

New projects in Horizon 2020 and regional programs: present status and future opportunities

Paola Agostini, Giovanni Coppini



Outline

1. Horizon 2020

1. European Territorial Cooperation 2014-2020

✓ Cross-border Cooperation

- IPA II programmes (e.g. Italy-Albania-Montenegro)
- European Neighborhood and Partnership Instrument in the Mediterranean, ENPI CBC Sea Basin programme

✓ Transnational Cooperation

- South East Europe: Adriatic Ionian Program
- MedProgram

✓ Interregional Cooperation

- INTERREG EUROPE

NEW! Macro Regional Strategy for the Adriatic and Ionian Region

<http://www.adriatic-ionian.eu/>



EU Research and Innovation programme: Horizon 2020



H2020 calls of interest

OPEN

- **BG 07 2015** Response capacities to oil spills and marine pollutions

FORTHCOMING

- **SC5 18b 2015** Integrating North African, Middle East and Balkan Earth Observation capacities in GEOSS
- **INT 02 2015** Encouraging the research and innovation cooperation between the Union and selected regional partners – proposals targeting Southern Mediterranean Neighbourhood, Eastern Partnership
- **INT 06 2015** Re-invigorating the partnership between the two shores of the Mediterranean
- **MG 4.3 2015** System modelling and life-cycle cost optimisation for waterborne assets
- **DRS 01 2015** Crisis management topic 1: potential of current and new measures and technologies to respond to extreme weather and climate events
- **BES 01 2015** Maritime Border Security topic 1: radar systems for the surveillance of coastal and pre-frontier areas and in support of search and rescue operations



H2020 SC5 18b 2015 Integrating North African, Middle East and Balkan Earth Observation capacities in GEOSS

Specific Challenge: The specific challenge is to strengthen the Earth Observation networks (space-based, airborne, and particularly in-situ) of the broad European and North African, Middle East, and Balkan region to reinforce its contribution to the knowledge base for climate, natural resources, and raw materials.

The EU's contribution to the monitoring of our planet by land, sea, air and space-based Earth Observation systems remains too fragmented. In addition, geopolitical and economic events in recent years in the EU's southern and south-eastern neighbourhood regions have had adverse effects on infrastructures and services as well as on its already quite modest Earth Observation capacities. An improvement is therefore urgently needed to enable effective, sustainable planning and management of measures to cope with regional and global challenges such as food security, climate change and access to raw materials and energy.



H2020 SC5 18b 2015 Integrating North African, Middle East and Balkan Earth Observation capacities in GEOSS

Scope: Proposals should focus on **Earth Observation related research activities** with the aim of continuously providing timely and accurate information, forecasts and projections. In line with the EU's strategy for international cooperation in research and innovation proposals should **contribute to implementing the Global Earth Observation System of Systems (GEOSS) and Copernicus.**

Proposals shall address the following issue:

Integrating North African, Middle East and Balkan Earth Observation capacities in GEOSS: integrating, coordinating and supporting initiatives in these countries to deliver Earth Observation information services that will benefit critical economic and social sectors such as tourism, agriculture, transportation, health, research and education, while involving service providers in those sectors. **Regional observational systems** that are needed to complete GEOSS are of particular importance. In line with the EU's strategy for international cooperation in research and innovation international cooperation is encouraged, ensuring **a sufficient number of international partners from the target region** to ensure adequate scale and scope of cooperation.



H2020 SC5 18b 2015 Integrating North African, Middle East and Balkan Earth Observation capacities in GEOSS

Expected impact:

Improved food security, access to raw materials and energy, and adaptation to climate change in the North-African, Middle-East, and Balkan regions due to improved Earth Observation data and information services. Rapid re-installation of the required infrastructures by the relevant public services and decision makers. Future investments in this region, leading to sustainable development of resources and activities. Strengthened competitiveness and performance of critical economic and social sectors such as tourism, agriculture, transportation, health, research, and education.

Type of action: Coordination and support actions, 100% funding

Deadline: 21-04-2015 17:00:00 (Brussels local time)

Budget: 9 Million Euro, divided with SC5 5 and 10

Up to one project per (sub-)topic shall be funded.



H2020 INT 02 2015 Encouraging the research and innovation cooperation between the Union and selected regional partners – proposals targeting Southern Mediterranean Neighbourhood, Eastern Partnership

Specific challenge: The aim is to:

- stimulate and enhance the cooperation between researchers from the Union and those of the regional partners in question, including and in particular through Horizon 2020 and the partner's funding programmes;
- eliminate remaining obstacles to cooperation between researchers from the Union and its international regional partners

Scope: Proposals should target international partners in a regional context and should cover the following set of activities:

- **Encouraging cooperation between research and innovation actors** from the Union and the partner in question, by promoting the opportunities offered by Horizon 2020 towards the international partner. This should include notably the setting up of **web-based information systems**, but it can also involve the organisation of awareness raising and information **dissemination activities** or the organisation of brokerage events, conferences or workshops;



H2020 INT 02 2015 Encouraging the research and innovation cooperation between the Union and selected regional partners – proposals targeting Southern Mediterranean Neighbourhood, Eastern Partnership

– Ensuring that progress is made towards establishing appropriate framework conditions for international cooperation between the Union and the partner in question, notably by **identifying remaining obstacles for cooperation** and by **supporting the development of solutions to eliminate these**, while jointly promoting measures which facilitate international cooperation (e.g. on open access, scientific visa, IPR, peer review, research integrity etc). Where appropriate, this should include seeking continuous complementarity and coherence with activities of the Strategic Forum for International Cooperation (SFIC).

In this work programme the following regional partners[1] will be targeted:

Southern Mediterranean Neighbourhood (including activities in support of bilateral S&T Agreements with Algeria, Morocco, Jordan), Eastern Partnership, the Black Sea region, the Middle-East and Africa. For Africa the proposal will also include support for the implementation of activities agreed within the EU-Africa High Level Policy Dialogue, including by increasing the coordination between the activities and programmes from the Member States, the Associated Countries and the African partners.



H2020 INT 02 2015 Encouraging the research and innovation cooperation between the Union and selected regional partners – proposals targeting Southern Mediterranean Neighbourhood, Eastern Partnership

Proposals should be made by **consortia consisting of balanced partnerships between European and international partners**, ensuring adequate involvement of public authorities and other stakeholders (e.g. funding agencies, research organisations, industry, civil society) of the participating countries. On the European side, broad involvement across all Member States and Associated Countries is expected, either within the consortium or through appropriate outreach activities by the consortium to other Member States and Associated States. **Broad participation from the targeted region is also strongly encouraged.** Proposals should build on the results of existing cooperation initiatives, and in particular those funded through the Seventh Framework Programme Capacities part 'Activities of International Cooperation'.

The Commission considers that proposals requesting a Union contribution of **EUR 1.95 million per proposal for a duration of three years** would allow this specific challenge to be addressed appropriately for the proposals targeting Africa and the Southern Mediterranean Neighbourhood.



H2020 INT 02 2015 Encouraging the research and innovation cooperation between the Union and selected regional partners – proposals targeting Southern Mediterranean Neighbourhood, Eastern Partnership

Expected impact:

- More strategic priority setting for cooperation with the Union's international partners across the whole of Horizon 2020;
- Stronger interaction between the Union's researchers and those of its international partners, including through a stronger participation of the Union's international partners in Horizon 2020;
- Establishment of optimal framework conditions for international cooperation;
- Increased coordination and synergies between policies and programmes of the Member States, the Associated Countries and the Union's international partners;
- Ensuring close synergies with the international dimension of calls launched across Horizon 2020 to enhance the socio-economic impact of Horizon 2020 (notably through increased access to scientific excellence across the world and the opening up of new markets).

Type of action: Coordination and support actions, 100% funding

Deadline: 12-05-2015 17:00:00 (Brussels local time)

Budget: 3,25 Million Euro

Up to one project per international region shall be funded.



H2020 INT 06 2015 Re-invigorating the partnership between the two shores of the Mediterranean

Specific challenge: During the last decade, the Mediterranean basin has inspired several concepts, instruments and policies like the Barcelona process, the Euro-Mediterranean Partnership, the Union for the Mediterranean, the European Neighbourhood Policy, action plans and association agreements. The boundaries of the Mediterranean area are not clearly delimited. This region could only include the Mediterranean basin countries (with direct access to the Mediterranean), whereas other specialists take into account the influence of other partners, for example the Gulf States. It is also a dynamic region with the outward and inward movement of people and associated religious, linguistic and ethnic diversity.

For several decades, bilateral approaches to cooperation between the Northern and Southern shores of the Mediterranean have been favoured and this is still prevailing.



H2020 INT 06 2015 Re-invigorating the partnership between the two shores of the Mediterranean

In this context, an important question arises on the effectiveness of bilateralism versus regionalism taking into account the role of the European Neighbourhood Policy in this region as well as how such policies are perceived by the South. Furthermore, following recent developments in the region, **it is important to identify and characterise new leaderships in the Mediterranean area** taking into account pluralism of and the power shifts among strategic players as well as the role and significance of other countries that are not part the Mediterranean area.

Scope: Research should assess the potential and effectiveness of the policies and measures implemented between the two shores of the Mediterranean and identify the obstacles and prospects for further collaboration. In this context, the **concept of bilateralism and regionalism should be defined and assessed in the Mediterranean area**, including the pros and cons of both concepts as well as the evaluation of the potential of in-depth cooperation in specific fields like science and technology, water, agriculture, energy, cultural heritage or transport.



H2020 INT 06 2015 Re-invigorating the partnership between the two shores of the Mediterranean

Research should discuss also from a **historical perspective**, the different understandings of this region and explore which countries significantly influence the situation and developments in the region. In this context, the **citizens' perceptions** of the image, role and influence of Mediterranean collaboration need to be investigated from both Northern and Southern shores. To this end, **data on citizens' perceptions of the Mediterranean will be collected and updated.**

Research should also **identify the best practices, priorities and potential future developments that could improve the relations in this region**, taking into account potential new strategies and political priorities that could emerge in the near future.

Broad participation of international partners from the Mediterranean region in proposals submitted to this call is strongly encouraged.

The Commission considers that proposals requesting a contribution from the EU of between **EUR 1.5 and 2.5 million** would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.



H2020 INT 06 2015 Re-invigorating the partnership between the two shores of the Mediterranean

Expected impact: The assessment of the prospects for and obstacles to further collaboration between the two shores of the Mediterranean will improve the understanding of the European Union's external action in the area and should contribute to a reflection on its future role in the region. Research will particularly lead to a refined conceptualization of the new geopolitical configuration of the Mediterranean area which will contribute to debates on the most appropriate mix of policies and measures either through a regional or a bilateral approach, including at sectorial level. Finally, activities under this topic will lead to identifying possible actions needed to improve the EU-Mediterranean collaboration dealing with the particular features of each country in this area.

Type of action: Research and innovation actions, 100% funding

Deadline: 28-05-2015 17:00:00 (Brussels local time)

Budget: 25 Million Euro divided with INT 3 to 12



H2020 MG 4.3 2015 System modelling and life-cycle cost optimisation for waterborne assets

Specific challenge:

The European maritime technologies industry is facing fierce global competition on price in its traditional markets which forces it to shift its focus to profitable (existing and new) markets where technical excellence and smart custom-made solutions are the key to market success. In order to develop these niche markets and exploit them successfully, research and innovation efforts are required that introduce new design and production processes with the aim of having minimal total costs over the useful economic life of the product which, for waterborne assets (vessels and maritime structures), is particularly long (20-50 years). This includes considerations on the impact of the circular economy approach to these assets and their technical and material composition.

Scope: Proposals should address one or several of the following aspects:

- **New design and mathematical modelling tools and paradigms** supporting the full understanding of operational practices and situations covering the entire useful **economic life of a vessel or maritime structure** (including material recovery, "from cradle to cradle") in terms of costs and performance.



H2020 MG 4.3 2015 System modelling and life-cycle cost optimisation for waterborne assets

- **A comprehensive and detailed approach to system integration and optimisation for vessels** which is multi-objective driven, based on virtual product (digital mock-up) methodologies (with virtual reality capabilities). The resulting model must include all technical systems and sub-systems and **must cover all operational conditions of the complete system over the entire life cycle** (thus taking into account the uncertainties of the future operating context). Modelling should cover the majority of ship types produced in Europe and should be based on the new tools and paradigms, allowing for short lead times and the optimised use in SME yards building complex vessels.
- **A large scale virtual demonstrator for smart, adaptive and multi-material complex ships and structures**, based on the design tools and concepts for minimised life-cycle costs and using the complete product model.

The Commission considers that proposals requesting a contribution from the EU of between **EUR 5 to 8 million** each would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.



H2020 MG 4.3 2015 System modelling and life-cycle cost optimisation for waterborne assets

Expected impact:

- Achieve measurable cost reductions in design, production and lifetime maritime asset management.
- Facilitate a shorter time for assessment and integration of sub-systems on board vessels and a better integration of complex systems, in particular in relation with energy issues and efficient operations. This should lead to efficiency gains of 20% in terms of energy consumption and of 10% in terms of other operational costs.

Type of action: Research and innovation actions, 100% funding

Deadline: 23-04-2015 17:00:00 (Brussels local time) stage 1

15-10-2015 17:00:00 (Brussels local time) stage 2

Budget: 18 Million Euro



H2020 DRS 1 2015 Crisis management topic 1: potential of current and new measures and technologies to respond to extreme weather and climate events

Specific Challenge: Extreme weather and climate events, interacting with exposed and vulnerable human and natural systems, can lead to disasters. According to the Intergovernmental Panel on Climate Change (IPCC), some types of extreme events (e.g. flash floods and related landslides, storm surges, heatwaves, fires, including vegetation fires) have increased in frequency or magnitude, and in the meantime populations and assets at risk have also increased, leading to greater disaster risks. In order to better forecast and manage the immediate consequences of weather- and climate-related disasters, in particular regarding emergency responses, improved measures and technologies are needed.

Scope:

Proposals should focus on the **potential of current and new measures (including local measures) and technologies to enhance the response capacity to extreme weather and climate events** affecting the security of people and assets.



H2020 DRS 1 2015 Crisis management topic 1: potential of current and new measures and technologies to respond to extreme weather and climate events

Proposals should focus on **emergency management operations** and cover the whole crisis management, linking **awareness and early warning to effective responses** within society and coordination with first responders, including the use of adapted cyber technologies to gain time and improve coordination in emergency situations.

Proposals should also explore the links and eventual adjustments of the warning and response systems **facing the observed or anticipated changes in frequency and intensity of extreme climate events.**

The Commission considers that proposals requesting a contribution from the EU of **between €5m and €12m** would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.



H2020 DRS 1 2015 Crisis management topic 1: potential of current and new measures and technologies to respond to extreme weather and climate events

In line with the EU's strategy for international cooperation in research and innovation[1] **international cooperation is encouraged**, and in particular with international research partners involved in ongoing discussions and workshops, and US homeland security research entities. Funding for third countries is however still subject to the evaluations.

Expected impact:

- more effective and faster emergency responses to extreme weather and climate events; Faster analysis of risks and anticipation;
- publicly available online now- and fore-casting systems for disasters triggered by (extreme) weather conditions;
- improved coordination of emergency reactions in the field, including the use of adapted cyber technologies;
- improved capacity to provide adequate emergency responses to extreme weather and climate events;



H2020 DRS 1 2015 Crisis management topic 1: potential of current and new measures and technologies to respond to extreme weather and climate events

- shorter reaction time and higher efficiency of reactions;
- enhancement of citizen's protection and saving lives. The action is expected to proactively target the needs and requirements of users, such as national law enforcement agencies, climate and weather services, civil protection units and public and private operators of critical infrastructures and networks.

Type of action: Innovation Actions, 70% funding (except non-profit entities)

Deadline: 27-08-2015 17:00:00 (Brussels local time)

Budget: 61.73 Million Euro divided with 3, 6, 12, 13, 14, 15, 18, 22



H2020 BES 1 2015 Maritime Border Security topic 1: radar systems for the surveillance of coastal and pre-frontier areas and in support of search and rescue operations

Specific challenge:

Activities in the Mediterranean Sea related to border surveillance, including fight against drug trafficking and illegal immigration as well as search-and-rescue operations require for the authorities to detect at a long distance (typically: over the horizon) the presence of small vessels. The performance of existing radar systems need to be improved to that effect, or to be combined with other technologies. The cost and power requirements of such systems need to be lowered. Their deployment must also take into account the coastal environment, and they must integrate properly in the landscape. They should interface seamlessly with existing infrastructure supporting operations undertaken, or the services provided by the CISE constituent communities.



H2020 BES 1 2015 Maritime Border Security topic 1: radar systems for the surveillance of coastal and pre-frontier areas and in support of search and rescue operations

Scope:

Pre-competitive research in areas ranging from sensor design, to the analysis and design of system configuration and integration and validation by (public) authorities for target detection, identification and recognition. **Projects will focus only on border surveillance and search and rescue (not defence) needs.**

Expected impact:

To contribute to redress the limitations of current border surveillance systems at sea, particularly concerning the detection and tracking of small unseaworthy vessels. Impact will be benchmarked against improved capabilities to meet surveillance requirements in conditions ranging from those of the Southern Atlantic to the Greek archipelago. This topic would contribute further to the development of the European Border Surveillance System (EUROSUR) and the Common Information Sharing Environment (CISE) at sea.

Technology provides extended coverage over the coastal marine band radars, potentially reaching pre frontier detection, thus proving appropriate for the main missions of EUROSUR.



H2020 BES 1 2015 Maritime Border Security topic 1: radar systems for the surveillance of coastal and pre-frontier areas and in support of search and rescue operations

For this reason research and innovation should focus at future seamless cooperation and interfacing with existing infrastructure supporting the CISE constituent communities. The **appropriate participation of competent national authorities** is necessary to better define needs.

The output of the proposal is expected to lead to development of (a) prototype(s) up to Technology Readiness Level (TRL) 5.

Indicative budget: The Commission considers that proposals requesting a contribution from the EU of **between €4m and €8m** would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Type of action: Research and Innovation Actions, 100% funding

Deadline: 27-08-2015 17:00:00 (Brussels local time)

Budget: 42.17 Million Euro divided with BES- 2,3, 4, 5, 6, 7, 8, 10,11, 13



European Territorial Cooperation 2014-2020



Instrument for Pre-accession Assistance - IPA II

- Budget of **11.7 Mio Euro**
- Current beneficiaries are: Albania, Bosnia and Herzegovina, the former Yugoslav Republic of Macedonia, Iceland, Kosovo, Montenegro, Serbia, and Turkey.
- The most important novelty of IPA II is its **strategic focus**: specific strategic planning documents made for each beneficiary for the 7-year period, plus a Multi-country Strategy paper

http://ec.europa.eu/enlargement/instruments/overview/index_en.htm



ENPI Cross-Border Cooperation in the Mediterranean

- Budget of **209 Mio Euro**
- EU co-financing rate (of previous programme): 90%
- Different **thematic objectives**, among which: Support to education, research, technological development and innovation; Environmental protection, climate change mitigation and adaptation; Common challenges in the field of safety and security, including natural and man-made disasters; Environmental sustainability including ICZM
- Projects (of previous programme): strategic and standard, with minimum participation from EU and non EU partners



NEXTMED conference
Rome, 12 December 2014



Adriatic - Ionian Programme (ADRION)

- Budget of **99,2 Mio Euro**, 83,5 from ERDF and 15,7 from IPA
- EU co-financing rate: up to 85%
- **4 priorities:** Innovative and smart region, Sustainable region, Connected region, Towards a better governance of the EUSAIR
- Thematic objectives: Research, Environment, Transport and Governance
- Projects: networking structures; joint management systems and cooperation agreements; strategies and actions plans; methodologies and tools; pilot actions
- Deadlines:
 - **First quarter 2015- launch of the programme**
 - **Second/third quarter 2015 - First call for proposals**

http://www.southeast-europe.net/en/about_see/adriaticionianprogramme/



MedProgram 2014-2020

- Available ERDF funds: around **224 Mio** Euro
- Available IPA funds: around **9 Mio** Euro
- ERDF co-financing rate for partners not concerned with state aid: 85%
- ERDF co-financing rate for economic operators and structures concerned by state aid: 85% or 50%
- Deadlines:
 - **May-June 2015 kick off event and launch of first call for project proposals**



Programme co-financed
by the European Regional
Development Fund

<http://www.programmemed.eu/en/the-programme/programming-2014-2020/med-2014-2020.html>



- Projects organised by modules of **12-18 months**:
 - **Module 1**: studies/common strategies
 - **Module 2**: action plans/transnational experimentation/local transfer
 - **Module 3**: capitalisation/transfer/mainstreaming
- Focus on synergies mechanisms, thematic communities and clusters, e.g. by realizing horizontal projects
- Focus on performance and measurable results
- Enhanced participation of private sector (SMEs) and civil society (private co-financing in priority axis 1-3)
- Focus on 4 types of areas: **coastal areas**, urban areas, islands, rural areas
- 4 priority axes



PRIORITY AXIS 1: promoting Mediterranean innovation capacities to develop smart and sustainable growth

- Thematic Objective 1: Strengthening research, technological development and innovation
- Thematic keywords: **Blue and green growth**, creative industries and social innovation
- Types of action: The development of clusters and networks, development of models and tools, transfer of knowledge, as well as awareness-raising and capitalisation activities
- Key target groups: SMEs, economic operators and structures accompanying them; public authorities and research structures

Available ERDF budget: **72 Mio** Euro
Available IPA budget: **3 Mio** Euro
Private co-financing for ERDF partners



PRIORITY AXIS 3: protecting and promoting Mediterranean natural and cultural resources

- Thematic Objective 6: Protecting and promoting natural and cultural resources
- Thematic keywords: Strong attractiveness of coastal areas, environmental strain of urban development, geographical constraints (coastal areas, islands, mountains) and environmental consequences of climate change; Potential of new employment creation for the future.
- Types of action: Analysis, studies, policy-planning and strategy development, but also on transfer of practices and policy implementing measures
- Key target groups: Public authorities, but also associations and NGO's, research bodies, and to some extent enterprises

Available ERDF budget: **76 Mio** Euro
Available IPA budget: **3,2 Mio** Euro
Private co-financing for ERDF partners



- Available funds: **359 Mio Euro**
- 4 main themes: **Research and Innovation**, SME competitiveness, Low-carbon economy, Environment & resource efficiency
- For research and innovation:
 - strengthening research & innovation infrastructure and capacities
 - innovation delivery through regional innovation chains in chosen “smart specialisation” field
- Projects: **3 to 5 years** on a shared policy issue, definition of action plans for each region about lessons learned
- Deadlines:
 - 2-3 December 2014 - launch of the programme
 - Spring 2015 - First call for proposals



Europe, let's cooperate! - INTERREG EUROPE launch event, Bologna, 2-3 Dec. 2014
<http://www.interreg4c.eu/europecooperates/overview/>



*THANK YOU
for your attention!*

