Interactive learning session:
Helping SMEs climb the ladder of digital transformation
Climbing the ladder of digital transformation – Triggering presentation

Two questions to frame the discussion of this session:

1. Where are developing countries standing in the creation and use of digital technologies in production?

2. What are the main priorities for policy action?
Where are developing countries standing?
Recent breakthroughs in digital technologies, nanotechnologies, biotechnologies and new materials are re-shaping the industrial landscape.

Smart production (or Industry 4.0) results from the application of advanced digital production technologies to manufacturing.

Source: IDR 2020
Figure 2
Where are developing countries standing in the creation and use of ADP technologies?

Similar to past revolutions, today’s technological breakthroughs in ADP technologies are dividing the world between leaders, followers and laggards.

Global level: 10 “front-running” economies explain most patenting and exports in this field.

“Macro” challenge: how to move up in the technological ladder and become active in these technologies?

Source: IDR 2020
Figure 1.12
Where are developing countries standing in the creation and use of ADP technologies?

Similar to past revolutions, today’s technological breakthroughs in ADP technologies are dividing the world between leaders, followers and laggards.

Global level: 10 “front-running” economies explain most patenting and exports in this field.

Country level: Few leading firms using ADPTs coexist with large majority of firms using older technologies.

The vast majority (70–75%) are using outdated 1.0 technologies or no digital technologies at all.

Only a handful of manufacturing firms in developing countries are using 4.0 technologies (on average, less than 2%).

Huge digital gap!

“Micro” challenge: how to accelerate digitalization in backwards firms, especially among industrial SMEs?
What are the main priorities for policy action?
What are the main priorities for policy action? [to be discussed during the session]

1. Entering into the new technological revolution
   [“macro” challenge]

   ADP technologies came to stay: countries that fail to embrace them will be relegated in the future industrial landscape

   New strategies and roadmaps are needed to stimulate the engagement with the new technologies and build \textit{domestic innovation capabilities}

2. Unlocking diffusion across industrial firms
   [“micro” challenge]

   Industrial policies should put digitalization at the centre as the absorption of these technologies by manufacturing firms is crucial to ensure future competitiveness

   Policies should focus on creating well-functioning \textit{industrial ecosystems} that will enable the diffusion of these technologies, especially among SMEs

Policy experiences

- AI strategy in Jordan
- SMEs digitalization in Sao Paulo, Brazil
- SMEs digitalization in Tamil Nadu, India
THANK YOU!
Advanced digital technologies are driving industrial growth across countries

Economies active with ADPTs grew faster than the rest

Mainly due to higher productivity...

... but also creating new jobs

The adoption of advanced digital production technologies significantly contributes to productivity growth
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**Global level:** 10 “front-running” economies explain most patenting and exports in this field.

**Country level:** Few leading firms using ADPTs coexist with large majority of firms using older technologies.

**Within countries:** Different types of firms present different behaviors.

Source: IDR 2022
Figure 3.2