Technology and innovation for cleaner and more productive and competitive production

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Technology and innovation for more sustainable development pathways

- Technological waves
- Window of opportunity for catching up
- Renewable energy technologies
- Frontier technologies for sustainable production and consumption
Trends affecting green technology and innovation

North-South divide in STI is widening

Uneven investment in R&D (% GDP)

Global performers – 5%
EU – 3%
China - 2.4%
Developing countries – 0.5-1%

Insufficient cooperation at regional level

Low investment in regional R&D

EU Horizon - 13 billion EUR (2017-2021)
Developing regions - low overall levels & lack of incentives
Opportunities for catching up through green technologies and innovation

Development, adoption and production of renewable energy technologies

Greening global value chains

Diversifying toward more sustainable economic sectors

Source: Lema et al., (2020).
Technology transfer for the sustainability and resilience transformation

Official Development Assistance

Commitment of at least 40% of ODA to “green” ODA
Alignment of development cooperation with Paris Agreement
Low level of ODA to STI (~US$ 2.4 billion in 2019)

Trade and Foreign Direct Investment

Technologies & absorptive capacities
Engineering, Procurement and Construction (EPC) companies
United Nations' actions for sustainable technology and innovation

Technical and financial support

Sharing knowledge and information

Policies and strategies

Norms and standards
National action for opening and augmenting green windows of opportunities

01 Establish required policies
02 Strengthen technical and innovation capacity
03 Identify, prioritize and foster new green sector and technology
04 Invest in green innovation
05 Develop digital infrastructure
International cooperation for green innovation collaboration

01 Sustainability-oriented innovation systems
02 Partnership-oriented approach to green technology development
03 Multilateral green innovation research & open innovation
04 Multilateral approach to technological assessment
05 South-south STI cooperation
Conclusions

- Green innovation for people and the planet
- Critical role of policies
- Need to be ready to respond
- Sector-specific strategies
- International community support
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