

## Bioeconomy support in Horizon 2020

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## What is Horizon 2020 ?

- A core part of Europe 2020, Innovation Union and European research area (ERA)
  - Responding to economic crisis to invest to future growth and jobs
  - Addressing people's concerns about their livelihoods, safety and environment
  - Strengthening the EU's global position in research, innovation and technology
  
- Budget 79 bill. Euro (2014 – 2020)

## Horizon 2020 – SC2



## 2016/2017- objectives

**Ensure food and nutrition security, by fostering resilient and resource efficient** primary production and industry as well as **sustainable and healthy consumption**

**Demonstrate the innovative potential of the oceans,** by bringing technology to market

**Foster innovation and business opportunities for rural and coastal areas,** through new territorial approaches and business models

**Re-industrialise Europe,** through new bio-based value-chains, while securing sustainable biomass

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## Societal Challenge 2

### Four Calls 2016-17

**Sustainable  
food security**



**Blue  
Growth**



**Rural  
Renaissance**



**Bio-based  
innovation  
for  
sustainable  
goods and  
services**



# Sustainable Food Security

➔ Improve farming and food systems' capacity to sustainably supply sufficient and healthy food while safeguarding natural resources

➔ Ensure global food and nutrition security



## Blue Growth

➔ Demonstrate the innovative potential of the oceans by bringing technologies to the market

➔ Ensure a healthy ocean for healthy people

➔ Seize the opportunities of integrated sea basin Strategies (the Mediterranean and the Arctic)







## Rural Renaissance

- ➔ Grasp promising opportunities to boost rural growth and jobs
- ➔ Develop rural and coastal areas through new territorial approaches and business models





## Bio-based Innovation for Sustainable Goods and Services

-  Boost bio-based markets (ex: to create over 3% growth/year in the bio-based chemistry sector)
-  Re-industrialise the EU through new bio-based value chains, securing sustainable biomass



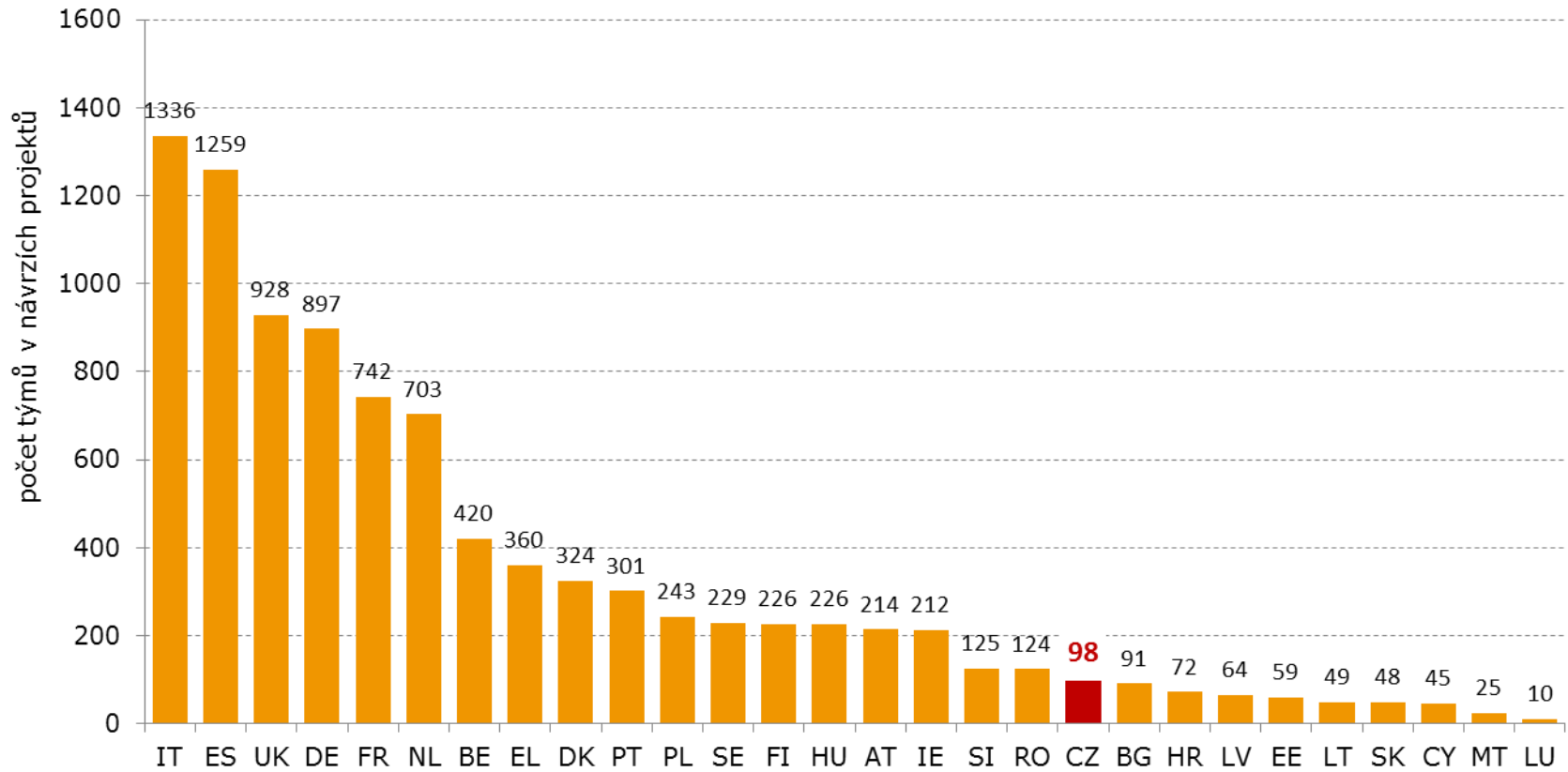
Activities of this call are complementary to the Joint Technology Initiative on Bio-based Industries 2016-17 Indicative Budget €300 million"



## SC2 Calls 2017 – INDICATIVE DATES

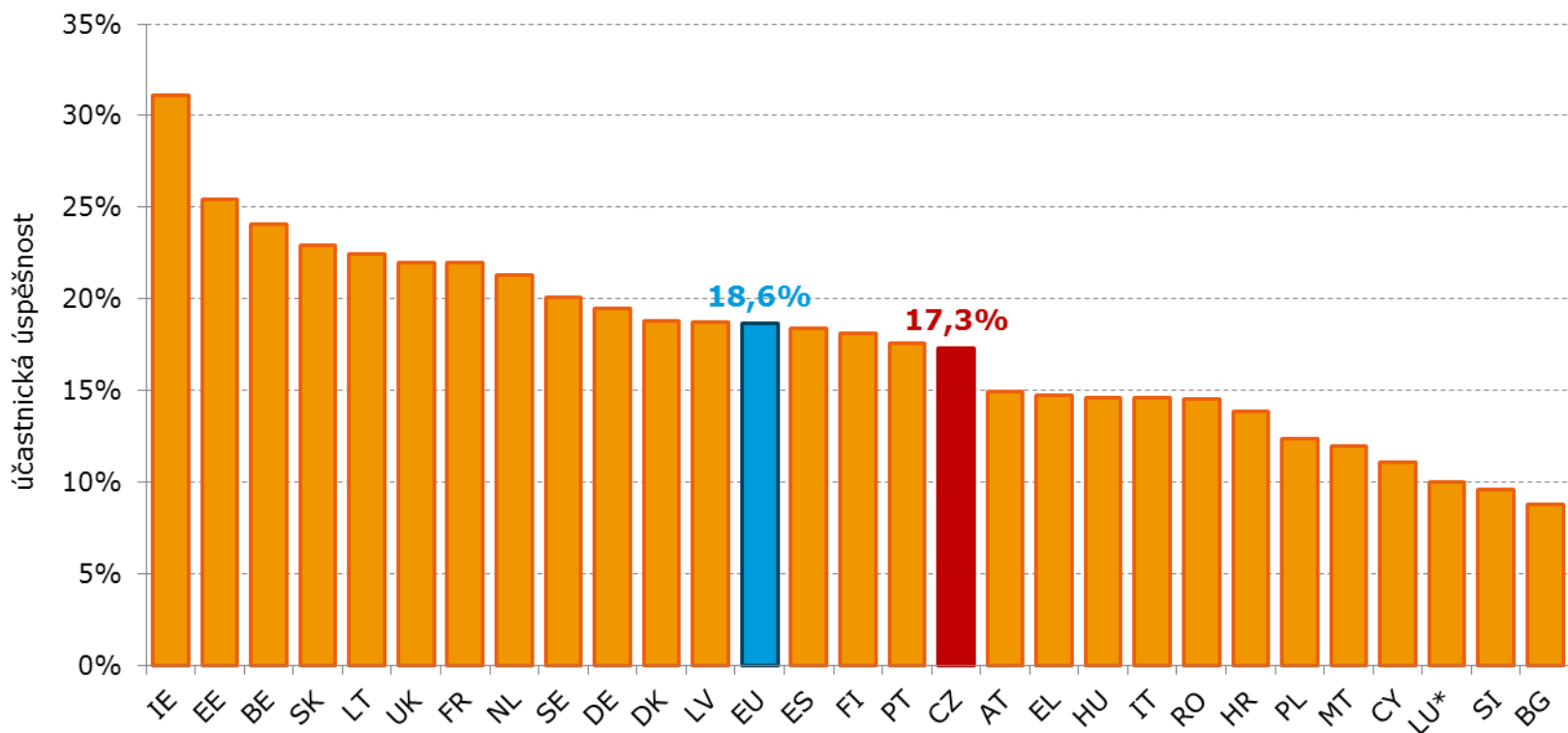
| <b>Opening</b>  | <b>Submission</b>                                        |                     | <b><u>Deadlines</u></b> |
|-----------------|----------------------------------------------------------|---------------------|-------------------------|
| <b>OCT 2016</b> | two-stage<br>submission<br>(RIA with some<br>exceptions) | <b>1st stage</b>    | <b>14 Feb 2017</b>      |
|                 |                                                          | <b>2nd stage</b>    | <b>13 Sept 2017</b>     |
|                 | single stage<br>submission<br>(IA, CSA, ERA Net)         | <b>Single stage</b> | <b>14 Feb 2017</b>      |

## EU-28 activity in H2020 SC2



## EU-28 participant success rate H2020 SC2

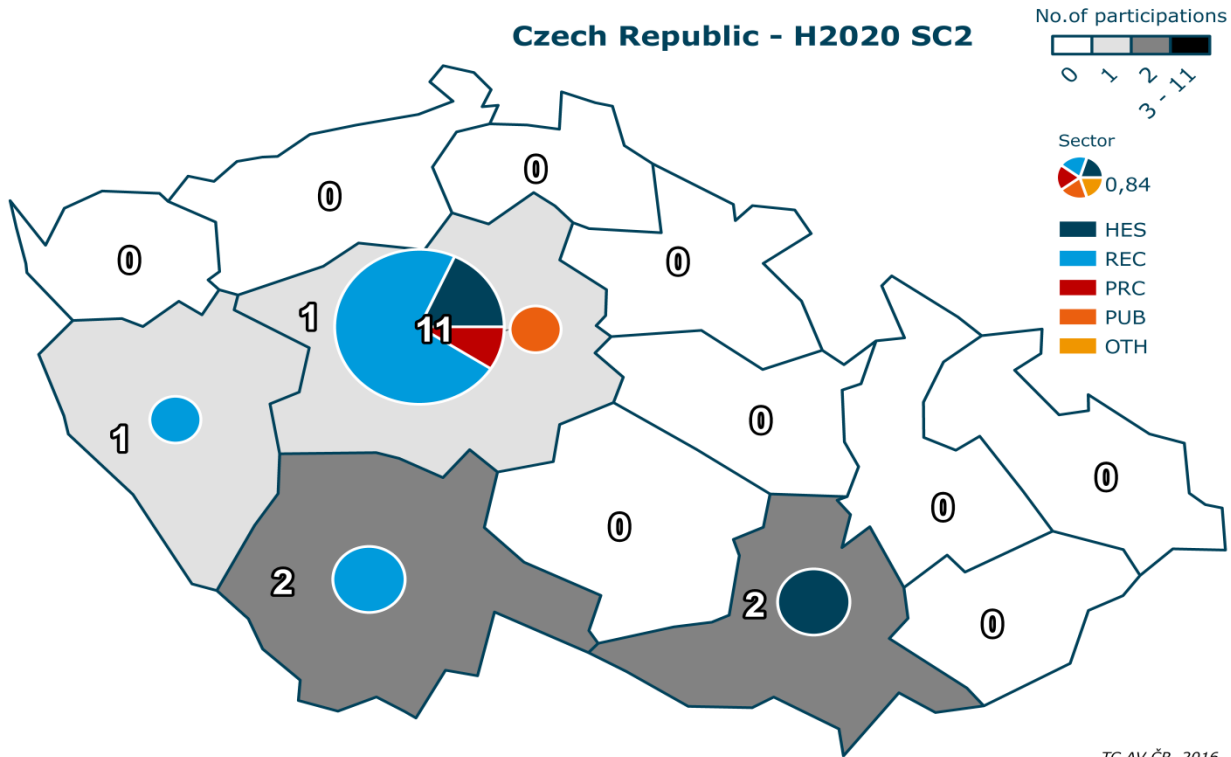
účast. úspěšnost = počet týmů v MAINLIST/celkový počet týmů v návrzích projektů



\* velmi nízká účast, celkový počet týmů ve všech návrzích projektů menší než 20

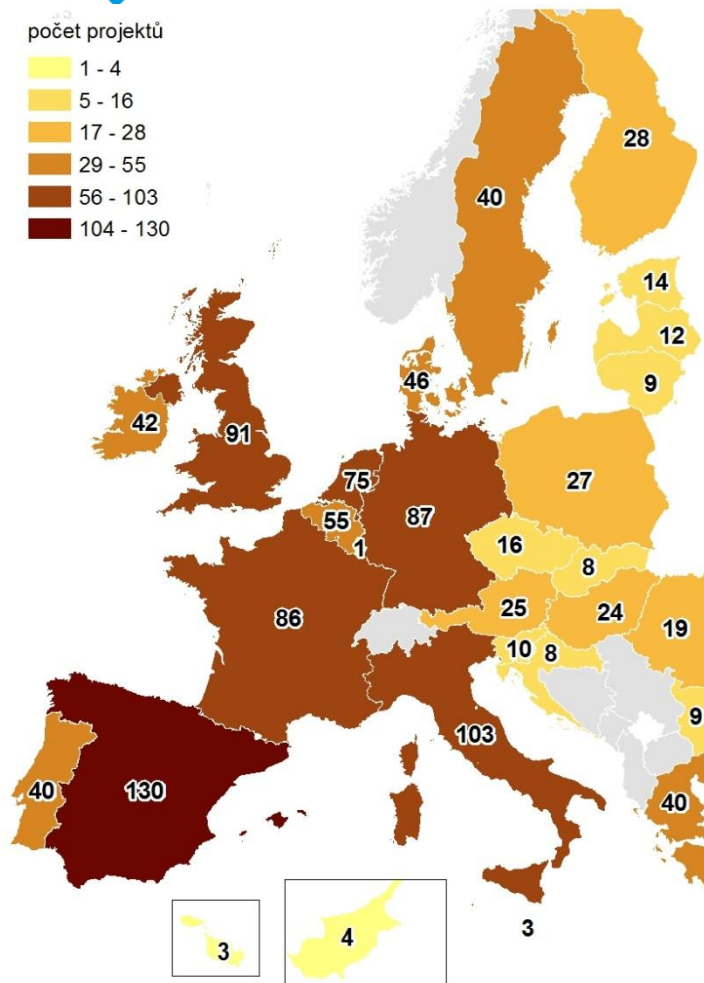
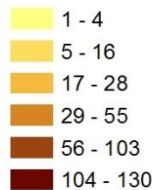


### Czech Republic - H2020 SC2

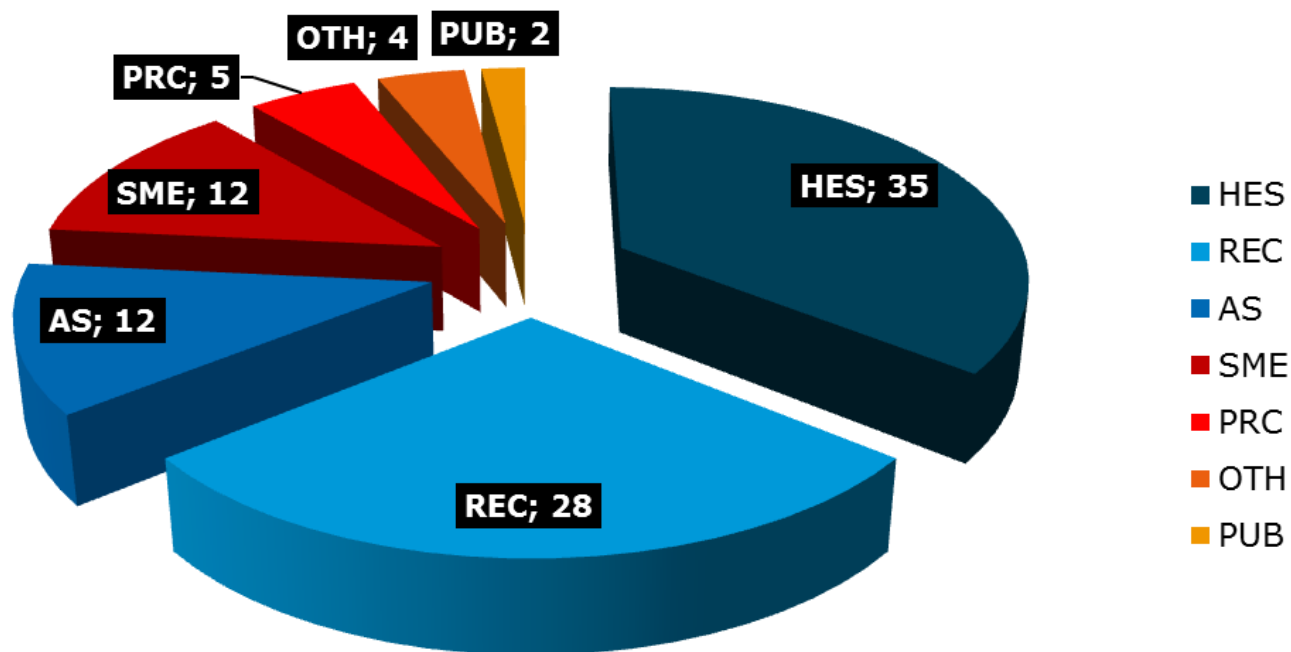


## H2020 SC2 - projects EU-28

počet projektů



## H2020 SC2 – CZ institutional structure in project proposals (number of teams)





## H2020 SC2 CZ participants – projects funded I.

| Akronym        | Typ projektu | Instituce                                                           | Téma                                                                                            | Název projektu                                                                                                                     |
|----------------|--------------|---------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| <b>EuroMix</b> | RIA          | Státní zdravotní ústav                                              | Assessing the health risks of combined human exposure to multiple food-related toxic substances | EuroMix                                                                                                                            |
| <b>DIABOLO</b> | RIA          | Ústav pro hospodářskou úpravu lesů                                  | Improved forest data                                                                            | Distributed, integrated and harmonised forest information for bioeconomy outlooks                                                  |
| <b>SUSFANS</b> | RIA          | Státní zdravotní ústav                                              | Sustainable food and nutrition security through evidence based EU agro-food policy              | Metrics, Models and Foresight for European Sustainable Food and Nutrition Security                                                 |
| <b>PEGASUS</b> | RIA          | Ústav zemědělské ekonomiky a informací                              | Provision of public goods by EU agriculture and forestry: Putting the concept into practice     | Public Ecosystem Goods And Services from land management - Unlocking the Synergies                                                 |
| <b>PROVIDE</b> | RIA          | Technologické centrum AV ČR                                         | Provision of public goods by EU agriculture and forestry: Putting the concept into practice     | PROVIDing smart DELivery of public goods by EU agriculture and forestry                                                            |
| <b>FATIMA</b>  | RIA          | METCENAS, o.p.s.<br>Výzkumný ústav meliorací a ochrany půdy, v.v.í. | External nutrient inputs<br>External nutrient inputs                                            | Farming Tools for external nutrient Inputs and water MANagement<br>Farming Tools for external nutrient Inputs and water MANagement |

| Akronym                | Typ projektu | Instituce                                         | Téma                                                                                                                                                                                                                        | Název projektu                                                                                                                                                                                |
|------------------------|--------------|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>EMPHASIS</b>        | RIA          | Mendelova zemědělská a lesnická univerzita v Brně | Native and alien pests in agriculture and forestry                                                                                                                                                                          | Effective Management of Pests and Harmful Alien Species - Integrated Solutions                                                                                                                |
| <b>ParaFishControl</b> | RIA          | Biologické centrum AV ČR, v.v.i.                  | Scientific basis and tools for preventing and mitigating parasitic diseases of European farmed fish                                                                                                                         | Advanced Tools and Research Strategies for Parasite Control in European farmed fish                                                                                                           |
| <b>BioHorizon</b>      | CSA          | Technologické centrum AV ČR                       | 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) 'Biotechnology' | Cooperation between NCPs for Horizon 2020 Societal Challenge 2 on "Food security, Sustainable Agriculture, Marine and Maritime Research and the Bioeconomy" and the Key Enabling Technology ( |
| <b>Hennovation</b>     | CSA          | Veterinární a farmaceutická univerzita Brno       | Closing the research and innovation divide: the crucial role of innovation support services and knowledge exchange                                                                                                          | Practice-led innovation supported by science and market-driven actors in the laying hen and other livestock sectors                                                                           |
| <b>PROIntensAfrica</b> | CSA          | Česká zemědělská univerzita v Praze               | Sustainable intensification pathways of agro-food systems in Africa                                                                                                                                                         | Towards a long-term Africa-EU partnership to raise sustainable food and nutrition security in Africa                                                                                          |

| Akronym                 | Typ projektu | Instituce                                   | Téma                                                                                                                                                  | Název projektu                                                                                                |
|-------------------------|--------------|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| <b>ClimeFish</b>        | RIA          | Biologické centrum AV ČR, v.v.i.            | Forecasting and anticipating effects of climate change on fisheries and aquaculture                                                                   | Co-creating a decision support framework to ensure sustainable fish production in Europe under climate change |
| <b>SOILCARE</b>         | RIA          | Výzkumný ústav rostlinné výroby, v.v.i.     | Assessing soil-improving cropping systems                                                                                                             | Soil Care for profitable and sustainable crop production in Europe                                            |
| <b>SIMRA</b>            | RIA          | CETIP Network, s.r.o.                       | Unlocking the growth potential of rural areas through enhanced governance and social innovation                                                       | Social Innovation in Marginalised Rural Areas                                                                 |
| <b>CSA JPI HDHL 2.0</b> | CSA          | Technologické centrum AV ČR                 | Coordination action in support of the implementation by participating States of a Joint Programming Initiative on 'A Healthy Diet for a Healthy Life' | The second coordination and support action for the JPI Healthy Diet for a Healthy Life                        |
| <b>AUTHENT-NET</b>      | CSA          | Vysoká škola chemicko-technologická v Praze | Authentication of food products                                                                                                                       | AUTHENT-NET – Food Authenticity Research Network                                                              |

## Horizon 2020 Energy



## LCE Call

# Competitive Low Carbon Energy (1)

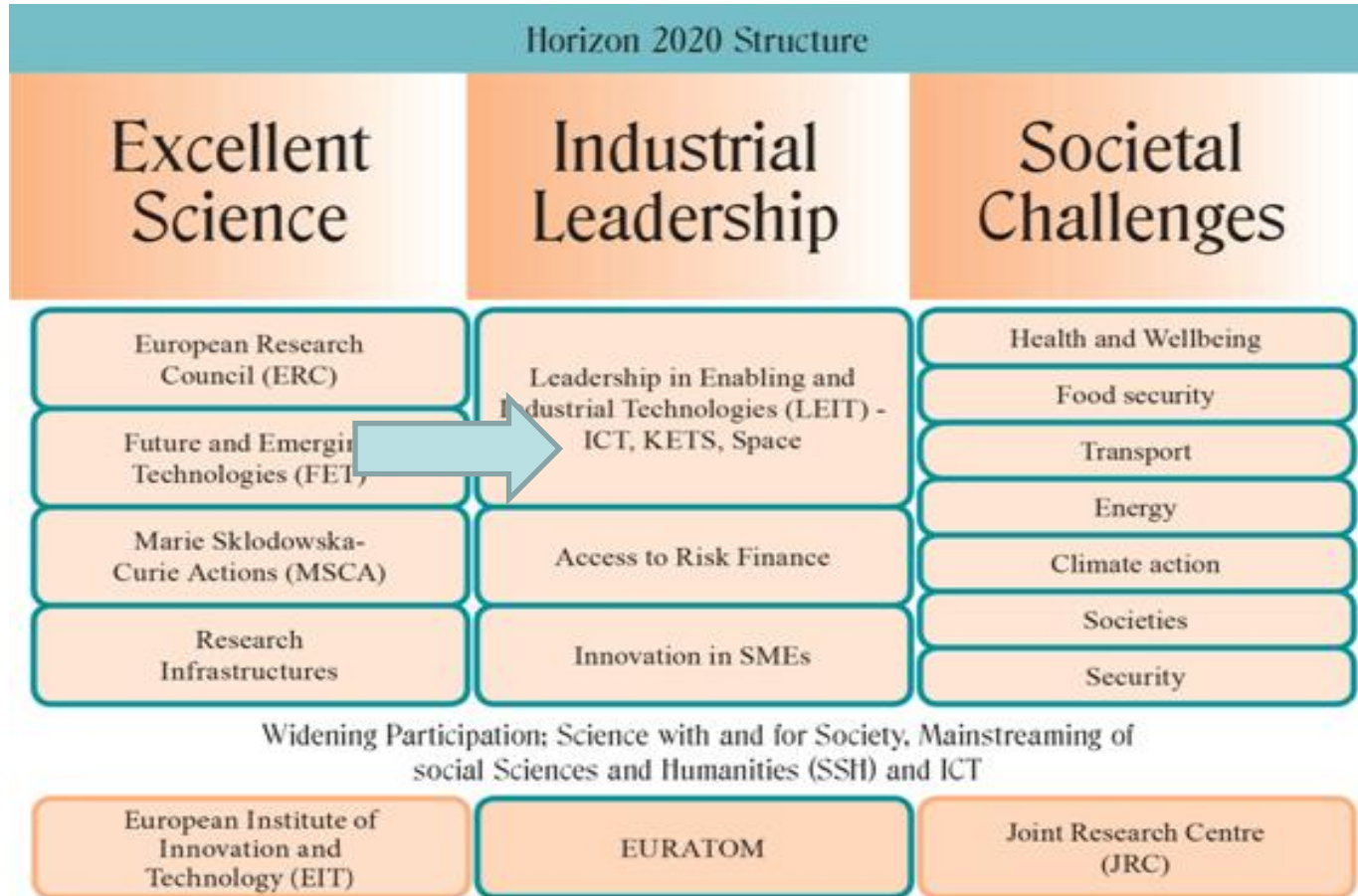
| Topic                                                                           | Type of Action | Deadline                            | TRL           | Recommended EC Contribution                 |
|---------------------------------------------------------------------------------|----------------|-------------------------------------|---------------|---------------------------------------------|
| <b>Renewable Energy Technologies</b>                                            |                |                                     |               |                                             |
| <i>Developing the next generation of renewable energy technologies</i>          |                |                                     |               |                                             |
| <b>LCE 6</b> – New knowledge and technologies                                   | <b>RIA</b>     | <b><u>5/1/2017</u></b>              | 4             | 2 – 4 mil. €                                |
| <b>LCE 8</b> – Development of next generation biofuel technologies              | <b>RIA</b>     | 16/2/2016<br><b><u>5/1/2017</u></b> | 3-4 to<br>4-5 | 3 - 6 mil. €                                |
| <i>Demonstrating Innovative Renewable Energy Technologies</i>                   |                |                                     |               |                                             |
| <b>LCE 19</b> – Demonstration of the most promising advanced biofuel pathways   | <b>IA</b>      | 8/9/2016<br><b><u>7/9/2017</u></b>  | 5-6 to<br>6-7 | 10 – 15 mil. €                              |
| <b>LCE 20</b> – Enabling pre-commercial production of advanced aviation biofuel | <b>IA</b>      | 8/9/2016<br><b><u>7/9/2017</u></b>  | 5-6 to<br>6-7 | 5 - 15 mil.<br>€/2016 5 - 10<br>mil. €/2017 |

## LCE Call

### Competitive Low Carbon Energy (2)

| Topic                                                                                                               | Type of Action | Deadline               | TRL        | Recommended EC Contribution |
|---------------------------------------------------------------------------------------------------------------------|----------------|------------------------|------------|-----------------------------|
| <b><i>Supporting the market uptake of renewable energy technologies</i></b>                                         |                |                        |            |                             |
| LCE 21 – Market uptake of renewable energy technologies                                                             | <b>CSA</b>     | <b><u>5/1/2017</u></b> |            | 1 – 3 mil. €                |
| <b><i>Fostering international cooperation in the area of renewable energy</i></b>                                   |                |                        |            |                             |
| LCE 22 – International Cooperation with <b><u>Brazil</u></b> on advanced lignocellulosic biofuels                   |                | <b><u>8/9/2016</u></b> | 3-4 to 4-5 | 3 – 5 mil. €                |
| <b><i>Enabling the decarbonisation of the use of fossil fuels during the transition to a low-carbon economy</i></b> |                |                        |            |                             |
| LCE 29 – CCS in industry, including Bio-CCS Carbon Capture and Storage                                              | <b>RIA</b>     | <b><u>5/1/2017</u></b> | 4-5 to 7   | 4 - 9 mil. €                |

## Horizon 2020 Key enabling biotechnologies





## **H2020 KET Biotechnology Work Programme for 2016-2017**

- Bridge the gap from lab to market
    - New approaches to valorise new feedstock resources
    - Increasing overall efficiencies (pushing technology concepts beyond current boundaries)
  
  - Speed up innovation
    - New bioprocess concepts
    - New production techniques
    - Improved data integration and valorisation
  
  - New technological platforms
-

## NMBP part of the H2020 Work Programme BIOTEC Call topics for 2017

- BIOTEC-5: Microbial platforms for CO<sub>2</sub>-reuse processes in the low-carbon economy (RIA)
  - BIOTEC-6: Optimisation of bio-catalysis and downstream processing for the sustainable production of high added-value platform chemicals (IA)
  - BIOTEC-7: New Plant Breeding Techniques (NPBT) in molecular farming: Multipurpose crops for industrial bio-products (RIA)
  - BIOTEC-8: Support for enhancing and demonstrating the impact of KET Biotechnology projects (CSA)
  - *SME Instrument: Dedicated support to biotechnology SMEs closing the gap from lab to market*
-

## Call BIOTEC 2017 deadlines

| <b>Publication</b> | <b>Submission</b>                            |                     | <b><u>Deadlines</u></b> | <b>Budget</b>  |
|--------------------|----------------------------------------------|---------------------|-------------------------|----------------|
| <b>10 May 2016</b> | <b>two-stage<br/>submission<br/>(RIA)</b>    | <b>1st stage</b>    | <b>27 Oct 2016</b>      | <b>€ 48 M</b>  |
|                    |                                              | <b>2nd stage</b>    | <b>4 May 2017</b>       |                |
| <b>20 Sep 2016</b> | <b>single stage<br/>submission<br/>(CSA)</b> | <b>single stage</b> | <b>19 Jan 2017</b>      |                |
| <b>Continuous</b>  | <b>SME Instrument</b>                        |                     |                         | <b>€ 7,5 M</b> |

## Partner search

- H2020 – SC2 a KET biotech Brokerage event v Bruselu  
28.6.2016
  - Registration 1.5.2016 – 1.6.2016
  - <https://www.b2match.eu/foodbrokerage2016>
- JU BBI calls
  - Partnering platform
  - <http://www.bbi-europe.eu/participate/bbi-partnering-platform>
- SC2 info week in Brussels 27.-29.6. 2016
- <http://www.h2020.cz/cs/spolecenske-vyzvy/potraviny-zemedelstvi/informace/novinky/societal-challenge-2-info-week-v-bruselu>

Aktuality   Kalendář akcí   Otevřené výzvy   Národní kontakty   NINET   Členové programových výborů   FAQ   Výkladový slovník   VYHLEDAT

 Co-funded by the European Union

# HORIZONT 2020



 Vynikající věda >

 Vedoucí postavení evropského průmyslu >

 Společenské výzvy >

 EIT, JRC / Horizontální aktivity / EURATOM >

Hodnocení rámcových programů >

Právní aspekty >

Finanční a administrativní aspekty >

Information H2020:

[http://ec.europa.eu/research/horizon2020/index\\_en.cfm](http://ec.europa.eu/research/horizon2020/index_en.cfm)

<http://www.h2020.cz>

<http://www.czelo.cz>

<http://www.tc.cz>

Participant portal:

<http://ec.europa.eu/research/participants/portal/desktop/en/home.html>