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

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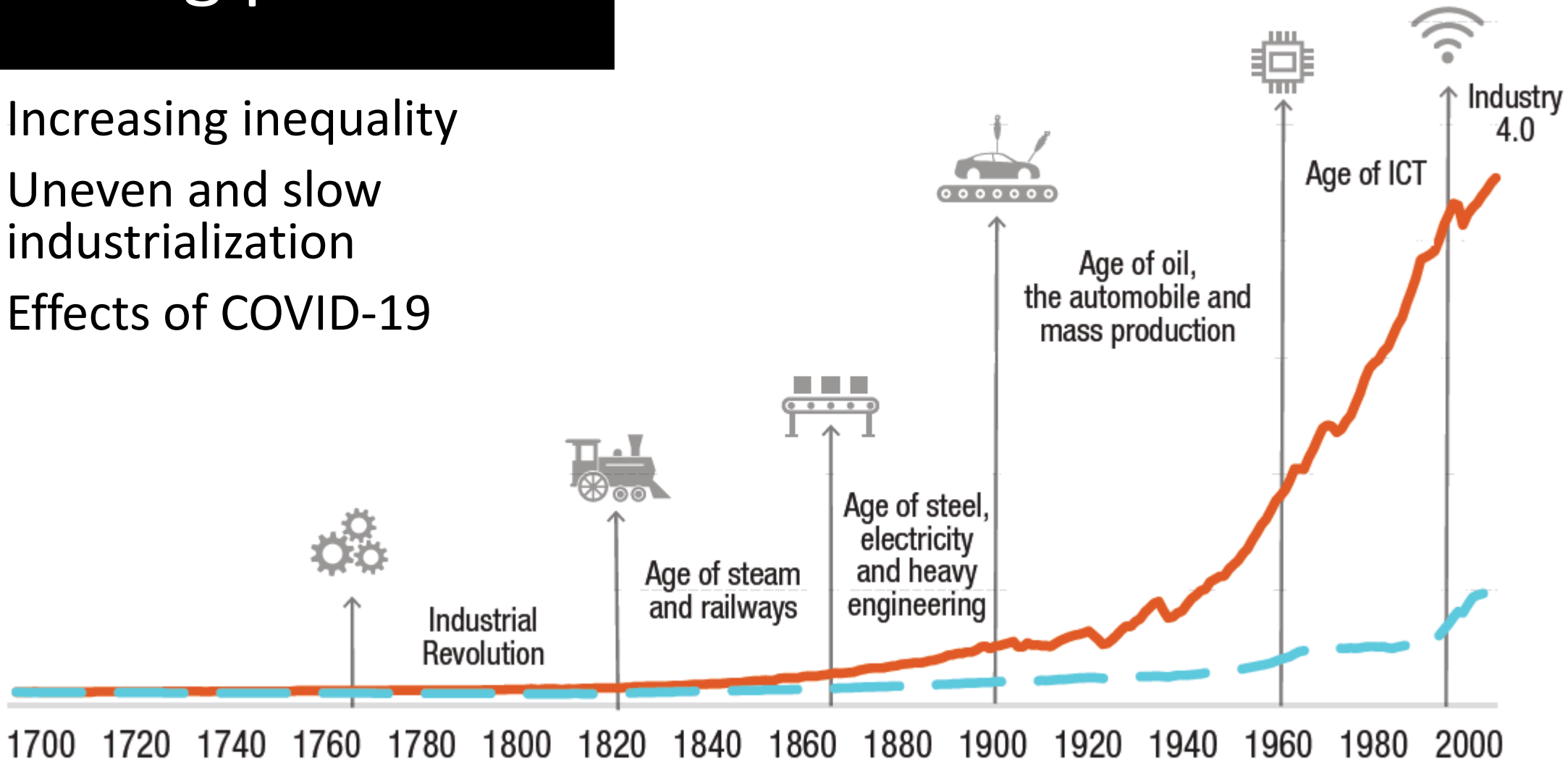
COMMISSION ON SCIENCE AND TECHNOLOGY FOR DEVELOPMENT

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

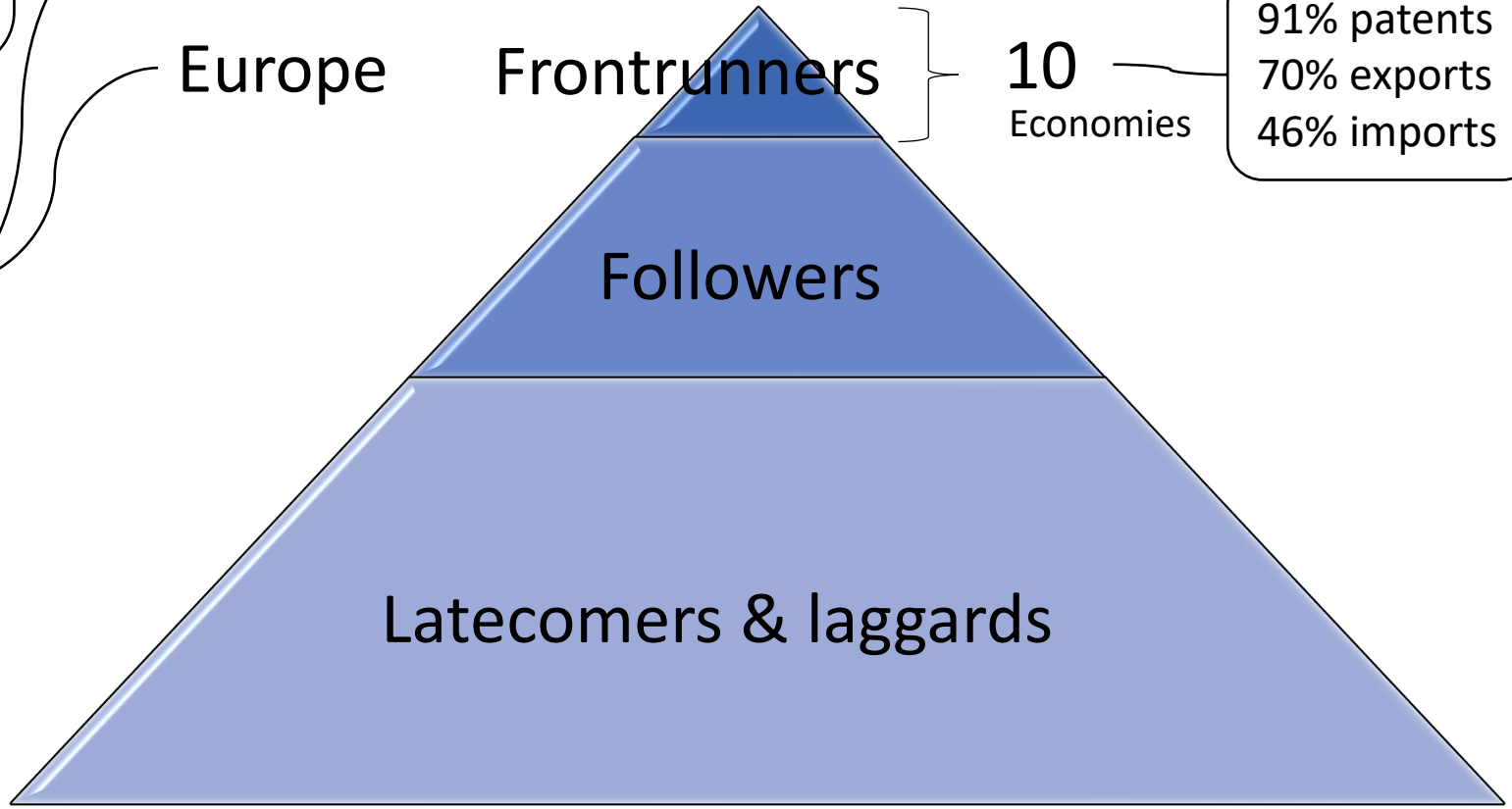
Industry 4.0: Development and market

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

US & China

Europe

¾ IoT spending



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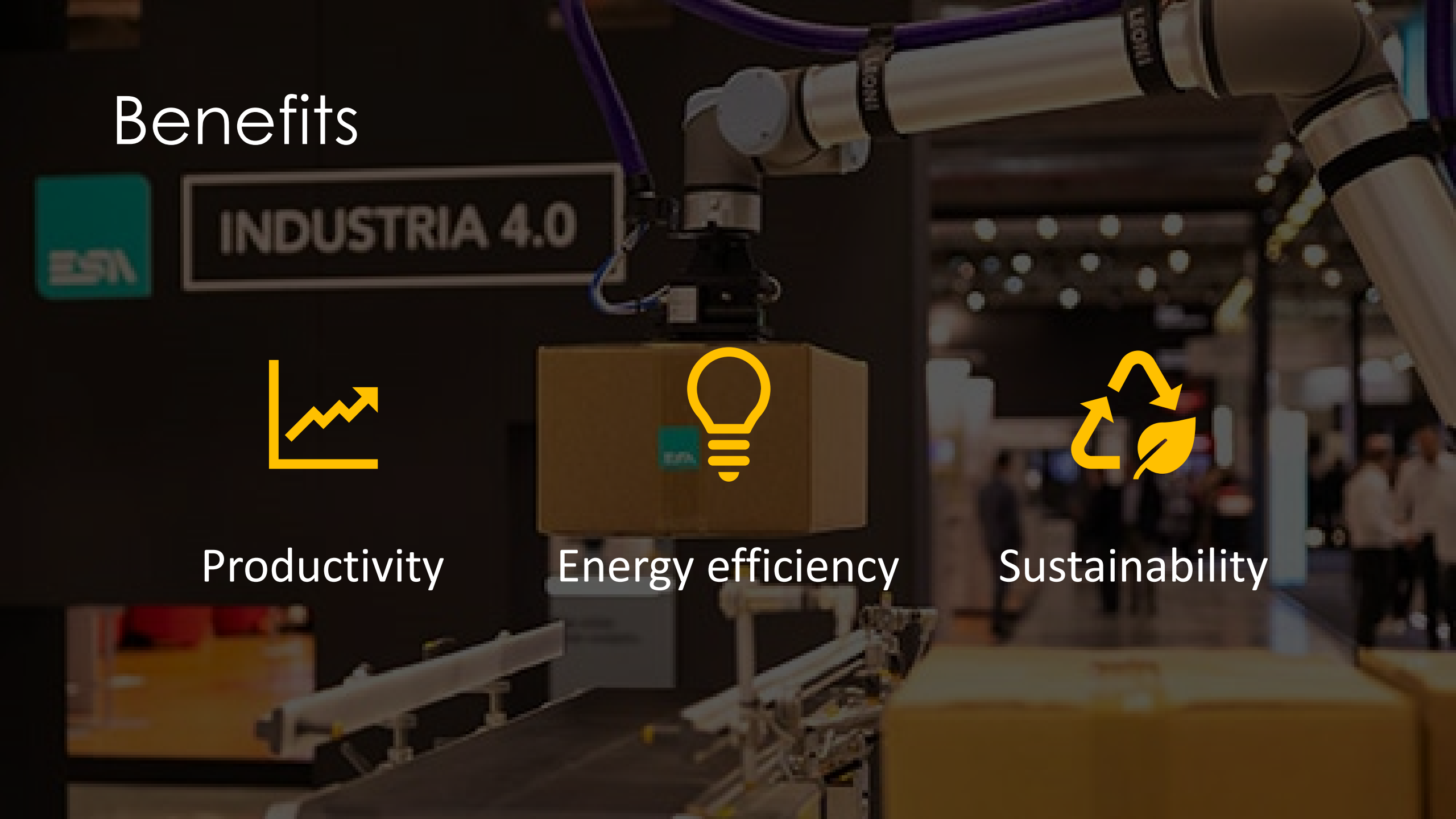
Economies

91% patents
70% exports
46% imports

50
Economies

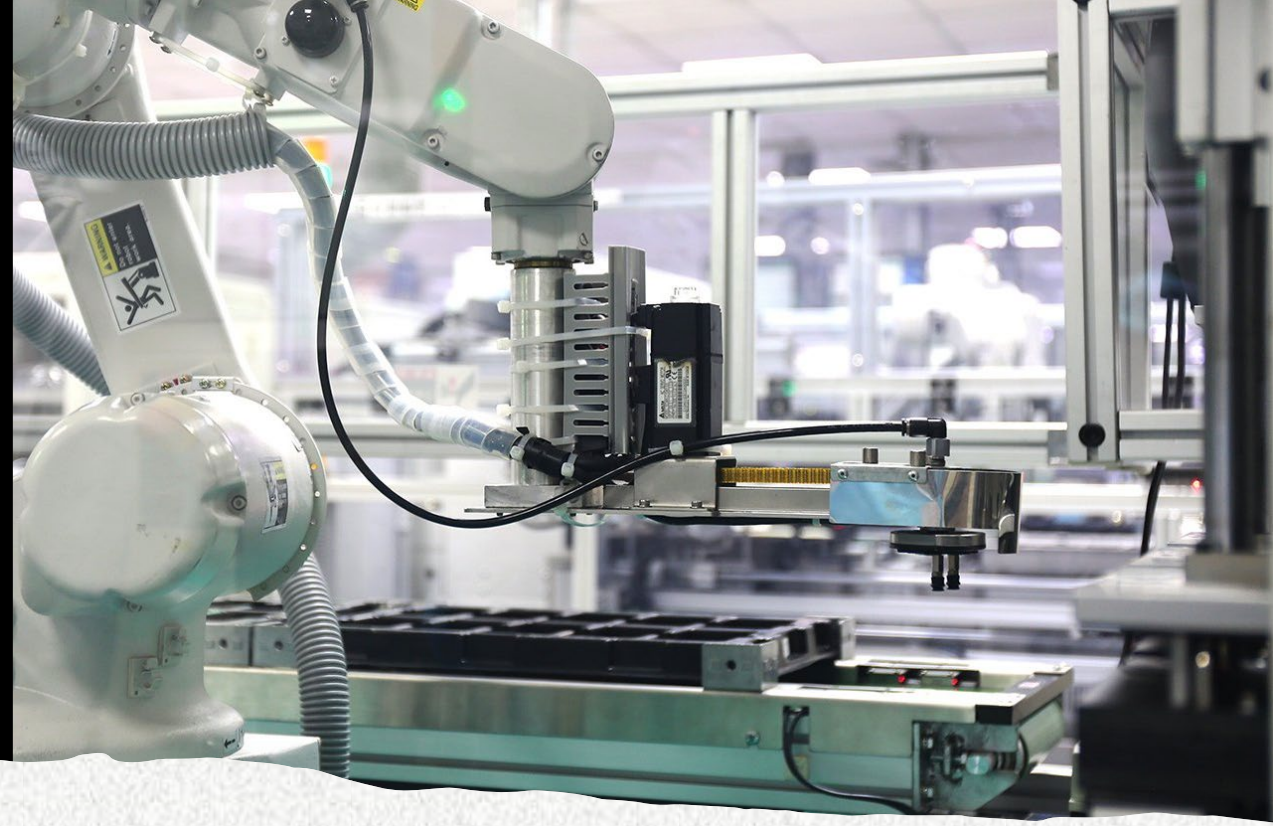
Benefits



Productivity

Energy efficiency

Sustainability



Industry 4.0 and inequalities

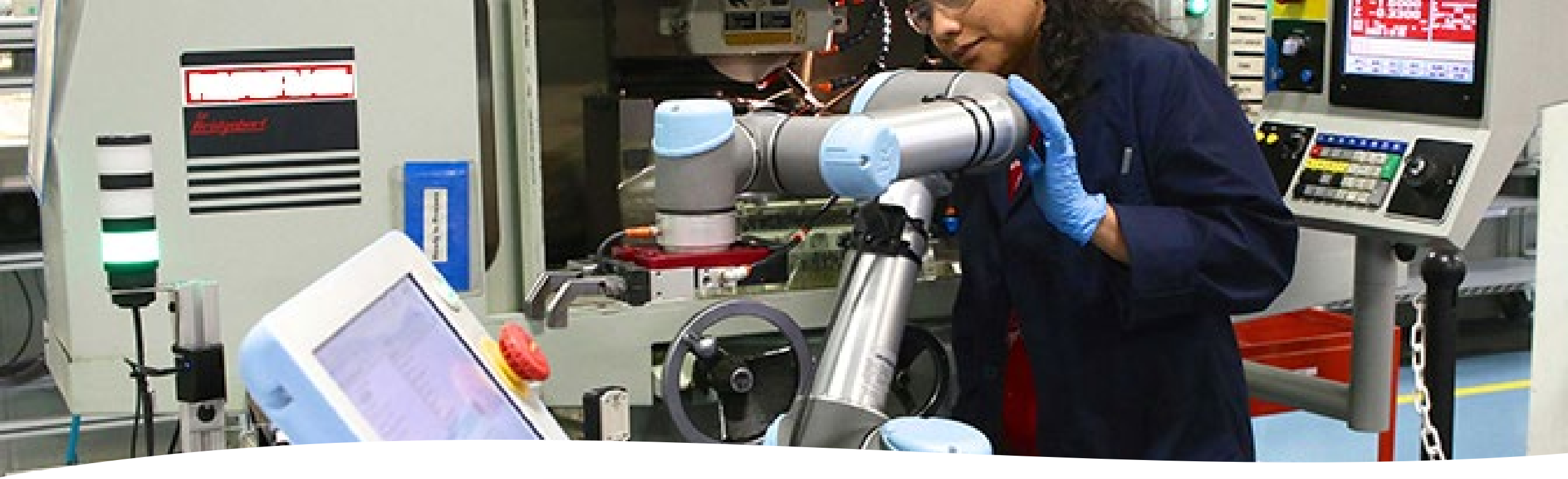
- Jobs, wages and profits
  - Profitability of firms & wages of skilled works
- Technological revolutions
  - Technological gaps

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 partnershhips

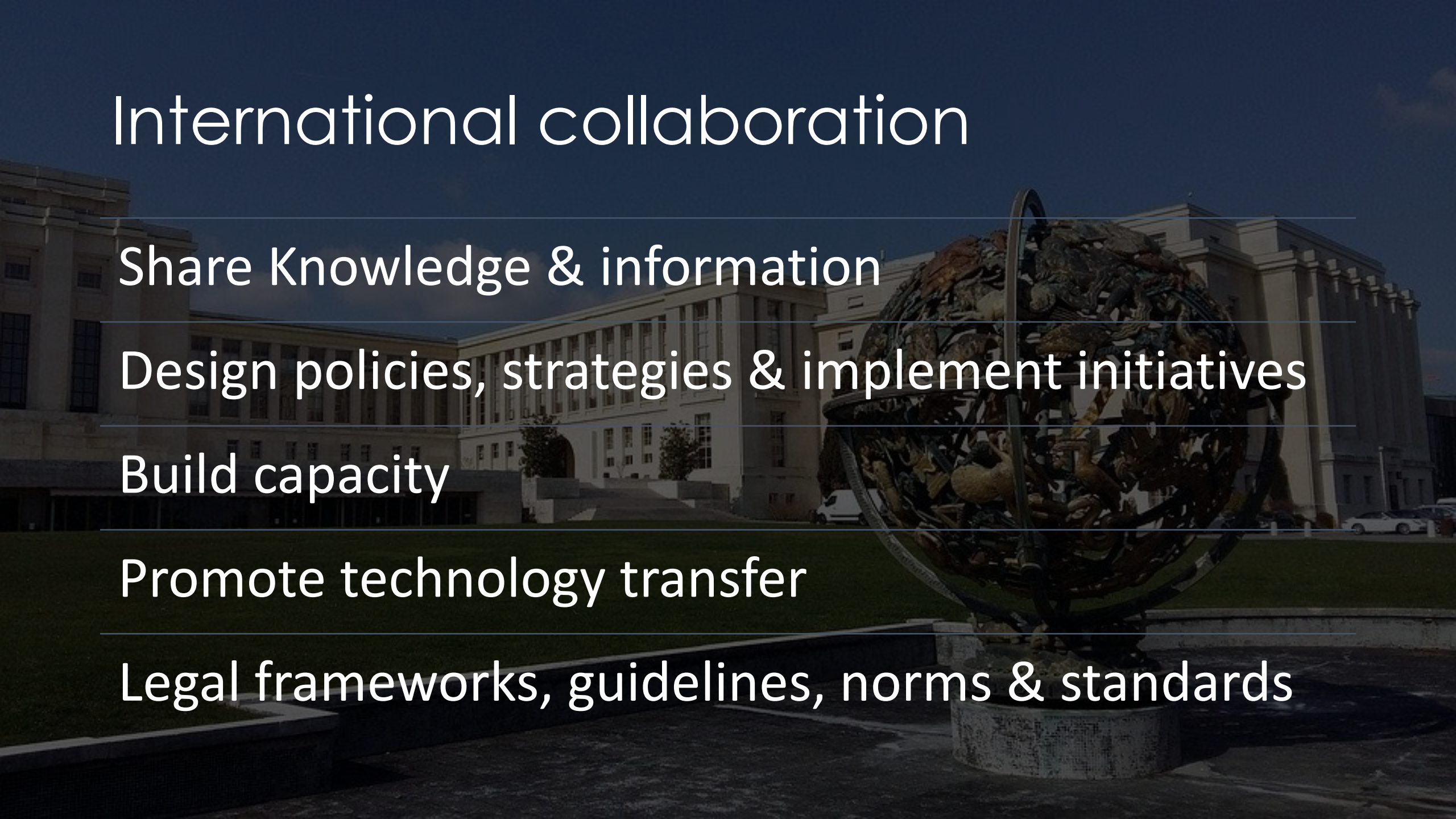


Fostering adoption of Industry 4.0

- Raise awareness
- Investment promotion plan
- Financing

Protecting workers and easing workforce transitions

International collaboration



Share Knowledge & information

Design policies, strategies & implement initiatives

Build capacity

Promote technology transfer

Legal frameworks, guidelines, norms & standards

Conclusions

- 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

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