHealth business is bringing efficiencies for under-resourced providers, enabling better access to treatment for patients, improving quality of life for those with chronic conditions, and enabling the elderly to retain their independence through assisted living.

### Assessing the potential

The burden on healthcare systems is increasing as the world's population grows and ages, and long-term conditions become more prevalent. The cost of caring for an ageing population in developed markets could reach 30% of GDP by 2040.<sup>2</sup> But it is in emerging markets that improvements to healthcare are most desperately needed. There is a shortfall of 4.3 million health workers worldwide, with the majority needed in emerging markets.<sup>3</sup>

There is significant potential for mobile technology to respond to this challenge. We are working with the many parties involved in delivering healthcare to develop successful partnerships and, ultimately, commercially viable products and services that meet the needs of those paying for, and those receiving, treatment.

The Vodafone Health Debate Series brings together public and private stakeholders to discuss the role of mobile technology in the future of healthcare. The debate, which continues [online](#), has also identified challenges to implementing mobile health services. In 2011, we published the first Vodafone mHealth Solutions 'Insights Guide', part of a series analysing the barriers to adopting mobile health services. We are working to overcome these barriers, which include concerns over privacy of medical records (see Privacy, page 12 ).

### Identifying opportunities

We see opportunities for mobile services to transform healthcare in the following ways:

- **Access to medicines:** supporting the management of drug stock levels to improve access for patients in emerging markets, reducing uptake of counterfeit medications, and enabling treatment and tracking of diseases

<sup>1</sup> Future Agenda: The role of mobile (2011), Vodafone

<sup>2</sup> Future Agenda: The role of mobile (2011), Vodafone

<sup>3</sup> World Health Report (2006), World Health Organization



- **Remote care services:** improving quality of life for patients with chronic diseases by helping them monitor and manage their conditions at home rather than in hospital, and using mobile technology for assisted living to help elderly people stay in their own homes for longer
- **Smart working for healthcare workers:** using mobile phones to access patient records and other in-hospital systems, enabling healthcare staff to manage patients more efficiently, keeping lone healthcare workers safe with mobile alarm systems, and improving communication between ambulance services and hospitals.

Other areas of our mHealth business include increasing the efficiency of clinical trials and helping pharmaceutical companies engage with stakeholders. Our mHealth teams work with corporate customers to realise these opportunities while growing our business and our new research and development technology centre in the US is working with start-up companies to put innovative solutions into practice.

### In practice

With more than 50 services being trialled across the Group, we have proven some of the many benefits of mobile health services for patients and healthcare providers. Our aim is to scale up these projects and make them a commercial reality by partnering with pharmaceutical companies, government health departments, NGOs and healthcare providers.

Several tried and tested services are being rolled out. For example, more than 5,000 facilities across Tanzania are using our mobile stock management service, known as 'SMS for Life', to track medicine stock levels via text message. This improves access to healthcare in emerging markets by preventing facilities from running out of vital malaria treatments and we are now extending it to track leprosy and tuberculosis medicines. The success of these pilots in Tanzania is being replicated in The Gambia through our 'SMS for Health' programme (see box on page 7).

More than 1,800 community healthcare workers in South Africa are using our mobile health enablement platform. Our estimates suggest that this could help support 200,000 people. It is now being rolled out in Kenya and Tanzania. Community workers can access and update patient records instantly via their mobile phone, spending more time with patients, treating them more effectively, and reducing time spent on administration.

In Europe, our mHealth solutions are helping to improve quality of life by enabling patients to monitor chronic conditions and receive treatment at home rather than travelling to hospital. Working with Baxter Healthcare, we extended our trial of a system for patients with immune deficiencies to three cities in the UK, enabling them to be treated at home and report outcomes via their mobile phones. Doctors can monitor patients remotely by analysing data recorded via a mobile web-based patient diary. This service is also enabling remote monitoring of patients with cancer and diabetes. In addition, we are working with medical device company Boston Scientific Corporation to use our M2M technology to monitor patients' heart conditions remotely.

We have produced a best practice report to learn from these successful mobile health projects, and understand the partnerships and business models that will help us grow business opportunities from these solutions.

### Tackling obstetric fistula in Tanzania

Vodafone is working with Comprehensive Community Based Rehabilitation in Tanzania (CCBRT) to make obstetric fistula a thing of the past across the country. This maternal health condition can leave women incontinent following childbirth and consequently outcast from their communities. The CCBRT hospital uses Vodafone M-Pesa to send travel funds to ambassadors around the country who then pay for some of the poorest and most marginalised women to get to hospital for life-changing surgery.



 Read more in the Vodafone Foundation report

“ We are in a perfect storm. You've got healthcare reform; you've got an economic downturn and we have a shortage of providers. We have a pressure to adopt electronic records. We've got an ageing population. And yet, at the same time we have these emerging new information, communication technologies that can help us navigate that perfect storm.”

**Dale Alverson,**  
President of the American Telemedicine Association

# Low carbon societies



**Erik Brenneis,**  
Head of M2M, Vodafone

“By the end of 2020, there will be an estimated 2.3 billion cellular M2M connections worldwide.<sup>1</sup> As a market leader in M2M services, Vodafone has an opportunity to deliver significant efficiencies for business customers by providing these connections – most of which have the potential to reduce CO<sub>2</sub> emissions.”

## Smart working cuts Vodafone's emissions in the UK

We are using our own operations to showcase services that can help our business customers reduce their costs and carbon footprint. Vodafone products and services that enable remote collaboration (such as mobile phones, mobile broadband access, instant messaging and video conferencing) helped our UK operations to cut business travel and energy use, decrease requirements for office space and reduce the need for employees to commute.

Flexible working enabled by these technologies saved Vodafone an estimated £11.5 million and 24,000 tonnes of CO<sub>2</sub>-equivalent (CO<sub>2</sub>e) emissions in the UK in 2010/11. The analysis by ERM (reported in December 2011) found that video and teleconferencing technology helped us cut CO<sub>2</sub> emissions from travel by 12,000 tonnes in 2010/11 compared with 2006/07 – a 45% reduction. Lower energy use cut CO<sub>2</sub>e emissions from our buildings by 37% over the same period, while reducing daily commutes achieved an estimated net saving of 400 tonnes of CO<sub>2</sub>e per year.

Mobile communications can play a significant role in tackling climate change by helping to reduce energy use and cut carbon emissions. M2M technology, which connects machines to each other for greater efficiency, will be central to this.

Applications for M2M technology are wide-ranging – from improving fleet management and enabling wider use of electric vehicles, to monitoring stock levels in vending machines remotely. Smart metering that uses M2M technology to collect and analyse data about energy consumption is improving energy management in homes, schools and offices, and transforming the way utilities deliver energy through 'smart' grids.

Our other products and services, such as video conferencing and collaboration technologies can help individuals and businesses cut their carbon footprint by reducing the need for travel and office space through smart working.

## Assessing the potential

Our Carbon Connections study established the potential for mobile technology to cut carbon emissions by 113 megatonnes of CO<sub>2</sub>e by 2020 in Europe alone.<sup>2</sup> Building on this, we commissioned research in 2011/12 to explore and quantify the net carbon and cost savings of several specific mobile services.

The research by sustainability consultancy Environmental Resources Management (ERM) confirmed that smart logistics, smart metering for energy and waste management, and smart working can effectively cut carbon emissions and reduce costs.

- **Smart logistics for efficient fleet management:** Zenith Hygiene Group cut carbon emissions from its fleet of trucks in the UK by 28% using TomTom's navigation technology, connected by Vodafone's networks. The technology enabled Zenith to track vehicles and monitor driving habits, helping to boost efficiency.

<sup>1</sup> Machina Research, M2M Global Forecast and Analysis 2010–20, October 2011

<sup>2</sup> Carbon Connections, Vodafone and Accenture, 2009





- ▶ **Smart metering for energy management:** Real-time data on energy consumption enabled ASB Bank in New Zealand to target energy efficiency initiatives that have achieved net savings of 2,232 tonnes of CO<sub>2</sub>e a year, cutting its carbon footprint by 27% over three years.
- ▶ **Smart working:** Applying a combination of smarter working technologies at Vodafone's own operations in the UK saved 24,000 tonnes of CO<sub>2</sub>e emissions and an estimated £11.5 million in 2010/11 (see case study on page 9).
- ▶ **Smart metering for waste management:** A trial to monitor rubbish bins remotely helped Groningen City Council in the Netherlands reduce the annual carbon footprint of its refuse fleet by 18% and save around €92,000 a year on refuse collection costs. Sensors on each bin enabled the Council to collect rubbish only when bins were full.

### In practice

M2M solutions are a growing revenue stream for Vodafone. Our dedicated M2M business is supported by a team of 250 specialists and an in-house M2M technology platform that enables us to offer customers central data collection and analysis. Reducing operating costs is a clear selling point for M2M services but the potential for carbon reductions is also a primary motivation for businesses to invest.

We are strengthening our relationships with corporate customers by working with partners to tailor our products and services. For example, working with customers such as vehicle tracking specialist Isotrak, we can help fleet managers plan shorter routes and monitor driving styles. In the healthcare sector, we are working with medical device companies such as Boston Scientific Corporation to enable doctors to monitor patients with heart conditions or diabetes remotely (see page 8), and with specialist medical technology companies such as NetMedical to collect clinical trial data quickly and securely.

Vodafone is providing nearly 1 million M2M connections to support the rollout of smart metering by British Gas across the UK. Research by the energy company found that 64% of households with a smart meter had made significant improvements in energy efficiency.<sup>3</sup> By enabling utilities to wirelessly monitor energy networks, our M2M technology can also help identify areas where energy is being lost and balance energy supplies with demand. In our own operations, we are using smart metering to help us improve energy management across our network as part of our efforts to manage our carbon footprint (see page 16).



“ ICT businesses can save millions of tonnes of CO<sub>2</sub> by greening their operations but also gigatonnes of CO<sub>2</sub> through smart solutions. WWF continues to encourage Vodafone and the sector as a whole to target low carbon products and services at high carbon activities.

We know the ways in which we produce and consume food, heat our homes and travel about have particularly high impacts and therefore these areas provide significant opportunities for smart B2B and B2C solutions. It would be great to see Vodafone building on its excellent efforts around 'Connected Agriculture' and rolling out other strategic, low carbon and lucrative services in the transition to a green economy.

To ensure high levels of usefulness and usability in a fast moving digital age, it would seem there needs to be an increase in the co-creation of smart solutions to help corporate clients and domestic customers manage their CO<sub>2</sub>.”

**Dax Lovegrove,**  
Head of Business & Industry, WWF-UK



<sup>3</sup> Source: British Gas



# Operating responsibly

To transform societies, we need our stakeholders' trust and cooperation. To earn that trust, we must manage the issues that matter to them and behave ethically in everything we do.

We aim to manage these issues in an ambitious way, turning potential risks into opportunities to differentiate our brand and enhance the contribution of our products and services to sustainable living.

Vodafone's responsibilities are wide-ranging. The table below sets out some of the most important issues we manage as part of our commitment to being responsible and ethical.



**More information on all of these issues is available on our website.**

Pages 12–17 highlight the latest developments in our approach to four issues that have been high on the agenda for our stakeholders in 2011/12: privacy, supply chain, health and safety, and carbon footprint.

Issue	What's on the web
<b>Accessibility</b> We encourage suppliers and developers to design mobile phones and apps that are easier to use, particularly for elderly customers, and we are piloting the winning entries from our accessible apps competition.	<ul style="list-style-type: none"> <li>Our approach</li> <li>Performance in 2011/12</li> </ul>
<b>Child safety online</b> Vodafone's Digital Parenting magazine is the industry leader in providing advice for parents to understand the rapidly growing range of services that can be accessed via mobile phones and help young people use them safely.	<ul style="list-style-type: none"> <li>Our approach</li> <li>Digital Parenting magazine</li> </ul>
<b>Environmental footprint</b> As well as managing impacts from our own operations, we work with suppliers and consumers to reduce the environmental impacts of our products and services. Cutting our carbon footprint and managing electronic waste are priorities.	<ul style="list-style-type: none"> <li>Our approach</li> <li>Performance in 2011/12</li> <li>Eco-rating for mobile phones</li> </ul>
<b>Ethics</b> Our success is underpinned by our strong commitment to ethical conduct. We expect our employees to follow our Code of Conduct and do not tolerate bribery or corruption wherever we operate in the world.	<ul style="list-style-type: none"> <li>Our approach</li> <li>Code of Conduct</li> <li>Anti-bribery programme</li> </ul>
<b>Health and safety</b> Safety is a core value in our business. We believe all accidents and injuries are preventable. We profoundly regret the loss of life and serious incidents in 2011/12, and are driving a culture of zero fatalities among employees and contractors across the business.	<ul style="list-style-type: none"> <li>Our approach</li> <li>Performance in 2011/12</li> <li>Health, safety and wellbeing policy</li> </ul>
<b>Mobiles, masts and health</b> Our vision is to lead the industry in communicating transparently about mobiles, masts and health. We comply with international and national guidelines on exposure to radiofrequency fields, and continue to monitor independent research.	<ul style="list-style-type: none"> <li>Our approach</li> <li>Independent research reviews</li> <li>2011/12 stakeholder survey results</li> </ul>
<b>Our people</b> We aim to attract, develop and retain the most talented people by offering a motivating, healthy and inclusive workplace. Engaging employees in our culture and strategy is a priority.	<ul style="list-style-type: none"> <li>Our approach</li> <li>Performance in 2011/12</li> </ul>
<b>Privacy</b> Our privacy management programme helps us live up to our commitment to respect customers' privacy and personal data in our day-to-day operations. We also work with others in our industry to develop common principles on privacy and ensure that privacy is considered when developing services.	<ul style="list-style-type: none"> <li>Our approach</li> <li>Performance in 2011/12</li> <li>Privacy centre</li> </ul>
<b>Responsible supply chain</b> We hold our suppliers accountable to strict standards set out in our Code of Ethical Purchasing and we monitor their performance through our Supplier Management 2.0 programme. We work with our suppliers and industry peers to improve sustainability throughout the supply chain through workshops, joint audits, continuous improvement plans and due diligence on conflict minerals.	<ul style="list-style-type: none"> <li>Our approach</li> <li>Performance in 2011/12</li> <li>Code of Ethical Purchasing</li> <li>Contractor health and safety</li> </ul>
<b>Tax</b> Vodafone is committed to acting with integrity and transparency in all tax matters as part of our corporate responsibility. We believe that transparent communication is the best approach in engaging with our stakeholders about our tax strategy.	<ul style="list-style-type: none"> <li>Our approach</li> <li>Group Tax Code of Conduct and Tax Risk Policy</li> <li>Our tax contribution in 2010/11</li> </ul>





# Privacy



“ Privacy has always been an important issue for Vodafone, but it’s becoming even more significant as the boundaries of what people can do with mobile phones keep on expanding. Trust is fundamental to our ability to take customers with us on this extraordinary technological journey and deliver our business strategy to grow data services.”

**Matthew Kirk,**  
Vodafone Group External  
Affairs Director

Our business depends on customers trusting us with their communications and personal information. We can only earn and keep this trust if we respect and protect their privacy – and secure their information. In doing so, we don’t just meet an essential corporate responsibility; we protect Vodafone’s reputation and create an opportunity to differentiate our brand.

## Identifying privacy concerns

With the proliferation of smart devices, services and apps that use personal information, we recognise that consumers have become increasingly concerned about privacy and data security. High-profile reports of phone hacking and regular media coverage around mobile, internet and social networking privacy have heightened these concerns.

We regularly review the most significant and emerging privacy issues affecting our business, considering the impact of our own plans as well as wider developments in technology and across the industry, and, of course, legal and regulatory requirements. We then develop strategies and policies to tackle them.

## Managing privacy

Our comprehensive privacy programme is designed to help us manage and stay ahead of these and other emerging concerns and risks, through a global privacy risk management system and network of local privacy officers to ensure we live up to our seven key [Privacy Commitments](#).

We benchmark our programme against leading global brands. In 2011/12, PricewaterhouseCoopers assessed that our privacy programme is ahead of our global peers in three key areas, and identified opportunities to improve in three others (see our [website](#) for more details).

### Key privacy concerns

- **Data security and global information management:** The security of personal data is becoming more important as Vodafone delivers more cloud-based services to enterprises and consumers. This requires robust processes and significant investment to manage data as it flows across our organisation, including with our suppliers and partners.
- **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. Knowing more about these data packets – and thus about the nature of our customers’ communications – raises privacy concerns, which we address through clear governance and policy requirements.
- **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 social applications such as analysing trends in public health. However, 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.
- **Location services:** The ability of mobile operators to identify the location of mobile users can enhance our services and applications, and is also a valuable input into the services of our partners and third-party developers. But the potential to be tracked without one’s knowledge or approval is often a concern that has to be addressed and managed.
- **Assisting law enforcement:** We have legal duties to assist governments by, for example, providing information about our customers for the purpose of tackling terrorism, serious crime or threats to national security. We carefully manage compliance with our legal obligations and our relationship with law enforcement authorities to ensure human rights are respected.



Our product teams work closely with our privacy experts to ensure we embed privacy into our products and services. Privacy principles and guidelines inform our product development teams, and we look ahead to identify and understand any potential privacy impacts of new products or services, such as in fast evolving markets.

### Collaborating to raise industry standards

We operate in an environment where privacy regulation is stringent and different in every market. The speed of technological advance means compliance alone is not enough to build trust in our services. The privacy of our customers can also be affected by factors beyond our control – the devices they buy, the apps they install, or other mobile services they use. This makes it essential that we work across our industry and with others to develop standards and guidelines that ensure privacy is built into products and services, however they may evolve in the future.

Vodafone is a contributor to work on privacy with the World Wide Web Consortium and the European Telecommunications Standards Institute and is a key player in the GSMA's Mobile Privacy Initiative, which aims to create consistent standards for mobile privacy across the industry. We helped write the GSMA's Mobile Application Privacy Guidelines, launched in February 2012, and published privacy design principles for our third-party application developers to help them understand how to build privacy into their apps.

### Balancing government requests with respect for the human rights of privacy and freedom of expression

Most national governments have legal powers to demand support from telecoms operators, for instance to intercept communications, disclose data, or block services – and they can even demand the take-over of networks in certain circumstances. Operators are bound by strict legal requirements to comply with these demands.

We understand the need for governments to act in critical situations that threaten public safety or national security, but this must be balanced with our responsibility to respect our customers' rights to privacy and freedom of expression. We have a clear policy framework to ensure we adopt strategies in all situations to minimise the impact on our customers when interacting with governments.

We believe there should be a clear legal framework governing the exercise of such powers, with adequate safeguards for operators and for citizens. Vodafone is one of 12 telecommunications companies participating in a dialogue established in 2011/12 to develop a common approach to dealing with privacy and freedom of expression in a principled, coherent and systematic way.

In early 2011, Vodafone, along with all other operators, complied with an instruction from the Mubarak Government to shut down our networks in Egypt during the country's political unrest. We believe we acted responsibly in this challenging situation and in January 2012, we invited a group of human rights NGOs to our Egyptian operations to hear first hand how our executives and employees dealt with these challenging events.

**“ Privacy has come a long way and it is still developing. However, surveillance has become more clever. New techniques of spying and malicious hacking are emerging, even under 'lawful' guises. As these become known, and risks of abuse rise, I believe that people will look to companies like Vodafone for protection. Even in situations beyond your control, when using devices that are not even yours, users will focus their blame at Vodafone and ask: 'why didn't you protect my privacy?'. As a result, Vodafone is going to have to be very protective of its relationships with its users. You will also have to protect your services... and ensure that your users can use your networks with confidence that you are protecting their privacy. To do so, you will have to compel action amongst device manufacturers, operating system developers, and other parties to ensure that privacy is protected across the layers.”**

**Gus Hosein,**  
Executive Director, Privacy  
International





# Responsible supply chain

**“ Vodafone spends billions of Euros with suppliers each year, and we have a moral obligation to ensure the products and services we use are sourced from a responsible supply chain. We are challenging ourselves and others to go beyond supplier performance and auditing towards more open dialogue and collaboration in the supply chain, working towards shared sustainable value for the long term.”**

**Maximiliane Glas,**  
Head of Supply Chain Management  
Enablement, Vodafone



Our customers rightly expect us to ensure that Vodafone’s equipment and services are produced without harming people or the environment. We have a responsibility to manage the impacts of the products and services we buy from others in our supply chain.

## Managing standards

Two key issues for our industry include labour and environmental standards in suppliers’ factories and the safety of contractors working on our network infrastructure in emerging markets (see health and safety, page 15). We plan to go further and engage our tier 2 suppliers on these [issues](#).

Sustainability is a core part of our Supplier Performance Management Programme and our procurement teams are required to complete training every year to ensure that sustainability is part of our sourcing decisions. Our Code of Ethical Purchasing sets out the standards we expect suppliers to meet and we have a well-established process to identify high-risk suppliers and monitor their compliance through site audits.

In the 33 audits conducted in 2011/12, we found instances of non-compliance related to working hours over the 60 hours per week limit set in our Code of Ethical Purchasing. We are working with suppliers to ensure they have processes in place to monitor hours worked and to act promptly in cases of excessive overtime. We aim to help suppliers improve their performance, but Vodafone will not work with suppliers who fail to meet our standards.

Our objective for 2012/13 is to step up our assessment efforts to cover 10 times as many suppliers including more sub-tier suppliers, with whom we do not have a direct contractual relationship. We will continue to strengthen our focus on working with suppliers to improve industry standards and exploring opportunities to collaborate on sustainability initiatives.

## Vodafone’s eco-rating for mobile phones



Vodafone has introduced an eco-rating for mobile phones that allows customers to choose between mobile phones based on sustainability criteria. The 1–5 rating (5 is most sustainable) is based on the environmental and social impacts of the mobile phone. The eco-rating is displayed at the point of sale. Launched in the Netherlands in 2011, the rating is now being extended across Europe in 2012 and over 100 devices

have been rated so far. During 2012/13, the eco-rating will be embedded into a suite of marketing propositions, enabling customers to make more sustainable choices.



**Find out more online...**

[www.vodafone.com/content/index/about/sustainability/eco-rating.html](http://www.vodafone.com/content/index/about/sustainability/eco-rating.html)



## Collaborating to raise industry standards

While we continue to work with suppliers directly, we know that we can make a bigger impact by working with our peers to raise supply chain standards across the industry. In 2011/12, Vodafone joined the Joint Audit Cooperation (JAC), a group of seven telecoms operators collaborating to share audit data and develop common improvement plans for suppliers. JAC promotes common industry standards and aims to reduce the burden of multiple audits on suppliers. Thirty joint audits were carried out in 2011/12. Suppliers representing 53% of our relevant procurement spend are now engaged in JAC or E-TASC (the Electronics-Tool for Accountable Supply Chains), meeting our commitment for 50% of relevant procurement spend to have adopted a common industry approach.

We are also working through the joint Global eSustainability Initiative (GeSI) and Electronics Industry Citizenship Coalition (EICC) Extractives Working Group to address the issue of conflict minerals and develop tools to help industry to comply with new US laws on conflict minerals. For Vodafone, this is particularly relevant for handsets and devices, and we are using the GeSI/EICC due diligence tools with suppliers of Vodafone branded products.

## Promoting innovation

We work with suppliers to identify opportunities to help reduce impacts in the supply chain. Our new eco-rating measures the sustainability impact of mobile phones and promotes innovation (see box on page 14).

Our series of workshops to improve supplier capabilities continued in March 2012, bringing together suppliers from across the value chain to share experiences and identify potential opportunities to work together on reducing CO<sub>2</sub> emissions. Fifteen of our top 25 suppliers attended, representing network, IT, software, media and mobile phone suppliers.

Joint CO<sub>2</sub> reduction projects have been developed with suppliers representing 29% of procurement spend. Projects with network and IT suppliers have already helped to achieve significant improvements in the energy efficiency of network and data centres.

**“Although the ICT industry brings endless opportunities for environmental protection and emissions reduction, heavy metals pollution discharge in China, particularly from manufacturing processes further down the supply chain, can lead to dangerous levels of atmospheric pollution and enormous volumes of, often untreated, wastewater discharge.**

**Initially slow to respond, Vodafone has later shown itself to be proactive, forward thinking and willing to engage with NGOs on environmental issues. Recognising the benefits of environmental information transparency and communication on supplier compliance, Vodafone was one of the first brands to drive Tier one suppliers to screen their own suppliers through the China Pollution Map Database.**

**While off to a good start, we hope to see Vodafone lead the efforts to extend environmental management upstream; pushing those suppliers with environmental violations to undertake third-party validation for their corrective actions; while encouraging its suppliers to disclose discharge data, in order to allow local communities to fully understand the hazards and risks in their local vicinity.”**

**Ma Jun,**  
Director, Institute of Public & Environmental Affairs (IPE), Beijing



## Operating responsibly

# Health and safety



The safety of everyone involved in our operations is a core value for Vodafone. Network rollout and maintenance, and associated occupational driving, are our highest risk activities. The majority of this is taking place in emerging markets, where we face significant cultural and practical challenges in health and safety management. Much of this work is also outsourced, making management of contractors a priority.

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. However, despite significant improvements in many areas, we deeply regret that one employee and 20 contractors lost their lives in occupational accidents in 2011/12. Our focus is on tackling the biggest risks across our operations.

 **Find out more on our website:**  
[www.vodafone.com/sustainability](http://www.vodafone.com/sustainability)





# Our carbon footprint

**“ We aim to grow our business in a sustainable way. The scale of the climate challenge demands ambitious action, and we are responding with stretching targets and a continued focus on innovation to cut our carbon emissions. The push to improve energy efficiency across our networks is a fantastic opportunity to cut our carbon footprint and reduce costs. Vodafone’s business and sustainability interests align here.”**

**Steve Pusey,**  
Vodafone Group Chief  
Technology Officer



Climate change remains one of the biggest global challenges and is a continuing concern for our business and stakeholders.

Our greatest opportunity to contribute is through our carbon-reducing products and services (see page 9). We have to expand our business to extend these solutions to more people and industries, but we must also manage our own carbon footprint as the business grows.

We have set challenging targets to reduce emissions across the Group. We are working towards these through energy efficiency and the use of alternative energy. Innovations in our networks, such as the use of solar power in remote regions, will help us reduce our carbon footprint, and we are exploring ways to extend clean energy to communities.

## Working towards challenging targets

Our goal is to halve our carbon dioxide (CO<sub>2</sub>) emissions in mature markets by 2020,<sup>1</sup> and reduce emissions by 20% per network node<sup>2</sup> in our rapidly expanding emerging markets by 2015.<sup>3</sup> We are on track to meet our target in emerging markets, but we are disappointed that we have not made significant progress towards the 50% reduction target in mature markets (see page 18).

Our total reported CO<sub>2</sub> emissions across the Group continued to rise in 2011/12 – by 12% to 2.2 million tonnes – due to better and more complete data as well as growing demand for our mobile services. This is despite continued efforts to roll out more efficient equipment in our attempt to decouple our carbon footprint from business growth. (See our website for detailed data on our [carbon footprint](#) and an update on [progress against our objectives](#).)

We have accelerated energy efficiency measures across our network which, along with our data centre infrastructure, accounts for 84% of our carbon footprint. ‘Free cooling’ (using fresh air to reduce the need for air conditioning) was installed at an additional 5,000 sites in 2011/12 and single RAN technology (combining 2G, 3G and next generation LTE networks in a single base station) is now in place at 58,000 of our base station sites. We are also using our operations to showcase Vodafone’s own technology, with 43,000 smart meters now rolled out across our networks. By monitoring our energy use more often and more accurately, we can be sure our operations are running efficiently and reduce consumption where it is highest.

As demand for mobile internet and data services grows, data centres account for a growing proportion of our carbon footprint (8% in 2011/12 compared with 7% the previous year) and we have made significant progress in improving their efficiency (see more on our [website](#)).

Despite our efforts, projections show that we will not meet our target in mature markets through energy efficiency alone and we are exploring other options. Our research into the use of green tariff electricity (purchasing renewable energy from the grid) in 2011/12 highlighted the risk of double counting emission reductions because of uncertainties surrounding carbon accounting of green tariff in some European countries. We continue

 **Find out more on our website**  
[www.vodafone.com/sustainability](http://www.vodafone.com/sustainability)

<sup>1</sup> From a 2006/07 baseline

<sup>2</sup> A single base station site may contain more than one node for each type of network served (e.g. 2G, 3G or LTE)

<sup>3</sup> From a 2010/11 baseline



to monitor regulations and buy green tariff energy in some markets.

We also researched stakeholder views on carbon offsetting in 2011/12, based on our pilot offsetting programme. Feedback confirmed that offsetting should only be a last resort, certified to a high standard and cover just a small proportion of the overall target. As a result, carbon offsetting will not play a major role in our strategy.

Instead, we are exploring the use of alternative energy. The business and sustainability benefits of alternative energy sources are strongest in emerging markets, where limited access to reliable grid electricity means many of our base stations depend on diesel. Hybrid base stations use batteries (and sometimes also renewable energy from solar or wind) to reduce diesel use by up to 70%. These are used at 3,100 sites, mostly in India.

### Promoting innovation

We are working closely with suppliers to develop and implement new technologies that will help us reduce the carbon footprint of our network. In 2011/12, we established the Vodafone site solution innovation centre in South Africa to identify and test new technologies, with staff from two of our biggest network suppliers working directly with our team at the centre.

Examples of innovations include the 'power cube' (a more efficient hybrid generator) and the use of slim-line solar 'film' as an alternative to solar panels for base stations in urban areas with limited space. In 2011, we created a portable base station that was powered entirely by renewable energy for the COP17 climate change conference in Durban, South Africa.

We are also looking for ways to achieve further benefits beyond cutting operating costs and CO<sub>2</sub> emissions from our networks. For example, we are trialling a solar base station that also provides green power to the local community (see case study below).

While we will continue to work hard to cut our carbon footprint, we are increasingly looking beyond our own operations to focus on products and services that can help other industries and individuals reduce their CO<sub>2</sub> emissions (see page 9). In this way, we can significantly enhance our contribution to tackling climate change.

**“The leading companies, like Vodafone, who are Members of The Prince of Wales's EU Corporate Leaders Group (EUCLG), have played an important role in pushing EU politics around the setting of more ambitious greenhouse gas emissions targets and progressive low carbon policy. Recently Vodafone, alongside the other EUCLG members, has actively supported the need for urgent action around low carbon economic innovation and development as a means out of the recession and creating growth and jobs. It is thanks to the progressive voice of companies like Vodafone that we are able to show that Europe does have industry leaders willing to show leadership on climate and sustainability.”**

**Sandrine Dixson-Declève,**  
Director, The Prince of Wales's  
EU Corporate Leaders Group on  
Climate Change



### Using our networks to bring renewable power to communities

As we extend our network to rural areas of emerging markets, we have an opportunity to use our infrastructure to provide not just telecommunications services but also clean energy to remote communities. In the village of Emfihlweni, South



Africa, excess power from our solar base station is being used to power services for the community, such as the school computer centre and a water pump.

Installing solar film on the roof of the village school to run the base station helps us reduce costs by making use of existing infrastructure. This also improves the security of the base station by giving the community a stake in the power it generates.

We have set up a mobile phone charging centre, which saves villagers time and money as they previously had to travel to a more distant charging point that cost 25 US cents per charge. The new centre will make it easier for local people to access the social and economic benefits of telecommunications, and promote greater use of our mobile services, which is good for our business.



# Progress against objectives

We report our progress in 2011/12 against all previous objectives in our full Sustainability Report online. Here we present our progress against several objectives across the broad range of issues we manage.

○ Ongoing
● Achieved
◐ Partial
○ Not achieved

Objective	Our performance in 2011/12	Status
<b>Accessibility</b>		
Run a contest to develop applications for disabled users in Europe by March 2012	We held the Vodafone Foundation Smart Accessibility Awards to develop applications for disabled users. The four winning applications selected in November 2011 will be available to Vodafone customers using Android smartphones from June 2012.	●
<b>Environment</b>		
<b>Our carbon footprint</b>		
Reduce CO <sub>2</sub> emissions by 50% against the 2006/07 baseline by March 2020 for mature markets <sup>1</sup>	CO <sub>2</sub> emissions in our mature markets increased to 1 million tonnes of CO <sub>2</sub> in 2011/12, equivalent to a 4% decrease from our 2006/07 baseline. We have accelerated the rollout of energy efficiency measures but, despite our efforts, current projections show that we will not meet the 50% target by 2020 through energy efficiency alone. We continued to explore other options in 2011/12 including renewable energy and carbon offsetting.	○
Reduce CO <sub>2</sub> per network node <sup>2</sup> by 20% against a 2010/11 baseline by March 2015 for emerging markets <sup>3</sup>	In emerging markets, CO <sub>2</sub> emissions per network node decreased by 11% against the 2010/11 baseline. We remain confident that we are on target to fulfil this commitment. We continue to expand our use of lower carbon alternative energy to power our base stations in emerging markets, which are often heavily dependent on diesel.	○
Develop joint CO <sub>2</sub> reduction strategies with suppliers accounting for 50% of procurement spend by March 2012	We are working with suppliers representing 29% of procurement spend on ways we can reduce CO <sub>2</sub> in our networks and products. We continue to work towards this target and in March 2012, we ran a workshop for 15 suppliers to explore further opportunities to work together to cut carbon.	○
<b>Managing electronic waste</b>		
Contribute to building capacity to manage electronic waste in three emerging markets by March 2012	Despite our efforts, including research on e-waste management in India and Kenya, and a new handset recycling scheme in South Africa, we have not been able to make a significant contribution to building capacity to manage e-waste in emerging markets. In 2011/12, we began work on our new approach to implement our Group-wide policy on e-waste and work with waste contractors in emerging markets to build capacity and raise standards.	○
<b>Environmental impacts of products and services</b>		
Be recognised as a 'green' brand in at least 75% of the developed markets where we operate by March 2012	Due to difficulties measuring this parameter, we changed our focus to concentrate on implementing and communicating specific initiatives that reduce environmental impacts of our products and services, such as our eco-rating (see page 20).	○

<sup>1</sup> Mature markets 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










<sup>2</sup> A single base station site may contain more than one node for each type of network served (eg 2G, 3G or LTE)

<sup>3</sup> Emerging markets defined as those not obligated under the Kyoto Protocol: Albania, Egypt, Ghana, India, Malta, Qatar, South Africa and Turkey




# Progress against objectives

 Ongoing 
  Achieved 
  Partial 
  Not achieved

Objective	Our performance in 2011/12	Status
Embed Environmental Principles in our terminal supplier management process by March 2012	Our eco-rating incorporates and extends the requirements set out in our Environmental Principles. This is now part of our management process for mobile phone (terminal) suppliers.	
<b>Health and safety</b>		
Reduce the work-related incident rate resulting in lost time by 10% (from the 2007/08 baseline) by March 2012	Our lost-time incident rate was 1.52 in 2011/12, representing a 31% reduction from 2007/08.	
<b>Drive a zero fatalities culture, mindset and behaviour by:</b>		
Implementing occupational road risk programmes in all local markets by 2016	Programmes targeting road safety have now been implemented in eight of our 20 markets: Democratic Republic of Congo, Egypt, Ghana, India, Mozambique, Tanzania, Turkey and South Africa.	
Including health, safety and wellbeing objectives in the annual objectives for Group Executive Committee members, regional executives and local market executives by 2016	Health, safety and wellbeing will be included in annual objectives for Executive Committee members from 2012/13.	
Implementing safety leadership programmes in all local markets by 2016	From 2012/13, safety leadership is included in quarterly objectives for all local markets, with the expectation that senior leaders must engage employees and suppliers on safety, including site tours for executives in relevant functions such as Technology and Supply Chain.	
<b>Mobiles, masts and health</b>		
Maintain an approval rating against external stakeholder opinion on how responsibly Vodafone is acting regarding mobile devices, masts and health as a rolling average, targeted at or above 80% over any three-year period	We maintained an approval rating of 87% in 2011/12, making our average approval rating 87% over three years across all markets. This is based on a survey of around 100 national politicians, local authority decision makers, health bodies, government departments, media representatives, NGOs, academics, industry associations, other operators and manufacturers. We have ranked consistently higher than other operators over the five years we have carried out this survey.	
<b>Our people</b>		
Continue to increase the proportion of women in middle, senior and top senior management roles	The proportion of women in senior and top senior management has increased from 20% to 21% and 17% to 19% respectively. The proportion of women in middle management remained steady at 23%.	
<b>Transformational solutions</b>		
Be recognised as a communications company making one of the most significant contributions to achieving the Millennium Development Goals (MDGs) by March 2015	We continued to contribute to the MDGs by developing mobile products and services for agriculture, health, education and finance. Read more about our contribution to the MDGs <a href="#">online</a> . Our survey of opinion formers in 2010/11 ranked Vodafone the leading telecoms company and third overall out of 15 telecoms and internet companies on its contribution to development.	
Provide 10 million carbon-reducing M2M connections by March 2013	By the end of 2011/12, we had provided 6.4 million carbon-reducing M2M connections.	

# KPI summary

 More detailed data is available  
in our online report  
[www.vodafone.com/sustainability](http://www.vodafone.com/sustainability)

	2012 <sup>1</sup>	2011 <sup>1</sup>	2010
<b>Our network</b>			
Number of base station sites	238,000	224,000	104,344
<b>Managing electronic waste</b>			
Network equipment waste generated (tonnes)	14,532* <sup>2</sup>	7,473 <sup>3</sup>	5,870
Network equipment waste sent for reuse and recycling (%)	98*	99	98
Phones collected for reuse and recycling (millions)	1.37*	1.23	1.33
<b>Energy use<sup>4</sup></b>			
Total energy use (GWh)	4,454*	4,117	3,278
Energy sourced from renewables (%)	18	19	23
<b>Carbon footprint<sup>4</sup></b>			
Net CO <sub>2</sub> e emissions (all sources) (millions of tonnes) <sup>5</sup>	2.27	2.14	1.37
Gross CO <sub>2</sub> emissions (all sources) (millions of tonnes) <sup>6</sup>	2.59*	2.29	1.54
Net CO <sub>2</sub> emissions (all sources) (millions of tonnes) <sup>7</sup>	2.20*	1.96	1.21
Net CO <sub>2</sub> emissions (mature markets) (millions of tonnes) <sup>7</sup>	1.00*	0.94	0.94
Net CO <sub>2</sub> emissions (emerging markets) (millions of tonnes) <sup>7</sup>	1.20*	1.02	0.26
<b>Our contribution to a low carbon future</b>			
Number of carbon-reducing M2M connections (million)	6.4	> 4	
<b>Our people</b>			
Total number of employees <sup>8</sup>	86,400	83,900	84,990
Average employee turnover rate (%)	15	15	13
Women in top senior management (%)	19	17	14
Number of nationalities in top senior management	25	29	26
Employee engagement index (%)	77	75	76
<b>Safety<sup>9</sup></b>			
Number of employee and contractor fatalities	21*	21	27
Number of lost-time incidents (employees)	146*	188	147
Lost-time incident rate per 1,000 employees	1.69*	2.40	2.01
<b>Mobiles, masts and health</b>			
Survey respondents who believe Vodafone are taking their responsibilities in relation to mobile phones, masts and health seriously (%) <sup>10</sup>	87	87	87

1 2010/11 and 2011/12 data includes our new markets of Ghana, India, Qatar and South Africa

2 The network waste data for India and Egypt are based on receipts from authorised waste contractors which only include large consignments of waste

3 Data does not include Ghana, and data from India includes network batteries only

4 Data for Qatar for 2011/12 is estimated based on an extrapolation of data from 2010/11 aligned with network growth for 2011/12

5 Net CO<sub>2</sub>e emissions includes emissions from business flights (not including data from Qatar) and emissions associated with the use of refrigerants and fire suppressants. Green tariff energy is included with a carbon intensity of zero. Refrigerants and fire suppressants data from India is not included

6 Gross CO<sub>2</sub> emissions exclude Scope 3 emissions, and green tariff energy is included with emissions being calculated using the conversion rate for normal grid electricity

7 Net CO<sub>2</sub> emissions exclude Scope 3 emissions, and green tariff energy is included with a carbon intensity of zero

8 This data includes information from our Vodacom markets (Democratic Republic of Congo, Lesotho, Mozambique and Tanzania), plus joint ventures of Fiji and Australia

9 This data includes information from our Vodacom markets (Democratic Republic of Congo, Lesotho, Mozambique and Tanzania)

10 New markets are included in the survey as they join Vodafone. In previous years we have reported the three-year approval rating based only on the original markets surveyed. However, this is no longer representative of the Group so we now include ratings from all markets. We have adjusted and backdated the statistics accordingly

\* Data marked with this symbol is within Ernst & Young's limited assurance scope (see Ernst & Young's Independent Assurance Statement to Vodafone Management)

This report and accompanying data cover performance and activities during the financial year ended 31 March 2012 in 20 local markets where Vodafone has operational control, unless otherwise stated. While Vodacom's operations in South Africa are included in the scope of our reporting, its subsidiaries in the Democratic Republic of Congo, Lesotho, Mozambique and Tanzania are not because their sustainability data management systems are not yet sufficiently developed. See full reporting scope [online](#).

# Independent Assurance Statement to Vodafone Management

The Vodafone Group Sustainability Report 2011/12 (the Report)<sup>1</sup> has been prepared by the management of Vodafone, which is responsible for the collection and presentation of the information it contains. Our responsibility, in accordance with management's instructions, is to carry out the following assurance activities:

Assurance scope	Level of assurance <sup>2</sup>	Reporting and assurance criteria
1. Vodafone's application of the AA1000 principles, as described on the Vodafone <a href="#">website</a>	Reasonable assurance	The criteria set out in AA1000AS for the principles of Inclusiveness, Materiality and Responsiveness
2. Progress against objectives	Limited assurance	Objectives set in 2010/11 sustainability report
3. Reliability of selected performance data for 2011/12 marked with (*) symbol	Limited assurance	Completeness and accuracy of selected reported performance data
4. Vodafone self-declared GRI <sup>3</sup> application level	Limited assurance	G3 Sustainability Reporting Guidelines and application level requirements

Our responsibility in performing our assurance activities is to the management of Vodafone Group only and 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.

## What we did to form our conclusions

Our assurance engagement has been planned and performed in accordance with ISAE3000<sup>4</sup> and to meet the requirements of a Type 2 assurance engagement as defined by AA1000AS (2008). The AA1000AS (2008)<sup>5</sup> assurance principles of Inclusivity, Materiality and Responsiveness have been used as criteria against which to evaluate the Report.

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

- 1. Interviewed Vodafone executives and senior managers** including the Chief Executive to understand the current status of social, ethical, environmental and health and safety activities, and progress made during the reporting period.
- 2. Reviewed Vodafone's processes for determining material issues to be included in the Report.**
- 3. Conducted media analysis, reviewed selected relevant internal documents and the outputs of stakeholder engagement activities** to enable us to test the coverage of topics within the Report.
- 4. Reviewed information or explanations supporting Vodafone's reporting of progress against objectives;** we also reviewed drafts of the Report for statements or assertions for consistency with the findings from our work.
- 5. Undertook visits to Vodafone businesses in South Africa, Ghana, the Netherlands and the UK.** We reviewed the processes and controls supporting environmental and safety performance data, conducted interviews with senior executives and managers in the businesses, and reviewed stakeholder engagement processes.
- 6. Reviewed selected environmental and safety data collection, consolidation and reporting processes at Group level described in the [online report](#)** to assess accuracy of reporting.

## The limitations of our review

Our review was limited to the information contained in the PDF Summary Report and selected sustainability web content on [www.vodafone.com](http://www.vodafone.com), marked with the Ernst & Young footnote.

## Our conclusions

Based on the scope of our review our conclusions are outlined below:

### Assurance scope 1 – Application of AA1000 principles

- Vodafone's description of the application of the AA1000 principles, on the [website](#) in managing and reporting sustainability matters is fairly stated.

### Assurance scope 2 – Progress against objectives

- Nothing has come to our attention to suggest that the reported progress against objectives is not fairly stated.

### Assurance scope 3 – Completeness and accuracy of selected environmental, health and safety performance data marked with the symbol (\*)

- We are not aware of any reporting units that have been excluded from the data relating to the topics above.
- Nothing has come to our attention that causes us to believe that the data relating to the above topics has not been collated and presented properly at Group level.
- We are not aware of any errors that would materially affect the data as presented in the Report.

### Assurance scope 4 – Self-declared GRI application level

- Nothing has come to our attention to suggest that Vodafone's self-declaration of GRI application level B+ is not fairly stated.

## Observations from our work

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

### Progress against objectives

Vodafone's existing suite of sustainability objectives will come to an end over the next three years. Vodafone has launched a new sustainability vision focused on sustainable opportunities for growth. In order to achieve its strategic sustainability goals Vodafone will need to decide how to measure progress in the delivery of the new vision and how to communicate progress to a range of stakeholders.

### Health and safety

The local markets visited had processes in place to improve the management and reporting of safety performance. We saw examples of programmes targeting areas of high risk such as working at height and road safety. Although safety performance across the Group has improved compared with last year, the number of fatalities remains high. Over 60% of fatalities were vehicle related and all but one involved contractors. Vodafone needs to continue to focus on achieving a safety culture across its contractor base with a specific focus on driving safety.

### Stakeholder engagement

Vodafone continues to have a wide ranging stakeholder engagement programme at Group and local market level. The opinions of stakeholders including governments, NGOs and employees are sought to inform and challenge sustainability programmes. Vodafone should demonstrate to its stakeholders how it has used the engagement processes to influence the scope and direction of its sustainability activities.

### Environmental data

This year, energy data for India and South Africa increased by 27% and 18% respectively due to improved accuracy and completeness of access network data measurement and reporting. As the deployment of smart meters increases across the markets, there may be further improvements to the accuracy and completeness of access network energy data. This step forward in energy data reporting will help ensure more consistent trending information for future years. However, Vodafone will need to assess the implications that this improvement in energy data reporting will have on the achievement of the CO<sub>2</sub> reduction targets, particularly for emerging markets.

## Our independence

This is the second 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 Vodafone Group's approach to sustainability reporting.

## Our assurance team

Our assurance team has been drawn from our global environment and sustainability network, which undertakes engagements similar to this with a number of significant UK and international businesses. The work has been led and reviewed by a Lead Sustainability Assurance Practitioner.

## Ernst & Young LLP

London  
June 2012

- 1 This includes the PDF Summary Report and the online sustainability web content marked with the Ernst & Young footnote
- 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 for assurance scope 2–4 than for assurance scope 1
- 3 Global Reporting Initiative
- 4 ISAE 3000 – International Federation of the Accountants' International Standard for Assurance Engagements Other Than Audits or Reviews of Historical Financial Information
- 5 AA1000AS (2008) – The second edition of the AA1000 assurance standard from the Institute of Social and Ethical Accountability



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