





Focus su interdisciplinarità e impatto nel processo di innovazione

Monique Bossi Responsabile Soci APRE

www.apre.it

© APRE 2013



Agenda

- La programmazione 2016/2017 in Horizon 2020
- Focus su «interdisciplinarità»
- Focus su «impatto»





LA PROGRAMMAZIONE 2016/2017 IN HORIZON 2020

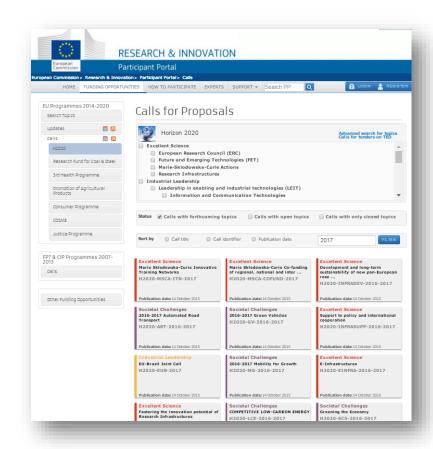




www.apre.it



Calls 2017: get ready!



http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/index.html



http://www.apre.it/ricerca-europea/horizon-2020/bandi/#forthcoming







Infoday WP 2017

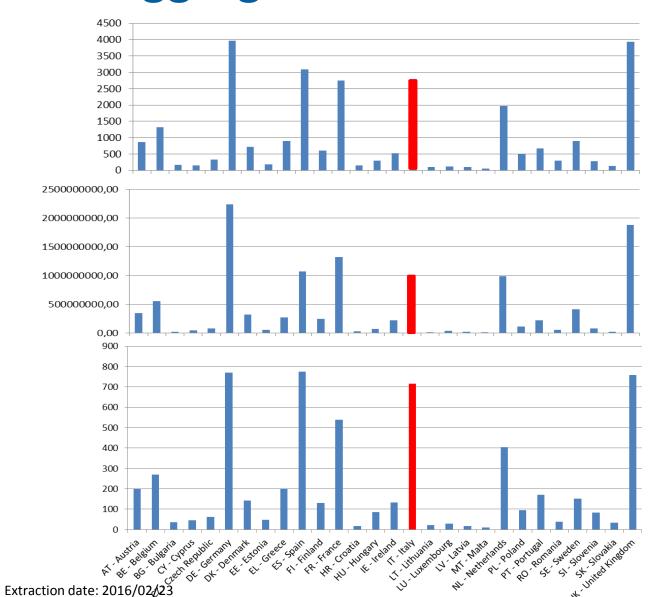
| When | What | Where |
|----------------|---|------------|
| 22/03/2016 | ICT | TORINO |
| 01/04/2016 | SC2 - BBI Info day | ROMA |
| 05-06/04/2016 | SC7-Infoday&Brokerage | BRUXELLES |
| 21/04/2016 | SC2 - BBI EU INFO DAY | BRUXELLES |
| 28/06/2016 | SC2- EU INFO DAY | BRUXELLES |
| XX/06/2016 | SC6 | ROMA |
| 28/09/2016 | Sc 6 Brokerage | Lisbona |
| XX/10/2016 | Circular Economy | Roma |
| 07-08/07/2016 | SC1- Infoday&Brokerage | BRUXELLES |
| 12/07/2016 | SC1- Giornata Lancio Bandi 2017&Brokerage | ROMA |
| 14/09/2016 | ERC - lancio WP2017 | ROMA (CNR) |
| 26-27/09/2016 | ICT | Bratislava |
| 13- 14/09/2016 | SC5- Infoday&Brokerage | Bruxelles |
| Autunno | SC4- Infoday&Brokerage | Bruxelles |

More info to come, stay tuned!





Dati aggregati: EU28



Number of signed GA

EC contribution in signed GA

SME participation







Success rate: EU28

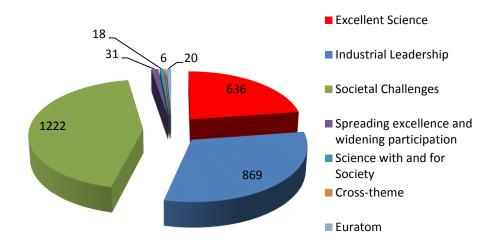
| Country | Applicants from a Country | EU Financial Contribution |
|---------------------|---------------------------|---------------------------|
| AT - Austria | 16% | 14% |
| BE - Belgium | 16% | 16% |
| BG - Bulgaria | 8% | 4% |
| CY - Cyprus | 11% | 9% |
| CZ - Czech Republic | 12% | 9% |
| DE - Germany | 15% | 18% |
| DK - Denmark | 14% | 13% |
| EE - Estonia | 13% | 11% |
| EL - Greece | 12% | 10% |
| ES - Spain | 13% | 11% |
| FI - Finland | 12% | 9% |
| FR - France | 16% | 15% |
| HR - Croatia | 10% | 6% |
| HU - Hungary | 9% | 7% |
| IE - Ireland | 15% | 13% |
| IT - Italy | 11% | 10% |
| LT - Lithuania | 10% | 5% |
| LU - Luxembourg | 16% | 13% |
| LV - Latvia | 12% | 8% |
| MT - Malta | 11% | 6% |
| NL - Netherlands | 15% | 15% |
| PL - Poland | 11% | 8% |
| PT - Portugal | 12% | 11% |
| RO - Romania | 11% | 6% |
| SE - Sweden | 14% | 12% |
| SI - Slovenia | 9% | 8% |
| SK - Slovakia | 11% | 9% |
| UK - United Kingdom | 15% | 13% |
| Total for MS | 14% | 13% |



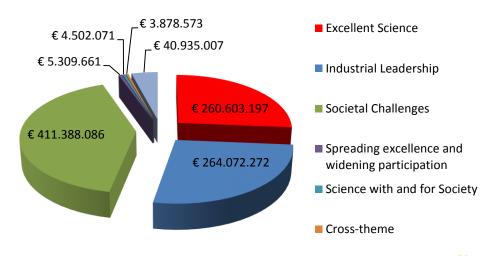




Dati aggregati: IT 1/2



Number of signed GA



EC contribution in signed GA

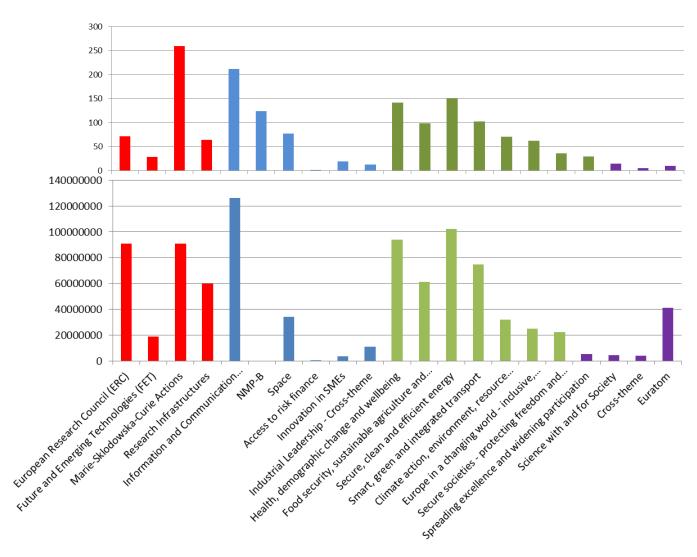
dustrico Sa

www.apre.it

Euratom



Dati aggregati: IT 2/2



Number of signed GA

EC contribution in signed GA

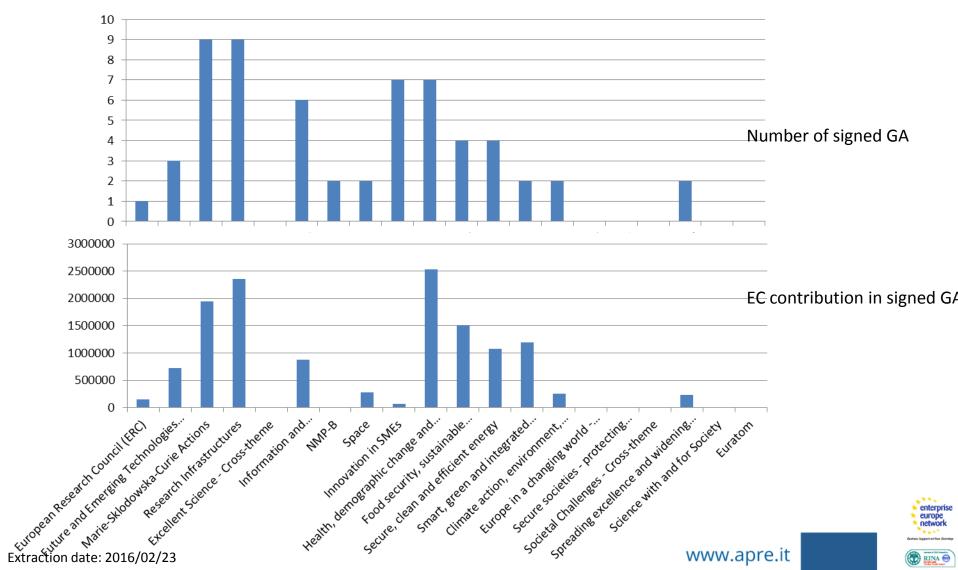




Extraction date: 2016/02/23 www.apre.it



Dati aggregati: FVG







www.apre.it



FOCUS SU «INTERDISCIPLINARITÀ»







FP7 – Cooperation Programme Theme 8 'Socio-economic Sciences and Humanities'

Horizon 2020 – No self-standing SSH programme SSH is embedded as a cross-cutting issue

"Social sciences and humanities research will be fully integrated into each of the priorities of Horizon 2020 and each of its specific objectives (...) so that the SSH can make a contribution wherever they are needed."

Horizon 2020 Framework Regulation





Why are the SSH disciplines integrated?



STEM disciplines

(science, technology, engineering and mathematics)



(social sciences and humanities)







COMPLEX SOCIETAL ISSUES



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





SSH aspects include...





Human behaviour and choices, lifestyles and well-being



Human geography and demographic trends



Historical considerations



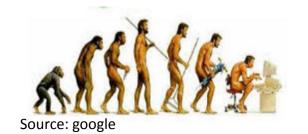
Economic analysis and business models



Legal, institutional and political frameworks

Cultural and anthropological aspects

Variations across social groups











SSH integration in practice

- ✓ **SSH experts** contribute to framing the questions and issues to be tackled in Horizon 2020
- ✓ **Topics are 'flagged' for SSH**, i.e. they point to SSH research as integral part of the expertise needed to properly address the issue outlined in the topic
- ✓ **Proposals submitted** for topics 'flagged' for SSH should contain meaningful, integrated contributions from SSH researchers
- ✓ Evaluation panels include SSH expertise; evaluators briefed on how to identify and evaluate SSH aspects





SSH flagged-topics

1. Topics with an SSH component

- 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

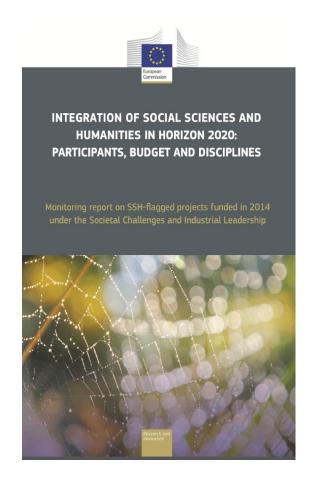
2. Topics dedicated to SSH

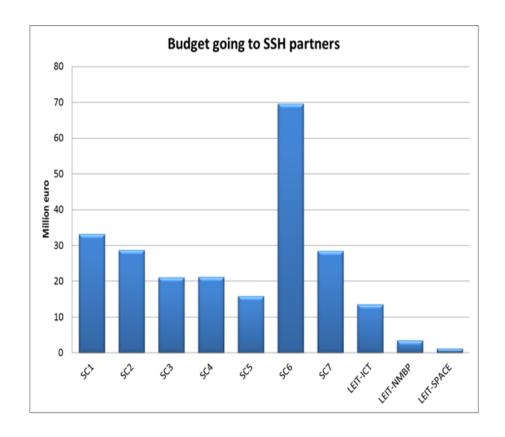
- Finding a solution relies on knowledge and input from SSH researchers and practitioners
- Consortia submitting proposals will mainly consist of partners from various SSH disciplines



SSH integration –Monitoring Report 2014













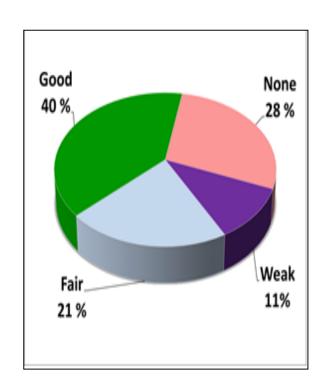
QUALITY OF SSH INTEGRATION IN PROJECTS FUNDED UNDER SSH-FLAGGED TOPICS IN 2014

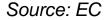
This **indicator** aggregates the performance of each project along four dimensions and associated thresholds, assessing whether:

- Share of SSH partners is higher than 10%
- Budget going to SSH is higher than 10%
- Contributions from SSH are well integrated in project abstract, keywords, work packages and deliverables
- Contributions from SSH came from at least two distinct SSH disciplines

The quality of SSH integration in each project:

- None No threshold was met for any of the four dimensions
- Weak Threshold met for one dimension
- Fair Threshold met for two or three dimensions
- Good Threshold met for all four dimensions





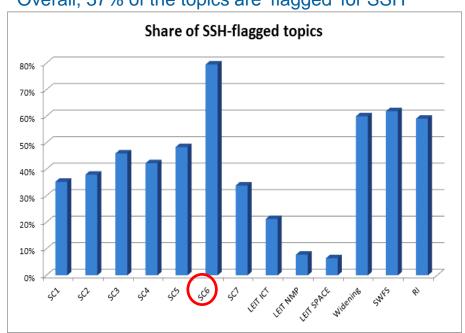


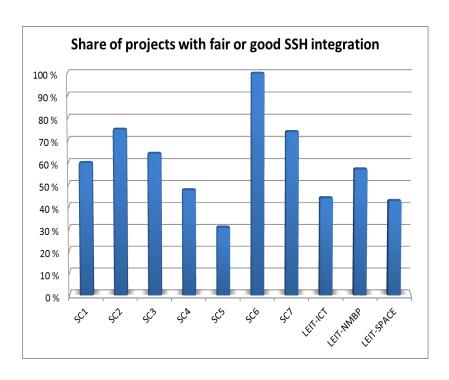




INTEGRATION OF SSH IN 2014-15 WP







The data from 308 GA 97 topics in WP 2104. All 97 topics were flagged for SSH.

The share of budget going to SSH partners amounts to 6% (i.e. €236million) of the total 2014 budget of €4 billion (i.e. 21% of the budget of SSH-flagged topics)





Best practices examples – funded projects





Examples of Interdisciplinary SSH-STEM projects funded in 2014 - NMBP

NANORESTART

NANOmaterials for the REStoration of works of ART

Type of action: IA

Call:

Nanotechnologies & Advanced Materials

WP Part: LEIT

- Challenge: lack of methodologies for the conservation of modern and contemporary artworks that use non-traditional materials (plastics, fiberglass, etc.).
- NANORESTART will develop nanomaterials to ensure long term protection and security of cultural heritage, taking into account environmental and human risks, feasibility and materials costs.
- NANORESTART brings together <u>specialists in</u> <u>chemistry</u>, <u>materials science</u>, <u>art</u> <u>conservation and restoration</u>, <u>museum</u> <u>curators</u> and <u>cultural heritage educators</u>.









Examples of Interdisciplinary SSH-STEM projects funded in 2014 - HEALTH

LIFEPATH

Life course pathways underlying social differences in healthy ageing

Type of action: RIA

WP Part: SC1 Health,

Demographic Change and Wellbeing Call: Personalised Healthcare

Topic: PHC-01-2014 Understanding health, ageing and disease: determinants, risk factors and pathways

- Healthy ageing, quality of life and life expectancy differ significantly between individuals of different **socioeconomic groups**.
- LIFEPATH integrates biology, biostatistics, epidemiology and epigenomics approaches with **social science approaches** (sociology, economics and public health policies).
- LIFEPATH investigate the consequences of the current economic recession and accompanying increase in social inequalities on health and the biology of ageing.
- Based on these insights, it will provide evidence for healthy ageing policies that can address social disparities in ageing

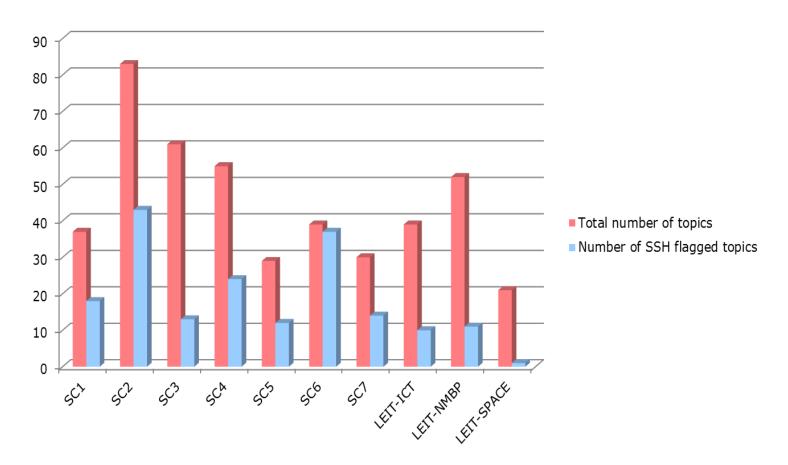
Best practice suggested by the EC



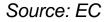




Integration of SSH in the 2016-17 WP



41% of topics 'flagged' for SSH









First results of the new policy

In 2014, 236 million euros have been awarded to SSH partners (out of a total of 1,1 billion that was flagged for SSH in calls of the 7 societal challenges and LEIT)

26% of consortia partners in projects funded under SSH-flagged topics have SSH expertise and contribute it to the projects

In WP 2016-17, **41% of call topics are flagged for SSH** (compared to 37% in 2014-15)

The quality of integrating the SSH in WP 2016-17 has been further **improved** (e.g. improved topic descriptions with appropriate SSH wording, improved variety of SSH disciplines)

> MONITORING REPORT 2014 SOCIAL SCIENCES AND HUMANITIES (SSH)





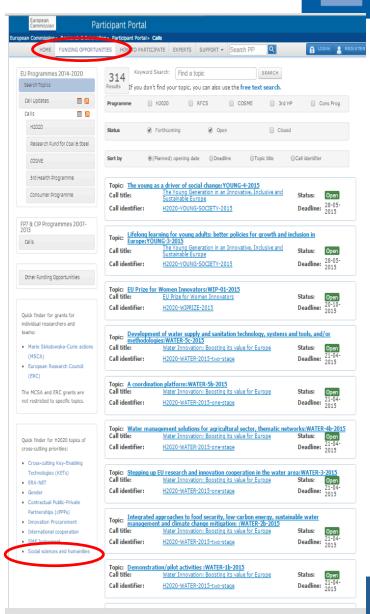


Sources of information

SSH-FLAGGED TOPICS
on
H2020
Participant Portal

WP 2014-15: 37% flagged topics (more than 200)

WP 2016-17: similar 41% (220 topics approx)







Net4Society – SSH Opportunities



SC1-PM-04-2016: Networking and optimising the use of population and patient cohorts at EU level

Specific challenge

Population cohorts are invaluable resources to obtain detailed description of individual biological variations in connection with a variety of environmental, pathogenic, occupational, societal, and lifestyle determinants that influence the onset and evolution of diseases. Europe currently has some of the most valuable population and patient cohorts, including well annotated clinical trial cohorts. However, the lack of integration of these cohorts hampers the optimal exploitation of these resources, essential to underpin and facilitate the development of stratified and personalised medicine.

Scope

Proposals should aim at maximizing the exploitation of cohorts by bringing together national and/or European cohorts with common scientific interests (e.g. across diseases, children, mothers, elderly, birth, gender, etc.), and by taking advantage of new technologies (e.g. ICT, social platforms, etc.) and new type of data (e.g. geographical, genetic, eHealth records, etc.). Based on those cohorts using a comprehensive integration strategy to facilitate hypothesis-driven research, data sharing, harmonisation and analysis, proposals should provide expanded resources and knowledge on health and disease determinants, onset and course of diseases (including aspects of co-morbidity and/or co-infections), clinical, public health and socio-economic research. Synergies with relevant existing European infrastructures and additional collaborations with relevant international initiatives are encouraged. Proposals should also engage with relevant international/national/regional authorities to ensure that findings are implemented and translated into health policy.

The Commission considers that proposals requesting a contribution from the EU of between EUR 8 and 10 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Expected impact

Expected impacts include one of or a combination of the following point(s):

- Make major conceptual, methodological and analytical contributions towards integrative cohorts and their efficient exploitation.
- Contribute to providing novel information on health maintenance, onset and course
 of diseases, or population stratification, with a view to tailor diagnosis or to optimise prevention and
 treatment.
- Provide the evidence base for the development of policy strategies for prevention, early diagnosis, therapies, health economics as well as addressing health inequalities. Wherever relevant, evidence for economic evaluation of interventions should also be included.
- Optimise the use of population cohorts in defining/improving clinical practice and public health policy.

| Type of action | Research and innovation actions | |
|-------------------|---|--|
| Deadline | 13 April 2016 | |
| Call identifier | H2020-SC1-2016-2017 | |
| Topic information | http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/3051-sc1-pm-04-2016.html | |



Useful links

Horizon 2020

http://ec.europa.eu/programmes/horizon2020/

Participant portal

https://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-ftipilot-2015-1.html

SSH EC page

http://ec.europa.eu/research/social-sciences/index.cfm

Net4Society
Regole di

http://www.net4society.eu/index.php

partecipazione

http://ec.europa.eu/research/participants/portal/desktop/en/funding/reference docs.html#h2020-legal-basis-rfp

APRE

http://www.apre.it/ricerca-europea/horizon-2020/fast-track-to-innovation/





FOCUS SU «IMPATTO»







Award criteria: RIA, IA and SME Instrument



Excellence*

Thresholds 3/5



Impact**

Thresholds 3/5



Implementation

Thresholds 3/5

Impact

The expected impacts listed in the work programme under the relevant topic;

Enhancing innovation capacity and integration of new knowledge;

Strengthening the competitiveness and growth of companies by developing innovations meeting the needs of European and global markets, and where relevant, by delivering such innovations to the markets;

Any other environmental and socially important impacts;

Effectiveness of the proposed measures to exploit and disseminate the project results (including management of IPR), to communicate the project, and to manage research data where relevant.





Impact Section



1: Excellence

1.1 Objectives
1.2 Relation to work programme
1.3 Concept and methodology
1.4 Ambition

2. Impact

2.1 Expected impacts
2.2 Misure to maximase impact
) Dissemination and exploitation of results
b) Communication activities

3. Implementation

3.1 Work plan – work packages, deliverables and milestones
 3.2 Management structure and procedures
 3.3 Consortium as a whole
 3.4 Resources to be committed





ESR – weaknesses for Impact

- No significant environmental and social impacts beyond the call targets.
- Not quantified impact/clear justification of the forecasts on impacts is missing.
- Provided numbers are not fully convincing, as supporting facts are missing.
- Enhanced citizen awareness and participation mentioned but not sufficiently developed.
- Little discussion about how the **new knowledge produced by the project will be integrated to available data sets**, and used in broader scale models.
- Insufficient/standard communication measures.
- In the dissemination strategy a clear targeted strategy to reach different stakeholders' groups is not well mentioned.
- The **performance indicators for dissemination** are not ambitious.
- The possibility to set up **training workshops towards end users** as a way to decrease the barrier for adoption of the project results is not considered enough.
- Ability to effectively replicate the concept and technology throughout Europe is not evident.
- **Exploitation plan** is absent/partial or vague.
- Lack of details on IPR management.





Expected impacts: before writing...

Suggestion: Key Questions

- Quali sarebbero i cambiamenti apportati, introducendo la vostra innovazione sul mercato?
- Qual è il potenziale di crescita atteso dalla soluzione in termini di fatturato, occupazione, aggressione del mercato, gestione della proprietà intellettuale, le vendite, il ritorno sugli investimenti e profitto, ecc?
- Quale dovrebbe essere il finanziamento o le condizioni per poter raggiungere il mercato?

Suggestion: Tips and tricks

- Tabella comparativa
- Considera:
 - Impatto Economico
 - Impatto Sociale
 - Impatto Ambientale
 - Impatto Scientifico
- Indicatori di Performance
- Come si contribuisce agli **standard** tecnici





Business Plan – Template EU

"The purpose of the preliminary business plan is to demonstrate the commercial potential of the product and/or service (offering) and describe how this potential will be realised".

- Define the proposed offering: the product and/or service; target market sector.
- Review the market sector, its: structure; size; drivers; market and technology trends.

In addition to describing the size and structure of the sector, the review should address the dynamics of the market. In particular, it should note the technologies and economics that are driving the market and the anticipated trends that could influence the market entry of the offering.

Assess the competition: main players, their current offerings and market share.

Assessment should be limited to those players offering products or services that the propos offering seeks to supplant, either through superior technology or functionality. While the offering may be novel to the market, it will still be necessary to 'persuade potential custome that it is superior to existing offerings.

 Describe the innovation of the proposed offering in the context of the competition and the sector's needs.

This subsection should focus on the strengths of the offering and show how those strengths play to the opportunities that the competition survey has highlighted.

- Summarise potential business model(s) together with possible entry price(s) and costs.
- Assess the key risks to market entry and possible options for risk mitigation.

The proposal should look beyond risks related with the a successful completion of the project to consider the hazards associated with launching an innovative product/service into the target sector, including the availability of resources and the possible constraints imposed by standards, regulations and legislation.

 Outline, graphically, the <u>roll-out</u> of the offering: timescale; sales growth; market share

In the context of the <u>roll-out</u>, present a draft 'profit and loss' sheet, identifying: capital costs; recurring costs; gross and net revenues; the break-even point.

APRE Agenzia per la Promozione della Ricerca Europea

Measures to maximise impact: before writing 1/2

Suggestion: what is the dissemination?

Dissemination is linked only to the **results of the project** which are often disseminated within the action's own community (e.g. presentation at scientific conferences, a peer reviewed publication). Promoting the action and its results on the other hand goes beyond that, as it means taking strategic and targeted measures for communicating about (i) the action and (ii) its results to a multitude of audiences, including the media and the public and possibly engaging in a two-way exchange.

Examples of dissemination actions:

- Publication of an article in a peer reviewed journal;
- Papers presented at a scientific conference;
- Presentation of project results at standard committees;
- Publishing a summary report of your project findings on a public website.

Suggestion: Dissemination - Tips and tricks

- Prendi una decisione circa la protezione del foreground e su tutti gli steps richiesti.
- Informa almeno 45 giorni prima in forma scritta i partner del consorzio circa le attività di disseminazione
- Stai attento ad non infrangere i diritti di proprietà intellettuale di terze parti
- L'open access è un principio generale della disseminazione scientifica
- Elenca le attività di disseminazione in the Exploitation and Dissemination Plan





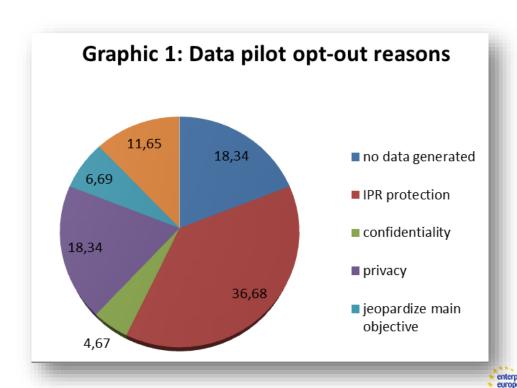


Open Access

Online access at no charge to the *user*

- to peer-reviewed scientific publications
- to research data

As open as possible, as close as necessary







Measures to maximise impact: before writing 2/2

Suggestion: what is the communication?

Examples of communication activities:

Any activity of "public engagement" that ensures that your research activities are made known to the society at large in such a way that they can be understood by non-specialists. This could be for example a press release for the general public at the start of the project, an interview in the local radio station after a major achievement of your project or an event in a shopping mall that shows how the outcomes of your project are relevant to our everyday lives.

Local workshops about the project with a target audience(s) for whom your project is of interest. For example, if a project, which is engaged in research about the preservation of marine environment, organises workshops with coast-guards, fishers and recreational sailors in all Mediterranean countries and also ensures to invite the local press to the workshops.

A toolkit/ brochure/ presentation to explain your project to students at schools and universities to show how interesting research can be and to promote your research field or assist teachers/ professors in preparing and delivering teaching materials.

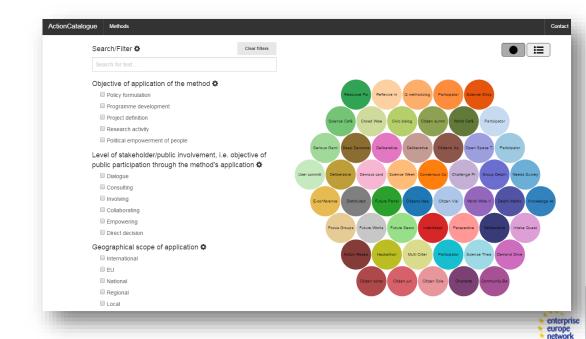






Why is Public engagement Important

- Enhancing creativity in research and innovation design process and results
- The likelihood that research and innovation outcomes are more **societally relevant** and **desirable**.
- Achieving shorter time to market and greater consumer acceptability of research and innovation outcomes
- Providing a breeding ground to foster a more scientifically literate society of knowledgedriven and empowered citizens, able and interested to participate in and support democratic processes, including on decisions of Research and Innovation financing, and evidence-based policy making





Case Study A - Overall Score 14,5

IMPACT Score: 4,5

"The proposal is addressing very well the expected impact as listed in the work programme. The expected project impacts are clearly linked to project activities. Each impact is defined in details in terms of specific targets. For each impact, its rationale, indicators and barriers/external factors are described. The impacts indicators themselves are very ambitious, and if realised can lead to very significant results on European scale.

Some results will come in rather early in the project, which certainly will contribute positively to reaching the impact potential.

The proposed measures to exploit and disseminate the project results are potentially very effective.

The <u>dissemination & communication plan is well developed</u> and demonstrates a good knowledge about the context of a CSA project. In terms of communication measures, access to specific networks has been sufficiently described.

Both the <u>link with policy and business community are well ensured, which can result in sustainability of the project results</u>.

The exploitation strategy includes the proposal for the platform to be owned and managed by XXX beyond the 3 year project duration, at fair and reasonable conditions.









Case Study B - Overall Score 7,0

IMPACT : 2,0

"The expected impact of this proposal might be relatively high for the region, but limited at EU-wide level for which the proposal does not provide perspective.

.....

The target audience for the dissemination plan is defined too broadly. Similarly, the communication goals and objectives are not clearly focused on the topic of the Call The risks and limitations regarding impact are mentioned, yet corrective measures are not presented.

The IPR strategies are fairly poor".







Useful link

- Grant Manual Section on: proposal submission and evaluation
 - http://ec.europa.eu/research/participants/data/r ef/h2020/grants_manual/pse/h2020-guidepse_en.pdf



APRE Agenzia per la Promozione della Ricerca Europea

Open Access

Where can I find more information?

- Horizon 2020:
 - http://ec.europa.eu/programmes/horizon2020/
- Participant Portal:
 - http://ec.europa.eu/research/participants/portal/
- Guidelines on Open Access to Scientific Publications and Research Data in Horizon 2020:
 - http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/ hi/oa_pilot/h2020-hi-oa-pilot-guide_en.pdf
- Guidelines on Data Management in Horizon 2020:
 - http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/ hi/oa_pilot/h2020-hi-oa-data-mgt_en.pdf
- Open access (Science in Society site):
 - http://ec.europa.eu/research/science-society/open_access
- Open access (Digital Agenda site):
 - http://ec.europa.eu/digitalagenda/en/open-access-scientific-knowledge-0
- OpenAIRE:
 - http://www.openaire.eu/





GRAZIE PER L'ATTENZIONE!

APRE

Agenzia per la Promozione della Ricerca Europea
Via Cavour, 71
00184 - Roma
www.apre.it
Tel. (+39) 06-48939993
Fax. (+39) 06-48902550

Monique Bossi bossi@apre.it



