







Unlocking and Developing Research Potentials: The STAR*AgroEnergy Experience

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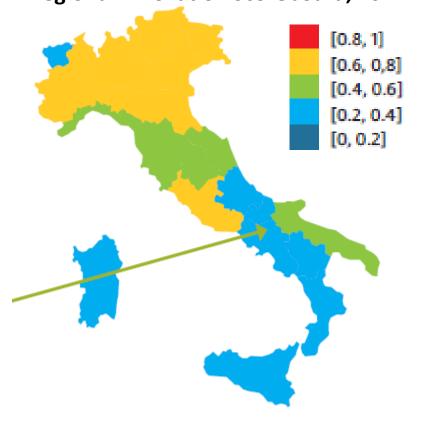
Scientific & Technological Advancement in Research on Agro-Energy

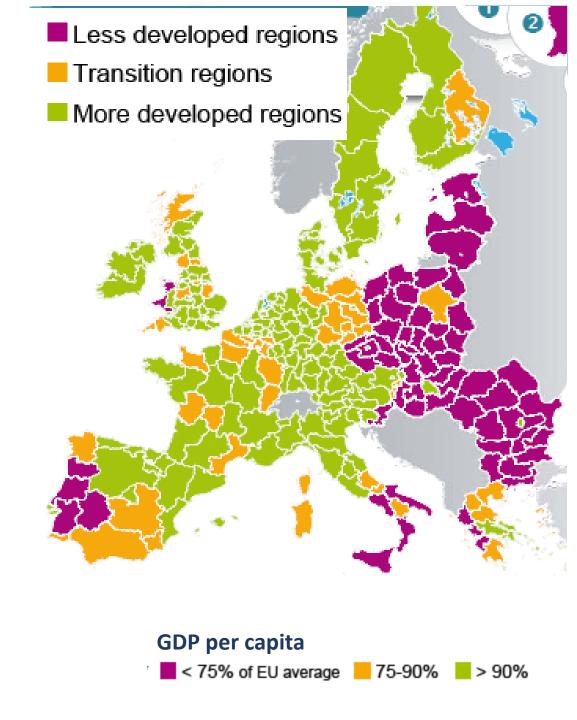
an Integrated Approach to Renewable Energy Generation According to Sustainability Criteria

Coordination and Support Action (Supporting) FP7-REGPOT-2011-1



Regional Innovation Scoreboard, 2012







in Research on Aaro-Eneray









Targets to Improve Research Potentials

- Unlocking and developing the research capacity of excellent research entities
- Exploiting innovation potential, particularly in <u>less advanced regions</u> that are not in the European core of research and industrial development
- Improving human resources, research management, scientific equipment
- Promoting a strategy of inclusiveness to benefit both <u>research</u> community and <u>industry</u>
- Fostering a better <u>integration</u> into the ERA (partnership with excellent research groups and relevant stakeholders) and a stronger participation to EU research calls
- Increasing the contribution to the regional economic & social <u>development</u> thanks to a well developed innovation dimension









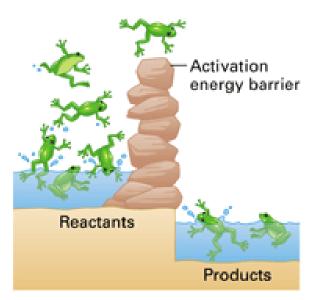


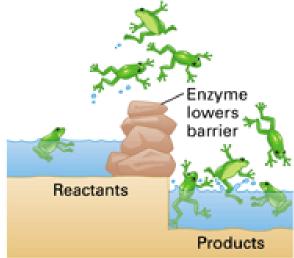
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The activation energy barrier is like a wall between two parts of a pond. If the wall is lowered, more frogs have enough energy to reach the other side

REGPOT programme is acting like a <u>catalyst</u>:

- It reduces the barrier of the activation process
- > It speeds up the process





Without enzyme

With enzyme











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REGPOT programme is acting like a <u>light diffractor</u>

From one single light beam ... a wide "spectrum" of objectives

STAR*AgroEnergy
EU FP7 Project

- **✓** Research Capacity
- ✓ Technology Transfer & Innovation
- ✓ Entrepreneurship and Job Creation
- ✓ Social & Economic Development











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REGPOT programme is acting like a <u>chain reaction</u>

- > A positive "domino effect"
- > An amplification effect















Research & Innovation System













Strategic approach to unlock research capacity

Bonding "research integration"

- Gain stronger ties in multi-disciplinary collaborations within the team in order to exchange ideas and get an innovative approach.

 Improve and qualify management activities to reach a better organization
- Dridging "consolidate a critical mass of researchers"

 New relations among researchers from different EU countries through mobility, recruitment, international collaborations to establish a solid and skilled research network

Linking "institutional partnerships"

Activate formal agreement with public and private entities, organizations and enterprises, in order to generate an impact on research, enhance quantity and quality of dissemination





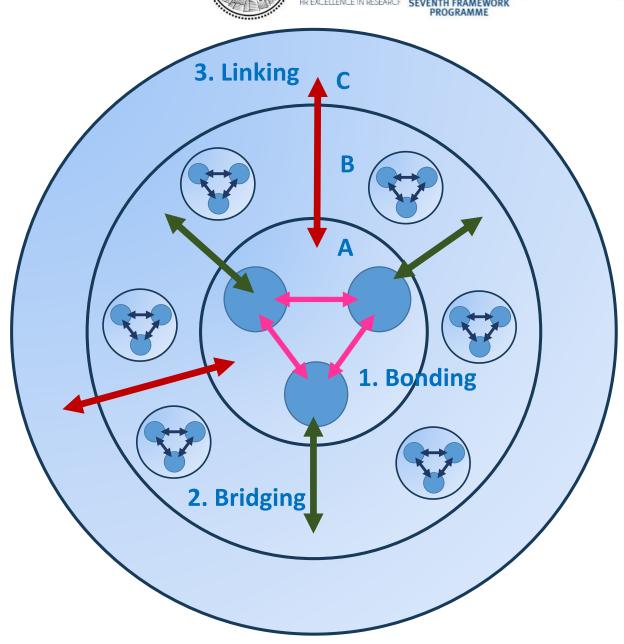
Strategic approach to unlock research capacity



A = Integrated Research Unit

B = Allied Research Institutions

C = Society and Economy











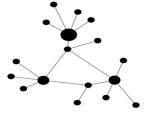


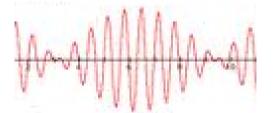
A new mindset to unlock research capacity



"Be connected" - establish a dense and effective collaboration network

"Work as a hub" - boost the research capacity by intensifying knowledge exchanges in both directions (from science to society and vice versa)





"Be tuned" - address your research considering the most urgent, needed and felt topics in your research field

"Approach systemically" - think globally, recognize the general pattern of every question, go beyond specialization, understand the general context





"Be adaptive" - be responsive, be able to dynamically reorient the development strategy according to external inputs and a changing context



AgroEnergy

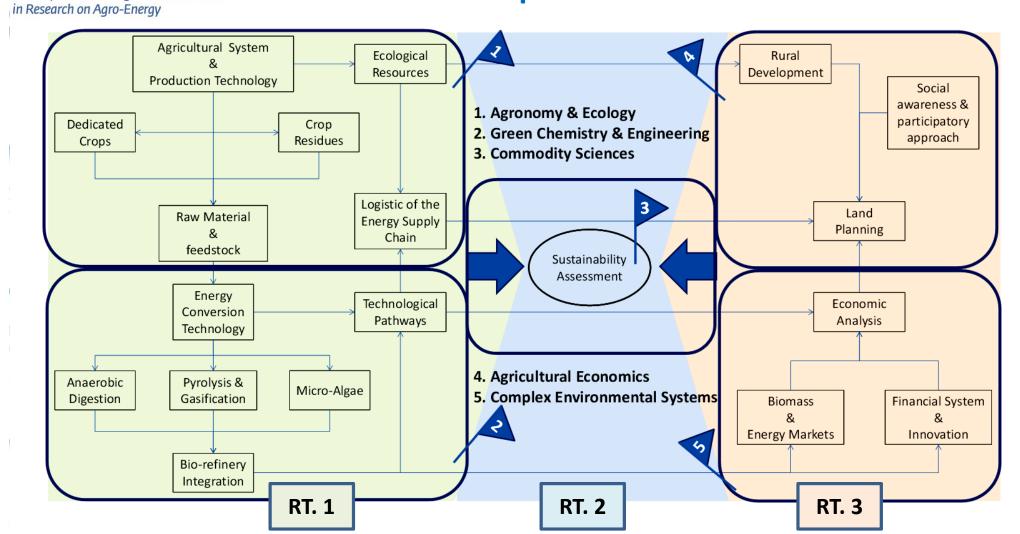
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Conceptual map of the research topics and research teams



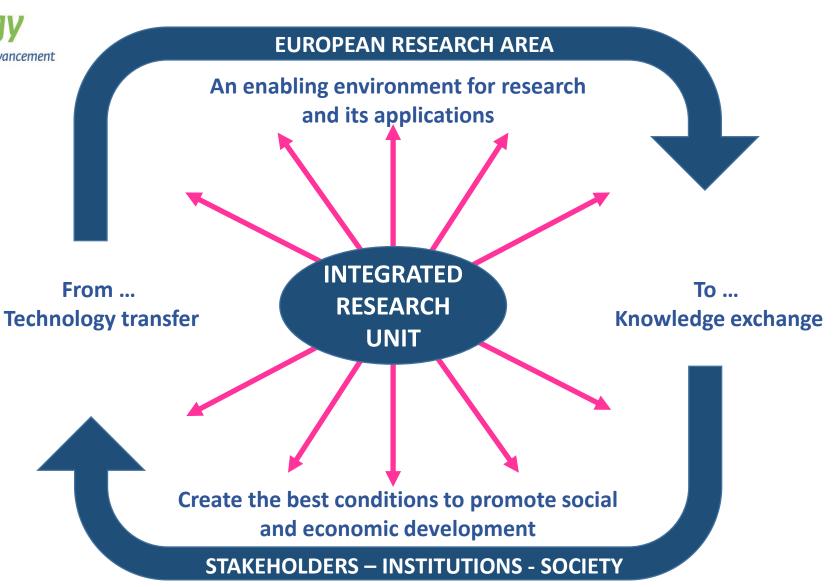








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Strategic approach to unlock research capacity

Establish a high level of integration between the two main drivers of scientific and technological innovations:

- **Research community**
- Local stakeholders



















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Policy Makers

Local and Regional
Administration
(Department of
Agriculture, Dept.
Environment, Dept. of
Productive Activities

Business Support Institutions

Industrial Associations, Chamber of Commerce, Productive Consortia

Allied Innovation Supporting Institutions

Technology Transfer Agri-Food District Industrial Clusters

Agency of

Financial System

Credit Institutions Venture Capitals

Industry & Agriculture

Stakeholders Network

Research

Institutions

Integrated

Research Unit

Local SMEs Larger Firms New and traditional Media

Internet, TV chan.
Magazines and
Newspapers





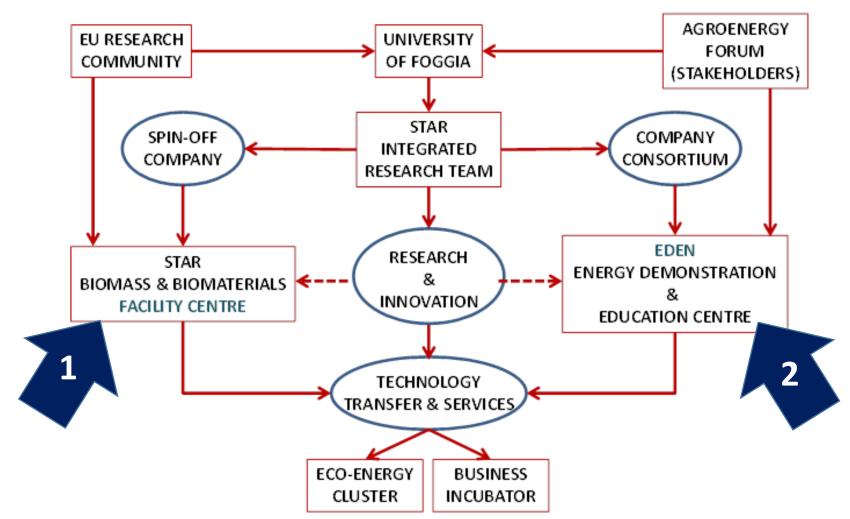






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Implementation of know-how into business





STAR Facility Centre

For a brighter green

Learn from nature, create innovation

STAR*Facility Centre – It comprehends a cuttingedge lab-equipment, integrated pilot plants and a multidisciplinary research staff. The Centre is able to extend its services from research to technology innovation and industrial development according to concepts close to "biorefinery"







The STAR*Lab











STAR Facility Centre

For a brighter green

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EDEN Consortium - It is an exhibition open space to learn how small energy plants really work. The aim is to demonstrate that a distributed energy generation system is really possible. This Center is functioning as a front office for companies, local communities and families, to meet technical experts that can provide advices and appropriate consulting



EDEN Energy Demonstration and Education Network











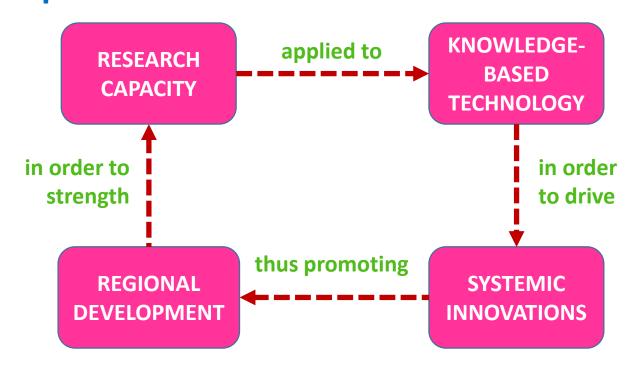






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Implementation of know-how into business



A positive loop promoting social development at regional level can be triggered by strengthening the research capacity applied to the several productive sectors that are related to the bio-based economy











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