



INCREASING INTERNATIONAL STI COOPERATION BETWEEN **BRAZIL** AND THE **EUROPEAN UNION**

Action Plan Green Energy

Sergio Salles-Filho

Luciana Lenhari



The INCOBRA project has received funding from the European Union's Horizon 2020 Research and Innovation programme, under the Grant Agreement number 692520. This publication reflects only the author's view and the Commission is not responsible for any use that may be made of the information it contains.



- 1. Action Plan Dimensions**
- 2. Methodological Approach**
- 3. Green Energy Area**
- 4. Green Energy Action Focus**
- 5. Robust Trajectories in Green Energy Area for the Action Plans**
- 6. Recommendation for future cooperation EU-BR**

The overall objective of the Action Plan for Green Energy is to provide a set of actions to the INCOBRA team to help the project in the purpose of increase R&I cooperation activities such as partnership, consortia and joint R&I projects and enhance framework conditions addressing EU-BR R&I cooperation areas.

INCOBRA project activities such as:

- ✓ technological foresight
- ✓ open consultation
- ✓ patent and publication analysis and
- ✓ foresight studies

This background allowed to INCOBRA developing strategic Action Plans to foster R&I cooperation in five Priority Areas:

- Green Energy
- Sustainable Use of Bioresources
- Food Security and Adaptation of Agriculture to Climate Change
- Advanced Manufacturing and Nanomaterials and
- Smart Cities and Smart Systems

Concise Scenarios looking for framework conditions for R&I cooperation



Robust Trajectories



Actions per Robust Trajectories

The energy field had been identified as a priority area for EU-BR R&I cooperation since the inception of the INCOBRA project.

Green Energy refers to emerge from natural sources such as solar, wind, and biomass, among others. This priority area also includes the reduction of Green House Gas emissions.

Green Energy is considered not only a priority *per se*, but also a cross-cutting priority capable to positively impact many other themes such as food security, climate change, advanced manufacturing, smart systems and smart cities, to mention just a few.

It is a strategic area for the both side.

Prioritized subjects in Green Energy

biorefineries and sustainable and advanced biofuels

wind and solar and mixes of renewable sources

Energy Modeling/
Policy and Regulation

Energy Efficiency –
applications,
metering

Energy Storage

Smart Grids

- ✓ Incorporate into R&I cooperation a component of monitoring policies and regulatory frameworks that affect the future of Green Energy;
- ✓ Focus on complementary niches/strategies for EU and BR in biofuels, solar and wind energy R&I themes;
- ✓ Monitor/build long term financial strategy related to R&I cooperation in Green Energy among the EU, Brazil and others;
- ✓ Monitor/build long-term competences and research capabilities related to Green Energy in the EU and BR;
- ✓ Be extremely selective in setting priorities for collaborative R&I projects and activities with really high potential of technological and market success;
- ✓ Establish a minimum level of density for R&I cooperation to guarantee scale and scope economies;
- ✓ Engage the private sector in EU and BR of R&I cooperation.

A crosscutting analysis of the set of Robust Trajectories - and Actions referred in each of the Priority Areas - has shown eight major strategies that can be understood as of highly important to the endeavor of building up R&I cooperation among Brazilian and European stakeholders. Next item presents these findings.

1. Monitoring of and contributing to regulation and policy

2. Maintaining long-term funding support

3. Sharing common knowledge and facilities to leverage economies of scale and scope

4. Selecting common R&I topics across the five Priority Areas that leverage the complementary knowledge, framework conditions and longstanding cultural linkages between Brazil and EU

5. Identifying pioneering coalitions for R&I cooperation

6. Engaging the business sector as a core contributor in R&I cooperation

7. Involving civil society as a core stakeholder

8. Establishing best governance practices for R&I cooperation

THANK YOU!

www.incobra.eu

info@incobra.eu

<https://www.ige.unicamp.br/geopi/>

lulenhari@ige.unicamp.br