



Innovation Policies and MSMEs
4 May 2021 Geneva



Developing countries challenges: Main aspects to consider when setting innovation policies

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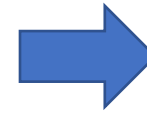
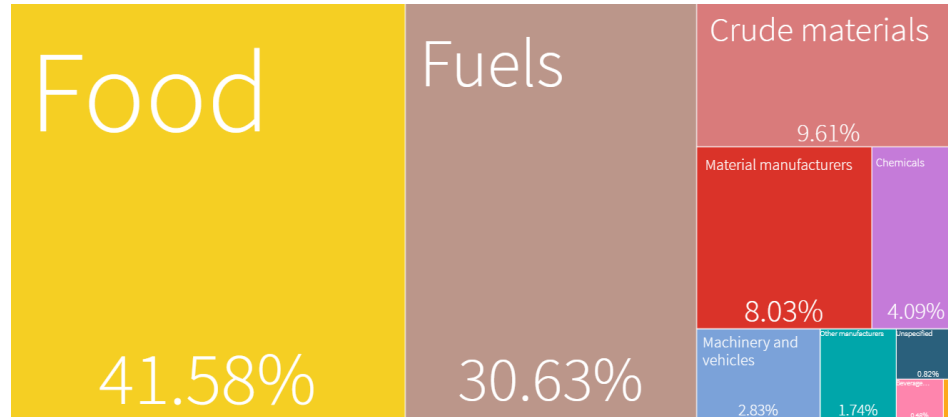
Division on Technology and Logistics

UNCTAD

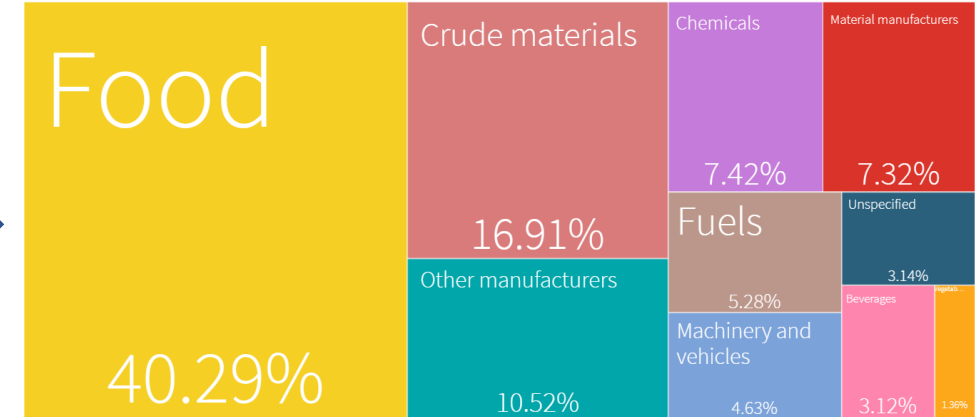
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Country 1

1980, \$ 2 Billion

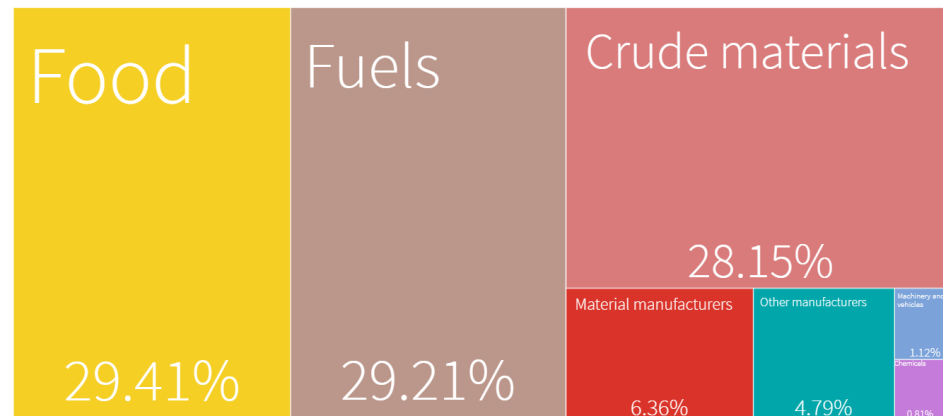


2018, \$ 6 billion

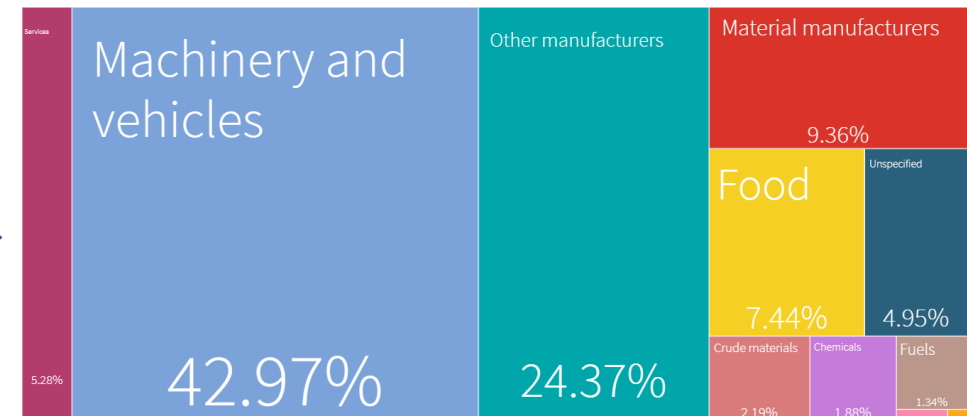


Country 2

1980, \$ 127 Million



2018, \$ 280 billion



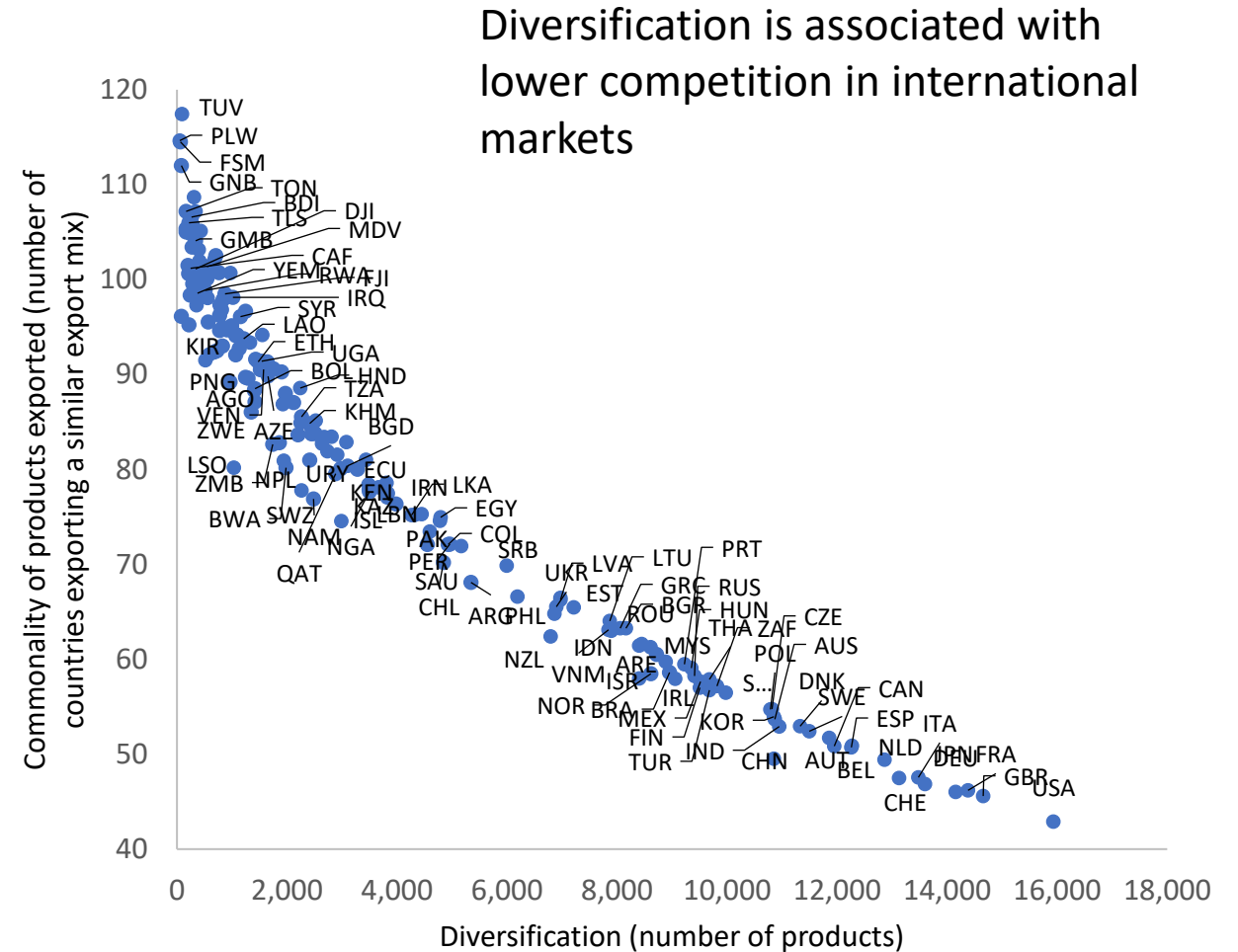
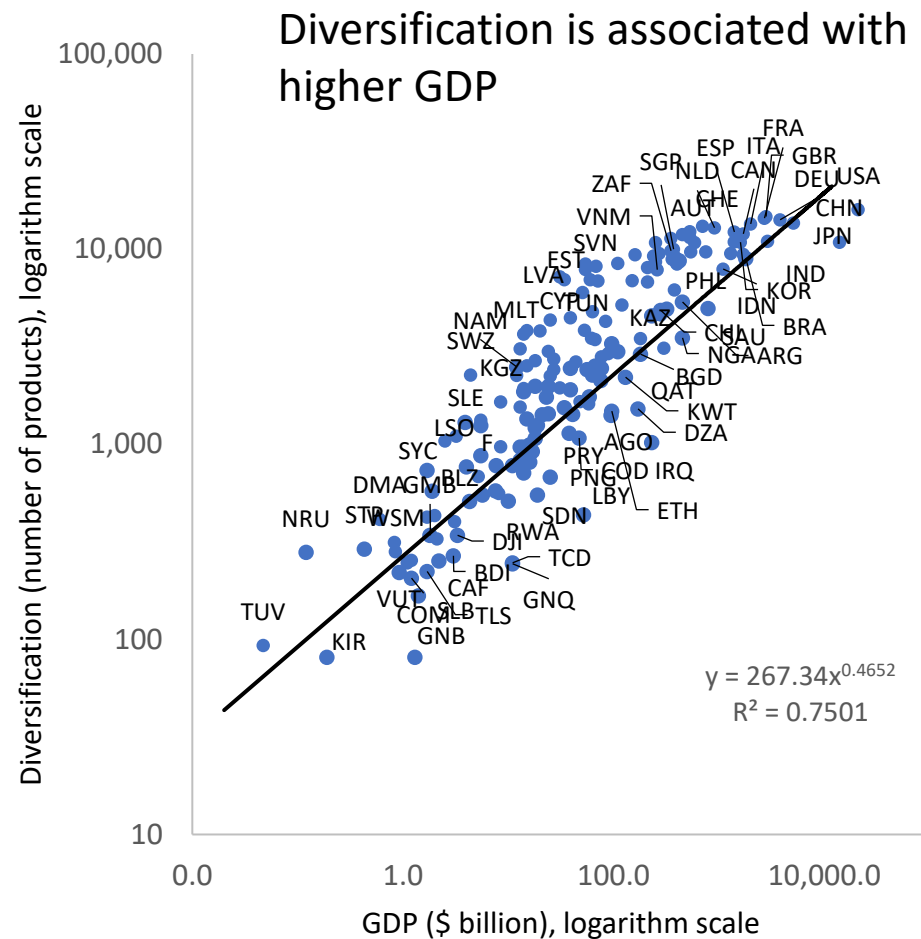
MSMEs can innovate but they don't because

- 1) Market failures: externalities and incentives
- 2) System failure: non-firm actors and linkages

MSMEs don't know how to innovate

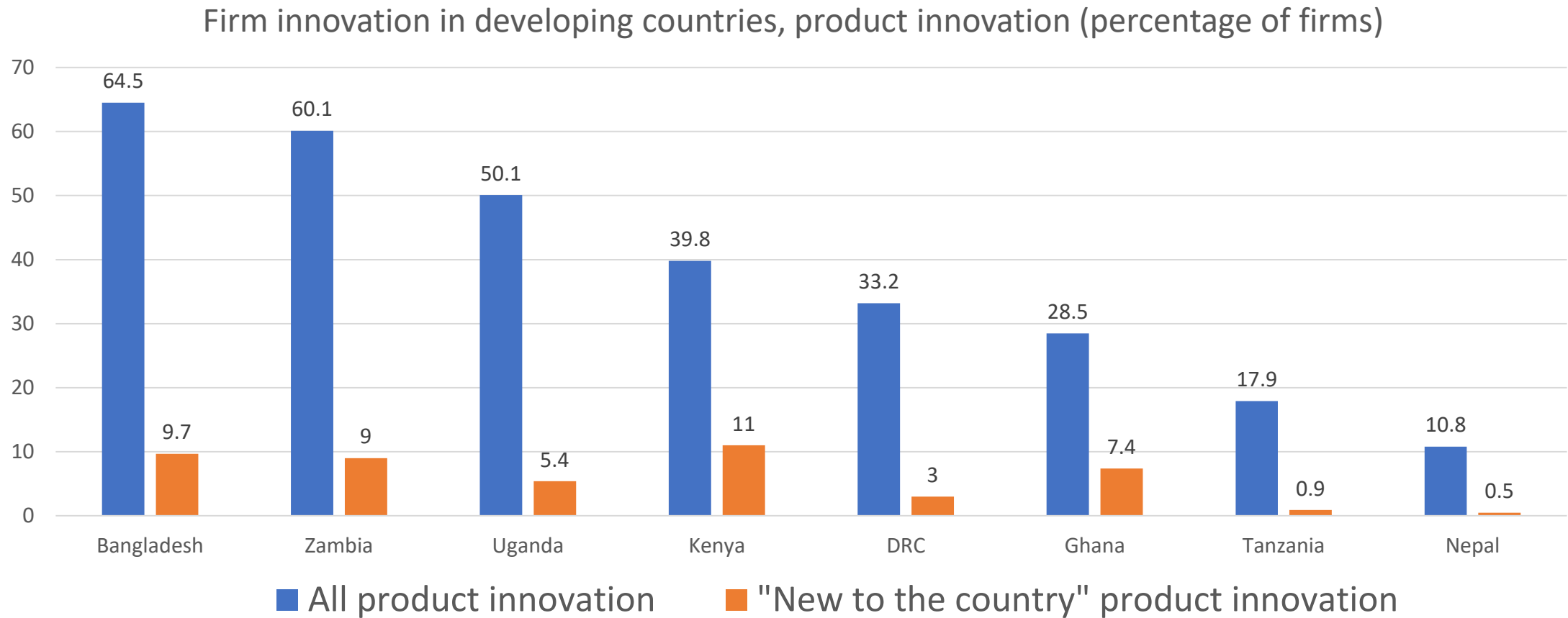
- 3) Capability failure: lack of capabilities and opportunities for effective learning

The critical innovation is **product innovation** that is **new to the country**



Source: Author based on Freire (2017), *Diversification and structural economic dynamics*. Boekenplan, Masstricht.

But there is usually a low rate of “new to the country” product innovation





Creativity

+

Time

+

Work

Lacking in
developing
countries

How innovation happens?

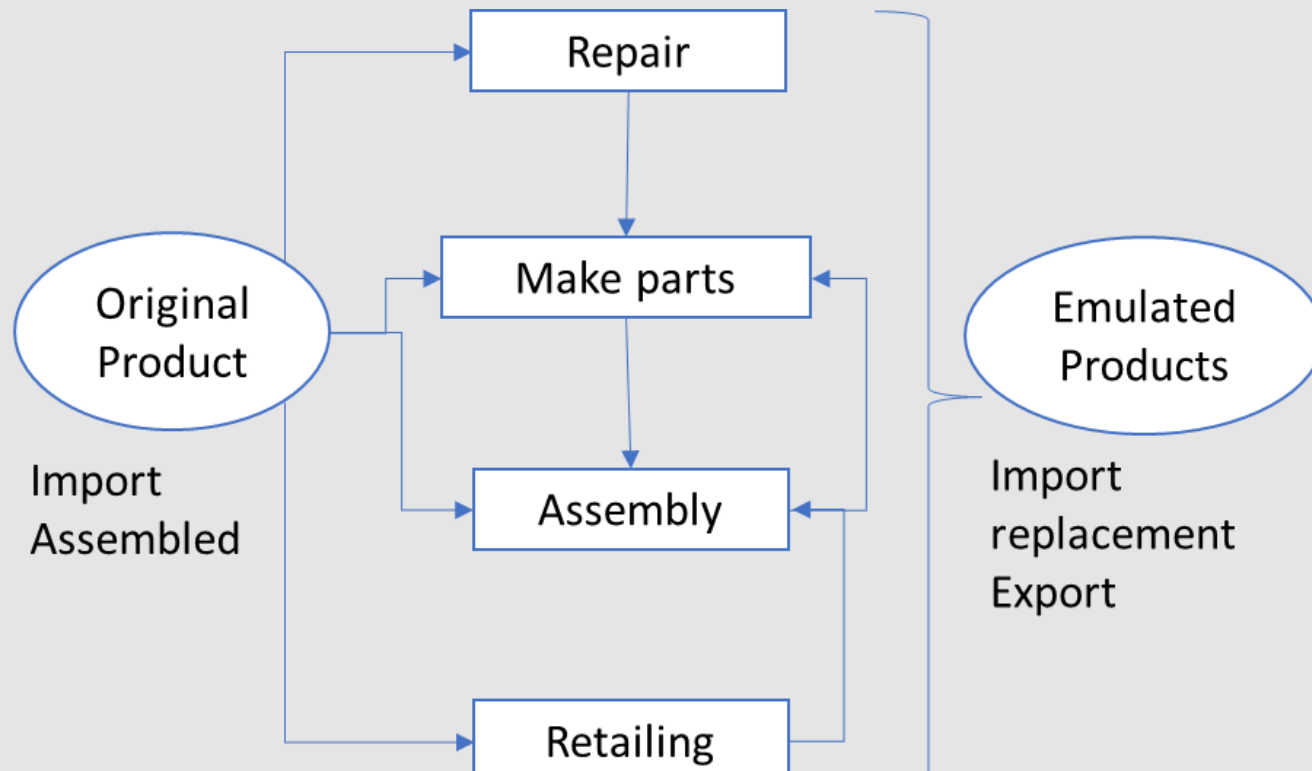
Combination of technologies

New work is added to old work

Intuition, ideas comes from the work

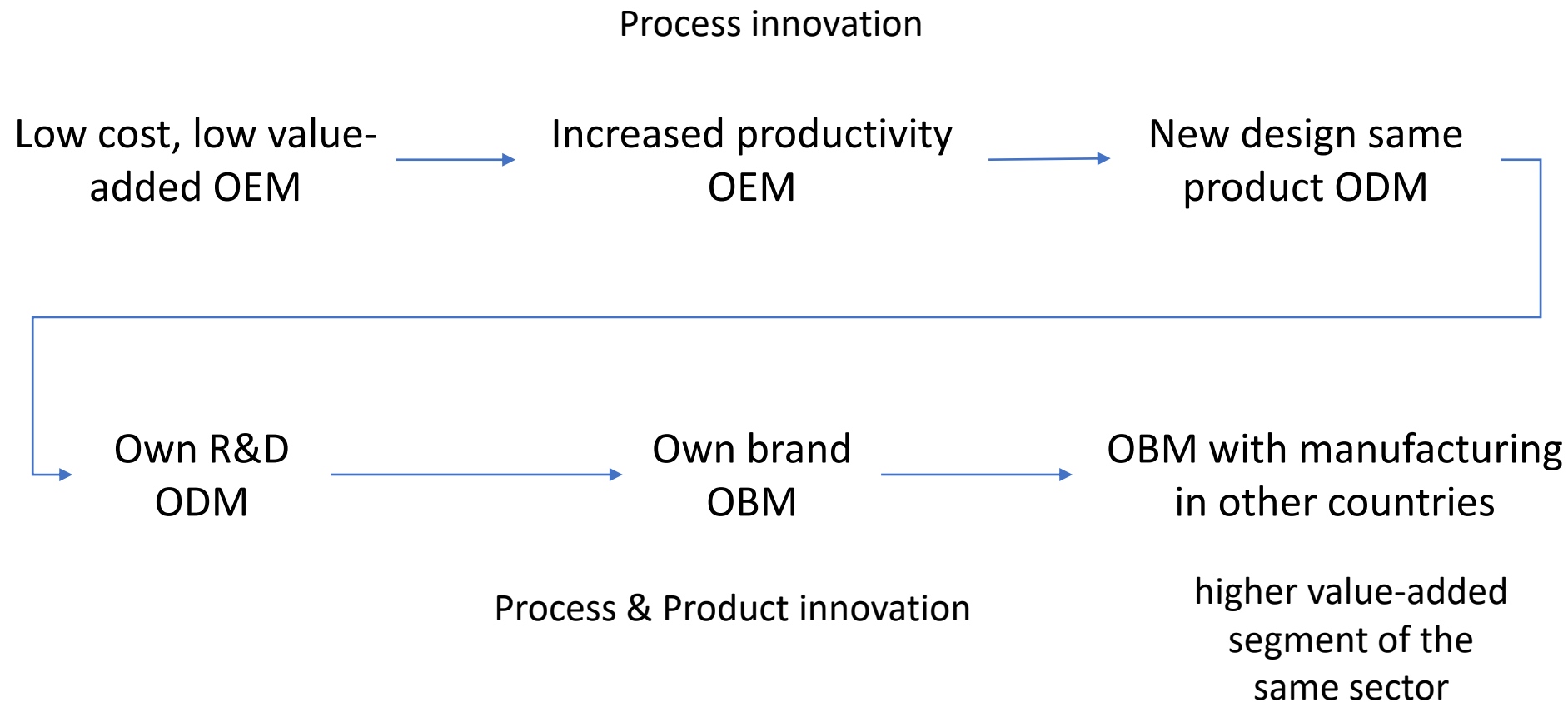
- Materials or skills already in use
- Problems in the course of the work

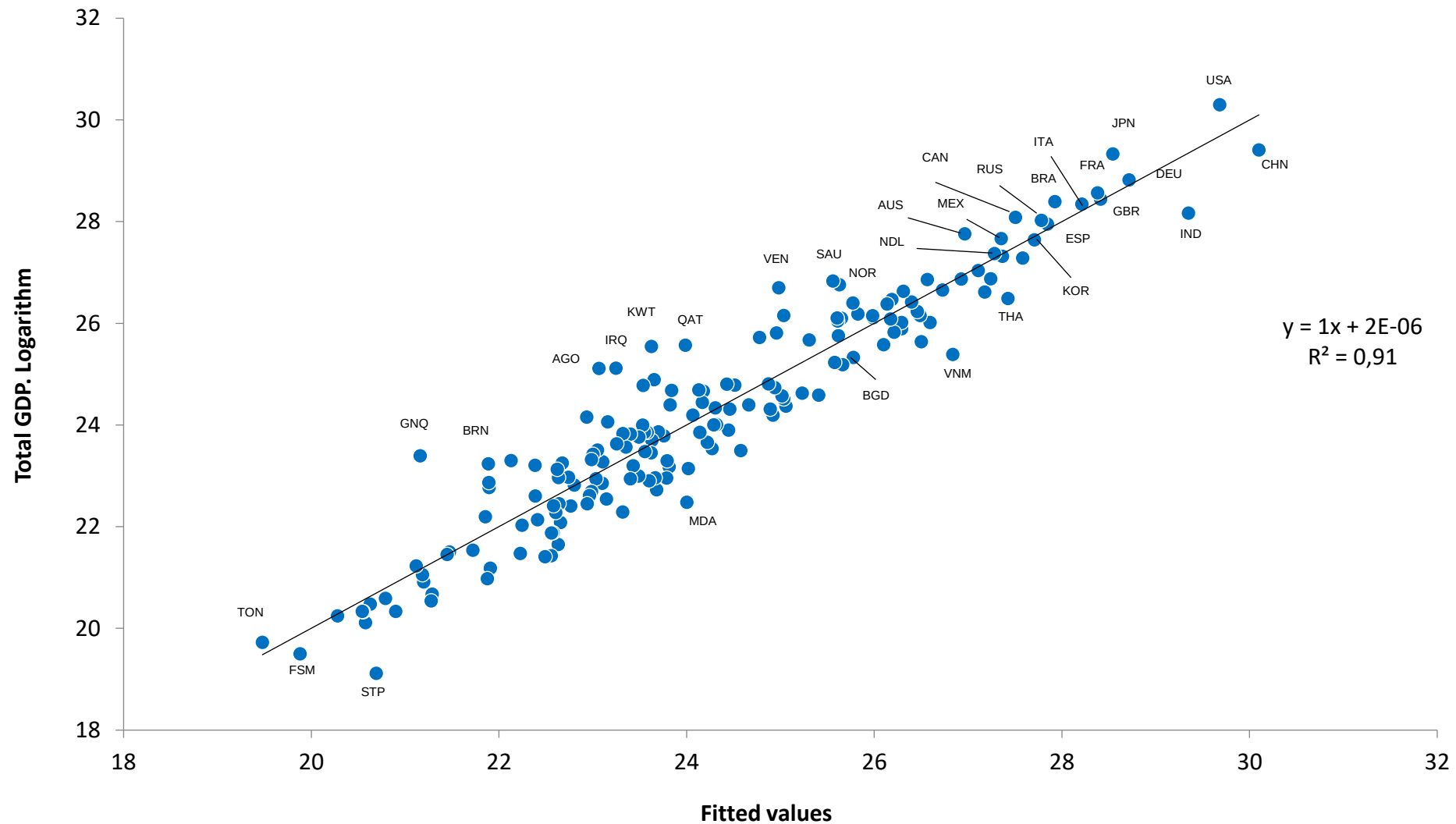
How emulation happens?



- Repairing
Repair shops add parts-making work
- Parts making
Part makers add “assembly” work
- Assembly
Assemblers add parts-making work
- Retailing
Retailers add manufacturing work

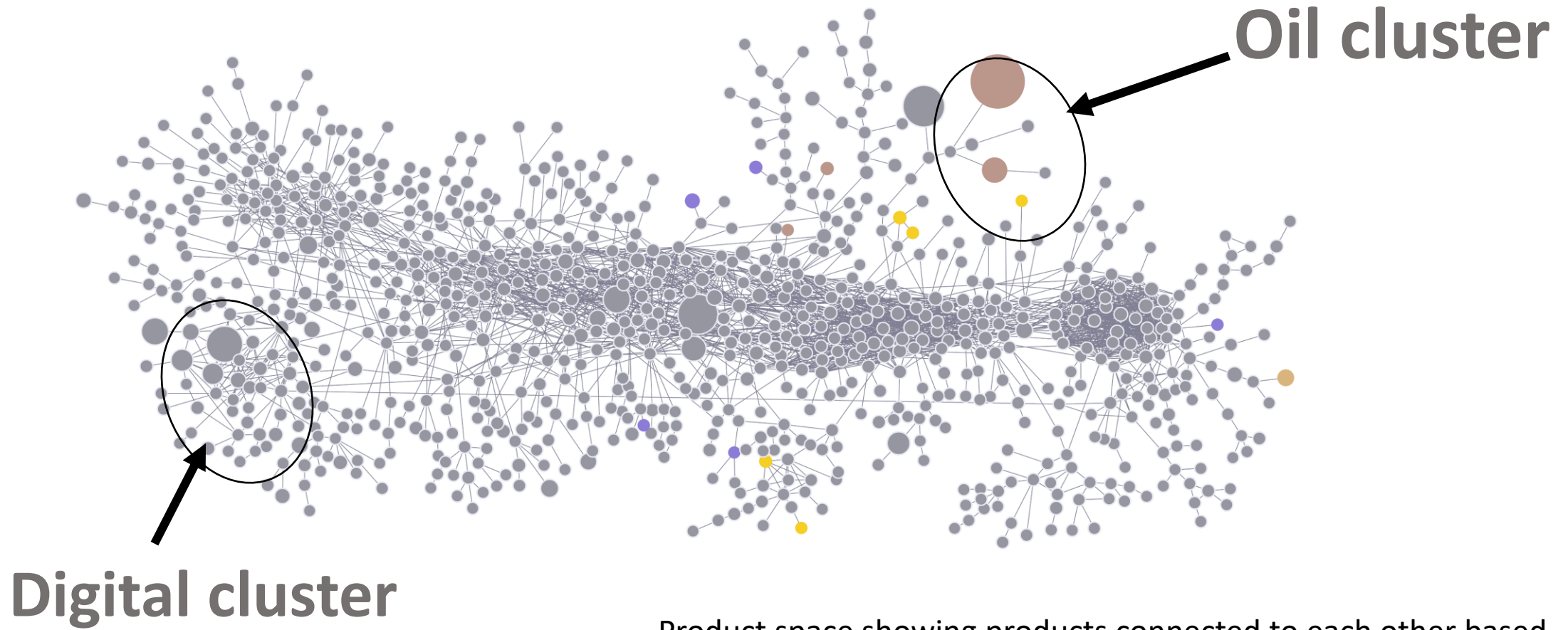
In GVCs, emulation is constrained by the pattern of technological learning of MSMEs





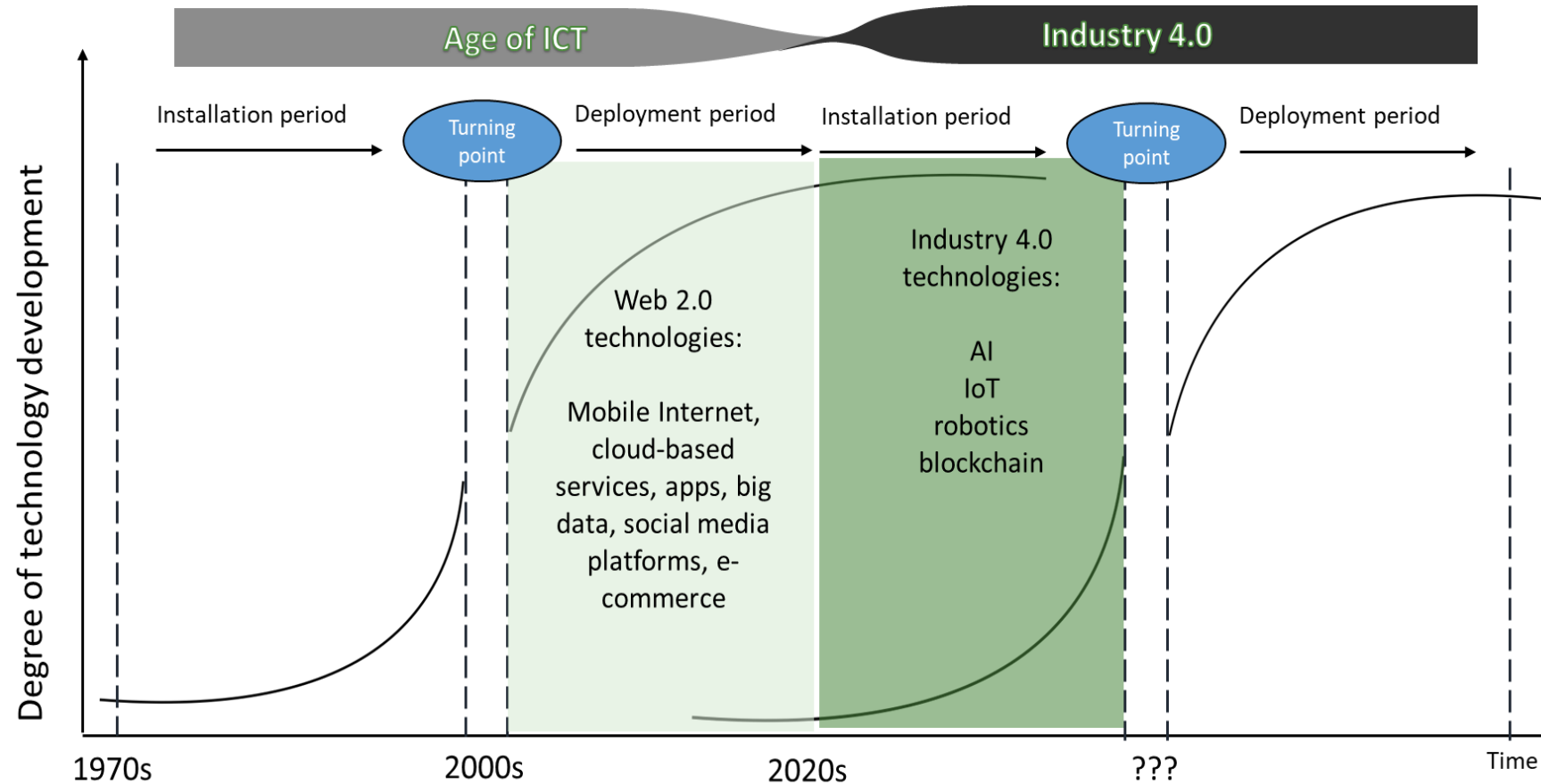
Diversification & Average Complexity & Size of labour force
explain **91%** of differences in **total GDP** between countries

Innovation is path dependent



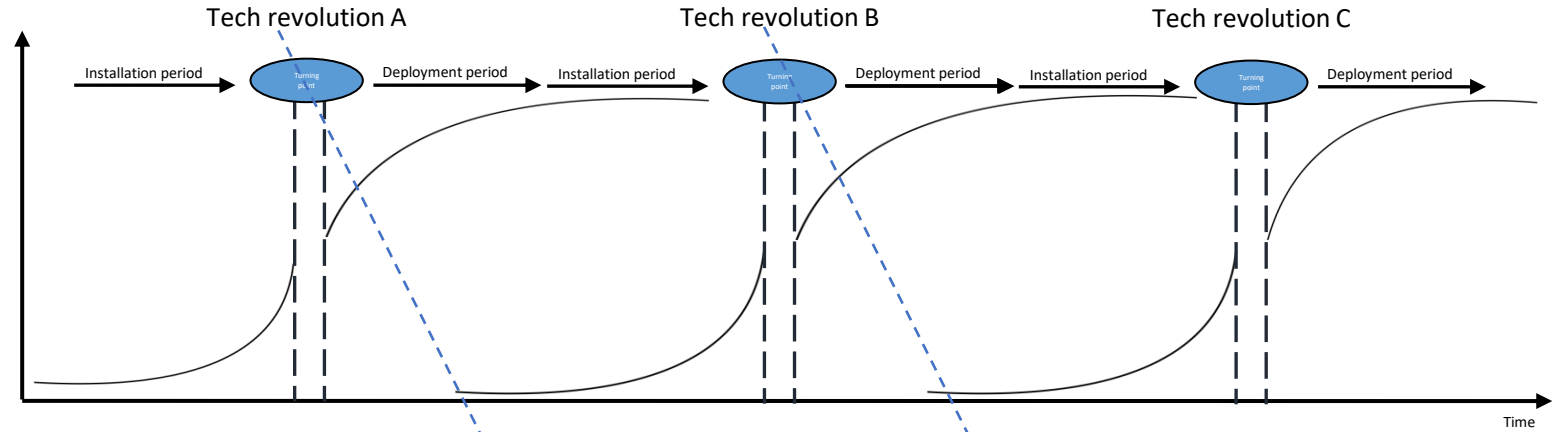
Product space showing products connected to each other based on the likelihood of they being exported together

Emulation is affected by technological revolutions



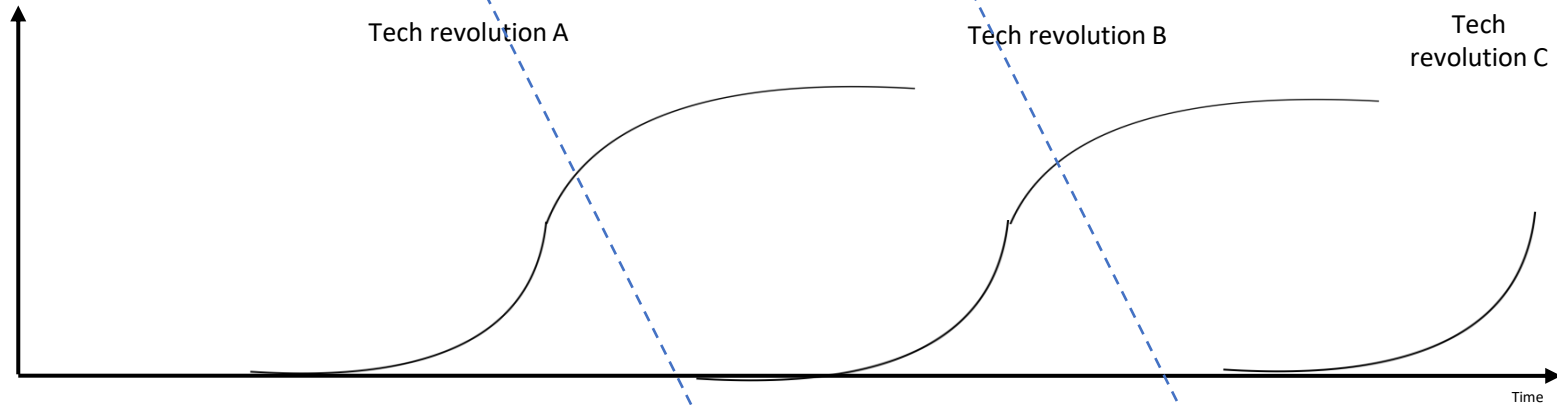
Core countries

Degree of technology development

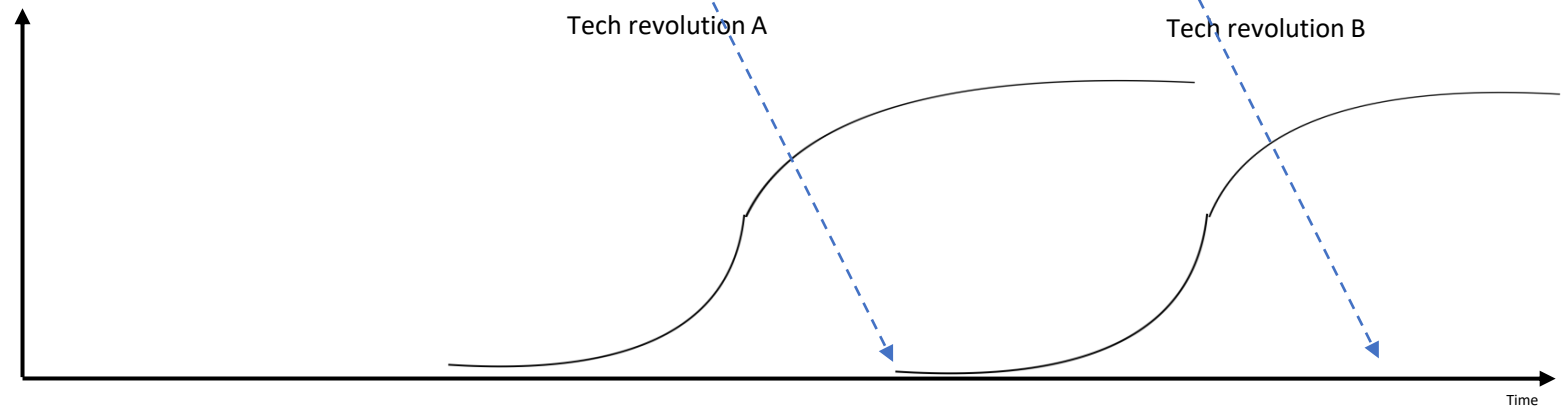


Peripheral countries

Degree of development of infrastructure and consumption patterns

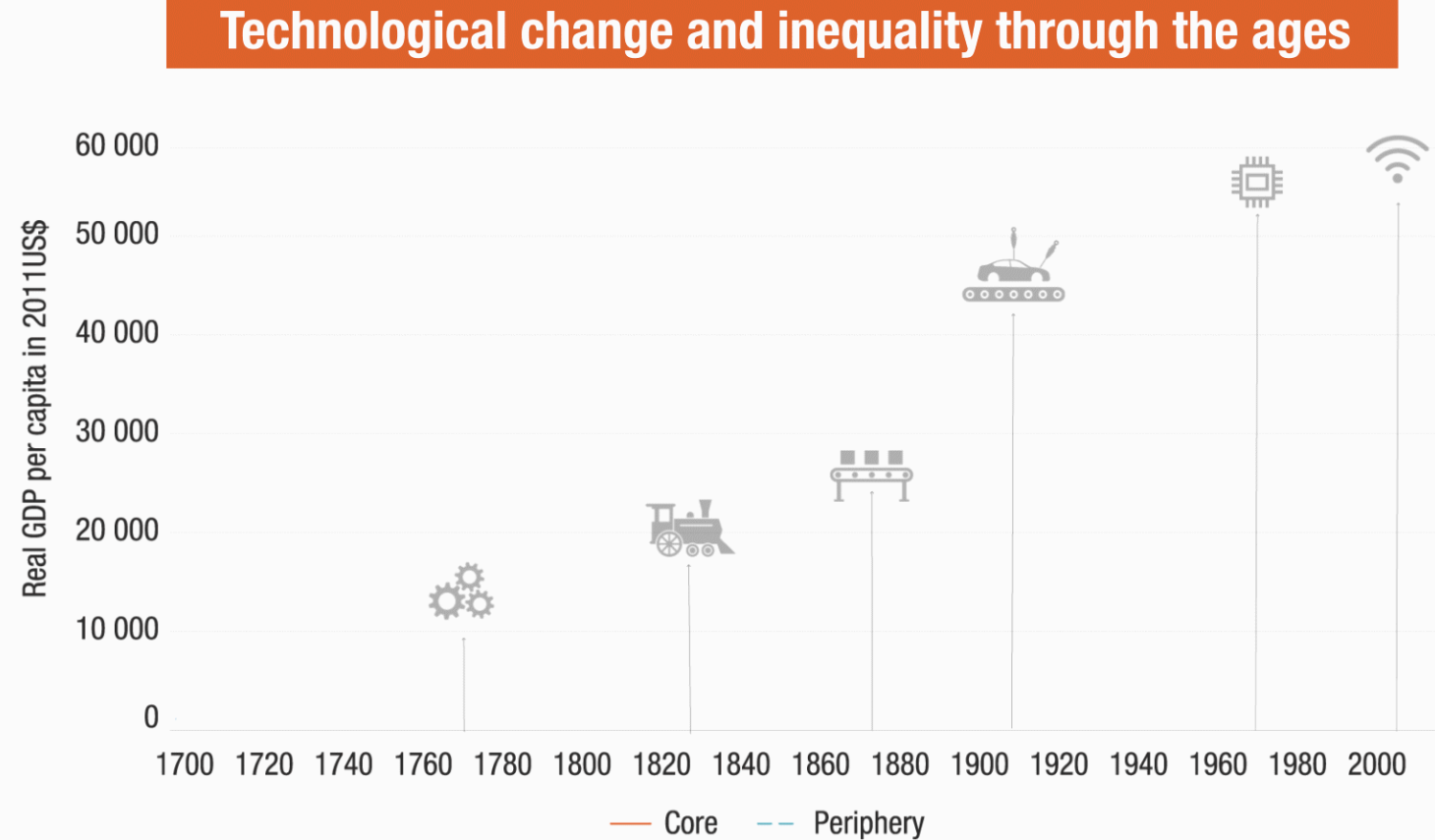


Degree of technology development in production



CATCHING THE WAVES

The great divide, and
waves of technological
change.



Source: UNCTAD's Technology and Innovation Report 2021

Source: UNCTAD, based on data from Maddison Project Database, version 2018, Bolt et al. (2018), Perez (2002), and Schwab (2013).

Notes: "Core" corresponds to Western Europe and its offshoots (i.e. Australia, Canada, New Zealand, the United States) as well as Japan. "Periphery" corresponds to the world, excluding the "core" countries.

Barriers

MSMEs do not know how to innovate

MSMEs do not know what are the most promising opportunities

MSMEs do not have resources to innovate

MSMEs do not have the support of a network and complementary technologies

Solutions

Build MSMEs capabilities & Create opportunities for effective learning

Provide policy direction to innovation & Provide technological, innovation and business advisory services



Provide/facilitate diverse financing options

Strengthen the national innovation system & provide/facilitate the infrastructure

Policy instruments

Targeted policy instruments

- Innovation
- Education
- Infrastructure
- Promote entrepreneurship
- Finance
- FDI
- Industrial parks
- Special economic zones
- Industrial institutes
- Trade policy
- Digital



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