Net 4 Society

The value of social science and humanities in Europe

December 6th 2018

Social Sciences and Humanities (SSH) integration in Horizon 2020

Net4Society Key facts

- Net4Society is the international network of National Contact Points (“NCPs”) for Societal Challenge 6 (SC6) in Horizon 2020.
- The network was established in 2008 and involves currently SC6 NCPs from around 60 countries in Europe and around the world
- **Net4Society is an Horizon 2020-funded project and will run in its 5th funding phase until August 2020**
- **Net4Society’s main objectives:**
  - Quality improvement of NCP services (e.g. trainings)
  - Support for SC6 research communities (Proposal preparation, consortium building)
  - Support to Social Sciences and Humanities (SSH) integration in Horizon 2020
  - Increased SC6 / SSH visibility & awareness for SSH impact

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Integration of SSH in Horizon 2020

*"Social sciences and humanities (SSH) are given an enhanced role as a **cross-cutting** issue aimed at improving **our assessment of and response to complex societal issues**. Therefore, where relevant, the research and innovation chain should **include contributions from SSH disciplines**"*

Source: EC Online manual

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Past vs Present

Programme dedicated to SSH, no reference to disciplines working together in the evaluation criteria

SSH is a cross-cutting issue, Trans-disciplinarity is part of the evaluation criteria

WORKING INDEPENDENTLY

WORKING TOGETHER

Socio-economic Sciences and Humanities integrated in Horizon 2020

Excellent Science

- **European Research Council**
  - Frontier research by the best individual teams
- **Future and Emerging Technologies**
  - Collaborative research to open new fields of innovation
- **Marie Skłodowska Curie actions**
  - Opportunities for training and career development
- **Research infrastructures** (including e-infrastructure)
  - Ensuring access to world-class facilities

Industrial Leadership

- **Leadership in enabling and industrial technologies**
  - ICT, nanotechnologies, materials, biotechnology, manufacturing, space
- **Access to risk finance**
  - Leveraging private finance and venture capital for research and innovation
- **Innovation in SMEs**
  - Fostering all forms of innovation in all types of SMEs

Societal Challenges

- Health, demographic change and wellbeing
- Food security, sustainable agriculture, marine and maritime research & the bioeconomy
- Secure, clean and efficient energy
- Smart, green and integrated transport
- Climate action, environment, resource efficiency and raw materials
- Inclusive, innovative and reflective societies
- Security society

SSH

European Institute of Innovation and Technology (EIT)

Spreading Excellence and Widening Participation

Science with and for society

Joint Research Center (JRC)

Cross-cutting Issues

EURATOM

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Why are the SSH disciplines integrated?

STEM disciplines
(science, technology, engineering and mathematics)

SSH disciplines
(social sciences and humanities)

COMPLEX SOCIETAL ISSUES

=

Integration of SSH: solutions and products that are **socially acceptable**, directly applicable or **marketable and cost-effective**

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Knowing why to integrate SSH- the question remains:

How to ensure fruitful and effective integration of Social Science and Humanities research into a project?

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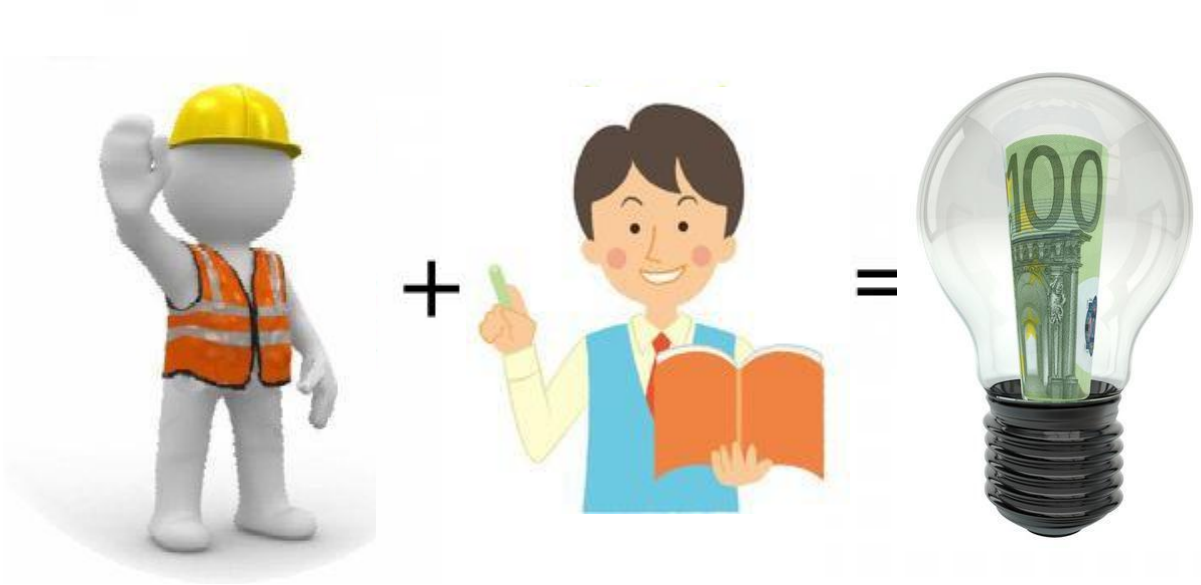
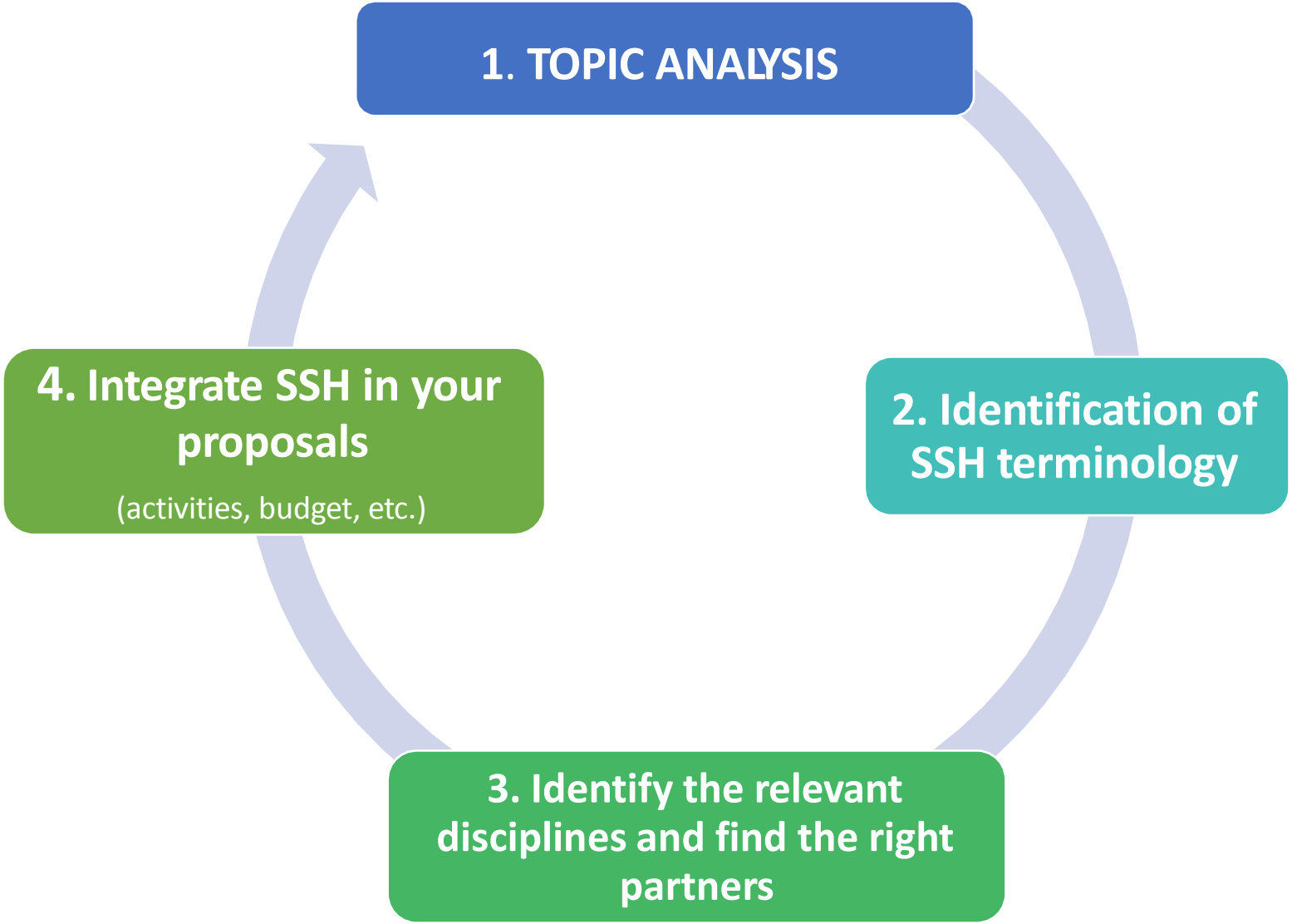
The SSH Integration process



The full Integration process



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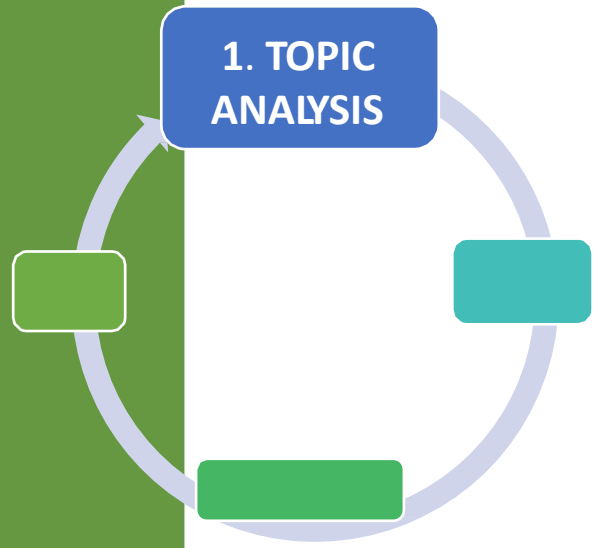
1. Topic analysis => SSH-flagged topics



When you analyse the topic, you need to be aware that it can be a SSH-flagged topic => DEDICATED or RELEVANT

1. Topics DEDICATED to SSH
   - Finding a solution relies on knowledge and input from SSH researchers and practitioners
   - Consortia submitting proposals will mainly consist of partners from various SSH disciplines

2. Topics with an SSH component or RELEVANT for SSH
   - Multidisciplinary topics where finding a solution requires knowledge and input from both SSH and STEM
   - Consortia submitting proposals will need to include both STEM and SSH partners

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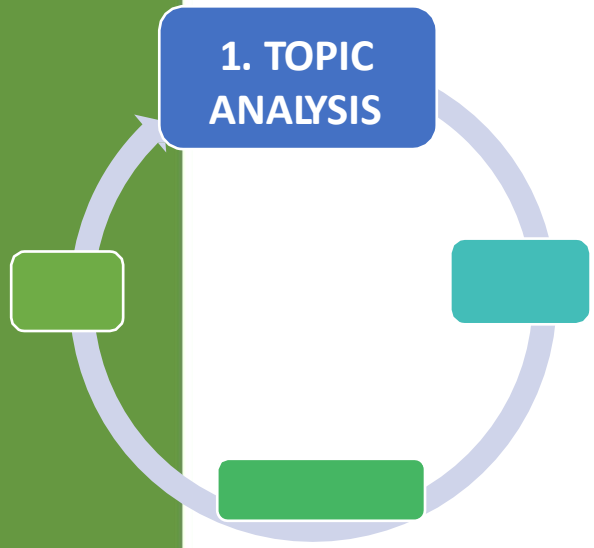
HOW TO ASSIGN THE SSH-FLAG TO TOPICS IN WP18-20?



To assign the SSH flag, you have to answer 'yes' to two key questions:

- Are SSH **terminology** and research questions (examples provided in WP guidance document) included in the scope section of the topic?
- Will the **consortium** require SSH partners to adequately and comprehensively address the issue at stake?

Source: EC

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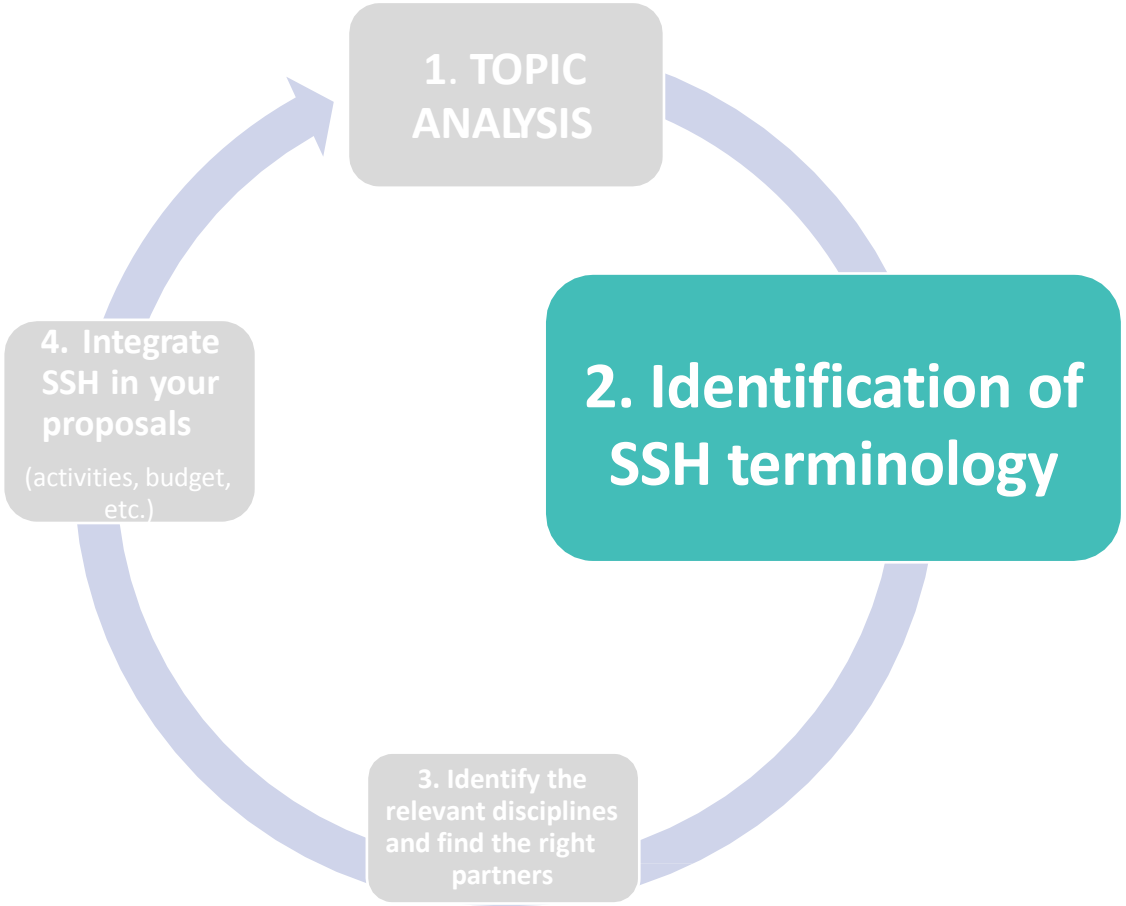
The full Integration process – 2nd Step



2. Identification of SSH terminology

SEC-18-BES–2017

Acceptance of "no gate crossing point solutions"

Specific Challenge:

For the traveller it would be ideal to cross borders without being slowed down. It is indeed likely that, in the next 10 years or so, technologies make it possible to implement "no gate crossing point solutions" that allow for seamless crossing of borders and security checks for the vast majority of travellers who meet the conditions of entry, and make sure that those who do not fulfil such conditions are refused entry.

There is a broad variety of technologies and systems including information systems and (networks of) sensors that will become available to support border checks based on risk-assessment methods. Some are to be deployed in the vicinity of border crossing points, others can be mobile and used to check travellers data along his/her journey.

However, in the intensive use of technologies that this will require bears the risk to invading people's privacy, and the **societal and political acceptance of technologies** for "no gate solutions" is required prior to their implementation.

Scope:

The assessment of the acceptability of such (combinations of) technologies and systems by citizens (who need to remain in control of personal data) and practitioners is needed, that takes account of **human behaviour, gender, legal frameworks, societal issues, and possible risk of discrimination.**

Methods developed to perform such assessments need also to generate information useful for decision makers to take informed decisions about future technology deployments, and for industry to design products that preserve privacy.

Indicative budget: The Commission considers that proposals requesting a contribution from the EU of € 3million would allow for this topic to be addressed appropriately. Nonetheless this does not preclude submission and selection of proposals requesting other amounts.

Expected Impact:

- Information systems that better manage personal information and support the automated checking and analysing of various entry and exit data, without increasing the risk of loss of privacy thanks to close cooperation with actions resulting from SEC-15-BES–2017: Risk-based screening at border crossing.
- Networks of sensors that better collect information needed for border checks, without increasing the risk of loss of privacy thanks to close cooperation with actions resulting from SEC-15-BES–2017.
- A method, and metrics, to assess **acceptability by the society** of the concept of border control processes based on "no gate crossing point solutions", and of the various technology components that may be required.

Identified SSH terminology:

- Societal and political acceptance;
- Human behaviour;
- Legal frameworks;
- Societal issues;
- Risk of discrimination

Choose if it's:

DEDICATED topic (only SSH disciplines)

RELEVANT topic (SSH and STEM disciplines)

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2. Terminology of SSH integration found in Security sector in 2017

- societal and political acceptance of technologies
- human behavior
- legal frameworks
- social connections, messages and preferences of users
- acceptability by the society
- right to data portability, the right to be forgotten, data protection impact assessments and the various implementations of the principle of accountability
- safeguarding the data and privacy of citizens
- cost-effective and user-friendly verification methods
- identify and address the societal dimensions
- Fundamental Rights
- Increased Trust and Confidence in the Digital Single Market

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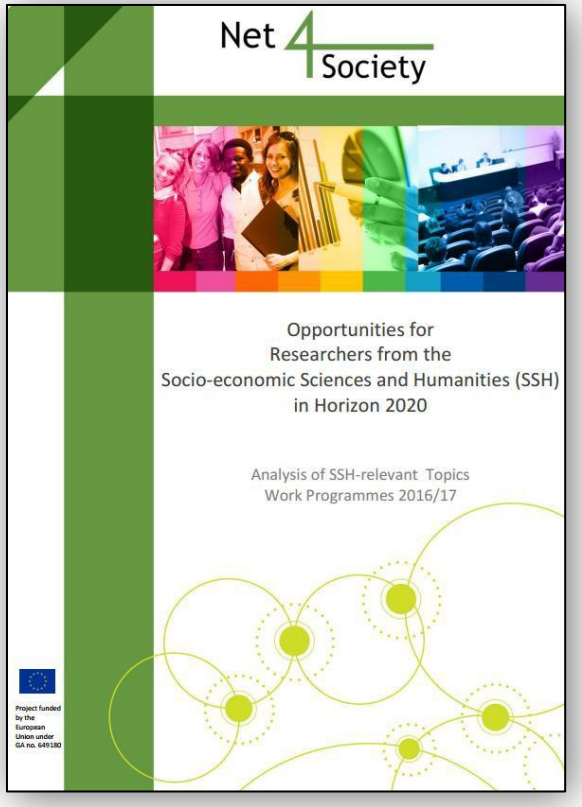
Net4Society - SSH Opportunities in H2020

Is there a document where I can find the selection of all the SSH-flagged topics, both dedicated and relevant?



Opportunities in SC2 topics

http://www.net4society.eu/_media/SSH_Opportunities_Document_2018-2020_update_final.pdf

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Net4Society - SSH Opportunities in SC2 (WP 2018-2020)

LC-SFS-03-2018: Microbiome applications for sustainable food systems

Specific challenge

The EU food system is an important part of the economy and society in Europe. Given the current context of societal, environmental and economic changes, there is need for constant improvement in terms of productivity, quality, safety, market orientation, adaptability, and international competitiveness. Knowledge of the potential of microbial systems, or microbiomes, throughout the food chains, is a promising means to this end. Microbiomes are known to regulate the productivity and health of major food sources such as plants and animals of both terrestrial and aquatic origin, therefore playing a major role in food and nutrition security. They also play a major role in food and feed processing and metabolism in different organisms throughout the evolutionary scale, ultimately influencing human health. A better understanding of the microbiomes associated with the food system would help address a number of key societal challenges including food and nutrition security, health and wellbeing, food waste management, climate change adaptation and mitigation.

Scope

Proposals shall focus on concrete microbiome applications which are of benefit to the food system. Building on knowledge already accrued from the isolation and characterization of microbiota associated to food production systems (plants, soils, animals, marine), proposals should look into ways to improve the quantity, quality and safety of the food we produce and consume in Europe. Microbiome applications in the treatment of food waste and alternative uses which promote sustainability and circularity are also included in the scope. Proposals are expected to develop holistic approaches across all stages of the food system from fork to farm including aquatic (marine and fresh water) resources. Activities shall also aim at increasing knowledge and applications derived from the marine microbiome for the development of new products, services or processes for food and health, while contributing to climate change mitigation. The inter-relations among microbiomes from different components across food chains - from soil to plants, animals, the marine and the human gut - and their impact on food and nutrition security and health shall also be considered. **International co-operation, transdisciplinary research, and integration of SSH and RRI including gender aspects to ensure long-lasting implementation of the results are encouraged.** Activities shall build on existing data and knowledge on the microbiomes associated to food production and processing systems, including results of EU funded projects in FP7 and Horizon 2020. Activities shall optimise the use of pre-existing databases and research infrastructures (including the distributed and virtual ones) and the opportunities granted by big data management tools, thus ensuring interoperability, standard methods and enhanced networking. **The interdisciplinary and cross-sectorial nature of the project should also apply to training activities improving the professional skills and competencies and supporting the creation of new jobs in the food sector and the bioeconomy.**

The Commission considers that proposals requesting a contribution from the EU of the order of EUR 10 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

http://www.net4society.eu/_media/SSH_Opportunities_Document_2018-2020_update_final.pdf

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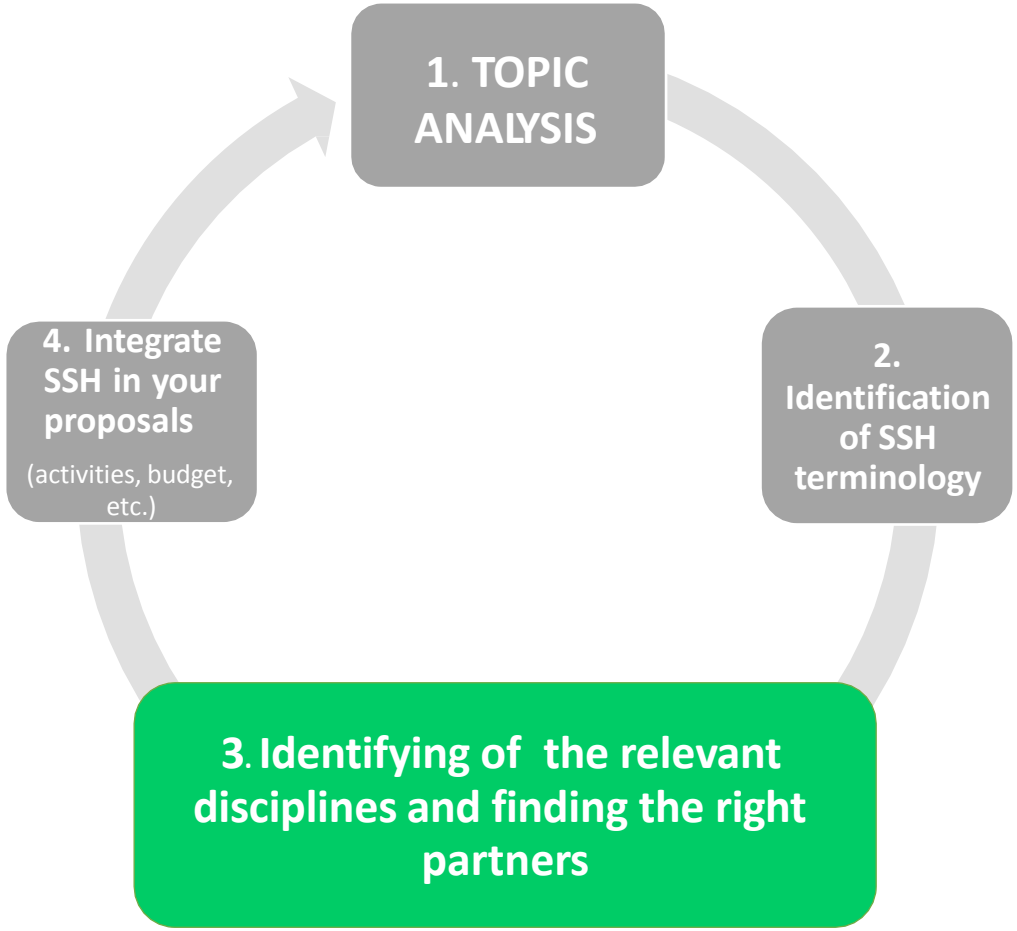
The full Integration process – 3rd Step



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3. Identify the relevant disciplines…

2. Identification of SSH terminology → **3. Identification of SSH disciplines to involve**

Identified SSH terminology:

- Societal and political acceptance;
- Human behaviour;
- Legal frameworks;
- Societal issues;
- Risk of discrimination

Psychology

Sociology

Law

Anthropology

Social aspects

Human rights

Education

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3. … and find the right partners

Visit the websites of the NCP networks and find relevant events!!

BioHorizon

HNN 2.0
HEALTH-NCP-NET

NCPs CaRE

S3 Seren

Full list: http://www.net4society.eu/public/860.php

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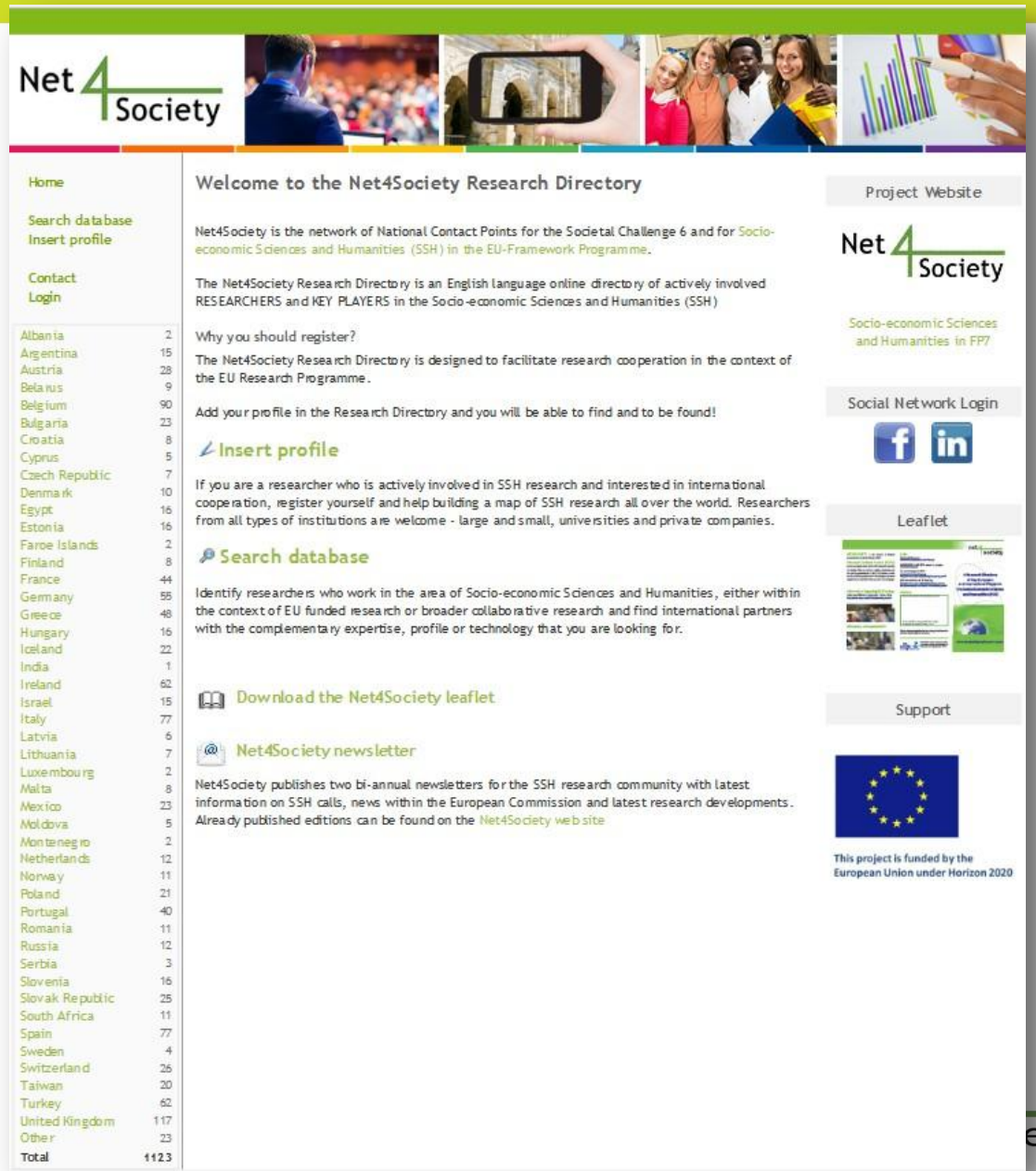
3. … and find the right partners

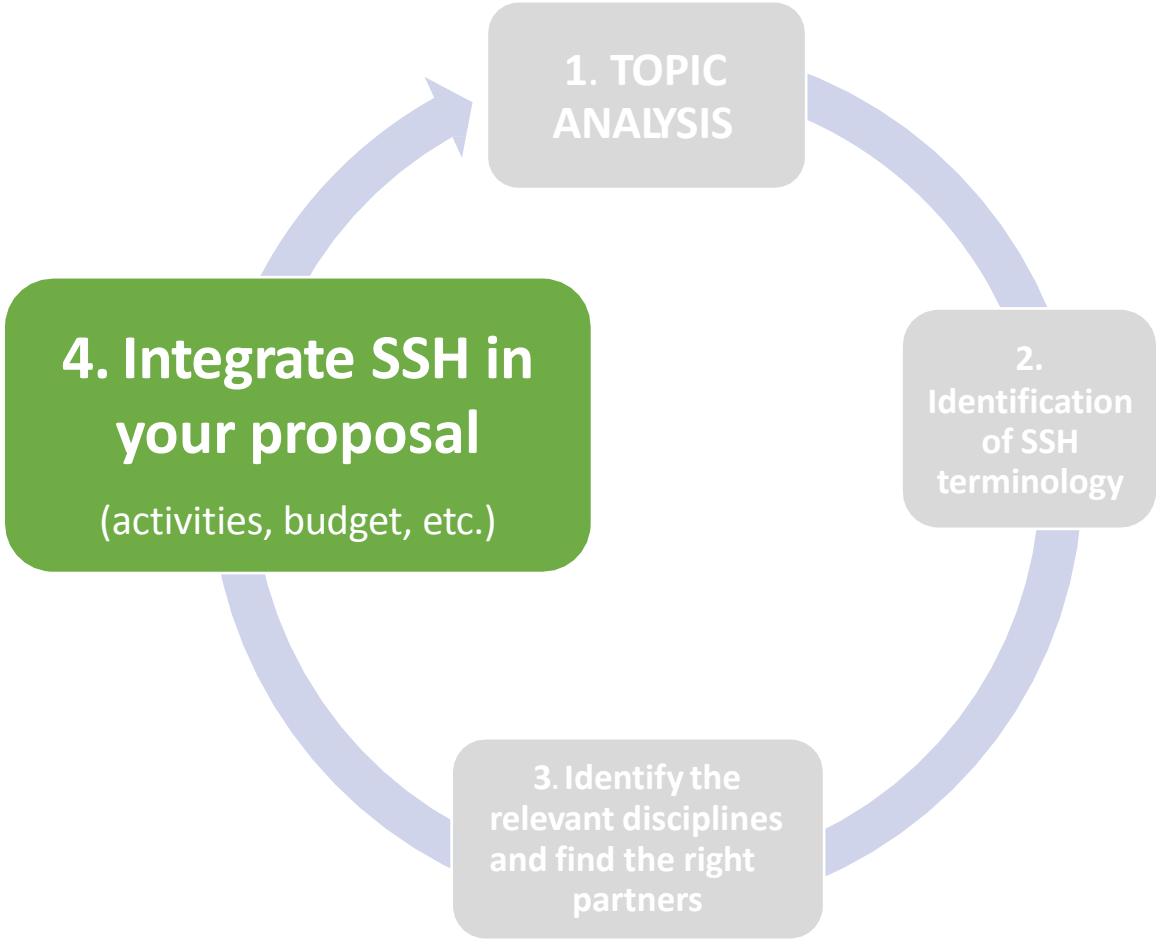
If you are a researcher from a STEM discipline and you need a SSH researcher

RESEARCH DIRECTORY
offered by Net4Society project, with 1500 profiles from 30 countries

www.sshresearchdirectory.eu



The full Integration process – 4th Step



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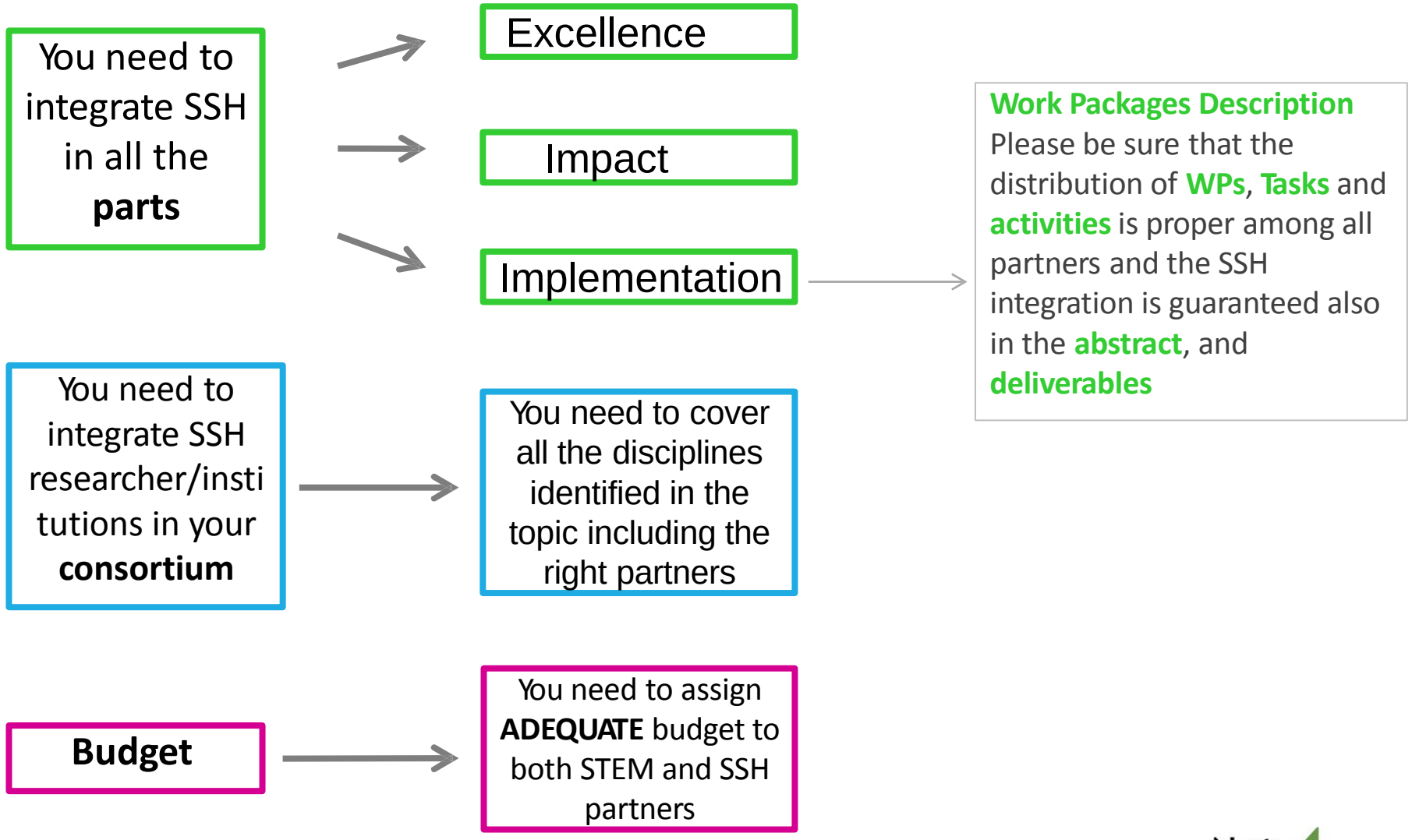
4. Integrate SSH in your proposals



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Success stories in SSH integration

Net4Society developed a compilation of factsheets on SSH integration presenting best practice examples of successful SSH integration.

- The series contains illustrations of:
- all Societal Challenges throughout Horizon 2020
- Future and Emerging Technologies
- Research Infrastructures
- Nanotechnologies
- Information and communication technologies

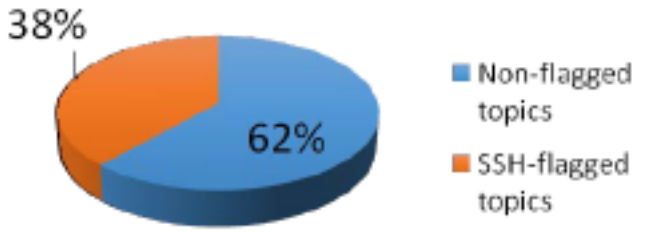
https://www.net4society.eu/_media/Net4Society_D_3_3_FINAL_Factsheets_SSH_Integration.pdf

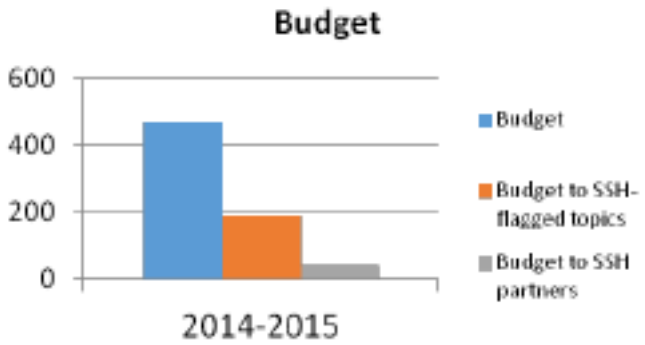
Example 1: Success story of SSH integration in SC2

FACTS & FIGURES

In the Work Programme 2014-2015 SC2 funded a total of 60 topics with a total budget of €471,5 million.

23 out of 60 topics were flagged for SSH. Within these topics 34 projects were funded for a budget of €189 million out of which 41 million went to SSH partners.





Source: 1st and 2nd Monitoring Report on Integration of Social Sciences and Humanities in Horizon 2020: Participants, budget and disciplines, EC

Project info

ClimeFish

The overall goal of ClimeFish is to help ensure that the increase in seafood production comes in areas and for species where there is a potential for sustainable growth, given the expected developments in climate, thus contributing to robust employment and sustainable development of rural and coastal communities.

http://climefish.eu/

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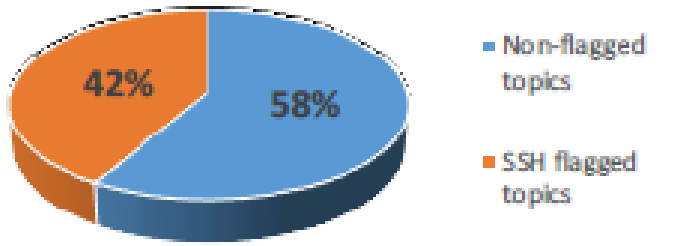
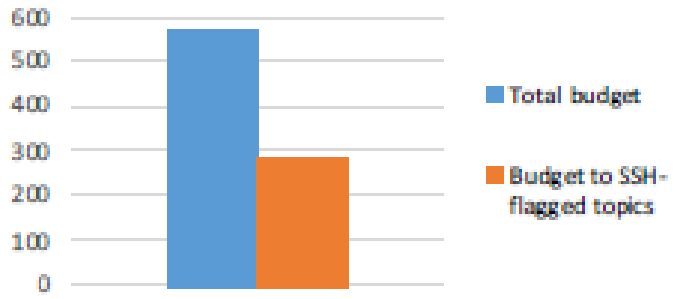
Example 2: Success story of SSH integration in FET

FACTS & FIGURES

In the Work Programme 2016-2017, FET funded a total of 12 topics with a total budget of €570 million.

5 out of 12 topics explicitly required the involvement of SSH disciplines. Within these topics, 128 projects were funded from a budget of about €282 million.





Source: Future and Emerging Technologies Work Programme 2016–2017, CORDIS.

Project info

ODYCCEUS

ODYCCEUS stands for Opinion Dynamics and Cultural Conflict in European Spaces.
Social media and the digitization of news and discussion fora are having far-reaching effects on the way individuals and communities communicate, organize, and express themselves. Can the information circulating on these platforms be tapped to better understand and analyse the enormous problems facing our contemporary society?

The project seeks conceptual breakthroughs in Global Systems Science, including a fine-grained representation of cultural conflicts based on conceptual spaces and sophisticated text analysis, extensions of game theory to handle games with both divergent interests and divergent mindsets, and new models of alignment and polarization dynamics. The project will also develop an open modular platform, called PÉNELOPE, that integrates tools for the complete pipeline, from data scraped from social media and digital sources, to visualization of the analyses and models developed by the project.

https://www.odycceus.eu/project/

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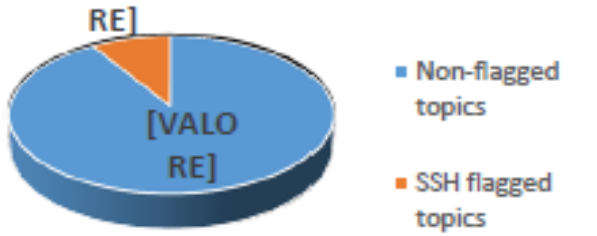
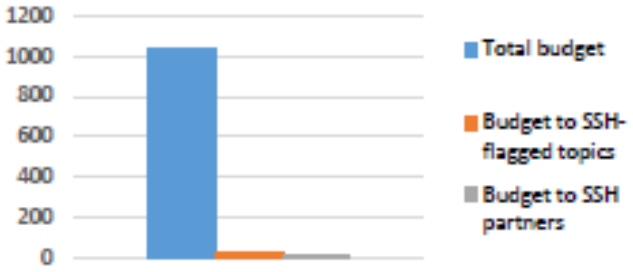
Example 3: Success story of SSH integration in NMBP

FACTS & FIGURES

In the Work Programme 2014-2015, NMBP funded a total of 79 topics with a total budget of €1043 million.

7 out of 79 topics were flagged for SSH. Within these topics, 9 projects were funded for a budget of €29 million out of which €3.2 million went to SSH partners [VALORE]





Source: 1st and 2nd Monitoring Report on Integration of Social Sciences and Humanities in Horizon 2020: Participants, budget and disciplines, EC

Project info

NANORESTART

NANORESTART focuses on nanotechnologies and contemporary art.

The NANORESTART project will focus on the **synthesis of novel poly-functional nanomaterials** and on the development of **highly innovative restoration techniques** to address the conservation of a wide variety of materials mainly used by **modern and contemporary artists**.

In NANORESTART, **enterprises and academic centers of excellence** in the field of synthesis and characterization of nano- and advanced materials have joined forces with complementary **conservation institutions and freelance restorers**. This **multidisciplinary approach** will cover the development of different materials in response to real conservation needs, the testing of such materials, the assessment of their environmental impact, and their industrial scalability.

http://www.nanorestart.eu/

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Recommendations for designing interdisciplinary research programmes (1/3)

1. Institutional framework conditions of the research system

- **Teaching**: Teach methods that allow for the integration of knowledge from different disciplines into multi-, inter-, and transdisciplinary approaches; demonstrate impact on the core disciplines involved.
- **Funding:** Increase flexibility in funding framework: preparatory and pilot projects for overcoming disciplinary biases, sufficiently long timeframe (interdisciplinary projects typically need a longer timeframe to realize their potential), sustained support, especially when requesting impact measures; for multiannual, multiprogramming frameworks such as Horizon 2020 a substantial margin for new developments should be factored in. Work Programmes must support the interdisciplinary endeavour.
- **Knowledge transfer and co-creation:** Create better conditions for data mobility and accessibility across disciplines, domains and sectors to support transition to transdisciplinary research.

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Recommendations for designing interdisciplinary research programmes (2/3)

2. **Programme design**

- **Topics:** Balance needs for policy-relevant research and the pursuit of true scientific novelty when designing new interdisciplinary programmes.
- **Governance:** Ensure interdisciplinarity (possibly also involving users of research) in the composition of planning, advisory, and evaluation committees of programmes; request similarly broad range of expertise in the internal governance of projects.
- **Call:** Ensure that the call spells out explicit interdisciplinarity requirements for project proposals in response to research topics.

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Recommendations for designing interdisciplinary research programmes (3/3)

3. **Evaluation**

- **Principles:** Evaluate novelty in the combination of disciplines and methods in response to the research theme; specifying criteria, without distinguishing between fundamental and applied research.
- **Panel:** Include interdisciplinary research experts on evaluation panels; evaluate and emphasise the quality of interdisciplinary integration in project design (including project management and the experience and skills of project coordinator).
- **Impact:** Reward use of new publishing practices (Open Access) and of proactively involving non-academic users of knowledge (e.g. civil society organizations, policy makers, business, etc.), if requested in call.

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Recommendations for researchers while building an interdisciplinary research project

- **Build interdisciplinarity into the project from the start** at all governance and implementation levels (methodological pluralism at the core; avoid “add-on” of disciplinary contributions); involve all categories of relevant stakeholders (including, if relevant, partners with policy/practice orientation) along the entire process - in governance, advisory bodies and research.
- **Clarify core shared terminology** at the beginning of the project and agree on measures to assess appropriate level of interdisciplinary integration for successful deliverables.
- **Select an experienced project manager/coordinator** who can pro-actively help networking and community-building in the early stages (sufficient funding for this critical phase needs to be guaranteed).

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  - ISSUES e-magazine
  - e-newsletter

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