



INVESTING IN THE SDGS

WHAT DOES IT MEAN FOR POLICIES?

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Dominique Guellec
Head, Science and Technology Policy
OECD



What this presentation is about

Two top level objectives for research policies:

- Improving competitiveness (jobs, GDP etc.)= 3% (2/3, 1/3)
- Addressing SDGs

Reaching two different targets while under budgetary constraint is difficult, and priority in the past has been clearly given to the first one...

Questions:

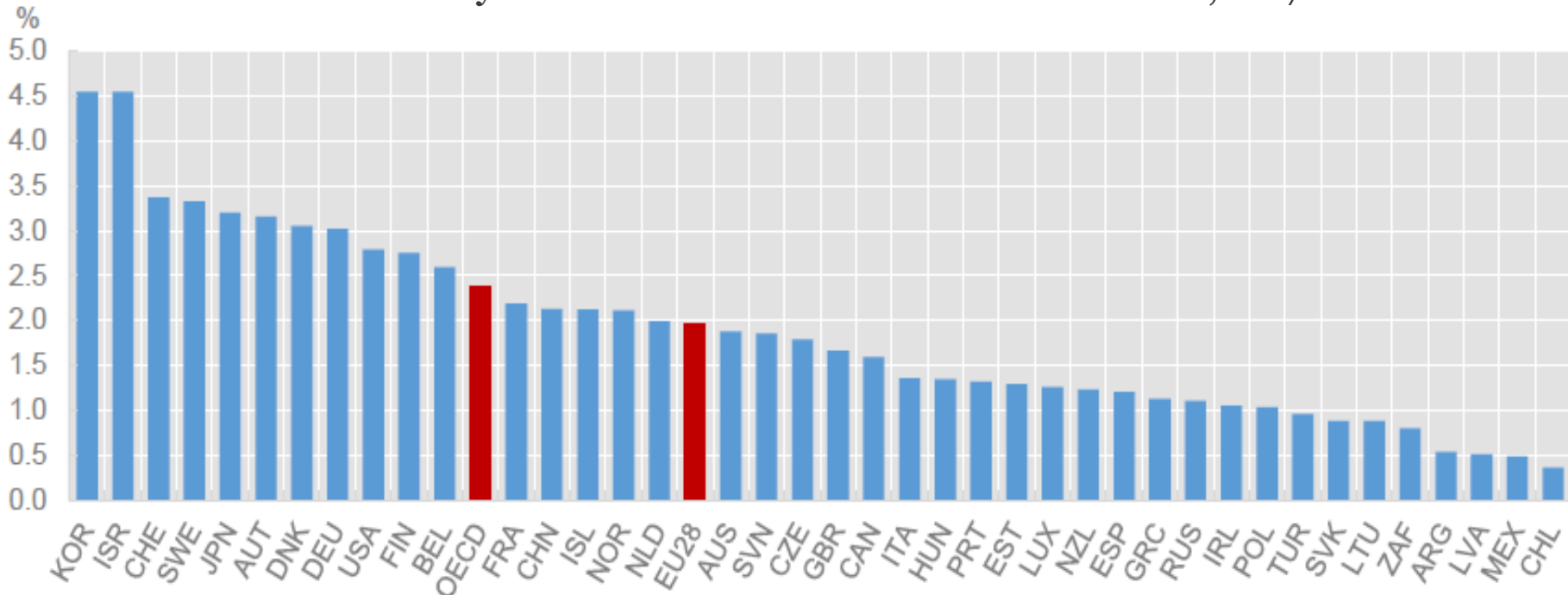
- To what extent are these two objectives coincident?
- What policies could make them more complementary?
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R&D intensity levels differ significantly across countries

$$\text{R\&D intensity} = \frac{\text{Gross domestic expenditure on R\&D (GERD)}}{\text{GDP}}$$

R&D intensity in OECD countries and selected economies, 2017



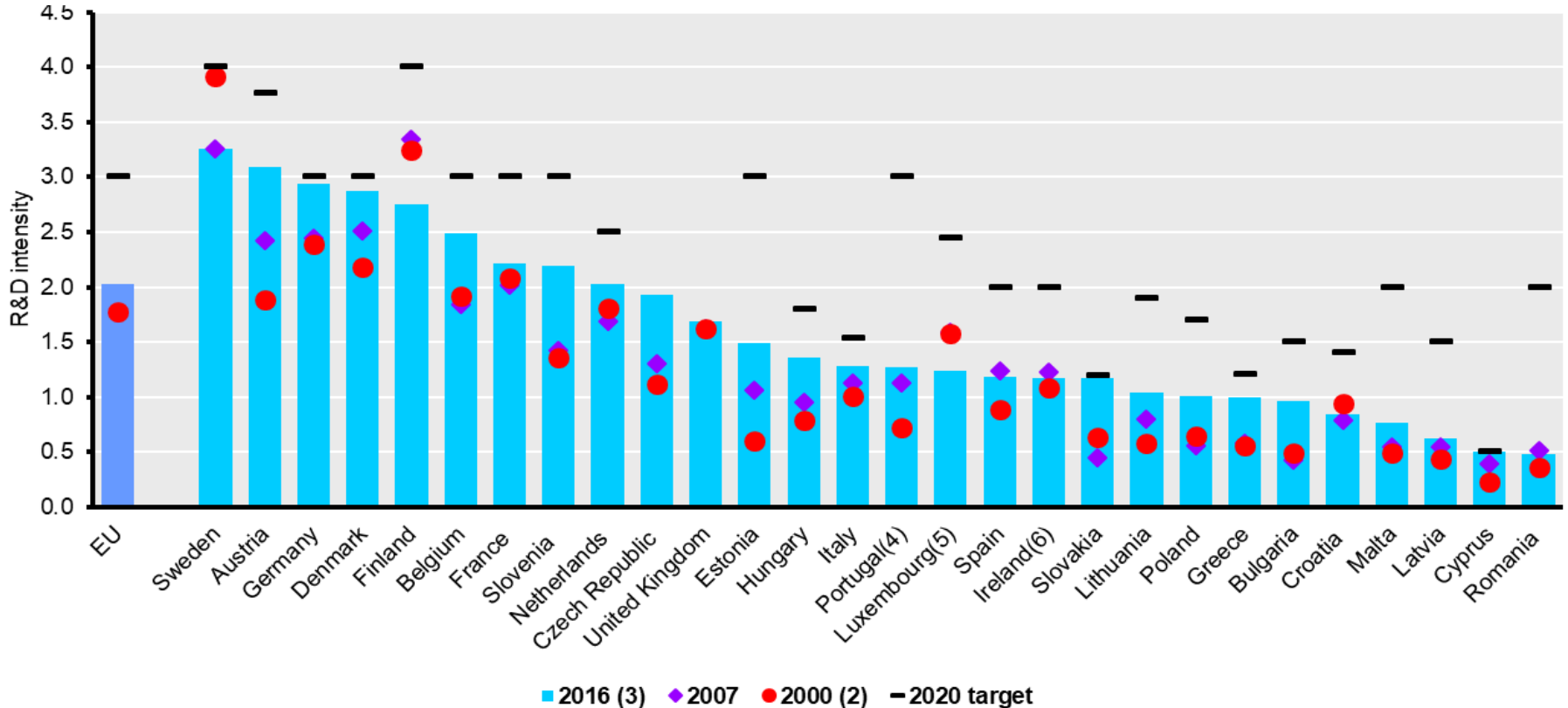
Source: OECD Main Science and Technology Indicators Database, February 2019. <http://oe.cd/msti>



Many countries have R&D intensity targets

Reaching them has not always been a simple task

R&D intensity in 2000, 2007 and 2016, and 2020 target



Source: Science, Research and Innovation performance of the EU 2018

Data: Eurostat, Member States

Notes: (1) CZ, UK: R&D intensity targets are not available. (2) EL, SE: 2001; HR: 2002; MT: 2004. (3) BG, CZ, EE, FR, LV, LT, HU, PL, RO, SI, SK: 2015. (4) PT: The R&D intensity target is between 2.70% and 3.30% (3.00% was assumed). (5) LU: The R&D intensity target is between 2.30% and 2.60% (2.45% was assumed). (6) IE: The R&D intensity target is 2.5% of GNP which is estimated to be equivalent to 2.0% of GDP. (7) DK, EL, FR, LU, HU, NL, PT, RO, SI, SE, UK: Breaks in series occur between 2000 and 2016.



SDGs & Competitiveness are quite different targets

Driving factors for R&D differ:

- SDGs: driven by needs of society and the environment = collective demand, expressed mainly by government
- Competitiveness: driven by expected markets = supply side

Policy instruments differ:

- SDGs: directed expenditures (towards identified needs)
- Competitiveness: most often neutral (R&D tax credit, support to entrepreneurship), or « half neutral » (support to generic technologies)

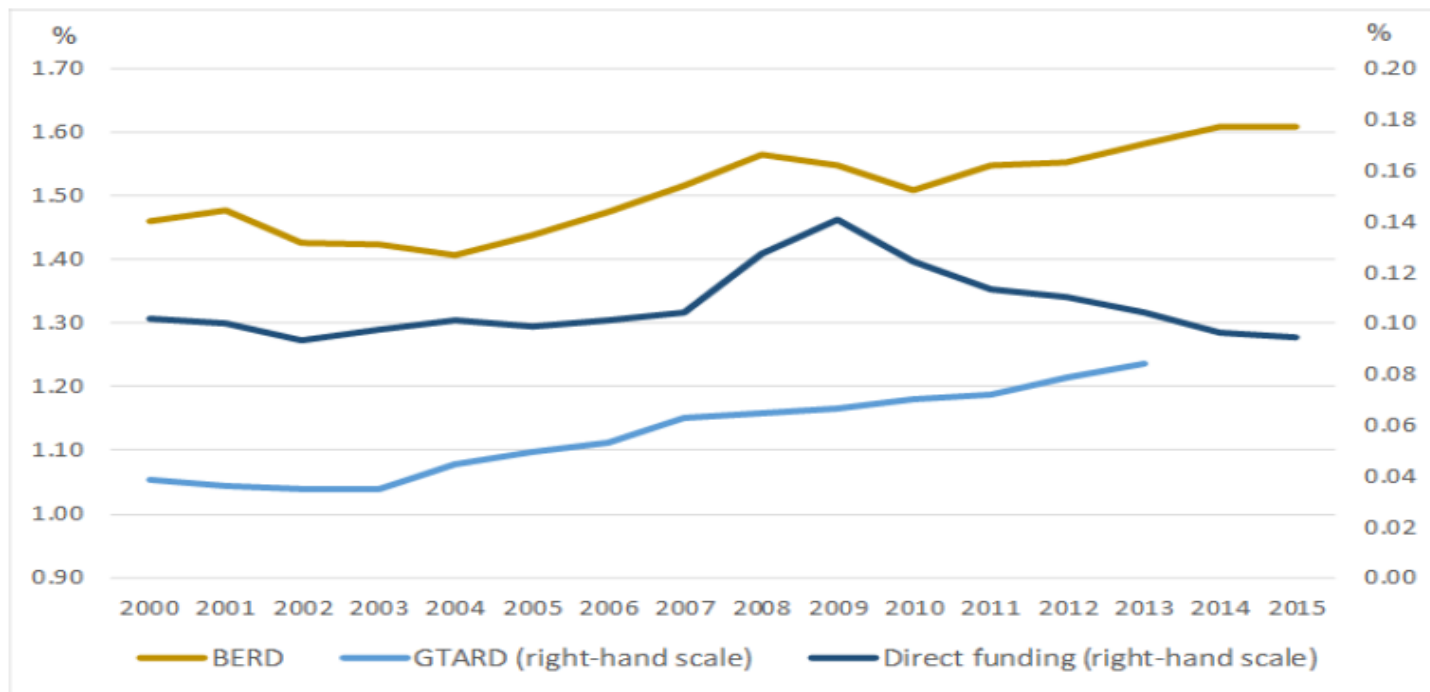


Policy mixes in support of business R&D are shifting towards tax incentives in many countries

In 2018, **30 out of 36 OECD countries** offered R&D tax incentives, up from 19 in 2000

Increase of tax incentives vs. direct funding for BERD in OECD countries

BERD, tax & direct support for BERD, % of GDP, 2000-15



*Note: Figures exclude CHE, GRC, ISR, LUX where relevant data are not available or only partially.


Source: OECD R&D Tax Incentive Database, <https://oe.cd/rdtax>, March 2019



But these objectives have commonalities

- Certain social needs can translate into markets (health)
- Certain market targeted products can help SDGs (mobile phones with inclusiveness)
- Certain « generic » technologies can serve both purposes (AI)
- All types of research require a strong S&T system (skills, institutions – public and private)
- All types of research use data and digital tools

These commonalities should be entry points for government policies aiming both at the SDGs and competitiveness – « dual policies ».





“Dual” policy approaches for SDGs and competitiveness

A policy mix made of the existing ingredients (Mission oriented policies, Technology specific investment, Support to basic research, Neutral support to businesses):

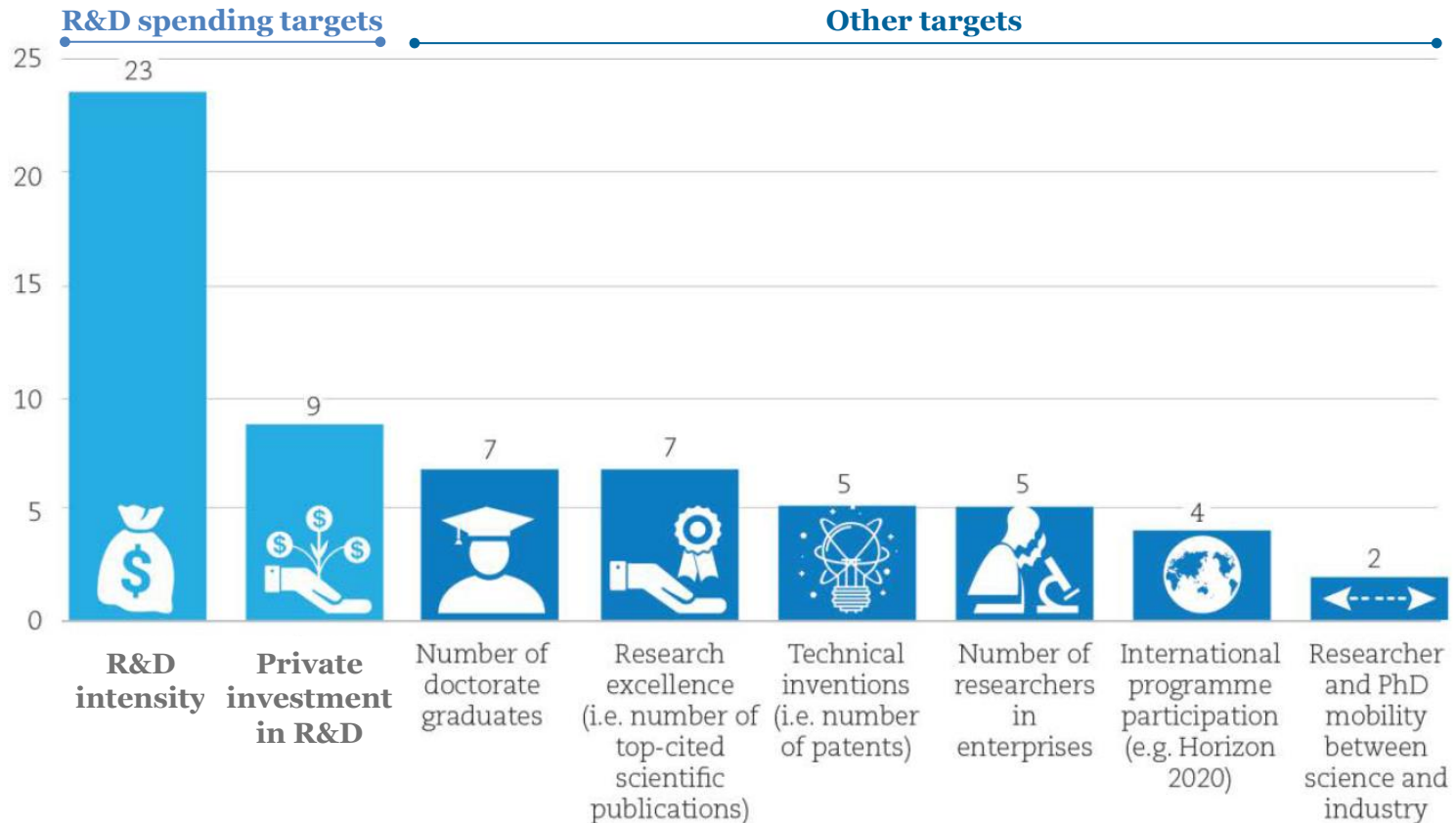
The various instruments need to be better aligned around common goals:

- National Research and Innovation Strategies should:
- articulate the two goals;
- align the instruments accordingly;
- command budgetary allocations for having an impact.



Some OECD countries have also set targets against other objectives, but to a much lesser extent

Number of countries with quantitative targets included in national STI strategies



Source: OECD Science, Technology and Innovation Outlook 2018, based on the OECD Database on Governance of Public Research Policy – RESGOV (<https://stip.oecd.org/resgov/>). The methodology is described in Borowiecki, M. and Paunov C. (2018), “How is research policy across the OECD organized?: Insights from a new policy database”, *OECD Science, Technology and Industry Policy Papers*, No. 55, OECD Publishing, Paris, <https://doi.org/10.1787/235c9806-en>.

Note: It showcases only countries where the national STI strategies have quantitative targets.



“Dual use” Mission oriented policies

MOP address directly SDGs. Should be conceived with a broad scope and ambition:

- Involve all stakeholders, including businesses => need to think in terms of business model for their output
- Include all stages of the process, from research to innovation => produce also new knowledge and generic technology reusable by others
- Trigger changes needed in the research system (eg multidisciplinary)
- Favour entrepreneurship => not be confined to incumbents



Conclusions

- Addressing the SDGs and improving competitiveness are two different goals, requiring a priori different policy frameworks
- « Dual use » policies could make them more complementary: Strategic alignment of instruments and goals; and broad scope mission oriented policies.

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Some European problems

- The share of the EU in total R&D budgets in Europe is extremely low (10%) – need close coordination with national policies
- There are no such things as a European market for data, for capital, for services: How to grow a digital innovation-based business in such conditions?
- The allocation of resources in Europe does not always fit the strategic priorities: See AI, where Europe hardly exists in front of US and Chinese industrial giants and public spending



Further information

Some OECD activities of relevance:

- New project on mission-oriented research policies
- STI Outlook 2020: A forward look perspective on policies
- STIP Compass: An EC/OECD database with smart tools on research and innovation policies in 50+ countries

Dominique.guellec@oecd.org