

# Leave No One Behind: Realizing a Sustainable Society through the Power of Digitalization

NEC is collaborating with international organizations and other stakeholders to co-create and implement a four-step plan that leverages digitalization to advance society as a whole. This leaflet summarizes the efforts made by NEC and how, through understanding the underlying social issues, we are driving the move to a more accessible society.

STEP 1

**Digital IDs** 

Personal Identification

## Empowering Inclusivity with Biometric

Low rates of birth registration in some countries mean that many children are unable to verify their legal identity and access to the essential public services such as healthcare or immunization and vaccination programs. To address this issue, as a world-first, we took on the challenge to develop and implement a scalable fingerprint identification system to be used in vaccine delivery for children.



STEP 2

Providing Humanitarian Assistance to Those in Need

# Enabling Communities to Receive the Right Assistance at the Right Time

The humanitarian assistance field sometimes faces operational challenges in managing supply chain information. By making the entire supply chain visible and improving traceability, by linking information on both the supply and demand sides, it is possible to deliver the right aid, to the right people, at the right time.



STEP 3

Empowering Local Economies with Life-time Skills

#### **Capacity Building for Growth**

For vulnerable communities to break free from the aid cycle and raise their economic wellbeing, it is necessary for them to acquire the skills and means so that they can improve their circumstance by themselves. Using digital technologies as a tool for transformation, we will inspire people and promote behavioral change, thereby contributing to the creation of a more sustainable society.



STEP 4

Co-creating a Sustainable Society

## Building Sustainable Ecosystem and Value Chain with Digital Technologies

In this concluding step, NEC present our vision on partnering with international organizations and other stakeholders to utilize technology as a growth driver to build a more inclusive and sustainable society where everyone has the chance to reach their full potential.





#### **CASE STUDY**

## Our wide-ranging initiatives are now steadily producing tangible outcomes.

#### World's First Vaccine Distribution with Fingerprint Authentication for Children



In collaboration with Gavi, the Vaccine Alliance, and Simprints Technology Ltd., NEC is conducting trials in Bangladesh using biometric identification to promote vaccines for children. Implementing this plan with conventional biometric technology was challenging because young children's fingerprints blur because of their softness. In response, NEC has developed a fingerprint authentication technology optimized for children (1-5 years of age) which enables high-precision authentication. This increases transparency and the effectiveness of delivering vaccines to children.

\* Details of this initiative can be found in the Step 1 White Paper.

#### **Timely and Appropriate Subsidy Payments with Traceability and Transparency**



In Namibia, the Ministry of Agriculture, Water and Land Reform (MAWLR) provides subsidies to farmers. However, these subsidies were distributed in the form of paper-based vouchers, which raised issues such as the availability of information on beneficiaries for decision making, and traceability of the payment process. The United Nations Development Programme (UNDP) worked with MAWLR to introduce NEC's e-voucher management system.

This system has reduced administrative burden, ensuring that the right people receive the appropriate subsidies in a timely manner. This has also improved transparency as the system can monitor whether the funds have in fact been used by the intended beneficiaries. \* Details of this initiative can be found in the Step 2 White Paper.

#### Using ICT to Promote Behavior Change Aimed at Improving Maternal and Child Health and Nutrition



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In Ghana, malnutrition is one of the most serious health issues, and is one of the major contributing factor to the risk for death and adverse health effects. To address this issue, the Ajinomoto Foundation (TAF), which has previously worked with the World Food Programme (WFP) and Ghana Health Service (GHS) to improve mother-child nutrition, has launched a cross-industry co-creation project with Sysmex and NEC.

NEC has developed applications that help staff at health centers to gather health checkup information and issue better nutrition instructions. This encouraging of behavior change among mothers and children is supported by promoting the use of TAF nutritional supplements and additional testing at hospitals using Sysmex clinical testing devices. The aim is to accelerate improvements in maternal and child nutrition and contribute to human resource development among staff at health centers.

\* Details of this initiative can be found in the Step 3 White Paper.

### Overcoming Information Disparities among Farmers and Contributing Upskilling



NEC provides a blockchain-powered traceability platform for farmers, which has boosted traceability across the value chain, from production to treatment, processing, distribution, and sales. This initiative has helped to overcome information disparities among producers. Furthermore, it enables small-scale farmers to obtain certification for the quality of their produce and record it on the blockchain. Allowing farmers to track market prices and retail price trends throughout the distribution process empowers farmers to get a fairer price for their produce and reduce unfair profit-taking. In addition, farmers can access information on technologies that support the production of higher quality agricultural produce, which strengthens their market competitiveness and boosts their profitability.

\* Details of this initiative can be found in the Step 3 White Paper.

