



The Role of Science, Technology and Innovation Policies to Foster the Implementation of the Sustainable Development Goals

*Report of the European Commission Expert Group
“Follow-up to Rio+20, notably the SDGs”*

Prof. Enrico Giovannini

University of Rome “Tor Vergata”



Mandate and content of the Report

As requested in the “Terms of Reference”, the Report:

- Presents a reference framework in which research and innovation policy and related implementation measures are seen as engines of a transformative agenda built around universally applicable sustainability goals;
- Provides recommendations, both in terms of general policy orientations and concrete areas of engagement, for EU STI policy to contribute to the implementation, in Europe and beyond, of the 2030 Agenda, as well as for possible engagements in international initiatives concerning STI;
- Contains proposals to better align the Horizon 2020 tracking system to the SDGs.

Table of Content

1. Introduction
2. 2015: A Crucial Year for the World
3. The 2030 Agenda and its possible impact on EU policies
4. Recommendations to Mainstreaming Sustainable Development in the EU Policy for Science, Technology, Research and Innovation
 - Main avenues and key recommendations for STI4SD
 - General policy orientations
 - Improve the orientation of the EU STI tools towards achievement of SDGs
 - Possible STI-related policies for strengthening policy coherence for SD
 - Communication and information about STI4SD and to change behaviour towards SD
 - Suggestions for engagement with international initiatives linked to STI4SD
 - How to evaluate the success of STI4SD policies
 - Priority research needs

ANNEX: How to better align the Horizon 2020 'tracking' system with the monitoring and accountability framework for the SDGs

Key Messages

Science, technology and innovation (STI) policy is fundamental to implement the new United Nations “2030 Agenda” for sustainable development (SD)

It enables economic and environmental efficiency, fosters new and sustainable ways to satisfy human needs and empowers people to take their own future in hand.

The post 2015 sustainable development agenda calls on all countries to enhance research, upgrade technological capabilities, encourage innovation, grow the number of R&D workers per 1 million people and increase public and private R&D investment.

Key Messages

STI for SD policies (STI4SD) are a vital asset for the EU to continue to be the global frontrunner of SD

STI policies should be enhanced and aligned with the universal 17 Sustainable Development Goals (SDGs). The EU should use STI results and products to inform and target its implementation of the SDGs.

Orienting public and private investments in the real economy to the SDGs will help create markets for new solutions that respond to the challenge of sustainability

SDG-aligned R&I investments will accelerate economic transformation, promote technology uptake and adaptation and strengthen governance capacities. STI policies can turn SD into a huge business opportunity for European companies and know-how.

Key Messages

Achieving the SDGs is not just a political commitment or a moral imperative. It is an opportunity for promoting jobs and growth, and achieving prosperity

Three key avenues should be pursued for making the SDGs the organising framework for STI policies:

- *Switch the focus*, reorienting mindsets and behaviours towards SD, reframing the EU's STI challenges, and refocusing from technology transfer to building innovation capacity.
- *Strengthen international partnerships*, enhancing engagement with developing countries through existing EU instruments, engaging all stakeholders (especially business), and developing tailor-made international STI initiatives.
- *“Walk the talk” and establish enabling systems* identifying causes of implementation gaps, aligning domestic STI with SDGs, ensuring Policy Coherence for Sustainable Development, seizing benefits from the “data revolution”, and setting up monitoring, evaluation and assessments of STI4SD.

Priority Actions

1. Assess how STI policies can help better realise current EU policy objectives mapped against the SDGs and on this basis adopt a Communication on how STI4SD will support the implementation of EU strategies for sustainable development up to 2030 as part of the EU's overall socio-economic policy agenda;
2. Develop a framework for Policy Coherence for Sustainable Development and align EU STI instruments and external policies to the SDGs framework, as well as of Member States' STI policies;
3. Develop a framework for guiding STI investments to projects, programmes and initiatives with transformative sustainable potential, and establish a permanent observatory of changes and trends in new, emerging and potential future technologies for the SDGs;

Priority Actions

4. Integrate in the future Horizon 2020 work programmes the SDGs framework and language, increase the share of Horizon 2020 funds for SDGs-oriented projects and align the Horizon 2020 monitoring of the expenditure for SD to the 2030 Agenda;
5. In cooperation with behavioural economists, build a communication/education strategy on changes in production and consumption that supports the circular economy package;
6. Take a leading role in relevant international collaborations related to SDGs for which the EU has a recognised leadership and promote the establishment of new cross-thematic international STI cooperation initiatives that will drive change across the SDGs;

Priority Actions

7. Carry out foresight and research to identify critical trade-offs between policies aimed at achieving specific SDGs and understand how they can be mitigated through synergy solutions and possible multipurpose actions; strengthen governance for the SDGs;
8. Improve the availability, credibility and timeliness of data related to SDGs and develop new integrated indicators for measuring progress;
9. Evaluate how single market rules can be improved to foster innovation for SD.

Alignment with the Commission's Priorities

STI4SD actions oriented to establish enabling systems

STI4SD actions that support “Open Innovation”

STI4SD actions that support “Open Science”

STI4SD actions oriented towards increased EU “Research and Innovation Openness” to the world

Alignment with the Commission's Priorities

From vision to action

- The SDGs present an unparalleled opportunity for the EU, as part of a global effort, to prepare responses to the pressures on its economy, environment and quality of life.
- The 2030 Agenda calls on Europe to use its scientific and technological prowess to anticipate future risks and challenges.
- Steering Europe towards "the future we want" requires an extraordinary investment in knowledge creation and use, thus in science, technology and innovation, as well as the capacity to successfully address the deep systemic causes of the current and future challenges.
- The concerted pursuit of these objectives could make the EU the "world champion" in SD.

Alignment with the Commission's Priorities

The recent Communication of European Commission (COM(2015) 610 final) on the 2016 work programme underlines the commitment to secure Europe's future sustainability through the development of “a new approach to ensuring economic growth and social and environmental sustainability beyond the 2020 timeframe, taking into account the Europe 2020 review and the internal and external implementation of the United Nations Sustainable Development Goals”.

This is a perfect opportunity to put the 2030 Agenda at the core of the EU policy agenda and fully benefit from STI4SD policies to move Europe and the world on a sustainable path.