DIGITAL TRANSFORMATION ROLE IN REALIZING THE SUSTAINABLE DEVELOPMENT IN EGYPT

CSTD Inter-Sessional Panel Meeting
The impact of rapid technological change on sustainable development
Vienna, 15-19 January, 2019
Agenda

1- Egypt’s Sustainable Development Strategy (SDS) and the Global Goals (SDGs)

2- The Ministry of Communications and Information Technology Digital Transformation Endeavors

3- A case Study on Transforming Pilot ICT4D Project into a National Initiative
1- Egypt’s Sustainable Development Strategy (SDS) and the Global Goals (SDGs)
The Global Goals for Sustainable Development

1. No Poverty
2. Zero Hunger
3. Good Health and Well-being
4. Quality Education
5. Gender Equality
6. Clean Water and Sanitation
7. Affordable and Clean Energy
8. Decent Work and Economic Growth
9. Industry, Innovation and Infrastructure
10. Reduced Inequalities
11. Sustainable Cities and Communities
12. Responsible Consumption and Production
13. Climate Action
14. Life Below Water
15. Life on Land
16. Peace and Justice, Strong Institutions
17. Partnerships for the Goals
The Sustainable Development Strategy (SDS)

- Develop a unified long-term political, economic and social vision as the base for short and medium term development plans at the national, local and sectorial levels.


- Enable Egypt to be an active global player.

- Enable the civil society organizations and Parliament members to monitor the implementation of the strategy, its objectives, KPIs, targets, programs and projects implemented according to a specific timeline.

- Meet the ambitions of Egyptians to improve the efficiency of basic services.
Egypt 2030 Overview

By 2030, the New Egypt will achieve a competitive, balanced, diversified and knowledge-based economy, characterized by justice, social integration and participation, with a balanced and diversified ecosystem, benefiting from its strategic location and human capital to achieve sustainable development for a better life to all Egyptians.
The consistency and coherence between the SDS & the SDGs

Programs:
- Suez Canal Development Project
- Decent Work Program
- ......

**Economic Development Pillar**

Programs:
- Social Protection program
- ......

**Social Justice Pillar**

**Sustainable Development Goal 1 - KPIs**

<table>
<thead>
<tr>
<th>Goals</th>
<th>SDGs</th>
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<tr>
<td>Proportion of population below $1.25 (PPP) per day (MDG Indicator)</td>
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<td>Proportion of population living below national poverty line, by urban/rural (modified MDG Indicator)</td>
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<td>Multidimensional Poverty Index</td>
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<td>Percentage of eligible population covered by national social protection programs</td>
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<td>Percentage of women, men, indigenous peoples, and local communities with secure rights to land, property, and natural resources, measured by (i) percentage with documented or recognized evidence of tenure, and (ii) percentage who perceive their rights are recognized and protected.</td>
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<td>Losses from natural disasters, by climate and non-climate-related events (in US$ and lives lost)</td>
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<td>Total fertility rate</td>
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<td>Complementary National Indicators:</td>
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<td>1.1. Poverty gap ratio (MDG Indicator)</td>
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<td>1.2. Percentage of population using banking services (including mobile banking)</td>
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<td>1.3. [Indicator on equal access to inheritance] – to be developed</td>
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<td>1.4. [Disaster Risk Reduction Indicator] – to be developed</td>
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The fourth Industrial Revolution

First Industrial Revolution
through the introduction of mechanical production facilities with the help of water and steam power

First mechanical loom, 1784

Second Industrial Revolution
through the introduction of a division of labour and mass production with the help of electrical energy

First assembly line slaughterhouses, 1870

Third Industrial Revolution
through the use of electronic and IT systems that further automate production

First programmable logic controller, 1969

Fourth Industrial Revolution
through the use of cyber-physical systems

Degree of complexity

Time

Cyber-physical assistance systems are driving the fourth industrial revolution
Source: Siemens, Pictures of the Future, Spring 2013
Can We?

ICT Makes Ends meet
 ICT Contribution to the SDGs

Source: ITU News
2- The Ministry of Communications and Information Technology Digital Transformation Endeavors
The National Program Pillars

1- National Security and Foreign Policy

2- Egyptian Human Being Building

3- Economic Development and boosting the governmental performance efficiency

4- Increase of Employment and Workforce Levels

5- Enhancing Citizens’ Living Standards

Ministry of Communications and Information Technology

Digital Transformation

Human Development
Global Competitiveness index (94th/140)

Pillar 1: Institutions
Pillar 2: Infrastructure
Pillar 3: ICT adoption
Pillar 4: Macroeconomic stability
Pillar 5: Health
Pillar 6: Skills
Pillar 7: Product market
Pillar 8: Labour market
Pillar 9: Financial system
Pillar 10: Market size
Pillar 11: Business dynamism
Pillar 12: Innovation capability

Egypt

102nd
Egypt Digital Readiness

2018

Active Internet Users: 39.7 M
Active social Media Accounts: 35 M
Mobile Connections: 95.7 M
Active Mobile Social Accounts: 32.8 M

Source: We are social report, 2018
Connecting an ever-growing population

330 Newly Established ICT Companies

3,391,000 Graduates received ICT training

3958 Office

23,118,000 Person

319.77 M EGP

International Internet Bandwidth

1,906.35 Gbps

8 Technology Parks

Smart Cities

Source: Ministry of Communications and Information Technology
Towards Digital Transformation

- E-government services
- Attracting investment
- Legislatives and polices framework
- Electronics Design and Manufacturing
- Community Development
- Efficient ICT Infrastructure
Towards Digital Transformation

E-government services

Legislatives and policies framework

Attracting investment

Electronics Design and Manufacturing

Efficient ICT Infrastructure

Community Development
ICT For Development

(UNDP, EU ...

Poverty Reduction

(UNDP, EU ...

Poverty Reduction

(MCIT)

Using ICT Tools

Foster sustainable socio-economic development using ICTs

Digital Transformation
Community Empowerment Equation

Integrated Solutions

+ 

Access to Technology
Education/Knowledge
Health
Safety
Employment

= 

Sufficiency
Inclusion
Security
Empowerment

> 

Comprehensive Development

Equation
3- A case Study on Transforming Pilot ICT4D Project into a National Initiative
Density of Physicians

AVG 8.2 Physician for each 10000 Citizen

Source: Ministry of Health and Population
Compulsory service programs for recruiting fresh graduate health workers in remote and rural areas.

High Turn over and Less than optimal healthcare services quality
Bridging the Health Gap in Remote Areas

- Contributing to better healthcare delivery to remote regions
- Raising physicians knowledge and expertise
- Harnessing ICT Infrastructure in the provision of medical services
- Creating multi partnership business model
- Spreading e-Health culture

The Telemedicine
The Telemedicine program: Step By Step

Interest

Trust

Collaborate

Generate
The Telemedicine Business Model

Remote Healthcare clinic

Data center

Healthcare Provider
Integrated approach Targeting the whole community

TeleEducation

Telemedicine

TeleAwareness

Community

Patients

Doctors
Program outcomes

- Improving healthcare service quality and availability for the remote communities
- Sustainable Business Model for Remote Healthcare unit
- Time and money saving for patients
- Improving Physician medical expertise
- Prooved and Sustainable Model
In 2008: We started in Siwa

Reaching the Unreached
Scaling South: Nuba

Telemedicine Initiative in Nuba 2013
# integrated ICT solution for development in Nuba
Influencing the Polices
The Presidential Announcement of a National Initiative
Inclusive Multi-stakeholder Partnerships

- **Ministry of Higher Education**
  - University Hospitals
  - Medicine Faculties

- **Private sector and Civil Society**
  - Sponsors
  - Community Outreach

- **Ministry of Health and Population**
  - Healthcare providers
  - Public Hospitals

- **MCIT**
  - Software providers
  - Hardware suppliers

300 Nodes Nationwide
Leverage information for better clinical and patient outcomes

- Clinical Data
  - eHealth Medical Records
  - Hospitals Information Systems

- Data Analysis
- Data Visualization
- AI Machine Learning

- Identify needs and support Healthcare Map
- Knowledge Base for Research and development
- Informed Decision Making
- Improved healthcare services quality
- Predict and prevent crisis
Conclusion

√ The ever-changing characteristic of the ICTs continuously shall direct the governments strategies towards a more flexible policies and plans.

√ Extra efforts shall be done to include the unheard voices of deprived people whose inclusion has no return on investment on the short term.

√ In the fourth industrial revolutions “The Digital Revolution” there are always gains; missing communications or technological trend open up a faster route to embed the later breakthroughs within societies with less costs.

√ It’s important to design instruments that builds on the important knowledge sharing mechanisms of international organizations and integrate the latest recommendations in the national development framework.
A Shared Responsibility “The Ripple Effect”
Thank You

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