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SUSTAINABLE  
DEVELOPMENT  
GOALS

An aerial, wide-angle photograph of a densely populated urban area, showing a mix of high-rise buildings and lower residential structures, with green spaces interspersed throughout. The image is slightly faded and serves as a background for the top half of the slide.

# 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?



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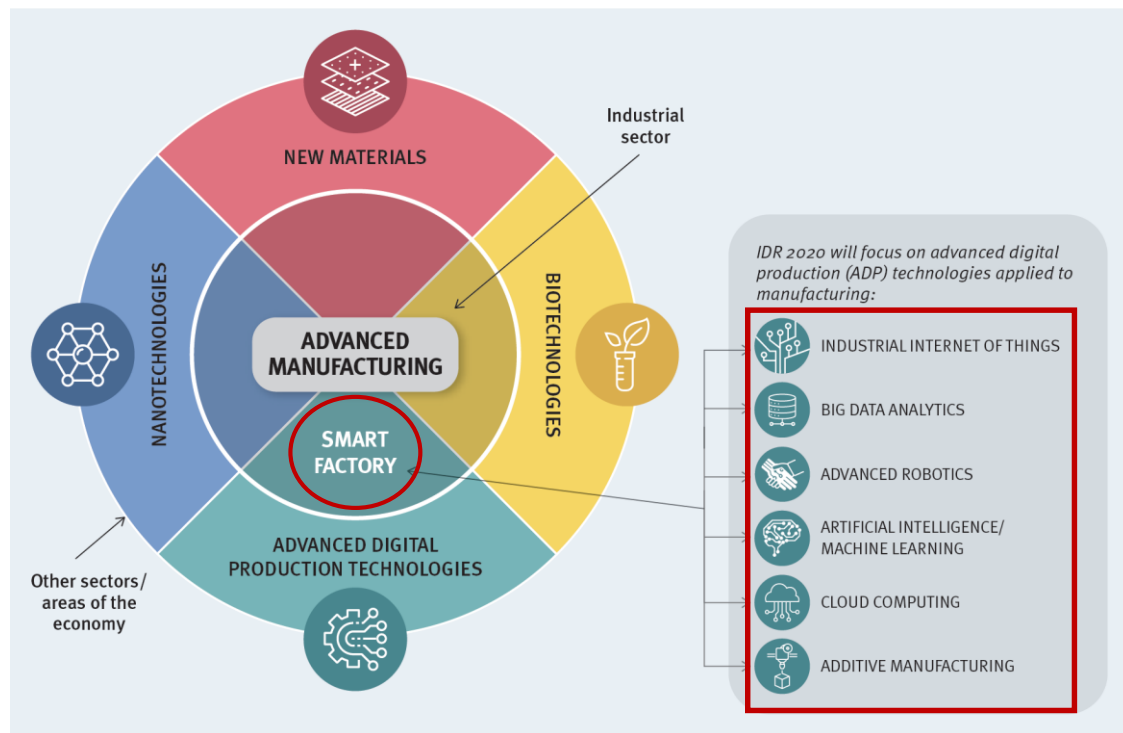


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Where are developing countries standing?

# Focus of the session: Advanced Digital Production Technologies



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 production

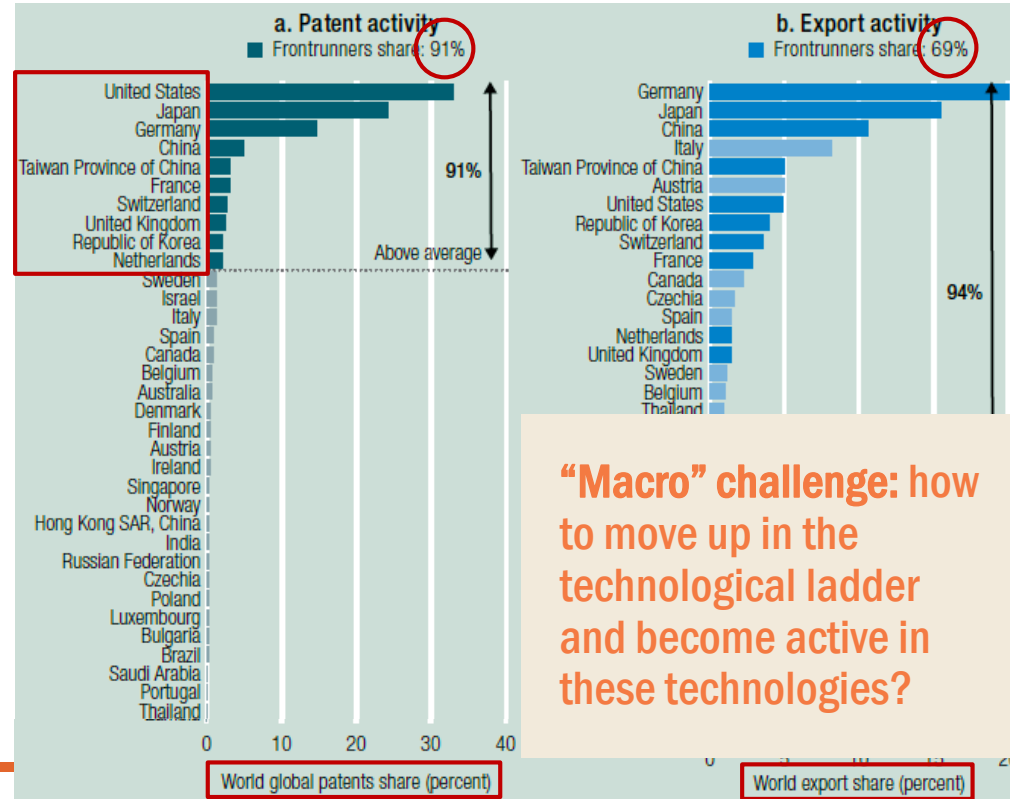
Source: IDR 2020  
Figure 2



# 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



Source: IDR 2020  
Figure 1.12



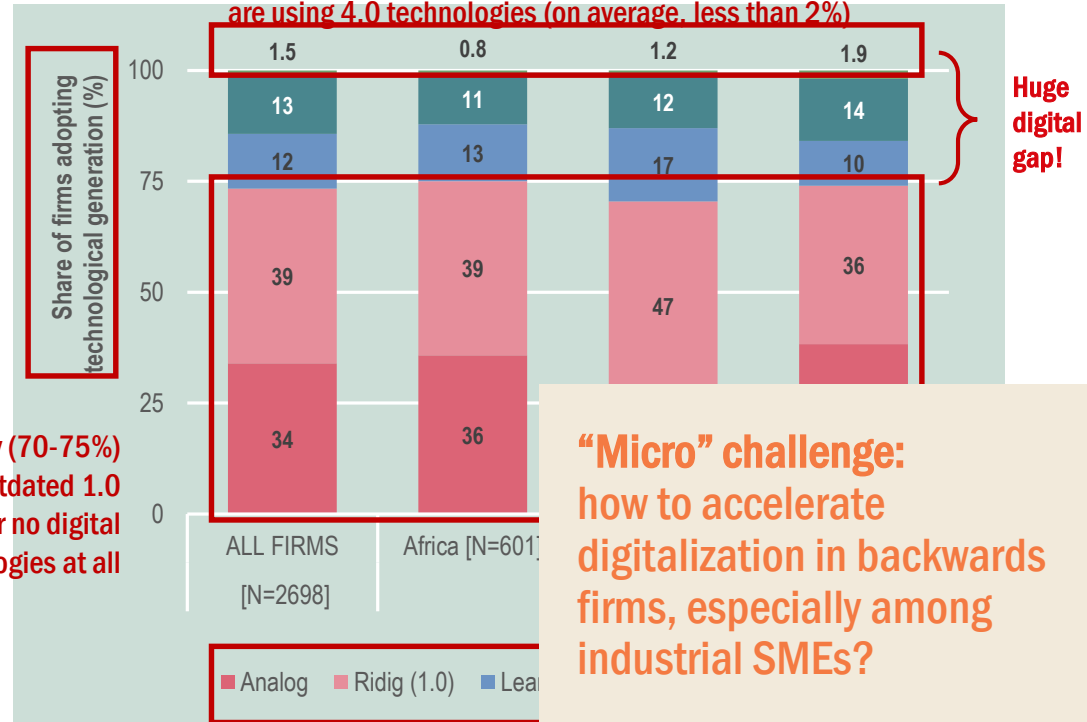
# Where are developing countries standing in the creation and use of ADP technologies?

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

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



The vast majority (70-75%) are using outdated 1.0 technologies or no digital technologies at all

Source: IDR 2022  
Figure 3.2



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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 **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 **industrial ecosystems** that will enable the diffusion of these technologies, especially among SMEs

#### Policy experience

- AI strategy in Jordan

#### Policy experiences

- SMEs digitalization in Sao Paulo, Brazil
- SMEs digitalization in Tamil Nadu, India





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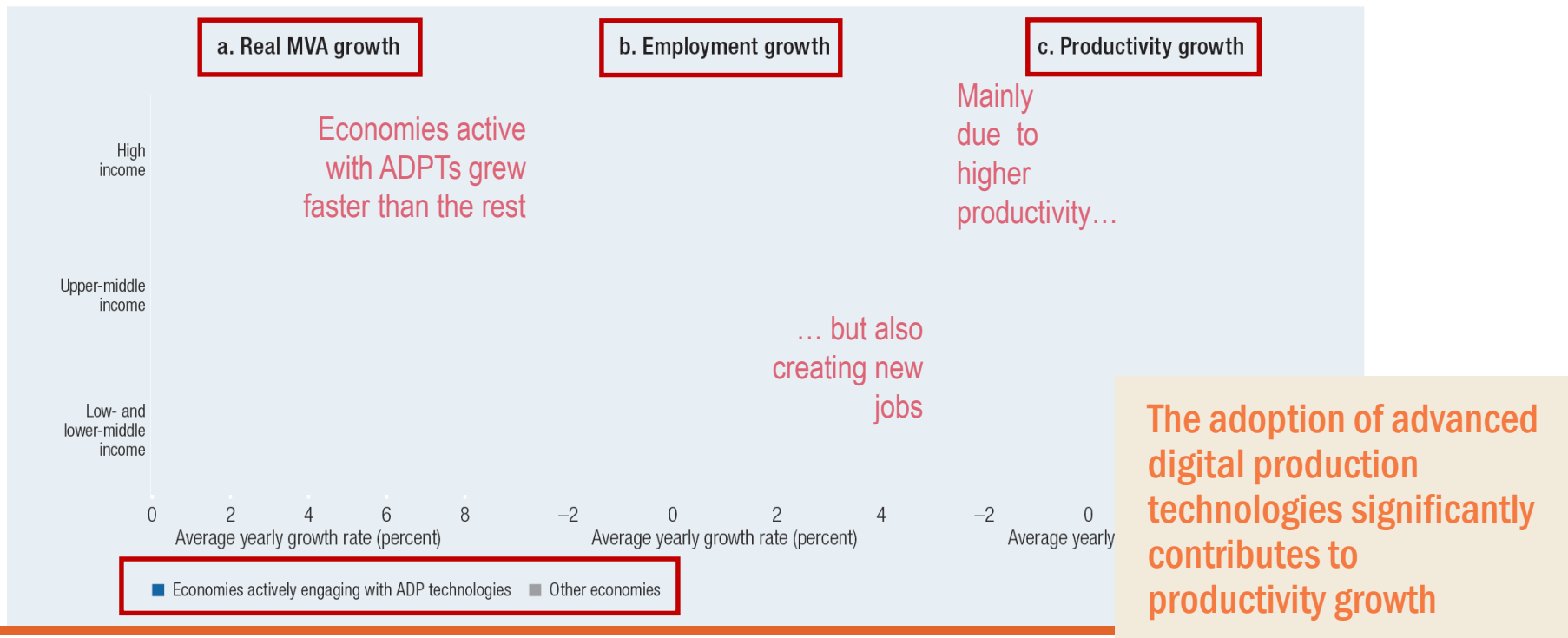
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An aerial, top-down view of a densely populated city, likely Manila, Philippines. The image shows a mix of modern high-rise buildings and older, more compact structures. A prominent building with a large solar panel array is visible in the center. The city is surrounded by greenery and a network of roads. The image is presented in a circular, fisheye-like perspective.

**THANK YOU!**



# Advanced digital technologies are driving industrial growth across countries





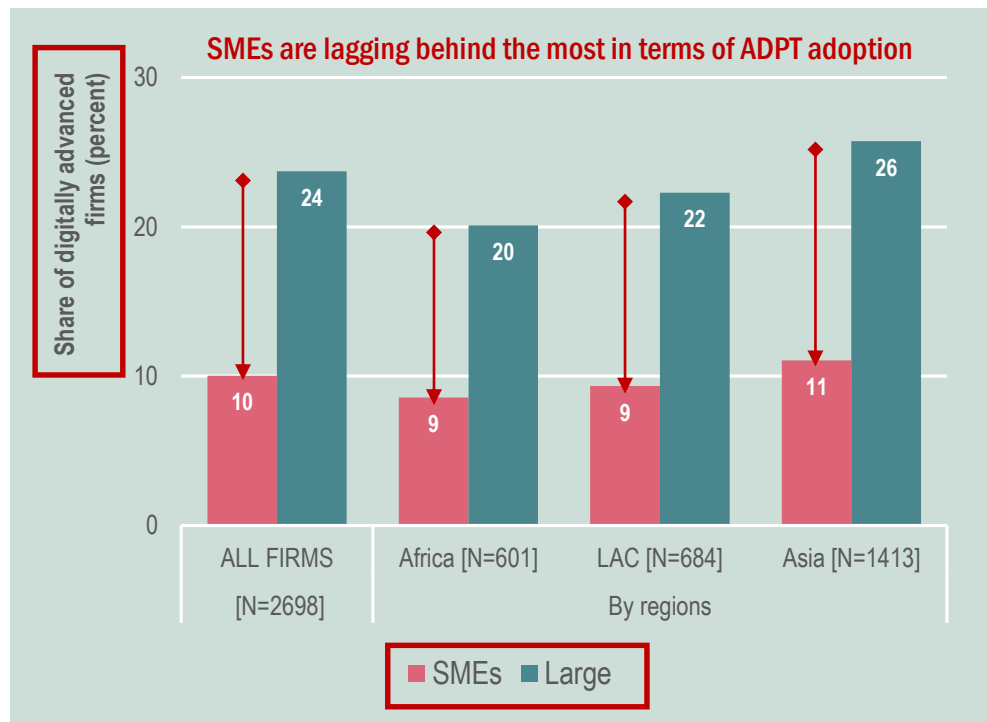
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**Within countries:** Different types of firms present different behaviors



Source: IDR 2022  
Figure 3.2