

Alberto Quadrio-Curzio

Summary of the presentation of the Joint Statement

New economic growth: the role of science, technology, innovation and infrastructure

Rome, 3 May 2017

The Joint Statement analyses both the scientific and the technological revolution from one side and from the other the new socio-economic paradigm which should be associated in order to promote sustainable development.

The science and technology change, with accelerating impact, include: digitalization and automation of production; smart systems, especially in renewable energy, transport, mobility and human-machine interfaces; artificial intelligence, with its ability to change our work-life balance and to impact many fields such as transportation and health care; bio-medical technology, with the exploitation of the new knowledge offered by genomics and its expansion to the diverse sectors of the “omics” revolution, with benefits extending even beyond health; sustainable technologies that could reshape the activities of production and consumption in ways that conserve natural resources, reduce climate change and improve environmental quality.

New paradigms of economic growth are required by these radical innovations which must be implemented, taking into account the aspects of sustainability as also indicated in the *Agenda 2030* promoted by the United Nations so as to narrow the North-South divide. This requires massive investments not only in research, but also in education and training and, even more so, in tangible and intangible infrastructures, to promote an inclusive development. It requires policies of governance, also with the public-private partnership, that are adequate to promote public awareness and reinforce public faith in the institutions.

The G7 countries are moving in this direction, although at different speeds, while stronger collaboration among States and within international organizations is necessary. In other words, a shared governance compatible with the market systems is necessary in order to reduce from one side the divide within and inside Countries and between North and South and from the other side the climate change in order to utilize all the potentiality of the new scientific and technological revolution and to prevent negative effects to the sustainable development.

The statement was drawn up by an interdisciplinary Committee coordinated by Alberto Quadrio-Curzio and composed by two main collaborators (Mario Pianta and Fabio Beltram) and by a group of Lincei fellows (Sergio Carrà, Massimo Inguscio, Alessandro Roncaglia) as well as other scholars (Patrizio Bianchi and Edoardo Reviglio). Many other researchers from CNR (Italy's National Research Council) and universities have collaborated to prepare some of the position papers. This work will soon be published in a book. During the G7 Academies Meetings of 23rd and 24th March 2017 an important contribution to improve the draft Joint Statement was provided by - in order of Country - Jeremy McNeil (Canada), Catherine Cesarsky and Sébastien Candel (France), Marina Koch-Krumrei and Regina Riphahn (Germany), Tsutomu Miyagawa (Japan), Richard Catlow, Andy Hopper and Richard Jones (United Kingdom), John Boright (USA). A special thanks goes to them all.