



# WSIS STOCKTAKING SUCCESS STORIES 2017



Information and  
Knowledge Societies for  
Sustainable Development Goals  
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World Summit  
on the Information Society  
Turning targets into action  
Geneva 2003 | Tunis 2005 | New York 2015





# WSIS Stocktaking: Success Stories 2017

Zero Draft

## Acknowledgement

The WSIS team would like to acknowledge the tremendous contributions from governments, international organizations, private sector, civil society and other stakeholders in providing information on ongoing projects and initiatives to the WSIS Stocktaking Platform. The WSIS Success Stories 2017 Report is based on the contributions provided by 18 WSIS Prizewinners (18 success stories) together with 72 brief project descriptions from the newly introduced WSIS Prize Champions category.

The report benefited from the contributions and insights of ITU staff :

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# Executive Summary

Each year, on the occasion of the WSIS Forum, 18 WSIS stakeholders are awarded **WSIS Prizes**, as a unique mark of global recognition for excellence in the implementation of WSIS outcomes. To this end, 18 projects are selected as the most successful stories worldwide, under **each category**, to serve as best-practice models to be replicated by other stakeholders interested in information and communication technologies (ICTs) for development. These projects brilliantly demonstrate how established **Sustainable Development Goals (SDGs)** can be realized in concrete actions and inspire other stakeholders all over the world to follow their success. This year, we have continued to implement the **WSIS Prize Champions** category for the **WSIS Prizes** contest.

The International Telecommunication Union (ITU) has announced the top-90 winning Information and Communication Technology for Development (ICT4D) initiatives from around the world competing for prestigious WSIS Prizes 2017, from which will emerge one top Winner and four Champions in each of the 18 prize categories. These 18 category Winners will be announced and presented with their awards, and Champions honoured, on 13 June at the WSIS Prizes 2017 ceremony to be held at the Geneva International Conference Centre during WSIS Forum 2017. WSIS Prizes honour outstanding projects that leverage the power of ICT to accelerate socio-economic development around the globe.

The WSIS Prizes contest is open to all stakeholders: governments, businesses, civil society, international organizations, academia and others. The contest comprises 18 categories directly linked to the WSIS Action Lines outlined in the Geneva Plan of Action. This year's final list of 345 nominated projects represented a wide range of stakeholders.

This includes, by region: 42 from Africa (12.17%), 45 from the Americas (13.04%), 66 from the Arab region (19.13%), 104 from Asia and the Pacific (30.14%), 41 from the CIS (11.88%), 42 from Europe (12.2%), and five international projects (1.4%); and by sector: 145 from governments (41.7%), 78 from businesses (22.4%), 56 from civil society (16.1%), 22 from international organizations (6.3%), and 47 from other entities (13.5%).

The **WSIS Prize Champions** category recognizes those contenders having emerged from the online voting phase with 1.1 million 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. The 18 success stories together with the descriptions of the 72 champions' projects thus constitute the body of this report.

More than 60,000 new members of the WSIS stakeholder community voted this year, and with this, ITU is proud to announce that the WSIS Stocktaking Platform has increased to 300,000 registered stakeholders. This sets a new high for the level of global multi-stakeholder engagement, and implementation of WSIS Action Lines in support of the United Nations Sustainable Development Goals.

Building on the outcomes of the United Nations General Assembly (UNGA) Overall Review on WSIS, as well as on the 2030 Agenda for Sustainable Development, **WSIS Prizes 2017** kept reflecting on the linkages between the projects and the **SDGs**. ICTs are enablers for sustainable development, and reporting on ICT success stories to best showcase the possible achievement of **SDGs**, through the implementation of projects related to the WSIS Action Lines, is the new objective of the WSIS Stocktaking process, including WSIS Prizes. We invite you learn how ICT projects submitted for WSIS Prizes 2017 are enabling the advancement of the SDGs.

# Introduction

The contest comprises 18 categories which are linked to the 11 WSIS Action Lines outlined in the Geneva Plan of Action and SDGs. A record-breaking 1.1 million votes were cast from 30 March to 30 April in the online voting process that resulted in these 90 exceptional ICT initiatives being selected for the sixth edition of the WSIS Prize contest. Voters selected from a list of 345 ICT success stories nominated through a comprehensive review by the WSIS Prizes Expert Group from 467 submitted projects. And this year, we have 90 champions out of hundreds of projects from all over the world, and 18 winners out of the 90 champions.

## The 18 categories are as follows:

- 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

## 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

The WSIS Prizes contest, first held in 2012 and rapidly gaining recognition and popularity within the ICT for Development (ICT4D) community, is seen as the platform for identifying and showcasing the success stories across the WSIS Action Lines defined in the Geneva Plan of Action and SDGs. It also provides us with models that can be replicated in the interests of empowering the community at the local level, providing everyone with an opportunity to participate in the contest and, most importantly, recognizing the efforts made by stakeholders to contribute to the development of society and their commitment to achievement of both the WSIS goals and SDGs. The WSIS Prizes contest is an integral part of the WSIS stocktaking process ([www.wsis.org/stocktaking](http://www.wsis.org/stocktaking)) set up in 2004 to assist WSIS implementation and follow-up.

WSIS Prizes is a unique international contest developed in response to calls from WSIS stakeholders for the creation of an effective mechanism for identifying and recognizing individuals, governments, civil society, local, regional and international agencies, research institutions and private-sector companies having achieved outstanding success in implementing development-oriented strategies that leverage the power of ICTs as an enabler of the SDGs. The WSIS Project Prizes contest is open to all stakeholders: governments, private sector, civil society, international organizations, academic institutions and others. All stakeholders are urged to encourage their networks to join the WSIS Prizes process, including the multistakeholder consultations at the WSIS Forum.



## C1: The role of governments and all stakeholders in the promotion of ICTs for development

**Project name:** E-safe school

**Organization:** Khalifa Empowerment Programme for Students

**Country:** United Arab Emirates

### Basic information about your entity

The Khalifa Empowerment Programme for Students – Aqdar (Arabic for “I can”) – was initiated by H.H. Sheikh Saif Bin Zayed, Deputy Prime Minister and Minister of the Interior, as part of the national effort to unify resources and create a comprehensive centralized programme, which aims to develop the next generation of UAE citizens and expatriates by equipping them with the knowledge, skills and expertise to be productive members of society; to create awareness of unethical behaviour on the Internet; and to tackle potential risks.

### Project’s description (activity’s description)

UAE’s *E-safe school* is a brilliantly designed, government-led project to challenge, support and recognize schools in reviewing their e-safety provisions and developing an action plan to protect their children online. All schools have a responsibility to safeguard and promote the welfare of children. Today, so much of students’ experience is shaped and surrounded by online media. Internet access has truly become the new currency of learning. A school’s duty of care therefore increasingly applies to the online world. The E-safe programme will revolutionize online safety in all schools to protect and support the nation’s children online.

### Examples of linkages between the WSIS Action Line your project was awarded for with each of the Sustainable Development Goals it helps advance

- **SDG 3:** Ensure healthy lives and promote well-being for all
  - *Example:* Creating a culture of online protection in schools will ensure the safety and well-being of all students.
- **SDG 4:** Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
  - *Example:* Incorporating digital citizenship and online safety in students’ curricula and lessons.
- **SDG 9:** Build resilient infrastructure, promote sustainable industrialization and foster innovation
  - *Example:* Recognizing talent in the online safety field and fostering innovation by providing talented students with additional training to harness their full potential.
- **SDG 11:** Make cities inclusive, safe, resilient and sustainable
  - *Example:* The emphasis on safety at school level will automatically spread throughout the community and city.
- **SDG 16:** Promote just, peaceful and inclusive societies
  - *Example:* Eliminating bullying, hate, extremism and negative online content.

### Highlights of the project's partnership activities

- Partnership with South West Grid for Learning (SWGfL), a global leader in online protection and safety
- Partnerships with the Ministry of Education, the Abu Dhabi Education Council (ADEC), the Knowledge and Human Development Authority (KHDA) and several other local educational organizations
- Partnership with Knowledge Point Education Consultants.

### Challenges and project's future perspectives

With precise planning and accurate execution, we do not expect any obstacles. UAE is planning to transform into a knowledge-based economy, which places an emphasis on education. Hence, all projects and programmes that will enhance the education process and ensure the protection of students is always welcomed, supported and unchallenged.

### Your views on WSIS Stocktaking and Prizes contest, including its relevance to SDGs

The WSIS Stocktaking and Prizes contest is a brilliant and excellent initiative, since it highlights real application of the SDGs and constitutes a knowledge- and experience-sharing platform between nations, governments, corporate entities and individuals.

## C2: Information and communication infrastructure: An essential foundation for the information society

**Project name:** Optical communication cable for the South-to-North water diversion (Eastern route)  
**Organization:** China Communications Technology Co., Ltd  
**Country:** People's Republic of China

### Basic information about your entity

China Communications Technology Co., Ltd (CCTC), established in 1958, is a “one-stop” service provider for network construction in the communication and information industry. Our service covers all parts of the telecommunication industry value chain, including telecommunication infrastructure services (TIS), business process outsourcing (BPO) and application and content outsourcing (ACO).

CCTC has set up branches and offices in more than 20 provinces, covering almost the whole of China, while its overseas business scope spans over 30 countries in Asia, Africa, South America and Europe; and it works with multiple equipment vendors, telecom operators and corporate customers.

The company’s main service value includes: improving network resource utilization, helping operators enhance customer perception of wireless network use, and helping client operators raise their network quality and competitiveness.



### Project’s description (activity’s description)

The South-to-North Water Diversion project is one of the most important strategic measures being deployed to optimize the distribution of China’s water resources, and at the same time is also one of the most challenging projects in the world in this field.

It transfers water resources from the Yangtze River basin in southern China to areas where water is in short supply. It can be divided into the Eastern route, the Central route and the Western route. The Eastern route is just over 716 miles (1 152 km) long, equipped with 23 pumping stations with a power capacity of 454 megawatts.

In order to ensure safe, reliable and stable long-term operation, it is necessary to establish a *water-resources dispatch and management system*: a set of equipment configured for information collection

and video monitoring, to support optimization, scheduling and operational management of water resources.

This system, which is a core component of the South-to-North Water Diversion, is founded on the *optical communication cable project*.

- Goals

The ultimate goal is to complete the South-to-North Water Diversion (Eastern route) communication optical cable project for the water-resources dispatch and management system within the planned time-frame.

The innovation goal is to control costs and reduce labour intensity. For instance, engineers can improve the construction method by developing and optimizing construction tools, inventing new tools and engineering techniques, etc.

The social goal is to combat the environmental deterioration caused by the shortage of water, and consequently promote economic development.

- Time-frame

August 2014: All overhead optical cable routes completed

March 2016: 90% of the optical cable laid

October 2016: All cable splicing and testing work completed.

The technical innovation under the project fills a gap in terms of long-distance communication engineering for the water-conservation industry. It has already been applied in national optical transmission network projects undertaken by China Telecom and China Mobile.

The project solves many existing problems of traditional communication construction. It can meet the demands of communication pipe construction in different geographical environments, optimize construction tools and improve construction methods. It mitigates some of the hidden construction problems, and promotes efficiency and safety. This project is easy to replicate in similar industry ventures worldwide.

### Examples of linkages between the WSIS Action Line your project was awarded for with each of the Sustainable Development Goals it helps advance

On account to the lack of water in Shandong Province and Hebei Province, where shallow groundwater has dried up, we must expedite the transfer of water. The project helps to ensure that the South-to-North Water Diversion (Eastern route) can be delivered on time, thereby solving the drought in the north, supplying water for industry and life. The project thus has a clear impact on **SDG 6**.

The first phase of the South-to-North Water Diversion (Eastern route) transfers water from the main river, which is pumped up in stages by 13 pumping stations, making use of the Beijing-Hangzhou Grand Canal and its parallel watercourses to carry water. Transportation routes from Hongze Hu lake to Luoma Hu lake finally arrived in Shandong province. This first phase successfully supplied 602 million cubic metres (net water supply 442 million cubic metres) of water to Shandong Province between 2015 and 2016. It solves most of the domestic and industrial water problems along the water diversion line, and improves the ecological environment along the route.

## Highlights of the project's partnership activities

For field implementation, the project has been successfully carried out with the support of the Jiangsu Water Source Co., Ltd, the Ministry of Industry and Information Technology and the Ministry of Water Resources.

## Challenges and project's future perspectives

The traditional communication pipe construction method is dangerous, crude, time-consuming and laborious. Moreover, it is based on a manual approach, and many hidden issues are concealed in the detail.

By changing the traditional approach, we can deliver fresh air quickly without electric power, thereby ensuring safe construction. This patent successfully changed the "storage" pipe "clean up" method, to avoid having the naked tube on the side of the road and a large area. The method greatly reduces the degree of wear of the optical cable.

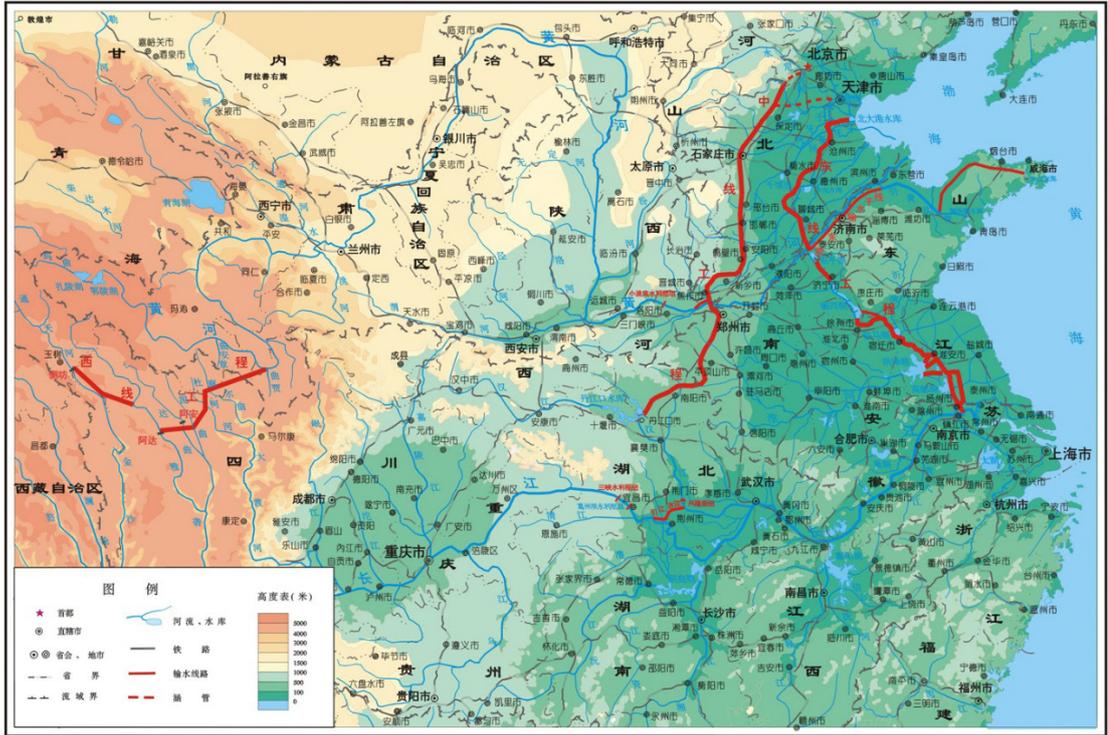
It has solved the drought in the north, supplying water for industry and life, and benefiting Beijing and Tianjin municipalities and Hebei and Shandong provinces, in total over 180 million people.

The results have been applied and popularized in the construction of the South-to-North Water Diversion (Eastern route) line; China Telecom's first national trunk line; and China Mobile's national trunk line.

## Your views on WSIS Stocktaking and Prizes contest, including its relevance to SDGs

The WSIS Stocktaking and Prizes contest makes it possible to share up-to-date information on the status of ICT in the world. It provides an excellent platform not only for recognizing best projects but also for showcasing development, enhancing competitiveness and raising quality standards in different areas.

China Communications Technology Co., Ltd truly appreciates the opportunity to participate in such a large-scale event, and is delighted to receive the Winner's Prize 2017. CCTC hopes to continue its close relationship with the WSIS Stocktaking and Prizes contest in the future and will pursue its efforts to contribute to a more inclusive information society.







## C3: Access to information and Knowledge

<b>Project name:</b>	<b>DAISY-standard accessible reading materials for students with visual and print disabilities</b>
<b>Organization:</b>	<b>a2i</b>
<b>Country:</b>	<b>People's Republic of Bangladesh</b>

### Basic information about your entity

Access to information in Bangladesh (a2i), the world's first public-service Innovation Lab+, works to ensure easy, affordable and reliable access to quality public services for all citizens of Bangladesh. With the purpose of promoting transparency, accountability and integrity in public services, a2i has been working for 10 years on developing an innovation culture for providing services at citizens' doorsteps, simplifying service processes and delivering online services by:

- Empowering civil servants with the tools, expertise, knowledge and resources they need for experimenting and innovating citizen-centric solutions to public-service challenges
- Establishing both physical and online one-stop access points that scale innovative services and make them available to citizens easily, reliably and in an affordable manner
- Encouraging and supporting non-government actors, including small entrepreneurs, teachers and youth, to partner with government actors.

a2i drives the creation of a public-service innovation ecosystem and delivery infrastructure from the Prime Minister's Office. One way a2i is doing this is through engaging and empowering the whole of Bangladeshi society by offering a Service Innovation Fund for co-creating novel solutions to development challenges and boosting their chances of making an impact at scale.

The Service Innovation Fund (SIF), supported by funds from the Government of Bangladesh, the United Nations Development Programme (UNDP) and the United States Agency for International Development (USAID), was launched in 2013 to encourage innovative home-grown ideas and solutions to development problems through the provision of a risk fund. It encourages cost-sharing for initial investment and explores scale-up funding together with the innovator.

### Project's description (activity's description)

Some 150 million people live in Bangladesh, among whom at least 2 per cent are visually impaired and almost 35 per cent are illiterate (Bangladesh Bureau of Statistics, 2015). Together, these marginalized populations constitute the print disabled.<sup>1</sup>

Young Power in Social Action (YPSA), a social development organization, perceived the unique challenges facing the print-disabled population of schoolgoing age (including 215 429 children having some difficulty seeing and 46 105 children having severe difficulty seeing or completely visually impaired). These challenges include the unavailability of Braille printed books for the national curriculum, inadequate numbers of teachers specialized in teaching visually impaired children, skewed focus towards textual forms of education, etc. As a result, the majority of the print disabled never get to go to school. Among those who do manage to go to school, visually impaired students often

<sup>1</sup> According to the DAISY Consortium, people with print disabilities include people with blindness, impaired vision and dyslexia.

get disappointed at having to use second-hand books and the illiterate get bored with the limited interactivity offered by text-based content. Even though there are some Braille printing presses in the country, it has been impossible to produce the national curriculum text books in Braille printed form because the text was encoded in formats which were not compatible with Unicode.

YPSA had recourse to a2i's Service Innovation Fund to undertake the following activities:

- identify the existing problems facing visually impaired students;
- identify appropriate solutions through different consultations with the stakeholders;
- select and convert Grade-I to Grade-X textbooks into DAISY full-text and full-audio multimedia digital talking books;
- convert the books into Digital Braille books and accessible e-books using the single DAISY source file;
- upload digital textbooks on the National Content Repository; and
- organize orientation programmes for stakeholders to build awareness about the books and effectively implement them for visually impaired learners.

In just under 33 months, with multidimensional support from a2i (including financial support, project management, policy-level advocacy, sectoral expertise), YPSA has converted all the national curriculum textbooks from Grades I to X (105 books in total) into DAISY-standard full-text and full-audio multimedia digital talking books.

### Examples of linkages between the WSIS Action Line your project was awarded for with each of the Sustainable Development Goals it helps advance

The project *DAISY-standard accessible reading materials for students with visual and print disabilities* is relevant to WSIS Action line **C3** (Access to information and knowledge), whereby ICTs allow individuals, organizations and communities, anywhere in the world, to access information and knowledge almost instantaneously and benefit from it.

In reference to the seventh item under that action line, this project encourages research on the information society, including on innovative forms of networking, adaptation of ICT infrastructure, tools and applications that facilitate accessibility of ICTs for all, and disadvantaged groups in particular.

Today, around 100 000 students with visual disability, print disability and learning disability, and other information-disadvantaged groups, can read and listen to their textbooks, which can significantly improve their learning. The government had already been distributing books for free, but now *all* girls and boys can get completely free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes (**SDG 4, Target 4.1**). School dropouts, but also existing students who take longer to learn, can now self-teach themselves using these accessible reading materials. This can help ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy (**SDG 4, Target 4.6**). One of the key reasons behind the success of this initiative is ownership by the National Curriculum and Textbook Board (NCTB), which is vetting content quality and relevance, thus ensuring that the education facilities are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all (**SDG 4, Target 4.a**).

### Highlights of the project's partnership activities

Copyright ownership on the accessible reading materials developed for print-disabled persons under this project is held by a2i and YPSA.

The Department of Social Services (DSS) within the Ministry of Social Welfare, as the department mandated to serve the interests of PWDs, has been involved from the very outset of the project. It procures the materials and distributes them to users within the scope of different government projects.

The Ministry of Education is the key ministry responsible for printing and distribution of textbooks on “Textbook Day”, and it has instructed NCTB to update content and distribute accessible reading materials to schoolgoing children.

In the international arena, the initiative has received and continues to receive technical and advisory support from the DAISY Consortium, the Accessible Books Consortium, the World Intellectual Property Organization (WIPO) (providing copyright of accessible reading materials and allowing international exchange of books) and the Global Alliance on Accessible Technologies and Environments (GAATES).

The team from YPSA, which has developed accessible reading materials, is led by Mr Vashkar Bhattacharjee, himself a person with visual impairment, who is the focal point for the Digital Accessible Information System (DAISY)<sup>2</sup> Consortium in Bangladesh and the Second Vice-President of GAATES.

## Challenges and project’s future perspectives

The project has had to confront a number of specific challenges during different stages of development, implementation and promotion, such as:

- The lack of a high-quality text-to-speech system in the Bangla language meant that the project had to use human narration for the voice in the accessible reading materials.
- The fact that none of the national textbooks were available in Unicode text format meant that the project had to call on volunteers to convert the books into Unicode text.
- There being no exemption for accessible book production in the nation’s copyright law, the project had to engage in advocacy to get the permission of the government and publishers to produce the accessible books.
- The lack of an established library service for the distribution of accessible reading materials meant that all the books in alternative formats (such as e-book, DAISY multimedia books, digital Braille books and Unicode text) had to be uploaded to the national content repository for wider distribution.
- Lack of awareness of digital books/content obliged the project to arrange advocacy and awareness-raising sessions.

Thanks to the use of open-source technology, the process of developing and producing the full-text and full-audio multimedia books, Braille books, accessible e-books etc. through the use of DAISY is easily replicable.

Nevertheless, to attain maximum leverage from this innovation, it is necessary to continuously come up with innovations that complement the overall learning environment for the print-disabled population. In this regard, a2i’s iLab can play a vital role as an initiator and incubator of innovative solutions. Here, it worth mentioning that a2i is supporting its own design thinking lab that provides a co-location and corroboration space for innovators and inventors, investors and donors, professionals from both the public and private sectors, industry experts and researchers. Here in this lab, these important stakeholders can pool their individual and institutional efforts to come up with scalable

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<sup>2</sup> The DAISY (Digital Accessible Information System) standard is a digital standard where books and other materials are recorded in order to be played back in audio form for print-disabled and visually impaired persons. DAISY standard software is an open-access free software which was developed by DAISY Consortium and is available at [www.daisy.org](http://www.daisy.org). It is designed to be a complete audio substitute for print material and is specifically designed for use by people with "print disabilities".

innovative products. Already an initiative is being undertaken to develop a local, low-cost version of DAISY player. The future of this initiative lies in making it independent of hardware type and user-friendly for users at any level of education.

### **Your views on WSIS Stocktaking and Prizes contest, including its relevance to SDGs**

The WSIS Stocktaking and Prizes contest has managed to quickly and successfully develop a rich multimedia library of thousands of ICT-related projects from all across the globe. The contest has been a good influence on these projects, highlighting the human development stories and going beyond mere application of ICTs to look to a more human-centric design thinking version of innovative ICT application.

As part of the broader agenda of achieving the SDGs, the role of ITU as a promoter of SDGs among government and non-government actors and institutions around the world is commendable. a2i praises the way ITU-WSIS has successfully merged the concept of SDGs with development and humanitarian initiatives across the globe.

## C4: Capacity building

<b>Project name:</b>	<b>Punto Mexico Conectado (PMC)</b>
<b>Organization:</b>	<b>Ministry of Communication and Transport (SCT)</b>
<b>Country:</b>	<b>Mexico</b>

### Basic information about your entity

The Ministry of Communication and Transport (*Secretaría de comunicaciones y transportes- SCT*) is a government agency that oversees federal infrastructure and services in two sectors: communications and transport.

On the communications side, the 2013 Constitutional Reform resulted in a new regulatory framework and institutional architecture providing for full and open competition, universal access, affordability, and quality services and content. Under this reform, it was established for the first time, in Article 6 of the Constitution, that the Mexican government has an obligation to guarantee the right to Internet access for all citizens. To achieve this, Government Commitment 107 was issued, providing for the creation of a national network of digital inclusion centres.

It is thus that the *Punto Mexico Conectado* network (PMC) came into being.

### Project's description (activity's description)

The PMC programme seeks to bridge the digital divide in order to increase access to information and communication technologies (ICT) and maximize the endless possibilities they have to offer. PMC achieves this objective by installing one centre in each state of Mexico, generally located in areas that are highly marginalized with high poverty rates. In this way, the programme benefits those who are less likely to have access to either connectivity or computers in their everyday life.

The main objectives of PMC are:

- 1) To contribute to achieving universal broadband access
- 2) To achieve digital inclusion and literacy
- 3) To promote digital training and provide education to new ICT professionals
- 4) To create more efficient and productive micro, small and medium-sized enterprises (MSMEs)
- 5) To promote and increase the use of electronic public services
- 6) To nurture cooperation between government, organizations, companies and citizens to bridge the digital divide.

In order to achieve these objectives, PMC seeks to promote the use of new technologies for the development of digital skills, innovation and entrepreneurship. Within each of the centres, courses are held to foster greater digital inclusion and produce better-informed and more involved citizens, as well as creating more efficient and productive MSMEs.

The courses offered at PMC centres include classes on digital literacy, robotics and programming, as well as programmes for innovation and entrepreneurship, among others. Through new technologies, these inclusion-oriented centres help users develop their skills and abilities to make enhanced use of technology to benefit themselves and their surroundings.

The competence-based training approach of the educational model in PMC is applied to the fields of digital training, innovation, cultural heritage and artistic expression in order to promote the development of cybercultural skills as a change agent.

The educational model enables local participation, seeking to encourage digital inclusion. Everyone can benefit from the PMC's educational offering, and extend their learning process to transcend and change their reality. The programme also focuses on assisting disadvantaged social groups such as women, indigenous people and persons with disabilities, and will cooperate to strengthen other programmes aimed at digital inclusion.

Each PMC centre has four areas of focus:

1. **Digital literacy:** Computer, Internet and English courses. These classes are held for people who have not had any contact with computers, as well as targeting different user groups with special interests, emphasizing the need for digital education and job training to improve their quality of life.
2. **Innovation and entrepreneurship:** This course is based on an active learning approach in which the method, tools and access to know-how and know-who networks seek to inspire innovative ideas related to technologies that will enable users to access a new economy. Following this method, enrolled students, in addition to benefiting from their entrepreneurial projects, will also have the opportunity to create jobs that will benefit their society.
3. **Robotics and programming:** New careers and industries depend more and more on abilities like computing and programming. Industries nowadays require multi-disciplinary approaches that do not always exist in traditional educational models. In this course set, both children and adults interact with technology and learn coding and programming in a creative way, building models of machines and robots which they then program and use in many different ways. In this manner, PMC aims to equip its users with different sets of abilities, not only in programming, mechanics or engineering, but also in problem-solving and teamwork.
4. **Creative and cultural expression:** Attending to communities and their surroundings and their local and specific needs is part of the benefits of the programme. Through exhibitions of new technology and workshops on local requirements, PMC leverages greater benefits for the community.

### Examples of linkages between the WSIS Action Line your project was awarded for with each of the Sustainable Development Goals it helps advance

In order to implement and achieve the Sustainable Development Goals (SDGs) in all countries, but especially in developing countries, resolute and practical actions are required. Some of the most important actions start with connectivity, access to technology and capacity building. The PMC programme uses access to technology as a facilitation mechanism in order to achieve some of the SDGs, in the following ways:

#### **SDG 1:** End poverty in all its forms everywhere

PMC makes connectivity and new technologies available for people who would usually be unable to afford them, everywhere in the country. By teaching its users new ICT skills, introducing them to entrepreneurship or even showing them how to use government digital services, it enables them to gain new capabilities, envisage careers in STEM fields, seek new jobs and even find ways to create their own businesses, thus having an impact on their entire community. In the long run, these new abilities and business opportunities will enable people who live in areas with high poverty rates to help their families and communities produce a better income and achieve a brighter future.

#### **SDG 4:** Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

Throughout the world, it is observed that inequality in access to education is undermining low-income families' chances of surmounting the income gap. PMC uses high-end technology to teach every person who attends a class in one of its centres. So they not only learn about technology, but through the technology they also enjoy access to an infinite amount of information and courses that exist online. Education should not be constrained by income or lack of opportunity. In the PMC network, we give people of any age the chance to learn about anything their imagination can handle.

**SDG 5:** Achieve gender equality and empower all women and girls

In the PMC programme we are aware that, through access to ICTs, gender equality may be achieved and women may become productive and empowered members of their communities on a par with men. The programme works hard to make technology and education available to both men and women on an equal footing. In order to ensure equality, however, each term we roll out robotics, entrepreneurship and digital literacy courses open only to women, as a means of capturing their interest, so that once they become acquainted with technology they may wish to enroll in mixed courses. Through different workshops and courses we also work to raise awareness for empowering girls and women and encouraging them to consider studies and careers in STEM fields.

**SDG 8:** Promote inclusive and sustainable economic growth, employment and decent work for all

One of our main objectives is to train and educate new ICT professionals through technology courses that we develop in collaboration with various partners and stakeholders like Cisco, Microsoft, Lego, Google and Dell. We aim to train ICT professionals who will eventually have the abilities to work at these or any other technology enterprises and become productive members of their community.

**SDG 10:** Reduce inequality within and among countries

According to different studies, Internet access holds great potential for increasing income and opportunities in diverse markets; conversely, failing to make Internet accessible to disadvantaged groups could widen the income and opportunity gap. It is by making not only Internet access, but also new technologies, accessible to vulnerable and marginalized groups that societies can become equal. In PMC, we work towards the goal of making new technologies and connectivity free and accessible to all groups in order to make Mexico a more equal country that will be able to compete up to international standards.

**SDG 17:** Revitalize the global partnership for sustainable development

In PMC we believe that the way to achieve progress and development in the country is by means of partnership between government, enterprises, non-governmental organizations and society. It is through such partnership that true achievements can be made. In the programme, we work alongside many partners and stakeholders, such as Microsoft, Cisco, Google, Adobe, different universities and the Federal Government, which cooperate constantly to make our network stronger and more affordable so that more people can benefit from it.

## Highlights of the project's partnership activities

Strengthening ties between different partners and programmes like the PMC network leverages mutual benefits for the programme and the institutions and organizations alike.

To enhance cooperation, partnerships between non-governmental organizations (NGOs), government entities, private enterprises and civil society are widely encouraged. The PMC network works with entities like the Mexican Ministry of Education, the Ministry of Economy; enterprises like Microsoft, Google, Cisco, Dell, Robotix and Lego; NGOs like CREA and iLab; and universities like the University of Nuevo Leon and the University of Guadalajara, thereby forging partnerships that will benefit the whole population, as they contribute with equipment, educational models, free courses and economic support.

## Challenges and project's future perspectives

In today's world, the benefits of the information society multiply quickly; but as these benefits grow, those excluded from the digital world are increasingly at a disadvantage. The greatest challenge is to achieve universal access nationwide, emphasizing the need to assist disadvantaged social groups such as women, indigenous people and persons with disabilities.

Punto Mexico Conectado became operational in February 2015. To date, more than 390 000 citizens have registered in the programme and more than 245 000 have enrolled in courses.

It is estimated that PMC will have more than 160 000 beneficiaries annually nationwide, thus helping to reduce the digital divide and ensure the right of access to ICTs, turning Mexico into a country with greater development opportunities, in which every person is able to write their own success story.

## Your views on WSIS Stocktaking and Prizes contest, including its relevance to SDGs

The information society is growing exponentially every day, and the WSIS Stocktaking and Prizes contest has a significant impact in a world that is constantly becoming more and more digital. Organizations like ITU and events like the WSIS Stocktaking focus countries' attention on the increasingly important role ICTs play in today's world and in the development of the population.

WSIS and the WSIS Prizes are great opportunities to raise awareness of the different actions countries are taking to employ ICTs as enablers for development. Every year the international community gets to discover new ways of using technologies to achieve better healthcare systems, stronger economic growth and more effective education through different countries' perspectives and programmes, which will then be escalated in other parts of the world.

It is through summits like WSIS that a more inclusive and digital world can be achieved.

## C5: Building confidence and security in the use of ICTs

**Project name:** **Multimedia distance-learning course on the safe use of Internet resources**

**Organization:** **A.S. Popov Odessa National Academy of Telecommunications**

**Country:** **Ukraine**

### Basic information about your entity

The A.S. Popov Odessa National Academy of Telecommunications (ONAT) is Ukraine's leading higher-education institution in the field of information and communication technologies. A.S. Popov ONAT's main types of activities are:

- training, retraining and advanced training of specialists for the telecommunication industry, science, economy, education and other sectors;
- organization of fundamental and applied scientific research and of experimental design work based on scientific research;
- creation and publication of educational, methodological and scientific literature;
- external relations (training foreign citizens, signing cooperation agreements, participation in conferences and other events abroad);
- implementation of maintenance tools and communication facilities of all kinds and provision of services in the communications industry;
- research and development of telecommunication systems and communication networks, etc.

### Project's description (activity's description)

A.S. Popov ONAT (Ukraine) has developed a *multimedia distance-learning course on the safe use of Internet resources*, with the support of the International Telecommunication Union (ITU), as part of the Regional Initiative on "Creating a child online protection centre for the CIS region", adopted at the ITU World Telecommunication Development Conference (Dubai, 2014). The course is divided into three parts: Basic (for pre-school and junior school children); Intermediate (for children in classes 5 to 9); and Advanced (for senior pupils, students, parents and teachers). Each part is divided into thematic modules, with tests after each module. After finishing the tests, the corresponding ITU certificate is issued automatically on completion. Since end 2015, a Russian-language version of the course has been available online at <https://onlinesafety.info>. Also, an offline version of the course (on DVD) was developed, which is distributed among schools in the Commonwealth of Independent States (CIS) region that do not have a sufficiently high-speed Internet connection.

The course contains more than 225 interactive slides (screens), including 13 multimedia (cartoon) clips, 11 interactive games and more than 150 images (cartoon-style graphics, photo images, infographic pictures, etc.). All slides are voiced by the chosen hero.

The basic course is structured in three modules:

- General information on security in the Internet
- Rules for communication online
- Useful and harmful online games.

To begin with, children choose a hero (boy or girl) to help them follow the course. All slides and navigation moves carried out with the cursor are also voiced by the chosen hero.

During the course, the child studies such topics as:

- What is the Internet and how is it organized?
- What useful things can I get from the Internet?
- The main dangers online
- Virus programs that harm a computer
- Virus programs for spying on users or gathering personal data held on the computer
- Illegal, unethical and harmful content
- Misleading content
- Cyberbullying and cybergrooming
- Benefits and harm from social networks
- What can I tell other people online and what must I not tell them?
- Rules of 'netiquette'
- How do I create my online profile?
- How and what to play online
- Possible harmful effects of computer games (including the influence of Internet slang on colloquial speech)
- etc.

Throughout the course, the child periodically has to answer test questions involving animated figures. This helps to consolidate the knowledge acquired. There is no separate end-of-course test foreseen in the basic course, and a certificate is issued automatically on completion.

The intermediate course comprises five modules:

- General information on security in the Internet
- Safe entertainment online
- Rules for communicating with others online
- What can you believe on the Internet?
- How to protect oneself online.

In the first slide, the child learns about the purpose of the course and its format. During the course, the child studies topics such as:

- What is the Internet and how is it organized?
- The main dangers online
- Illegal, unethical and harmful content
- Misleading content
- Cyberbullying and cybergrooming
- Internet fraud
- Basic rules for using the Internet

- How not to be a victim of virtual reality
- The influence of Internet slang on colloquial speech
- Antivirus software
- Basic precepts of “netiquette”
- What can I write about (and save) online?
- Anonymity online
- How to verify information online
- Copyright online (music, video, images, presentations, dissertations, etc.)
- Working via public networks (Wi-Fi zones, Internet clubs, etc.) or using someone else's computer
- Rules for working safely with e-mail
- Who can help if there is a problem online?

On completing the course, the child takes a test comprising ten questions with multiple-choice answers. The test set is based on a random selection from 40 questions (eight for each module).

The advanced course comprises seven modules:

- General information on security in the Internet
- Rules for communicating with others online
- Safe entertainment online
- What can you believe on the Internet?
- Confidentiality and working via public networks
- Risk assessment and behaviour in difficult situations
- Methods of filtering content and child protection online.

The advanced course interface is designed to be as similar as possible to that of the UN advanced “Security in the Field” course. Information is presented with the aid of a number of different types of slide and additional elements which make it possible to create small interactive scenarios using a range of multimedia content. Participants study such topics as:

- Basic information on Internet architecture
- Existing threats (viruses, fraudsters, criminals and so on)
- How to remain literate when communicating with others online
- What can you write about and what should you not write about online?
- Ensuring that children do not view undesirable content
- Copyright and how you can break the law without knowing it
- How much time may I spend online?
- The influence of Internet slang on colloquial speech
- Typical forms of Internet fraud
- Data protection
- Monitoring children's behaviour online
- Threats to life and health online
- Basic content-filtering techniques

- Advice on choosing content-filtering systems (for homes, schools and institutions)
- Other aspects.

During 2016 and 2017, more than 21 000 users all over the world (more than 30 countries with more than 10 users in each) used the course materials and about 13 700 certificates were issued. A lot of special actions were organized on the basis of the course materials, such as, for example, mini-performances for pupils of kindergartens (“Safe world of the Internet”), a set of lectures for middle-school pupils, workshops for heads of schools, etc.

### Examples of linkages between the WSIS Action Line your project was awarded for with each of the Sustainable Development Goals it helps advance

**SDG 4:** Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

On 9 February, 2016, A.S. Popov ONAT of the Ministry of Education and Science of Ukraine, together with the Department of Education and Science of the Odessa City Council, and with the support of ITU, organized a mini-performance of “Safe world of the Internet” for kindergarten pupils. The performance was held in the ballroom of pre-school educational institution № 29 (Odessa, Ukraine).

The mini-performance was prepared by students of A.S. Popov ONAT based on the multimedia distance-learning course on the safe use of Internet resources.

In an entertaining, playful way, fairy-tale characters (Dunno, Pippi Longstocking and Professor Googley) told preschoolers about the basic rules of behaviour on the Internet and the dangers that could await them.

At the end of the mini-performance, every child received the completion certificate for the training course ( “Basic” level – for pre-school and primary school children), as well as a DVD-disk with an offline version of the course.

See also: <https://youtu.be/voDTkVdM7OQ> .

### Highlights of the project’s partnership activities

Three projects were carried out within the framework of implementation of the Regional Initiative for the CIS countries “Creating a child online protection centre for the CIS region”, which was adopted at WTDC-14:

- Multimedia distance-learning course on the safe use of Internet resources (<https://onlinesafety.info>);
- Database of existing technical solutions for child online protection (<https://contentfiltering.info>);
- System of automated distribution “black” and “white” lists of Internet resources (<https://bwld.online>).

### Challenges and project’s future perspectives

A.S. Popov ONAT is looking for a partner for translation of the course into English.

The potential audience of an English-language version of the course is about 50 million people, including secondary-school pupils, parents, teachers and students.

## Your views on WSIS Stocktaking and Prizes contest, including its relevance to SDGs

It is very important to have a platform where all interested parties can present their best projects. To date, the WSIS Project Prize is the highest award in the field of information technology and is an indicator of outstanding achievement of a particular organization or the Member State as a whole.

## C6: Enabling environment

<b>Project name:</b>	<b>National Programme for ICT Accessibility in Education for Persons with Disabilities</b>
<b>Organization:</b>	<b>Ministry of Communications and Information Technology</b>
<b>Country:</b>	<b>Arab Republic of Egypt</b>

### Basic information about your entity

The Ministry of Communications and Information Technology (MCIT) was established in 1999 to develop the national ICT sector in Egypt. MCIT's vision is "Achieving the digital economy through ICT to provide prosperity, freedom and social equity for all".

### Project's description (activity's description)

Persons with disabilities (PwDs) face many challenges in terms of access to high-quality education, including a lack of ICT infrastructure at special education and inclusion schools; the absence of assistive technologies (AT) which support the Arabic language; unqualified human resources; and inaccessible learning materials. With the aim of fostering an enabling and inclusive society for PwDs through the use of ICT for accessible, high-quality and inclusive education, MCIT launched the *National Programme for ICT Accessibility in Education for Persons with Disabilities* (ICT-AiED). As the first national project for ICT accessibility in education for PwDs in Egypt, ICT-AiED managed to unite different partners in their efforts to combat discrimination and remove structural barriers to education for students with disabilities (SwDs).

The programme started with the formulation of Egypt's Policy for ICT Accessibility in Education, in cooperation with the Global Initiative for Inclusive ICTs (G3ict). The project has since equipped more than 500 special education and inclusion schools and 24 centres for PwDs with the required ICT and AT tools, covering all public universities; trained 6 000 teachers on the use of these technologies; and supported the development of more than 12 ATs for education purposes. In addition, the programme addressed the communication challenge facing the deaf due to sign language differences across Egypt by developing the first Unified Egyptian Sign Language Digital Dictionary, which is deployed to all schools for the deaf.

### Examples of linkages between the WSIS Action Line your project was awarded for with each of the Sustainable Development Goals it helps advance

Creating an enabling environment for the education of PwDs is directly linked to a number of SDGs, in particular **SDG 4**, on inclusive and equitable quality education, as well as **SDG 10**, on reducing inequalities, insofar as ICT-AiED provides SwDs with the same education opportunities as their peers without disabilities. The partnerships developed with the different international and national stakeholders reflect **SDG 17**, on partnerships for the goals. In addition, the high-quality education provided to SwDs is contributing to their integration in the job market and hence enhancing their quality of life; this supports both **SDG 2**, on zero hunger and **SDG 8**, on decent work and economic growth. Encouraging ICT companies to develop innovative AT to support the education of Arabic-speaking PwDs, which is a new ICT industry for Egypt and indeed for the Arab world as a whole, is linked to **SDG 9**, on industry, innovation and infrastructure.

## Highlights of the project's partnership activities

This programme has engaged diverse stakeholders, including international organizations, decision-makers, teachers, parents of SwDs, the private sector and organizations for PwDs, at different stages of its implementation, for optimum efficiency.

Egypt's Policy for ICT Accessibility in Education was developed in cooperation with G3ict, decision-makers from the Ministry of Education, teachers and three non-governmental/disabled people's organizations (NGOs/DPOs).

A strong and successful partnership was established with Cisco to train 30 000 teachers; and with 12 national ICT companies to develop customized ATs.

## Challenges and project's future perspectives

Given the scale of the programme, it had to confront several challenges, which were mitigated through relevant measures adopted by the implementation team:

### 1. At the strategic level:

The absence of a policy framework setting out the government's policy plans for ICT in inclusive education and expected implementation mechanisms was a major challenge. MCIT took the lead, and made arrangements with G3ict, in cooperation with the Ministry of Education (MoE) and various stakeholders, to develop Egypt's "Policy for ICT Accessibility in Education" for PwDs.

### 2. At the economic level:

Egypt faces a number of economic challenges liable to hinder the implementation of ICT-AiED. Although the government allocated EGP 75 million (almost USD 4 million) to the project, of which EGP 30 million has already been expended, MCIT is collaborating with different entities serving accessible education in order to optimize the use of resources and extend the service to as many students as possible. A creative business model was applied which minimized the cost of the AT, whereby MCIT supports innovators developing AT, who then donate a certain number of the funded products to schools.

### 3. At the operational level:

- *Readiness of schools:* More than 90 per cent of the schools either had no basic ICT equipment, or only obsolete equipment. MCIT provided the required infrastructure.
- *Availability of AT:* Given the lack of AT which supports the Arabic language, MCIT launched the "Tamkeen" annual innovation competition for the development of AT, and the resulting technologies are deployed to relevant schools.
- *Accessibility of learning materials:* Access to learning materials was handled through two approaches: the development of AT to serve the general educational needs of students with disabilities, and the digitization of curricula.
- *Human resources:* Lack of computer and AT knowledge on the part of teachers was addressed through a training programme- the first intake for the teacher training in ICT, including the use of AT, was completed, and 7 000 teachers are being selected for the second intake.

## Your views on WSIS Stocktaking and Prizes contest, including its relevance to SDGs

The WSIS Stocktaking Prize contest is an effective mechanism for publicizing effective and impactful projects that could be of use to different stakeholders. It provides a venue for knowledge exchange and partnership opportunities for the benefit of communities. In addition, it raises awareness on the WSIS action lines and their contribution to attainment of the global SDGs.



## C7.1: ICT Applications: e-government

**Project name:** Provision of state and municipal e-services

**Organization:** Government of the Republic of Tatarstan

**Country:** Republic of Tatarstan (Russian Federation)

### Basic information about your entity

The Government of the Republic of Tatarstan is the executive and regulatory authority of the Republic of Tatarstan, and is accountable to the President of the Republic of Tatarstan. It establishes and organizes the work of ministries, state committees of the Republic of Tatarstan and other subordinate executive authorities, and oversees their activity.

### Project's description (activity's description)

State and municipal e-services in the Republic of Tatarstan are provided through the Portal of state and municipal services of the Republic of Tatarstan (<https://uslugi.tatarstan.ru>) (hereinafter referred to as the 'Portal'); information self-service terminals (hereinafter referred to as 'infomats'); and the mobile application 'Services of the Republic of Tatarstan' for iOS and Android devices, available in AppStore and Play Market.

The Portal is an integrated Internet resource for the interaction of citizens and economic entities with state authorities and local governments of the Republic of Tatarstan, for the provision of state, municipal and socially important services in electronic format, including payment for such services.

As at the beginning of 2017:

- 240 types of e-services have been implemented.
- 410 'Electronic Tatarstan' infomats (electronic self-service terminals for payment of state, municipal and socially important services) have been installed, in organizations, big shopping malls and underground stations, in every municipal region and city district of the Republic.
- 83.2 million e-services were rendered in 2016.

The e-services are calculated on the basis of four main criteria:

- Requests – more than 53.2 million electronic requests
- Booking appointments – 15.7 million appointments booked via the e-queuing system
- Applications – 4.5 million e-applications for e-services submitted
- Payments – 9.8 million payments, for a total of RUB 10.9 billion.

### Examples of linkages between the WSIS Action Line your project was awarded for with each of the Sustainable Development Goals it helps advance

The project is presented under WSIS Action line **C7**: ICT applications: benefits in all aspects of life (E-government), since it is aimed at increasing the quality and availability of state, municipal and

socially important services. This objective is closely connected with the Sustainable Development Goals:

- **SDG 8:** Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
- **SDG 9:** Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
- **SDG 11:** Make cities and human settlements inclusive, safe, resilient and sustainable.

### Highlights of the project's partnership activities

Collaboration is pursued with the following organizations is for the provision of e-services:

- Federal executive authorities of the Russian Federation
- state and municipal authorities of the Republic of Tatarstan
- magistrates' court (JPs)
- organizations managing the housing and utility sector
- communication providers
- kindergartens and schools
- Russian Post
- ticket agents
- charity funds
- AK BARS Bank PJSC (the bank which receives payments on the Portal, infomats and mobile applications).

### Challenges and project's future perspectives

Problems faced by the project:

- The need for amendments to regulatory and legal acts to accommodate the provision of services in electronic format
- People are used to receiving services by traditional means and do not trust electronic interaction.

Prospects of the project:

- Extension of services and improvement of the quality of the services provided
- Increased use of e-services and involvement of different social groups in the use of ICT.

### Your views on WSIS Stocktaking and Prizes contest, including its relevance to SDGs

The WSIS Prizes contest is a very important event in the ICT arena, as it serves to define best global practices and recognize projects internationally.

## C7.2: ICT Applications: e-business

**Project name:** National Trade Platform (NTP)

**Organization:** Singapore Customs

**Country:** Singapore

### Basic information about your entity

Singapore Customs is the lead agency on trade facilitation and revenue enforcement. We uphold our laws to build trust, facilitate trade and protect revenue.

The Government Technology Agency of Singapore (GovTech) is tasked with harnessing infocommunication technology and related engineering for public-sector transformation.

### Project's description (activity's description)

Singapore is a major global and Asian trading hub: up to 80 per cent of the top companies trading in oil and gas, steel, agri-commodities and metals and mining firms are located here; 30 per cent of Asian trading is conducted in Singapore; and up to 35 per cent of Asian trade is financed out of Singapore. Singapore also has among the busiest seaports and airports in the world. Hence, continuous safe and efficient trade is vital to our economy. However, the typical supply-chain process for international trade remains complex and time-consuming. It can involve up to 25 parties generating 30-40 shipping documents with the exchange of goods, money and information at each stage. An efficient supply chain will help businesses reduce operating costs and enhance their competitiveness.

In 1989, Singapore introduced TradeNet. It was the world's first National Single Window (NSW), incorporating the whole of government trade regulatory requirements. With TradeNet, businesses submit a single electronic trade declaration that fulfils all relevant government agencies' cross-border regulatory requirements. Annually, TradeNet processes more than 9 million permits with a total value exceeding three times Singapore's GDP. It is one of the most efficient nationwide trade documentation systems in the world, with more than 95 per cent of the permits auto-processed and approved in less than 10 minutes.

In October 2007, TradeNet was revamped and integrated with TradeXchange, to provide a neutral and secure platform to enable exchanges of trade and logistics documentation and data among private-sector businesses as well as with the government. More than 200 businesses have benefited from streamlined processing across eight business-to-business (B2B) services offered on TradeXchange. It is estimated that these businesses saved about 7.5 million man-hours (equivalent to SGD 72.9million) from February 2011 to March 2016.

However, the world is changing and there are new challenges to global supply chains. Global trade has grown 2.8 per cent annually since 2014. Global supply chains have to cope with increased disruptions due to their complexity, volatility and unpredictability. Businesses face pressures to reduce costs while at the same time meeting increasing customer service expectations. All this while businesses operate in an environment of highly variable customer demand.

There have also been recent, unexpected changes in the global order, which may lead to significant economic discontinuities. Digitization of the end-to-end supply chain and increasing connectivity across parties are key strategies to help businesses and the government to continually adapt and succeed.

The *National Trade Platform* (NTP) will be the next-generation digitized platform to support businesses and the government, particularly in the logistics and trade finance sectors. It will be a one-stop trade information management system, enabling businesses to digitize their trade documentation and digital data/document transactions between businesses, and between business and the government. Supporting digitization efforts, the NTP will help businesses streamline processes, reduce the inefficiencies of manual trade document exchange, and tap into the potential of data analytics to draw insights from trade data. As the next-generation system, the NTP will be designed as an open innovation platform, which businesses and service providers can tap into in order to develop new applications to support evolving business needs.



Streamlined and digitized processing across businesses will cut costs, especially for small and medium-sized enterprises (SMEs). Through the NTP, businesses can synergize their digitized B2B and business-to-government (B2G) processes and information across the value chain, receive timely event alerts to help optimize their supply-chain management and better support Just-in-Time delivery. With this, the overall quality of logistics services will improve as cargo spends less time waiting for documentation processing, businesses improve forecasting and predictability of their shipments, and service providers reduce end-to-end lead times, resulting in an overall increase in productivity and lower costs to trade. The digitization of the supply chain will also be extended to trade finance businesses so as to entrench the connectivity between physical cargo and financing activities, as well as broadening the benefits of productivity gains across a larger network of business types.

The NTP will generate multiple data streams. With robust data security and governance measures embedded as part of its design, collaborative processes such as data sharing on the NTP will enable demand planning across business partners to help reduce business risks associated with volatility and unpredictability. The rich repository of data provides a strategic instrument for businesses to perform trending, forecasting and planning and uncover new insights to outperform in the market. The timeliness of the B2B and B2G data also helps to harbour more predictable and reliable supply chains, especially in supply chain control towers.

One of NTP's core capabilities is enabling businesses to manage trade documentation more efficiently. As mentioned earlier, a single shipment can involve up to 25 parties and generate 40 documents. Businesses face challenges to identify and compile all related trade documents for a particular shipment. The problem is compounded when these documents are generated by multiple parties and cut across different shipments. To help businesses, the NTP will digitally tag all related commercial, trade, transport and regulatory documents by shipment across the value chain, irrespective of the

number of parties involved. This enables the businesses to search and retrieve all related trade documentation easily, and take prompt action on any missing documentation.

The NTP will seek to interoperate with overseas digitized trade platforms. These overseas platforms include those established by other governments or the private sector. The interoperability enabled by the NTP and the overseas platforms will create stronger B2B, B2G and government-to-government (G2G) linkages across borders and connect trading activities globally.

The NTP will provide an open community workspace to encourage businesses to network and collaborate. The workspace also serves as a one-stop marketplace for all relevant trade services. Through the NTP marketplace, businesses may: source for new partners; expand their market outreach; seek new business opportunities; and crowdsource new ideas and/or solutions. This will help businesses grow and scale up at their own pace depending on their specific needs and stage of growth. It will also increase connectivity and engagements across a growing network of businesses involved in trade. For SMEs, this will boost their motivation to adopt digital technologies, further enhancing their capabilities.

The NTP will also provide an open innovation platform to catalyse the creation of value-added services and new business models by the private sector. Businesses and the government will be able to share key operational and strategic challenges and “crowdsource” solutions enabled by digital technologies. Developers and third-party solution providers could prototype and test new ideas with the communities on the NTP before deploying full scale to the market, within shorter innovation cycles. Such an open and innovative platform can stimulate growth and digitally transform the supply-chain landscape.

The first wave of the NTP’s deployment is scheduled to take place in late 2017. However, there will be continuing efforts to broaden and deepen the digitally connected supply chain across businesses and the government, and across borders. There will be continued collaboration with businesses to: increase the number of streamlined processes, thereby creating more digitized data streams; exploit the digitized data streams to optimize, transform and co-create new business models and/or services; and seek new cross-border collaborations to enable end-to-end integration of the supply chains.

### Examples of linkages between the WSIS Action Line your project was awarded for with each of the Sustainable Development Goals it helps advance

Through the NTP, businesses and the government will learn to build up their e-business capabilities and expand their horizons. The specific SDGs related to the NTP are:

- **SDG 8:** Promote inclusive and sustainable economic growth, employment and decent work for all
- **SDG 9:** Build resilient infrastructure, promote sustainable industrialization and foster innovation
- **SDG 11:** Make cities inclusive, safe, resilient and sustainable.

As a one-stop trade information management system, the NTP will enable electronic data sharing among businesses and government. Firms only have to provide trade information once and authorize its use by logistics providers as well as business partners. The information can also be used for customs and other trade regulatory approvals. This will be especially helpful for SMEs, to cut costs and streamline processes.

The NTP is also not just an IT system. It will be developed as an open innovation platform, so that other service providers can develop value-added services and apps in areas such as operations, visibility and trade finance.

## Highlights of the project's partnership activities

The government has adopted a co-design strategy to develop the NTP. In late 2013, the government issued a Request-for-Information (RFI) seeking the industry's views on the future trade platform, how the platform could be delivered and the business models needed to underpin it. By the close of the RFI, good proposals from five leading information technology and consultancy companies had been received. The results of the submissions and the conversations which followed led to further refinement of the NTP design.

Following the award of the NTP tender in April 2016, the government embarked on a series of interviews, focus-group discussions and applied innovation workshops with the industry. The objectives of this engagement with the industry was to identify their challenges and new opportunities; and co-create solutions on the NTP that would help businesses. By end 2016, the government had sought views from more than 330 individuals representing more than 190 businesses. These businesses came from a cross-section of importers, exporters, freight forwarders, air express companies, customs declaring agents, banks, and information technology and consultancy firms.



This resulted in a collection of more than 300 ideas on how to exploit digitization to further enhance global supply-chain operations. The ideas relating to functionalities have either been included in the current NTP design or planned for future deployment. The ideas for streamlining processes have also led to the formation of five working groups comprising businesses and the government. The working groups aim to co-develop solutions to improve areas such as reducing the regulatory burden of declarations, digitizing synergies between cargo movement and trade finance as well as cross-border supply-chain operations.

## Challenges and project's future perspectives

The key challenge in the adoption of the National Trade Platform is the highly fragmented nature of the logistics and trade finance ecosystem. There are many types of stakeholders, ranging from large global banks to self-employed lorry drivers, varying levels of IT sophistication and multiple re-generation of documents using the same data.

However, Singapore and many other countries are promoting digitization especially in B2G transactions. There have also been experiments between countries for G2G digital exchange of data for cross-border trade. This will push the industry to streamline their B2G processes and adopt IT.

The engagements with the industry must also continue to raise awareness, build capabilities and deploy innovative value-added services to help the industry digitize its B2B transactions.

## Your views on WSIS Stocktaking and Prizes contest, including its relevance to SDGs

We are delighted the National Trade Platform has been selected as the Winner in the E-business category of the WSIS 2017 Prizes. This recognition will raise awareness of NTP in the industry and

among potential cross-border partners. We can also learn from the WSIS Prizes and the sharing of success stories. This strengthens global efforts, by countries and businesses, to achieve sustainable development through the use of IT.

## C7.3: ICT Applications: e-learning

<b>Project name:</b>	<b>E-Learning and Virtual Classroom</b>
<b>Organization:</b>	<b>Kuwait University (Dr Salah Alnajem)</b>
<b>Country:</b>	<b>State of Kuwait</b>

### Basic information about your entity

This project was implemented by Dr Salah Alnajem, Associate Professor of Computational Linguistics and Natural Language Processing at Kuwait University. Kuwait University was established in October 1966, under Act No. 29/1966. It is the state's first public institution of higher education and research. The university aims to preserve and transmit knowledge through scholarship, and encourage innovation and development in arts and sciences. It comprises 17 colleges offering 76 undergraduate and 71 graduate programmes.

### Project's description (activity's description)

The *E-Learning and Virtual Classroom* website is a learning-management system (LMS) integrated with a virtual classroom functionality using advanced e-collaboration and videoconferencing technology.

The virtual classroom functionality allows students and other users to join live and recorded lectures/webinars delivered by Dr Salah Alnajem at Kuwait University. The system allows students to participate and interact online in university lectures using videoconferencing and e-collaboration technology, through real-time HD audio and video.

This means that users can watch in real time anything written, drawn or shown on the virtual whiteboard during the virtual classroom (live webinar) session; and interact synchronously with the lecturer and with other students attending the lecture through voice, chat and screen-sharing. In addition, the application allows students to access HD video archives of recorded live lectures delivered in previous terms, which are classified and tagged by course and date.

Managing and tracking students' attendance at virtual classes (live webinars) is achieved electronically by the LMS, which is integrated with the virtual classroom functionality. The LMS is integrated with the API of the videoconferencing and e-collaboration system used to deliver the virtual classes (GoToTraining). This integration makes it possible to track when the student logged into the virtual classroom session and how long he/she spent there (time in session). Students log in to the learning management system using a single sign-on authentication, then they log in automatically to the virtual classroom session without the need to re-enter their username or password or use multiple usernames and passwords.

The LMS further allows students to access PowerPoint presentations and PDF documents related to the course curriculum, as well as lecture note annotations and virtual whiteboard annotations, which are available to them as shared Microsoft One Note notebooks. Microsoft One Drive cloud storage is used for storing, syncing and sharing the One Note notebooks, which allows for instant update and synchronization of the contents of the shared notebooks.

As regards performance management, the LMS allows students to track their attendance and their grades electronically, and discuss course issues with the lecturer and with other students through an integrated electronic forum. In addition, using the learning management system students can take electronic self-assessment exams to measure their performance and comprehension. These exams

are randomly generated from electronic test banks customized by the lecturer. They also serve to enable the lecturer to recognize skills gaps among students.

The LMS is designed as a responsive (mobile-friendly) website, and students can access the system from any desktop or smart device. The integrated virtual classroom functionality is accessible through a desktop web browser or through a dedicated native mobile app (GoToTraining mobile app) which is available for iOS and Android platforms.

### Examples of linkages between the WSIS Action Line your project was awarded for with each of the Sustainable Development Goals it helps advance

This project is relevant to two WSIS action lines namely **C7**: ICT Applications (E-Learning), and **C3**: Access to information and knowledge. The system represents an example of judicious use of ICT in the education process, expanding the channels by which educational knowledge and information can be accessed. The project exploits advances in virtual classroom applications, e-collaboration software, videoconferencing systems, learning management systems and virtual whiteboard applications. This helps in achieving an integrated, interactive, student-centric virtual learning environment that forges a strong bond between the student, on one hand, and the lecturer, course content and peer students, on the other.

### Highlights of the project's partnership activities

N/A

### Challenges and project's future perspectives

- 1) Need for a high Internet bandwidth to transmit and view live lectures, since they incorporate HD video and audio content in addition to synchronous desktop sharing.
- 2) Lack of IT literacy among some students.
- 3) Online synchronous and asynchronous collaboration with students using learning management systems and virtual classrooms calls for one-to-one collaboration between the lecturer and the students instead of the one-to-many collaboration that normally prevails in the traditional face-to-face teaching process. This requires the lecturer to devote more time and effort in the teaching process compared to the time and effort spent in traditional face-to-face classroom lectures.
- 4) Providing real-time videoconferencing and e-collaboration requires high-end servers and suitable network infrastructure with a high bandwidth to accommodate the speed and size of transferred data. Using an in-house server environment to achieve this goal is costly and requires dedicated IT personnel to operate, manage and support the environment. In addition, the environment needs to be highly reliable, scalable and available. To overcome this challenge, the project has utilized cloud computing through a cloud-based videoconferencing and e-collaboration service (GoToTraining) to deliver virtual classrooms (webinars). This type of cloud service is known in the industry as software-as-a-service (SaaS).
- 5) Storing and streaming recorded videos requires a computing environment with a large storage space and high scalability, availability, reliability and bandwidth. Using this type of environment is also costly and requires IT resources and dedicated IT personnel for operation and support. To overcome this, a cloud-based video storage and streaming service (YouTube channel) has been employed to store and stream video recordings of previous lectures. In this respect, the YouTube unlisted video playlists feature has been used and integrated with the system in order to provide a private storage and retrieval space for sharing course video content. By using YouTube, the system has succeeded in streaming recorded videos to users over a scalable, available, reliable and fast infrastructure that gives the user the speed, convenience and efficiency. This is

a crucial factor in terms of usability, since streaming HD video contents like reordered lectures requires speed and high bandwidth on the server side. Besides, the server(s) need to be able to scale up to accommodate increasing numbers of users. The server(s) must also cope with the bottleneck that may occur when multiple concurrent users request to view specific video content at the same time. With YouTube servers, this will not be an issue. In addition, the YouTube environment also provides flexibility in publishing, indexing, tagging and sharing the educational video content without the cost and effort of hosting and streaming the videos using an in-house server environment.

### **Your views on WSIS Stocktaking and Prizes contest, including its relevance to SDGs**

The WSIS Stocktaking and Prizes contest is an essential and prestigious catalyst in encouraging WSIS stakeholders to benefit from ICT as an enabler to achieve sustained development in various fields, such as e-government, e-business and e-learning. It acts in parallel with the WSIS action lines, aiming to create and sustain an inclusive information society which harnesses the benefits of ICT in all aspects of life. In addition, the Stocktaking and Prizes contest encourages stakeholders to innovate in ICT utilization in a way that helps in bridging the digital divide and building confidence in ICT applications.

## C7.4: ICT Applications: e-health

<b>Project name:</b>	<b>Infomed - Telematic health network</b>
<b>Organization:</b>	<b>National Medical Sciences Information Centre</b>
<b>Country:</b>	<b>Cuba</b>

### Basic information about your entity

The National Medical Sciences Information Centre (CNICM) is the reference unit for technical and scientific information and training and research in the field of information and communications, telematic services and technological support in the health system, and constitutes an integrated network for the production, editing, publication and dissemination of scientific information relating to health.

It plays a leading role in the transformation of the National Health System's scientific and technical health information system, with the aim of turning scientific and technical information into an essential tool at the service of Cuban health improvement.

### Project's description (activity's description)

The project to develop the Telematic Health Network — *Infomed* (acronym for Medical Sciences Information) was launched in 1992, as part of CNICM's mission to explore the possibilities offered by new information and communication technologies (ICT) for the development of a specialized national information system.

A quarter of a century later, Infomed ([www.sld.cu](http://www.sld.cu)) has become a national and international reference and essential support for the work of institutions from the National Health System and the National Health Sciences Information System, thanks to the services it offers for tackling concrete problems with a future-oriented perspective.

Right from its early years, the network was geared to addressing the issue of how to effectively use the possibilities offered by the Internet to redesign technical and scientific information services according to a new model characterized by decentralized access, cooperative networking and virtuality. At the same time, concrete steps were taken to build the network and provide basic services such as electronic mail and information dissemination via mailing and discussion lists. Later on, creative research was conducted on the web for designing traditional information services using the new media and technologies available.

The development of scientific and technical information services by Infomed has been based on permanent theoretical and practical research. The system has exploited progress made in this field in the last decade both in Cuba and worldwide, and specific experiences worth systematizing and sharing have been incorporated.

Infomed is a network integrating a number of institutions and persons joined by ties of commitment and professionalism, where knowledge is disseminated multilinearly via complex node systems. Its management takes a variety of forms, and is distributed in an ever-changing manner, making it possible for the network to continually learn from its own experience.

Web-based information services are offered in open, multi-user environments, reducing costs and enhancing the ability to respond to new service demands.

Infomed covers all provinces in the country, applying an approach that prioritizes the creation of national capacity to incorporate new technologies and make them available in social spaces such as libraries, laboratories and points of presence, among others.

### Examples of linkages between the WSIS Action Line your project was awarded for with each of the Sustainable Development Goals it helps advance

Some projects:

- Development of the Virtual Health Library (BVS) of Cuba
- Development of the Virtual Health University (UVS) of Cuba
- Implementation of the Knowledge-Management Model for virtual learning environments in health
- Use of Open Journal Systems (OJS) to create the journal portals
- Updating of the Open Conference Systems (OCCS) and its OAI layer.

### Highlights of the project's partnership activities

Actions are aimed not only at sharing technological resources, but also at the fundamental goal of empowering people to use those resources in tackling problems both individually and collectively.

Infomed is committed to human development, of which health is an essential component. Accordingly, only upon understanding how our network may be helpful by fulfilling its mission of creating "an environment of possibilities for people to have a long, healthy, creative life" are objectives and indicators set which guide the collective purpose of the project,

It is a comprehensive yet focused portal, be it on a specialty, a topic, or even a journal or a book, with a definite aim. Five milestones stand out along its evolution: 1992, 1994, 2002, 2006 and 2014, corresponding to advances in information and communications in society and reflecting developments in its design and information architecture. A consistent trajectory has been maintained which is based on specific functions such as context and identity, dissemination (social communication), interaction and integration of information resources, information search and retrieval, training, and information monitoring and evaluation.

Its most outstanding feature is that it covers the entire health domain and offers free-of-charge, shared services. Component projects include, *inter alia*, the Virtual Health Library, a decentralized national collection of information sources and services; the Virtual Health University, a space to strengthen health education, research and technological innovation, in line with progress in ICTs and their impact on network learning in the field of healthcare; the Medical Specialties Web Portal; and scientific events.

The diversity of online information services and sources make the Cuban health web portal an environment capable of mobilizing knowledge and the experience of all actors involved to induce innovation and creativity, facilitating continuous learning.

Added-value services offered by Infomed include website development for health specialties and topics, which operate as communities of practice. These constitute strategic components of the network, contributing to achieving its purpose of being one of the main pillars of social exchange and participation. Spaces for access to and integration of biomedical information resources now comprise 40 websites for specialties and 12 for subspecialties (total 52), 33 for health topics, 52 for scientific journals and 84 for health institutions, besides those for emerging and re-emerging infectious diseases (dengue, H1N1, cholera, chikungunya, ebola and zika).

### Challenges and project's future perspectives

The network is a social impact endeavour continually perfecting itself with the participation of multidisciplinary talents. It is also an opportunity to use technologies to improve healthcare both in Cuba and worldwide.

It will continue to promote universal access to scientific knowledge, and the creation and dissemination of scientific and technical information, taking account of open-access initiatives for scientific publication, among other aspects.

### Your views on WSIS Stocktaking and Prizes contest, including its relevance to SDGs

The WSIS Stocktaking and Prizes contest makes it possible to present projects, models and activities which may be replicated and shared with the community. I consider it to be one more effort to construct an information society where knowledge multiplies, and ICTs are placed at the service of developing communities nationally as well as regionally and internationally, bearing in mind the WSIS action lines, which are in turn aimed at achieving the Sustainable Development Goals (SDG).

## C7.5: ICT Applications: e-employment

**Project name:** Social network for health promoting hospitals

**Organization:** Advanced Info Services (AIS)

**Country:** Thailand

### Basic information about your entity

Advanced Info Services (AIS) is the leading service provider for digital life in Thailand; it seeks, invents and enhances digital services to serve people and solve problems through technology. AIS aims to connect people and to assist all sectors of Thailand in adopting digital technology in their processes.

AIS is constantly moving forward to ensure that it always brings the highest quality and most up-to-date mobile and fixed broadband, including digital services, to power people's modern lifestyle and fully satisfy everybody's different needs. AIS pursues four main goals:

- *Mobile:* To expand network coverage to every corner of Thailand and continue developing premium services in order to create a brighter future for all Thai people
- *Fixed broadband:* To complete customers' digital lifestyle with a fibre-optic broadband network and super high-speed and stable home Internet service
- *Digital services:* To meet the diverse demands of customers' modern lifestyles by providing a variety of quality entertainment and productivity applications, helping the people of Thailand to live digitally
- *Quality service and lifestyle:* To deliver the best service with special privileges 24/7 and be the leader in the digital era.

### Project's description (activity's description)

A description of the project and its activity may be found in the following video clips:

- Explanation of the project: <https://vimeo.com/204986148>
- Promotional video: <https://vimeo.com/203959079>
- Advertisement: <https://vimeo.com/147921418>

The Ministry of Public Health (MOPH) is continuing its efforts to enlighten Thais on the importance of primary health and sanitation. Consequently, MOPH has launched the concept of *Primary Healthcare* and is working in collaboration with tambon *Health Promoting Hospitals* (HPHs), the main health station in each sub-district ('tambon'). The underlying approach of the Primary Healthcare concept is to enlist community involvement in the form of *Village Health Volunteers* (VHV), working as the backbone of the system and cooperating with HPHs. HPHs administrate, recruit and train VHVs to be stationed in each sub-district. The primary roles of VHVs are to act as the link between communities and HPHs, to promote health, to educate, to routinely follow up on patients, to screen abnormally sick patients, to schedule doctor's appointments, and to arrange activities such as self-practice first-aid camps, updates on new diseases, or exercise such as aerobic dance.

There were about 750 000 VHVs in 2001, rising to over a million in 2015. Engagement as a VHV is admirable, because the volunteers have their primary career and at the same time look after people's well-being as VHVs. VHVs have to communicate frequently with HPHs since they are obliged to follow the current health situation as well updates on health and medical information from MOPH. VHVs

will be trained in basic treatments and as paramedics. A volunteer is assigned to look after 5 to 15 households. He/she offers support to community members on a variety of different health issues, ranging from infectious diseases such as dengue fever to chronic diseases such as diabetes.

A poorly designed mobile application would run the risk of huge inflows of news and information without any filter or trusted references, which could thus be inadvertently misunderstood and applied by VHVs in their routine work. Moreover, every day, VHVs send reports to the head officer of their HPH on their village's health status; but these reports are paper documents which are flimsy and easily lost. In critical situations, voice calls or group chats may cause late response. All these issues can be addressed by Advanced Info Services as a professional in connectivity and IT solutions.

In accordance with the government policy set out in its "Thailand Digital Economy" plan, which aims to transform everything that can be digitized, the AIS application encourages the older generation to update their technology knowledge. Nevertheless, the objective is not to force users to accept the application, but to convince them that it is genuinely helpful and comfortable. Under the concept of Thailand 4.0, this project improves work processes through digital technology and high-speed data transmission. The service enhances communication by reducing communication gaps between tambon HPHs and VHVs thanks to the following features:

**1. Announcement board**

- a. *News and information:* Controlled by HPHs
- b. *Epidemic alert:* Status of each disease: location, prevention/protection measures
- c. *Meeting management:* Details of meetings, notifications, decline/accept features
- d. *Meeting memo:* Detailed records of meetings
- e. *Gratification:* Notifications of dates and places where VHVs can be compensated.

**2. Document and report:** Sends applications by taking snapshots of the report

**3. Chat platform:** VHV and HPH officers can communicate with others, e.g. in WhatsApp messages

**4. Search:** Facilitates search for news, information, announcements, details of patients.





### Examples of linkages between the WSIS Action Line your project was awarded for with each of the Sustainable Development Goals it helps advance

The AIS application is used by VHVs to facilitate their work processes with tambon HPHs and, in particular, enables them to act as volunteers without restricting their professional careers, which can consolidate their standing by affording them time to achieve higher productivity in their career. **(SDG 8)**

AIS is devoted to thoroughly enhancing lifestyle through digital services and is playing a pivotal role in transforming Thailand into “Digital Thailand” in accordance with the government’s policy. In this context, this AIS application was built to broaden health services, reduce mortality risk for every household on an equal footing, and harness technology for rural society. **(SDG 3, SDG 10)**

Features such as the announcement board, meeting organizer and digital documentation can prevent overuse of or excessive demand for resources like food, drink and paper. VHVs reduce fuel consumption as they can contact and work with HPH online. **(SDG 12)**

In tandem with long-term development, the AIS application will be adding educational features, including knowledge on health and economic sufficiency. VHVs will expand knowledge about health and economy to everyone in Thailand with the Ministry of Public Health as the reference. **(SDG 4)**

### Highlights of the project’s partnership activities

- Ministry of Digital Economy (MODE)
- Ministry of Public Health (MOPH)
- Tambon Health Promoting Hospitals (HPHs)
- Village Health Volunteers (VHVs)

MODE and MOPH provide advocacy to all parties in developing digital services by contributing policies to support creation of the digital economy.

Tambon HPHs, as the main consultants, provide knowledge and influence VHVs to use the *Social Network for Health Promoting Hospitals*, while VHVs help AIS to collect feedback in order to improve the quality and efficiency of the application.

## Challenges and project's future perspectives

The majority of VHVs are older persons who are used to traditional methods and averse to new technology. This poses a big challenge to AIS, as it must break down the fear barrier and understand rural lifestyles before introducing a digital world.

His Majesty King Bhumibol the Great went to talk to rural Thai people, however remote or difficult to access, because he wanted to hear and understand the voice of his people. His Majesty's motto - "Understand, Achieve and Develop" - is adopted by AIS, and the company sent staff to observe and engage in friendly talks with villagers so as to understand what was in their minds. After many months, AIS finally ascertained how to change the villagers' mindset. Its approach involves the concept of "family". Parents from afar are keen to hear, talk to, chat with and see their offspring. They will accept change if it brings the opportunity for them to be close to their family members. AIS therefore developed this application based on the concept of "family".

We at AIS focus on driving citizens' participation and development based on what the local community needs and wants. Under our roadmap, we started this project in September 2015 and will continue until the application reaches 9 800 tambon HPHs and about a million VHVs in 2019. Moreover, the application will be expanded with more video and analytical features. The *Social Network for Health Promoting Hospitals* is a social enterprise project whose goals fall into three main categories:

### **1) Sustainable society goals:**

In pursuit of decent work and economic growth (**SDG 8**) and good health and well-being (**SDG 3**), our AIS application creates value for society by:

1. **Improving knowledge and information:** News and information in the digital era are unprotected and may not be founded on proven references. Knowledge in the health sector, in particular, must be vetted and clarified. In the AIS application, information is verified and supervised by HPHs and provincial hospitals.
2. **Improving work processes:** Previously, VHVs made hard-copy reports for HPHs. Frequently, the documents got lost or damaged, which affects every party in the process. A paperless work process is the answer to this problem. The AIS application collects documents in digital images. Digitized documents also serve to speed up work processes.
3. **Improving time management:** Generally, VHVs have their main career but they sacrifice their time to do voluntary work. Activities such as visiting patients, sending paper documents or attending meetings are time-consuming. VHVs should work with proper information in real time and spend only a short time on some activities. The AIS application can arrange meetings and share information, thus helping volunteers not to miss anything important. With the paperless feature, volunteers can communicate from anywhere.
4. **Improving community health through a new strategy approach ("The three fasts"):** Fast notice, fast treatment and fast delivery are vital to VHVs. HPHs will notify every VHV in any area to stay alert for contagious diseases via the announcement board in the application. VHVs can then take pre-emptive actions. In 2016, for instance, when Thailand faced a widespread dengue epidemic, volunteers immediately reacted based on information that HPHs announced through the application. Many districts were able to prevent the spread of dengue fever. Previously, HPHs had to contact VHVs to arrange a meeting before taking actions, which was a bureaucratic and slow method.

### **2) Sustainability business goals:**

In pursuit of reducing inequality in accessibility to technology and health services (**SDG 10**), digital services support employees, partners and workers and motivate them to work for the community and to respond to social problems in the interests of sustainable development. Therefore, AIS released the application for any VHV to use for free. For its customers like VHVs, AIS grants free-of-charge

data usage in this application. With other operators, customers such as VHV's still have to fulfil the contractual conditions of their mobile plan.

AIS's sustainable business goals are to create corporate social responsibility (CSR), focusing on creating shared value (CSV), community development and social development through business engagement, including educational and cultural promotion and preservation of cultural heritage. Moreover, AIS, the Ministry of Public Health and the Digital Economy Department are discussing cooperation and promoting the application as the primary tool for VHV's.



### **3) Sustainable environment goals:**

Through responsible consumption and production (**SDG 12**), AIS drives measurable enhancements to provide digital life solutions in a safe and careful environment. The values of the AIS application are:

1. **Reducing energy consumption:** VHVs can follow news and announcements at all times and visit HPHs when needed. This reduces fuel consumption and improves time management. In a seven-month period, the number of VHV visits to HPHs fell from 455 to 77 (i.e. by 83.02 per cent)
2. **Reducing wastage:** By virtue of the meeting and announcement feature, the meeting organizer can prepare just the right amount of food and documents for any given meeting. Paper consumption for meetings has been reduced by around 45 per cent.
3. **Reducing paper usage:** All hard-copy reports will be digitized in images.
4. **Reducing the impact of epidemics:** The application can mitigate the spread of disease, which also reduces the cost of treatment in each village.



### **Your views on WSIS Stocktaking and Prizes contest, including its relevance to SDGs**

AIS appreciates the consultation process in the WSIS Stocktaking and Prize contest, which highlights the potential of each project to support many countries. Furthermore, many projects under the WSIS action lines inspire and guide new ideas, methodologies and strategies for everyone. It is also an excellent opportunity for exchanging knowledge during the ceremony and sharing our activity for future uses.

## C7.6: ICT Applications: e-environment

**Project name:** Greenmap

**Organization:** Ministry of Natural Resources and Environmental Protection

**Country:** Republic of Belarus

### I. Basic information about your entity

Over the last decade, the general public in Belarus has shown a growing interest in environmental lifestyle and sustainability issues. We are witnessing increasing requests from citizens of Belarus for various types of environmental information, including, for example, possibilities for municipal waste recycling and management, collection of hazardous waste, second-hand goods exchange, status of protected nature areas, access to environmental labs, and such like. One of the channels for communication with the public on waste issues was a public information centre on waste and chemical safety, created by an NGO, the Centre for Environmental Solutions, in 2010, which provides free consultations and advice to the public, non-commercial organizations, small and medium-sized enterprises (SMEs) and mass media on different aspects of waste management and chemical safety.

When analysing the enquiries received by the centre, it became apparent that most of the public's environmental questions related to where and how to recycle, or similar location-specific issues. This information was almost impossible to find online, because various different organizations are responsible for the collection of waste and secondary resources in different regions of Belarus, and in many cases much of the information on the activity of those organizations was out of date. Likewise, an assessment revealed a lack of web information resources that could serve to compile easy-to-use environmental information for the public in Belarus.

After extensive research of relevant international web resources, the Centre for Environmental Solutions, in cooperation with the Ministry of Natural Resources and Environmental Protection of the Republic of Belarus and a number of partners, decided to develop a national web resource to collect, validate and disseminate available environmental information for the public in Belarus.

The project was elaborated in the form of an online map resource (Google maps-based in the first and second versions, Yandex map in the third version), which visualizes all available information per selected location, and allows users to submit their information to the database.

*Greenmap Belarus* ([www.greenmap.by](http://www.greenmap.by)) is a popular, free online resource, which compiles, visualizes and provides easy access to environmental information in Belarus, relating to waste recycling and management, renewable energy, important nature areas, and environmental organizations and initiatives. The project has grown from being a simple map of waste-recycling stations in Minsk in 2012 into a consolidated map of environmental information for more than 113 towns nationwide.

Currently, the information presented in Greenmap Belarus is divided into the following categories, available for all cities/towns in Belarus:

- 1) Waste and stuff:
  - Secondary resources (metal, paper, glass, plastic, tetrapak)
  - Hazardous waste (e-waste, tyres, batteries, Hg-waste)
  - Stuff (clothes, books, household equipment)
  - Waste-recycling facilities

- 2) Environmental organizations
  - NGOs
  - Governmental organizations
  - Laboratories
  - Educational organizations
- 3) Renewable energy
  - PV electricity-generating equipment
  - PV water-heating equipment
  - Wind turbines
  - Biogas reactors
  - Hydropower stations
- 4) Natural areas
  - Specially protected nature areas
  - City parks
  - Nature monuments.

## II. Project's description (activity's description)

Greenmap Belarus is a popular, free online resource, whose goal is to provide citizens of Belarus with up-to-date practical information about important environmental services and organizations in the country. Based on voluntary participation of citizens and multistakeholder cooperation, Greenmap also provides a mechanism for citizens to contribute to validating and improving public access to environmental information in Belarus.

Since 2012, the project has undergone major transformation, from a waste-recycling map of Minsk with a hundred or so points, to a multi-layer website which now includes more than 3 100 points for 113 cities and towns nationwide.

During this five-year period, the project has involved many local volunteer groups in the process of collection and validation of local information, as well as various stakeholders, who have participated on a voluntary basis in the further development of Greenmap Belarus.

In 2013, the Android mobile application for Greenmap Belarus won first prize in the second Competition for Android Developers in Belarus, organized by the mobile operator Velcom (member of the Telekom Austria Group).

In 2015, a second version of Greenmap Belarus was launched, including improved design features and new Android and iOS mobile applications.

Also in 2015, the Greenmap team won the “Environmental Protection” category in the UNDP Social Hackathon «#Hack4SocialChange».

In 2016, the Greenmap website was significantly revamped and improved technically, and maps were included with environmental information for all 113 cities and towns of Belarus. This work was carried out within the framework of the Ministry of Natural Resources and Environmental Protection's international project “Supporting Belarus in transition to the ‘green’ economy” funded by the European Union (EU) and executed by the United Nations Development Programme (UNDP).

In autumn 2016, a host of events were organized to familiarize local authorities, activists and representatives of the press with the strengths of this tool and the advantages it offers for their work and for promoting ecological values in society.

Constantly checking the relevance of information on the site, finding new information, involving new partners and volunteers in the project and presenting it to interested audiences on various platforms are ongoing features of the project activity.

During the period from June 2016 (launch of the third version of the website) to February 2017, the project has had more than 115 000 visitors and received a vast amount of input information (based on Google analytics).

The project is also instrumental in generating and maintaining public interest in an environmentally-aware lifestyle in Belarus. Since 2013, it has organized more than 30 public roundtables and events in different regions of the country, focusing on access to environmental information. In addition, the project team has contributed to more than 200 original publications in local and national mass media, becoming one of the most popular environmental IT projects in the media in Belarus.

The project is being run according to a sustainable approach, as it has needed only a small budget for its establishment and maintenance, and now requires only one paid permanent staff member for support. Most of the information supply and promotion comes from voluntary contributions from stakeholders and volunteers.

### III. Highlights of the project's partnership activities

Implementation and dissemination of the project would be impossible without the participation of all partners and supporters. Greenmap is a result of cooperation between environmental NGOs, governmental agencies and international organizations. The map is founded on the information that is regularly provided by a network of local volunteers in regions of Belarus and by public data-collection organizations such as the Ministry of Natural Resources and Environmental Protection, the Ministry of Households, and the Department of Energy Efficiency. The Greenmap website was re-designed and improved technically and content-wise thanks to the Ministry of Natural Resources and Environmental Protection's project "Supporting Belarus in transition to the 'green' economy" funded by the EU and executed by UNDP.

### IV. Challenges and project's future perspectives

The main challenge so far is having the necessary capacity for validating and updating the new information regularly submitted by local Greenmap stakeholders.

Also, over the years, the project has been addressing challenges in terms of current information requirements, and is constantly adding new information sought by visitors. New layers with information on renewable energy, environmental organizations and nature areas were added in 2015-2016 based on analysis of user needs.

We plan for the site to become a platform and a convenient tool for implementing ideas to promote environmentally-friendly behaviour and lifestyles. Already, a group of activists is working on the creation of a new layer dedicated to the monitoring of green spaces in Minsk- "TREEMAP", which is also supported by the Ministry of Natural Resources and Environmental Protection, UNDP and EU. In addition, we plan to develop new layers of information on the map, such as zero-waste initiatives and a map of landfills, among many others.

A lot of the project's work is done by volunteers. Supporting and involving activists in the project is one of its priority areas, which has a positive impact on strengthening local initiatives and supporting the environmental movement in Belarus.

## V. Examples of linkages between the WSIS Action Line your project was awarded for with each of the Sustainable Development Goals it helps advance

The project is directly linked to Action line **C7**: ICT Applications (E-environment), by establishing a system for generating, validating, visualizing, sharing and providing free public access to important environmental information in Belarus.

The project promotes renewable energy sources in Belarus as an alternative to fossil fuels and popularizes the use of renewable energy sources for private and local business, and is thus closely related to **SDG 7** (affordable and clean energy).

The project promotes the idea of eco-tourism, the conservation of green spaces in cities, and the development of an environmentally-friendly infrastructure in cities. It also involves local communities and volunteers in solving local problems related to environmental protection and sustainable waste management. This is in line with **SDG 11** (sustainable cities and communities).

Greenmap is a unique IT environment project for Belarus because of its multistakeholder make-up. The project is run by an environmental NGO, the Centre for Environmental Solutions, with the support of the Ministry of Natural Resources and Environmental Protection, the Ministry of Households, the Department of Energy Efficiency, UNDP, EU and a number of other environmental NGOs, including Green Network. Each of the partners makes their contribution to development and improvement of the project. Indeed, it is only through joint work that we will be able to achieve really significant results. This is a prime example of the achievement of **SDG 17** (partnerships for the goals).

Furthermore, one of the objectives in the minds of the project team is to encourage industries, businesses and consumers to recycle and reduce waste and to support Belarusians in moving towards more sustainable patterns of consumption, in accordance with **SDG 12** (responsible consumption and production).

The project contributes to national obligations to provide access to environmental information (e.g. under the UNECE Aarhus Convention, the UN Stockholm Convention on Persistent Organic Pollutants (POPs), the Strategic Approach to International Chemicals Management, among others).

## C7.7: ICT Applications: e-agriculture

**Project name:** Electronic Application System (EAS)

**Organization:** Rural Support Service

**Country:** Republic of Latvia



Rural Support Service  
Republic of Latvia

The Rural Support Service of the Republic of Latvia is the state administration institution responsible for implementation of European Union and state support policy for



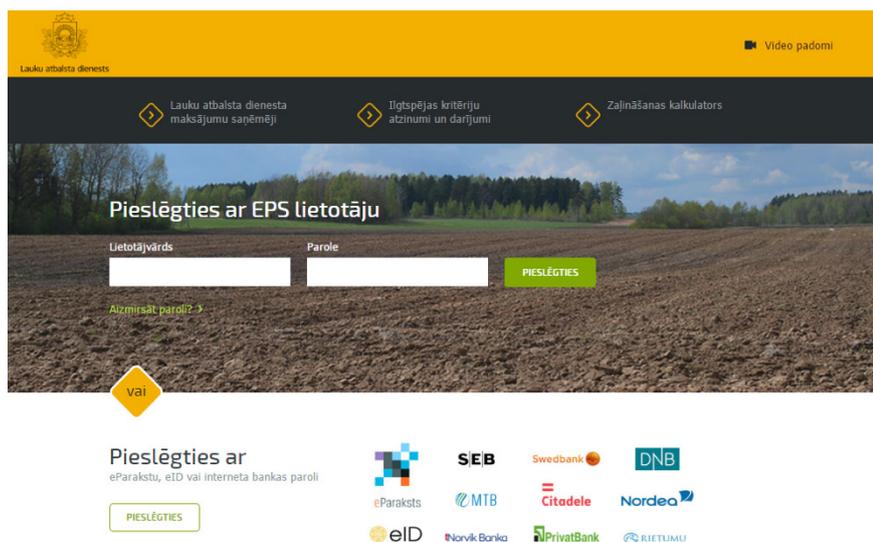
agriculture, fisheries, forestry and rural development.

**Rural Support Service:**

- Accepts and assesses project applications,
- Makes decisions on allocation or rejecting of financing,
- Keeps records of the granted financing and controls the use of it.

### Basic information about your entity

The Electronic Application System (EAS) is a modern, easy-to-use tool for farmers (<https://eps.lad.gov.lv/login>). Its implementation is aimed at a number of target groups, clients of the Rural Support Service of Latvia: farmers, fishermen, people who live and work in rural areas, students, young people, future famers and rural entrepreneurs, rural consultants and other groups.



One of the main objectives of EAS is to reduce the administrative burden for farmers in obtaining public services and improve access to services for people who live in rural areas. Our aim is to maximize the number of electronic public services provided for farmers, which relate to agriculture and rural support payments. The system also serves to reduce potential errors when applying for EU support to agriculture and rural areas, because the EAS can integrate different mechanisms to ensure both cross-checking of data input and verification of the data with other existing data systems. The system helps to promote government efficiency and speed up the decision-making process, which in turn will make for faster delivery of services.

The usefulness and success of EAS implementation is shown by a number of indicators, the main one being the growing number of EAS users: in the last decade, the number of users increased from 1 064 in 2008 to more than 71 000 in 2017.

### Project's description (activity's description)

The EAS system assists and facilitates the task of applicants seeking and receiving support. It allows them to submit documents and enter all data, and to track current information and individual financial flows. This means that farmers no longer have to go to the client centres, stand in queues and submit documents in paper format.



**The Electronic Application System ensures that farmers do not have to go to the client centres, stand in rows and submit documents in paper format.**



It is possible to use the system anywhere, anytime. Electronic data reduces the risk of errors, and farmers can receive support faster.

The Electronic Application System provides the following core functionalities:

- External user administration, which handles external user administration and access rights control, with the following functionalities:
  - EAS user maintenance
  - Compilation of audit information
  - Access authorization for users.
- Registration module for applicants, which handles applicant data entry and maintenance, with the following functionalities:
  - Applicant data maintenance
  - Applicant check against available client registry data.
- Application registration module, which handles receipt, verification and registration of e-application data, with the following functionalities:
  - Application data entry
  - Application registration.

The users of EAS can sign into the system using a unique username and password, with e-signature and bank authorization (<https://eps.lad.gov.lv/login>).



There are a number of key principles that the Rural Support Service of Latvia always follows in developing EAS:

- take into account the ideas and wishes of our clients – the people to whom we would like to address any given service (“You have to know what they want”);
- remember that the best approach for introducing new services or ICT tools is step by step (“Don’t frighten clients instantly with numerous updates”);
- design consultant and educational modules to help clients (“Be ready to explain and inform clients many times over – their knowledge, skills and attitudes level is different”).



*A consultant helps to farmer fill in application documents in EAS*

## Examples of linkages between the WSIS Action Line your project was awarded for with each of the Sustainable Development Goals it helps advance

Action line **C7**: ICT Applications (E-agriculture).

The project ensures the systematic dissemination, using ICTs, of information on agriculture, animal husbandry, fisheries, forestry and food, in order to provide ready access to comprehensive, up-to-date and detailed knowledge and information, particularly in rural areas.

### Highlights of the project's partnership activities

The project was initiated by the Rural Support Service of Latvia (RSS), which is responsible for administration of various support measures for agriculture, rural areas, fisheries and forestry in Latvia. The electronic application system was developed by Tieto Latvia Ltd., but we now work together with Autentica Ltd.

As the system developed and the number of users grew, new services were integrated in the system. Likewise, RSS took on board the ideas of the clients (users of the system) regarding necessary improvements to the system, as well as discussing them with public organizations of farmers – Farmers' Federation, Agricultural Organizations Cooperation Council, etc. Non-governmental organizations have also submitted ideas for improvement of the system and on ways of enhancing its usability. For example, they were involved in EAS geographic information usability testing to make this element as convenient and easy to use as possible.

### Challenges and project's future perspectives

Today, EAS offers more than 30 e-application forms, additional services (payments, documents, .csv files, .shp files, client and user information) as well as guides on how to use the e-applications (guidebooks, video). Going forward, RSS plans to improve the system's user-friendliness and design, the mobile application is currently under development, and the number of e-applications in the system is being expanded.

The ultimate goal of RSS is to achieve full digitization of our services, so that no more paperwork is involved and all exchange of information between RSS and our clients takes place in electronic form only. This requires requisite changes in legal acts, IT systems and the mindset of our employees and farmers. Not all our clients are computer-savvy, so there is full technical support provided from our

institution during the process of application for aid, to allow groups such as, for example, elderly farmers to participate in and hence benefit from the e-application process.

### **Your views on WSIS Stocktaking and Prizes contest, including its relevance to SDGs**

WSIS is an excellent platform for global learning and sharing of ideas worldwide. The project not only showcases success stories of projects implemented by countries, but also serves as an “idea-creating laboratory” for all countries who want to create and adopt ICT-based activities for society. WSIS encourages every country to find new solutions. The WSIS Prizes Contest gives every participant the opportunity to show their best accomplishments

## C7.8: ICT Applications: e-science

**Project name:** Communication technology and networking for development

**Organization:** World Science Project

**Action line:** C7.8: ICT Applications (E-science)

### Basic information about your entity

Following the World Summit on Sustainable Development in 2002, members of what was later to become the World Science Project met specifically to organize the educational research side-event for WSIS Phase II in Tunisia in 2005. We have participated in many annual and summit events since that time, in addition to organizing conferences, providing Internet connections to organizations, making and distributing movies to encourage the activities of the information society, and studying its consequences. The name of our project was strange: of course, there is no World Science Project! But our project members appreciated the allusion to the diversity of a small science project undertaken by a child, the educational surveys we would conduct, and the project of innovation in science and technology throughout world history. At this moment, ICT is the dominant technology influencing human social interaction.

### Project's description (activity's description)

After the turn of the new millennium, it seemed obvious to many that the advent of the Internet had made the production of knowledge a global enterprise, with unlimited possibilities for communication, collaboration and data sharing across international boundaries. In many places, this happened quickly: the roll-out of the Internet and mobile phones changed the conditions under which development took place. But in much of the world, the Internet was merely one more unfulfilled promise. When we began our project, most countries in Africa had minimal connectivity outside of Internet cafes in capital cities. Few agricultural researchers in West Africa made any regular use of the Internet. To do so meant long-distance phone charges to dial the nearest ISP in order to get a slow connection.

During the 2005 WSIS in Tunisia we brought together a number of partners (Society for Social Studies of Science; International Federation of Information Processing; National Natural Science Foundation of China; International Network for the Availability of Scientific Publications; Food and Agricultural Organization of the United Nations; Committee on Data for Science and Technology; Society for the History of Technology; and the Great Plains Network) to establish new programmes and collaborations in information technology, sustainability and inclusive ICT for development. We also created and exhibited two movies. One was called *Before the Horse*, to make the point that we should not put the cart before the horse: social context needs to be considered in order to benefit from new information technology. The second was *After the Fact*: when high-income countries have already passed beyond a certain phase such as the creation of listservs and social networking sites, and professionals have lost interest in the novelty of certain initiatives, it may no longer be beneficial to provide funding for low-income areas to participate in these same initiatives.

Although hardware and Wi-Fi were important during the early 2000s, it seemed to our primary team of collaborators in Ghana, Kenya and India that few were assessing outcomes in order to determine the actual effects of new ICTs. Most observers realized that mobile phones were beginning to eclipse the Internet as a means of connection. We wondered whether mobile technology was more local than the Internet, which was, at that time, readily available in some areas but receding in terms of demand when competing directly with mobiles. We decided to conduct repeated surveys among scientists and educators in those areas, together with a broader sample of professionals and entrepreneurs.

We began to publish our assessments of the *social network consequences of new communications technology*. Our studies represent the *only* global surveys to span the entire era of new ICTs. We were able to combine our surveys with information collected by the Dutch government as far back as 1994. Our empirical assessments show, with the best available data, that the great benefits of connectivity have not yet resulted in the expected benefits for social networks, particularly for women.

The intellectual question driving these assessments is whether the widespread diffusion of new communication technologies has changed social relationships. Our answer is "yes", but in unexpected ways. We have developed a timeline going back to the beginning of the Internet era. This allows us to describe the evolution of social relationships during the *entire* period of diffusion, from introduction to saturation. In our project sites (Kenya, Ghana and India) we have examined the adoption of technology from 1994 onwards in order to develop a picture of changes for three scientific communities.

### Examples of linkages between the WSIS Action Line your project was awarded for with each of the Sustainable Development Goals it helps advance

Our first important finding is that in terms of basic access to computers and the Internet, *the digital divide has all but closed for the Internet and mobile phones*. Over time the gender gap has also been reduced. But access is not usage, and has not had many of the expected impacts. Over the past decade, many traditional research activities have moved online but (1) e-mail discussions with scientists in the developed world have *decreased* in importance; (2) even with connected access to private computers in personal offices, fewer than half of scientists use the Internet even one hour a day; (3) women are still disadvantaged in international venues.

Our second result from these surveys is that professional networks have not globalized. After the technology shock, offsetting shifts in social relationships occurred such that *personal networks did not grow in size but contracted*. Professionals in 1994 had not used the Internet. Most certainly had not heard of mobile phones. Yet they had an extensive network. We found *fewer* ties in the extended networks of professionals at the end of this period than the beginning. This was a major surprise to us; but our data spans the entire period of the diffusion of communications technology.

Specifically, we found that the distribution of relationships shifts slowly against a background of stability. But aside from the large differences between the extremes of 1994 and 2010, the *liftoff* period (1994-2000) exhibits the greatest change. In other words, the initial period of Internet diffusion has a disruptive effect that may or may not be the beginning of a linear trend. The most common tie is friendship, followed by information exchange and collaboration. Employment and funding are relatively rare. Friendship declines, along with both information and material exchange. Collaboration increases, along with funding and personal visits.

There are two main types of content in these relationships that have formed since the beginning of the Internet. The first, consistent with traditional views of knowledge production, comprises classical exchange relations (information and exchange of materials) that exhibit relative decline over the period. The second is consistent with modern knowledge production practices, loosely associated with funding and planning by external agencies and state or national governments. Collaboration, which grows more than any other tie type, is the principal component of this cluster, while traditional scientific exchange is negatively associated with this factor. Travel is initially associated with mediated collaboration but shifts towards traditional scientific exchange. Friendship ties decrease sharply during the liftoff period before recovering somewhat. An initially positive association with traditional scientific exchange shifts to a negative association with mediated collaboration in the final waves.

The third finding concerns the diffusion of mobile phones, arguably the most astonishing uptake of any global technology in history. We examined core networks among a diverse group of occupations (including small businesspersons) since 2002. Observed patterns are related to level of development. For India, there was a *general decline* in the number of close relationships. For Kenya, a less developed location, there was an *increase in network size*. From the 2005 summit meeting in Tunisia, to our

connectivity projects in Kenya, Ghana and India, to the creation of the longest time series on connectivity and social networks in low-income countries, our project represents the spirit of the information society for development.

### Highlights of the project's partnership activities

We first received funding from the U.S. National Science Foundation for both connectivity projects and research initiatives in Africa and Asia. We then initiated projects in a variety of sites in Kenya, Ghana and the State of Kerala in India. During the mid-2000s, we provided hardware and established collaborations with institutions in Africa and south Asia. We then expanded our programme to Chile, South Africa and the Philippines in order to assess the state of connectivity and communication in research and educational organizations that create knowledge and innovation. Our project assisted both universities and government research institutes in getting connected to the Internet.

### Challenges and project's future perspectives

During the last fifteen years of our project we fully realized that new ICT initiatives needed to be brought to a wider audience. But how? The nature of the problem is still information. The kind of information appreciated and absorbed most readily in the new millennium is audiovisual. With collaborators in Ghana, India and Kenya we developed three new initiatives in *video ethnography* that have come to fruition recently. First, we created a new film festival, *Ethnografilm*, now receiving submissions for its fourth year of operation in Paris, France. While the main festival is held each April in Paris, we have created smaller festivals in Asia, Africa, Europe and New Orleans, Louisiana. Second, our project collaborated in the creation of the first open-access journal of academic movies, the *Journal of Video Ethnography*. Finally, we published a textbook to promote the teaching of video in social science methods classes.

### Your views on WSIS Stocktaking and Prizes contest, including its relevance to SDGs

## C8: Cultural diversity and identity, linguistic diversity and local content

**Project name:** “Hello Hope” - mobile application for the integration of Syrian refugees

**Organization:** Turkcell

**Country:** Turkey

### Basic information about your entity

Turkcell is Turkey’s leading mobile phone operator, and has become the operator of choice for Syrian refugees in Turkey, by virtue of its “Hello Hope” mobile application for the integration of Syrian refugees. The Hello Hope app was designed and developed by Turkcell’s corporate university, the Turkcell Academy.

### Project’s description (activity’s description)

Severe turmoil in Syria has created a dramatic refugee crisis, displacing more than 4 million refugees from that country. The overwhelming influx of refugees into Turkey has reached over 3.1 million people over the past two years, making Turkey the host country with the largest refugee population in the world. Turkcell has been a pioneer in mobilizing the power of communication for these people in distress. Serving about 1.3 million Syrian customers, Turkcell has become the operator of choice for Syrian refugees. The “Hello Hope” mobile application is designed and developed to ease the adaptation phase of refugees in Turkey and to give the Syrian community in Turkey connectivity to essential services.

The Hello Hope mobile app was launched in September 2016. Turkcell created it to be accessible for everyone, regardless of their GSM operator, thus aiming to facilitate the integration and adaptation of Syrian refugees. The Hello Hope app works on mobile Internet or Wi-Fi. It is available for iOS and Android smartphones and tablets.

Although the main content and services in the app focus on refugees in Turkey, the app also gives the opportunity for Arabic-speaking people to learn Turkish and obtain information about Turkey. Furthermore, it is a useful tool for Turkish people who need to communicate with Syrians in their daily lives.

Hello Hope is established as a corporate social responsibility project. It is open for the benefit of every individual and every organization in the world. Turkcell welcomes anyone willing to contribute to the project, and also volunteers to share Hello Hope project know-how with anyone wishing to launch or support any project to help refugees.

The key features of the app are:

- Turkish language learning with flashcards, tests and videos
- Instant speech translation between the Turkish and Arabic languages
- Useful information on different items, such as how to benefit from services in Turkey, children’s education, the registration process, how to benefit from health services, etc.
- Finding the most needed facilities nearby, thanks to location-based services
- Click-to-call button inside the app that sets up a call to Turkcell’s Arabic call centre

- Video learning is the upcoming feature that will focus on K-12 education and Turkish learning videos.

In line with the features listed above, Hello Hope fosters the integration of refugees through:

- Turkish language learning
- Communication with Turkish people
- Closing the information gap for their life in Turkey
- Easily finding necessary facilities nearby.

Key indicators for the Hello Hope mobile application as at May 2017:

- App downloaded by 385 000 users
- Turkish language learning cards viewed 280 million times
- Tests in language learning used 2.2 million times
- Speech translation used 6.3 million times
- Useful information items viewed 3 million times
- Nearby facilities function, which uses location-based services, viewed 320 000 times.

Hello Hope's development was completed in just two months. Irrespective of their GSM operator, anyone can download the app free on iOS and Android smartphones or tablets and start using it instantly.

Hello Hope is the only app for Syrian refugees that focuses on their needs in the aftermath the Syrian conflict, encompassing all integration, communication and educational dimensions.

### Examples of linkages between the WSIS Action Line your project was awarded for with each of the Sustainable Development Goals it helps advance

**SDG 4:** Promotes learning and educational opportunities for the younger generation of displaced Syrians who remain out of school as well as adults who are challenged by an unfamiliar language.

**SDG 8:** The Turkish government having recently passed legislation allowing Syrians to seek employment opportunities, the app allows Syrian refugees to obtain the language skills they need to find decent work.

**SDG 10:** Reduces inequality by giving people in crisis areas the same access to communications as elsewhere.

**SDG 16:** Promotes peaceful and inclusive societies, as well as information on registration and public services to educate persons on legal rights and opportunities.

### Highlights of the project's partnership activities

Designed and developed by the Turkcell Academy, the Hello Hope mobile app includes content from Turkcell Academy's longstanding partner, Khan Academy. In the development process, Turkcell received extensive feedback from the Turkish Red Crescent and the Disaster and Emergency Management Presidency (AFAD) under the Prime Ministry of the Republic of Turkey.

The next phase of Hello Hope is a pilot project in Kahramanmaras refugee camp which involves building a technology centre connected with fibre Internet. In partnership with Prodea Systems, another private-sector company working in the field of online education, we have equipped the centre with IPTV sets and tablets as well as providing education and lifestyle content.

## Challenges and project's future perspectives

Vocational training and children's education are identified as priorities by Syrian families. Language difference remains a barrier to integration and to daily communication - especially for adults. The challenge was twofold:

- at a broad level, shifting the mindset towards integration;
- on a more technical level, answering the question: "How do we cater to diverse needs for education and how do we ensure that we reach the broadest population possible?"

Turkcell's response to the challenge was development of the "Hello Hope" mobile app that provides Turkish language learning flashcards, instant speech translation, access to useful information, video learning and easy access to Turkcell's Arabic-speaking call centre.

Turkcell will continue to work in line with the UN's Sustainable Development Goals, building awareness around the need for a humane global approach to refugees, and deploying new technologies, content and features in Hello Hope.

We will focus on:

- 1) Creating both customizable and wide-reaching content (and ensuring that it is delivered to the target beneficiaries)
- 2) Giving individuals/communities a voice in identifying their own needs, and using technology to meet those needs
- 3) The importance of public-private partnerships and cooperation between private-sector companies, national and international NGOs and relief organizations.

## Your views on WSIS Stocktaking and Prizes contest, including its relevance to SDGs

The WSIS Stocktaking and Prizes contest plays a major role in raising awareness regarding the SDGs at global level and in involving all parties around the world in this issue, including governments, NGOs, organizations and the private sector. Turkcell is honoured to be one of the winners of the WSIS Prizes 2017. We believe that the WSIS event is crucial to the emergence of new ideas, projects and partnerships in regard to the SDGs.

## C9: Media

**Project name:** **Agribusiness TV**

**Organization:** **MEDIAPROD**

**Country:** **Burkina Faso**

### Basic information about your entity

Africa will have to feed a population that will double by 2050. This is where the main challenge lies. With a population of over a billion, of whom 70 per cent are below 30 years of age, Africa is one of the most dynamic regions in the world. At the same time, most countries in Africa are highly dependent on the agricultural sector for economic development, as well as food security and employment. Yet, despite all this, most young Africans are not attracted to agriculture on account of its image, its insecurity and its lack of competitiveness and support.

One way in which young people can be brought back into agriculture is by showing them success stories of those who are already engaged in agricultural entrepreneurship, which can inspire them and give them ideas to start or develop a business. This is the vision of MEDIAPROD, a communication for development agency based in Burkina Faso. Having accompanied different organizations (including NGOs and associations in the field of agriculture and rural development) for some years, the agency saw that there was a gap between what was happening on the ground and what was being shown in the media regarding youth involvement in agricultural entrepreneurship.

Since MEDIAPROD works with a network of young journalists, editors, producers, sound technicians and other media experts in the Africa region, it has the opportunity to use this experience to bring stories of young agricultural entrepreneurs from the field to a wider audience. This is how the concept came about of having a Web TV channel dedicated to youth in agricultural entrepreneurship. The project, called *Agribusiness TV*, aims to effect a fundamental change in the way agriculture is perceived by youth. Available as a mobile and web application, *Agribusiness TV* features videos of young agricultural entrepreneurs in Africa, produced according to a coherent editorial line.

### Project's description (activity's description)

*Agribusiness TV* is a Web TV which aims to use videos as a promotion tool to (re)valorize agriculture and make the sector more attractive to youth by showcasing success stories of young agricultural entrepreneurs and their innovations in Africa.

The project was launched by MEDIAPROD in May 2016, with the support of a grant received by the Technical Centre for Agricultural and Rural Cooperation (CTA). In the first year of the project, over 60 videos were produced and disseminated on the Web TV.

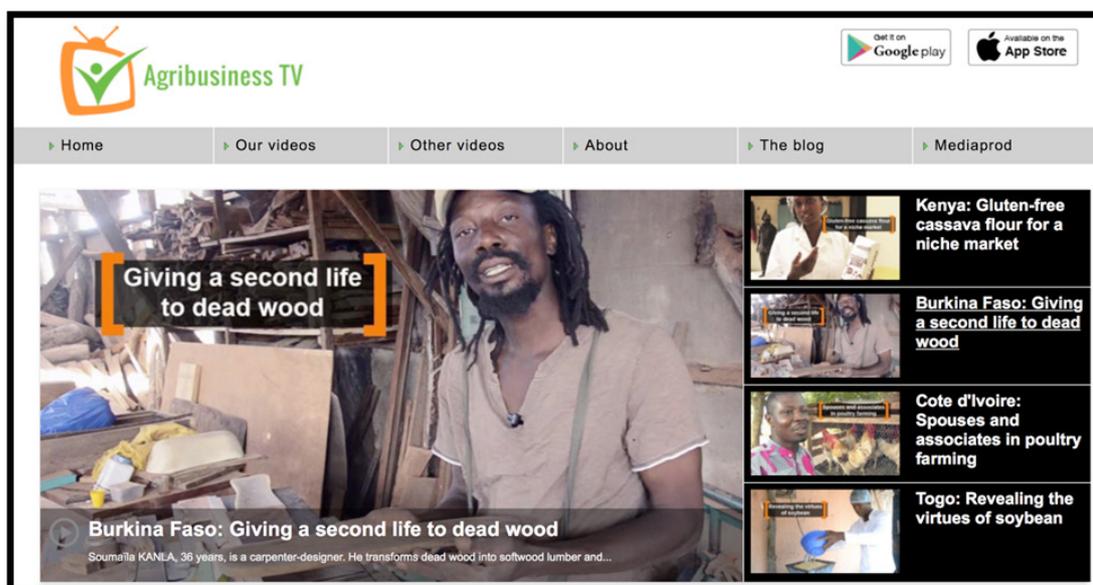
Initially, *Agribusiness TV* covered four countries in Africa, namely Benin, Burkina Faso, Cameroon and Cote d'Ivoire; but a few months later, seven more countries were added to the list, namely Ghana, Kenya, Mali, Mauritius, Niger, Senegal and Togo. *Agribusiness TV* is available on its web and mobile applications at the links shown in the table below:

Branded as "the first youth in agribusiness Web TV in Africa", *Agribusiness TV* has the following features which makes it unique in its kind:

	English version	French version
<b>Website</b>	<a href="http://en.agribusinesstv.info">http://en.agribusinesstv.info</a>	<a href="http://www.agribusinesstv.info">http://www.agribusinesstv.info</a>
<b>App Store</b>	 <a href="http://apple.co/29QNRMV">http://apple.co/29QNRMV</a>	 <a href="http://apple.co/29VoYy1">http://apple.co/29VoYy1</a>
<b>Google Play</b>	 <a href="http://bit.ly/2a8sAuz">http://bit.ly/2a8sAuz</a>	 <a href="http://bit.ly/2a4ND2C">http://bit.ly/2a4ND2C</a>

### First Web TV on youth in agribusiness

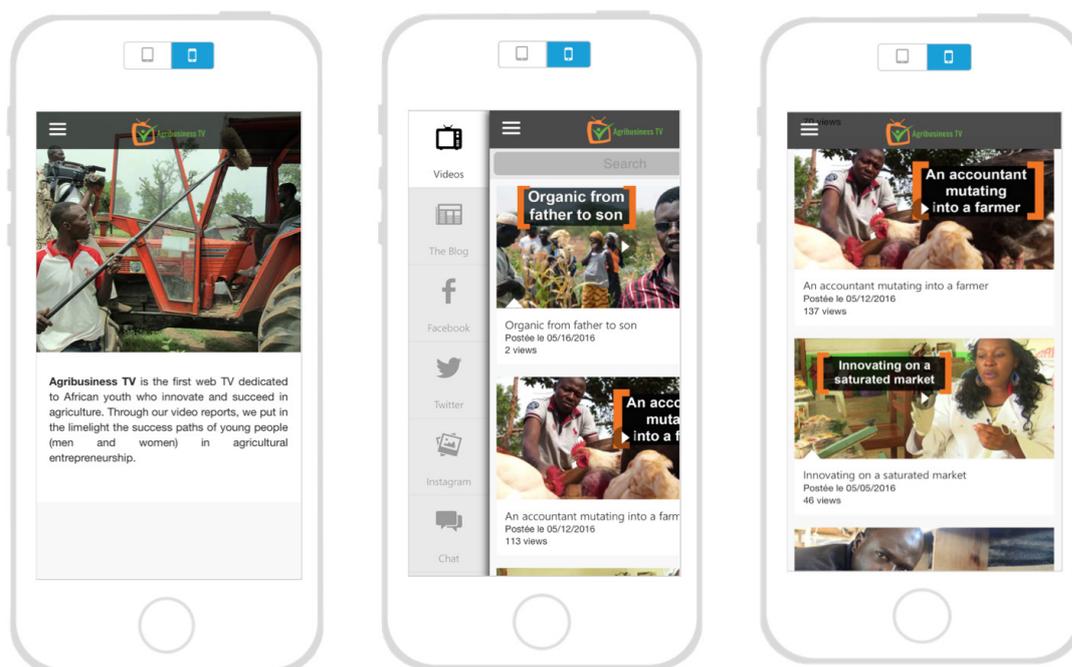
Given the importance of the issue of enticing young people back into agriculture, Agribusiness TV focuses on bringing stories on youth in agriculture into the limelight, making it the first Web TV dedicated to youth and agribusiness in Africa. Each video highlights the story of a young entrepreneur who is engaged in a particular segment of the agricultural value chain (crop or livestock production, processing, adding value, marketing, ICT, services, etc.). All content is available in English and French, which are the main languages in most African countries.



*Agribusiness TV's website*

## Designed for mobile phones

Bearing in mind that Agribusiness TV's primary target audience is African youth who are connected to the Internet, it has been designed for mobile phones. The Web TV can be accessed on mobile phones and tablets by downloading its mobile application, available (for free) on App Store and Google Play. In addition, since young people have a strong presence on social networks, Agribusiness TV also has a Facebook page, Twitter account, LinkedIn page and Instagram, whereby the videos produced are disseminated. The statistics from Facebook, for example, indicate that over 80 per cent of fans access the content of Agribusiness TV via mobile phones, which validates the idea that youth in Africa have access to the Internet mainly through their mobiles.



*Preview of Agribusiness TV's mobile application*

## Video content and quality

When Agribusiness TV was being conceived, its editorial line was developed by a team of professional journalists and media experts, and it was decided that, in order to retain originality of context, the featured story would be told by the young entrepreneur himself/herself, without the voice or intervention of the journalist. In addition, videos on Agribusiness TV are produced by professional journalists in high definition, and assembled by a professional editor to ensure quality of content.

## Vibrant network and audience

When Agribusiness TV was started, Facebook was one of the major channels for targeting a young audience for the videos, and it was planned that in the first year of the project the Web TV should have at least 5 000 fans. The results, however, far exceeded all expectations. A year after the project launch, the Facebook page of Agribusiness TV had over 138 000 fans, demonstrating the interest that people have in the Web TV. In addition, the mobile applications have had over 5 200 downloads, and as at May 2017 the videos published had registered over 2.5 million views.

## Feedback from audience

Feedback received from the young entrepreneurs featured on Agribusiness TV and also from the audience is positive. The young entrepreneurs who have been showcased on the Web TV have received a lot of visibility, which helped them get opportunities such as networking, participation in policy debates, or contracts. According to Richard Moné, a young entrepreneur from Burkina Faso who appeared on Agribusiness TV, *“Being featured on Agribusiness TV is first of all a recognition for the work that we are doing as entrepreneurs and it motivates us to do even more. Then, there are other benefits, especially networking, from which I have gained a lot”*. Also, the audience highly appreciates Agribusiness TV for bridging the gap and presenting stories of young Africans who are innovating in agriculture.



**Gislin Kamdem** reviewed **Agribusiness TV** – 5★

17 January at 12:36 · 🌐

Je suis très fier de cette merveilleuse initiative prise par des africains qui ne se contentent pas de critiquer mais ont pris leurs responsabilités: agir.

I am very proud of this wonderful initiative taken by Africans who do not just criticize but have taken their responsibilities: always acting.



Like



Comment



Share



Agribusiness TV and Paul Holi

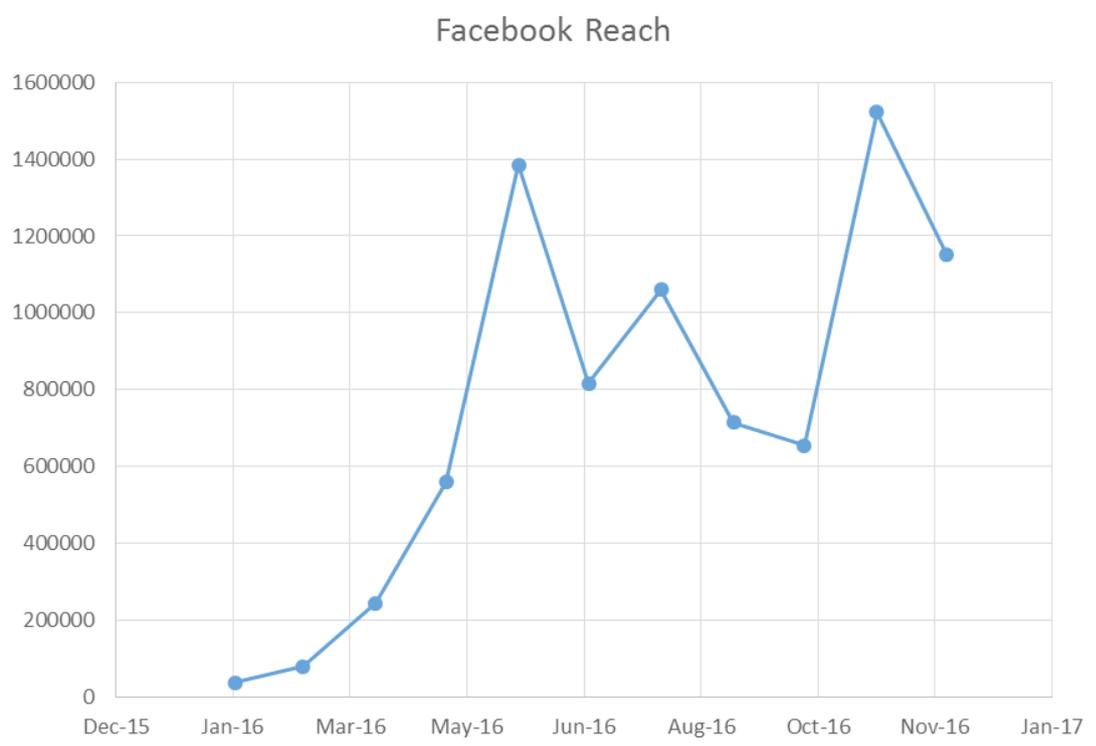
*A Review on Agribusiness TV's Facebook page*

## Examples of linkages between the WSIS Action Line your project was awarded for with each of the Sustainable Development Goals it helps advance

### Media

Agribusiness TV is relevant to WSIS Action line **C9**: Media.

Being a Web TV, Agribusiness TV is a new media channel that is combining the use of videos, ICT applications (web and mobile), the Internet and agriculture. One of the major advantages of a Web TV is that it can reach out to a wide audience in Africa and beyond. The videos produced can be accessed at any point in time with just a link and can easily be shared through various channels (e-mail, social networks, newsletters, etc.). According to Facebook analytics, 8.2 million people were reached by Agribusiness TV's Facebook page in 2016, during what were the first seven months of its operation. Agribusiness TV has also prompted journalists to work in the field of agriculture, which has encouraged them to specialize in this field.



Through its videos in specific thematic areas (production, adding value, green jobs, technology and services, and nutrition), Agribusiness TV addresses the following Sustainable Development Goals:

**SDG 1:** End poverty in all its forms everywhere

**SDG 2:** End hunger, achieve food security and improved nutrition and promote sustainable agriculture

**SDG 3:** Ensure healthy lives and promote well-being for all

**SDG 5:** Achieve gender equality and empower all women and girls

**SDG 8:** Promote inclusive and sustainable economic growth, employment and decent work for all

**SDG 12:** Ensure sustainable consumption and production patterns

**SDG 13:** Take urgent action to combat climate change and its impacts

**SDG 15:** Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss.

## Highlights of the project's partnership activities

### Partners joining forces with Agribusiness TV

The success of Agribusiness TV has relied heavily on partnerships. Thanks to the first partnership with CTA, the idea of Agribusiness TV was turned into reality. The online platforms (website, mobile applications, social media channels) were set up and the first videos were produced. With time, other partners (technical, networking and financial) joined in and collaborated to produce more videos and reach out to a bigger and wider audience.

## Managing a project in different African countries

Agribusiness TV is based in Burkina Faso, but works with professional journalists based in the countries covered by the project (11 countries). Hence, the videos are produced locally by video journalists contracted by Agribusiness TV. This minimizes air travel costs. The videos are sent via the Internet, and assembled, edited, published and promoted by Agribusiness TV in Burkina Faso.

## Partnerships to reach out to offline audience

Agribusiness TV often partners with organizations working with youth groups on agricultural entrepreneurship. The videos are shared with partners free-of-charge for projection in their training sessions and activities.

## Challenges and project's future perspectives

Despite the positive outcomes, Agribusiness TV faces a number of challenges.

### Internet connectivity

According to ITU, Internet penetration in Burkina Faso stood at 10.2 per cent in 2016. Despite the increasing Internet penetration in the country, the quality of Internet is still poor. One of the major challenges faced by Agribusiness TV is slow and unreliable Internet connectivity. Video files received from the countries covered tend to be heavy and take a lot of time to be downloaded, and when the final video is ready, uploading onto the various platforms (website, Facebook, YouTube, etc.) is also very time-consuming. Given better Internet connectivity, the team could put that time to better use in doing more substantive work for the project.

### Reaching out to rural youth

As Agribusiness TV is a Web TV, reaching out to rural youth who are not connected to the Internet is an issue. To overcome this challenge, in 2017 Agribusiness TV will start doing video projections in schools. In addition, the team is working with extension agents who are in touch with young people in rural communities, to share the videos with them via Bluetooth on their mobile phones. Another major activity in the second phase of Agribusiness TV is the production of a bi-monthly TV programme that will be aired on national TV. This will help reach out to an audience that is not connected to the Internet.

### Sustainability

Agribusiness TV's business model is based on 1) service provision; 2) co-production/grants; and 3) advertising. Most videos produced in the first phase of the project were funded from grants and service provision. Insofar as dependence on grants is not sustainable, in its second phase Agribusiness TV will rely more on service provision and advertising through both the Web TV and the bi-monthly TV programme aired on national TV, which could also be replicated in the other countries that the project is covering.

Even though Agribusiness TV is still a very recent initiative, there is already some indication of its impact. Apart from the statistics (in terms of number of views for the videos or of application downloads), young entrepreneurs who have been featured on the Web TV have been getting huge visibility, which is opening up various opportunities. At the same time, young people are getting inspired by the videos broadcast on Agribusiness TV and many have expressed an interest in starting a business in agriculture. From this perspective, Agribusiness TV's main objective is being achieved, in terms of making agriculture "cool" again in the eyes of young people and bringing them back to the sector.

Currently, Agribusiness TV covers 11 countries in Africa, and the next target is to expand to more countries of the continent. In the long run, Agribusiness TV wants to become a reference for agriculture videos in Africa.

### **Your views on WSIS Stocktaking and Prizes contest, including its relevance to SDGs**

The WSIS Stocktaking and WSIS Prizes contest has been a great opportunity, first and foremost to discover ICT projects in various fields and countries. As for Agribusiness TV, its participation in the project prize has given the project more visibility in other continents and countries where people did not already know about it. On top of that, the international recognition conferred on the project is a sign that Agribusiness TV is somehow on the right track, which increases our motivation to do even more.

## C10: Ethical dimensions of the information society

**Project name:** *Internet Sehat (Healthy Internet)*

**Organization:** **ICT Watch**

**Country:** **Republic of Indonesia**

### Basic Information about Your Entity

ICT Watch is a civil-society organization (CSO) established in order to develop, empower and support communities, other CSOs and multiple stakeholders in Indonesia in respect of their right to information. ICT Watch believes that the Internet is one of the most powerful tools for facilitating citizens' engagement in building democratic societies and promoting a range of human rights.

#### **Vision**

*"The establishment of an Internet governance ecosystem that protects and fulfils citizens' rights to information and freedom of expression, as mandated by the Indonesian Constitution, and strategically utilizes information and communication technologies (ICT)".*

#### **Mission**

- To develop awareness among the people of Indonesia, with emphasis on parents and teachers, regarding the safe and judicious use of ICT (including Internet) by children and students. (**Internet safety**)
- To empower civil society in South-east Asian, especially freedom of expression and human rights activists, by developing together the knowledge and capacity to use ICT appropriately. (**Internet rights**)
- To support regional and global multistakeholder dialogue on ICT and Internet governance whilst upholding the key principles of transparency, accountability, equality and democracy. (**Internet governance**)

Accordingly, ICT Watch provides information to society about the dynamics and potential benefits of Internet through campaigns, publications and a variety of public activities. ICT Watch is committed to freedom of expression online, and aware of the emerging challenges in this regard, while continuing to combat online hoaxes and disinformation by delivering Indonesian digital literacy, called "**Internet Sehat**" (which may be translated as "Healthy Internet" or "Internet Wellness" in English).

In this context, ICT Watch has also formulated the Indonesia Digital Literacy Framework concept, as follows:



*(The Indonesia Digital Literacy Framework by ICT Watch – 2017)*

### Project's Description (Activity's Description)

"Internet Sehat" (in Bahasa Indonesia) or "Healthy Internet" (in English) was initiated back in 2002, as a digital literacy advocacy campaign that still continues to serve the Indonesian community today. Internet Sehat releases useful Indonesian online content under a creative commons licence, such as:

- A series of Internet and social media for social movement and online rights advocacy documentary videos ([lenteramaya.ictwatch.id](http://lenteramaya.ictwatch.id)) (five videos of around 40 minutes duration each) for public screening, discussion or campaigns. All the videos are in Bahasa Indonesia with English subtitles.
- A comprehensive presentation kit and "how-to" e-materials such as modules and leaflets in Bahasa Indonesia ([internetsehat.id/literasi](http://internetsehat.id/literasi)) that may be used freely by the public for education, advocacy or campaigns.
- Various online content on different online media (statistics as at 15 May, 2017):
  - Facebook page: [facebook.com/netsehat](https://facebook.com/netsehat) (verified), 73 000 likes
  - Twitter: [@internetsehat](https://twitter.com/internetsehat) (verified), 830 000 followers
  - Blog: [internetsehat.id](http://internetsehat.id)
  - Instagram: [@ictwatch](https://www.instagram.com/ictwatch)
  - YouTube channel: [youtube.com/internetsehat](https://youtube.com/internetsehat)
  - SlideShare: [slideshare.net/internetsehat](https://slideshare.net/internetsehat)
  - Flickr: [flickr.com/internetsehat](https://flickr.com/internetsehat).

Internet Sehat also continuously delivers various offline activities, such as training and workshops, public events and roadshows to hundreds of schools, campuses and communities, thereby simultaneously facilitating multistakeholder engagement and building the capacity of local communities. In every offline activity in favour of society, ICT Watch always targets the active involvement of a minimum number of women, who can account for as much as 30 per cent of total participants.

In addition, Internet Sehat occasionally organizes live online “Q&A” consultations, sharing short tips and tricks on “online ethics and rights” through its online channels.

The fundamental perspective of Internet Sehat may be summarized as follows:

- 1) *Useful and meaningful online content should be initiated and developed from, by and for young people, students and communities of digital natives.*
- 2) *Online filtering can only be effectively carried out at the level of the family (home) and education (school) institutions, with full engagement between children and parents / students and teachers.*
- 3) *Digital literacy and child online protection rely heavily on inclusive, equal, transparent and accountable multistakeholder dialogue and cooperation in the corridors of Internet governance and the information society.”*

In May 2016 in Geneva, ICT Watch received an international accolade, the World Summit on the Information Society (WSIS) Champion award, from the International Telecommunication Union (ITU), a specialized agency of the United Nations. The Internet Sehat programme was considered by ITU to represent a model strategy for delivering online ethics and digital literacy advocacy to the public. Previously, in August 2014 in Jakarta, ICT Watch also received a renowned national acknowledgement, the Tasrif Award bestowed by the Indonesian Independent Journalists Alliance (AJI). AJI deemed that ICT Watch, through the Internet Sehat initiative, has played a significant role in the democratization of the Internet as well as promoting Internet as a medium for fulfilling citizens’ right to information.

Although it is the entity that initiated Internet Sehat and has continued to deliver it to society since 2002, ICT Watch does not wish to limit its use by the public for advocacy and education purposes. On the other hand, nor does ICT Watch want Internet Sehat to be claimed by certain parties and/or institutions as their own achievement, especially if it tends to be commercialized. It is for this reason that the name “Internet Sehat” has already been registered officially by ICT Watch as an intellectual property right object since October 2010, through the Indonesian Directorate-General of Intellectual Property Rights. For its use by society, Internet Sehat has recourse to a creative commons licence: Attribution + Non Commercial + Share Alike (CC BY-NC-SA), which lets others remix, tweak and build upon the work non-commercially, as long as they give credit to the owner and license their derivative products under the same terms.

### Examples of linkages between the WSIS Action Line your project was awarded for with each of the Sustainable Development Goals it helps advance

Internet Sehat is placed in the category of WSIS Action line **C10**: Ethical dimensions of the information society, which strongly emphasizes that:

The information society should be subject to universally held values and promote the common good and prevent abusive uses of ICTs.

- a. *Take steps to promote respect for peace and to uphold the fundamental values of freedom, equality, solidarity, tolerance, shared responsibility, and respect for nature.*
- b. *All stakeholders should increase their awareness of the ethical dimension of their use of ICTs.*
- c. *All actors in the information society should promote the common good, protect privacy and personal data and take appropriate actions and preventive measures, as determined by law, against abusive uses of ICTs such as illegal and other acts motivated by racism, racial*

*discrimination, xenophobia, and related intolerance, hatred, violence, all forms of child abuse, including paedophilia and child pornography, and trafficking in, and exploitation of, human beings.*

- d. *Invite relevant stakeholders, especially academia, to continue research on ethical dimensions of ICTs.*

The reference used for linking Internet Sehat to the Sustainable Development Goals (SDGs) is as indicated in the document ‘WSIS-SDG Matrix: Linking WSIS Action Lines with Sustainable Development Goals’, as follows:

- *SDG #4.7: Ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture’s contribution to sustainable development. (Rationale: Digital platforms, whether global or local, are key to participation in all aspects of social life – political, cultural, economic. Providing the means and capabilities throughout life to assure meaningful participation becomes an ethical imperative and contributes to overcoming poverty and ensuring the common good).*
- *SDG #5.1: End all forms of discrimination against all women and girls everywhere. (Rationale: Digital platforms are keys to social participation, all physical, technical, social and cognitive barriers to women’s participation in the virtual spaces must be addressed to ensure their ability to benefit from the opportunities of the knowledge societies. All users must be empowered to report and combat all forms of gender-based intolerance, bullying, profiling discrimination and other on-line threats).*
- *SDG #16.10: Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements. (Rationale: Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements).*

### Highlights of the project’s partnership activities

From its inception to the present day, Internet Sehat’s programmes have always involved multiple stakeholders (government, business sector, CSOs, academia and the technical community). Several strong partnerships in the context of community empowerment through seminars, workshops or training and in the context of knowledge development through the preparation of e-book material, modules or video documentaries for advocacy and education constitute a priority that must always be pursued under a mutual and inclusive multistakeholder approach. Another multistakeholder partnership activity delivered with a core knowledge contribution from Internet Sehat is the development of the Indonesian Child Online Protection Roadmap, conducted jointly by the Ministry of Communications and Information Technology (Kominfo), the Indonesian Child Protection Commission (KPAI), UNICEF, the Communication Studies Centre- University of Indonesia (Puskakom- UI), Indonesian ICT Volunteers (RTIK), Indonesia Child Online Protection (ID-COP) and ICT Watch.

Specific reference is made to partnerships undertaken to combat hoaxes and hate speech in a press article which appeared in The Jakarta Post in November 2016 (<http://www.thejakartapost.com/news/2015/11/12/the-banning-hate-speech-social-media.html>):

*... “In a society with high digital literacy, the spread of hate speech through social media normally will make no significant impacts since the public is competent enough to critically analyze and evaluate the online content. Unfortunately, that is not the case here in Indonesia. Even though a large number of Indonesians have access to social media or the internet, their capability to critically evaluate and create, select or share contents remains relatively low. In other words, Indonesian society has a low degree of digital literacy.*

*This low digital literacy has significantly contributed to the massive and sustained circulation of provocative and untrustworthy content in social media. As these social media users are not competent enough to evaluate the novelty of information and reflect the impact it may generate, they view the information the same way they receive news from newspapers or television, which is relatively more credible.*

*As a result, they accept untrustworthy content as fact and even decide to share, like and re-share it with others. As long as people post, like, comment or share the hate speech, it will keep spreading. Education level does not always guarantee this literacy. **The government and civil society organizations have initiated several projects to promote digital literacy**, such as “**Internet Sehat**” (Healthy Internet) and “Internet Cakap” (Literate Internet). Discourses have also loomed to promote digital literacy among students. However, as common with education programs, it takes time to show a result.” ...*

Internet Sehat’s strategic partners include: Indonesian Ministry of Communication and Information Technology (KEMKOMINFO); Indonesian Ministry of Youth and Sports (KEMENPORA); Indonesian Ministry of Foreign Affairs (KEMENLU); Indonesian Ministry of Education and Culture (KEMENDIKBUD); Indonesian Child Protection Commission (KPAI); Indonesian Internet Service Providers Association (APJII); Indonesian Domain Name Registry (PANDI); Indonesia Infocomm Society (MASTEL); Alliance of Independence Journalists (AJI); Hivos International; Ford Foundation; Citizen Lab- Toronto University; Global Partners Digital (GPD) – UK; Cyber Law Center - Padjajaran University; Communications Research Centre- University of Indonesia; Google; Twitter; Facebook; Indonesia Internet Governance Forum (ID-IGF); Indonesian Child Online Protection (ID-COP); Indonesian ICT Volunteers (RTIK); Village Development Movement (GDM); Southeast Asia Freedom of Expression Network (SAFENet); Digital Democracy Forum (FDD); Indonesian CSOs Network for Internet Governance (ID-CONFIG); Indonesian Internet Society (ISOC-ID); Indonesia e-Commerce Association (IDEA); Nawala Nusantara Foundation; Internet Baik Taskforce (Kakatu, Yayasan Kita dan Buah Hati, ICT Watch, Telkomsel); Indonesian netizen/ blogger local communities; WatchdoC Documentary Maker; and several Indonesian telecommunication operators such as Telkomsel and XL Axiata.

### Challenges and project’s future perspectives

Digital literacy and Internet governance issues in the near future will be more dynamic and diverse and hence increasingly problematic. With the number of Indonesian Internet users reaching 130 million in 2017, fuelled by constant progress in consumer technology development and the increasing affordability of Internet bandwidth, there is little doubt that a lot of major issues related to aspects of social life, politics, economics and security (and privacy) of society will become more challenging.

Other challenges faced by Internet Sehat will relate directly to efforts to achieve a massive-scale, well-planned and measurable advocacy and education programme with the inclusive, equal, transparent and accountable engagement of multiple stakeholders and society. Without this kind of engagement, any efforts for advocacy and education regarding the “ethical dimensions of the information society” will not deliver sufficient and proper impact.

Therefore, the Internet Sehat programme will continue to be encouraged as an inclusive “from-by-for” society initiative, with significant content and communication developments, based on multistakeholder engagement and the Indonesia Digital Literacy Framework.

### Your views on WSIS Stocktaking and Prizes contest, including its relevance to SDGs

The WSIS Stocktaking and Prizes contest has a strong, significant and mutual relationship with the SDGs, for several reasons:

- 1) It presents to other countries examples of various ICT initiatives undertaken by relevant parties in each country in order to develop their society.

- 2) It provides motivation for relevant stakeholders to pursue continuous innovation as well as encouraging the use of ICT for the benefit of societal development.

It shows clearly that ICT does not stand in a vacuum: ICT has a significant role and function for the development of society worldwide, and better utilization of ICT is crucial to achieving the SDG targets for the development of global society.

## C11: International and regional cooperation

**Project name:** African School on Internet Governance (AfriSIG)

**Organization:** Association for Progressive Communications (APC)

### Basic information about your entity

The *African School on Internet Governance* (AfriSIG) is a joint initiative of the Association for Progressive Communications (APC) and the Planning and Coordinating Agency of the New Partnership for Africa's Development (NEPAD Agency).

APC is an international network of civil-society organizations (CSOs) founded in 1990, dedicated to empowering and supporting people working for peace, human rights, development and protection of the environment, through the strategic use of information and communication technologies (ICTs). We work to build a world in which all people have easy, equal and affordable access to the creative potential of ICTs to improve their lives and create more democratic and egalitarian societies.

The NEPAD Agency is a technical agency of the African Union whose mandate is to facilitate and coordinate regional priority programmes and projects and mobilize resources and partnerships for implementation. The Agency works with regional economic communities and member states on development projects guided by four pillars: Regional integration, infrastructure and trade; Human capital development; Natural resource governance and food security; and Industrialization, science, technology and innovation. ICT and Internet development is a key component of the work undertaken by the Agency as part of its regional integration and infrastructure development portfolio.

### Project's description (activity's description)

AfriSIG is a capacity-building initiative that aims to give Africans from diverse sectors and stakeholder groups the opportunity to gain knowledge, experience and confidence to participate effectively in Internet governance processes and debates nationally, regionally and globally. It contributes to increasing the diversity, extent, quality and influence of African participation in Internet governance by creating a space that promotes multistakeholder learning and dialogue.

AfriSIG brings together people of all ages, and with a wide range of experience. Participants range from professionals at the pinnacle of their careers, such as heads of regional regulatory agencies, to young entrepreneurs and civil-society activists.

In addition to providing a solid foundation on Internet policy processes and institutions, AfriSIG includes a practicum. This multi-day group exercise enables participants to learn through participation in a multistakeholder role-playing scenario responding to a real-life Internet governance issue. By taking on the perspectives of the various stakeholders, participants emulate a multistakeholder negotiation, and work together to develop a consensus statement on the topic.

### Examples of linkages between the WSIS Action Line your project was awarded for with each of the Sustainable Development Goals it helps advance

The WSIS action line related to the AfriSIG project is Action line **C11**: International and regional cooperation.

One concrete example of linkages with the SDGs can be cited in connection with **SDG 4** (Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all): By

providing high-quality substantive capacity building on Internet rights issues and the IG ecosystem, AfriSIG builds knowledge and increases understanding among a diverse range of stakeholders in the field of IG in Africa, across all sectors, with a specific emphasis on youth, women and sexual rights stakeholders. This includes encouraging local to global learning.

An example related to **SDG 5** (Achieve gender equality and empower all women and girls): By aligning AfriSIG with the Gender and Internet Governance eXchange (gigX), gender, women's and sexual rights perspectives have been integrated into Internet governance conversations and processes to support the transformational potential of the Internet for all.

An example of how AfriSIG contributes towards **SDG 10** (Reduce inequality within and among countries): By offering the opportunity for African regional stakeholders, including governments, the private sector, civil society and academia, to gain knowledge and confidence to engage effectively in and have an impact on IG processes and debates at national, regional and global levels, AfriSIG contributes to creating the necessary conditions to enable access and to use this access for development purposes, as well as to reduce social, political and economic inequalities.

A further example, related to **SDG 16** (Promote just, peaceful and inclusive societies): Integrating gender and human rights perspectives in the AfriSIG curriculum and aligning them with the African Declaration on Internet Rights and Freedoms has contributed to increasing the understanding by all actors and stakeholders of the links between women's and sexual rights and Internet governance, and of the need to advocate strategically for Internet laws, policies and regulations that improve the lives of women and marginalized groups, contributing in this way to peace, justice and the development of stronger institutions.

In regard to **SDG 17** (Partnerships for the goals), AfriSIG brings together government, policy-makers, regulators, media and other stakeholders to increase their capacity to understand, participate in and influence Internet governance processes. AfriSIG also contributes to an enabling environment for the establishment of partnerships among participants for sustainable development.

### Highlights of the project's partnership activities

AfriSIG is a capacity-building initiative that could not be possible without partnerships. To deliver AfriSIG, APC and the NEPAD Agency partner with governments, intergovernmental agencies (African Union, UN Women Fund for Gender Equality, UNESCO, ITU), civil society (Access Now), the private sector (Afiliias, Facebook, Google) and the technical community (Internet Society, African Network Information Centre- AFRINIC, ICANN, Public Interest Registry, ZA Domain Name Authority), to name a few.

AfriSIG draws on African and global faculties to shape and deliver course content, as well as to provide mentorship to participants. Leading African institutions such as AFRINIC and Research ICT Africa have provided input into the programme and curriculum, and multinational ICT leaders such as Google and Facebook have invested people and resources in AfriSIG because of the value it has demonstrated to the African and global Internet governance community.

AfriSIG has been formally linked to the annual African Internet Governance Forum (IGF), and the close collaboration with the African IGF secretariat, based at the African Union Commission in Addis Ababa, has provided AfriSIG participants with the opportunity to participate in every annual African IGF. Not only does this expose them to debate and actors from all stakeholder groups interested in Internet policy and development, but it also provides them with the opportunity to speak publicly and moderate panels.

### Challenges and project's future perspectives

AfriSIG's primary challenge is securing sufficient and long-term financial resources. Linked to this is the challenge of being able to effectively accommodate languages other than English. The school currently takes place in English, and English proficiency is one of the requirements for admission. This excludes French, Portuguese and Arabic speakers.

The second main challenge is also an opportunity. AfriSIG is producing spin-off activities in the form of national and regional schools initiated by AfriSIG alumni. Supporting these efforts and providing some form of quality control is only possible if AfriSIG has more human resources capacity.

### Your views on WSIS Stocktaking and Prizes contest, including its relevance to SDGs

The WSIS Stocktaking and Prizes contest is an excellent initiative to identify and highlight all the projects that provide successful examples of advancement towards achievement of the WSIS action lines defined in the Geneva Plan of Action and the SDGs. It shines a spotlight on models suitable for replication at different levels, and gives deserved recognition to all stakeholders committed to achieving the WSIS goals and SDGs.

## Conclusion

The sixth, 2017, edition of Success Stories contains the greatest success stories in the form of 18 winning projects from different countries of the world, together with the inputs from 72 Champion projects, i.e. those receiving the highest number of votes in each category.

These success stories showcase examples of projects related to the implementation of WSIS outcomes, emphasizing the achievements of stakeholders working towards achieving both WSIS goals and **SDGs**, transferring experience and knowledge at the global level, and spreading and fostering WSIS values.

We are also pleased to announce the imminent launch and official 2017-2018 call for updates and new entries relating to new ICT-related projects, via our WSIS Stocktaking platform. 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 and to 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. We urge all 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 and prizes contest.

We trust that readers will find this Success Stories 2017 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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