

1.16 Framing STI policy in changing landscapes of science: a global perspective

In discussing the future of STI policy we should address the issue in terms of pluralities. This means that the new framing of STI policy has to be based on the interconnections/interplays of changes, including the changes in the geopolitics of science, related to the pluralities of contexts, contents and futures of STI policy at national, regional and global level. Traditional STI policy design principles and process have limited capabilities when applied to complex interrelated challenges. Integrated STI policies are needed in response to the interconnected problems. The future of STI policies is about making decision within 'evolving systems' and processes of continual change and evolution as well as interactions between knowledge, values, institutions, systems and people in the context of complexities and uncertainties.

We are at a turning point for a complexity-based approach, systems approaches to frame STI for a new global vision of the scientific endeavours and related science policies, based on interconnections, interfaces, participation, discussion, consultation, cooperation, and coordination of perspectives at national and global level. The challenge is how redefine the science policy agendas in a coherent way in order to ensure "no one is left behind" which means for the full benefit of all individuals but all countries.

How to respect national policy space for sustained, inclusive and sustainable economic growth, in particular for developing states, while remaining consistent with relevant international rules and commitments (Agenda 2030, the Sendai Framework for disaster risk reduction, the Addis Ababa Action Agenda, the Climate Change agreements)?

How to translate in action the universality principle embedded in the SDGs taking into account different national realities, capacities and levels of development and respecting national STI policies and priorities?

The 2030 Agenda represents an opportunity and an obligation to change to way STI policies are designed. The transformative dimension of the Agenda calls for different and disruptive approaches. Based on a more comprehensive vision of development, the implementation of the Agenda 2030 requires innovative integrated (overcoming the "silo" approach) STI policies, informed by solid evidence, that are transversal under the imperative of sustainability. Inclusive policy processes, based on new forms of participation and partnership and multilevel governance reforms will be needed. A well-integrated and coherent STI policy design and implementation will require a solid framework of mechanisms and instruments to inform policy and ensure accountability. This will require intensified efforts to address the deficiencies that exist in many developing countries, particularly LDCs and SIDS. Data is critical to make the right decisions, develop adequate policies ensure their success, continuously review progress, and evaluate results and to draw lessons learned. The 2030 Agenda for Sustainable Development underscored that data is key for effective policymaking and decision-making, as well as for reviewing progress towards the Sustainable Development Goals (SDGs) and for ensuring that no one is left behind. It called for ensuring that data is of high quality, accessible, timely, reliable and disaggregated.

To better reflect the role of STI in achieving the 2030 Agenda, there is therefore a need for a fuller set of information than currently included in the core set of global SDG indicators. UNESCO, through the UNESCO Institute for Statistics (UIS), mandated to collect STI statistics and will lead the process to develop the thematic set of STI indicators for the SDGs. Such a thematic set would provide an integrated approach covering all aspects of STI, provide a means of advocacy for STI and raise its visibility, give information to policy makers on where to focus their efforts to achieve the SDGs, and point to areas where there is the greatest need for capacity building. A thematic set of STI indicators for the SDGs should provide broader and more detailed information on the STI components of the SDGs and targets as well as on the STI commitments made in the Addis Ababa Action Agenda. This

is in line with the commitment expressed in the the 2030 Agenda by all countries “support developing countries, particularly African countries, LDCs, SIDS and LDCs, in strengthening the capacity of national statistical offices and data systems to ensure access to high-quality, timely, reliable and disaggregated data”. UNESCO is well positioned to contribute to the discussion about the future of STI by sharing/presenting its experience in science policy both at national and global levels. In fact, UNESCO contributes to the overall implementation of Sustainable Development Goals by providing policy assistance to support developing countries in strengthening their scientific and technological capacity, and to help Member States design effective policies, based on the best available knowledge, including local and indigenous knowledge systems.

At global level UNESCO, through the UNESCO Science Reports, provides a global comprehensive picture of the many facets of science in an increasingly complex world – including trends in innovation and mobility, issues relating to big data and the contribution of indigenous and local knowledge to addressing global challenges. Furthermore the Organization is part of the major STI global initiatives (UN Secretary-General's Scientific Advisory Board, Agenda 2030, United Nations Inter-agency Task Team leading the global Technology Facilitation Mechanism (TFM), etc).

By virtue of its universal mandate, actions and competencies in STI policy, UNESCO may provide some insight in practically addressing the issues of “The Context, Content and Future of STI-Policy: Towards a New Framing” by providing the perspective from both developed and developing countries, particularly Africa and SIDS. How to build a broad –based approach towards an effective and coherent governance of STI in Africa? What kind of policies and institutions have to be formulated for a better governance of STI in Africa, particularly with regard to the 2030 Agenda for sustainable development in Africa In conclusion, how to create new sources of dynamism in STI policy framing to catalyse positive transformation for the benefit of all and to find new solutions that are effective, just and inclusive, to eradicate poverty, to stimulate sustainable growth, to strengthen social cohesion? This is the fundamental questions that need to be addressed when discussing the future of STI policy.

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