

conference of european schools for advanced engineering education and research

Blue Economy in Portugal An ecosystems approach

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Contents

- CESAER
- Why is Blue Economy important
- Main challenges
- Innovation systems for the Blue Economy
- Key messages



CESAER ABOUT US



51 MEMBERS IN 26 COUNTRIES



































































University of Stuttgart































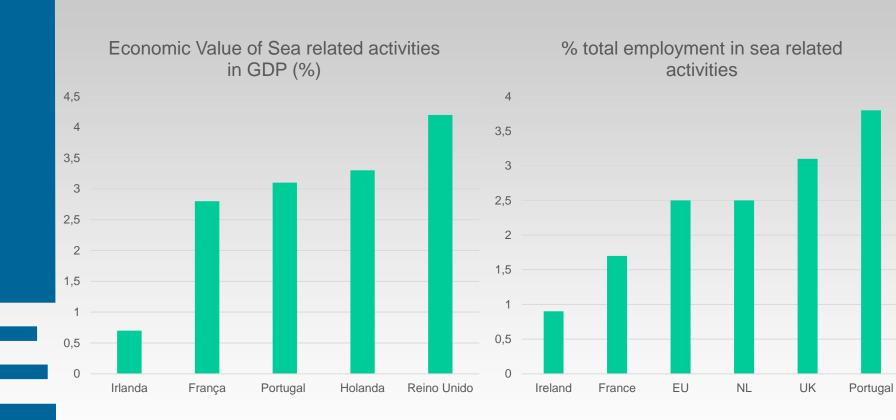






Why is the Blue Economy important?

Economic value as % GDP and Employment





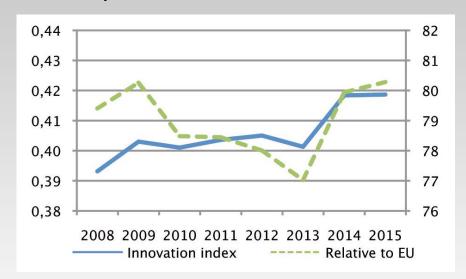
Why is the Blue Economy important?

Opportunities for the bioeconomy in Portugal



Portugal - Moderate Innovator

Innovation performance has increased over time



Main strengths:

- Highly educated human resources
- Excellent R&I capacity

(eg. UAzores, UAv, UM, UNL, UP, UAlg, iBET, Biocant,...)

- International scientific collaborations
- SMEs with product or process innovations
- SMEs innovating in-house

Innovation Union Scoreboard (2016)



Regional priorities and Funding Instruments

Blue Economy in the Regional Priorities





Main challenges identified by key stakeholders

National and International

- (STRUCTURAL) Imbalance between the research ability and entrepreneurship capacity
- (Context) Difficult national business environment and contraction of internal demand, placing enterprises in the position of having to find external markets while facing challenges in terms of efficiency (productivity and competitiveness) and financing
- (Topical) Barriers to innovation activities related to the associated costs, funding and financing and to market conditions
- (STRUCTURAL) Deficiency of qualified human resources in the industrial sector lack of motivation from companies
- (STRUCTURAL) Limited collaboration between the private sector and other actors
 within the national scientific system (and sometimes also among the actors of the whole
 value chain)
- (Topical) Limited number of patent applications
- (Topical) Limited use of organised forums/platforms for debate and insufficient involvement of stakeholders in supporting the design of national policies and programmes
- (STRUCTURAL) Mobilization of the society for bio-industries & bio 6 as 6 Arockets

Innovation systems for the Blue Economy

Research & Innovation ecosystem approach

Find system integrator

Market failures /
ensure high
quality
continuous
support to early
stage innovation

Higher Education Institutions

Research & Innovation Infrastructures

"Innovation terroir"

Endogenous capacity

European agenda / Multilevel articulation Public authorities

Industry

Strong
investment in
entrepreneurship
education

Open innovation funding instruments



Innovation systems for the Blue Economy Key Messages

Need a holistic approach to funding instrument design

- No more linear model TRL segmented instruments, both in Structural Funds and Framework Programme for R&I (e.g. EIC)
- Simplify innovation funding & shift to teams of innovators & open innovation ecosystems boosting disruptive innovation

Boost the Blue Economy – Translation of scientific knowledge to economic value!

- Ensure <u>Universities</u> are <u>rewarded for supporting early-stage</u> <u>innovation</u> – a clear market failure!
- Combine with <u>strong investment in entrepreneurship education</u>
- Ensure all funding programmes are <u>focused on an ecosystems</u> <u>approach/collaboration</u> between all actors (do not fall on the supply side vs demand side trap) and sectors



Innovation systems for the Blue Economy Key Messages

Next MFF needs to ensure:

- At least 160 billion Euros budgetary alocation for Framework
 Programme of R&I
- Ring-Fenced priority funding for Science and Technology through Structural Funds
- Simplified procedures and synergies ALL FP projects approved but non financed NOT subject to State Aid rules



Innovation systems for the Blue Economy Key Messages

European initiatives should be designed to **boost national and** regional investments in blue economy research & innovation – **NOT to substitute it** (calibrated and local-context sensitive topups, synergies, etc).

Instrument design and impact assessment frameworks related to distribution of resources MUST strongly encourage intersectoral collaboration.





Thank you

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CESAER

- established in 1990.
- not-for-profit association under Belgian law (AISBL)
- hosted at by KU Leuven in Kasteel van Arenberg
- stands for scientific excellence in scientific engineering education and research and promotion of innovation
- acknowledged as main research stakeholder organisation for ERA and OSPP
- update strategy and amendment Articles of association in 2011
- DECISION GENERAL ASSEMBLY IN OCTOBER 2015 TO `ESTABLISH CESAER AS THE VOICE OF UNIVERSITIES OF SCIENCE AND TECHNOLOGY IN EUROPE`



OUR MISSION

We are a European association of leading specialised and comprehensive universities of science & technology that: champion excellence in higher education, training, research and innovation; influence debate; contribute to the realisation of open knowledge societies; and, deliver significant scientific, economic, social and societal impact.



ACTIVITIES

- sharing experiences, identifying best practice & providing guidance
- deploying task forces & committees
- organising events, such as meetings, workshops & conferences
- monitoring European policies & programmes & informing
 Members about them
- undertaking consultations & surveys amongst Members & representing their collective interests
- publishing press releases, input statements & papers
- liaising with European institutions & other stakeholders
- supporting Members' communication activities in Europe & beyond
- liaising with Members & encouraging embedding of activities within their institutions
- improving functioning of Association





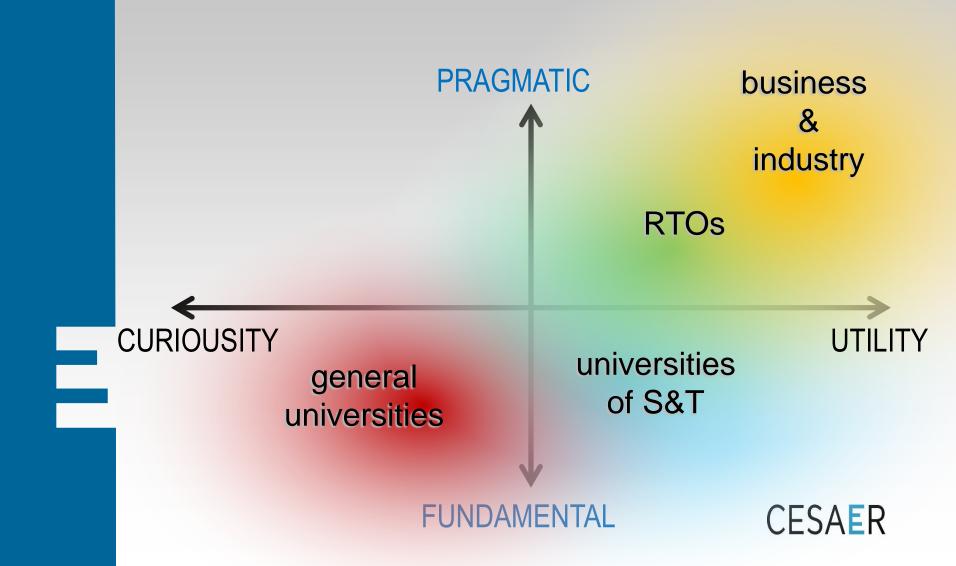
MEMBER STRATEGY

- Members must:
 - have legal entity
 - award doctorates
 - provide excellent science & technology education based on internationally recognised research & innovation
 - play leading role in their region, their country & beyond
- Members are encouraged to involve 4 different persons at least 4 times
- membership remains focused & limited
- membership is by invitation only
- invitations are guided by capacity to add value to network:
 - being outstanding universities of science & technology
 - geographical coverage in countries where we are underrepresented, particularly in France & United Kingdom





MEMBERS AS A BRIDGE



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OVERVIEW WORK PLAN 2018-2019

ACCELERATION, ENGAGEMENT & COLLABORATION

RESEARCH

EDUCATION

INNOVATION &

LEADERHIP& SUSTAINABILITY

IMAGINE SCIENCE & TECHNOLOGY FOR THE 21ST CENTURY

ADDRESS KEY POLICY AREAS & DELIVER IMPACT

COLLABORATE WITH ACADEMIC & SOCIETAL PLAYERS ON COMMON AGENGAS

ADVOCACY IN NATIONAL, EUROPEAN & INTERNATIONAL FORA

PROVIDE RESOURCES, MECHANISMS, TOOLS & TRAINING

DEVELOP EVIDENCE BASE











AIM & OVERACRCHING CONCEPTS

to sharpen distinctive profile as an action-based organisation through:

- Acceleration is to increase pace of development in providing added value and distinctiveness for our Members with focus on furthering Member Engagement
- Engagement is about having our influence amplified by working more with academic and societal partners
- 3. Collaboration is glue that binds us together in terms of closer co-operation and sharing, focusing on role of universities in providing concerted & dynamic leadership, better differentiating between strategic & operational objectives of association



KEY MECHANISMS

- IMAGINE S&T FOR THE 21ST CENTURY (KM1)
 be more visible demonstrating our Members dynamism and
 forward thinking approaches to S&T.; focus on leadership and
 societal influence will help boost wider understanding of
 importance of S&T in society in 21st century
- ADDRESS KEY POLICY AREAS & DELIVER IMPACT (KM2) speak with clear voice to influence (European) policy agenda, highlighting concerns of Members, deliver strong messages about future of European collaboration, contribution of our Members to knowledge societies and achievement of UN SDGs
- COLLABORATE WITH ACADEMIC & SOCIETAL PLAYERS ON COMMON AGENDAS (KM3)
 further our strategic cooperation with academic & societal players on common agenda's, such as learned societies and other TU associations



KEY MECHANISMS

- ADVOCACY IN NATIONAL, EUROPEAN & INTERNATIONAL FOR A (KM4)
 further credibility and impact of association through more
 pro-active agenda-setting and advocacy in national,
 European and international fora
- PROVIDE RESOURCES, MECHANISMS, TOOLS & TRAINING (KM5)
 gather resources, mechanisms and tools and make these
 accessible through workshops and training and within
 'Member only section' of new 'Knowledge Base'
- DEVELOP EVIDENCE BASE (KM6) knowing how and what to measure, and developing a persuasive evidence base, is central; re-inforce work on (alternative) metrics that better recognise the achievements and impact of universities of S&T and focus on evaluation

