



Digital Transformation for Inclusive and Sustainable Development

Government Policy Priorities

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A brief introduction to United Nations ESCAP

- Regional development arm of the United Nations for the Asia-Pacific region.
- 62 member States from Turkey to Pacific island nations
- 4.1 billion people (2/3 of the world's population)



United Nations ESCAP Technology and Innovation

- **Tech and innovation policy think tank:** Publications, reports, policy papers on a diverse range of topics.
- **Policy development:** We advice governments on tech and innovation policy for sustainable development.
- A platform to facilitate **inter-governmental tech and innovation cooperation.**

Policy priorities for:

**Digital transformation
Technology and innovation policy**

In the context of:

**The Fourth Industrial Revolution
The Sustainable Development Goals**

Context

Fourth Industrial Revolution

Opportunities

- Digital trade and finance are opening **economic** opportunities.
- From a **social** perspective, digital healthcare and education are providing cost effective solutions at scale.
- Smart cities, energy and transport are offering alternative models for protecting the **environment**.

Context

Fourth Industrial Revolution

Challenges

- Uncertainties about the **future of work**.
- A **new frontier technology divide**,
compounding an already existing digital
divide.
- **Ethical issues**.



SUSTAINABLE DEVELOPMENT GOALS

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, JUSTICE AND STRONG INSTITUTIONS

17 PARTNERSHIPS FOR THE GOALS

SUSTAINABLE DEVELOPMENT GOALS

Keys aspects of the Sustainable Development Goals

- economic, social and environmental objectives
- leave no one behind
- time bound

Policy priorities for digital transformation for inclusive and sustainable development

Prerequisites:

- Inclusive ICT infrastructure.
- A workforce fit for the emerging scale and speed of the technological revolution.
- A responsive and adaptive regulatory framework that doesn't stifle innovation.
- A catalysing role of government in frontier technology evolution.
- A private sector that pursues responsible frontier technology development.

Inclusive ICT infrastructure

“Last mile” connectivity should be a policy priority so as not to fuel a new frontier technology divide.

A workforce fit for the emerging scale and speed of the technological revolution

- **Life-long learning, and reskilling** to deal with current and future technological transitions.
e.g. Singapore offers adults personal accounts which they can use to buy training, and another uses tax incentives to encourage firms to invest more in their lower paid workers.
- Strengthen **social protection systems** to protect the workers that are vulnerable to losing their jobs.
e.g. UBS pilots in India.

A responsive and adaptive regulatory framework that doesn't stifle innovation

- **Responsive and adaptive regulation**

e.g. Singapore Sandbox allows banks and their partnering tech firms to conduct pilot trials of their FinTech initiatives without the need to achieve full

- **Tech ethics**

e.g. In Germany, the Federal Government has proposed rules for decision-making to promote ethical behaviour by systems guiding crash scenarios for driverless cars. These rules prioritize human life above property damage and do not discriminate between human lives.

A private sector that pursues responsible frontier technology development

- Past tech revolutions were government led (Internet / GPS).
- This one is private sector led (AI, robotics).
- **Incentivising responsible tech development in the private sector** must be a policy priority

A catalysing role of government in frontier technologies' evolution

- **Public sector innovation skills**
e.g. UK Government Digital Services.
- **The government as a market maker and shaper:**
Although the private sector has been the prime investor in frontier technologies, governments have established dedicated agencies to help realize the transformative potential of frontier technologies for sustainable development.

e.g. SGInnovate as the venture capital arm of Singapore's Infocomm Development Authority.

e.g. Global Innovation Fund (UK/Australia/South Africa/Sweden/US).

Key messages

- **Acknowledge both the opportunities and challenges of digital technologies.**
- **Commit to “leave no one behind”:** Asia and the Pacific are home to some of the most innovative in the world but also some of the most technologically deprived.
- **Commit to policy evaluation, experimentation and sharing of effective practices.**
- **Collaboration, collaboration, collaboration!!** Cross-government cooperation; and honest, open and regular discussion with civil society and the private sector, specifically technology developers; will be critical to ensure that frontier technologies have a positive impact on sustainable development.

FRONTIER TECHNOLOGIES

for sustainable development
in Asia and the Pacific



Next generation technology and innovation policies for the SDGs

POLICY AREA	TRADITIONAL	NEXT GENERATION
Institutions & Infrastructure	R&D facilities / Science parks	Incubators / Accelerators / Makerspaces
Financing STI	R&D as a % of GDP / FDI	Impact investing
Human Capital	STEM	Social entrepreneurship / Tech ethics
Inclusiveness	PHDs / Doctorates / Beyond triple-helix	Women & girls / Grassroots innovators
Innovation lifecycle	Early-stage exploration / Emerging tech	Later-stage deployment / Current tech
Approach	Curiosity-driven	Mission-driven



Thank You

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