# Strengthening technology facilitation and capacity building in a post-2015 setting

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## Science, technology, and innovation for a sustainable future

- Major challenges in achieving post-2015 vision
  - Action needed on poverty eradication, inequality, economic growth, industrialization, employment, food security and nutrition and sustainable agriculture, water and sanitation, health and population, energy, climate change...
- Technology and innovation key means of implementation
- The scale and nature of global challenges and the timeframe to address them – requires new and additional efforts in advancing science, technology, and innovation.

#### Technology facilitation and capacity building

#### The technology innovation process



## Advancing technology innovation

- The "needs" (technical, finance, policy, organizational, human...) for a technology vary by stages of the technology cycle, and are different for different technologies and country contexts
- Efforts to promote the development and deployment of technologies need to be tailored to address gaps for relevant technologies in a particular national context
- Advancing technologies that are relevant to sustainable development often requires active and strategic intervention.

#### Major challenges for developing countries

## Global distribution of R&D Expenditure (USD Billion, PPP dollars, 2011)



### Role of development cooperation

- Has played key role is many sectors such as agriculture (CGIAR), health (PDPs), ICT4D, UNFCCC...
- Can continue to play an important role through strategic interventions to help develop and deploy technologies to address specific urgent sustainable development challenges.

It also can help build local capacity to advance and manage technological change.

*DC tools: financial and technical support, capacity building, and policy change support* 

## Key issues regarding technology facilitation

- The scale and nature of innovation activities: Is the scale and nature of innovation activities, and the resources being invested, appropriate in relation to global development goals?
  - -R&D investments (total, sectoral/SDG relevant); -training (for skills & learning); -international cooperation
- The organization of innovation:
   Is innovation organized in a way that it yields expected results efficiently and speedily?
   -Systematic, coordinated and strategic approaches;
   -innovative institutional forms

Key issues regarding technology facilitation (contd.)

Achieving desirable developmental outcomes:
 Are innovation outputs, such as new technologies, able to achieve real-world impact at the level needed?
 *Diffusion at scale; monitoring and assessment*

#### 4. Capacity development:

Are we building innovation capacity in developing countries to help meet global development goals? *Range of capacities needed; project vs programmatic* 

#### Technology facilitation and capacity building\_

#### International technology capability investments



World Development Indicators database; UNESCO

#### Global Trends in Renewable Energy Investment



Note: \*Asset finance volume adjusts for re-invested equity. Total values include estimates for undisclosed deals

Source: Bloomberg New Energy Finance

Global Trends in Renewable Energy Investment 2014 (BNEF)

## The End Thank You!

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#### Technology facilitation and capacity building

#### Trends in Public RD&D expenditures by IEA countries (million \$, 2013 prices and exch. rates)



IEA RD&D database