

Technology transfer options for low-carbon development

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Outline of this presentation

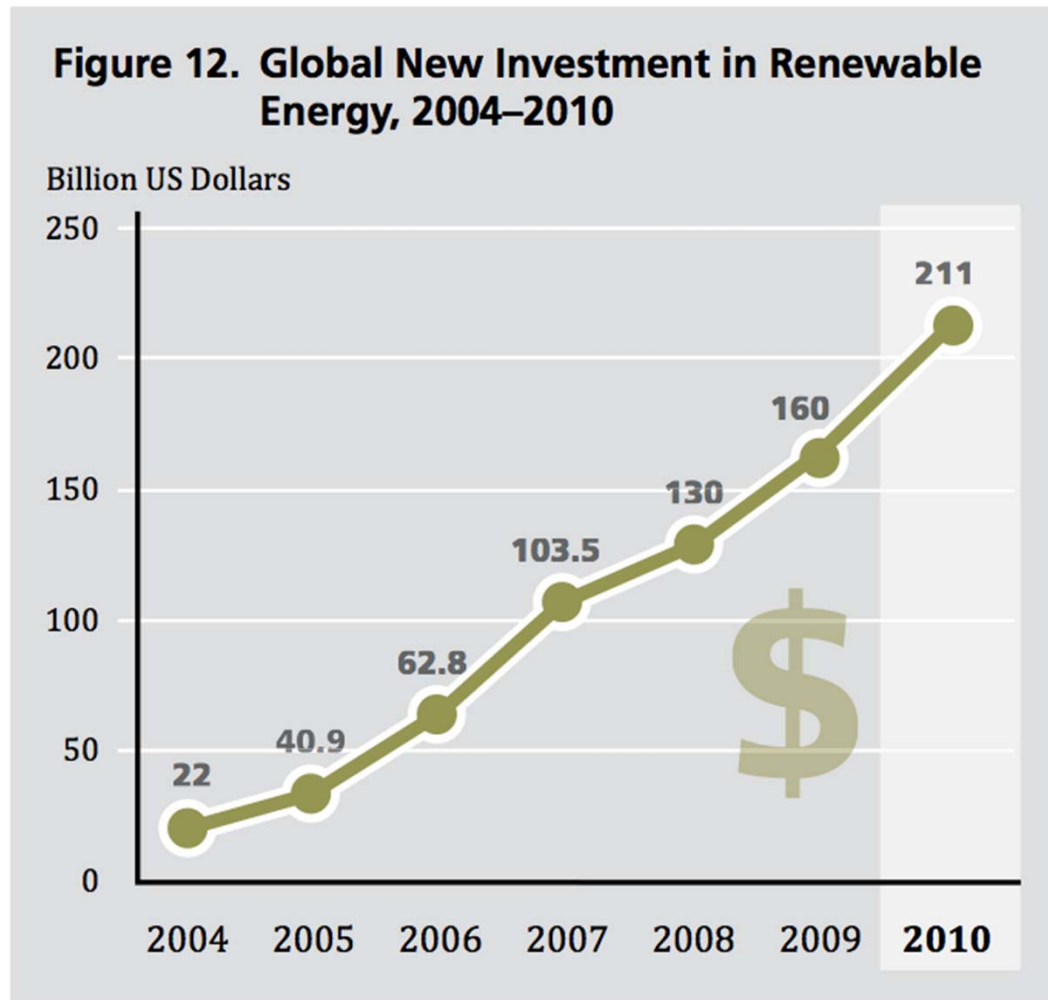
1. Energy challenges and development
2. Diffusion of renewable energy technologies
3. Technology transfer
4. Developing local capabilities
5. Existing financial incentives
6. Cancun Technology Framework

1. Energy challenges and development

- If the MDGs are to be achieved, then significant efforts are needed to increase access to modern energy services.
- Energy sector responsible for ~61.5% of total GHG emissions
- Recognition and consensus over of need for transformation of energy systems to reverse disastrous impact of climate change, (i.e., any increase in energy generation must be done through low-carbon pathways)



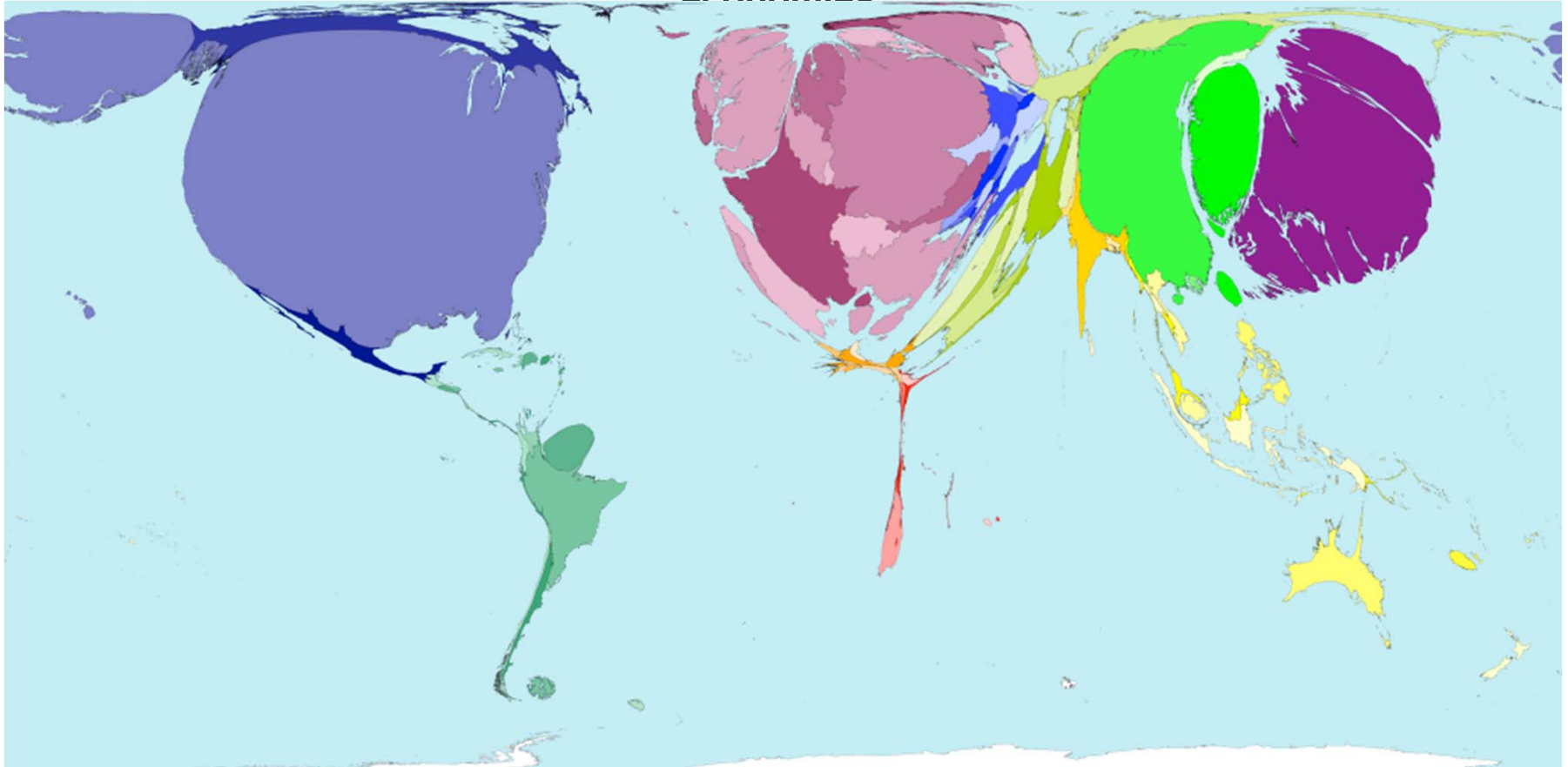
2. Diffusion of RETs



Source: REN21 Global Status Report 2011

2. Diffusion of RETs

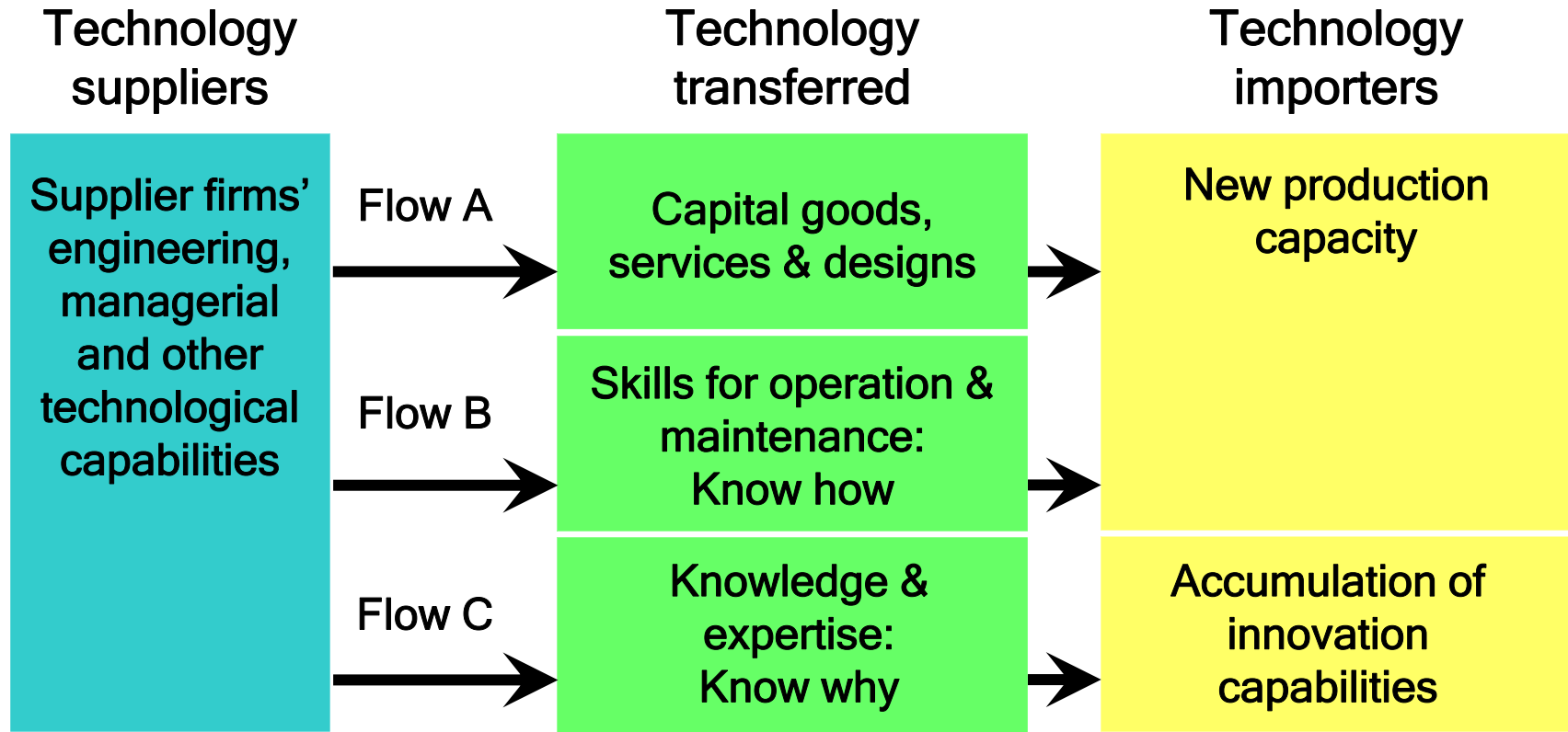
This concentration of investment reflects a general state of affairs in which technological knowledge is situated in developed countries and large emerging economies



Territories sized in proportion to worldwide R&D spending.

Source: www.worldmapper.org

3. Technology transfer



Source: Bell 1989; 2009

4. Developing local capabilities

- Within government
 - to formulate coherent STI policies and link them to discrete development strategies.
- Within the workforce
 - to engage in more knowledge-intensive production.
- Within enterprises
 - to use new and existing knowledge to innovate, and to design, produce, and market more knowledge-intensive, value-added goods and services.
- Within education, vocational training, and R&D institutes.

4. Developing local capabilities

- Policy interventions supported by a sound National System of Innovation
 - Support to universities and public research centres
 - Community participation
 - Incentives for R,D&D
 - Private sector development



5. financial incentives in place

- Domestic measures
 - Feed-in tariffs
 - Subsidy programmes
 - Waiving import duties
- International measures
 - Clean Development Mechanism (CDM)
 - Climate Investment Funds (CIFs)
 - Advanced Market Commitments (AMCs)

CDM



6. Cancun Technology Framework

Going beyond the traditional approach to TOT

- Objective: systematic shift to low-carbon pathways by promotion of innovation through public-private partnerships, technology action plans, joint R&D and setting up of technology centres

6. Cancun Technology Framework

Going beyond the traditional approach to TOT

Technology Mechanism: to speed up the transfer and deployment of climate-friendly technologies (but not a panacea for technology transfer)

- 1. Technology Executive Committee**
- 2. Technology Centre**
- 3. Technology Network**

Closing thoughts

- Market-driven technology transfer insufficient to meet technological learning needs of developing countries.
- Developing countries need stronger capacity to identify, transfer, adapt, adopt and diffuse low-carbon technologies.
- South-South Cooperation
- No “one policy fits all” approach
 - International collaboration, aid-for-knowledge, new approaches to technology transfer need to be developed (e.g., Cancun Technology Framework)
 - Countries need tailored technical assistance in training, capacity-building, and strategic planning to promote new and emerging RETs
 - Participation of all stakeholders is key to sustainability

Thank You

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