A practical approach to Horizon 2020 Proposal writing - How to write and present a competitive proposal

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What is H2020?

Horizon 2020 is a Research and Innovation programme aiming at fostering competitiveness and growth and increasing benefits to the European Union economy and citizens. Under different funding schemes the framework programme supports research and development activities resulting in new knowledge, new products and services, and also in non-technological and social innovation.
It is essential that the public investment in these activities is converted into socio-economic benefits for the society.

To deal with H2020 you have to keep in mind that:

✓ research is coupled to market-oriented innovation potential

✓ if you submit for different topics, (maybe under different workprogrammes), you arise the success probability of your proposal

✓ for each topic you choose there are specific <u>keywords</u> and <u>features</u> that you have to remind for all the time of your proposal planning

✓ a strong strategy concerning dissemination and exploitation of project results has to be developed in the proposal

✓ a concrete and solid plan for communication of project results has to be defined

✓ Gender Equality and Ethics policies, defined by EC, have to be strictly respected

Structure of the presentation

- ✓ First step: studying for proposal

- ✓ Topic description: use it

- ✓ How to proceed ?

- ✓ Structure of the H2020 proposal

- ✓ Evaluation criteria

1. First step: studying for proposal

Before starting to build your proposal, you have to:

✓ **check H2020 on line manual and read reference documents (guide for applicants, general rules)**

-http://ec.europa.eu/research/participants/docs/h2020-funding-guide/index_en.htm

http://ec.europa.eu/research/participants/data/ref/h2020/other/wp/2016-2017/annexes/h2020-wp1617-annex-ga_en.pdf

✓ **read carefully H2020 example of administrative forms (Part A) and project proposal (Part B) (the technical annex) of Proposal template 2016-2017**

-http://ec.europa.eu/research/participants/data/ref/h2020/call_ptef/pt/2016-2017/h2020-call-pt-ria-ia-2016-17_en.pdf

✓ **read carefully the H2020 evaluation criteria**

- http://ec.europa.eu/research/participants/data/ref/h2020/call_ptef/ef/2016-2017/h2020-call-ef-ria-ia-csa-2016-17_en.pdf

- http://ec.europa.eu/research/participants/data/ref/h2020/wp/2014_2015/annexes/h2020-wp1415-annex-h-esacrit_en.pdf

✓ **read carefully the H2020 Plan for the Exploitation and Dissemination of Results**

-https://www.iprhelpdesk.eu/sites/default/files/newsdocuments/Fact-Sheet-Plan-for-the-Exploitation-and-Dissemination-of-Results-H2020.pdf

✓ **read carefully the H2020 Guidances for Project Communication**

-http://ec.europa.eu/research/participants/data/ref/h2020/other/gm/h2020-guide-comm_en.pdf

-http://ec.europa.eu/research/participants/data/ref/fp7/146012/communicating-research_en.pdf

-http://ec.europa.eu/research/participants/docs/h2020-funding-guide/grants/grant-management/communication_en.htm

✓ **read carefully the H2020 Gender Equality policy**

-http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/gender/h2020-hi-guide-gender_en.pdf

-http://eige.europa.eu/sites/default/files/h2020-hi-guide-gender_en.pdf

http://ec.europa.eu/transparency/regexpert/index.cfm?do=groupDetail.groupDetailDoc&id=18892&no=1

-https://ec.europa.eu/research/swafs/pdf/pub_gender_equality/2016-03-21-Vademecum_Gender%20in%20H2020-clean-rev.pdf

✓ **read carefully the H2020 Ethics self-assessment**

-http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/ethics/h2020_hi_ethics-self-assess_en.pdf

✓ **read carefully the H2020 guidelines on Open Access to Scientific Publications and to Research Data**

-http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-pilot-guide_en.pdf

-http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-data-mgt_en.pdf

Suggested Document for Impact section of proposal

https://www.fosteropenscience.eu/content/winning-horizon-2020-open-science

2. Topic description: use it

- ✓ what is a topic description?

- ✓ analyse it to understand what is expected

- ✓ transform the text into a list

- ✓ use this list as a "shopping list"

Topic description: the ID of an H2020 project

SPECIFIC CHALLENGE
- sets the context, the problem to be addressed, why intervention is necessary, whose problem

SCOPE
- delineates the problem, specifies the focus and the boundaries of the potential action BUT without describing specific approaches

EXPECTED IMPACTS
- describe the key elements of what is expected to be achieved in relation to the specific challenge

Call identifier: H2020-PHC-2014-single-stage
Topic identifier: PHC-20-2014

SC1: Health, Demographic Change and Wellbeing

Advancing active and healthy ageing with ICT: ICT solutions for independent living with cognitive impairment

-<u>**Specific challenge**</u>: Citizens in <u>an ageing European population</u> are at greater risk of <u>cognitive impairment, frailty</u> and social exclusion with considerable negative consequences for their independence, quality of life, that of those who care for them, and for <u>the sustainability of health and care systems</u>. The challenge is to <u>deploy innovative and</u> <u>user led ICT pilot projects</u> in support of <u>independent living with cognitive impairments</u> and translate promising results into <u>scalable practice across Europe.</u>

<u>**Scope**</u>: Pilots should build on <u>common, flexible and open ICT solutions</u> which can be adapted to <u>specific users'</u> <u>needs</u>, allowing them <u>to live independently</u> for longer while experiencing cognitive impairment. Pilot deployment across Europe should develop <u>best-practice and viable business and financing models,</u> as well as evidence for potential return on investment. <u>Gender and ethical issues</u> should be paid due attention.
Proposals should focus on innovation in organisational and business models for service delivery, as well as standardisation and interoperability work on required ICT platforms, services and data sources. The number of users involved should be sufficient to <u>ensure statistical significance in impact analysis</u>, with a minimum of 4 pilot sites in 4 countries.

<u>**Expected impact**</u>:
   Based on quantitative and qualitative output indicators and impact data, each pilot is expected to
   demonstrate relevant contributions to the following expected impacts:
 - Clear evidence <u>on return of investment</u>, both for the private sector and in terms of societal benefits from ICT
   based solutions for cognitive impairments of older people;
 - <u>Best practice for viable business</u> and financing models which are scalable across Europe;
 - <u>Clear evidence on the improvements of efficiency of health and care systems</u>
 - Clear evidence of <u>improvements to quality of life and active ageing for involved users and careers</u>;
 - Contribution to <u>the competitiveness of the European ICT industry</u> in the domain, through enhanced
    interoperability and scalable markets

3. How to proceed ?

1- **Idea**: your future proposal idea has to be smartly tailored to fit as much as possible in the H2020 call you choose (absolutely not the opposite)

2- **Form Consortium**: build up the best possible project team (have good balanced consortium with a good mix between industry and academia and don't forget to include potential direct beneficiaries/end users)
In this step use your network and matchmaking events organized by European Commission (infodays, brokerage events, workshops).
If you need check for partner search services

http://ec.europa.eu/research/participants/docs/h2020-funding-guide/grants/applying-for-funding/find-partners_en.htm

3- **Write Proposal**: you can get help from H2020 website, colleagues with experience on the matter, UNITN research support division.

4. Structure of H2020 proposal

1-Excellence:

> 1.1 Objectives
> 1.2 Relation to the Workprogramme
> 1.3 Concept and methodology
> 1.4 Ambition

description of your project

2- Impact:

> 2.1 Expected impacts
> 2.2 Measures to maximise impact (dissemination, exploitation and communication)

how will the world know about your results ?

3- Implementation:

> 3.1 Work Plan, work packages and deliverables
> 3.2 Management structure, milestones and procedures impact
> 3.3 Consortium as whole
> 3.4 Resources to be committed

who will do what

4- Members of the consortium:

> 4.1 Participants
> 4.2 Third parties involved in the project

description of the partners

5- Ethics and Security

4.1 Excellence

✓ objectives in line with the call (specific, measurable, achievable, relevant and time-related) and tangible results

✓ Innovation potential

✓ the proposal potential to go beyond the actual state of the art (ambition of your proposal)

✓ who are the end-users and how will they benefit?

✓ methodology

✓ suitable choice of your partners (with necessary and complementary skills)

Expert recommendations

✓ Check the key aspects of the award criteria under the Excellence criterion

✓ Define and quantify the main objectives inserting a graph or table summarizing them

✓ Highlight your vision and mission to show what you want to achieve

✓ Highlight the main benefits for the end users/customers/patients

✓ Highlight the market opportunities

4.2 Impact

- ✓ Coherence between the project impact and those outlined in the topic description

- ✓ Strategy to disseminate and to exploit results

- ✓ Strategy to communicate results (target audiences, medium, language) and data management plan

- ✓ Enhancement of innovation capacity and integration of new knowledge

- ✓ Development and deliver of innovations meeting market needs

- ✓ Management of IPR: <u>what</u> (i.e. patents, copyright, trade marks, database rights, design rights, know how, industrial designs), <u>who</u> (owns them), <u>how</u>

E*xpert recommendations*

Don't underestimate this part !

- ✓ <u>Impact has to be:</u>
  - defined from the beginning of the project
  - proportionate to the project scale
  - implemented both during and after the project

- ✓ <u>Don't forget the general public!</u> Pinpoint the target audiences, use the right medium and means to reach them!

- ✓ Think and organize the data management (what kind of data, how you will collect and share them, who will be responsible for the DM, how you will manage copyright and IPR issues)

- ✓ Focus on what you need for the knowledge and the protection of your results. If you need involve an IPR specialist in the consortium team.

- ✓ Include a specific workpackage for dissemination, exploitation and communication strategy including a description and timing for each activity

- ✓ Point out any environmental or social impact of your project that can improve the life of all citizens!

4.3 Implementation and 4.4 Consortium

✓ Coherence and effectiveness of the work plan, including tasks and resources (make sure budget is sufficient, well distributed among partners and justified!)

✓ Appropriateness of the management structures (diagram!) and procedures

✓ Complementarity of the participants within the Consortium (suitable choice of your partners)

✓ Gender balance in research teams

http://www-s.eige.europa.eu/gender-mainstreaming/tools-methods/making-gender-equality-plan

Expert recommendations

✓ **Work package list: simplicity is the key word (avoid unnecessary complexity!)**

✓ **Work plan and management structure have to be in line with the Excellence section**

✓ **Check it out if it is clear what the project will deliver and how it will achieve that.**

✓ **Focus on critical risks for implementation of the project and any risk mitigation measures. List both of them in a table. Be ready always for plan b!**

✓ **Handle with care the gender balance issue in research team (EC is really severe about it!)**

✓ **Include a final graph which shows the consortium expertises divided by activities**

4.5 Ethics and Security

Ethics: submit an ethics self-assessment and
provide the documents that you need under national
law (handle with care and in advance)

Security

Expert recommendations

**Handle with care this step
and be sure to be in time to
prepare all docs and
procedures you need to
complete.**

5. Evaluation criteria

✓ **Excellence**: the extent to which the proposed work corresponds with the topic description.

✓ **Impact**: what the impact of the outputs is (in conformity with those depicted in the topic description)

✓ **Quality and efficiency of the implementation**: what the quality of the management part, work plan, etc. is

For each criterion scoring from 0 to 5:
- 0 -the proposal fails to address the criterion or cannot be assessed due to missing or incomplete information.
- 1 - Poor
- 2 - Fair
- 3 - Good
- 4 - Very Good
- 5 - Excellent

This form is made available to applicants who may themselves wish to arrange an evaluation of their proposal (e.g. by an impartial colleague) prior to final editing, submission and deadline. The aim is to help applicants identify ways to improve their proposals.

The forms used by the experts for their evaluation reports will be broadly similar, although the detail and layout may differ.

These forms are based on the standard criteria, scores and thresholds. Check whether special schemes apply to the topics of interest to you. The definitive evaluation schemes are given in the work programme.

A self-evaluation, if carried out, is not to be submitted to the Commission, and has no bearing whatsoever on the conduct of the evaluation.

Scoring

Scores must be in the range 0-5. Half marks may be given. Evaluators will be asked to score proposals as they were submitted, rather than on their potential if certain changes were to be made. When an evaluator identifies significant shortcomings, he or she must reflect this by awarding a lower score for the criterion concerned.

Interpretation of the scores

0 — The proposal **fails to address the criterion** or cannot be assessed due to missing or incomplete information.

1 — **Poor.** The criterion is inadequately addressed, or there are serious inherent weaknesses.

2 — **Fair.** The proposal broadly addresses the criterion, but there are significant weaknesses.

3 — **Good.** The proposal addresses the criterion well, but a number of shortcomings are present.

4 — **Very Good.** The proposal addresses the criterion very well, but a small number of shortcomings are present.

5 — **Excellent.** The proposal successfully addresses all relevant aspects of the criterion. Any shortcomings are minor.

Thresholds

The threshold for individual criteria is 3. The overall threshold, applying to the sum of the three individual scores, is 10.

Two-stage submission schemes

The scheme below is applicable to a full proposal. For the evaluation of first-stage proposals under a two-stage submission procedure, only the criteria 'excellence' and 'impact' will be evaluated. Within these criteria, only the aspects in bold will be considered. The threshold for both individual criteria will be 4.

Weighting

For Innovation actions and the SME instrument (phases 1 and 2), to determine the ranking, the score for the criterion 'impact' will be given a weight of 1.5.

1. Excellence

Note: The following aspects will be taken into account, to the extent that the proposed work corresponds to the topic description in the work programme:

- **Clarity and pertinence of the objectives;**
- Credibility of the proposed approach;
- **Soundness of the concept, including trans-disciplinary considerations, where relevant;**
- **Extent that proposed work is ambitious, has innovation potential, and is beyond the state of the art** (e.g. ground-breaking objectives, novel concepts and approaches).

Comments:

2. Impact

Note: The following aspects will be taken into account, to the extent to which the outputs of the project should contribute at the European and/or International level:

- **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.

Comments:

3. Quality and efficiency of the implementation*

Note: The following aspects will be taken into account:

- Coherence and effectiveness of the work plan, including appropriateness of the allocation of tasks and resources;
- Complementarity of the participants within the consortium (when relevant);
- Appropriateness of the management structures and procedures, including risk and innovation management.

Comments:

http://ec.europa.eu/research/participants/data/ref/h2020/call_ptef/ef/h2020-call-ef-ria-ia-csa_en.pdf

For further details, advices and support in
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The terms "exploitation", "dissemination" are defined under the Horizon 2020 Rules for Participation as follows:

- exploitation – "means the use of results in further <u>research activities</u> other than those covered by the action concerned, or in developing, creating and marketing a <u>product or process</u>, or in creating and providing a <u>service</u>, or in standardisation activities"

- <u>dissemination</u> - "means the public disclosure of the results by <u>any appropriate means</u> (other than resulting from protecting or exploiting the results), including by scientific publications in any medium"

Successful UNITN abstract in H2020

Call identifier: H2020-PHC-2014-single-stage
Topic identifier: PHC-20-2014

Pillar Societal Challenges
SC1: Health, Demographic Change and Wellbeing

TOPIC

Advancing active and healthy ageing with ICT: ICT solutions for independent living with cognitive impairment

The lack of ICT platforms based on open standards is regarded as one of the most significant market barriers to the creation of new care & assistance paradigms with global interconnection and interworking. XXX[1] delivers an interoperable platform based on open industrial standards that leverages on existing technologies for biosensing, indoor/outdoor localisation and home-automation. The result is an open source, scalable and privacy-savvy ecosystem compatible with existing Personal Health Record systems, that can deliver novel services that can help aging people (incl. those with cognitive impairments) live independently and with dignity.

To do so, XXX uses state-of-art physical/cognitive assessment tools together with technologies to locate objects, devices and users within indoor/outdoor spaces, to continuously monitor–in a non-invasive way–users and to assist them in case alert conditions are detected.In practice, XXX develops a product suite for formal and informal care environments made of: 1) the XXX BOX (an Android consumer device connected to TVs); 2) the XXX App for both users and caregivers; 3) the XXX CLOUD, delivering scalable care services; 4) the XXX certification suite, to help software and hardware manufacturers assess compliancy with standards.

XXX will be assessed for 12 months in 14 pilots within real operational scenarios. Pilots will be located in rehabilitation centres, daily nursing facilities etc. and will involve 750+ users and 220 caregivers. Users' physical & cognitive assessment will be carried on before and after the introduction of XXX to extract quantifiable metrics to assess its impact in terms of quality of care services and improved quality of life of users and caregivers. Lastly, XXX will carry on a RoI analysis (both financial & social), an analysis of best practices of innovative organisational/business models as well as financing/procurement models for health & care service delivery at EU level.

1 XXX represents the acronym of the UNITN project funded by EC under this call