



Czech Innovation Policy: What is missing

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National innovation system

- Freeman (1987): “the network of institutions in the public and private sectors whose activities and interactions initiate, import, modify and diffuse new technologies”
- Lundvall (1992): “the elements and relationships which interact in the production, diffusion and use of new, and economically useful, knowledge”
- Nelson (1993): “a set of institutions whose interactions determine the innovative performance”
- Edquist (2004): “all important economic, social, political, organizational, institutional, and other factors that influence the development, diffusion, and use of innovations”

Lessons from innovation system research

1. Borders of the system are hard to delineate
2. Innovation is a result of interactive learning
3. System (not only market) failures matter

Swiss or Czech?



Policy mix

Czech Republic

Switzerland

Tax credits	<input type="checkbox"/>
Cash grants	<input checked="" type="checkbox"/>
Loans	<input type="checkbox"/>
Reduced tax rates/preferable tax rates	<input type="checkbox"/>
Reduced social security contributions	<input type="checkbox"/>
Accelerated depreciation on the R&D assets	<input type="checkbox"/>
Tax allowance	<input type="checkbox"/>
Infrastructure/land preferential price	<input checked="" type="checkbox"/>
Tax deductions (including super deductions)	<input checked="" type="checkbox"/>
Tax exemptions	<input type="checkbox"/>
Income tax withholding incentives	<input type="checkbox"/>
Patent-related incentives	<input type="checkbox"/>
Financial support	<input type="checkbox"/>
Tax holiday	<input checked="" type="checkbox"/>
Expedited Government approval process	<input type="checkbox"/>
Value-added tax reimbursement	<input type="checkbox"/>
Qualifies for Horizon 2020 funding	<input checked="" type="checkbox"/>
Other	<input type="checkbox"/>

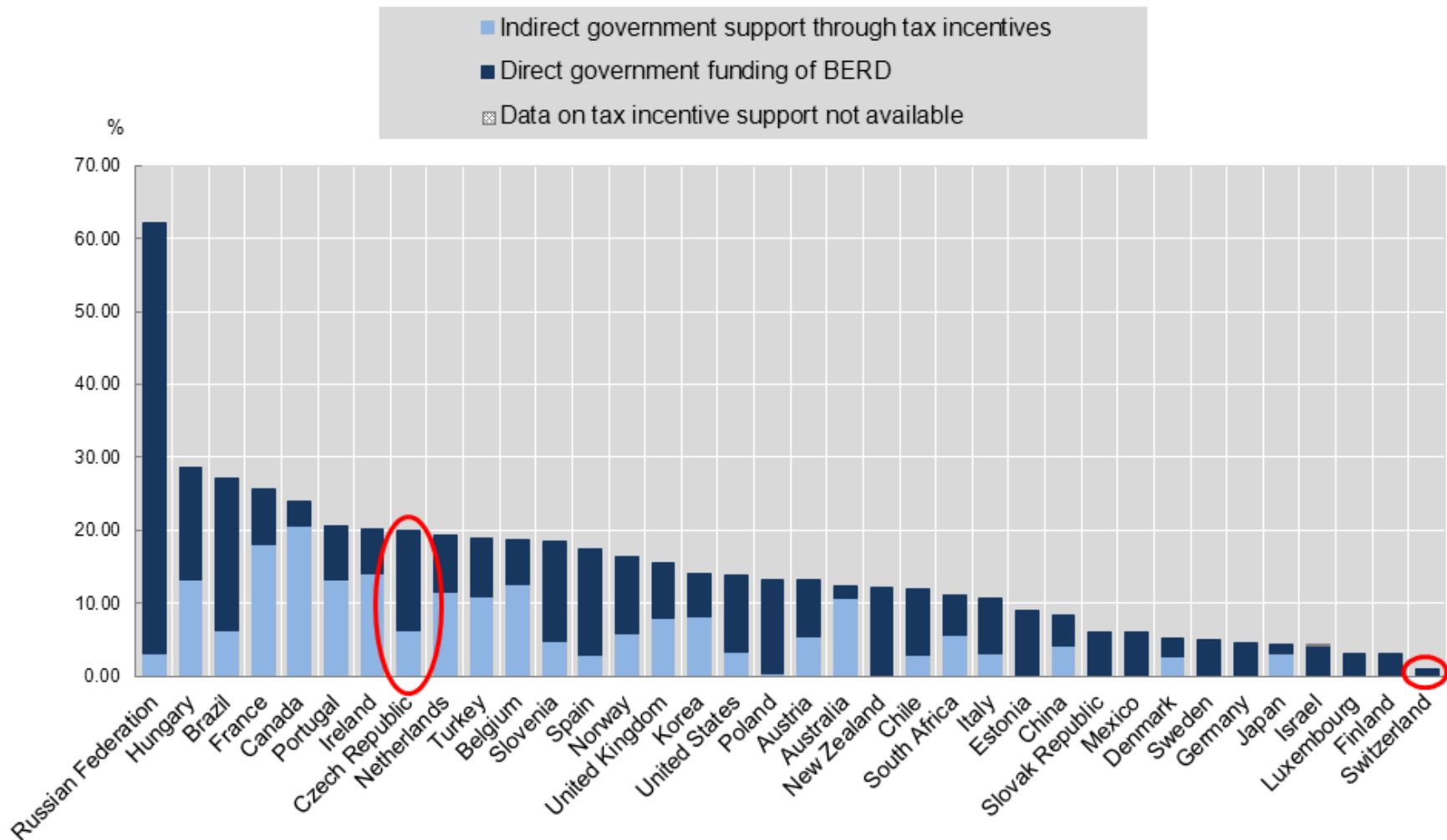
Tax credits	<input type="checkbox"/>
Cash grants	<input type="checkbox"/>
Loans	<input checked="" type="checkbox"/>
Reduced tax rates/preferable tax rates	<input checked="" type="checkbox"/>
Reduced social security contributions	<input type="checkbox"/>
Accelerated depreciation on the R&D assets	<input checked="" type="checkbox"/>
Tax allowance	<input type="checkbox"/>
Infrastructure/land preferential price	<input type="checkbox"/>
Double deductions	<input type="checkbox"/>
Tax exemptions	<input type="checkbox"/>
Income tax withholding incentives	<input type="checkbox"/>
Patent-related incentives	<input type="checkbox"/>
Financial support	<input checked="" type="checkbox"/>
Tax holiday	<input checked="" type="checkbox"/>
Expedited Government approval process	<input type="checkbox"/>
Value-added tax reimbursement	<input type="checkbox"/>
Qualifies for Horizon 2020 funding	<input type="checkbox"/>
Other	<input type="checkbox"/>
Reduced Tax rates for licence Income (Licence Box)	<input checked="" type="checkbox"/>

Source: Ernst & Young (2014) Worldwide R&D incentives reference guide, 2014–15.

European Commission (2014) ERAWATCH Country reports 2013: Switzerland (pg. 7):

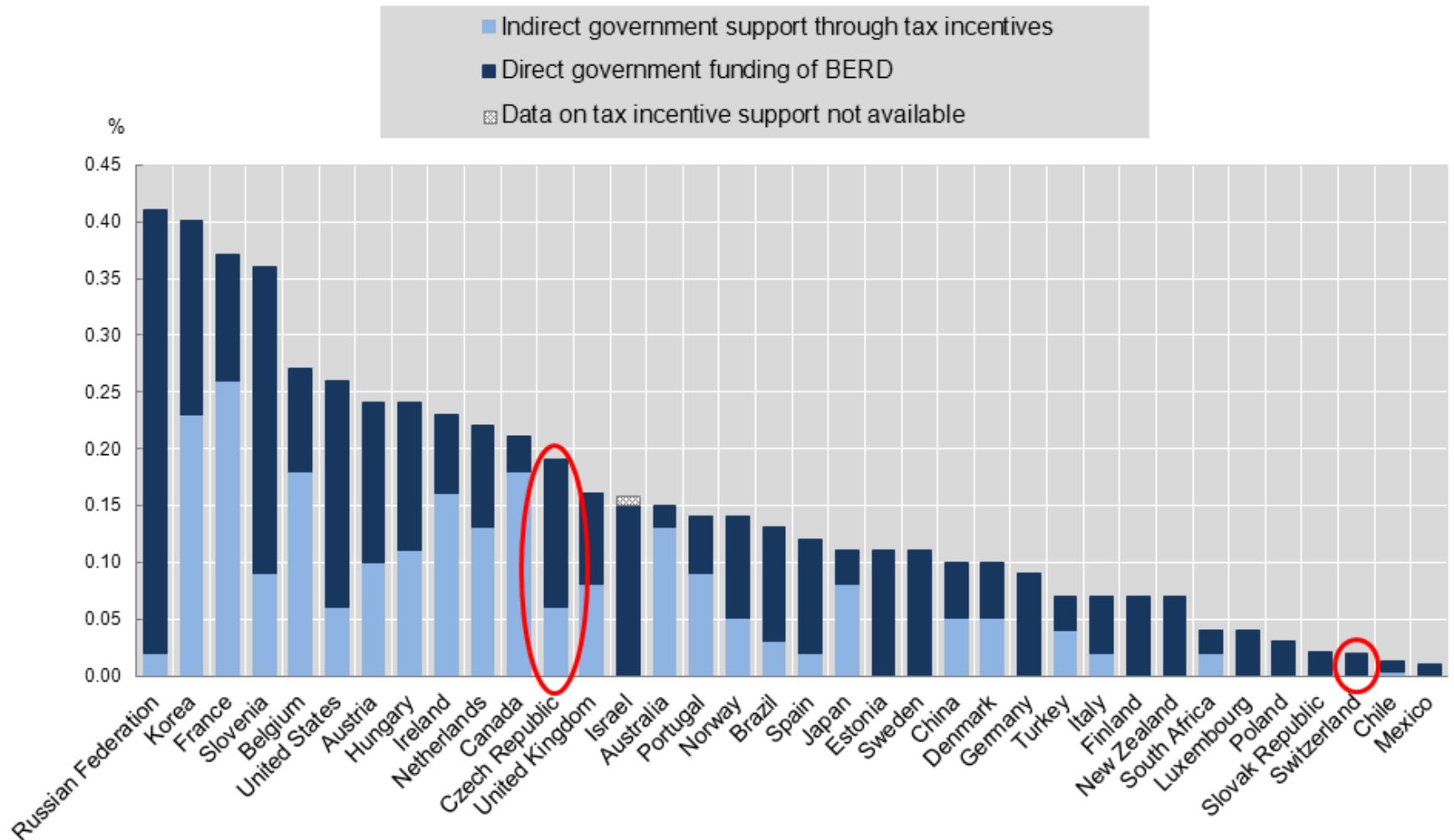
“The lack of instruments to directly support private R&D is a relevant characteristic of Swiss research funding. With only 1% of BERD funded directly by the State, Switzerland ranks at the bottom among OECD countries. Nevertheless, this type of investment is growing thanks to newly established initiatives.”

Direct government funding of business R&D and tax incentives for R&D, 2012 (% of business enterprise expenditure on R&D)



Source: Own computations based on OECD R&D Tax Incentive Indicators, www.oecd.org/sti/rd-tax-stats.htm and OECD, National Accounts and Main Science and Technology Indicators, 15 December 2014.

Direct government funding of business R&D and tax incentives for R&D, 2012 (% of gross domestic product)



Source: OECD R&D Tax Incentive Indicators, www.oecd.org/sti/rd-tax-stats.htm and OECD, National Accounts and Main Science and Technology Indicators, 15 December 2014.

Swiss Innovation Promotion Agency (CTI)

- **CTI Start-up** – training of entrepreneurs by experts of various areas during the start-up stage.
- **CTI Invest** – networking events for start-ups to exchange information and knowledge
- **Innovation Mentors** – a contact persons who help firms to find research partners in an academic institution
- **National Thematic Networks** – long-term support for innovative activities in cooperation between businesses and public research institutes (but financial support granted solely to the latter, while firms co-fund and access services, infrastructure, etc.)

Source: European Commission (2014) ERAWATCH Country reports 2013: Switzerland.

GERD financed by the government sector

Switzerland: 0.75% of GDP (2012)

Czech Republic: 0.66% of GDP (2013)

Innovation policy dilemma 1

Fiscal support to the business sector
(direct and indirect “cash” instruments)

versus

Non-fiscal public support instruments
(services, technology institutes, equity, people)

Innovation policy dilemma 2

Technological upgrading of incumbent activities
(creative accumulation)

versus

Entry of new innovative activities
(creative destruction)

Innovation policy dilemma 3

Hierarchical, linear and lifelong academic careers
(job security but rigid)

versus

Flexible and competitive academic career paths
(dynamic but unpopular)

Thank you!

