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World Summit on the Information Society
International Telecommunication Union
WSIS Stocktaking Process

REGIONAL WSIS STOCKTAKING REPORT 2016
ICT PROJECTS AND WSIS ACTION LINE RELATED ACTIVITIES IN EUROPE

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working together towards 2025
World Summit on the Information Society
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Geneva 2003 | Tunis 2005 | New York 2015

ITU

WSIS STOCKTAKING REPORT IN EUROPE

2014 – 2016

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Foreword

Since October 2004, the WSIS Stocktaking Platform has served as a global repository for collecting and reporting on ICT-related projects that implement the WSIS Outcomes in accordance with the WSIS Action Lines. It has also proved to be an efficient mechanism for sharing best practices towards advancing development goals, a role that I am confident will add additional value by highlighting the linkages between the WSIS Action lines and the United Nations' Sustainable Development Goals (SDGs), the hallmark for global growth since 2015.

The outcome document of the UN General Assembly High-Level Meeting on the Overall Review of the Implementation of the Outcomes of WSIS recognized the importance of reporting and sharing of best practices for the implementation of the WSIS outcomes by all stakeholders beyond 2015 and towards 2025, and thereby recognizing the WSIS Forum as a key platform for doing so. Moreover, the WSIS Overall Review called for close alignment between the WSIS process and the United Nations 2030 Agenda for Sustainable Development, highlighting the crosscutting contribution of ICTs to the SDGs.

During the WSIS Forum 2016, while noting United Nations Economic and Social Council (ECOSOC) Resolution 2015/26, the WSIS multi-stakeholder community expressed the need for customized regional WSIS Stocktaking reports highlighting the efforts made towards implementation of the WSIS Action lines at the regional level.

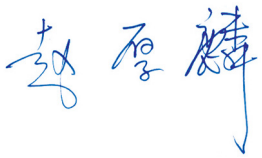
The WSIS Stocktaking Regional Reports of ICT Projects and Activities for the Period 2014-2016 for Africa, the Americas, Arab States, Asia and Pacific, CIS, and Europe are being diligently prepared. Continuing the collection of projects reflecting the linkages between WSIS Action Lines and SDGs, the WSIS Stocktaking Regional Reports showcase the impact these projects have on the ground at the regional level.

Until 2016, the global WSIS Stocktaking Reports reviewed more than 8,000 entries from around the world. In past reports one entry may have consisted of one or many actions carried out by international organizations, governments, the private sector, civil society or other stakeholders. I am pleased to note that the WSIS Stocktaking community now includes more than 200,000 stakeholders.

Through the WSIS Prizes contest, which has now been an integral part of the WSIS Stocktaking for the fifth year in a row, WSIS recognizes outstanding success stories from around the world for their part in building an inclusive information society. It is my pleasure to recognize the WSIS Prize 2014-2016 winners and champions from the Europe Region, and to applaud their dedication and commitment to the implementation of the WSIS Outcomes, while also honoring and awarding outstanding projects from the international WSIS community.

Since 2014, one hundred and seventy-one (171) were submitted from the Europe Region to the WSIS Stocktaking platform while thirteen entities from this region have been awarded WSIS Prizes as winners and champions since 2012. I use this opportunity to congratulate them again on their achievements and their ongoing dedication to the WSIS process. It is also with pleasure that I recognize the commitment of this region to the implementation of the WSIS Outcomes, including the commitment made to share best practices regarding the use of ICTs to help advance the SDGs.

I invite all stakeholders to fully use the WSIS Stocktaking platform and align the various ICT-related local, national and regional databases with our WSIS Stocktaking database for the world's mutual benefit. Your projects and initiatives will continue to be promoted at the regional and global level in a common endeavour to achieve the goals set out by global leaders at WSIS and taken forward in the WSIS Beyond 2015 and Sustainable Development Agenda 2030.



Houlin Zhao
ITU Secretary-General

Introduction

On the occasion of the World Telecommunication Development Conference (WTDC) 2017, special edition of the WSIS Stocktaking Report for the ITU Europe Region for the period 2014-2016 was produced as the information document for the Regional Preparatory Meeting taking place from 27 to 28 April 2017 in the Republic of Lithuania.

The World Summit on the Information Society (WSIS), which was held in Geneva in 2003 and in Tunis in 2005, drew up an action plan to bridge the digital divide and build an inclusive, people-oriented information society. World leaders committed themselves to regularly review and follow up progress in implementing the action lines outlined in the WSIS Outcomes.

The United Nations Economic and Social Council (ECOSOC) resolution 2015/26 "Assessment of the progress made in the implementation of- and follow up to the outcomes of the World Summit on the Information Society" , that reiterates the importance of sharing best practices at the global level, and, while recognizing excellence in the implementation of the projects and initiatives that further the goals of the World Summit, encourages all stakeholders to nominate their projects for the annual WSIS Prizes, as an integral part of the WSIS Stocktaking process, while noting the report on the WSIS success stories.

The outcome document of the UNGA High-level Meeting on the overall review of the implementation of the outcomes of WSIS recognized the importance of reporting and sharing of best practices for the implementation of WSIS outcomes by all stakeholders beyond 2015, recognizing the WSIS Forum as a key platform for doing it. In this context the WSIS Stocktaking process plays a strategic role in supporting WSIS Forum in its endeavor.

Moreover the WSIS Overall Review called for close alignment between the WSIS process and the 2030 Agenda for Sustainable Development, highlighting the cross-cutting contribution of ICTs to the Sustainable Development Goals. In this context also the WSIS Stocktaking evolves into the unique global process for collection of information on actions carried out in context of WSIS, while underlining their contribution to the implementation of the 2030 Agenda for Sustainable Development.

In the period 2014-2016, WSIS Stocktaking Reports have reviewed 171 ICT-related projects and activities carried out by international organizations, governments, the private sector, civil society and other stakeholders in the Europe Region, with those in 2016 highlighting the efforts deployed by stakeholders involved in implementation of the SDGs. WSIS Stocktaking reports are based on the multistakeholder approach, including input from stakeholders from all over the world responding to ITU's official call for stocktaking updates and new entries. The inputs from WSIS action line facilitators and co-facilitators also contribute to the reports.

Most of one hundred and seventy-one projects listed in this Report were also nominated for the WSIS Prizes contests in the period 2014-2016, while thirteen of them (highlighted in the gray boxes) were awarded with the WSIS Prize Winner or WSIS Prize Champion recognition. WSIS Prize is a unique global recognition for excellence in the implementation of WSIS outcomes. The contest is open to all WSIS stakeholders.

The WSIS Stocktaking community comprises of more than 200.000 stakeholders who are eager to contribute to the WSIS Process year after year. By identifying trends in implementing WSIS Outcomes, the WSIS Stocktaking Process makes a significant contribution towards building an inclusive Information Society.

The principal role of the WSIS Stocktaking exercise is to leverage the activities of stakeholders working on the implementation of WSIS outcomes and share knowledge and experience of projects by replicating successful models designed to achieve SDGs.

The WSIS action lines break down into 18 categories:

1) The role of governments and all stakeholders in the promotion of ICTs for development
2) Information and communication infrastructure
3) Access to knowledge and information
4) Capacity building
5) Building confidence and security in the use of ICTs
6) Enabling environment
7) E-government
8) E-business
9) E-learning
10) E-health
11) E-employment
12) E-environment
13) E-agriculture
14) E-science
15) Cultural diversity and identity, linguistic diversity and local content
16) Media
17) Ethical dimension of the information society
18) International and regional cooperation

17 Sustainable development goals (SDGs):

Goal 1. End poverty in all its forms everywhere

Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture

Goal 3. Ensure healthy lives and promote well-being for all at all ages

Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

Goal 5. Achieve gender equality and empower all women and girls

Goal 6. Ensure availability and sustainable management of water and sanitation for all

Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all

Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

Goal 10. Reduce inequality within and among countries

Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable

Goal 12. Ensure sustainable consumption and production patterns

Goal 13. Take urgent action to combat climate change and its impacts

Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development

Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

Goal 17. Strengthen the means of implementation and revitalize the global partnership for sustainable development

We take this opportunity to extend sincere gratitude to all of the stakeholders from the CIS region who have been engaged in the WSIS Process, sharing their national advances on implementation of the WSIS outcomes since 2004. We would also like to invite all ITU Member States and Sector Members of the CIS region to continue engaging with the WSIS Stocktaking process by submitting projects relevant to WSIS Action Lines and the newly established SDGs, promote the WSIS Stocktaking process within their communities, and follow new developments of the WSIS Prizes 2017 contest.

The role of ITU in WSIS implementation

It is important to stress here that ITU has been contributing enormously to WSIS implementation and follow-up from 2005 to the present. The tasks carried out by ITU at the operational and policy level cover all mandates assigned to it relating to the WSIS process, in particular:

- in its capacity as lead facilitator in coordinating the multistakeholder implementation of the Geneva Plan of Action (§ 109 of TAIS) and primary organizer and host of the annual event in May, the WSIS Forum;
- as facilitator for Action Lines C2 (Information and communication infrastructure) and C5 (Building confidence and security in the use of ICTs), as well as C6 (Enabling environment);
- as co-facilitator for Action Lines C1, C3, C4, C7 and C11
- as partner in Action Lines C8 and C9;
- as rotating chair and vice-chair of the United Nations Group on the Information Society (UNGIS) (§ 103 of TAIS);
- as lead partner on Measuring ICT for Development (§ 114 of TAIS);
- as facilitator of the WSIS Stocktaking process (§ 120 of TAIS);
- as organizer of World Telecommunication and Information Society Day (§ 121 of TAIS);
- as lead of the Connect the World Initiative (§ 98 of TAIS).

Countries in Europe Region

- Albania
- Andorra
- Austria
- Belgium
- Bosnia and Herzegovina
- Bulgaria
- Croatia
- Cyprus
- Lithuania
- Luxembourg
- Malta
- The Former Yugoslav Republic of Macedonia
- Monaco
- Montenegro
- Netherlands
- Norway

- Czech Repuplic
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Iceland
- Ireland
- Italy
- Latvia
- Liechtenstein
- Poland
- Portugal
- Romania
- San Marino
- Serbia
- Slovak Republic
- Slovenia
- Spain
- Sweden
- Switzerland
- Turkey
- Vatican
- United Kingdom

ITU contribution to the implementation of the WSIS outcomes: 2014

As at July 2014, over 6 000 updated entries had been registered in the WSIS Stocktaking Database, reflecting innovative activities including projects, programmes, WSIS thematic meetings, conferences, publications, training initiatives, guidelines and toolkits. Entries may contain information on more than one project.

The sixth edition of the WSIS Stocktaking Report was officially released during the WSIS+10 High-level Event in June 2014. The 2014 report reflects more than 500 WSIS-related activities submitted to the WSIS Stocktaking process for the period May 2013- April 2014, each highlighting the efforts deployed by stakeholders involved in implementing the WSIS goals.

In 2014, the WSIS Stocktaking Platform encompassed 33 000 stakeholders representing governments, the private sector, international organizations, civil society and others, and continued to constitute a major ICT for development (ICT4D) online platform.

One innovative component was the “World Café”, which provided an opportunity to promote the winning projects of the WSIS Project Prizes 2014 contest at the international level, share best practices and discuss the purpose and impact of the projects recognized for their excellence in the implementation of WSIS outcomes. Stakeholders highly appreciated the contest’s multistakeholder approach and highlighted the importance of continuing the platform as a mechanism for granting recognition to stakeholders for their efforts to implement WSIS outcomes.

ITU contribution to the implementation of the WSIS outcomes: 2015

In 2015, the WSIS Stocktaking Platform has seen the biggest increase in new entries, including the number of stakeholders registered, reaching a total of more than 100 000 stakeholders representing governments, the private sector, international organizations, civil society and others. This has strengthened its position as the major ICT for development (ICT4D) online platform. As at April 2015, over 7 000 updated entries are registered in the WSIS Stocktaking Database, reflecting all manner of innovative WSIS-related activities.

The seventh edition of the WSIS Stocktaking Report will be officially released during the WSIS Forum 2015 (25 to 29 May 2015, in Geneva, Switzerland). It should reflect the more than 1 000 WSIS-related activities that were submitted to the WSIS Stocktaking process for the period April 2014- March 2015.

In addition, more than 300 international projects have been competing in the prestigious WSIS Project Prizes contest and are also to be included in the 2015 Stocktaking report. This marks an increase of 114 per cent in project nominations since 2014. The WSIS Project Prizes contest is part of the WSIS Stocktaking Process, and is a unique way of recognizing excellence in the implementation of WSIS outcomes.

More than half of the projects submitted this year were government initiatives, while 12 per cent originated from civil society, 11 per cent from the business sector, 10 per cent from international organizations, and another 12 per cent from other, mainly academic, entities. As regards geographic distribution, 31 per cent of the projects in 2015 were submitted by Arab States, 18 per cent were from Europe, 16 per cent each from the Asia-Pacific Region and the Americas, 12 per cent from Africa, and 4 per cent from the CIS, while 3 per cent came from international organizations and international NGOs.

The WSIS multistakeholder community was invited to participate and cast its vote for one project in each of 18 categories. The deadline for votes was 1 May 2015. The list of the 18 most appreciated/voted projects was identified and winning projects were announced officially to the public during the prize ceremony held during the WSIS Forum 2015. The success stories showcased examples of projects on the implementation of WSIS outcomes, emphasizing the achievements of stakeholders working towards achievement of WSIS goals, transferring experience and knowledge at the global level, and spreading and fostering WSIS values.

ITU contribution to the implementation of the WSIS outcomes: 2016

As at April 2016, almost 8 000 updated entries are registered in the WSIS Stocktaking Database, reflecting all manner of innovative WSIS-related activities.

The eighth edition of the WSIS Stocktaking Report and the fifth edition of Success Stories 2016 will be officially released during the WSIS Forum 2016 (2 to 6 May 2016, in Geneva, Switzerland). It should reflect activities which were submitted to the WSIS Stocktaking process for the period March 2015 - March 2016.

While last year's contest was already a record-breaker in terms of the number of projects submitted, the **WSIS Prizes 2016** contest has hit a new high with a 15 per cent increase in submissions. Following a comprehensive review of the projects submitted, the ITU Expert Group nominated more than 300 projects and posted them online for public appreciation. The 311 nominated projects break down into 179 projects from the government sector, 41 from the business sector, 31 from civil society, 14 from international organizations and 46 from other entities (mostly academic). As regards regional distribution, 86 projects are from the Arab region, 73 from the Asia and Pacific region, 53 from the Americas region, 36 from the Europe region, 31 from the CIS region and 27 from the Africa region, while five nominated projects come from international organizations.

The members of the WSIS multistakeholder community were invited to participate and cast their votes for one project in each of 18 categories. The deadline for voting was 10 March 2016. The list of the 18 most appreciated/voted projects will be identified and winning projects will be announced officially to the public during the prize ceremony to be held during the WSIS Forum 2015. The success stories will showcase examples of projects for implementation of WSIS outcomes, emphasizing the achievements of stakeholders working towards the achievement of WSIS goals and SDGs, transferring experience and knowledge at the global level, and spreading and fostering WSIS values. Besides the 18 winners, an innovation in this year's **WSIS Prizes** contest is the **WSIS Prize Champions** category, which recognizes those contenders having emerged from the online voting phase with at least 245 000 votes from the WSIS community. Their projects are among those having received the highest number of votes and having gained the best reviews by the members of the Expert Group. Among the five

projects selected in each of the 18 categories, one will be the Winner and the runners-up will be WSIS Prize Champions.

C1. The role of public governance authorities and all stakeholders in the promotion of ICTs for development

In **Austria,** various strategic elements related to **SDGs 1, 3, 5, and 10** are being addressed in the national effort to build the *information society for everyone*, whereby digital technologies and their application are regarded as instruments capable of contributing to greater equality of opportunity, personal freedom and solidarity between all members of society. Examples of these strategic elements include:

- Broadband strategy 2020
- E-government strategy
- Austrian ICT security strategy
- Digital Agenda for education, arts and culture
- E-inclusion in Austria
- E-accessibility in Austria
- E-health in Austria
- Austrian energy strategy
- Strategy for research, technology and innovation.

There are many actors involved in building the information society, such as the Federal Ministry of Transport, Innovation and Technology, the Federal Ministry of Labour, Social Affairs and Consumer Protection, the Federal Ministry for Education, the Arts and Culture, the Federal Ministry of Economy, Family and Youth, the Federal Ministry for Science and Research, the Federal Ministry of Agriculture, Forestry, Environment and Water Management, the Federal Office for the positive assessment of computer and console games, the Austrian Regulatory Authority for Broadcasting and Telecommunications, Statistics Austria, Internet Offensive Austria, the Internet Society Competence Centre, the Austrian Chamber of Labour, the Austrian Federal Economic Chamber, Internet Service Provider Austria, Saferinternet.at and others.

In **Austria**, the Federal Chancellery's *National e-strategy 2008-2020* comprises a whole series of strategic elements for creating an information society for everyone, whereby digital technologies and their application are regarded as instruments that are capable of contributing to increased equality of opportunity, greater personal freedom and more solidarity between all members of society (**SDGs 10 and 16**).

In **Cyprus**, the Ministry of Communications and Works has further developed the *National Digital Strategy for Cyprus*, which covers **SDGs 1, 5, and 10** as well as six objectives, as follows:

- Objective 1: Connect Cyprus
- Objective 2: Modernize public administration and provide public electronic services
- Objective 3: Inclusion of all (including vulnerable groups) into digital Cyprus
- Objective 4: Education and learning
- Objective 5: Digital entrepreneurship
- Objective 6: ICT for the environment

In **Hungary**, the *National Infocommunication Strategy* approved at the latest government session outlines the primary objectives for the period 2014-2020, focusing on the fields of digital infrastructure,

competence, economy and state. A major governmental goal on the basis of the strategy is to establish the necessary digital infrastructure[1] thus it relates to **SDGs 5, 10, and 17**.

The Rural Support Service (RSS) developed an Electronic Application System (EAS) designed to ease the communications and processes involved in the obtaining of European Union support for farmers, fishermen and rural entrepreneurs, accelerate the decision-making process, reduce process application errors and improve access for people living in rural areas far from the main cities and RSS client centres (**SDGs 1, 10, and 17**). EAS started out as a system for applying for direct payments to help farmers maintain agricultural land in good condition in **Latvia** and develop business in rural areas. The system has since been gradually expanded with more modules, for example an EU programme to provide healthy food (fruits, vegetables and milk for schools and seasonal workers), diesel fuel for farmers, and so on. The strategy has been to make it web-based and user friendly, with no need for any resources other than a computer with a web browser and Internet connection. Programming started in 2007, and the first modules were applications for area payments and field border clarification in maps. This was followed by the addition in 2010 of "Diesel fuel for farmers"; in 2012 of "School fruits and vegetables" and "School milk"; in 2013 of the "Agricultural Data Centre e-application" and "State Technical Supervision Agency e application"; and in 2014 of, among other things, the "Seasonal farmer module" and "Reports on fishing licenses". EAS users can access the system by means of a unique username and password or with an e-signature and bank authorization. Video guides and manuals show how to use the system. RSS plans to enhance the system with more modules and mobile applications in the future. The EAS initiative originated with RSS, with the aim of facilitating communication with clients and coordinating the various kinds of payment used in agriculture, fisheries and forestry. After the first version came out and the number of users began to increase, RSS held meetings with clients – public organizations of farmers in Latvia – to discuss future development, ideas for new modules and system improvements. Non-governmental organizations such as the Farmers Federation, Agricultural Organizations Cooperation Council, etc., put forward ideas on how to improve usability, were involved in usability testing and submitted ideas for new modules. All ideas, opinions and suggestions on how to improve the system can be submitted via a special feedback form available on the website: https://eps.lad.gov.lv/login.

In **Latvia**, the Ministry of Environmental Protection and Regional Development conceived the *Better Customer Service by Cooperation between National and Local Governments* project, with an innovative approach which consists in eliminating borders in the delivery of and access to public services by setting up a Network of State and Municipal Unified Customer Service Centres. This new approach to implementation of the "one-stop-shop" principle represents a significant change in inter-institutional and intergovernmental cooperation by minimizing the distinction between the services provided by local governments or state institutions, as well as by paying significant attention to the development of e-skills and fostering a positive attitude to self-service. Particularly innovative is the voluntary involvement of local governments in provision of the most popular "physical/on-site" state institution services and the use of existing infrastructure/assets and human resources. Restructuring of the delivery of public services in Latvia is making a significant contribution to the development of the public-service system, thereby reducing administrative burdens, improving the business environment, ensuring service availability in the regions and promoting more efficient public administration.

This ongoing policy implementation activity ties in with **SDG 10** as it focuses on reducing inequality within and among countries.

[1] http://www.kormany.hu/en/ministry-of-national-development/news/national-info-communication-strategy-fully-electronic-services-in-public-administration-within-four-years

The Lithuanian *Information Society Development Programme 2011–2019* was approved by the government of **Lithuania** in March 2011. It was developed as the horizontal planning document, linking objectives with institutions implementing various tasks. The strategic objective of the programme is to improve quality of life for Lithuanian residents and the business environment for companies (**SDGs 1, 3, 10, 16, and 17**), by exploiting the opportunities created by ICTs, and to increase the proportion of Internet users in Lithuania to at least 85 per cent by the year 2019. The information society must be developed on the basis of the following priorities:

- Enhancing Lithuanian residents' ability to use ICTs
- Developing, and promoting the use of, electronic content and services
- Developing the ICT infrastructure.

In **Malta**, the *Networked Society Strategy 2012-2015* is one of the drivers for maximizing the opportunities offered by ICT and reducing the digital divide through e-inclusion initiatives. This strategy contributes to **SDGs 1, 5, 10, and 17** and is based on five activity thrusts, each with its own specific set of targets and initiatives:

- Thrust 1: Inspiring everyone to get online
- Thrust 2: Facilitating access and opportunity
- Thrust 3: Building digital skills and competencies
- Thrust 4: Promoting ICT as a social equalizer
- Thrust 5: Contributing to a better policy.[2]

In **Poland**, the *Innovations* series has been published by the regional administration – the Marshall's Office of the Lodzkie Region – since 2009 (**SDGs 10 and 17**). The first publication was an outcome of the international conference "Innovations 2009: Man and technologies", organized by the Lodzkie Region. The second was one of the main outputs of the European co-funded project "Innovations 2010: Promotion and communication", carried out by the Lodzkie Region in 2010. The project is thus sustained each year by an annual publication (in paper and/or e-book form). The sixth edition was published in 2014.[3]

In **Spain**, the Cybervolunteers Foundation serves as an atypical non-profit organization made up of social entrepreneurs whose vision is to use new technologies as a means for social innovation and citizen empowerment, thereby alleviating social gaps (**SDGs 5, 10, 16, and 17**). Its purpose is to increase the rights, opportunities and capabilities of each person in their own environment, through the social use of technological tools and applications within their reach. The organization's *Empodera.org* platform provides the following information:

1. Experiences: Videos, articles and interviews

[2] http://meib.gov.mt/en/ministry/Documents/Malta%20Digital%20Economy%20Vision.pdf
[3] *Project nominated for a WSIS Project Prize 2015*

2. Symposium on Technologies for Social Action (eSTAS)
3. The Empodera awards
4. Publications: Books/e-books
5. EmporeArte: Collaborative photo exhibition.

The importance of the elaboration of ICT for Development (ICT4D) plans and national e-strategies was reiterated in 2003, in line with the first phase of the WSIS held in Geneva, **Switzerland**. According to Geneva Plan of Action, development of national e-strategies, including the necessary human capacity building, should be encouraged by all countries by 2005, taking into account different national circumstances.[4] The overall goal of national e-strategies is to improve the quality of life of the country's residents. In many countries, the strategies are built on the same pillars, including connectivity, access to information and knowledge, capacity building focused on improving digital skills and competencies in society, inclusiveness, public services and e-government programmes, ICTs for the environment and entrepreneurship driven by youth. Some national strategies highlighted that all citizens, societies, civilians and the private sector should have an opportunity to access public services and to be equal members of the information society. E-inclusion is an important element to be integrated in the development of a country's national strategy and vision. Solidarity among all members of society is crucial to building the information society. ICT national strategies contribute dramatically to the achievement of sustainable socio-economic development at the state level. Examples of the development and implementation of national e-strategies are set out below.

In **Switzerland**, the *Geneva Internet Platform (GIP)*[5] is a digital policy platform, observatory and capacity-building centre whose purpose is to assist governments, civil society, academia, technical communities, and other information-society stakeholders- with a special focus on small and developing countries- in finding resources related to digital policy and governance, formulating digital strategies and engaging with other stakeholders' policy debates (**SDGs 10 and 17**). The GIP is an initiative of the Swiss authorities and is operated by DiploFoundation.[6]

In **Turkey**, the Turkish Industry and Business Association (TÜSIAD) and the Turkish Informatics Foundation (TBV) regularly organize the *e-Turkey Awards*, which are designed to encourage developments in the implementation of e-government (**SDGs 10, 16, and 17**). The aim of this project is to contribute to improving productivity and competitiveness by creating a transparent and effective

4 Geneva Plan of Action, § 8a)
5 It is possible to find more information about the project at www.giplatform.org
6 *Project nominated for a WSIS Project Prize 2015*

public administration moving towards transformation into an information society. The ETR Awards aim to draw attention to government practices, enhancing public opinion of innovative initiatives.

C2. Information and communication infrastructure

In **Greece**, the main aim of *REDComm* is to build a communication infrastructure to support and handle communications in emergency and crisis situations, when standard communication networks are not available. It is often the case in emergency situations (floods, earthquakes, terrorist attacks, etc.) that standard communication networks (fixed landlines, mobile phones, Internet, etc.) are either overloaded or not operating owing to physical damage (**SDG 11**).

In **Latvia**, the *United National Latvian Academic Network* project aims to improve scientific and research equipment and provide the relevant infrastructure to ensure a modern material and technical base for research activities at the leading national and regional research centres; develop Latvia's information system, databases and academic data transmission network; and promote the development of the intellectual potential of Latvian scientific research and involvement in the European science community (**SDGs 9 and 17**). Its target group encompasses research institutions (research institutes, higher educational establishments and other institutions engaged in research activities), and its final beneficiaries are research institutions (research institutes, higher educational establishments and the research institutes of higher educational establishments) and other higher educational establishments.

In **Malta**, over 190 *WiFi hotspots* have been set up in public places, such as town and village squares, public gardens and libraries across Malta and Gozo, for free use by the general public. This initiative supports **SDGs 1, 8, 9, and 11** as its objective is to facilitate and promote Internet use outside homes, schools and offices. The WiFi hotspots having proved very popular among minors, a filter limiting access to content and services considered harmful to a younger audience has been installed.

In **Montenegro**, the *Wireless Montenegro* project is the result of the government's issuance of a public call for a strategic partner for joint investment in the project in December 2010, which was when the implementation phase of the project officially began.

The Wireless Montenegro project comprises two parts, the first relating to implementation of the Tetra system for public security services, and the second to implementation of a WiFi network to provide citizens with free Internet access (**SDGs 9 and 11**). The first phase of the TETRA system has now been completed and the implementation of Phase II is currently ongoing. As for the WiFi part of the project, free WiFi access at over 45 locations throughout Montenegro has thus far been provided.

Also in Montenegro, the Ministry for Information Society and Telecommunications, in cooperation with the Agency for Electronic Communications and Postal Services and the Information Technology Center, University of Montenegro, and in partnership with the International Telecommunication Union (ITU) and Internet Society (ISOC), began work on establishing a national Internet traffic exchange point (**SDG 9**). *Establishing IXP in Montenegro* will advance the development of Internet services, bring about a reduction of Internet pricing, take the pressure off global Internet access links, improve the quality of Internet access services and security communications and enrich the communication experience, while at the same time increasing the efficiency of business and the economy in general and boosting the future development of society as a whole, because such networks enable and contribute to economic development and the modernization of key sectors such as education and health.[7]

In **Poland,** the Office of Electronic Communications, in partnership with the National Institute of Telecommunications, has launched the *Inventory of Telecommunication Infrastructure and Broadband Services*. The broadband infrastructure information system (SIIS) gathers, processes, presents and shares information about telecommunication infrastructure, public telecommunication networks and buildings, so as to facilitate co-location/site-sharing. The main reason for launching the project

[7] *Project nominated for a WSIS Project Prize 2015*

was to identify areas of low penetration of broadband services in order to focus investment in the telecommunication sector and identify areas for public intervention in national broadband development plans. The project has resulted in increased investment in the telecommunication sector, boosted investment in the construction of next-generation networks co-financed by EU funds, and lowered barriers to investment in telecommunication infrastructure; thus supporting **SDGs 8 and 11**. The SIIS data can be used by regulators/governments to provide the information about the country's telecommunication infrastructure that is needed for effective decision-making.[8]

In **Poland**, the *System of Information on Broadband Infrastructure (SIIS)* is a system for gathering, processing, presenting and sharing information about telecommunication infrastructure, public telecommunication networks and buildings, to enable co-location (**SDGs 8 and 9**). The main purpose of the project is to identify areas of low broadband service penetration in order to focus telecommunication sector investment and identify areas for public intervention in national broadband development plans. The project has resulted in:

- increased investment in the telecommunication sector
- accelerated investment in the construction of new generation networks co-financed by EU funds
- lower investment barriers in the area of telecommunication infrastructure.

SIIS data may be used by:

- regulators/governments to provide information that is needed about the telecom infrastructure developed within the national territory in order to:
- facilitate decision-making in regard to State aid
- facilitate decision-making in regard to geographical segmentation within the market analysis process (i.e. markets 4 and 5)
- provide operators with relevant information about possible access points.

SIIS presents the following information:

- Detailed information about the networks developed
- Information about planned roll-outs.
- It is important to note that confidentiality will always be a key consideration throughout the project.

Approaches for cooperation with operators, e.g. agreements, obligations, laws:

- Operators to be provided with information about existing civil engineering infrastructure which may potentially be used for network roll-out.[9]

In **Serbia**, the Ministry of Foreign and Internal Trade and Telecommunications launched the *Digital School* project. Digital School is the largest national project to comprehensively support education by equipping all elementary schools in Serbia with computer labs and strengthening the overall digital literacy of students and teachers through education and competition, enabling them to use ICTs safely and effectively in work/studies/extracurricular activities (**SDGs 8, 9, and 11**). The programme covers 95 per cent of all elementary schools in Serbia, equipping them with computer labs, representing a total of more than 30 000 computers. The value of the project comes to over EUR 12 million.[10]

In **Poland**, the *Broadband Network for Eastern Poland - świętokrzyskie voivodeship* project encompasses the construction of a fibre-based regional backbone and distribution broadband infrastructure. It complements telecommunication infrastructure belonging to existing operators in the region and provides open and non-discriminatory access to providers of wholesale and last-mile services. As such,

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the investment is helping to lower the investment barrier for next-generation access-network (NGA) services and eliminate the digital divide in areas currently without access to basic broadband services.

The project directly contributes to achieving the objectives of the WSIS Action Lines in the Geneva Plan of Action in terms of information and communication infrastructure, and achieves the building of resilient infrastructure, promotion of sustainable industrialization and fostering of innovation (**SDG 9**).

In **Switzerland**, *Implementation strategy Internet domain names: .ch* is in an initial phase, and alternative models for future operation of the .ch ccTLD are being developed. The selected model will be codified in law by means of a revision of the ordinances relating to the Telecommunications Act (TCA). The transition from the existing to the future system is being prepared and implemented at the organizational level (**SDG 8 and 11**).

Project goals:

- A review of the legal framework for the administration of .ch domain names with regard to a stricter separation between technical/governmental responsibilities on the one hand and commercial retail business on the other
- Ensuring healthy competition between the various registry service providers (registrars)
- Securing the requirements for critical infrastructures in Switzerland.

In **Turkey**, the Istanbul Metropolitan Municipality has launched the *Broadband Wireless Communication Infrastructure* project (**SDGs 9 and 11**). Its aims are to provide a broadband communication system for public services, to ensure safe and fast communication between public institutes and to sustain this system for emergency and disaster management.

Also in **Turkey**, the Ministry of Interior IT Department has introduced the *Central and Provincial Hardware and Network Infrastructure Renewal and Reinforcement* project. This project relates to **SDGs 9 and 11** and involves renewing and reinforcing hardware and network infrastructure for the processes and procedures of the Ministry of Interior central units, governorates and district governorates that are performed via electronic platforms, so that they can be carried out more rapidly and effectively. Studies on the development of business intelligence and decision support systems are still in progress, the ultimate aim being to provide secure voice and video communication between central and provincial units with the *Data-based Communication Infrastructure* project, to eliminate the slow speed and performance problems in governorates and district governorates with Internet

connection standardization, and to draw up capacity and performance plans more rapidly and easily and create the required analysis and reports on the basis of these data from a single point.

Again in **Turkey,** the Istanbul Development Agency (ISTKA) has elaborated the *Internet-based Earthquake Damage and Loss Estimation Routine (ELER),* a computer program developed as part of the Network of Research Infrastructures for European Seismology (NERIES) project under the European Union's sixth Framework Programme. In the new project, supported by ISTKA, the ELER program will be re-designed so as to be Internet-based, and with a Turkish interface (**SDG 11**).

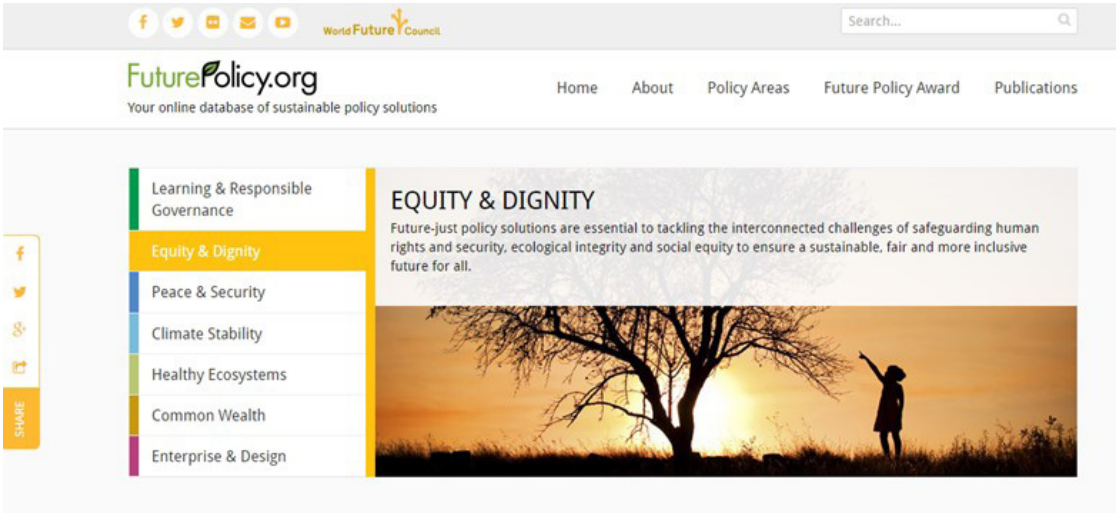
In **Turkey**, the Ministry of Justice IT Department has implemented the *Mobile Search Informatic System (MABS)* in order to provide instant access to all apprehension and arrest decisions for law-enforcement units executing such decisions on behalf of judicial units, and to ensure mobility (**SDGs 8, and 11**). The MABS project allows the system to be interrogated via mobile phones, the cheapest and most common technology used today, and all mobile law-enforcement units were included in the system without the need for additional hand terminals. The MABS project allows law-enforcement forces providing mobile services (at sea, at the country's borders or in mobile patrol cars) to make online inquiries about apprehension and arrest decisions taken by judicial units and contained in the National Judiciary Informatics System (UYAP) via mobile phones, without further investment.

Also in **Turkey**, the Ministry of National Education has implemented the *FATIH (Movement to Increase Opportunities and Technology)* project, whereby classes will receive smartboards, students and teachers will receive tablet computers and classes will be enriched with the use of e-books. The project has been completely designed by Turkish teachers and engineers. All State schools, from preschools to high schools, will receive a total of 620 000 smartboards, while tablet computers will be distributed to 17 million students and approximately one million teachers and administrators. This project contributes to **SDGs 1, 8, and 11** and is being conducted by the Ministry of National Education and supported by the Ministry of Transportation, is expected to be completed in 2015. The tablet computers distributed to students are loaded with e-books, class lessons, sounds, animations and graphics. Both teachers and students are restricted from entering all websites. Only websites that have been selected by educators and specialists, passed through the Ministry of National Education's filtering system and deemed harmless are accessible. Teachers are able to check on their own tablets whether or not a student is following the course. If a student is found to be straying from the lesson, the teacher can lock the student's computer.

C3. Access to information and knowledge

In **Bulgaria**, an interesting project is *Interregional Cooperation at Scientific Computing in Interdisciplinary Science.* Today, every field of study relies on the use of computers and vast datasets. Unfortunately, several less developed regions such as southern Bulgaria were left out of the efforts to build a grid-computing cluster and receive training in its use. To correct this omission, we will build a network of four partners that are leading universities in the south-western part of Europe (**SDGs 9, 10, and 11**). Our primary goal will be to introduce a core group of Bulgarian scientists to advanced computational methods. Experience and know-how on scientific computing and parallel algorithms will be passed on through a series of educational and scientific exchanges and activities.[11]

In **Germany**, *FuturePolicy.org* is an online database created for forward-thinking policy-makers to simplify the sharing of existing and proven policy solutions for addressing the world's most fundamental and urgent problems as outlined by the MDG/SDG processes (**SDGs 4, 10, 11, 16, and 17**). The website design deliberately emphasizes thematic interconnections under the World Future Council's holistic Global Policy Action Plan initiative and realizes a kind of "beyond-silo" working that has, for many, been difficult to imagine. FuturePolicy.org bridges the gap between complex academic research and the implementation process and goes beyond simply "identifying" solutions by taking the next steps to engage policy-makers and thus enable a proactive implementation process.[12]



In **Italy**, Informatici Senza Frontiere (ISF) has implemented the *Strillone* ("paper boy") application, a free application that works on smartphones, tablets and PCs, offering visually impaired people easy and rapid access to daily newspapers using a free embedded "text-to-speech" (TTS) system (**SDGs 3, 4, and 11**). Visually impaired people can use the voice synthesis system to listen to news "on demand".

In **Italy**, the Department of Women's and Children's Health of the University of Padua introduced the *Vocal Output Communication Aids for Temporarily Impaired Owners,* involving a study of "augmentative serious games", in a paediatric intensive care unit; contributing to **SDGs 3, 4, and 10**. The spread of video games over the past decade means that games are now as widespread as films. Games are intended mainly, but not exclusively, for entertainment; but they are also used in other, more serious contexts that include the defence industry, education, scientific exploration, healthcare and emergency management. The aim of this project is to take a step forward in the growing field of development, verification and validation of ASG in a paediatric intensive care unit. It focuses on a less-explored domain, namely access to ASGs for children suffering from "locked-in" syndrome.

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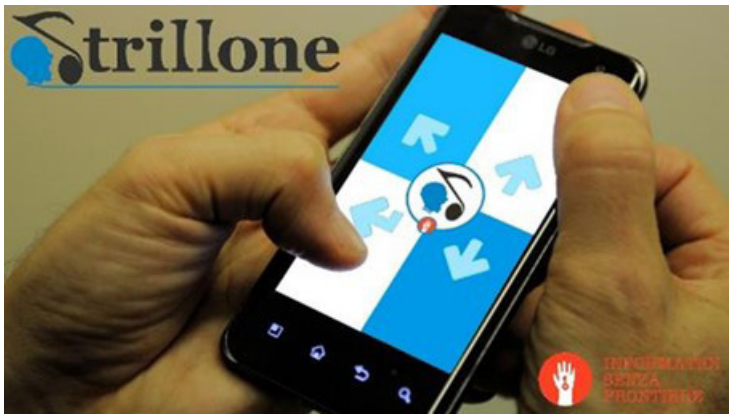
12 *Project nominated for a WSIS Project Prize 2015*

In **Italy**, the *Paperboy* project is a free web application, also available as an Android or iOS app, that enables visually impaired people to browse in an easy way, and listen to by means of a free embedded TTS system, the daily news from their favourite newspapers (**SDGs 4, 8, and 10**). Paperboy can, moreover, be used for browsing and for listening to books or other textual content, and can be converted in a reverse tree. Paperboy will work with any type of content.[13]

Italy proposed two programmes targeting access to information and knowledge for the global community.



The *Strillone* project has been created to meet the specific needs of blind and visually-impaired people on an international scale. Strillone, a free web application that is also freely available as an Android or iOS app, enables visually-impaired people to browse in an incredibly easy way and to listen, by means of a free embedded TTS system, to everyday news from their preferred newspapers. Moreover, Strillone allows the user to browse and listen to every book and all text content on Earth, making it an extremely useful tool for our time. All content can be converted in a reversed tree, and all content can be used by Strillone.

The application relates to a number of SDGs by ensuring healthy lives and inclusive and equitable quality education; promoting well-being, peaceful and inclusive societies and lifelong learning opportunities for all people; and reducing inequality within and among countries (**SDGs 3, 4, 10** and **16**).

Sensoltre, conceived and produced by Informatici Senza Frontiere NGO (ISF), Italy, for visually impaired people, is a very special way of experiencing an art exhibition. It takes the user along a multimedia, multisensorial path among painted sculptures, bas-reliefs or famous creations printed by 3D printers. The visitor, blind, blindfolded, visually impaired or fully sighted, uses an NFC smartphone with the ISF Sensoltre app and wears HiFi headphones. He or she follows the path, guided by a light rope. As the smartphone comes close to a painting, it automatically starts playing an audio guide, speaking about the artist and the meanings behind the painting, and explaining how to touch it. The background music creates an exciting and unique atmosphere.

With its global exposure, the programme fosters healthy lives and sustainable consumption and production patterns, promotes peaceful and inclusive societies and lifelong learning opportunities for the global community, and helps to reduce inequality within and among countries (**SDGs 3, 4, 10, 11, 12** and **16**).

[13] *Project nominated for a WSIS Project Prize 2015*

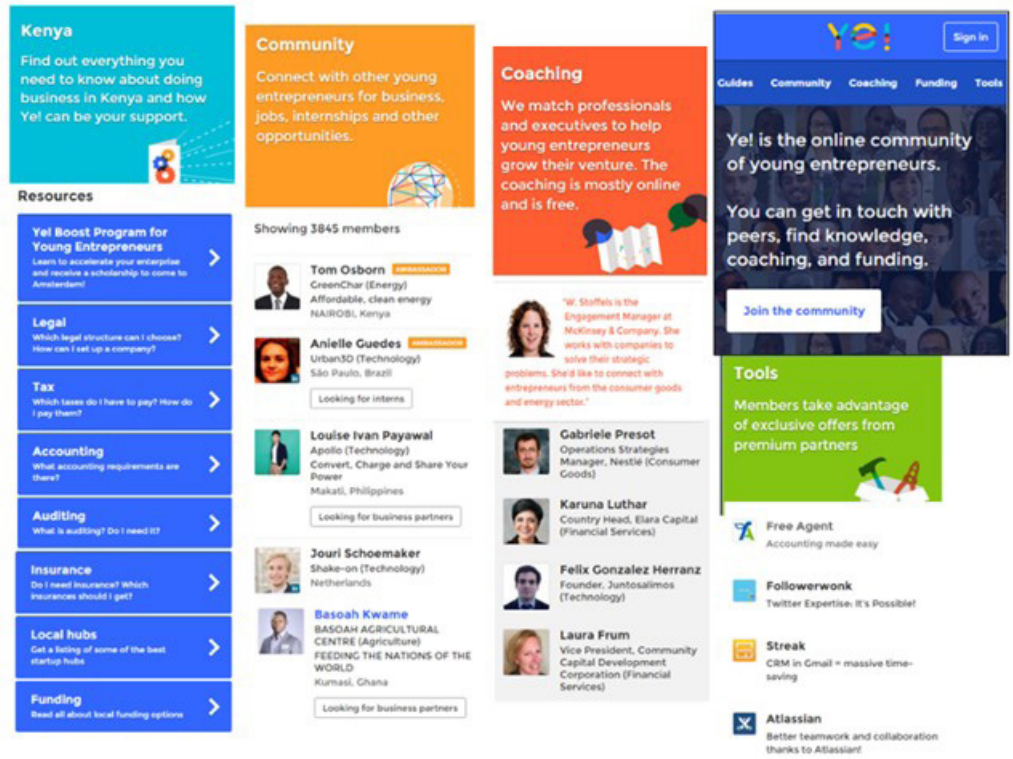
In **Latvia**, *Latvia's e-index*, the first national e-government benchmarking initiative, is helping municipalities and state institutions to assess their level of digital development, evaluate approaches and solutions for more efficient development, and identify the best examples implemented by other institutions, thereby enabling exchanges of experience and motivating the development of e-environment (**SDGs 8 and 16**). The initiative enables state institutions and municipalities to determine the relevance of their contemporary ICT solutions to improving the quality of and access to the information and knowledge services they provide to residents and enterprises. Since May 2014, the *Register of Enterprises* of the Republic of Latvia has implemented the transfer of accumulated basic information to the public in the form of open data, which means that the information is available in machine-readable form, contributing to a more modern public administration and facilitating the work of post-processing and re-use of information.[14]

The *Baltic Way Stories (BWS)* by the Latvian National Commission for UNESCO, in partnership with UNESCO, is a very remarkable project. The year 2014 marked the 25th anniversary of the Baltic Way Campaign, a unique and peaceful mass demonstration during which more than a million people joined hands to form a human chain stretching 600 km through the three Baltic countries, thereby uniting Estonia, Latvia and Lithuania in their efforts towards freedom (**SDGs 10 and 17**). The most significant Baltic Way documents are inscribed in the UNESCO Memory of the World International Register. The Latvian National Commission for UNESCO, together with partners from Latvia, Lithuania and Estonia, implemented the BWS project in order to raise awareness of the 1989 campaign, collect people's memories and preserve them for future generations. The project invited everyone to document their Baltic Way experience and share it on the webpage www.thebalticway.eu, or help to identify stories of friends, relatives, colleagues, visitors and other interested persons, in order to make their stories available to society at large. Museums, libraries and schools were invited to organize various events to initiate stories and intergenerational dialogue. This resulted in the gathering of over 900 memory stories from the Baltic States and the organization of over 100 events at the national level providing access to this important historical event.

Ye! Community represents an initiative by Child and Youth Finance International in the **Netherlands**. Ye! is an entrepreneurship platform that provides an online community, country guides, tools, coaching and funding opportunities to young entrepreneurs between the ages of 16 and 30. Ye! connects young

[14] *Project nominated for a WSIS Project Prize 2015*

entrepreneurs around the world and links them to various tools, resources and opportunities to support the growth of their enterprises. The objectives of Ye! are to support youth entrepreneurship, promote ethical entrepreneurial culture and stimulate job creation for young people. The initiative fits perfectly into the WSIS Action Lines and SDGs by focusing on sustainable economic growth, employment and decent work and by encouraging global partnership (**SDGs 4, 8, 9, 16** and **17**). On 10 September 2015, Ye! was launched globally as part of the GPFI (Global Partnership for Financial Inclusion) Forum under the Turkish G20 Presidency.



In **Poland**, the main goal of UKE's *Consumer Information Centre (CIK)* project is to provide consumers/subscribers with complete, thorough and up-to-date information on their rights and responsibilities, increasing their awareness and warning them of the problems they can encounter when using telecommunication services (**SDGs 8, 12, and 16**). To provide comprehensive assistance, CIK has created and operates:

1. A dedicated website – http://www.cik.uke.gov.pl
2. A special helpline: 801-900-853 or (48 22) 534-91-74 (CIK may be contacted free of charge using VoiceLink via the UKE website – www.uke.gov.pl)
3. Education and information campaigns.

In 2014, CIK's staff received more than 14 000 phone calls and provided advice in more than 2 000 cases involving individual written and electronic enquiries.[15]

In **Poland**, the Office of Electronic Communications (UKE) created the *Information Centre (Centrum Informacji Konsumenckiej (CIK)*, which aims to provide consumers/subscribers with complete, thorough and up-to-date information on their rights and responsibilities, increasing their awareness and warning them of the problems they can face when using telecommunication services. In order to provide comprehensive assistance, CIK has created and runs:

- a dedicated website: cik.uke.gov.pl

[15] *Project nominated for a WSIS Project Prize 2015*

- a special helpline: 801-900-853 or (48 22) 534-91-74 (CIK may be contacted free of charge via VoiceLink by visiting the UKE website at uke.gov.pl);
- education and information campaigns. In 2014, CIK's staff received more than 14 000 phone calls and provided advice in more than 2 000 cases involving individual written and electronic enquiries.

The website creates a fertile background through its association with the SDGs relating to the achievement of economic growth, reduction of inequality within the country and provision of access to information for all people.

In **Portugal**, the *Programa Escolhas* ("Choices programme") was launched in order to promote equal opportunities and social cohesion. It is aimed specifically at the digital and social inclusion of children and young people in lower socio-economic segments; thus supporting **SDGs 1, 4, and 10**. Some 126 *digital inclusion centres* were set up across the country and in autonomous regions between January 2010 and December 2012. About 1 400 certifications were issued, including 6 302 for basic skills diplomas, 2 284 relating to the digital literacy curriculum and 55 to "NetAcad", among other courses. [16]

In **Serbia**, the main idea behind *Biblioteka++* is to build a community of young programmers under the guidance of the library (**SDGs 1, 4, 8, and 10**). Target groups: children and young people aged 10 to 24, with or without prior programming experience. Activities and technology: teaching of basic programming concepts through play with the Lego Mindstorms EV3 robotics kit and drag&drop icon-based programming language; gradual introduction of advanced topics and transfer of knowledge from one phase to another; focus on practical examples and programming real world applications; use of web technologies to teach advanced programming; organization of mentorship for advanced students. Results: students develop a new attitude towards learning; increased popularity of technical schools and faculties; economic benefits through professional careers.[17]

In **Sweden**, Post och Telestyrelsen (PTS), the country's postal and telecommunications agency, created the *Facebook Interface for people with deafblindness*. The aim is to develop a service that makes Facebook accessible to deafblind people (**SDGs 3, 4 and 10**). The service will be flexible and can be used on smartphones, tablets and "normal" browsers on different platforms. The service will also work with the various tools used by people with deafblindness, such as magnifiers, screen readers and Braille displays. For the development of the service to be successful, deep knowledge of user-centered design is required, so deafblind persons are involved in developing the service throughout the development process, from user testing to product launch.

16 *Project nominated for a WSIS Project Prize 2014*

17 *Project nominated for a WSIS Project Prize 2015*

In **Turkey**, the Istanbul Metropolitan Municipality implemented the *Information System for the Disabled* project, with the following main objectives (**SDGs 3 and 10**):

- Improve the quality of public transport services
- Provide access to public transport services for everyone
- Support the participation of the visually impaired in social life
- Ensure equal opportunities to benefit from public services
- Increase demand for public transportation by improving the quality of wheeled public transport services.

Also in **Turkey**, in 2011 the Information and Communication Technologies Authority (ICTA) launched the *Ensuring Equivalence in Access for Disabled End-Users* (EEADE) project, in collaboration with various NGOs, academic institutions, mobile, fixed and cable operators, the Ministry of Family and Social Policies and the Ministry of Transport, Maritime Affairs and Communications. The purpose of this project is to eliminate barriers to ICT access for people with disabilities, thus supporting **SDGs 3, 4, 10, and 17**. The project addresses the specific needs of persons with disabilities by requiring the provision of more affordable and specially designed ICT services for these vulnerable groups.[18]

In **Turke**y, the Land Registry and Cadastral General Directorate introduced the *Spatial Property System* (MEGSIS), which it developed as an open-source application (**SDGs 4, 9, and 17**). Cadastral data are collected by the central system from local users in the cadastral offices in digital ".cad" format and harmonized with land registry data for submission to stakeholder institutions, organizations, municipalities and citizens by e-government link. Studies held under MEGSIS are collected under four main headings: i) web-based application software; ii) international standard map services; iii) e-government services; and iv) orthophoto services.

In **Turkey**, the Atatürk Supreme Council for Culture, Language and History implemented the *Integrated Information System* (IIS). This project is aimed at creating a digital library by gathering together rare scientific resources and providing access to them via an online system, contributing to **SDGs 4 and 10**.

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C4. Capacity building

Led and implemented by the Millennia2025 Women & Innovation Foundation, PUF (public utility foundation), **Belgium**, with the support of The Destree Institute, the concrete action *Millennia2025 Solidarity-Women* seeks to help women in precarious situations escape from poverty, in a win-win partnership with all the stakeholders that has three ultimate aims:

- Valuing women as leaders for their own future and the future of their children
- Generating educational emulation and citizen mobilization in solidarity, aimed at optimizing family resources, women's empowerment and gender equality
- Increasing women's access to quality socio-economic activities, combining performance, efficiency, equity, sustainability and social responsibility.

With the focus on international implementation, the programme addresses gender issues, in particular gender inequality as it affects women (**SDGs 5, 10** and **17**).

In **Bulgaria**, the *Financial literacy for children - accessible and funny* project is aimed at transforming a public library into a modern, accessible and innovative environment in which children and young people can acquire basic financial literacy and receive training to become conscious future users by means of ICT, in an environment in which they learn how to use their mobile devices for spending, saving, investing or donating. An interactive auditorium has been equipped and trainers have been trained in the provision of early financial literacy for children and young people. The training programmes impart knowledge of basic financial terms and services in an enjoyable manner, using mobile devices and applications.

This is in line with the provision of quality education and ensuring sustainable consumption and production patterns (**SDGs 4** and **12**).

In **Italy**, *Digital Literacy for Social Inclusion (DLSI)*, by Informatici Senza Frontiere (ISF) Onlus, aims to reduce the digital divide and IT illiteracy among the more vulnerable members of society, including the elderly, drug addicts under the care of health communities, people with severe diseases, quadriplegics, ALS sufferers, children at risk of criminality, blind people, persons with disabilities, such as those affected by Down's Syndrome, and young people in other countries such as Albania, the Congo, Nigeria, Sierra Leone, Mozambique and so on. It features the free-of-charge setting up of computer laboratories by ISF and local or remote training by ISF operators, leading ultimately, where possible, to the European e-Citizen exam (**SDGs 4 and 17**).

The following three initiatives in the educational sphere are being pursued in **Italy**.

Organized by Women for Intelligent and Smart TERritories (WISTER), the Learning Meeting is a training experience dedicated to women that seeks to reduce the gender digital divide and empower women (**SDGs 4, 5** and **11**). It is held over two days with the participation of national experts in the areas of innovation and digital culture. During the first day, the potential of a more inclusive and more change-responsive society is demonstrated. On the second day, the participants work in thematic groups guided by teachers and coaches. The Learning Meeting represents a new way of working that is based on the exchange of knowledge. The students choose their table and their arguments, and the teachers alternate moments of theory with practical exercises. The WISTER Learning Meetings now have a consolidated format and will be repeated with new participants and new issues: social network practices, work-life balance, the impact of new media on lifestyles, risks and benefits, privacy, cybersecurity and much more.

Digital Literacy for Social Inclusion by **Italian** NGO Informatici Senza Frontiere (ISF) aims to reduce IT illiteracy among the more vulnerable members of our society such as the elderly, drug addicts in health communities, people with severe diseases, quadriplegics, ALS sufferers, children at risk of criminality, blind people, persons with disabilities including Down Syndrome, and young people in other countries such as Albania, Congo, Nigeria, Sierra Leone and Mozambique. The Never Back Down initiative features free computer-laboratory training by ISF and local or remote training by ISF operators, leading to European e-Citizen certification.

The project's goals tie in perfectly with **SDGs 3, 4, 8, 10** and **16** since they focus on healthy lives, equitable quality education and economic growth, and seek to reduce inequality within and among countries and foster peaceful and inclusive societies.

Created by NGO Informatici Senza Frontiere (ISF) of **Italy**, *the I Speak Again (ISA)* project is a multilingual "communicator", a free web application triggered by the user's eye movements that is available over the Internet at ispeakagain.org, or downloadable for fully local set-up. It is a simple tool that restores some speech capacity to those who, for health reasons (including ALS, sclerosis, quadriplegia), have temporarily or permanently lost the ability to talk and move. ISA features four types of eye-tracking keyboard and offers simple support for home automation. It works with every type of text-to-speech system, including open source, such as Festival or Tingwo.

With its focus on international implementation, the project aims to reduce inequality within and among countries and to foster healthy lives, well-being and lifelong learning opportunities for all (**SDGs 3, 4, 10** and **16**).

In **Latvia**, the *Improvement of the system of public services* project of the Ministry of Environmental Protection and Regional Development aims to raise the quality of services provided by the public administration and to promote public services, as well as to increase the efficiency of the service process and reduce the administrative burden (**SDGs 8 and 17**). As improving the quality of public services is directly related to administrative procedures and the simplification thereof, implementation of the project will diminish the administrative burden by providing public services more efficiently, faster, and more conveniently, making them more accessible in general, thereby improving the business environment as well. Within the framework of the project it is planned to develop recommended models for registration services, service delivery by the Latvian authorities (after implementing pilot projects) and services within the information technology system architecture. The project's main target groups are users of public services (citizens, merchants, non-governmental organizations and interest groups), public administrations, institutions to which certain tasks of public administration have been delegated, planning regions and municipalities and their institutions.

In **Malta,** *EPITOME* is the acronym for *Empowerment Programme for IT Use: Outreach for Micro Entrepreneurship*. The primary deliverables of this project were the identification of ICT skills shortages and the development and delivery of training aimed at addressing them. The objective was to offer the employees of micro-enterprises an opportunity to acquire basic skills in ICT technologies and applications that could be applied in business and entrepreneurship (**SDG 1, 4 and 16**). All training has been completed and the last phase (tracer study) will be finalized in November 2013. Feedback received from the first phase of the tracer study demonstrated that the majority of certified employees were actively using some of the new skills acquired in their respective businesses.

Internet governance (IG) is becoming one of the most important policy issues of our time. How we manage the Internet will define much of our society, yet the growing relevance of the Internet is not yet supported by effective and inclusive IG. Recognizing this gap, DiploFoundation launched the *Internet Governance Capacity Building Programme (IGCBP)* in **Malta**, comprising online training, policy research, participation in global policy meetings, and community engagement (**SDGs 4, 8, 16, and 17**). Over 1 500 professionals from 160 countries worldwide have been trained since its inception in 2003. Many of these professionals are now among the world's emerging leaders and pioneers in the digital world.[19]

In the **Netherlands**, the international organization Hivos created the *IGMENA Programme*, which builds the capacity of stakeholders in the MENA (Middle East and North Africa) region to advance knowledge on Internet governance. Its objective is to ensure the full participation of civic actors in the Internet policy dialogue at the national and regional levels. In partnership with local NGOs, IGMENA trains civic actors to become future leaders, sponsors their participation in key Internet

[19] *Project nominated for a WSIS Project Prize 2015*

forums, organizes round-table discussions about Internet policy, produces educational materials that support advocacy, and conducts outreach to raise awareness about human rights as they apply to Internet users.

Focusing on African countries, the programme deals with gender equality as well as with revitalization of the global partnership for sustainable development (**SDGs 5** and **17**).

In **Poland**, *GO_PRO!* started as a project lead by Meritum. It created a network of 20 libraries where regional programming centres have been opened. Librarians were trained to lead workshops and informal groups ("Coders Clubs") dedicated to developing programming skills among young people (**SDGs 1 and 4**). Libraries have been equipped with interactive projectors, computers, tablets, logarithm applications and Lego Mindstorms to attract young people in their free time. Training materials and Coder Club Animators toolkits were also developed during the project. Now, in cooperation with IT companies and public bodies, it is trying to develop GO_PRO! as a permanent programme to stimulate IT development by attracting young people, especially in underdeveloped regions.[20]

In **Portugal**, the *Programa Escolhas* was launched in 2001, with the aim of promoting equal opportunities among youngsters in lower socioeconomic segments, where local consortiums are invited to submit project proposals based on local needs assessments (**SDGs 1 and 4**). Since 2003 this intervention has been strengthened with a specific action line aimed at promoting free access to the Internet and ICT skills development and certification. Some 107 digital inclusion centres were set up across the country and in autonomous regions between January 2013 and December 2015, engaging a total of 30 553 unique individuals in 163 147 registered working sessions dedicated to digital inclusion activities and issuing nearly 10 000 ICT certificates.[21]

A second interesting project in **Portugal** is *Digital Literacy for Everyone*, promoted by the Municipal Library of Penalva do Castelo. This free training initiative, promoting inclusion and digital literacy, is aimed at the adult population of the municipality who wish to acquire knowledge and develop digital and computer skills and learn how to participate independently in the digital society (**SDGs 1, 4, and 12**). Demographic variables in this rural county and the incipient levels of inclusion and digital (and informational) literacy evidenced by its population, enhancing various phenomena of

[20] *Project nominated for a WSIS Project Prize 2015*
[21] *Project nominated for a WSIS Project Prize 2015*

the digital divide, make this formative project a local reference point in promoting citizenship and digital societal inclusion.[22]

Another interesting Portuguese project designed by the Foundation for Science and Technology, **Portugal's** public policy coordinator for information and knowledge society , is *ICT and Society Network*, which promotes digital inclusion and literacy among the Portuguese population, positioning itself as an individual capacity-building tool for citizens to encourage a more comprehensive and equitable society (**SDGs 1 and 4**). Designed for those groups most vulnerable to the digital divide, it should, therefore, help to overcome the reality that one third of the Portuguese population has never used the Internet, which puts Portugal behind most of Europe in this area. Launched in late 2013, *ICT and Society Network* develops digital inclusion and literacy projects through a multistakeholder platform acting at national, regional and local levels, supports innovative ideas from any entity (public or private, collective or singular) but especially civil society (bottom-up logic), and undertakes recognition and certification of digital skills.

The *Life Stories* project in **Romania** started in autumn 2014 with the aim of supporting the local community in their endeavours to develop IT competencies among adults, using digital stories as a training instrument. This project is a follow-up to a programme on digital inclusion of seniors within the community begun in 2013, whereby the library will contribute to digital alphabetization and the diversification of public services (**SDGs 4 and 12**). The digital stories will be presented in a "memories festival" to be organized in the summer of 2015.[23]

[22] *Project nominated for a WSIS Project Prize 2015*
[23] *Project nominated for a WSIS Project Prize 2015*

The Federal Social Insurance Office of **Switzerland** is promoting safe, age-appropriate and responsible use of digital media by children and young people through its *Programme on youth media protection*, Comprising targeted information for parents and teachers and specialist personnel for appropriate mentoring of children and young people in media education (**SDG 12**). The goals of the project are: publishing, advertising and updating the *www.jugendundmedien.ch* website, including an online database of current trainings offered; promoting these trainings through various social media channels; publishing a brochure and flyer on media skills; producing additional brochures; andhttp://www.itu.int/dms_pub/itu-s/opb/pol/WSIS Stocktaking Report 2014.pdf- page=47 arranging regular exchange meetings and forums for experts.

In **Turkey**, TTNET, working in collaboration with the Turkish Ministry of Transport, Maritime Affairs and Communications, has implemented the project *Life's Simpler with Internet*. Although there are 35 million Internet users in Turkey, a wide range of individuals are deprived of Internet access owing to economic and regional inequalities. As part of its social responsibility initiative, TTNET promotes technology to enhance the life of local communities via Internet access, supporting **SDGs 4 and 12**. Engaging with communities, TTNET aims to bring Internet literacy to every corner of the country. In order to allow individuals to experience the digital world, a specially equipped truck has been designed to travel across Turkey, to cities that do not have opportunities to provide computer and Internet education for all citizens. To date, the project has touched the lives of more than 3 000 people, including students, elderly people, underprivileged men and women, and convicts in a State prison.

In **Turkey**, the General Directorate of Foundations has established the *Charity Services System*, which is aimed at reducing all bureaucratic barriers by providing different types of support for Internet use; thereby contributing to **SDGs 4, 16, and 17**. In this case, it provides education grants (from primary school up to and including university), food support, and monthly salaries for disabled and poor people. All types of applications will be filed via the Internet, and all the information needed will be obtained from related State associations via the Internet.

In **Turkey**, Fatih Sultan Mehmet University has launched the *Manager, Auditor and End-user Informatics Academy*. Manager, auditor and end-user staff of institutions will be trained in deciding how to prepare technical needs and analysis of IT tools. The aim is to produce high added value by increasing the efficiency and effectiveness of IT investments (**SDG 17**).

In **Turkey**, *TTNET ProG* is an online learning platform that includes career and personal development courses for university students, new graduates and professionals (**SDG 4**). Users can take advantage of a variety of e-learning options. First, Istanbul University offers Workplace Proficiency Certificate courses in sales and marketing. After completing the course, students receive an Istanbul University Certificate. Second, TTNET ProG includes more than 100 online courses with wide-ranging, high-quality content in areas such as marketing, sales, communication, finance, leadership and organizational development. Third, with *LIVE* English courses, students log in to virtual classes and join conversational English lessons with no time and place boundaries. TTNET aims to spread e-learning in Turkey and to make it affordable so that people can learn more from experts in areas that they want to focus on. Some ProG classes are free, while University Certificate courses, *LIVE* English classes and other courses cost far less than average market prices in order to match students' ability to pay.

While **Turkey** has impressive Internet penetration and growth figures, a gap still exists, as a significant percentage of the population have not yet encountered online life due to economic, social and physical barriers. *Life's Simpler with Internet* offers a solution through trainings for disconnected citizens, especially women, who are in need of basic information, helping them to overcome their reluctance in taking the first step towards the digital world (**SDGs 1, 4, 5, and 12**). The project spearheads efforts in Internet literacy and aims to increase Internet usage in Turkey.[24]

[24] *Project nominated for a WSIS Project Prize 2015*

C5. Building confidence and security in the use of ICTs

In **Bulgaria**, the *Improving services to citizens and businesses by providing electronic administrative services from the Ministry of Economy in accordance with the principles of the e-Governance Act* is a project that includes re-engineering processes for administrative service provision by the Ministry of Economy, software development for creating a web portal for electronic administrative services by the Ministry of Economy, implementing a specialized administrative information system, and training expert staff engaged in the process of providing e-services (**SDGs 8 and 16**).

In **Italy**, *Security of Energy Systems* is a two-year research project developed with the financial support of the European Commission's Prevention, Preparedness and Consequence Management of Terrorism and other Security-related Risks programme. Designed to respond to the pressing demand for knowledge and best practices on the cybersecurity of smart energy grids, the project has been conceived to increase the know-how of government bodies and operators by providing a comprehensive analysis of ICT architectures, vulnerabilities, interdependencies, standards and best practices related to smart grids (**SDGs 9, 11, 16, and 17**). The consortium partners brought to the project their interdisciplinary expertise in the energy, security, control and ICTs required to develop secure smart energy systems.[25]

The *DSS ITSEC international cybersecurity conferences* are organized by Data Security Solutions in **Latvia** (**SDGs 8, 9, 11, 16, and 17**). Five annual international cybersecurity technology shows and conferences have been held, attracting more than 500 visitors from Latvia, Lithuania, Estonia and other countries. DSS ITSEC is the biggest cybersecurity industry event in the Baltics with six parallel sessions and more than 50 international speakers from over 25 different countries. The aim is to strengthen the Baltic States and Baltic Sea region countries in the most important current IT fields and topics in the area of cybersecurity. The event features awareness, innovations, world class speakers and many global trending topics and presentations.

Latvia also has an *e-Environment and e-Services: Training Workshop for Librarians of Public Libraries* project run by the Culture Information Systems Centre in cooperation with the Ministry of Environmental Protection and Regional Development, involving the State Radio and Television Centre, the State Revenue Service, the Rural Support Service and the Register of Enterprises of Latvia (**SDG 4**). In 2014, training workshops were organized for librarians in public libraries in Latvia on the electronic environment and e-services.

The learning objective of these workshops was to introduce the public librarians to the latest information on e-services and various e-opportunities, demonstrating the different useful solutions and options for librarians and library users. The training workshop content consisted of five modules:

1. Electronic environment- the most topical and up-to-date information
2. E-signature: possibilities and benefits
3. The electronic declaration system of the State Revenue Service
4. Application system of the Rural Support Service
5. The Register of Enterprises: e-services and news.

Training workshops were organized in regional libraries and regional training centres for public libraries. A total of 31 training sessions were held, training 1 075 librarians from more than 650 public libraries.[26]

[25] *Project nominated for a WSIS Project Prize 2015*
[26] *Project nominated for a WSIS Project Prize 2015*

Another remarkable initiative in Latvia is the *Transfer of basic information of the Register of Enterprises to the public in the form of open data* (**SDGs 4, 8, and 16**). Since May 2014, the Register of Enterprises of the Republic of Latvia has been transferring accumulated basic information to the public in the form of open data, which means that the information is available in machine-readable form, contributing to a more modern public administration and facilitating the work of post-processing and re-use of information. This information may be useful to:

- The public: the data, which becomes freely shareable and re-usable, promote public awareness and understanding of the processes in the country and in public administration
- Entrepreneurs, who can create new products and improve existing business on the basis of current and qualitative data, which can now be obtained free of charge
- Public authorities, which do not have to spend resources to create various statistics, because the entire data set is provided in an open file. As a result, everybody can create and disaggregate statistics using the available data.

The project ensures that the Register of Enterprises will henceforth provide data to the public in machine-readable format (CSV and Excel files) regarding all entities registered in the Register of Enterprises (**SDG 8**). The following data supplied by the Register of Enterprises are included in the open data file: type of legal entity; registered office; actual and historical name; registration number; Single Euro Payments Area payee identifier (if assigned); date of registration; date when legal entity excluded from the registry (or date of reorganization, if exclusion of legal entity is due to reorganization); and deadline for registration of religious organizations which carry out re-registration. This makes processes in the country more open and easier to analyse.

In **Malta,** the *BeSmartOnline!* safer Internet programme focuses the efforts of national stakeholders working towards safer use of the Internet by children and young people (**SDGs 4, 16, and 17**). The initiative aims to raise awareness and educate minors and educators on safe use of the Internet; establish, operate and promote a hotline for reporting illegal activities committed via the Internet; and support the public with any difficulties they may have through a helpline. A *Maltese Safer Internet Centre* has been set up to coordinate the awareness-raising initiatives. The project is co-funded by the European Commission's Safer Internet Programme.

In Poland, the Office of Electronic Communications (UKE) has introduced a comprehensive *certification programme*, issuing President's Certificates, to draw the attention of entrepreneurs and users to the most important challenges in the telecommunications sector, such as cybersecurity, digital literacy and transparency of information for consumers (**SDGs 4, 11, 16, and 17**). This initiative is unique because it is addressed not only to various groups of end-users, such as children, young people and those over 50, but also to telecommunications enterprises. The programme contributes to the development of the information society by: supporting safe use of the Internet and protection for users against fraud; improving digital literacy; promoting fair and effective competition in the provision of telecommunications services; and increasing access to transparent information about available offers.[27]

In **Poland**, the Office of Electronic Communications (UKE) launched the *Certification Programme for better ICT services*, applicable to telecommunication undertakings for one year in five categories: Safe Internet, Senior/Junior, Offer Comparison Website and Handicapped Friendly. Any entity which meets the conditions for the given category can join the Certification Programme. The project aims to promote equal and effective competition in the provision of telecommunication services and to ensure the widest possible consumer protection, thus meeting **several SDGs**.

In pursuit of child online protection, the Ministry of Digital Affairs of **Poland** has launched *Risky Online Adventures, starring Sheep Loco and the Kid – the visual information campaign on protecting children online, an information campaign*. The best way to reach out to children is through means

[27] *Project nominated for a WSIS Project Prize 2015*

they understand and are well accustomed to, such as animated films. The Ministry has produced five films about threats such as cyberbullying, spam, viruses, addictions and chain letters.

The campaign's goals coincide with **SDGs 4** and **11** by strengthening efforts to protect and safeguard ICT access and ensuring quality education for children.

Telefónica S.A. in **Spain** has introduced the *Digital Family Repository of Resources for Parents* (**SDGs 4, 16, and 17**). Digital Family is an interactive resource centre where parents, carers and teachers can find answers to their doubts and concerns about the digital education of children and teenagers, along with a platform that contributes to fostering better use of the Internet, helping them to take maximum advantage of ICTs and to leverage their digital skills.[28]

There are two highly interesting projects in **Switzerland**.

The *National strategy for the protection of Switzerland against cyber-risks (NCS)* is being implemented locally in relevant departments and offices (**SDGs 4, 11, 16, and 17**). To ensure that this decentralized implementation of the 16 measures set out in the strategy is coordinated, the Federal Council tasked the Federal Department of Finance on 27 June 2012 with setting up a coordination office. The NCS Coordination Office established within the Reporting and Analysis Centre for Information Assurance in the Federal IT Steering Unit coordinates implementation of the strategy at the operational and technical levels and serves as the business office for the Steering Committee. The project's goal is to coordinate implementation of the strategy with the authorities, industry and critical infrastructure operators to minimize the cyber-related risks to which they are exposed on a daily basis.

The second project, led by the Federal Office for Civil Protection for the national strategy for the protection of critical infrastructure, identifies 15 measures to be taken in this area. Among other things, *Implementation of the Federal Council's Basic Strategy for Critical Infrastructure Protection* is important as it is producing a directory of critical infrastructure ("the PCI inventory"), improving subsidiary support in emergencies, and increasing the resilience of critical infrastructure, including the information and communication sector (**SDGs 16 and 17**). The goal of the project is to implement the national strategy for the protection of critical infrastructure, with the aim of strengthening Switzerland's resilience in terms of critical infrastructure.

In **Turkey**, ISKI has introduced the *System Security Structure,* which handles a vast data-processing infrastructure and various intra- and inter-corporal applications (**SDGs 9 and 16**). The objective is to make all existing software and hardware in end-user computers secure, as well as preventing all internal and external threats to ensure secure and continuous system operation.

At the beginning of 2006, the Information and Communication Technologies Authority of **Turkey** established the *Central Equipment Identity Register* in line with the provisions of Law 5809. According

[28] *Project nominated for a WSIS Project Prize 2015*

to those provisions, smuggled devices and those which have had their IMEI changed are blocked, as are lost or stolen devices (**SDGs 11, 16, and 17**). The Register stores the IMEI numbers of all mobile equipment used in mobile networks in Turkey. Registered legal devices are stored in a list known as the white list, while other devices are stored in the black list. These lists are generated and updated by the Authority and are shared with operators several times a day. All devices whose IMEI numbers appear in the black list are blocked. As a result, the main aim of this project is to prevent the use of smuggled, cloned or stolen mobile devices and tax loss and to protect the mobile business environment against illegal and unfair competition.

C6. Enabling environment

Bulgaria is introducing rules to improve the organization and effectiveness of procedures for the establishment, registration, structuring, monitoring and dissolution of non-profit legal entities for public benefit and to promote effective coordination between the judicial and executive authorities in carrying out these activities to avoid duplication of verification work already undertaken by the courts (**SDGs 8, 16, and 17**). The *Improvement of the Organization of the Work of the Central Registry for Non-Profit Legal Entities in Effective Coordination with the Regional Courts* will feature:

- Providing the Central Registry of Non-Profit Legal Entities with the organizational and technological means to carry out the activities assigned to it effectively (including compliance monitoring) and enabling official information exchange with the regional courts and BULSTAT Register
- Creating better conditions for transparency, accountability and prevention of corruption in procedures for registering, monitoring the activities of and dissolving non-profit legal entities for public benefit.

In **Latvia**, the *Emy information system* is an easy-to-use platform that offers support for healthcare professionals and paramedical units in their everyday work. The system provides operative process management and information on each call execution in real time (**SDGs 3, 8, 9, and 10**). It was developed for the National Emergency Medical service of Latvia but it could easily be customized for other services, such as national police and fire departments. Emy run 24 hours a day, handling more than 1 000 users in total and more than 200 simultaneous users at any given time, but the top user count, due to the architecture of the system, is potentially unlimited. EmyTab, created for paramedics to use on the go on their tablets and Windows Phones, is a customized, touch-friendly version of Emy. It has all the key functions that Emy does and thus provides all functions required by paramedics, from receiving, filling and sending call reports, changing crew up-date statuses and accessing patients' data, to work history. It also has functions that stationary Emy does not, such as creating audio, photo and video files for call reports. Emy, combined with EmyTab, allows professionals to rescue and treat people even more effectively and efficiently, whether it be a dispatcher in the main office or a crew member on their way to the scene.

In **Malta**, the *Networked Enterprise Strategy (2012-2015)* is aimed at assisting Maltese entrepreneurs to integrate Web technologies into business processes so as to maximize profits (**SDGs 4, 8, and 17**), and is underpinned by five main activity thrusts, namely:

- Thrust 1: Awareness and motivation
- Thrust 2: Capacity building.
- Thrust 3: E-commerce for local and global reach
- Thrust 4: Exploiting opportunities
- Thrust 5: A robust business environment for growth.[29]

In **Poland,** the Office of Electronic Communications (UKE) introduced a memorandum on cooperation for improving the quality of services in the telecommunication market provided to users, which stipulates that (**SDGs 8 and 16**):

- Contracts for services should be structured in a clear, understandable, easily accessible form
- Published information on the quality of services provided by telecommunication undertakings should be comparable, relevant and up to date
- Measurable indicators of quality of service shall be identified, as well as the content, form and method of providing information to be published.[30]

29 http://meib.gov.mt/en/ministry/Documents/Malta%20Digital%20Economy%20Vision.pdf

30 *Project nominated for a WSIS Project Prize 2014*

The Polish Agency for Enterprise Development created the *We support e-business – web.gov.pl* platform to respond to all the needs of small and medium-sized enterprises (SMEs) in **Poland** searching for information about running a business on the Internet (**SDGs 4 and 8**). One of the key tasks of the platform is to encourage all entrepreneurs – including those who have just started up their own business – to begin or expand their activity on the web. The platform consolidates in one place top-quality economic knowledge, information about innovative ideas for e-services and B2B technologies, and information about European funds for business.[31]

In **Poland**, at the initiative of the President of the Office of Electronic Communications, a *Memorandum on cooperation for improving the quality of services in the telecommunications market provided to users* was proposed and signed with telecom entities on 26 October 2012, in accordance with the provisions of the Universal Service Directive (**SDGs 8, 10, and 16**). Principally, the Memorandum stipulates that: contracts for services should be structured in a clear, understandable, easily accessible form; published information on the quality of services provided by telecommunications undertakings should be comparable, relevant and up to date; and measurable indicators of quality of service shall be identified, as well as the content, form and method of providing information to be published.

Sweden (November, 2013), and at a meeting of the Donor Committee on Enterprise Development (DCED). In April 2014, UNCTAD published a practical guide aimed at helping policy-makers and development practitioners formulate more effective policies in the area of ICTs and women's entrepreneurship.[32]

In **Turkey**, the Istanbul metropolitan municipality is establishing the *Information-Based Governance System* (IVAS) project. The overall objective of the project is to contribute to increasing competitiveness through the implementation of information technologies at the institutional level, thus it supports **SDGs 4, 8, 10, and 16**. The specific objectives of the project are to control stakeholders from the standpoint of financial and legal requirements and enable them to function in a more coordinated way. The expected outcomes of the project are to establish an information-based governance system, by researching the governance systems of the EU member countries, establishing a network and creating a dialogue between the stakeholders.

In **Turkey**, the Istanbul Metropolitan Municipality has set up the *High security business continuity centre*, with the overall objective of generalizing information technology services to public bodies, especially in case of natural disasters, and improving quality of service; thus supporting **SDGs 4 and 9**.

In **Turkey**, the Istanbul Metropolitan Municipality has launched the *traffic control centre for universities* project. The aim of the project is to support R&D and innovative business technology innovation (BTI) work, and the creation of partnerships between the public and universities (**SDGs 9, 10, and 17**).

Also in **Turkey**, the Turkish Industry and Business Association (TÜSIAD) has implemented the *Software and Services Sector and Information Ecosystem Development* project, which contributes to **SDGs 4, 8, 10, and 17**. TÜSIAD's Information Society, Information and Communication Technologies and Innovation Committee concentrates on issues such as R&D, technology production, the use and transfer of technology, IT, entrepreneurship, innovation and e-government. The committee manages two working groups: on Technology and innovation, and on Information technology and telecommunications. The Information Technology and Telecommunications Working Group contributes to the project, which addresses the strengths and weakness of Turkey's current market structure by comparing it with the models of countries around the world. In addition, the project aims to formulate the ideal ecosystem and legal arrangements which could bring foreign firms' R&D centres to Turkey.

31 *Project nominated for a WSIS Project Prize 2014*

32 UNCTAD contribution

C7. ICT Applications

E-government

Bulgaria has eight interesting projects that come under the heading of e-government.

The National Revenue Agency (NRA) is a specialized state authority under the Minister of Finance for establishing, securing and collecting public claims as well as statutory private state claims (**SDGs 16 and 17**). NRA's operation is essential for providing revenue to the national budget. The agency's main goal is to increase efficiency and effectiveness in performing its main activity while also facilitating business transactions as far as possible. NRA's clients rely both on the high quality of the services on offer, which adapt to the constantly developing and changing environment, and on measures to reduce the costs and time needed for compliance. In unison with the technologically developing environment, the agency aspires to expand the electronic exchange of data and information and to cooperate actively in the development and functioning of e-government. During the 2004-2014 period, the NRA provided its clients (individuals, companies and state institutions) with an ever-increasing number of e-services. As of 31 December 2014, these services included:

- 68 e-services accessible by means of an electronic signature (submission of various types of tax and social security declarations and documents by individuals and legal entities, submission of various documents and inquiries concerning tax and social security liabilities and payments, information on employment contracts, tax and social security, and so forth)
- 11 free-access e-services (provision of information on VAT registered persons, checks on the health insurance status of individuals, with options for calculating health insurance contributions and interest, making tax and social security payments, downloading tax and social security declaration forms)
- 11 e-services accessible with a personal identification code (PIC). By introducing the PIC, the NRA allowed access to part of the e-services for persons who do not have an e-signature, allowing them to make enquiries, submit requests for documents, and submit annual tax returns for individuals (this service is available from the beginning of 2015)
- Five web services used for data exchange between the NRA and other state institutions in the Republic of Bulgaria.

The NRA also provides six free computer programs which can be used by its clients for preparation and submission of structured data for tax and social security declarations to the agency's information systems (**SDG 8**).[33]

The *Information systems in service of citizens and the business* project developed by the NRA deals mainly with (**SDGs 8 and 16**):

- E-archive management software, for maintaining e-files of contributing individuals, developed under a project funded as part of the PHARE 2005 programme
- Software for automated investigation of tax fraud, developed under a project funded as part of the PHARE 2006 programme
- E-audit software, developed under a project funded as part of the PHARE 2006 programme.

After **Bulgaria**'s accession to the European Union in 2007, the following IT systems, among others, were developed and implemented in NRA in order to secure data submission and exchange between

[33] All services provided by the NRA are accessible on the agency's official Internet site: http://www.nap.bg/.

NRA and other EU Member States: VIES (VAT Information Exchange System); VoeS (VAT on e-Services); VAT Refund; Intrastat; Mini One Stop Shop; Mutual Assistance in Recovery (**SDGs 8 and 16**).

With the development, implementation and use of information systems and state-of-the-art ICT for automation of the agency's main business processes, NRA's efficiency and effectiveness increased and the interaction of citizens and businesses with the administration was facilitated. The quality of the administrative services provided was improved, while the costs and time needed for compliance fell. In unison with the technologically developing environment, the agency aims to expand the electronic exchange of data and information and to cooperate actively in the development and functioning of e-government.

The Registry Agency's project *Upgrade of the National Register Bulstat and implementation of technology solutions for its connection with the e-government central systems* has the following features (**SDGs 9 and 16**):

1. Electronic access to data
2. Provision of interfaces for interconnection with other registers and state administrations
3. E-government popularization
4. Reducing administrative costs when information is exchanged between systems
5. Improving interoperability and ensuring possibilities for integration at the European level
6. Integrated administrative services processes.

The project *Improvement of existing and introduction of new electronic administrative services provided by the National Bulstat Register* by the Registry Agency has the following main features (**SDGs 8 and 16**):

- Development of services provided by the Registry Agency for other administrations
- Improving processes for providing administrative services
- Promotion of e-governance and trust enhancement among citizens and businesses
- Reducing administration costs when exchanging information and interconnection of their systems
- Improving interoperability and ensuring possibilities for integration at the European level.

The project *Improving administrative services for citizens and interaction between providers of administrative services by upgrading the Register of Matrimonial Property* by the Registry Agency has the following main features (**SDGs 8 and 16**):

1. Facilitating access for citizens and business to the register's electronic services
2. Improving the processes of interaction between providers of administrative services by achieving technological compatibility
3. Increasing the level of interoperability of the information environment of the Register of Matrimonial Property by upgrading and ensuring prerequisites for automatic exchange of data between administrations and registers.

There are two projects developed by Bulgaria's State Commission on Gambling (SCG).

The project "*Modern and effective implementation of state supervision of gambling by creating a single information system, electronic records and introduction of e-governance*" was implemented with the

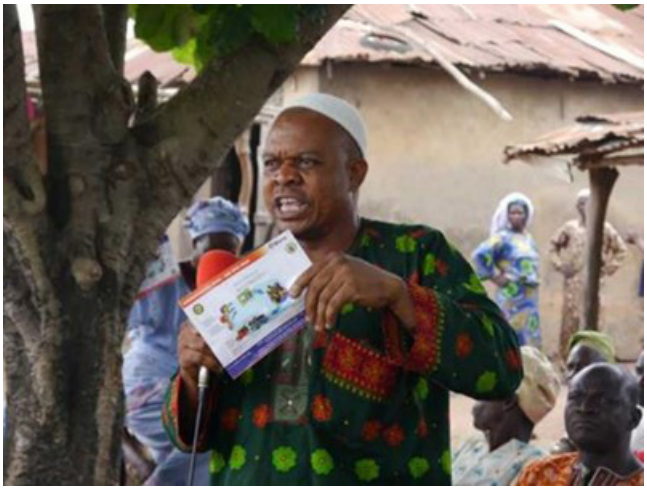
financial support of the Operational Programme "Administrative Capacity" (OPAC), co-financed by the European Union through the European Social Fund. The main results of the project are (**SDGs 16 and 17**):

1. A developed unified information system for the SCG, including standards and modules for integration with external systems for electronic submission of documents, provision of electronic services and maintenance of public records in accordance with regulations
2. A modernized and unified website made possible by improved e-services for citizens and businesses
3. Creation of preconditions for improved collection of fees, taxes and customs duties through improved information exchange and coordination with the tax and customs administrations.

The project "*Upgrade of the information and communication environment of the State Commission on gambling through further improvement of the integrated Information System of the department, developed under the Operational Programme "Administrative Capacity" (OPAC), with new modules to control activities and income*" is being implemented with the financial support of the OPAC and co-financed by the European Union through the European Social Fund (**SDGs 8, 16, and 17**). The main goals are:

1. Upgrading the information system currently in operation with new functionalities, modules and services designed and implemented as a result of previous successful OPAC projects, in order to improve services for citizens and businesses
2. Upgrading the information and communication environment of the SCG, partially based on an earlier OPAC project, in order to increase the reliability, speed and quality of administrative e-services
3. Creating conditions for more efficient collection of taxes and other public receivables from the SCG and their reporting; reducing the administrative resources needed to carry out the supervisory powers of the SCG by improving their organization and creating new functionalities and modules of the Integrated Information Environment of SCG
4. Saving time and funds, increasing business satisfaction and ensuring greater transparency
5. Enhancing the image of the SCG as a modern online administration that is open to citizens and businesses.

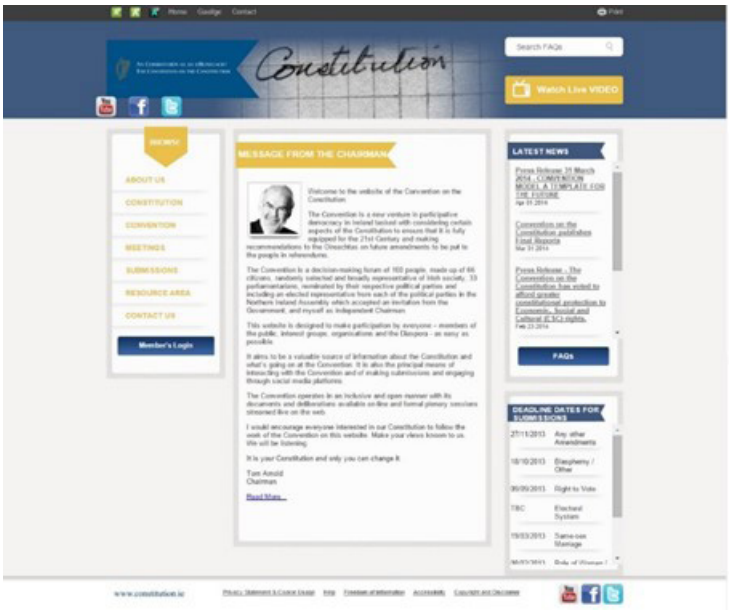
Lastly, the initiative *Establishing an integrated information system*, developed by the Ministry of Labour and Social Policy (MLSP), is intended to benefit projects improving services in the MLSP which provide citizens with the greatest possible cost optimization (**SDG 8**). In connection with the Law on e-government administrative bodies, persons performing public functions and organizations providing public services may not require individuals and organizations to produce or prove already collected or generated data, and are obliged to collect them automatically from a primary data administrator. This requires the integration of systems used in the National Employment Agency, Social Assistance Agency, Agency for persons with disabilities, General Labour Inspectorate Executive Agency and State Agency for Child Protection, within a single MLSP system in which it is possible to create a complete profile (file) of natural and legal persons using the services of the secondary administrators of budget appropriations. The profile is required as well as additional information from various external institutions including the Registry Agency, General Directorate of Civil Registration and Administrative Services, Ministry of Education, Youth and Science, and Ministry of the Interior, as the primary data administrators automatically send the data to the MLSP at its request. Based on the law, the MLSP and secondary administrators of budget appropriations make use of these data. For its part, the integrated information system of the MLSP must maintain functionality and interfaces for automated submission and ensure maintenance of standardized queries for administrative services by electronic means.



The Society for International Cooperation (Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) Gmbh of **Germany** has created the *Trade Route Incident Mapping System (TRIMS)* that provides a tool to tackle corruption in the public sector, specifically among security agencies and other public sector actors involved in road management in **Nigeria**. It allows traders and transporters of goods (target group) to anonymously report bribes, harassments and delays faced at mostly illegal checkpoints while transporting legitimate goods. The system uses SMS, a mobile app and a website to illustrate the problems faced by traders in a structured way. Aside from quantitative data, qualitative data such as interviews with traders and security agencies have been collated. TRIMS uses media such as radio and so-called "market storms" to incorporate both traders and security agencies and to create broad awareness of the problems.

Thus, the project contributes to the economic growth of the country (**SDG 8**).

A *Convention on the Constitution* of **Ireland** was initiated by the Department of An Taoiseach (Prime Minister) in 2013 to deliberate on the validity and appropriateness of some of the provisions in Ireland's Constitution that might now need to be reviewed in a modern Ireland. In order to obtain a fertile background of building a peaceful and inclusive society, the government decided that citizen engagement in that process was of critical importance to ensure the success of the project (**SDG 16**). Thus, the government decided that a digital e-services solution was required. Escher Group and An Post were selected to deliver that citizen engagement platform.



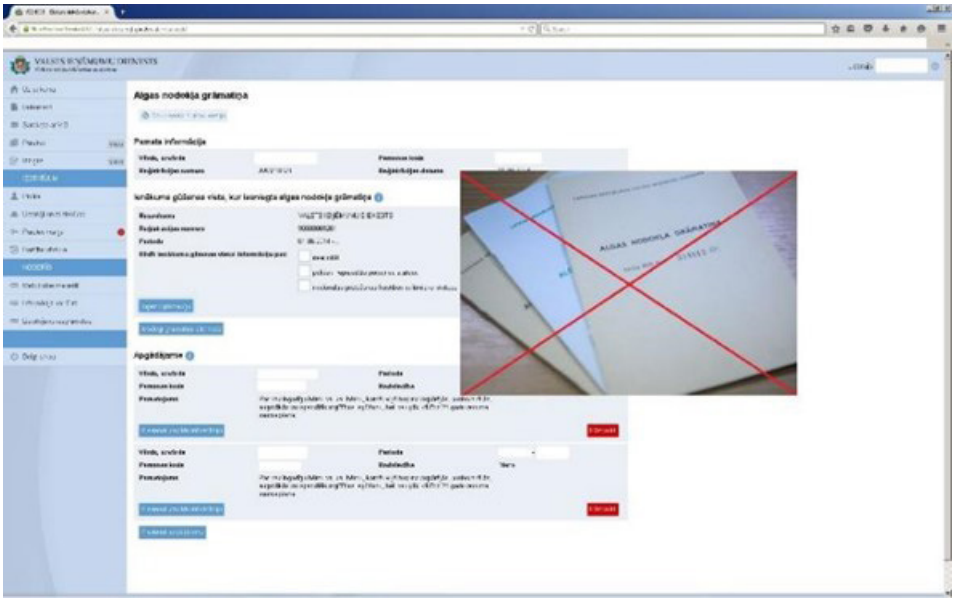
In **Latvia**, two interesting governmental initiatives in the e-government domain are being implemented.[34] The *Single state and local government portal* by the State Regional Development Agency collects and presents information on all the services provided by Latvian state institutions and municipalities in the united state and municipal services portal, and provides quick and convenient access to the e-services provided by Latvian state institutions and municipalities (**SDG 16**).

The second project, developed by the Ministry of Agriculture, is *Development of a unified information space for the Ministry of Agriculture and its subordinate affiliates*. This project develops solutions in a secure unified information space for the Ministry of Agriculture and all its subordinate affiliates (**SDGs 16 and 17**). It is a digital workspace which ensures automated and electronic information, document and e-service circulation within the ministry and its six subordinate institutions and affiliates. The project includes a document management system for seven governmental institutions, a client resource management system, e-services, and a unified user directory. All the systems are integrated and exchange data automatically. As a result, the Ministry of Agriculture has migrated to a paperless office and citizens' submissions are processed considerably faster.

Latvia set up six projects within this category.

The salary tax booklet is a document providing information on tax calculations and deductions to every employee and to employers on his employees. Since June 2014, the *electronic salary tax booklet (ESTB)* has replaced paper salary tax booklets, which were fully taken out of circulation. Every taxpayer uses this e-service of the State Revenue Service (SRS). The solution is integrated with other state information systems, thus providing automated data linking. The solution implemented ensures fast and convenient information submission on dependent relatives, disability and other grounds for deduction, thus saving about 2.3 hours.

The SRS customers (physical and legal persons) saved more than 173.2 thousand hours of their working time by using the aforementioned solution, which meets certain SDGs in regard to enabling the well-being of citizens, affording equal opportunities for all and promoting industrialization (**SDGs 3, 9** and **10).**



The *mobile app "Football"* initiative by the State Chancellery of **Latvia** is an innovative approach to public participation aimed at improving the customer service culture in public administration, creating an opportunity for individuals to use a list of all public authorities and evaluate their service, as well as giving immediate feedback on the quality of the process, cooperation, and experience

[34] *Projects nominated for a WSIS Project Prize 2015*

with the public administration institutions. The simple and user-friendly digital tool helps take a step towards individuals and encourage them to express their opinions, ideas and suggestions by sending immediate feedback.

The initiative aims to instill more trust in public administration, public participation and cooperation, ensuring well-being and reducing inequality within the country (**SDGs 3** and **10**).

The *Spatial Development Planning Information System (TAPIS)* is a national information system, which consists of the central module (tapis.gov.lv), the regional development indicator module (RAIM), the public part of the section "Spatial Development Planning" in the state unified geospatial information portal ĢeoLatvija.lv, and e-services from the public services portal Latvija.lv. The information in the system's central module Spatial Development Planning is available for state and local municipality institutions in order to ensure more effective involvement in the development of spatial planning documents by providing specific terms, conditions, opinions and information. Involved institutions have the possibility to show their initiative and to provide conditions for the development of the spatial planning documents, which is ensured by notifications received in a timely manner regarding the initiation of spatial planning documents.

In the course of public procurement procedures in Europe, private companies have to provide numerous certificates or statements from state and local institutions. That is the rationale for the *Development of electronic certificate infrastructure* project. The established e-certificate infrastructure provides access to reliable information for both public buyers (for bidder evaluation) and private suppliers (for self-checking and subcontractor evaluation before submission of a bidder's proposal). Thus, e-certificates save administrative resources (time, paper and toner) by using connections to 123 databases.

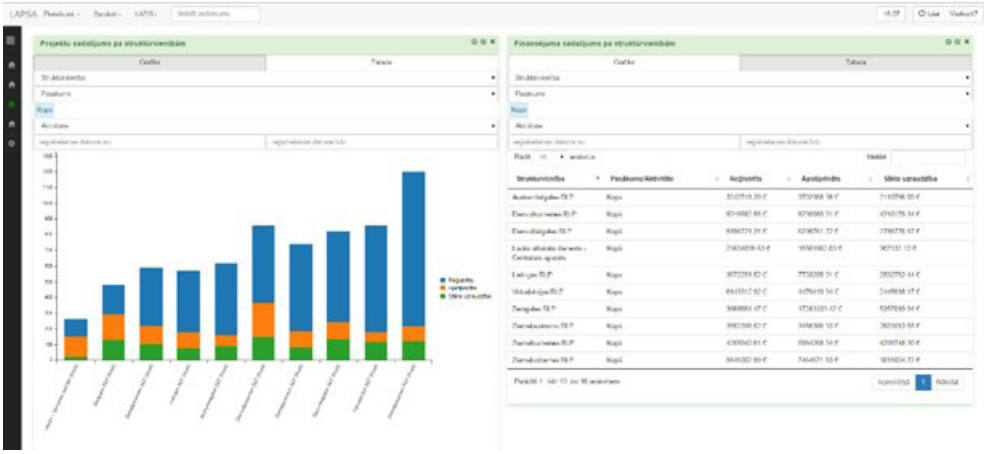
The project ensures public access to information and protects fundamental freedoms (**SDG 16**).

The *Special Support for the Rural Development Programme* project includes several services to enhance and maintain the common Information System for Rural Support Service of **Latvia**. This may be divided into several main approaches:

- Collaboration with customers (i.e. farmers, rural entrepreneurs)
- Administration of investment projects
- Reduction of bureaucracy and increased speed, effectiveness and quality of processed applications for rural investments
- Transparency of investment distributions
- Task management system for employees of the Support Service
- Reporting and statistics for Ministry of Agriculture and Council of the European Union.

The main goal of this project (information system) is to provide a quick, traceable, justified and collaborative service for investments between government institutions and farmers and rural entrepreneurs.

Thus, the projects relates to such issues as poverty, inequality, and revitalizing the global partnership for sustainable development (**SDGs1, 10** and **17**).



The **Latvia** State Radio and Television Centre (LVRTC) was the first company in the European Union to launch *Qualified Cloud Signing services* for its citizens in 2011. Virtual e-signature does not require any smart card or other type of user hardware except a computer to produce a legally binding document valid for any institution in Latvia. The website provides information regarding the date, time and country the last time the user used the secure electronic signature. This functionality ensures the possibility for users to trace and monitor usage of all e-signature carriers. According to law, the timestamp has to be used along with e-signature in communications with state or local government institutions. The timestamp records electronically and thus provides proof of the time a document is signed. When the virtual e-signature is used, the timestamp is always added to the document.

By implementing this programme, a high level of economic productivity is achieved (**SDG 8**).

In **Poland**, the Ministry of Finance has started to *consolidate and centralize customs and tax systems* (**SDG 9**). The project includes a modern data-processing centre equipped with platform-as-a-service (PaaS) and infrastructure-as-a-service (IaaS) cloud applications, with the following objectives:

- build a Ministry of Finance data-processing centre;
- provide IT equipment for the data-processing centre;
- consolidate and centralize IT systems.

In **Poland**, the Social Insurance Institution, the main social security administration and the country's biggest public administration, has implemented the *Electronic Services Platform* (PUE), providing services for (**SDGs 9 and 16**):

- 15.9 million insured persons
- 7.3 million pensioners (old-age, disability, survivors)
- 2.1 million social insurance contributors.

PUE is a comfortable, efficient and safe customer service. It consists of a new Internet portal, a call centre, a customer queuing system and self-service information devices (indoor kiosks). Since June 2012, it has registered the following results: 300 000 individual customer profiles established, 1 800 000 documents received from customers, and 1 500 000 call centre connections set up, with each conversation lasting an average of 3:59 minutes.

In **Poland**, the *Integrated Education Management and Recruitment System* has been developed by the OTAGO IT services company (**SDGs 8 and 16**). According to the company: "In the days of the "global village", where Internet access has become available to almost every human being, man faces new challenges. Having in mind the rapid progress of data carriers, we decided to step forward and meet the expectations of this new opportunity. Within the vast network of the World Wide Web, we have created a special place for people interested in acquiring a specific and thorough source of education

data. An online solution has been implemented in the Cracow commune administrative system, effectively fulfilling its purpose and creating new possibilities of sharing information."[35]

In **Switzerland**, the "*e-Government Switzerland*" strategy by the Federal IT Steering Unit (FITSU), is a remarkable joint programme developed by the federal government, cantons and municipalities, with the goal of making administrative activity as accessible and as cost-effective as possible using ICTs (**SDGs 9, 16, and 17**).

In **Turkey**, Türksat has introduced the *Public Application Centre*, contributing to **SDGs 9, 16, and 17**. The platform is an online non-commercial communication system between Turkish government organizations, departments, authorities and legal entities (companies, etc.). It optimizes information management by different government systems and provides rapid access to various levels of data resources available over the network. G2G has many advantages for sharing the huge volume of information required to implement Turkey's various public policies for development.

Also in **Turkey**, the Ministry of Development has launched the *Development Agencies Management System* project (**SDG 16**). This project is aimed at developing a modular, integrated and central information system that will underpin the development agencies' institutional operations and increase the efficiency of their main service processes.

In **Turkey,** the Ministry of Justice IT department has implemented the *Audiovisual IT Communication System*. The purpose of the system is to record court hearings on audio and video recording systems and ensure simultaneous and live visual communication between courts located in different regions of Turkey (**SDGs 9, 16, and 17**).

In **Turkey,** the Ministry of Transport, Maritime Affairs and Communications has implemented the *National Transport Portal*. Providing travel information to people is a very important component of intelligent transportation. This web-based portal offers many different services, such as travel planner (public, own car, door-to-door), weather and road conditions, flight information, public announcements about the sector, cargo tracking, traffic and kids, 3D road images, points of interest (POI). The portal contributes to **SDGs 9 and 16**, and can be visited at www.ulasim.gov.tr. The mobile application, developed for Apple IOS, Android and Windows8, is being put in service as *Ulastirma Portali*.[36]

In **Turkey,** the *Online Appointment System* provides the best level of service to citizens. Appointments can be made using the appointment request form available at http://onlinerandevu.tkgm.gov.tr. The system has been put into operation in 343 Land Registry Offices (**SDG 16**).

In **Turkey**, the Central Bank of Turkey has developed the *Electronic Data Dissemination System* (EDDS), a dynamic and interactive data dissemination system providing access via the Internet to the statistical data produced and/or compiled by the Central Bank (**SDG 16**). No additional hardware or software is needed to access and use the system, which presents the data, in either Turkish or English, in the form of reports, diagrams and e-mail data.

Also in **Turkey**, *mobile e-government* will provide mobile applications for interaction with all citizens, building a mobile e-government platform that will serve as the catalyst for expanded electronic government (**SDG 16**).

Still in **Turkey**, Türksat has implemented the *e-Government Gateway of Turkey* (www.turkiye.gov.tr), a platform offering electronic government services to citizens. By registering with the e-Government Gateway, citizens can sign up for any of the Turkish government's services that are available over the Internet and integrated into the e-Government Gateway (**SDGs 16 and 17**). The e-Government Gateway simplifies processes and makes government information services more accessible for citizens.

35 *Project nominated for a WSIS Project Prize 2015*
36 *Project nominated for a WSIS Project Prize 2014*

Again in **Turkey**, the *National Judiciary Informatics System* (UYAP) is an institutional portal that is part of the *e-devlet* (e-State) system. It enables authorized persons from institutions or the private sector to access, using an e-signature and the Internet, the content of court cases and proceedings (enforcement/bankruptcy) to which the institution/company is a party; thus supporting **SDG 16**. It allows institutions/companies easily to follow the cases to which they are party and thus they do not feel the need to obtain information from their lawyers. It enables authorized persons from large institutions or companies to access thousands of cases and proceedings filed in dozens of cities, courthouses and courthouse units from their offices, houses or any place with an Internet connection, without limit of time or space. Thanks to this system, lawyers and the representatives of institutions/companies can save on labour, time, transportation and accommodation, which become unnecessary as they do not need to go to the courthouses to follow their cases, and do not need to spend on the personnel, finance and supplies to maintain the software they use for this purpose and to access data.

Lastly, the *Online Vehicle Restriction System* in **Turkey** enables users to add or remove any restriction (capture, confiscation, precautionary attachment, interlocutory injunction, etc.) on the electronic records of motor vehicles simultaneously, thanks to the integration established with POLNET (police automation system) between the judiciary and its auxiliary units for the active and efficient operation of the *e-adalet* (e-justice) system, which is part of the *e-devlet* system (**SDG 16**).

In **Turkey**, the Ministry of Family and Social Policy General Directorate of Social Assistance has introduced the *Integrated Social Assistance Services Information System,* which is an electronic platform for receiving applications from poor and needy citizens, creating household files, searching for personal information, compiling information on the socio-economic conditions and wealth of citizens from central databases, reporting on on-site social observations on household socio-economic conditions, determining citizen neediness, giving bank orders for assistance payments and preparing automatic accounts for all assistance. This system thereby contributes to **SDGs 9, 16, and 17**.

Also in **Turkey**, the Ministry of Interior Department of Information Technologies has launched the *e-Interior* project (*e-Icisleri* in Turkish), an e-transformation project that was initiated so that the processes and procedures of Ministry of Interior central units, governorates, district governorates and special provincial administrations can be performed via an electronic platform (**SDGs 16**). The services have become more transparent and accountable, with ICTs being used to provide a citizen-oriented service approach. The e-Interior project is divided into three main groups: common modules, central modules and provincial modules (governorate, district governorate and special provincial administration). Of the project's 165 modules, 154 have been completed. The application developed with the project has 3 200 interfaces, 3.7 million code lines and 10 terabytes of data.

In **Turkey**, the *e-Correspondence Project* being implemented by the Ministry of Development aims to develop a common set of rules for securing electronic correspondence among public institutions (**SDGs 11 and 16**). The solution employs a number of different technologies such as e-signature, registered e-mail and encryption to facilitate legally valid communication. This project is regarded as a good practice of ICT use in public administration. The technical mechanism provides interoperability across different technological platforms and is vendor/product neutral. It ensures the fast and secure exchange of official correspondence at low cost. The project not only helps government bodies to improve their business processes and their efficiency, it also reduces paper consumption and is thus environmentally friendly.

UYAP is an e-national judicial system as a part of the e-government, developed by the Ministry of Justice (MoJ) of **Turkey** in order to ensure a fast, reliable, soundly operated and accurate judicial system. As a central network project it includes all the courts, all citizens, court staff, lawyers, public prosecutor services, prisons, other judicial institutions and government departments in Turkey and makes use of ICT in all judiciary processes. UYAP is implemented by the IT Department of MoJ with a view to improving the functioning of the judiciary and to creating an effective and less bureaucratic judiciary for the concerned institutions and individuals, thus contributing to resilient infrastructure and sustainable industrialization (**SDG 9**).

E-business

In **Bulgaria,** a project on the Development of Property Register systems, introduction of new electronic services and integration of systems and registers in the Registry Agency in order to improve services to citizens and business has been introduced by the Bulgarian Registry Agency in order to improve customer services by speeding up the processes, increasing the quality and diversifying the channels of service provision and payment (**SDGs 8 and 9**). The project aims to improve the quality and reliability of information stored by the Property Register database and increase the revenues from state fees collected by the Registry Agency by increasing the number of electronic services and reducing provision costs.

In **Turkey**, many business players are involved in the development of a *favourable business environment* and are fostering *business-to-business* (B2B) interaction (**SDGs 1, 8, 9, and 17**):

- The Capital Markets Board (CMB) of Turkey has launched the *Remote Data Gathering* project for independent auditing firms. Remote Data Gathering is a software project that makes data communication between CMB and independent auditing firms more productive in order to reduce the operational workload on CMB staff and increase the effectiveness of operations.
- CMB has established the *Capital Adequacy System*, designed to strengthen the financial structure of intermediary institutions, portfolio-management companies and banks. The system basically represents the financial situation of institutions. The aim is to obtain the required data via electronic signatures, thereby enhancing the security of the system and doing away with the paper traffic which places a heavy burden on CMB's archiving facilities.
- In July 2013, the Ministry of Economy introduced the *National Market Surveillance Information System* (PGDBIS), which serves mainly as a data pool for the exchange of information among market-surveillance authorities concerning unsafe and non-compliant products they have found in the market, as well as the results of import controls. The system also enables market-surveillance authorities to post data concerning their activities (number of inspections, number of compliant, unsafe and non-compliant products, number of products tested, etc.) and generate statistical reports from those data.

- In 2010, the Public Procurement Authority (PPA) launched the *Electronic Public Procurement Platform* (EKAP), administered by PPA, where contracting entities and economic operators can conduct procurement procedures, such as the preparation of tender documents, notices and bids, and the awarding of contracts, via the Internet. E-tender preparation, submission and evaluation functionality was added to EKAP in June 2013 for the call-off stages of framework agreements. The full digitization of procurement expenditures in all tenders is expected to result in annual savings of around TRY 5 billion.
- The Ministry of Development has introduced the *Provincial Coordination and Monitoring System* (IKIS project), which enables the posting of data relating to projects, project monitoring, inventories and performance, and provides information necessary for evaluating project proposals. The system also offers a substructure for monitoring investments, problems and progress in the related sectors; taking timely and appropriate measures; and determining and elaborating productive and solution-oriented processes for long-term investment projects, programmes and strategies.
- In addition, the Central Bank of Turkey (CBT) has introduced several projects:
  - The *Internet Banking System* (IBS) has been developed to enable banks to track their accounts interactively and generate bank statements in real time. IBS includes all accounts of the banks that are located in branches of CBT as well as CBT headquarters. With the ability to query account positions in real time, banks are now able to take more accurate decisions involving their payment systems.
  - The *Electronic Data Transfer System* (EVAS) is a platform for the secure uploading/downloading of files to/from Türkiye Cumhuriyet Merkez Bankas (TCMB) via the Internet. It is used between TCMB and banks and a number of government and private financial institutions.
  - The *Public Electronic Payment System* (PEPS-KEOS) has been developed for handling the cash transmission requirements of general budget institutions, meeting their needs in that regard and electronically processing their payment orders. PEPS enables the processing of all such transactions automatically without the need for any external intervention, and can therefore be considered a global example of an automation system operating on the basis of the "end-to-end" principle. With this system, every step of public payment transactions can be monitored by the Treasury Undersecretariat and the Ministry of Finance simultaneously through the infrastructure put in place by the Central Bank using secure IT architecture.
- The Banking Regulation and Supervision Agency has introduced the *Financial Turkey Map* (FINTURK) application, which provides quarterly information about the geographical distribution of Turkey's credit and deposits and about the usage of financial services in different cities.
- CMB Turkey has launched the *Investor Portal*, which is designed to inform investors about investment instruments, things to consider when making an investment, their rights, unauthorized public offerings and capital market activities. The website also features the *Capital Market Glossary*, prepared for the use of investors and other relevant sectors.
- In 2010, the Ministry of Economy launched the *Risk-Based Trade Control System* (TAREKS) to perform safety and quality checks on export and import goods electronically. The new system seeks primarily to make the country's trade policy more efficient, ensure the supply of safe, high-quality products to consumers and firms, rationalize the allocation of resources, control "risky" products and traders, and reduce waiting times for customs clearance.
- The Istanbul Metropolitan Municipality has launched *Instant Mobility* (multimodality for people and goods in urban areas), with the overall aim of contributing to the implementation of personalized travel (transport) options and scenarios according to personal preference by pursuing real-time solutions for the effective handling of urban logistics and loads, passengers, road traffic and various forms of travel optimization under the *Fast Transport Idea 2020* concept;

in short, by creating scenarios which address every aspect of urban transportation simultaneously (public and private transportation, commercial and private vehicles).

- The Banking Regulation and Supervision Agency has set up the *Information Acquisition System*, which enables people to request and obtain information from the agency and provides for statistical reporting on requests.

E-health

In **Bulgaria,** the National Insurance Fund (NIF) receives both medical and personal information about patients as a prerequisite for the payment of all the work done by its partners. It has a project to *develop and expand the personalized information system* (**SDG 3**). The project's aims are to integrate and extend, methodically and gradually, the capabilities of the existing integration information system (IIS), to make online services more accessible, and to report fully on all contractual partners. Its full implementation will provide an opportunity to carry out more online administrative and health services in the health sector, to provide access to patient information, to improve internal connections between the different levels of the system and to enhance the quality of medical services.

Open Hospital is an open-source, free software program developed by Informatici Senza Frontiere Onlus (ISF), in **Italy**, for the daily management of hospitals in developing countries (**SDGs 3, 11, and 17**). It is currently installed and used in several hospitals in Africa and the Middle East. ISF members are constantly working to add features to make the program more useful. A collaboration agreement between ISF and some major NGOs will promote the dissemination of the software in many more African hospitals. In Italy, it is used, for example, for the management of a health centre for immigrants in Verona, which provides medical services for immigrants without residence permits or health cards.[37]

Also in **Italy**, the Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise 'G. Caporale' has been developing a remarkable Project entitled *Open Hospital - Free rural hospital management console*. IT personnel at the same institute have developed *SILAB for Africa* (SILABFA), consisting of a web application employed as a supporting information system for laboratory diagnostic activity in veterinary laboratories in the African Countries (**SDGs 3, 10, 11, and 17**). The system is hosted on a local server accessible via any computer connected to a LAN. The SILABFA system ensures the traceability of the diagnostic phase, from the arrival of samples to final tests. SILABFA can be connected to the Livestock Traceability systems. SILABFA is installed and used in Namibia's CVL, Botswana's BNVL, Zambia's CVRI, Zimbabwe's CVL and Tanzania's TVLA.[38]

[37] *Project nominated for a WSIS Project Prize 2015*
[38] *Project nominated for a WSIS Project Prize 2015*

Open Hospital, **Italy,** is an open source, free software by NGO Informatici Senza Frontiere (ISF) for the daily management of hospitals in developing countries. It is currently installed and used in several hospitals in Africa and the Middle East. Some ISF members are working constantly to add features to make it more useful. A collaboration agreement between ISF and certain large NGOs will promote dissemination of the software in many other African hospitals. In Italy, it is used, for example, for the management of a particular current phenomenon, in the form of the health centre for immigrants in Verona, which provides medical services for immigrants with no residence permit or health card.

The project directly contributes to accomplishment of **SDGs 3, 6, 10** and **16** relating to healthy lives, access to water, equal conditions among countries, and the building of inclusive societies.

In the **Sultanate of Oman**, the *Al-Shifa Comprehensive Healthcare System* is a comprehensive healthcare information management system developed as a complete solution for healthcare facility management using electronic medical records installed and integrated in more than 220 healthcare institutions in Oman of varying size and capabilities, including several non-MoH caregiver facilities (**SDGs 3 and 17**). Data is stored on a single database, providing real-time data across applications throughout the hospital. With a single integrated database design, data can be viewed simultaneously from multiple terminals, giving access to timely, up-to-date information. The system provides extensive search facilities and reports based on user-defined search criteria for retrieving and displaying the desired information.[39]

In **Turkey**, the Health Information Head Office has launched its *e-health policy*. The Turkish Health Information System is implemented using ICTs. In this context, the Ministry of Health has carried out an *e-health project* to collect and record the data it has compiled in accordance with international standards, and then to convert the data into usable information that is shared with relevant institutions (**SDGs 3 and 17**). The aim of the e-health project is to evaluate the level of access to health services, calculate the cost of health services, calculate costs in the light of health service productivity, enable clinical research, trace prints from services, and provide good quality and productive service results.

[39] *Projects nominated for a WSIS Project Prize 2015*

Also in **Turkey,** the Presidency of Religious Affairs has introduced the *Electronic Health Records for the Hajj,* which use a proactive approach to reduce health problems and healthcare costs ; therefore supporting **SDGs 3 and 10**.

Again in **Turkey**, the Ministry of Family and Social Policy has implemented the *Integrated Social Assistance Services Information System Project* (**SDGs 3 and 17**). When this project is finalized, the following services will be provided:

- there will be effective coordination between social assistance institutions, and all operations related to social assistance will be managed using one single system;
- a "Poverty Map" will be produced depicting the distribution of social aid and benefits;
- a more reliable database will be compiled about the beneficiaries of social assistance;
- there will be no repeat recipients of social aid and benefits;
- a household-based approach will be developed for delivering social assistance services, thanks to which normally inaccessible needy people will be reached, families in need will be monitored more closely and needs will be met more promptly.

Turkey is committed to transforming Istanbul into the *Capital of Health Tourism.* It aims to be a regional centre for health tourism and to improve its competitive position in the health tourism sector **SDGs 3 and 17**. The project's mission is to help connect patients to the best medical choices and the most affordable care, and to help ease the uncertainties and stress related to their medical procedures.

The *Turkish Pharmaceutical Track&Trace System* is the infrastructure designed to track and trace all drug units in **Turkey**. It tracks and checks all steps of the supply chain, from production/import to consumption. This system makes it possible to identify the locations of the products in the supply and distribution chain and provides the health authorities with end-to-end visibility over the supply chain. The benefits of this system consist in:

- Preventing counterfeit drugs
- Avoiding illegal parallel trade of drugs
- Preventing reimbursement fraud and balancing costs
- Effective recall management
- Expiry date control, better inventory and waste management
- Providing statistics to develop policies on rational drug use

The system thus contributes to protection of the health system, achieving **SDG 3.8**.

E-learning

The *Network for Schools in Europe*, called eTwinning, offers a platform for staff (teachers, head teachers, librarians, etc.) working in a school in one of the European countries to communicate, collaborate, develop projects, share and be part of a learning community in **Europe (SDGs 4, 8, 10, and 17)**. Available in twenty-five languages, the eTwinning portal has reached nearly 220 000 members and given rise to over 30 139 projects between two or more schools across Europe. The portal provides online tools for teachers to find partners, set up projects, share ideas, exchange best practices and start working together immediately, using various customized tools available on the eTwinning platform. Launched in 2005 as the main action of the European Commission's *eLearning* programme, eTwinning has been integrated in the *Lifelong Learning Programme* since 2007. Its Central Support Service is operated by European Schoolnet, an international partnership of 33 European ministries of education developing learning for schools, teachers and pupils across Europe.

In **Bulgaria**, the project *Development of an Efficient Electronically-Based Distance Learning System* for training holders of Master's degrees in public health implements an innovative high-tech form of electronic distance learning (EDL) and increases the degree of socialization and employment opportunities for professional self-improvement and lifelong learning for persons engaged in the field of public health, by providing efficient access to education at the Medical University–Plovdiv (MUP). The project's achievements are in areas such as (**SDGs 3, 4, and 8**): (1) facilitating access to quality higher education and providing opportunities for training of specialists through the establishment of a distance learning centre; (2) ensuring conditions for EDL through the development of technological and information infrastructure, software and resources for distance learning; (3) training the experts who will apply the EDL methods.[40]

Uzdevumi.lv is an e-learning portal and virtual school in **Latvia**. This web-based e-learning solution has transformed the mundane study process into an adventure. The digital learning for students, teachers and parents portal contains more than 5 million digital learning materials according to the school curricula in Latvia. Students can train for homework and tests. The portal offers pupils an opportunity to train on their own for future tests and exams, participate in competitions and win amazing prizes, follow their learning progress, solve daily exercises and search for new learning opportunities. As to the teachers, they get a unique chance to prepare and conduct online tests with exercises from the uzdevumi.lv content database or by creating their own exercises. Parents can consult pupil statistics and results.

The portal is a necessary tool in achieving quality education leading to relevant and effective learning outcomes (**SDG 4.1**).

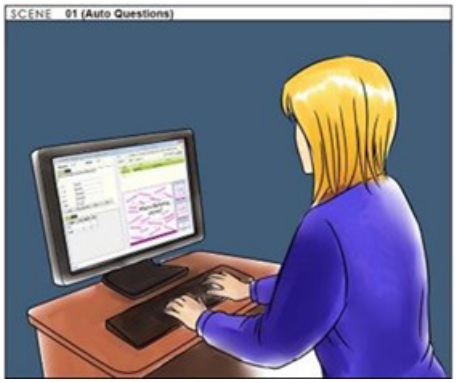
In the **Netherlands**, the *Can't Wait to Learn (CWtL)* programme proposes new solutions to the urgent challenges facing education for children in emergencies. By utilizing innovative technological solutions with a focus on serious gaming, CWtL builds on concepts which have been successfully

[40] *Project nominated for a WSIS Project Prize 2015*

piloted in Sudan (e-Learning Sudan) and has the ambition to increase the number of children with access to quality education in Sudan. Developing fresh, interactive materials based on the national curricula and creating effective partnership structures to distribute these create new opportunities for making education accessible to those children who have been excluded from education. In upcoming programme phases, CWtL will integrate psychosocial support and life skills interventions into the programme, thus increasing children's resilience and thereby preparing them for a positive future.

Such aims perfectly meet a lot of sustainable development goals related to this WSIS action line (**SDGs 1, 3, 4, 5, 8** and **10**).

In **Portugal**, a remarkable project has been developed by the Instituto Piaget called *E-learning in prison*. It sustains the idea of ICT as a tool for adult education, and promotes social inclusion of risk groups such as prisoners by providing training based on distance learning through the use of a learning management platform (**SDG 4**). The main objective of this project is to analyse the importance that e-learning can play in the training of women prisoners, in order to allow empowerment and greater social and digital inclusion, and to contribute to the full social reintegration of the inmate population by creating an integrated and structured intervention model that is likely to spread, replicate and lend credibility to an innovative strategy.[41]



In the **United Kingdom**, the Smart Education System has developed an *E-Learning System*, the first of its kind, with an AVATAR (teacher) that provides real-time feedback on all aspects of student learning in order to steer the student on the path of deep and effective asynchronous learning. The avatar is by the side of the student at all times giving prompts on how well the student is learning, and provides specific recommendations on how to improve. The e-learning avatar, using advanced artificial intelligence (AI) algorithms, is able to adjust to the specific needs of every student and provide differentiated learning that caters for students of all levels and abilities.

E-agriculture

Small producers are vulnerable to price volatility and its negative consequences, hence the need for timely and accurate information services to increase income. The *N'Kalô market intelligence service* by Rongead in **France** provides information to producers for fair trade throughout the value chain (**SDGs 8 and 12**). It offers training, information and advice adapted to the needs of all actors along the chain (from farm to fork). In partnership with, mobile network operator Orange and knowledge broker CTA, a short code registration (7818), USSD #222#, and call centre (37333) have been used to reach more than 100 000 clients in Côte d'Ivoire and Mali. N'Kalô has been a finalist in the Ashoka Changemakers awards.[42]

41 *Project nominated for a WSIS Project Prize 2015*
42 *Project nominated for a WSIS Project Prize 2015*

In **Italy,** the *Biosafety Scanner Software (BSS)* is a tool developed by the Genetic Rights Foundation to meet the need to monitor, assess, manage and control genetically modified organisms (GMOs) in crop production, with particular reference to international trade (**SDGs 3, 4, and 13**). The software was developed for interested parties in the agri-food industry, the authorities responsible for GMO supervision and control, the scientific community and the general public. By processing data concerning regulatory frameworks, local production and scientific knowledge, BSS formulates a picture of whether conditions exist that might be conducive to GMO contamination in a selected country and/or for a selected crop.[43]

The *Agriculture, Rural Development and Youth in the Information Society (ARDYIS) programme* run by the Technical Centre for Agricultural and Rural Cooperation (CTA) in the **Netherlands** aims to strengthen youth engagement and opportunities in agriculture using ICTs. Launched in 2010, it targets young people under 35 from African, Caribbean and Pacific countries. The programme has been supporting young people through training, agricultural blog competitions (the YoBloCo Awards), ICT for agriculture application development and incubation (AgriHack), networking, etc (**SDGs 4 and 8**). Results achieved include: enhanced youth engagement in various agricultural activities; increased online content on local agricultural issues and innovations via more than 200 blogs created; increased capacity for 300 young developers in ICT4Ag entrepreneurship; and the creation of some businesses. The network comprises about 4 000 people[44].

In **Turkey,** an SMS-based *wheat rust disease monitoring system* serves as a surveillance tool for the rapid monitoring of wheat rust disease in Central Anatolia (**SDGs 3, 4, 9, and 12**). Thirty district extension offices send SMS messages reporting on disease severity. The system analyses the data and displays the findings rapidly on a map; it also informs the designated authorities when certain thresholds are exceeded. The programme started in 2013.

In **Turkey**, the Ministry of Food, Agriculture and Livestock has implemented the *Agricultural Monitoring and Information System (*TARBIL) project (**SDGs 2 and 8**).

E-environment

In **Bulgaria**, the *National Geographic Information System* is under development for the potential, production and consumption of renewable energy sources in the territory of Bulgaria (**SDGs 13 and 15**). The main activities also foresee the publication of spatial data, the introduction of electronic administrative services and the development of a geo database with the resources and producers of energy from renewable energy sources.

The overall objective of the *Cross Border Implementation of Innovative Cost-Cutting Technologies* project is to strengthen economic development by improving the competitiveness of SMEs located in the cross-border area of northern **Greece** and southern **Bulgaria**. Within the framework of the project, 100 SMEs in the cross-border area were granted access to expert consulting services and know-how intended to boost their competitiveness by applying innovative cost-cutting technologies (**SDGs 8, 9, and 17**). The innovative cost-cutting methodology developed under the project is being promoted as best practice of the Greece-Bulgaria European Territorial Cooperation Programme 2007–2013.[45]

At the eleventh meeting of the *Conference of the Parties to the Basel Convention*, which took place in Geneva, **Switzerland**, in May 2013, the mandate of the Partnership for Action on Computing Equipment (PACE) was extended until end 2015 (**SDG 13**).

43 *Project nominated for a WSIS Project Prize 2014*

44 *Project nominated for a WSIS Project Prize 2015*

45 *Project nominated for a WSIS Project Prize 2015*

In **Turkey**, the Istanbul Metropolitan Municipality developed the *Geographic information system (GIS)-Based Decision Support System for Urban Air Quality Management* in the City of Istanbul. This project focuses on determining air quality in Istanbul and using a decision-making system for urban air-quality management. Preparation of a comprehensive emission inventory and air-quality modelling are the main thrusts of this research. In the framework of this project, it is planned to:

- develop a computer-aided decision support system for air-quality management (now completed);
- prepare the emission inventory and GIS-based air-pollution maps in the city;
- institute a plan of action for improving air quality in Istanbul.

Also in **Turkey,** the Istanbul metropolitan municipality launched the pilot project focusing on the implementation of *water leak reduction in water management*, with the aim of developing innovative practices towards efficiency in the water-management sector in Istanbul (**SDG 14**). Thanks to this project, water leaks will be identified and water supply network faults will be reduced.

Again in **Turkey**, the Istanbul metropolitan municipality implemented the *OUTSMART* future Internet utilities and environment project. The objectives of this project are to: contribute to the development of five innovation eco-systems, contribute to the optimization and accessibility of pilot services, promote sustainability of the benefits acquired through increased efficiency, create innovative software geared to the needs of ICT companies and stakeholders, and develop software including innovative applications with respect to solid waste, electricity, water and disasters (**SDGs 9, 11, 13, 14, and 15**). The expected outcomes are to: contribute to the competitiveness of Europe, enhance standardization and benefit from smart computing.

In many countries, a *smart approach* was applied to reduce energy consumption, including in urban rail systems, transportation systems, infrastructure, buildings and so forth. Performance indicators (KPI) and calculation solutions were developed to track energy consumption. Heating performance for buildings is one of the main issues for conserving energy.

As an example, in **Turkey** several projects were launched to reduce energy consumption (**SDGs 9, 11, 13, and 15**):

- The *Optimal Strategy to Innovate and Reduce Energy Consumption in Urban Rail Systems* (OSIRIS) is aimed at introducing a holistic approach for reducing energy consumption in urban rail systems, embracing vehicles and infrastructure. The project will start from the definition of KPIs and standard duty cycles to measure energy consumption in urban rail systems. It will address the issue at the system level, ensuring substantial progress in terms of energy reduction.
- The Energy Market Regulatory Authority introduced the *Information System Development* (EPDK) project, whereby all data related to the energy market (electricity, natural gas, oil and liquefied petroleum gas- LPG) will be managed from one single centre, and the EPDK infrastructure will be modernized to accommodate the e-transformation.
- The Ministry of Energy and Natural Resources has evolved the *Strategic Management and Statistical System* (ESIS) in order to avoid data inconsistencies in the creation of a common energy data infrastructure between related stakeholders, reduce bureaucratic procedures, provide decision-support services to the top-level users, etc.
- *Cooperative Mobility Services of the Future* (CoMoSeF) was established to create cooperative mobility solutions, devices and applications feasible for large-scale deployment and supporting the Intelligent Transport Systems (ITS) action plan and national ITS strategies. It brings existing and emerging sensors, services and communication solutions closer to the market and creates the required business models. CoMoSeF concentrates on nomadic devices with cost-effective services that are easy to implement and deploy in all vehicles.
- The *SMARTSPACES* project (Saving Energy in Europe's Public Buildings Using ICT) was established to use energy efficiently, to ensure energy efficiency in public buildings and to put in place pilot

implementations for reducing energy losses and energy consumption. It is planned to develop the Fatih Sport Facility building in Istanbul using ICT with a view to increasing energy efficiency, as well as to reduce energy loss in public buildings and share and exchange best practices.

- The *Vital* project supports smart traffic management systems with the use of physical and visual censors, in order to enhance environmental performance and optimize efficiency of the transportation network. The expected results of the project are to implement the pilot phase with Istanbul Technical University and to transform the current traffic data into smart, manageable data.
- The *Viajeo PLUS* project creates benchmarks in order to formulate innovative and green urban transportation solutions that could be implemented in various regions and cities, such as **Europe**, **Latin America**, **China** and **Singapore**.
- The *LOG4GREEN* project contributes to sustainable logistics systems to be used by multidisciplinary R&D activities and to creating a common strategic action plan with six regions for regional knowledge-based innovation. The project connects six logistics clusters – Carinthia (**Austria**), Ruhr area (**Germany**), Wallonia (**Belgium**), Normandy (**France**), Istanbul (**Turkey**) and Odessa (**Ukraine**) – to strengthen their round-trip delay time (RTD) networks, foster transregional innovation dynamics and develop a joint action plan for future activities.[46]
- The *Kit and Application Pilots for Developing Smart City Services* project creates a service ecosystem and service background for disseminating and sharing smart city applications all around Europe.
- The *ADAME* project contributes to energy performance of buildings in terms of energy efficiency and environment. The purpose of this project is to analyse indicators such as CO_2 emissions, energy consumption and heating. In this context, in the pilot phase, buildings without isolation dating back to 1980 were identified, data on energy efficiency of infrastructure in the identified region were compiled, benefiting from the experience of the Paris municipality, and an energy and environment database was created. Heating performance of buildings was measured through geographical information and mapping systems.
- The *Recycling of Waste Containing Cathode Ray Tubes* project aims to use technology effectively for waste recycling in Istanbul and contribute to transforming the economic value of the recovered materials. The goals of this project are to increase the capacity for handling waste containing cathode ray tubes (CRT) such as monitors, TVs, etc., and to ensure transformation of the economic value of waste containing CRTs. The following outcomes were achieved:
  - 1 000 monitor and television CRTs have been recycled
  - As a result, the current database will include information about CRT waste and recovered materials.
- The Istanbul Development Agency initiated the *Software Development for Calculation and Simulation of Energy Performance of Superstructures*. TS 825 ("Standard for Rules of Heat Insulation for Buildings") is the Turkish standard regulating heat insulation for superstructures. Under this project, a software program will be designed and made available free of charge to engineers and architectures.

In the **United Kingdom**, in the framework of the *Greening Government ICT* strategy**,** the Greening Government commitments were launched in March 2011 to ensure that by 2015 the government will have made substantial reductions in waste generation, water use and greenhouse gas emissions (**SDGs 11, 13, 14, and 15**). These commitments will ensure that government will:

- engage with its suppliers to reduce the impact of supply chains, and strive to purchase sustainable, efficient products and services;

[46] http://www.ncpwallonie.be/fr/news/181_log4green-workshop-tackling-logistics-challenges-of-tomorrow

- manage and reduce greenhouse gas emissions across government estates by 25 per cent from a 09/10 baseline;
- ensure that redundant ICT is reused within government or the wider public sector whenever practical and, where not, is always responsibly recycled. [47]

E-science

In **Turkey,** the Istanbul Metropolitan Municipality launched the *Disaster Coordination System* to ensure efficient disaster response by facilitating rapid identification of damage and loss of life and creating updateable risk-analysis infrastructure to meet the contingency of a possible future earthquake in Istanbul (**SDG 11**).

Also in **Turkey**, the Ministry of Science, Industry and Technology set up the *Research and Development Web Portal,* a web-based application developed to manage grant supports such as the Industrial Thesis Programme and the Techno-initiative Capital Support Programme, and also stipulated exemptions for R&D centres and technoparks established under the ministry's approval process (**SDG 4**).

[47] UK government portal: https://www.gov.uk/government/publications/greening-government-ict-strategy

C8. Cultural diversity and identity

In **Bulgaria**, the South-West University "Neofit Rilski" has been managing the *Youth Mobilization – Cultural Heritage and Athletics* project. The overall objective of this was to provide partners engaged in policy-making on the promotion of sport as part of the cultural heritage with infrastructure and guidance on how to sustainably promote and protect sports, to develop cooperative projects and multimedia applications contributing to the promotion of sports, engage with a wider stakeholder network including sports associations, and promote activities including festivals and regional and international events (**SDGs 3, 8, 11, and 12**). It is also intended to produce practical guidance for local and regional authorities and agencies in the EU and ensure continued support for sports and culture policy development.[48]

In **Italy**, *I Speak Again (ISA)* is a multilingual "communicator", a free web application operated by a patient's eye movements and available over the Internet at www.ispeakagain.org, or downloadable for fully local setup. It provides a simple tool to give back speech capacity to those who, as a result of disease (ALS, sclerosis, quadriplegia), temporarily or permanently lose their ability to speak and move (**SDGs 4 and 12**). It features four different types of eye-movement operated keyboards and includes simple support for domotic systems. It works with every kind of TTS system, including open-source, such as Festival, or more advanced ones like Tingwo.

[48] *Project nominated for a WSIS Project Prize 2015*

From *Graves to Cradles*, also in **Italy**, is a virtual and real restoration project of a highly visible historical anti-slavery monument intended to showcase the work and quadrilingual education of the formerly enslaved and illiterate Romanian Roma families who now lie in Florence's Swiss-owned 'English' Cemetery (**SDGs 8 and 12**). It also provides young Roma mothers with library schools in their homes and a stipend so that they do not have to leave their babies with grandmothers in Romania in order to beg from tourists in Florence for their families' survival. Our sites are visited by both tourists and Florentines, and can be visited virtually on the web at www.florin.ms/WhiteSilence.html and www.ringofgold.eu.[49]

With less than two million native speakers, Latvian is one of the world's smaller languages. This has severely restricted global access to Latvia's knowledge and information, creating a language barrier between Latvia and the rest of the World. In order to bridge this language barrier and open up multilingual access to knowledge, **Latvia** has created its own publicly available machine translation service, *Hugo.lv* (**SDGs 4, 8, and 12**). By providing high-quality instant translation of Latvian content into multiple languages, Hugo.lv enriches the global information society with a wealth of Latvian educational and cultural information through various media, empowering the Latvian language in the digital age.[50]

Another deserving project in Latvia is the *State Portal* www.latvija.lv. This project has involved a series of activities to improve www.latvija.lv both technically and substantively (**SDG 8**). The main activities have been focused on expanding the functionality of the portal and structuring available online information to improve access and usability.[51]

The Latvian language is one of the world's least used languages, with fewer than 2 million native speakers. This explains why global access to Latvia's knowledge and information is somewhat

49 *Project nominated for a WSIS Project Prize 2015*

50 *Project nominated for a WSIS Project Prize 2015*

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restricted. In order to overcome this language barrier between Latvia and the rest of the world and open up multilingual access to knowledge, the Culture Information Systems Centre of **Latvia** created its own *publicly available automated translation service, Hugo.lv*. By providing high-quality instant translation of Latvian content into multiple languages, Hugo.lv enriches the global information society with the enormous wealth of Latvian media, educational and cultural information, empowering the Latvian language in the digital age.

In this way, the website promotes sustainable industrialization, ensures access to information for the entire Latvian population and global community and protects fundamental freedoms (**SDGs 9** and **16** – **target 16.10**).

In **Turkey**, the *Panorama Istanbul* project aims to enhance Istanbul's global competitiveness by ensuring that the services provided are supported by information technology, contributing to total quality management (**SDGs 4, 8, and 10**). Its *3D Panoramic Mobile Mapping Technologies* will integrate its geographical information systems, and thereby raise the awareness of personnel and provide them with background information regarding 3D panoramic mobile mapping.

In **Turkey,** *HAS* is an information diffusion system that serves as a multilanguage and multiplatform news flow system, collecting, translating and relaying news among over 35 countries (**SDGs 4 and 8**).

C9. Media

In **Italy**, the *Sensoltre* is a very special paintings exhibition devised by Informatici Senza Frontiere for visually-impaired and normally-sighted people (**SDG 12**). It is a multimedia, multi-sensory path among painted sculptures, bas-reliefs or famous works printed with 3D printers. The visitors- blind, blindfolded, visually-impaired or sighted- use NFC smartphones with an ISF Sensoltre application and wear Hi-Fi headphones. They follow the path by touching a small rope. On reaching a painting, the smartphone automatically starts playing the audio guide, which informs the listener about the artist, the work's meaning, and how to touch the painting. Background music creates an exciting and unique atmosphere.[52]

In **Poland**, *The Internetowy Teatr TVP dla szkól/TVP's (Internet Theatre for Schools*) initiative aims at providing access to culture for pupils in small remote localities via the broadband network. Every few weeks a different theatre stages a play which is transmitted via coded Internet link to participating schools (**SDG 12**). The aim is to educate through entertainment. The first transmission took place on 29 October, 2012 – the "Wizard of Oz" staged by Cracow's renowned Slowacki Theatre. Since then, some 34 shows staged in 30 theatres have been broadcast and watched by more than one million spectators from more than 15 000 schools, and more are scheduled.[53]

In **Turkey,** the Radio and Television Supreme Council (RTUK) introduced the *Digital Recording, Archiving and Analysis* (SKAAS) system, designed to record, archive and analyse digital audio/video broadcasting services (**SDGs 5, 9, and 16**). The SKAAS system records and archives television and radio broadcast services on satellite, cable, terrestrial and cloud. It facilitates effective content inspection by RTUK experts charged with monitoring and effective regulation of television and radio channel broadcasts all around Turkey.

In **Turkey**, the Radio and Television Supreme Council implemented the *Terrestrial Radio and Television Electronic Frequency Regulation System* (**SDGs 9, 12, and 16**). The project has nine working packages. Its ultimate objective was the planning of terrestrial television channels and radio frequencies through the following: National Frequency Plan for digital terrestrial television (DTT); national, regional and local multiplexes; terrestrial broadcast licence fees and annual channel and frequency usage fees for each emission site; channel and frequency allocation software; ITU electronic notification forms for the DTT National Frequency Plan; Application Plan for the digital switchover; National Frequency Plan for terrestrial radio.

Also in **Turkey**, the Directorate-General of Press and Information has introduced *Training of Media Personnel - Local and Regional Media Gatherings* (**SDGs 4, 8 and 9**). Various meetings are organized in different regions in the country with a view to strengthening the local media. The participants from local media have an opportunity to discuss professional issues such as interview techniques, modern pagesetting and digital photography, as well as legal arrangements in the media sector. The gatherings also provide a chance for local media to exchange different views among diverse stakeholders in the media sector and keep abreast of the latest developments in the media.

In addition, **Turkey** has established the *State Information System* (DES) in order to convey processed information to the relevant authorities through the collection and compilation of news and comments from diverse sources (**SDG 16**). DES users can monitor both Turkish and international media round-the-clock, browse articles on Turkey in Turkish and in their original format in 21 languages, and access a huge news archive going back more than ten years. The experienced and specialized personnel evaluate more than 1.5 million foreign news items every day.

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[52] *Project nominated for a WSIS Project Prize 2015*
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C10. Ethics

Created in **Austria**, the *Global Industry Council (GIC)* has been an official contributing partner to ITU for 2014, 2015, 2016 and ongoing in the implementation of **all 11 WSIS action lines** and **17 SDGs**. The GIC 2020 Skills Report published last year clearly demonstrates how GIC is executing all WSIS/SDGs. Through its International Federation for Information Processing (IFIP) members, GIC brings considerable resources to implementation of the WSIS action lines/SDGs. All domains are powered by their underlying dependence on ICT. GIC continues to work to ensure that the ICT profession is grounded in technical expertise guided by ethical, professional practice.

In **Croatia**, the *Fran Galovic Public Library Programme* is supporting Roma people by contributing to their social inclusion, building tolerance and tearing down prejudice towards them, as well as supporting a better quality of life and opportunities for Roma children through formal and informal education (**SDGs 1, 4, 10, and 17**), and helping them to become integrated in the life of the local community and society in general.[54]

In **Italy**, the remarkable *VOILA'* project is inspired by the notion that online visual communication is the new frontier for sharing information. A key element is its educational potential, namely the capacity to disseminate knowledge by sharing video tutorials intended for hearing-impaired people who otherwise tend to be marginalized (**SDGs 1, 4, 8, and 10**). The project aims to produce web tutorials that are equally accessible to hearing-impaired and hearing people, based on a methodology which engages hearing-impaired people in the project's implementation, without subtitles or sign language interpreters. Thanks to social innovation mechanisms, online users will finally experience web tools without linguistic barriers. *VOILA'* demonstrates that ICTs are key to moving towards more inclusive web communication.[55]

Since 2012, the Initiative *#SurfWisely*, created by the Ministry for Information Society and Telecommunications of **Montenegro**, has been implemented with the aim of providing education and skills to Montenegrin children and their parents and teachers, while making a positive experience out of using the Internet and at the same time building a sense of safety in the digital environment. It also contributes to **SDG 16** on promotion of a peaceful society, ensuring public access to information and protection of fundamental freedoms. The initiative has been successfully implemented in cooperation with governmental institutions and non-governmental organizations.

In **Spain**, the Cibervoluntarios Foundation is a non-profit organization made up of social entrepreneurs whose vision is to use new technologies as a means for social innovation and citizen empowerment, thereby alleviating social divides. The organization's aim is to increase the rights, opportunities and

[54] *Project nominated for a WSIS Project Prize 2015*
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capabilities of each individual within his/her environment through the social use of technological tools and applications within his/her reach. *EmpoderaLive* is a multiplatform project through which Cibervoluntarios empowers citizens by promoting human rights and the social use of technologies in order to generate social innovation.

In this way, the programme meets **SDGs 4, 5, 8, 10** and **16** by ensuring quality education and achieving gender equality, thereby reducing inequality within the country and promoting economic growth, employment and an inclusive society.

The Internet Watch Foundation in the **United Kingdom** produced the *Emerging trends and patterns Report #1 - Youth-produced sexual content,* which focuses on youth-produced sexual content featuring young people online (**SDGs 4, 11, and 12**). In the course of the study, some 3 803 images and videos were assessed and a quantitative analysis was performed on the dataset, focusing on age, gender, category of severity, device used and site type/hosting information in order to identify trends and patterns emerging from the data. The study makes recommendations for further research to inform effective targeting of future educational initiatives relating to youth-produced sexual content and to raise awareness among young people and all stakeholders involved in online child protection.[56]

[56] *Project nominated for a WSIS Project Prize 2015*

C11. International and regional cooperation

The *World Summit Award (WSA)* was launched as an **Austrian** initiative in 2003, within the framework of WSIS, to select and recognize digital content and innovative solutions produced by local entrepreneurs in all UN Member States with a view to prompting action on the most pressing issues. It is an ongoing activity and platform that connects start-ups, social entrepreneurs and digital content developers who believe that ICTs are one of the most powerful enablers for social change and development. WSA demonstrates the richness and diversity of local content and innovation, and enables knowledge transfer between stakeholders, countries and networks.

WSA uses the mechanism of a global award to identify digital solutions that have an impact on society, prompting action on the most pressing issues worldwide, be they in relation to hunger, climate change, gender equality, access to education, health, sanitation and nutrition, inclusion or freedom of speech (**SDGs 1 to 11, 13** and **15 to 17**).

In **Bulgaria and Greece**, the project *Hydrogen Economy Cooperation Network for Research -Public Awareness - Business Opportunities across the Greek-Bulgarian Border* aims to implement a range of measures in the border region with a view to promoting research efforts, public awareness and economic activities relating to the "hydrogen economy" of the future (**SDGs 9 and 17**). The project's subsidiary components include: stimulating common activities relating to hydrogen technology by establishing a research network of academic partners in Thessaloniki and Blagoevgrad; raising public awareness of the use of hydrogen as a new, environmentally friendly fuel; promoting youth initiatives and creativity in the field of hydrogen technology; and exploring the feasibility of starting hydrogen technology-based businesses in the region.

Supported by the European Commission (EC) and the African Union Commission (AUC), *IST-Africa* is a strategic collaboration between the International Information Management Corporation (IIMC) in **Ireland** and ministries and national councils responsible for the information society, ICT and innovation adoption, policy and research in 18 countries of **Africa** (**SDGs 16 and 17**). Founded by IIMC in 2002, and co-funded under the European Framework Programme since 2005 (Current Contract 611795), IST-Africa has gradually introducing new partner countries on a phased basis, which are often at different stages of research capacity, technology adoption and socio-economic development. IST-Africa facilitates and supports development of the information society and knowledge economy in Africa through:

- International innovation, research and policy cooperation
- Knowledge-sharing and skills-transfer between IST-Africa partners
- Collaborative innovation, entrepreneurship and adoption of living labs
- Information society, ICT and innovation aspects of the Africa-EU Strategic Partnership. [57]

In 2013, the eleventh *Regional Regulatory Activity in Electronic Communications Sector* conference was held in Budva, **Montenegro**, focusing on protection of the interests of electronic communication

[57] http://www.ist-africa.org/home/default.asp?page=initiative

users (**SDGs 16 and 17**). The event was held within the framework of the *INFOFEST 2013* Festival of ICT Achievements and was co-organized by the Agency for Electronic Communications and Postal Services of Montenegro (EKIP) and ITU. The conference aimed to provide a basis for identifying challenges associated with protecting consumers in the ICT ecosystem, to present current regulatory frameworks in relation to the protection of users in a digital world, to exchange best regulatory practice and to develop recommendations and guidelines for successfully addressing issues related to convergence.[58]

In **Montenegro**, the Ministry for Information Society and Telecommunications, in cooperation with Albania, thorough the Instrument for Pre-accession Assistance (cross-border component), is implementing the ICT project *Promoting Connectivity of Internet Broadband in the Prokletije Mountains Border Area*. The main objective is to promote socio-economic growth and competitiveness in the mountain border area through Internet broadband services (**SDGs 8, 9, and 17**). Specific objectives are to increase Internet broadband (IBB) accessibility and connectivity in border areas of the Prokletije Mountains by defining the best technological mix, IBB operators and potential sources of finance. The project will, in addition, promote the tourism sector in the mountain areas through IBB and seek to close the digital gap by supporting inclusiveness and networking of the main business sectors and selected public services.[59]

Free Our Voices is a campaign by Child Helpline International (CHI) in the **Netherlands** to raise awareness of child helplines worldwide and enable the voice of every child to be heard (**SDGs 11 and 17**). Currently, over 50 per cent of all calls from children to child helplines remain unanswered as the helplines are unable to keep pace with the ever-increasing demand for their services. The aim of the campaign is to obtain much-needed support from telecom operators, governments and other key stakeholders, so that the helplines can respond more effectively to every call from a child seeking help.[60]

58 Ibid, p.42
59 *Project nominated for a WSIS Project Prize 2015*
60 *Project nominated for a WSIS Project Prize 2015*

Conclusion

The International Telecommunication Union (ITU) remains committed to the World Summit on the Information Society (WSIS) process, and to implementation of the WSIS goals beyond 2016. ITU recognizes and highly appreciates the extremely valuable contributions made by stakeholders to enable the continuation of WSIS monitoring and reporting. There can be no doubt whatsoever that, in today's fast-moving world, innovation and efficiency are vital to success. Accordingly, the WSIS Stocktaking Report in the Europe Region 2014-2016 shares with you the most recent updates and success stories in the WSIS stocktaking process of this region.

The Web 2.0 WSIS Stocktaking Platform continues to foster implementation of the WSIS outcomes and to facilitate exchange of information among 200.000 members representing governments, the private sector, international organizations, civil society and other stakeholders. As the Web 2.0 platform continues to flourish, so does the promotion of social development and economic growth through ICTs. We continue to maintain and improve the WSIS Stocktaking Database, which contains around 8 000 entries this year. This encouraging outcome reinforces stakeholders' belief in and commitment to the WSIS Stocktaking process and their desire to share best practices.

In addition, the WSIS Overall Review called for close alignment between the WSIS process and the 2030 Agenda for Sustainable Development, highlighting the crosscutting contribution of ICTs to the SDGs. In this context too, WSIS Stocktaking is evolving to become the unique global process for the collection of information on actions carried out within the framework of WSIS, while underlining their contribution to implementation of the 2030 Agenda for Sustainable Development.

We are also pleased to announce the recent launch of a new and innovative interface, which will make it easier to search all WSIS-related activities. All stakeholders benefit from the sharing of interesting case studies, as this undoubtedly facilitates the transfer of knowledge, experiences and models for project implementation. The WSIS platform helps to create partnerships, provide greater visibility and add value to ICT projects all around the world. The many and varied stakeholders who have implemented innovative projects and contributed to the success of the WSIS Stocktaking process deserve our sincere gratitude.

ITU announces an official call for updates and new entries and urges these stakeholders, along with all Member States, international organizations, the private sector and civil society, to continue submitting such contributions in the future as WSIS pursues the ongoing stocktaking process. We trust that readers will find this report insightful, and sincerely hope that it will inspire them to participate in the construction of a broader and more inclusive information society for all.

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