

# Shifting into next Gear: Digital for Development



JUNE 20

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**Digital 4 Development Coalition**



# Introduction

*The D4D-coalition is a group of likeminded European technology companies that have teamed up to support the European development cooperation. We are inspired by European values and driven by the firm belief that joining forces in a public private partnership for mutual benefit will best serve the inclusive and sustainable development of Europe's partner countries. This paper aims to provide some examples of how projects of the coalition already contribute to the EU's and partners' efforts to reach Sustainable Developments Goals calls for joint mobilization to scale up and make bigger difference together.*

***“With the Global Gateway we want to create strong and sustainable links, not dependencies”***

**President of the EU Commission, Ursula Von der Leyen,  
State of the Union 2022**

# The D4D Coalition's Commitment

The objective of the European Union (EU) international partnerships and development policy is to cooperate with its partners in developing economies, and especially in the poorest ones, to further their economic and social development and to eradicate poverty. Based on this objective, promoting good governance, human and economic development and tackling global issues, such as fighting poverty, hunger and preserving natural resources are priority intervention areas.

The European Commission and the EU High Representative have set out the Global Gateway, a new European strategy to boost smart, clean and secure links in digital, energy and transport sectors and to strengthen health, education and research systems across the world. The EU is stepping up its offer to its partners with major investments in infrastructure development around the world. Between 2021 and 2027, Team Europe, meaning the EU institutions and EU Member States jointly, will mobilise up to EUR 300 billion of investments in:

- digital
- climate and energy
- transport
- health
- education and research

Notably, digital technologies have come to the forefront of development policies given the positive enabling effect that they provide on sustainable growth and social inclusion. Promoting a comprehensive values-based rulebook for a digital economy and society worldwide and fostering a stronger and more strategic EU engagement in international digital partnerships has indeed become an essential cornerstone. As such, the EU - Africa partnership has been strong in enabling a scale-up in investments in the digital transformation of partner countries.

Within this mindset, the **D4D-coalition**, a group of likeminded European technology companies have teamed up to support the European development cooperation. The Coalition provides strategic advice, shares best practices and experiences and has been **engaging D4D stakeholders in thematic dialogues** on digital literacy, digital

infrastructures, data economy, and public private partnerships to support the implementation of the EU's D4D agenda with concrete recommendations and project ideas aimed at supporting a conducive digital business and investment environment in Africa. The Coalition is inspired by European values and driven by the firm belief that joining forces in a public private partnership for mutual benefit will best serve the inclusive and sustainable development of Europe's partner countries, in line with the recommendations of the [report of the EU-AU Digital Economy Task Force](#). In that regard, the Coalition commends the EU for its Team Europe's approach which highlights the crucial need to partner with actors from the private sector; a necessity to reach the scale of efforts and investments needed to meet the UN SDGs. Founded at the European Development Days in 2018, the D4D Coalition members now applied an advisory committee within the D4D Hub.

There are still multiples challenges:

- **Policy Challenge**, to define the use of DT as key element and component in the definition of development projects from the policies of the EU and other IFIs in the multilateral environment
- **Political Challenge**, to ensure that the country agrees that DT component is key for certain development actions (data & traceability),
- **Replication and adaptation challenge**, to ensure that the investment in technologies are transferred or used in various areas (countries, sectors). The design, integration & country knowledge is critical.
- **Society Challenge**, to empower the African Society (young population) to build its own digital solutions and to meet all these challenges.
- **Collaboration and agreement on the objective challenge**, it requires the will/agreement of the stakeholders (Country, donors EU and others, institutions, civil society, private sector) to move forward.

We believe that **digital technology can solve those challenges and enable speed and scale in delivering on the partnership objectives the EU has defined with its African partners**. Strong partnerships and collaboration are required. This document provides some examples of how projects of the coalition already contribute to Europe's areas of intervention. The examples are not exhaustive but should inspire all stakeholders to think about joint approaches.

## Partnerships for Digital Infrastructure

By collective investment in connectivity, we can begin to eradicate the digital divide and improve access to opportunity for people and communities everywhere. **Raising internet penetration to 75 percent of the population in all developing countries would create more than 140 million jobs around the world.** ([World Bank](#))

*According to Business Finland, 33% of Africa's population remains out of reach of mobile broadband. The coverage and usage gap in sub-Saharan Africa is the highest globally (GSMA/EIB). Co-investments in sustainable trusted infrastructure is a necessity to cover these gaps. The D4D Coalition remains at the forefront of the engagement to increase connectivity, capacity and coverage to enable regional development and for local communities to grow.*

**2Africa** – The [2Africa consortium](#) is composed of Orange Middle East and Africa, Vodafone and 5 other operator investors. This 37,000 km cable, one of the largest subsea project in the world, which will eventually encircle Africa, is scheduled to be operational in 2023/2024. It will interconnect Europe, the Middle East, and 21 landings in 16 countries in Africa. Through the technology provided by Alcatel Submarine Networks (ASN, part of Nokia) 2Africa will make it easier to deploy 4G, 5G, and fixed broadband access for hundreds of millions of people. [RTI International](#), an independent nonprofit research institute, estimates that the impact of 2Africa would likely be an increase of 0.42 to 0.58 percent in African GDP within the first two to three years of going live in 2023–2024.

**Partner2Connect** - The International Telecommunication Union (ITU) Partner2Connect (P2C) digital coalition, was developed in close cooperation with the Office of the UN Secretary-General's Envoy on Technology. This coalition has been set up to foster meaningful connectivity and digital transformation globally in the hardest-to-connect communities. As part of our contribution to Partner2Connect, Vodafone is leading one of the four focus areas to facilitate the attainment of universal connectivity; Orange and Nokia have also pledged to support meaningful connectivity.

- **Vodafone** has made a pledge, through its main African business, **Vodacom**, to **invest US\$190 (EUR 182) million over the next five years to increase our 4G**

**population coverage to an additional 80 million people in Africa.** We will leverage P2C to develop partnerships to co-invest with us to achieve this goal. This means that we will increase our 4G population coverage from 54% (higher than the African average of 49%) to ~85% across six sub-Saharan African countries. This targeted intervention includes four LDCs - Mozambique, Tanzania, Lesotho and the Democratic Republic of Congo. Our investments in those countries will help to close a particular gap in internet usage that is four times higher in urban communities than in rural communities within African nations. Africa remains the continent with more LDCs than anywhere else on earth and so should be the focus for efforts to deliver meaningful connectivity to the internet by 2030. This will require co-investment, unlocking a range of development benefits for these countries and, most importantly, enabling more people who live in rural communities, like Maseraele and her family, to connect for a better future.

- **Orange** has pledged to **keep investing a cumulated EUR 5.6 billion in 16 countries in the Middle East and Africa over the period 2021-2025**, out of which EUR 3.7 billion will be invested to increase voice and data coverage and connectivity. Out of the 16 countries Orange will invest in, 10 are Least Developed Countries <sup>1</sup>: they will benefit from a cumulated investment close to EUR 2 billion over the period.
- **Nokia** has set the target to improve the lives of 1.5 million people by the end of 2025 through socially driven digitalization projects, digital skill building, and connecting the unconnected or underserved. This target features also as Nokia's contribution towards 1 Billion Lives Challenge of the WEF Edison Alliance.

**SES and Orange partnering across Africa** - The fiber network in many African countries is still under-developed, with a significant population living beyond its reach. The increasing demand for internet connectivity from rural communities and remote businesses is motivating telecommunications operators to expand their coverage capabilities. To this end, they need to deploy combined networks relying on a mix of terrestrial fibre, wireless and satellite technologies.

Orange and SES have been working together for many years and have developed a partnership that is proven, trusted and successful in delivering reliable connectivity

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<sup>1</sup> Burkina Faso, CAR, DRC, Guinea, Guinea-Bissau, Liberia, Madagascar, Mali, Senegal, Sierra Leone

solutions in Africa. Orange, with a presence in 18 African countries, has thus leveraged SES' innovative O3b satellite constellation operating in medium earth orbit (MEO) as well as SES' geostationary satellites to deliver global fibre-like, low-latency services to their African customers enhancing connectivity and coverage extension to multiple rural villages, and to larger, semi-urban areas enabling, enterprises in Africa to thrive.

Orange is also the first telecom operator to adopt O3b mPOWER, SES' next-generation MEO system, which commercial service availability is planned for 2023. Orange along with its subsidiary Sonatel, the leader in Senegalese telecommunications solutions, also partners with SES to deploy and manage the first [O3b mPOWER gateway](#) in Africa, allowing the African continent to enjoy easy access to high-performance and low-latency connectivity services. This O3b mPOWER gateway will be used by Sonatel and Orange to deliver high-performance, low-latency, and cloud-optimised connectivity services throughout Africa, helping ensure that everyone across Western Africa becomes truly connected with no one left behind. See [press release](#) here.

**Nokia has been connecting Africa since 1860** - Since the first telegraph line deployed in South Africa in 1860s, Nokia has been partnering with African CSPs- Communications Service Providers- to provide Africans with latest connectivity technologies from 1G to 5G and from telegraph lines to fiber optics. ([video](#))

In 2021, **Nokia's Submarine division (Alcatel Submarine Networks)**, began construction of the **Africa-1 subsea cable**, a 10,000 km cable to connect Africa to the Middle East and Europe. The Africa-1 system will support Africa, the Middle East, Pakistan and other Asian countries on their journey to digital transformation and will make it possible to transport ever-increasing volumes of traffic between the three continents. (see map [here](#)).

**In Argentina, Nokia will deploy a 4G/LTE, [5G-ready network to service](#)** over 36 rural areas in Argentina, boosting connectivity for underserved communities and businesses across the country. The network will allow to provide internet service in sub-urban and rural areas; connecting equipment, fixed installations, machinery (harvesters, tractors, seeders, trucks), silobags and weather stations, for example. It will also address other fixed and mobile connection needs for service where it was not possible before, capturing a range of efficiencies.

**SES and Vodafone joining Forces in Papua New Guinea (PNG).** With over 86% of its population residing in rural areas, much of Papua New Guinea's population is still underserved. **Vodafone and SES have partnered up to deliver 4G and 5G** high-speed

mobile broadband services to PNG via SES's O3b medium earth orbit (MEO) satellite constellation, **which will further enable economic opportunities and bridge the digital divide** in the world's second-largest island. Under this partnership, the O3b MEO satellite constellation will provide the local service provider Digitec with high-speed mobile backhaul services for 5 locations in PNG. See more on this [project here](#).

**Orange Djoliba** – Orange's first integrated pan-[West African fiber backbone](#) will increase the pace of digitalization, regional connectivity, and economic development.

**Orange IDEAL:** Orange tackles digital inclusion with its "Include Digital in Every African's Life" (IDEAL) project, which aims at offering tailor-made solutions to extend mobile connectivity in underserved areas. *More information: Orange – "[Digital Africa](#)"*

## Green Deal and Climate Transition

The Green Deal for Europe can be strengthened by an equally powerful agenda in Africa. According to African Union's Agenda 2063, one of the aspirations of the African continent is to build a **prosperous Africa that is founded on inclusive growth and sustainable development**. Amongst the key priorities set by the AU is the development of modern, diversified and resilient economies that are founded on science, technology and innovation (STI) driven economic activities such as manufacturing, industrialisation and value creation. Africa is determined in its ambitions to transform its economies. See further background information [here](#).

***There's no green without digital; digitalization is key to reaching net zero. Smart energy systems will save emissions of 7.7 billion tonnes of CO2 - it could account for 23% of global decarbonization.***

### Smart agriculture

Digitalization offers solutions to various challenges in Africa including climate change, low yields and farming income, lack of access to information, lack of skills and unemployment. Digital technologies have the potential to deliver impact across food value chains by reducing costs, helping farmers make sustainable decisions, improving access to information and markets, and empowering women and youth in particular.

- **In 8 African countries, Orange has launched [14 services](#) dedicated to farmers, attracting 800,000 active mobile users.** These services increase farmers' income by reducing intermediaries and farmers' productivity through advice on agricultural techniques – which helps farmers reduce fertilizers. Farmers can receive accurate weather forecasts and subscribe insurances against climate risks.
- **Vodafone's Connected Farmer provides smallholder farmers with access to markets, inputs, information, and financial services.** It communicates content providing advice, best practice insights, and climate-smart agriculture information (i.e. tips on conservation tillage to improve farming practice and increase production with minimal impact on the environment). Vodafone's MyFarmWeb

gives farmers the power to measure and record data such as physical, chemical, microbial soil analysis, pest presence, satellite sensing information and data from IoT sensors such as soil moisture probes, vehicle trackers and weather stations ([link doc](#), [link video](#) - [here](#))

- **In May 2019, Nokia joined ConectarAGRO to empower Brazilian farmers.** The agribusiness sector of the Brazilian economy is responsible for 80% of growth in the entire country and yet 93% of Brazilian farmers had no wireless access. Based on Nokia's network infrastructure and wireless solutions to support advanced IoT solutions, ConectarAgro already **brought connectivity to 5.1 million hectares in Brazilian rural areas. It did not only enable farms to increase productivity, efficiency and sustainability** but it actually changed the life of thousands of people that had no access to education, content, entertainment and so much more available today on the internet. (video [here](#) in Portuguese)
- **Nokia and Vodafone Foundation have launched Smart Agriculture-as-a-Service to improve the livelihood of 50,000 farmers across 10 districts in the states of Madhya Pradesh and Maharashtra in India.** By deploying IoT sensors across a field and connecting to a private network or local mobile network—farms can monitor water and test nutrient levels in the soil. This ensures that expensive fertilizers and chemicals are only dispersed when necessary to boost yield. The IoT network can be used to monitor the performance of farm machinery and irrigation systems while drones can be sent out for routine visual checks. More than 400 sensors have been deployed over 100,000 hectares of farmland to collect data for analysis by the solution's cloud-based and localized smart agriculture app. Sensors include soil probes, weather stations, insect traps and crop cameras. Insights from the data will help farmers to improve soy and cotton crop yields, as well as reduce their impact on the environment. See more [here](#).

## **Food security**

Additionally, digital solutions can address food insecurity and the needs of farmers. Food security concerns are growing, not only because of the millions more that would battle to afford food but also due to disrupted supply chains. When discussing food security, we should not forget about digital solutions that can support effective and efficient agriculture.

- **In Egypt, Vodafone helps local communities use technology to improve farming. By digitalising irrigation systems and adding sensors to the soil, farmers can water according to the needs of the plant.** These soil sensors measure the moisture needs of the soil and the farmers can control the irrigation system remotely via their mobile phone.
- **In South Africa, the Women Farmers Programme is making agriculture more accessible and profitable for women** by teaching them how to use apps to connect to potential customers and unlock enormous economic growth
- **In Tanzania, Vodacom M-Kulima helps farmers list their produce on a digital marketplace and connects them directly with buyers without an intermediary.** The platform also provides timely weather forecasts so farmers can plan better, and it shares important market information, which ensures that farmers secure the best price for their products.
- **In Kenya, DigiFarm leverages mobile and digital technologies for smallholder farmers.** Using drones to perform aerial surveys of smallholder farms, DigiFarm gives these farmers a better understanding of the topography of the land, helping them keep track of the best time to spray fields for pests or to fertilise their crops
- **Finally, Vodafone/Mezzanine is offering [evouchering platform](#)** that allows cashless value solutions that enable communities to plant during the current season **to ensure a local supply of food for the next 12 months** and enable financial inclusion in Africa .

## **Waste management**

Throughout Ghana, informal workers known as waste pickers clean up communities and natural areas. Their work is vital, but the country has big plans to improve conditions in the industry and modernize.

- A pilot project between **the World Economic Forum, the Global Plastic Action Partnership (GPAP) and SAP** is creating a cohesive group of more than 2,000 waste pickers and measuring the quantities and types of plastic that they collect. This data is then analysed alongside the prices that are paid throughout the value chain by buyers in Ghana and internationally. By bringing transparency to the value

chain, the project will benefit all stakeholders. Socially responsible companies will pay a premium for social plastics, which will benefit the end consumer and protect communities and the environment. Waste pickers themselves will also benefit by earning fairer wages. Policy-makers will also use this data to decide where to build recycling plants. In October 2019, the Government of Ghana officially became the first African partner of GPAP. During the launch, President Nana Akufo-Addo pledged to achieve zero plastic leakage into Ghana's ocean and waterways. This relationship led to further connections throughout the plastics chain, including local waste picker organizations in Ghana; micro, small and medium-sized enterprises; multinational companies and local authorities. **Together with SAP, this group is co-designing a software solution that connects waste pickers with potential buyers and recyclers.**

## **Green energy**

The issue of climate change has dominated headlines for decades but in the absence of a concerted effort to control spiralling carbon emissions, the threat it poses to humanity is existential. As energy demand continues an upward trajectory and strict environmental regulations are observed, the need to accelerate the adoption of carbon-free, renewable generation is clear. From cutting-edge connectivity solutions offered by private wireless - 4.9G/LTE and 5G - to AI/ML, the Internet of Things (IoT), cloud computing, robotics, augmented and virtual reality and big data analytics, the latest digital innovations are helping to speed up the drive towards decarbonization significantly.

- **Orange offers off-grid solutions adapted to the needs of rural communities:** mini-grids are deployed around Orange's telecom towers and connected to the population's homes through smart meters. They allow to manage subscriptions, installations, payments via Orange Money, but also fraud detection, maintenance and additional services that make the customer journey much more convenient. Through its ESCO (Energy Service Company) partnerships, decentralized pico-grids (very small solar panels) produce electricity for Orange's installations. In particular **Mini-grids are being deployed in Burkina Faso (Smart mini-grid) and DRC (Mini-grid ABC "Anchor to Business to Community") and have the potential to be extended to other countries in Africa and the Middle East.** Already +2 600 towers have been equipped with solar generation systems reducing by +80 000 tons our

CO2 yearly footprint in Africa, and Orange has short terms plan to extend this to 600 additional towers.

## Human Development

Connectivity is a right, not a luxury. Yet the digital divide continues to disadvantage people both socially and financially. Roughly 37% of the world's population – or 2.9 billion people – have still never used the Internet. ([ITU](#)) Digital connectivity helps to connect the unconnected and allows for human development by

### e-Health

As demonstrated by the covid-19 pandemic, digitalization plays a critical role in ensuring continuity of social and economic life as well as access to essential services. When it comes to healthcare, it can improve the quality of clinical outcomes at lower costs and increase the quality of care for every patient. Rural and remote communities often suffer from a lack of quality healthcare services, caused by the limited number of trained healthcare professionals, inadequate infrastructure, and poor health literacy. E-health applications have the potential to significantly improve access to healthcare in developing countries.

- **Orange has launched 14 e-health services in seven African countries: from remote health advice and patient monitoring to finding a nearby health professional, making an appointment, requesting home care, or purchasing health insurance.** For example, **M-Vaccine** is deployed in collaboration with the GAVI Vaccine Alliance and offers a digital immunization record to monitor mothers and children and raise community awareness to improve vaccine coverage in regions of low uptake. It works as a mobile phone application to improve EPI data and demand generation, using text and voice messages to provide vaccination information and remind parents of appointments in local languages. The application also helps health workers collect data to create personalised electronic immunisation schedules for each family, with the aim of reducing dropouts ([Video](#)).
- **mVacciNation is a digital e-Health toolkit based on a mobile technology platform which manages vaccinations and stock availability levels.** The platform has been

deployed successfully in South Africa to administer COVID-19 vaccines, with over 35.4 million doses having already delivered through the platform. Vodacom will seek partnerships with African government to adapt the mVacciNation solution for the distribution and management of malaria vaccines.

- **Nokia mHealth: Nokia and Unicef collaborate to boost healthcare to 58 million children in Indonesia.** Nokia began working with UNICEF on an mHealth project in Indonesia mid-2017. The aim was to support the Government to transform and modernize community health and nutrition services by introducing innovative mHealth applications to improve health, nutrition, sanitation and hygiene. In 2019 our cooperation with UNICEF in Indonesia directly reached 21 917 people but also indirectly reached 14 959 730. Timely and accurate information is critical for improving system performance. **Mobile health (mHealth) innovations have the potential to improve both access and quality of health services.** While Indonesia has a high degree of Internet and wireless connectivity, the application of these tools in the health sector has thus far been limited. **UNICEF worked to adapt and deploy an SMS-based platform called RapidPro to expand access to immunization services for children living in urban slum areas.** The intervention combines mobile-phone based caregiver–newborn pair registration; SMS reminders aligned to the immunization schedule; vaccine stock monitoring, and mini household surveys, called rapid card checks (RCC). Nokia and UNICEF have agreed to continue collaboration and build on earlier results, and support Indonesia in targeting even greater positive impact on child and adult healthcare with projects that include: vaccine campaigns, integrated maternal and child health and nutrition, HIV/AIDS health services. **(See overarching Nokia [video](#)).**
- **SATMED – A Public Private Partnership project: For several years, Luxembourg Government’s SATMED project has helped various NGOs by giving healthcare professionals access to a dedicated e-Health platform via SES’ satellite service.** Thanks to the satellite reach, a wide range of dedicated e-health applications made available with SATMED can be utilized everywhere, even in the world’s most remote regions with a lack or even absence of communications infrastructure. By integrating leading e-health and m-health applications, SATMED enables doctors, nurses, specialists, and healthcare institutions around the world to communicate and collaborate easily and effectively. SATMED includes a full range of capabilities

such as cloud data storage, teleconsultation, teleradiology, health information systems (including analytics and epidemiology), virtual consultation, e-learning, and electronic medical record systems as well as videoconferencing supporting the provision of various critical services to the population. **Friendship NGO serves two floating hospitals off the remote islands of Bangladesh and a hospital on-land.** Patient data is sent from the Friendship Central server to the National Healthcare Database via satellite. The same connectivity also helped reinforce the triage system, which quickly identified and referred patients to the dedicated governmental COVID-19 centres during the pandemic. SATMED is also used by the Serabu Hospital in Sierra Leone that is supported by the German Doctors NGO and is responsible for providing care to thousands of patients. The hospital is located in a remote region and SATMED constitutes its only connection to the outside world. Drawing from its experience fighting Ebola in 2014, the hospital also expanded the existing triage system and set up information exchange with the dedicated government COVID-19 centres. In 2021, the Luxembourg Government and SES have launched the second phase of the SATMED telemedicine project that will run until 2024. (More information [here](#) and [here](#))

- **HealthPoint: SATEC has define a modular and customisable platform that adapts to the functional needs of clients.** Its extensible data model enables the information contained in the patient’s medical history to be expanded and systematised. The recent experiences have been in the Oriental Region of **Morocco**, or in the Complexe Hospitalo Universitaire le Bon Samaritain in Chad (CHUBS); where in collaboration with local partners and donors we worked to **improve health assistance for population decision-making for professionals, and better monitoring of Public Health** (e.g. response to Covid19, Malaria, Yellow fever, etc.), by providing connectivity, process automation, IT solutions and knowledge-sharing, so we can contribute to a more effective and efficient digital growth in the Health Sector. See More: [#EDD21- AGORA: How new technologies can protect the most vulnerable people in Africa - YouTube](#) and [information](#) about the application)
- **MicroUtilities Project for Health Facilities:** Gavi-Orange expanded their [partnership](#) in collaboration with USAID, Resolve and Sierra Leone’s Ministry of Health to launch *The MicroUtilities Partnership Project*. The project aims to

provide **off-grid renewable electricity generation and storage systems as well as internet connectivity to rural health facilities** in Sierra Leone who are not covered by the country's current Cold Chain Equipment Optimization Platform (CCEOP). **The MicroUtilities Partnership Project in Sierra Leone**, with technical and financial support from Power Africa's office in Sierra Leone and Guinea and leadership from the Sierra Leone Ministry of Health, inspired the creation of this ambitious multi-stakeholder Compact on energy for health facility electrification. The Multilateral Energy Compact for Health Facility Electrification was announced at the 76th United Nations General Assembly [High Level Discussion on Energy](#) on Wednesday 22 September 2021).

## **Communications for Emergency and Disaster relief – Critical services**

When emergencies arise or disaster strikes, every second counts. A faster response means a lower impact for everyone. Thanks to digital technologies, public safety agencies use broadband networks and digital technologies to improve the effectiveness of first responders, address threats proactively and make faster, more informed decisions.

- **Emergency.lu - a public-private partnership:** Emergency.lu is a transportable, satellite-based, telecommunications platform, created to re-establish communications after a natural disaster, to support the coordination efforts of humanitarian organisations in the field and contribute to saving lives during humanitarian emergencies anywhere in the world. The platform is operated jointly by the Luxembourg government and SES. **Emergency.lu is a public-private partnership between the Luxembourg Government and three Luxembourg companies (SES, HITEC Luxembourg and Luxembourg Air Ambulance)** which developed the solution and have operated it since January 2012. The emergency.lu system was created in close collaboration with the World Food Programme (WFP) and the global lead agency of the emergency telecommunications cluster (ETC). Since 2012, multiple operations have taken place in Africa and elsewhere, and some satellite terminals have been maintained in South Sudan, Mali, Venezuela and Nepal. **The platform was deployed in West Africa to contribute to the fight against the Ebola epidemic and in the regions and countries most exposed to earthquakes (e.g. Nepal) hurricanes (e.g. Haiti) or volcanic eruptions (e.g. Tonga in Indonesia).** See more information [here](#) and [here](#).

- **Disaster alert and Rescue:** Nokia and Sendai City have conducted the world's first test of a **private wireless-connected drone solution for tsunami preparedness and response**. The test confirmed that using a private 4.9G/LTE network to control and communicate with drones can help first responders alert the public and manage evacuations more effectively during a natural disaster. See [more](#)).

## Education

In synch with digital infrastructure deployment, there is a crucial need to develop digital skills and literacy of individuals, esp. underprivileged populations, for them to reap all the benefits of the digitalisation and to foster local innovation.

- In [Kenya](#), Nokia **connected students both in rural and urban communities to the internet, reducing the divide in access to education**. Nokia has come together with multiple stakeholders, including Safaricom, UNICEF and the Kenyan Ministries of Education and ICT, to connect close to 90 schools to the Internet in Kenya. Both rural and disadvantaged urban settlements have benefitted from the initiative, which also supports digitization and digital literacy. The initiative aims to 'connect the unconnected' and to increase equitable access to digital literacy for some of the most disadvantaged children in Kenya. This includes girls and children with disabilities in urban informal settlements and some of the most remote areas of Kenya. Please [watch here](#) the video about this project.
- **Nokia and UN Women collaborate to further promote inclusion and diversity in Middle East and Africa.** Nokia and UN Women have together launched four pilot projects to bolster inclusion and diversity for equality. These pilots aim to address four different areas such as increasing the number of women employees, raising awareness of cervical cancer and uterine fibroids, promoting STEM (science, technology, engineering and mathematics) education, and empowering gender-based violence victims. After the successful execution of the pilots, the two organizations plan to [roll these projects](#) out in more countries across the Middle East and Africa region.
- **SATEC and WBG collaborate to promote Higher Education Quality Improvement Project (PROCALIDAD) in Peru.** Together we define an Information Collection

System of Higher Education Institutions as a response to the need of the Ministry of Education (MINEDU) to have up-to-date information on the activities that are developing in Higher Education Institutions. The main objective of this system was to provide a telematic channel through which Higher Education Institutions can provide information to MINEDU, with a determined periodicity. This information, insofar as it meets quality standards, becomes an integral part of the unified central repository of information relating to applicants, registrants, graduates, teaching and administrative staff of Higher Education Institutions, with the aim of be able to be used by MINEDU systems and be used by other Public Entities and even Educational Institutions.

### **Digital Skills-Vocational training**

By 2030, 230 million jobs in sub-Saharan Africa are likely to require digital skills. Digital skills are increasingly becoming real employability-enablers, especially for the youth. The main issue of the usage gap is the mastery of the skills required to use digital tools and associated services, for people who are excluded or distant from them. This requires long periods of support and training, with practice supervised by a professional, as well as the validation and promotion of acquired skills. Beyond the new skills acquired, it is also the whole sphere of self-confidence that is affected, for a positive impact on social and professional inclusion.

- **SATEC, Intelcom, GIZ and FORMADOS, partner and develop a project linked to the improvement of the professional skills for youth people, in order to increase employability.** The first pilot was placed in Morocco. In 2019 Morocco had a very high unemployment rate of young Moroccans (15-24 years), it was 26.7%. In addition to the employment deficit for young people entering the labour market, the labour market is characterized by underemployment and informal employment. In this project SATEC develop together with all the partner a Vocational training platform. A tool to increase young people's employability to have a fully private sector driven approach to better match the labour offer (skills available on the labour market) to the labour demand (generated by the local private sector and productive economic growth). It is a project case that reflects how technologies linked to quality education can partially solve social and economic problem as high unemployment. We start our collaboration and project in North Africa (Morocco) and we are willing to implement in other sub-Saharan

countries (i.e. Senegal, Ivory Cost...) together with different local and international partners. (See [more](#))

- **Orange Digital Centers.** [Orange Digital Centers](#) are free and innovative ecosystems dedicated to training young people in digital technology, technology incubation, and startup acceleration and financing. A partnership with the federally owned enterprise GIZ, operating on behalf of the German Ministry of Economic Cooperation and Development (BMZ), has accelerated the project's deployment in the Africa and Middle East region by leveraging synergies to help even more young people learn the skills they need to find jobs in the digital sector and encourage entrepreneurship. Following inaugurations in Tunisia, Senegal, Cameroon, and Ethiopia, all Orange Middle East and Africa subsidiaries will offer Orange Digital Centers by mid-2022. These will serve as an example for future European Orange Digital Centers, which will be set up by 2025 for all Orange operating countries. Together, they will work as a network to help boost youth employment prospects and knowledge-sharing between continents. ([GIZ-Orange factsheet](#))

- In the framework of Partner2Connect (P2C), Orange also has submitted 2 pledges on digital skills:

**Informing and raising awareness:** Orange's mission is not just about the use of digital technology. It is about the proper use of digital technology. Extending our network therefore also means extending the good uses of this network, through a global awareness strategy aimed at the widest possible audience on the safe and responsible use of digital technology. Orange's initiatives in this area take the form of the publication and promotion of online content (articles, tutorials, videos, etc.) on a dedicated website in each of the countries where we operate, as well as workshops or short face-to-face sessions with a digital coach, particularly for schoolchildren, families, seniors and very small businesses. Orange is committed to reaching 32 million people and organisations through its information and awareness actions over the 2021-2025 period.

**Training:** For Orange, acting practically for digital inclusion means carrying out training actions on the field and through digital technology, aimed at

young unemployed people, vulnerable women, and entrepreneurs who are developing projects linked to digital technology. **Orange is thus committed to helping 6,5 million people acquire digital skills through its training initiatives aimed at socio-professional inclusion over the 2021-2025 period.**

- **Africa Code Week: Spearheaded by SAP in 2015 as part of its social investments to drive sustainable growth in Africa, Africa Code Week is a digital skills development initiative that has benefitted millions of young Africans so far.**
- **It takes an empowered village to raise a child in the digital age: Strong partnerships with the public, private and non-profit sectors are the driving force behind the initiative's ability to build teaching capacity** across the continent in support of UN Sustainable Development Goals. **SAP and UNESCO are now joining forces with over 130 partners to:**
  - Multiply free coding workshops for youth across 54 countries;
  - Build local teaching capacity through dedicated Train-the-Trainer sessions;
  - Increase girl participation in ACW workshops;
  - Grow Female Teachers Network to share best practices and facilitate girls' access to digital education;
  - Facilitate the adoption of digital / coding curricula for sustained impact on youth.

## Financial Services

Access to affordable financial services is critical for poverty reduction and economic growth - especially for women. Digital financial inclusion is enabled by the deployment of the cost-saving digital means to reach currently financially excluded and underserved populations with a range of formal financial services suited to their needs that are responsibly delivered at a cost affordable to customers and sustainable for providers.

- **Orange Money** enables 50 million people who don't have a traditional bank account to carry out instant, secure, and reliable financial transaction. The high proportion of mobile phone penetration in Africa has made this the primary means of accessing digital services. More than anywhere else, African consumers use mobile money to manage their finances faster and more securely than by traditional means. The number of Orange Money accounts has already exceeded 50 million. There are now 220,000 points of sale supporting customers in the 17 countries where the service exists.
- **Vodafone's M-Pesa:** The service launched in March 2007 to enable money transfers between people using 2G feature phones. Starting in Kenya, M-Pesa has grown to serve 52.4m customers and 19bn transactions p.a. across Kenya, Tanzania, Mozambique, the Democratic Republic of Congo, Lesotho, Ghana and Egypt. With the increased use of smartphones, and of 3G and 4G broadband, M-Pesa is evolving to become a digital financial services provider. In 2021, M-Pesa Africa launched the M-Pesa Super App and M-Pesa Business Super App which enable businesses on the service to run a virtual storefront providing their services through M-Pesa Mini Apps. The Super App is designed to be a customer's lifestyle companion connecting them to services they need in a typical day including shopping, restaurants and food delivery, transport services, government services etc.. More than 9 million customers and 320,000 businesses have downloaded the M-Pesa Super App since its launch. In addition to the Super App, M-Pesa Africa is revamping the M-Pesa platform to support additional digital services, faster development of new products, and to achieve increased stability and reliability. The platform revamp includes expansion of the M-Pesa APIs to provide developers with even deeper access to the service enabling them to deploy more innovations on the service.

# How to make it happen?

The projects introduced here are for inspiration purpose only. The coalition and its members are more than happy to discuss any development challenge and any idea. Your points of contact:

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