# Closing Key Note



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Research Infrastructure Roadmapping: Addressing Gaps and Challenges with InRoad

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2<sup>nd</sup> Engagement Workshop Brussels, 16 January 2018



synchronising research infrastructure roadmapping in Europe



# My RI Roadmapping experience

**My interest in RI** is triggered by the research done with RI, particularly bluesky research, which may lead to disruptive innovation on the long run.

**Working at interfaces:** Research, consulting and teaching at the interfaces of science, public administrations and politics (econcept/University of Lausanne).

Working at the strategic level: I'm involved in strategic decision making.

- Since 2017 President of the strategic committee of the University of Geneva
- 2008/2015 Member of the ERAB / ERIAB / RISE
- Since 2015 Member of the board of the Technical University Dresden
- Since 2008 Member of the board of the Federal Institutes of Technology
- Since 1995 Member of the Board of Foundation of SNSF

#### Working at the political level

1990-2007 Member of the Swiss National Parliament, chairing the Committee on Science, Education and Culture



### I've looked at RI from three sides now...

As a researcher involved in arctic climate research and in geophysics during my studies

As a parliamentarian, responsible for public spending within overall science and education budgets



**InRoad** is adding a forth dimension, striving to get the overall picture!



## Setting the scene...

What kind of impact shall science deliver? My personal take on this is

- 1. Science has a **value of its own** reflecting the ambition of enlightenment.
- 2. Science shall **contribute** to solving societal, economic and environmental challenges.
- 3. Science shall take a **reflective stand** on societal, economic and environmental development.
- 4. Only by transcending these conflicting ambitions will science deliver its' particular added value to society and its' development.

This broad notion of science and its impact reflects fundamental values and principles. It is the basis of the strength of research in Europe.



## RI roadmapping cross-cutting logics.....

	Science	Strategy	Politics
	<ul><li>Researchers/users</li><li>Researchers/constructors</li></ul>	<ul> <li>Strategic boards, agencies</li> <li>Administrations</li> </ul>	<ul><li>Governments</li><li>Parliaments</li></ul>
Individuals	<ul> <li>Research interests</li> <li>Specialists</li> <li>Career interests</li> </ul>	<ul> <li>Advocacy: bridging gaps</li> <li>Interest and knowledge in science</li> </ul>	<ul> <li>Political / electoral interests</li> <li>Generalists</li> <li>Interests in science and its' return on investment</li> </ul>
Community	<ul> <li>Disciplinary interests</li> <li>Economic interests</li> </ul>	<ul> <li>Strategic governance</li> <li>Delegated strategic responsibility</li> </ul>	<ul> <li>Responsibility for the national system of education, science and innovation</li> <li>Responsibility for public funding in general</li> </ul>



## My focus: challenges at the strategic level

Bridging the gap between demand side (research) and funder (politics)

- Different logics, requirements and expectations
- Various levels of knowledge: specialists <-> generalists
- Different time lines: long-term (RI)<-> short-term (politics)

**Need for strong evidence** to base decisions and prioritizations

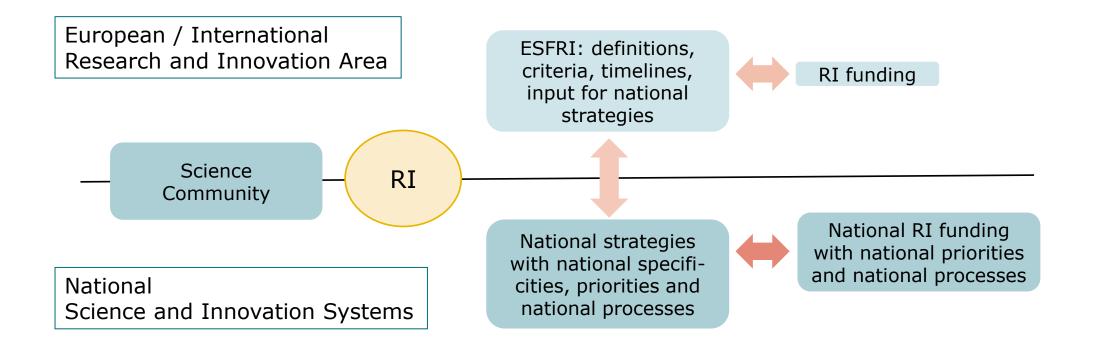
- Decision-makers depend on thorough evaluations done by independent and impartial experts
- Decision-makers need clear strategies regarding the overall education, science and innovation system in order to be able to set priorities

#### Ambition of balanced decisions regarding sustainable investments

- Competitiveness of national E&R&I system <-> European RI landscape

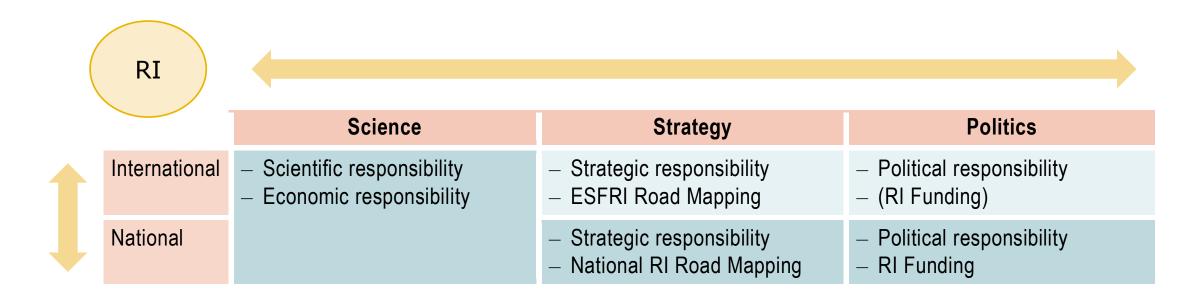


## RI roadmapping cross-cutting borders....





## Tripple challenge for RI roadmapping....



And to add: the different phases of the overall RI life-cycle.



## Where InRoad can make a difference....

**Focus on strengthening the strategic level** in order to help bridging the gap between demand side and funder side and to strengthen evidence based decision making.

- Information and appreciation regarding RI Roadmapping
- Platforms for exchange and mutual learning also for staffers

Focus on evidence and best practice to enhance decision making.

- Harmonized criteria and methodology for evaluation and prioritization
- Harmonized processes as part of overall R&I strategy nationally/EU
- Models for RI business plans supporting sustainability and impact of RI taking into account the whole life-cycle of RI: Investments, running costs, maintenance, upgrading and out-phasing



## Hypotheses regarding best practice...

RI roadmapping may support a competitive and sustainable RI landscape, if it

- is embedded in overall R&I strategies at national/European level
- applies harmonized definitions, methodologies and SMART indicators
- addresses specific needs of all scientific fields
- includes business plans addressing the whole life cycle of RI
- is aligned with longterm specific RI-funding at national/European level
- allows stakeholders to impact the process at the appropriate stage
- reaches out beyond Europe

...and if it takes into account the broad notion of science and impacts of RI inherent to Europes' successful science tradition.



### Looking forward to more insights...



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# Thank you for your attention

