



# Science and Technology Imperatives for the SDGs

Shashi Buluswar

UNCSTD Intersessional Panel

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Access to Electricity



Education



Human Rights

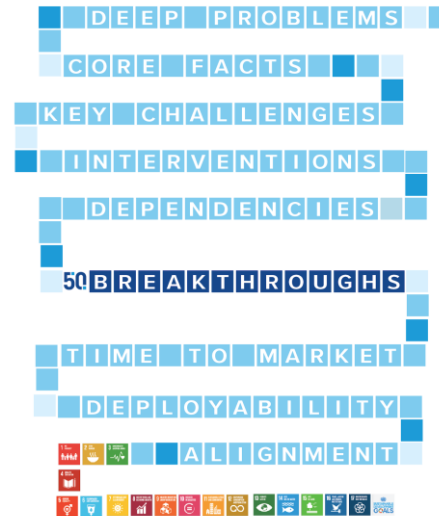


Water Security

# 50 BREAKTHROUGHS



CRITICAL TECHNOLOGY  
BREAKTHROUGHS FOR SUSTAINABLE  
GLOBAL DEVELOPMENT



2019



Global Health



Digital Inclusion



Food Security



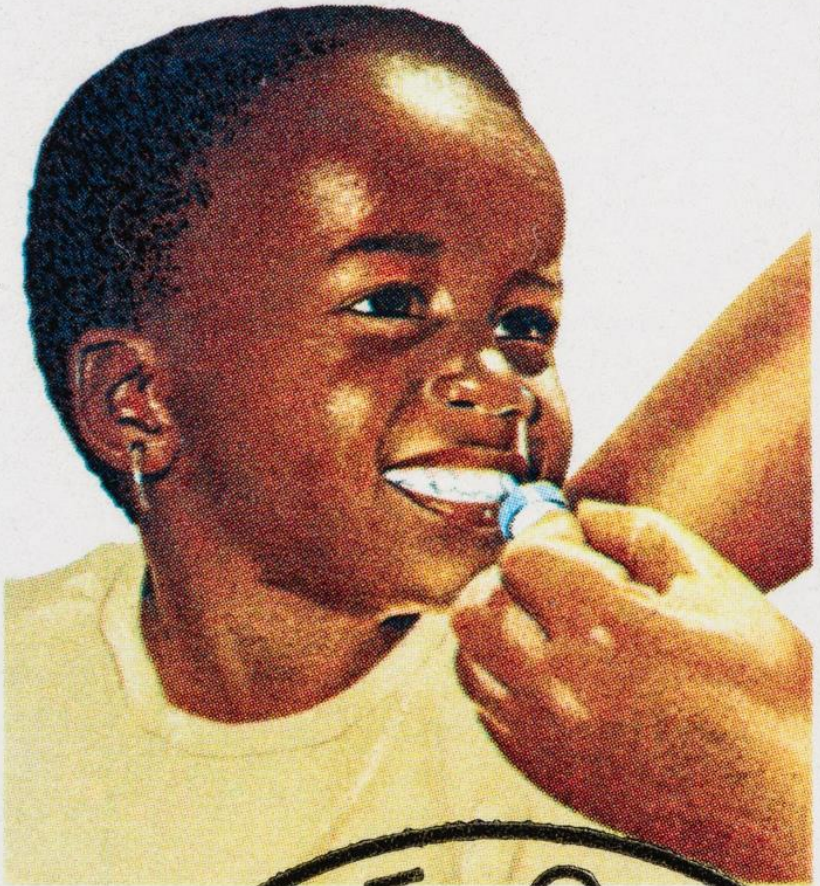
Gender Equity



Resilience  
against Climate  
Change

**STOP**  
**POLIO**

**11C**



**BOPHUTHATSWANA**

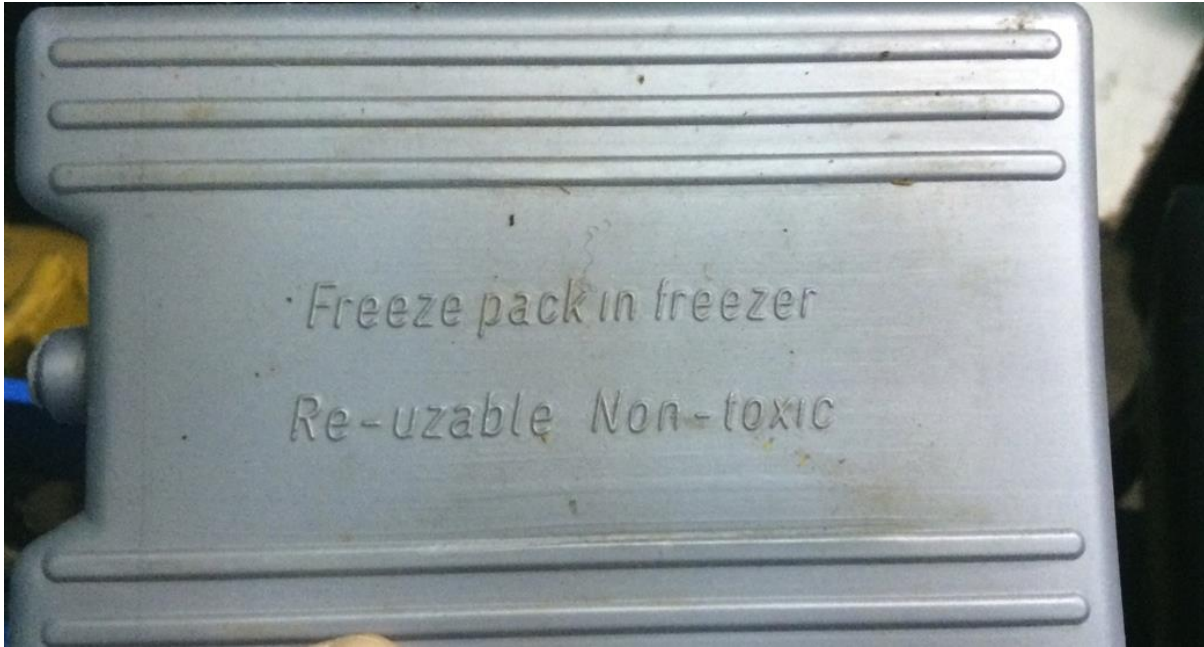
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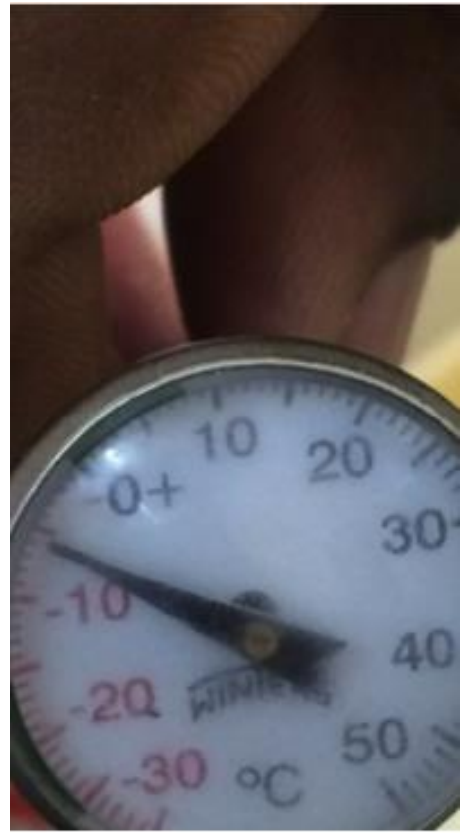
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## Global Health

- Integrated solar-powered 'clinic-in-a-box' for rural areas
- Point-of-care DNA-based TB diagnostic; effective TB vaccine; improved anti-bacterials



## Agriculture & Rural Development

- Low-cost mechanization: irrigation pumps, well-digging, post-harvest processing
- Precision agriculture systems for water, fertilizer, etc.
- 'Utility-in-a-box' for affordable rural solar mini-grids
- Affordable solar-powered refrigerator
- Low-cost clean energy automobile for rural households



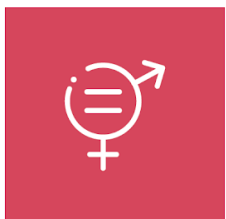
## Education

- 'Smart' electronic textbooks



## Water & Environment

- New method for desalination: low cost, energy-efficient, high salinity
- Distributed sensors for environmental toxins
- Retrofit automobile exhaust filters
- New generation of homes for the urban poor



## Women's Equity & Safety

- Simple point-of-use DNA-based rape kit
- Wearable "SOS" device with geo-location



US/EU labs



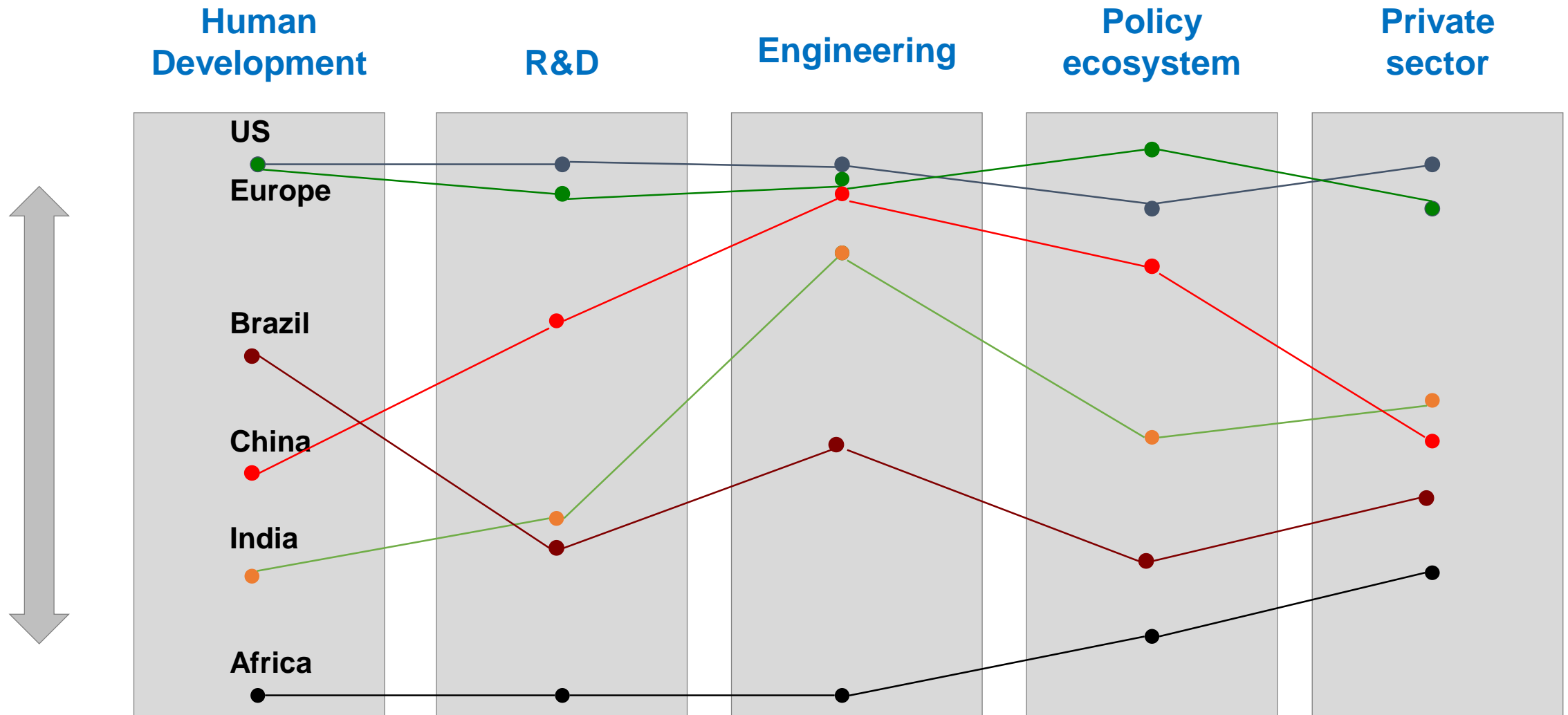
Emerging markets R&D institutions

Emerging markets private sector

Commercial attractiveness

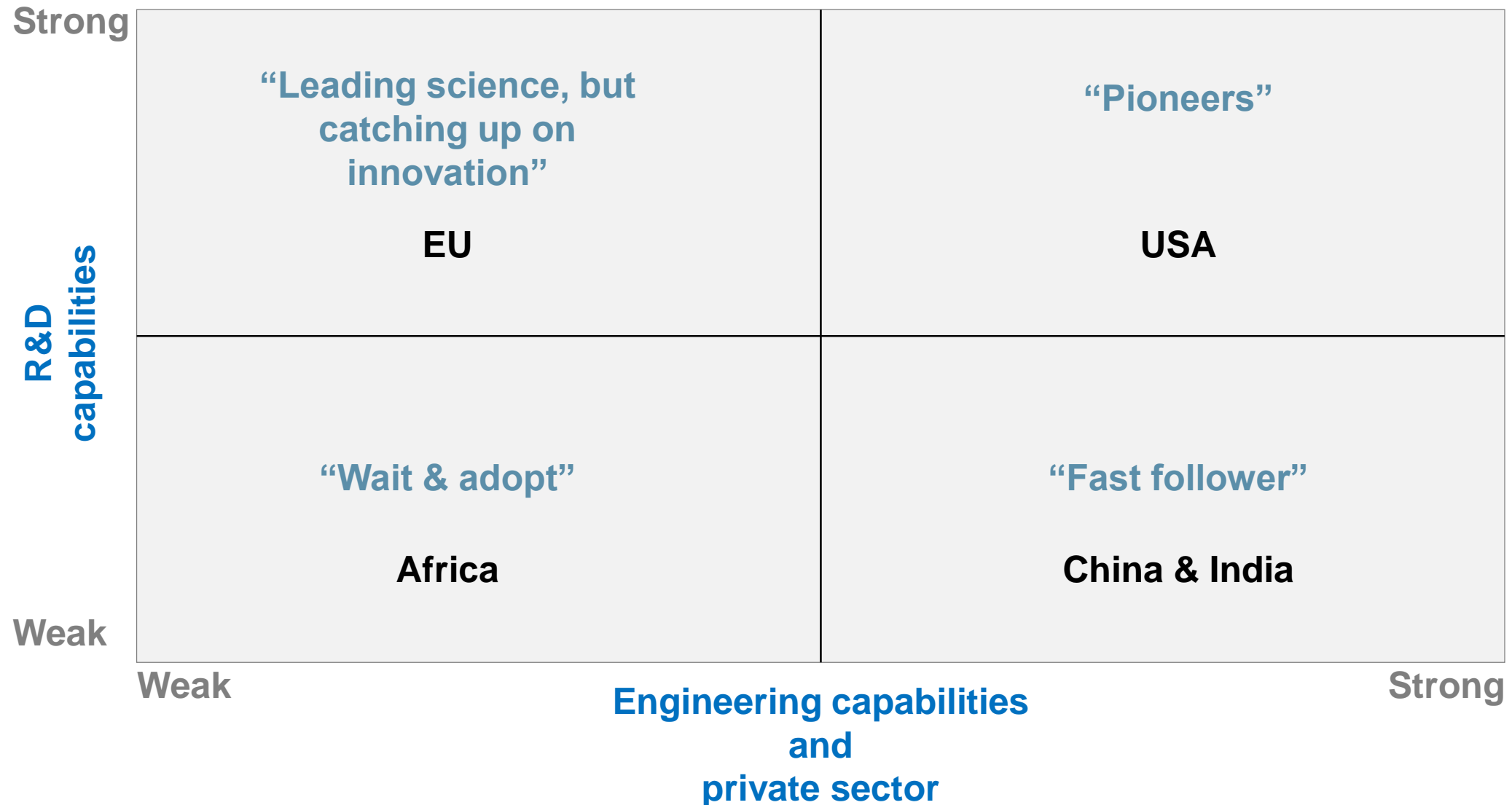


# How emerging powers are positioned

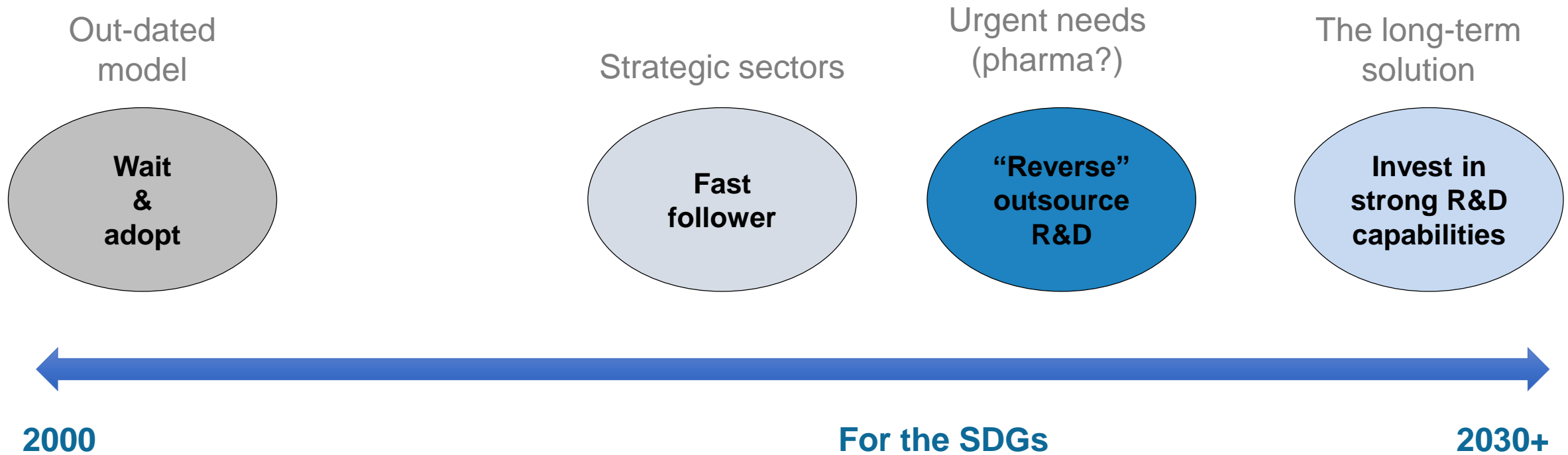




# Models of technology development & adoption



# Policy imperatives for emerging economies







Let's continue the conversation...

## Side Event

**Wed 16 Jan 2019 - 14.15-15.00**  
**Conference Room C3 (C-building)**  
**Vienna International Center**