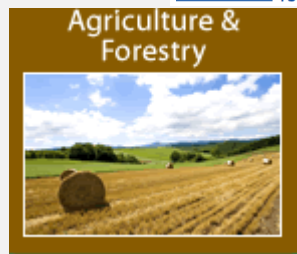


HORIZON 2020 - Societal Challenge 2

“Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy”

Programa de trabalhos 2014/15 (draft)

Maria João Fernandes
GPPQ/FCT

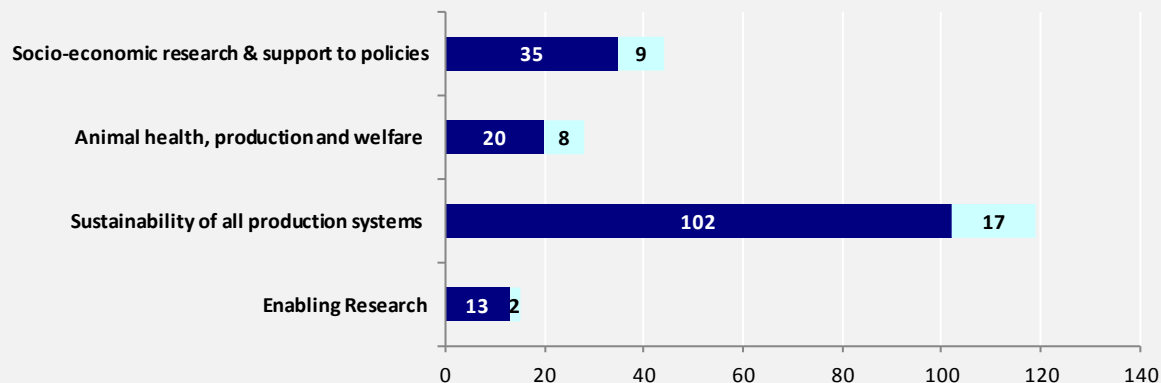


Food, Agriculture and Fisheries, and Biotechnology (KBBE) – Principais áreas de interesse PT

7º PQ
(2007-2013)

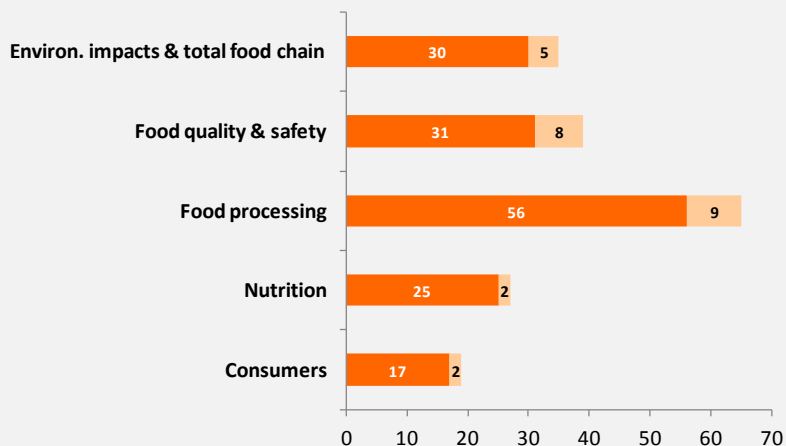
Activity 1

Sustainable production and management of biological resources from land, forest and aquatic environment



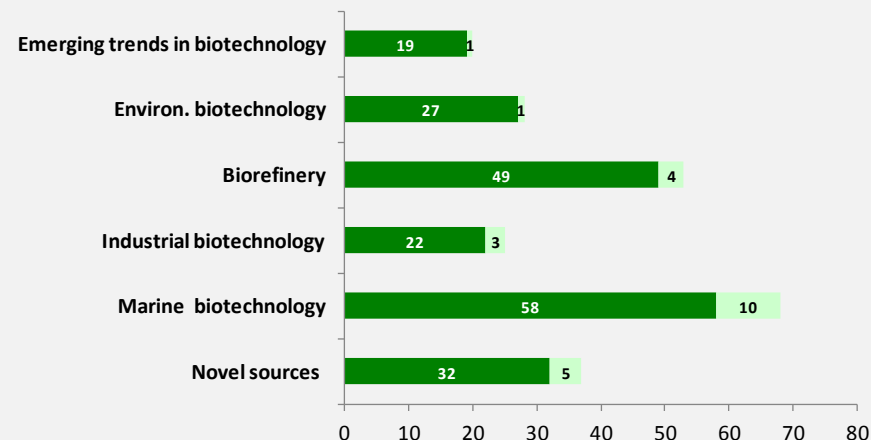
Activity 2

Fork to farm: Food (including seafood), health and well being

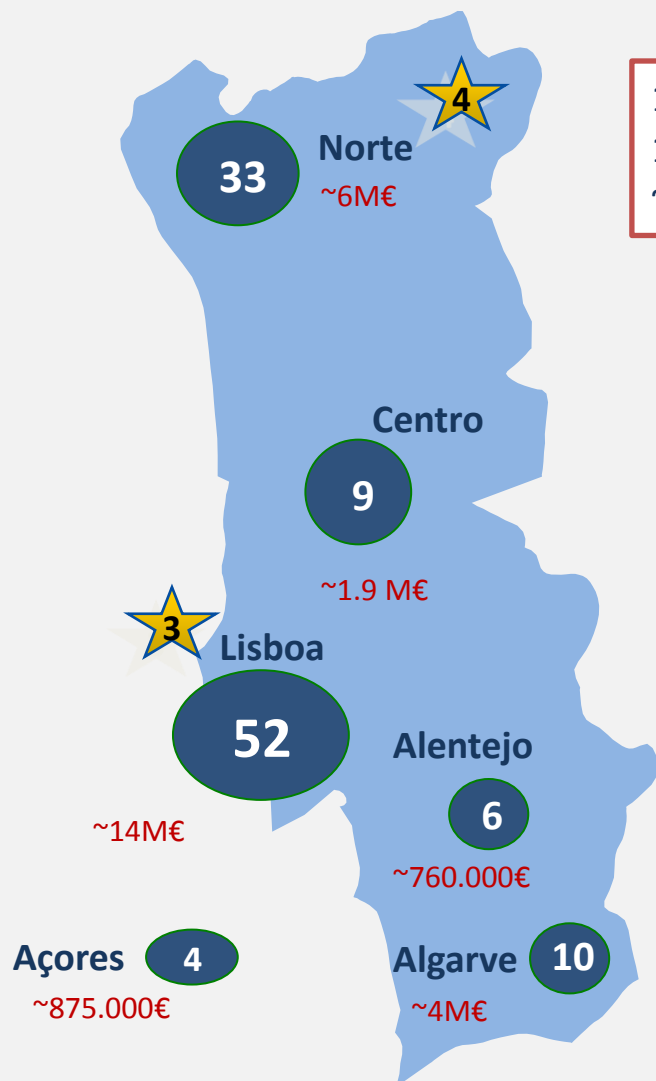


Activity 3

Life sciences, biotechnology and biochemistry for sustainable non-food products and processes



Participação PT nos concursos KBBE (2007-2013) – dados provisórios

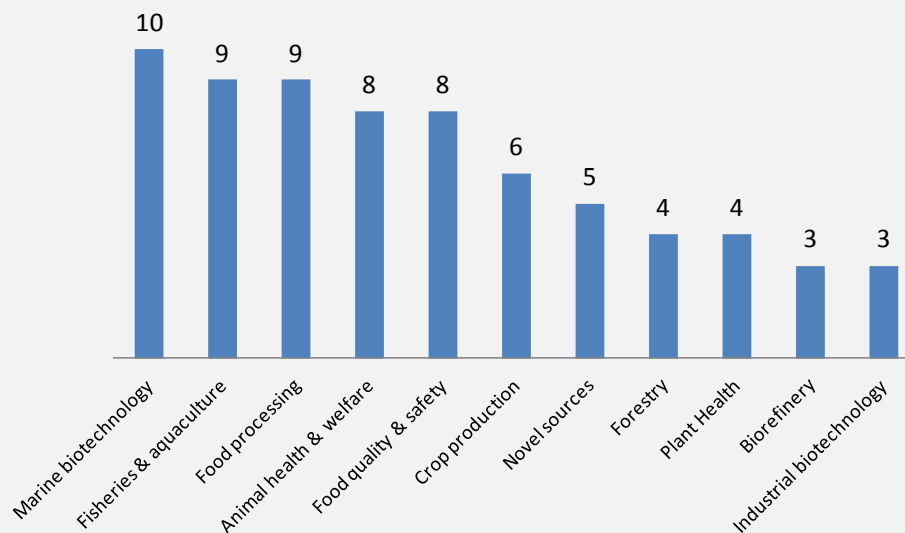


107 projetos aprovados
147 participantes
~31 M€

7 Coordenações Nacionais

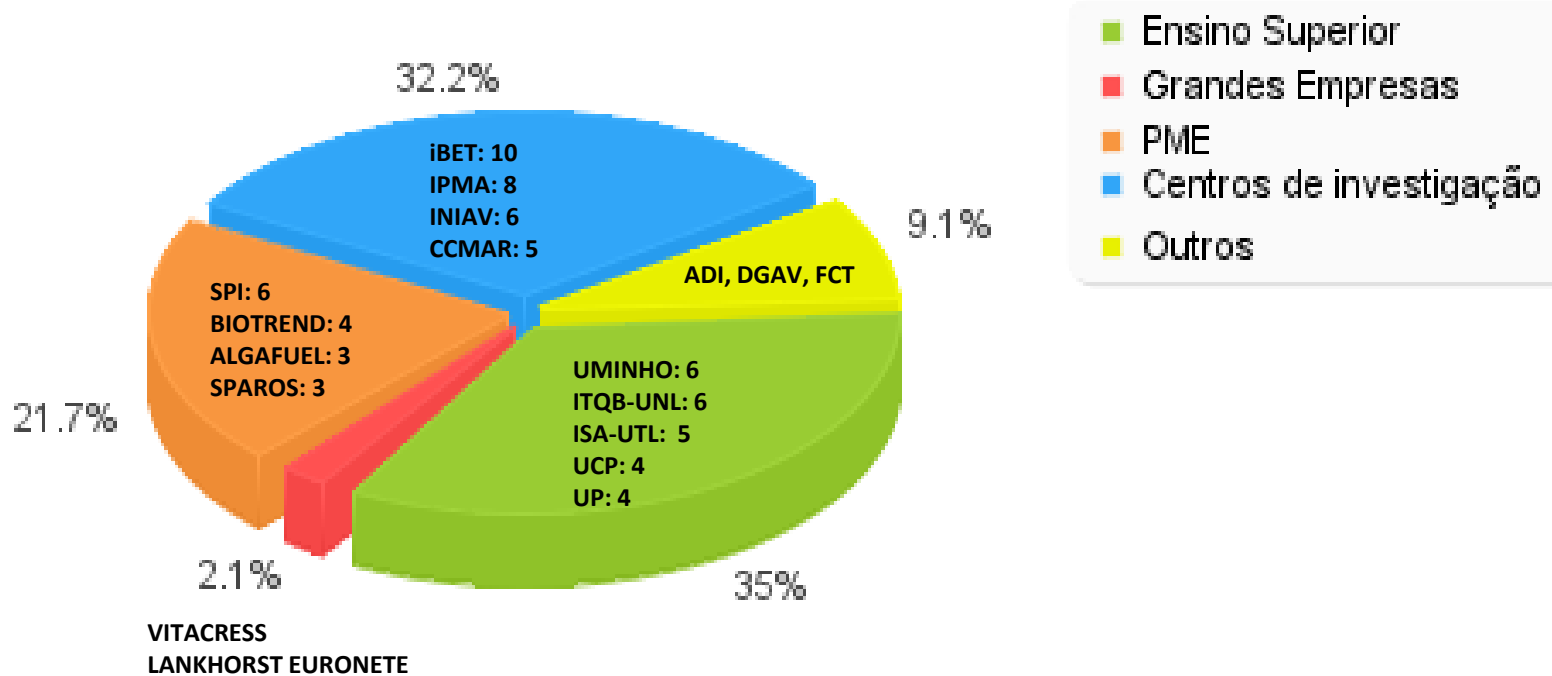
ESB-UCP	1
FMV-UTL	2
UTAD	1
UMinho	1
SPI	1
IPMA	1

Principais áreas de interesse



Algumas entidades nacionais com mais projetos aprovados no tema KBBE (2007-2013)

Participações por Tipo de Entidade no tema KBBE



Participação da região da Madeira no tema KBBE (2007-2013)

6 propostas submetidas (*calls* 2007, 2009 e 2013):

- 1 proposta não elegível
- 4 propostas rejeitadas após a avaliação
- 1 proposta em lista de reserva



Áreas do tema KBBE:

Sustainable production and management of biological resources from land, forest and aquatic environment

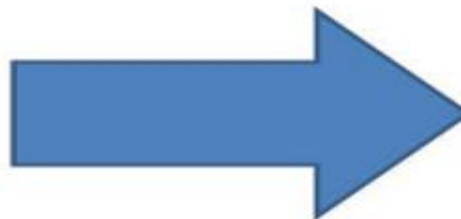
- Agricultura
- Pescas & aquacultura

- Novas fontes de biomassa e bioprodutos
- Biotecnologia marinha

Life sciences, biotechnology and biochemistry for sustainable non-food products and processes



(2007 – 2013)



(2014 – 2020)

HORIZONTE 2020

Excelência
Científica

Liderança
Industrial

Desafios
Sociais

1. **Saúde**, alterações demográficas e bem-estar
2. **Segurança alimentar**, agricultura e silvicultura sustentáveis, investigação marinha, marítima e águas interiores e a bioeconomia
3. **Energia segura**, eficiente e sustentável
4. **Transportes** inteligentes, verdes e integrados
5. **Ação Climática, ambiente**, eficiência de recursos e matérias primas
6. A Europa num Mundo em mudança - **Sociedades inclusivas, inovadoras e pensadoras**
7. **Sociedades seguras** - proteção da segurança da Europa e dos seus cidadãos

2. Segurança alimentar, agricultura e silvicultura sustentáveis, investigação marinha, marítima e de águas interiores e a bioeconomia

Objetivo

Garantir um abastecimento adequado de alimentos seguros e de qualidade e de outros produtos de base biológica, através do desenvolvimento de sistemas de produção primária produtivos e eficientes na utilização dos recursos e a promoção de serviços ecossistémicos conexos, juntamente c/ cadeias de abastecimento competitivas e hipocarbónicas, para acelerar a transição p/ uma bioeconomia europeia sustentável.

Linhas de Ação

- 1 *Agricultura e silvicultura sustentáveis*
- 2 *Setor agro-alimentar sustentável e competitivo para um regime alimentar seguro e saudável*
- 3 *Desbloquear o potencial dos recursos vivos aquáticos*
- 4 *Bioindústrias sustentáveis e competitivas e apoio ao desenvolvimento de uma bioeconomia europeia*
- 5 *Investigação transversal marinha e marítima*

*Orçamento proposto (2014-2020): 3851 M€ (tbc)
(~5% orçamento H2020).*

Bioeconomia: uma prioridade da UE



Contexto Político → Iniciativas da UE de apoio ao Desafio 'Bioeconomia'

- Política Agrícola Comum (Política de Desenvolvimento Rural)
- Política Comum das Pescas
- Política Marítima Integrada e Directiva-Quadro Estratégia Marinha
- Plano de Ação para as Florestas
- Estratégia Temática de Proteção do Solo
- Estratégia de Biodiversidade para 2020
- Estratégias de Fitosanidade, de Saúde e de Bem-estar animal
- Parceria Europeia de Inovação para a Agricultura (EIP-AGRI)

O DS2 aborda uma vasta gama de políticas europeias-chave com o objetivo de promover uma 'Bioeconomia Inovadora, Sustentável e Inclusiva', alinhada com a Estratégia "Inovação para um Crescimento Sustentável: Bioeconomia para a Europa" (Fev, 2012)

Societal Challenge 2 >> WP 2014 - 2015

ANNEX 12 TO THE DECISION

http://ec.europa.eu/research/horizon2020/pdf/work-programmes/food_draft_work_programme.pdf#view=fit&pagemode=none

HORIZON 2020
WORK PROGRAMME 2014 – 2015

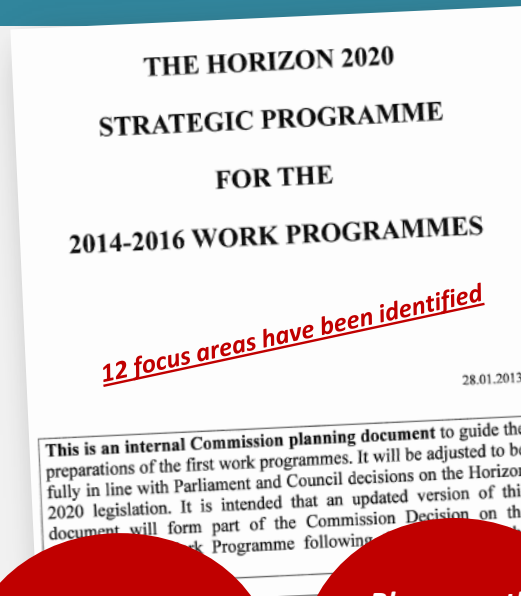
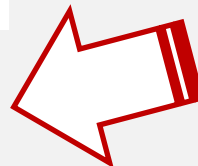
- 9. **Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy**

INFORMAL DRAFT DISCUSSION DOCUMENT

(European Commission Decision C(2013)XXX of 10 December 2013)

Important notice:

The present document is meant to facilitate the discussions towards the preparation of the work programme 2014 – 2015. It does not at this stage cover all relevant aspects and it does not prejudice the outcome of the on-going inter-institutional negotiations on Horizon 2020 or internal work on cross-cutting aspects. Hence, it remains subject to change.



Sustainable food security

Blue growth: unlocking the potential of the oceans

Water innovation: boosting its value for Europe

Waste: a resource to recycle, reuse and recover raw materials

Personalising health and care

As atividades visam tirar o melhor partido dos nossos recursos biológicos de uma forma sustentável

HORIZONTE 2020 – Desafio Societal 2

Segurança alimentar, agricultura e silvicultura sustentáveis, investigação marinha, marítima e de águas interiores e a bioeconomia

Total: 48 tópicos

SC2 Specific Programme

1. *Sustainable Agriculture and Forestry*
2. *Sustainable and Competitive agri-food sector for a safe and healthy diet*
3. *Unlocking the potential of aquatic living resources*
4. *Sustainable and competitive bio-based industries and supporting the development of a European bio-economy*
5. *Cross-cutting marine and maritime research*

WORK PROGRAMME 2014-2015

Call 'Sustainable Food Security' (SFS)

#20 topics, 244M€

Call 'Blue Growth' (BG)

#16 topics, 145M€

Call 'Innovative, Sustainable and Inclusive Bioeconomy' (ISIB)

#12 topics, 87,5M€

+

Personalising Health and Care Focus Area

#1 topic, 15M€

Waste Focus Area

#2 topics, 24M€

Water Focus Area

#1 topic, 11M€

Data de encerramento dos concursos em 2014:

12 Março e 26 Junho

Societal Challenge 2 >> WP 2014 – 2015 (1)

SFS - Call “Sustainable Food Security” (#20 tópicos)

- *Sustainable food production systems*
- *Safe food and healthy diets and sustainable consumption*
- *Global drivers of food security*

As atividades propostas nesta *call* pretendem desenvolver sistemas de produção (aquáticos/terrestres) competitivos e c/ máxima eficiência de recursos, cobrindo: a eco-intensificação da produção; a gestão sustentável dos recursos naturais; tecnologias p/ uma cadeia alimentar sustentável; alimentos seguros e dietas saudáveis p/ todos; sistema global de segurança alimentar.

As ações de I&I cobrem toda a cadeia alimentar, tanto do lado da oferta como da procura.

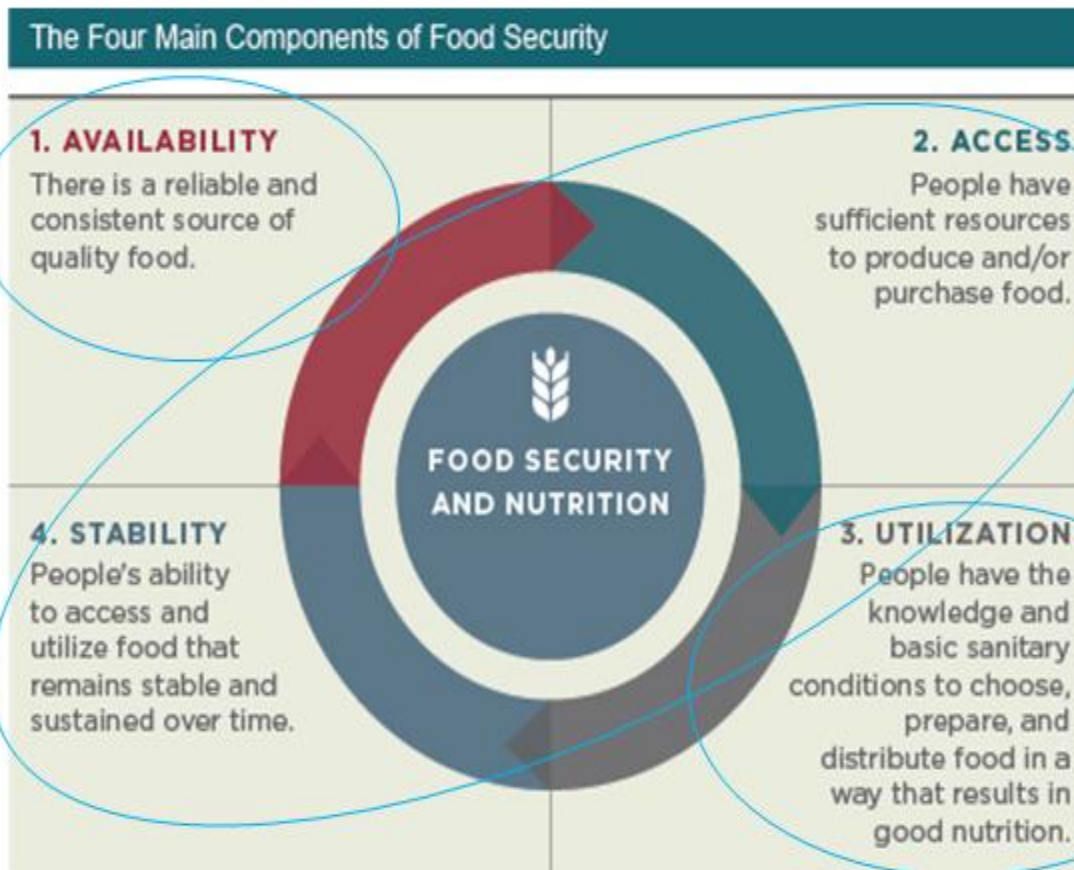


As ações nesta área irão apoiar a abordagem da UE para a Segurança Alimentar, a iniciativa emblemática da UE para uma Europa eficiente em termos de recursos, a Parceria Europeia de Inovação ‘Produtividade e Sustentabilidade Agrícolas’, Agenda de cooperação p/ o desenvolvimento pós-2015, Estratégia da Biodiversidade da UE p/ 2020, a Política Comum das Pescas, a reforma da Política Agrícola Comum.

Societal Challenge 2 >> Approach to Sustainable Food Security

Food production systems

Global drivers of food security



Safe foods, healthy diets, sustainable consumption

SFS - Call for 'Sustainable Food Security' (1)

<i>Sustainable food production systems (#11 topics)</i>	2014	2015
SFS 1 – 2014/2015: Sustainable terrestrial livestock production (RIA) A. Genetics and nutrition and alternative feed sources B. Tackling losses from animal diseases C. Assessing sustainability	X	X
SFS 2 – 2014/2015: Sustainable crop production (RIA) A. External nutrient inputs B. Assessing soil-improving cropping systems	X	X
SFS 3 – 2014: Practical solutions for native and alien species affecting plants (RIA) A. Native and alien pests in agriculture and forestry B. EU-China cooperation on IPM in agriculture	X	
SFS 4 – 2014: Soil quality and function (RIA)	X	
SFS 5 – 2015: Strategies for crop productivity, stability and quality (RIA)		X
SFS 6 – 2014: Sustainable intensification pathways of agro-food systems in Africa (CSA)	X	
SFS 7 – 2015: Genetic resources and agricultural diversity for food security, productivity and resilience (RIA) A. Traditional resources for agricultural diversity and the food chain B. Management and sustainable use of genetic resources		X
SFS 8 – 2014/2015: Resource-efficient eco-innovative food production and processing (SME Instr)	X	X
SFS 9 – 2014: Towards a gradual elimination of discards in European fisheries (RIA)	X	
SFS 10 – 2014/2015: Tackling disease related challenges and threats faced by European farmed aquatic animals (RIA) A. Scientific basis and tools for preventing and mitigating parasitic diseases in European farmed fish B. Scientific basis and tools for preventing and mitigating farmed mollusc diseases	X	X
SFS 11– 2014/2015: Implementation of an Ecosystem-based approach for European aquaculture (RIA) A. Optimised space availability for European aquaculture B. Consolidating the environmental sustainability of European aquaculture	X	X

SFS - Call for 'Sustainable Food Security' (2)

<i>Safe food and healthy diets and sustainable consumption (#6 tópicos)</i>	2014	2015
SFS 12 – 2014: Assessing the health risks of combined human exposure to multiple food-related toxic substances (RIA)	X	
SFS 13 – 2014: Biological contamination of crops and the food chain (RIA)	X	
SFS 14 – 2014/2015: Authentication of food products A. Authentication of olive oil (RIA) B. Authentication of food products (CSA)	X	X
SFS 15– 2014: Proteins of the future (RIA)	X	
SFS 16– 2015: Tackling malnutrition in the elderly (RIA)		X
SFS 17– 2014: Innovative solutions for sustainable novel food processing technologies	X	
<i>Global drivers of food security (#3 tópicos)</i>	2014	2015
SFS 18 – 2015: Small farms but global markets: the role of small and family farms in food and nutrition security (RIA)		X
SFS 19 – 2014: Sustainable food and nutrition security through evidence based EU agro-food policies (RIA) A. Strengthening the analytical capacity on food and nutrition security B. Understanding relevant issues impacting the agro-food sector	X	
SFS 20 – 2015: Sustainable food chains through public policies: the cases of the EU quality policy and of public sector food procurement (RIA)	X	

Call SFS - Sustainable food production systems

SFS-2-2014/2015: Sustainable crop production

Specific challenge: European crop production is facing more and more difficulties in remaining competitive in the global market for many reasons. Some of these reasons are the loss of soil fertility and the consequent massive use of expensive external nutrient inputs, notably Nitrogen and Phosphorous, for which European agriculture is almost totally dependent on imported products, or on fertilizers produced with expensive industrial processes, which generates greenhouse gases (GHGs). Therefore, more sustainable crop management strategies are needed to maintain or increase soil fertility. Inappropriate soil and water management and the overuse of external inputs in intensive crop production systems, represent an economic loss for the farmer and a significant burden for the environment and subsequent impact on human health, as they contribute significantly to ground water and surface water pollution, GHGs emissions, the build-up in soil contaminants, such as heavy metals and organic pollutants. Better soil management and optimisation of fertilisers are of paramount importance for conciliating the necessary competitiveness and the long-term sustainability of the entire intensive crop production sector in Europe.

A. [2014] External nutrient inputs

B. [2015] Assessing soil-improving cropping systems



Ex. de tópicos com potencial interesse para a Madeira



SFS-7-2014/2015: Genetic resources and agricultural diversity for food security, productivity and resilience

Specific challenge: Genetic diversity in agriculture and forestry - both within and between species - is commonly recognised as a pre-requisite to ensure food security, productivity as well as resilience of crops, forests and animals vis-à-vis biotic and abiotic threats in changing environments. Widening the genetic basis of crops, forest trees and animals as well as diversifying production is therefore essential. This requires coordinated efforts to enhance conservation, access and use of a wide range of genetic resources conserved in ex-situ and in-situ/on-farm conditions. Local livestock breeds, forest plants and crops are a particularly important source of genetic variation as they are associated with a number of favourable characters such as robustness, adaptation to local - often marginal - conditions or organoleptic and health attributes. They also provide the basis for products with a regional identity for which there is increased consumer interest. Despite these benefits their use has been decreasing partly because of lower productivity as compared to modern, high yielding and more uniform breeds and varieties. The improvement of local breeds and crops provides opportunities for diversification in agriculture along with new openings for regional, high quality products and for economic development.

A. [2014] Traditional resources for agricultural diversity and the food chain

B. [2015] Management and sustainable use of genetic resources

Societal Challenge 2 >> WP 2014 – 2015 (2)

BG - Call “Blue Growth”

(# 16 tópicos)

- *Sustainably exploiting the diversity of marine life*
- *New offshore challenges*
- *Ocean observation technologies/systems*
- *Horizontal aspects, socio-economic sciences, innovation, engagement with society and ocean governance across the blue growth focus area*

Call especificamente dedicada ao “crescimento azul”, tendo como objetivo melhorar a compreensão das interações complexas entre as várias atividades e tecnologias marítimas, incluindo aplicações compatíveis p/ o espaço e p/ o ambiente marinho, tendo em vista impulsionar a economia marinha e marítima e acelerar o seu potencial através da I&I.

Ênfase na cooperação do Oceano Atlântico em apoio da ‘Atlantic Ocean Cooperation Research Alliance’ (Galway Statement, 05/ 2013)

Integração de contribuições dos DS ‘Energia’, ‘Transportes’, ‘Ação climática’

As ações nesta área irão apoiar a “Agenda para o crescimento azul” da UE e outras políticas relevantes , assim como promover a cooperação transatlântica.

BG - Call for 'Blue Growth: Unlocking the potential of the Oceans' (1)

<i>Sustainable exploiting the diversity of marine life (#4 tópicos)</i>	2014	2015
BG 1 – 2015: Improving the preservation and sustainable exploitation of Atlantic marine ecosystems (RIA)		X
BG 2 – 2015: Forecasting and anticipating effects of climate change on fisheries and aquaculture (RIA) A. Understanding how climate change may affect the most important European exploited fish stocks B. Investigate the potential effects and consequences of climate change on aquaculture		X
BG 3 – 2014: Novel marine derived biomolecules and industrial biomaterials (RIA)	X	
BG 4 – 2014: Enhancing the industrial exploitation potential of marine-derived enzymes (IA)	X	
<i>New offshore challenges (#3 tópicos)</i>	2014	2015
BG 5 – 2014: Preparing for the future innovative offshore economy (CSA)	X	
BG 6 – 2014: Delivering the sub-sea technologies for new services at sea (RIA)	X	
BG 7 – 2015: Response capacities to oil spills and marine pollutions (RIA)		X
<i>Ocean observation technologies/systems (#2 tópicos)</i>	2014	2015
BG 8 – 2014: Developing in-situ Atlantic Ocean Observations for a better management and exploitation of the maritime resources (RIA)	X	
BG 9 – 2014: Acoustic and imaging technologies (RIA)	X	

BG - Call for 'Blue Growth: Unlocking the potential of the Oceans' (2)

Horizontal aspects, socio-economic sciences, innovation, engagement with society and ocean governance across the blue growth focus area (#7 tópicos)	2014	2015
BG 10 – 2014: Consolidating the economic sustainability and competitiveness of European fisheries and aquaculture sectors to reap the potential of seafood markets (RIA)	X	
BG 11 – 2014: Monitoring marine and maritime research, disseminating and valorising research outputs and disseminating activities (CSA)	X	
BG 12 – 2014/2015: Supporting SME efforts for the development – deployment and market replication of innovative solutions for blue growth (SME Instr)	X	X
BG 13 – 2014: Ocean literacy – Engaging with society – Social innovation (CSA)	X	
BG 14 – 2014: Supporting flagship international cooperation initiatives: Atlantic Ocean Cooperation Research Alliance (CSA)	X	
BG 15 – 2015: European polar research cooperation (CSA)		X
BG 16 – 2015: Coordination action in support of the implementation of the Joint Programming Initiative on 'Healthy and Productive Seas and Oceans'		X

Call BG – Sustainable exploiting the diversity of marine life

BG-2-2015: Forecasting and anticipating effects of climate change on fisheries and aquaculture

Specific challenge Global warming and climate change are likely to affect all the biosphere's components and impact the functioning of the aquatic ecosystems and the living organisms that populate them. In the context of an increasing global population and demand for sufficient and safe food supplies, it is critical to predict and anticipate the nature and magnitude of potential impacts of climate change on food production systems. A lot of scientific effort is put on the understanding of the interrelations between the oceans and the climate system, which is also a key prerequisite for predicting and anticipating potential consequences of climate change on seafood production methods and systems. Ensuring sufficient preparedness and quick adaptation capacity of European fisheries and aquaculture including inland to potential threats and opportunities due to climate change might be decisive for the long term sustainability of the two sectors, as well as for guaranteeing to European consumers and societies an acceptable degree of self-sufficiency of seafood supplies.



Ex. de tópicos com potencial interesse para a Madeira



BG-3-2014: Novel marine derived biomolecules and industrial biomaterials

Specific Challenge: Due to the rich biodiversity and the specific physical and chemical conditions of the marine ecosystems, seas and oceans possess the capacity to produce a variety of molecules with unique features, unmatched biochemical diversity and structural complexity. This explains the increased recognition of marine organisms as a source of bioactive compounds and biomaterials with biotechnological, pharmaceutical or other industrial application. However, while an increasing number of marine -derived products are becoming commercialized, increasing the efficiency of the marine biodiscovery pipelines and developing sustainable technologies using marine sources in an environmentally responsible manner are still important challenges to be addressed.

Scope: Proposals should aim to develop innovative approaches to address the technical bottlenecks of marine resource identification, sustainable supply, discovery pipelines (e.g.

separation, structure elucidation, identification of the profile of bioactives, de-replication strategies, mode of action, etc.) as well as more efficient production in biological systems. Proposals should be industry-driven. Proposals should cover the innovation chain from research, to development, and proof of concept. Legal aspects linked to securing clear access to marine resources, including related infrastructures and bio-resources banks and collections, their sustainable use as well as Access and Benefit Sharing aspects, should be properly considered. Environmental viability of the proposed concept should also be taken on board.

Societal Challenge 2 >> WP 2014 – 2015 (3)

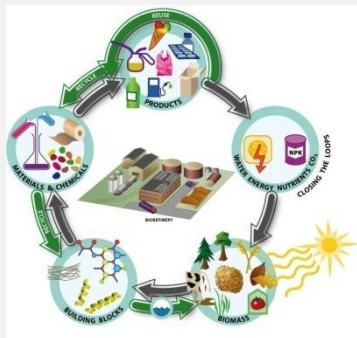
ISIB – Call “ Innovative, Sustainable and Inclusive Bioeconomy”

(# 12 tópicos)

- Sustainable agriculture and forestry
- Sustainable and competitive bio-based industries
- Cross-cutting actions covering all activities

Esta *call* inclui atividades destinadas a apoiar a agricultura sustentável e os processos de gestão florestal que contribuem p/ o fornecimento de bens públicos e produtos inovadores p/ o crescimento sustentável promovendo a inovação (incluindo a inovação social) em zonas rurais p/ um crescimento inclusivo e o reforço da inovação nas bio-indústrias p/ um crescimento inteligente.

Alinhada c/ a estratégia da Bioeconomia e c/ atividades complementares às das calls SFS e BG



*As atividades propostas nesta call foram concebidas para serem complementares das que vierem a ser implementadas pela **JTI on Bio-Based Industries** e visa o lado da oferta da biomassa p/ bioprodutos da cadeia de valor através do desenvolvimento de matérias-primas inovadoras, I&I na próxima geração de biorefinarias utilizando CO2 como matéria prima direta e apoiando os mercados p/ os produtos de base biológica.*

ISIB - Call for an 'Innovative, Sustainable and Inclusive Bioeconomy' (1)

<i>Sustainable Agriculture and Forestry</i> (#4 tópicos)	2014	2015
ISIB 1 – 2014: Provision of public goods by EU agriculture and forestry : Putting the concept into practice (RIA)	X	
ISIB 2 – 2014/2015: Closing the research and innovation divide: the crucial role of innovation brokering and knowledge exchange (CSA)	X	X
ISIB 3 – 2015: Unlocking the growth potential of rural areas through enhanced governance and social innovation (RIA)		X
ISIB 4 – 2014/2015: Improved data and management models for sustainable forestry (RIA) A. Improved forest data B. Improved forest management models	X	X
<i>Sustainable and competitive bio-based industries</i> (#3 tópicos)	2014	2015
ISIB 5 – 2014: Renewable oil crops as a source of bio-based products (RIA)	X	
ISIB 6 – 2015: Converting CO2 into chemicals (RIA)		X
ISIB 7 – 2014: Public procurement networks on innovative bio-based products (CSA)	X	

ISIB - Call for an ‘Innovative, Sustainable and Inclusive Bioeconomy’ (2)

<i>Cross-cutting actions covering all activities (#7 topics)</i>	2014	2015
<p>ISIB 8 – 2014: Towards an innovative and responsible bioeconomy (CSA)</p> <ul style="list-style-type: none"> A. Engaging society, reaching end users and linking with policy makers for a participative governance of the bioeconomy B. Bridging research and innovation efforts for a sustainable bioeconomy 	X	
<p>ISIB 9 – 2014: Supporting National Contact Points for Horizon 2020 Societal Challenge 2 on ‘Food Security, Sustainable Agriculture, Marine and Maritime Research and the Bioeconomy’ and the Key Enabling Technology (KET) ‘Botechnology’ (CSA)</p>	X	
<p>ISIB 10 – 2014: Networking of Bioeconomy relevant ERA-NETs (CSA)</p>	X	
<p>ISIB 11 – 2014: Coordination action in support of the implementation by participating States of a Joint Programming Initiative on Agriculture, Food Security and Climate Change (CSA)</p>	X	
<p>ISIB 12 – 2015: Public-Public Partnership in the Bioeconomy (ERANET)</p> <ul style="list-style-type: none"> A. Sustainable and resilient agriculture for food and non-food systems B. Public-private partnership in rural development C. Monitoring and mitigation of agricultural GHG D. Sustainable crop production E. Sustainable livestock production F. Biomarkers for nutrition and health 		X

Call ISIB – Sustainable and competitive bio-based industries

ISIB-5-2014: Renewable oil crops as a source of bio-based products

Specific challenge: At present, oils crops are already an important source of innovative bio-based products such as bioplastics, lubricants, paints or added value fine chemicals. With the opening of new markets for these products the demand for oil crops is increasing. The challenge for Europe here is to sustainably match this demand without increasing our dependency on external biomass or competing with food production or increasing environmental pressure (particularly on soil and land). The development of dedicated and optimised multipurpose oil crops, the full use of the biomass in a cascade approach as well as the environmentally sound and sustainable use of natural resources should be key to meet this challenge.

Scope: Proposals should focus on development of dedicated and optimised oil crops adapted to industrial needs. Research should encompass gene discovery and optimisation through to full use of biomass oil including vegetative tissues and ensure efficient exploitation of the residual biomass through modern breeding technologies. It should consider the environmental aspects (e.g. organic matter levels, biodiversity impact and water needs) of such full use of biomass. It should also ensure development of oil production with sufficient quantity, quality and homogeneity. The concepts should take into account the cascading approach and focus on added value products. A strong participation of SMEs should contribute to the realisation of the expected outcomes. Proposals should include demonstration activities to assess the techno-economic viability of the proposed concepts. The Technology Readiness Levels covered by the projects should range from 4 to 6; please see part G of the general Annexes. The overall economic, social and environmental sustainability issues as well as its Life Cycle Assessment should also be critical elements.



Ex. de tópicos com potencial interesse para a Madeira

ISIB-6-2015: Converting CO₂ into chemicals

Specific challenge: The CO₂ originating from the use of fossil resources continues to accumulate in the atmosphere, accelerating climate change with disrupting impacts on the biosphere. The chemical industry which heavily relies on these non-renewable and scarce fossil resources is looking for sustainable alternative resources to deliver the chemicals our society needs without the related environmental burden. While there are important scientific and technological challenges hindering the exploitation of CO₂ as a chemical feedstock, it offers great potential to couple environmental protection and economic growth.

Scope: Proposals should address innovative technologies to use CO₂ from the atmosphere or captured in industrial processes as a direct feedstock for chemical production beyond algal biorefinery concepts. One or several routes that involve the conversion of CO₂ into valuable chemicals should be explored, such as (photo) catalytic or biochemical/enzymatic or other novel process technologies. Examples include the use of microbial electrosynthesis, the use of photosystems from plants outside the plant cells - or to construct artificial carbon fixation pathways that are more efficient than naturally occurring ones. The Technology Readiness Levels covered by the projects should range from 3 to 5; please see part G of the general Annexes.

BBI – Biobased Industries Initiative

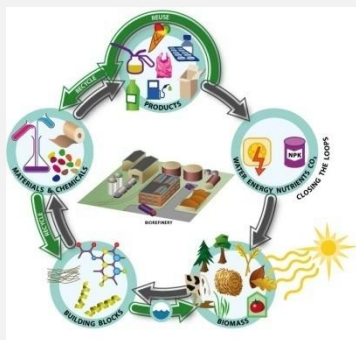
Uma possível **PPP na área das bioindústrias** aparece explicitamente referida no H2020 e na estratégia europeia para uma bioeconomia sustentável. <http://biconsortium.eu/>

- Iniciativa conjunta para apoiar a inovação e superar os desafios das bioindústrias
- Focalizada no desenvolvimento de cadeias de valor de base biológica integradas
 - Integração inter-setorial – da produção de biomassa até aos mercados e produtos
 - Facilitada pela concretização de projetos emblemáticos e de demonstração

*Matéria
prima*

Biorefinerías

*Mercados,
produtos e
políticas*



Vai incidir na transformação de partes não comestíveis de plantas e resíduos biodegradáveis em bioprodutos e biocombustíveis

A PPP na área das bioindústrias será financiada pelo orçamento alocado ao Desafio Societal 2

Indicative budget: 3.8b€ [2014-2020]

(1b€ H2020 + 2.8b€ BBI)

Societal Challenge 2 >> WP 2014 - 2015

-> Contribuição para outros Desafios Societais (1)

Call “Waste”

A resource to recycle, reuse and recover raw materials

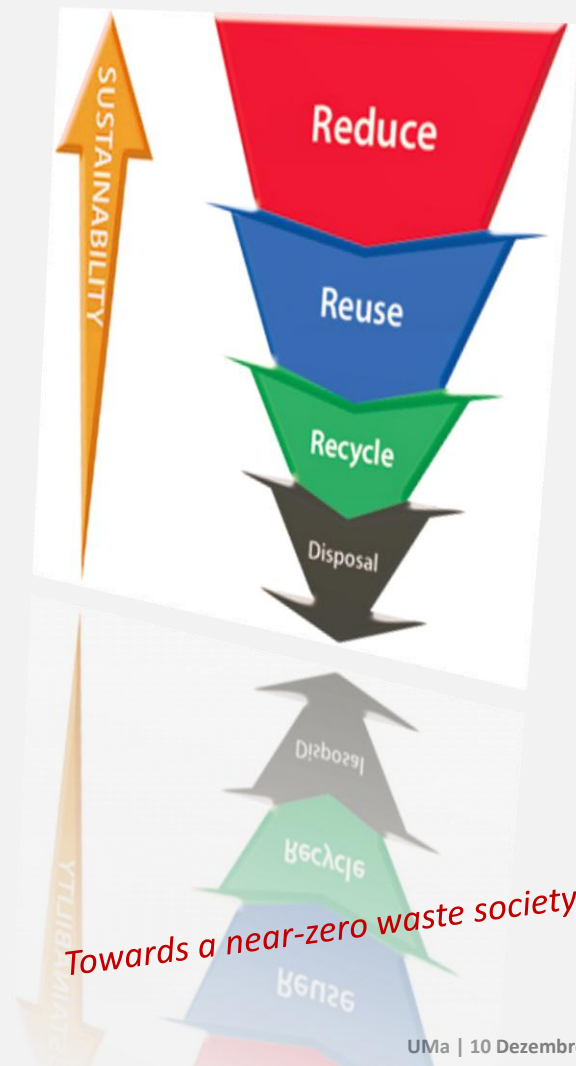
(gerida pelo DS5)

WASTE 2-2014: A systems approach for the reduction, recycling and re-use of food waste (RIA)

WASTE 7-2015: Ensuring sustainable use of agricultural waste, co-products and by-products (RIA)

Esta *call* pretende impulsionar e tornar mais inovadoras e amigas do ambiente as soluções de gestão e prevenção de resíduos c/ o objetivo de potenciar a eficiência de recursos e a proteção ambiental.

As PPP em Recursos e eficiência energética (SPIRE) e Bioindústrias (BBI) irão contribuir p/ os objetivos desta call. As atividades deverão contribuir p/ os objetivos definidos no roteiro p/ uma Europa Eficiente na utilização de recursos.



Societal Challenge 2 >> WP 2014 - 2015

-> Contribuição para outros Desafios Societais (2)

**Call “Water Innovation”
Boosting its values for Europe**

(gerida pelo DS5)

WATER 4-2014/2015: Harnessing EU water research and innovation results for industry, agriculture, policy makers and citizens (CSA)

Esta *call* pretende aproveitar as novas oportunidades de mercado associadas à melhoria do estado dos recursos hídricos de modo a posicionar a Europa como líder global de mercado em soluções inovadoras relacionadas c/ a água.

Treasuring our water



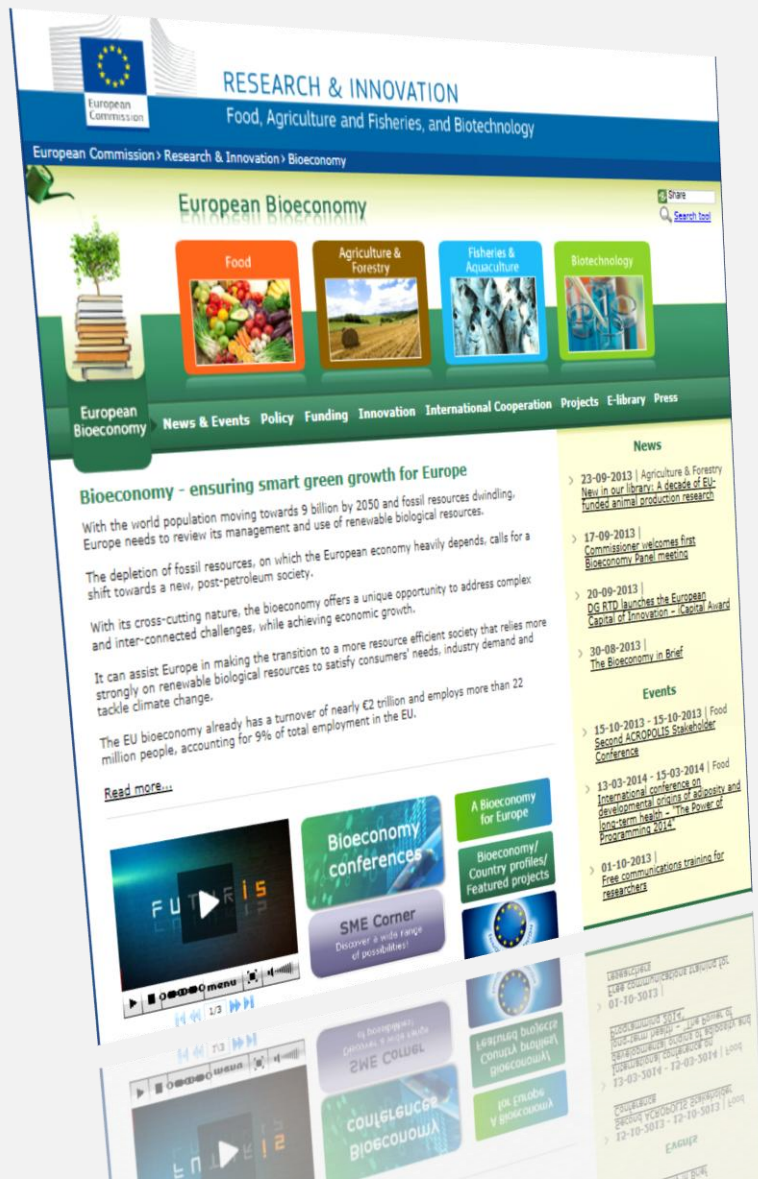
Call “Personalising Health and Care”

(gerida pelo DS1)

PHC 7-2014: Improving the control of infectious epidemics and foodborne outbreaks through rapid identification of pathogens (RIA)

Informações sobre a Bioeconomia na UE

<http://ec.europa.eu/research/bioeconomy>



Projects

e-Library

- Archives**
- > [Success stories](#)
 - > [Current project](#)
 - > [Finished projects](#)

- More info**
- > [FP7](#)
 - > [FP6](#)
 - > [FP5](#)
 - > [FP4](#)
- More information on Research and Innovation DG publications can also be found at the :
- > [Research and Innovation DG publication library](#)
- More publications on :
- > [EUBOOKSHOP](#)

Calendarização

- ✓ **Início do H2020** → 1 Jan 2014
- ✓ **Publicação dos 1^{os} concursos (WP 2014/15)** → 11 Dez 2013
- ✓ **Lançamento oficial do H2020 in Portugal** → 13 Dez 2013

✓ **Info Day em Bruxelas** → DS2: 17 Jan 2014

http://ec.europa.eu/research/bioeconomy/news-events/news/20140117_en.htm

Outros eventos relevantes:

- **Workshop da EIP-AGRI** no âmbito do H2020
Bruxelas, 14/01/2014
http://ec.europa.eu/agriculture/eip/events/eip-research-wokshop-2014_en.htm
- **SusChem Brokerage & Project Submission Workshop**
Bruxelas, 31/01/2014
<http://www.suschem.org>





GPPQ

Gabinete de Promoção do Programa-Quadro

Av. D. Carlos I, nº126, 4º
1249-074 Lisboa - Portugal

www.gppq.fct.pt



BIO ECONOMIA
BBI



Maria João Fernandes

🏠 Instituto de Biologia Experimental e Tecnológica
Av. República, Qta. do Marquês (EAN), Apartado 12
2781-901 OEIRAS

✉ mariajoao.fernandes@fct.pt

☎ +351 21 446 93 41