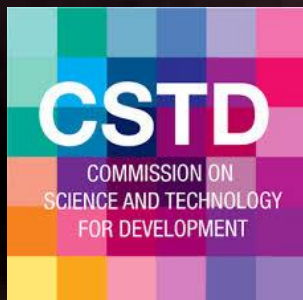


Industry 4.0 for Inclusive Development

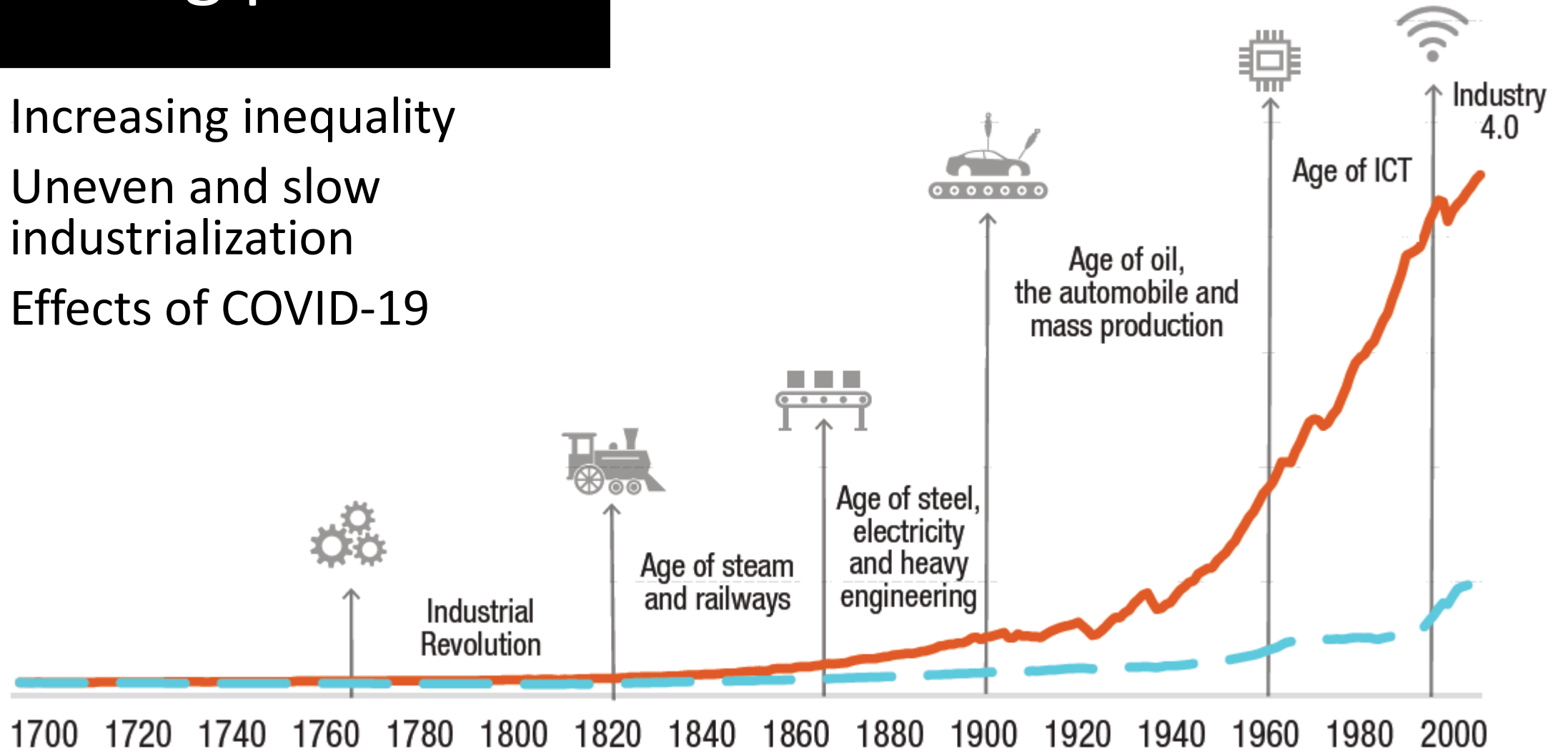
Introduction of the Issues Paper by Mr. Clovis Freire, Economic Affairs Officer, Science, Technology and Innovation Policy Section, DTL, UNCTAD

CSTD 2021-2022 Inter-sessional Panel
17 November 2021, Geneva and Online



The big picture

- Increasing inequality
- Uneven and slow industrialization
- Effects of COVID-19



Industry 4.0

■ Hardware

- Robots, cobots, 3D printers, traditional machinery

■ Connectivity

- Industrial IoT, actuators and sensors

■ Software

- ICTs, AI and Big data



Industry 4.0: Development and market

41% publications
63% patents
Digital platforms
94% AI status funds
70% top AI researchers

US & China

Europe

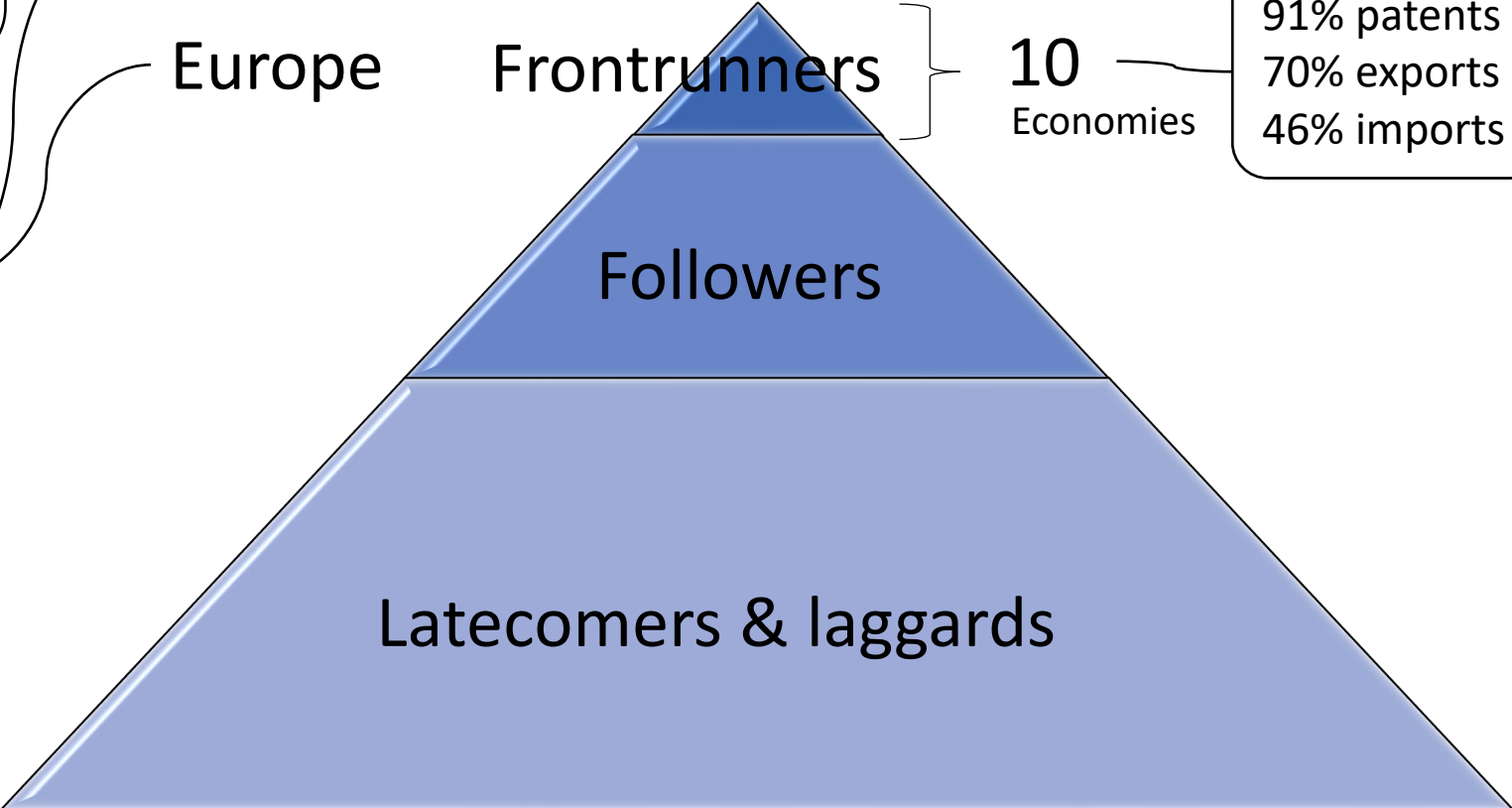
Frontrunners

10
Economies

91% patents
70% exports
46% imports

50
Economies

$\frac{3}{4}$ IoT
spending



Benefits



INDUSTRIA 4.0



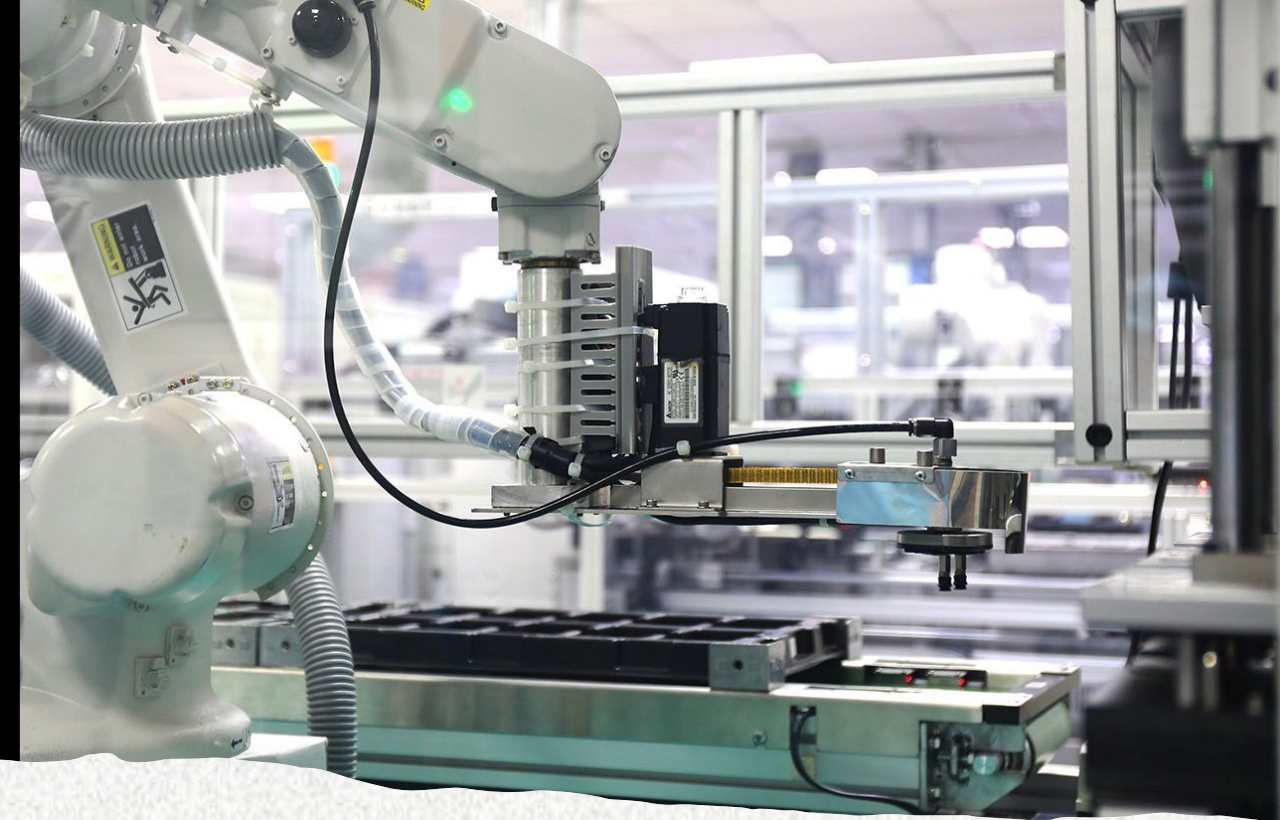
Productivity



Energy efficiency



Sustainability



Industry 4.0 and inequalities

- Jobs, wages and profits
 - Profitability of firms & wages of skilled works
- Technological revolutions
 - Technological gaps

Specific challenges

Loss of jobs

Reshoring

Protecting workers

Gender perspective





Tackling the pre-conditions for Industry 4.0

Diversification

Digital
infrastructure

Digital skills

National strategy

Multistakeholder
mechanism

International
partnerships




Fostering
adoption of
Industry 4.0

Raise awareness

Investment promotion plan

Financing

A photograph of a factory worker in profile, wearing a red and white cap and a dark blue shirt. The worker is looking towards a large, grey industrial robotic arm. The background shows a complex industrial environment with various machinery, pipes, and structural elements. The text "Protecting workers and easing workforce transitions" is overlaid in white on the image.

Protecting workers and easing workforce transitions

International collaboration

The background of the slide features a large, classical-style university building with many windows and columns. In the foreground, there is a large, ornate sculpture of a globe, possibly made of metal or stone, with intricate details. The scene is set outdoors on a grassy area, and the lighting suggests it might be late afternoon or early morning.

Share Knowledge & information

Design policies, strategies & implement initiatives

Build capacity

Promote technology transfer

Legal frameworks, guidelines, norms & standards

Conclusions

A close-up photograph of a robotic gripper, likely a prosthetic or industrial arm, holding a black chess piece (a knight) over a wooden chessboard. The gripper is made of dark metal and has two pincers. The chessboard is made of light and dark wood squares. Other chess pieces are visible on the board, including a white pawn and a black pawn. The background is blurred, showing a person's hand and part of a chess set.

- Risk to perpetuate gaps
- Don't miss this new wave
- Diversification & Industry 4.0

Industry 4.0 for Inclusive Development

https://unctad.org/system/files/information-document/CSTD2021-2022_Issues01_Industry4.0_en_1.pdf

