

European Research Funding

HORIZON 2020 observations and tips

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I'll start with a few tips.

- ▶ Become an expert reviewer. DO IT.

http://ec.europa.eu/research/horizon2020/index_en.cfm?pg=h2020-experts

- ▶ Save the H2020 front page and Participant Portal website to your favourite

Front page - <http://ec.europa.eu/programmes/horizon2020/>

Participant Portal -

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

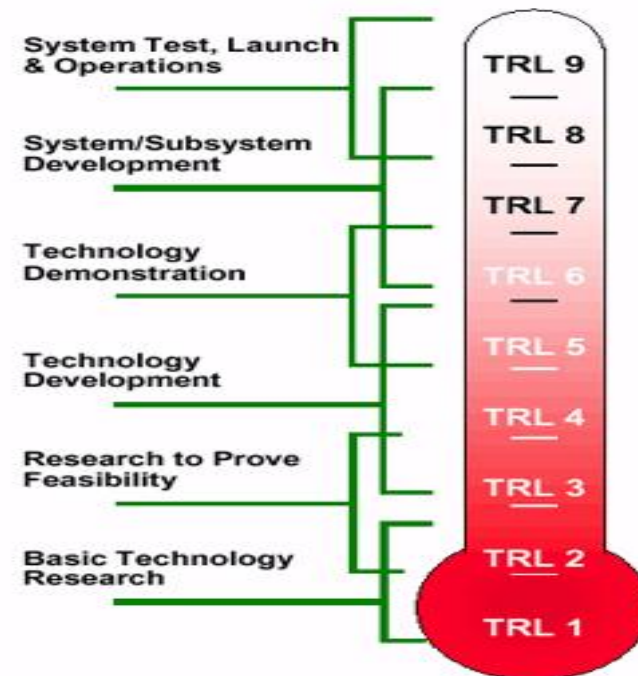
- ▶ Down load the Work Programmes and read them

<http://ec.europa.eu/programmes/horizon2020/>

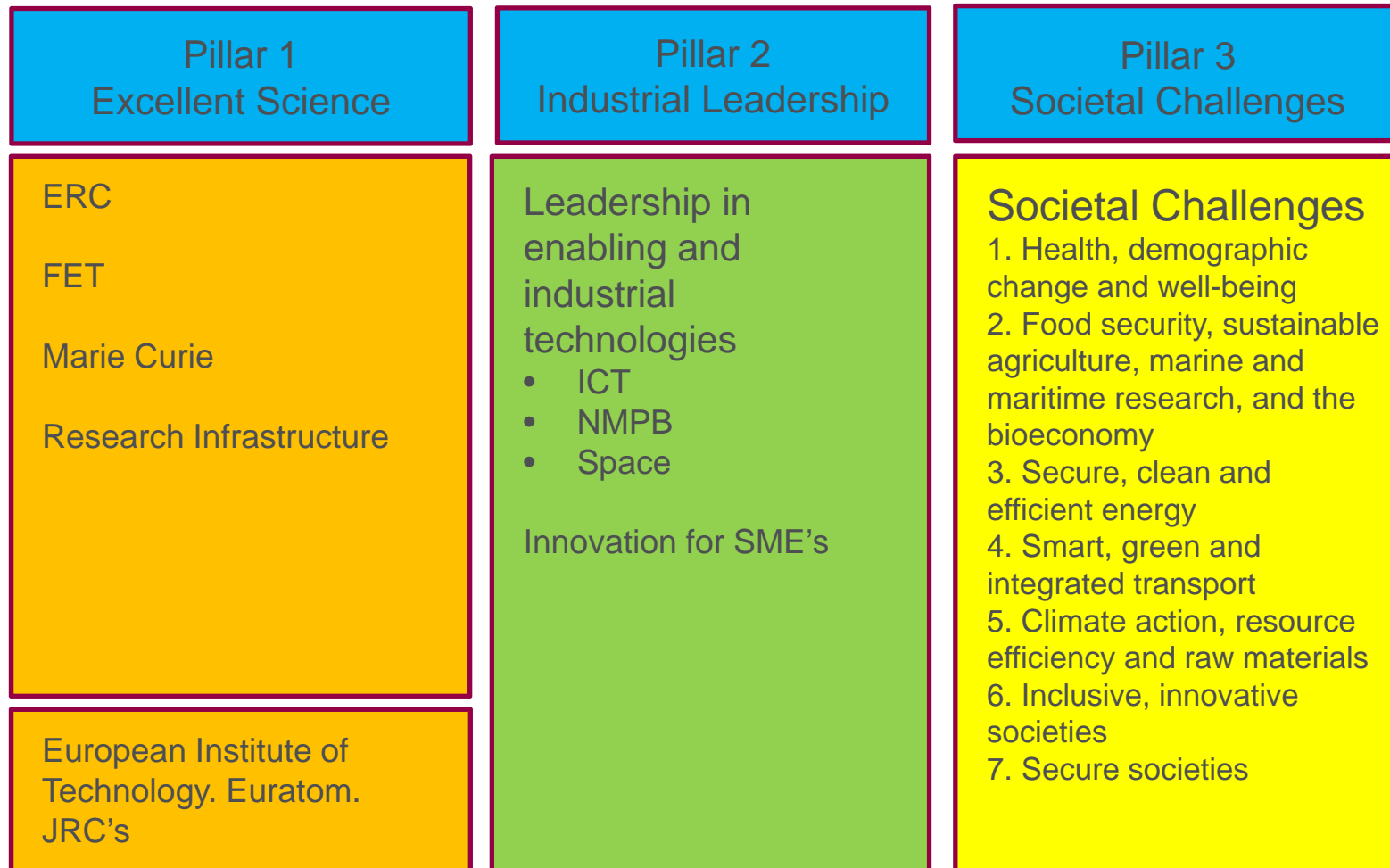
- ▶ **Never be afraid to ask, it is sometimes confusing**

Observations...

- ▶ The Bioenergy community is very well served by H2020, there are numerous schemes offering support at all stages of the technology readiness levels...
- ▶ Lets have a look at just a few...



Horizon 2020 Structure



Pillar 2 – Innovation for SMEs



Innovation For SMEs, calls

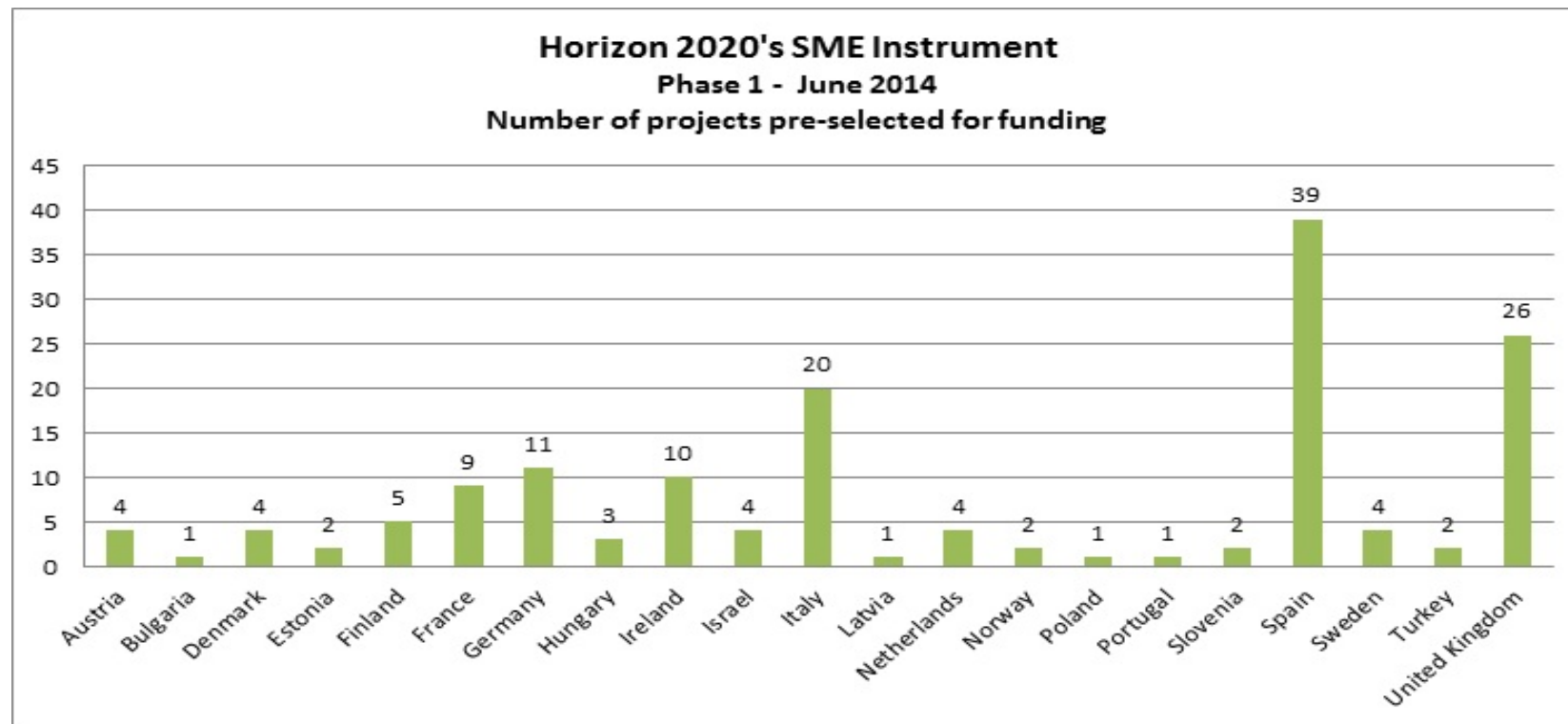
- ▶ [BG-12-2014-1: Supporting SMEs efforts for the development - deployment and market replication of innovative solutions for blue growth](#)
- ▶ [**BIOTEC-5a-2014-1: SME boosting biotechnology-based industrial processes driving competitiveness and sustainability**](#)
- ▶ [DRS-17-2014-1: Critical infrastructure protection topic 7: SME instrument topic: “Protection of Urban soft targets and urban critical infrastructures”](#)
- ▶ [ICT-37-2014-1: Open Disruptive Innovation Scheme \(implemented through the SME instrument\)](#)
- ▶ [IT-1-2014-1: Small business innovation research for Transport](#)
- ▶ [**NMP-25-2014-1: Accelerating the uptake of nanotechnologies, advanced materials or advanced manufacturing and processing technologies by SMEs**](#)
- ▶ [PHC-12-2014-1: Clinical research for the validation of biomarkers and/or diagnostic medical devices](#)
- ▶ [**SC5-20-2014-1: Boosting the potential of small businesses for eco-innovation and a sustainable supply of raw materials**](#)
- ▶ [SFS-08-2014-1: Resource-efficient eco-innovative food production and processing](#)
- ▶ [**SIE-01-2014-1: Stimulating the innovation potential of SMEs for a low carbon energy system**](#)
- ▶ [Space-SME-2014-1: SME Instrument](#)

Stimulating the innovation potential of SMEs for a low carbon energy system

- ▶ Specific Challenge: SMEs play a crucial role in developing resource-efficient, cost-effective and affordable technology solutions to decarbonise and make more efficient the energy system in a sustainable way.
- ▶ Reducing energy consumption and carbon footprint by smart and sustainable use (including energy-efficient products and services as well as 'Smart Cities and Communities'),
- ▶ Low-cost, low-carbon electricity supply (including renewable energy as well as CCS and re-use),
- ▶ Alternative fuels and mobile energy sources

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2543-sie-01-2014-1.html>

Results from the first call



- [List of the first beneficiaries of the SME instrument](#)
- [Interactive map of the first beneficiaries](#)

Pillar 2 - Nano, Material, Process and Biotechnology Work Programme (NMPB WP) NMPB

► **Biotechnology**

Under “Biotechnology-based industrial processes driving competitiveness and sustainability”, activities aim to bridge the gap from lab to market. This includes new approaches to **valorising new feedstock resources** and **increasing overall bioprocess efficiencies**. Under “Cutting-edge biotechnologies as future innovation driver” and “Innovative and competitive platform technologies”, activities will contribute further to sectors such as health, chemicals and agriculture by **developing new technological platforms related to biocatalysis and biodesign**.

Taken from the NMPB scoping paper 2016/2017

The Societal Challenges

A challenge-based approach uniting resources and knowledge across different fields, technologies and disciplines, including social sciences and the humanities. Activities from research to market with a new focus on innovation-related activities, such as piloting, demonstration.

1. Health, demographic change and wellbeing;
- 2. Food security, sustainable agriculture and forestry, marine and maritime and inland water research, and the Bioeconomy;**
- 3. Secure, clean and efficient energy;**
4. Smart, green and integrated transport;
5. Climate action, environment, resource efficiency and raw materials;
6. Europe in a changing world - inclusive, innovative and reflective societies;
7. Secure societies - protecting freedom and security of Europe and its citizens.

Challenge 2 – Food Security, Sustainable Agriculture, Marine and Maritime Research and the Bio-Economy – 2016/2017

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

To secure **sustainable supply for bio-based good and services**, it is **critical to diversify and increase the productivity and output of biomass from land and sea**, avoiding the degradation of ecosystems (including soil and water quality and biodiversity aspects).

Equally, it is important to **unlock the potential of residues, industrial by-products, side-streams and wastes**. The regional dimension of feedstocks mobilization and logistics; the need to **build bridges between the different actors of the supply chain**; the trade-off aspects of biomass uses as well as the need for industry to secure access to **sustainable (certified) biomass**, are also key aspects.

Challenge 2 – Food Security, Sustainable Agriculture, Marine and Maritime Research and the Bio-Economy – 2016/2017

► Building the "bio-based markets of the future"- mobilising stakeholders engagement.

Bio-based products market uptake will be affected by economic and social factors such as environmental, health and ethical considerations which will influence consumer's choices; Stakeholders' engagement will be key to help **identify and address the different actors' interests, aspirations as well as perceived risks, and to maximise the benefits of new bio-based business models** within the society. Also critical for the development of bio-based markets is the **continuous work on standardisation, including sustainability indicators, criteria and assessment approaches**; the use of standards as well as the innovation in procurement approaches.

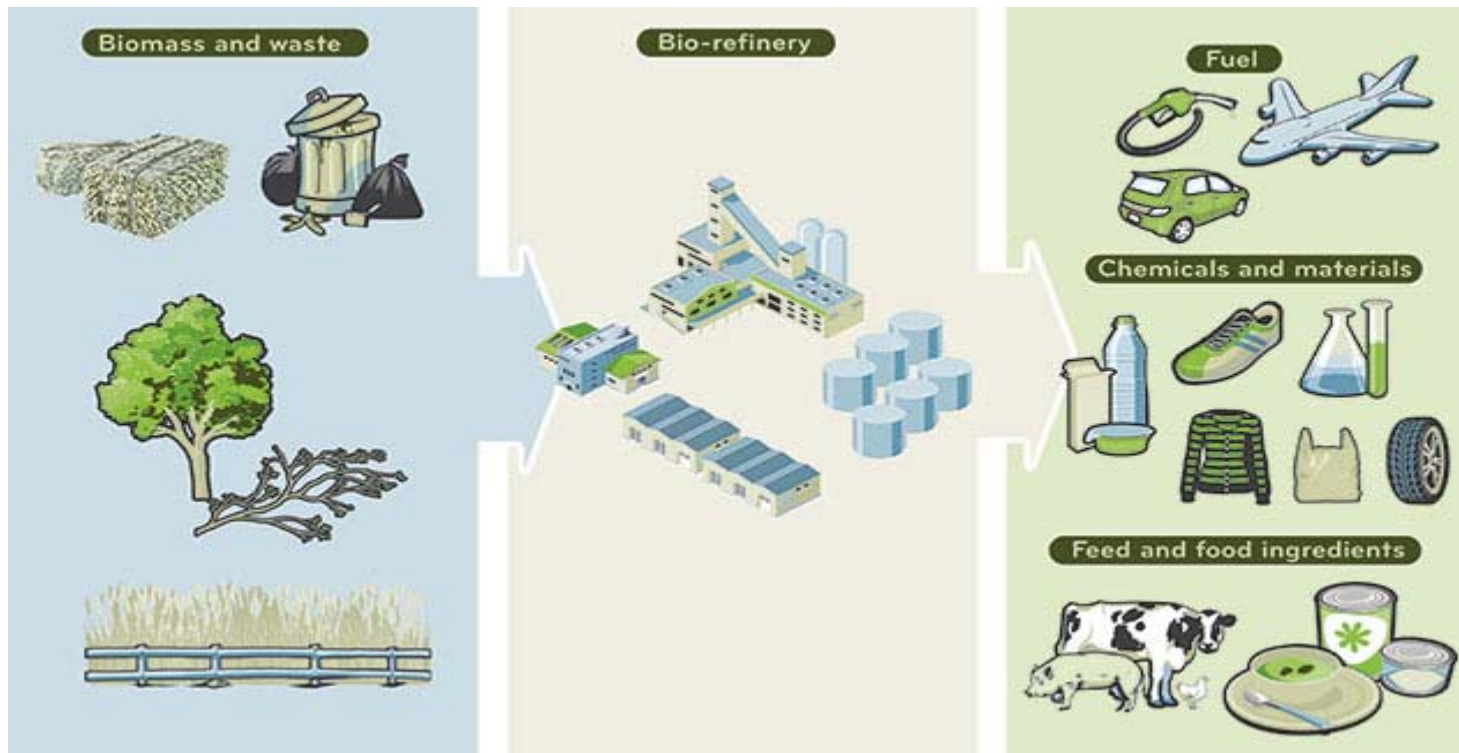
Challenge 3 – Secure, Clean and Efficient Energy Challenge

► **Competitive Low-Carbon Energy**

Developing **sustainable biofuels and alternative fuels** with a focus on first-of-a-kind plants for aviation/heavy road advanced biofuels, demonstrating advanced biofuel pathways incorporating new and/or improved conversion/upgrading technologies and valorisation of co-products, development of next generation of biofuel and sustainable alternative fuel technologies and on measures for improving the market uptake of advanced biofuels.

Public-Private Partnership on Bio-based Industries (BBI)

The Bio-based economy concept - circular economy



Public-Private Partnership on Bio-based Industries (BBI)

- ▶ The EC and leading bio-based industries have/will invest/ed a total of €3.7 to fund research and innovation in the following areas

- ▶ Investing in 5 Bio-based value chains
 1. Advanced transportation fuels
 2. Chemicals
 3. Materials
 4. Food ingredients and feed
 5. Energy

<http://bbi-europe.eu/>

BBI – the 2014 calls, all closed – for information

- ▶ [BBI.VC1.D1: Lignocellulosic residues to \(di\)carboxylic acids, diols and polyols](#)
- ▶ [BBI.VC1.D2: Chemical building blocks and value-added materials through integrated processing of wood](#)
- ▶ [BBI.VC1.R1: Efficient pre-treatment of lignocellulosic feedstock to advanced bio-based chemicals and biomaterials](#)
- ▶ [BBI.VC2.D3: Advanced products from lignin and cellulose streams of the pulp and paper industry](#)
- ▶ [BBI.VC2.R2: New sustainable pulping technologies](#)
- ▶ [BBI.VC2.R3: New products from sustainable cellulose pulp exploitation](#)
- ▶ [BBI.VC2.R4: Fibres and polymers from lignin](#)
- ▶ [BBI.VC2.R5: Sugars from effluents of the pulping process and discharged fibres](#)
- ▶ [BBI.VC3.D4: Functional additives from residues from the agro-food industry](#)
- ▶ [BBI.VC3.F1: Added value products from underutilised agricultural resources](#)
- ▶ [BBI.VC3.R6: Fermentation processes to obtain biosurfactants and specialty carbohydrates from agricultural and agro-industrial streams](#)
- ▶ [BBI.VC3.R7: Protein products from plant residues](#)
- ▶ [BBI.VC3.R8: Bioactive compounds from meso-organism's bioconversion](#)
- ▶ [BBI.VC4.D5: Cost efficient manure valorisation on large scale](#)
- ▶ [BBI.VC4.R10: Nutrient recovery from biobased waste streams and residues](#)
- ▶ [BBI.VC4.R9: Valuable products from heterogeneous biowaste streams](#)

More observations

- ▶ It's competitive...very competitive
- ▶ You need a solid idea
- ▶ It's no more bureaucratic than any other funding source
- ▶ If you want to get into H2020 funding feel your way in...attend the free events, talk to academics (cold call), talk to the experts...
- ▶ Join the club.

I'll end with a few more tips

- **FP7 Funded projects database**
- http://cordis.europa.eu/fp7/projects_en.html

- **H2020 partner search**
- <https://cordis.europa.eu/partners/web/towardshorizon2020/members>

- **EC Research Events**
- http://cordis.europa.eu/fetch?CALLER=EN_NEWS_EVENT
- **IDEALIST** - <http://www.ideal-ist.eu/>
 - Plus – Linked in has a very active H2020 community...
 - If you can't find it in CORDIS 'Google it'...

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Questions