WSIS Stocktaking Success Stories 2023

(Zero draft)

Acknowledgement

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The WSIS team would like to acknowledge the tremendous contributions from governments, international organizations, the private sector, civil society and other stakeholders in providing information on ongoing projects and initiatives to the WSIS Stocktaking Platform. The WSIS Success Stories 2023 report is based on the contributions provided by 18 WSIS Prize winners (18 success stories).

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Executive Summary

Each year during the WSIS Forum 18 stakeholders are awarded **WSIS Prizes** as a unique mark of global recognition for excellence in the implementation of the WSIS outcomes. To this end, 18 projects are selected as the most successful stories worldwide, under each **WSIS Action Line 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 the **Sustainable Development Goals (SDGs)** can be achieved with concrete actions and inspire other stakeholders all over the world to follow their success.

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 **360 nominated projects** represented a wide range of stakeholders.

This includes, by region: 186 from the Asia and Pacific region, 35 from the Latin America and the Caribbean region, 27 from the Eastern Europe, 64 from the Western Europe and North America region, and 48 from the Africa region, while 22 nominated projects come from international organizations.

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 2023 kept reflecting on the linkages between the projects and the SDGs. ICTs are enablers for sustainable development and the objective of the WSIS Stocktaking process, including the WSIS Prizes, is to report on ICT success stories to best showcase the possible achievement of SDGs through the implementation of projects related to the WSIS Action Lines.

The International Telecommunication Union (ITU) announced the top-90 winning Information and Communication Technology for Development (ICT4D) initiatives from around the world competing in the prestigious WSIS Prizes 2023 contest (more information on the WSIS Prizes champions is available here).

We invite you to learn how ICT projects submitted for WSIS Prizes 2023 are enabling the advancement of the **SDGs**. Moreover, we encourage all stakeholders to submit their outstanding ICT project for the WSIS Prizes 2024 edition, before the 21st of January 2024 - all you have to do is complete the submission form online at www.wsis.org/prizes.

Introduction

Since 2012, WSIS Prizes has been celebrating the remarkable efforts made by entities and organisations that focus on accelerating socio-economic progress of the whole world as a community. The United Nations Economic and Social Council (ECOSOC) resolution 2019/24 and the ECOSOC Resolution 2020/12 reiterate the importance of recognizing excellence in the implementation of the projects and initiatives that further the WSIS Action Lines and encourages all stakeholders to nominate their ICT-related projects for the annual WSIS Prizes contest as an integral part of the WSIS Stocktaking process (www.wsis.org/stocktaking).

The submission phase for the WSIS Prizes 2022 was launched. We received a record number of 807 project submissions, out of which, 360 exceptional projects were shortlisted for the Nomination Phase. Thirty-three submissions were rejected based on Rules and Guidelines.

During the Selection Phase, the Expert Group made an in-depth analysis of the five most voted projects per category and selected one winning project per category, considering the scale and impact of the project with respect to the implementation of the WSIS outcomes and its contribution to sustainable development. The Expert Group then proceeded to select the eighteen winning projects for the nineth edition of the WSIS Prizes contest. The WSIS Prizes 2020 Awards Ceremony took place during the final week of the Forum and the winners were virtually applauded for their success in leveraging the power of ICTs to advance sustainable development (WSIS Prizes 2022 virtual Awards Ceremony). Other sessions were organized throughout the Forum to provide an opportunity for the WSIS Prizes 2020 Winners and Champions to promote their achievements and for participants to meet them and learn more about their innovative projects.

The *WSIS Stocktaking: Success Stories 2022* publication offers an in-depth look at the winning projects of the WSIS Prizes 2022. This report contains information about the winners of each WSIS Action Line Category, providing a description of the project and their activities. It also explores the linkages between the WSIS Action Line the project was awarded for and the SDGs it helped advance. In addition, it provides highlights of the project's partnership activities, the social, economic and environmental impact of the project as well as the challenges they face and future perspectives. It also elucidates on the winner's views on the WSIS Stocktaking and Prizes contest, including its relevance to SDGs.

Should you have any questions or want to learn more about the WSIS Prizes contest, please do not hesitate to contact the WSIS Team at wsis-prizes@itu.int.

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

Project name:	Banda Ancha para Todos
Organization:	Instituto Dominicano de las Telecomunicaciones
Country:	Dominican Republic

Basic information about your entity

In 1998 the General Telecommunications Law (153-98), mandated that a regulatory body be structured, and that resulted in the creation of the Dominican Telecommunications Institute (INDOTEL). This entity promotes the orderly and efficient development of the telecommunications industry in the country.

Another relevant aspect of this law is the creation of the "Contribution to the Development of Telecommunications", a two percent (2%) tax that partly finances the regulatory body as well as the various development projects that it coordinates, through the Universal Service Fund department, established especially for these purposes. The entry of the General Telecommunications Law ensures the faithful compliance and preservation of the principle of universal service in an eminently competitive environment, through basic foundations of neutrality, non-discrimination, transparency, continuity, universality and equality. In the same way, special attention will be required to the entry requirements for the network access services demanded, thus guaranteeing protection for the investment made by the operating companies.

Project's description (activity's description)

The Wi-Fi Access Networks in Public Places project consists of the deployment of Wi-Fi access networks distributed throughout the country to enable free access to the Internet for the population.
INDOTEL negotiated with the country's three main internet service providers (ISP), using pending responsibilities and payments and converting them to different amounts of Wi-Fi Networks. These service providers are responsible for the deployment, installation, operation, management and maintenance of the installed networks for a period of 3 years from the date of installation. Even though this project was deployed in 2017, contracts have been renegotiated to maintain the project until at least 2024.
At a general level, the technical specifications of the networks negotiated with the ISP's are summarized as:

- Altice: 600 Wi-Fi networks, connectivity is provided through dedicated 60 Mbps capacity fiber optic networks. The Wi-Fi service was dimensioned based on the type of locality and the projected traffic, installing between 1 and 6 Access Points (AP), indoor and/or outdoor, as appropriate.
- Claro: 350 Wi-Fi networks, connectivity is provided through ADSL or fiber optic networks with residential capacity, depending on commercial availability (between 5 and 100 Mbps for residential purposes). For the Wi-Fi service, a single AP was installed, indoor or outdoor, depending on the type of location.
- Wind: 130 Wi-Fi networks, connectivity is provided through fiber optic networks with dedicated capacity according to dimensioning (between 1 and 10 dedicated Mbps). For the Wi-Fi service, it was dimensioned based on the type of locality and the projected traffic, installing between 1 and 3 APs, indoors and/or outdoors, as appropriate.

INDOTEL was responsible for selecting the locations and managing the permits in each location, as well as defining the technological model to be implemented in each site, ensuring that the technical aspects guaranteed a positive experience for the end user of Wi-Fi networks, while seeking to simplify the management models needed to monitor this high number of Wi-Fi networks.

The project contemplated public hospitals, public universities, city halls and parks close to them, public transportation, museums and selected public squares.

User profiles have been implemented with speed, content, cybersecurity and time controls. Said controls, throughout the project, have guaranteed productive and safe use of the installed networks. The solution has contemplated reporting and statistical systems to extract key information from the project that serves for the elaboration of public policies to continue promoting the development of the telecommunications sector.

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

With this project we are contributing with several WSIS lines of action. For example, The Government is partnering with the private sector in order to give access, in an affordable and inclusive environment to enable digital inclusion, competition, access to knowledge, education/training to the community nationwide.

This project arises from the obligation of the State to guarantee universal access to internet service, through a service for the population to be able to connect their portable equipment using information and communication technologies (ICT), specifically Wi-Fi technology, which has become universal across all modern electronic equipment.

The government has been encouraging investment for the expansion of the coverage of advanced telecommunications networks throughout the country. However, in many cases, the cost of the service is not affordable for a large majority of the population. At the beginning of the project, this was evidenced in the 2015 Household and Multiple Purpose Survey (ENHOGAR), where only 23.6% of Dominican homes had an internet service. Additionally, the population surveyed reported that the main reason for not having the service was because of its high cost.

Seven years later, the 2022 ENHOGAR survey reports important advances and a reduction in the gap, but challenges remain to achieve universal access to digital technologies. According to ENHOGAR, 47.8% of households nationwide have Internet access. Despite the total increase registered at the national level, significant gaps remain between geographical areas and the most vulnerable socioeconomic strata. By 2022, 50.8% of households in urban areas have access to the Internet and 32.7% of households in rural areas, for a difference of 18.1 percentage points.

Social, economic, and environmental impact of the project

The national coverage of the networks varies by provider and in several municipalities, there are Wi-Fi hotspots from more than one provider. In the case of Altice, Wi-Fi networks were installed in 73 municipalities. In the case of CLARO, Wi-Fi networks were installed in 117 municipalities and with Wind, these networks were installed in 16 municipalities. Among all the providers, the 158 municipalities of the country have been covered.

Throughout the project, one of the main indicators of the impact of this project has been the use of WI-FI points by the public. Consumption at these points is constantly measured to determine demand. The last measurement of the use of WI-FI points during the month of January 2023 shows a total consumption of 491 Terabytes (TB), consumed by an approximate total of 539,000 users. This yields an

average consumption of 956 Megabytes per user, which is very significant. These figures have been increasing over the years.

It's a reality, demonstrated by the mentioned statistics of both the consumption and the distribution throughout the national territory of WI-FI points, this initiative has had a very positive impact on the population with fewer economic resources in the Dominican Republic, in the population that is on the streets every day, in the labor market, in students, housewives, men and women who travel using public buses, making it possible for a high volume of people to, especially those with less resources, when things get difficult due to limitations to connect due to their data package, the State, through free Internet access in public places, attends to the connectivity needs of this population, providing a place where to go and get connected.

Challenges and project's future perspectives

Due to the fact that the project is an agreement between the government and private service providers, continuous negotiation is required in order to maintain the effective participation of every stakeholder of the project.
Future perspectives are to expand the capacity of the network as well as the locations and communities reached.

Your views on WSIS Stocktaking and WSIS Prizes contest, including its relevance to international development

We see the contests and prizes as part of an international recognition to our efforts and maybe motivate other stakeholders to participate in it or other administration to replicate this successful project.

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

Project name:	Jalinan Digital Negara Plan
Organization:	Malaysian Communications and Multimedia Commission (MCMC)
Country:	Malaysia

Basic information about your entity

The Malaysian Communications and Multimedia Commission (MCMC) as the regulatory body responsible for establishing a communications and multimedia industry that is competitive, efficient and increasingly self-regulating, generating growth to meet the economic and social needs of Malaysia.

Guided by the Communications and Multimedia Act 1998 that sets forth 10 National Policy Objectives for the C&M industry, the MCMC is committed to:

- Promoting access to communications and multimedia services;
- Ensuring consumers enjoy choice and a satisfactory level of services at affordable prices;
- Providing transparent regulatory processes to facilitate fair competition and efficiency in the industry;
- Ensuring best use of spectrum and number resources; and
- Consulting regularly with consumers and service providers and facilitating industry collaboration.

Project's description (activity's description)

An exponential demand for digital connectivity was magnified by the COVID19 pandemic as dependency on digital services grew seismically during the lockdowns and continued to do so during the on-going recovery period. Due to the seismic shift and urgent need for a robust, high quality and affordable digital connectivity, the connectivity plans that were in place at the time that aimed to improve coverage and quality for broadband and digital services had to be accelerated. To this end, the Malaysian Government formulated a comprehensive national digital infrastructure plan known as the Jalinan Digital Negara (JENDELA), a five-year plan to accelerate the nationwide coverage and quality of broadband from 2020 – 2025.

JENDELA is implemented in 2 phases i.e. from 2020 to 2022, and 2023 to 2025. For Phase 1, the focus was to optimise existing resources and building new sites to achieve 7.5 million premises passed with gigabit access, 96.9% 4G coverage in populated areas and 35 Mbps mobile broadband speed.

Under Phase 2, the targets have been stretched further to achieve 9 million premises passed with gigabit access, 100% internet coverage in populated areas and 100 Mbps mobile broadband speed leveraging on 5G technology by end 2025. The targets are also in line with the 12th Malaysia Plan (12MP).

JENDELA requires commitment from multistakeholder comprising the federal and state governments, local authorities as well as industry. Malaysia has also undertaken a number of key policy-level changes to drive the project deployment in ensuring that all plans are achieved on the targeted timelines.

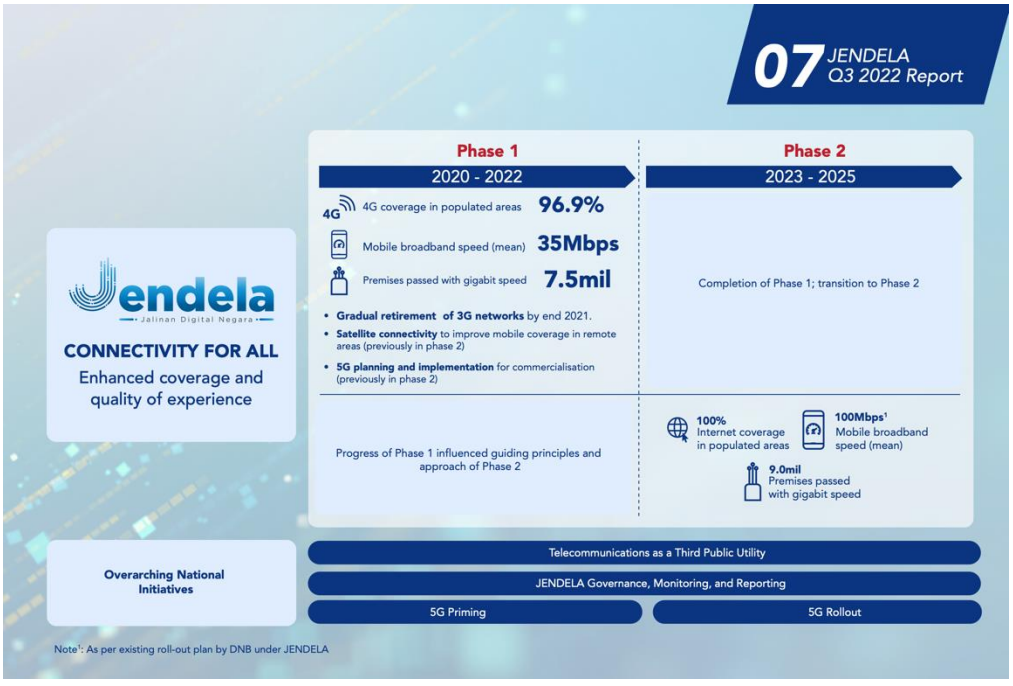
Examples of linkages between the WSIS Action Line your project was awarded for with each of the Sustainable Development Goals it helps advance

a. **SDG4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all** – JENDELA ensures learning activities for the students are not halted as a result of the increasing number of pandemic COVID-19 cases, which may cause in the reinstatement of a Movement Control Order in Malaysia.

b. **SDG8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all** – Internet and online services are the new norm for supporting productive activities, decent job creation, entrepreneurship, creativity, and innovation, as well as promoting the formalisation and growth of micro, small, and medium enterprises.

c. **SDG9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation** - Investment in infrastructure and innovation are crucial drivers of economic growth and development. Bridging this digital divide is crucial to ensure equal access to information and knowledge, and foster innovation and entrepreneurship. The business entities, government agencies and service-based industries can continue their operations and businesses while people can always communicate with their families and friends digitally during this pandemic.

d. **SDG11: Make cities and human settlement inclusive, safe, resilient and sustainable** – Digital infrastructure has the potential to strengthen city's resilience in times of crisis. Due to the imposed Movement Control Order, the government is improving the connectivity as an enabler for all facets of life i.e. the economy and people's livelihoods, education, business opportunities and building and connecting among the communities. Besides, the government is providing a series of services online, creating digital platforms for neighbourhood assistance while contact tracing apps are being introduced to control the spread of the pandemic.



Social, economic, and environmental impact of the project

JENDELA is implemented via a phased approach and the priority is to maximise the existing resources and infrastructure. Phase 1 (2020-2022) will optimise existing resources and infrastructure for both mobile and fixed connectivity to meet the target that has been set:

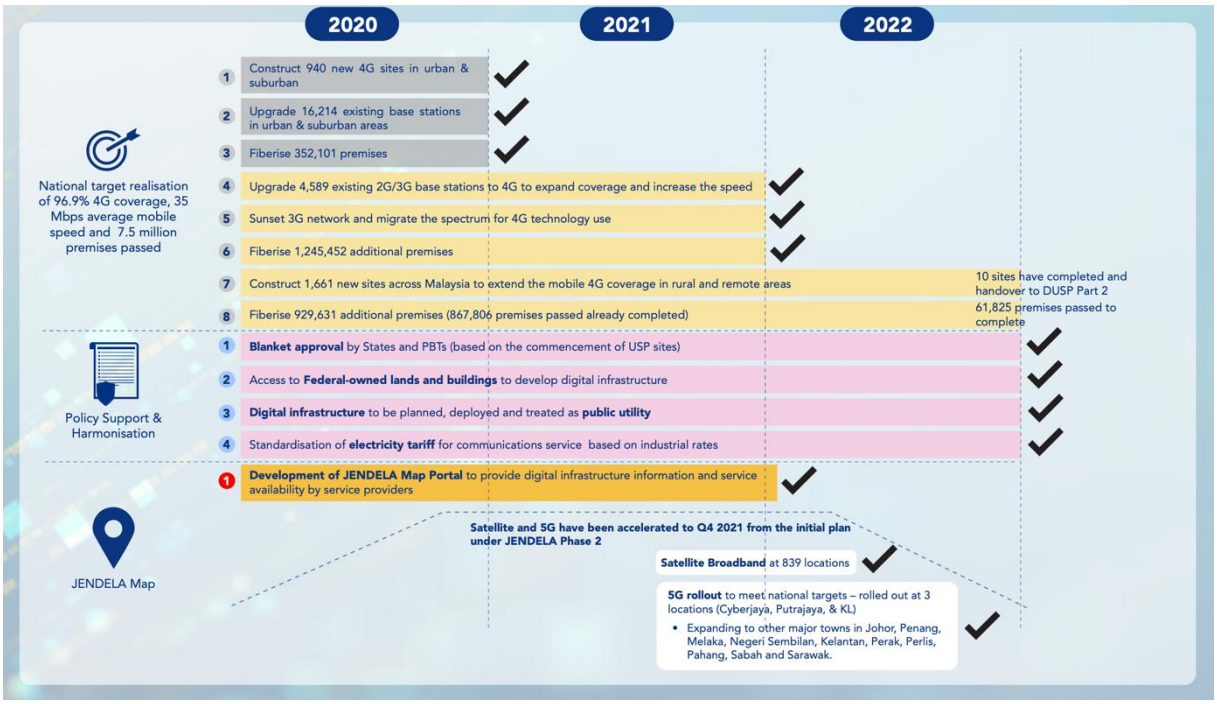
a. Expansion of 4G mobile broadband coverage from 91.8% to 96.9% in populated areas;
b. Increasing mobile broadband speeds from 25Mbps to 35Mbps;
c. Enabling up to 7.5 million premises with access to gigabit speeds via fixed broadband services;
d. Gradual shutdown of 3G networks until the end of 2021 and migrate the spectrum for 4G technology use;
e. 5G planning and implementation for commercialisation (previously in phase 2); and
f. Satellite connectivity to improve mobile coverage in remote areas (previously in phase 2).

Phase 2 (2023-2025) will involve utilising Fixed Wireless Access (FWA) and other fit-for-purpose technologies to address further gaps in the digital divide. The use of other technologies such as satellite and FWA will also be considered to ensure all people can enjoy access to broadband network across the country. This is especially in remote areas with challenging geographical condition where the cost of providing fibre connectivity as well as the construction of communication towers is very high.

By end of 2025, JENDELA will ensure all Malaysians will have access to high quality of digital connectivity and to achieve national aspirations which are 9 million gigabit access to premises, 100 Mbps mobile broadband speed and 100% internet coverage in populated areas.

Highlights of the project's partnership activities

JENDELA requires commitment from all parties involved including federal and state governments, local authorities and the industry with the aim to accelerate the improvement plan for coverage and quality of broadband nationwide. To achieve this, JENDELA has to be implemented in phases i.e. Phase 1 (2020-2022) and Phase 2 (2023-2025). It involves huge investment from the government and the industry estimated at RM36 billion (USD8 billion) which consists of commercial investment from the industry and the government funding under the Universal Service Provision (USP) Fund managed by MCMC.



Challenges and project's future perspectives

In Malaysia, the development of digital infrastructure policy is different in each state and local government agencies. To solve the issue, policy recommendations are required to facilitate the project deployment and addressing the challenges on the ground such as delayed approval and high permit fees imposed by the local governments and agencies. It is also to ensure all plans can be completed on time to achieve the targets set. Communications as Public Utility was endorsed by the Malaysian government in June 2021, while Communications Infrastructure Planning Guideline (GPP-I) and the amendment of Uniform Building By-Law (UBBL) were approved by the national council of local government called Majlis Negara Kerajaan Tempatan (MNKT) in March and July 2021 respectively to facilitate the nationwide deployment of broadband infrastructure.

The GPP-I guideline has been adopted by all state governments to facilitate the rollout at the green fields. MCMC also imposed requirement on sharing infrastructure especially for projects funded by the government in brown fields to avoid duplication of infrastructure whilst reducing deployment cost. The amended UBBL will also ensure internal wiring and installation of fixed broadband is verified by proficient person hence guarantees the quality.

MCMC and the Ministry of Communications and Digital (KKD) are currently coordinating and formulating a policy to streamline fees and charges imposed by local governments on communications infrastructure deployment, with input from industry and state government representatives.

MCMC as the regulator for communications and multimedia industry is also continuously reviewing the standards and policies under Communications and Multimedia Act 1998 (CMA98) as part of our duty to ensure those policies are future proof and consistently relevant to support the industry growth. More policies as well as other relevant laws will continuously be reviewed from time to time to ensure they can cater for future technology development needs.

On the other hand, the service providers also need to ensure all requirements to roll out the infrastructure such as completing all the documentation required by local authorities, state agencies and land/premises/building owners to expedite the approval process. MCMC will regularly monitor the performance of service providers, and a quarterly report will be released to ensure that the industry is working diligently to meet its goals.

	2020	2021	2022		TOTAL
	Sept - Dec 2020	Jan - Dec 2021	Jan - Jun 2022	Jul - Sept 2022	Sept 2020 - Sept 2022
FIXED BROADBAND					
Premises Passed with Fibre Connectivity	456,757 129.7% Target: 352,101	1,434,142 115.2% Target 2021: 1,245,452	348,425 101.4% Target H1 2022: 343,525	**241,851** 163.9% Target Q3 2022: 147,561	2,481,175 Premises Passed
MOBILE BROADBAND					
4G Base Station Upgrades to 4G Technology	16,367 100.9% Target: 16,214	13,813* 110.5% Target 2021: 12,499	3,956* 96.5% Target H1 2022: 4,098	**1,923** 107.3% Target Q3 2022: 1,793	36,059 Base Stations Upgrade
New 4G Towers	944* 100.4% Target: 940	263* 136.3% Target 2021: 193	120* 107.1% Target H1 2022: 112	**89** 102.3% Target Q3 2022: 87	1,416 New 4G Towers
Satellite Connectivity	NA	437 Locations	402 Locations		839** Locations

Your views on WSIS Stocktaking and WSIS Prizes contest, including its relevance to international development

WSIS Prizes provide a unique opportunity that celebrates and encourages developmental and excellence-oriented project implementation towards achieving the WSIS Action Lines and SDGs.

C3: Access to information and knowledge

Project name:	Community Network for Education
Organization:	UMAYUX
Country:	Ecuador

Basic information about your entity

In the rural parish of San Blas, located in the province of Imbabura, Ecuador, is the "Eloy Alfaro" Educational Unit. This school has approximately 520 students, of which 80% do not have fixed internet at home and the remaining 20% have connectivity through plans or promotions of mobile data in the prepaid segment. In the pandemic period, the lack of connectivity reduced hand the homework in by 90%, and the only way to access educational resources was through print media that was delivered to the school.

Then, UMAYUX is an initiative that began in the period of the health crisis and is integrated by civil society volunteers with knowledge in telecommunications to be able to design and implement a community internet network for access to low-income children and adolescents from rural educational units with the objective they can continue their education with the use of technologies.

Project's description (activity's description)

The project consists of the construction of a local open access wireless network with free spectrum antennas (5.8GHz) and the implementation of an educational content server (called Chamilo -open source-) for the students of the "Eloy Alfaro" Educational Unit of the rural parish of San Blas, located in Imbabura, Ecuador.

The total number of students who do not have fixed connectivity is 80%, and therefore, from the quarantine period, they did not have the possibility to continue studying regularly, considering that many of the teachers do not live locally.

On the other hand, the amount of handed the assignments in by students was reduced by 90%. Then, the "Chamilo" platform allowed teachers to generate content guided by the Ministry of Education to submit it to students without Internet connection.

Finally, Internet capacity to the network is delivered by two Internet providers through a 15Km long distance link and considering that the Eloy Alfaro school has 10Mbps of Internet connectivity, when teachers stop using it, the capacity is also routed to the network so that students can have access to other type of content that can complement their homework.

This first stage reached 22 families and benefited more than 80 students of the School in order to support the self-provision of connectivity. The value that the families pay from June 2021, is between $3 to $5 dollars that are used to cover the cost of more antennas for the new families that join the network.

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

The initiative meets some of the Sustainable Development Goals. Among them are 4 (Education), 5 (Gender Equality), 9 (Infrastructure) and 17 (Alliances).
Firstly, the initiative promoted that during the quarantine period due to COVID-19, low-income children who belong to the Eloy Alfaro Rural Educational Unit can have access to education through the use of the internet.
Secondly, UMAYUX promotes gender equality and closing the digital gap through the installation of a wireless network, mainly for student girls and families from indigenous vulnerable groups.
To achieve the objective, we linked different public and private actors who supported with the donation of equipment such as computers, routers, antennas, towers and posts to reduce the investment costs for the construction of the network. Today we still work with internet providers who provide internet capacity at reduced costs.

Social, economic, and environmental impact of the project

According to the survey carried among families out that are already part of the community network, on average the family nucleus has 6 people with at least 4 are of school age. Their household income is around $ 220 per month, which is equivalent to $ 1.22 per day per person. In other words, an Internet connection of at least 5Mbps could represent between 15% and 25% of monthly income, without taking into account the expenses in mobile communications. Along the same lines, for this families a new computer is an obstacle due to its high cost, and the little utility that families have seen with those devices, due to a cell phone or tablet being the most used equipment into the visited families.

Highlights of the project's partnership activities

The Community Network for Education currently connects 9 rural communities, 80 girls, boys and young people benefited from 22 low-income families.
The most outstanding activities that were carried out in conjunction with various public and private partners were:

- Telecommunication's Project design.
- Gathering of statistical information and census in the rural community of San Blas to find beneficiary families.
- Coordination of actions and dialogues with authorities of the parish and Eloy Alfaro School.
- Raising awareness among the population of the need for digital inclusion for their children.
- Campaign to collect donated equipment (computers, routers and antennas).
- Technical work for conditioning and repair of donated computers and routers.
- Implementation of the 3 wireless nodes, construction of the network and test with the antennas.

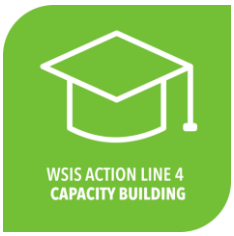
- Design and implementation of the open source educational platform "Chamilo".
- Connection to homes, installation of equipment in homes (computers and routers).
- Training teachers in the use of the platform.
- Digital enlistment of girls, boys, young people and their families in the use of equipment and in the use of the platform.
- Organization of the first girls and ICT forum with the participation of girls from the Community Network (World Girls and ICT Day).

Challenges and project's future perspectives

We also are trying to develop a payment mechanism through USSD messages and the recharges that users can make from their mobile phones to reduce the mobility of people who are in places very far from a centralized payment point.
The idea is to extend the network of each community and group the different community networks into a larger one to be able to channel a transport connection with the universities or internet service providers that are closest.
Finally, we hope to train one or two people from the communities so that they can manage the network to correct minor damages that may occur. Thus, part of the payment made by the users of the community network is an income for the local administrators as well.

Your views on WSIS Stocktaking and WSIS Prizes contest, including its relevance to international development

As volunteers from the Community Network for Education and members of civil society interested in closing the digital divide and the inclusion of technologies in remote areas, we believe that the WSIS initiative is an important space to publicize the projects that are carried out in the world to connect and include more people to ICT. Above all, these awards help more public and private actors to link up and promote the expansion of projects in other regions that need connectivity to carry out their activities and improve their living conditions.



C4: Capacity building

Project name:	Mobile Connectivity for Teachers in Poor and Remote Areas Project
Organization:	National Council for Educational Promotion
Country:	Mexico

Basic information about your entity

Project's description (activity's description)

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

Social, economic, and environmental impact of the project

Highlights of the project's partnership activities

Challenges and project's future perspectives

Your views on WSIS Stocktaking and WSIS Prizes contest, including its relevance to international development

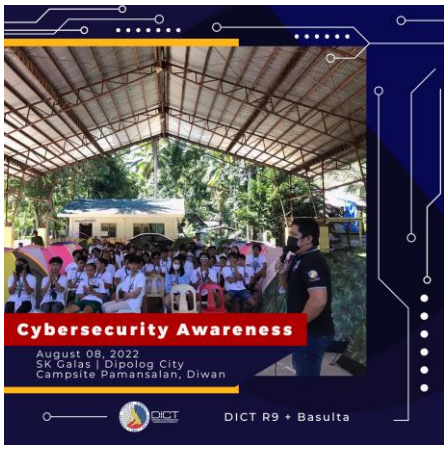
C5: Building confidence and security in the use of ICTs

Project name:	Cybersecurity Education in the Philippines in the Face of New Normal Adversities
Organization:	Department of Information and Communications Technology (DICT)
Country:	Philippines

Basic information about your entity

The **Department of Information and Communications Technology (DICT)** is the primary policy, planning, coordinating, implementing, and administrative entity of the Executive Branch of the government that will plan, develop, and promote the national ICT development agenda.

DICT Region IX and BASULTA is a regional office of the DICT covering Mindanao island provinces of Zamboanga Peninsula, Basilan, Sulu, and Tawi-tawi.



Project's description (activity's description)

According to statistics from the Kaspersky Security Network, the Philippines ranks 4th among countries most targeted by web threats. In 2021 alone, more than 50 million cyberthreat attempts were monitored which entails an upsetting 433% increase from 2017 with malware and malicious files topping the list. Moreover, a global study revealed that 20 percent of Filipinos aged 12 to 17 using the internet became victims of Online Sexual Exploitation of Children (OSEC).

In its effort to combat these ever-present cybersecurity threats, the DICT has strengthened its cybersecurity education program more than ever through online, face-to-face, and partnership strategies essential to improving the country's cybersecurity posture amid rising digitalization. In Region IX (Zamboanga Peninsula) and BASULTA, home to various ethnic groups, an in-house Learning Management System (LMS) has been developed where free cybersecurity courses are accessible online and on-demand. To date, the said LMS has already educated 23000+ individuals who finished with completion certificates. Additionally, the free cybersafety webinars designed to shape the Philippine digital community livestreamed on Zoom and Facebook which started back in 2020 had digitally upskilled and awarded 50,000+ individuals with completion certificates. The wide reach acquired through the new normal strategies played a vital role in this endeavor toward a safe, resilient, digitized nation.

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 one with the WSIS Action line: Building Confidence and security in the use of ICT and the WSIS vision Information Society for all. A significant fraction of the population belongs to the marginalized sector where there is less access to cybersecurity education thus the free webinars/seminars conducted regardless of culture, social status and gender become a good avenue for building resiliency while fostering trust among the people towards an inclusive, safe and productive

cyber environment. In this new normal, this initiative became overwhelmingly relevant as the mode of communication shifted from face-to-face to virtual. It is the government's role to promote ICT but with equal responsibility of raising awareness to protect its people. Cybersecurity is a shared responsibility and an education of one could mean a more secure cyber environment for everyone. The online presence and wide reach of the webinars made possible by the use of available online platforms, Zoom and Facebook, and the in-house Learning Management System, not only conveniently provide the necessary education but also instill a mindset that the government is taking bold steps because the dangers are becoming more serious. All webinar sessions were posted online and accessible anytime on DICT RIX BASULTA's Facebook page.

Social, economic, and environmental impact of the project

In Region IX and BASULTA, home to various ethnic groups, the DICT has materialized one of the best strategies to counter this adversity which is to strengthen its cybersecurity education by increasing its coverage through webinars, next to developing high-quality and engaging content. This strategy has succeeded in all respects with over 50,000 individuals digitally upskilled and awarded with completion certificates. The webinars are livestreamed simultaneously on Zoom and Facebook which are potent tools in successful implementation. Below are some of the webinars being offered:

1. Cybersecurity Awareness: How to be Cybersafe -This webinar comprehensively discusses cyberspace, cyber threats, current Philippine situation, RA 10175 known as the Cybercrime Prevention Act of 2012, RA10173 known as the Data Privacy Act of 2021, and security tips online.
2. Cybersecurity Awareness: How to Avoid Phishing and Scamming - Getting to know the types of Phishing Scams:
    - How to Spot Phishing Scams
    - Protecting oneself and family members against phishing and scamming
    - What to do if you're a victim of Phishing and Scamming
    - How to be safe when using e-Wallets and e-Banking systems
3. Data Privacy Act Awareness Webinar - This is learning about the Data Privacy Act (RA 10173), its provisions and violations.
4. Data Privacy Accountability and Compliance - This is to increase one's level of awareness on how to comply with the Data Privacy Act of 2012 and determine when a Privacy Notice is needed.
5. How to be Cybersafe: Cybersecurity 101 for Women and Girls - This webinar concentrates on the different cybersecurity threats faced by women and children.
6. Foundation of CERT Operations- This course introduces the basic concepts of CERT operations and functions of CERT Operations. It focuses on CERT services namely Incident Handling and Response, Vulnerability Management, and Cyber Threat Monitoring
7. Data Privacy Accountability and Compliance Webinar - This is about increasing one's level of awareness on how to comply with the Data Privacy Act of 2012 and determine when a Privacy Notice is needed.
8. CERT for Cybercrime Incidents:
    - Hacking of Computers and Mobile Devices
    - Data Security in Networks, Computers and Mobile Devices
    - Cloud forensics and the digital crime scene
    - Take Down Services, Search engine Optimization and Search Engine positioning

Moreover, responsive to the need for strong digital parenting, training modules like **"Parenting in the Digital Age"** and **"Cybersecurity for Children"** were specially designed to educate parents on matters like child pornography, internet addiction, cyberbullying, and other internet dangers. With the alarming statistics of OSEC, raising awareness about the government's efforts to combat this horrific crime and how anyone including the parents could be liable before the law if proven guilty is highly

emphasized. The public is thereby encouraged to turn to the proper authorities (Local Police, Local NGA, embassy-if foreigner) and file a complaint if OSEC cases are observed in their communities. With sexual predators just around the corner, parents are motivated to be the first mediator when it comes to internet use to keep these crimes at bay. In addition, overexposure to gadgets among children has been also linked to internet addiction, cyberbullying and other internet dangers not mentioned thus proactive tips such as but not limited to detoxification, the principle of replacement, and behavior architecture are introduced to urge the parents to be mindful of their children's online engagements.

In the interest to further improve cybersecurity defenses, the DICT has forged a partnership with the police force through the Philippine National Police-Police Regional Office IX RICTMD and conducted an exclusive 20-day cybersecurity course aimed at training the Regional Police IT Personnel on cybersecurity risks and countermeasures, networking, web application security, penetration testing, and forensic investigation, among others. This course involves real-world simulations for identifying and mitigating known and recent threats.

The cybersecurity education program has also been cascaded from the regional level down to the provincial level. Provincial Field Teams are actively conducting exclusive face-to-face training sessions for targeted audiences relative to current cybercrime trends.

The evolving cybersecurity threat landscape has also urged the DICT to further its strategies, hence the development of an in-house Learning Management System (LMS) where free online cybersecurity courses are accessible all the time. To date, the said LMS has already educated 23000+ individuals who finished with completion certificates. For instance, the successful partnership with Digital Tayo of Facebook which reaped unparalleled results in the battle against cyber threats during the pandemic is now made available through the LMS where one can learn at his own pace and earn a completion certificate. The training course has the following episodes:

1. Episode 1- Be a Critical Thinker: *This episode is about the Different Types of information and How to Spot and Respond to False Information Online*
2. Episode 2- You as a Digital Citizen: *This episode is about digital well-being and social empathy for a wholesome and safe online experience.*
3. Episode 3- Digital Parenting: *This episode is focused on raising awareness about Modern Parenting*
4. Episode 4- Protecting Digital Footprint: *This episode is about tips on how to safeguard their online tracks such as but not limited to posts, pictures, comments, etc.*

The success of the DICT's Cybersecurity Education Program in Region IX and BASULTA would not have been possible without the partnerships it forged with the government and private entities. Needless to say, the DICT's arduous efforts in safeguarding the Filipino people in cyberspace have built good synergy with its partners. This gave birth to the first ever Zamboanga Computer Security Incident Response Team (ZSCIRT) with members from the DICT, academe, Law Enforcement Agencies, and the Local Government of Zamboanga. It was established to strengthen capabilities to respond to cybersecurity threats and prepare organizations to sustain functionality when threats affect their data and systems. The team has been actively responding to cybersecurity-related incidents reported to them. To date, it has responded and resolved ransomware, account takeover, identity theft, and social engineering attacks.

The no.of cases associated with cyber threats being referred to the DICT Cybersecurity Focal in Zamboanga Peninsula and Basulta significantly decreased since the implementation of the strategies. The knowledge-sharing, information dissemination, and capability-building made the people in these areas digitally intelligent and responsible. Second, the newly-devised strategy through the use of ICT platforms is a game changer in the implementation. The wider the reach, the better. In fact, the statistics reaped by the webinars are unparalleled. Third, it cultivates trust and confidence among the

people which boosts the productivity of ICT use. Lastly, it breeds inclusiveness as the training sessions are conducted irrespective of culture, social status, and gender which is in line with the WSIS vision Information Society for All. In this journey towards digitalization, no one is left behind. Safety for one means safety for all.

Highlights of the project's partnership activities

In the interest to realize the National Cybersecurity Plan, the DICT has partnered with stakeholders, Local Government Units, academe, the private sector, and other national agencies such as the Philippine National Police to fast-track the rollout of its initiatives, especially on cybersecurity education. During the pandemic where there's a high demand for cybersecurity education, one of the notable partners is Digital Tayo of Facebook. "Digital Tayo" is a literacy program launched by Facebook designed to equip Filipinos with vital skills such as empathy, critical thinking, and being adept at using ICT platforms towards a safe and meaningful online environment. While the company provided experts to conduct the training series, the DICT was responsible for the engagement of stakeholders, method of conduct, and administrative and promotional activities. Moreover, the synergy between DICT and its partners also gave birth to the first ever local Computer Security Incident Response Team in the country.

Challenges and project's future perspectives

The interest of the public to join these seminars whether online or face-to-face poses a challenge in the implementation. The timeliness and relevance of the training modules are critical in keeping the people fascinated and motivated to participate. Also, the engagement of partners (stakeholders, local government units, other agencies, private sectors etc.) aid in magnifying positive results.

Additionally, In areas like Region IX- Zamboanga Peninsula and BaSulTa (Basilan, Sulu and Tawi-Tawi), majority of the people are not tech-savvy and well-versed in the use of the internet because the ICT infrastructures present in the rural areas are scarce due to the geographical location and population resulting in the late provision of internet connectivity. This is a major challenge in designing an effective training module geared towards a child-friendly and harmless online experience. Nevertheless, the government has come up with a potent training design with bare minimum knowledge of attendees considered.

The DICT seeks to improve the quality of cybersecurity education it delivers, extending to the countryside through more intensive fact-finding. Enhanced strategies are to be expected with the rise of new technologies.

Your views on WSIS Stocktaking and WSIS Prizes contest, including its relevance to international development

WSIS Prizes celebrates the creativity, passion, and innovation of nations towards advancing the sustainable development goals. The platform in itself is a good source of innovative ideas which stem from the various exemplary projects worthy of emulation. It has also placed our country, the Philippines, in the worldwide map for our champion and winning projects through which other countries can find inspiration from.

C6: Enabling environment

Project name:	Community Networks in the strategy of connecting rural and remote areas as licensees in Argentina
Organization:	ENTE NACIONAL DE COMUNICACIONES
Country:	Argentina

Basic information about your entity

Project's description (activity's description)

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

Social, economic, and environmental impact of the project

Highlights of the project's partnership activities

Challenges and project's future perspectives

Your views on WSIS Stocktaking and WSIS Prizes contest, including its relevance to international development

C7: ICT Applications: e-government

Project name:	AuditOnline: Facilitating Audit in Government
Organization:	National Informatics Center (NIC)
Country:	India

Basic information about your entity

National Informatics Centre (NIC) under the Ministry of Electronics and Information Technology (MeitY) is the technology partner of the Government of NIC is closely associated with the government in different aspects of governance by establishing a nationwide state-of-the-art ICT infrastructure and services for Central Government, State Governments, Union Territory Administrations, Districts and other Government bodies. It offers a wide range of services which includes multi-gigabit nationwide networks NICNET, NKN, National Data centers, National Cloud, pan India VC infrastructure, Command and Control Centre, multi- layered GIS-based platform, Domain Registration, and Webcast. This plays a significant role in delivering citizen-centric e-services.

Project's description (activity's description)

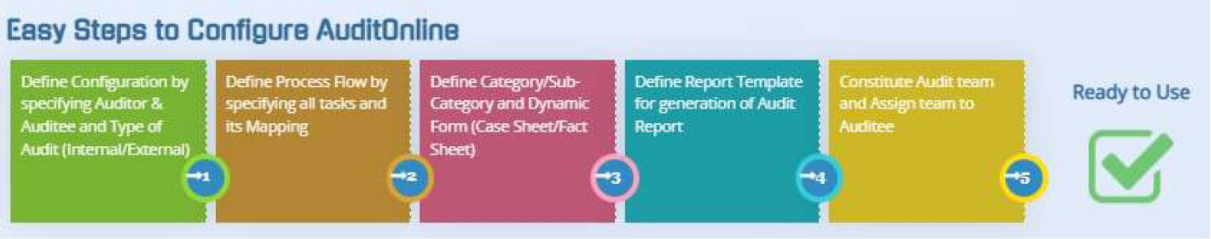
AuditOnline, is one of the technological advancements external audits of government departments and significantly simplified the financial and program-based audit of accounts at the lowest level of working entities say Panchayats for rural masses and the Line departments by Auditors (State Audit General/Local Fund Audit). Envisaged to cater to both internal and external audits as per the province-specific audit manuals, its architectural capabilities serve the purpose of maintaining past audit records of the auditee with an associated list of the auditors assigned and the audit team involved in the act while setting out as an impeccable tool for Audit, improvising transparency & accountability.

Auditing is a critical business requirement that not only aids law enforcement by ensuring compliance with the law but also, ensures an institution's financial reliability by certifying the integrity of the financial records so that the lender can make informed decisions about the unit's welfare.
Hence, the sole purpose of AuditOnline becomes to provide an independent and pellucid opinion to the shareholders on the genuineness and circumstances of the entity's sustainable development in the form of facts and whether the system is utilizing the funds provided in an optimum way, or whether they have been consumed in compliance to the planned growth and developmental roadmap shared by an entity and other relevant practices, and to address the analytical data needs beseeching by shareholders.

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

AuditOnline application is the foresightedness of the Ministry of Panchayati Raj, the key central ministry forlocal-levelgovernancein India, following up with the mission to modernize the auditing process and to make audited accounts available in a timely manner to the finance commissions, in association with National Informatics Centre (NIC) under Ministry of Electronics & Information Technology (MEITY), as an architect of the software solution.

AuditOnline renounced the traditional audit process by implementing an online system for auditing that is lucid, accountable, and streamlined thus strengthening transparency and proving as an efficient e-governing medium.
Being a single platform it provides an enabling environment for the entire government to use with an astute, scalable enterprise version that meets the needs of the Ministry of Panchayati Raj, and the other Government departments/ institutions enriching E-government.



Goal 8: Decent work and economic growth
Flexible and adaptable, the programmable interface meets the requirements of both internal and external audit assessments of PRIs Government agencies to track down the reach and optimum utilization of finance commission funds provided through various schemes for the betterment of Citizens and making it publicly available. Participation of different officials belonging to different government institutions/entities for the execution of an Audit process makes the system credible and reliable for decent working and being fair and transparent while processes are documented abidingby the rules and regulations followed in a province.

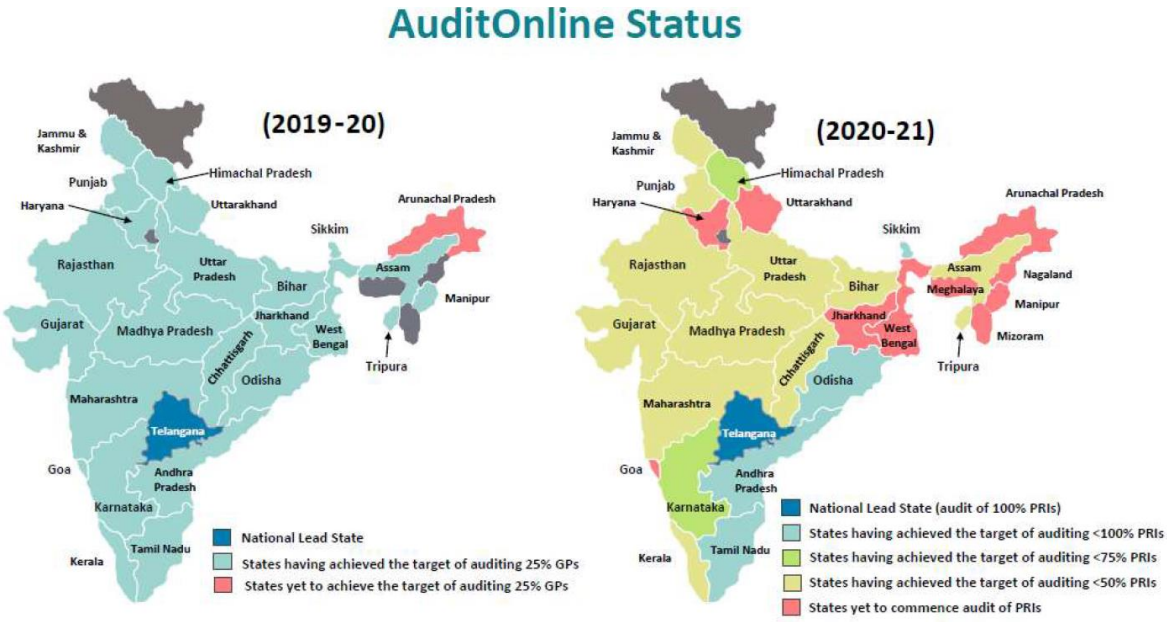
Goal 16: Peace, justice, and strong institutions
AuditOnline is an effective investigation system that protects the public interest in a proportionate way by providing assurance to those using professional auditing services also, it is a commitment to delivering public value, awareness, and information available through key performance indicators on different entities in the nationand maintains robust regulation of the profession by allowingCommunication with officials through emails, SMS, and in-application notifications .AuditOnline facilitates the extraction of data for different stakeholders as per their roles in the applicationto ensure robust oversight and governance of processes and decisions made to ensure unbiased decisions.

Social, economic, and environmental impact of the project

- **ICT Awareness and environment amiable:** To address the problems plaguing the existing system, a decision was taken to migrate the audit process from the existing "manual paper-based system" to an "Online ICT-based System" hence AuditOnline not only facilitates the auditing of accounts but also provides provision for maintaining audit records that have been carried out.
- **Scalable:** 'AuditOnline' is an open-source application developed to facilitate scheme-based and financial-based internal and external Audits for the government. It is a scalable application to envelop all the schemes of the Ministry of Panchayati Raj and other Ministries as well.
- **Sterling Freeware:** AuditOnline has been developed by the Government (NIC) as per the requirement of the Government (Ministry of Panchayat) based on the inputs shared by State Audit Departments, State AG, and State Local Fund Audit Offices, and it is only for the Government (RLB and other equivalents) and that too free of cost proving its economic viability.
- **Accessible and Adaptable:** AuditOnline has been developed to streamline operations and enhance efficiency through workflow automation and knowledge management through reports to enrich the effectiveness and performance of the audited agency and optimization of resource utilization.

- **Accustomed Approach:** The project aims to provide easy and secure online access to all audit-related services, abiding by the guidelines issued by the Comptroller & Auditor General of India to all Users and other stakeholders at any time and in a manner that best suits them.
- **Social Awareness:** Provides dashboards based on the Key Performance Indicators (KPIs) viz. registered auditors & auditees, audit plans, observations recorded, and audit reports generated, making AuditOnline a User-Friendly portal.

Highlights of the project's partnership activities



AuditOnline inception was supposed to bring forth coherence and accountability at the grassroots level in Panchayati Raj Institutions and, it did indeed. In its interim report, the Finance Commission emphasized making audited accounts available and AuditOnline was then proposed exceptionally to be gradually extended to other umbrella schemes in relevance to Panchayats.
AuditOnline scaled up the transparency amongst the Panchayat levels and helped towards the betterment of the auditing process. AuditOnline empowered its users with a simple step-by-step procedure to achieve the audit process, basis the requisites of the states, ensuring that even the complicated tasks become easy to perform.

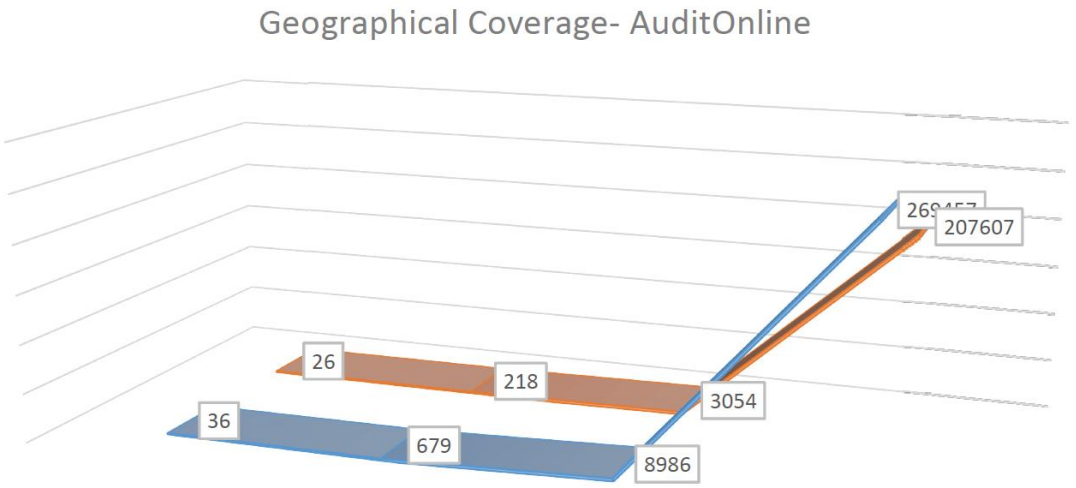
Stakeholders:

1. Ministry of Panchayati Raj, Government of India
2. State Panchayati Raj Department
3. State Audit Departments/ Local Fund Audit Department

4. Auditing department administrators
5. Auditors & Auditees

The basic level of training is imparted to the officials of the Department of respective states on the preproduction server on how to act on different tasks assigned to them. Besides this, training is also conducted at regular intervals to make them aware of the latest enhancements in the system.

- No. of training delivered: >300
- No. of trained personnel: >3,450



	No of State/UT(s)	No of District(s) Panchayat & equivalent	No of Block(s) Panchayat & equivalent	No of the Gram(s) Panchayat & equivalent
Total Present	36	679	8986	269457
Total Engulfed	26	218	3054	207607

Challenges and project's future perspectives

Audit Online is a configurable platform enabling provinces to customize their internal and external audits to comply with the Comptroller and Audit General of India's (CAG) defined standards and guidelines hence the challenges encountered are listed below:

- Onboarding of states on the application based on their varied tier structure followed,
- Integration with an external system for accounting data needs,
- To eliminate the use of traditional methods for auditing, task management, and information sharing,
- Inefficient and slow response to the evolving requirements of local governing bodies nationwide,
- Lack of training and awareness of the ICT tools and technology to hasten task performance,
- Lack of regular updates in the methods & structure of training and information delivery,
- Absence of a central, unified platform for work and knowledge distribution,
- Creating Department structures of states for Auditing entities on our local government directory (Data Source for AuditOnline),
- Application enrichment to cater state's diversified needs in accordance with CAG guidelines,
- Capacity building and training of functionaries and officials in varied states nationwide,
- To include the use of computer-assisted audit techniques (CAATs) to test and assess the dependability of the auditee's computer-based accounting system for Auditors.

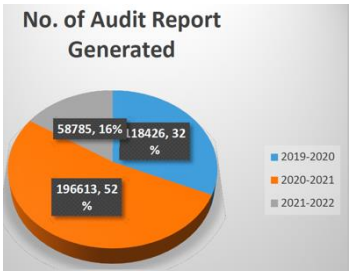
Future perspective

Data Analysis shall now bring forth the best of the application to what we have curated so far in terms of data since now the system has a quantum of data which is entered in all these years passed, just to start with few key points envisaged on advance data analytics are:

1. Para banks implementation post analyzing recorded data in the system to replicate the language of legalities utilized in the auditing process and to minimize data entry.
2. Integration with different online data sources available to avoid in-person meetings held by auditors for pre-audit information gathering.
3. Consolidation of data at different levels to induce better insights and process empowerment.
4. DSC/e-sign inculcation for generated report authorization and overall data integrity value addition.
5. Enhanced version of Audit Recorded Observation Report (observation Analysis): Analysis based on top 5-10 highlighted observations/ recorded observations at province or lower levels.

Your views on WSIS Stocktaking and WSIS Prizes contest, including its relevance to international development

Open communication is the backbone of any effective partnership and people now have more information at their fingertips than at any time in human history thus WSIS being a global multi-stakeholder platform facilitating the implementation of the WSIS Action Lines for advancing sustainable development has enabled the participants around the corner of the world to play an important role utilizing the convergence of fast computing together with high-speed communications, and all other smart computational sciences and application to influence world's future in Information technology and allowing the technology to deal with everyday dynamic things and to boost development and information ex sustainability. The objective of IT is to make tasks easier and to solve many problems and the WSIS forum acts as a podium to showcase emerging intuitive applications and to strengthen the productivity of people in relative fields by presenting Awards and Recognition at an international level.



C7: ICT Applications: e-business

Project name:	"Material Supermarket" Revitalization Solution for Enterprises and Institutions
Organization:	China Mobile Procurement Shared Center
Country:	China

Basic information about your entity

China Mobile Communications Group Co., Ltd. ("China Mobile" for short) is one of the three major basic telecommunications enterprises in China, boasting a world-class telecommunications operator with the world's largest network and customer base, also a leading position in profitability and market value ranking. China Mobile established its Procurement Shared Service Center in 2013 to take charge of the centralized procurement of major products of all its subsidiaries and the delivery management of materials. With an annual procurement value up to CNY300 billion, the Procurement Shared Service Center improve the efficiency of material management from the perspective of the whole life cycle of materials, build low-cost and efficient operation, and create cost leadership.

Project's description (activity's description)

Beginning in 2019, China Mobile Procurement Sharing Center has started to promote the clearing of sluggish materials. Material management has been a difficult and painful point for the company's management for a long time. No matter in stock or after delivery, idle materials are difficult to play their value, causing huge waste to the company's operation. For large enterprises of China Mobile type, the annual demand for materials in engineering construction, network maintenance, market development and other fields is huge. According to relevant data, the "throughput" of materials throughout the network is about 200-billion-yuan, idle inventory materials need to be further integrated, and the logistics model benefits need to be explored.

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

The Geneva Plan of Action defines the concrete measures to practice the common vision and guiding principles set out in the Geneva Declaration of Principles in a bid to achieve shared development goals through the broader use of ICT-based products, networks, services and applications. In the information society, all stakeholders can play a big part, especially through all kinds of partnerships.

In this project, adopting the advanced information technology and carrying out material supermarket management mode could effectively solve a series of problems of inefficient use of materials， such as excessive sluggish inventory, insufficient internal activation leading to lower profit margins, long processing flow, etc. then reinvigorating the stock,cut down the cost and improve efficiency.

Social, economic, and environmental impact of the project

Project application:
(1) If the idle inventory is not applicable for more than six months, it will be classified as supermarket materials and can be shared across regions, cities, departments and projects. Through this mechanism,

the amount of materials aged over 6 months decreased from 1.1 billion yuan to 910 million yuan in 2021, a relative decrease of 190 million yuan.

(2) A material asset supermarket information sharing platform was established to collect and display the idle material assets of the whole network on the platform, reducing the communication workload between provincial companies. The overall inventory management and control is realized. The provincial company can query the warehousing and delivery of materials of each unit in real time, reasonably formulate the purchase plan, and reasonably allocate resources. Ensure that the inventory resources of each unit can flow across organizations, projects and attributes to form economies of scale.

(3) In 2021, China Mobile's sluggish inventory turnover revenue will reach 1.118 billion yuan, fully contributing to the enterprise value. Revitalize the idle assets in the enterprise, carry out internal turnover without external procurement, reduce the company's capital occupation, and improve the capital turnover rate.

(4) With the improvement of activation efficiency, the material inventory time has been shortened by nearly 40 days, greatly reducing the storage cost and security risk of material storage.

(5) Closely focusing on the management requirements of cost reduction and efficiency increase, the management innovation of "building supermarkets and improving the efficiency and efficiency of idle material disposal" meets the national requirements for large state-owned enterprises, and effectively helps the company reduce costs and improve efficiency.

(6) The model is highly replicable. In the scenario of idle goods supermarket, each measure has a simple process and a high degree of standardization, which can be copied by other companies to jointly improve the efficiency of idle goods and realize the value maintenance and appreciation of assets.

Highlights of the project's partnership activities

China Mobile has explored new solutions for the disposal of idle materials by developing an innovative model based on the "material supermarket" and by virtue of the concepts of "supply chain+", "platform", "big data evaluation", etc. By optimizing idle, the bullwhip effect on the production of upstream suppliers is reduced, the speed of downstream engineering construction is accelerated, and the mobile facility supply chain plays a role in the configuration of equipment and materials and the connection of upstream manufacturers.

Challenges and project's future perspectives

As a national key communication operation enterprise, China Mobile has always been committed to serving the national economic and social development and customers, adhering to the core value concept of "responsibility" and "excellence", giving full play to its leading advantages in service and business, being a "mobile information expert", and actively playing a leading role in implementing the information driven strategy and promoting the national economy informatization process.
Ability of the model to be replicated.

Your views on WSIS Stocktaking and WSIS Prizes contest, including its relevance to international development

The World Summit on the Information Society (WSIS) provides attendees with a platform of best practices of information exchange and knowledge innovation and demonstration. At the same time, it also examines the development status of the evolving information technology and knowledge society, identifies new trends in information technology and fosters new partnerships. The WSIS is a platform

created by multiple interested parties worldwide to promote the implementation of WSIS Action Lines and the sustainable development of the global information society. Strengthening the reuse of idle materials will create a good production environment for full utilization of resources and sustainable development.

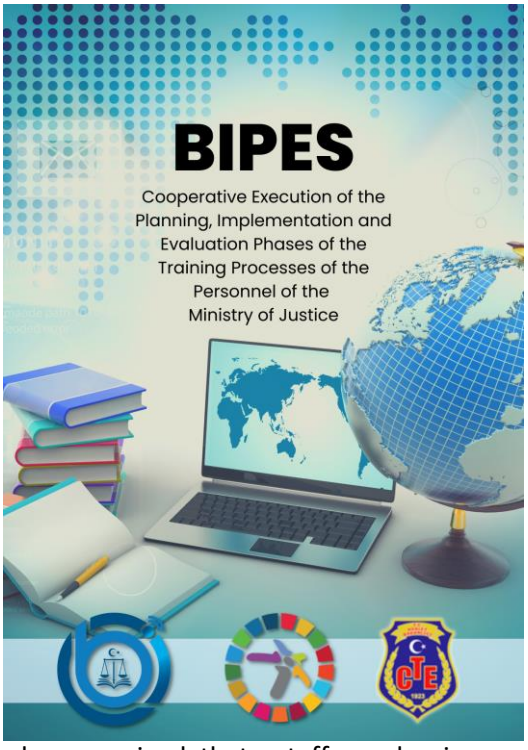
C7: ICT Applications: e-learning

Project name:	BIPES (Individualized Personnel Training System)
Organization:	Directorate General for Information Technologies, Ministry of Justice (MoJ DGIT)
Country:	Turkey

Basic information about your entity

Article Two of the Constitution of the Republic of Türkiye sets out that the Republic of Türkiye is a democratic, secular and social state governed by the rule of law. And Article 36 states that everyone has the right to a litigation, either as plaintiff or defendant, and the right to a fair trial before the courts. The Directorate General for Information Technologies of the Ministry of Justice was established with the duties and responsibilities for establishing, operating, and maintaining informatics system in cooperation within the judicial units.

Project's description (activity's description)



In the trainings to be organized for the personnel of the Ministry of Justice, at the planning stage; it is a system that allows needs analysis, standardization of the curriculum, determination of the qualifications of the people who will participate in the training during the implementation phase, execution of the procedural correspondence processes required for the realization of the training program, and the cooperation of all institutions involved in the training program.

Thanks to BIPES, it has become possible to standardize the training that personnel should receive depending on his job description, to make individual applications for the training subjects that are in the training plan or outside of this plan based on the individual needs of the personnel, and to apply to the institution managers on the subjects that are required to be developed educationally.

It has been prevented that a staff member retake a training they have received, that a staff member is mistakenly enrolled in two different training programs at the same time, and thus during the training planning phase, the program is not interrupted by controlling the capacity of the training centers' dormitory and classrooms.

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 contribute to the dissemination of the e-Learning principle, one of the WSIS action lines, the goal of education, its aims, target audience selection, and the duration of education have been standardized in line with universal educational sciences. Thus, apart from being a software that only

produces statistics, the system has brought functionality to the curriculum development process in education.

In order to contribute to the creation of a democratic, transparent, inclusive and egalitarian education environment, the selection of the personnel to participate in the training can be provided by the system in cooperation with the central organization, the training center and the institution directorates where the personnel work, in line with the criteria specified by the user in the system. In addition, it is ensured that the training plan to be realized during the year can be viewed by the personnel on the system, and individual application to the training is provided.

In order to prevent time loss caused by bureaucracy and to save labor force, automatic training notifications can be sent easily to the directorates of the institutions where the personnel work.

Social, economic, and environmental impact of the project

By providing automatic training notifications to 720 institutions (Chief Public Prosecutor's Office, Penitentiary Institution, Probation Directorate), it was ensured that the personnel completed their pre-training preparations in a healthy way, by making a profit from the workforce.

Since the project was implemented, 51942 personnel; 1212 distance education (live classroom), training in 457 working environments, and training in 580 personnel training centers were carried out.

The Ministry of Justice Penal Institution and Probation Directorate officers, who constitute the main target group of the system, receive the training they need at the right time, and contribute to the behavior of the convicted individuals, increasing the quality of the execution services, and the personnel to carry out a qualified public service.

Highlights of the project's partnership activities

With the contribution of qualified and expert personnel working in the partner institution, general lines were determined and the project was implemented. As a result of the partnership, the implementation of WSIS values and the adoption of a democratic, transparent and egalitarian society understanding ensured that educational processes in institutions and organizations were carried out in a healthier environment.

Challenges and project's future perspectives

Changing the user habits remaining from the system used before the BIPES project, the existence of incorrect records in the personnel information database, which is the main data source of the system, as well as the incompatibilities between the data in the previously used system and BIPES can be specified as the main difficulties.

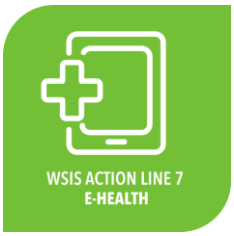
Instead of a centralized data entry, the system has been ensured to operate in a healthy structure by entering the information of each institution regarding its own personnel in a complete, correct and timely manner. In addition, as incorrect records in personnel information are detected during the transaction process, the relevant units are informed and awareness is raised to ensure that data entries are made correctly.

Among our future perspectives with the BIPES project; there are innovations such as providing early information and preparation for training by sending automatic SMS to the personnel, ensuring that personnel training information and certificates can be viewed through the e-Government portal, ensuring that training cost calculations take place in an easier and more understandable interface, and automatic course schedule distribution and electronic course book.

Your views on WSIS Stocktaking and WSIS Prizes contest, including its relevance to international development

The World Summit on WSIS is a significant platform that showcases best projects and national initiatives in the field of telecommunications and information technology. The Community significantly contributes to enhancing the competitiveness and quality standards, as each participating country tries to highlight the progress and development attained in this area. Our main objective, being the responsible for developing and extensification of e-national justice system in Turkey, is to achieve an honorable representation and positive image that reinforces the leading profile of the Turkey in global events and forums and also ensure winning the best and the highest number of awards.

The quality and nature of the projects submitted for this year's contest highlight the great, successive and rapid developments taking place in many countries' government entities and institutions, which reflects the thorough vision and the well-defined future plans and action strategies all aimed at further improving and developing this sector.



C7: ICT Applications: e-health

Project name:	Bone Health New Zealand
Organization:	Osteoporosis New Zealand (ONZ)
Country:	New Zealand

Basic information about your entity

Bone Health New Zealand (BHNZ) is the consumer facing brand of Osteoporosis New Zealand (ONZ). Bone Health New Zealand's mission is to drive a step change in New Zealanders bone health through awareness that leads to proactive behavioral change and action to help New Zealanders achieve a Strong skeleton for life and reduce the number of fragility fractures. The BHNZ brand enables us to engage with people of all ages and go beyond the perception that bone health is an 'old people's problem'. Osteoporosis New Zealand remains the registered charity.

Project's description (activity's description)

Wrongly dismissed as a condition of "frail old women", osteoporosis had a branding problem – getting in the way of saving lives, since numerous interventions can be made with public education.

By creating a consumer-facing brand – Bone Health New Zealand – and an integrated launch campaign, ONZ took a bold step away from old myths and negative connotations to drive a step-change in New Zealanders bone health through awareness that leads to proactive behavioural change and action. There have been three phases to the campaign so far:

(1) Initial launch
In tandem with the rebrand, we licensed 'Know Your Bones™' (KYB) for use in NZ – a free online consumer-friendly fracture risk assessment web tool based on the Garvan risk calculator. ONZ developed a digital campaign, aiming to drive 3000 completions of KYB through engaging, curiosity-piquing creative concepts. Two weeks post-launch KYB had achieved 500 completions, but with the country then thrown into lockdown (and bone fragility far down the list of national health concerns), ONZ paused the campaign.

(2) TVC
Post-lockdown, in June 2020, ONZ applied for a media grant. Instead of the 15" community radio campaign initially on offer, ONZ were granted a national two-week television commercial flight supported by digital billboards in NZ's largest city. 5000 KYB assessments were completed, well above ONZs initial target.
View our TVC; https://www.youtube.com/watch?v=bBQd1WHHiJo

(3) Clinical standard and KPI
The KYB tool is now embedded in the clinicial standards for NZ Fracture Liaison Service as well as a cascade screening KPI in the new National Registry.

(4) Consumer Fact Sheets
Integarated into the www.bones.org.nz website, BHNZ has developed a number of fact sheets.

We want consumers to get to know their bones a little better. The fact sheets cover everything from how your skeleton replenishes itself through to the importance of nutrition and exercise. Written in simple copy these fact sheets can be downloaded from the website and are also send to consumers through our CRM system.

Highlights of the project's partnership activities

ONZ have developed a strategy that has been intentionally designed to be readily exportable to other countries. The use of transferable messaging and mediums enables the campaign to be packaged and delivered by other national osteoporosis societies to engage people of all ages but in particular those aged 50+.

ONZ is open to entering into agreements with sister organisation in other countries to share our experience and intellectual property, provide mentorship and support to enable delivery of similar Bone Health public awarness strategies for the populations that they serve.

Our platform will drive a step change in bone health through awareness that leads to proactive behavioural change and action.

It is encouraging to see that our sister societies in other countries have embraced the 'healthy bones' positioning of Bone Health NZ for communications with members of the public - Australia rebranded as Healthy Bones Australia, Feb 2021. A demonstration of the move away from the negative connotations associated with 'osteoporosis' and dismissal of the myth that osteoporosis is purely a condition of very frail old ladies, rather that there should be a life course approach.

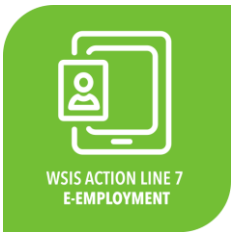
Challenges and project's future perspectives

As a charitable trust reliant on donations, funding is always ONZ's biggest challenge. This challenge is further is compounded by a world reeling from the financial realities of Covid-19 and the associated economic impact. Virtual programmes are even more important in the current enviroment, as people can complete KYB regardless of where they live or their circumstances.

Without funding, ONZ cannot leverage and scale the gains we have made to date with the Bone Health brand and consumer awareness campaign. We need to extend the campaign to reach a broader audience of both consumers and healthcare professionals and refresh the campaign elements, to avoid becoming wallpaper amongst the thousands of other messages targeting our audience.

Your views on WSIS Stocktaking and WSIS Prizes contest, including its relevance to international development

Osteoporosis NZ is grateful to WSIS Stocktaking and the WSIS Prizes 2023 contest for the opportunity to highlight and promote the work being done in the Osteoporosis field. We are confident this will generate increased awareness of Bone Health around the world.



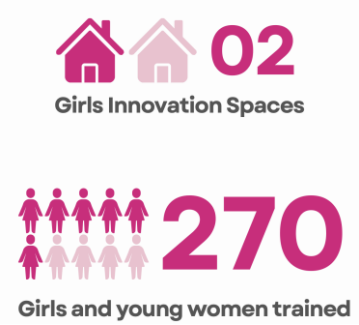
C7: ICT Applications: e-employment

Project name:	Advance IT & Entrepreneurship Training and Incubation for young women
Organization:	Computer Applications for Girls Foundation
Country:	United Republic of Tanzania

Basic information about your entity

Apps and Girls is a Tanzanian award-winning Non for Profit Organization founded in 2013 that empowers girls and young women to create the world they want to live in using technology.

General mission



Our overarching objective is to invest in girls and young women as potential tech entrepreneurs, tech creators, tech role models, and leaders, in East Africa. In order to achieve this goal, we are implementing an innovative cyclical process of advanced coding training, entrepreneurship training, mentorship, and incubation. The process itself harnesses the power of digital technologies, notably through the creation of STEM clubs in secondary & High schools, Onsite Advanced IT & Entrepreneurship Trainings, an offline and online girls and young women tech entrepreneurship incubator and e- mentoring to match emerging tech entrepreneurs with mentors. We focus on girls and young women from both privileged and underprivileged backgrounds, at secondary/high school, university, or out-of-school, on our mission to reduce the gender gap in ICT, tech-entrepreneurship and empower more change-makers in Africa.

At Apps and Girls, we believe that Tech is the reality of the future as we move deeper into the digital revolution, and entrepreneurship is a driving force. We work to break various barriers that hinder young people from accessing and creating opportunities in the 4th Industrial revolution that is driven by STEM; to mention a few, such barriers include ICT such as a non-existent support system, lack of role models and prevailing gender stereotypes by providing the alternative, a supportive path into the field of ICT and a future in tech.

The innovation addresses the critical issue of the digital gender divide. Apps and Girls incorporate two complementary elements represented by intentional advocacy interventions:

i. A high-quality advanced IT and entrepreneurship training program for young people in school/ dropouts
ii. An offline and online incubator to assist young people in starting IT-based businesses.

The program is designed to provide students with a hands-on immersive learning experience and innovatively and seamlessly integrates training and start-up support into a cyclical process and model, as follows: i) advanced IT training ii) entrepreneurship skills training iii) job placement support iv) mentorship v) start-up incubation services through the online hub, supported by the offline hub giving the students the chance to solve problems, and truly understand the process of how they got to their

solutions following the real-world STEM process. This program comprises the following fundamental components:

1. Advanced IT and Entrepreneurship Training.

Girls and Young women are trained in advanced IT (website designing, mobile app development, graphics design, photography etc) in their respective ICT clubs at school during club time/afterschool.

Furthermore, to promote problem-solving, engineering principles, and creative thinking that fosters student creativity. They take part in weekly hands-on robotics and IOT training at our hubs and in selected schools.

Having gained the tech skills, students are provided with business and entrepreneur skills that enable them to come up with tech-related business innovations in their respective communities.

2. Mentorship and Incubation.

In addition, we provide aspiring young entrepreneurs in our programs with mentorship and incubation services online/offline that direct and assist them in launching and growing their digital business ideas while providing them with extensive connections to opportunities in the ecosystem.

3. Tech & Innovation Events

Students get an opportunity to Meet our large network of fellow STEM and Innovation enthusiasts in different events across East Africa with the goal of bringing them together to network, learn, and build innovations and solutions to community problems while competing for rewards. We use technology to stimulate young people's innovation and creativity through these activities.e.g https://girlsummit.africa/

To support the program as we make an impact, we have put in place an income-generating model that benefits everyone, regardless of their financial situation.

- Students from privileged backgrounds must pay for the program(training, mentorship & incubation), whereas those from less fortunate backgrounds receive full scholarships or substantial discounts.
- Apps and Girls offers consulting services to educational institutions and students by providing Digital literacy capacity building to teachers and hosting websites created by the mentees.

Project's description (activity's description)

In Tanzania, the Advance IT & Entrepreneurship Training and Incubation for young women through the Jovia project addresses the critical issue of the digital gender divide. Our project gives underprivileged girls and young women in Tanzania who are out of school and unemployed the opportunity to receive advanced IT and entrepreneurship training as well as the support ecosystem they need to successfully obtain formal employment, particularly in ICT-related employment, or to develop and launch IT-based (social) businesses.
This project incorporates two complementary elements:

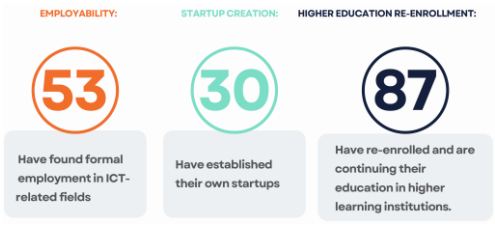
1. Quality advanced IT and entrepreneurship training program for girls and young women aged 17 to 24.
2. An offline and online incubator to assist girls and young women in starting IT-based businesses.

Project objectives
Our main goal is to promote women's socioeconomic empowerment in Tanzania and other Sub-Saharan African countries through tech-based entrepreneurship and participation in the formal employment sector, particularly in ICT-related jobs.

I. To provide high-quality IT and entrepreneurship skills training to underprivileged young women in Tanzania, thereby increasing their employability;
II. To Provide startup mentorship and incubation support and resources to young women entrepreneurs so as to enable them launch and grow their tech-based start-ups

Results and impact achieved
Since 2019, we have established two Girls Innovating Spaces through which we have trained 270 girls and young women, 53 of whom have found formal employment in ICT-related fields, 30 startups have been established, and 87 have re-enrolled and are continuing their education in higher learning institutions.
For instance,

a) https://www.youtube.com/watch?v=jDZ96AqOCxM&t=41s
b) https://www.youtube.com/watch?v=G-DLb_EXvE4



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

The Jovia project contributes to E-Employment SDG 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all and capacity building through SDG 5: Achieve gender equality and empower all women and girls, and SDG 4: Ensure inclusive and equitable quality education and promote opportunities for lifelong learning for all, as follows:

High-quality advanced IT training for girls and young women;
i) Aims to change harmful gender stereotypes about women and girls that perpetuate discrimination and limit women and girls' opportunities to reach their full potential
(Article 5 of the Convention on the Rights of the Child on Gender Stereotypes).

ii) Aims to eliminate gender discrimination in education.
This includes ensuring that they have equal access to and participation in ICT education (CEDAW, Article 10 on Education)

iii) Aims to overcome women's employment exclusion by providing them with the necessary skills to pursue a career in the formal or IT sectors (CEDAW, Article 11 on Employment).

Training in entrepreneurship for young women;
i) Helps to change harmful gender stereotypes about women and girls, which perpetuate discrimination and limit women and girls' opportunities to reach their full potential (Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), Article 5 on Gender Stereotypes).

ii) Contributes to the elimination of gender discrimination in education.
This includes ensuring that they have equal access to education and vocational training at all levels (CEDAW, Article 10 on Education)

iii) Ensures that young women have equal chances to choose their own careers and launch their own businesses, and works to eliminate discrimination against women and girls in all spheres of economic and social life (CEDAW, Article 11 on Employment; Article 13 on Economic and Social Life).

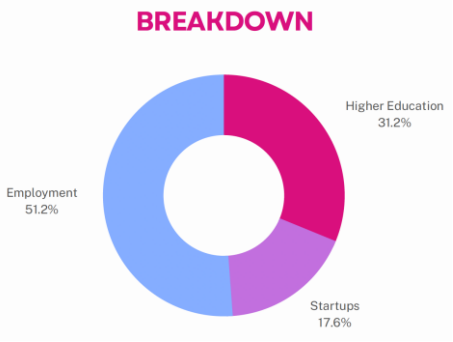
Incubation of women start-ups: mentorship of emerging young female entrepreneurs and incubation of their startups.
i) Contributes to eliminating discrimination against women and girls in all areas of economic and social life, ensuring young women have equal opportunities to pursue their own businesses (by providing them access to necessary capital) (CEDAW, Article 13 on Economic and Social Life)

Social, economic, and environmental impact of the project

Provision of high quality, advanced IT training for unemployed and out of school girls and young women enables them to acquire advanced IT skills such as:- software development, multimedia, photography which will help them land formal employment in ICT-related companies or launch their own tech-based businesses. The project also addresses the digital gender divide in Tanzania by increasing women's participation and representation in ICT-related employment and tech-based entrepreneurship in the country and increasing

the access to more opportunities arising as societies and economies undergo the digital transformation for girls and young women.

Provision of entrepreneurship training for young women Increase women's entrepreneurship skills through capacity building and promote the inclusion of more women in entrepreneurial activities and other economic activities in Tanzania: According to the UNDP's Africa Human Development Report (2016), "significant economic and workplace disparities between African men and women continue to be the norm rather than the exception" (p.73). Only 8 countries among 40 in Sub-Saharan Africa show gender balance in SME ownership or have situations favorable to women (UNDP, 2016, p.70).
By providing women with entrepreneurship training and start-up support opportunities, we are not only responding to a clear demand from these women but also we are contributing to ensuring these women enjoy equal opportunities to education and employment/entrepreneurship opportunities, thereby promoting their and their families' socioeconomic empowerment. This project also contributes to doing away with gender stereotypes and raising the profile of women as entrepreneurs in their families and communities.



Highlights of the project's partnership activities

Apps and Girls' objective is to invest in girls and young women as potential tech entrepreneurs, tech creators, tech role models, and leaders, in Tanzania, To achieve this goal, Apps and Girls is supported by MIC Tanzania PLC(Tigo) through AXIAN Foundation, to implement an innovative cyclical process of advanced IT training, entrepreneurship training, mentorship, and incubation, thus promoting girls' and women's equal participation in the digital economy: as creators of tech and drivers of innovation that are also gender-sensitive.
From 2019 to date, In partnership with MIC Tanzania PLC (Tigo)/Axian Foundation, whose main driver behind social investment strategy is investing its strongest assets not only to provide access to communication but continuously using the adoption of digital tools through use of technology by acting closely to communities where Tigo operates to sustainably improve the living conditions of the most vulnerable populations, Apps and Girls reached a total of 6286 girls and young women were able to attend business entrepreneurship workshop training, incubation and mentorship and 5282 Business ideas were generated.
Prior to that Apps and Girls were supported by the South Africa Innovation Support (SAIS), CAF America, US Embassy in Dar es slaam and Global fund for women.

Challenges and project's future perspectives

Given the high demand for our program's interventions and the rising number of young women who are out of school and without jobs, we need a substantial financial investment to keep up with demand. In 2020, 1.48% of students worldwide—5.2 million girls and 5.7 million boys in secondary education—risk dropping out of school, according to the United Nations (2020). According to a 2018 survey by UNESCO and UNICEF, 42% of schoolchildren in sub-Saharan Africa will drop out before finishing their primary education, with 3.6 million of those children living in Tanzania.
In order to accurately and effectively implement, achieve great results, and eliminate disparities, women empowerment, particularly in the technology, entrepreneurship, and innovation for girls and young women; significantly requires all team players' efforts and synergies, such as the government, corporate companies, CSOs, and the community (parents, teachers, etc.) Let's join together and invest in Girls and young women's potential for better economies, livelihoods.
Girls and Young women are a great and vital resource for the development of our continent and have many bright ideas that have not yet been tapped into. More support and resources are required to help

the marginalized young girls' voices be heard, recognized, and given a seat at the table where they may participate in decision-making and contribute to the STEM-driven 4th IR.
Through Partnership with AXIAN Foundation and securing more impact investors/partners, Apps and Girls plans to continue empowering more girls and young women across Tanzania but also scale the model to other countries in sub Saharan Africa. With AXIAN Foundation's partnership, in 2023- 2024 we hope to empower 200 underprivileged girls and young women who are unemployed and out of school in Tanzania.

Project's future perspectives:

1. We are working to acquire a formal program certification from VETA (Vocational Educational and Training Authority) this would entail; certifying our curriculum so that the graduated get certified certificated that are acceptable and recognized countrywide thus increasing their employability and also facilitating easy and strategically roll out the program in different institutions across the country for example in IPOSA centers, VETA centers, and other reputable organizations.
2. Replicate the same program in Zanzibar, a region with high female school dropout rates, early and forced marriages, and many girls not having access to opportunities due to cultural beliefs and religious restrictions, resulting in a significant social and economic gender divide. We intend to establish and equip a girl's tech hub in Zanzibar.
3. Provide startup seed Capital to launch their business. 100 % of the trainees are from marginalized and underprivileged families, though they will have brilliant business solutions ready to be launched without financial boost their startups will never see life. Provisional of small seed capital for them to launch their businesses will accelerate the program's impact.
4. Given that some of the program participants are mothers/wives, we intend to build a baby's nursery and nursing room so that they can come with their babies, reducing program dropouts.

Your views on WSIS Stocktaking and WSIS Prizes contest, including its relevance to international development

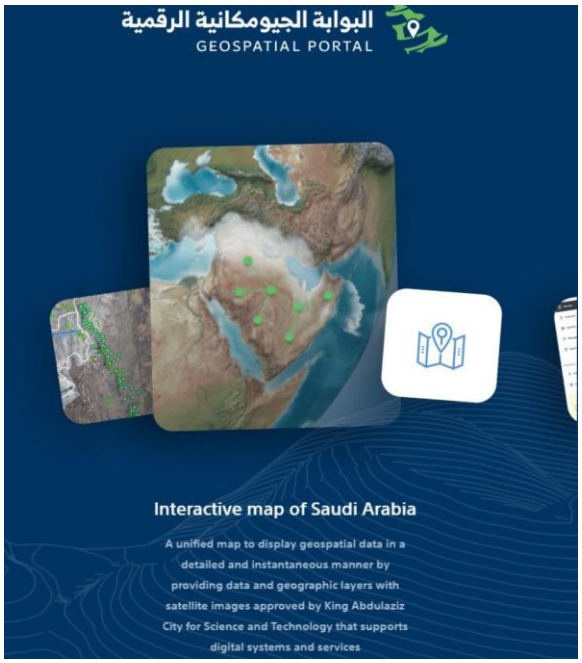
We at Apps and Girls have had a wonderful experience with the WSIS Stocktaking and WSIS Prizes contest. The entire process has generated a lot of publicity for our project and organization, which is crucial to attracting more partnerships for our work as well as advocating the value of women's empowerment in our societies and respective governments globally.

C7: ICT Applications: e-environment

Project name:	Early Warning Epidemics System
Organization:	Ministry of Environment Water and Agriculture (MEWA)
Country:	Saudi Arabia

Basic information about your entity

The Ministry of Environment Water and Agriculture (MEWA) is a government ministry in Saudi Arabia responsible for the achievement of sustainability of the environment and natural resources in the Kingdom. The ministry also is in charge of developing and applying policies that contribute to achieving water and food security.
Vision: To achieve sustainability of environment and natural resources, in such a manner that would ensure water security, contribute to achieving food security, and improve quality of life in KSA.
Mission: Our mission is to maintain distinguished performance in developing and applying comprehensive policies and effective strategies, as well as promoting services by engaging the private sector and the competent authorities, with a view to achieving prosperity and sustainability of the environment, water and agriculture.



Project's description (activity's description)

It is an geographical digital system that analyzes the Kingdom's map climatic, vital, and water indicators. It identifies the expected geographical locations for the spread of epidemics and disease vectors. Monitoring epidemics to investigate them and develop a disease prevention and control plan. Follow-up reports verify cases infected with the epidemic and neighboring areas provide the necessary support and limit the outbreak's spread in integration with the supportive systems.

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

System goals:

1. Early investigation of pests.
2. Achieving sustainability and food security.
3. Reducing the spread of epidemics and pests.
4. Protecting the environment from pollution.
5. Protecting and preserving water and its sources from pollution.

Achieving the above objectives by implementing the following actions:

- Eradicating poverty and hunger by achieving sustainability and food security.
- Ensured a healthy life for all by preserving the environment and helping to raise the quality of
- Increasing the welfare of society by achieving economic growth.
- Reducing the spread of epidemics that may cause water pollution

Preserving the environment, crops, and plant cover from pesticides that may cause corrosion and desertification in some areas.

Social, economic, and environmental impact of the project

The impact of the system on the beneficiaries is as follows:

- Saving time and effort needed to complete the service.
- Growing awareness of the beneficiary by an estimated 30%.
- Increasing customer satisfaction and facilitating access to services by 40%
- The system provides an integrated and unique experience.
- It reduces the physical losses of livestock owners resulting from disease outbreaks.

Impact of the system on business:

- Inventory of diseases, epidemics, and their control.
- Livestock growth at an estimated annual rate of 5%.
- Increasing the speed and quality of services provided.
- Enabling the ministry to deal quickly with production and export changes.

Highlights of the project's partnership activities

1. National Center For Meteorology
2. National Center For Environmental Compliance
3. Saudi Irrigation Organization
4. National Center For Vegetation Cover And Combating Desertification
5. Saudi Geological Survey
6. King Abdulaziz City For Science And Technology
7. National Water Company
8. The National Center For Prevention And Control Of Plant Pests And Animal Diseases
9. Veterinary Clinics
10. Laboratoires
11. Vaccine Production Center

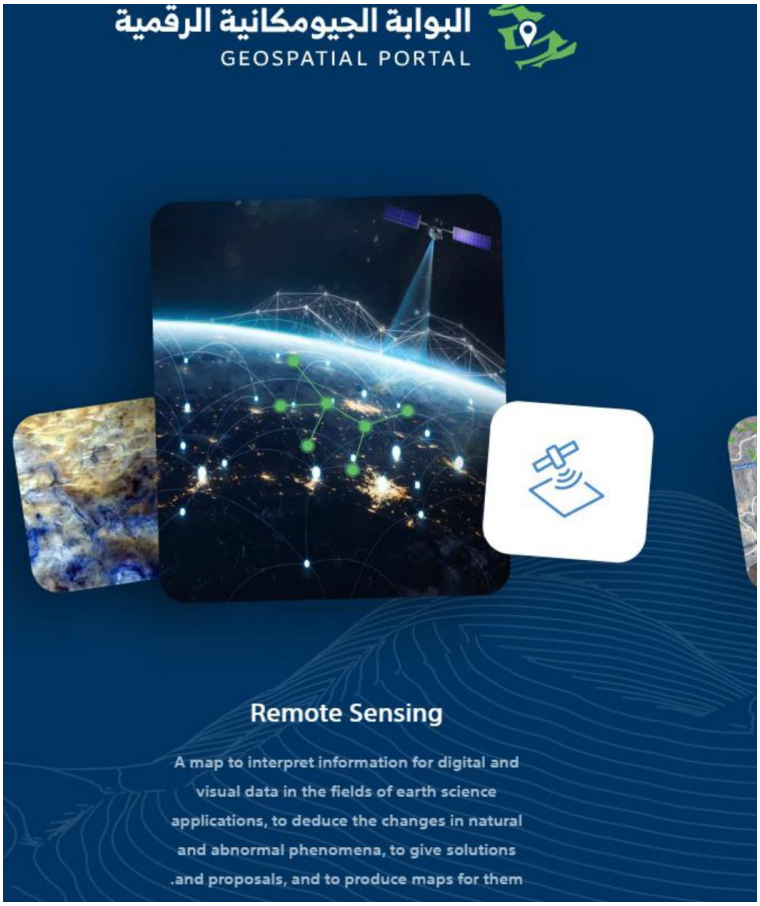
Challenges and project's future perspectives

Difficulty alerting beneficiaries of epidemics:
Work on developing the quality of the services provided by receiving and processing the electronic communication and providing the necessary support by providing multiple digital channels for

communication by sending alerts and notifications in real-time. And by using text messages and e-mail to ensure that, the warning reaches all beneficiaries associated with livestock in the Kingdom.

Difficulty knowing and tracking where epidemics spread:
Developing an accurate and precise epidemiological map to identify and inventory livestock diseases, their prevalence rates, and their geographical distribution at the level of the Kingdom. Linking disease data to the geographic information system, using remote sensing techniques, and dealing with data issued by the reporting and survey platform. Checking the availability of vaccines and informing the clinics to support and conduct the examination to limit the spread of the epidemic will lead to the prevention of new cases in the future.

Scarcity of data and statistics on epidemics:
Finally, using an integrated and qualitative database on epidemics and integration with the relevant authorities inside and outside the Kingdom. And through the epidemiological investigation of the possible spread or suspicion of diseases that were reported electronically using the system, in addition to listing the data provided by the service delivery centers (laboratories – clinics - pharmacies - vaccine production centers).



Your views on WSIS Stocktaking and WSIS Prizes contest, including its relevance to international development

Its help the entities to be aligned with very important targets that included in the SDG's through building the digital solutions.

C7: ICT Applications: e-agriculture

Project name:	Digital AgroInsurance
Organization:	AGROINSURANCE LLC.
Country:	Kazakhstan

Basic information about your entity

Agroinsurance service in Kazakhstan is an innovative ICT project that aims to provide reliable and accessible insurance coverage for agricultural producers in the country. The project offers an online platform that allows farmers to purchase insurance policies for their crops and livestock, providing them with protection against risks such as excess moisture, drought, and other weather-related events that could result in crop failure or animal death.

One of the key advantages of the Agroinsurance service is that it is entirely digital, which allows farmers to access insurance coverage quickly and easily, without the need for lengthy paperwork or in-person visits to insurance offices. The platform is user-friendly, and farmers can navigate it easily, selecting the coverage options that best suit their needs.

Some of the world's largest insurance companies, including Swiss Re, Munich Re, Hannover Re and AXA Climat, reinsure the insurance policies offered by the Agroinsurance service. This provides farmers with peace of mind, knowing that their insurance coverage is backed by the financial strength and expertise of these global players.

The Agroinsurance service offers coverage for a range of crops, including cereals and oilseeds, as well as perennial plantations of apples and apple crops. The platform also offers animal insurance, including coverage for cattle and small cattle, horses, and poultry. This broad range of coverage options allows farmers to select the policies that best meet their needs and helps to protect their livelihoods against unexpected losses.

Overall, the Agroinsurance service in Kazakhstan is an excellent example of how ICT can be used to provide accessible, reliable, and efficient insurance coverage to farmers, helping to support the agricultural sector and promote economic development in the country.

Project's description (activity's description)

The Agroinsurance Service in Kazakhstan is an innovative ICT project that aims to provide accessible and reliable insurance coverage for agricultural producers in the country. The project's process is designed to make the insurance process quick and easy for farmers, allowing them to protect their crops and livestock from various risks, including excess moisture, drought, and other weather-related events.

To be insured through the Agroinsurance Service, an agricultural producer must first register on the website using the Electronic Digital Signature (EDS). The platform is integrated with all public and private databases. When registering on the platform, with the consent of the farmer, all information on the farmer and his farm is uploaded to the platform. Then farmer can choose from a list of insurance products, select the fields or animals they wish to insure, and choose an insurance company. The state subsidizes 80% of the insurance premium, which reduces the cost of insurance for the farmer. The farmer then pays only 20% of the remaining insurance cost.

The Agroinsurance Service platform provides farmers with daily updates on the moisture level in their fields, enabling them to monitor their crops' health. If the system detects the occurrence of an insured event, such as a drought, the farmer will receive a notification via email. The entire process is automated, and payments are made within 15 working days from the date of the insured event.

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

Zero Hunger (SDG 2) - Agroinsurance helps advance SDG 2 by protecting crops and livestock from risks such as excess moisture, drought, and other weather-related events, which can result in food insecurity and hunger. By ensuring that farmers can continue to produce food and other agricultural products, agroinsurance can help to promote food security and reduce hunger.

Good Health and Well-being (SDG 3) - Agroinsurance helps advance SDG 3 by reducing the incidence of zoonotic diseases and promoting animal health, which can have a direct impact on human health. By providing insurance coverage for livestock, agroinsurance can help to prevent the spread of diseases and promote the health and well-being of both animals and humans.

Sustainable Cities and Communities (SDG 11) - Agroinsurance helps advance SDG 11 by promoting sustainable agricultural practices and reducing the risk of environmental degradation. By providing financial protection to farmers against crop failure and animal death, agroinsurance can help to reduce the need for land expansion and promote sustainable land use practices.

Climate Action (SDG 13) - Agroinsurance helps advance SDG 13 by promoting climate-resilient agricultural practices and reducing the impact of climate change on agricultural production. By providing insurance coverage for weather-related risks such as excess moisture and drought, agroinsurance can help farmers adapt to changing climate conditions and mitigate the impact of climate change on their crops and livestock.

Social, economic, and environmental impact of the project

Social Impact:

The Agroinsurance service has helped to reduce the social and economic vulnerability of farmers, especially smallholder farmers, who are often at risk of losing their livelihoods due to crop failure and animal death.

The service has also helped to improve the social welfare of farmers by providing them with financial protection against risks and uncertainties.

Economic Impact:

The Agroinsurance service has helped to reduce the economic losses suffered by farmers due to crop failure and animal death, thereby contributing to the sustainability of their agricultural businesses.
The service has also facilitated access to credit and other financial services for farmers, who can now use their insurance coverage as collateral to secure loans.
By promoting the growth and development of the agricultural sector, the Agroinsurance service has contributed to the diversification of the Kazakhstani economy, reducing its reliance on natural resource extraction.

Environmental Impact:

The Agroinsurance service has helped to promote sustainable land use practices by reducing the need for land expansion and promoting more efficient use of existing agricultural land.
By promoting climate-resilient agricultural practices, the service has contributed to reducing the impact of climate change on agricultural production, protecting the environment and ecosystems.
By providing insurance coverage for livestock, the service has helped to prevent the spread of diseases and promote the health and well-being of animals, thereby contributing to the conservation of biodiversity.

Highlights of the project's partnership activities

The Agroinsurance service in Kazakhstan has been implemented in partnership with several organizations and companies.

Ministry of Agriculture of Kazakhstan: The Ministry of Agriculture of Kazakhstan has been the key partner in the implementation of the Agroinsurance service. The ministry has provided policy support, facilitated the engagement of other stakeholders, and helped to ensure that the service is aligned with the country's agricultural development goals.

Agrarian Credit Corporation: The Agrarian Credit Corporation is a financial institution that provides credit and other financial services to farmers in Kazakhstan. The corporation has partnered with the Agroinsurance service to offer insurance coverage as collateral for loans, thereby facilitating access to credit for farmers.

Agricultural Insurance Association: The Agricultural Insurance Association is a professional association of insurance companies in Kazakhstan that provides insurance coverage for agricultural risks. The association has partnered with the Agroinsurance service to offer insurance products and to share expertise and knowledge.

Reinsurance Organizations: The Agroinsurance service has partnered with several international reinsurance companies, including SwissRe, HannoverRE, MunichRe and AXA Climat. These companies provide reinsurance coverage for the risks covered by the Agroinsurance service, thereby enabling the service to offer comprehensive coverage to farmers in Kazakhstan.

Data Providers: The Agroinsurance service has partnered with several data providers, including Windy, and Vandersat(Planet). These companies provide weather and satellite data, which are used to monitor and assess agricultural risks and to determine insurance payouts.

Challenges and project's future perspectives

Challenges:

Limited awareness and trust: One of the key challenges has been limited awareness and trust among farmers regarding the benefits and reliability of insurance. Many farmers have traditionally relied on government support and subsidies and may be hesitant to adopt a new system.

Data availability and quality: The Agroinsurance service relies heavily on accurate and reliable weather and satellite data to assess risks and determine insurance payouts. However, data availability and quality can be a challenge in certain areas of the country, particularly in remote and rural areas.

Limited access to financial services: While the Agrarian Credit Corporation has partnered with the Agroinsurance service to offer insurance coverage as collateral for loans, many farmers in Kazakhstan still face limited access to formal financial services, which can limit their ability to take advantage of insurance.

Future perspectives:

Scaling up and expanding coverage: The Agroinsurance service has the potential to expand coverage to more regions and crops, which can help to mitigate risks and improve resilience among farmers.
Enhanced data and analytics: The project can benefit from continued investment in data and analytics to improve the accuracy and reliability of risk assessment and insurance payouts.
Increased awareness and education: The project can work to increase awareness and education among farmers and other stakeholders about the benefits and reliability of insurance, which can help to build trust and increase adoption.
Integration with other agricultural services: The Agroinsurance service can work to integrate with other agricultural services, such as crop management and market information, to provide a more comprehensive and integrated suite of services for farmers. This can help to improve overall agricultural productivity and resilience.

Your views on WSIS Stocktaking and WSIS Prizes contest, including its relevance to international development

In our opinion, the WSIS Stocktaking and WSIS Prizes contest are crucial initiatives for advancing sustainable development worldwide. These programs provide a platform for countries and organizations to share their best practices, collaborate, and leverage innovative ICT solutions to address various challenges faced by communities across the world.

We believe that the WSIS Stocktaking process is an effective way to promote the implementation of the WSIS Action Lines and achieve the WSIS goals. By sharing knowledge and experiences, stakeholders can learn from each other, adopt successful strategies, and accelerate progress towards sustainable development.

Overall, we believe that the WSIS Stocktaking and WSIS Prizes contest play a critical role in advancing sustainable development and are highly relevant to international development. They create a platform for collaboration, learning, and innovation, and contribute to building a more sustainable and prosperous world for all.

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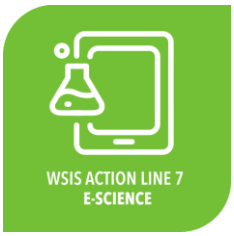
ALL analytical statistics and charts available by this link
statistics - https://qalqan.kezekte.kz/ru/index/statistics?Year=2022
analytics - https://qalqan.kezekte.kz/ru/index/analytic?Year=2022



C7: ICT Applications: e-science

Project name:	Women In Tech Maldives
Organization:	Women In Tech Maldives
Country:	Maldives

Basic information about your entity

Project's description (activity's description)

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

Social, economic, and environmental impact of the project

Highlights of the project's partnership activities

Challenges and project's future perspectives

Your views on WSIS Stocktaking and WSIS Prizes contest, including its relevance to international development

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

Project name:	Africa Teen Geeks
Organization:	Apodytes
Country:	South Africa

Basic information about your entity

Established in 2014, Africa Teen Geeks is a South African non-profit organisation with a focus on STEM education. The organisation has grown to become one of the biggest education NPO in Africa. Through its strategic partnerships with the University of South Africa (UNISA) and the Department of Basic Education (DBE), our organisation has the key ingredients to be an influential organisation with strong social impact.

The organisation aims to educate, inspire, and equip young people with the skills, resources and experience to pursue STEM careers and close the opportunity gap through quality education. In our work, we have trained over 600,000 children with the aid of 1300 volunteers and 150 qualified teachers.

Africa Teen Geeks is an organisation that is passionate about driving access to quality and equitable education to young children and youth in Africa. As such, the organisation has partnered with the National Department of Basic Education of South Africa, to co-create the Coding and Robotics curriculum for South African schools.

In understanding the impact of education, especially that of STEM related subjects, Africa Teen Geeks is also seeking to expand its operations to the rest of the African continent.

1.1. Mission

Africa Teen Geeks exists to eliminate the barriers faced by disadvantaged communities in pursuing science, technology, engineering, and math (STEM).

1.2. Vision

To inspire the next generation of Africa's innovators and tech entrepreneur.

Project's description (activity's description)

In a bid to realise its vision of inspiring the next generation of Africa's innovators and tech entrepreneurs. Africa Teen Geeks is mindful of the fact that this work must begin at grassroot level. As a result, Africa Teen Geeks has implemented a number of initiatives, whose aim is to supplement and assist those in the South African schooling system, be gravitated towards STEM.

As such the following initiatives form part of Africa Teen Geeks project:

Saturday Coding Classes - Coding Classes that take place every Saturday at University of South Africa's Computer labs, across the country. The classes aim to introduce coding and robotics to children that come from disadvantaged communities.

STEM Digital School – In response to the COVID19 pandemic and resultant national lockdown, Africa Teen Geeks identified a gap in educational content and subsequently created the Digital School in a bid to assist the government to keep teaching and learning going.

Knit2Code - The Knit2Code programme was designed to teach young girls without access to computers coding through knitting.

Computer Science Week – An annual initiative that aims to highlight and expose children to computer science.

GirlGeek Summit - The Girl Geek summit was established with the aim of exposing young girls to the world of science, technology, engineering and mathematics careers.

Curriculum Development - In keeping true with its mission of " eliminate the barriers faced by disadvantaged communities in pursuing science, technology, engineering and math (STEM), Africa Teen Geeks contributes towards the development and implementation of the Coding & Robotics curriculum.

Teacher Training - In contributing to the development of the Coding & Robotics curriculum, Africa Teen Geeks signed a MoU with the Department of Basic Education to train teachers in the delivery of the curriculum to learners.

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

Africa Teen Geeks has been aligned with 4 main Action lines namely:

- AL C2. Information and communication infrastructure
- AL C3. Access to information and knowledge
- AL C4. Capacity building
- **AL C8. Cultural diversity and identity, linguistic diversity and local content**

Based on the above Action Lines, Africa Teen Geeks advances the following SDG's

- Quality education
- Gender equality
- Reduced inequality
- Decent work & economic growth

Social, economic, and environmental impact of the project

Africa Teen Geeks initiatives play a pivotal role in equipping South African's with the skills necessary to take full advantage of the opportunities that come with the Fourth Industrial Revolution.
From Social perspective, ATG has been able to develop programmes that have impacted beneficiaries positively. For instance, has trained thousands of children from disadvantaged communities in Coding and Robotics.
ATG has also contributed and Co-Created towards the development of the Coding and robotics curriculum for the South African schooling system.
Further to that, ATG collaborated with the Department of Basic Education and UNICEF to train Educators to be competent in their delivery of the curriculum.
From an economic perspective, ATG has made access to education in Coding and Robotics, more accessible. As a country that has very high unemployment rate amongst its youth, ATG has ensured that Coding and Robotics learning materials, are accessible on the MsZora platform (ATG's LMS) free of charge.

Highlights of the project's partnership activities

- Partnership with the Department of Basic Education to Train teachers from Northwest and Limpopo Provinces, in the new coding and robotics curriculum.
- Partnership with UNICEF and Department of Basic Education in the Education digital Transformation initiative.

Challenges and project's future perspectives

- Training of Teachers who have not been exposed to computers.
- Lack of ICT infrastructure in schools
- High costs of data.
- Safety and security of ICT hardware.

Your views on WSIS Stocktaking and WSIS Prizes contest, including its relevance to international development

As ATG, we completely agree with the importance of initiatives such as WSIS in advancing sustainable development through ICT. The WSIS provides a platform for evaluating and monitoring projects and activities to ensure they align with the sustainable development goals.
Through this process, WSIS can help identify best practices and innovative solutions that can be shared across different regions and countries. This, in turn, can facilitate the adoption of ICT solutions that promote equitable access to technology and education, especially in underserved communities.
Moreover, the WSIS can help create a culture of accountability and transparency, which is essential for ensuring the effectiveness of projects and activities aimed at promoting sustainable development through ICT. Overall, initiatives such as WSIS can play a critical role in advancing sustainable development and ensuring that the benefits of ICT are accessible to all.

C9: Media

Project name:	Strategic Communication to Counter Security Threats in the Disinformation Era
Organization:	University Rey Juan Carlos - Research Group Ciberimaginario (URJC)
Country:	Spain

Basic information about your entity

Rey Juan Carlos University is a young and dynamic Spanish public university that provides quality training through a wide and excellent academic offer and contributes to the vanguard of knowledge.
Founded in 1996, it has approximately 45,458 students, making it the second university in Madrid with the highest number of students enrolled, and the sixth in Spain.
It has 11 Faculties on 5 campuses distributed throughout the south of the Community of Madrid, in which it teaches more than 85 undergraduate degrees, 75 double degrees and 67 official master's degrees and 12 doctoral programs.
In the School of Communication Sciences, the Research Group Ciberimaginario is specialized to research and innovating to improve communication processes and efficient training in digital environments, for different social and economic sectors.

Project's description (activity's description)

The project proposes a cross-sectorial initiative in the fields of education for media and strategic communication in relation to security, prevention and counteraction of criminal acts.

The culture of communications is changing at a rapid pace, driven by the power of internet and social networks. The digital communication environment, with its remarkable advantages and opportunities, also provides opportunities to different actors for conducting malicious influencing activities, divide societies, erode the democratic values and sow distrust in our institutions. Users are encouraged to create personal echo-chambers at the expense of information pluralism and to move away from reliable and credible news reporting and sound journalist analyses.

This interdisciplinary course, framed under the CRESCEnt project (Mind the Gap in media coverage and strategic communication in case of security threats), co-funded by the Erasmus+ Programme of the European Union, addresses the challenge of building awareness and developing resilience to disinformation, fake news, and hostile information influencing campaigns.
The MOOC aims to increase the key knowledge and competences of institutional spokespersons and journalists (including young professionals in journalism and related disciplines/areas) in the field of security and defense, and in relation to strategic communication and news reporting on security threats.

The course is developed in collaboration between: “Mihai Viteazul” National Intelligence Academy (MVNIA) – Romania, Ciberimaginario Research Group of the University Rey Juan Carlos– Spain, Kentro Meleton Asfaleias (KEMEA), Center For Security Studies – Greece and Ministry of Internal Affairs, Directorate for Information and Public Relations (MAI-DIRP) – Romania.

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

Within the WSIS Action Line, the project contributes to Combatting illegal and harmful content in the media.
The project contributes to Goal 4: Quality Education of the Sustainable Development Goals by improving media and information literacy. Social participation and the strength of democratic systems require improving citizens' digital skills so they can adequately understand the nature of information in new media and identify and fight against bad information, misinformation, and disinformation.
Media competence is increasingly a concept that matters. Media education is also recognized by both academia and policymakers as a professional responsibility. Given the context that generated the CRESCEnt project and its subsequent goal, understanding why developing media competencies matters is crucial. Moreover, understanding what matters in developing media literacy is also central to the purpose of empowering the practitioners who are charged with the responsibility of generating media products. Capacitating spokespersons and journalists to bring about media literacy, by knowingly diffusing strategies that work, is considered a key to bringing about a more information-literate society so needed in our digital age.

Theoretically, citizens are more informed than they were a decade ago. Examples may be considered the way social media, and the digital news sites keep us up to date in real-time. But against the expectation of people being better informed and taking more informed decisions, we are witnessing the paradox of ”too much information” and its many alternative names Information overload — intoxication”, “infobesity”, and data smog which require ”information
diets” or ”information detox sessions”.

Behind this paradox lies the growing complexity of the production and distribution of information, the break with the traditional gatekeeper role of the media, in the face of decentralized information systems in which it is relatively easy to introduce toxic information that, taking advantage of cognitive biases and networked social logics, generate spaces aimed at misinforming and generating detrimental effects on citizens and democratic institutions. Hence, the importance of incorporating these new

literacies is to provide both specialists and citizens with resources to detect and combat these bad communication practices.

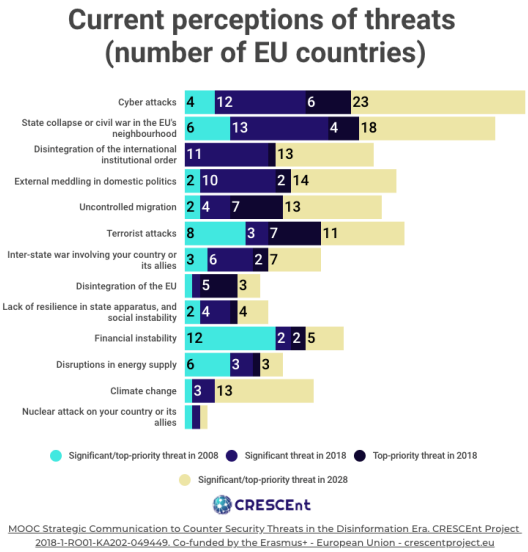
Social, economic, and environmental impact of the project

The Project has made it possible to carry out extensive training for both institutional spokespersons, journalists, journalism students and citizens in general who wish to equip themselves with these skills to address the growing challenges of disinformation.

Through the MOOCs carried out, more than 2,500 students from 22 countries around the world have been trained, creating a vibrant community of specialists interested in how to improve their personal and professional skills, and how to allow, with this, to incorporate new ways of approaching the fight against misinformation in their institutions.

In addition, the contents have been published as Open Educational Objects to facilitate, following the recommendations of the Cape Town Open Education Declaration of 2007 and the Declaration on Open Educational Resources elaborated by UNESCO in Paris in 2012, that they can be reused from open, free and freeway in any context.

For this, it has also been made available in open educational repositories such as EPALE, School Education Gateway and Zenodo.



Highlights of the project's partnership activities

The CRESCENT Project facilitates:

- Understand the 21st security threat landscape and the role of the cyber/information as security dimension.
- Analyze the key concepts related with communication processes: disinformation, misinformation, propaganda, covert influencing, digital active measures, strategic communication, hybrid threats.
- Acquire competencies and analytic tools in order to evaluate information sources and contents, and critically address the consumption of information in traditional media and social media channels.
- Understand the importance of sound and responsible journalist practices, and of bridging the gap between media professionals and institutional strategic communicators in case of security threats, for addressing the challenge of fakes news and deliberate disinformation activities.
- Plan strategic communication campaigns with a particular focus in tackling security threats.

Challenges and project's future perspectives

The challenge of misinformation and illegal and harmful content in the media unfortunately continues to grow and expand. In recent years we have seen numerous examples in which the expansion of self-interested and malicious narratives can cause serious damage in areas as diverse as Health, National Security, the stability of democratic systems, etc. In addition, certain threats that contribute to the spread of disinformation have intensified, such as the use of Artificial Intelligence systems applied to the creation of deepfakes.

Therefore, the CRESCENT project has continuity in a new project, DOMINOES (https://projectdominoes.eu/) that addresses the digital transformation the ecosystem of news media is undergoing. It supports increasing the digital capabilities of the higher education sector and contributes to innovation in higher education and vocational training.

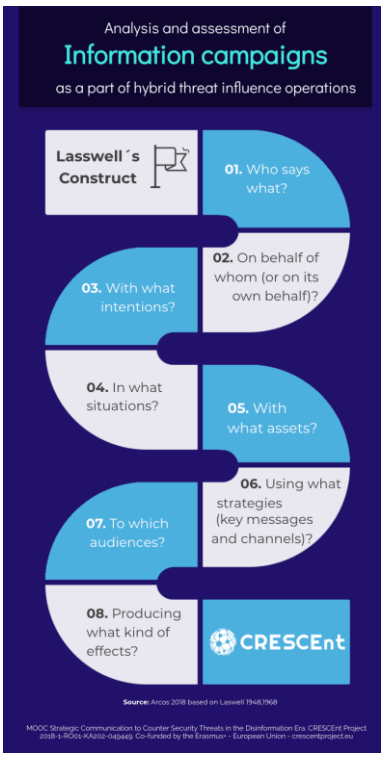
The project's overall objective is to reduce societal polarization by combating fake news and online disinformation in two target groups: university professors, civil society trainers and university students. The aim is to assist them in achieving advanced digital skills helpful in detecting and countering propaganda, fake news and information manipulation leading to social polarization, extremism and discrimination in society.

Your views on WSIS Stocktaking and WSIS Prizes contest, including its relevance to international development

The role and activity of the World Summit on the Information Society is an essential benchmark for all of us who, from different fields, work for a plural, diverse, inclusive and fair media and information ecosystem. The WSIS Stocktaking is a very useful tool both for finding out about valuable initiatives and projects and for spreading the word about those others with which we work. We believe in the value of cooperation, and WSIS Stocktaking is for us a clear example of how shared knowledge improves our global capabilities.

The WSIS Prize are a true stimulus to continue promoting the improvement of what we do. Year after year we follow the interesting proposals that are presented, and we have learned a lot from initiatives recognized by the awards. They are, without a doubt, an international benchmark and, for our institution, for the Rey Juan Carlos University, and for the rest of the partner entities of this CRESCENT project, just the fact of participating has been an extraordinary pride and shared satisfaction.

On the other hand, we would like to highlight the importance that WSIS has for international development. In the commitment of our University to the Sustainable Development Goals, and in the integration of these in all the processes of the University, both the projects, the Stocktaking, and the WSIS reports are fundamental guides for the projects we carry out, especially for those linked to international cooperation and the replication of models in the different fields of knowledge in which the University works.



C10: Ethical dimensions of the Information Society

Project name:	UAE Cyber Pulse
Organization:	UAE Cyber Security Council (UAECSC)
Country:	United Arab Emirates

Basic information about your entity

- The UAE's Cyber Security Council was established in November 2020 by the UAE Cabinet and aims to develop a comprehensive Cyber Security Strategy and to create a robust infrastructure in order to protect the UAE's cyberspace.
- The Council is chaired by the Head of Cyber Security for the UAE Government and contributes to the national capabilities and drive engagement across UAE stakeholders & populace to increase the awareness of cyber security within the country and contribute to the resilience of the cyber space within the UAE.

Project's description (activity's description)

In doing the Cyber Pulse program aims at creating comprehensive outreach and awareness across the UAE landscape and stakeholders, to uplift the UAE as pioneer in cyber security and the safest place to live, enhance cyber security standards, and safeguard the country's digital infrastructure in a manner that aligns with its objectives for sustainable development.

The main objectives of the UAE Cyber Pulse initiative are:

- To enhance cyber safety practices in the country and improve the cybersecurity standards to safeguard the digital infrastructure of the UAE.
- To raise awareness among the society and all sectors of the country about the importance of using digital tools safely and securely.
- To develop initiatives and practices that support the UAE's goals for sustainable development.
- To establish a collaborative platform between the government, private sector, and society to share knowledge and resources to combat cyber threats effectively.
- To provide a framework for the regulation and oversight of the UAE's digital space, ensuring that it remains secure, reliable, and resilient.

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

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

Example: creating a culture of safeguarding in schools will ensure the safety and well-being for all students, also for the employees at their work environment and promote online safety culture which will have positive impact on mental and emotional well-being. For example, cyberbullying, online harassment, and exposure to harmful online content can have negative effects on mental health. Additionally, cybersecurity threats such as ransomware attacks on healthcare systems can potentially impact access to healthcare services.

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

CYBER pulse initiative aligns with SDG Goal 4 by promoting inclusive and equitable quality education through the development of a cybersecurity training program that can improve Cyber security skills and promote responsible use of technology among high school students.

Example: adding digital citizenship curriculum and online safety to students' lessons

Goal 5: Gender equality

By promoting equal access to cyber security training and resources for both men and women, the initiative helps bridge the gender digital divide and promote gender equality in the digital age. This, in turn, can contribute to empowering women economically and socially, promoting their participation in the labor market, and creating more inclusive and equitable opportunities for all.

SDG Goal 8 (Decent work and economic growth)

is by promoting Cyber security skills and responsible use of technology among individuals and businesses. The digital revolution has transformed the global economy, creating new opportunities for growth and employment. However, it has also created new challenges, including cybercrime and security threats, that can harm businesses and individuals alike.

The Cyber pulse initiative can help address these challenges by providing individuals and businesses with the necessary Cyber security skills and knowledge to operate safely and securely in the digital economy. This can include providing training programs and resources on cybersecurity, data privacy, and responsible use of technology. By equipping individuals and businesses with these skills, the initiative can help prevent cybercrime and protect against cyber threats, which can improve the economic environment and promote sustainable economic growth.
Moreover, the Cyber pulse initiative can also help enhance individuals' employability and job prospects in the digital economy. Digital skills are increasingly in demand in the job market, and individuals with strong cyber security skills are more likely to secure well-paying jobs and contribute to economic growth.
Overall, by promoting digital literacy skills and responsible use of technology, the CYBER pulse initiative can contribute to achieving SDG Goal 8 by supporting sustainable economic growth and creating decent work opportunities for individuals and businesses.

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

Example: the initiative collaborate with digital startups and entrepreneurs to promote the development of innovative cybersecurity solutions that address emerging cyber threats. By providing these startups

and entrepreneurs with access to training, mentoring, and funding, the initiative can help them realize their full potential and contribute to the growth and development of the digital economy.

Overall, by promoting the development of secure and reliable digital infrastructure, fostering innovation, and supporting sustainable industrialization, the CYBER pulse.

SDG Goal 10 (Reduced Inequalities)

is by providing Cyber security training and resources to underprivileged communities and individuals who may not have access to technology or the necessary skills to use it effectively. By doing so, the initiative can help bridge the digital divide and reduce inequalities in access to information and opportunities. It can empower individuals from all socio-economic backgrounds to benefit from the digital revolution and participate more fully in the global economy. This, in turn, can contribute to reducing economic and social inequalities, promoting social inclusion, and creating more equitable opportunities for all.

SDG Goal 17 (Partnerships for the goals)

is by fostering partnerships between different stakeholders, including government agencies, private sector organizations, academic institutions, and civil society groups. By working together, these stakeholders can share knowledge, resources, and expertise to enhance digital literacy skills, prevent cybercrime, and promote responsible use of technology.

For example, the cyber security council and through the CYBER Pulse initiative partnered with technology companies to develop innovative and secure digital tools and platforms that are easy to use and accessible to individuals from all socio-economic backgrounds. also collaborate with academic institutions to conduct research on the latest trends and developments in cybercrime and cybersecurity and develop effective training programs and resources based on this research.
Furthermore, the initiative is partnering with government agencies to develop and implement policies and regulations that promote cyber safety and security. also working with civil society groups to raise awareness about cybercrime and promote digital responsibility and security.

Also, by fostering partnerships for the goals, the CYBER pulse initiative contributes to achieving SDG Goal 17 and creates a more collaborative and effective approach to addressing the challenges of the digital age.

Social, economic, and environmental impact of the project

The Cyber Pulse initiative has a significant social, economic, and environmental impact.
From a social perspective, the initiative raises awareness among the population about the importance of using digital tools safely and securely. By promoting best practices in cybersecurity, the initiative can help prevent cybercrime and protect individuals and businesses from cyber threats, leading to increased trust in digital technologies and a safer online environment for all.

From an economic perspective, the initiative enhances cybersecurity standards and safeguards, leading to a more secure digital infrastructure in the UAE. This can attract more foreign investment and foster innovation and growth in the country's digital economy, which is vital to achieving sustainable development goals. By providing a collaborative platform for sharing knowledge and resources, the initiative also fosters partnerships between the government, the private sector, and society, leading to more robust and effective cybersecurity practices and solutions.

From an environmental perspective, the Cyber Pulse initiative contributes to sustainable development goals by promoting environmentally sustainable practices in the digital space. For example, by encouraging the use of renewable energy in data centers and promoting green IT practices, the initiative can reduce the carbon footprint of the UAE's digital infrastructure.
Overall, the Cyber Pulse initiative has the potential to create significant positive impacts in the social, economic, and environmental spheres by promoting cybersecurity, fostering collaboration, and supporting sustainable development goals.

Highlights of the project's partnership activities

The Cyber Security Council, through the Cyber Pulse initiative, has made several partnerships with local educational organizations to enhance cybersecurity awareness and education in the UAE. Some highlights of the project's partnership activities include: signing 30 MOUs and partnerships with local and international organizations to foster and exchange the knowledge and skills needed to tackle cybersecurity challenges in the UAE and the region, provide hands-on training on cybersecurity practices, tools, and techniques to help students build a career in cybersecurity, also to develop a cybersecurity framework for the country.

Challenges and project's future perspectives

While precise planning and accurate execution can certainly minimize challenges, there are always potential obstacles that can arise when implementing large-scale initiatives like the Cyber Pulse project. Some of the challenges that the project may face include:

Resistance to change: Some stakeholders may be resistant to change, particularly if the project involves changes to established processes or procedures.

Resource constraints: The project may require significant financial and human resources, which could be a challenge in a resource-constrained environment.

Lack of awareness: There may be a lack of awareness about the importance of cybersecurity among the general population, which could impact the adoption of the project's recommendations.

Evolving threat landscape: The threat landscape for cybersecurity is constantly evolving, which means that the project will need to remain adaptable and flexible to address new threats as they emerge.

Technical complexity: Implementing a comprehensive cybersecurity framework may require significant technical expertise, which may be a challenge for some organizations.

In terms of future perspectives, the Cyber Pulse project has the potential to make a significant impact on the UAE's cybersecurity landscape. By enhancing cybersecurity standards, raising awareness, and providing a collaborative platform for sharing knowledge and resources, the project can position the UAE as a leader in cybersecurity.

In the long term, the project's success will depend on its ability to remain adaptable and responsive to changing threats and technologies. Continued investment in cybersecurity education and research will also be essential to ensure that the UAE has a skilled workforce and cutting-edge technologies to address cybersecurity challenges.

Your views on WSIS Stocktaking and WSIS Prizes contest, including its relevance to international development

I agree that the WSIS stocktaking and prizes contest is a valuable initiative that can contribute to the achievement of the Sustainable Development Goals (SDGs). The contest provides a platform for sharing best practices and innovative solutions in the use of information and communication technologies (ICTs) for sustainable development.

The contest is relevant to several SDGs, By showcasing successful ICT projects and initiatives, the contest can inspire and inform other stakeholders to adopt similar approaches and solutions to achieve the SDGs.

Moreover, the contest provides an opportunity for governments, private sector entities, and civil society organizations to collaborate and share knowledge and expertise. This collaboration is crucial for achieving the SDGs, as it requires a coordinated effort from all sectors of society.

In addition, the contest helps to promote innovation and creativity in the use of ICTs for sustainable development. This innovation is critical for addressing complex development challenges and achieving the SDGs in a rapidly changing world.

Overall, the WSIS stocktaking and prizes contest is a relevant and valuable initiative that can contribute to the achievement of the SDGs. By showcasing innovative solutions and facilitating collaboration and knowledge sharing, the contest can help to accelerate progress towards a sustainable future.

C11: International and regional cooperation

Project name:	Enhance VR
Organization:	Virtuleap Lda
Country:	Portugal

Basic information about your entity

Enhance VR is a cognitive training and assessment app in Virtual Reality (VR) created and developed by Virtuleap (www.virtuleap.com), a disruptive health and education startup based in Lisbon. Virtuleap's vision is to become the leader in VR in healthcare by offering immersive exercises to individuals at risk or with cognitive impairment and overcoming traditional boundaries to support millions of people in improving their cognitive fitness and health outcomes.

Project's description (activity's description)

Cognitive functioning deteriorates with age and can be exacerbated by age-related neurodegenerative diseases. Importantly, numerous studies have suggested that engaging in more mentally stimulating activities throughout life is associated with better cognitive function, reduced cognitive decline, and decreased risk of developing dementia. Moreover, cognitive training has shown promise in delaying cognitive decline in aging individuals but also in individuals suffering from mild cognitive impairment. Currently available cognitive training tools display a series of limitations that hamper their wide adoption.

Thus, Virtuleap created the Enhance VR app, a library of 15 short games in virtual reality, inspired by the mechanics of validated neuropsychological tests, across 7 different categories. The difficulty of each of the Enhance VR games is adaptive to the user's performance, ensuring superior players' engagement and interest. Moreover, gamification has proven value in maintaining motivation and increasing adherence to the program. Enhance VR exploits the unique features of VR to offer a naturalistic interaction with the environment maximizing training effectiveness. Additionally, the app collects a wide range of data derived from the participant's gameplay and game-related events that track individual behavioral outputs and that might have major predictive potential.

It is important to mention that cognitive impairment is not caused by any one disease or condition, nor is it limited to a specific age group. Several different diseases and factors can cause cognitive impairment turning it into a very common symptom. Cognitive abilities deteriorate with age, but there are other risk factors that can influence cognition, namely education, low levels of cognitive engagement, physical inactivity, chronic conditions, brain injury, drugs as well as exposure to pesticides and toxins. Thus, the potential application of Enhance VR is much wider and so is its potential impact.

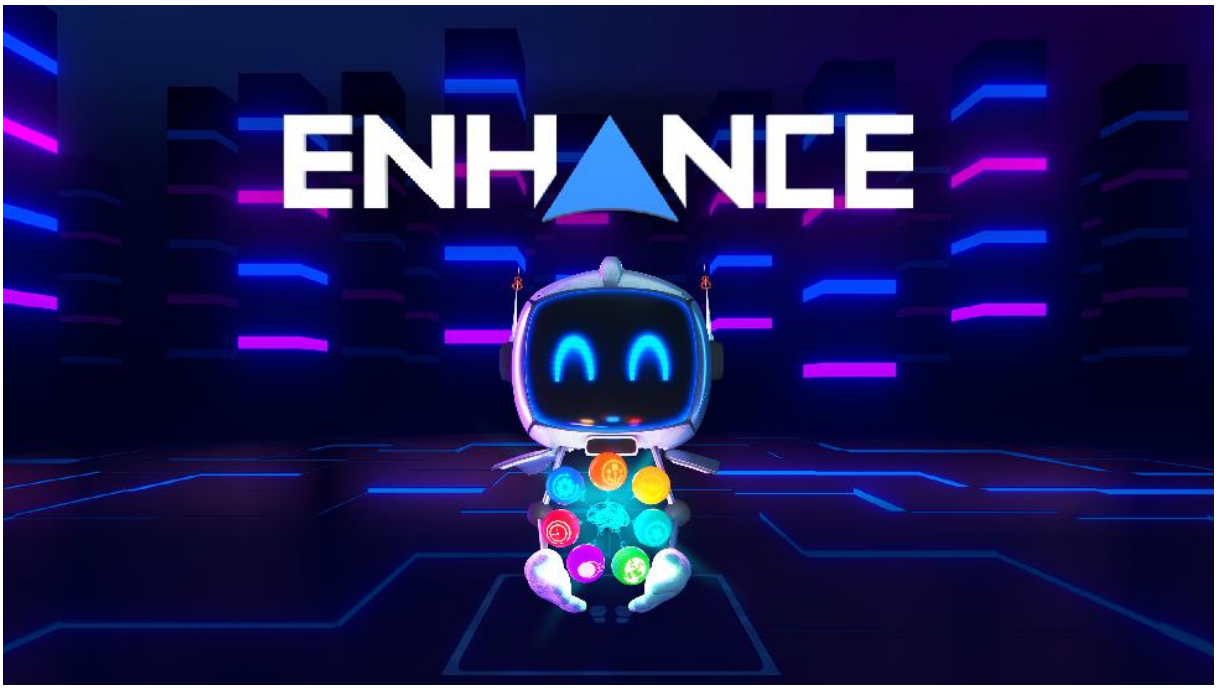
Examples of linkages between the WSIS Action Line your project was awarded for with each of the Sustainable Development Goals it helps advance

Our technology addresses SDG3 and specifically target 3.4: By 2030, reduce by one-third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being. Enhance VR tackles this from several angles. In the one hand, Enhance VR games could be used as a way to provide cognitive stimulation for individuals, as a prevention strategy, since

it has been shown that mentally stimulating activities throughout life seem to decrease the risk of cognitive decline and dementia. On the other hand, it could be used to detect early cognitive decline due to VR unmatched data collection capabilities, paving the way for early intervention. And finally, could be used as potential digital therapeutics for people already with some form of cognitive decline. In fact, the application of Enhance VR games has been tested in an adult population with ADHD symptomatology. After only 10 training sessions, there was an improvement in participants' processing speed. This result shows the potential of Enhance VR games as digital therapeutics for ADHD but also instigates further investigation in other therapeutic areas in which cognition is affected, namely age-related cognitive impairment and neurodegenerative diseases.

Social, economic, and environmental impact of the project

Cognitive impairment challenges the individual's well-being, their support environment, and the overall healthcare system. Detection of cognitive impairment and dementia diagnosis often occurs too late when the window of opportunity for intervention is already closing. Furthermore, treatment options in the dementia continuum are limited to non-existing. In fact, it was estimated that interventions that delay the clinical onset of dementia by 1 year could reduce its prevalence by 9 million cases in 2050 and that medical advances that delay the onset of AD for 5 years would lower the prevalence by 41% and the cost of AD by 40% in 2050, so the potential impact of Enhance VR is huge. The Enhance VR app could have significant health and socio-economic impact, contributing to managing disease burden, improving patient outcomes, reducing the burden on informal caretakers, decreasing healthcare costs, and ultimately improving the quality of life.



Highlights of the project's partnership activities

Virtuleap´s project brings together different stakeholders, bridging ICT and scientific research centers and/or clinical institutions. These partnerships have been key in enabling to test the applications of Enhance VR. Thus, we implemented or are currently implementing several studies to investigate the feasibility and effectiveness of Enhance VR for different applications:

- Virtuleap is currently running a pilot clinical study with the Vall d'Hebron Research Institute, funded by a grant awarded by "laCaixa" Foundation. The study aims to investigate whether Enhance VR improves cognitive functioning in elderly type 2 diabetic subjects, with mild cognitive impairment, a population at higher risk of developing Alzheimer's disease compared to age-matched non-diabetic subjects. The study rationale is supported by

increasing evidence that indicates that cognitive training can help to prevent cognitive decline.

- Virtuleap has a second pilot clinical study about to start recruitment in the US. This study, in collaboration with MapHabit and funded by NIH- SBIR, aims to 1) assess improvement in quality of life in those suffering from Alzheimer's when using our solution longitudinally and 2) map out gaming patterns in order to identify digital phenotypes that can potentially detect any indication of tendencies towards cognitive decline in otherwise healthy adults.
- Virtuleap was selected by Roche, in the context of the program Building Tomorrow Together – Innovation in Dementia, to be one of 4 startups to implement pilot studies at Portuguese clinical institutions. Our pilot is a proof-of-concept study to assess the feasibility and acceptance of Enhance VR application for cognitive long-term at-home monitoring of senior patients complaining of subjective cognitive complaints from Hospital Lusíadas.
- We are currently running a pilot study with older adults, residents of the Grand Maison Guest House Kyoto Katsuragawa, to evaluate satisfaction, usability and potential improvement in activities of daily living. This is a joint collaboration with Japan External Trade Organization and JSB Co., Ltd.
- We have recently published a peer-reviewed article on a pilot study conducted with Escola Superior de Saúde do Politécnico do Porto, Portugal (https://www.frontiersin.org/articles/10.3389/frvir.2023.1108060/full). The study aimed at evaluating the effectiveness of a virtual reality-based intervention (Enhance VR) in processing speed and working memory in a group of students with ADHD symptomatology. The participants were allocated into two groups: a passive control group and the intervention group that completed 10 sessions using 6 games from the Enhance VR app. The evaluation was performed pre- and post-intervention and we observed an improvement in the results of processing speed in the group exposed to the intervention. Importantly, processing speed has a crucial role in daily functioning in individuals, and processing deficits are associated with deficits in memory and in attention.

Virtuleap and Enhance VR have won several awards, including 9 this last year:

- *Santander X | Portugal Award - 3rd place; Issued by Fundação Santander - Dec 2022*
- *Call for Innovation Winner; Issued by Global Wellness Summit- Nov 2022*
- *6th China Shenzhen Innovation and Entrepreneurship International Competition- 2nd place; Nov*
- *2022*
- *Outstanding Project Award; Beijing Science Fiction International Award · Technology Award*
- *2022- November 2022*
- *Best Healthcare Startup; Issued by Asia Healthcare Innovation Summit - Sep 2022*
- *Innovation and Entrepreneurship Competition (Macau) for Technology Companies from Brazil and Portugal 2022; Issued by Economic and Technological Development Bureau of the Government of the Macao Special Administrative Region- September 2022*
- *Health Challenge: Digital Solutions for Better Health; Issued by Huawei- Jun 2022*
- *Digital Health Category; Issued by Extreme Tech Challenge- May 2022*
- *Most Innovative Startup; Issued by BPI Innovation Summit- Apr 2022*
- *Silver Award - Best 6DoF Application; Issued by HTC Wave Developer Awards- Jun 2020*
- *Best Healthcare Startup; Issued by Southern European Stars 2020- May 2020*

Challenges and project's future perspectives

Virtuleap will be launching its new product, CogniClearVR, later this year. CogniClearVR is a brief cognitive screening test in virtual reality (VR) that aims to assess cognitive function through 15 immersive exercises that tackle different cognitive categories including memory, attention, problem-solving and temporal orientation, as well as features that are unique to VR such as motor control and

spatial orientation. All the exercises are designed from scientifically validated exercises generally presented as pen and paper tests. Importantly, VR scenarios yield ecologically valid environment scenarios with precise control over the experimental variables that allow for a detailed measurement of the participant's responses and behaviors.

As the senior population grows to an estimated 1.6 billion globally by 2050, the need arises for solutions that can provide earlier detection of the onset of cognitive decline, paving the way for potential intervention. Still, older adults are expected to self-monitor, identify relevant cognitive changes and
make the decision to seek professional help. This is partially explained by the fact that early signs and symptoms of AD and other dementias often are subtle and not objectively measurable and might in fact be overlooked by either the patients and their families but also dismissed by the physicians. In fact, tools used for cognitive assessment have several well-known limitations, namely lack of sensitivity in earlier stages of cognitive impairment.

CogniClearVR was created to tackle this need, for a more sensitive, reliable, examiner-independent, and in-depth tool for cognitive screening, in the hope of improving dementia patients' journeys and their health outcomes. This new product will be incorporated into Enhance VR app once completed and validated.

Regarding the brain training games of Enhance VR, the challenge for the near future is the implementation of pivotal clinical studies for different indications, that will enable certification as a potential medical device.

Your views on WSIS Stocktaking and WSIS Prizes contest, including its relevance to international development

Winning the WSIS Prizes 2023 Award is an important milestone for Virtuleap and recognizes the potential of Enhance VR and our commitment to sustainable development and the SDGs. It is also an outstanding opportunity for increased visibility, especially in the ICT field which is key to identifying and attracting potential partners, investors, clients, and other relevant stakeholders. It is an international recognition that helps us establish our reputation within the field, which can have a major impact. And finally, it will be a great opportunity to network.