

Bussines driven innovation

Start-ups, Scale-ups and Entrepreneurship in
Romania

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22.11.2016

Overview

1. “Research Driven Innovation”
2. Start-ups, Scale-ups and Entrepreneurship in Romania
3. Conclusions

Research driven innovation

RDI National Strategy 2014-2020

RDI National Plan

1

Increase competitiveness of Romanian economy through innovation

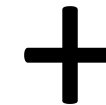
2

Increase Romanian contribution to the progress of frontier knowledge

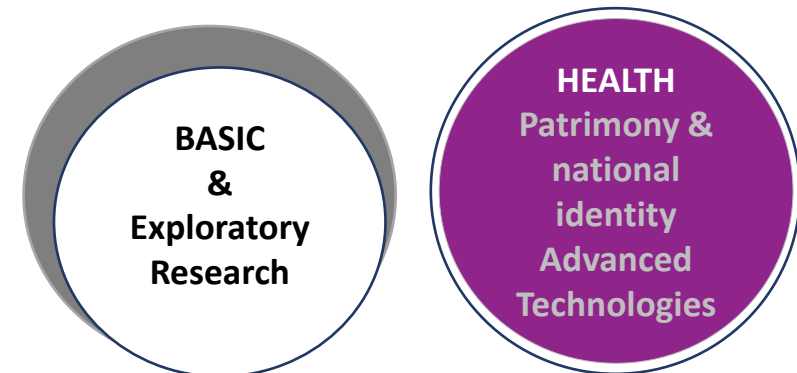
3

Increase the role of science in society

Smart specializations



Public sector priorities



National RDI Plan 2015-2020

PNCDI



1

Programme 1:
Development of the National Research and Development System

2

Programme 2:
Increase the Competitiveness of the Romanian Economy through Research, Development and Innovation

3

Programme 3:
European and International Cooperation

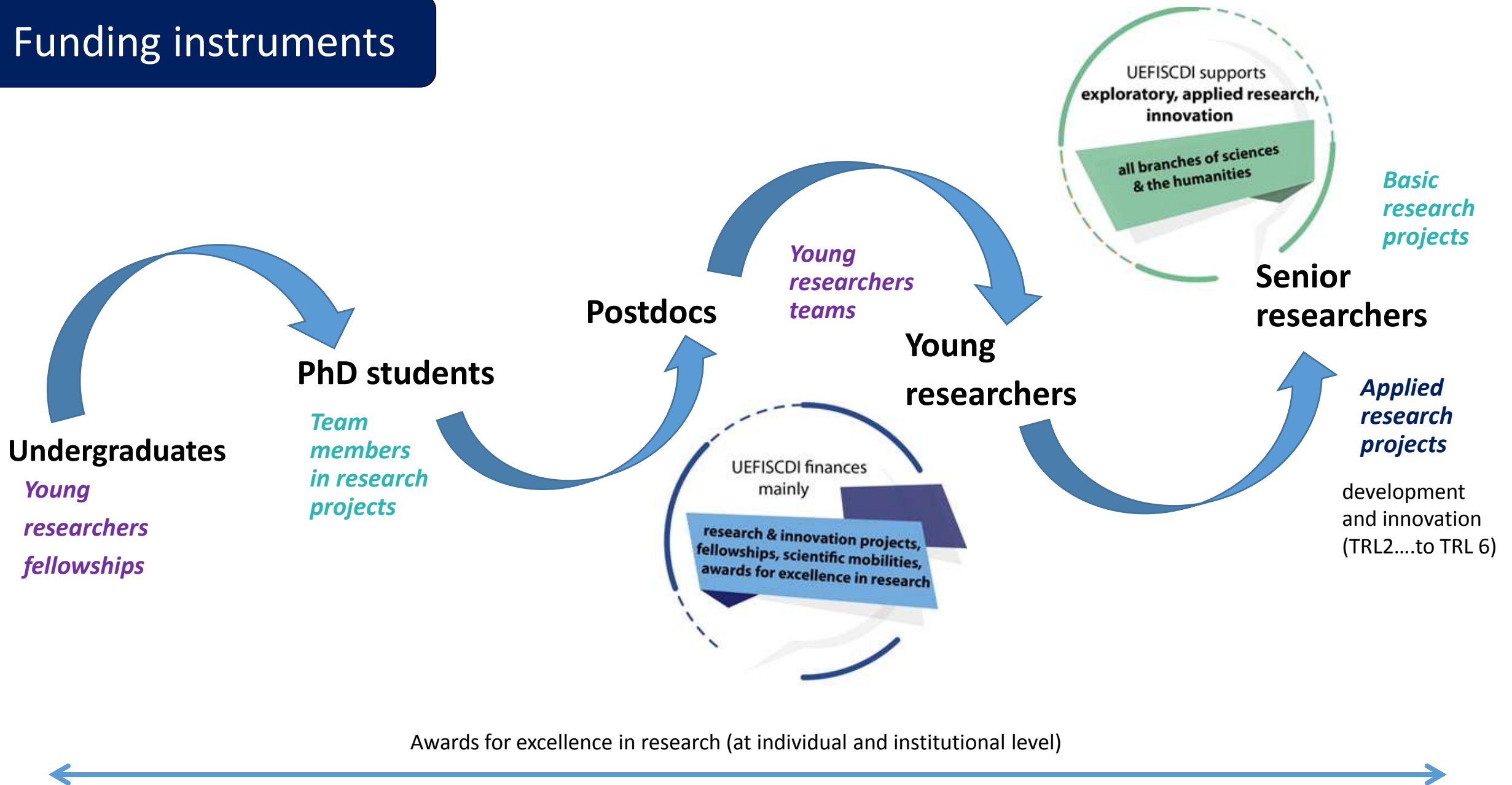
4

Programme 4:
Fundamental and Frontier Research

5

Programme 5:
Research in Areas of Strategic Interest (Strategic Projects for Romania)

Funding instruments



2016 National RDI Plan calls

Human Resources

21 calls for Human Resources,
applied & basic research,
award for excellence in research
6.612 project proposals submitted
786 funded projects

Allocated budget (2016-2019)
215 mil. euro

Applied Research, Development & Innovation

5 calls
2.819 submitted projects
372 funded projects

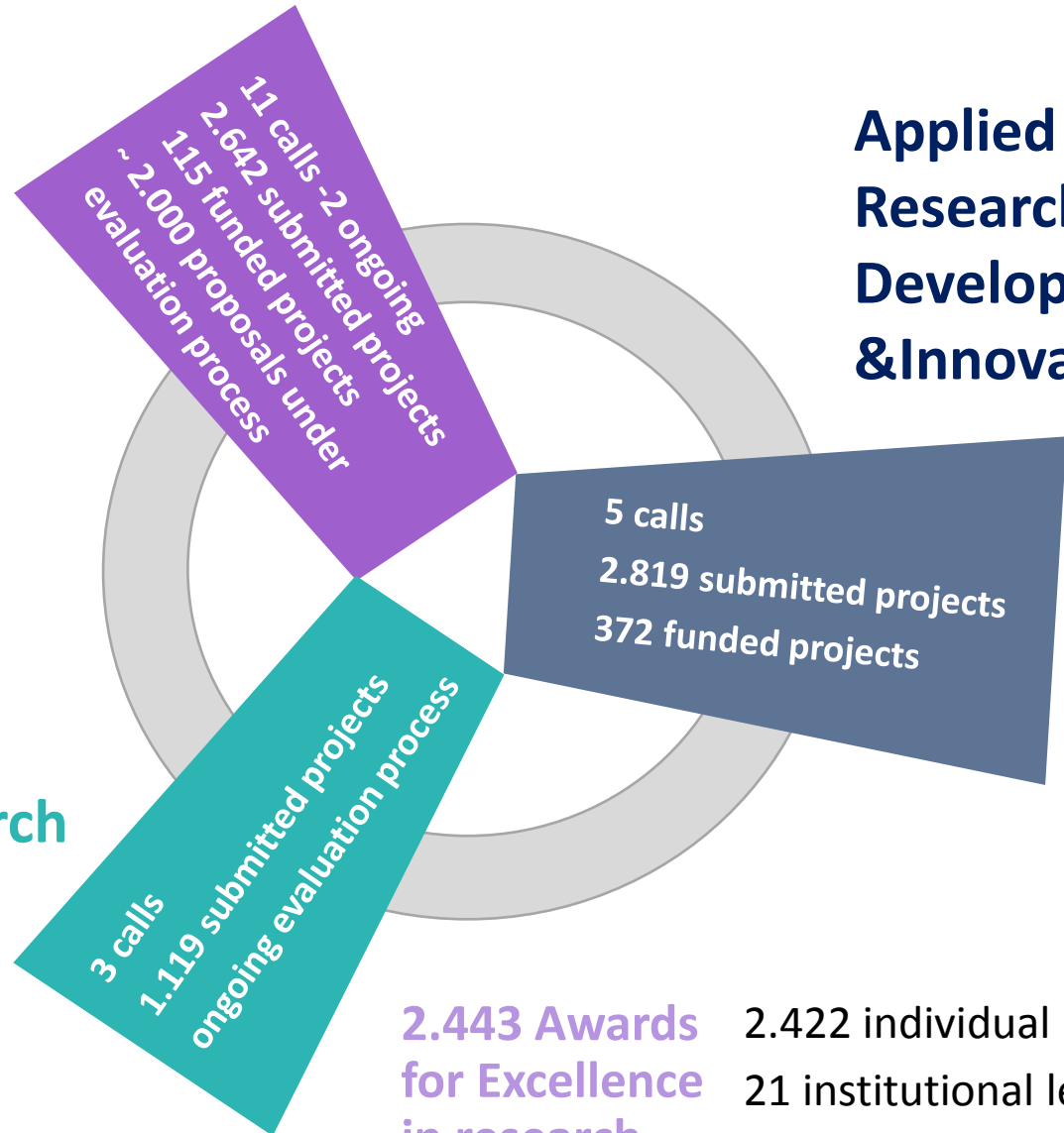
**2.443 Awards
for Excellence
in research**

2.422 individual level
21 institutional level

Basic research

3 calls
1.119 submitted projects
ongoing evaluation process

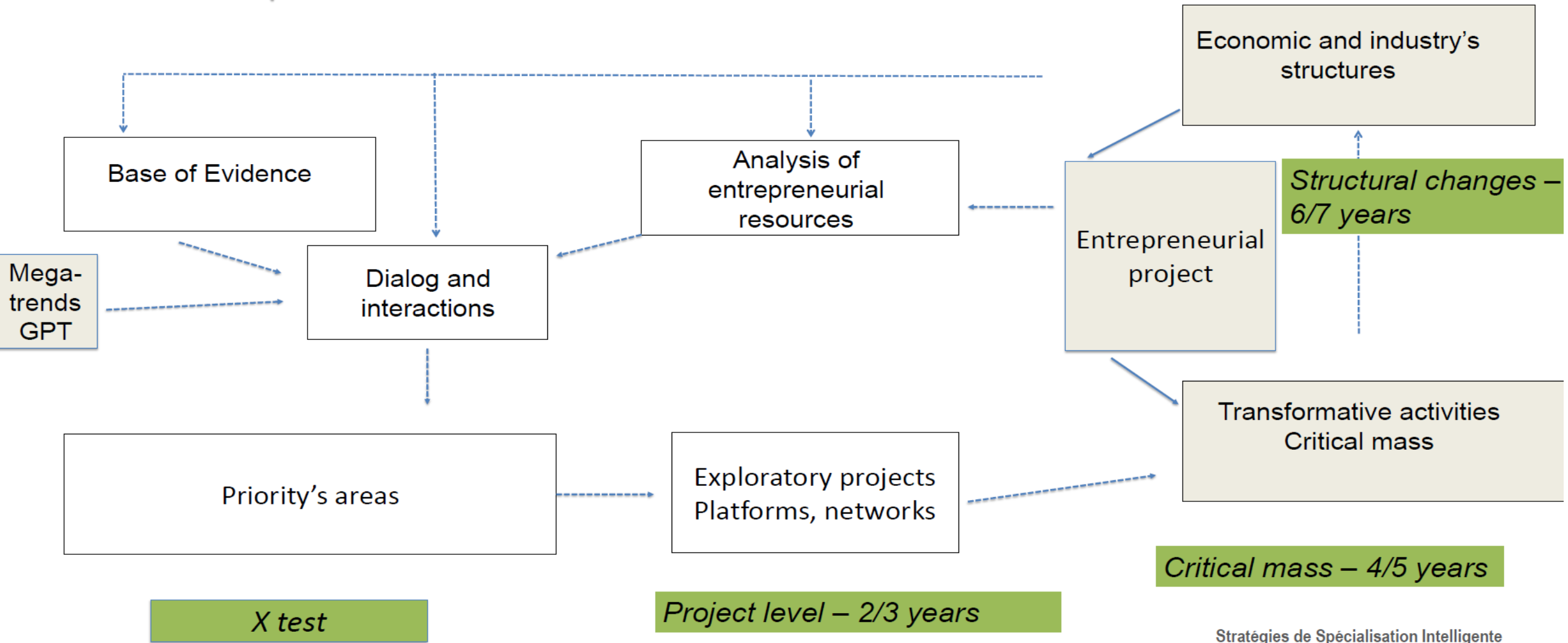
11 calls -2 ongoing
2.642 submitted projects
115 funded projects
~ 2.000 proposals under
evaluation process



Research driven innovation
The Web of initiatives

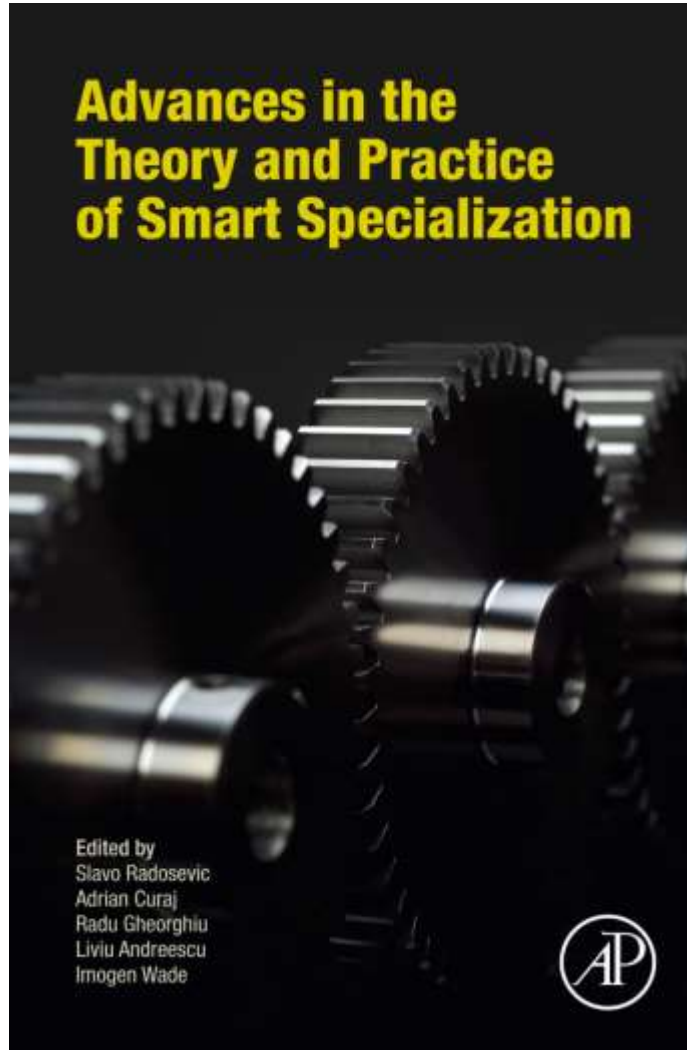
S3 M&E

EDP development



Stratégies de Spécialisation Intelligente

S3



EU next programming period:

- **VERA**
- **Bohemia**
- **Cimulact**
- **RIBRI**

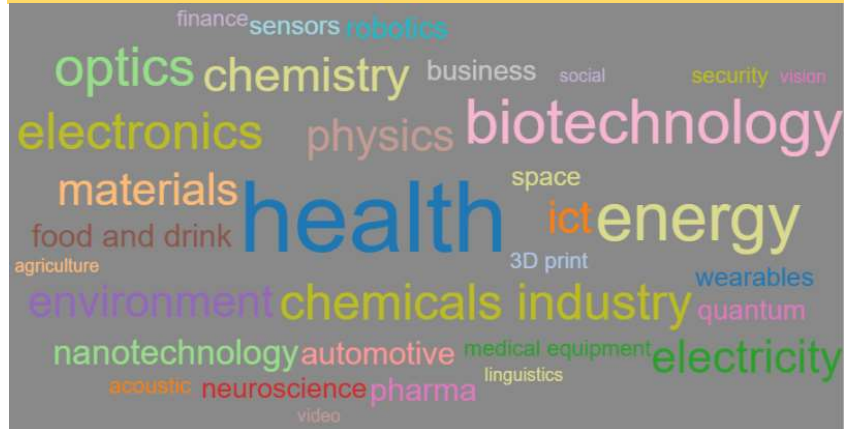
Technological RADAR

Objective:

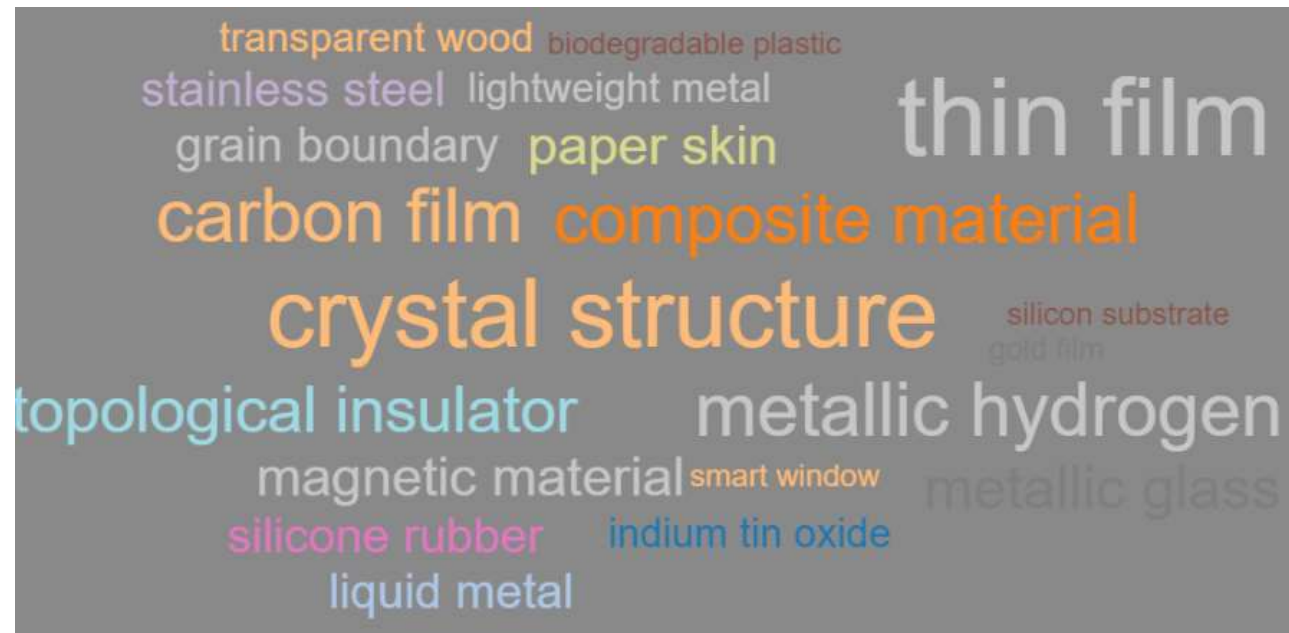
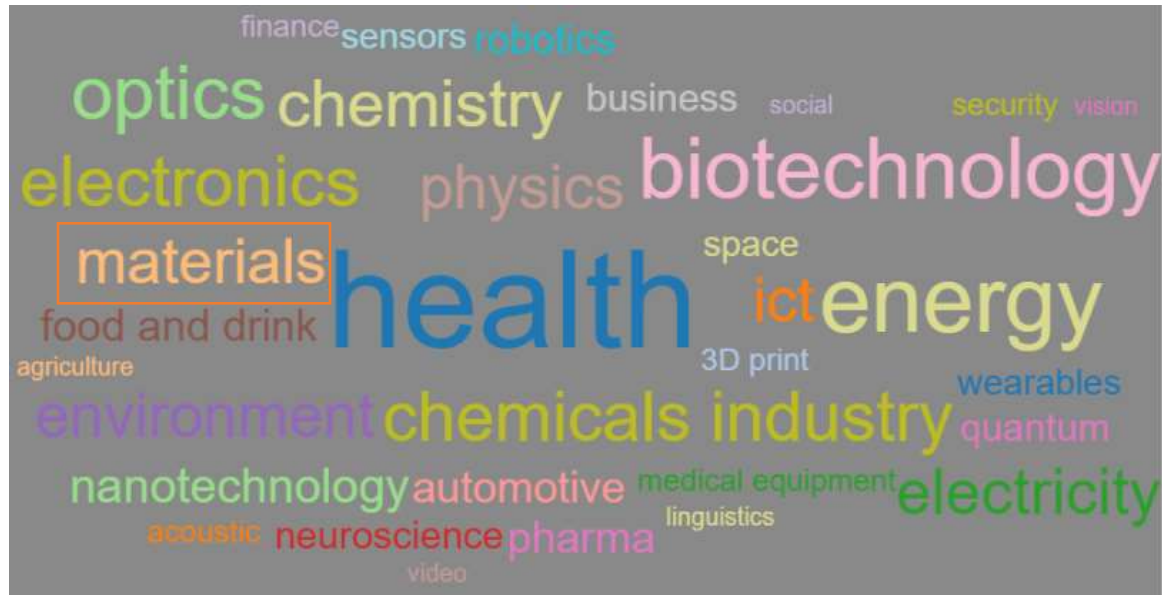
Identification of emerging global technologies for supporting the

1 million technological news

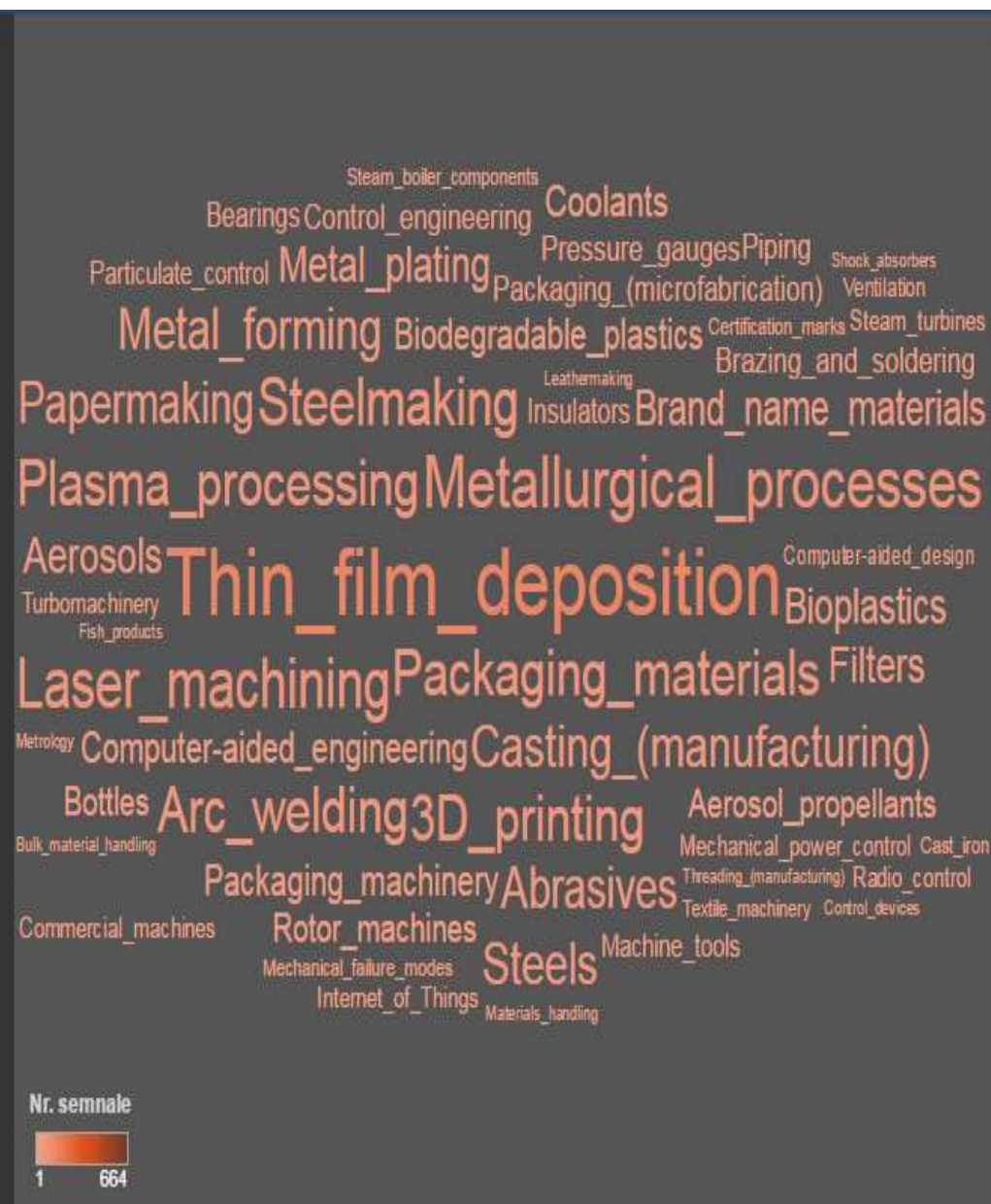
200+ on line platforms as primary sources of information



RADAR



Smart analytics



RADAR- Identifying the emergent technologies

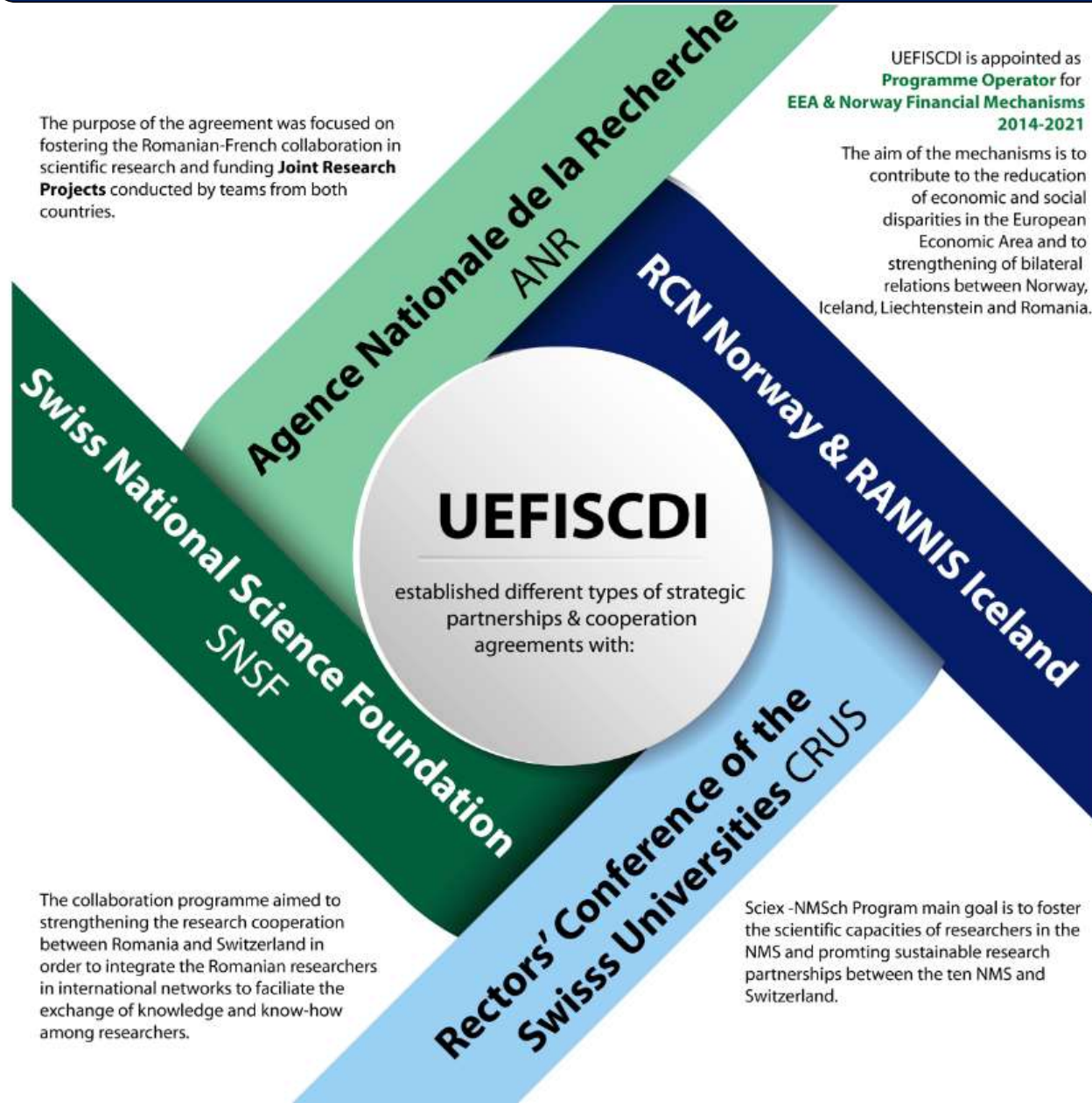
<https://www.facebook.com/NOSEit>



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?

Interconnectivity the key to come true



Knowledge Community and Cooperation patterns

UEFISCDI in ERA-NET, Horizon 2020



2014-2016

52 ERA-NET calls

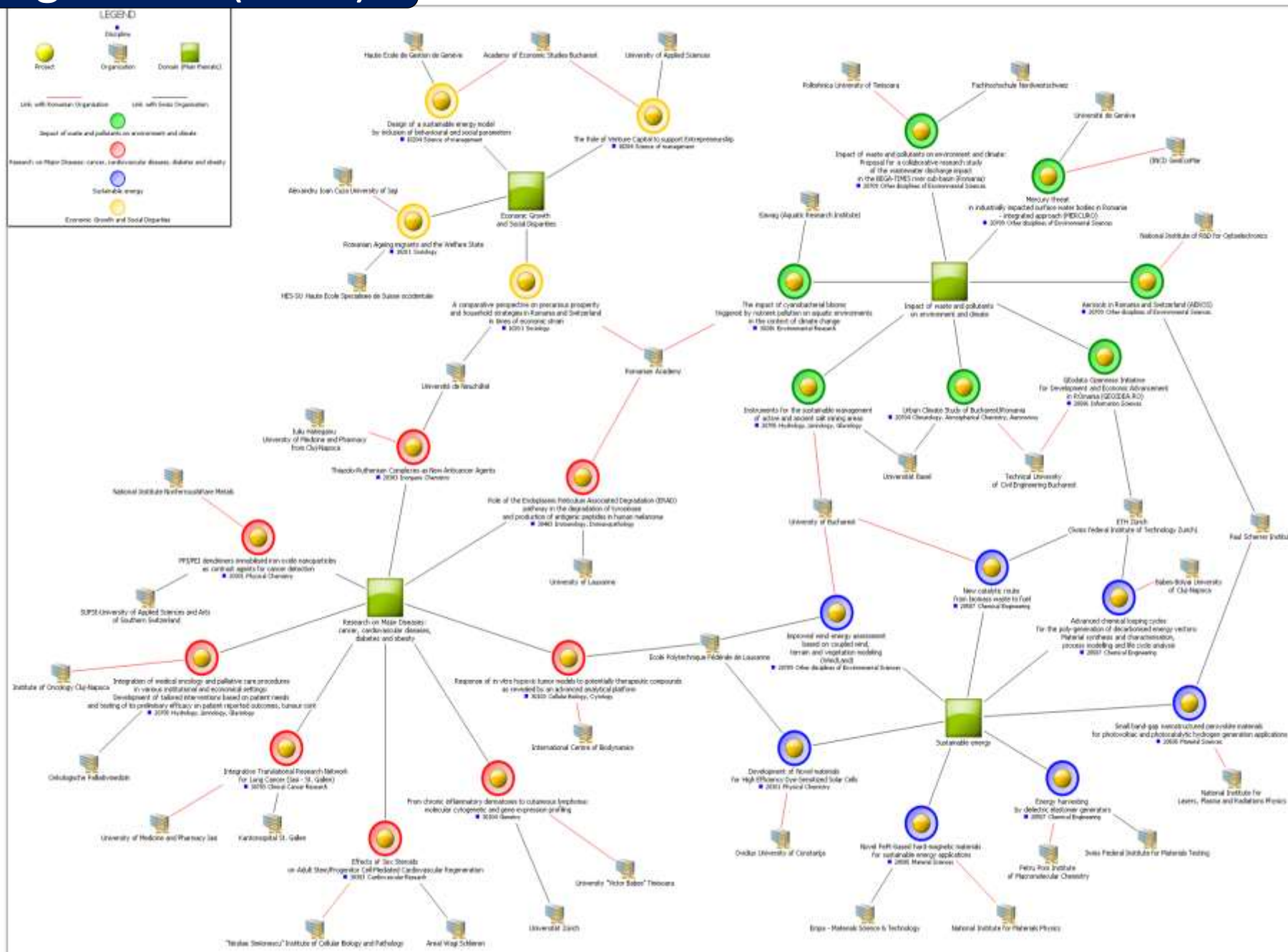
481 proposals

145 funded projects/16 as coordinator

- 2014 → 1st place (EU-13) in ERA-NET COFUND (Horizon 2020)
- 2015 → 2nd place
- 2013 → 2nd place
- 2012 → 1st place
- } in the list of Romanian entities accessing FP 7 projects (European Research Ranking)

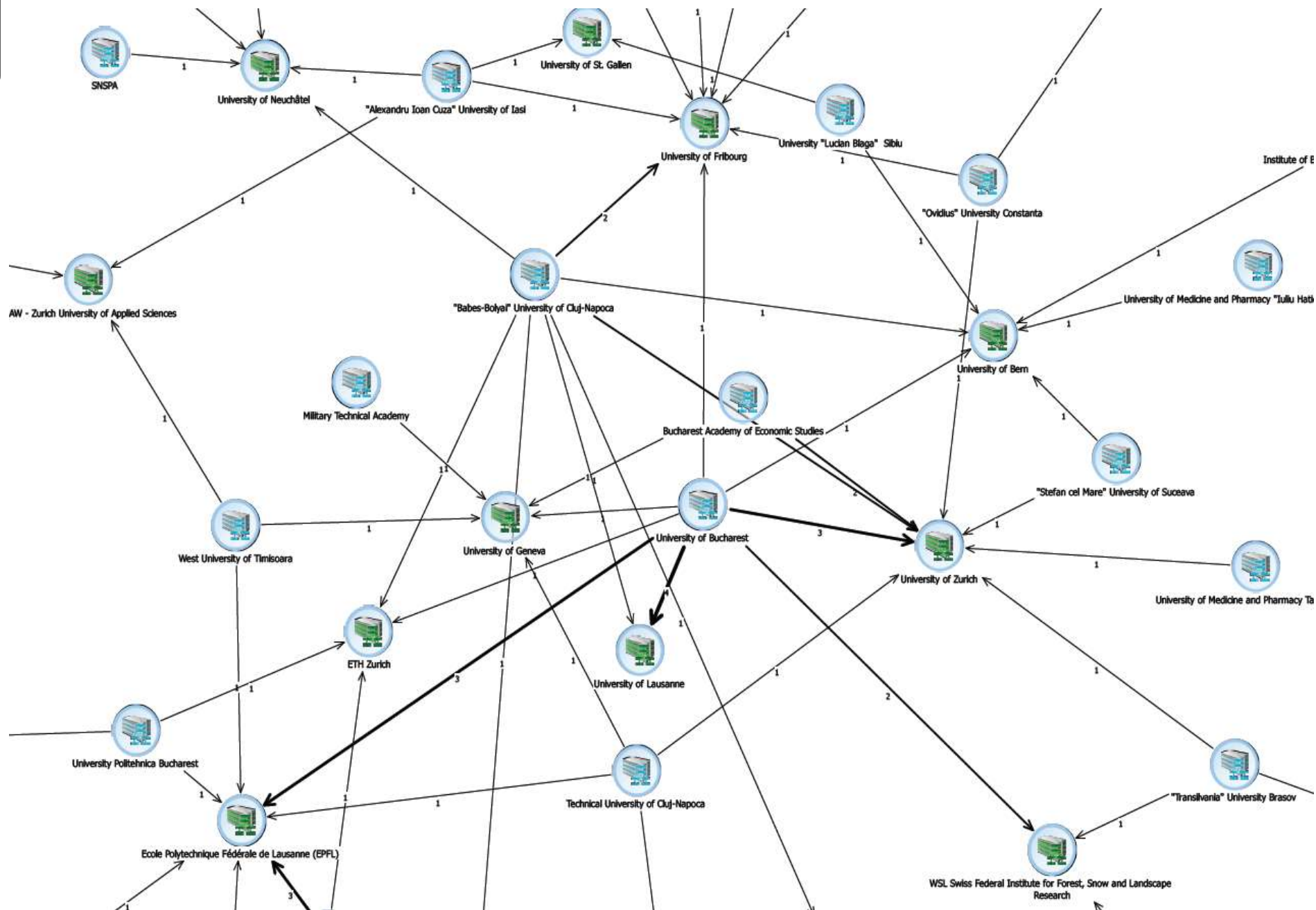
RO-Swiss Research Programme (RSRP)

- Total budget : 10.4 mil. CHF
- RO co-financing (15%): 1.555.897 CHF
- 26 funded projects
- 4 thematic areas
- 22 RO universities, research institutes and institutes of Romanian Academy involved
- 16 Swiss universities and research institutes involved in the programme

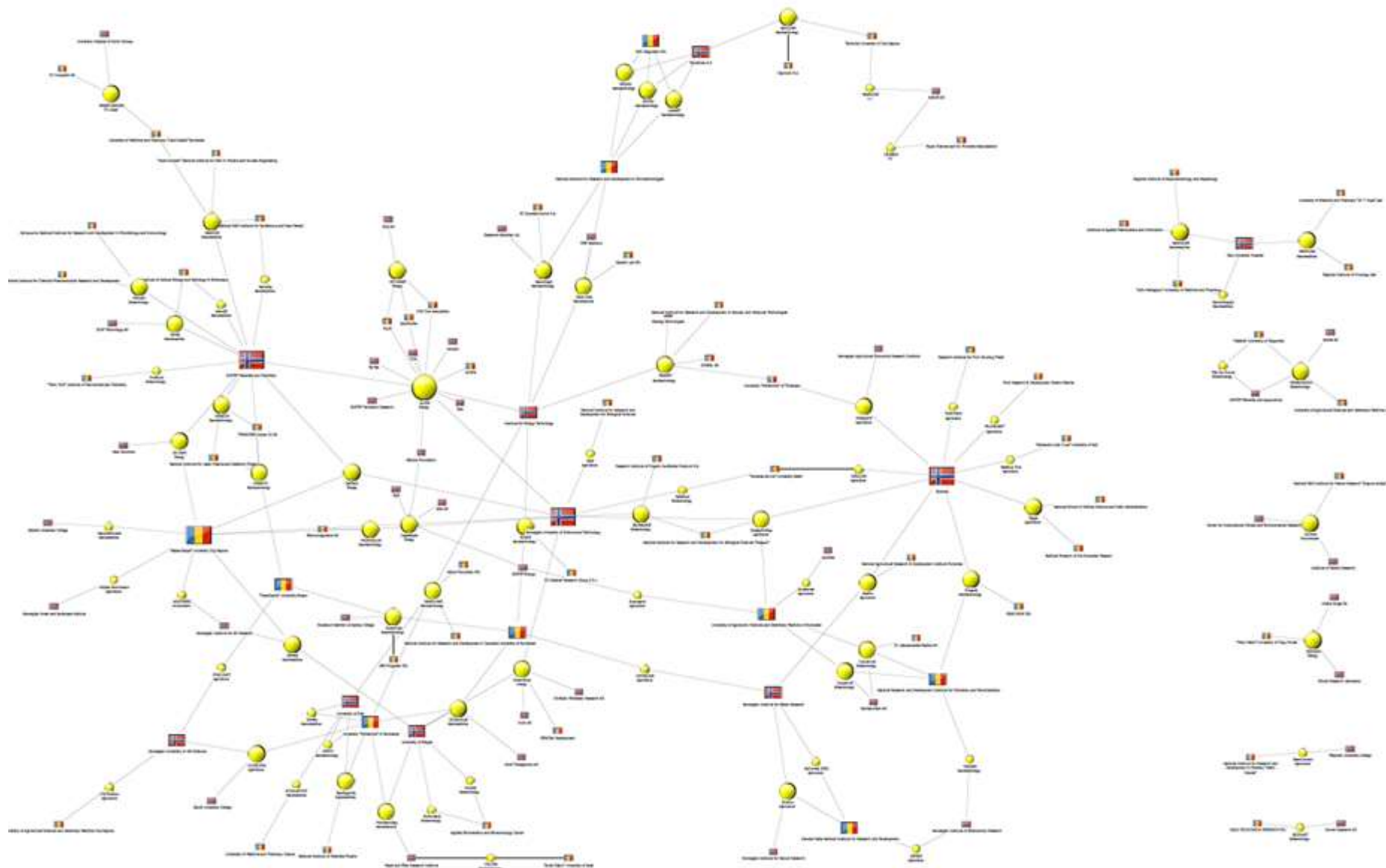


SCIEX-NMS.ch

- Total budget for RO: 7.648.068 CHF (including short visits)
- 88 fellows
 - 28 PhD candidates
 - 60 Post Docs
- 2/3 women researchers
- 32 RO universities and research institutes involved in the programme
- 18 Swiss universities and research institutes involved in the programme

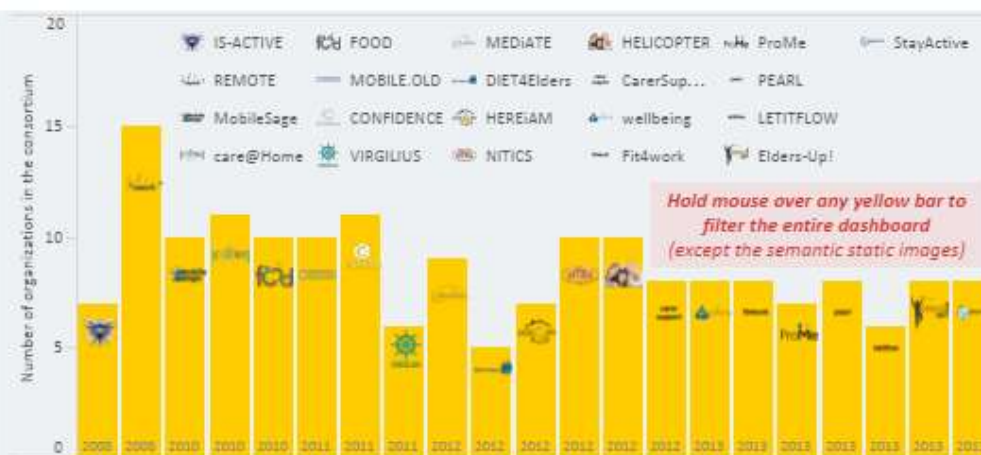
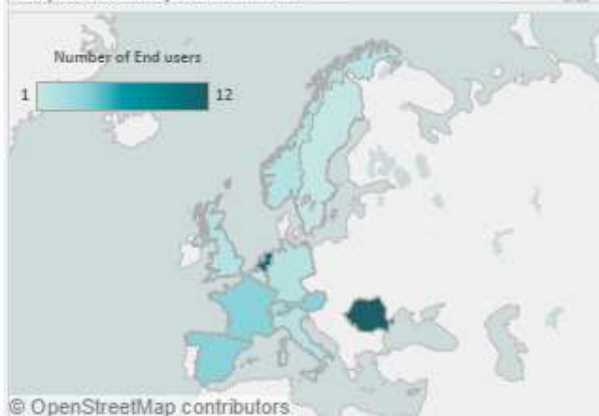


Norway – Romanian partnerships in ERA_NET and AAL





© OpenStreetMap contributors



Below, the visualization shows the semantic network built by analyzing the abstracts (Section 1.1) of the 21 project proposals. The words are "references" defined in Tropes [semantic analysis software] as main themes of the text. The semantic ontology was exported and processed in Gephi [network analysis software]. The colors illustrate six modularity classes, i.e. semantic networks consisting in nodes/ references with strong and complex (semantic) relations.

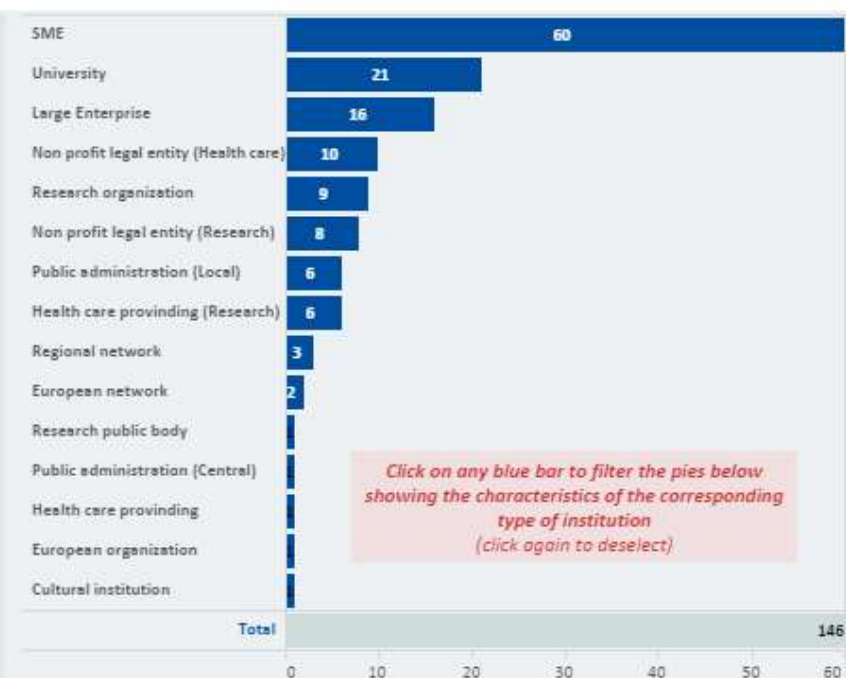


To the right, the visualization shows the six weakly connected components (by six colors) within the semantic network of the texts.

Each color counts for 1.75% of the words in the network, while the majority of words/ nodes (89.47%) illustrated with the close-to-background color represent the strongly connected component of the network. (The network has been contracted and rearranged to accommodate tags, but the distribution of sizes and relations is the same as above.)

Interpretation: A weakly connected component (subgraph) contains nodes that have undirected paths to other nodes from the subgraph, i.e. the references of the texts have, in this case, weak semantic connections, i.e. there are references that are not described through another reference, i.e. "marginal" concepts/ terms vaguely referred to.

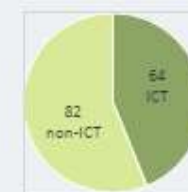
Since the total weakly connected components count for approximately 10% of the references, the homogeneous overall discourse of the texts/ projects describes concerted approaches.

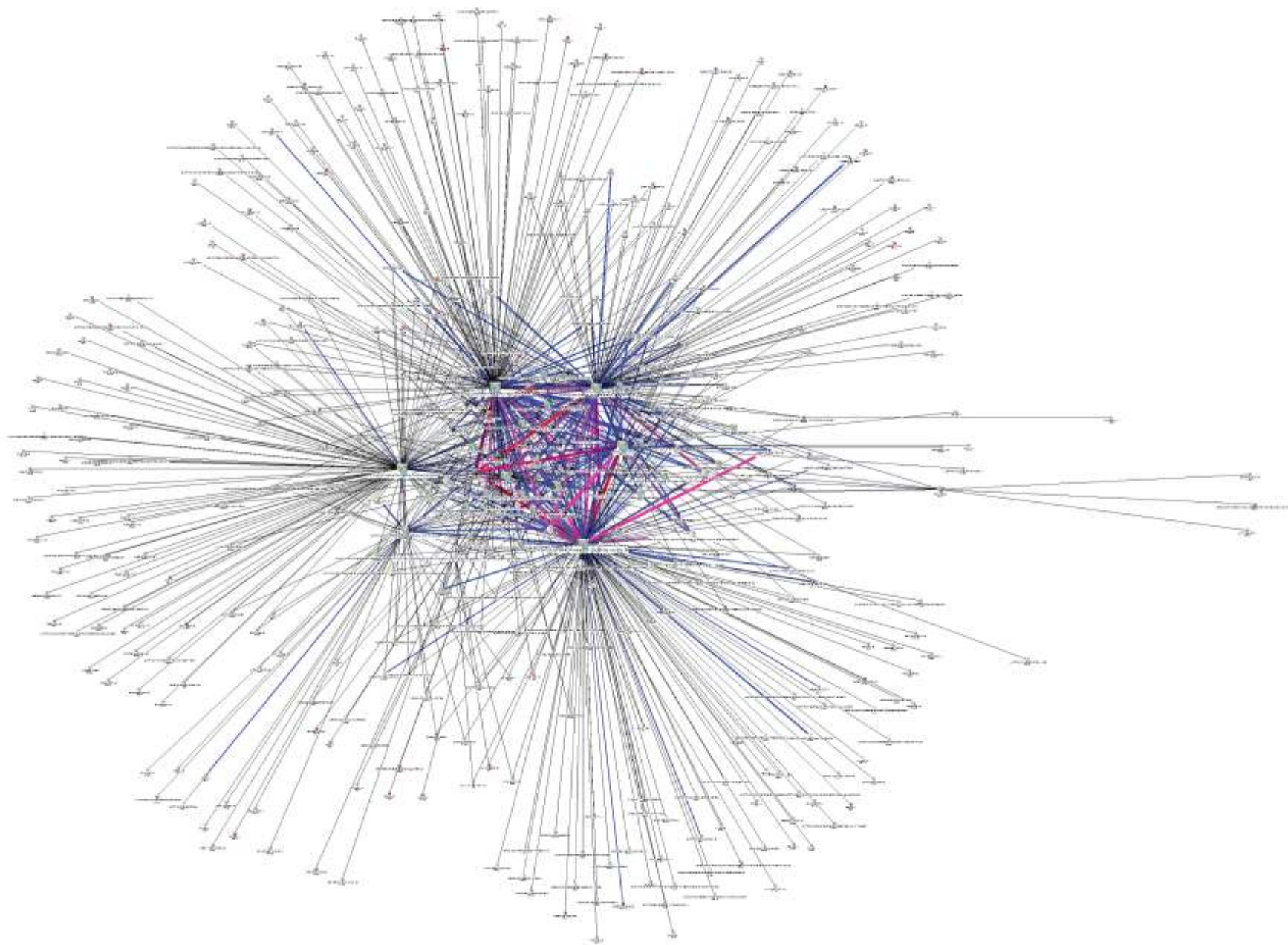


Below,

- the first row of pies show further types of institutions by their "public/ private" status and by their main sector of activity, relevant to AAL: either "ICT", or (/and) "Health care providing".

- the second row of smaller pies show an additional relevant breakdown by "public administration" sector and by "ICT" and/ or "Health care" research activities. The categories are not exclusive across the two rows of pies.





BrainMap

BrainMap represents a wide community of actors involved in the Romanian research and innovation ecosystem.

BrainMap is undergoing a vast process of visual and conceptual updates and improvements, so that it will integrate both the functions of the previous BrainMap platform and the social features and friendly appearance and user experience of BrainRomania.

The image displays the BrainMap website interface. On the left, a search bar is visible with the text "brainmap" and "your one stop source for finding experts". Below it, there is a search input field and a "Search for an expert on the interactive map" button. The main profile shown is for Mr. Romeo Florin SUSAN-RESIGA, a Professor, PhD, at UNIVERSITATEA POLITEHNICA TIMISOARA, Romania. The profile includes a photo, a list of domains of expertise (mechanical engineering, hydraulics, hydraulic machinery and systems, computational fluid dynamics), and a "Copy this link to share the profile" button. The right side of the profile shows a "Download CV" button and a list of research grants and projects with download links. The bottom section of the profile lists "Hirsch Index (ISI): 7,10" and "Citizenship: Romania".

brainmap
your one stop source for finding experts

Search for an expert on the interactive map

Log in / Sign Up

Mr. Romeo Florin SUSAN-RESIGA
Professor, PhD
UNIVERSITATEA POLITEHNICA TIMISOARA
Romania

mechanical engineering
hydraulics
hydraulic machinery and systems
computational fluid dynamics

Copy this link to share the profile
+ public share link

Institution/lab web page: [\[link\]](#)
Personal web page: [\[link\]](#)
Ph.D. degree award: 19%

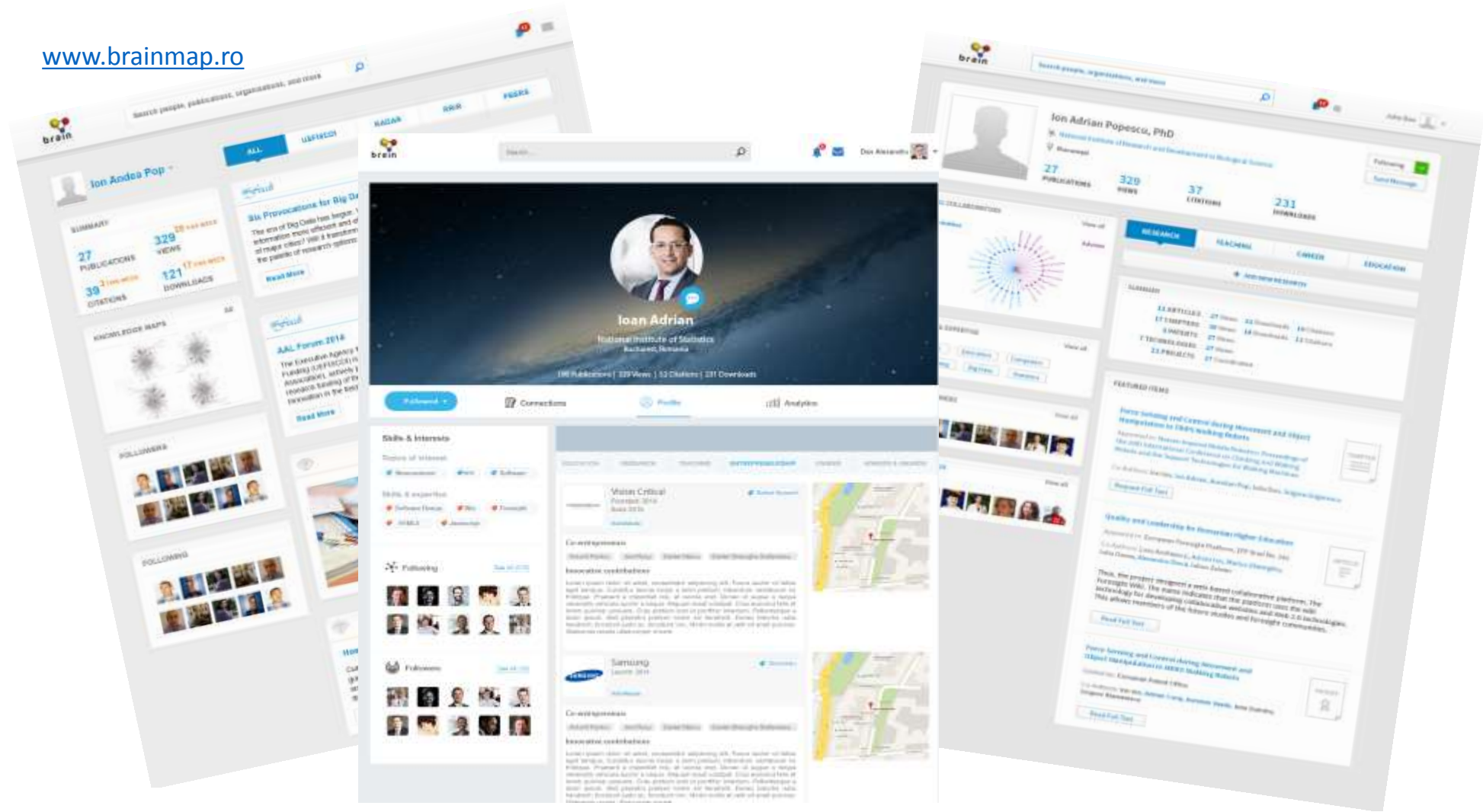
Experience as research project coordinator: [\[link\]](#)
Experience as project evaluation expert: [\[link\]](#)
Experience as researcher (years): 10

Download CV
Click to download
(563.86 kb)
27/05/2018

Projects Publications Patents Entrepreneurship Domains of expertise

FILE DESCRIPTION	DOCUMENT
List of research grants as project coordinator	Download (35.93 kb) 21/05/2018
List of research grants as partner team leader	Download (45.39 kb) 21/05/2018
Significant R&D projects for enterprises, as project manager	Download (91.73 kb) 21/05/2018
R&D activities in enterprises	
Peer-review activity for international programs/projects	
Hirsch Index (ISI): 7,10	
Citizenship: Romania	

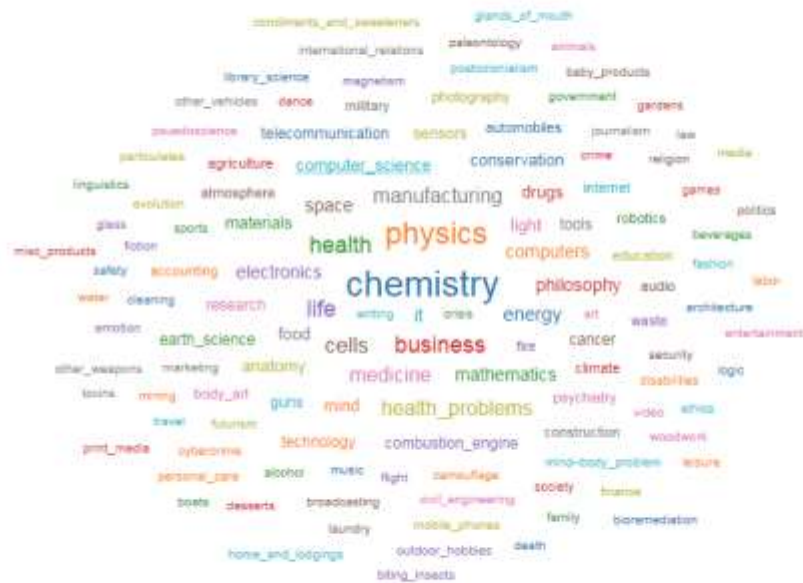
www.brainmap.ro



Brainmap – skills clusterization

Categories

Selected: computer_science



Skills

Selected: artificial intelligence



Persons

- Augustin
- George Gustav
- Alexandra
- Silvia
- Smaranda
- Otilia Elena
- Elena-Niculina
- DANIELA ELENA
- EUSEBIU
- Stefan
- Ince
- Florin
- Robert Stefan
- Rafael
- Adriana
- Carlos Nascimento
- Corina
- Catalin-Liviu
- Cipriano

What is ERRIS

ERRIS
ENGAGE IN THE ROMANIAN
RESEARCH INFRASTRUCTURES
SYSTEM

Register Login Selectați limba ▼

Welcome to ERRIS

Registry of Romanian Research Infrastructures, the booking gate for research infrastructure services.

Find services, infrastructures, and equipment

or

VIEW ALL INFRASTRUCTURES

Browse the Research Infrastructures Map

Play the video to find out how ERRIS works.

Are you a service provider?
Register your organization to promote your infrastructures and the related services.

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The University of Bucharest is a leading academic ce reference in society, and it adheres to the principles of thinking. The University is one the leading higher educa South-East Europe by actively contributing through development and use of knowledge. The University's quality academic programmes and research facilities, research and teaching. The University is an important global intellectual community working towards prote values, as well as towards promoting diversity and intern

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 Bucuresti Bucuresti - Sector 5, ROMANIA



Boundary Layer Wind Tunnel 1 (TASL 1)

TECHNICAL UNIVERSITY OF CIVIL ENGINEERING BUCHAREST

Length: 27 m;
 Test section dimensions: 1.75 * 1.75 m;
 Maximum speed: 25 m/s;
 Variable roughness;
 Variable speed fan (200 kW).

Domains of activity
 - Civil Engineering Research Infrastructures
 - Wind Engineering

Infrastructure direct public Link: <https://erris.gov.ro/Boundary-Layer-Wind-Tunnel-1-TAS>

944 VISITS 0 REVIEW(S) ★★★★★ [Share](#) [in](#) [Share](#) 1

SCIENTIFIC & TECHNICAL TEAM:



Coordinator:
 Prof. Dr. Andrei-Mugur
 GEORGESCU



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Tel. +40 21 242.12.08
 Fax. +40 21 242.07.81

Lacul Tei bvd, 122-124
 Zip code: 020396
 Bucharest - Bucuresti - Sector 2, ROMANIA



SERVICES:

- Experimental and numerical evaluation of wind induced structural loads
- Estimation of pedestrian confort in urban areas
- Aeroelastic structures
- Evaluation of snow deposits and snow drift at ground level

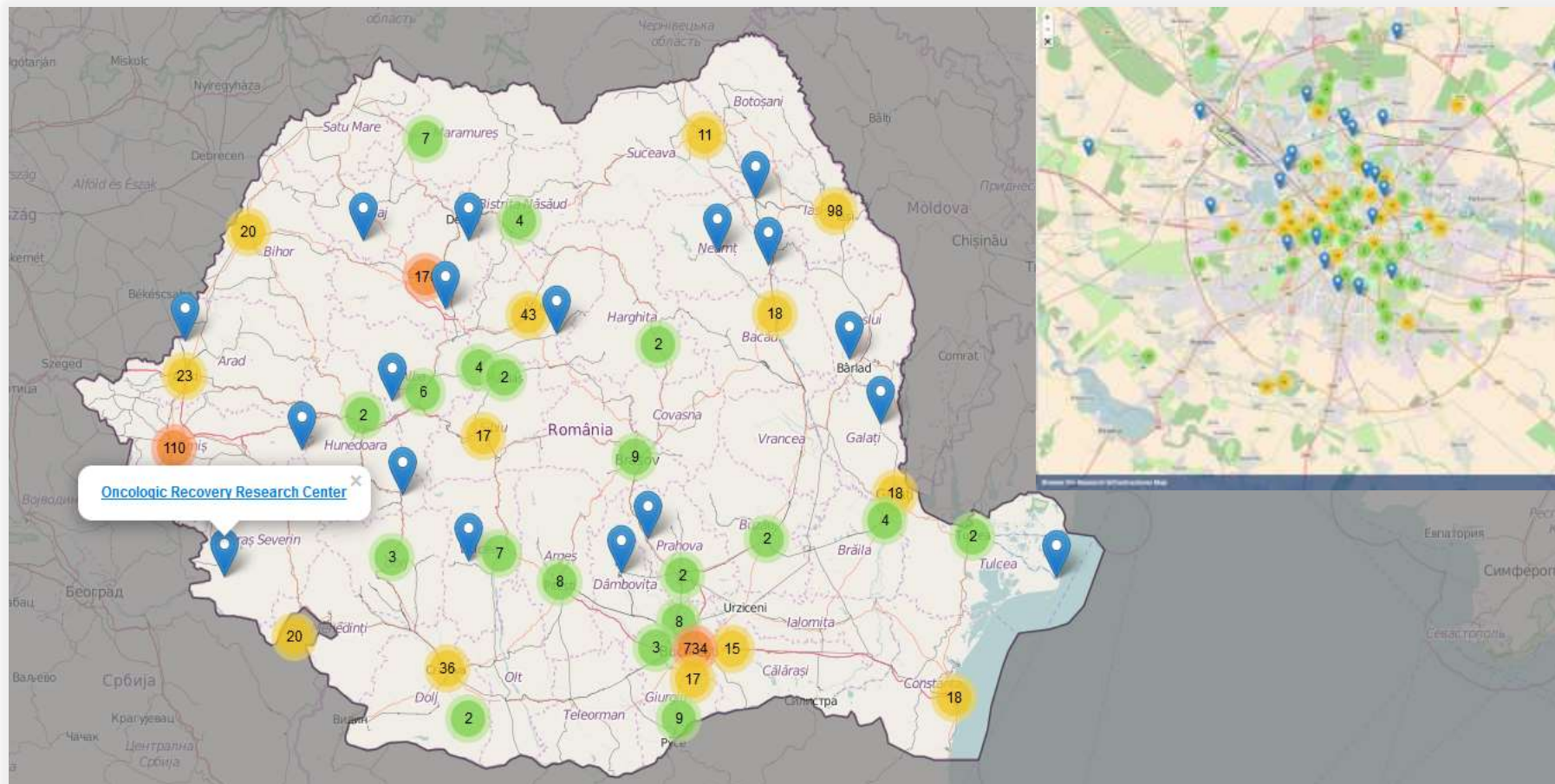
EQUIPMENT:

- Variable roughness
- Con
- Las
- 3D
- Par
- Inte
- Las

REVIEWS:

★	0%	0
★	0%	0
3★	100%	1
★	0%	0
★	0%	0

Latest Reviews



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



The Romanian Entrepreneurship Ecosystem

Is there any entrepreneurial ecosystem?

5 dimensions to an ecosystem-made entrepreneur

1. Inspiration



2. Work Experience



3. Consultancy



4. Mentorship



5. Investment

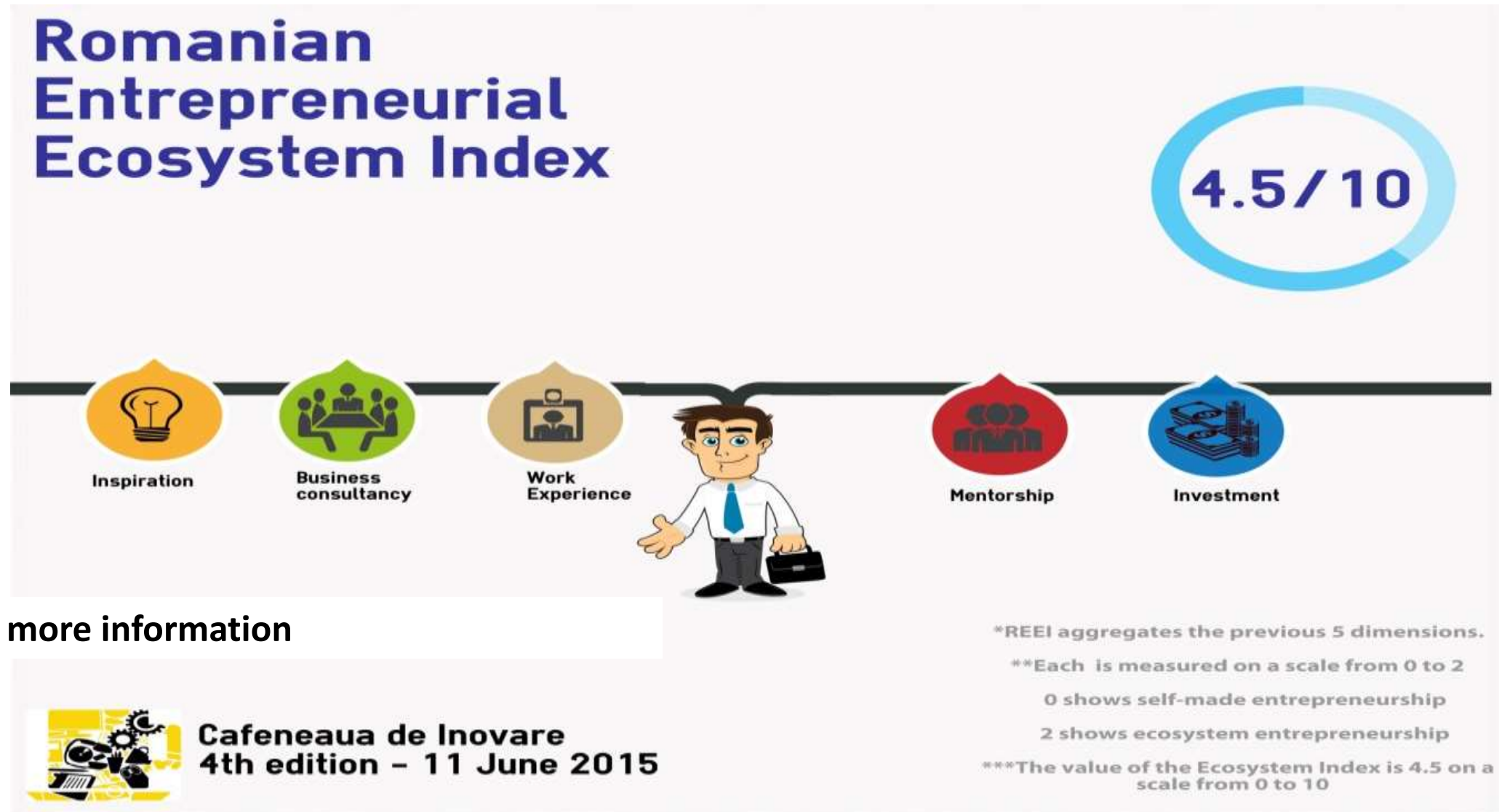


For more information



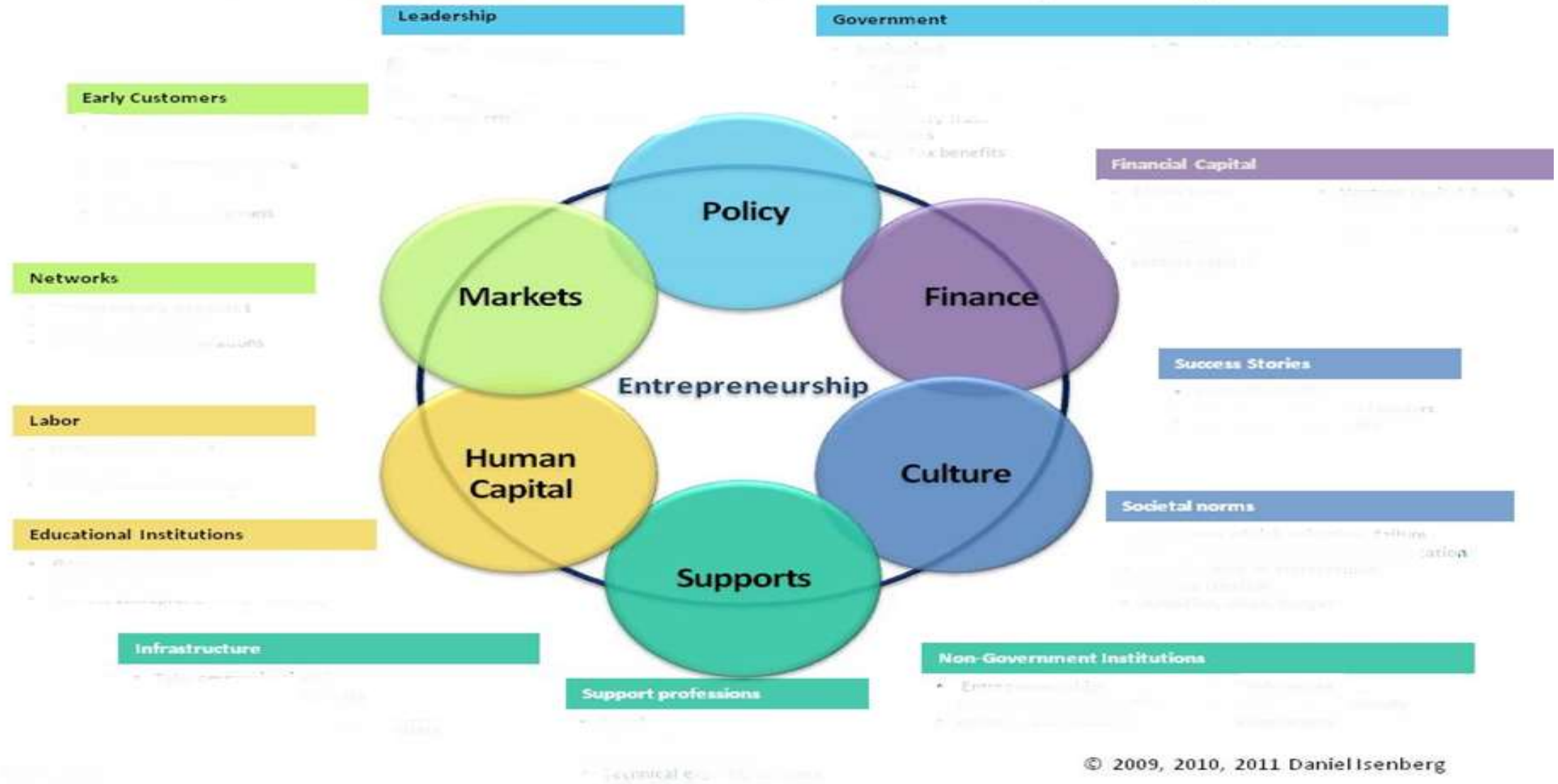
Cafeneaua de Inovare
4th edition - 11 June 2015

Entrepreneurial Ecosystem Index:



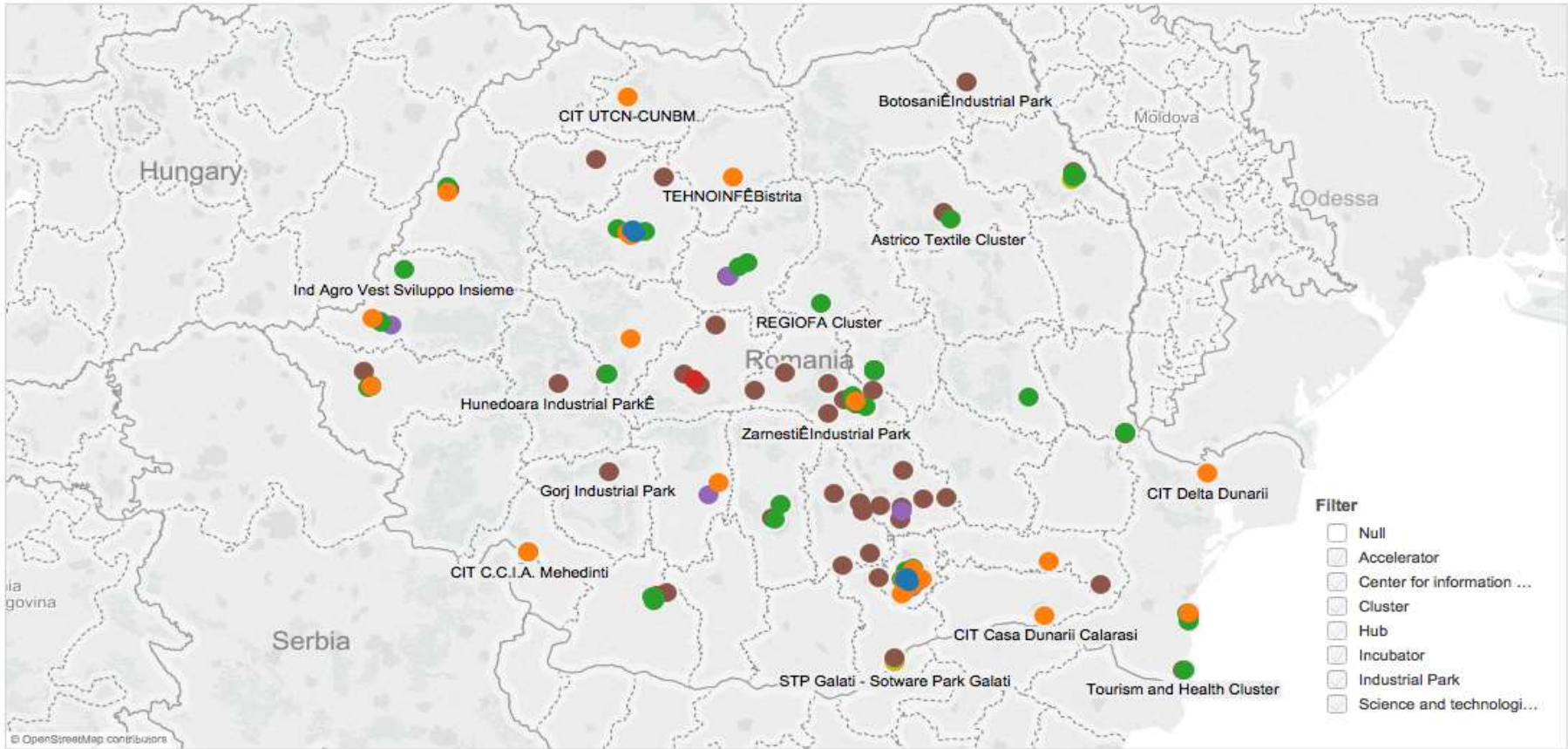
EEI ranges from 0 to 10

Domains of the Entrepreneurship Ecosystem

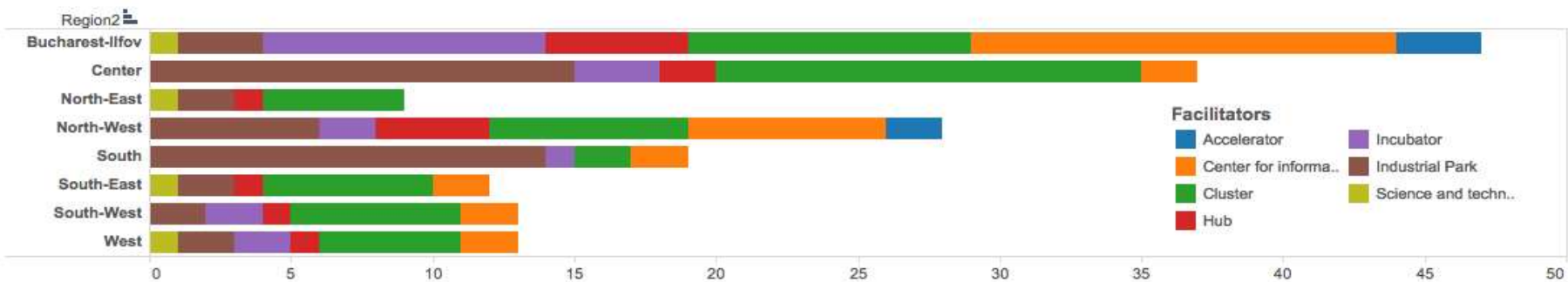


Business facilitators & support entities

Map

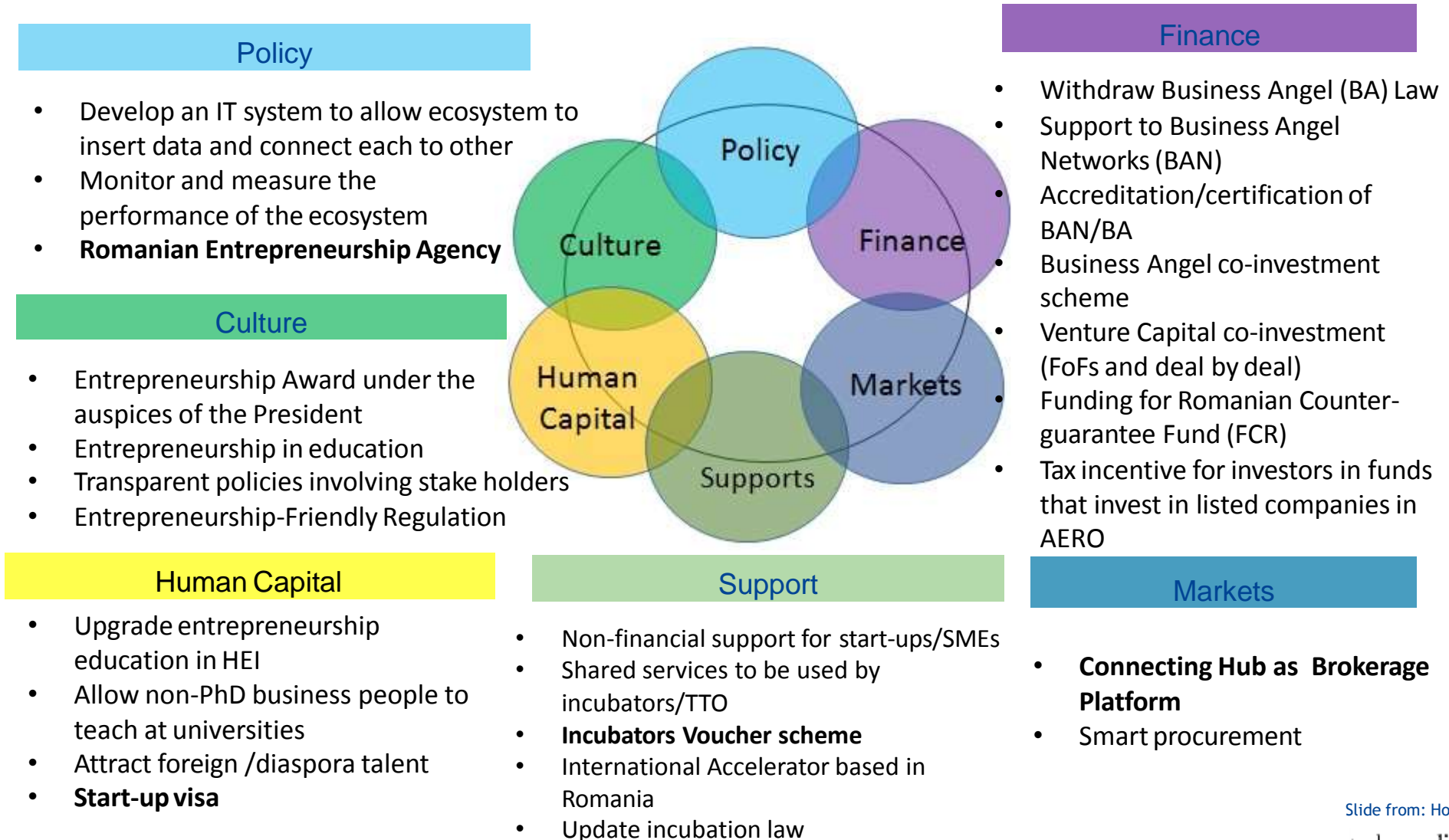


Regional spread



Business driven innovation

Romanian Entrepreneurship Ecosystem recommendations



Cross-cutting principles

1) Establishing and strengthening the entrepreneurial community

- This principle is reflected in almost all of our recommendations (visibility, networking, brokerage, attitudes, etc.)

2) Enhancing transparency and Open Data

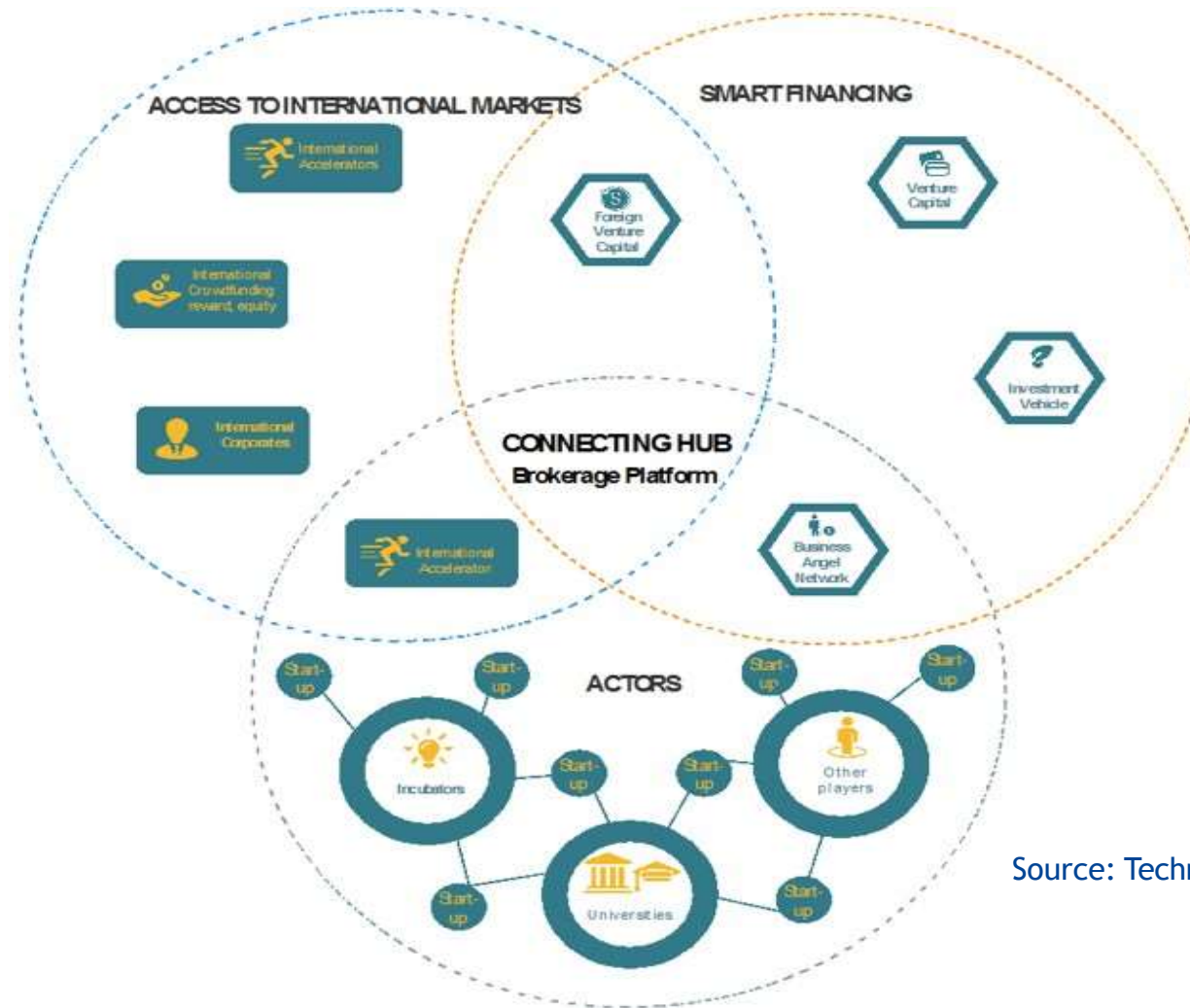
- This would address one of the key barriers of the entrepreneurial ecosystem - lack of trust between public and private actors

3) Internationalisation

- International linkages and networks are an essential feature of any successful entrepreneurial ecosystem and Romania is no exception.

1. Improving linkages
within the Romanian
entrepreneurship and
innovation ecosystem

Connecting Hub as a Brokerage platform



Source: Technopolis Group



2. Improving the business environment

The Romanian Entrepreneurship Agency

Catalysing innovation and entrepreneurship



3 Enhancing the start and growth of new companies

Entrepreneurship education and access to talent

Make earmarked funding available for primary and secondary schools for organizing entrepreneurial projects and activities, including entrepreneurial clubs, business plan competitions and societies. Regional school business plan competitions can have a national final where the best projects, schools and teachers will be awarded.

Invite schools, entrepreneurs, students and teachers (through their appropriate associations or representatives) into an open discussion how to change the overall educational approach to better support entrepreneurship.

Establish a specific promotion programme for attracting foreign and ex-patriate (diaspora) entrepreneurial talent. Mapping diaspora talent will be key to implement this project successfully.

Establish a Start-up Visa to attract foreign entrepreneurs to launch their new businesses in Romania.

Public support to entrepreneurs and demand-driven innovation

Launch a programme offering **non-financial support for start-ups and SMEs seeking growth in international markets.**

Introduce comprehensive integrated funding schemes for start-ups (and selected SMEs).

Establish **common procedures for managing funding programmes**, including **IT systems** and electronic management of applications and monitoring of projects and programmes across all agencies.

Design and launch a **scheme for organizing challenge competitions to address selected societal challenges**, which combine national needs with high international market potential, and engage entrepreneurs, start-ups and innovative SMEs.

Organise skills assessment and trainings to ministry, agency and other public sector employees that interact with entrepreneurs on a regular basis.

4 Uplifting the role of
incubators, accelerators and
universities in Romanian
entrepreneurial ecosystems

Promoting an international accreditation of several incubators and accelerators



Supporting the most promising ecosystem players in Romania



Launching a international acceleration program for start-ups



Transforming universities' role in entrepreneurial ecosystems

Develop a specific support scheme for the involvement of academics into entrepreneurial activities, notably with respect to innovation in teaching

Make the Intellectual Property Law for Romanian Universities implementable and respected by universities

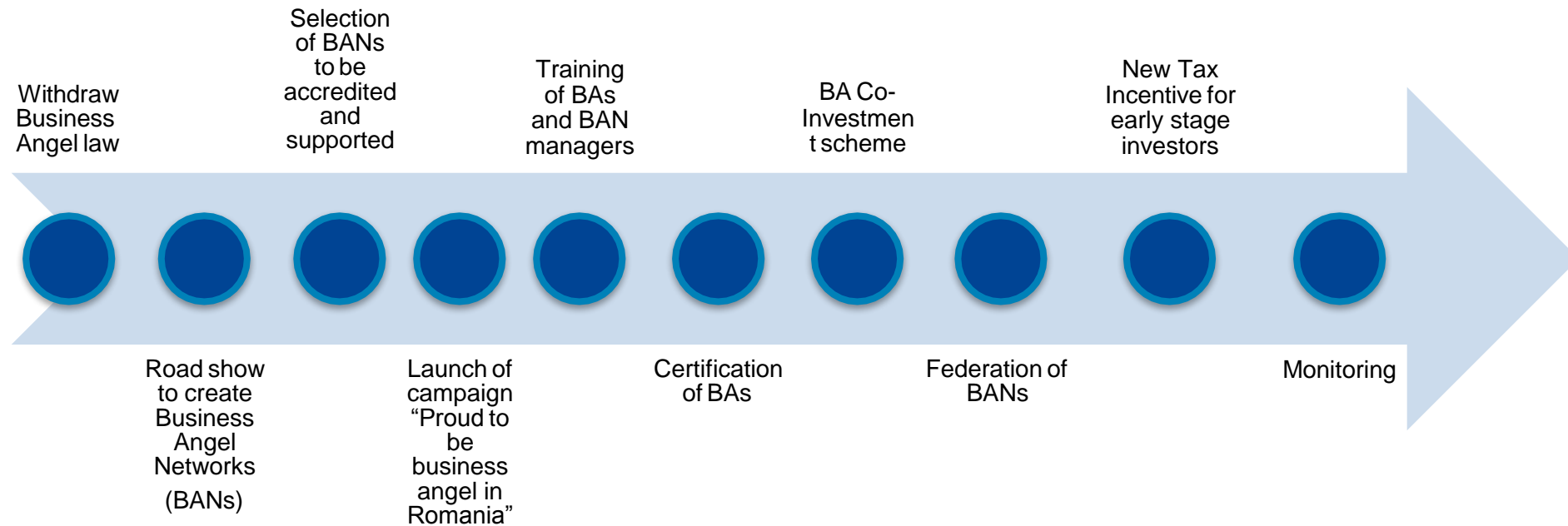
Establish joint or shared TTO structures for all universities and research institutions, in order to reduce tech transfer costs, and provide international training and coaching to TTO personnel

Define transparent criteria for the evaluation of university entrepreneurship activities expenses so that public support could be provided accordingly



5 Improve access to
finance in Romania

Supporting Business Angels



Set up a business angels co-investment scheme

Goal: Create an instrument to expand the current community of hands-on business angels that support Romanian start-ups.

How to promote joint investments of business angels:

At least 3 certified business angels are needed to apply for the funds from the co-investment scheme.

Certified foreign business angels should be incentivised to participate.

In case of a successful application, business angels create an investment vehicle (IV) in which certified business angels hold the majority of shares and the decisions.

Once the investment vehicle is set up, 1/3 of the funds should be put into the vehicle by business angels. On exit Angels will receive up to 90% of the upside.

Funds will be invested in companies that were established no longer than 5 years ago.

Support to Venture Capital Funds

1. Support the creation of VC funds that will invest in Romanian companies in a bit later stage than business angels.

They should invest 750.000-3.000.000 EUR in each company.

Preference on selection should be given to VC firms that have access to international markets and can help innovative Romanian companies to scale.



2. In order to help the VC funds to raise money, government should allow the limited partners, or the founders of these new VC funds to have a personal income tax benefit



3. Government should also create a Fund of Funds and a matching Fund deal by deal with international accredited and specialized VCs on a 1:1 basis.

Thank you!