



Ciclo virtual en H2020

Thematic BIODIVERSITY in H2020

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BIODIVERSITY

Biodiversity is the variety of different types of life found on earth (Wikipedia).

Biodiversity is connected with climate change, water,
There are many possibilities how to integrate biodiversity to the different projects

HORIZON 2020:

- Specific calls related to biodiversity in WP2014 – 15 (closed now)
- Calls where the biodiversity could be part of the whole solution. (difficult to find 😊)





OPEN calls in HORIZON 2020

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- **ONLY 1 RELATED CALL OPEN**
 - **DISASTER-RESILIENCE: SAFEGUARDING AND SECURING SOCIETY, INCLUDING ADAPTING TO CLIMATE CHANGE**
 - **Budget** €82,330,000
 - **Deadline Date** 27-08-2015 17:00:00 (Brussels local time)
 - Totally 12 topics, only a few somewhat related with biodiversity
- WHERE under DRS1, DRS3**
- 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.





TOPICS of DRS

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- **Crisis management topic 1: potential of current and new measures and technologies to respond to extreme weather and climate events (DRS-01-2015)**
- <http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/21052-drs-01-2015.html>
- Proposals should focus on the potential of current and new measures and technologies to enhance the response capacity to extreme weather and climate events affecting the security of people and assets. Proposals should focus on emergency management operations and cover the whole crisis management, linking awareness and early warning to effective responses within society, including the use of adapted cyber technologies.
- Budget per proposal: €5m and €12m
- **Innovation Action**





TOPICS of DRS

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- **Crisis management topic 3: Demonstration activity on large scale disasters and crisis management and resilience of EU external assets against major identified threats or causes of crisis (DRS-03-2015)**
- <http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/21053-drs-03-2015.html>
- projects demonstrating the EU deployable disaster and crisis management capabilities to be applied in real situations outside the EU
- Investigating the consequences of poor and/or late situational awareness to improve and restore situation awareness and communication with the in-situ teams (police forces, civil protection, etc.), and should take into account the identification of risk areas and vulnerable groups.
- exploring the cost-saving effect of comprehensive risk and threat prevention systems as well as the all management cycle.
- it should combine dynamic data (from sensors, aerial networks etc.) with static information (maps, infrastructure, assessment templates). Interoperability should be considered as well as health, environmental, climatic, dual-use, legal and ethical aspects.
- testing and validating research solutions that a later stage could be applied directly for disaster management.
- The demo should give importance to integrating adaptation to climate change and disaster risk management.
- **DEMO projects; between €10m and €20m EUR per proposal.**
- **Innovation Action**

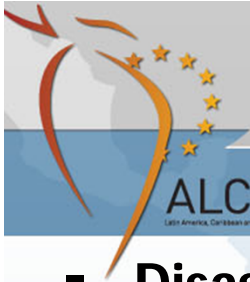




TOPICS of DRS

- **Disaster Resilience & Climate Change topic 2: Natural Hazards: Towards risk reduction science and innovation plans at national and European level (DRS-10-2015)**
- <http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/21056-drs-10-2015.html>
- develop an efficient networking and forum promoting effective mechanisms and interactions with the key players (e.g. scientists, authorities, users, civil protection, platforms...) in order to contribute to a new strategic vision on natural hazards risk reduction;
- identify the necessary key actions to be promoted (short to long term perspective), building on new concepts and innovations, in order to improve interdisciplinary scientific knowledge and apply or adapt current tools and methods to a new and effective risk reduction strategy at national/European level;
- Budget: 2 to 3 million euro
- **Coordination and support Actions**





TOPICS of DRS

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- **Disaster Resilience & Climate Change topic 3: Mitigating the impacts of climate change and natural hazards on cultural heritage sites, structures and artefacts (DRS-11-2015)**
- <http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/21057-drs-11-2015.html>
- eco-innovative solutions to help mitigate the effects of climate change and natural hazards on cultural heritage sites, structures and artefacts taking into account the values they hold for people and respecting their historic and cultural integrity.
- proposals may include case studies and address any research gaps or barriers
- focus on European cultural heritage through more reliable predictive and cost effective maintenance, decision makers at local, regional, national and international level responsible for disaster mitigation and safeguarding of cultural heritage assets.
- Budget: between the range of 6 to 8 million euro
- **Research & Innovation Actions**





TOPICS of DRS

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- **Ethical/Societal Dimension topic 3: Impact of climate change in third countries on Europe's security (DRS-11-2015)**
- <http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/21063-drs-22-2015.html>
- Climate change in Third Countries is a real threat to security of the European Union... thus projects should:
- Take into account past and on-going EU research, examining the specific causes and the impact of climate-driven crises on European security.
- What kind of instruments, tools, and actions can be used alongside mitigation and adaptation policies to address the climate change security risks?
- Which could be the most efficient ways of developing contingency plans for the EU's response to the effects of climate-driven crises occurring outside the Union?
- **Action will help stakeholders to better understand consequences of climate change events in Third Countries and its security implications for the EU.**
- Budget: between €1m and €2m
- **Coordination and support Actions**



- A balanced approach to research and innovation
 - not only limited to the development of new products and services on the basis of scientific and technological breakthroughs
 - but also incorporating aspects such as the use of existing technologies in novel applications and continuous improvements
- **Innovation actions in H2020** - Action primarily consisting of activities directly aiming at producing plans and arrangements or designs for new, altered or improved products, processes or services.
- For this purpose they may include **prototyping, testing, demonstrating, piloting, large-scale product validation and market replication**
- **Only limited *research and development activities***



DIFFERENT INSTRUMENTS - **Research and Innovation Action**

■ **RESEARCH and INNOVATION ACTION in H2020**

Action primarily consisting of activities aiming to establish new knowledge and/or to explore the feasibility of a new or improved technology, product, process, service or solution

- For this purpose they may **include basic and applied research, technology development and integration, testing and validation on a small-scale prototype in a laboratory or simulated environment**
- Projects may contain closely connected but limited demonstration or pilot activities aiming to show technical feasibility in a near to operational environment





DIFFERENT INSTRUMENTS - **Coordination & Support Action**

■ **COORDINATION & SUPPORT ACTION in H2020:**

Actions consisting primarily of accompanying measures such as

- standardisation, dissemination, awareness-raising and communication, networking, coordination or support services, policy dialogues and mutual learning exercises and studies, including design studies for new infrastructure, and
- may also include complementary activities of strategic planning, networking and coordination between programmes in different countries



- **Calls are challenge-based, and therefore more open to innovative proposals**
 - Calls are less prescriptive - they do not outline the expected solutions to the problem, nor the approach to be taken to solve it
 - Calls/topics descriptions allow plenty of scope for applicants to propose innovative solutions of their own choice - **NO SHOPPING LIST**
- **There is a greater emphasis on impact, in particular through each call or topic impact statements**
 - Applicants are asked to explain how their work will contribute to bringing about the described impacts
- **There is more emphasis on innovation**
 - Horizon 2020 supports all stages in the research and innovation chain **including non-technological and social innovation** and activities closer to the market
- **Proposals may bring together different disciplines, sectors and actors to tackle specific challenges**
 - e.g. scientists, industry, SMEs, societal partners, end-users...
- More support for innovation activities **close to the market**
- Strong focus on **creating business opportunities**



H2020 after 2015

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- The new Workprogram 2016 - 2017: draft version only
- **Key term: CIRCULAR ECONOMY**
 - Strategic areas:
 - **SMART CITIES**
 - **WATER**
 - **EARTH OBSERVATION**
 - **CULTURAL HERRITAGE**
 - **THE ARCTIC AND ANTARCTIC**
 - **CLIMATIC SERVICES**
 - **NATURAL BASED SOLUTIONS (solutions inspired by, using or supported by nature)**
- Preference: short projects, all ending with the innovation, new technologies, proof of concept, job creation, investments, ...
- No interest in the national problems, important is only **European economy !**





POSSIBLE TOPICS in 2016:

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- **Demonstration of climate services (IA)**
- Support of the user-driven demonstration of climate services in sectors or business networks in which their deployment can already take place at the current state of knowledge. Aim: to foster market uptake of climate services
- **Climate services market research (RIA)**
- Defining the European and international climate service market characteristics and foresight into market growth
- Climate services market barriers and enabling conditions
- **Assessment of the global mitigation efforts in the perspective of the longterm climate goal (INCO !!!)**
- **Demonstrating innovative nature-based solutions for climate and water resilience in cities (IA)**
- **Insurance value of ecosystems (RIA)**
- Uptake of ecosystem-based approaches for disaster risk reduction; transdisciplinary research
- **Multi-stakeholder dialogue platform to promote innovation with nature to address societal challenges (CSA)**
- Cooperation with key strategic international partners and third countries





POSIBLE TOPICS in 2016:

- **Supporting international cooperation activities on water (CSA)**
- Actions should aim to create a framework and permanent dialogue to encourage the opening in a structured and strategic manner of the Water JPI to international cooperation
- <http://www.waterjpi.eu/>
- **Sustainable selective low impact mining (RIA)**
- **Testing and breeding for sustainability and resilience in crops (RIA)**
- **Challenges for disease management: Perennial crops in the tropics and sub-tropics (RIA)**
- International collaboration with Third Countries is essential to meet the requirements of the topic.
- **WATER FARMS – Improving farming and supply of drinking water (RIA)**

BIODIVERSITY in 2017

- **Functional Biodiversity – Productivity gains through functional biodiversity – effective crop pollinators and pest predators interplay**
- **Socio economics in ecological approaches**
- **Promoting and supporting eco-intensification of aquaculture production systems**



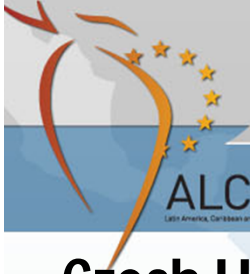


Conclusions

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- It is time to start the new partnership
- Probably late for the DRS topics of 2015
- Successful proposals for 2016 – **the preparation and organization should start NOW!**
- Cooperation with the potential consortia in the area of WATER, CLIMATE SERVICES, RISK MANAGEMENT and NATURAL BASED SOLUTIONS:
- METCENAS (www.metcenas.cz), Water Resource Institute (<http://www.vuv.cz/index.php/en/>)
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Comments – themas looking for partners from LAC:

Czech University of Life Sciences Prague
Faculty of Environmental Sciences
Department of Environmental Geosciences

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- 1) The use of nanoparticles for the remediation of soils contaminated with risk elements. **Uso de nanoparticulas para la remediación de suelos contaminados por elementos peligrosos.**
- 2) Reaction-transport modeling as a tool for predicting metal(lloid) behavior in soils. **Modelización de reacciones y transporte de metales(loides) para la predicción de su comportamiento en suelos.**
- 3) Development of advanced isotope analyses for the identification of contamination sources and ranges. **Desarrollo de análisis de isótopos avanzados para la detección de fuentes de contaminación y sus alcances.**





GOOD LUCK FROM PRAGUE!