Assessing Territorial Embedding of Marine Biotechnology Research Institutions

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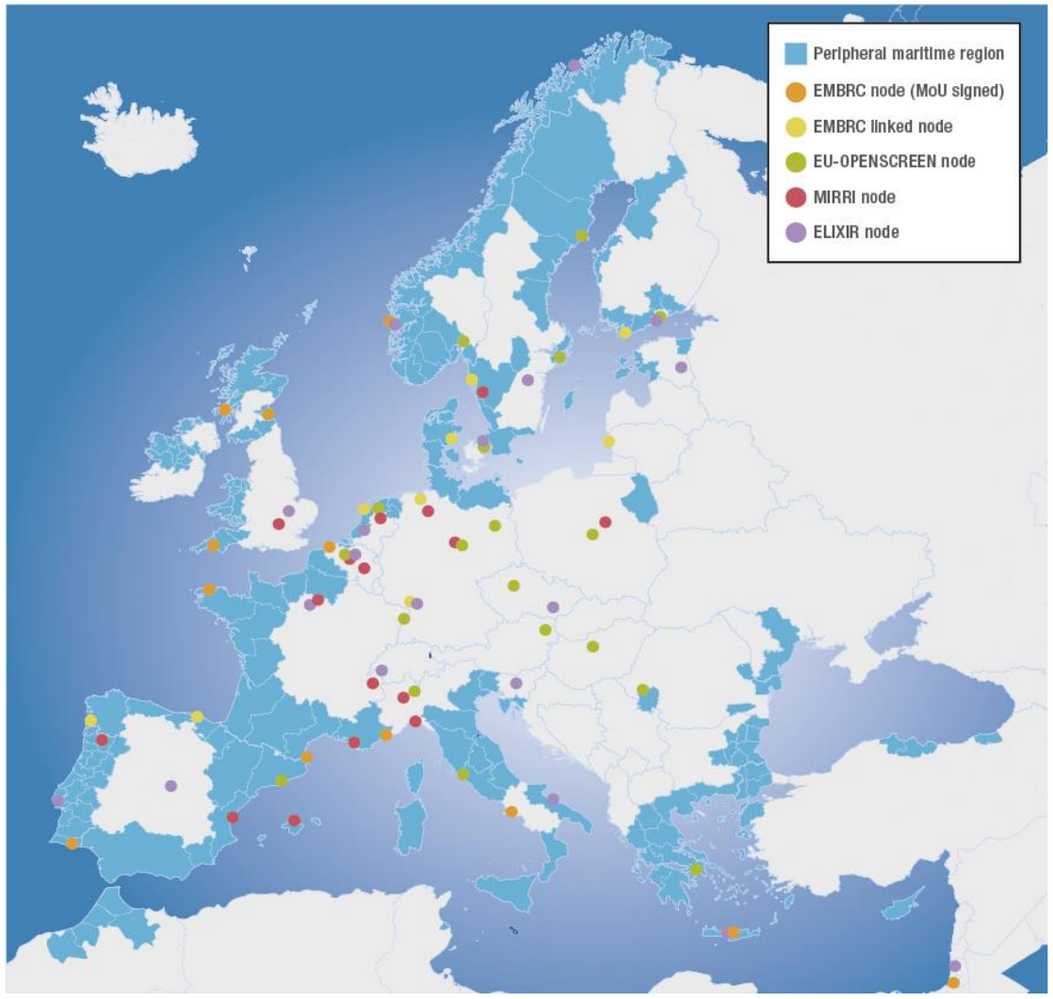
Marine Knowledge: Supporting Marine Research Knowledge Exchange for Blue Growth - 13th October 2016 - European Parliament

EMBRIC project

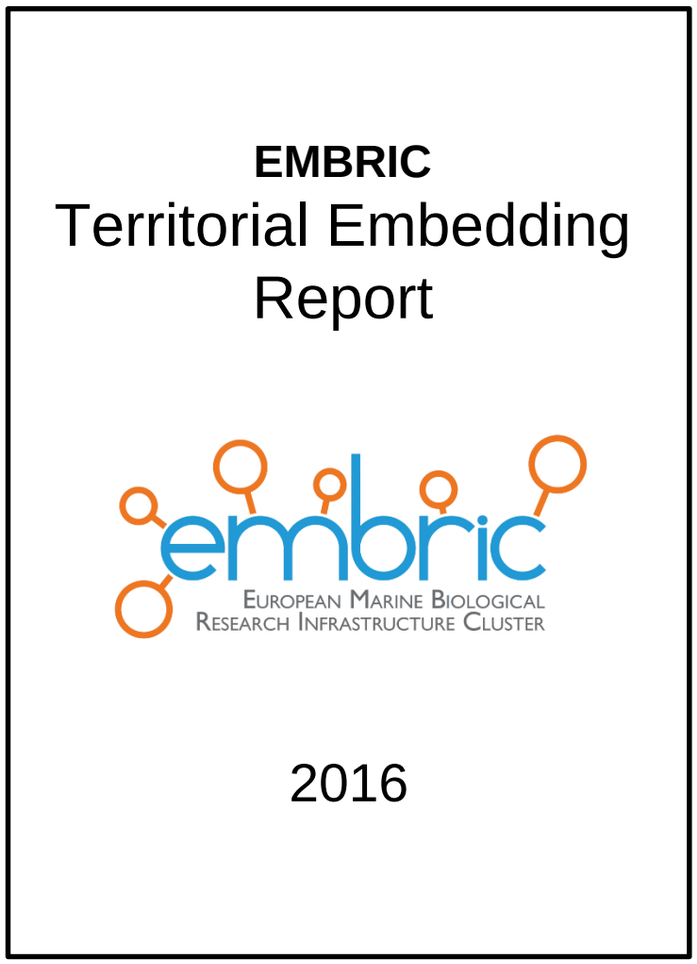
- The European Marine Biological Research Infrastructure Cluster (EMBRIC)
- Designed to accelerate the pace of scientific discovery and innovation from marine Bio-Resources.
- EMBRIC aims to promote new applications derived from marine organisms in fields such as drug discovery, novel foods and food ingredients, aquaculture selective breeding, bioremediation, cosmetics and bioenergy.
- The EMBRIC consortium comprises **27 partners** of **4 different types** (academia, research institutes, non-for-profit organizations and industry).
- EMBRIC partners are distributed in **7 EU member states** and **2 associated member states**.
- www.embric.eu



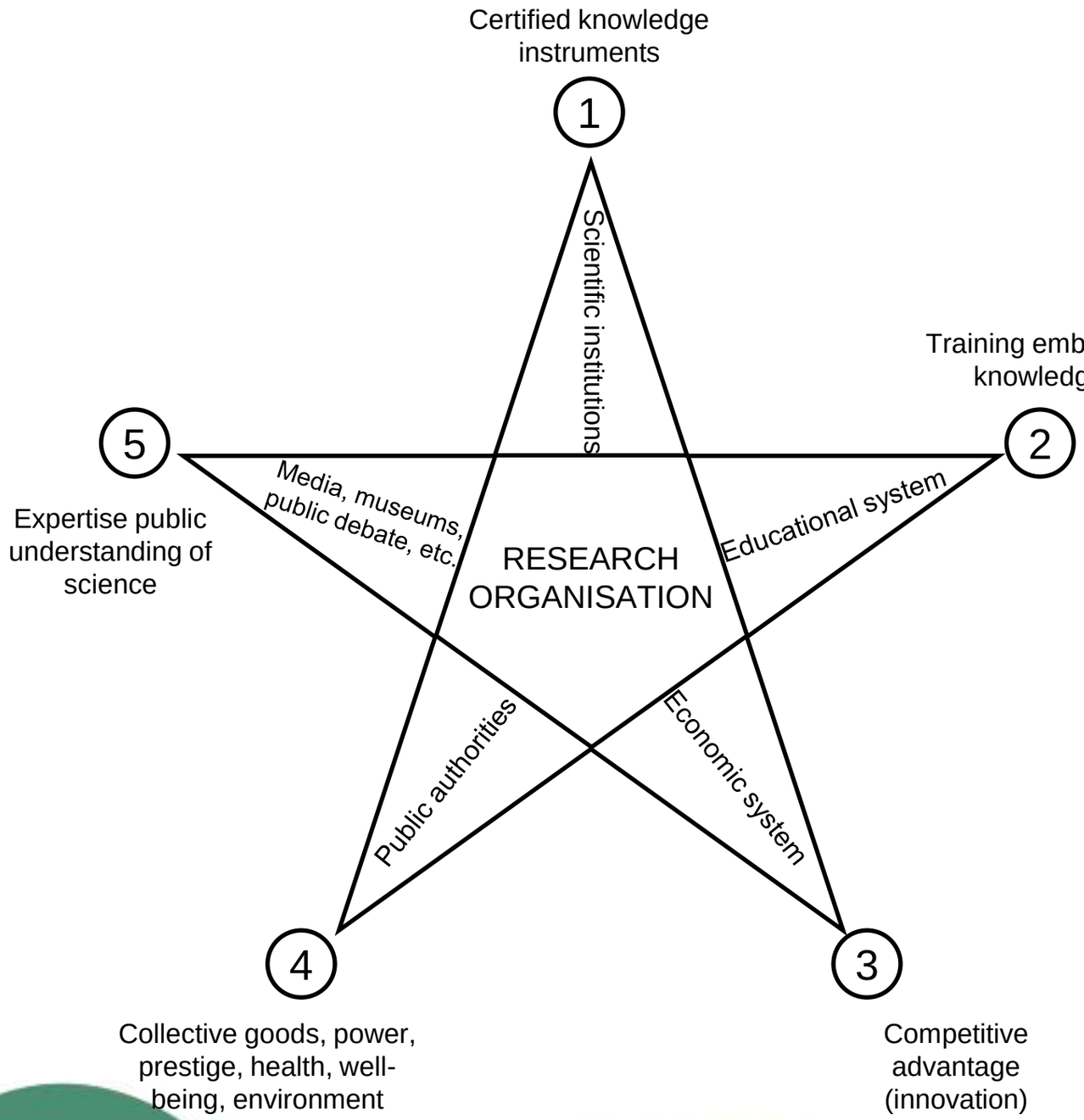
Node distribution of RIs involved in EMBRIC
Source: EMBRIC Vision Document, 2016

EMBRIC TERRITORIAL EMBEDDING REPORTS

- **Creating a profile of each member of EMBRIC is useful to:**
  - Show that the Marine Bio Organisation (public/private) contributes to their region
  - Show how they contribute with hard evidence
  - Do this in an organised, comparable and transparent way that is convincing



The Approach
A Research Organisation Compass



Compass point	Description
(1) Research	The production of scientific knowledge in various forms (publications / projects)
(2) Training	The education of undergraduate and masters students through academic and professional training programmes
(3) Economic activity	Contracts with other actors, such as consultancies, collaborations, joint patenting etc. (patents and contracts)
(4) Links with public actors	The connection between the research centre and regional public councils and other public organisations. For example, the presence of experts from the research centre on committees, the links between regional development (for example the building of a science district) through interactions with public actors.
(5) Links with society	Links to regional actors and civil society in two broad ways (a) through public engagement and communication, (b) stakeholder interactions to bring to light the norms and values inherent to the research centres activities and how they align with societal actors

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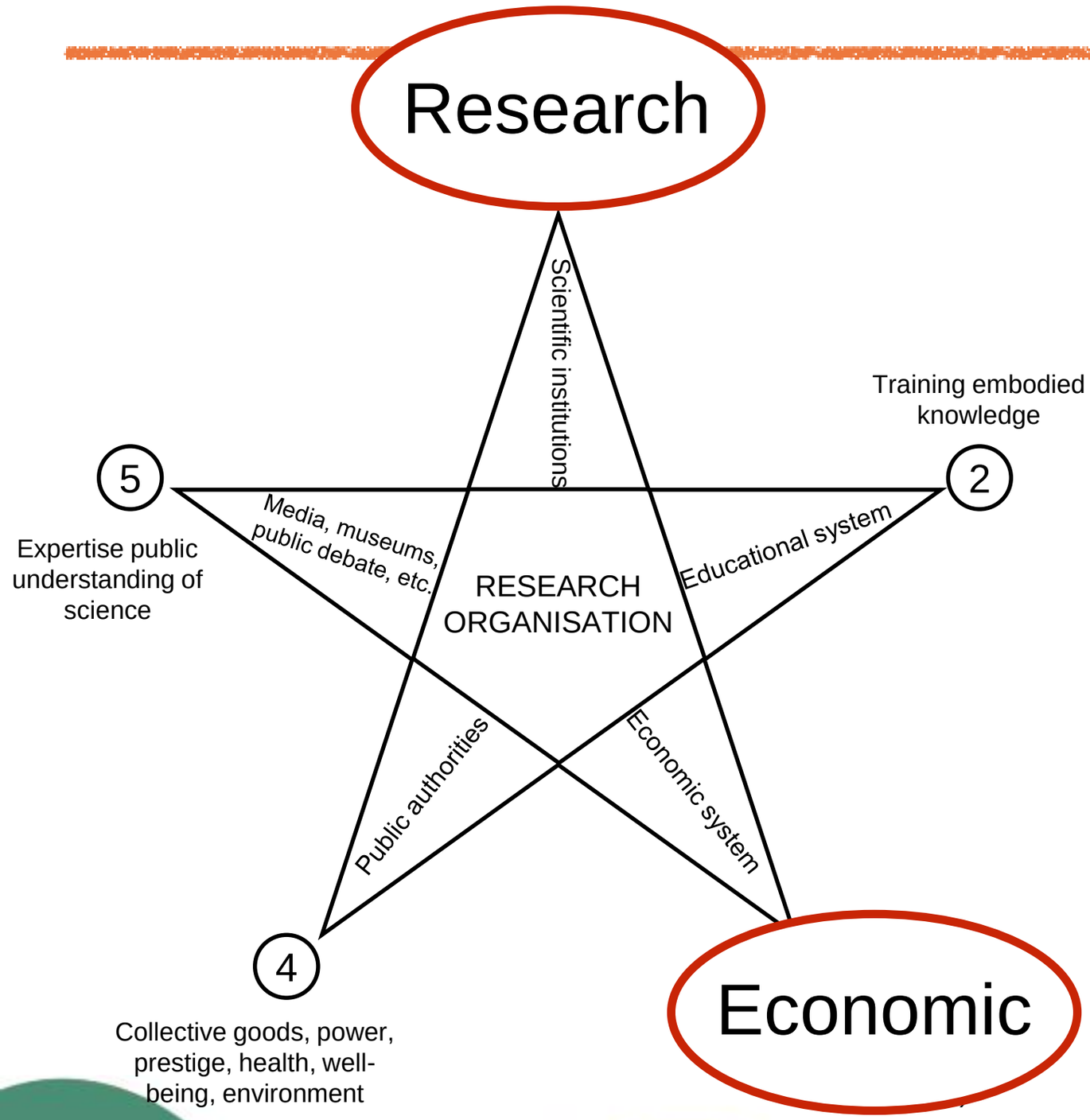

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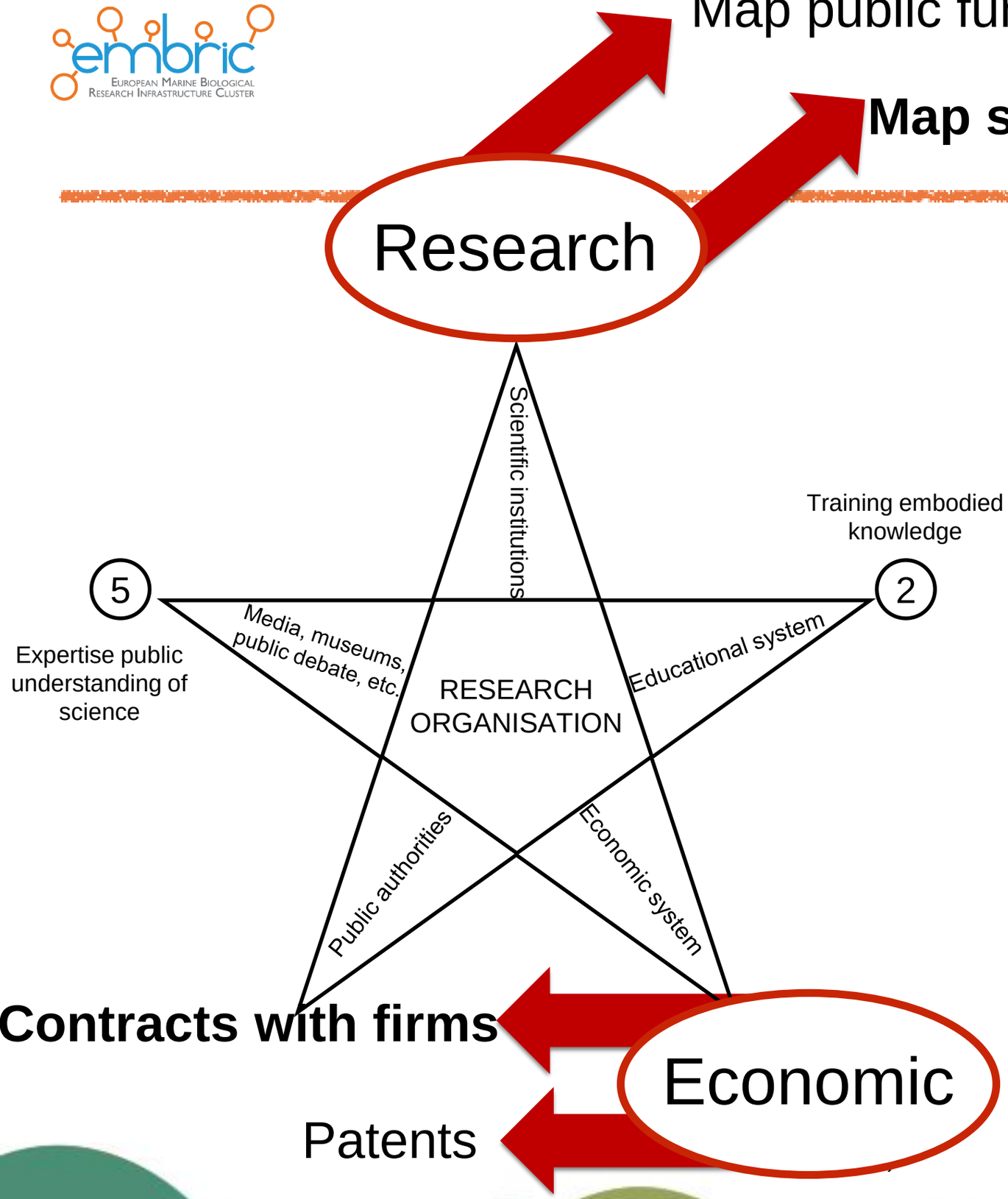
Map public funded research projects

Map scientific articles



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Focus case:
Roscoff Marine Research Centre

- over 100 years presence
- joint UPMC-CNRS centre

Key figures

- 15 Research professors
- 35 Researchers
- 103 Research support staff
- 11 Post-students
- 53 PhD students
- 4 Research units

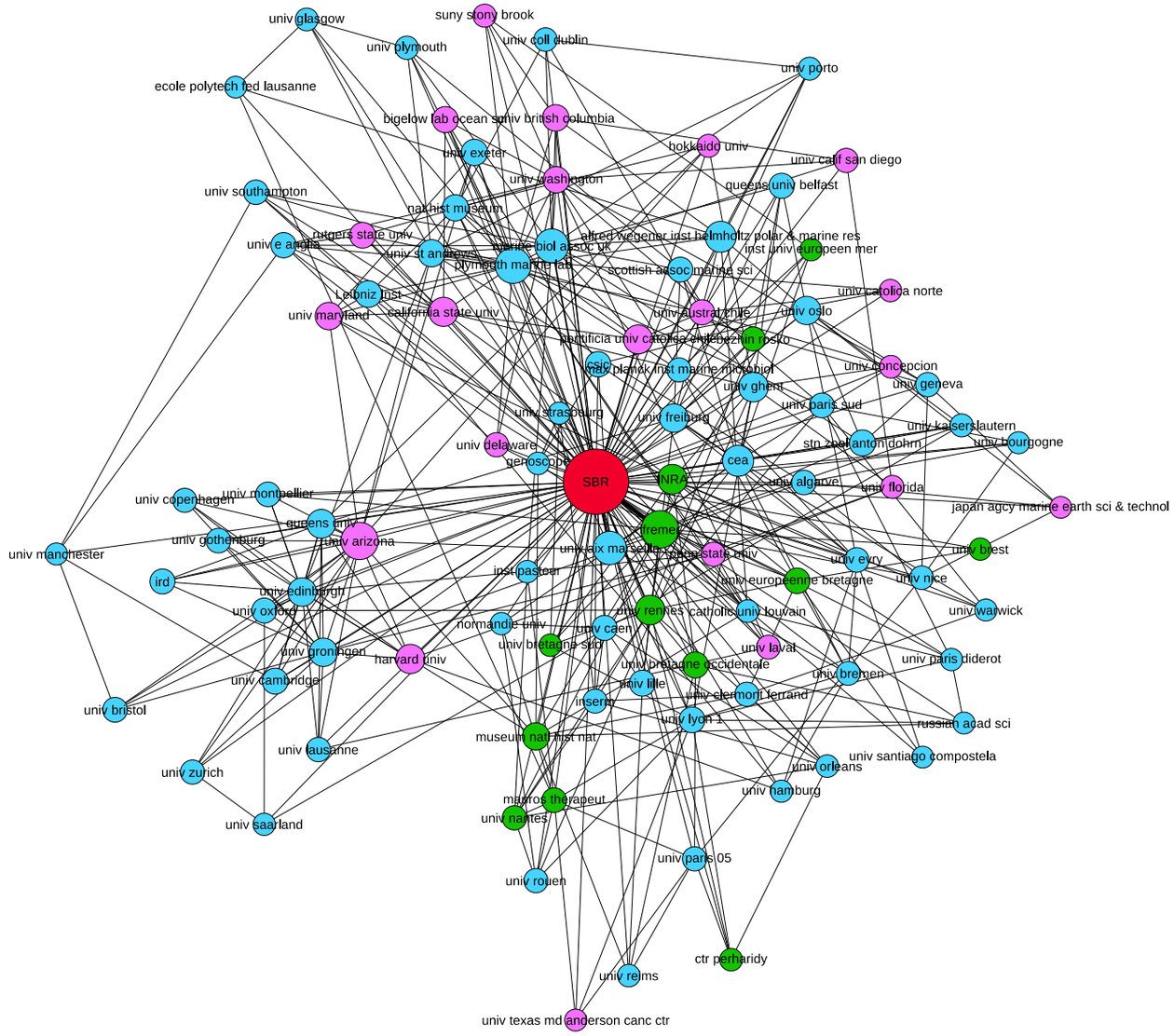
CNRS UPMC INSU
Station Biologique
Roscoff

An international scientific reach – **scientific papers**

- 608 publications from the WoS (2010-2014)
- Top 100 co-authoring institutions displayed
- Clustering based on co-authorship

SBR	1%	
Brittany	13%	
Europe, outside Brittany	65 %	
Non Europe	21 %	

% of nodes according to geographical location



Powered by CorText

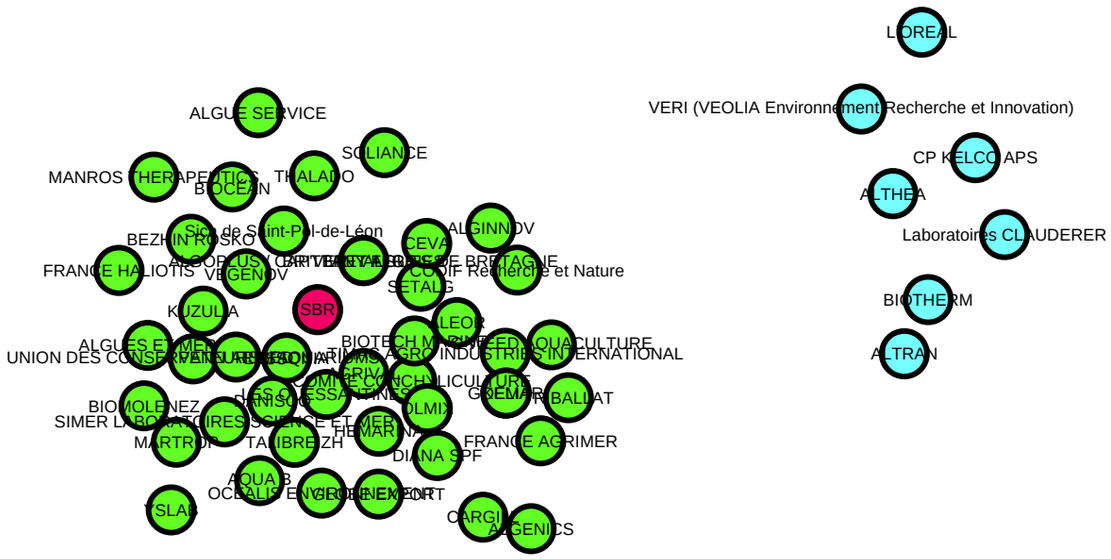
An economic support focussed on regional partnerships – **contracts with firms**

From 2010:

- 57 contracts / partners
- Clustering based on geographical proximity
- Processed with CorText

SBR	1,75 %	
Brittany	80,7 %	
Europe, outside Brittany	17,54 %	
Non Europe	0 %	

% of nodes according to geographical location



Summing up the results

% of nodes according to geographical location

Geographical origin	Publications (for the top 100 nodes)	Scientific partnerships in projects	Patents	Contracts with firms
SBR	1%	0,24 %	4,17 %	1,75 %
Brittany	13%	9,44 %	33,33 %	80,7 %
Europe, outside Brittany	65 %	84,75 %	37,5 %	17,54 %
Non Europe	21 %	5,57 %	25 %	0 %

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Global research collaborations

Spread co-patenting

Local firm contracts

Preliminary conclusion(s) from this pilot study

1. Science production is a global process

2. Bilateral private sector contracts on technology development is more anchored in regional environment

3. Economic support is a local process

Complementarity of layers of support

The ability of the facility to play its role in knowledge production and have an impact on economic development lies in a combination of public supports

- research project based funding which is overwhelmingly funded by EC programmes
- on staffing which depends mostly on national institutions: UPMC and CNRS in this case
- on new investments, where the regional authorities have been playing an ever growing role in the last 20 years

Thank you

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