ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

Governance of international co-operation on science, technology and innovation to address the global challenges of climate change, energy & food security

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Rationale: Challenges of a truly global nature

- Societies today are facing challenges of unprecedented **magnitude**
- Most of these challenges are of a **truly global** nature; individual countries on their own are not in a position to produce solutions to issues such as…

- **climate change**
- **energy**
- **global health**
- **agriculture and food security**

- These challenges urgently call for **swift** and **efficient action**
- There has been growing political consensus that countries need to address them **collectively**

Why now?
New global dimension of STI

- In the past, global science, technology and innovation activities were mainly clustered in the "**triad**" (North America, Europe, Japan)

i. Recently **new countries** have appeared **on the global STI arena**: Brazil, China, India, Korea, South Africa etc.

ii. Sustainable solutions for global challenges need efficient collaboration across national borders and involvement of developing countries

Multilateral co-operation in science, technology and innovation is urgently needed today.

Why now?
The role of science and innovation for global challenges

- Current technology trajectories are **unlikely to deliver** on goals discussed by political leaders and called for by environmental scientists
- Worldwide countries need to **strengthen innovation** and speed up **scientific and technological progress** in order to develop solutions to global challenges
- Science, technology and innovation need to play a key role in:

  - understanding the **interaction** between various environmental, technological and social factors framing global challenges
  - developing **solutions**
  - assessing **risks**

Shortfall of existing policies and framework conditions

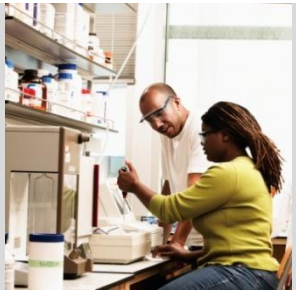
Existing policy frameworks and mechanisms that govern international co-operation in science, technology and innovation were created for different purposes and in different settings in the past and

… fall short of adequately supporting broad-based collaborative action at the scale and intensity required to tackle global challenges.

To facilitate international co-operation in STI, existing **barriers have to be overcome** and framework conditions conducive to multilateral STI co-operation need to be put in place.

Little knowledge of effective and efficient governance of multilateral STI co-operation

- **Hardly any consolidated knowledge** regarding strengths and weaknesses of different institutional settings that support such co-operation
- And **no agreement** or **comprehensive mechanism** is in place.



To deliver sustainable solutions

to global challenges

this gap needs to be closed!

What can governments do to help?

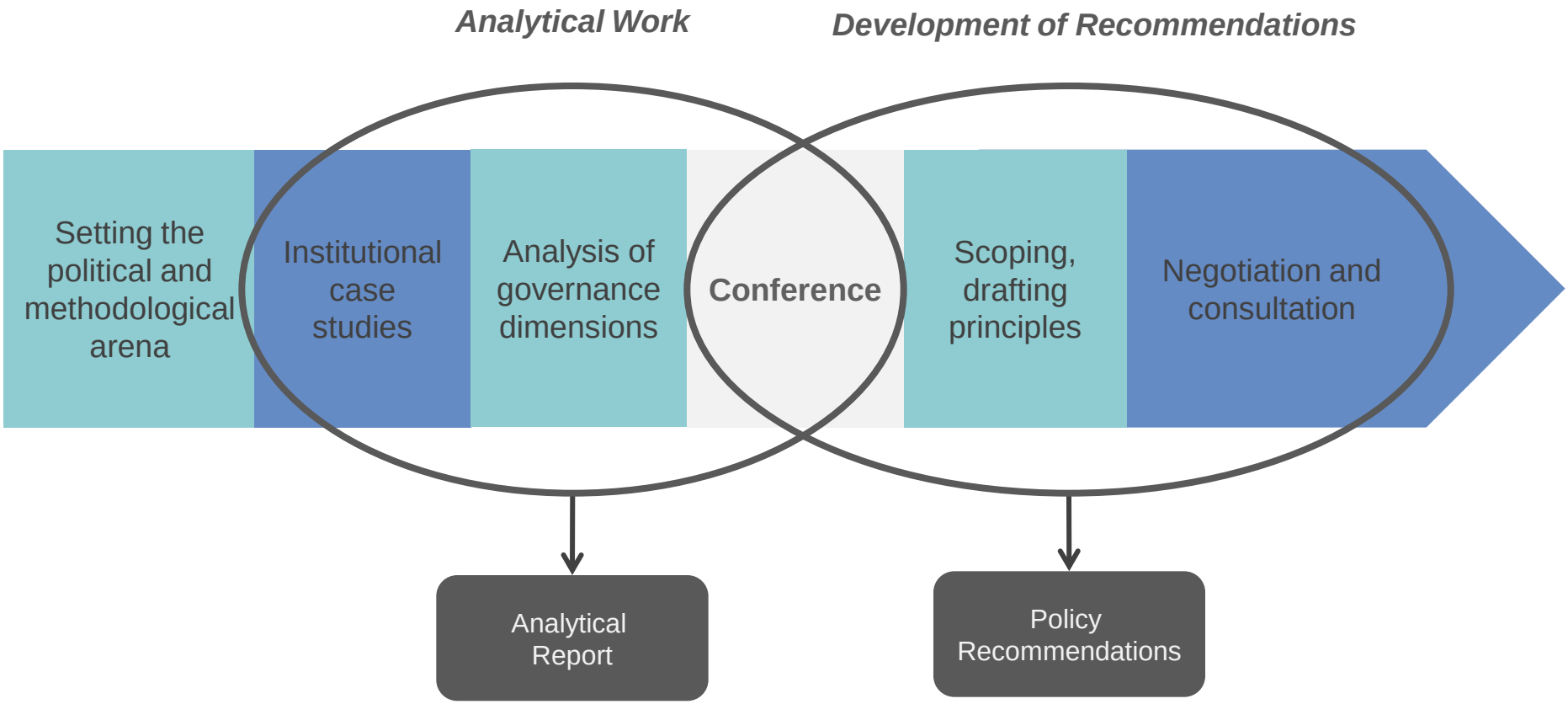
There is political consensus over the **urgent need** to improve the effectiveness of multilateral co-operation in STI across the globe in order to **strengthen innovation** and to **facilitate and speed up scientific and technological progress** to better collectively meet global challenges.

What does that mean, how can governments act
and what are the policy implications?

The OECD through its Committee for Scientific and Technological Policy (CSTP) has taken action to address this question and introduced:

Steering Group on Governance of International Co-operation on Science, Technology and Innovation for Global Challenges (STIG)

Project architecture



Case studies

- The Group on Earth Observations (GEO)
- The Inter-American Institute for Global Change Research (IAI)
- The Consultative Group on International Agricultural Research (CGIAR)
- The International Atomic Energy (IAEA)
- The International Energy Agency (IEA) Implementing Agreements
- Joint Programming Initiative (JPI) – Agriculture, Food Security and Climate Change (FACCE)
- Bill and Melinda Gates Foundation
- …and smaller case studies on The Global Carbon Capture and Storage Institute and The International Arabidopsis Genome Research Project

Analysis of governance dimensions

I

Institutional Arrangements,
Agenda and Priority Setting

Analysis of governance dimensions

II

Knowledge Sharing and
Intellectual Property

Analysis of governance dimensions

III

Funding and Spending Arrangements

Analysis of governance dimensions

IV

Capacity Building and
Technology Transfer

Analysis of governance dimensions

V

Delivering Benefits:
Putting Science, Technology
and Innovation into Practice

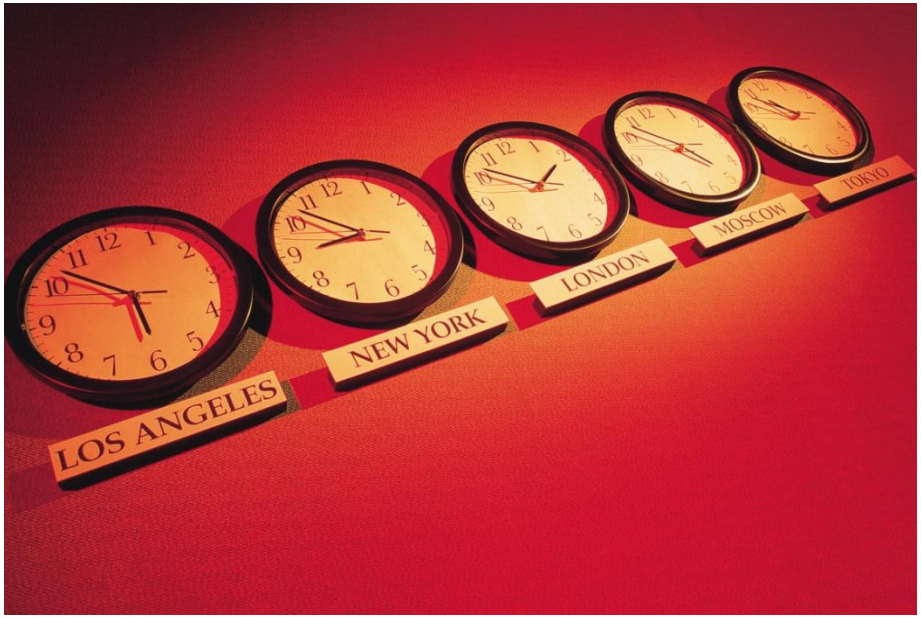
What makes STIG special?

- Scope goes beyond R&D and includes the **delivery of solutions** to society (accessibility and affordability)
- Involvement of **policy makers** representing government perspectives from many parts of the world to reach broad political support for the final outcome of the initiative
- To achieve tangible results and to do justice to the global dimension of the initiative, the **involvement of developing countries** is of particular importance
- Works at the **interface** between research and policy making, drawing on experience from both arenas and involving collaboration and **consultation** with representatives and stakeholders from relevant fields

Lead countries involved

- Australia, Austria, Germany, Chile, China, France, Israel, Korea, Norway, South Africa, Spain, United States and others

  … and the European Union
- CSTP is open to 34 OECD member economies as well as 4 observer countries



Expected outcome of STIG

- clear **understanding** based on scientific analysis of what works and does not work in existing approaches
- broad **international agreement** on the main principles and modalities for achievement and governance of multilateral STI co-operation to address global challenges
- informing and contributing to deliberations in and efforts by not only governments but also **other international fora** in promoting multilateral STI co-operation for addressing key global challenges
- building **expertise** and networks among participating countries from OECD and non OECD economies as well as with the private sector, non-governmental not-for-profits and other stakeholders

Workshop in Oslo May 18 to 20

The Oslo Workshop on International Co-operation in Science, Technology and Innovation to Address Global Challenges

Hosted by The Norwegian Ministry of Education and Research and the German Federal Ministry of Education and Research in collaboration with OECD and the Research Council of Norway as part of the Norwegian Year of Science

Experts, policy makers and stakeholders from all over the world to give advice and input to the STIG process.

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