AUSTRIAN INSTITUTE OF TECHNOLOGY
TOMORROW TODAY

SUMMARY NOTE

"The re-configuration of research and Innovation (R&I): New directions and policy approaches for tackling global change"

ESOF - EuroScience Open Forum Toulouse

Harnessing innovation to achieve the sustainable development goals is a challenge and an opportunity. We still do not understand well the underpinnings and the effects of the digital revolution, and there is considerable concern about the pace of change and the lack of political and economic control over the pace of change. New research models and infrastructures are needed, to speed up processes of experimentation with new solutions. In this regard, openness is a contested issue: how open should data really be? Do we need to discriminate between different kinds of research data? What kind of restrictions would this impose on the researchers and scientists? And what can be done to ensure the optimal trade-off between openness on one hand, security and privacy on the other? Experimentation with new ways of engagement between science, industry and society, beyond research collaborations, is necessary.

Similar concerns were raised in relation to social needs, where the discussion focussed on issues of technology and human values; how tools liberate people's energy to bring good to the world and how these tools themselves frame human activity. There is a wide spread concern with the ramifications of Artificial Intelligence and more generally with the speed of technological change and autonomous technologies: these involve unprecedented promise for improvements in human condition and at the same time they can undermine values of freedom, equality, fairness and can lead to social exclusion. Responsible Research and Innovation is an important element in the puzzle of how to ensure that technological change serves both markets and human values while avoiding clashes between the two.

The future of energy supply dominated the discussion on safeguarding a hospitable planet. Will energy prices reflect the full social costs? Will energy-inequality be overcome? It is important to understand that social and institutional innovations are alternatives and complements to technological innovations. Regulatory and policy environments need to favour the uptake of solutions that will bring the world to a sustainable path. Education should enable young people to think in multiple perspectives and to approach challenges in a multi- and trans-disciplinary way. New, more holistic solutions require broad constituencies, well beyond established science and industrial partners. The much-advocated energy transition will only happen if well-informed citizens are massively involved. Attracting interest to research and innovation to addressing "mundane" issues such as energy supply is a challenge. "Innovation communication" has an important role to play.

In the final session, a panel of speakers articulated the challenge of Europe's responding to such issues with Horizon Europe. Philippe Larue of the OECD highlighted that the concerns with sustainability and technological change are shared across the world. Lidia Borrell-Damian stressed that multi- and trans-disciplinary approaches to European R&I call for changes in evaluation practices in Horizon Europe. Muriel Attané explained that the European Association of Research

and Technology Organisations will carefully monitor the developments of the various proposals linked to future R&I investments in Europe, i.e. Horizon Europe but also the Digital Europe initiative, and the new Space & Defence programmes. Matthias Weber, the leader of the BOHEMIA project, pointed out that longer-term ambitions and missions will require a regular adaptation of R&I agendas, both from a forward-looking perspective and in response to interim research findings. Nikos Kastrinos expressed the view that an important challenge ahead for the European Commission is to enshrine the values of responsibility and engagement in the processes of planning and implementing Horizon Europe. Processes of engagement are easier and more fun when they are about shaping the future, then when they are about dividing budgets. Foresight needs to become a bedrock of the R&I policy-planning processes of the European Commission.

Matthias Weber
Head of Center for Innovation Systems & Policy
matthias.weber@ait.ac.at