

OECD Science, Technology and Industry Outlook 2016

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OECD Directorate for Science, Technology and Innovation

CSTP-TIP Workshop on the Future Trends in STI Policy

Paris, December 17, 2015





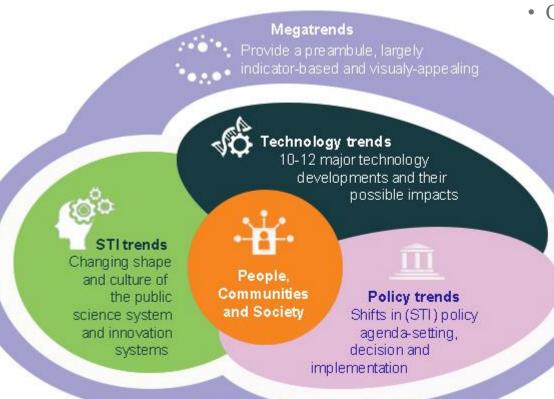
"OECD Science, Technology and Industry Outlook"

- "What's new in the field of science, technology and innovation policy?"
- International review of key recent trends in STI and policies
- Based on latest STI policy information and indicators
- OECD Flagship publication
- A 20-year tradition. Every 2 years.
 Next release: Oct./Nov. 2016.





Stretching time horizons 10-15 years



- Four trend components
- One cross-cutting theme
 - Largely qualitative (no sophisticated quantitative forecasting)

Perennial/novel tensions/controversies



Forward-look exercise: basic principles



Resource constraints => light exercise

- **Synergies** with existing OECD/EC/country initiatives (e.g. national technology assessments –UK, France-, etc.)
- Desk-based analysis, interviews and workshops:
 - GSF, working session, April 2015
 - Internal workshops across OECD, May-June 2015
 - CSTP/TIP half-day workshop (17 June 2015)
 (DSTI/STP/TIP/AH/M(2015)1)
 - Series of workshops in capitals (Beijing, Seoul, Washington)
 - CSTP/TIP final workshop (17 December 2015) (DSTI/STP/A(2015)3)
 - Internal interviews across DSTI, January 2016
- Country responses to the joint EC-OECD STIP survey (formerly STI Outlook policy questionnaire)

Final draft report to be discussed at CSTP in March 2016.



10 Megatrends

- (1) Demography
- (2) Natural Resources
- **(3)** Energy
- (4) Climate and Environment
- (5) Globalisation
- (6) Role of States
- (7) Economy, Jobs and Productivity
- (8) Society
- (9) Health, Wealth and Inequality
- · (10)



World's population to reach 8.5 billion by 2030

////////// OECD STI OUTLOOK 2016 /////////// OECD 2016 ////////// OECD 2016 ///////////

Towards a global parity between the over-60s and the number of

OECD STI Outlook 2016 Megatrends

Did you know...

and 9.7 billion by 2050

The Growth will take place
Almost entirely in less
developed countries

Africa
Asia
Europe
Latin America and the Caribbean
Northern America
Oceania

Northern America
The over-60 population will be larger than the under-15 population in 2050.

The over-60 population in 2050.

Children by 2050

The flow will take place
Almost entirely in less developed.

Africa
Asia
Europe
UN, 2015

The over-60 population will be larger than the under-15 population in 2050.

Urban population to surpass 6 billion by 2050 (less than 1 billion in 1950).

By 2100, it is likely to reach somewhere around 9 billion (85% of the projected global population (OECD, 2015))



1950: 29% Of the world's population lived in cities



2050: 59%

Of the world's population lived in cities



2100: 85% Of the world's population

Demography

Selected data

Science

Estimations of future workforce shortages should consider technological change as an important determining factor, particularly the impacts of robotics and artificial intelligence, which may reduce the demand for migrant workers' labour and skills. Technologies such as these and others (e.g. neurotechnologies) may also enhance physical and cognitive capacities, allowing people to work longer in their lives.

Technology

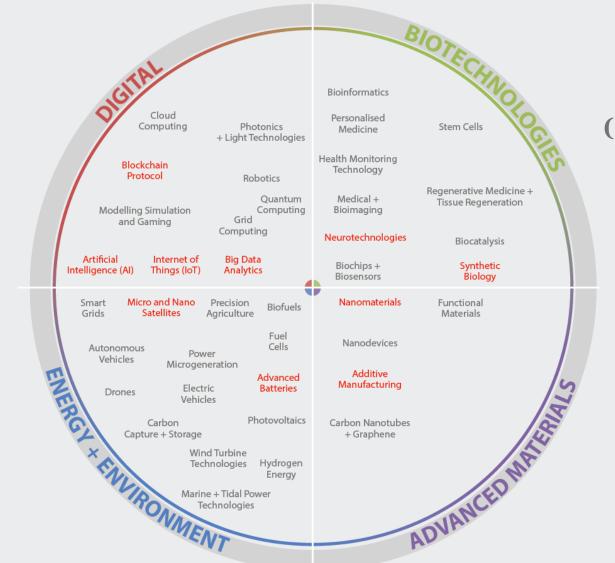
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nnovation

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Technology trends radar



Based on national technology foresight exercises

(6 countries so far and to be expanded)



A dedicated space on the IPP





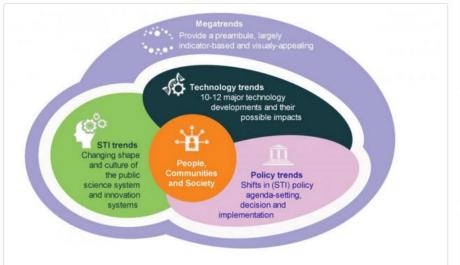
OECD STI Outlook Forward Look

To enhance the forward-looking perspective of the OECD Outlook, the OECD's DSTI is conducting a 10-15-year time horizon exercise with a particular focus on the future of public research and the future of STI policy-making, as well as important technological developments and generic "megatrends".

The 'forward look' approach relies mostly on **desk-based analysis** of existing future-oriented analysis, coupled with a series of **workshops** and telephone **interviews** that generate inputs and produce findings. It is conducted under the aegis of the OECD's CSTP.

Read more (download the Flyer in PDF)









STI Outlook 2016: schedule of the forward-look exercises

- 17 December 2015 : CSTP/TIP workshop in Paris to discuss emerging findings of the forward-looking activities.
- **January 2016**: series of internal interviews (mainly DSTI).
- March 2016 (CSTP meeting): presentation of a first batch of draft "New Trends" chapters to the OECD CSTP.
- October/November 2016: official release of the publication hopefully with the STI e-Outlook and STIP database online.



For further question...

www.oecd.org/sti/outlook

www.innovationpolicyplatform.org/sti/e-outlook

www.innovationpolicyplatform.org/oecd-stio-forward-look





Thanks!

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