Organisation de Coopération et de Développement Économiques Organisation for Economic Co-operation and Development

05-Jun-2015

English - Or. English

DIRECTORATE FOR SCIENCE, TECHNOLOGY AND INNOVATION COMMITTEE FOR SCIENTIFIC AND TECHNOLOGICAL POLICY

Cancels & replaces the same document of 19 May 2015

Working Party on Innovation and Technology Policy

CSTP/TIP WORKSHOP
THE OECD SCIENCE, TECHNOLOGY AND INDUSTRY OUTLOOK

17 June 2015 OECD Conference Centre 2 rue André Pascal, 75016 Paris

Delegates will find attached the draft agenda for the Joint CSTP/TIP Ad Hoc Workshop starting at 9:00 am on 17 June.

Delegates should note that the issues paper for the workshop is available as: DSTI/STP/RD(2015)1. This ad hoc workshop will be held in English only.

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JT03378004

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CSTP/TIP WORKSHOP THE OECD SCIENCE, TECHNOLOGY AND INDUSTRY OUTLOOK 17 June 2015

OECD Headquarters - Conference Centre - Paris



The integration of the *OECD Science*, *Technology and Industry Outlook* into the <u>Innovation Policy Platform</u> (IPP) is currently under way.

The *OECD STI Outlook* (STIO) is a biennial publication that provides policy makers with the latest information and data on recent and forthcoming trends in the global science, technology and innovation (STI) landscape and identifies potential implications for national policies. The *STI Outlook* presents the conclusions of a broad questionnaire on key national STI policy trends that is conducted every two years under the aegis of the OECD Committee for Scientific and Technological Policy (CSTP).

The goal of this workshop is to identify ways for improving the outputs and production process of the forthcoming *OECD STIO Outlook*, especially in light of its integration into the Innovation Policy Platform (IPP). It also aims to identify major milestones, actors and possible contributions by CSTP/TIP Delegates to new 'forward-looking' activities.

17 June 2015		
09:00-09:15	Welcome coffee	
09:15-09:30	Opening and Welcome Overall Chair, Jerry Sheehan, Chairman of the OECD Working Party on Innovation and Technology Policy	

Morning sessions: the STI Outlook 2014 and 2016

The morning sessions will aim to identify ways to improve the STI Outlook's products and processes, in particular with a view to make Delegates' input easier and less burdensome.

The STI e-Outlook, a web-based portal integrated into the IPP that provides access to the digital content of the 2014 edition, i.e. the STIO profiles, its Policy Database and its benchmarking tools, will also be launched in the morning.

09:30-10:00	Session 1: Launch of the STI e-Outlook
09:30-09:45	Kick-off presentation General discussion and Q&A online
09:45-10:00	Launch of the "e-Outlook contest": Hands-on testing and dialogue with the STI Outlook team

10:00-13:00	Session 2: Assessment of the 2014 exercise and preparation of the 2016 edition.
10:00-10:20	Results of the STIO 2014 follow-up survey and introduction of the following items. Presentation by the OECD
10:20-10:45	The production process: general discussion and feedback from the countries.
10:45-11:15	Coffee break
11:15-12:00	The questionnaire: its redesign, a web-based e-questionnaire and its articulation with a new integrated information system, co-operation with the EC on a joint questionnaire. Presentation by the European Commission General discussion
12:00-12:25	Possible improvements to the STIO Policy Database. General discussion
12:25-12:50	Structure of the STI Outlook 2016 and its integration into the IPP: the digitalization of profiles General discussion
12:50-13:00	First feedback of the 'e-Outlook contest'
13:00-14:30	Lunch break

Afternoon sessions: a Forward-Looking Perspective

The Secretariat aims to improve the "outlook" dimension of the 2016 edition by enhancing its forward-looking perspective, i.e. by extending time horizons to 10-15 years into the future, taking as a starting point the "Trends" chapter of the STIO 2014 (<u>DSTI/STP(2015)7</u>).

The afternoon session is organised in the form of five parallel breakout groups, with each group focused on discussing a topic of interest to CSTP/TIP that will feature in the forward looking analysis. Selected topics are congruent with ongoing TIP and CSTP work, for example, around the Knowledge Triangle and Systems Innovation projects.

14:30-14:50	Introductory plenary session
14:30-14:50	Presentation of the forward-looking exercise and the breakout sessions.
14:50-15:00	Joining your session
15:00-17:00	Parallel breakout sessions
15:00-16:45	Parallel group discussions
	Breakout session n°1: The future of public Research and Technology Organisations RTOs play important, though often ill-understood roles in innovation systems. They face many challenges, including pressures on public funding, the ability to attract and retain the

best researchers, and sometimes an ageing work force and need to upgrade research infrastructures. There are also opportunities, e.g. from open innovation and growing internationalisation. This session will explore the main drivers of change affecting RTOs and consider possible future developments over the next 10-15 years. This theme relates to current work on the knowledge triangle.

Facilitator: Michael Keenan (OECD)
Rapporteur: Kirsti Vilén (Finland)

Breakout session $n^{\circ}2$: New technologies in production: economic, environmental and policy implications

Major science and technology-driven changes in the production and distribution of goods and services are already diffusing widely. Others – possibly more significant still – are on the horizon. For instance, powerful data analytics, and large data sets, will permit machine functionalities that rival human performance in complex tasks. Robots are set to become more intelligent, autonomous and agile. Synthetic biology, still in its infancy, could become transformative. 3D printers are becoming cheaper and more sophisticated, even printing biological tissue. And materials science is yielding materials with novel characteristics of value to industry. Such developments could bring far-reaching impacts for productivity, employment, income distribution and the environment. As well as positive impacts, some technological developments in production could also entail risks. Governments need to know more about the risks and opportunities created by technological change in production, along with the policies to cope with risk and realise potential benefits. This theme relates to current work on the new production revolution as well as to work on system innovation.

Facilitator: Alistair Nolan (OECD)

Rapporteur: Lucie Núñez Tayupanta (Czech Republic)

Breakout session n°3: The future of science policy design and delivery

National strategies are a keystone of STI policy making but a key issue for the future is the ability of governments and agencies to deliver better science policy outcomes that respond to societal challenges. The focus of this session will be on the middle layer of policy governance, particularly science and innovation funding agencies, and the capabilities required to deliver on science policy goals – from basic research to translational research – whilst ensuring broader societal impacts. This theme relates to current projects on the knowledge triangle and impact assessment, NESTI work on careers of doctorate holders and ongoing OECD work on open science.

Facilitator: Carthage Smith (OECD)

Rapporteur: Fernando Merida Martin (Spain)

Breakout session nº4: The future of innovation policy design and delivery

A broad mix of policies to support business R&D and innovation is now commonplace in most OECD countries. Furthermore, many countries have put in place dedicated organisational structures, e.g. innovation agencies, to manage and develop these policies. Policy goals, tools, and organisations are certain to evolve over the next decade or so. This session will therefore explore the following sorts of questions: What will be the next generation of policy tools to enhance business R&D and innovation performance? What sorts of organisation and capabilities will be required for these tools to be effective? How

	could the big data revolution enable more effective policy design, implementation, monitoring and evaluation? This theme follows on the recent OECD Innovation Strategy 2.0 and relates to current impacts assessment work in TIP, NESTI, GSF and BNCT. Facilitator: Sandrine Kergroach (OECD) Rapporteur: Göran Marklund (Sweden) Breakout session n°5: Future research careers Research careers aren't what they used to be and are likely to change further over the next decade or so. Key drivers of change include the ways science is funded (increasingly competitive, project-based) and organised (increasingly inter-disciplinary and collaborative), technological change (increasing automation in the lab, big data and other ICT developments), and the related changes in the way science and scientists engage with society and the economy. Drivers such as these already have impacts on the supply of and demand for researchers, on the research as well as innovation skills required, on mobility and on career paths. This session will explore some of the key drivers of change and consider what researcher training and careers could look like in the next 10-15 years. This theme relates to current work on the knowledge triangle as well as OECD work on open science. Facilitator: Mario Cervantes (OECD) Rapporteur: András Hlács (Hungary)
16:45-17:00	Wrap-up
17:00-17:10	Coming back please
17:10-18:00	 Concluding plenary session: Presentations by rapporteurs Conclusions by the Secretariat
18:00	Adjourn
18:00-20:00	TIP Cocktail, including announcement of the winners of the "e-Outlook contest"