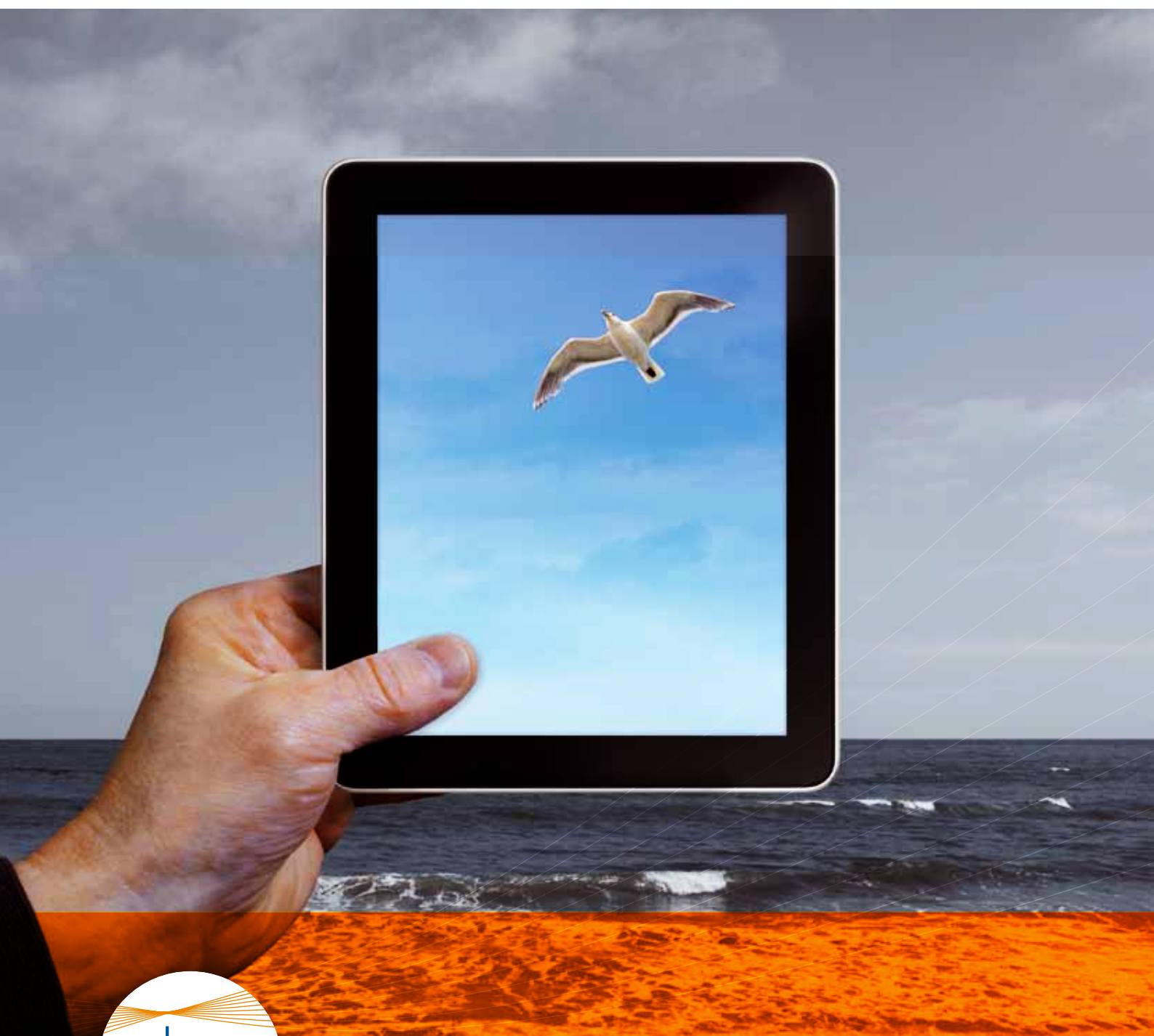


Driving the Sustainable Future



SUSTAINABILITY REPORT 2012

European Telecommunications Network Operators' Association

PUBLICATION SEPTEMBER 2012

Contents

#1	Introduction : Driving the Sustainable Future	4
#2	Progress report	
	2.1 Introduction	7
	2.2 Managing Commitments	7
	2.3 Accountability and Communication	9
	2.4 Climate Change and Energy Efficiency	11
	2.5 Energy Consumption and CO ₂ Emissions	16
	2.6 The Supply Chain	22
	2.7 Managing Waste Streams	24
#3	A sustainable industry	
	3.1 Sponsorship and Charity	27
	3.2 Sustainability in the Workplace	28
	3.3 ICT and Younger Generations	30
#4	Walking the talk	32
#5	Conclusions : A digital sustainable future	46
#6	The Sustainability Charter of the European Telecommunications Network Operators' Association	
	Our Vision	51
	Our Approach	52
	Our Pledge	53
	The signatories of the ETNO Sustainability Charter that contributed to this report	54
	Acknowledgments	55
	About ETNO	55



Paul Timmers
Director - Sustainable and Secure Society
DG CONNECT

Foreword

Driving the Sustainable Future

In a world that is online 24hrs a day the growing importance of Information and Communication Technologies (ICT) is a fact. The recent boom in the deployment of networks, cloud computing services and the increasingly digitalized society place the members of ETNO in a key position. They not only contribute to improving resource use and reducing carbon emissions across the EU, but at the same time they contribute to creating avenues for innovation and growth. In other words the sector has a central role to play in driving Europe's sustainable future.

With power, though, comes responsibility. The ICT sector needs to be a role model in addressing its own sustainability. There are estimations that the electricity consumption of ICT products and services accounts for 8% of the European total and is foreseen to double by 2020. To promote the uptake of the most sustainable ICT, increased transparency around claims relating to the environmental performance of ICT products and services needs to be achieved.

As you can't improve what you can't measure the EC welcomes the contribution of various ETNO members in the standardization efforts following Key Action 12 of the Digital Agenda for Europe. Key Action 12 had called on the industry to develop a common framework for the measurement of its energy consumption and greenhouse gas emissions. The methodological framework which allows measuring the footprint of ICT goods, networks, services and organisations is currently being piloted by over 25 ICT companies. The involvement of ETNO members shows their commitment to this path. The widespread uptake of these methodologies would be a fruitful outcome of all the efforts invested in this endeavour so far.

We welcome the fact that members of ETNO have developed a voluntary Sustainability Charter, which they commit to. It is important that it is updated on a regular basis to reflect latest developments. Indeed the intention to emphasise the importance of supply chain management in the revised version which is due to be published in the second half of 2012 is absolutely key from a sustainability perspective. How this part of the Charter will be implemented by its signatories is of great interest to us.

So, whilst a lot has been achieved, it is important to keep the momentum and join up to drive Europe's sustainable future together.

Paul Timmers
Director - Sustainable and Secure Society
DG CONNECT



Introduction

Driving the Sustainable Future

A few years ago the OECD^[1] suggested that innovation could definitely be one of the keys to emerge from the current crisis, but it risked being hit hard by the downturn, as was already demonstrated by the fact that investments in innovation were already declining in many firms.

The crisis, coupled with regulatory uncertainty, has also affected the ICT sector. ETNO members continue, however, to devote a significant share of revenue to investment, including in the deployment of high speed broadband networks - for which they account for more than two thirds of total investment - and in the development of new innovative broadband-applications in wide ranging areas, including online content, e-health and energy^[2].

Over the last decade, information and communication technologies have enabled changes in the way people live, work, interact and acquire knowledge by exploiting their huge innovation potential: and ICT can still enhance productivity and innovation capacity, as well as generate new business opportunities and jobs.

Smart grids, smart services, smart cities are the future which ETNO members look at: a full basket of opportunities that may become a reality thanks to innovative technologies, advanced solutions and synergies between the ICT industry and other industry sectors as well as public administrations. However, an appropriate regulatory framework is needed to support the deployment of next generation networks and drive investments which will lead to the full implementation of the Digital Agenda for Europe for the benefit of all citizens.

[1] Policy Responses to the Economic Crisis: Investing in Innovation for Long-term Growth – OECD, 2009

[2] See the first ETNO Annual Economic Report – downloadable from www.etno.eu.



Luigi Gambardella
ETNO Executive Board Chairman



Danilo Riva
ETNO Corporate Responsibility WG Chairman

ETNO member companies are convinced of the importance of decoupling economic growth from use of natural resources and, in particular, of the need to reduce pollution, manage energy effectively and contribute to the global fight against climate change. They are convinced that high health and safety standards in the workplace, fair treatment, respect of human rights, proper work-life balance and creation of opportunities for professional growth are the basic pre-requisites that can enhance the well being as well as the productivity of their own workforce anywhere; and that such principles should be applied globally across the whole value chain.

These members' commitments, actions and achievements, which are testified by this report and the ones that were published over the years since 1998, show that ETNO, via its Sustainability Charter, has been able to indicate the route to sustainable business. ETNO Charter Signatories have fully accepted the challenge of addressing *all their impacts on society*, as highlighted by the EU strategy 2011-2014 for Corporate Social Responsibility. They do it together, identifying risks and opportunities, sharing information on success stories and failures, identifying best practices, building alliances and activating synergies, taking actions and communicating about results. And will continue to do so into the future.

Luigi Gambardella - ETNO Executive Board Chairman
Danilo Riva - ETNO WG Corporate Responsibility Chairman

#2

Progress report

Sustainability Charter Signatories' progress report



2.1 Introduction

The "ETNO Sustainability Report," in its seventh edition here, provides ETNO with a means to communicate to its stakeholders the progress made collectively by the signatories of the Association's "Sustainability Charter." Specific information about the performance of individual signatories can be found in company-own reports and dedicated pages available on their own web sites.

As in the previous editions, the Report is based on ETNO's collective reporting scheme which makes use of a set of qualitative and quantitative indicators. Information is gathered every year from each signatory that responds to the survey under its own responsibility.

All indicators used in the following sections refer to specific reporting boundaries, covering at least 80% of each company's operations in its home country. The 80% refers to the turnover and the number of employees. The turnover has been generally used as a normalising factor for quantitative indicators. In 2010 the aggregated turnover of the 21 Charter signatories considered in this report amounted to roughly €156 billion, corresponding to 59% of their total turnover. Such aggregated turnover was 1.9% lower than in 2009.

2.2 Managing Commitments

Commitments should be made responsibly and properly managed. Signing the "Sustainability Charter" is only a first step, but after that, actions must follow, starting with organisation and planning, then moving to deploying solutions, continuing with monitoring, seeking improvement, etc.

For the Charter to remain a meaningful and recognised reference document with a real impact on each company's value chain, its commitments must be converted into practical objectives and targets. A proper organisation must be established to manage all processes and ensure that they are consistent with business objectives and stakeholders' expectations. And, of course, compliance with the relevant national legislation is of paramount importance and represents the baseline of all commitments. Legislation might create constraints to companies' operation, but proper understanding and management can easily turn such constraints into opportunities in many cases.

This is why Charter signatories are asked to report on how they have organised themselves to manage their commitments properly and which level of transparency they have adopted in communicating their policies and objectives to stakeholders.

- **86%** of Charter signatories have issued a formal corporate governance policy;
- **All** have an environmental policy approved at board level, which is made public for **86%** of signatories and has been translated into specific objectives and targets for **90%** of them;
- For **90%** the policy includes broader corporate responsibility (CR) commitments, which are public for **81%**, and which have been translated into objectives and targets for **76%**;
- **All** Charter signatories have appointed a manager responsible for coordinating programmes of environmental improvement; **71%** of signatories gave to one of main board members specific responsibilities over the company's environmental performance, while in **67%** of the cases such responsibilities also cover sustainability at a broader level;
- **86%** of Charter signatories have an environmental management system (EMS) in place, **81%** have it certified according to ISO 14001; **10%** are currently building their own EMS. Typically, such a system covers the parts of a company that have a more specific environmental impact, e.g., its network or building management and technical services, and most of the times is integrated within its quality management system and sometimes with other management systems. Such integration helps the two or more systems to reinforce one another and achieve a better degree of optimisation and efficiency.

2.3 Accountability and Communication

All signatories consider communication and constructive dialogue with stakeholders as the best way to understand their requirements and expectations and to let them know what companies do and can offer. To be effective and to guarantee that needs are met on both sides, answers and solutions must be developed together with interested parties.

- **All** Charter signatories regularly produce a sustainability or CSR report, which also covers environmental issues, either as a separate document or as part of the company's annual report;
- Surveys among Charter signatories show that two-way dialogue on sustainability issues is strongly established with stakeholder groups, particularly employees and governments/institutions. Open and constructive dialogue with these two groups includes environmental issues (**95%** and **81%** respectively) and social issues (**100%** and **90%** respectively). Dialogue with unions is good regarding social issues (**100%**) and average regarding environmental subjects (**48%**), for instance. Dialogue with non-governmental organisations (NGOs) is good for environmental (**76%**) and social issues (**95%**). The companies' dialogue with the public and society at large is average on environmental issues (**57%**) and better on social issues (**67%**). In general positive consultative results increase whenever specific issues are addressed at local level. Shareholders and investors and financial rating agencies are increasingly interested in companies' CR performance. Not surprisingly two-way dialogue with these specific stakeholders is increasing: **62%** of Charter signatories have established a dialogue with shareholders on environmental issues and also **76%** of them on social issues. As far as rating agencies are concerned, **81%** of signatories have established a good two-way dialogue on environmental issues and **86%** on social issues.

Specific communication initiatives are undertaken internally and externally at local, national and international level, depending upon the audiences targeted. At the international level, companies can communicate via trade associations or other initiatives in which the associations participate, such as the Global e-Sustainability Initiative in which ETNO is a founding and active member. Such initiatives can take various forms, from technical meetings to public events with simple exchange of information via open communication channels or companies' web sites, and reports like this one.



To reach the general public, marketing campaigns can be used to communicate not only the technical features and benefits of ICT products and services, but also their impact on society and the environment. Such impact is deeply investigated in the development phase, and resources invested in the research of ever more advanced competitive and cost effective solutions.

- **95%** of Charter signatories include environmental considerations in the development of new product and services; **43%** do this systematically; **90%** communicate the positive impact on the environment of such products and services to their stakeholders;
- **All** Charter signatories take into account the impact on society of new products and services; **38%** do this systematically; **57%** communicate the positive social contribution of such products and services to their stakeholders.
- **All** Charter signatories encourage the responsible use of technologies to their customers and to the public at large via specific communication and information campaigns.

2.4 Climate Change and Energy Efficiency

According to the World Energy Outlook 2011, published by the International Energy Agency, despite the priority in many countries to increase energy efficiency, global energy intensity worsened for the second straight year, and global primary energy demand rebounded by a remarkable 5% in 2010, pushing CO₂ emissions to a new high.

The IEA World Energy Model analyzes three possible Scenarios which use identical assumptions for macroeconomic conditions and population growth but are differentiated through the level of stringency of global government actions to manage the risks of climate change:

- a 'Current Policies Scenario' representing no change in any policies beyond those already enacted. In this future, energy consumption rises 51 per cent, coal consumption increases 65 per cent and annual CO₂ emissions rise 40 per cent. The long term climate outcome from this trajectory is consistent with a temperature increase of 6°C or more.
- a 'New Policies Scenario' representing implementation of policies to 2035 consistent with commitments and announcements to date, even if not yet implemented. In this future, energy consumption rises 40 per cent, coal consumption rises 25 per cent over the next decade before levelling off and CO₂ emissions increase 26 per cent to 2035. The energy trends envisioned in the New Policies Scenario imply that national commitments to reduce GHG emissions, while expected to have some impact, are collectively inadequate to meet the Copenhagen Accord's overall goal of holding the global temperature increase to below 2°C. This is a path consistent with a 3.5°C increase in the long-term average global temperature.
- a '450 Scenario' where the emissions fall to a level consistent with a 50 per cent chance of constraining the increase in the average global temperature to 2°C. In this future, energy consumption increases 23 per cent, coal consumption peaks before 2020 and then declines 30 per cent by 2020 and CO₂ emissions peak in 2016 and then decline to be 21.6 Gtons in 2035, almost back to 1990 levels^[3].

The Report stresses the fact that action is needed now. Delaying action would be a false economy: with reference to the 450 Scenario, for every \$1 of investment avoided in the power sector before 2020 an additional \$4.3 would need to be spent after 2020 to compensate for the increased emissions.

On the other hand the European Union is making considerable efforts to reduce its own GHG emissions and achieve energy efficiency on a broad scale. The "Roadmap for moving to a competitive low-carbon economy in 2050" sets ambitious goals for mid century, and shows how the sectors that are responsible for the largest amounts of Europe's emissions (power, transport, industry, building, constructions and agriculture) can reduce their carbon intensity in order to make it possible to achieve an overall GHG emission reduction of 80 to 95%.

^[3] The summary of IEA projections is taken from the analysis carried out by Christopher Short, Chief Economist at the Global CCS Institute, in his article: "IEA confirms CCS as a critical technology to address climate change" published in the Global CCS Institute Blog on 12 December 2011.

The European Commission, in its Communication "A Digital Agenda for Europe" recognises that ICT offer potential for a structural shift to less resource-intensive products and services, for energy savings in buildings and electricity networks, as well as for more efficient and less energy consuming intelligent transport systems. Although its full potential has not yet been demonstrated and grasped, ICT based solutions can help achieve the aforementioned targets.

Among the other ICT based solutions Smart Grids^[4] can play a significant role. According to the IEA^[5] the development of smart grids is essential if the global community is to achieve shared goals for energy security, economic development and climate change mitigation. Smart grids enable increased demand response and energy efficiency, integration of variable renewable energy resources and electric vehicle recharging services, while reducing peak demand and stabilising the electricity system.

Smart grids will be an important enabler for achieving the EU ambitious energy targets, and will also drive the demand for new high speed broadband networks. Smart grid development and deployment will be possible if efficient synergies between the ICT and the energy sectors are activated and supported by a suitable European regulatory framework and specific standards.

ETNO therefore calls upon EU policy makers to ensure that the role of ICT and in particular of high speed fixed and mobile broadband networks is fully reflected in the forthcoming sector-specific energy efficiency roadmaps and in the national low carbon economy plans. Concrete measures to encourage businesses and citizens to opt for low-carbon broadband enabled applications will in turn contribute to stimulate take up of new networks and improve conditions for investment in new high speed networks, in line with the Digital Agenda for Europe.

However the sector itself is called to reduce its own energy use and GHG emissions of all the processes involved in its operations. Despite increased demand in energy linked to a rapidly growing demand in fixed and mobile traffic, ETNO members in general and Sustainability Charter signatories in particular, are committed to continuously reduce their CO₂ emissions via more efficient energy management, integration of broadband-enabled solutions and increased use of renewable energy sources.

[4] A smart grid is an electricity network that uses digital and other advanced technologies to monitor and manage the transport of electricity from all generation sources to meet the varying electricity demands of end-users (Source: IEA).

[5] "Technology Roadmap – Smart Grids", published by the International Energy Agency in 2011



The ETNO Energy Task Force

Energy consumption is the single largest environmental impact of all telecommunications operators and therefore of all ETNO member companies. The bulk of ETNO members' energy use is related to consumption of electricity, which is used to power and cool their communication networks. It is the responsibility of all operators to ensure that energy consumption is kept to a minimum and to seek the most efficient and environmentally friendly alternatives.

The ETNO Task Force on Energy was originally established in June 2004. Since then, energy experts of ETNO member companies have held regular meetings, both face-to-face and, mostly, virtual. Benchmarks have been carried out and case studies prepared. An ETNO energy policy has been developed that was recommended to all ETNO members, experiences have been shared, pilot projects have been initiated and codes of conduct developed. The first report on activities was released in 2008, and the second in 2011^[6].

The overall objective of the Energy Task Force (ETF) is to encourage maximum efforts in improving environmental performance with relation to energy production and consumption. To achieve it the ETF will continue to:

- contribute to national and global efforts to reduce GHG emissions through energy efficiency and use of renewable energy sources;
- improve knowledge sharing through the use of benchmarking and case studies;
- demonstrate the viability of voluntary actions;
- provide members with tools that allow them to:
 - use the most efficient network equipment;
 - scout for the most energy efficient network components;
 - apply the most efficient cooling systems;
 - run the most energy efficient data centres;
 - market the most efficient end-user equipment;
 - market the most Green House Gases friendly services and products;
 - use the most energy efficient buildings, cars, grids, logistics, etc.;
 - have the most energy conscious employees.

The ETF decided to organise itself in specific subgroups where each participant expert could contribute with his/her own experience and knowledge to issues, such as: Strategy; Cooling; Powering; Monitoring; Efficiency of telecommunications and ICT equipment; GHG & climate friendly telecom services. Among the activities being carried out by the ETF, it is worth mentioning the following:

[6] To download the report click on the following link: <http://www.etno.eu/LinkClick.aspx?fileticket=wun1TH1Kii0%3d&tabid=1925>

- **inter-company benchmarking:** it allows members companies to identify superior methodologies or innovative practices that can contribute to the improved performance of their own organization, usually recognized as best by all other peers. As an example, a benchmarking activity among the ETF members aimed at highlighting the most important Best Practices in energy efficiency was carried out on Data Centres, as well as a general benchmark on energy efficiency and how it is measured.
- **G.R.E.E.N. benchmark:** the GreenRouter for Energy Efficient home-Networking (GREEN) is an initiative launched among suppliers in partnership with the Home Gateway Initiative^[7] (HGI) aiming to promote the development of solutions enabling devices to enter a “low-power-state” when inactive, and therefore to reduce their overall power consumption; such solutions are based on technical specifications developed within the ETF. The benchmark highlights the current best practices in meeting the power targets for Home Gateways set out by the European Code of Conduct on Broadband Equipment for the various power modes. On a basis of 20 million of ADSL Home Gateways deployed, the efficiency improvements would result in a yearly reduction of CO₂ emissions of about 568,000 tons, which is equivalent to the emissions produced by more than 312,000 cars. For VDSL, on the basis of 5 million of Home Gateways deployed, the yearly reduction of CO₂ emissions would be close to 257,000 tons, corresponding to the emissions of more than 142,000 cars. A second phase is under investigation.
- **Energy Policy:** as already mentioned the ETNO Energy Task Force has developed a set of ETNO Guidelines – adopted as the Association’s recommended official energy policy – based on the best practices adopted by member companies for efficient and effective energy management. Such guidelines require continuous monitoring of application and maintenance, to keep pace with technological development and energy requirements.

Currently the activity of the ETNO Energy Task Force is particularly focussed on:

- new concepts for the efficiency of data centres such as High Voltage DC, extension of temperature ranges and new cooling concepts (e.g. direct fresh air cooling, direct water cooling);
- use of fuel cells for powering remote base stations;
- further reduction of power consumption of customer premise equipment such as routers and set-top boxes;
- best practices on implementation and environmental assessment of Green ICT services.
- best practices upon entrance into the energy market in the field of Smart Homes and Smart Grids.

These topics will be the objects of specific investigations, whose results will be described in future deliverables.

[7] www.homegatewayinitiative.org

2.5 Energy Consumption and CO₂ Emissions

The overall energy consumption in 2010 is about the same as it was in 2009; the largest contribution comes from electrical power demand. In 2010 Charter signatories used about 14 TWh of electrical energy and over 17.8 TWh^[8] overall, including vehicle fuels and heating. The following sections provide a detailed breakdown of energy use and associated CO₂ emissions^[9].

2.5.1 Electricity

Electrical power is crucial to operate and manage communication networks. Although electrical energy is produced in different ways across European countries where ETNO members operate, most of the energy used comes from combustion of fossil fuels. This causes high emissions of CO₂ and other pollutants. Charter signatories have strived to reduce their consumption, adopt more efficient solutions, optimise space and equipment use, and increase the use of electricity produced from renewable sources. In 2010 around 37% of the electrical energy used by Charter signatories came from renewable sources^[10]. The following analysis covers mainly Scope 2 of the GHG Protocol.

The graphs show the trend over time of the energy indicators, some of which have been used by ETNO since the start of its reporting scheme. Two indicators are related to electricity consumption: the first one, $I_{1,1}$, shows the trend of overall electricity consumption with respect to the total turnover, and can be considered as the overall electricity management efficiency, where all signatories together are considered as one large single company. It is defined as follows:

$$I_{1,1} = \frac{\text{Overall amount of Electrical Energy used}}{\text{Total Turnover}}$$

The second one, $I_{1,2}$, is the average of the sum of all individual electricity management efficiency indicators, whose values vary considerably among signatories, and is defined as follows:

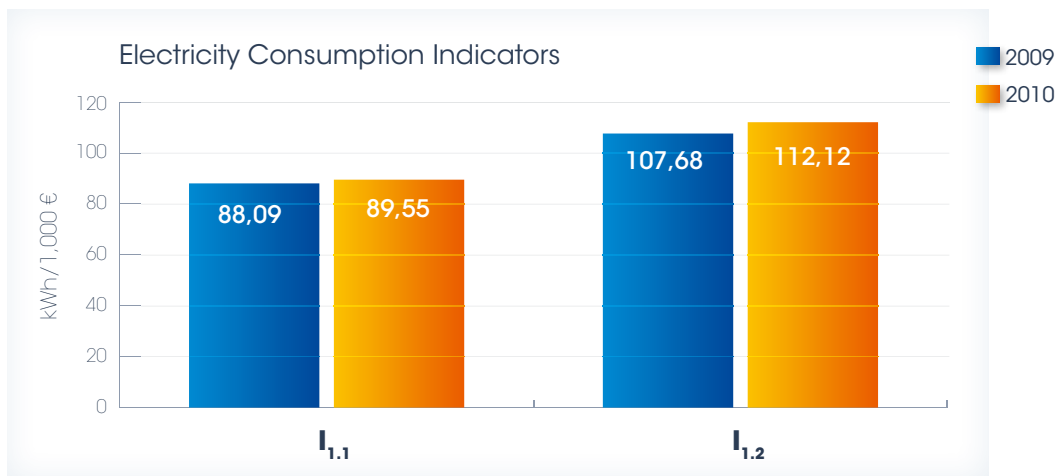
$$I_{1,2} = \frac{\sum (\text{Amount of Electrical Energy used by each Company/Company turnover})}{\text{Number of Signatories}}$$

^[8] These figures refer to the reporting boundaries specified in the introduction to this section.

^[9] CO₂ emissions were in general calculated and provided by Charter signatories; when not available, they were calculated using the GHG Protocol Initiative most updated conversion factors.

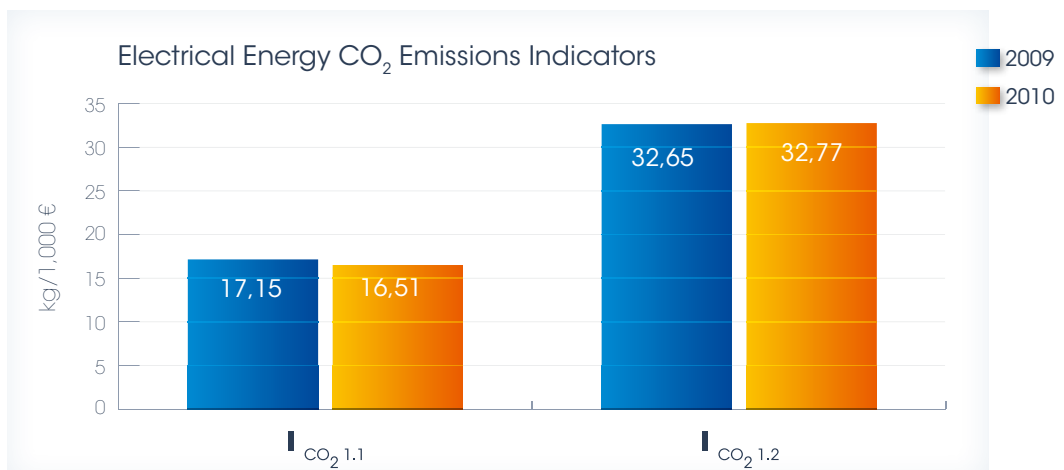
^[10] Either as grid electricity, or purchased directly from suppliers of green electricity or self-produced (solar panels, wind turbines, etc.)

In both cases turnover - either collective or individual - is used as a normalising factor to make calculations as independent as possible of companies' size. For all indicators the following applies: the lower the value of the indicator, the better the performance.



What I_{1.1} shows is that there has been a slight increase in electric power demand in 2010, and the indicator value is 0.7% higher than in 2009. Over the 2-year period, the total turnover considered has remained almost the same (-0.9% in 2010 compared with 2009). In 2010, I_{1.2} shows a noticeable increase - +4.1% compared with 2009 - which can be explained by either lower individual reference turnovers or the % increase of individual energy demands being higher than the corresponding % increase of turnover for some of the signatories, which led to higher individual ratios that influenced the average value.

The same approach is used to illustrate CO₂ emissions originated by Electricity consumption via the two indicators, I_{CO₂ 1.1} and I_{CO₂ 1.2}.



In 2010 the overall amount of CO₂ per unit turnover, i.e. the value of I_{CO₂1.1} is lower than in 2009 (-3.8%), thanks also to both the increased use of electricity generated by renewable sources purchased directly by some of the signatories and the improvement in "cleaner" energy production by power suppliers, respectively. However the mean value of the individual ratios, I_{CO₂1.2} shows an increase of 0.4%. Such ratios ranged from as low as 0 to as high as 143 in 2010, depending upon the way electrical energy is produced in each country and the availability of renewable sources.

2.5.2 Vehicle Fuels

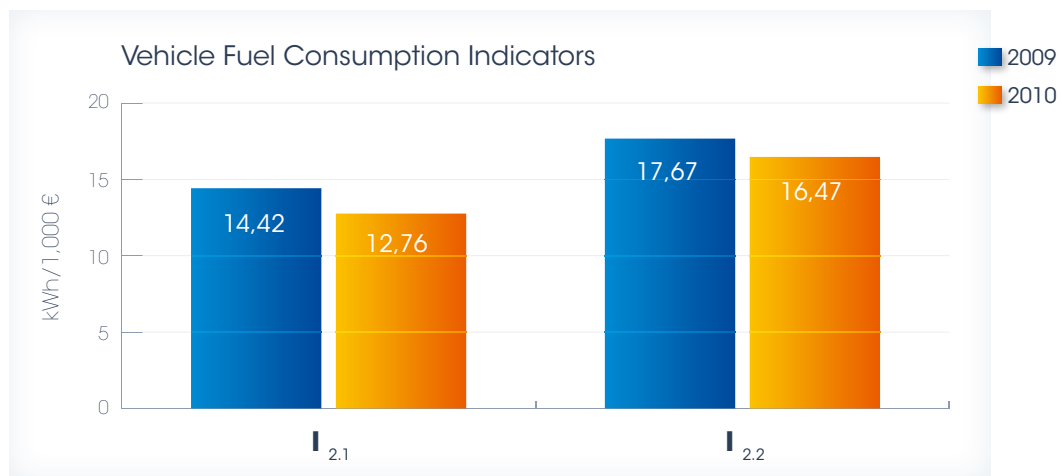
The approach followed to illustrate management of signatories' vehicle fleet is exactly the same as for electricity. The two indicators used are:

$$I_{2.1} = \frac{\text{Overall amount of vehicle fuel energy}}{\text{Total Turnover}}$$

and

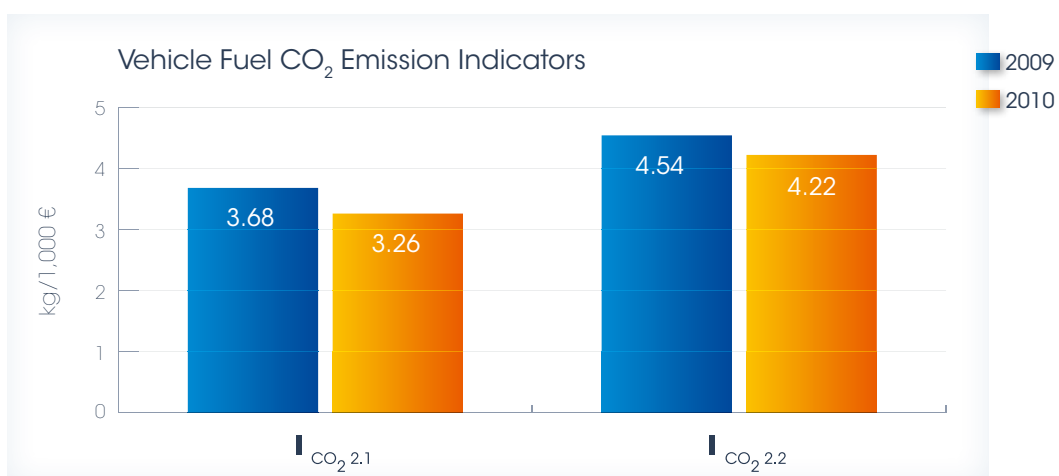
$$I_{2.2} = \frac{\sum (\text{Amount of vehicle fuel energy used by each Company/Company turnover})}{\text{Number of Signatories}}$$

The following analysis covers part of Scope 1 of the GHG Protocol.



The noticeable improvement in vehicle management efficiency observed in 2010 – the value of $I_{2,1}$ is 11.6% lower than in 2009 – results from both optimisation of vehicle use and from the composition of company fleets (i.e. number of cars and their average consumption). Replacing old vehicles with new ones, enabling lower fuel consumption and reduced emissions, combined with outsourcing fleet management and improved logistics planning have all contributed to higher efficiency. And the value of the average individual vehicle fuel management efficiency indicator $I_{2,2}$ is lower as well (-6.8%). Also in this case the range of individual values is quite broad.

As for CO₂ emissions, the approach is the same as the one used to illustrate CO₂ emissions originated by electricity consumption. The overall CO₂ emissions average ($I_{CO_2,2,1}$) is 11.4% lower in 2010 than in 2009, while the average value of individual CO₂ emission efficiencies ($I_{CO_2,2,2}$) has decreased by 6.9%.



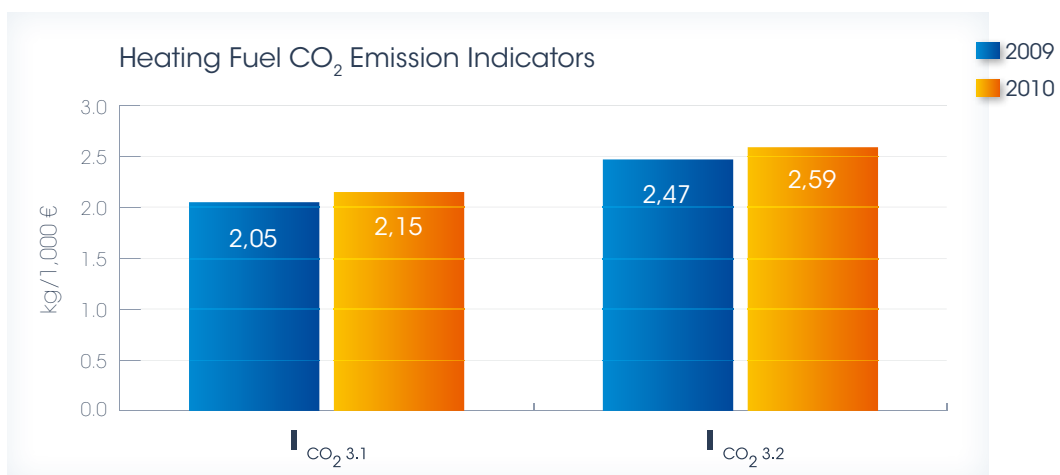
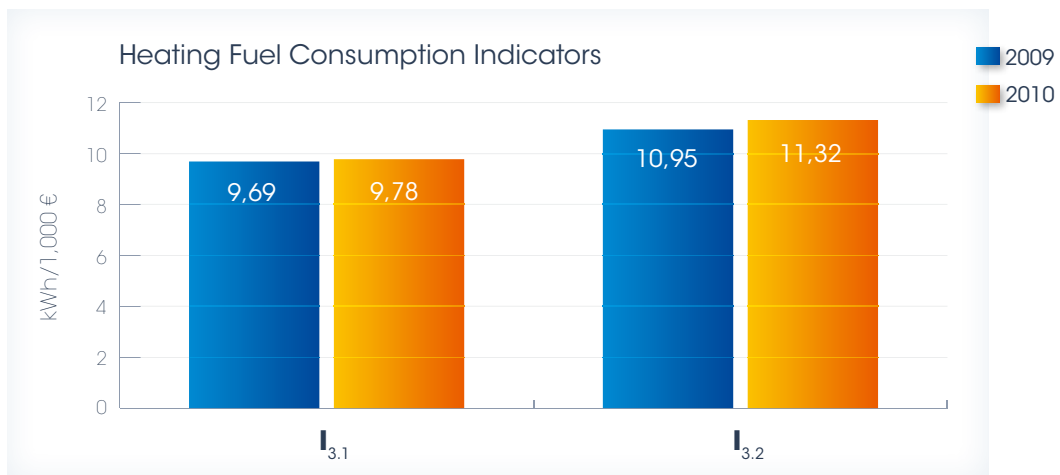
2.5.3 Heating Fuels

Use of heating depends on geographical location and weather, therefore the spread of individual efficiencies is quite large. As above, both approaches – “one single company” and the “arithmetic mean of summation of individual efficiencies” – were used.

It is worth mentioning that around 19% of the overall heating power used by signatories came from district heating in both 2009 and 2010. The amount of district heating used is included in consumption efficiency calculations, while CO₂ contributions from district heating have not been included in emission calculations since details on various combinations possible for heat generation were not available. Calculations were therefore limited to the emissions generated by fuel burnt directly in signatories’ heating plants at their premises, which cover part of Scope 1 of the GHG Protocol.

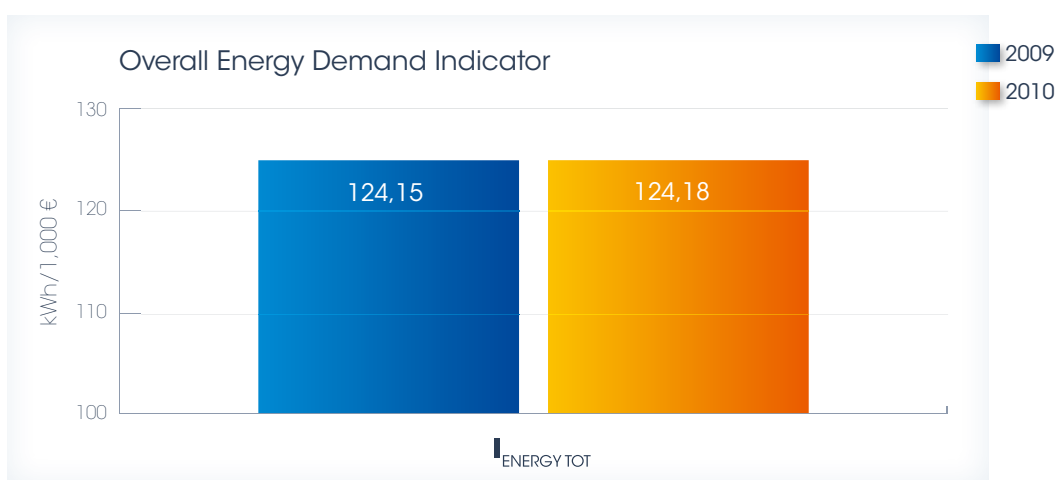
The overall consumption efficiency has slightly decreased in 2010 compared with 2009 - the value of $I_{3.1}$ is 0.9% higher - and $I_{3.2}$ shows a 3.4% increase due to the broad variance of individual efficiencies.

CO₂ emission efficiency has also decreased in 2010 compared with 2009; $I_{CO_2 3.1}$ is in fact 4.7% higher in 2010, and $I_{CO_2 3.2}$ shows a 4.5% increase. The overall consumption of heating oil has increased in 2010 (+ 8.6%) whilst the overall consumption of heating gas has decreased (-3.4%).

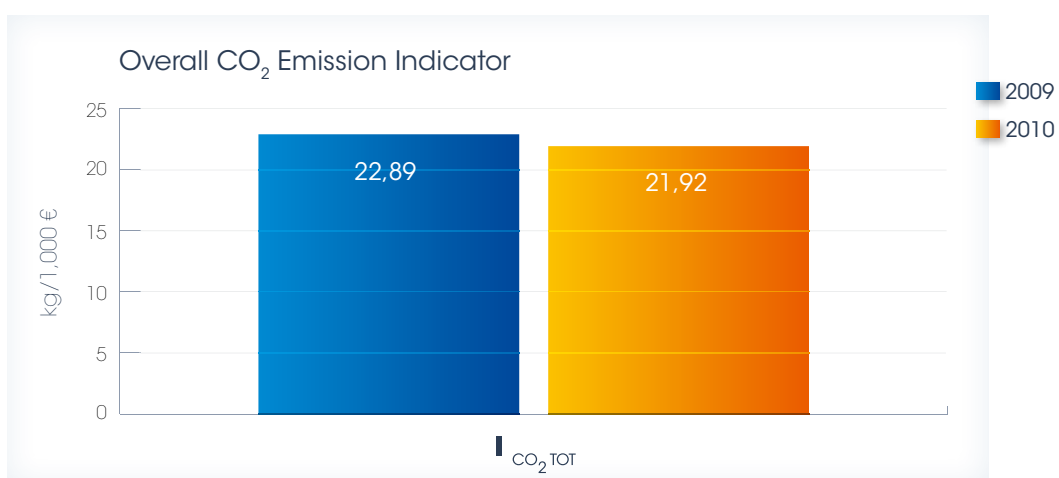


2.5.4 Overall Trends

If all sources are taken into consideration, we notice that the overall energy demand is about the same in 2009 and 2010 (-1%), and the same applies to the value of $I_{\text{ENERGY TOT}}$ since the reference turnovers in the two years also show the same difference.



Looking at CO₂ emissions from all sources^[11] we see that emission efficiency tends to increase. In fact the value of $I_{\text{CO}_2 \text{TOT}}$ is over 4% lower in 2010, thanks in particular to the lower emissions associated with electricity consumption, which are by far the most relevant contribution to the carbon footprint of the signatories, and with vehicle fuel consumption.



[11] World Economic Forum – Global Risk 2008

2.6 The Supply Chain

The supply chain plays an important role in each company's business strategy and sustainability objectives. A company's reputation can be strongly affected by poor supply chain management.

The complexity of the ICT sector and its global dimension make it necessary to identify and understand potential risks and eliminate or reduce them. For ETNO member companies, it is not just a matter of poor service delivered to customers but also the consequent loss of competitive advantage.

Violation of human rights, exploitation of child labour, use of hazardous substances in product manufacturing, improper disposal of end-of-life equipment are just a few of the potential risks that companies should prevent across their supply chain. This can be achieved not only by evaluating suppliers' sustainability performance and selecting those that work according to ethical values and principles but also by building capacity and exporting best labour and management practices where such risks may exist, and getting suppliers involved in programmes of continuous improvement of corporate responsibility standards.

The management of Corporate Responsibility across the supply chain is important not only from an ethical perspective: even a relatively small supply chain disruption caused by a localized event may have consequences across the global economic system^[12], and CR risks are no exception: they can affect business continuity, reputation, revenues, stock value, compliance, etc. of an enterprise which in turn can have consequences across the whole value chain. On the other hand sustainable procurement practices can have a cost reduction impact that outweighs their implementation costs^[13].

Among the tools that are used by C harter signatories to turn their sustainable procurement strategy into practice and improve the sustainability performance of their supply chains one can find: specific contract clauses and/or suppliers codes of conduct, suppliers self-assessment tools, specific supplier audit programmes - that can be conducted either individually or by joining forces with other enterprises that share the same suppliers in an effort to coordinate policies and risk management strategies^[14] -, educating buyers and providing them with appropriate guidelines, applying total cost models including sustainability criteria as well as country/category specific risk evaluation models, etc.

[12] World Economic Forum – Global Risk 2008

[13] See, for example, Value of Sustainable Procurement Practices – PwC, EcoVadis & INSEAD, 2010

[14] This practice is encouraged by the OECD guidelines for Multinational Enterprises, of course with due regard to anti-competitive concerns



- **76%** of Charter signatories have involved their suppliers in active cooperation programmes aimed at improving performance and environmentally responsible development/management of purchased goods/services; **43%** of such programmes cover more than **50%** of total purchases;
- **71%** check on the environmental performance of their suppliers;
- **71%** of Charter signatories have involved their suppliers in active cooperation programmes designed to integrate corporate responsibility principles in the procurement process; **38%** of such programmes cover more than **50%** of total amount purchased;
- **76%** check on the corporate responsibility performance of their suppliers.

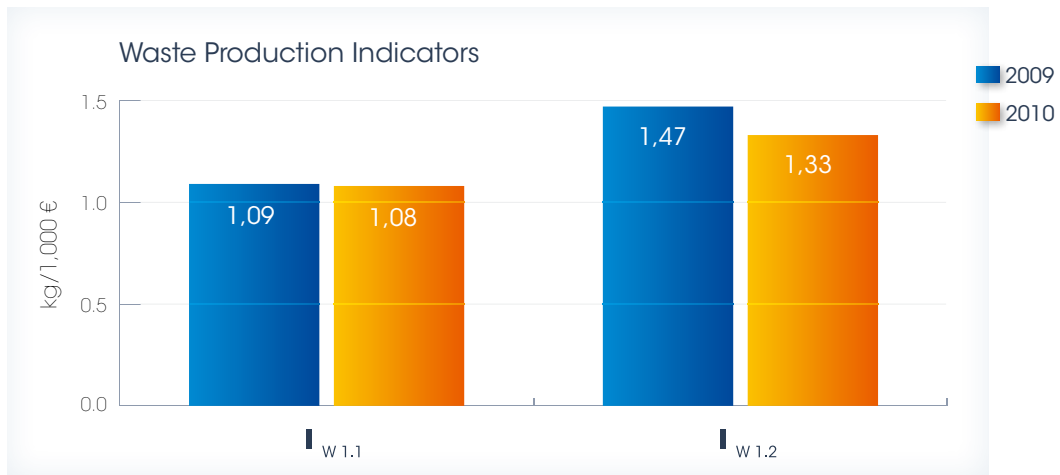
The overall spending power of ETNO Charter signatories can indeed influence suppliers' environmental and labour standards when they base their relationships with suppliers on the principles they have committed to.

2.7 Managing Waste Streams

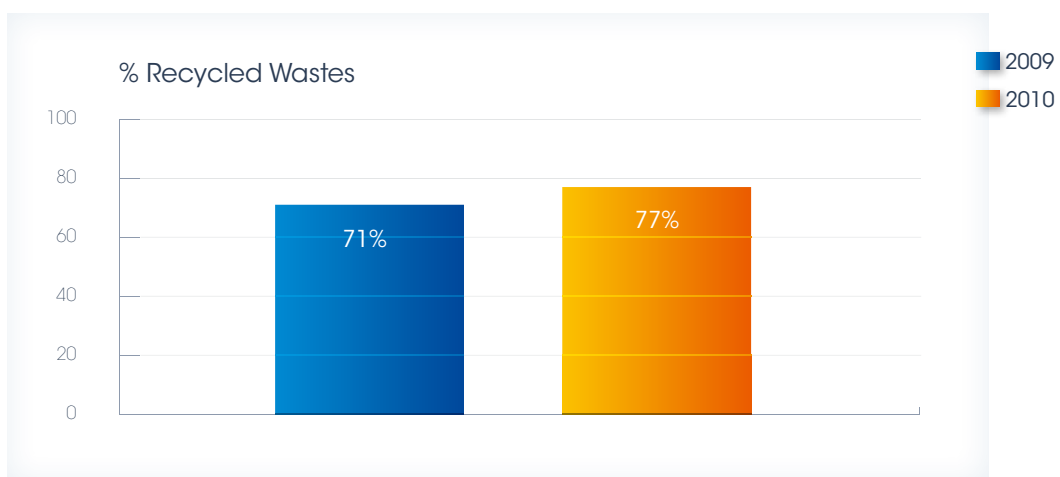
Waste production, together with consumption of natural resources, also has a major impact on the environment. For telecoms operators the amount of waste produced may vary considerably from year-to-year, depending on specific disposal activities such as network equipment replacement and renewal.

To account for waste production, two indicators were defined: $W_{1,1}$, where signatories are considered as one large single company. This was calculated using the total amount produced normalised against total turnover; and $W_{1,2}$, which is the mean value of individual waste production efficiencies (i.e., the ratio of individual waste production to individual turnover). The former shows an improvement of 1,3% in 2010 compared to 2009, while the value of latter has decreased by 9.5%.





In general, Charter signatories sent 71% of their total waste for recycling in 2009, and 77% in 2010. The percentage of waste being recycled is increasing year by year, demonstrating that right choices were made and policies adopted in the purchasing phase, and proper solutions are identified to manage the end-of-life of disposed items.



#3

A sustainable industry



3.1 Sponsorship and Charity

Most Charter signatories openly associate their brands to charitable initiatives and environment focused projects. Naming all of them, however, would require far more space than that planned for this report. But they all have something in common: money invested in society and in raising people's awareness – externally and internally - on serious issues affecting our and other people's lives is worth spending.

It is not just about advertising one company's products and services, it is about creating value by acting as good corporate citizens and calling stakeholders to action. Quite a few projects involve company's people directly: when they see and understand their company's commitments they engage willingly and are happy to contribute.

- **71%** of Charter signatories take environmental issues into account when sponsoring different kinds of projects, and **81%** specifically sponsor projects with an environmental focus and benefits;
- **All** Charter signatories consider the impacts on society of the projects they are asked to sponsor, and **all of them** sponsor projects with specific focus on social improvement and development;
- **95%** of Charter signatories have specific programmes in place to bridge the 'digital divide,' mainly in the geographical areas where they operate.

Broadband access to the Internet is a key enabling technology, but there are barriers to digital inclusion like limited availability of resources, illiteracy and also lack of confidence.

Many initiatives and projects have been launched by Charter signatories in their home country and in the countries where they run their businesses. They focus in particular on disadvantaged communities and special needs groups aiming to empower people to use communication skills to improve the quality of their lives. These also include assistance to disabled people and others with special needs.

The responses are more than encouraging, and this means that bringing technology to people, educating them to make the best use of it and building capacity is the right approach.

[29] See ETNO Facts & Figures, 4th Edition - October 2009, www.etno.eu/Default.aspx?tabid=1077

3.2 Sustainability in the Workplace

Human resources are the key to the success of an enterprise. A sustainable enterprise is successful because it attracts the best skills and provides its employees with a workplace that is safe, stimulating and full of opportunities for professional growth. ETNO is actively working on employment and workplace related issues together with other sector's social partners.

3.2.1 Good Work-Good Health Project

ETNO and UNI Europa^[15] have undertaken a joint study on improving the mental well-being of workers within the telecommunications sector by defining good practice in the workplace. The project was partly funded by the European Commission, Directorate General for Employment, Social Affairs and Equal Opportunities.

The rationale of the project is based on the consideration that mental health is a major emerging economic and health and safety issue for Europe and its telecommunications sector, and traditional risk management is not well suited for the control of work-related problems and the much larger issue of supporting people with mental illness in the workplace that requires a more holistic approach.

The Good Practice Guidelines on how to improve the mental well-being of workers in the telecommunications sector were launched at the Good Work Good Health conference in Brussels on 14-15 October 2010. The Guidelines provide telecom companies and their employees with concrete examples of good practice that can also be applied within other important industry sectors. The Guidelines are voluntary for the telecommunication operators throughout Europe and are available in 12 language versions at www.gwgh.eu.

The cooperation between ETNO and UNI Europa is now focused on the Agenda for new skills and jobs^[16], launched in 2010 as part of the EU's overall strategy, Europe 2020, whose aim is to reach an employment target of 75% of the European working age population in 2020. Equipping people with the right skills for the jobs of today and tomorrow is one of the challenges that the two organisations are addressing, preparing a project whose main objective would be to map the ICT qualification landscape and identify the main opportunities linked to the evolution of the ICT sector in order to assess the need and possibility of a future ICT skills council at EU level. The project should lead to the provision of high quality labour market information and enable the project partners to create a network with the relevant stakeholders, such as education and training providers, national and regional observatories and public authorities at national, regional or local level.

[15] www.uniglobalunion.org

[16] <http://ec.europa.eu/social/main.jsp?angld=en&catId=958>



Individually Charter signatories apply important policies/initiatives in the workplace, e.g.:

- **All** Charter signatories apply a non-discrimination and equal opportunity policy to promote diversity as part of their corporate culture, i.e. recognising and respecting the individuality and pluralism of employees and using their potential for business success.
- **90%** of Charter signatories conduct periodical employee satisfaction surveys, though these may not be applied to the whole corporation.
- **All** Charter signatories evaluate periodically the performance of their employees and executives; for **86%** of signatories this evaluation covers at least **95%** of their people;
- **90%** of Charter signatories have a work-life balance programme or a set of initiatives in place, recognising that there are tangible benefits to supporting flexible working practices, implementing family-friendly initiatives and assisting employees to achieve a balance in their work commitments and their life outside of work;
- **81%** of Charter signatories have a programme in place which is regularly carried out to present their company to graduates; for **62%** of signatories this includes employing interested persons temporarily as trainees;
- **All** Charter signatories have written standards and procedures to ensure health and safety at work, and **all of them** carry out internal safety audits regularly.

3.3 ICT and Younger Generations

ICT can indeed offer valuable resources, but technology in general can have positive or negative outcomes. Everything just depends on how people use it. Not only should users be educated and informed about how to get maximum advantages from the use of ICT, but also on how to prevent threats to themselves and their dear ones.

According to the findings of the EU Kids Online Survey^[17] - the pan-European study funded by the European Commissions' Safer Internet Programme in order to strengthen the evidence base for policies regarding online safety looking at risks and safety on the internet from the perspective of children aged 9-16 and their parents - 93% of 9-16 year old users go online at least once a week (60% go online every day or almost every day). And the average age of first internet use is seven in Denmark and Sweden and eight in several Northern European countries. Across all countries, one third of 9-10 year olds who use the internet go online daily, this figure rises to 80% of 15-16 year olds. 59% of 9-16 year olds have a social networking profile and among social network users, 26% have public profiles.

Although risk does not necessarily result in harm, as reported by children, these statistics are quite impressive and clearly show the importance of guidance and monitoring from parents and educators, as well as the need to provide specific measures to manage the risks properly. Indeed both children and parents consider parental mediation helpful, especially 9-12 year olds, the survey reports. Most parents talk to their children about what they do on the internet (70%) and stay nearby when the child is online (58%). But one in eight parents (13%) do not carry out any of the aforementioned mediation methods, according to their children. And the use of technical safety tools is relatively low: just over a quarter of parents block or filter websites (28%) and/or track the websites visited by their child (24%).

As Europe's main providers of innovative fixed and mobile broadband services, ETNO member companies are seriously committed to ensure a safer use of online services. That's why they are so dynamic in promoting awareness (online educational materials, campaigns, events, etc.) and continuously working to improve security in their networks and services beyond current regulations, through the offering of services especially designed for youngsters and through the inclusion of security features in broadband, mobile and IPTV services, such as:

- parental control features incorporated in Internet access services, IP TV and Video on Demand offerings;
- classification of Internet content allowing parents to filter and block inappropriate content for youngsters;
- restricted access for minors to mobile adult premium content;
- applications ensuring security of online transactions.

[17] www2.lse.ac.uk/media@lse/research/EUKidsOnline/Home.aspx. A random stratified sample of 25,142 children aged 9-16 who use the internet, plus one of their parents, was interviewed during Spring/Summer 2010 in 25 European countries.

More details on the aforementioned initiatives can be found on the ETNO web section dedicated to Safer Internet for Children^[18]. ETNO also actively participated in the definition of the High-Level joint industry Principles for the Safer Use of Connected Devices and Online Services by Children and Young People in the EU, to be endorsed by individual companies.



ETNO is committed to ensuring that the services its members provide are used properly and safely. As part of its broader commitment to sustainability, and in particular via its Online Child Protection Task Force, ETNO is also working specifically to identify and analyse potential risks and to look at solutions by sharing practices and experiences among its member companies.

[18] www.etno.eu/Default.aspx?tabid=2327

#4

Walking the talk

There are many ways to fulfil Charter commitments; the signatories are free to choose the measures and actions that they deem more appropriate and suitable for the specific social and geographical context in which they operate. This section of the report shows some examples of initiatives focussed on environment and society that Charter signatories have put in place.



Such examples should be considered as "highlights": more details and examples can be found on signatories' dedicated web pages and environmental/sustainability reports. It is interesting to notice how the employees are more and more engaged and contribute - most of the times on a voluntary basis - to the initiatives launched by their companies.

They are important stakeholders and also responsible citizens, and share and promote their companies' sustainability values and objectives. Needless to say that in many cases their contributions are crucial. At the same time the employees themselves become the target of many initiatives aiming at increasing their well-being, their safety - both inside the company and in their everyday life - and their awareness on sustainability issues as well as the importance of striking the right balance between satisfying their needs, sustainable consumption patterns and healthy life habits.



Belgacom is committed to reducing the CO₂ emissions of its Belgian operations by 70% over the period 2007-2020.

Specific energy efficiency targets have been set in order to achieve this ambitious target. In this context data centers constitute a key area, as they consume over 20% of the company's electricity. Significant investments have been made, aimed in particular at lowering the average PUE (Power Usage Effectiveness) to 1.75 by 2012.

The energy efficiency of data centres has been improved by implementing closed cold corridors, free chilling (with dry coolers), and heat exchangers, in order to heat the building with the heat produced by the IT equipment in the data rooms. As a consequence, the consumption of heating gas in the offices next to the main data centre dropped drastically. 461 servers were also virtualized, resulting in 1.6 GWh savings. These investments allowed Belgacom to sign up to the EU code of conduct for energy efficiency in data centers (the first company in Belgium to sign), committing the company to making public the PUE, the standard unit of measurement for green datacenters, and to continuous improvements. These measures resulted in 8% energy savings. Since 2007 total CO₂ emissions have been reduced by 62% and 8.3 million € worth of energy costs have been avoided.

Belgacom believes that it is crucial to promote a responsible and safe use of telecommunications products it makes available to its customers. Several initiatives have been taken along these lines:

- Electromagnetic fields and health: Belgacom was the first operator in Belgium to communicate the Specific Absorption Rate (SAR) on product packaging, on its websites and in its shops. An earphone is provided by default with the new mobile phones and its use is encouraged. Belgacom also regularly communicates on electromagnetic fields and health and provide tips to reduce exposure to electromagnetic fields through the company's various communication channels.
- Safe Internet use and child protection: awareness of youngsters and their parents on the safe use of the internet is raised with company's partners and via its employees: for instance, Belgacom employees gave training to 3,600 children on safe Internet and mobile phone use in 64 schools across Belgium; the company also distributed a learning manual for teachers on online safety in all Belgian secondary schools; advice for a safe use of products - such as parental control tools, anti-spam tools, tips, etc. - is provided on Belgacom's websites.
- Product recycling: Belgacom encourages its customers to bring back their old mobile phones for recycling via dedicated campaigns and managed to collect and recycle 48% more mobile phones in 2010 vs 2009.

More information can be found at:
www.belgacom.com



Cyta launched its Mobile Recycling Programme in 2010, the first one of its kind in Cyprus, with a press conference and a campaign to collect used mobile

phones, accessories as well as other telecommunications terminal equipment for recycling. The initial campaign included a lot of publicity through advertisements in print and electronic media as well as outdoors, interviews on TV and articles in the press. In order to raise the environmental awareness of the public, informative leaflets explaining the potential effects on the environment and human health of discarding electronic equipment together with municipal waste, were sent to customers together with bills, and a detailed booklet was made available in company's shops, collection points and the internet.

Collection bins were installed in all Cyta's shops and office buildings and the shops of its Sales Network Partners. During the launching period, the shops offered a symbolic gift and a discount for the purchase of a new mobile phone to all customers returning an old one for recycling. Cyta's shops also offered "green mobiles" at a special discounted price.

The initiative continues also via individual collection campaigns which are organised in schools, companies and at various events, like the "2011 Green Dot Cyprus Recycling Festival". Cyta encourages people to participate by offering them symbolic gifts and the chance to win new mobile phones. The mobile phones that are returned by the public are either repaired and sold abroad or sent for recycling. Any profits earned from the operation of the programme are donated to Charity Organisations in Cyprus. The first year's profits were donated to the Charity "Make a Wish" which fulfils the wishes of children with cancer.

Read more at:
www.cytamobile-vodafone.com/Default.aspx?ID=589

A member of **Cyta** staff had to take a much longer annual leave than his annual allowance to take care of his child who was affected by a serious illness. In order to spare him from a consistent salary cut, his colleagues donated days from their own annual leave allowances which were credited to his account.

After this particular situation was over and the aforesaid employee returned to work, a large number of unused donated days were still available. And that's how the idea came around. Instead of returning the days back to their original owners, and with their consent, the balance was transferred into a separate account and became the initial balance of the "Annual Leave Solidarity Bank".

Today, based on the original model, staff members who face serious health problems in their family that demand their full time attendance for a period longer than their annual leave, receive absence days from the "Annual Leave Solidarity Bank" which allow them to stay close to their suffering family member and care for his/her everyday needs without having any pay cuts.



From socially or environmentally responsible products, to stakeholder dialogues, corporate volunteering or the protection of minors – CR activities within the

Deutsche Telekom Group are manifold. Group companies that signed the ETNO's Sustainability Charter present some highlights from their activities in Croatia (T-Hrvatski Telekom), Germany (Deutsche Telekom, T-Systems), Greece (OTE), Hungary, Macedonia, Montenegro (Magyar Telekom) and Slovakia (Slovak Telekom).

According to current calculations, half of the population in Germany will be older than 50 in the year 2035 and one-third will be over 60. This development is a major challenge even today: there is the need to create solutions that enable older generations to live a longer independent life. **Deutsche Telekom** participates in numerous pilot projects aimed at setting up a state-of-the-art ICT infrastructure in the healthcare sector. The objective is to connect doctors, hospitals, patients and health insurance companies using technology that complies with the strictest security standards. In doing so, DT is contributing to improved medical care and providing valuable support to older and chronically ill people, in particular. In view of increasing expenses in the healthcare sector, innovative ICT solutions are also an important tool for reducing costs and can additionally contribute to the reduction of carbon emissions. More and more smart phones and tablet computers are being used for patient care at hospitals.

At its stand at Medica 2010 in Düsseldorf, Germany, the world's largest medical technology trade fair, Telekom presented solutions including Checkpad MED, a hospital application for the iPad. Data from different hospital systems, such as x-rays or lab results, are all sent to the computer. That makes faster, more precise diagnoses and treatment possible.

In T-City, Telekom is already trying out different telemedicine solutions in real life. Take the BodyTel system for example: it can be used to monitor blood sugar levels, blood pressure and weight from remote. With the BodyTel solution, patients can check their levels wherever they are. The system automatically documents and transfers the results. And in addition to improving patient quality of life, this home diagnostics system increases efficiency at doctor's offices and hospitals. Another example is "der BUTLER", a mobile emergency call system with innovative location technology.

As one of the project's 28 partners, **Deutsche Telekom** is promoting the SmartSenior – Intelligent products and services for seniors research project, which is being conducted by the German Federal Ministry of Education and Research (BMBF). For this project Deutsche Telekom Laboratories developed a central communication component for the home. The solution connects different technical systems like sensors, blood pressure monitors and emergency equipment. For example, the solution can be used to send vital patient data directly to their doctor or to the responsible care service automatically. Pooling computing services at central data centres within the context of cloud computing, places high requirements on **T-Systems'** infrastructure. The data centre of the future needs to be energy-efficient, secure and fast as well as cost-efficient in every way.

T-Systems and Intel have joined forces to research on energy savings potential of data centres in the DataCenter 2020 project since 2009. Innovative technologies are being used at a test centre in Munich to reduce the energy consumption of servers, for example. DataCenter 2020 also provides important information on how to manage high-performing computers so that they produce less CO₂.

T-Systems has enabled its customers to outsource business-critical IT services to dynamic platforms since 2004. These dynamic services constitute a private cloud computing model in which resources are billed based on use.

This type of dynamic, network-centric sourcing saves up to 80 % on electricity compared to company-owned computers and servers and offers significant advantages to currently more than 100 large customers.



Children take the lead in daily use of the internet. UNICEF survey about children and internet conducted in Croatia indicates that 5% of school children experience cyber bullying and 29% have experienced cyber bullying occasionally. At the request of schools involved in UNICEF project Violence-free school, **T-Hrvatski Telekom** teamed up with UNICEF to address the issue. In 2008 joint public awareness campaign "Break the chain" was launched alongside a website (www.prekinilnac.org) with advice and information for parents, teachers and children on how to use internet safely. Following a successful public awareness and fundraising campaign, sponsored by T-HT, UNICEF developed programme to help schools teach children how to safely navigate internet. First step in the programme is a survey which indicates the levels of cyber bullying among children in a school. Next steps include the training of teachers, parents and children. So far, 23 schools have almost completed the programme and the evaluation will follow in one year. The goal of the project is to reduce cyber bullying among children and to increase capacities of teachers and parents in guiding children safely through the online world.

Within the scope of **T-Hrvatski Telekom's** ecological project "Afforestation of Burnt Areas", T-HT employees participated in the afforestation activities in the area of the Forest Office of Benkovac, Dalmatia. In this region, one-year seedlings of Alpine pine and cypress are being planted on six hectares of land, which will create favourable conditions for the return of autochthonous vegetation. T-HT, as donator, is conducting the Afforestation of Burnt Areas Project in cooperation with the Croatian Forests, aiming to plant with seedlings a total of twenty hectares of forest land in selected areas of the Forest Offices throughout Dalmatia destroyed in recent years by forest fires. At the same time, this project aims to make the general public aware of how important conscientious behaviour is in fire protection, and to remind people of the importance of healthy and green forests which, by producing oxygen and absorbing carbon dioxide, contribute to the quality of life of this as well as of future generations.

More information can be found at:
www.t.ht.hr/eng/



OTE believes that the protection of the environment should be one of its own concerns. Thus, during the whole month of June of both 2010 and 2011, in

the context of celebrating the World Environment Day, OTE employees and their families, as well as citizens and NGO's, "took action" for the environment by participating in local actions that were carried out by the 53 OTE Cultural Centres all over Greece. 2,300 employees with their families, and the public were involved in a series of environmental actions, such as the clean-up of coasts, lakes and forests, etc. as well as the collection and sorting of waste, separating recyclable and non-recyclable items. Moreover, since the 2011 "World Environment Day" was dedicated to the protection of forests, OTE in cooperation with the NGO "Callisto", continued for a second consecutive year, its support to the fire protection programme organized by the NGO. During the action OTE's volunteers, along with the NGO's specialists, cleaned the area from any garbage that could be a cause of fire, in an attempt to help keep "alive" one of the last resorts of forest in the wider area of Thessaloniki.

The issue of internet safety is very high on OTE's agenda, thus in 2011 OTE pursued some of the initiatives it had launched in the previous year, and undertook some new ones. More specifically the company:

- published a special leaflet, titled "Safely Surf the Internet", addressed to parents, providing simple and useful advice on the proper and safe use of the Internet, which is distributed with every purchase made from OTE's extensive nationwide Store Network
- organized information sessions, aiming at raising awareness on the issue of "Safer Internet"
 - for OTE employees and their families, also held in local communities, in collaboration with OTE Employees' Cultural Centres throughout Greece.
 - for pupils, parents, teachers and the public in general, for all of the year 2011, in cooperation with the medical advisor of the Adolescent Health Unit, held in the OTE Telecommunications Museum.
- continued to support the 'Adolescent Health Unit' of the 2nd Paediatric Clinic of the University of Athens at the 'Pedon P. & A. KIRIAKOU' Hospital, which operates the toll-free 'YpoSTIRIZO' Help Line number (80011 80015), offering support to teenagers to overcome addiction to the internet.
- participated in the Greek Awareness Centre Saferinternet.gr, provided a section with useful advice on security issues on the "OTENET" customer service website, at <http://www.otenet.gr/hd/>, and also managed a specific location in the website, providing information to Internet users concerning safe browsing (spam, mail bombing, hacking, port scanning, etc.).

- developed the "Conn-X Secure" service, offering integrated e-mail and computer protection with the use of the Firewall, Anti-Virus and Anti-Spam applications, parental control function, filters to prevent access to web pages with unsuitable content.

Read more on OTE's sustainability initiatives at:

www.ote.gr/portal/page/portal/OTEGR/CorporateSocialResponsibility/OurCRProgram .



The **Magyar Telekom** Group is replacing many business travels with its own telecommunication services, thus save the emission of a significant volume of pollutants.

The "Walk the talk" initiative works as follows: the company installed the TelePresence videoconference service in its strategic sites both within Hungary and for interconnection with international affiliates (in Macedonia and Montenegro) and with the majority owner Deutsche Telekom. The project started in 2009 when the Group could save 476,410 km flights with this service. In 2010, already 1,368,361 km international flights could be saved, thus in one year the distance saved increased by almost 900,000 km. The CO2 equivalent of this saving: in 2009: 57 tons, in 2010: 164 tons which means 187% improvement.

In 2010, Magyar Telekom Plc. installed office communicator on all workstations to enable the staff setting up audioconference with up to 3-4 people with associated document sharing function. This solution could also save significant number of travels. In addition to the above solutions video- and audioconference were available to the personnel, like in the previous year, in 2010 too.

By using the above services Magyar Telekom Group could save a total of 1,912,323 km travels that is 2.7 times as much as in 2009. Breakdown by type of travel:

- flights saved: 1,375,561 km
- car travel saved: 536,762 km

Vehicle fuel saving:

- diesel: 25,765 liters, that is more than five times higher than in 2009,
- petrol: 17,176 liters, that is similarly five times higher than in 2009.

Since 2008 **Magyar Telekom** holds a Sustainability Day each year in cooperation with many NGOs. The event is a complex one and serves multiple purposes. Participants discuss current issues on the environment, society and economy at interactive panels with prominent and reputed experts and representatives of organizations and institutions.

In 2011, the specific topics within the general subject of environment-society-economy were water, poverty and responsible communication accompanied by the extra topic of volunteerism. The program was enriched by a flash mob, an exhibition, a fair, as well as videos and artistic and musical projects prepared for the Sustainability Day event. The event was concluded, as always, by concerts and a party.



Slovak Telekom has been supporting the hearing-impaired since year 2002. For almost nine years, Slovak Telekom has been tailoring products and services

to help the hearing impaired take maximum benefits from the use of ICTs (special tariffs, discounts on mobile internet, front-desk staff trained in sign language, open public courses in sign language, grant programme for supporting hearing-impaired businesspeople, etc.).

The "7th Sense" campaign was a new project launched in 2010, aiming to promote company's support of hearing impaired people and raise the public awareness on the difficulties that hearing impaired people face every day of their life due to their handicap. To catch the attention of general public, Slovak celebrities were asked to participate in the campaign. Seven well known celebrities went through seven different life situations. The whole campaign lasted seven days during one of the International Hearing Impaired Weeks. Actors, singers and TV hosts were asked to perform simple task: to visit a doctor, to go shopping, to take a job interview or to order a meal in a restaurant. And they were not allowed to say a single word. They could only use their bare hands to communicate.

Each day, a new celebrity told his or her story and showed his/her own personal support for the hearing impaired. The 7th Sense campaign culminated into a grand finale on the International Day of Hearing Impaired People (September 24, 2010). A festive ceremony in one of the Bratislava's shopping malls included musical and theatrical performances of hearing impaired artists. The campaign met with huge media support and positive response. It has directly pointed at the problems and needs of hearing-impaired community.

Read more at: www.slovaktelekom.sk/?support-for-hearing-impaired-people
See more at : <http://mysharegadget.com/785015048>

Despite the fact that it is organized by a large corporation, the Sustainability Day differs in format and appearance from traditional branded events. Its emphasis is rather on the topic and substance. The event is becoming more and more successful as years go by. The number of participants doubles each year and media coverage is increasingly extensive, too. While in 2007 the attendees were 300, in 2011 the event was attended by 3,000 people.

The brochure of the 2010 event can be found at: www.fenntarthatonap.hu/wp-content/themes/fnap2/pageflip/book_eng.html and the video of the event held in 2011 at: www.youtube.com/watch?v=AmuonDoZi70.



The "Mobility Project" is a joint **eircom**/Irish Wheelchair Association (IWA, www.iwa.ie) CSR project to provide mutual benefit to both organisations. The aim

of the project is to assist the IWA with support services to deliver to their specific population, such as to achieve greater independence, freedom and choice for people living with a disability, whilst at the same time providing work experience and development of expanded skills to eircom staff.

The Association already has a relationship with eircom as a major customer of its services and through eircom's sponsorship of the Positive2Work Programme which is used to implement the Association's management development programme. Synergies are now being further developed to implement a joint project where eircom staff would be assigned on a temporary basis to work on the "eircom/IWA Mobility Project".

One of the key resources required to staff IWA centres, that provide social activities, including meals etc for disabled service users who are brought to the centres one or more days per week, are drivers qualified to drive the IWA fleet of mini-buses to transport the service users to the centres and to take them to various social activities in the community. The provision of a number of eircom staff to work as drivers greatly assists IWA in their efforts to improve and expand this service. Further to this there are two eircom employees working in the repair of wheelchairs and also in ground maintenance.

The "Working for People with sight Loss" Project is a joint eircom/NCBI (National Council for the Blind in Ireland, www.ncbi.ie) CSR project to provide mutual benefit to both organisations. It is managed from within Transition and Exit Management (TEM) in People Services.

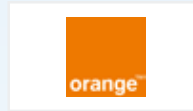
The aim of the project is to assist NCBI with support services to deliver to their specific population whilst at the same time providing work experience and development of expanded skills to eircom staff who have been assigned to TEM.

NCBI is a registered charity in its 80th year providing support and services nationwide to people experiencing sight loss. The Vision for NCBI is to have the same opportunities, rights and choices as others to fully participate in society. The Mission for NCBI is to enable people who are blind or vision impaired to overcome barriers that impede their independence and participation in society. NCBI offers community based services to help people adapt to sight loss. Services include emotional and practical support to the individuals and to families affected and increasingly sight loss is affecting a greater number of older people as the age profile of the general population increases.

Throughout October and November 2010 the **eircom** Energy Awareness Road show visited eircom buildings around the country. The aim of the road show was to raise energy awareness and engage staff in energy saving activities to reduce energy consumption throughout the company. The road show included:

- interactive modules showing the effects of different lighting;
- simple tips on energy savings at home and at work;
- professional advice on the structure of domestic energy bills, energy saving devices, energy consumption of common electrical appliances, etc.;
- energy quiz;
- competition for best energy saving ideas;
- showcase of energy efficient lighting solutions for business and home;
- opportunity for staff to see and purchase energy saving devices for the home at reduced cost;
- home energy audit sheets with tips on how to save energy at work and at home.

The next stage of the programme starting in October 2011 is a 12 month intranet campaign and an Energy Scavenger Hunt competition in the largest sites across the country. Each month an energy bulletin will go up on the company's intranet detailing information, fun facts, tips and a competition for all staff based on a particular energy saving theme. During the same period an Energy Scavenger Hunt will visit 7 of the company's largest sites and staff will take part in a 10 /15 minute quiz containing questions requiring them to think about energy saving and read the monthly tips of the Energy web page.



France Telecom-Orange's first mission is to build fast, reliable and secure networks to bring the benefits of the digital world to as many people as possible.

In Europe, the company is building very high speed broadband networks, both fixed (fiber in France) and mobile (4G/LTE), in order to respond to the boom in new digital uses. In Africa, France Telecom-Orange is investing in undersea cables, in particular the 17,000-km long ACE (Africa Coast to Europe) submarine cable which will eventually bring broadband capacity to around 20 West African countries. Such networks contribute to the economic and social development of the countries where Group companies operate, and this growth is encouraged through the "Orange for Development" programme, an internal frame of reference that summarizes the expectations identified in the stakeholder dialogue process and prioritize Group action principles in terms of economic and social development in the African and Middle East zone.

For instance, second-hand telephones are offered to low income people and innovative solutions that tackle poverty are implemented, such as the "Community Phone", which has provided mobile telephone access to over 1,700 villages with over 500 inhabitants in Mali, Niger, Côte d'Ivoire and the Central African Republic.

Several other projects are also rolled out, such as:

- thematic or sectoral solutions, which are developed in collaboration with each country and are in line with their development priorities: education, rural development, agriculture, health, etc. Such solutions include adapted tariffs, special connections, school and educational equipment, SMS services that send useful business information such as the market prices of agricultural commodities, etc.;
- the development of an eco-system based on new technologies which promote entrepreneurship either directly – such as setting up a start-up business incubator in Senegal (and soon in Niger) or facilitating economic transactions with the Orange Money solution – or indirectly by stimulating the creation of business via initiatives such as the African Social Venture Prize or the Ideas for Enterprises competition in Moldova. Group companies are also working closely with local actors (experts, universities and specialised schools) to promote the development of key skills in each country.

Regarding environmental impacts, **France Telecom-Orange** is committed to reducing its CO₂ emissions by 20% and its energy consumption by 15% between 2006 and 2020. These objectives are a key component of the Group "conquests 2015" strategic project and are monitored on a quarterly basis by the Group's Executive Committee with the help of special indicators.

Optimizing waste management is another priority of France Telecom-Orange environmental policy. For example, in order to encourage the collection of old mobile phone, France Telecom-Orange is testing an innovative "intelligent" collector called Mobo, "a cheeky little robot with a big heart". It interacts with the user (donor) by displaying its face on animations such as a smile, a wink, etc. In addition to its basic functions, i.e. geo-location and real-time transmission of its filling rate, Mobo offers a playful and gratifying dimension particularly with the possibility for the user to track the outcome of its mobile phone.

More information on the Mobo project can be found at www.hello-mobo.fr. Read more about France Telecom-Orange sustainability activities at: www.orange.com/en/responsibility



Working with the Erasmus Medical Center in Rotterdam, in 2010 **KPN** developed a measuring station for diabetics. Diabetics are forecast to be 10% of Dutch

population in 2025. Such rapid growth means that good care can no longer be taken for granted. Innovations of this kind exemplify the solutions KPN offers for these problems. Patients can do most of the measurements themselves, as a result of which they can better manage their condition. The data is transferred to the ICT systems of the hospital or family doctor. The time saved allows the doctor or nurse to devote greater attention to customized treatment of the patient. As the initiative-taker KPN made a major commitment in 2010 to self-care management. The company wants to use modern communications technology to enable care institution clients to become less reliant on visits to a hospital or family doctor. KPN is developing services that allow patients with specific medical conditions to diagnose and monitor themselves. The objective is greater convenience and independence for the patient and a reduced burden falling on care institutions.

People are looking for a better work-life balance. They can realize that ambition thanks to "The New Way of Working", the concept that makes it possible to work regardless of time and place. Remote working, videoconferencing and other ICT solutions make it possible to combine a job with caring for an ill member of the family, helping out in running a sports club or lending a hand at your child's school. This enlarges the number of people who can participate in the labour market. The New Way of Working is a response to the mobility issue. If people can choose where and when to work, they can avoid peak-hour traffic. That saves travel time and CO₂ emissions.

KPN has built up in-house experience of using The New Way of Working that is marketed to the society. The results in 2009 and 2010 were:

- 10,400 KPN staff (out of 20,500 in the Netherlands) who work according to The New Way of Working.
- Yearly 15,500 video conference meetings are held.
- 74% of KPN staff in the Netherlands have a personal teleconferencing card, suitable for audio conferencing and web conferencing. (see <https://www.conferencecard.nl/en.aspx>)
- 20,000 fewer square meters of office space. This generated an energy saving of almost 6% for the entire Dutch offices assets.

Read more at: www.kpn.com/corporate/aboutkpn/corporate-responsibility/new-way-of-working.htm



P&T Luxembourg went forward in the development of initiatives fostering "green mobility". Fourteen gas-powered and hybrid vehicles were acquired for a

test phase in several departments. These new generation cars were the first step towards a larger renewal of the fleet. P&T Luxembourg also implemented an internal carpooling platform for commuting, business travelling and also for leisure activities, in order to encourage people to travel together and thus reducing transport emissions.

Achieving reductions in energy consumption requires change in the behaviour of people. **P&T Luxembourg** launched several initiatives in 2009 and 2010 to raise employee's awareness and build their engagement in environmental issues. This included the development and dissemination of a leaflet about eco-driving which was distributed to all employees.

The leaflet addressed driving style, speed and care as important indicators of increased fuel efficiency. It also emphasized the need for regular checks on the overall technical condition of the vehicles. Dissemination of the leaflet not only to drivers but to all employees was intentional and aimed at promoting efficient practices beyond the workforce.

More information can be found at:
www.pt.lu/portal/op/preve/lang/en/Entreprise/pid/2448



éConsigo! (that means "it is with you") is a programme that aims to reinforce the feeling of belonging to **Portugal Telecom** and to promote the feeling of

support, optimism and well-being for its employees. It includes the following sets of initiatives:

- **GROW:** initiatives for employee children that aim to promote their academic development. Assigning economic support for the education of low-income employee children and awarding prizes of excellence to the best students demonstrate PT's bet on the education of the next generations.
- **SUPPORT:** provision of counselling and help to employees with personal fragilities, usually with health problems and economic difficulties; there are also social training actions related to issues such as family management and volunteer work actions that enable employees to give more of themselves to others and to society in general.
- **ACTION:** sports, culture and well-being initiatives that enable employees to reinforce their team spirit even in playful moments, keeping a healthier life in physical and cultural terms amidst their families as well.
- **CELEBRATE:** initiatives that mark special moments in the life of employees and their families are also a PT bet. The offer of a gift on the occasion of the birth of their children, the International Children's Day, Father's and Mother's Day, Women's and Man's Day, Birthdays, Christmas are examples of moments celebrated by PT with creative and innovative activities.

Aiming to reinforce the commitment to sustainability, Portugal Telecom launched an internal awareness campaign called "Green and Healthy Moments", which aims to promote the adoption of sustainable and simultaneously healthy habits. The campaign kicked off in June 2010 in six PT buildings to alert employees to the need of regular use of the stairs because of the reduction of energy consumption, increasing at the same time the practice of healthy physical activity.

The creative concept of the campaign aims to call attention to the need of adoption of environmentally responsible habits and respective benefits not only in terms of energy savings but also of individual health. By resorting to humour, the approach is light, funny and easy to catch, in order to achieve a voluntary and happy commitment. Its images take us back to the aesthetic concerns of lift users and the problems associated with sedentarism.

Messages deal with environmental and energy saving issues. After 3 months from the beginning of the campaign a reduction of 30% in the lifts energy consumption was observed, and this shows that the messages got through.



In association with the Myclimate Foundation (www.myclimate.org), **Swisscom** has developed an environmental label for climate-friendly products and services which in turn make a significant contribution to reducing CO₂ emissions. The climate recommendation of Swisscom and myclimate enables climate-friendly products and services to stand out from the rest. Each recommendation is based on a detailed life cycle assessment – or eco-balance – drawn up by myclimate in accordance with recognised standards. The total CO₂ emissions of labelled products are significantly reduced over the entire life cycle – from production to disposal – compared to similar products. The total CO₂ emissions produced by labelled services are also significantly lower than for current typical behaviour.

Read more on Swisscom's climate proposals at:
<http://www.swisscom.ch/en/ghq/responsibility/sustainable-living-and-working/climate-proposals.html>
www.swisscom.ch/en/ghq/responsibility/sustainable-living-and-working/climate-proposals.html

Since 2001, as part of its "Internet for Schools" initiative, Swisscom has connected every Swiss primary school at no charge; this offer has also been open to all pre-schools since 2009. In this way, the company is making an important contribution to helping children and young people acquire at an early age the media skills needed today and learn how to use digital media in a responsible way. In particular, the ability to assess and judge the quality and relevance of information is becoming increasingly important. This offer will be kept in place and expanded as part of the "School Service" programme, which consists of the following free educational offers:

- a series of instructional materials and e-lessons about telecommunications for all grade levels; topics include telephones, mobile phones, the Internet and environmental aspects;
- an Internet user guide entitled "SchoolNetGuide" plus the "Enter" guide to digital media;
- free access to the Swissdax online newspaper archive as a research tool for students;
- student exchange via mobile phone - mobile phones which can be lent out for project weeks.

Read more on Swisscom's commitment to the environment and society at:
<http://www.swisscom.ch/en/ghq/responsibility.html>
www.swisscom.ch/en/ghq/responsibility.html



In 2010 **TDC** has invested in more than 60 end points of video communication equipment spread out in all of its regions. By doing so TDC has reduced its travel costs by more than 10% and increased the efficiency of the company's workforce. The direct CO₂ emission reduction in 2010 was of 1.700 tons and is still increasing. This investment is also indirectly contributing to a higher employee satisfaction, because of an improved work-life balance and the pride of working in a sustainable company.

Read more at: http://tdc.com/publish.php?dogtag=com_profile_cr_climate_cfs

TDC is also involved in several e-Health projects. To support the development of telemedicine based treatments in the patient's home in Denmark, TDC has developed a special Broadband Connection based on the demanding requirements from the Hospitals, that include quality, delivery time, logistics etc. The solution provided by TDC can help reduce to a minimum the time spent in the hospital by the patient. TDC is also involved in the 'Circle-project' which enables children staying in hospital for a longer period of time to follow their usual school classes via webcam and interactive blackboards. As part of the Danish Cancer Society campaign 'Turn down the sun', TDC delivers a daily text message with a UV index that indicates how much sun protection is needed.

Read more at: http://tdc.com/publish.php?dogtag=com_profile_csr_cp_tm



MyDoctor@Home is the service launched by **Telecom Italia** that allows patients suffering from chronic illnesses, or in post-hospital care at home, to monitor

their physiological parameters (body weight, blood pressure, heart rate, blood oxygen levels, glycaemia, lung capacity, electrocardiogram, etc.) directly from their own homes or in properly equipped facilities (health centres, chemists', doctors' surgeries etc.). Depending on the plan drawn up by the relevant doctors, patients can also receive reminder text messages on the treatments they need to follow and the measures and medicines they need to take.

MyDoctor@Home won the Confindustria (the Italian employers' federation) Innovative and Technological Services award for Innovation in ICMT (Information, Communication & Media Technology) and the "Prize of prizes" awarded by the Presidency of the Republic of Italy. Following an initial pilot testing at the Molinette Hospital of Turin, as of December 2010 MyDoctor@Home has been operating in Piedmont and, over the next three years, it will allow 5,000 patients to be monitored at home. The use of MyDoctor@Home has been successfully tested in Rio de Janeiro by Tim Brazil and the Brazilian authorities in order to promote the spread of healthcare technologies and permanently connect the best hospital centres with rural areas.

In 2011 **Telecom Italia** launched its first line of environmentally friendly products. Telecom Italia's new equipment that features a low environmental impact and meets specific energy efficiency requirements, will carry the "Telecom Italia Green" logo; a specific Environmental Product Declaration, developed in compliance with ISO 14021 standard will be included in the package. The first "Telecom Italia Green" product is the new ADSL Home Access Gateway, developed in cooperation with one of TI's suppliers, that features significant improvements in terms of eco-efficiency over previous generation products. The energy consumption of the product has been optimized following objectives, operation states and target values defined by the European Code of Conduct on Broadband Equipment, signed by Telecom Italia.

Considering an average yearly usage, the energy consumption per product is reduced by 42.9% in comparison to an older Telecom Italia product implementing the same functionalities. Beginning from March 2011 this product has been advertised and distributed through Telecom Italia's commercial network.

#4

Walking the talk

More than 500,000 units are expected to be installed at Telecom Italia customers' premises in 2011. Since the "green" modem's energy consumption is about 40% less than that of earlier generation similar products, and it enables an equivalent % reduction of CO₂ emissions, the overall environmental benefit would be equivalent to planting 14.700 trees or not using 5.700 vehicles for one year. More products will be added to TI's Green line in the coming months.

More information can be found at:
www.telecomitalia.com/tit/en/sustainability.html.



Telefónica is committed to make sure that children make positive use of the internet and mobile phones. The company devotes great efforts to provid-

ing parents, guardians and educators with the necessary resources to train children to use new technologies in a responsible way, and to help them identify the risks that may be involved in making inappropriate use of these instruments.

Micro-sites set up for the purpose offer specific information on how to make good use of the web and also educational tools aimed at parents to help them respond to difficult situations arising from misguided use of the networks. These include advice on what to do in different cases such as cyber-bullying, unwanted calls, stolen handsets, etc. An e-mail address - consejosresponsables@telefonica.es - has been activated, where users can send their queries or concerns on such matters. Queries are answered by staff specialised in ensuring the proper use of ICTs by children.

In addition to all the above, Telefónica also offers training activities for children and teenagers, as well as for parents and educators, geared to furnishing them with necessary skills to use ICTs to their full potential and avoid falling prey to abuse of different kinds, or even to prevent them from misusing these outstandingly powerful instruments of information and communication.

Read more:
www.crandsustainability.telefonica.com/en/ict/

Telefónica provides businesses and consumers with solutions to help them reduce their energy bills and emissions. Telefónica's "Green Customer Experience", designed by the Climate Change Office, offers customers a "green" experience, from the moment they think about getting their mobile, while they are using it until the end of its useful life.

Spain is the first country to run this project, which will gradually be introduced in other markets. In Spain, Telefónica has presented the first sustainable handset for the consumer market. The project also has plans for the so called "green corners" in specific Telefónica shops in order to inform users about available models and commercial details.

Furthermore Telefónica offers to the business segment a telepresence service which makes it possible to recreate natural environments virtually. It also offers collaboration tools which make it possible to enrich the meeting. Telefónica has 17 telepresence rooms in Europe and Latin America; through internal use of these facilities it will on average save 360 continental flights and 300 transatlantic flights a month. This will enable it to reduce emissions by up to 625 tonnes of CO₂ per month, a potential annual reduction of 7,500 tonnes. The company makes this service available to its customers as a comprehensive turnkey service.

More information at:
www.youtube.com/user/TelefonicaGGClientes#p/u/6/pD9oTbYR9E.

e-Meeting is an Internet collaboration tool for real-time virtual meetings. It is based on the Webex service but provides significant advantages, not only in terms of cost savings (less travel and downtime due to travelling), but also because it encourages team work. Unlike telepresence, which is more suitable for large corporations, e-Meeting has been designed for small and medium-sized companies.

Immotics enables remote and centralised management of automated equipment and facilities in a Company's buildings. Through supervision of temperature and lighting levels etc, with the corresponding control and implementation of a warning system based on pre-determined parameters, energy consumption can be significantly reduced. In addition, **Telefónica's** Immotics service is an example of the multiplying effect that telecommunications can have on current energy reduction practices as they make it possible to extend them beyond a single building to the Company's whole office network, wherever they are located, and irrespective of their size. Such systems can provide estimated CO₂ and electricity savings of 20% to 30% respectively. Read more at:

www.crandsustainability.telefonica.com/en/environment_change/efficiency.php.



Protecting the environment, making an effort to inhibit the negative impacts of its activities, and, of course, ecological education, are important facets

of the environmental activities of **Telefónica Czech Republic**. One of the more notable projects in 2010 was the ecological concept of the Open Air Festival, a major music event. Due to its participation as the main partner of this festival, Telefónica Czech Republic was named Most Responsible Partner Cooperation in the Top Corporate Philanthropists 2010 awards. Over eighteen thousand music lovers attended the Open Air Festival, which aimed not only to provide great musical experiences but also endeavoured to support the ecological behaviour of festival goers and raise their awareness about the material recycling issue.

Over 90% of the waste from the entire event was sorted and re-processed. The green concept of the festival consisted also in cleaning the grounds in their entirety, offering free space for the sales booths of non-profit organizations and companies offering Fair Trade goods, and transportation on "eco-buses". Organizers and partners ensured ecological education throughout the three-day event, doing so in the form of examples of the need to sort waste and the uses of recycled plastics and their further processing into raw materials.

In 2007 **Telefónica Czech Republic** was the first operator in the Czech Republic that offered discount rates for fixed and mobile lines for customers with specific needs. Seniors can use the special tariff NEON Senior in conjunction with the Alligator mobile phone (featuring big keypad, SOS button and torch). People needing medical care can take advantage of the pilot programme E-Health: trained operators are available 24 hours per day to provide assistance or help.

To make the life easier for blind people, Telefónica is taking part in implementation of the new software for mobile phones, which enables text to speech conversion.

Telefónica is operating a special "Line for the hearing impaired", which is active 24 hours per day and free of charge. Deaf people can send SMSs, e-mails or messages via instant messaging or FAX to one of the operators that will then translate them to the addressee.

This service works also the other way round: the operators help hearing impaired people to search contacts, book medical examinations and visits and other daily routine. But for deaf people these daily duties are very complicated. The call centre from Pardubice solves 1.500 requests per month. This dedicated line can be used by the hearing impaired who hold a ZTP card (a card which is granted to people with severe disabilities). One of the main priorities of the company's CSR department is the Accessibility campaign. Through this campaign Telefónica develops and provides services for senior citizens and for people with specific needs.



In the framework of **A1 Telekom Austria's** environmental strategy program numerous projects deal with climate protection, which among other topics are

focused on energy consumption and CO₂ emission reduction regarding base stations. A follow-up project "A1 Energy Management" was established to create energy efficiency through intelligent use of GSM resources.

Mobile communication operators generally dimension the capacity of their networks according to the so-called "busy hour", the hour when the largest traffic volume is expected. A1 Telekom Austria has over 6.000 sites (more than 14,000 sectors). The idea was to temporarily deactivate resources (carriers, sectors or entire stations) in times of low traffic volume, to save as much energy and CO₂ as possible without negatively affecting the quality of the network or the equipment.

In the first phase in Vienna the measure was implemented at 303 sites, where both 900 MHz and 1800 MHz resources were used. On the average the saving mode was active for approximately 10 hours per day per sector with no negative impact on the quality perceived by the customer, whereby there was large variance according to sector and day. In one week a savings of about 3,700,000 minutes could be achieved. For A1 Telekom Austria this resulted in savings of 894 kWh/day through the energy efficiency measure. Thus, thanks to the A1 energy management project, the amount of energy that one sector consumes in an entire year is saved in Vienna on a single day! Subsequently, this solution was implemented throughout Austria.

One of the major unsolved problems in Bulgaria is the plight of elderly people. The low pensions, poor organization of towns and villages, lack of social services, lack of traditions in social thinking among the authorities – all of these aspects make the life of the elderly very hard. Thus the Apriltzi foundation, together with Mobilitel, a subsidiary of **Telekom Austria**, built a kitchen to provide warm food and founded a daily centre for chronically ill and disabled people. The results: 130 meals are provided daily by the kitchen (30 of them are for the old-age home, 50 go to the elderly and chronically ill as a paid social service and are delivered straight to the homes of those who want them by a vehicle donated to the project by Mobilitel, 50 more meals are delivered free of charge to seriously ill and disabled people in accordance with a project by the Ministry of Labour and Social Care). The kitchen provides 4 places of employment. The project is part of the consistent CSR policy aiming at long-term results by maintaining large-scale projects of national significance in fields where serious support is needed.

More information can be found at:
www.telekomaustria.com/verantwortung/Corporate_Responsibility.php



We must first learn about our environment in order to know how to act responsibly toward it. Eco Quiz, a competition in eco-knowledge for elementary

school pupils, which **Telekom Slovenije** joined in the 2008/09 school year as a partner, provides just that. Eco Quiz is organized within the Eco-School as a Way of Life program, which is the European association's way of ensuring environmental education.

By taking part in the Eco Quiz, Telekom Slovenije continues its environmental protection efforts and spreads environmental awareness among children, who hold the future of the planet in their hands. When Telekom Slovenije joined, Eco Quiz became even more environmentally friendly: for the first time the entire quiz was run on the internet. Participants could visit eko.telekom.si to access study material, teams of students could register online and take part in competitions too.

Learning about the environment through interactive telecommunications technology is very popular among students and their mentors, seeing how each year we exceed our initial goals.

Among the noteworthy environmental activities in South-Eastern Europe is the collection of used mobile phones on the Macedonian market, from which 35,957 were retrieved. Users were encouraged to recycle their outdated phones by offering them a credit note for each old phone they brought to One – a subsidiary of Telekom Slovenije - retail outlets. The credit note could then be used for the purchase of any of One's products. Natural and cultural heritage is a gift we have received from our ancestors and this is why Telecom Slovenije is committed to help preserve and enrich the legacy of the environment. The company also sponsors different festivals and cultural events in order to increase the recognition of our art and bring people into contact with art from all over the world. Some examples are the Ljubljana Festival, the Lent Festival, Trnfest, the LIFFe Festival, Slovenian Drama Week in Kranj, broadcasts from the Metropolitan Opera in New York and others; as well as the sponsorship of the Cankarjev Dom cultural centre, the National Opera and Ballet in Maribor and the Ljubljana Puppet Theatre.

More information on Telekom Slovenije's sustainability related activities and achievements visit
<http://en.telekom.si/company/sustainability-report>



In April 2010, when **Telenor** Serbia and UNICEF initiated the project "Povezivanje" (Project Enable) in order to help the Roma in Serbia, the situation was austere. The project has improved education of Roma families in Serbia and supported them in exercising their rights in the area of healthcare and insurance.

Thanks to the relentless efforts and selfless work of the health mediators, Telenor and UNICEF together are achieving promising results. In a press conference the Minister of Health, Zoran Stanković, presented a series of statistical data:

"From the start of the Health Mediators project in 2008, 120000 Roma have been registered, 8200 children inoculated, 4 900 women had gynecological examination, 14500 Roma selected their physicians, and 1 300 were enrolled in schools. The support Ministry of Health got with the project "Povezivanje" has helped mediators to carry out their job better and more efficiently in many ways".

Also owing to this project, data on 95 000 Roma have been collected, registration records for 820 Roma habitats have been made and conditions where 26 000 families live have been described in detail in the last year.

Read more at : www.telenorgroup.com/en/corporate-responsibility/initiatives-worldwide/more-efficient-healthcare-by-using-telecommunication.

Telenor Connexion will enable Nissan LEAF owners to use a mobile phone or PC to check battery status and range, to turn on vehicle's air-conditioning etc. even when their car is parked and completely switched off. This is the first time connectivity becomes a standard in an electrical car.

Telenor Connexion has been chosen as the European connectivity supplier for Nissan LEAF's "CARWINGS" intelligent transport (IT) system, allowing connection between the electric car's sophisticated onboard transmitting unit and Nissan's CARWINGS Data Center.

With the ICT system car owners are connected at all times to the data and information they need, thereby experiencing greater convenience, comfort and security. Unique features include EV usage history, battery state monitoring and air conditioning remote control. Owners can access the system website via their mobile phones, smart phones and PCs. Not only does this innovative service deliver a comfortable in-car experience, it is also important to realize a low-carbon society in the future.

Nissan LEAF was awarded "European Car of the Year 2011" and is the world's first mass-production, 100% electric, zero-emission car. It was also awarded "Best Mobile Innovation for Automotive and Transport" for its connected telematics services CARWINGS at the GSMA Mobile World Congress in Barcelona in 2011.

Read more at: www.telenorconnexion.com



Omnitel, a subsidiary of **Telia-Sonera** in Lithuania, cooperated with Swedbank during 2011 to launch a professional volunteer work project called "Who

Needs it?!", whose aim is to raise pupils' motivation to learn. Through this scheme business professionals share their experiences with pupils, so as to show them how they will be able to use the knowledge they gain at school later in their working lives. This will not only help pupils to choose a career, but also inspire them to learn and be creative. According to the plan, 95 percent of schools are to participate during the first four years of the project through 3,000 planned meetings with pupils. Some 2,000 professionals from various businesses will contribute to this project on a voluntary basis.

Affordable services are important to enable digital inclusion and to enhance digital equality for people coming from different backgrounds, especially in relation to opportunities to study. In response to such needs Teliasonera offers, for example, special discount prices for students in Lithuania, Moldova and Uzbekistan. In countries with ageing populations there is the need to ensure that the elderly are included in the information society. In Denmark, Estonia, and Lithuania the company offers elderly customers special tariff pricing and phones with easy to use functions. Similar offers exist also in some Eurasian markets, including Kazakhstan and Tajikistan.

In 2011 TEO, a subsidiary of Teliasonera in Lithuania, together with the charity and support fund Algojimas, organized special training for nearly 300 employees to enable them to work with people with various disabilities. The Ministry of Social Security and Labor gave TEO the first Lithuanian certificate for such work to confirm their competence.

#5

Conclusions



A digital sustainable future...

This report provides some insight into a few of the many activities which are being carried out within the Association and by the signatories of the Sustainability Charter. This report is not and cannot be exhaustive. More details of what Charter signatories do and their sustainability performance are provided in their specific reports and dedicated web pages.

The overall development of telecommunications is per se a contribution to sustainability; social and environmental benefits are implicit in the use of many of our products and services. Nevertheless there are issues that need to be tackled, and more work is needed to demonstrate the still untapped ICT's full potential and make things happen.

Accountability is a key issue for ETNO, and the mechanism used to assess and report the sustainability performance is kept under constant review to improve transparency and make it more and more compliant with internationally recognised standards, like the guidelines of the Global Reporting Initiative^[19].

The current ETNO Sustainability Charter was launched in 2004 in Budapest. Since its first launch as the Environmental Charter in 1996 it has represented a serious commitment that its signatories have not taken lightheartedly, and has gained popularity and recognition even outside Europe. The progress made by the companies that committed to Charter's principles is testified by the 7 ETNO Environmental and Sustainability reports published so far, including this one. However ETNO is well aware that the business scenario is changing continuously, and the new challenges which lay ahead of us as well as the increasing stakeholder demand for more transparency, stronger commitments, and swift action, bring along the need to update our pledges and respond with deeds.

Therefore ETNO felt that it was time to update the Charter, broadening its scope, updating existing commitments and including new ones, with a particular emphasis on:

- supply chain management: changes in business models have impacted on the supply chain risk profile particularly with respect to issues such as violations of labour standards, working conditions and human rights abuse and environmental damages. Companies sourcing in developing countries have to face increasingly serious ethical challenges, with a high risk of reputational damage too;

[19] www.globalreporting.org

- protection of children and minors online: as more and more children use the Internet every day, the benefits they enjoy and the risks they face grow exponentially; the industry has developed a set of self-regulatory principles that have been launched in early 2012, but the EC is not just waiting and watching: Commissioner Kroes has launched her own "Coalition to make internet a better place for kids" which she invited a number of CEOs of ICT companies to join, advocating a more cross-cutting approach. There is work going on to align the two initiatives, but what is happening demonstrates the urgency to raise awareness on the issue and respond to the challenge;
- corporate governance: good corporate governance is basically about making better decisions for the long term health of the company: it is risk management, where the risk is the value of the brand. A balance of power among managers, shareholders and boards ensures transparency, accountability and conformity to laws, thus preserving company's integrity and reputation;
- respect of human rights: all companies have a responsibility to respect and promote human rights in all their operations and value chains around the world, given the growing reach and impact of business enterprises. Respecting human rights means basically treating people with dignity, and robust policies and processes are needed to make this happen.

This need for an enhanced commitment is also reflected in the Communication of the European Commission on "A renewed EU strategy 2011-2014 for Corporate Social Responsibility".

The European Commission puts forward a new definition for CSR as "**the responsibility of enterprises for their impacts on society**", and adds that in order to fully meet their corporate social responsibility, enterprises should have in place a process to integrate social, environmental, ethical, human rights and consumer concerns into their business operations and core strategy in close collaboration with their stakeholders, with the aim of maximising the creation of shared value for their owners/shareholders and for their other stakeholders and society at large, and identifying, preventing and mitigating their possible adverse impacts.

Once again the ETNO Corporate Responsibility Charter, that will be launched in September 2012 will be built around a set of "high level principles" that ETNO member companies, but not only, will be invited to subscribe. Each company will then be free to fulfil such commitments by putting in place the measures and solutions that it will deem more appropriate: the future ETNO Corporate Responsibility Reports will once again testify the progress made by the signatories.

...and, as usual, let's close with an invitation

The Corporate Responsibility Charter will be open to any responsible company whose business provides voice and data communications services over any kind of network across Europe. There is no requirement to be an ETNO member to join, and no specific entry level is required. A serious commitment to continuous improvement and demonstration of progress, this is all which is needed.

Better dialogue with European institutions, access to a strong information network of like-minded companies and individuals and to industry best practices, increased transparency and provision of benchmarking opportunities, enhanced reputation and credibility are just a few of the advantages that the past Charters have offered their signatories over the years. And strong support was provided by ETNO itself.

Although responsible behaviour in business represents a real competitive advantage, other than a responsibility, sustainability in ETNO is a race where there is no competition, but where all participants belong to the same team, add their strength to the others' and share their knowledge and experience to help the team overcome hurdles as one. And in the end the team wins.

Competing together can make the difference. We know it. That's why the Sustainability Charter is open not only to ETNO members but also to all players active on the market. They are all welcome to join our team and the ETNO Office is there to help.

#6

The Sustainability Charter





The Sustainability Charter of the European Telecommunications Network Operators' Association

Our Vision

Sustainable development is a global strategic goal, which seeks to achieve economic growth that promotes a fair and just society while conserving the natural environment and the world's scarce, non-renewable resources for future generations. It is our belief we can play an important part in making this happen.

Corporate Social Responsibility also needs to be understood in the context of sustainable development:

- Corporate Social Responsibility is the business contribution to making sustainable development happen, through the proactive management of a company's environmental, social and economic impacts.

This Charter embodies our commitment to sustainable development via:

- a sustainable provision of products and services with significant environmental, social and economic benefits;
- a determined effort to integrate our business activities with environmental, social, and economic responsibilities — minimising, where practicable, any negative impact these activities may generate.

Our Approach

We believe, as do our employees, customers, shareholders and governments, that today's world demands close attention to business principles and ethics, employee relations, human rights, environmental management, community investment and general working conditions, within a company and regarding its outside suppliers.

Collectively, these activities form the basis for Corporate Social Responsibility (CSR).

CSR commitment demands regular performance assessment. Thus, our reports offer stakeholders a means to judge how effective our improvement programmes have been. Moreover, the spread and reach of telecommunications across contemporary society imposes on us, as responsible corporate citizens, the social obligation to demonstrate this commitment, to reflect how we run our businesses.

Collectively, our companies' combined turnover represents a significant proportion of European trade, which offers a unique opportunity for ETNO member companies to co-operate actively with policy-makers and Governments to make a real difference. Indeed, our CSR activities can offer a significant contribution to sustainable development.



Our Pledge

We, as Charter signatories, whether individually or collectively, are committed to continuous improvement and the sharing of best practice via action in the following areas:

1. AWARENESS

To acknowledge all the relevant environmental, social and economic impacts of our products and services: whether positive or negative. In particular we will build CSR aspects into company communications and training programmes.

2. REGULATORY COMPLIANCE

To achieve full compliance with all relevant legal requirements and, where appropriate, to exceed them.

3. RESEARCH AND DEVELOPMENT

To support research and development into the contributions that new telecommunication products and services can make towards sustainable development.

4. PROCUREMENT

To implement efficient management of resources, energy use, waste, emissions reductions, environmentally friendly process and product requirements; eliminating use of hazardous materials; observation of human rights and labour conditions.

5. ACCOUNTABILITY

To make available to all stakeholders' material data, case-study examples and information about our environmental, social and economic performance, as accountability and transparency are key elements of CSR. To maintain an inclusive approach to stakeholder relationships, in order to reflect their aspirations and needs in our business activities.

6. COOPERATION

To co-operate constructively with governments, customers, industry partners, civil society and international organisations when investigating, developing and promoting the benefits that information and communications technologies generate for sustainable development.

7. MANAGEMENT SYSTEMS

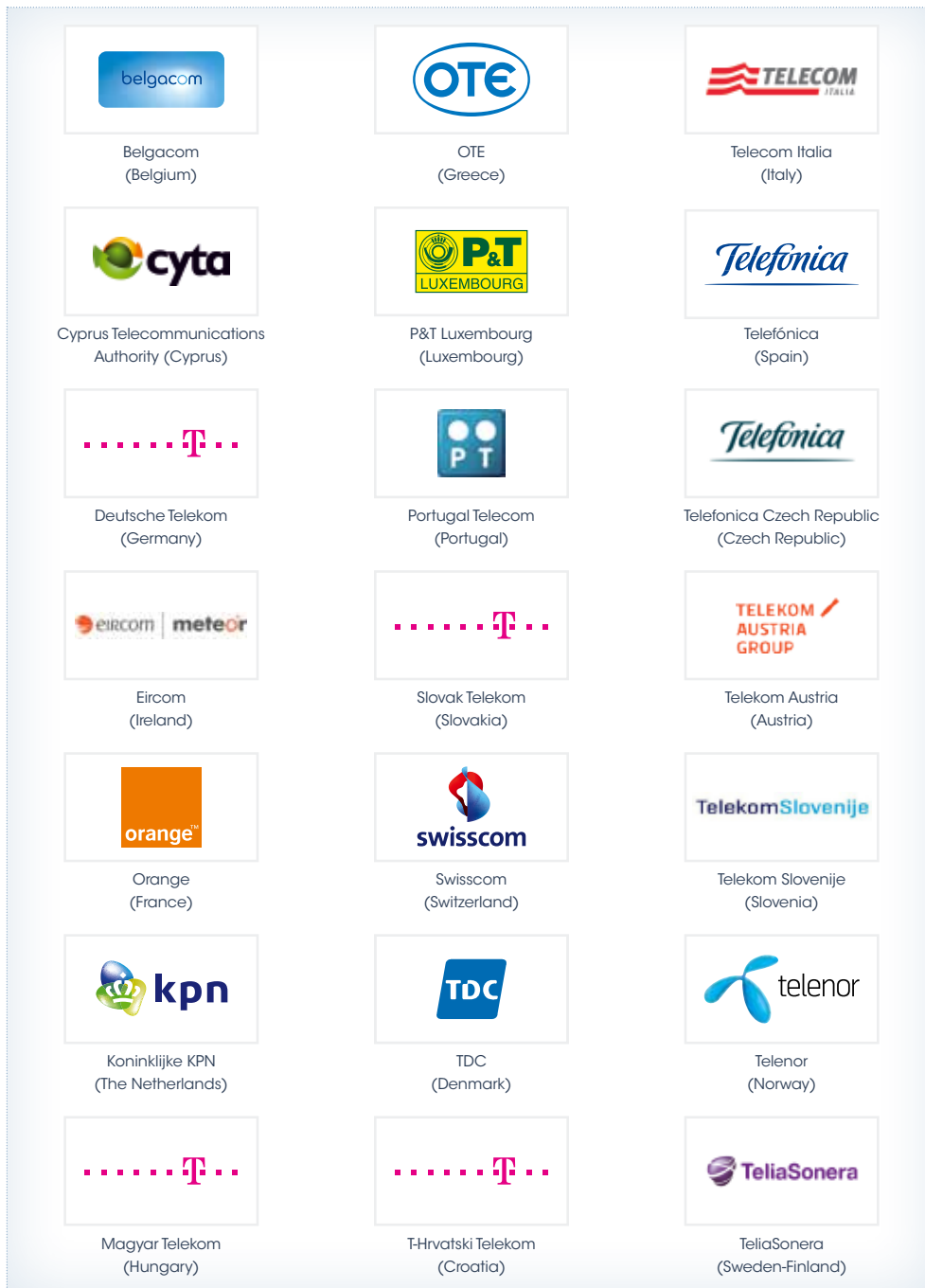
To offer a statement of business principles, an environmental policy, the appointment of a management board member with specific CSR responsibilities, and a manager(s) with designated responsibility for co-ordinating programmes of continuous sustainability improvement.

Finally, to implement management systems that support development of appropriate and well-structured programmes on environmental protection, labour conditions, occupational health and safety and social accountability.

8. EMPLOYEE RELATIONS

To create work environments that promote the work-life balance, professional development, diversity and health and safety, maintaining a highly motivated and productive workforce.

The signatories of the ETNO Sustainability Charter, that contributed to this report



* T-Group companies who are members of ETNO:
Deutsche Telekom, Hrvatski Telekom, Magyar Telekom, Makedonski Telekom and Slovak Telekom,

Acknowledgments

This Report was prepared for ETNO by its Corporate Responsibility Working Group with its associated Task Forces on Energy and Online Child Protection. Other working groups supplied relevant information.

Considerable editorial support, assistance and encouragement were provided by Thierry Dieu, Director for Communications and Public Policy, and Leo Debecker, former Executive Manager Operations, in the ETNO Office.

About ETNO

ETNO has been the voice of Europe's telecommunications network operators since 1992. ETNO's 40 member companies and 11 observers from Europe and beyond represent a significant part of total ICT activity in Europe. They account for an aggregate annual turnover of more than €600 billion and employ over 1.6 million people. ETNO companies are the main drivers of broadband and are committed to its continual growth in Europe.

ETNO members also hold new entrant positions outside their national markets. ETNO brings together the main investors in innovative and high-quality e-communications platforms and services, representing 70% of total sector investment.

ETNO strongly contributes to shaping a favourable regulatory and commercial environment for its members to continue to deploy innovative and high quality services and platforms for the benefit of European consumers and businesses.

For more information, please visit: www.etno.eu



Avenue Louise 54 - 1050 Brussels, Belgium
Tel: (32) 2 219 32 42 - Fax: (32) 2 219 64 12
E-mail: etno@etno.be

European Telecommunications Network Operators' Association

www.etno.eu