

MAPPING MARINE BIOTECHNOLOGY IN EUROPE

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Marine Biotechnology in the European Research Area: Challenges and Opportunities for Europe
Final Conference of the CSA MARINEBIOTECH project
Brussels – 11 & 12 March 2013

Our entrance point as analysts of science and innovation

- As we have seen already in this conference, Marine biotechnology promises an impressive array of new knowledge and applications (in other fields of science, for markets and for society).
- Marine biotechnology is not a stable field, definitions are not so clear cut, and the diversity and richness of the area creates large challenges for capturing what is happening and where the field is heading.
- As analysts, we became interested in the field and how social scientists could play a role in exploring marine biotechnology.
- In this talk we shall make a brief introduction to our interests in Marine Biotechnology, and present some first results in one area of our investigations (the patenting activity of firms in the map of technology)

IFRIS

Institut Francilien
Recherche Innovation Société

- IFRIS is a new public research center in Paris-Est University specialised in social studies on innovation: www.ifris.org

- IFRIS has about **180 members** (of which 100 permanent researchers)
- From **different disciplinary fields** (sociology, history, economics, management, political sciences).
- Since its inception, IFRIS has set up a digital platform “**Plateforme CorText**” so to develop tools for research in STIS (databases, network analysis, socio-semantic analysis, production of new S&T indicators, etc.).

In 2011, IFRIS gained two highly competitive French grants: it was rated A+ in the competition for “Laboratoires d'Excellence” (LabEx) organised by the French government and it was selected as one of the 16 Main Research Areas (“Domaines d'Intérêt Majeur”) of the local government of Région Ile-de-France.

And partners



TEQNODE Limited, a Paris-based consultancy and contract research org. founded by **Prof. Arie Rip** and **Dr. Douglas K. R. Robinson**

TEQNODE provides strategically useful technology intelligence on emerging research and development and the transformation of R&D into products and into society. It augments traditional market analysis by providing insight into emerging situations (where there is no clear market in place).



Le Muséum national
d'Histoire naturelle
(Daniel Pardo)



IFREMER
(Sophie Arnaud-Haond)



CNRS
(Patricia Laurens)



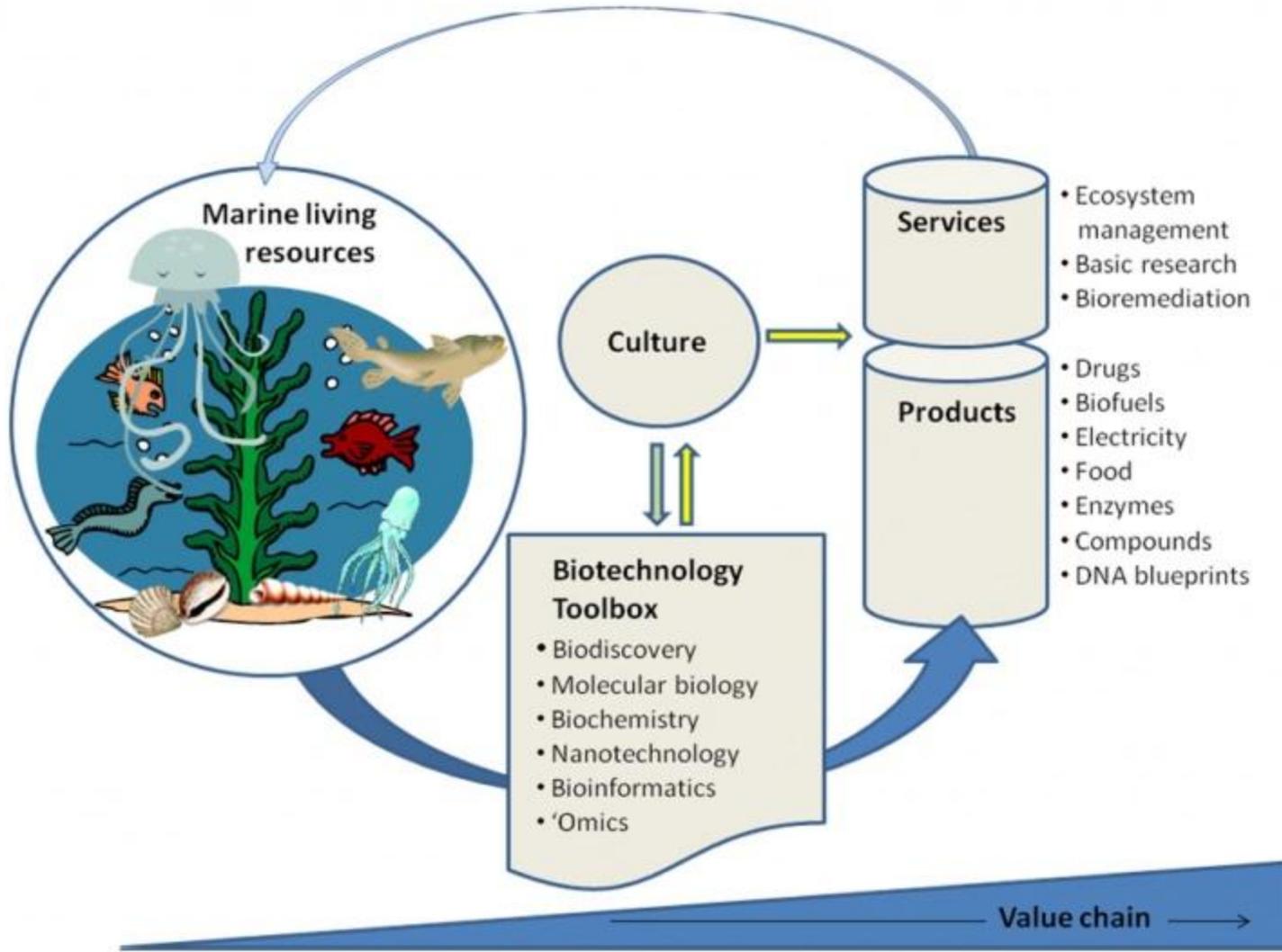
CSIC
(Jesús Maria Arrieta)



MARINE BIOTECHNOLOGY

CHALLENGES IN THE CONSTRUCTION OF VALUE CHAINS

A well known diagram showing the promise of Marine Biotechnology for industrial application

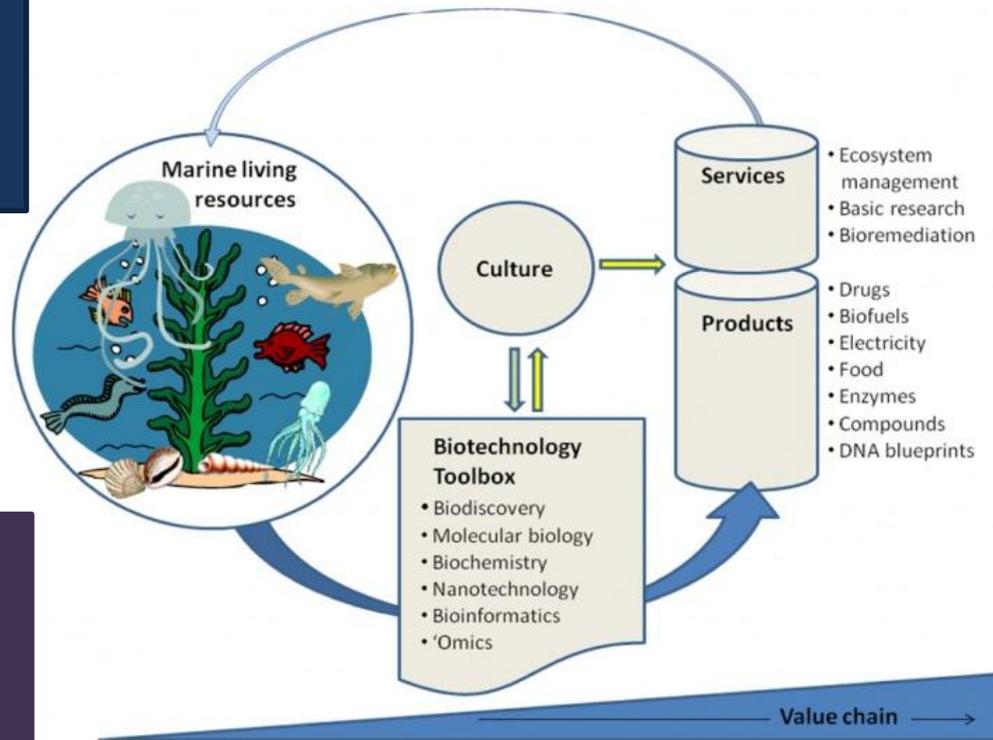


Source: <http://www.marinebiotech.eu/wiki>

Research

Diverse and heterogeneous contributions to the knowledge reservoir which can be taken up in research or by industry

Four broad activities important for Marine Biotechnology Value chains to be in place



Markets & Regulation

Structures that support new products, perhaps new sectors and new regulatory situations

Industrial Activity

Individual firms, patenting and licensing knowledge and developing products.

Societal Adoption

The perspective and uptake of the products of marine biotechnology innovation

Four Major Challenges

(for coordinating the construction of value chains)

Real-time awareness of the state-of the art

What activities are occurring in the production of scientific knowledge both core (and near-core) to the community:

who (and who with), what and where?

Controlled anticipation of future value chains and governance frameworks

How will the field unfold in the future, which technology trajectories are possible (and desirable), and for new markets what will be the framing conditions that support them?

Governance frames, standards, user cultures

Capturing the activities of innovation actors

Marine biotechnology promises innovations in a diverse range of sectors. A key challenge is to capture the activities of firms with regards to intellectual capital management and product development.

Firm profiles, patent landscape, products

Anticipation on societal aspects

to create societally robust R&D lines that will be the most beneficial to society requires anticipation on how marine biotechnology innovations will embed in society. It is in societal structures where socio-economic impacts take place.

Publics, adoption, rejection, user values

We will present some first findings

(identifying firms through patent activity in Marine Biotechnology)

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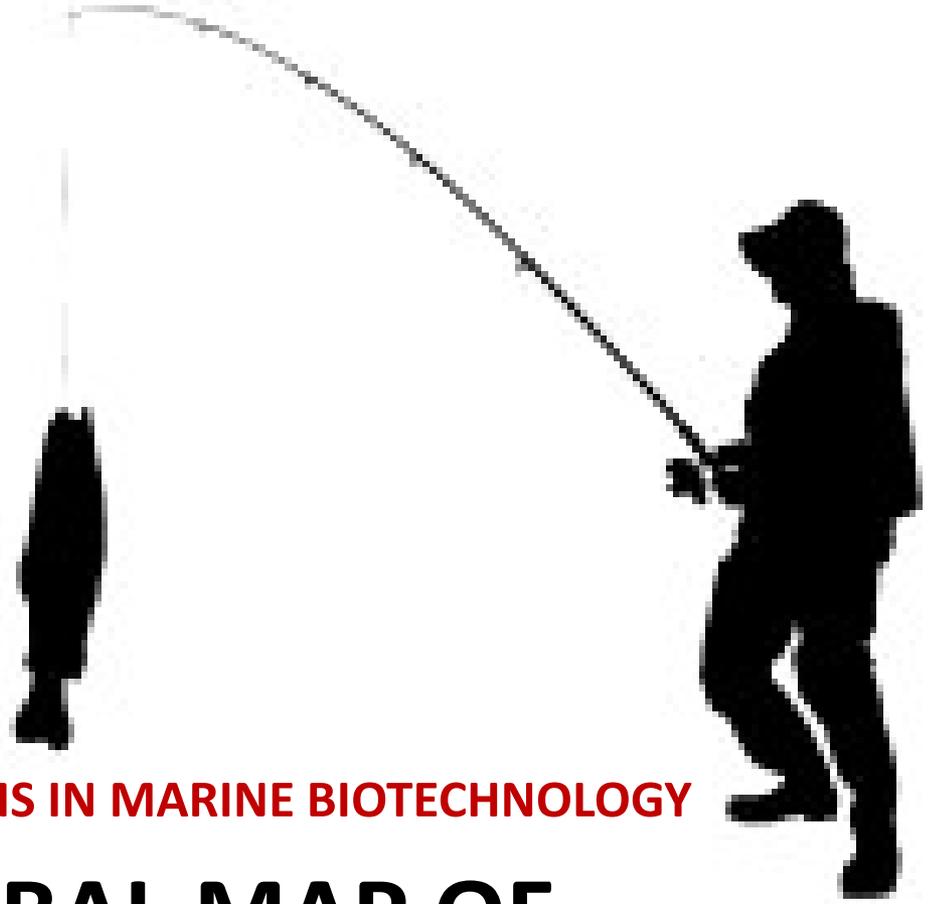
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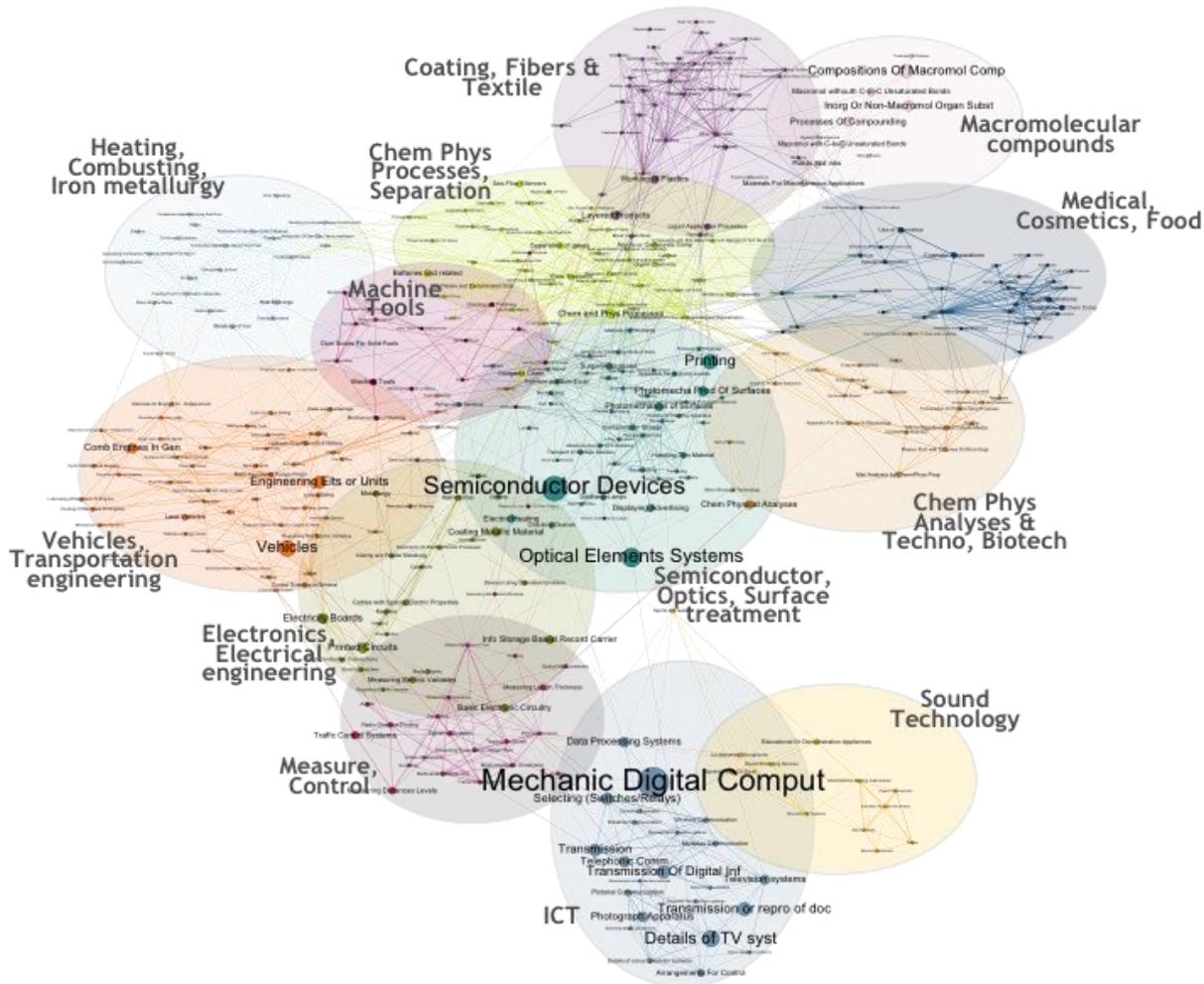
Publics, adoption, rejection, user values



CATCHING THE ACTIVITIES OF FIRMS IN MARINE BIOTECHNOLOGY

FISHING THE GLOBAL MAP OF TECHNOLOGY

The IFRIS Global Map of Technology



Summing it up

Capturing and mapping activities, projecting innovation and governance challenges/opportunities is important.

A strong plea for an « ELSA » stream in the future
MarineBiotech ERA-Net

Social Sciences can contribute to the four challenges
outlined.

Thanks for your attention

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