



Towards a co-ordinated policy approach to strengthen multilateral co- operation on science, technology and innovation for global challenges

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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**
- The scope of the action will likely have to be **multilateral** more often than bilateral

The role of science and innovation

- 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 grand challenges
- Science, technology and innovation need to play a key role in:
 - understanding the **impact chains** underlying global challenges
 - understanding the **interaction** between various environmental, technological and social factors framing global challenges
 - developing **solutions**
 - assessing **risks**



Innovation for green growth

Decoupling economic and social development from environmental degradation, biodiversity loss and unsustainable use of resources might very well be the most pressing challenge we are facing today

- Most low-carbon technologies available today are too costly to compete in the marketplace against today's incumbent fossil fuel technologies
- The **development** and use **of new technologies needs to be incentivised** to bring about radical improvements in corporate environmental practices and performance and in environmental and economic efficiency
- The OECD is currently developing a **Green Growth Strategy**, which will be delivered at the Ministerial Council Meeting in 2011. More information and Interim Report: www.oecd.org/greengrowth



Capacity building and technology transfer

- Involving developing countries in international co-operation in science, technology and innovation will help to build absorptive capacities in these countries and to integrate their knowledge and perspective into the process
- Diffusion of innovation to developing countries needs to be accelerated, **new mechanisms** are being explored
- **Innovative collaboration** mechanisms will have to play a key role, e.g. in intellectual property (e.g. patent pools), allowing for **greater flow of research, development and adoption of green technologies** in the developing and developed world alike; some good practice exists (e.g. in networking R&D for emerging infectious diseases) but significant scale-up will be required



New global dimension

- 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 has never been as urgently needed as today.

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.

- OECD as **intergovernmental organisation** works in all policy domains of social and economic developments
- forum for **exchanging policy experience** and peer learning
- multidisciplinary competence in policy research and facilitation of cross-policy-domain **consultation** and **collaboration**

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.



Dimensions in the governance of multilateral co-operation on STI

I Institutional Arrangements, Agenda and Priority Setting

II Access Arrangements, Intellectual Property Rights

III Funding and Spending Arrangements

IV Capacity Building and Technology Transfer

V Delivering Benefits - Putting Science, Technology and Innovation into Practice

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!

Expected outcome of the project

- 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 stakeholder

Impact through a “soft law” approach

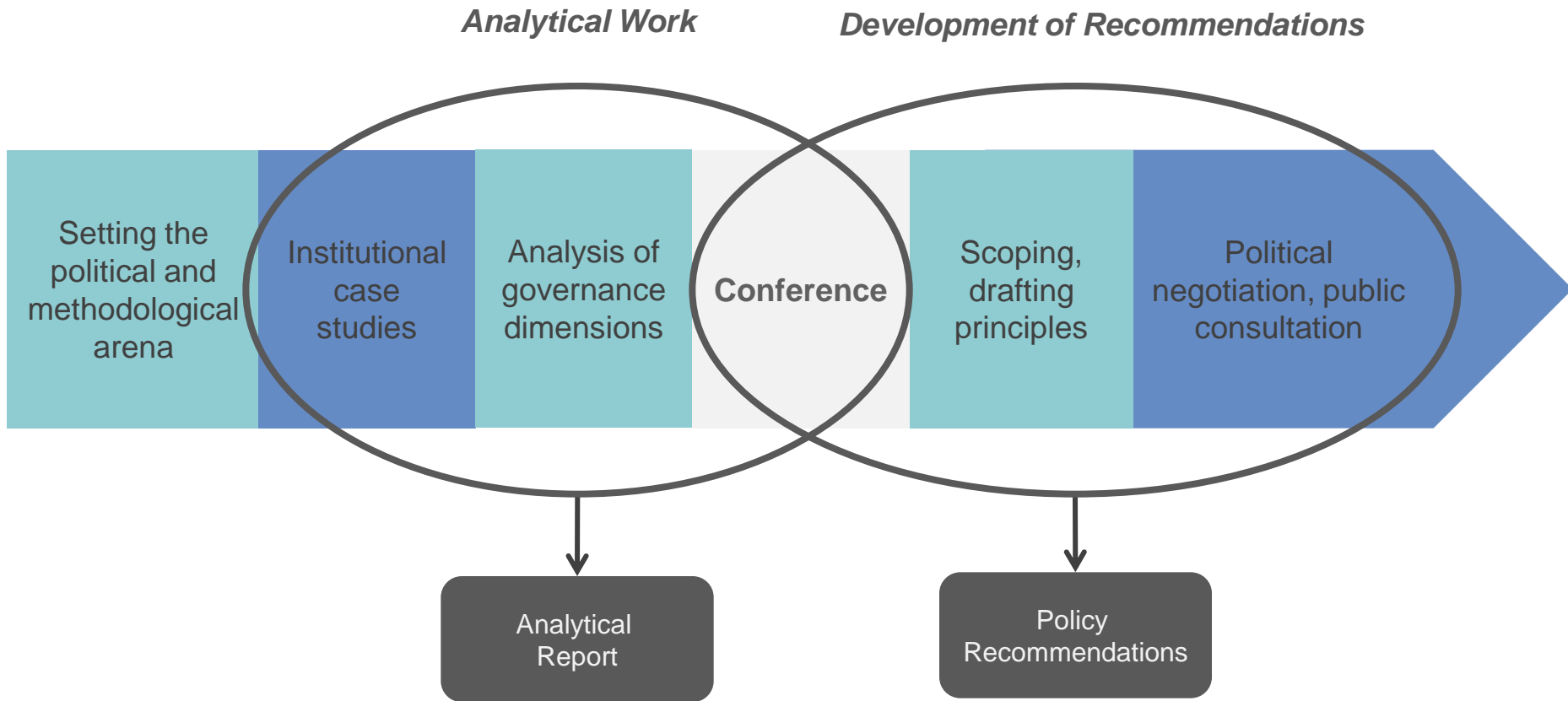
The ultimate goal of the project is to deliver **governance principles** for multilateral co-operation in STI enabling

- much greater impact from the collective efforts of countries to address global challenges, as well as
- strengthening innovation for development and
- improving international knowledge and technology flows

These principles will be **tailored to assist governments** throughout the world in their policy decisions.

They are likely to be expressed in an OECD Council Recommendation or a Declaration.

Project architecture



Lead countries involved

- Australia, Austria, Germany, Chile, China, France, Israel, Korea, Norway, South Africa, Spain, United Kingdom, United States and others
... and the European Union
- CSTP is open to 33 OECD member economies as well as 4 observer countries



Main characteristics of the initiative

- 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



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