



Societal Challenge 5 (Climate Action, Resource Efficiency and Raw Materials)



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What is Horizon 2020?



- EC's new 7 year programme for Research and Innovation successor to the FP7 programme
- The biggest EU research programme ever with a budget of approx. €78 billion of funding available over 7 years (2014-2020)
 - Minus €2.7b to fund an economic stimulus package
- Over €15 billion funding over first two years (€9.3billion in 2014)
- Aims to ensure Europe produces **world class science and technology** that drives economic growth
- Coupling research to innovation – from research to retail, all forms of innovation
- A competitive fund with no national allocations
- Simplified access to EU funding for all types of organisations:
 - **companies, universities, charities, public bodies and institutes in all EU countries and beyond**

Horizon 2020 – Focus and Key Features

- Greater focus on:
 - Societal challenges facing EU society e.g. health, clean energy, transport, etc.
 - SME's
 - the impacts & outcomes of research compared to FP7
- Dealing with **Climate Change** a cross cutting priority in Horizon 2020 accounts for 35% of the overall budget across the programme.
- At least 60% of overall budget should be related to **Sustainable Development**
- Generous funding rates of up to 125%
 - Up to 100% of the value of the project and an additional 25% to cover directly linked business overheads
- Horizon 2020 will not fund:
 - Community projects, or community groups, to carry out solely localised activities
 - Employment creation schemes
 - Small scale individual projects

Horizon 2020 - Three Pillars

When launched in December 2013, the EC released a number of Work Programmes covering 2014 / 2015 under the three main pillars as follows:

- **Excellent Science**

Horizon 2020 will boost the EU's position as a world leader in science, attracting the best brains and helping our scientists collaborate and share ideas across Europe.

- **Industrial Leadership**

To be best at what it does, Europe needs to invest in promising and strategic technologies and encourage businesses to invest more in research and innovation.

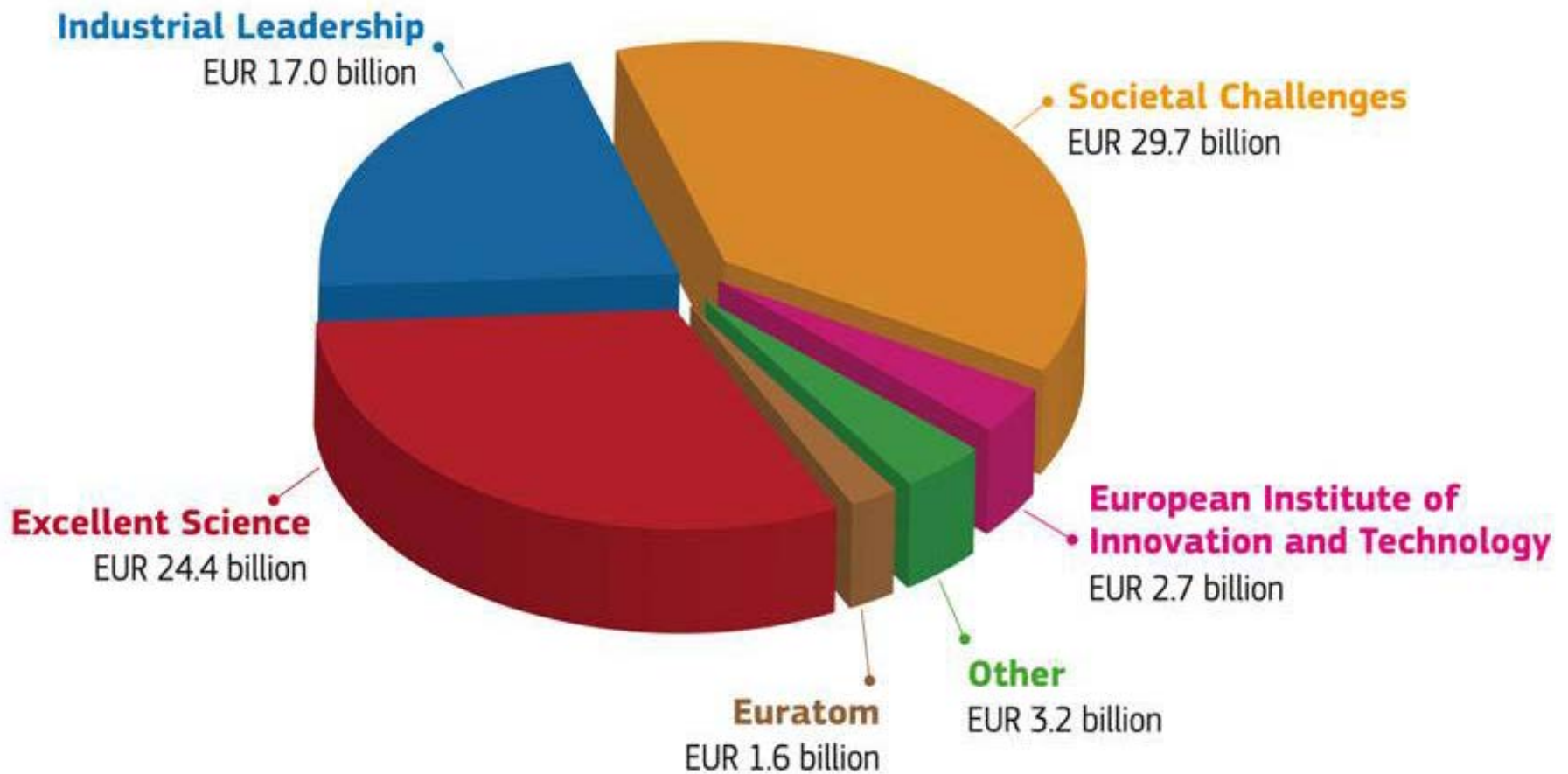
- **Better Society**

The EU has identified seven priority challenges where targeted investment in research and innovation can have a real impact on benefitting the citizen.

In addition the Programme focuses on

- **Cross-cutting Challenges**

Horizon 2020 Budget (EUR 78.6 Billion, current prices)



Societal Challenges

The EU has identified **seven priority challenges** where targeted investment in research and innovation can have a real impact

	Societal Challenge	Amount
SC1	Health, demographic change and wellbeing	€7.47 Billion
SC2	Food security, sustainable agriculture & forestry, marine and maritime and inland water research and the bio economy	€3.85 Billion
SC3	Secure, clean and efficient energy	€5.93 Billion
SC4	Smart, green and integrated transport	€6.34 Billion
SC5	Climate action, environment, resource efficiency and raw materials	€3.08 Billion
SC6	Europe in a changing world - inclusive, innovative and reflective societies	€1.31 Billion
SC7	Secure societies – protecting freedom and security of Europe and its citizen	€1.69 Billion ₇

Societal Challenge 5: Climate action, environment, resource efficiency and raw materials

Objective:

"to achieve a resource – and water – efficient and climate change resilient economy and society, the protection and sustainable management of natural resources and ecosystems, and a sustainable supply and use of raw materials, in order to meet the needs of a growing global population within the sustainable limits of the planet's natural resources and ecosystems."



Societal Challenge 5 – Work Programme

•An updated Work Programme for 2014/2015 was published in **July 2014** with new dates for submission of proposals addressing the 2015 topics:

- Single stage and first stage of two-stage topics: **21 April 2015**

- Second Stage of two-stage topics: **8 September 2015**

- (<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-water-2015-two-stage.html>)

- 35 SC5 calls in 2014 -2015

- 20 calls in 2015 with a budget of €377m

- 2016/17 Work Programme still under development

- Latest draft -1/4/15

- Due to be finalised in Sept 2015

- Currently 43 calls proposed in 2016 - 2017 – subject to change

- Preliminary budget for 2016 - €195m

SC 5 – 2014/15 Work Programme

- **Waste: A Resource to Recycle, Reuse and recover Raw Materials**
- **Water Innovation: Boosting its Value for Europe**
- **Growing a Low Carbon, Resource Efficient Economy with a Sustainable Supply of Raw Materials**
 - Fighting and Adapting to Climate Change
 - Protecting the environment, sustainably managing natural resources, water, biodiversity and ecosystems
 - Ensuring the sustainable supply of non-energy and non-agricultural raw materials
 - Enabling the Transition Towards a Green Economy and Society Through Eco-Innovation
 - Developing Comprehensive and Sustained Global Environmental Observation and Information Systems
 - Cross-Challenge Topics
- **Fast Track to Innovation Pilot**

Societal Challenges 5 - 2015 Calls

Call identifier and topic	Call Action	Proposal Budget (Euro)	Submission Deadline(s)
<u>WATER-1b-2015: Demonstration/pilot activities</u>	IA	6-8m	21/04/2015 08/09/2015
<u>WATER-2b-2015: Integrated approaches to food security, low-carbon energy, sustainable water management and climate change mitigation</u>	R&I	6-8m	21/04/2015 08/09/2015
<u>WATER-3-2015: Stepping up EU research and innovation cooperation in the water area (ERA-NET Cofund –JPI)</u>	ERA-NET Cofund	n/a to NI	21/04/2015
<u>WATER-4b-2015: Water management solutions for agricultural sector, thematic networks</u>	CSA	3m	21/04/2015
<u>WATER-5b-2015: A coordination platform</u>	CSA	3m	21/04/2015
<u>WATER-5c-2015: Development of water supply and sanitation technology, systems and tools, and/or methodologies</u>	R&I	2-3m	21/04/2015 08/09/2015
<u>WASTE-4d-2015: Raw materials partnerships</u>	CSA	≤ 1.5m	21/04/2015
<u>WASTE-6a-2015: Eco-innovative solutions</u>	IA	8-10m	21/04/2015 08/09/2015
<u>WASTE-6b-2015: Eco-innovative strategies</u>	R&I	4-5m	21/04/2015 08/09/2015

Societal Challenges 5 - 2015 Calls

Call identifier and topic	Call Action	Proposal Budget (Euro)	Submission Deadline(s)
<u>WASTE-7-2015: Ensuring sustainable use of agricultural waste, co-products and by-products</u>	R&I	5-7m	21/04/2015 08/09/2015
<u>SC5-04-2015: Improving the air quality and reducing the carbon footprint of European cities</u>	R&I	6-8m	21/04/2015 08/09/2015
<u>SC5-05b-2015: Earth-system modelling and climate services</u>	CSA		21/04/2015
<u>SC5-07-2015: More effective ecosystem restoration in the EU</u>	R&I	5-7m	16/10/2014 10/03/2015
<u>SC5-10c-2015: An EU support mechanism for evidence-based policy on biodiversity & ecosystems services</u>	CSA		21/04/2015
<u>SC5-11c-2015: Deep mining on continent and/or in sea-bed</u>	R&I	2-8m	21/04/2015
<u>SC5-11d-2015: New sustainable exploration technologies and geomodels</u>	R&I	2-8m	21/04/2015
<u>SC5-11e-2015: New metallurgical systems</u>	R&I	2-8m	21/04/2015

Societal Challenges 5 - 2015 Calls

Call identifier and topic	Call Action	Proposal Budget (Euro)	Submission Deadline(s)
<u>SC5-12b-2015: Materials under extreme conditions</u>	R&I	2-5m	21/04/2015
<u>SC5-13c-2015: Innovation friendly minerals policy framework</u>	CSA	1-2m	21/04/2015
<u>SC5-13d-2015: Raw materials research and innovation coordination</u>	CSA	≤1m	21/04/2015
<u>SC5-13e-2015: Raw materials intelligence capacity</u>	CSA	1-2m	21/04/2015
<u>SC5-13f-2015: Strategic international dialogues and cooperation with raw materials producing countries and industry</u>	CSA	1-2m	21/04/2015
<u>SC5-15-2015: Strengthening the European Research Area in the domain of Earth Observation</u>	ERA-NET Cofund	n/a to NI	21/04/2015
<u>SC5-17-2015: Demonstrating the concept of 'Citizen Observatories'</u>	IA	3-5m	21/04/2015 08/09/2015
<u>SC5-18b-2015: Integrating North African, Middle East and Balkan Earth Observation capacities in GEOSS</u>	CSA		21/04/2015
<u>SC5-19b-2015: Mapping Member State research and innovation in climate change, environment, resource efficiency and raw materials</u>	CSA		21/04/2015

SC5 – Draft 2016 /2017 Work Programme

Priority topics focused on:

- Industry 2020 in the Circular Economy (systemic eco-innovation and water topics).
- Blue Growth (Arctic).
- Climate Services.
- Towards a low-carbon Europe.
- Nature-Based Solutions for sustainable cities and territorial resistance.
- Water.
- Raw Materials.
- Earth Observation.
- Cultural Heritage for Sustainable Growth.

Additional contributions to SME Instrument Call, Sustainable Food Security under SC2 and cross- challenge activities on 'Sustainable Subsurface Economy'

Who may apply?

- Horizon 2020 is open to everyone with only one set of simplified rules and procedures to follow.
- **For Standard Research Projects:**
 - A consortium of at least three legal entities
 - Each entity must be established in an EU Member State or an associated country.
- **For other Programmes:**
 - European Research Council (ERC), SME Instrument, co-funding of national or public sector calls or programmes, coordination and support, training and mobility,
 - Minimum condition for participation is one legal entity established in a Member State or in an Associated Country
- Other conditions may apply – check work programme for further details.
- For a list of Associated Countries see <http://bit.ly/H2020AC>

Participant Portal

The screenshot shows the European Commission Research & Innovation Participant Portal. The main navigation bar includes 'HOME', 'FUNDING OPPORTUNITIES', 'HOW TO PARTICIPATE', 'EXPERTS', and 'SUPPORT'. A search bar and 'LOGIN'/'REGISTER' buttons are also present. The main content area features a sidebar with navigation options for 'Horizon 2020', 'Other EU Programmes 2014-2020', and 'FP7 & CIP Programmes 2007-2013'. The central focus is a funding opportunity titled 'Waste: A resource to recycle, reuse and recover raw materials' (H2020-WASTE-2015-two-stage). Key details include a planned opening date of 10-12-2014, a publication date of 11-12-2013, a total call budget of €54,000,000, and a status of 'Forthcoming'. The topic is 'Ensuring sustainable use of agricultural waste, co-products and by-products' under the 'WASTE-7-2015' call. Below the opportunity details, there are tabs for 'Topic Description', 'Topic Conditions & Documents', and 'Submission Service'. The 'Topic Description' tab is active, showing a specific challenge in agriculture and livestock production.

Horizon 2020
Search Topics
Calls
Call Updates

Other EU Programmes 2014-2020
Research Fund for Coal & Steel
COSME
3rd Health Programme
Consumer Programme

FP7 & CIP Programmes 2007-2013
Calls
Call Updates

Other Funding Opportunities

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

H2020-WASTE-2015-two-stage Sub call of: H2020-WASTE-2014-2015

Planned Opening Date	10-12-2014	Deadline Date	21-04-2015 17:00:00 (Brussels local time)
Publication date	11-12-2013	Stage 2	08-09-2015 17:00:00 (Brussels local time)
Total Call Budget	€54,000,000	Main Pillar	Societal Challenges
Status	Forthcoming	OJ reference	OJ C 361 of 11.12.2013

Topic: Ensuring sustainable use of agricultural waste, co-products and by-products **WASTE-7-2015**

Topic Description | Topic Conditions & Documents | Submission Service

Specific challenge: Agriculture generates co-products, by-products and waste streams that are currently not properly taken care of both in environmental and economic terms.

In plant production (e.g. from arable, horticulture, fruit, wine, grassland sectors and agro-forestry systems), losses take place at the farm and post-harvest levels and also down the chain at the level of the retail sector. Co-products or by-products are generated, for instance in the wine sector, which require sustainable use. Straw has been given significant attention in the last years as biomass feedstock and potential trade-offs with its relevance for soil improvement need to be considered.

In livestock production, manure, litter and other effluents management are a challenge, in particular in industrial production

Support available

- **INVEST / InterTradeIreland**

- Financial support to develop proposals (£15k, DETI)
- Travel vouchers to meet partners & attend events (£500 & £350, InterTradeIreland)

- **H2020 NI Contact Point Network**

- Contact points, funded by DETI, DEL, DARD, DOJ and DOE
- Invest NI – contact point for SMEs
- New NI Horizon 2020 web site - www.h2020ni.com

- **DOE – NICP for SC5, EU Funding Team and Brussels based Liaison Officer**

- Small team based in DOE Environmental Policy Division and Brussels
- Strong links with ROI, UK and key EU Networks
- Support available:
 - the provision of advice and information,
 - reviewing applications,
 - developing contact networks,
 - providing letters of support,
 - circulation of funding calls and partners searches.

Feedback on Early Calls

- By end 2014 – 65 calls will be issued worth €9.3billion in funding
- By end Sept. 2014 – 33 calls launched, 30,000 proposals submitted
 - Calls over subscribed by a factor of **6** - FP7 on average by factor of **5.5**
 - Across all calls **average pass rate H2020 16.75% - FP7 21.3%**
- Over subscription & fact that projects are bigger (meaning fewer were funded) contributed to the lower success rates in 2014
- Average number of applicants in eligible proposals was 8
- Average amount requested by applicants in eligible proposals approx. €3.5m
- Advice for future calls - project consortia need to be balanced in terms of:
 - Type organisation – academic /industry/NGO/ public sector (if required)
 - Geographical area
 - Trans-discipline - including Social Sciences & Humanities (SSH)
 - Gender

NI Target and Success to date

- NI Target to draw down **€145m** over the life of the programme – a significant increase (65%) on FP7 (€88.5m) and a significant challenge for NI researchers, academia, public and private sector
- For calls up to end of September 2014 (*snap shot of preliminary main listed figures*):
 - **€11.25m** secured from **37 successful NI project proposals**
 - NI participants submitted 279 applications – similar to FP7
 - NI projects with a value of nearly **€8m on reserve lists**
 - €11.25m in funding over 37 projects – average £381k per project
 - **13.26% success rate for NI** (EU average 16.75%, RoI 16.07% & UK 17.25%)
 - Successful applications – Universities (67.6%), Private sector (18.9 %) and SME's (13.5%)
 - Over 50% of NI success involved NI/ROI collaborations.
 - 15 with NI project coordinators

NI Strategic Objectives & Opportunities

- **New NI Horizon 2020 Strategy launched on 31st March 2015**
 - Sets out the key actions going forward to help local researchers across academia and business win €145million from Horizon 2020
- **Key areas for action:**
 - Focus on key opportunities
 - Improve support to potential applicants
 - Introduce new participants to Horizon 2020
 - Increase successful NI/ROI participation
 - Increase NI involvement in EU R&D and Innovation working groups

In Summary

- **Environmental measures within the funding programme**
 - Mainly under societal challenges
 - Cross cutting priorities Climate Change and Sustainable Development
- **Environmental actions supported**
 - Mainly under SC5 (Climate Action, Environment, Resource Efficiency & Raw Materials)
 - Other SC areas such as food security, agriculture, forestry, blue growth (SC2), efficient energy (SC3), green transport (SC4), disaster resilience (SC7) etc.
- **Funding rate(s)**
 - Under SC5 100%+, varying rates under the 3 phases of the SME instrument
- **Match funding requirements and options**
 - not needed in SC5, but yes under SME instrument
- **Number of partners required**
 - Minimum 3 Member States or 1 depending on call
- **Calls (and prizes) for the environmental priorities**
 - mainly SC5 but also across others

Links to further info

Source of Information	Link
European Commission Horizon 2020	http://ec.europa.eu/programmes/horizon2020/ http://ec.europa.eu/research/participants/portal/desktop/en/home.html http://ec.europa.eu/programmes/horizon2020/find-your-area http://ec.europa.eu/research/participants/data/ref/h2020/wp/2014_2015/main/h2020-wp1415-climate_en.pdf
Horizon 2020 NI Contact Point Network	http://www.detini.gov.uk/deti-eco-dev-index/deti-eco-dev-ni-horizon-2020.htm and www.h2020ni.com
InterTradeIreland	http://www.intertradeireland.com/horizon2020/ http://www.intertradeireland.com/media/g17/pdfs/H2020Guide.pdf http://www.intertradeireland.com/horizon2020/h2020_app
DOE EU Funding Team	http://www.doeni.gov.uk/index/protect_the_environment/climate_change/barroso_task_force_working_group.htm
Horizon 2020 Ireland	http://www.horizon2020.ie/ and http://erc.epa.ie/h2020catalogue/

Thank you for listening



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