



PLATFORM

PLATFORM POLICY BRIEF Series, No. 2

Co-creation of a Global Bioeconomy



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Vision

Global food security, climate change, fossil resource depletion, as well as its own global competitiveness are major critical challenges Europe is facing at the beginning of the 21st century. The new vision of a knowledge-based bioeconomy will contribute to address these challenges.

The concept of a bioeconomy aims to simultaneously securing global nutrition, producing safe and healthy food, shaping sustainable agricultural production, developing energy sources based on biomass and supporting the industrial use of renewable resources are challenges that call for the targeted use of biological resources and procedures. This can only be achieved sustainably on a global scale. Thus, world-wide cooperation at political, economic and scientific level has become imperative.

Challenge

The implementation of a bioeconomy requires great political, economic and scientific effort. Most of the industrialised countries are promoting the vision of a bioeconomy and many of them have dedicated political and research strategies to implement a bioeconomy. Approaches towards strengthening the bioeconomy can also be found in emerging and in less developed countries¹. In many developing countries, economies are still largely dominated by a large agricultural sector providing food. Opportunities exist to utilise so far unused side products or residues from agricultural production as raw material for innovative products and energy without compromising food security. The high biodiversity and local rich food ingredients and drugs have a high global value and offer additional opportunities for rural areas. Also innovative processing and refinement of food and side products might add value. In contrast, for China, India and other emerging economies, the knowledge-based bioeconomy is identified as an opportunity for further industrial development. Cooperation among industrialised countries is required to achieve agreement on

sustainability, environment and use of natural resources. The collaboration in biotechnology and bioeconomy with these countries results in activities under key topics such as “closing technology gaps”, “from work bench to own developments” and “true co-development on equal level”. However they are often accompanied by uncertainties in legal status of the actors, difficulties in the context of intellectual property rights and deficits in quality assurance and absence of standards.

Proposed approach

With these specificities in mind, the PLATFORM partners suggest that it is possible and imperative – given the societal challenges of the 21st including such as scarcity of fossil resources, climate change and increasing world population – to co-develop a bioeconomy on a global scale with all interested partners worldwide.

Therefore long-term partnerships have to be built with the target countries and regions on equal level and step by step. Building of trust is certainly the first step, and in some research areas cooperations with regions or countries outside Europe have already started. Common interests might be identified based on exchange of information via workshops and mapping, followed by networking activities and pilot actions laid down in roadmaps and action plans. In depth R&D&I cooperation is thereby an important goal in many cases. Generally, the character of the cooperation will differ from country to country, region to region or sector to sector based on the nature and status of development.

In any case a clear mutual benefit (“what’s in it for each of us”) should be the engine to promote international cooperation. Thereby, partners of PLATFORM, mainly R&D&I funders, should focus on those joint initiatives in which innovation in the context of R&D is needed. Benefits of cooperation might be enhancing economic cooperation, mutual contribution to food security, opening new markets, capacity building, enhancing mobility opportunities and mobilising resources. But, whenever this benefit is doubted by one of the parties, the cooperation needs to be critically evaluated.

Further it seems appropriate not to re-invent the wheel and develop new cooperation formats from scratch but to use well proven instruments already available. Over

¹ For review see http://www.bioekonomierat.de/fileadmin/international/Bioeconomy-Policy_Part-II.pdf

the years an increasing number of ERA-NETs in the bioeconomy include international partners from outside the EU as associated partners; e.g. Russia was partner in ERA-IB and EuroTransBio, the United States of America was partner in EraSynBio, New Zealand is involved in Surplus, FACCE-ERA-NET Plus and ERA-GAS. In each case different motivation triggered the cooperation but it turned out to be of mutual benefit and it was easy to implement thanks to the tremendous flexibility of the instrument.

Proposed instrument: ERA-NET

The ERA-NET instrument, together with its successors ERA-NET Plus and ERA-NET Cofund, has proven to be a strong tool in transnational cooperation in many thematic areas². There is a vast consensus among the community in the bioeconomy networks about the added value of the instrument in this thematic area³. The instrument is also appropriate to address the challenges described above.

The ERA-NET instrument aims to contribute to building the European Research Area by implementing joint activities between the Member States in the field of research and development. Many features of the instrument have contributed to create a cornerstone in transnational R&D&I cooperation at the level of research programs:

- i) an individual ERA-NET concentrates on one clearly defined research field - a feature that allows developing suitable and tailor-made activities in the given area;
- ii) the instrument is flexible in that it allows to address research questions along the entire development and value chain – a property of particular importance for the bioeconomy which by definition concerns entire value chains;
- iii) it provides financial support for administration – an important enabler for smaller partner countries to participate in ERA-NETs.

² For review see *Report of Matrix-Ramboll study for the EC 'Evaluation and impact assessment of the ERA-NET scheme and the related ERA-NET actions under the 6th Framework' (2008)* http://cordis.europa.eu/fp7/coordination/docs/fp6-era-net-evaluation-final-report-volume-3-sd16-to-sd24_en.pdf and *JRC Report of NETWATCH Study 'An assessment of the impact of the FP7 ERA-NET scheme on organisations and research systems' (2014)* http://publications.jrc.ec.europa.eu/repository/bitstream/JRC91595/netwatch_impact_assessment_report_edited_140929final.pdf

³ For review see *PLATFORM Report on the impact of the ERA-NETs to the European Knowledge Based Bioeconomy 'Cost benefit analysis of KBBE ERA-NETs' (2013)* and *PLATFORM report 'Recommendations on interaction and collaboration between ERA-NETs, European research policy platforms and national research and innovation authorities' (2014)* <http://www.era-platform.eu>

Recommendation

1. Use of the ERA-NET instrument (ERA-NET Cofund under Horizon 2020) to coordinate and co-finance international R&D&I efforts of the Member States in the field of the bioeconomy. This is recognised by the community as complementary to the coordination efforts undertaken by other actors as the Standing Committee on Agriculture (SCAR), FACCE-JPI, the JPI HDHL, the EIP AGRI, the JU BBI and the European Bioeconomy Panel.
2. Exploration of the potential for “internationalisation” by all existing ERA-NETs in the bioeconomy with the aim of triggering, strengthen or optimising global cooperation within the thematic field of the individual ERA-NET.
3. Consortia applying for new Cofund actions should include activities with international partners within their proposals (i.e. under “additional activities”).
4. Requirement of “internationalisation” in the topic descriptions of new ERA-NET Cofunds. This can be brought forward by the EC and the Programme Committees responsible of the Work Programmes that include bioeconomy ERA-NET Cofund topics.
5. Assessment of the possibilities for a dedicated ERA-NET Cofund topic “Towards Co-creation of a Global Bioeconomy” for one of the upcoming H2020 Working Programmes by the EC and Programme Committees of Societal Challenge 2 as well as 5 and Industrial Leadership.
6. Concerted actions of PLATFORM and other European initiatives in the context of the bioeconomy (e.g. the PC, SCAR, the JPIs FACCE and HDHL and the active ERA-NET Actions) to support and further develop the idea for such an ERA-NET Cofund-topic.

Introduction to PLATFORM policy briefs

The Platform of bioeconomy ERA-NET Actions brings together funders and programme managers in European Research Area Networks (ERA-NETs) in the fields that make up the bioeconomy: food, agriculture, aquaculture, fisheries, forestry, climate, biodiversity and biotechnologies. PLATFORM aims to improve exchange and cooperation and to strengthen the impact of the ERA-NET Actions on the European Research Area and the European bioeconomy.

PLATFORM was supported by FP7 in 2012-2014 (Grant number 288422) and is currently supported by Horizon 2020 (Grant number 652635) for the period 2015-2017. PLATFORM has become a robust forum and offers mutual learning and networking opportunities to the ERA-NET actors, thus enhancing coordination and maximising synergies. The project also engages other public-to-public (P2P) coordination networks, such as Joint Programming Initiatives (JPIs) and Standing Committee on Agricultural Research (SCAR) Working Groups.

During its current course, PLATFORM will publish at least three policy briefs to communicate results of analysis and discussions to decision makers at national and European level. The policy briefs are produced in frame of the Work Package 2 Policy: "Bottom-up recommendations to improve impact". The intention of policy briefs is to support and inform national programme owners and managers in their endeavours towards better coordination, the need for P2P cooperation and also towards opening up to currently underrepresented Member States that would be interested to join. The actors within the existing ERA-NETs and JPIs have, collectively, a good oversight and expertise and are well-positioned to explore opportunities for collaboration, as well as to give recommendations on new networks needed.

Policy Brief No. 2

This policy brief is a result of discussions held at the first PLATFORM Annual Events in the session "Impact and alignment" and the session "Outreach to other geographical regions". The latter was the special topic of this Event, for which many guest speakers were invited. Participants included the PLATFORM project team, some Expert Advisory Group (EAG) members, many representatives from bioeconomy ERA-NETs, JPIs and SCAR WGs, and invited representatives from other coordination and learning projects and relevant European level policy bodies. We thank all speakers and other attendees for sharing information and ideas for the future and their contributions to lively group work and plenary session, and we thank partners and EAG members for valuable suggestions and comments to the draft. The content of the document has been prepared by the leaders of the PLATFORM Project Tasks 2.1 and 2.3 and the Project Coordinator. It reflects the views of the authors and is not an official position of the ERA-NET Community.

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