AI in the Policy Agenda

Dominique Guellec
Head, Science and Technology Policy
OECD

IC15, 11 July 2019

BETTER POLICIES FOR BETTER LIVES

What is AI?

- AI is a set of technologies that can emulate functions normally accomplished by human intelligence
- Current AI (machine learning) is an extension of Big Data analytics - it was re-born a few years ago out of the huge quantity of data available
- AI does pattern recognition (natural language, voice, images), anomaly detection, prediction (consumer data analytics) etc.
- Instrumental in user interfaces, IoT, robotics (e.g. autonomous vehicles)
- There is much hype, but large scale effects will come progressively in 2-10 years time

AI is no ordinary technology

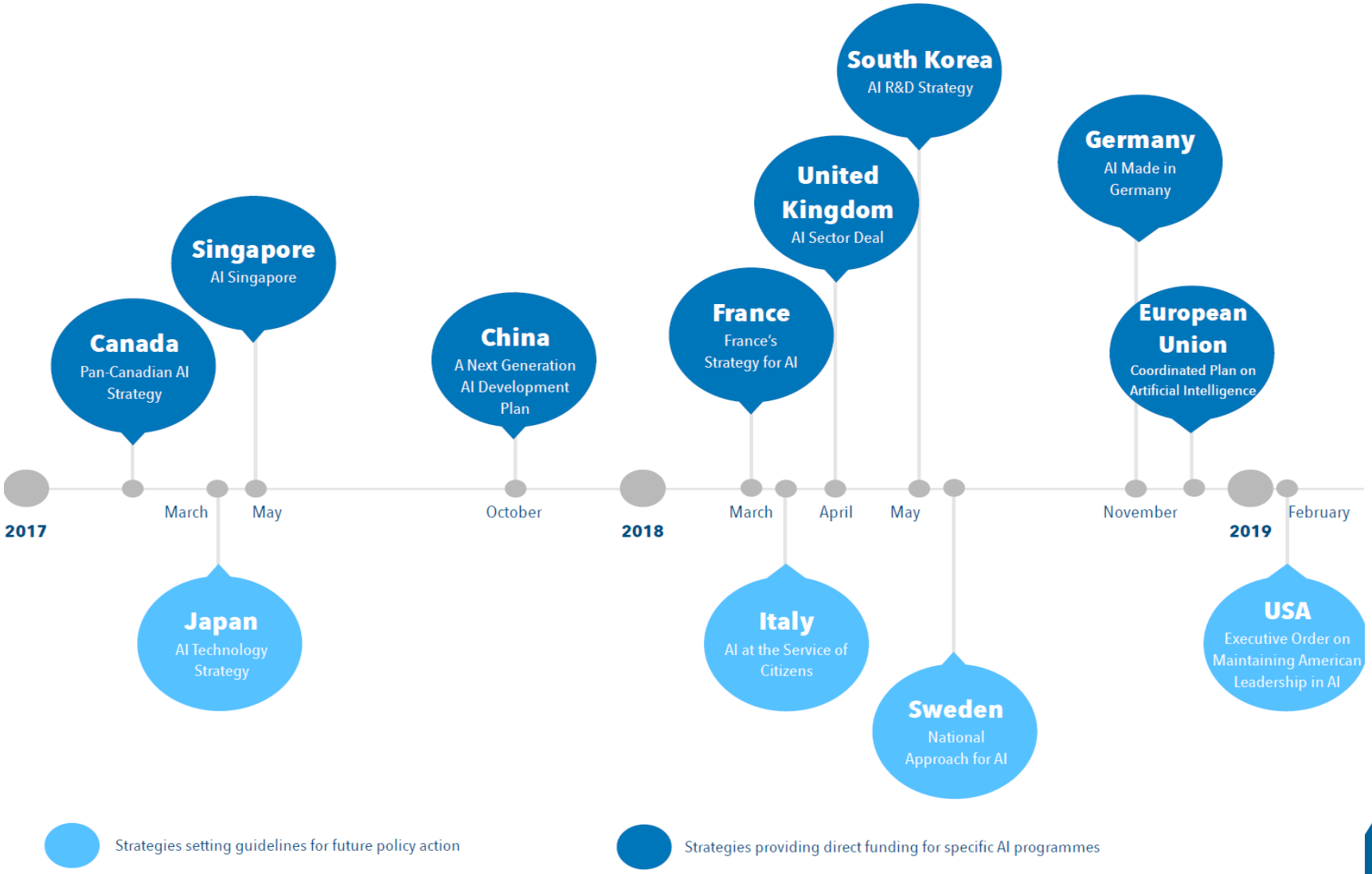
- AI is a General Purpose Technology: it will transform ALL economic sectors and social activities
- AI will boost productivity in all activities it touches
- AI, like traditional IT but to a larger extent, will affect income distribution, hence social equilibria
- AI as an instrument of state power: weapons, mass surveillance
- AI has to do with the very identity of humanity, which is based on intelligence: hence it raises complex societal and ethical issues

AI Policies: Government is not Ready

- **Government does not have the money**: About USD 40 billion was spent on AI in 2016, almost all by businesses. Salaries for AI experts are so high that government and academia can't afford hiring them (university professors in AI often have their main job in a private company).
- **Government does not have, yet, the conceptual framework** to design appropriate regulation - ethics, competition policy etc.
- **Government is national**, whereas many features of AI and issues raised by AI are global in scope

National AI Strategies

Source: Planes-Satorra and Paunov (2019)



National AI Strategies: Main Objectives

- Strengthen (national) research in AI
- Strengthen capabilities in AI: infrastructures (high power computing; data; technical standards); skills
- Support businesses' adoption of AI (notably SMEs)
- Boost the use of AI by public administrations
- establish inclusive approaches and ethical standards

National AI Strategies: Main Instruments

- Create new research centers
- Fund chairs in universities
- Sponsor new programs in Higher Education
- Finance special funds for research and start-ups
- Create incubators, hubs, clusters etc.
- DARPA type of support for breakthrough innovation
- Establish testing facilities
- Fund research focused on ethical & societal issues
- Create AI observatories (overall coordination and monitoring of policies)

Provisional Conclusions

- AI will be a major shaping factor in the future for economies and societies
- AI is a key domain for government to influence
- Governement are in the back seat at the moment
- Europe is lagging behind the US and China, it needs to catch up fast

Guellec, D. and C. Paunov (2018), OECD,
Innovation policies in the digital age
https://dx.doi.org/10.1787/eadd1094-en

Planes-Satorra, S. and C. Paunov (2019), OECD,
The digital innovation policy landscape in 2019
https://www.oecd-ilibrary.org/science-and-technology/the-digital-innovation-policy-landscape-in-2019_6171f649-en

dominique.guellec@oecd.org

OECD
BETTER POLICIES FOR BETTER LIVES