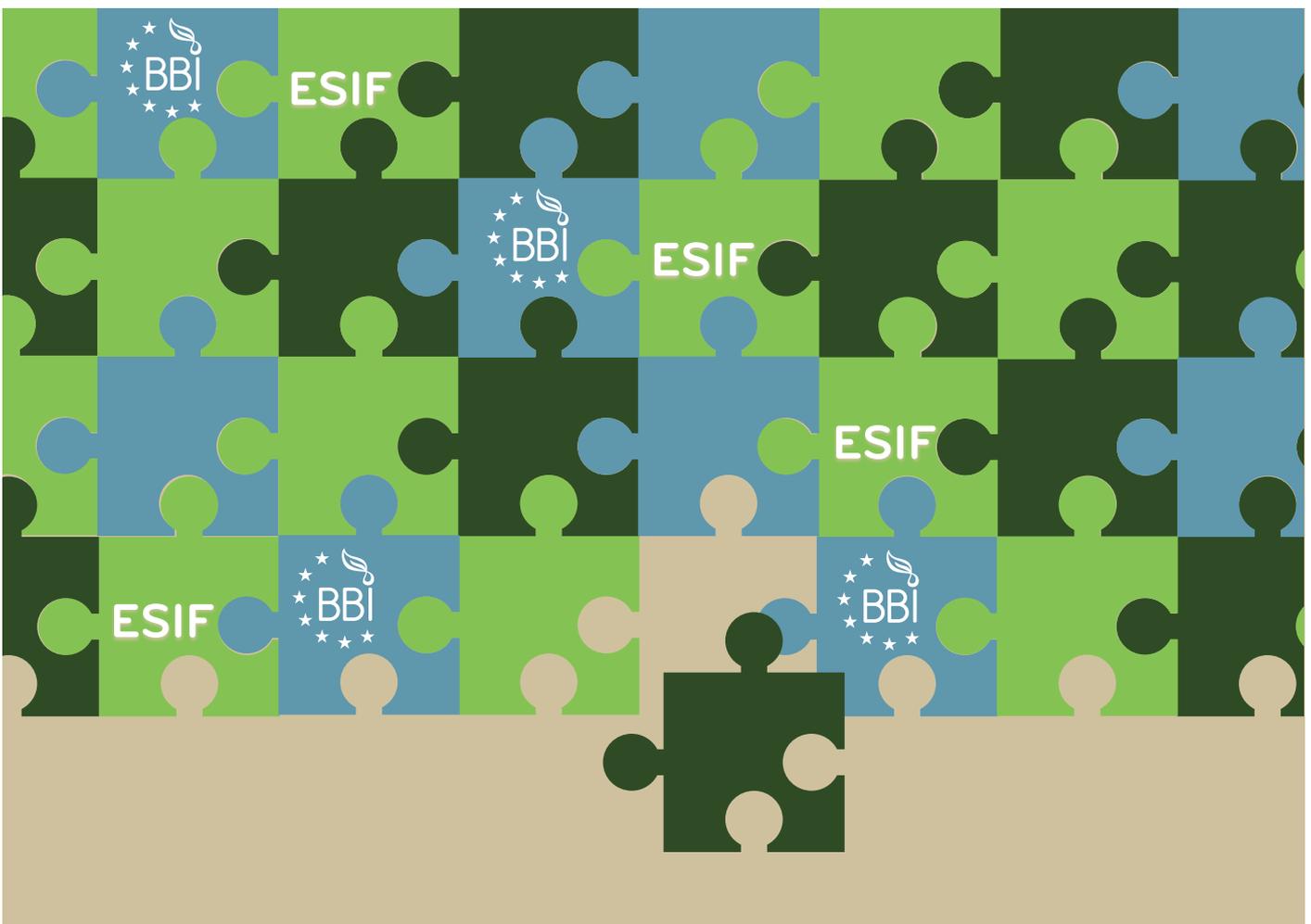


Combining BBI (H2020) and European Structural and Investment Funds (ESIF) to deploy the European bioeconomy

- Guiding principles -



A PUBLIC-PRIVATE PARTNERSHIP
ON BIO-BASED INDUSTRIES

 Bio-based Industries
Consortium

Combining BBI (H2020) and European Structural and Investment Funds (ESIF) to deploy the European Bioeconomy

- *Guiding Principles* -

November 2014

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1. Introduction

1.1. Rationale and objectives

New European funding programmes to strengthen the emerging bio-based economy in Europe have come available in the 2014 – 2020 Financial Framework of the European Union. A myriad of different programmes will be available for beneficiaries throughout Europe to co-fund bio-based innovations and market developments. Overall:

- More than **€70 billion** will be invested in *research and innovation* through the centrally managed **H2020**;
- Through the **European Structural and Investment Funds (ESIF¹)** between **€80 – €100 billion (European Regional Development Fund / ERDF)** will be invested in *innovation-drivers, infrastructures, logistics and take-up*;
- **€70 billion (European Social Fund / ESF)** investments in *skills, life-long learning, social integration, employment services, capacity building entrepreneurship and social innovation*;
- More than **€ 100 billion** will go into funding for Rural Development (**European Agricultural Fund for Rural Development / EAFRD**), Maritime Investments and Fisheries (**European Maritime and Fisheries Fund**);
- **€66 billion** will go into *Trans-European transport connections and environmental projects*;
- Many of these funds will be relevant and can be combined to boost the European bio-based economy.

In June 2014 the European Commission (EC) has published a European Guide² on synergy possibilities between ESIF and other (centrally managed) EU funds (e.g. H2020, but not alone). The Bio-based Industries Consortium (BIC) complements this with this **Practical Guide** providing guiding principles, synergy scenarios and (non exhaustive) practical examples on how Bio-Based Industries Joint Undertaking (BBI) funding from H2020 can be cumulatively combined with ESIF (and other) funding.

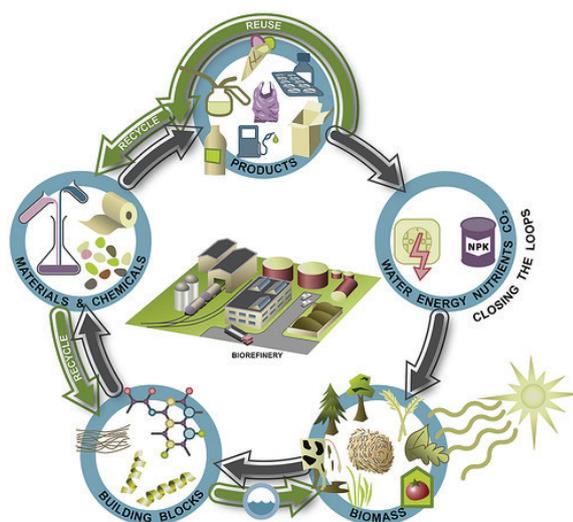
A specific practical synergies Guide for the BBI is deemed useful as the BBI aims to build new bio-based Value Chains from different kinds of (regional) bio-feedstocks to new bio-based products, aiming to **bridge currently different worlds and sectors**. Synergies are targeted to maximise the impact of public policies and support in bridging regions, sectors and value chain stakeholders towards new bio-based business, new and better jobs and benefits for our environment.

"In order to optimise the added value from investments funded wholly or in part through the budget of the Union in the field of research and innovation, **synergies should be sought in particular between the operation of ESIF and H2020**, as set up in Regulation (EU) No 1291/2013 of the European Parliament and of the Council, whilst respecting their distinct objectives."

Source: *Common Provisions Regulation (CPR)*, 17 December 2013

1. For an overview of the ESIF-programmes see Annex I

2. Enabling synergies between European Structural and Investment Funds, H2020 and other research, innovation and competitiveness-related Union programmes - Guidance for policy-makers and implementing bodies. Internet: http://ec.europa.eu/regional_policy/index_en.cfm. ISBN: 978-92-79-38599-5.



What is the Bio-Based Industries Joint Undertaking (BBI)?

The BBI is a public-private partnership established between the European Commission and the Bio-based Industries Consortium (BIC). It aims to bring together all relevant stakeholders to establish innovative Bio-Based Industries as a competitive sector in Europe, ranging from primary production, large industry, SMEs, clusters, trade associations, academia, RTOs to end-users. The **BBI** is responsible for the implementation of open calls for proposals for Research and Innovation Actions and Innovation Actions, as well as coordination and support actions, in line with the H2020 rules for participation³ with an overall budget of **€3.70 billion**. The EU will contribute €975 million from the H2020 programme budget. The industrial partners will commit €2.73 billion. This gives an exceptional leverage factor: for around €1 of public money spent, industry will spend €2.73. Member States will be closely associated to the BBI and are expected to actively promote the deployment of developed technologies, amongst others through ESIF. The BBI Call for Proposals will include topics for each of these value chains, namely:

- **Value chain 1 (VC1):** From lignocellulosic feedstock to advanced biofuels, bio-based chemicals and biomaterials;
- **Value chain 2 (VC2):** The next generation forest-based value chains;
- **Value chain 3 (VC3):** The next generation agro-based value chains;
- **Value chain 4 (VC4):** Emergence of new value chains from (organic) waste;
- **Value chain 5 (VC5):** The integrated energy, pulp and chemicals bio refineries.

Why a specific Guide on combining BBI and ESIF (and other funds)?

The Practical Guide on BBI/H2020 and ESIF synergies is based on the explicit wish and political will to realise synergies and coordinate regional, national and European strategies and related funding to stimulate innovation towards the bio-based economy. This Guide describes the features, frameworks and preconditions to foster an optimal combination of both BBI/H2020 and ESIF funding. That is important, because participants should have a thorough and realistic understanding on the opportunities for combining different sources of funding including policy, legal, technical and administrative aspects provided by the financial regulation (H2020 and ESIF). Exploiting these opportunities for synergies can contribute to boosting the bio-based industrial potential of Europe and mobilising the innovation opportunities available in each region towards innovative, sustainable and competitive bioeconomy.

3. The rules for participation for the BBI are largely in line with those of H2020. There is one fundamental difference: large industries can't receive funding for Research & Innovation Actions, as well as for Coordination and Support Actions.

The importance of Smart Specialisation Strategies (RIS3)

In this context regional Research and Innovation Strategy for Smart Specialisation (RIS3) and hence related ESIF-funding typically play an important role. Smart Specialisation Strategies which are relevant for BBI should be based on clear choices to strengthen the regional innovation eco-system for the bio-based economy with the objective to excel and boost competitiveness of the region and its stakeholders on a regional, national, European and international level.

These choices can underpin and strengthen the EU's strategy in H2020 for a smart, inclusive and sustainable growth, aiming at breakthroughs, discoveries and world-firsts by taking great ideas from the lab (Technology Readiness Levels TRL⁴ 1-4) to the market (TRL 6-8), within BBI targeting the bio-based economy value chains, from feedstock to products.

1.2. Types of activities and types of projects to be funded

In order to strengthen Research and Innovation Strategies for Smart Specialisation and Europe's Europe 2020 strategy for smart, inclusive and sustainable growth, H2020 and ESIF will both fund three complementary fundamental building blocks:

1. Knowledge and technology development e.g. through research activities within the whole innovation value chain from feedstock to products;
2. Capacity building through training of researchers, entrepreneurs, process operators, service providers and policy makers to enable innovation within the bio-based economy;
3. Research, production and transport infrastructures to enable knowledge development, process and product development and market introduction of bio-based products in the European market.

4. TRL = Technology Readiness Levels. See http://ec.europa.eu/research/participants/data/ref/h2020/wp/2014_2015/annexes/h2020-wp1415-annex-g-trl_en.pdf

Within BBI the following types of projects will be funded:

- A. Research and Innovation Projects;
- B. Innovation (Demonstration) Projects;
- C. Flagship Projects;
- D. Support Actions

Research and Innovation Projects	Innovation (Demonstration) Projects	Innovation Flagship Projects	Support Actions
GOALS			
Basic and applied research; technology development and integration; testing and validation on a small-scale prototype in a laboratory or simulated environment	Producing plans and arrangements or designs; prototyping, testing, demonstrating, piloting, large-scale product validation and market replication	Establishment of large scale innovative and first-of-its-kind production facilities in Europe; new installation or substantial modification of an existing facility; reconversion of old or abandoned industrial facilities	Standardisation, dissemination, communication, networking, coordination or support services; mutual learning exercises and studies, including design studies for new infrastructure
TECHNOLOGY READINESS LEVEL (TRL)			
Up to 5	6-7	Up to 8	Not relevant

Hereafter each of these project types are described as intended within H2020 and BBI, following for each project type how regions targeting the bio-based economy may contribute to and complement the overall BBI objectives.

A. Research and Innovation Projects

Research and Innovation projects consist primarily of activities aiming to establish new knowledge and/or to explore the feasibility of a new or improved technology, product, process, service or solution to specific value chain technological barriers. The impact for the whole value chain must be clearly shown. For this purpose they may include basic and applied research, technology development and integration, testing and validation on a small-scale prototype in a laboratory or simulated environment (up to TRL 5). It is aimed at addressing specific research (and innovation) needs at particular points of the value chain.

As a general principle, the industry participation to BBI projects is compulsory to ensure that the research is geared to industrial goal and to facilitate industrial uptake and implementation of the results. Ideally, industry contributions (in kind or in cash) should aim to cover at least half of the total of the project. The level of the industry contribution will be verified during the evaluation of the project proposal. Funding can only be requested by universities, RTOs and SMEs. The funding rate will be 100% of eligible costs in line with the Rules for Participation of H2020. Industries' in kind contributions will be assessed on the basis of eligible costs but will not be reimbursed.

Potential synergies with ESIF

Consortium partners in a BBI project are expected to cover important parts of the whole value chain, from feedstock to market. Depending on the smart specialisation focus of the region, it may support consortium partners from their region to access a BBI project, and provide the right knowledge infrastructure and bio-based innovation eco-system to implement BBI projects. The region may equally attract investments from other partners for establishing a favourable bio-based eco-system.

This can be done i.e. by setting-up and supporting regional research infrastructures with ERDF funding (e.g. INTERREG). Adequately trained human resources for carrying excellent research and development within BBI can be fostered by e.g. ESF funding. Uptake of results from BBI funded R&I can be fostered by productive investment, which contributes to creating and safeguarding sustainable jobs, via direct aid to investment in SMEs.

Relevant internet links:

EU-Programmes: http://ec.europa.eu/budget/mff/programmes/index_en.cfm

INTERREG: http://ec.europa.eu/regional_policy/cooperate/index_en.cfm

ESF: <http://ec.europa.eu/esf/home.jsp?langId=en>

ERDF: http://ec.europa.eu/regional_policy/thefunds/regional/index_en.cfm

Source: Common Provisions Regulation (CPR), 17 December 2013

Case study

Several pilot facilities have been funded by ESIF. For example Bio Base Europe is Europe's first open innovation and education center for the bio-based economy. Flanders and The Netherlands have joined forces to build the research and training facilities. It was funded by ESIF (Interreg IV 2007-2013 programme). Relevant internet link: www.bbeu.org.

Another example is the Bioprocess Pilot Facility on the Biotech Campus Delft, a pilot facility of Delft University of Technology / TUD and DSM. Relevant internet link: www.biotechcampusdelft.nl



B. Innovation (Demonstration) Projects

Innovation (demonstration) projects primarily consist of activities directly aiming at producing plans and arrangements or designs for new, altered or improved products, processes or services. For this purpose they may include prototyping, testing, demonstrating, piloting, large-scale product validation and market replication. Innovation actions will address a whole value chain from feedstock sourcing to the market applications.

As a general principle, Innovation projects are industry driven. Ideally, in BBI projects industry contributions (in kind or in cash) should aim to cover at least half of the total of the project. A demonstration project aims to validate the technical and economic viability of a new or improved technology, product, process, service or solution in an operational environment. It shall include the establishment of a demo-scale production facility in Europe, being it a new installation, substantial modification of an existing facility, or use of existing demo facilities. Demonstration projects cover TRL 6-7. Demonstration projects aim to address specific innovation challenges and address the whole value chain through the aspect of feedstock supply, economic viability and market prospects thus contributing to lower investment risk.

Additional activities

A contribution (in cash/in kind) from the BBI project consortium matching on average the funding available will be requested under the budget section of every topic. This must be complemented by a request for additional activities that is mandatory for flagship projects and to some extent voluntary for demo projects. Flagship projects take this approach one step further by proving the economic, and environmental feasibility of a whole value chain, and fostering substantial investment in infrastructure and facilities.

In addition to the project submitted to and funded by the BBI JU, industry partners will have to declare additional activities. These are activities by the partners of a project beyond the EU funded project but which are necessary to ensure reaching the industrial objectives of the project and the KPIs. Additional activities may include:

- CAPEX costs which are not covered by the BBI JU (e.g. building/construction work, engineering, utilities/ electricity & automation);
- Non-innovative processes and parts of transformation process that are well established at commercial scale (e.g. sugar to ethanol fermentation and distillation).

However, combination of existing equipment or unit process that deliver new products, increased efficiency etc., can be considered as innovative and hence funded by BBI.

Potential synergies with ESIF

BBI will fund value chain driven demonstration projects from feedstock to market. Such **BBI demo projects may be complementing or building on ESIF funded projects** e.g. on novel bio-based feedstock production with ESIF funding for innovation in agriculture (EAFRD) or aquaculture (EMFF).

ESIF can further complement by investing in development of endogenous potential through fixed investment in equipment and small-scale infrastructure and services to enterprises, in order to have sufficient **regional storage and transport facilities for (novel) bio-based feedstock**.

Relevant internet links:

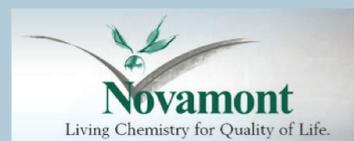
CAP (Pillar 1): <http://ec.europa.eu/agriculture/cap-post-2013/>

EAFRD & CAP (Pillar 2): <http://enrd.ec.europa.eu/>

EMFF: http://ec.europa.eu/fisheries/cfp/emff/index_en.htm

Case study

Novamont is an industrial company integrating chemistry, agriculture and the environment. Ever since it was set up, Novamont has encouraged a new model of sustainable development and the transition from a product-based economy to a system-based economy, with a low environmental impact. Novamont has various relevant experiences with both EU and regional funding. For the subproject BioTyre, Novamont received EU LIFE funding. For another subproject (novel oil crops for chemicals), Novamont obtained first FP7 funding for research on the crops and later agricultural funding (CAP) and other Structural Funding to (1) fund farmers in cultivating new crops in 3 years and (2) build a pilot plant to do distillation of oil and produce chemicals. Relevant internet link: www.novamont.com



C. Flagship Projects

A Flagship project aims to support the first application/deployment in the market of an innovation that has already been demonstrated but not yet applied/deployed in the market. Proposers for a flagship project shall provide clear evidence of previous experimental validation of the proposed process at demonstration scale. First means new at least to Europe or to the application sector in question. A flagship shall address a complete value chain including from procurement, growth, supply of feedstock material to the final product(s). It shall include the establishment of a large scale production facility in Europe, being it a new installation, substantial modification of an existing facility, or reconversion of old or abandoned industrial facilities. Flagships cover up to TRL 8.

The remarks made under 'Innovation projects' about 'additional activities' also count for flagship projects.

Regional investments through ESIF in these three building blocks will strengthen the regional innovation eco-system in line with their smart specialisation strategies.

European Union investments through BBI in these three building blocks will strengthen the European innovation eco-system in line with the European strategic objectives. The challenge will be to align these regional and European investments, such that they strengthen and underpin each other with the aim to optimise resource allocation in Europe, towards increased international competitiveness and social cohesion.

Potential synergies with ESIF

ESIF can complement by investing in development of endogenous potential through fixed investment in equipment and infrastructure and services to enterprises, in order to have sufficient regional storage and transport facilities for (novel) bio-based feedstock, and create optimal conditions to attract large scale industrial investments in first of a kind production facilities in their region, as such fostering employment and acceleration of the bio-based economy.

Additionally, ESIF may foster large scale investments, by fostering and underpinning new financial instruments from e.g. the European Investment Bank (EIB), to overcome one of the key bottlenecks towards boosting Europe's bio-based innovation and economy; availability of finance and risk capital for very large scale investments with higher risks and lower bankability.

Relevant internet links:

EIB: www.eib.org/

EU-programmes: http://ec.europa.eu/budget/mff/programmes/index_en.cfm

Case study

Biochemtex is a global leader in the development and engineering of technologies and bio-chemical processes based on the exclusive use of non-food biomass, as an alternative to oil.

Biochemtex has built the first demonstratin plant in the world for the production of second-generation bioethanol from lignocellulosic biomass. The proprietary PROESA(R) technology received funding from DG Energy/DG Research, FP7 (several R&D/demo projects that have allowed the the scale-up of the technology), NER300 (a financial instrument of the EU Commission and EIB for renewable demonstration plant) and national funds. Relevant internet link: www.biochemtex.com



D. Support Actions

Support Actions consist primarily of accompanying measures such as standardisation, dissemination, communication, networking, coordination or support services, mutual learning exercises and studies, including design studies for new infrastructure, studies on sustainability and feedstock availability.

Within BBI, for Support actions (as for Research & Innovation Projects) only the following organisations are eligible for funding: small and medium-sized enterprises; secondary and higher education establishments; non-profit legal entities, including those carrying out research or technological development as one of their main objectives; the Joint Research Centre; international European interest organisations.

Potential synergies with ESIF

BBI Support Actions could complement ESIF investments in regional innovation ecosystems by setting-up and funding European networks of regions with bio-based smart specialisation strategies, to identify and share regional best practices.

ESIF can follow-up by funding the replication of identified regional best practices in their region. ESIF can also support cross regional knowledge sharing by using the new opportunity to use part of ESIF funding (up to 15% of ESIF funding) outside of their region and accelerate development of the bio-based economy within and across regions throughout Europe. The ESIF financed INTERREG programme is especially suited for this purpose.

Relevant internet links:

Smart Specialisation: http://ec.europa.eu/research/regions/index_en.cfm?pg=smart_specialisation and <https://ec.europa.eu/jrc/en/science-area/information-society>
INTERREG www.interreg4c.eu/programme/2014-2020

Case study

The FP7 funded R4R project is a good example of how BBI may complement regional smart specialisation activities. R4R will achieve a major step improvement in regional and transnational cooperation among the participating regions and R4R will develop practices, tools and examples which shall be easily disseminated to and adopted by multiple European regions to improve regional and cross-regional collaboration in general, and on resource efficiency in the process industry in particular. The R4R-regions received funding from FP7 (Region of Knowledge), ERDF, INTERREG (ESIF) and national/regional funding (Pieken in de Delta, regional/Provincial grant). In the future there are plans for integrating topics of Sustainable Process Industry, sustainable building blocks and sustainable raw materials into the new OP Zuid programmes (ESIF).

Relevant internet link: www.regions4resource.eu



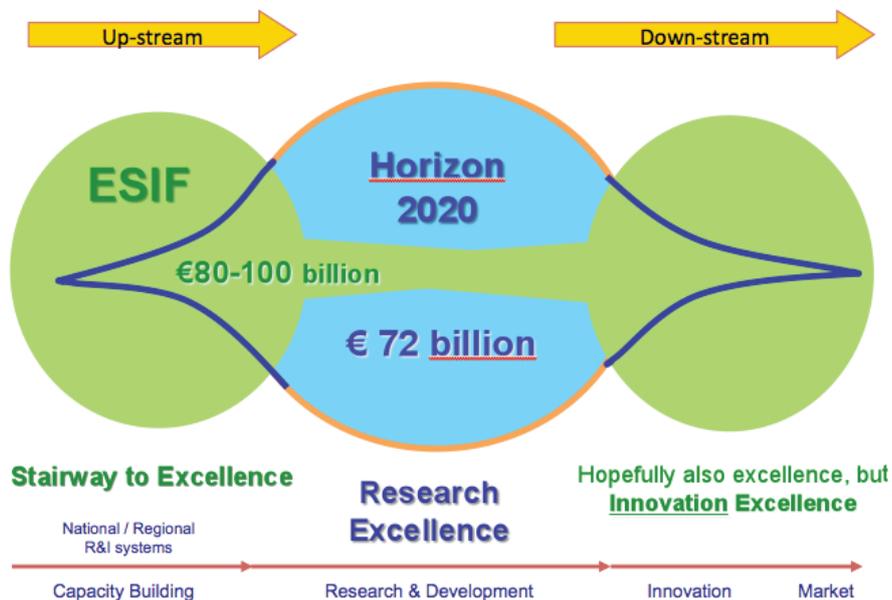
1.3. Financial framework for synergies and cumulative funding

Realising synergies is about finding complementary ways to maximise the impact of combining regional and European strategic objectives as well as funding of H2020 and ESIF. Cumulative funding is the possibility to combine different public funding sources, including EU funding sources, within a programme, project or a group of projects.

In this context three basic recommendations about synergies and cumulative funding have to be considered:

1. Synergies can be about bringing together H2020 and ESIF funding *in a same project*, but under no circumstances shall the same costs be financed twice;
2. Although synergies can be about bringing together H2020 and ESIF funding *in a same project* (Art 65(11) CPR and Art 37 H2020 RfP) it may be easier to use *successive projects* that build on each other or *parallel projects*;
3. In realising cumulative-funding ESIF should not be used as a substitution: the use of a Union funding instrument to substitute the non-Union contribution to another Union instrument is not allowed. For example: ESIF cannot be used to substitute the national or private contribution to H2020 projects.

Different ways to realise synergies between policies and funding instruments can be developed, from capacity building, through to research and development, up to market introduction, with H2020 (BBI) and ESIF playing a complementary role throughout the innovation chain, visualised in the following figure from DG Region (Figure K. Reppel, CC Smart and Sustainable Growth, DG Regional and Urban Policy). In this figure **three kind of actions** are distinguished: upstream actions, excellent research & innovation and downstream actions.



Upstream actions are actions that aim to prepare regional R&I players to participate in and develop excellent research and innovation activities amongst which H2020 ("stairways to excellence"), where necessary, through capacity-building. Communication and cooperation between H2020 national contact points and managing authorities of ESIF shall be strengthened. **Downstream actions** are actions that aim to provide the means to exploit and diffuse R&I results, stemming from excellent research and innovation actions (a.o. H2020), into the market with particular emphasis on creating an innovation-friendly environment for business and industry, including SMEs and in line with the priorities identified for the territories in the relevant smart specialisation strategy.

As such ESIF may support the right (regional) infrastructural, knowledge and innovation eco-systems on which excellent BBI research can be developed, supporting regional stakeholders to play their role within H2020. At the same time ESIF may foster regional take-up of BBI results to boost the regional and cross-regional bioeconomy with excellent innovation to bring BBI results to market supporting its regional industrial and non-industrial stakeholders.

"In order to strengthen the research and innovation capacities of national and regional actors and to achieve the goal of building a "**Stairway to excellence**"⁵ in less developed regions and low-performing Research, Development and Innovation (RDI) Member States and regions, **close synergies should be developed between ESIF and H2020 in all relevant programme priorities.**"

Source: Common Provisions Regulation (CPR), 17 December 2013

1.4. Legal framework for synergies and cumulative funding

Legal basis

Within the H2020 Financial Guidelines and ESIF Common Provisions, the European Union has made sure that synergies and cumulative funding are made possible. The following articles are important for this basis:

- Article 129 of the Financial Regulations is about the **principle of non-cumulative award**:

"Each action may give rise to the award of only one grant from the budget to any one beneficiary, except where otherwise authorised in the relevant basic acts."

The second part of this Article ("except...basic act") makes derogations on the principle of non-cumulative award possible. And that is what the regulations in Article 37 (Rules for Participation H2020) and Article 65(11) (Common provisions regulation) are about. Those Articles make cumulative funding possible.

- **H2020:** Article 37 (about Cumulative funding) of the Rules for participation (Rfp 11 December 2013) reads as follows:

"An action for which a grant from the Union budget has been awarded may also give rise to the award of a grant on the basis of Regulation (EU) No 1291/2013, provided that the grants do not cover the same cost items."

- **ESIF:** Article 65(11) of the Common provisions regulation (CPR 17 December 2013) reads as follows:

"An operation may receive support from one or more ESI Funds or from one or more programmes and from other Union instruments, provided that the expenditure item included in a request for payment for reimbursement by one of the ESI Funds does not receive support from another Fund or Union instrument, or support from the same Fund under another programme."

5 <https://ec.europa.eu/jrc/en/research-topic/stairway-excellence-s2e>

State Aid Rules

The overall rules to take into account regarding state aid issues are:

- *H2020 budget is not considered as state aid. ESIF/national/regional funding is subject to state aid rules, i.e. max. aid intensities, individual notification thresholds, etc. The argumentation for this distinction is that EU funding is centrally managed by the EC and therefore not directly or indirectly under the control of Member States;*
- *For financial instruments, state aid has to be complied with by all three levels: Managing Authority, Fund of Funds and the Financial Intermediary. Aid should be considered at different levels: the fund manager (who is remunerated), the private investor (who is co-investing and may receive aid) and the final recipient. Further guidance will be developed as the state aid framework for 2014-2020 is finalised.*

Exemptions

The European Commission has adopted new rules that exempt public support given to companies by EU Member States, including regional and local authorities, from the requirement of prior notification to, and approval by, the Commission. These new rules, which revise the so-called General Block Exemption Regulation⁶ (GBER) significantly extend the scope of support that can be granted by Member States without the Commission's involvement.

As a general rule, EU Member States are not allowed to implement measures that qualify as State aid within the meaning of Article 107(1) of the Treaty on the Functioning of the European Union (TFEU) until those measures have been approved by the Commission. However, the GBER establishes an exception from the approval requirement. If a measure that qualifies as State aid falls within the scope of the GBER no approval is required by the Commission and the measure is exempted from the notification requirement. **GBER-categories concerning the bio-based economy are aid to biofuels, aid for food based biofuels, biomass and biogases which hence have not to be approved by the Commission.**

Although the scope of the GBER has been extended, stricter substantive compatibility criteria have also been introduced. For example, aid directed at regional development may, in the future, be granted to large companies in more developed (but still disadvantaged) regions only for **investments into new activities**. State aid for investments into the extension of existing activities will no longer be allowed, with the exception of "important projects of common European Interest" (see hereafter).

The Commission adopted the revised GBER on 21 May 2014. The text entered into force on 1 July 2014. The Commission estimates that about $\frac{3}{4}$ of all new State aid measures and about $\frac{2}{3}$ of the total amount of aid expected to be granted will be exempted under the revised GBER.

Important projects of common European Interest

A relevant exemption on the state aid rules, are established by the so-called "Important Projects of Common European Interest". The European Commission has set out criteria under which Member States can support transnational projects of strategic significance for the EU and for the achievement of Europe 2020 objectives, in line with EU state aid rules. This is part of the Commission's State Aid Modernisation (SAM) initiative, aimed at fostering growth and competitiveness in the EU.

⁶ http://ec.europa.eu/competition/state_aid/legislation/block.html

Commission Vice-President in charge of competition policy, Joaquín Almunia, said: "*The rules on support for important projects of common interest give Member States a tool to address market failures in financing large transnational projects of a strategic importance.*"

New rules to support important projects of common European interest

The Commission has adopted a **Communication on Important Projects of Common European Interest (IPCEIs)**⁷ aimed at encouraging Member States to channel their public spending to large projects that make a clear contribution to economic growth, jobs and the competitiveness of Europe. Where private initiatives fail to materialise because of the significant risks and the transnational cooperation such projects entail, Member States may fill the funding gap to overcome such market failures and boost the realisation of projects that otherwise would not have taken off.

Key features of the IPCEI communication are:

- **Extending existing provisions on IPCEIs to any sector of the economy.** EU state aid rules on research (see [IP/06/1600](#) and [MEMO/06/441](#)) and the environment (see [IP/08/80](#) and [MEMO/08/31](#)) already contained some provisions on IPCEIs, which are replaced by the recent Communication. The new provisions are neutral as to the sector where the IPCEI project is realised. This will make it much easier to support important projects with a clear European dimension in areas such as R&D, cross-border transport, or energy that would otherwise have needed to be assessed under several different sets of rules.
- **Diversifying forms of support.** Member States may grant repayable advances, loans, guarantees or grants to IPCEIs.
- **Increasing aid intensity.** Where justified, public support may cover up to 100% of the funding gap on the basis of a large set of eligible costs.
- **Allowing aid for the first industrial deployment** of an R&D project, i.e. during the up-scaling of the pilot facilities and the testing phase.

Conclusion on State Aid

The EU state aid rules need to be respected, but there are relevant opportunities to financially support the bio-based economy that are explicitly allowed. Countries and Regions are advised to involve legal experts to identify suitable measures and consider developing national and/or regional investment schemes that exploit the extended opportunities within the European state aid rules and boost the development of the bio-based economy in line with their smart specialisation strategies.

⁷ http://ec.europa.eu/competition/state_aid/modernisation/index_en.html

2. Regional innovation strategies to achieve synergy

2.1. Differences and similarities between H2020 and ESIF

As explained above realising synergies between BBI and ESIF is possible, desirable and explicitly promoted but also challenging due to the conceptual, organisational, administrative and procedural differences between both funds:

- **Conceptual difference:** H2020 and hence BBI, promotes excellence at EU level, in a competitive selection system. ESIF functions at national and regional levels and focus mainly on capacity building and on reducing economic disparities between regions; a conceptual difference which beneficiaries need to consider when asking for funding from these different funding programmes;
- **Organisational difference:** ESIF is regulated by shared management rules but its implementation is decentralised (often by regions), while H2020 support to final beneficiaries is managed centrally by the European Commission services. Hence no single access point for beneficiaries, but different grantor bodies to support bio-based projects;
- **Administrative and procedural differences:** Whereas the European Union is making good efforts to align and harmonise cost definitions and funding rules, H2020 and ESIF remain two “different animals” leading to differences in cost definitions and related accounting procedures of which beneficiaries needs to be aware. Furthermore, different procedures and timelines will exist to ask for funding within BBI and ESIF or other related funds, which will require some flexibility from the beneficiaries.

Despite the differences between H2020 and ESIF there are also important similarities: both ESIF and BBI H2020 aim at the strengthened development of regional as well as cross-regional innovation eco-systems for the bioeconomy in line with research and specialisation strategies. This includes funding for clusters, regional incubators concepts, public and private research infrastructures, teaming and twinning between sectors and regions, network of regions, training, dissemination, training and communication activities, public procurement etc. It is within the regional smart specialisation strategies and these funding possibilities that complementarities and a wide range of different potential synergies can be found.

Moreover, the European Union is making efforts to facilitate synergies e.g. by allowing regional funding authorities to adopt the **same cost definitions as centrally managed EU funding programmes**.

“Key mechanisms for achieving those synergies should be the **recognition of flat rates for eligible costs from H2020 for a similar operation and beneficiary and the possibility of combining funding** from different Union instruments, including ESI Funds and H2020, in the same operation while avoiding double financing.”

Source: CPR, 17 December 2013

Furthermore, some regions may decide to accept H2020 evaluation results as a basis for complementary regional ESIF funding e.g. to support management costs of SMEs in complex European projects, as a back-up to regional stakeholders if BBI funding could not be obtained due to strong European competition or otherwise. This is based on practical experience in the previous Programme Period (2007-2014) and also on explicit intentions expressed by some regions during our interviews. Please refer to your own regions ESIF management authorities to check if such arrangements are available.

2.2. The role of Smart Specialisation Strategies for the bioeconomy

What does “specialisation” actually mean?

The establishment of Regional Research and Innovation Strategies for Smart Specialisation (RIS3) has been a demand from the European Union to its regions as a prerequisite for developing adequate ESIF programmes for the funding period 2014 - 2020. This means:

- Avoiding duplication and fragmentation of effort with scarce public resources within the Union, thus helping in deepening the single market through “open” RIS3 and inter-regional connections across the EU;
- Being selective and support the R&I activities that are relevant in view of existing conditions and assets (e.g. evidence based policy evaluation, sound SWOT) and breaking away from established lobbies and rent-seekers;
- Selecting R&I activities and generic technologies that can help a regional economy diversify into higher value added markets and exploit new or emerging economic activities.

For a full-scale and sustainable bio-based economy one needs feedstock to be available (crops, green waste, algae, straw, wood from forests, etc.). Processing units (plants) to convert raw materials into bio-based materials and products need to be built. End-user industries (e.g. chemical industry) and consumers will need to adopt these novel bio-based materials and products. For this process adequate specialist knowledge and expertise is required both in feedstock production, collection, distribution, (pre) processing, downstream processing and market introduction. Regional policies are needed to invest in all these aspects of capacity building.

European regions differ greatly. Some regions have a more dominant focus on the production of feedstock, where others focus more on bio-based conversion technologies and/or bio-based production. Some regions are large, forested areas with much space and scarcely populated whereas others may have more densely populated industrial urban areas. Some regions are more and others are less developed. These different regional characteristics determine to a large extent the substantive focus in the regional Smart Specialisation Strategy.

Furthermore, there are important differences in the allocation of ESIF to the different European regions. More than 80%(!) of the ESIF budget is earmarked to regions in Central and Southern Europe. All differences have to be taken into consideration when targeting synergies and cumulative funding between BBI and ESIF.

Every European region may benefit from the support of the different funds under ESIF. However a distinction between less developed, transition and more developed regions will exist in order to ensure concentration of the Funds according to the level of Gross Domestic Product (GDP).

- **Less developed regions:** Supporting the less developed regions will remain an important priority for cohesion policy. The catching-up process of less developed regions will require long-term sustained efforts. This category concerns those regions whose GDP per capita is less than 75 % of the average GDP of the EU-28.
- **Transition regions:** This new category of region will be introduced to replace the current phasing-in and phasing-out system. This category will include all regions with a GDP per capita between 75 % and 90 % of the EU-28 average.

- **More developed regions:** While interventions in the less developed regions will remain the priority for cohesion policy, there are important challenges that concern all Member States, such as global competition in the knowledge-based economy and the shift towards the low carbon economy. This category concerns those regions whose GDP per capita is above 90 % of the average GDP of the EU-28.

In order to understand how to combine with ESIF and taking into consideration bio-economy smart specialisation strategies, the following relevant European and regional frameworks and programmes need to be consulted:

- Common Strategic Framework (an overall document from DG REGIO)
- Research and Innovation Strategy for Smart Specialisation (RIS3)
- Operational Programmes (OP)

"Member States and the Commission shall have due regard to **strengthening coordination, synergies and complementarities between the ESI Funds and H2020**, the Programme for the Competitiveness of Enterprises and small and medium-sized enterprises (COSME) in accordance with Regulation (EU) No 1287/2013 of the European Parliament and of the Council, and other relevant centrally managed Union funding programmes while also establishing a clear division of areas of intervention between them" - (CSF 4.3-1).

Common Strategic Framework (CSF)- how can different ESIF funds be used?

The European Regional Development Fund (ERDF), the European Social Fund (ESF), the Cohesion Fund (CF), the European Agricultural Fund for Rural Development (EAFRD) and the European Maritime and Fisheries Fund (EMFF) pursue complementary policy objectives and their management is shared between the Member States and the Commission. They are the main source of investment at EU level to help Member States to restore and increase growth and ensure a job rich recovery while ensuring sustainable development, in line with Europe 2020 objectives.

With the Common Strategic Framework (CSF) DG REGIO has designed a regulation to achieve more coordination and synergy between the various ESIF funds and between ESIF funds and other European funding programmes like BBI. The CSF provides further guidance on how the CSF Funds can most effectively target growth.

Research and Innovation Strategy for Smart Specialisation (RIS3)

The Europe 2020 strategy aims for a smart, sustainable and inclusive economy. Regions that want to qualify for funding regarding to the first thematic objective (TO 1: strengthening research, technological development and innovation) were required to develop a Research and Innovation Strategy for Smart Specialisation (RIS3), in which they make choices to invest ESIF in a limited number of strategic objectives and actions. The TO's in ESIF are:

Thematic Objective (TO)	Relevant for BBI and synergies H2020 and ESIF?
Smart growth:	
• Research and innovation (TO 1)	Yes, content relevant
• Information and Communication Technologies (TO 2)	Not relevant
• Competitiveness of Small and Medium-Sized Enterprises (SME) (TO 3)	Yes, content relevant
Sustainable growth:	
• Shift to a low-carbon economy (TO 4)	Yes, content relevant
• Climate change adaptation and risk management and prevention (TO 5)	Not relevant
• Environmental protection and resource efficiency (TO 6)	Yes, content relevant
• Sustainable transport and disposal of congestion on major network infrastructure (TO 7)	Not relevant
Inclusive growth:	
• Employment and support for labour mobility (TO 8)	Yes, thematically relevant
• Social inclusion and poverty reduction (TO 9)	Not relevant
• Education, skills and lifelong learning (TO 10)	Yes, thematically relevant
• Increased institutional capacity and effectiveness of public administration (TO 11)	Not relevant

To ensure that EU investments are concentrated on those priorities, minimum allocations are set for a number of priority areas. For example, in more developed and transition regions, **at least 80 % of ERDF resources at national level should be allocated to energy efficiency and renewables, innovation and SME support, of which at least 20 % should be allocated to energy efficiency and renewables.** Less developed regions will have a broader range of investment priorities to choose from, reflecting their wider development needs. But they will have to devote at least 50 % of ERDF resources to energy efficiency and renewables, innovation and SME support.

The figure below gives a global overview of the allocation of ESIF, to the individual programmes (ERDF, ESF, CF, EAFRD and EMFF) and to the sort of region (more developed regions, transition regions and less developed regions). For more details about the allocation of the Multiannual Financial Framework (MFF) we refer to the following website:

http://ec.europa.eu/regional_policy/thefunds/funding/index_en.cfm



The RIS3 of individual European regions is the main source to find out more about the synergy-creating measures regions are willing to perform. For the BBI, knowledge of these regional specific documents is essential for decision making where to invest in the bio-based economy. In fact, RIS3 is a policy instrument to strengthen and align regional research and innovation agendas on bioeconomy. Alignment between BBI H2020 and ESIF should be based on well thought and industry driven Smart Specialisation Strategies targeting the bioeconomy.

Integration with rural development strategies

In the Smart Specialisation Strategies for the bio-based economy, it is obviously relevant to align with rural development strategies, especially linking to the agriculture sector. At European level initiatives have been taken to stimulate such alignment and foster regional measures within ESIF targeted at innovation for **"Agricultural Productivity and Sustainability"** according to Rural Development Regulation N°1305/2013 (Article 55). The European Innovation Partnership (EIP) "Agricultural Productivity and Sustainability" has defined measures targeted at "facilitating the supply and use of renewable sources of energy, of by-products, wastes and residues and of other non-food raw material, for the purposes of the bio-economy" (art. 5) as well as "steady and sustainable supply of food, feed and biomaterials, both existing and new ones" and the aim to "build bridges between research and farmers, businesses and advisory services".

As an important incentive for the bio-based economy – and important synergies potential with BBI – regions may adopt measures defined in this EIP, offering the opportunities to fund up to 100% of these measures through the adequate ESIF funds.

Relevant information as well as an overview of regions developing rural development programmes can be found at:

<http://ec.europa.eu/eip/agriculture>.

Regions themselves decide on which particular clusters or sectors they will focus and in what manner. The EU does not prescribe how the regions should do this. Also, there is not a list of sectors of which regions can choose. But the Smart Specialisation Platform (<http://s3platform.jrc.ec.europa.eu/map>) can support both regions and organisations from the bio-based sector. This platform provides professional advice to

EU countries and regions for the design of their research and innovation strategies for smart specialisation (RIS3). This platform can also be used to detect bio-based regions across Europe. Although the Smart Specialisation Platform is an interesting starting point for the research of regional characteristics, additional research in more comprehensive databases is still needed.

Operational Programmes

An Operational Programme (OP) sets out a region's priorities for delivering the funds. Although there is scope for regional flexibility, a region's priorities must be consistent with the RIS3. There is an Operational Programme for each region in the EU. These OP's have to be approved by the European Commission before any implementation.

Position papers and approved Partnerships Agreements for all Member States can be found on the website of DG Regio: http://ec.europa.eu/regional_policy/what/future/program/index_en.cfm

The Operational Programmes differ in the way they concentrate on the Thematic Objectives. Thematic Concentration is an important item in Cohesion Policy 2014-2020.

Concluding: can I combine different ESIF funds with BBI?

Important to answer this question is to realise that each region is different and based on its needs and smart specialisation strategies developed its proper regional ESIF priorities and funding opportunities. Each beneficiary will have to carefully investigate if there are adequate ESIF funding opportunities within its region and if these can be used to complement BBI funding.

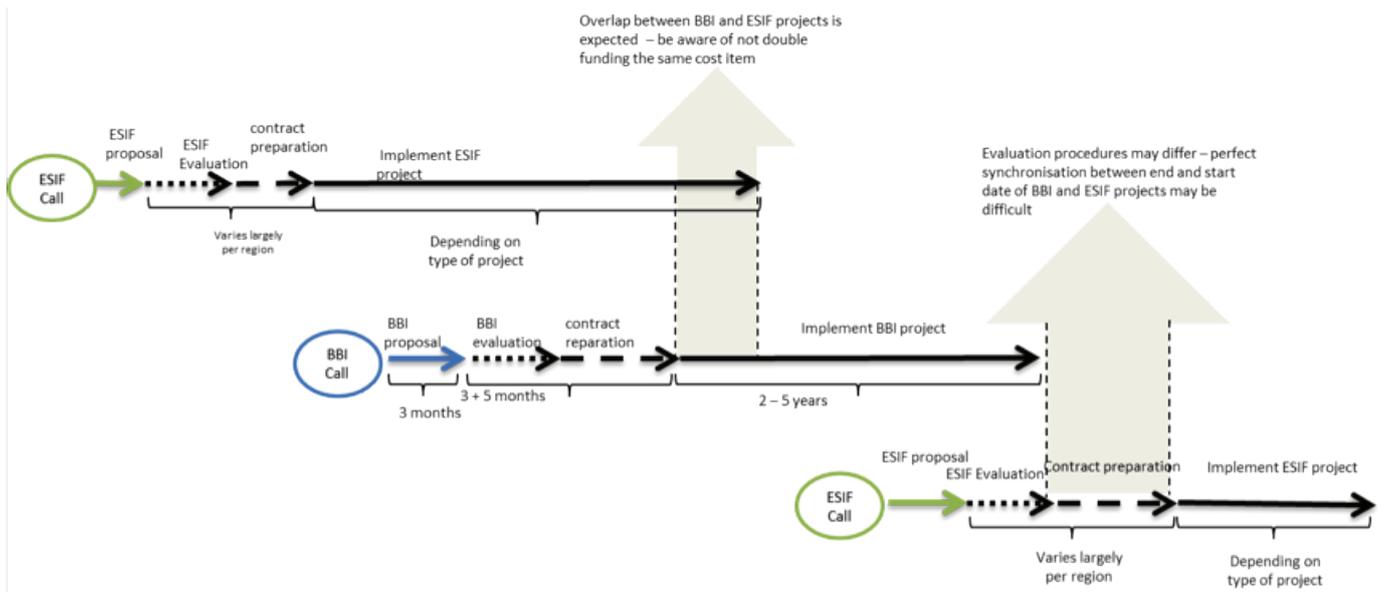
Regarding regional innovation strategies and the possibilities of creating synergies BIC strongly advises beneficiaries to:

- identify those regions that are focusing on developing the bio-based economy (see e.g. RIS3 for relevant smart specialisation strategies);
- understand the political and legal background as well as the regional smart specialisation strategy for the bioeconomy of the different regions to position their projects within the regional priorities (RIS3 and regional strategy documents);
- analyse which ESIF fund is most relevant to support their development;
- identify if there are relevant funding opportunities within these programmes to support their developments and under which conditions (Regional Operating Programmes);
- check the timing of proposal submission procedures and specific requirements related to combining BBI and ESIF funding (regional calls for proposals);
- contact your regional ESIF Management Authority, explain the benefits of your project for the regional smart specialisation strategy, discuss up front if there are specific requirements for synergies between ESIF and BBI funding;
- and of course: beneficiaries should also check the (derogation) rules mentioned in the Council Regulation of BBI.

In the following chapters we will provide an overview of possible but non-exhaustive examples of how ESIF as well as some other funding programmes can be combined to optimise bio-based economy developments.

3. Scenarios and examples of cumulative funding

In order to apply for cumulative funding stakeholders can follow either a sequential approach (i.e. first get funds from one funding source and then ask for additional funding from the other one), or a simultaneous one by identifying specific projects and/or costs to be funded by different programmes in parallel.



Whatever approach is taken, beneficiaries will often need to manage synchronisation of their projects, the related partnerships, budgets and management procedures. Projects and funding may overlap in time. Beneficiaries need to take care that cost items can only be funded by a single public funding source. Obtaining public funding for subsequent projects from different programmes (e.g. BBI and ESIF) may be a good opportunity. Perfect synchronisation of ending and starting dates however may sometimes be difficult to realise due to available call and deadline dates as well as relative evaluation and contract preparation procedures.

Beneficiaries are therefore advised to be timely informed about possible funding opportunities for their project ideas, and to carefully plan proposal preparation and management.

In this chapter we describe four scenarios of cumulative funding. The enclosed scenarios and examples provide non exhaustive suggestions and tips on how ESIF can be cumulative with BBI to reach synergies.

Scenarios 1 and 2 describe situations in which funding from different programmes is received for more than one project. In scenario 1 these projects are executed in different sequential periods over time, whereas in scenario 2 projects are executed at the same time. Scenarios 3 en 4 describe situations in which funding from different programmes is received for one single project. In these situations the combined funding from ESIF and BBI is determined by organisation (scenario 3) or by cost item (scenario 4).

3.1. Scenarios of cumulative funding of BBI and ESIF

A. Cumulative funding through different related projects

- Scenario 1: Different related projects over time in the innovation value chain
- Scenario 2: Different related projects and activities running in parallel

B. Cumulative funding in the same project

- Scenario 3: Different funding programmes per organisation in the same project
- Scenario 4: Different funding programmers per cost item in the same project*

A. Cumulative funding through different related projects

Scenario 1: cumulative funding through different related projects over time in the same innovation value chain

In this scenario several sequential projects in the innovation chain receive subsequent funding from different programmes. Typically ESIF would first support projects to establish the right (regional) infrastructural, knowledge and innovation eco-systems on which subsequently BBI projects can be developed and funded. At the end of the innovation chain ESIF may be expected to foster regional take-up of BBI results by funding regional demonstration or large scale investments (e.g. comparable to Flagships in BBI) with the aim to boost the regional and cross-regional bioeconomy and bring BBI results to market supporting its regional industrial and non-industrial stakeholders.

Relevant for this scenario are the “upstream” and “downstream” actions mentioned in the regional Research and Innovation Strategies for Smart Specialisation (RIS3).

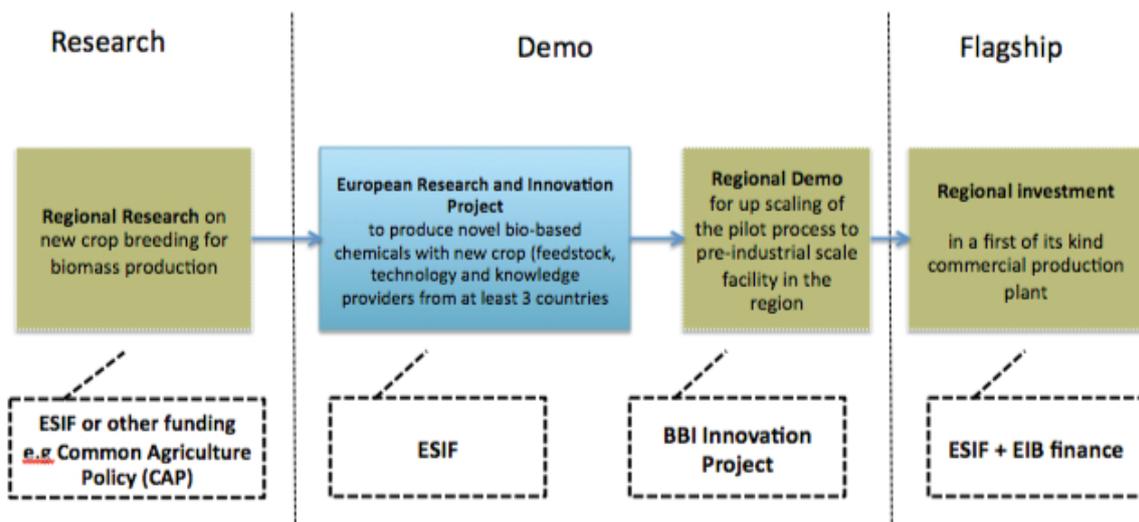
Scenario description (hypothetical)

This example scenario starts with funding from ESIF e.g. from the EAFRD (Agro) programme within ESIF, for a feasibility study on new crop breeding for biomass production, executed by an SME in a specific region. Activities carried out during this study can be for example applied research, technology development and integration, testing and validation on a small-scale prototype in a laboratory or simulated environment.

As a follow up project the SME wishes to set-up a demonstration project with a regional university specialised in crop breeding, together with foreign specialised academic and industrial partners in bio-based chemicals in 2 other European countries. This project aims to validate the technical and economic viability of the new crops as a feedstock for a novel bio-based chemicals production process in a pre-industrial set-up. Project partners apply for a BBI Research and Innovation (RIA) project to obtain 100% funding for the SMEs and academic partners. The large industry contributes to the project with its own funds.

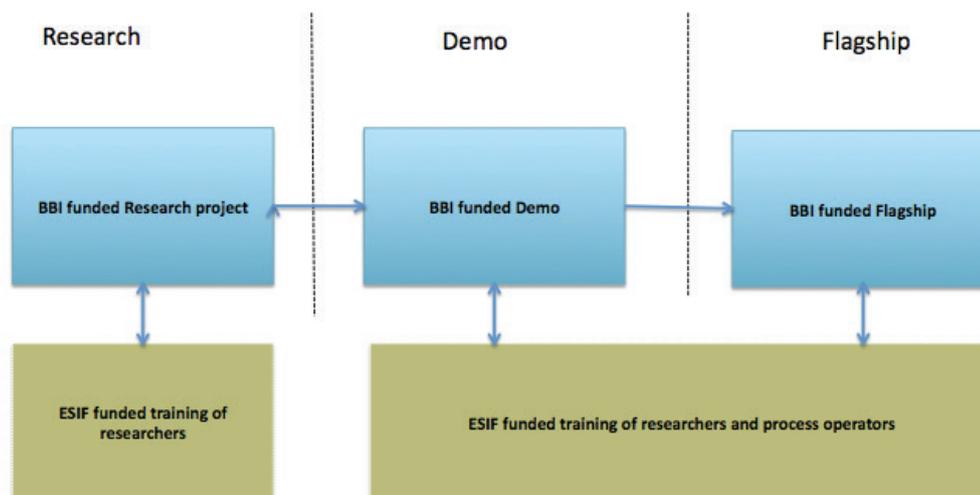
After successful completion of the RIA project the regions ambition is to start a larger scale demonstration project to upscale the breeding and chemical production processes. For this project the partners apply for ESIF funding, more in particular for ERDF that allows for investment in small scale equipment and innovative infrastructure needed for research and innovation.

With the knowledge acquired in the project previous projects the region is ready for the establishment of a large scale production facility. For such a flagship project the investments in infrastructure are significant and funding from ESIF or BBI may not be sufficient. Therefore the industrial partner applies for a low-interest loan from the European Investment Bank and for funding from ESIF. Both applications are successful because of the positive perception of the Management Authority in the region, the fact that bio-based is part of the Research and Innovation Strategy for Smart Specialisation and the back-up of the Region in the request for EIB loans.

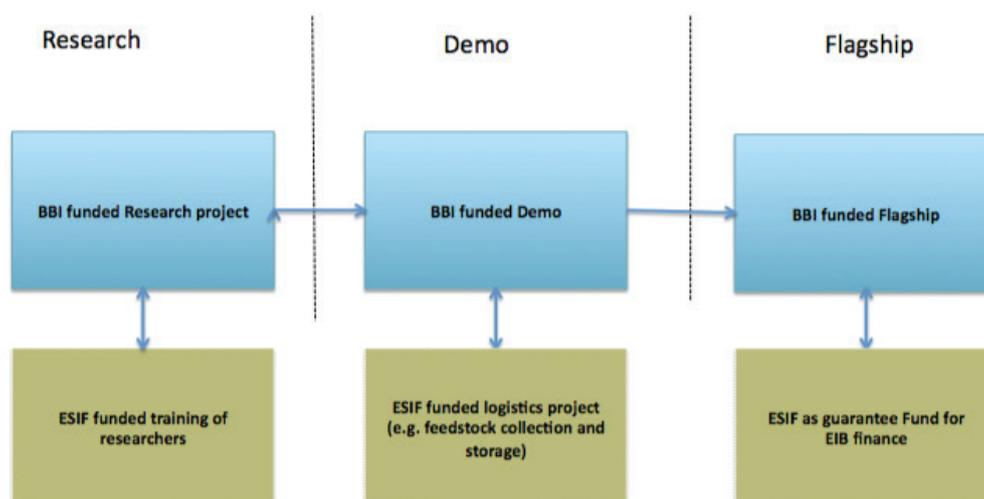


Scenario 2: cumulative funding through different related projects and activities running in parallel

In this scenario ESIF and BBI funding is provided for different parallel projects which are complementary to each other. Typically ESIF would fund capacity building (e.g. training) projects (e.g. through European Social Fund) that may run parallel to BBI projects in which regional stakeholders are taking part.



Other possibilities for parallel funding through separate projects are possible e.g. regions may fund regional stakeholders (e.g. SMEs) to carry out parallel research and technology transfer projects in relation to running BBI Research and Innovation projects in order to accelerate market take-up of BBI research results. Otherwise ESIF funding may be used to fund logistics related projects, or support new finance instruments.

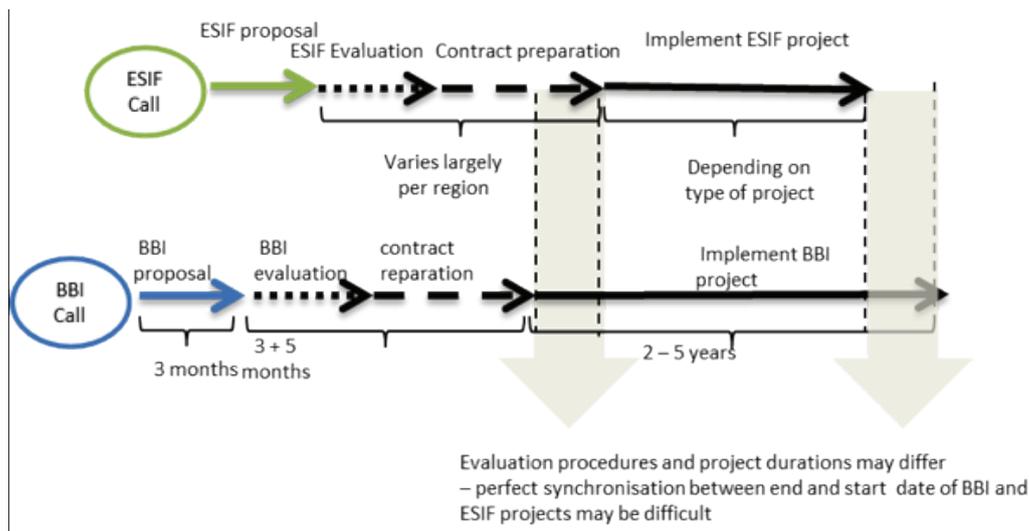


B. Cumulative funding in the same project

These scenarios see to the simultaneous use of different public funding sources in the same project. For example BBI funding and ESIF that are used together to fund different cost items from the same or different organisations in a single Research and Innovation or Innovation project. This is explicitly allowed

by the Financial Regulation and Common Provisions, as long as a single cost item will never be funded by different public funding sources.

These scenarios are more difficult to orchestrate and manage than the scenarios under A (Cumulative funding through different related projects). First of all it requires synchronisation of proposal submission and award procedures.



Furthermore, is it advisable that internal administrative and financial management of projects be specifically organised (e.g. separate Work Packages) to clearly separate activities, or cost items that are funded by different programmes, providing transparent information on where the activities related to specific cost items have been carried out (i.e. within the ESIF region). It has to be considered that cost definitions or interpretation of cost definitions may differ between (BBI and ESIF) programmes, due to differences in the regulation or due to the fact that different grantor bodies may apply cost definitions more or less stringently.

Finally, in project reporting to the grantor bodies, the joint funding has to be clearly explained, and requirements from both programmes for cost declarations may sometimes need to be taken into account (e.g. requirements for audit certification from BBI and from an ESIF fund may be different).

In spite of these possible complications, cumulative funding within a single project is possible, and new rules within the Common Provisions⁸ allow the regional ESIF management authorities to fully align their cost definitions with other centrally managed (i.e. H2020) regulations.

Scenario 3: cumulative funding by organisation within the same project

Parallel use of funds for the same industrial project means the simultaneous use of different public funding sources in the same project. For example BBI funding and ESIF that are used together to fund different cost items within a single industrial project. This is allowed, subject to the absence of double funding.

⁸ Article 65(11) CPR. See also paragraph 1.4 of this Guide.

Within BBI however, it is important that beneficiaries consider the specific derogations from the H2020 funding rules, which exclude large industry from funding for some project types, and impose specific co-financing rules and additional activities to be defined and quantified.

Derogations to the H2020 rules

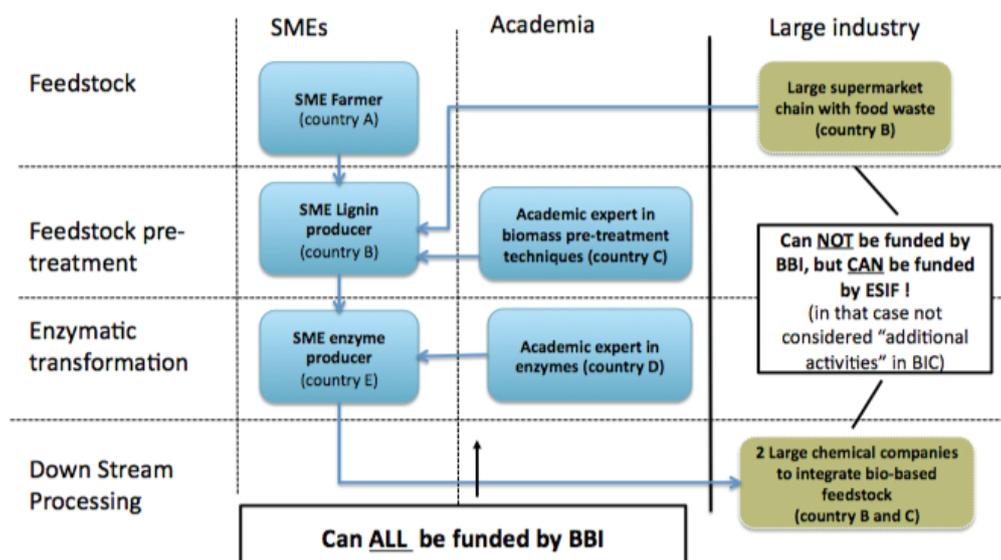
The BBI JU projects will fall under H2020 and thus the "Rules for participation in H2020" will apply for the BBI JU. However the following important derogations to the H2020 rules will be applied:

- For non-innovation actions (i.e. R&D and Supporting projects), large industries cannot be reimbursed by EC; they contribute in kind or in cash to the project.
- At least 50% of project financing must be by large industries (in cash + in kind; 50-50 balance between EC and industry).

These derogations have to be considered in the financial management and monitoring of cumulative funding of ESIF and BBI in a single project. As long as the above described minimum requirements are met, cumulative ESIF funding will be allowed.

Quantitative scenario description (hypothetical)

This example scenario describes a value chain project targeted at transforming agrofood waste from farmers and supermarkets into bio-polymers, e.g. by enzymatic transformation of the lignin fraction. BBI funds a larger part of the consortium within a Research and Innovation Action (100% funded) consisting of SME farmers research institutes in the field of biomass pre-treatment and enzymes as well as SME lignin and enzyme producers. Whereas these partners can all be funded according to the BBI rules, 3 large industry partners cannot receive BBI funding. They will need to provide their contribution at their own costs and co-fund at least 50% of the total project costs. Beyond those contributions, ESIF may be used to co-fund specific costs of these large industries as long as it doesn't substitute the required co-funding within BBI.



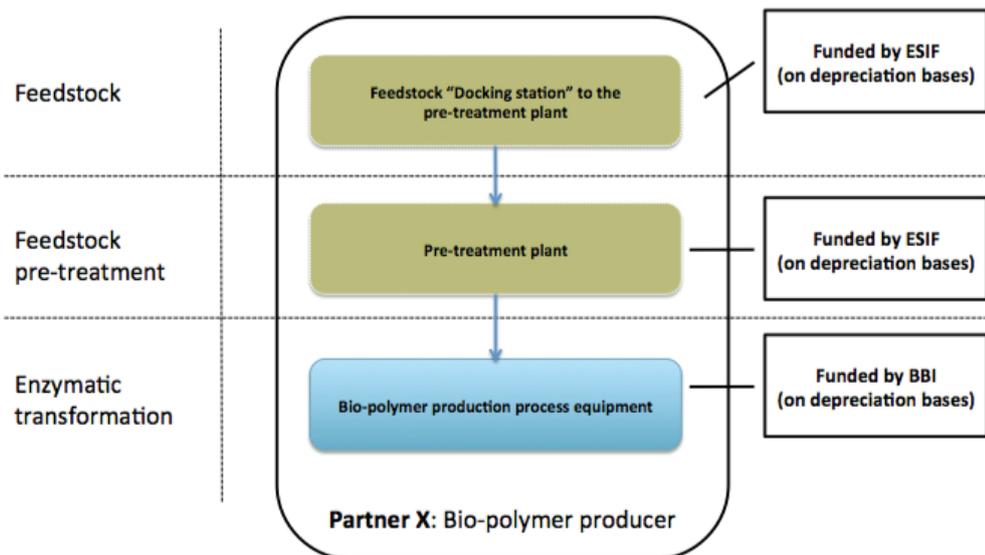
Scenario description (hypothetical)

This example scenario describes a demonstration project in which a bio-polymer producer invests in a feedstock docking station for bio-based feedstock (e.g. crop or bio-waste), a pre-treatment plant for the bio-based feedstock and an innovative bio-polymer production process. BBI allows to fund industries that carry out so-called Innovation (demonstration) Projects targeting the development of novel bio-based value chains. Whereas BBI funds 70% of the Innovation Projects eligible costs, industry has to co-finance 50% of the total project, e.g. by "in-kind" or cash contributions. Within the wider project to invest in the docking station, pre-treatment plant and polymer production process, the industry may choose to have parts of the equipment funded by other programmes e.g. within ERDF if such programmes allows this, as long as industry respects the 50% co-financing rules within BBI.

The following hypothetical calculation explains how this could be done.

Total eligible BBI project costs, including the depreciation of equipment – €6.000.000,-

- EC contribution - €2.000.000,-
- ESIF contribution - €500.000,-
- Industry contribution - €3.500.000,- (e.g. partly by own personnel, equipments etc and partly by cash-contribution to research institutes in the consortium)



3.2. Synergies with other Funding Programmes and new Financing Instruments (EIB and EIF)

Beyond combining BBI with ESIF, there are a large number of additional national and European funding opportunities to boost innovation in the bioeconomy. It would take this Guide too far to provide a detailed overview of all regional, national and European funding opportunities for innovation in the bio-based economy. However, in the non-exhaustive schematic overview of possible funding programmes (see below) a short description and relevant links to web-locations to find more information is provided.

Overview of Funding Programmes to be combined with BBI and ESIF programmes

Programme	Short description	Synergies with BBI/ESIF	Type of funding
Excellent science – For more information: http://ec.europa.eu/programmes/horizon2020/en/h2020-section/european-research-council http://ec.europa.eu/programmes/horizon2020/en/h2020-section/excellent-science			
H2020 Excellence in Science	ERC funding for excellent individual researchers and teams	Developing the next generation bio-based science and technology	Research and Innovation Actions (RIA) (100%)
Bio-Based Research Infrastructures – For more information: http://ec.europa.eu/research/infrastructures			
European Research Infrastructures	Funding to develop better and provide access to research infrastructures	Improve bio-based research infrastructures funded by ERDF, and used by BBI	Investments in research infrastructures, national facilities and ICT based e-infrastructures
Human Resources and Mobility – For more information: http://eit.europa.eu/ http://ec.europa.eu/research/mariecurieactions/ http://ec.europa.eu/programmes/erasmus-plus/			
EIT-KICs	The aim of the 2014 Call for KICs is to select and designate two new Knowledge and Innovation Communities (KICs) in the field of (1) Innovation for healthy living and active ageing and (2) Raw materials: sustainable exploration, extractions, processing, recycling and substitution	Sustainable exploration, extractions, processing, recycling and substitution	EIT will gradually expand its portfolio of Knowledge and Innovation Communities (KICs). The KICs offer a genuine opportunity for top innovation players to be part of a highly collaborative community

Marie Curie Co-Funds	This programme supports researchers working across all disciplines. It also supports industrial doctorates, combining academic research study with work in companies, and other innovative training that enhances employability and career development	Regions can set-up researchers mobility funds in their region targeted at bio-based research with co-funding from H2020	Collaborate with research organisations, have access to academic equipment, associate researchers found in academia with the research projects of the firm.
ERASMUS+	The Erasmus+ programme aims to boost skills and employability, as well as modernising Education, Training, and Youth work	Set-Up novel educational programmes to stimulate the bio-based economy e.g. through strategic partnerships between educational institutions and industry	Support of transnational partnerships among Education, Training, and Youth institutions and organisations to foster cooperation and bridge the worlds of Education and work in order to tackle the skills gaps in Europe.
Bio-Based SMEs – For more information: http://ec.europa.eu/programmes/horizon2020/en/h2020-section/sme-instrument			
SME instrument	H2020 support for individual (bio-based) SMEs to 1) develop their business plan, 2) implement research and innovation project, 3) access to risk finance	Help SMEs to exploit results from BBI and/ or ESIF research and innovation in the bio-based economy	Innovative Actions (70%)
Demonstration projects – For more information: http://ec.europa.eu/environment/life			
LIFE 2014 - 2020	EC support for demonstrating solutions that benefit environment and climate action	Support upscaling and real life demonstration of bio-based solutions with a positive impact on environment	Projects eligible for funding are mainly demonstration and/or pilot projects, related to the above mentioned environmental objectives.

Impact from BBI and ESIF projects in the bioeconomy, can be increased by using new finance instruments from the European Union, managed by the European Investment Fund and European Investment Bank, which use 3,5B€ of the HORIZON 2020 budget to stimulate loans and equity participation in innovative companies. 5 complementary instruments have been created which provide loans and equity to SMEs companies (to 250 employees), Mid Caps (until 500 employees) and large corporates, also in the bioeconomy.

These loans or equity will be provided to companies to boost their innovative activities and growth for activities that contribute to EU Policies. Loans or equity can be obtained by beneficiaries either from intermediaries in members states (e.g. banks), Ventura Capital Firms or directly from the EIB, depending on the type of company or finance, as summarised in the following table.

Synergies with new EU Financing Instruments (EIB and EIF)

For more information see: www.eib.org/products/innovfin/index.htm

	Name Instrument	For whom	Type of support	By whom	Budget	Relevance for bioeconomy
1	INNOVFIN SME Guarantee	Innovative SMEs (EU definition) and Small Mid Caps (to 500 employees)	Loans to innovative companies	Financial intermediaries in Member States and Associated States, backed-up with a guarantee by the EIF	8B€	Loans between 25k€ - 7,5m€ at lower risk premium (interest), also for innovative bioeconomy SMEs and Mid-Caps
2	INNOVFIN SME VC	Innovative SMEs	Venture Capital	Venture Capital Firms with increased portfolio due to EIF participation	400M€	The EIF works with venture capital funds that invest into innovative high-tech SMEs in their early and growth phases.
3	INNOVFIN MIDCAP Guarantee	Innovative Mid-Caps	Loans to innovative Mid-Caps	Financial intermediaries in Member States and Associated States, backed-up with a guarantee by the EIF	1.4B€*	Loans between 7,5M€ - 50M€ at lower risk premium (interest), also for innovative bioeconomy Mid-Caps
4	INNOVFIN MIDCAP Growth Finance	Innovative Mid-Caps	Direct subordinated or mezzanine loans (loan – equity mix)	European Investment Bank	1.4B€*	7,5M€ - 25M€ loans directly from the EIB, also for innovative Mid Caps
5	INNOVFIN Large Projects	Innovative Large Corps	Direct subordinated or mezzanine loans (loan – equity mix)	European Investment Bank	2B€	25M€ - 300M€ loans directly from the EIB, also for innovative projects or companies in the bioeconomy (e.g. Flagships)

*Based on the previous programme period 2007 – 2013

Synergies can be sought with BBI projects e.g. by obtaining finance from the EIB for large scale Flagship projects that require investments in large infrastructure (e.g. bio-refineries), but also large research infrastructures. Other examples are venture capital that can be obtained for SMEs that wish to exploit BBI research results in the market (e.g. starting with a demo project funded by BBI or ESIF).

Also synergies with ESIF can be realised. No anti-cumulation rules apply, and both BBI and ESIF funding can be combined with loans and/or equity from the new finance instruments.

Furthermore, both BBI and ESIF funds could be used – if so desired by the managing institutions – to provide finance instead of grants. The EIF and EIB make their finance instruments available to channel ESIF and/or BBI budgets towards the market as loans or equity depending on the wish of the BBI and ESIF authorities. Also, regions may decide to backup large investments in their regions using either ESIF or other regional (non-EU) funds, to increase the chances of EIB funding for large bioeconomy projects/ investments in their regions.

Example

A large Flagship investment can be co-financed (up to 50%) by EIB. EIB however will use regular due-diligence assessments to analyse if projects/companies are "bankable". H2020 funds serve to facilitate such investments by the EIB, even in more risky projects compared to loans that are not backed by H2020. If EIB still has doubts about providing the loans during the due-diligence, regions may step-up their support to foster investments in their region and provide additional guarantees, using ESIF or other funds. This may increase bankability of risky bioeconomy investments, which are important to stimulate the regional bioeconomy innovation eco-system.

3.3. Recommendations for beneficiaries

- BIC recommends each beneficiary to consider combining BBI with ESIF as well as other funding opportunities where possible;
- Be aware of conceptual and strategic differences between BBI (excellent research) and ESIF (regional capacity building and overcome structural difference) when preparing and defending your proposals to stimulate the bio-based economy;
- Research and innovation strategies may vary by region. BIC recommends to consult available information on Smart Regional Specialisation Strategies (RIS3) and relevant frameworks and documents and Regional Operational Programmes to understand the regional focus and available funding opportunities to complement BBI;
- Consider different opportunities for cumulative funding i.e. consecutive or parallel projects in the innovation chain (from discovery to market introduction), or cumulative funding from different funding instruments within the same project; BIC advises to design a clear strategy and planning for synergetic funding, to avoid overlap or double funding of the same cost item;
- Plan for your projects to align with different organisational and administrative differences between BBI and ESIF, in terms of timing, management of multiple grantor bodies (EC and regional management bodies), different cost definitions and financial management rules;
- BBI funding is conditioned by a clear industrial contribution to projects, leading to at least 50% co-funding of industry per project, as well as further additional activities of industry, to leverage EU funding. BIC advises beneficiaries to look for complementary ESIF funding to leverage BBI funding. ESIF funding however, can never substitute industrial co-funding nor additional activities required in BBI;

- For large scale (non-bankable) investments in the bioeconomy (e.g. Flagships) finance may be more important to stimulate further investments and development of the bioeconomy at regional and European level, than funding. New European Financial instruments (EIB, EIF) possibly in combination with ESIF (e.g. guarantee funds) may offer such opportunities.

3.4. Recommendations for Regions (including ESIF policy makers and management bodies)

- The Partnership Agreements and the Operational Programs should set out the mechanisms that ensure coordination between ESIF and H2020. Now is the moment to organise this alignment, as there is a limited window of opportunity to draft the national and regional ESIF strategies and Partnership Programmes that will allow implementation of H2020 - ESIF coordination for the upcoming 7 years and the Operational Programmes (adoption expected early 2015);
- It is recommended that regions pay due attention to the organisational aspects of cumulative funding in the Partnership Agreements and the Operational Programmes;
- BIC recommends setting up single access points for beneficiaries and projects that are funded from different ESIF funds;
- Regions are encouraged to align their regional innovation policy with actors outside the region, including BIC, and outside the scope of ESIF and look actively for their distinctive regional qualities;
- BIC recommends regions to consider their regional smart specialisation strategies for the bio-based economy, and use different ESIF and finance instruments for measures to stimulate regional innovation systems for the bio-based economy, including the integration of rural development as well as measures for larger scale investments required for industries to move from research to market and enable deployment of the bio-based economy;
- In this light BIC draws the attention of regions to the specific measures and benefits proposed by the European Innovation Partnership on „Agricultural Productivity and Sustainability“ which offer opportunities for to build-in up to 100% funding from the Common Agricultural Policy, to build bridges between research and farmers, businesses and advisory services, using (see paragraph 2.2. in this Guide);
- BIC also draws the attention of regions to potential synergies with the new EIB/EIF finance instruments. Access to these instruments for regional beneficiaries can be fostered and supported by regional policies and funding (see paragraph 3.2. in this Guide) e.g. using either ESIF or other regional or national public funds to meet requirements in EIB's risk and due diligence assessments;
- BIC recommends member states and regions to consider the renewed interest and relaxation on state aid rules related to Important Projects of Common European Interest (IPCEIs) aimed at encouraging Member States to channel their public spending to large projects that make a clear contribution to economic growth, jobs and the competitiveness of Europe, including “Allowing aid for the first industrial deployment of an R&D project, i.e. during the up-scaling of the pilot facilities and the testing phase” up to 100%.

ANNEX I: Overview of the programmes under ESIF

Five main Funds work together to support economic development across all EU countries, in line with the objectives of the Europe 2020 strategy:

- European Regional Development Fund (ERDF)
- European Social Fund (ESF)
- Cohesion Fund (CF)
- European Agricultural Fund for Rural Development (EAFRD)
- European Maritime and Fisheries Fund (EMFF)

Every EU region may benefit from the ERDF and ESF. However, only the less developed regions may receive support from the Cohesion Fund.

ERDF

The ERDF aims to strengthen economic and social cohesion in the European Union by correcting imbalances between its regions. The ERDF focuses its investments on several key priority areas. This is known as 'thematic concentration': innovation and research, the digital agenda, support for small and medium-sized enterprises (SMEs) and the low-carbon economy.

ESF

The ESF invests in people, with a focus on improving employment and education opportunities across the European Union. It also aims to improve the situation of the most vulnerable people at risk of poverty.

CF

The Cohesion Fund is aimed at Member States whose Gross National Income (GNI) per inhabitant is less than 90 % of the EU average. It aims to reduce economic and social disparities and to promote sustainable development.

EAFRD

The European Union has an active rural development policy because this helps us to achieve valuable goals for our countryside and for the people who live and work there. The EU's rural development policy is all about meeting the challenges faced by our rural areas, and unlocking their potential.

EMFF

The EMFF helps fishermen in the transition to sustainable fishing, supports coastal communities in diversifying their economies, finances projects that create new jobs and improve quality of life along European coasts and makes it easier for applicants to access financing.

For more information about ESIF:

http://ec.europa.eu/regional_policy/thefunds/index_en.cfm

ANNEX II: The Regional Dimension: understanding HOW the synergies would work in practice

The following Questions and Answers provide an overview on what synergies effectively mean for both regional authorities and applicants, and HOW to achieve impact:

1. Is there a joint BBI-ESIF fund for the bioeconomy?

No. There is no such 'synergy' funding instrument. Interested parties must apply for funds from either BBI and/or ESIF in their region to possibly obtain combined funding for their projects or a set of related projects.

2. Are synergies about maximising combined funding between BBI and ESIF?

No. Synergies mean 'alignment of policy priorities and objectives' between European, national and regional levels. Synergies therefore seek to create convergence of resources through funding instruments to maximise delivery and impact on policy priorities such as the bioeconomy. As a result, a project could benefit from multiple sources of funding provided they are complementary and there are no overlaps.

3. Synergies require Smart Specialisation Strategies (S3). What is that exactly?

Smart Specialisation Strategies are a pre-condition from the European Union for regions to get access to ESIF. It assumes that regions make clear strategic choices to develop strengths and competitiveness in sectors of their choice in which they specialise. More information about Smart Specialisation Strategies can be found here <http://s3platform.jrc.ec.europa.eu/home>.

4. What do I need to know as a region about bioeconomy and BBI to foster synergy and impact of my SSS?

The bioeconomy as a smart-specialisation strategy can have many facets. It may include a focus on agro- or forestry based economies, industrial biotechnology, bioenergy or other foci. The BBI focuses on using biomass from different sources (forestry and agriculture) and waste as a feedstock sourced locally to make everyday products and materials Made in Europe through advanced biorefineries.

5. If I (region) don't have a clear bioeconomy strategy can I still work on synergies?

Yes. There are different stages of maturity to develop regional smart specialisation strategies. Some regions start with Action Plans, while others already have a more developed strategy. Several regions have informed the EC about their regional smart specialisation strategies as a basis for ESIF funding programmes. In 2016 there will be a second round to update regional smart specialisation strategies with the EC.

6. When and how should regions be involved in the preparation of BBI proposals?

It is up to the applicants to assess if synergies between regional strategies and funding can be beneficial for BBI proposals. It can be relevant for BBI project applicants to have up-front discussions with their region and identify synergies between BBI and regional policies, strategies and funding. This is by no means an obligation nor is it a criteria for evaluation of BBI proposals.

7. How can a region support its regional stakeholders' participation in the BBI?

Each region can decide how it wishes to support its stakeholders in participating in BBI proposals or projects. Some regions provide support to companies (e.g. SMEs) in proposals preparation, others may provide a back-up funding in case stakeholders from their regions are not awarded a BBI grant, even though BBI evaluation of the proposal has been positive. We recommend applicants to check with their own region if such opportunities exist.

8. How can I (region) create a favourable eco-system for innovation and the bioeconomy in view of boosting synergies with the BBI?

There are various examples on how regions can support regional bioeconomy innovation eco-systems, e.g. by using ESIF investments in Regional Research Infrastructure which can then be used by BBI research projects. Regions can also make use of European Social Funds to support training and capacity building in their region on the bioeconomy, which may then stimulate excellent collaboration in the BBI. Some examples are elaborated in this Guide.

9. Are Calls for Proposals and application procedures for BBI and ESIF synchronised?

No, they are not. Each funding authority applies its own application, evaluation and funding procedures. This means that in cases of potential joint funding of projects or a set of related projects, beneficiaries always have to inform themselves about the different procedures, timelines and rules.

10. Are cost definitions and reporting rules between BBI and ESIF the same?

No. Each funding programme has its own rules so it is likely that there will be differences in cost definitions and reporting rules, or the way they are applied by the different managing authorities. BBI recommends applicants and beneficiaries to inform themselves about the rules and keep detailed accounts of their projects, including costs and different funding sources in case of joint funding between BBI and ESIF.

11. Which are the regions focusing on the bioeconomy?

There is no standard definition of bioeconomy regions. However there are various sources of information that can help you to identify which regions focus on the bioeconomy. See:

- <http://s3platform.jrc.ec.europa.eu/home>
- http://ec.europa.eu/research/bioeconomy/index_en.htm
- http://ec.europa.eu/research/bioeconomy/press/countries_projects/
- http://ec.europa.eu/research/bioeconomy/policy/observatory_en.htm



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