



Horizon 2020

5. Societal Challenge

Climate action,
environment, resource
efficiency and raw
materials

International Conference on
Sustainable Aggregates
Planning in South East Europe
Bled, 22.10.2014

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What is Horizon 2020?

- Horizon 2020 is the biggest EU Research and Innovation programme, with nearly € 80 billion of funding available over 7 years (2014 – 2020) – in addition to the private investment that this money will attract.
- It is the financial instrument implementing the Innovation Union, a Europe 2020 flagship initiative aimed at securing Europe's global competitiveness.



FP 7 : Horizon 2020 comparison

THE MOST IMPORTANT CHANGES:

Description	FP7	H2020
Focus	Research	Research & Innovation
Budget	55 billion €	~ 79 billion €
Components	Cooperation, Capacities, People, Ideas, Euratom, JRC	Excellent Science, Industrial Leadership, Societal challenges, Spreading Excellence, Science for Society, EIT, JRC, Euratom
Funding rate (up to) for research	75 %	100 %
Funding rate (up to) for Demonstration/ Innovation projects	50 %	70 % 100% for non-profit organizations
Overhead/indirect costs	Different models (20% 60% or actual)	25 %



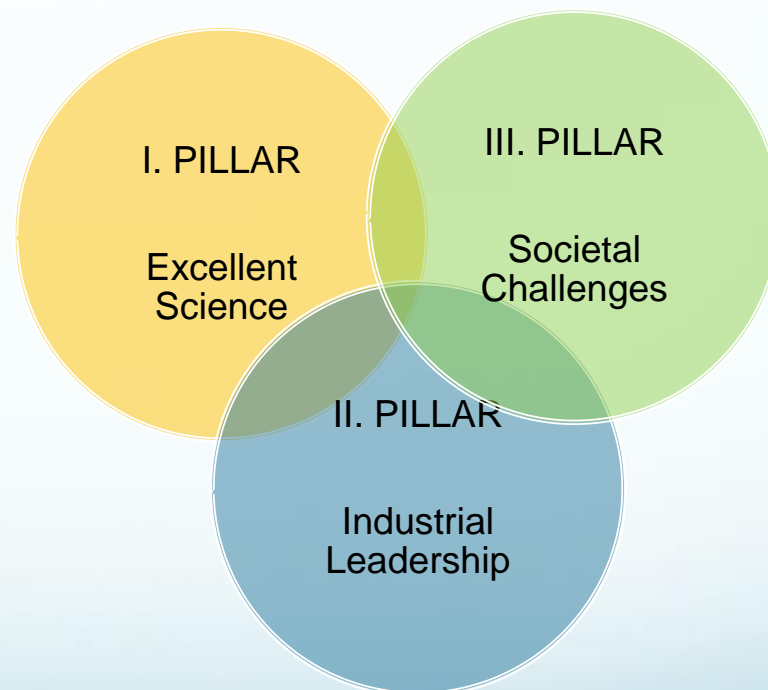
FP 7 : Horizon 2020 comparison

THE MOST IMPORTANT CHANGES:

Description	FP7	H2020
Time-to-grant	12 months in average after submission of proposal	reduced to 8 months
Ex-ante financial viability check	All beneficiaries exceeding 500,000 EUR EU contribution	Coordinators
Audit certificates to be submitted	All > 375,000 € EU contribution - cumulative in periods	All > 325,000 EUR EU contribution - only one at the end of the project
Interest on pre-financing	Reported by the coordinator	No need to declare
Thematic approach	"Cooperation" 10 themes	"Industrial leadership" and "Societal challenges"
Frontier Research, ERC	New in FP7 - Ideas block	Extended under the "Excellent Science" pillar

Three priorities / pillars:

1. Excellent Science
2. Industrial Leadership
3. Societal Challenges



+ Spreading Excellence, Euratom
Science for Society, EIT, JRC

III.PILLAR – Societal Challenges

Why:

- Concerns of citizens and society /EU policy objectives (climate, environment, energy, transport etc.) cannot be achieved without innovation
- Breakthrough solutions come from multi-disciplinary collaborations, including social sciences & humanities
- Promising solutions need to be tested, demonstrated and scaled up

- Budget for III.PILLAR (in M €, 2014-2020)

<i>Health, demographic change and wellbeing</i>	<i>(SC1)</i>	<i>7.471,8</i>
<i>Food security, sustainable agriculture, marine and maritime and inland water research & the Bioeconomy</i>	<i>(SC2)</i>	<i>3.851,4</i>
<i>Secure, clean and efficient energy*</i>	<i>(SC3)</i>	<i>5.931,2</i>
<i>Smart, green and integrated transport</i>	<i>(SC4)</i>	<i>6.339,4</i>
<i>Climate action, environment, resource efficiency and raw materials</i>	<i>(SC5)</i>	<i>3.081,1</i>
<i>Europe in a changing world-inclusive, innovative and reflective societies</i>	<i>(SC6)</i>	<i>1.309,5</i>
<i>Secure societies-protecting freedom and security of Europe and its citizens</i>	<i>(SC7)</i>	<i>1.694,6</i>

Climate action, environment, resource efficiency and raw materials

Work programme for 2014 & 2015

- valid revised, from date 22.7.2014
- available from Participant Portal

(How to Participate → Reference Documents → Work Programmes → 2014-2015 → Main WP)






Participant Portal

← → ↻ <https://ec.europa.eu/research/participants/portal/desktop/en/home.html> ★ 📁 ☰

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RESEARCH & INNOVATION

Participant Portal

European Commission > Research & Innovation > Participant Portal > Home

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Horizon 2020 Funding

Starting from 1/1/2014

On this site you can find and secure **funding** for projects under the following EU programmes:

- **2014-2020** Horizon 2020 - research and innovation framework programme
- **2007-2013** 7th research framework programme (FP7) and Competitiveness & Innovation Programme (CIP)
- Research Fund for Coal & Steel, COSME, 3rd Health Programme, Consumer Programme

Non-registered users	Registered users
<ul style="list-style-type: none">• search for funding• read the H2020 Online Manual & download the legal documents• check if an organisation is already registered• contact our support services or check our FAQs	<ul style="list-style-type: none">• submit your proposal• sign the grant• manage your project throughout its lifecycle• register as expert advising the Commission

 <p>WHAT'S NEW?</p>	 <p>FUNDING OPPORTUNITIES</p>	 <p>HOW TO PARTICIPATE</p>	 <p>WORK AS AN EXPERT</p>	 <p>MY PERSONAL AREA</p>	 <p>INFORMATION AND SUPPORT</p>
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HORIZON 2020 RESEARCH ON EUROPA CORDIS OLAF

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Participant Portal

→ Funding opportunities

→ Calls (open, forthcoming, closed)

→ search by topics

Societal Challenges

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

H2020-WASTE-2015-one-stage

Deadlines: 21/04/2015

Planned Opening Date: 10/12/2014

Societal Challenges

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

H2020-WASTE-2015-two-stage

Deadlines: 21/04/2015

Planned Opening Date: 10/12/2014

Societal Challenges

Growing a Low Carbon, Resource Efficient Economy with a Sustainab ...

H2020-SC5-2015-one-stage

Deadlines: 21/04/2015

Planned Opening Date: 10/12/2014

Societal Challenges

Growing a Low Carbon, Resource Efficient Economy with a Sustainab ...

H2020-SC5-2015-two-stage

Deadlines: 21/04/2015

Planned Opening Date: 10/12/2014

Societal Challenges

Water Innovation: Boosting its value for Europe

H2020-WATER-2015-one-stage

Deadlines: 21/04/2015

Planned Opening Date: 10/12/2014

Societal Challenges

Water Innovation: Boosting its value for Europe

H2020-WATER-2015-two-stage

Deadlines: 21/04/2015

Planned Opening Date: 10/12/2014



3 calls

(23 topics within for 2015 calls)

1. WASTE // A resource to Recycle, Reuse and Recover Raw Materials

2. WATER // Water Innovation: Boosting its value for Europe

3. SC5 // Growing a Low Carbon, Resource Efficient Economy with a Sustainable Supply of Raw Materials

Types of projects

Type of Action	Code	Minimum Conditions	Funding rate	Typical duration	Average EC contribution	Aim
Research & innovation action	RIA	>3 legal entities form 3 MS/AS	100	36-48 Months	2-5 M€	Collaborative research projects (new knowledge, new/improved technology, product, process, services or solutions)
Innovation action	IA	>3 legal entities form 3 MS/AS	70*	30-36 Months	2-5 M€	Produce plans & arrangements or designs for new, altered or improved products, processes or services
Coordination & support action	CSA	1 legal entity	100	12-30 months	0,5-2 M€	Acompanying measures (standardisation, dissemination, policy dialogues etc.) no research

WASTE

H2020-WASTE-2015-one stage

21.april 2015, 4 M€

- **WASTE-4d-2015**:Raw materials partnership - CSA

H2020-WASTE-2015-two-stage

21.april 2015 & 8.september 2015, 54 M€

- **WASTE-6a-2015**: Eco-innovative solutions –IA
- **WASTE-6b-2015**: Eco-innovative strategies –RIA
- **WASTE-7-2105**: Ensuring sustainable use of agricultural waste,-co-products and by-products - RIA



WATER

H2020-WATER-2015-one stage

21.april 2015, 21 M€

- **WATER-4b-2015**: Water management solutions for agricultural sector, thematic networksaw materials partnership - CSA
- **WATER-5b-2015**: A coordination platform – CSA

H2020-WATER-2015-two-stage

21.april 2015 & 8.september 2015, 75 M€

- **WATER-1b-2015**: Demonstration/pilot activities - IA
- **WATER-2b-2015**: Integrated approaches to food security, low-carbon energy, sustainable water management and climate change mitigation - RIA
- **WATER-5c-2105**: Development of water supply and sanitation technology, systems and tools, and7or methodologies - RIA



SC5

Thematics	Code of call
1. Fighting and adapting to climate change	SC5-04-2015, SC5-05b-2015
2. Protecting the environment, sustainably managing natural resources, water, biodiversity and ecosystems	SC5-07-2015, SC5-10c-2015
3. Ensuring the sustainable supply of non-energy and non-agricultural raw materials	SC5-11c-2015, SC5-11d-2015, SC5-11e-2015, SC5-12b-2015, SC5-13c-2015, SC5-13d-2015, SC5-13e-2015, SC5-13f-2015
4. Enabling the transition towards a green economy and society through eco-innovation	/
5. Developing comprehensive and sustained global environmental observation and information system	SC5-17-2015, SC5-18b-2015
6. Cross-challenge topics	SC5-20-2015

SC5-11-2015

New solutions for sustainable production of raw materials

21. april 2015, 48 M€, RIA

KEY WORDS:

- Europe mined over many centuries,
- easy-to-access mineral deposits exhausted,
- production process faces challenges

SCOPE:

- facilitate the market uptake of solutions developed through industrially-driven multidisciplinary consortia
- correspond to European Innovation Partnership (EIP) on Raw Materials → priority area: Technologies for primary and secondary raw materials

SC5-11-2015

New solutions for sustainable production of raw materials

- **SC5-11c-2015: Deep mining on continent and in sea-bed**

Develop new highly-automated technological sustainable solutions for deep mining on the continent and/or in the sea bed combined with in-situ processing of minerals

- **SC5-11d-2015: New sustainable exploration technologies and geomodels**

Develop new/improved highly efficient and cost-effective, sustainable exploration technologies (new drilling techniques, integrated drilling and analytical technologies, down-hole and cross-hole sensing, 3D & 4D geochemical and geophysical automation,...

Develop new geo-models of mineral deposits or belts formation

- **SC5-11e-2015: New metallurgical systems**

Develop a design and elements of an integrated sustainable metallurgical system (pyro-, hydro-, bio-, electro-chemistry) for metals processing and/or refining, maximising metal recovery yield and minimising energy consumption



SC5-12-2015

Innovative and sustainable solutions leading to substitution of raw materials

21.april 2015, 10 M€, RIA

KEY WORDS:

- High-tech products, including electric and electronic equipment, green energy technologies or extreme applications, contain substantial amounts of certain Critical Raw Materials (CRM).
- Need to find alternative solutions to replace certain CRM in concrete applications, or to diversify the supply of raw materials sources
- Substitution of CRM can increase the recyclability of waste products, allowing for more efficient processes and reduce environmental impacts

SCOPE:

- correspond to European Innovation Partnership (EIP) on Raw Materials → priority area: Substitution of raw materials



SC5-12-2015

Innovative and sustainable solutions leading to substitution of raw materials

- **SC5-12b-2015: Materials under extreme conditions**

Development of innovative and sustainable solutions for the appropriate substitution of critical and scarce raw materials in applications under extreme conditions, such as substitution of CRM in heat resistant super alloys, in hard materials, critical alloying elements in bulk metals or in corrosion resistant materials, targeting appropriately materials and applications that are difficult to recycle and where there are limited prospects to increase primary supply within the EU.



SC5-13-2015

Coordinating and supporting raw materials research and innovation

21.april 2015, 8 M€, CSA

KEY WORDS:

- Appropriate and sustainable supply of raw materials requires framework conditions
- Lacking common understanding of which minerals deposits are of public importance
- Dispersed knowledge of raw materials reserves and resources
- Heterogeneous terminology

SCOPE:

- correspond to European Innovation Partnership (EIP) on Raw Materials
- Coordination between industrial players, researchers in the EU and across the whole value chain, EU and Member State funding authorities is required

SC5-13-2015

Coordinating and supporting raw materials research and innovation

- **SC5-13c-2015: Innovation friendly minerals policy framework**

Developing guide to relevant EU and Member States' legislation and mineral policy, including a benchmark analysis of existing nat'l minerals policies and the exchange of best practices in the area of mineral policies and related regulations among Member States. Focus on: - elements catalysing introduction of innovative raw materials production in the EU (promoting innovative mining, processing and recycling solutions), - streamlining the permitting procedure along the whole chain of mining activities, - information on exploration, mineral production, trade, reserves and resources

- **SC5-13d-2015: Raw materials research and innovation coordination**

Improving both research and innovation collaboration among all the relevant European Technology Platforms and other industrial and research initiatives, improving coordination with the relevant EU, Member States and regional policies and initiatives in the area of raw materials, engaging all the relevant players, particularly civil society and authorities at regional and local level, across the whole EU.

Action should develop a common long term 2050 vision and roadmap for the relevant raw materials, including metals, industrial minerals and aggregates, wood and natural rubber-based materials.

SC5-13-2015

Coordinating and supporting raw materials research and innovation

- **SC5-13e-2015: Raw materials intelligence capacity**

Developing a methodology for reviewing and selecting all relevant methods and tools necessary for providing high quality expertise for different stakeholders, including advisors and decision makers at EU, Member State and industry level as well as the expert community and general public. When appropriate, mentoring, dissemination of best practices, analysis on related policy, regulations, trade and other relevant issues, involving the international community (international cooperation is encouraged), should be incorporated.

- **SC5-13f-2015: Strategic international dialogues and cooperation with raw materials producing countries and industry**

aiming to promote the activity of European companies active in the mining and raw materials sectors in non-EU countries, inward mining investment to the EU and cooperation with raw materials producing countries, including exchange of best practices in raw materials policy, stakeholder dialogues, and social licence to operate, resulting in strong and sustainable relationships with these countries.



Results of call 2014 (one-stage)

All projects received 161 all 18 SI	Oversubscription rate 1:6
% of selected projects / projects received 18% all 37% SI	% of selected projects / projects over threshold 30% all 60% SI

Results of call 2014 (one-stage)

WASTE				WATER				SC5					
oddani pri	51			oddani pri	33			oddani pri	77				
Slovenija	7			Slovenija	3			Slovenija	8				
eligible	51			eligible	33			eligible	76				
Slovenija	7			Slovenija	3			Slovenija	8				
above thr	24	47%		above thr	25	76%		above thr	46	60%			
Slovenija	3	43%		Slovenija	2	67%		Slovenija	5	63%			
retained	6	25%	12%	retained	7	28%	21%	retained	17	37%			
Slovenija	1	33%	14%	Slovenija	1	50%	33%	Slovenija	5	100%			
reserve	5			reserve	2			reserve	13				
Slovenija	0			Slovenija	0			Slovenija	0				
outside available budget	13			outside available budget	16			outside available budget	16				
Slovenija	2			Slovenija	1			Slovenija	0				

odstotek "pozitivnih" glede na število oddanih

odstotek izbranih glede na število vseh oddanih projektov

odstotek izbranih gled na število "pozitivnih" projektov

Results of call 2014 (one-stage)

- First look at results is indicating „heavy oversubscription“

WASTE

budget 20 m€ → asked for contribution 233,6 m€;

Oversubscription
rate

1:11

WATER

budget 15 m€ → asked for contribution 43,5 m€;

1:3

SC5

budget 73 m€ → asked for contribution 314 m€;

1:4

Few tips for writing a project

What are evaluators looking for?

- You fully answer to the challenge in the call
- Clear aims (motivation and hypothesis)
- Realistic objectives
- What is the current knowledge in the particular field (state-of-the-art)
- Who are the users and how will they benefit?
- Clear methodology
- Appropriate and relevant partners with necessary skills

Few tips for writing a project

When reading your proposal, ask yourself the following questions:

- **What problem are you trying to solve?** (challenge in call = defined problem and your project is the solution)
- **Is it a European problem?** (can not be carried out at national level)
- **Why you? Are you the best people to do this work?**
- **Why this project and why now?**



Next steps

Preparation of the work programme 2016-2017

- Autumn 2014: discussions with each Programme Committee configuration on the basis of the [draft scoping papers](#)
- 1.1/2 2015: development of the content of the work programme 2016-2017, prepared on the basis of the priorities defined in the finalised strategic programming document and its scoping papers
- Summer 2015: adoption and publication of the calls for proposals

Thank you!

For more information :



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