

Towards a sustainable "EU-Black Sea Cooperation Programme in STI

Prof. Adrian Curaj

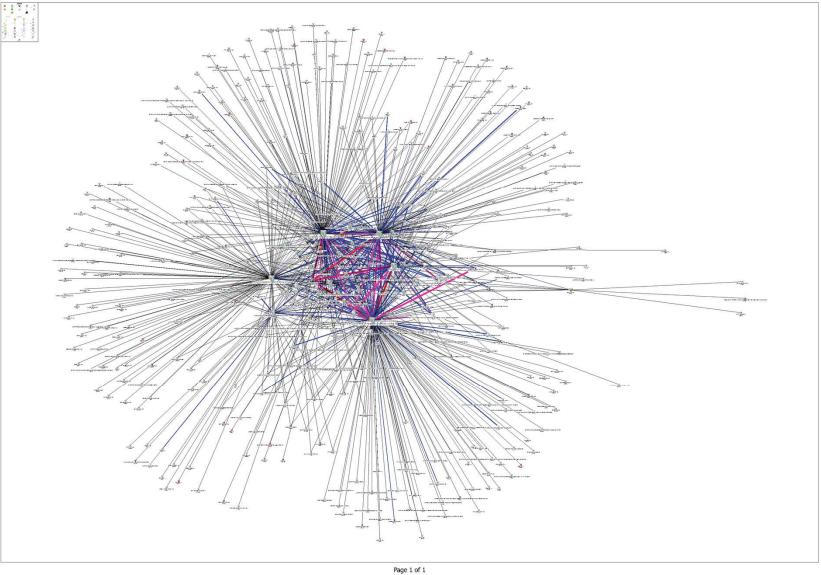






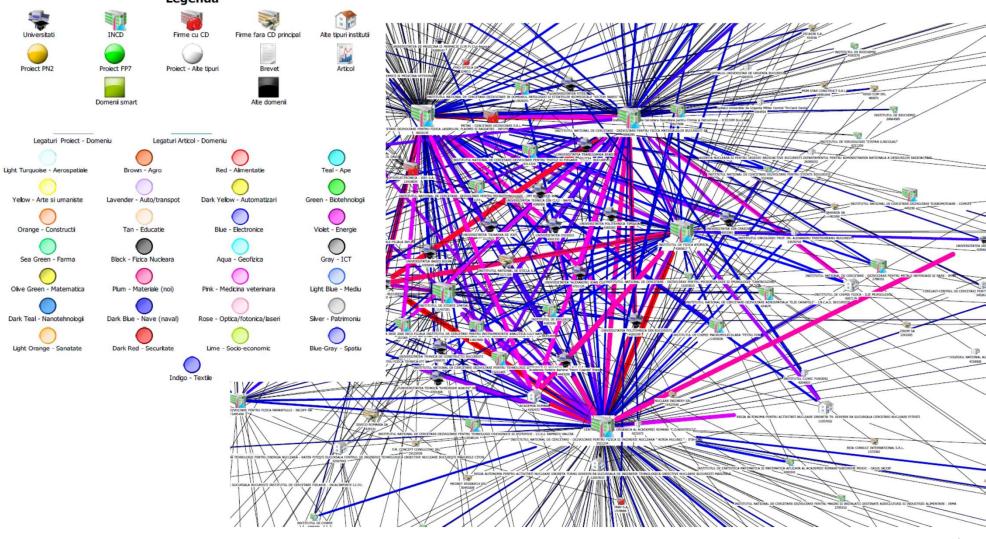
Cooperation Pattern

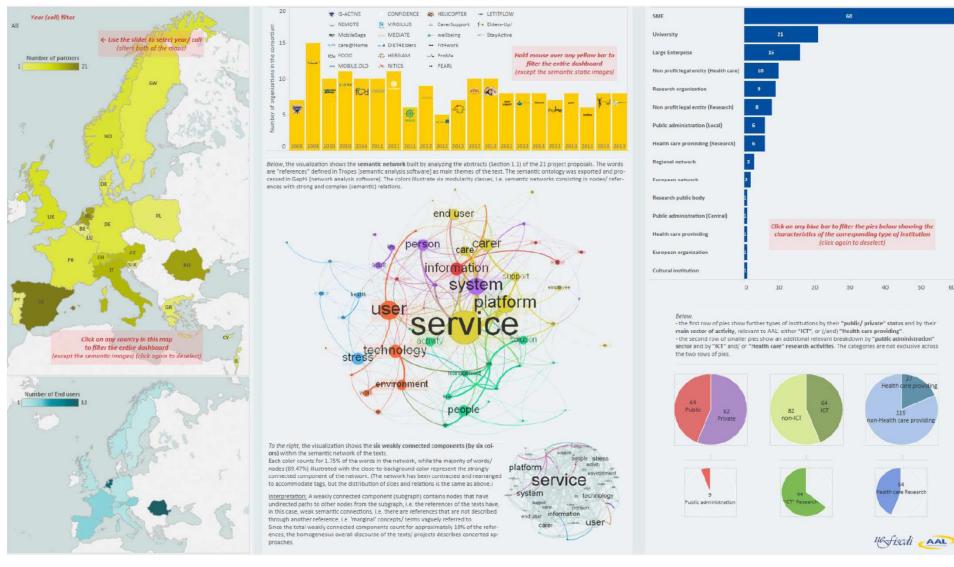
- Do we know areas of bilateral projects, multilateral projects (ERA-NETs / COST), JPs ?
- Are they thematic areas of concentrations?
- How much public-public cooperation, how much public-private cooperation?
- What are the already cooperating groups/institutions?



5/15/2

Legenda

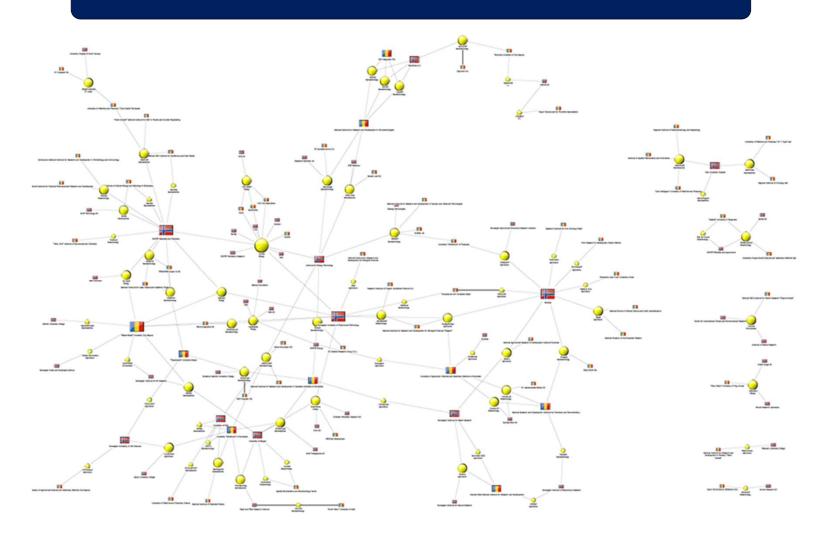




HORIZON 2020



Norway – Romanian partnerships in ERA_NET and AAL



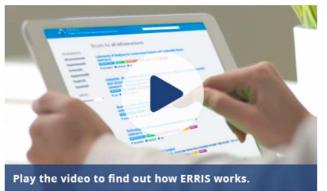
Research Infrastructures

- Do we know what we have nationally, regionally?
- Do we have information about research infrastructures, equipment, contact point persons and host institutions?
- Can we "walk the talk" and do something immediately?
- Is it any "up and running mechanism" to be used?

ENGAGE in the ROMANIAN RESEARCH INFRASTRUCTURES SYSTEM



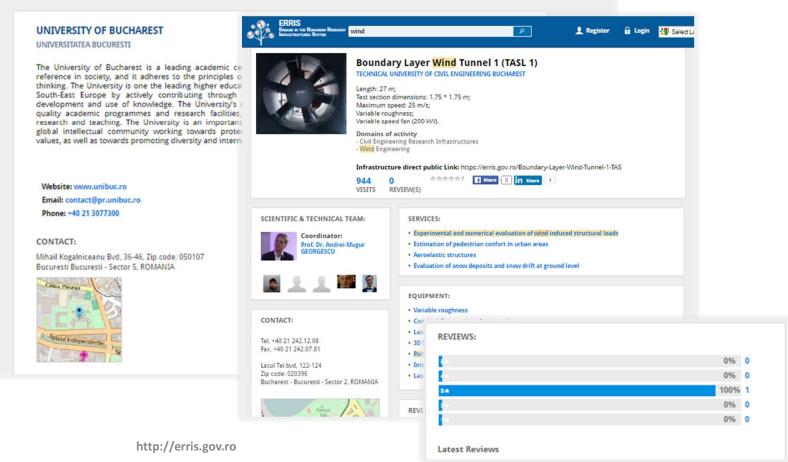


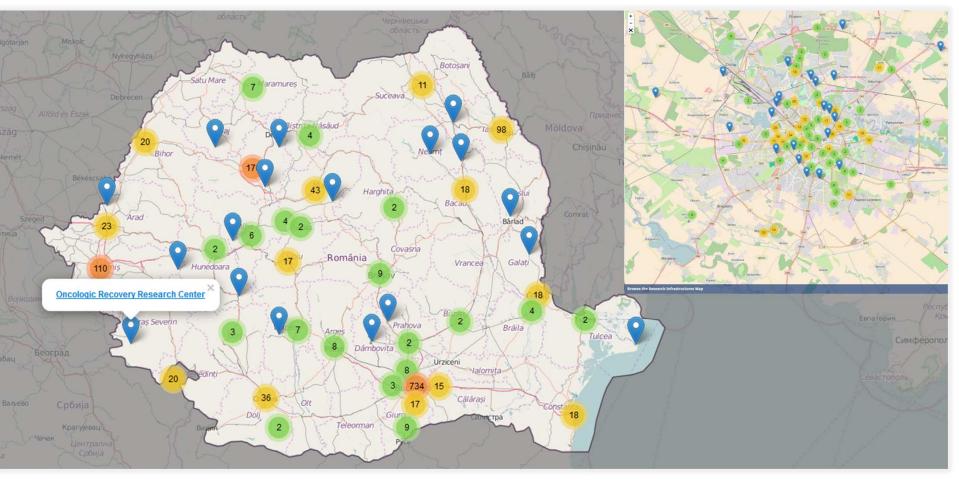


Are you a service provider?

Register your organization to promote your infrastructures and the related services.







- 1384 research infrastructures;
- ❖ 7406 research services;
- 49 technological services;
- 19633 equipments;

http://erris.gov.ro

ENGAGE in the
BLACK SEA
RESEARCH
INFRASTRUCTURES
SYSTEM

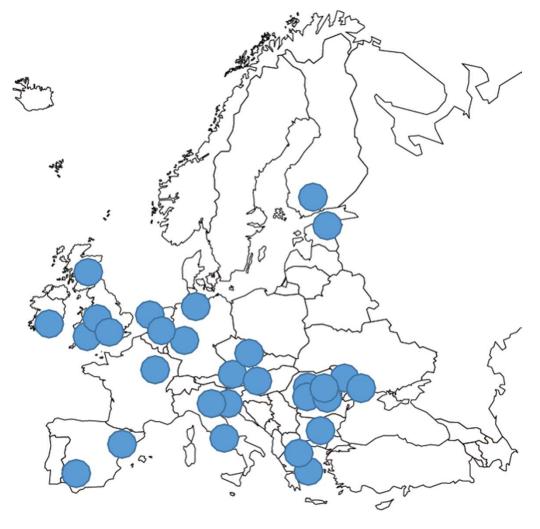
Strategic projects for Romania ESFRI Roadmap

DANUBIUS-PP/2015



Austria(1), Bulgaria(1), Czech Republic(1), Estonia (1), France (1), Germany (2), **Greece (2)**, Hungary(1), Ireland (1), Italy (2), **Moldova (1)**, Netherlands (1), **Romania (4)**, Spain (2), **Ukraine (1)**, United Kingdom(4)

+international(3): EMSO-ERIC, ICOS-ERIC, UNESCO-IHE



Strategic projects for Romania



Extreme Light Infrastructure - Nuclear Physics facility (ELI-NP)

Pan European distributed infrastructure







ELI-Beamlines Facility (CZ)

ELI-Attosecond Facility (HU)

ELI-Nuclear Physics Facility (RO)

A revolution in laser science

SOURCE: EC

Extreme Light Infrastructure - Nuclear Physics facility (ELI-NP)









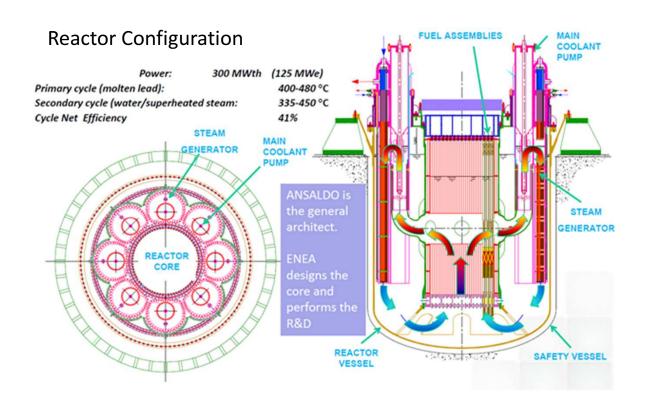






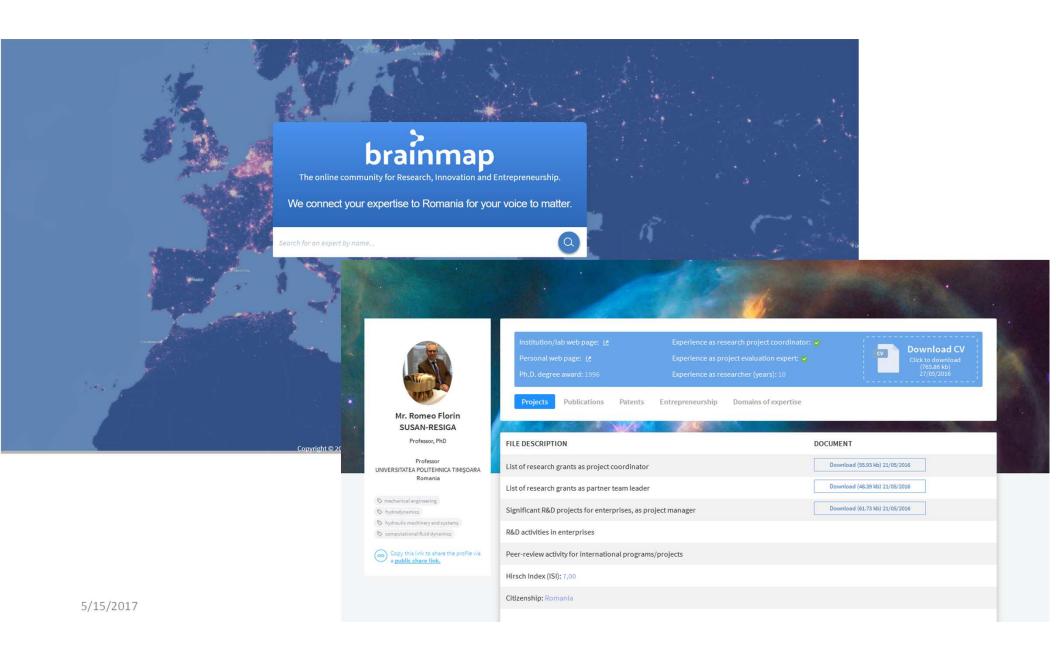
Strategic projects for Romania

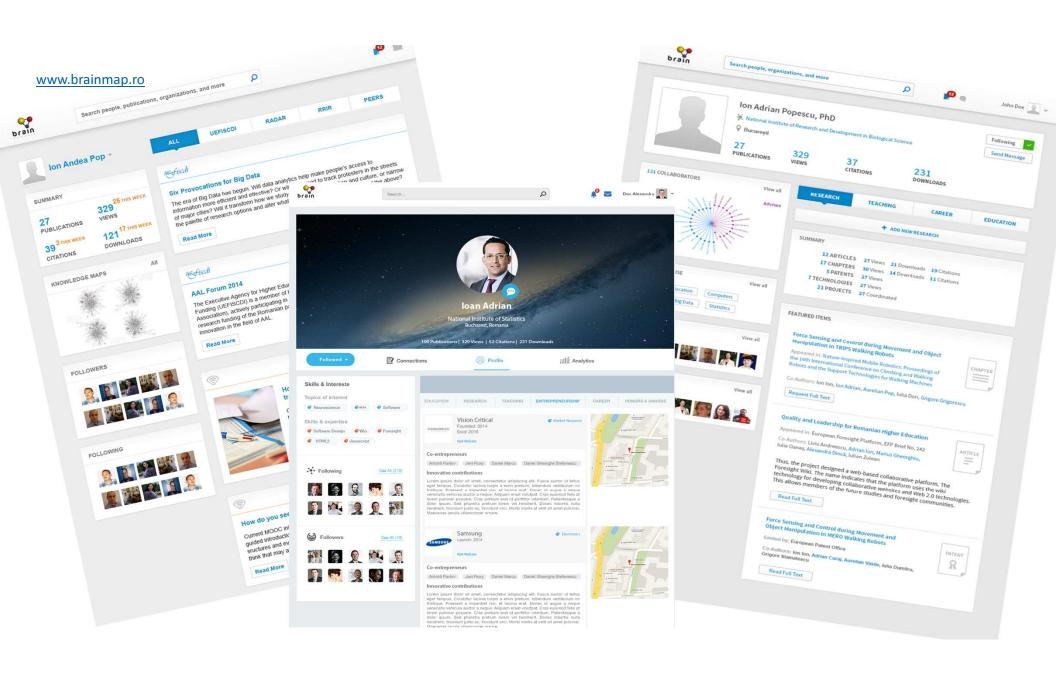
ALFRED



Talents skills and competences

- From the evaluation platform to the understanding of the "arena"!
- Do we know "who is who" nationally, regionally?
- To make visible the existing expertise;
- Not duplicating the existing social or epistemic platforms!
- We may start from a few hundred, maybe thousand of persons already evaluating or/and implementing projects!



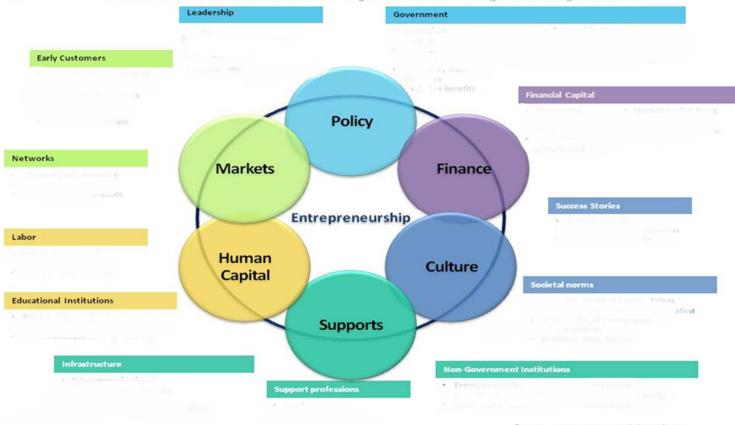


Entrepreneurial Ecosystem





Domains of the Entrepreneurship Ecosystem



© 2009, 2010, 2011 Daniel Isenberg

5 dimensions to an ecosystem-made entrepreneur

1. Inspiration



2. Work Experience



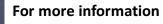
3. Consultancy



4. Mentorship



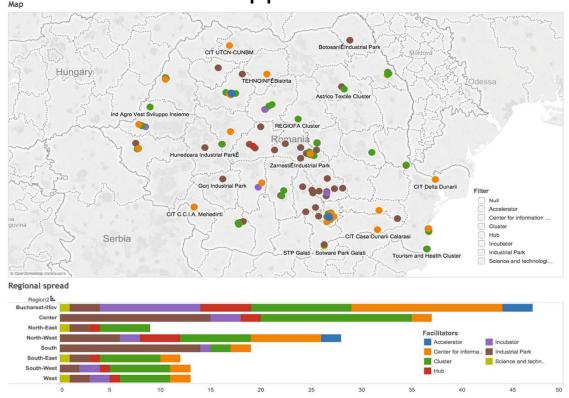
5. Investment





Cafeneaua de Inovare 4th edition - 11 June 2015

Business facilitators & support entities



Entrepreneurial Ecosystem Index:



EEI ranges from 0 to 10



Horizon 2020 Policy Support Facility

Start-ups, Scale-ups and Entrepreneurship in Romania

Draft recommendations of the PSF Panel





Specific Support to Romania under the H2020 - Policy Support Facility





EC-RO collaboration objectives

Assess the Romanian innovative entrepreneurship, start-up and scale-up ecosystem

Identify and recommend concrete measures to further develop, strengthen and improve the efficiency of the innovative entrepreneurship ecosystem, and the growth of Romanian start-ups.

Roadmap



Romanian Entrepreneurship Ecosystem recommendations

Culture

Human

Capital

Policy

 Develop an IT system to allow ecosystem to insert data and connect each to other

 Monitor and measure the performance of the ecosystem

Romanian Entrepreneurship Agency

Culture

- Entrepreneurship Award under the auspices of the President
- Entrepreneurship in education
- Transparent policies involving stake holders
- Entrepreneurship-Friendly Regulation

Human Capital

- Upgrade entrepreneurship education in HEI
- Allow non-PhD business people to teach at universities
- Attract foreign /diaspora talent
- Start-up visa

Support

Non-financial support for start-ups/SMEs

Supports

Policy

- Shared services to be used by incubators/TTO
- Incubators Voucher scheme
- International Accelerator based in Romania
- · Update incubation law

technopolis

Finance

Markets

Finance

- Withdraw Business Angel (BA) Law
- Support to Business Angel Networks (BAN)

Accreditation/certification of BAN/BA

- Business Angel co-investment scheme
- Venture Capital co-investment (FoFs and deal by deal) Funding for Romanian Counterguarantee Fund (FCR)
- Tax incentive for investors in funds that invest in listed companies in AERO

Markets

- Connecting Hub as Brokerage Platform
- Smart procurement





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Specialization
smart specialization strategies
and
entrepreneurial development process

...and territorialisation of skills

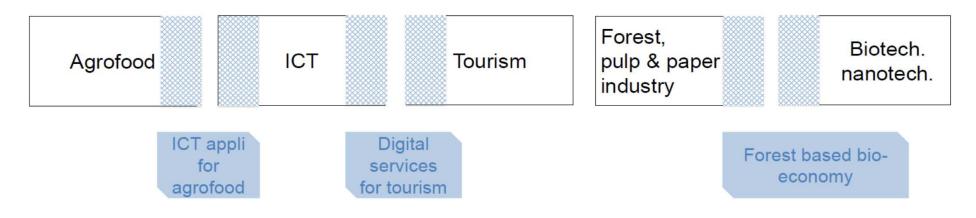
Why? (rationale)

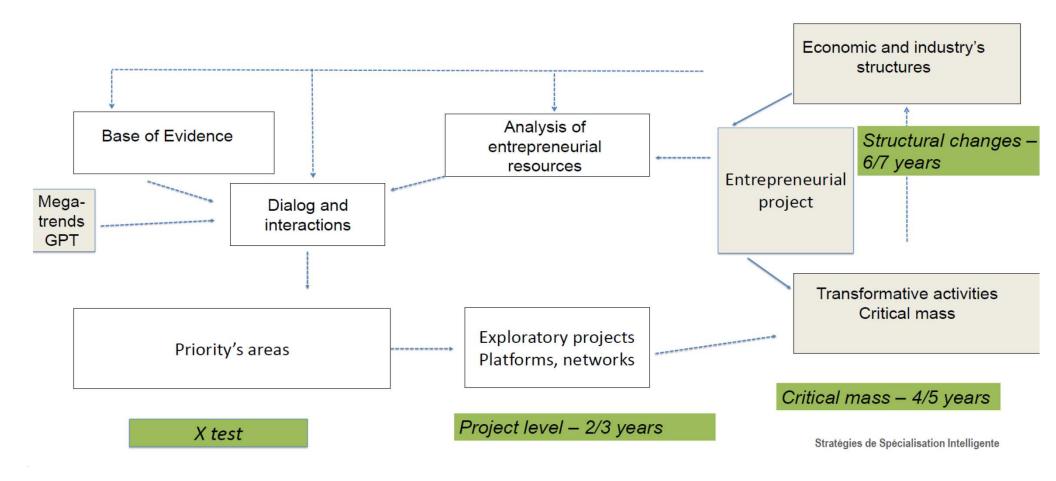
R1 - Critical mass!

- Scale and agglomeration : essential determinants of R&D productivity, creativity, innovation
- Most regions cannot reach critical mass in all industries
- Instead of doing a little bit of everything, let's specialise
- R2 Building critical mass involves supporting or providing the whole set of capabilities required to innovate in specific sectors (non neutral policy)
 - This is haute couture not ready to wear
 - « The idea that the government can disengage from specific policies and just focus on general framework conditions in a sector neutral way is an illusion based on the disregard for the specificity and complexity of the requisite publicly provided inputs and capabilities » Hausmann and Rodrik, 2006
 - Policy feasibility ... The local government cannot address all specific capabilities and infrastructure needs in all sectors: « doomed to chose »
- Specialisation : many benefits but a delicate game!

On what?

- RIS3 is not about sectoral prioritisation
 - Why?
- Specialisation is on modes of transformation of sectors and ways to establish new ones
- Priorities are transformative activities





Dominique Foray, **The economic fundamentals of smart specialisation strategies**; *Smart Specialisation in a comparative perspective: challenges and ways forward - Berlaymont, June 27, 2016, Brussels*

How?

- These transformative activities are not known ex ante; they cannot be planed by the Government in a top down fashion
- They will be discovered through knowledge, interactions and dialogs between companies, research, public agencies and other communities
- The process of entrepreneurial discovery
 - Central to solve the information problem of the Govnmt

When?

- RIS3 has an experimental dimension : a few bets are placed on various domains and these are risky bets
- This is different from standard policy where the « bets » are safe and sure
- The good news : it should be taken as a living document!





Advances in the Theory and Practice of Smart Specialization (2017, in print)

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Technological RADAR

Obiective:

Identification of emerging global technologies for supporting the

1 million technological news200+ on line platforms as primary sources of information

(NLP + human validation)

finance sensors returns

optics chemistry business social security vision
electronics physics biotechnology
materials physics biotechnology
space space



RADAR

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optics chemistry business social security vision electronics physics biotechnology materials food and drink health intenergy space intenergy agriculture wearables chemicals industry quantum nanotechnology automotive medical equipment electricity accounts neuroscience pharma video
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stainless steel lightweight metal grain boundary paper skin

carbon film composite material

crystal structure

topological insulator

magnetic material smart window
silicone rubber indium tin oxide
liquid metal

thin film
thin film
silicon substrate
gold film
metallic glass
indium tin oxide

Smart analytics



5/15/2017

https://www.facebook.com/NOSEit

RADAR- Identifying the emergent technologies

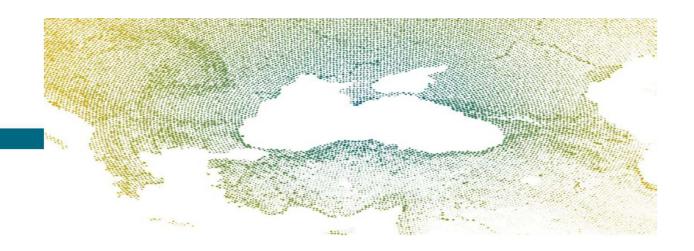


Policy Learning

- Foresight Strategic policy Intelligence;
- Sharing experience
 - e.g PSF
 - Bulgaria and Moldavia
 - Romania: Start-ups, Scale-ups and Entrepreneurship in Romania
- Tax facilities and lessons learned;



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Thank you very much!

Prof. Adrian Curaj





