

Digital Innovation and University-Industry Collaboration:

New Policy Perspectives

Agenda

Day 1 (10 April 2019 – afternoon):

Launch OECD report 'Digital Innovation: Seizing Policy Opportunities'

Day 2 (11 April 2019 – morning):

Launch OECD report 'University-Industry Collaboration: New Evidence and Policy Options'

Days 2 and 3 (11 April - afternoon, 12 April - morning):

Workshop on R&D intensity





DIGITAL INNOVATION AND UNIVERSITY-INDUSTRY COLLABORATION: NEW POLICY PERSPECTIVES

10-12 April 2019

London, Digital Catapult Centre



Innovate UK

UK Research and Innovation



Introduction

Digital technologies and Artificial Intelligence (AI) in particular are having pervasive effects on innovation. They enable the creation of new digital or digitally-enabled products, services and business models, as well as the enhancement of traditional ones, as exemplified with connected cars. They also foster innovation in production and distribution processes, as illustrated by Industry 4.0 developments. Innovation processes themselves are changing: AI-based analytics allow for large-scale experiments in research, and new virtual simulation and prototyping techniques accelerate the development of new products.

New mixes of skills and capabilities are often required to innovate in this context, making collaborations and science-industry interactions become ever more critical.

In this context, are current innovation policy approaches still relevant to foster innovation and inclusive growth? In what ways should they be adapted? What is the role and the impact of public research in this context? What can policy do to foster effective knowledge transfer? To what extent is the dominant policy focus on R&D investments appropriate?

This event will offer answers to those questions provided by two new reports produced by the OECD Working Party on Innovation and Technology Policy (TIP): 'Digital Innovation: Seizing Policy Opportunities' and 'University-Industry Collaboration: New Evidence & Policy Options'. The reports provide new insights on recent trends and dynamics regarding the impact of digital transformation on innovation, and science-industry knowledge exchange, respectively; explore what are the implications for innovation policy; and provide specific policy recommendations. This event will be an opportunity to discuss those findings and recommendations and what are emerging policy questions in these areas with policy practitioners and experts.

The event will also provide inputs to new work by the OECD Working Party on Innovation and Technology Policy on R&D intensity and effective co-creation for inclusive and sustainable growth.

This event is organised jointly by the Digital Catapult, Innovate UK and the OECD Working Party on Innovation and Technology Policy (TIP).

Objectives of the event

This event will officially **launch the final reports of the two projects** conducted by the OECD Working Party on Innovation and Technology Policy (TIP) in 2017-18:

- The <u>Digital and Open Innovation</u> project analyses how digital transformation is affecting innovation across the economy and identifies innovation policy priorities to foster innovation for inclusive and sustainable growth in the digital age. The final report will be launched on Day 1 of the event (Wednesday afternoon, 10 April 2019).
- The <u>Knowledge Transfer and Policies</u> project analyses the impact of public research institutions on innovation performance, and explores the policy instruments implemented across countries to support science-industry knowledge transfer. The final report will be launched on Day 2 of the event (Thursday morning, 11 April 2019).

The launch event will provide opportunities for discussing the main findings and policy recommendations of the reports. The event will also provide an opportunity to exchange with policy makers about novel policy initiatives and experiments they implemented.

This event will also kick-off the discussions on open questions requiring policy analysis to be conducted by the OECD Working Party on Innovation and Technology Policy (TIP). This includes work on co-creation and R&D intensity, in particular. Specific discussions on the R&D intensity policy target will take place on Day 2 and 3 of the event (Thursday afternoon and Friday morning, 11 and 12 April 2019).

Why attend and who is suitable for the event?

The event targets policy makers, experts and researchers in the fields of innovation and innovation policy, interested in the impacts of the digital transformation on innovation activities and outcomes, as well as new dynamics in science-industry knowledge exchange for innovation.

Short agenda

DAY 1 (Wednesday afternoon, 10 April 2019):

Launch of the OECD report 'Digital Innovation: Seizing Policy Opportunities'

DAY 2 (Thursday morning, 11 April 2019):

Launch of the OECD report 'University-Industry Collaboration: New Evidence and Policy Options'

DAYS 2 and 3 (Thursday afternoon and Friday morning, 11 and 12 April 2019):

Workshop on R&D intensity

You can consult the speakers' biographies at this link: https://oe.cd/2xy

AGENDA

Wednesday, 10 April 2019

Launch of the OECD report 'Digital Innovation: Seizing Policy Opportunities'

Registration & lunch

11h30

Opening

12h15 - 12h45

Dominique Guellec, Head of Science and Technology Policy Division, OECD Directorate for Science, Technology and Innovation

Sir Mark Walport, Chief Executive, UKRI

Presentation of the OECD report 'Digital Innovation: Seizing Policy Opportunities'

12h45 - 13h45

The authors will present the report's main findings and policy recommendations. The presentation will be followed by a Q&A session.

Chair: **Göran Marklund,** Deputy Director General and Head of Operational Development at VINNOVA, and Chair of the OECD Working Party on Innovation and technology Policy

Report presentation:

- **Dominique Guellec,** Head of Science and Technology Policy Division, OECD Directorate for Science, Technology and Innovation
- Caroline Paunov, Head of Secretariat for the OECD Working Party on Innovation and Technology Policy, OECD Directorate for Science, Technology and Innovation
- Sandra Planes-Satorra, Junior Policy Analyst, OECD Directorate for Science, Technology and Innovation

Panel 1: Where should innovation policy go from here?

13h45 - 15h15

The report 'Digital Innovation: Seizing Policy Opportunities' describes how innovation changes in the context of the digital transformation and how innovation policies require change. Panellists will reflect on the recommendations and provide their perspectives on both how policy should respond and what is already being implemented.

Chair: **Dominique Guellec,** Head of Science and Technology Policy Division, OECD Directorate for Science, Technology and Innovation

Speakers:

- Greg Falconer, Deputy Director, Innovation Policy, BEIS (SRID), UK
- **Rick Johnson,** CEO of Global Helix LLC and member of the Board on Life Sciences at the National Academy of Sciences, USA
- Román Arjona-Gracia, Chief Economist, Head of Unit A4 "Reforms and economic impact country intelligence", DG Research & Innovation, European Commission

15h15 – 15h45: Coffee break

Panel 2. How to implement the policy recommendations in practice: policy experiments

15h45 - 16h45

The report also pays attention to the policy practice and to novel ways of implementing policies. This session focuses on specific initiatives and experiments to move towards inclusive digital societies. It provides examples on institutions that help support digitalisation, all of which have been provided as inputs to the OECD-TIP project in the form of case studies.

Chair: Zoë Webster, Director AI and Data Economy, Innovate UK

Speakers:

- Brian MacAulay, Lead Economist, Digital Catapult, UK
- Roland Sommer, Managing Director, Plattform Industrie 4.0, Austria
- Cheryl George, Director Business Development and Commercialisation, CSIRO's Data 61, Australia

Panel 3. AI and data management for innovation: how to handle the challenges ahead?

16h45 - 18h00

Artificial intelligence offers new opportunities for innovation, specifically by leverage data of different nature in new ways. The objective of the session is to discuss the specific potential of AI and what needs to be done to best leverage AI, while avoiding possible downsides and risks.

Chair: **Tim Vorley**, Professor of Entrepreneurship, University of Sheffield, UK, (Vice-Chair of the OECD TIP Working Party)

Speakers:

- **Holger Hoos** & **Morten Irgens**, Vice Rector for Research & Development (Vice-President) at Oslo Metropolitan University on CLAIRE initiative
- Irene Ng, Professor, University of Warwick
- Harley Davis, Vice President from the France Lab, IBM
- Paul Galwas, CSO, DEX Europe Ltd

Evening reception exploring policy experiments and new technologies

18h00 - 20h00

The evening reception will include an opportunity to learn from other policy experiments and get further insights on sectoral trends in digital innovation. Authors of case study contributions to the project will discuss in small groups about their policy experiment and analysis, allowing participants to learn from those cases of most interest to them.

Speakers:

- Caroline Paunov, Head of Secretariat for the OECD Working Party on Innovation and Technology Policy, OECD Directorate for Science, Technology and Innovation
- Brian MacAulay, Lead Economist, Digital Catapult, UK

Case study discussions:

China & Germany: The digitalisation of the automotive supply chain

Johannes Kern, Senior Research Associate, Tongji University

Greece: Research-Create-Innovate initiative

Vasileios Gongolidis, Policy Planning Officer, General Secretariat for Research and Technology, Greece

The Netherlands: Smart Industry Fieldlabs

Job Teurlinx, Netherlands Ministry of Economic Affairs and Climate Policy

Germany: Mittlestand 4.0 Competence Centres

> Werner Kohnert, Team Leader, Project Managaemnt Agency of the German Aerospace Center (DLR)

Italy: Industry Platform 4 FVG

Stefano Salvador, Head of Enterprises and Incubation Office, AREA Science Park

Participants will also be able to access the future network lab and the immersive lab to explore the possibilities of these new technologies.

Thursday, 11 April 2019

Launch of the OECD report

'University-Industry Collaboration: New Evidence and Policy Options'

Arrivals

9h00

Welcome speech & opening

9h30 - 9h40

David Wilkes, Deputy Director, Connect Portfolio, Innovate UK

Dominique Guellec, Head of Science and Technology Policy Division, OECD Directorate for Science, Technology and Innovation

Presentation of the OECD report 'University-Industry Collaboration: New Evidence and Policy Options'

9h40 - 10h30

The authors will present the report's main findings and policy recommendations. The presentation will be followed by a Q&A session.

Chair: **Margherita Russo,** Professor, University of Modena and Reggio Emilia, Italy *Report presentation:*

- Caroline Paunov, Head of Secretariat for the OECD Working Party on Innovation and Technology Policy, OECD Directorate for Science, Technology and Innovation
- Martin Borowiecki, Junior Economist, OECD Directorate for Science, Technology and Innovation
- José Guimón, Associate Professor, Universidad Autónoma de Madrid

Panel 1. Where should innovation policy go from here?

10h30 - 11h30

The report describes how new evidence on knowledge exchange and outlines the policy mix. Panellists will reflect on the recommendations and provide their perspectives on both how policy should respond and what is already being implemented.

Chair: **David Wilkes,** Deputy Director, Connect Portfolio, Innovate UK *Speakers:*

• Wolfgang Polt, Director, Centre for Economic and Innovation Research, Joanneum Research Ltd. Austria

- Anna Valero, Innovation Fellow, Centre for Economic Policy, London School of Economics
- Chris Warkup, CEO, Knowledge Transfer Network, UK

11h30 – 11h45: Coffee break

Panel 2. Innovation policy in practice: Policy experiments to foster knowledge transfer

11h45-12h45

The report also pays attention to the policy practice and to novel ways of implementing policies.

Chair: **Tiago Santos Pereira**, Senior Research Fellow, Centre for Social Studies, University of Coimbra, Portugal & Vice-Chair of the OECD Working Party on Innovation and Technology Policy

Speakers:

- **James Phipps,** Head of Economic Analysis and Policy Development (IGL), Nesta, UK
- Sue-Yen Tjong Tjin Tai, Senior Researcher, Rathenau Instituut, the Netherlands
- Jari Hyvärinen, Senior Advisor, Business Finland

Lunch reception exploring policy experiments

12h45 - 14h30

During the lunch reception participants will have the opportunity to learn from policy experiments from across the OECD countries. Authors of case studies contribution to this OECD project will discuss with participants their policy experiences.

Speakers:

- Anna Valero, Innovation Fellow, Centre for Economic Policy, London School of Economics
- Caroline Paunov, Head of Secretariat for the OECD Working Party on Innovation and Technology Policy, OECD Directorate for Science, Technology and Innovation

Case studies discussions:

Austria: Policy mix for science-industry knowledge transfer

Brigitte Ecker, Managing Director and Senior Researcher, WPZ Research GmbH

Martin Winkler, Federal Ministry Digital and Economic Affairs, Austria

Finland: Promotion of spin-off activities through VTT Ltd and VTT Ventures Ltd

Matthias Deschryvere, Senior Research Scientist, VTT Technical Research Centre of Finland Ltd

Finland: TUTL - New Business from Finland: Policy mix for Science-Industry **Research Ideas** knowledge transfer Jari Hyvärinen, Senior Advisor, Business Jari Hyvärinen, Senior Advisor, Business Finland Finland France: CEA – Alternative Energies Germany: Programmes to promote spinand Atomic Energy Commission offs at Fraunhofer-Gesellschaft Isabelle Rivat, Strategic analysis Thorsten Lambertus, Head of AHEAD, division, CEA Fraunhofer-Gessellschaft EU office, Germany Greece: Direct grants and equity funds in **Hungary: Centres for Higher Education** support of spin-offs and Industrial Cooperation Krisztina Sóvágó, Analyst, National Research, Agni Spilioti, Director for R&D Policy Development and Innovation Office, Hungary Planning, General Secretariat for Research and Technology, Greece Italy: Italian methodology for the evaluation The Netherlands: the Dutch of Third Mission activities **Valorization Program** Marco Malgarini, Senior Manager for Job Teurlinx, Netherlands Ministry of Research Evaluation, ANVUR **Economic Affairs and Climate Policy** Spain: Spin-offs support at Tecnalia **UK: ICURe pilot programme** José Argudo, Evaluation Specialist, Innovate Asier Rufino, CEO Tecnalia Ventures

UK

Thursday, 11 April 2019

Workshop on R&D intensity (I)

Opening

14h30 - 14h45

Dominique Guellec, Head of Science and Technology Policy Division, OECD Directorate for Science, Technology and Innovation

Panel 1. What are the determinants of R&D intensity?

14h45 - 16h30

Joint session organised by the Digital Catapult, Innovate UK, the European Commission and the OECD

This session will discuss what we know about the factors driving R&D intensity target and focus on what are the important policy questions for which more evidence is needed.

Chair: **David Legg,** Lead Specialist for Evaluation and Evidence, Innovate UK & Vice Chair of the OECD Working Party on Innovation and Technology Policy

Opening Presentation: **Ana Nieto,** DG RTD TIP Delegate, Directorate-General for Research and Innovation, European Commission: 15 years of EU2020-3% R&D target: evolutions and lessons learned

Speakers:

- Bettina Peters, Senior Researcher, Centre for European Economic Research
- Stephen Roper, Director, Enterprise Research Centre, Warwick Business School, UK
- Wesley Cohen, Professor of Economics and Management, Fuqua School of Business, Duke University

16h30 – 17h00: Coffee break

Panel 2. What are the key policy issues?

17h00 - 18h00

This session will discuss country experiences with setting R&D intensity targets and an cross-OECD overview of the application of a specific tool aimed at boosting R&D intensity: R&D tax credits

Chair: Lennart Stenberg, Senior Advisor, VINNOVA

Speakers:

- Yoon-been Lee, Researcher, Korea Institute Of S&T Evaluation and Planning (KISTEP)
- Helen Pearce, Senior Strategy Advisor, UKRI
- Fernando Galindo-Rueda, Senior Economist, NESTI MicroBeRD Project

Closing

18h00 - 18h10

Friday, 12 April 2019

Workshop on R&D intensity (II)

Arrivals

9h00

Overview of initial project plans & discussion

09h30 - 11h00

This session will present the preliminary plans for the TIP 2019-2020 project on R&D intensity, including the main questions of focus, methodologies, timelines and possible outcomes.

Chair: **Göran Marklund,** Deputy Director General and Head of Operational Development at VINNOVA, and Chair of the OECD Working Party on Innovation and technology Policy

11h00 – 11h30 : Coffee break

Discussion regarding the project template & analysis plans

11h30 - 12h30

Discussion leads:

- Ana Nieto, DG RTD TIP Delegate, Directorate-General for Research and Innovation, European Commission
- **Byeongwon Park,** Research Fellow, Science and Technology Policy Institute, Korea
- Margherita Russo, Professor, University of Modena and Reggio Emilia, Italy
- **Agni Spilioti,** Director, Policy Planning Directorate, Ministry of Education, Research and Religious Affairs, Greece

TIP delegates and other interested participants will discuss about the next steps on the TIP project on R&D intensity, focusing on the template for country case study contributions to the project will also be presented. The aim of this template is to gather existing evidence from countries on specific dimensions of relevance for the projects, such as data regarding R&D performance across regions, performance of top firms, sectoral distribution, etc. Gathering detailed data at country level will be a first critical step towards analysing what are the factors that drive R&D intensity and impacts.

Closing

12h30 - 12h45