



Guide to applying for HORIZON 2020 in 2018-20

REVISED November 2017

*This guidance provides some tips on how to be involved*

*&*

*how to write a good proposal.*

*It has been revised to take account of the new Work Programmes for 2018-20*

*(published 27 October 2017)*

Panliska and Associates bring together a wealth of experience on EU funding and can provide detailed information and intelligence on funds, coming deadlines, funding eligibility and the criteria of what assessors will be looking for in applications. Our networks through our "presence" in Brussels tap into the latest funding intelligence and people looking to join consortia for projects. We follow very closely Horizon 2020 where we can offer a range of services to help you understand and to be able to participate.

The services we can provide includes detailed intelligence on programmes and selection criteria, partner matching and bid writing/reviewing. We have a particular focus on agriculture, energy, and support for SME's and rural development. We look to be "editors". We can help you put together a coherent and strong bid. We pay special attention to the non-science parts such as administration, dissemination and communications, ethics, gender etc and budget construction. Once a project is approved we can also support management and dissemination activities.

**We helped a client achieve the perfect 15 score from the HORIZON 2020 evaluators in 2015.**

*Disclaimer :The purpose of this document is to provide guidance on how to apply for Horizon 2020 and provide tips on filling in the application forms. It makes no claim to be exhaustive and is not an official document of the European Commission. Panliska Ltd has tried to ensure that all information is accurate and up-to-date but cannot be held responsible for the use that might be made of the information, for omissions or for any mistakes that might appear. Official documents of the European Commission prevail.*

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HORIZON 2020 is very competitive. Scoring is out of 15 in three sections. A total score of **at least 14.0** is probably needed to succeed. It is known that scores of 14.5 have been unsuccessful! It is quite different from FP7 with much greater emphasis on innovation and on being policy rather than research driven. There is also emphasis in involving more SMEs as partners. If scores are the same the project with highest score for impact will be taken and then decided on budget allocated to SMEs and followed by how gender issues are dealt with.

It is not just about getting the scientific research right. All aspects of the application must be strong. So as well as excellence in the science and impact, there is a need to cover very well management, dissemination, communication and exploitation and also areas which are often glossed over, such as gender, risks and ethics. The six guiding principles of Responsible Research and Innovation (RRI) are now expected to be covered in all bids. Do not leave these aspects to the last minute by concentrating on the science. These are important issues and can make the difference between success and failure.

There is now an even stronger emphasis on communication and dissemination of results and open access. See online manual: [http://ec.europa.eu/research/participants/docs/h2020-funding-guide/grants/grant-management/communication\\_en.htm](http://ec.europa.eu/research/participants/docs/h2020-funding-guide/grants/grant-management/communication_en.htm) Communication actions are taken into consideration as part of the evaluation of the 'impact'. See also guidance document: [http://ec.europa.eu/research/participants/data/ref/h2020/other/gm/h2020-guide-comm\\_en.pdf](http://ec.europa.eu/research/participants/data/ref/h2020/other/gm/h2020-guide-comm_en.pdf)

There is no negotiation phase in HORIZON 2020. Evaluators cannot make suggested changes. You need to get things right first time round. The evaluators must like everything about your proposal. If they identify any short-comings, they must reflect these in a lower score for that particular evaluation criterion.

There are three broad categories

1. Excellent Science	2. Industrial Leadership	3. Societal Challenges
<ul style="list-style-type: none"> <li>• European Research Council (ERC)</li> <li>• Marie Skłodowska-Curie Actions</li> <li>• Future &amp; Emerging Technologies (FET)</li> <li>• Research Infrastructures</li> </ul>	<ul style="list-style-type: none"> <li>• Key Enabling Technologies</li> <li>• ICT</li> <li>• Space</li> <li>• Public-Private Partnerships (PPPs)</li> </ul>	<ul style="list-style-type: none"> <li>• 1. Health &amp; well-being</li> <li>• 2. Food security, bio-based economy</li> <li>• 3. Energy</li> <li>• 4. Transport</li> <li>• 5. Climate action &amp; resource efficiency</li> <li>• 6. Inclusive, innovative societies</li> <li>• 7. Security</li> </ul>

## Work Programmes

The EC publishes its Calls in Work Programmes usually covering two years. The new one published on 27th October 2017, now cover the period 2018-20. It is worthwhile to read through the EC general comments on how the EC developed the Work Programme for 2018-20. The new features include measures to support market-creating innovation, highly integrated activities called focus areas, emphasis on better dissemination of results and a focus on open access to data. The full version for the Introduction Work Programme for 2018-20 can be found at

[http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-intro\\_en.pdf](http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-intro_en.pdf)

Criteria used for selecting the priorities to be supported following on from the Work Programme for 2016-17 continue to include :

- the maximising of EU added value;
- addressing and anticipating research and innovation key trends and areas of high potential for world-class breakthroughs;
- providing strong potential for impact and uptake and leverage of industry and SME participation, by addressing the demand side, tackling barriers to innovation and market deployment and uptake, and building collaborations between industry, businesses, universities and research institutions;
- providing genuinely cross-cutting approaches and embedding key novelties such as covering the full research and innovation cycle, social science and humanities, gender aspects, and climate and sustainable development;
- improving international cooperation by focusing on key strategic and targeted areas of common interest and mutual benefit.
- proactive integration of social sciences and humanities aspects;
- improved addressing of the gender dimension;

In the light of evaluation of HORIZON 2020 new dimensions and focus have been added for 2018-20. Specifically, the General Work Programme gives a strong steer for the direction of travel for projects. It states that the increased focus on innovation is one of the standout features so far of Horizon 2020, but there is still more to do, including addressing regulatory barriers to innovation, building synergies with other EU instruments and giving special attention to market-creating innovation. The key aspects for 2018-20 are to deliver against the EU's political priorities and three O's: open innovation, open science and open to the World. The EC is seeking to maximise the potential impact notably through enhancing impact statements at the call and topic level, substantial reduction of topics giving more freedom to innovators and researchers to prepare novel solutions.

Also, it is the intention to put in place a bridge with the last year of the programme to enable a smooth transition to any successor to Horizon 2020. Work has already started for the post 2020 period on what is referred to currently as FP9. The WP for 2018-20 looks to set an appropriate balance

between striving for more innovation yet also recognising that this can require both upstream and nearer market research and innovation (R&I) activities. Attention has been paid to the way Technology Readiness Levels (TRL) have been expressed; making sure that TRLs are used where it makes sense; and reinforcing the message during the preparation of the work programme that funded projects should typically cover a range of research and innovation activities across the innovation cycle, including projects where the centre of balance is at higher TRL levels. There is attention to the way important cross-cutting priorities like climate action and sustainable development, gender equality, and the social sciences and humanities (SSH) are embedded in calls and activities through cross-programme integration. A true interdisciplinary approach with the integration of SSH is crucial to deliver on the ambition to solve global challenges and create jobs and growth. Ensuring further openness of the programme by attracting newcomers, especially SMEs remains high on the agenda. The Open Science agenda is being supported, notably through dedicated data driven actions, the embedding of approaches and the mainstreaming/promotion of Open Science principles. There has also been a sustained effort to reflect Responsible Research and Innovation (RRI) issues in all work programmes.

**Open Innovation** The aim is to open up the innovation process to all active players so that knowledge can circulate more freely and be transformed into products and services that create new markets, fostering a stronger culture of entrepreneurship. Europe still needs to improve with turning research into innovation, in getting research results to market. Too often, new technologies that have been developed are commercialised elsewhere. Europe must get better at making the most of its innovation talent.

**Open Science** There are four approaches: actions addressing specific aspects of Open Science; contributions to the development of the European Open Science Cloud (EOSC); open data-driven science; explicit references to the use/experimentation of open science approaches (e.g. knowledge- or data-sharing, spreading of best practices through networks, platforms and hubs). A number of thematic clouds in various domains are foreseen and will eventually feed into the EOSC; a Blue Cloud pilot gathering data from the maritime sector and Food Cloud demonstrators hosting nutrition and agri-food scientific repositories will be early movers and set useful precedents for clouds in other pioneering sectors, such as health and transport.

**Open Access** To increase the uptake of open access (OA) to scientific publications in Horizon 2020 a platform for Horizon 2020 beneficiaries to publish open access is to be set up for an initial period of four years. Provisionally entitled 'EC Open Research Publishing Platform', this will provide a fast, cost efficient and high quality service, targeted towards the grantees of Horizon 2020 and its successor framework programme. Open access applies to those data needed to validate the results presented in scientific publications. Additionally, projects can choose to make other data available for open access and need to describe their approach in a Data Management Plan. There is provision for projects to partially or entirely opt-out of open access to research data before or after the signature of the grant agreement.

### **Market creating innovation**

This is a key concept for the 2018-20 WP. Europe could perform better in capturing innovative ideas with the potential to create new markets and strengthen Europe's industrial base. The increasing proliferation of digital technologies and the rise of new business models and innovations at the boundaries between different sectors offer new opportunities to spur economic growth and quality job creation. Innovation-friendly framework conditions are a prerequisite for such new markets to develop in Europe.

### **Communication and dissemination**

Communication and dissemination of results remains a very high priority for all projects. The 2018-20 programme continues the approach under Horizon 2020 for better access to research results, to data management as well as to communication. Each beneficiary must ensure open access (free of charge, online access for any user) to all peer-reviewed scientific publications relating to its results. All beneficiaries must promote actions and results, by providing targeted information to multiple audiences (including the media and the public) in a strategic and effective manner. Also important is to develop synergies and complementarities, including the need to enhance these further, between Horizon 2020 and ESIF ( e.g smart specialisation strategies).

## **Post 2020 (FP9?)**

A high level group was set up by the EC in September 2016, in the context of the results of the Horizon 2020 interim evaluation. The Group's mandate was to formulate a vision for future EU research and innovation and to draw strategic recommendations on maximising the impact of EU R&I programmes in the future, i.e. how to fulfil that vision. Recommendations emerging from the high level group include the following aspects which those bidding for 2018-20 would do well to reflect upon. It seems clear that the three “O”s will be the key priorities and that Excellence, Openness and Impact will continue to be the core values.

### **Recommendations from High Level Group**

- 1. Prioritise research and innovation in EU and national budget**
- 2. Build a true EU innovation policy that creates future markets**
- 3. Educate for the future and invest in people who will make a change**
- 4 Design the EU and R&I programme for great impact**
- 5. Adopt a mission- oriented impact of focussed approach to address global challenges**
- 6. Rationalise the EU funding landscape and achieve synergy with structural funds**
- 7. Simplify further**
- 8. Mobilise and involve citizens**
- 9. Better alignment EU and national R&I investment**
- 10 Make international R&I co-operation a trademark of EU Research and Innovation**
- 11 Capture and better communicate impact**

The extent to which you can steer your bid writing whilst drafting towards these eleven recommendations, the more likelihood of success.

### **How to find a topic of interest to me?**

The EC sets out its priorities in 18 Work Programmes. For example you will find for 2018-20 the following Work Programmes for agriculture/food and energy on the Participant Portal under documents:

9. Food security, sustainable agriculture and forestry, marine, maritime and inland water research and the bio-economy

[http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-food\\_en.pdf](http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-food_en.pdf)

For agriculture EIP Agri has published an excellent guide to calls falling in 2018. To download go to <https://t.co/aqgBvZCow3>

10. Secure, clean and efficient energy

[http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-energy\\_en.pdf](http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-energy_en.pdf)

### **The Participants Portal**

The Participants Portal provides information about calls, documentation and templates of the application forms. There is also an on-line manual. It takes a short while to get used to navigating around the portal but overall it is very good. There is a section on call updates which should be checked for updated information on calls you are following.

<http://ec.europa.eu/research/participants/portal/desktop/en/home.html>

You can search for a topic by using the keyword search (but remember to tick both forthcoming and open calls boxes).

You can access reference documents including all Work Programmes and templates for the different types of application form by going to this page:

[http://ec.europa.eu/research/participants/portal/desktop/en/funding/reference\\_docs.html](http://ec.europa.eu/research/participants/portal/desktop/en/funding/reference_docs.html)

## How are topics structured

The topics are set out in terms of

1. The Challenge
2. The Scope and
3. The Expected Impact

Look first at the expected impact and break it down into the different elements of what the EC is expecting. Here they tell you what sort of outcomes /results they are seeking- so it is necessary to give them what they are looking for and not something else. Impacts are now being written in more general terms in the expectation that proposals will present solutions and turn the impact into specific objectives and deliverables.

The Call also states the type of action :

### **Research and Innovation Actions** (*100% funding for all participants*)

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.

### **Innovation Actions** (*funded at 70% but universities get 100%*)

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.

### **Co-ordination and Support Actions**

Accompanying measures such as standardisation, dissemination, awareness-raising and communication, networking, co-ordination or support services, policy dialogues and mutual learning exercises and studies.



## When I have found a topic what do I do next

Once you have identified a topic which is of interest ask yourself several questions and try to jot down some answers . This will help you decide if the Call is actually one for you.

Why am I interested in this topic?

What is the problem that the topic addresses?

How can we solve it?

Who will want the results?

Why will they want the results?

Who will benefit from the results and how?

Is there scope for commercial exploitation?

What is the value added of my contribution?

## You need to be in a consortium to bid

There is no perfect number for partners in a consortium. It is the right number needed to achieve the results anticipated. Consortia are required to comprise of at least 3 different countries but in practice it is likely that consortia will have at least 8-10 partners. If including SMEs it is likely that there will be more partners. Some projects have 20+ partners but then you must ensure that your management and co-ordination is well described and addresses the issue of how to keep a large consortium united and focussed on the delivery of the outcomes you have said you will achieve. Also you need to make sure that in large consortia that every partner has a clearly identified role.

EU wide Geographic coverage is not so important as it used to be but you need to be sure that any geographic challenges (e.g in relation to climate change are covered) . The “Open to the World” policy now means that bringing in countries outside the EU is also encouraged. Check first the rules on the particular country’s participation in HORIZON 2020. It may also differ for specific calls.

## To lead or not to lead?

There are many who look to join consortia but not so many who volunteer immediately to be the Project Co-ordinator. Also, it is possible to take a leading role in putting together a consortium without being the actual Co-ordinator. The accepted wisdom is that the Co-ordinator should already have experience of running a project but everyone has to start somewhere. What matters is the overall management experience within the consortium and being able to demonstrate the capacity to deliver the project as set out in the application form. Even though you are not the Co-ordinator you can have a leading role in shaping the proposal and the bid. It can be useful to put yourself forward as a Work Package leader ensuring that you play a leading role in shaping the project. Also remember it is a collaborative project and that **all partners should play a role** in the whole project not what they see as their little bit. For example all partners must devote some resources to management and dissemination activities. These are not solely the preserve of the Co-ordinator. Whilst the

responsibilities for management cannot be sub-contracted. Pressure can be taken off the Co-ordinator by sub-contracting some of the Secretariat functions or by including a management SME or organisation as a partner.

### **How to find potential partners**

1. Who are the leading researchers in the field of the topic who might be interested in joining a consortium? Do you know them personally? Can you contact them to express interest? Such people may well already be looking at the topic. One risk is that they have their own networks and contacts of people they usually work with. So it can be difficult to break in. But if you do not ask the question of them you will not find out.
2. Through your own networks. Can you get 3 or 4 parties interested to start a discussion about the topic? This may also be way of identifying someone willing to lead.
3. Through project brokerage events (but national ones tend not to be very useful since they are attended mainly by organisations from that country). Brussels based events tend to be a better bet to meet potential partners from other EC member states but the one organised by the EC can often be too close to the deadline by which time consortia can already be established and closed to newcomers. Usually at such events there are plenty of people looking to join consortia but far fewer Co-ordinators. For example, Panliska Ltd co-operates each year with Czelo - a Brussels based liaison office for supporting Czech participation in H2020 in a joint annual brokerage event with Harper Adams University on agricultural topics. Sustainable Energy Week in June each year can be good way of meeting like interest for energy topics. You can arrange your own “brokerage” event using your own Brussels offices or Brussels based organisations such as ERRIN.
4. Look to bring on board SMEs. (EC gives extremely high priority to the inclusion of SMEs). If you can bring SMEs with you to a consortium that might help to get you entry but make sure they have a clear role and not just appear to be there to make the SME count look good. Make sure that their input is well described in Work Package descriptions.
5. How can I sell my credentials to a consortium .i.e what specifically can I bring to the table i.e. what value do I add to a consortium? In building or joining consortia consider:

Whether the right people are involved?

Why are specific partners included? ( i.e. not just “friends” of the Co-ordinator )

What is role of each partner?

Is there duplication or overlap?

Does the consortium look thrown together?

Are SMEs just there as a token ?

The evaluator looks for evidence of real collaboration in putting the proposal together. In particular, the Work Packages and actions should not just be replication of the same activities in different

locations in Europe. A key question is what is the value added by each partner in terms of what they can contribute to delivery of results and achieving impact?

The evaluators will not be swayed by including partners from certain Member States. If they think that you have cynically included a partner who does not have the required expertise or capabilities, it may actually count against you in the evaluation. Geographical balance can be something to consider in certain topics – for example, where you have comparative research, or you want to be able to make certain policy recommendations, and you want to be able to demonstrate that you have included all the relevant diversities within Europe. Some calls will be quite specific that different parts of Europe need to be covered e.g. to cover different climatic circumstance between Northern and Southern Europe.

With the growing importance placed on dissemination and communication by the EC it can be very valuable to include a partner who is a PR, media communication specialist. They do not need to be specialists in the specific topic since their professionalism is in the key areas of dissemination and communication.

### **The Multi- actor approach** (*not just relevant to agriculture*)

For nearly all calls under the Food Security, Sustainable Agriculture, Blue Growth and Bio-economy, a **multi-actor approach is compulsory**. This means that there is a need to demonstrate how the proposal's objectives and planning are targeted to needs / problems and opportunities of end-users, and its complementarity with existing research and best practices. Although only specified particularly for agriculture, the same principle of a multi- actor approach can be adopted for all Calls under other Work Programmes and indeed by doing so may enhance chances of success. The 2018-20 Work Programme seeks for wider engagement including that of citizens. The EC is looking to broaden rather than narrow participation in HORIZON 2020.

The proposal should result in some practical knowledge which is easily understandable and accessible, and substantial in qualitative and quantitative terms. As a minimum, this material should feed into the European Innovation Partnership (EIP) 'Agricultural Productivity and Sustainability' for broad dissemination as 'practice abstracts' in the common EIP format for practitioners.

Facilitation/mediation between the different types of actors and involvement of relevant interactive innovation groups operating in the EIP context, such as EIP Operational Groups funded under Rural Development Programmes, are strongly recommended.

There are good examples presented at an Info day in Brussels on 24 November 2015 . For presentations and recordings see

<http://ec.europa.eu/programmes/horizon2020/en/news/interactive-innovation-motion-multi-actor-projects-and-thematic-networks-under-horizon-2020>

**Some positive comments from evaluators on consortia**

“This consortium is in a particularly convenient position to address these problems”

“Trans- disciplinary considerations are included throughout the project and go beyond the inclusion of X and Y disciplines “

“There is a good balance between social and technological sciences”

**Some negative comments from evaluators on consortia**

“The partnership offers a wide-range of know-how and expertise. However, it is perhaps a little imbalanced towards academic research and largely lacks industrial partners or actors or stakeholders practically working in the industry sector”

“The proposal covers most of the value chain but lacks involvement of the end use and suppliers”

“The involvement of industry partners is hardly sufficient”

“Equipment manufacturers are only involved in the advisory board not as full partners in the project”

“The consortium is well- balanced and partners have complementary skills however end-user involvement is rather indirect”

## Deadlines

There are absolute deadlines for all calls. Usually the best proposals are being worked up at least six months in advance of the deadline. Although some deadlines may seem far away do not waste time in getting started especially in getting consortia together. You might leave it too late and find that those you are interested in partnering with are already in consortia ( and you are locked out).

## Getting started

Get started before the Call is open but always check call text to make sure that it has not changed since it was published in the Work Programme. Only the Call when it is open is the authentic text.

It is a good idea to have face -to-face meetings with potential partners as early as possible. Invite them to such a meeting at your own institution or choose a location which suits all participants. Brussels can often be good place to set up an initial meeting. For the first meeting, it is not necessary to have your full set of partners in the consortium. Often it can actually be a disadvantage if there are too many conflicting ideas.

Better to have a small core team of say three or four persons. They should come to the meeting with ideas of the vision for the proposal with a view to looking at the impacts the EC is looking for and how these impacts can be translated into **OBJECTIVES** for the proposal. What can happen if there are too many people at initial meeting is that you get too many different ideas and opinions and then try to accommodate them all into your bid . This is usually a recipe for disaster since proposals developed in this way often lack focus and direction and may not address the call in the right way. *The phrase “a camel is a horse designed by a committee” comes to mind.*

The other very important tip is not to start talking about Work Packages. Do not say, for example, we have 8 leading participants therefore each one must have its own WP to lead. Start with trying to establish objectives and then let the objectives drive the structure of the WPs not the other way round. This approach means that you can start to give your application a logical flow so the the “story” reads well from start to finish. Consortia often make the mistake of discussing how they are going to do it before determining what they are trying to achieve. So make sure your proposal is objective driven rather than Work Package driven .

Remember that it is collaborative project, so the proposal needs to be developed in this spirit. It is not just a case of following the views of one Professor. Other partners can be added once the core team have agreed on the overall strategy and what gaps in the consortium need to be filled ( e.g. adding SMEs) but only add partners where you believe that they can make a real contribution.

## **Remember the evaluator**

Evaluators are hard-pressed people often given very little time by the EC to score proposals. It is vital to get them onside right away through clear simple presentation. They will almost certainly have a full time job and could be looking at your proposal in the evening after a long days work. So do not annoy the evaluator. If the evaluator has read the first 2/3 pages and does not get what your project is about then you are already on the path to failure.

So this is what the evaluator is looking for :

### **1. Excellence**

- Clarity and pertinence of the objectives;
- Soundness of the concept, including trans-disciplinary considerations;
- Extent that proposed work is ambitious, has innovation potential, and beyond the state-of -the-art;
- Credibility of the proposed approach.

Does this flow naturally to:

### **2. Impact**

- The expected impacts in the work programme;
- Enhancing innovation capacity and integration of new knowledge;
- Strengthening the competitiveness and growth of companies;
- Other environmental and socially important impacts;
- Effectiveness of the proposed measures to exploit and disseminate results, management of IPR;
- Communication to relevant stakeholders and to manage the research data Implementation.

and then flow to :

### **3. Coherence and effectiveness of the work-plan, including appropriateness of the allocation of tasks and resources**

- Complementarity of the participants within the consortium;
- Appropriateness of the management structures;
- Procedures, including risk and innovation management.

**REMEMBER YOU NEED TO SCORE 4.5 or 5.0 IN EACH OF THESE 3 SECTIONS**

**YOU NEED TO COVER ALL THE ABOVE POINTS**

**How Equal scores are separated in order :-**

- Coverage of Work Programme
- Excellence > Impact > Implementation ( for RIA & CSA)
- Impact > Excellence (for SME, IA)
- Highest SME funding goes first
- Gender

**What the evaluators have said about submitted bids-** *note: these are what evaluators have actually said on bids*

### **Clarity and pertinence of the objectives**

- too general and expressed in high level, generic terms, not sufficiently developed, not justified.
- not embedded in the theory and is not convincingly related to the specific challenge.
- too little attention is given to the European context .
- theoretical framework prevails over policy relevant analysis.

### **Soundness of the concept, and credibility of the proposed methodology**

- methodology is described in generic terms and limited scope.
- not adequate conceptual clarity, and a lack of details, some elements are not clearly explained.
- does not demonstrate “how”..., and it is insufficiently explained what will emphasize key concepts.
- rather theoretical approach lacks clarity in some of the practical elements.
- not sufficiently sound, not adequately supported by evidence, methodological aspects.

### **Beyond the state-of-the-art, and demonstrates innovation potential**

- potential to go beyond the state of the art is not convincing and does not substantially advance.
- insufficiently explains the interrelationship and not clearly justify how knowledge will be adapted.
- insufficient elaboration on the novelty and not adequately address how it will reinforce learning.
- the practical realisation of innovation potential is not sufficiently developed.
- does not demonstrate the required level of innovation in the principal concepts.
- the innovative potential is limited and lacks clarity as to where the innovative potential rests.
- state of the art is not sufficiently presented and does not refer to relevant research.

### **Interdisciplinary approaches and, where relevant, use of stakeholder knowledge**

- it is not clear if and how the range of stakeholders will be able to implement
- not very clear how the different disciplines will contribute and /or be integrated
- inter-disciplinary is mostly visible in the theory and involvement of stakeholders is not explained
- stakeholder engagement and how stakeholders will be included in policy making is inadequate
- how the knowledge of all the different stakeholders will be integrated is not specified.

### **Expected impacts**

- impacts are too generically outlined and do not elaborate on indicators.
- not clearly demonstrated the interrelation between work and impact.
- instruments to achieve impact are modest.
- insufficient explanation showing precisely how impact will be achieved.
- the targeted outcome is rather unambitious and outcomes are hard to see.
- scientific impact is modest. Unlikely to be sustainable.

### **Dissemination, communication and Exploitation**

- the level of ambition is not fully substantiated and target audiences are inadequately addressed
- dissemination plan is generic and dissemination activities are rather vague.
- dissemination and exploitation plans are not systematically connected to the target groups
- insufficient detail on communication activities.
- products of interest to policy and practitioners communities are weak
- exploitation measures are rather vaguely described.

## Quality and effectiveness of the work plan

- many of the WPs cover too many research topics and are not consistent to the WPs' objectives.
- pilot activities are ineffectively clarified and the effort distribution is not justified enough.
- not clear why all work packages should start from the first month.
- WPs are not presented and explained and the work plan is not sufficiently detailed.
- not clearly explained activities in the co-ordination work package.

## Management structures and procedures, including risk and innovation management

- project structure will hinder rather than ease decision making processes.
- not all partners have a role in the management. Limited roles not sufficiently justified or differentiated and roles are poorly defined.
- technical problems are more central than innovation management.
- no barriers or obstacles described and mitigation measures are rather weak.
- not sufficiently detailed to justify the relevant budget allocation and allocation of resources. Some partners are allocated excessive resources.
- inadequate description of how co-ordination of activities will be ensured.

## Some extracts from remarks made by assessors

### Excellence

*“This is a well structured project with three phases logically following each other though limited evidence is provided that a fully operational model will be achievable within the project time-scale. Field data collection remains largely at a theoretical level with a limited practical basis. There is some naivety in relation to the feasibility of the use of sensors. The proposers do not explain how they will overcome current limitations with the technologies proposed.” (Score 4.0) [Note: the actual score of 4.0 looks a bit generous given some of the comments]*

*“Although the proposal involves a multi-actor approach a wider trans-disciplinary consideration for integrated practical solutions is missing. The work is fairly ambitious as it does not strive for groundbreaking new technologies but rather concentrates on existing solutions.” (Score 3.0)*

*“The project is ambitious in tackling a broad range of targets and environments. It is more limited in scientific ambition as the innovation will come from new ways of using existing materials and deploying them rather than making groundbreaking scientific discoveries”. (Score 4.0)*

*The proposal does not provide sufficient information on the current knowledge status at the regional level. For example a clear description of climate change factors at the regional level is not provided and therefore it is not clear which innovations will address this objective. The concept around which the project is developed is of high quality. The partners are well equipped and have relevant scientific experience as well as experience in running EU and other projects. Co-ordination and support measures are adequate. (Score 4.0) [note: the word adequate. Sometimes you can be “damned with faint praise”]*

*“The limited information undermines what in principle would be a sound concept. The concept presented in graphic form shows a loop of testing, demonstrating and improving materials but how this process would work is rather unclear. Overall the development of the concept in each work package is weakly defined. The close links to some previous actions are positive but the suggested*



*links have not been very well followed through into a sufficiently described business plan that would bring the results closer to the market. Furthermore the proposal does not convince that tasks would be achievable during the time frame that is presented. The proposal claims that it will identify prototype and test materials based on best in class and manufacturing and testing environments. The innovation would in this case appear to be at an early stage in other words there remains a need to identify these materials and to prototype them. This suggests a low Technology Readiness Level but the proposal does not discuss in sufficient detail the TRLs for these proposed new solutions.” (Score 3.0)*

## **IMPACT**

*“Although there is commendable consideration of SME, there is too little description of how innovation would be integrated outside of the consortium. Although one industrial partner appears related to the manufacture of materials and their by-products the overall potential to strengthen and grow the competitiveness of European companies is rather limited. There is an interesting four-way analysis of stakeholder groups but there is too little analysis of markets and how they should be segmented. The communication package is not effective or ambitious enough since it lacks clear information on the measures that would be adopted” (Score 2.5)*

*“The proposal addresses the call with relevant impacts and though this project is unlikely to achieve all the main objectives it could make very valuable progress in areas. The indicators suggest that only a small number of farmers will be initially involved so the adoption rate is likely to be slow thus affecting wider impact across Europe.” (Score 4.0) [note: failure on multi-actors]*

*“The project integrates new knowledge but it is not convincing that the innovations will have a strong effect on strengthening the competitiveness and growth of companies. Dissemination strategies are insufficiently described and adoption of the new system is not guaranteed. It is unclear how the proposed system will stand alone after project completion. The description of market delivery is unsatisfactorily described and IPR issues are not clearly addressed.”(Score 2.5) [note- very weak on exploitation]*

*“Use of some existing products already having patent protection not belonging to the consortium may limit their joint exploitation.” (Score 4.5) [Note: this aspect probably cost this project the perfect 5.0 score] since other comments were very complementary.]*

## **Quality and efficiency of implementation**

*“The composition of the consortium could have given more emphasis to industrial partners that would ensure optimal market penetration and innovation. Risk management is included however the risk analysis is fair and only covers broad aspects related to overall progress. There is too little evidence that Quality Assurance or innovation management have been considered and it is not clear how the project would deal with these aspects. The consortium propose to set up an evaluation strategy to monitor indicators and progress. This would in principle be a good tool to evaluate progress but the proposed implementation lacks detail in its description. “ (Score 3)*

*“A coherent and generally well-planned work-plan is proposed. This is detailed but perhaps over-complex for effective management. The co-ordination and project management looks appropriate with a good task distribution though the role of the different boards is not convincingly described. There is a well considered risk analysis.” (Score 4.5)*

*“The geographical distribution of partners does not represent the full spectrum of EU countries affected. Risks have been perceived as low and so risk management is not properly addressed. Also innovation management is insufficiently dealt with. There is a fair representation of SMEs. “ (Score 3)*

*“The consortium has the appropriate structure to perform the proposed tasks and shows a high level of integration maturity and experience in managing and exploring large scale projects. The work-plan is comprehensive and tackles the issues in a logical and sequential manner. Tasks and resources are appropriately allocated. Fieldwork is a significant element of the project but the rationale behind the high costs and the subcontracting is not well-explained.” (Score 4)*

# THE APPLICATION FORM

## READ THE CALL

### Call Title

*This is the problem to be addressed.*

### Specific challenge

*This explains the reason for the challenge.*

## Have you actually met the challenge?

### Scope

*Provides some insights to possible approaches / solutions.*

*It is not prescriptive. The EU is looking for you to provide answers.*

*Look for acronyms, legislation, specific countries, other EC initiatives and make sure you cover them. Also roadmaps and recent published strategies are important- these may not be mentioned in Call or even produced after the Call is announced.*

*The expected size of the project is given e.g. Euro 3 million.*

## Make sure that your proposal is not out of scope

### Expected impact:

- *This is what the project **must** deliver.*
- *The EC is telling you exactly what it wants.*
- *Set your objectives and justify how your approach delivers these impacts.*
- *Rewrite the call more simply by using bullet points for scope and impacts. This helps to check that you cover what is being sought. A table can help to present the call and how you are responding.*

## Make sure you that you are delivering the impacts desired

## WHY BIDS DO NOT SUCCEED

## SOME COMMON MISTAKES

Science and technology is well set out but other parts are neglected (impact, project management , risk assessment, gender, communication, dissemination)

Not matching the call: researchers push their own “research agenda”

Not collaborative - insufficient evidence that partners will work together instead of each doing their own thing. Token SMEs added without giving them a clear role

Failure to say what is the state-of-the-art and how it will be taken forward

Not building (or even worse duplicating) on previous FP7/IEE or H2020 projects

No logical flow from objectives to impact to methodology to Work Packages and delivery - also lack of consistency ( e.g aims and objectives change or new ones suddenly appear from nowhere in WPs )

Deliverables and milestones not clear ( or do not match text in WPs)

Application not coherent or clearly written due to lack of editing and proof-reading

Budget not justified : the budget exceeds limits, budget not balanced between partners, insufficient resource put aside for management and dissemination

Unclear , unrealistic unbalance budget which does not match the actions proposed

*Also look at pre-amble to the Work Programmes in which the Call is placed since there are often additional relevant pointers there which are not in the specific call text.*

## SOME TIPS

- Involve future end-users.
- Provide Clear exploitation approach and/or business models.
- Make sure your ideas aligns fully with what is being asked for.
- Provide real market information.
- Remember impact is more than dissemination activities.
- Ask your EU research co-ordinator to let you see evaluators' comments from both successful and unsuccessful bids. Also look at full text of the applications of successful bids which your organisation has been involved in
- Make sure you make good use of paragraph breaks. and numbered bullet points. Make it easy for evaluator to read your proposal quickly. Temptation is to save space by not having space between paragraphs. This results in cramped text and does not look good. Good cross referencing rather than repeating text.
- Add graphics but only where they explain. Think about overall look and presentation.

The HORIZON 2020 Participants Portal documentation section has copies of all the templates for the different types of actions. There can be variations and some extra questions added for particular calls. It is vital that you download the application form which is related to the call you are interested in pursuing and do not just rely solely on the template.

The application form is in two parts : A and B

Part A is wholly electronic and basically has the information about partners and summary of the budget and an abstract of 2,000 characters.

Part B is the heart of the application where it is required that sections 2 ,and 3 are submitted as one pdf of not more than usually 70 pages but check the specific call since the requirement does vary (in some cases only 50 pages). You do not have to write 70 pages just because that is the limit. The evaluator will be quite happy if you cover all the ground in fewer pages . **Quality not quantity**

Sections 4 and 5 requires a separate pdf containing basically factual information about the partners and covering ethical issues, if there are any. If you tick the ethics box in part 1 then you must write something in Section 5. There is no page limit on this section but again do not be tempted to expand too much. One or two pages per partner is usually sufficient.

**For a two stage process only section B -10 pages covering section 1.1 and 1.2 is required**

For two stage projects a detailed budget breakdown is not required at the 1st stage -only a total budget figure

It is wise to draft in Word. **The officially recommended font size is Times New Roman 11 points.** This guide is written in this font. The page size is A4, and all margins (top, bottom, left, right) should be at least 15 mm (not including any footers or headers). Also, do not overuse bold and highlighting in your text (*It tends to annoy evaluators - “Why do they highlight everything? Do they think I am stupid?”*). Use diagrams which count toward page limit but they need to be clear and add something to the case you are making. Make sure your diagrams are not too complicated. Keep the language simple and do not use very long sentence. Make it easy for the Evaluator to read quickly and understand what you are saying.

Read carefully each sentence and get rid of redundant words and phrases (e.g. do not write “we intend to successfully implement.....” The word “successfully” is redundant since you would not do it “unsuccessfully”! Get a native English speaker to read through for a final proof check.

The following guidance follows the standard application form for a Research and Innovation Action, For other actions the forms are almost the same but watch out for slight variations. Always check the Call in case a slight variation is required. The standard templates include some guidance and in this Guide relevant text has been included in boxes.

TEXT COPIED FROM TEMPLATES CAN BE FOUND IN BOXES LIKE THIS

## 1.1 Objectives

- Describe the specific objectives for the project<sup>1</sup>, which should be clear, measurable, realistic and achievable within the duration of the project. Objectives should be consistent with the expected exploitation and impact of the project (see section 2).

**It is important on this first page that the evaluator can understand what your project is about and what you are seeking to achieve**

Consider your USP and start from a broad perspective moving to the specifics of your proposal.

Set the scene immediately with a clearly defined aim, in one stand-alone sentence e.g. This project will contribute to XX by 2020.

It may be useful to distinguish between an overall aim (a bigger long-term goal) and the project objectives (what concretely do you deliver by the end of the project).

Be careful not to have too many objectives. Ten would be at the outer limit.

Remember you should always have management and dissemination and exploitation objectives.

Show the bigger picture. Refer to EU policies and targets. Do not only consider scientific/ technological issues but also societal/ environmental/ economic, etc. **Very important - look at text in General Work Programme.**

Can you quantify the objectives. Think how you are going to measure/ verify whether you have achieved them.

Mention RRI up front.

Some assessors comments on objectives:

*“the objectives and deliverables of the project are directly related to the call topic and address all 7 actions of the European [X] Action Plan” (Score 5)*

*“the proposal very clearly addresses the objectives of the call topic, demonstrating an understanding of the problem to be tackled and the broad international approach to be taken” (Score 5)*

*“there is a mismatch between the proposal objectives and the call topic. It is not addressing the performance of the [overall] system, but only of the [X] process. The proposal is therefore only partially fitting the scope of the call” (Score 2)*

*“the objectives of the proposal are only partially in line with the the Call” (Score 3)*

## 1.2 Relation to the Work Programme

- Indicate the work programme topic to which your proposal relates, and explain how your proposal addresses the specific challenge and scope of that topic, as set out in the work programme.

Overall this should be about one page

Make sure you refer to the the call title and code.

Explain how your objectives relates to the call topic.

Break it down into specifics, i.e. ideally you should match each separate key word/ aspect as defined in the call text, with an explanation how you address this. It can be good to use a a two column table for this purpose.

Also, read the Introduction to the Work Programme itself which may give you more on what the EC is seeking then they have set out in the specific call topic.

Look at EU strategic documents, roadmaps etc. These may be referred to in the Call or the pre-amble to the Work Programme. For example, for all agricultural topics set out how your proposal fits in with the Strategic Approach to EU Agricultural Research and Innovation published in July 2016.

Important - Have you covered all aspects of the call topic?

Put in a table listing a summary of the scope point by point and then add a second column saying you you have addressed it.



## 1.3 Concept and Approach

### Concept and approach

- Describe and explain the overall concept underpinning the project. Describe the main ideas, models or assumptions involved. Identify any trans-disciplinary considerations;
- Describe the positioning of the project e.g. where it is situated in the spectrum from 'idea to application', or from 'lab to market'. Refer to Technology Readiness Levels where relevant. (See [General Annex G of the work programme](#));
- Describe any national or international research and innovation activities which will be linked with the project, especially where the outputs from these will feed into the project;
- Describe and explain the overall approach and methodology, distinguishing, as appropriate, activities indicated in the relevant section of the work programme, e.g. for research, demonstration, piloting, first market replication, etc;
- Where relevant, describe how sex and/or gender analysis is taken into account in the project's content.

This section is to do with feasibility. Describe your method for achieving the output and results in sufficient detail that the evaluator will believe this is the right approach.

### Concept and Positioning

Describe the underlying conceptual approach and theoretical considerations making this feasible.

You can do this either for the whole project, or break it down for specific parts. Where do you start from (which technology readiness level, or how fundamentally mature is the technology) and how much further will you develop it, i.e. how close to final implementation will your project result(s) be?

If the call topic defines a TRL make sure that you refer to it and how you will achieve the level asked for.

### National and international research

Describe other activities which are similar, and show what you can learn from these. What are the gaps? Limitations of current research and how your project will fill such gaps? In other words, you must demonstrate that you are not re-inventing the wheel and that you know what is happening in the field. It is not simply a question of listing projects but showing that you understand what they are doing and how your proposal fits in and makes an additional contribution to what is already being done. All partners should be able to contribute to drafting this section from their own knowledge. You are expected to build on previously funded projects in the topic area. Worst case is that your proposal duplicates something that has already been done. A simple three column table may be good way to present

project title	Scope and expected outcomes	how we we can use or enhance results
---------------	-----------------------------	--------------------------------------

## Approach

Describe your overall concepts/ approaches/ theories/ assumptions. Break it up by distinguishing between the separate project activities. For first-stage proposals, include an overview of the structure of the main activities.

## RRI and Horizon 2020 proposals

Several aspects of research, innovation and development have been gathered together by the European Commission, under the Responsible Research and Innovation (RRI) umbrella. These include:

Gender

Ethics

Public Engagement

Science Education

Open access

Governance

Proposal writers should be aware that these so-called ‘six keys’ are regarded as highly significant in Horizon 2020. Although the EC has suggested that “37% of all proposals” should address RRI as a cross cutting theme, there are good reasons to believe that addressing RRI is likely to be seen as positive in most proposals.

It is important to remember that, as in all proposal content, there should be reasoned arguments for how RRI and its components fit into the overall work plan. It is not sufficient to merely state “we shall follow RRI principles” You must say specifically how.

Gender has been a major concern for some time, and proposals must provide a ‘gender statement’. Often proposals do not give this section sufficient attention. Merely stating that staff numbers on the project are equally balanced between females and males is no longer adequate. RRI shifts the concern away from ‘balance’ and towards cultural change. Many areas of research, such as computer science or physics, are perceived to have male dominated organisational cultures, which deter women from participating or from seeking promotion. Gender is also seen as an aspect of scientific knowledge and research, for example in determining the types of biological materials used.

Proposals should therefore include a **comprehensive gender statement** covering individual, organisational, cultural and research-content aspects. Gender can be a “tie-breaker”, after ‘impact and excellence’ scores and SME involvement, so it should be taken seriously. Not all proposals can change organisational culture, but it should at least be acknowledged that gender is an issue within such cultures. Be aware to avoid tokenism.

Gender also affects publication cultures, with the emphasis on so-called ‘high-impact journals’, and on maximising the production of articles, with corresponding effects on work-life balance. The move towards open access and open science, both encouraged by the EC through RRI, is also a move towards a more open and inclusive publication culture. Proposals should place more emphasis on open access publishing channels, not only the (paid-for) ‘gold standard’, but also new forms of publications including blogs, podcasts etc.

Proposals should also ensure that any outputs, including academic articles, are made available during the project duration (i.e. before funding ends) so that they can be actively promoted. An academic article appearing two years after the end of a project is of little value in terms of dissemination. Although part of the dissemination process is inevitably addressed to scientific or technical audiences, evaluators will need to know how the public will be informed about project activities.

Public engagement is increasingly important and some of the EU-funded projects in RRI (RRI-tools, for example) have produced useful guidelines for bringing a wider range of stakeholders into project activities. Stakeholder groups need to be carefully defined in proposals and there should be detailed descriptions of exactly how they will be involved and what influence they might have on project decisions.

The science education aspect of RRI follows from public engagement – bringing young people into contact with scientific research and development is seen as beneficial for the future supply of scientifically trained workers. Projects involving young people have shown that engaging with RRI concepts in science produces genuine debate and added motivation.

The gender, open access, public engagement and science education aspects of RRI relate logically to the ethics key. As with gender, it is not sufficient to shift responsibility on to a local ethics committee, as is often the case with proposals. The underlying philosophy of RRI demands more inclusive ethical approaches, where a wider range of stakeholders are involved in ethical decisions and where the project rationale, as well as its methodology, are subject to ethical scrutiny and reflection – who benefits from this research?

Finally, governance is an umbrella concept taking in the other five keys. RRI is about openness, and about distributing responsibility, not in an onerous way but in a way that is empowering for those involved. The governance of projects therefore needs to be open, inclusive, and flexible enough to react to genuine public concerns. It should also reach out, where appropriate, beyond Europe – the implications of RRI in terms of global equity and justice are considerable. Co-creation is replacing competition in EU rhetoric.

## 1.4 Ambition

- Describe the advance your proposal would provide beyond the state-of-the-art, and the extent the proposed work is ambitious. Your answer could refer to the ground-breaking nature of the objectives, concepts involved, issues and problems to be addressed, and approaches and methods to be used.
- Describe the innovation potential which the proposal represents. Where relevant, refer to products and services already available on the market. Please refer to the results of any patent search carried out.

### Beyond state-of-the-art

Assessing the state-of-the-art, and demonstrating how your proposal goes beyond this in terms of innovative, scientific and/or technical quality, is crucial for a positive evaluation.

*You are expected to know what is happening in your field and present it in the application. The EC will not pay you to conduct a state-of-the-art review at the start of project as was the case in many FP7 projects. It is not just a simple case of listing projects. You must show that your proposal will advance the state -of the -art. This is a very important section and useful to designate one partner to write the first draft. All partners then must contribute. Need to be careful not to duplicate what you put in Section 1.3 You need to make sure that sections 1.3 and 1.4 flow together from what is being done already to what we are going to do which is interesting and innovative and goes forward to what the EU is looking for in terms of impact which is the next section (Section 2). Important to get the logical flow right in the application form and not find that you are repeating yourself or not answering the point.*

For first stage proposals: Describe the expected outputs of your proposal, and the impact they are expected to have. Take some space to describe your advance beyond the state-of-the-art than the state-of-the-art itself.

TIP: For stage 1 applications you only have space for maybe two pages on this topic but for a full application the state-of-the-art review should be around 6-8 pages. Look to write the full state-of-the-art and summaries it for Stage 1.

### Why is it urgent to do it now? Why has no-one done this before?

- Screen the already existing project landscape.
- Examine existing scientific literature.
- Search in patent databases e.g. by using the openly accessible database Espacenet ([www.espacenet.com](http://www.espacenet.com)) provided by the European Patent Office.

Is your approach innovative? Explain why there is evidence that it can work (either here or in the Approach and Methodology section in 1.3 ). Do not just claim that it is innovative. Show how.

### Innovative potential;

Show that you are aware of what is already available, and that you are offering something new.

Check the European database (via CORDIS) of running and completed projects from previous European Framework Programmes.

### **Some assessors comments on ambition**

*“the proposed work is ambitious, has a strong innovation potential, and is beyond the state-of-the-art” (Score 5)*

*“this proposal breaks with convention in [field] by pursuing two related programmes which if successful could affect a major paradigm shift in the field (Score 5)*

*“the expected progress beyond the state of the art is moderate. In that sense, the proposal is not breakthrough” (Score 3)*

*“the proposal is based mainly upon the present engineering approaches which are already in use” (Score 3)*

## 2.1 Expected impacts

- Describe how your project will contribute to:
  - the expected impacts set out in the work programme, under the relevant topic;

Do not just repeat what you said in Section 1- you get no extra marks and only annoy the evaluator

**H2020 is based on an impact-oriented approach, delivering strategic technologies or knowledge that can drive competitiveness and growth. The Excellence and Impact sections are based on demonstrating an understanding of the technology and market environment, justifying the project objectives, and presenting a viable methodology and strategic plan and for achieving the set objectives, and for delivering innovation with impact.**

Impact and Innovation must be addressed in all sections of proposals, not just in the “Impact” section.

H2020 evaluation criterion for impact: “The extent to which the outputs of the project should contribute at the European and/or International level to the expected impacts listed in the work programme under the relevant topic.

Who – What – How?

An important way to reach impact is by including the right stakeholders in your consortium.

You should have one or a few ‘lead users’ as project partners. Lead users are those that will use the results of the project to provide a new product or service, those that will make the initial investment necessary to put the results on the market, with the view of benefiting from it. (To be distinguished from end-users, who can be seen as ‘customers’ of this new product or service.) You can refer to these consortium partners in this section.

Define very clearly what the output of the project will be. What will you deliver, exactly?

Make an explicit link to the higher impact aims as indicated in the topic Work Programme and show how your results will help to achieve these.

Describe in what way you will ensure that your project results reach the right people and organisations who can do something with them.

If companies are involved they should write or provide input for the impact section. Important that SMEs are seen to be involved in the application process (*i.e. not just there for “window dressing”*).

Describe how your project addresses all expected impact requirements indicated in the topic. A table may be useful?

Refer also to the relevant EC policy documents for your topic area, incl. European Technology Platform strategic documents/ roadmaps/ etc.

Briefly describe the problem to show that you understand what is needed.

You could then describe the need for your proposal to achieve the higher impact aims of the EU in this field (e.g. describe the problem/ bottleneck / knowledge gap) – in as far as not covered in section 1. This ‘need’ should be of a European or a global dimension.

Why exactly will this project bring forward a breakthrough solution within Europe?

Be very clear of the project’s output and what it then enables on the higher impact level.

Make use of credible references and clear justification, add indicators to measure the expected progress, following the implementation of results.

Be concrete and specific about what the project results can achieve in the areas described in the topic, distinguishing between what will be achieved during the project lifetime and what can be expected to be achieved beyond.

#### **NOTE THIS IS THE POINT WHERE YOU FINISH FOR STAGE 1 APPLICATION**

NOTE: for Stage 1 you do not need to set out details of your Work Plan. Indeed 10 pages may not feel like sufficient room but to get a good score to take you to second stage you must demonstrate the structure of your Work Packages and methodology here. At stage 2 some material could well move to Section 3.

*The 1st stage is judged only on Impact and Excellence. There is a need to score 4.0+ for both to get to the next round. The EC has introduced the dynamic threshold for some Work Programmes (most notably agriculture) whereby the number of projects getting through to stage 2 will be three times the budget giving around a 30% chance of success at Stage 2 but it also means getting through the Stage 1 gate has become even tougher. Maybe two 5.0 needed?*

**Look at the remainder of the full application and consider what you might put in the Stage 1 application which can be elaborated at Stage 2 e.g the structure**

If invited to second stage then you need to pick up Section 2.1 and develop

- improving innovation capacity and the 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 (if not already covered above).
- Describe any barriers/obstacles, and any framework conditions (such as regulation and standards), that may determine whether and to what extent the expected impacts will be achieved. (This should not include any risk factors concerning implementation, as covered in section 3.2.)

You also need to revisit section 1 Do not assume that just because you scored well to get you into the next stage that the same text will get you through the second stage . *Remember it is almost certain that it will be a different evaluator and remember that your competitors will have scored well also to get to the second stage.*

### **Improving innovative capacity**

Suggest put in a three column table:

innovation / our contribution / how it will have the desired impact

### **Other environmental and social aspects**

Mention any additional impacts or benefits of your solutions, that were not defined in the EC call text, and make sure to stress that these are additional ‘bonus’ impacts not asked for by the EC. As above, be concrete on how and why these impact will be achieved.

### **Barriers / obstacles**

You must be able to identify some . You cannot possibly have a proposal without any potential risks.

Which external factors could threaten the achievement of the desired impact? Show that you are aware of these, and show how you could remedy these obstacles.

Link with risk assessment maybe a table?

barrier / chance of occurrence / impact on achieving success/remedy



## 2.2a Dissemination and exploitation of results

- Explain how the proposed measures will help to achieve the expected impact of the project. Include a business plan where relevant.
- Where relevant, include information on how the participants will manage the research data generated and/or collected during the project, in particular addressing the following issues:<sup>2</sup>

- What types of data will the project generate/collect?

- What standards will be used?

- How will this data be exploited and/or shared/made accessible for verification and re-use? If data cannot be made available, explain why.

- How will this data be curated and preserved?

**It is essential to have a dedicated Work Package to dissemination , exploitation and communication.**

A lot of the detail can be inserted into the Communication and Dissemination Work Package with just key elements mentioned in these sections.

Evaluators have been critical that dissemination and communication have been mixed up. Dissemination (and exploitation) must be distinguished from communication, the topic of 2.2.b, further down.

**Dissemination** is making results known. It is about sharing scientific results, mainly to an audience of peers. Exploitation relates to the (commercial) implementation of results. Dissemination means, in Horizon 2020, the public disclosure of the results by any appropriate means (other than resulting from protecting or exploiting the results), including scientific publications.

**Communication** is about promoting the project, contact with stakeholders and third parties, general public.

**Exploitation** means the use of results in further research activities other than those covered by the action concerned, or in developing, creating and marketing a product or process, or in creating and providing a service, or in standardisation activities.

**You must now put in an outline dissemination [ and exploitation] plan with your application.**

The dissemination and exploitation plan should be based on an analysis of the key stakeholders involved:

What is the landscape of the topic?

What is the value chain?

Who are the key stakeholders and lead users? (*Remember the distinction between lead users and end users*)?

Where are you starting from and where do you want to go?

Which actors are involved to take you to a higher TRL level and which ones are involved who can really contribute to the expected impact?

Value and innovation chain analysis, which identifies the different business areas that are linked together (e.g. suppliers of materials or components that you use, and users of the technology).

Describe your overall dissemination/ exploitation strategy, based on a clear and thorough analysis of who should be informed about the results, their role in the chain, which intermediates ( e.g. European wide associations) you can use to reach the key stakeholders and how best to reach these groups.

A dissemination/ exploitation plan (targets, intermediates, means, message) should be SMART and targeted. What actions have you planned to actuate your strategy?

Show why the lead users are committed to your results. Show that you can provide the solution to their problem.

How would the costs of the necessary investment in bringing the results to the market relate to the expected savings/ profits?

If relevant, for higher TRL levels, define (a few options for) a business model. Who could do something useful with these results, and why would they want to (in most cases: how could they save or make money out of it). Why would it give them an advantage on their competitors? Try to quantify the size of the market and the growth opportunities. How large would the competitive advantage be (in terms of efficiency / energy saving / potential new clients, etc.), expressed in % or euro? Be careful not to over exaggerate the claims you make.

The EC expects “Open Access” but recognises IPR of consortia. It is important that you deal with IPR issues. Horizon 2020 looks for more exploitation of results and efficient and strategic knowledge management including the safeguarding and protection of intangible assets through Intellectual Property Rights (IPR). Thus, the IPR interests of partners needs to be properly managing and protecting knowledge and know-how must be included as an integral part of the overall management. This is required to

- disclose your knowledge and ideas safely
- prove the ownership
- profit from commercial exploitation
- prevent or discourage its unauthorised use by others.

So whilst you need to sign up to open access, you also need a substantial paragraph on IPR covering how results shall be made accessible to the broader (scientific) public? What is the commercialisation potential of the results? What exploitation channels seem the most appropriate, and what are thus the most suitable forms of IP protection?

## 2.2b Communication activities

- Describe the proposed communication measures for promoting the project and its findings during the period of the grant. Measures should be proportionate to the scale of the project, with clear objectives. They should be tailored to the needs of various audiences, including groups beyond the project's own community. Where relevant, include measures for public/societal engagement on issues related to the project.

You might want to use different communication means and strategies for different groups.

Communication activities relate to any “measures for promoting the project and its findings during the period of the grant.

- Non-scientific communication: bridging the gap between science and society
- Increasing the visibility of the project, aimed at maximising the impact
- Researchers in different fields of research or technology
- Business and academia
- Partners in different countries or cultures

You should include a communication plan with :

- Goals and objectives
- Audience
- Message
- Medium and means
- Evaluation activities

Do not forget to put in a website and standard communication tools now expected for all projects.

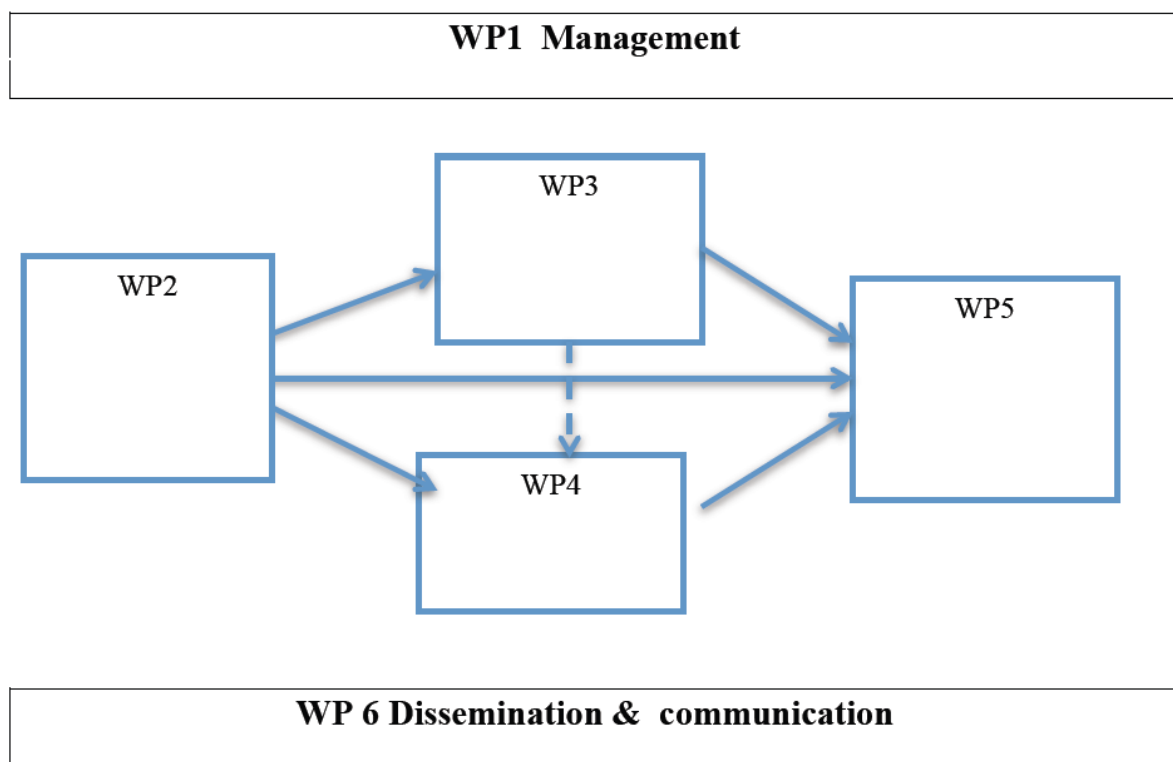
The details of this plan can be given in the work package description but avoid duplicating text.

### 3.1 Work Plan

Please provide the following:

- brief presentation of the overall structure of the work plan;
- timing of the different work packages and their components (Gantt chart or similar);
- detailed work description, i.e.:
  - a description of each work package (table 3.1a);
  - a list of work packages (table 3.1b);
  - a list of major deliverables (table 3.1c);
- graphical presentation of the components showing how they inter-relate (Pert chart or similar).

Example of WP structure



**This is the section where you must give concrete and specific details about what you will do and when.**

It should be ready to be copied into the grant agreement as your final project plan. Do not leave any aspects vague or to be decided. Quantify targets and deliverables, but be aware that deliverable will become binding. Be careful in not creating too many hostages to fortune. **Not too many deliverables, 2-3 per WP is fine.**

The work plan is the logistical, practical description of how the project will be implemented. Avoid any theoretical considerations here. You should have made the case already in Sections 1 and 2. **Describe only actions, steps, etc.**

The Work Packages deliver the objectives you have already determined so do not try to create new objectives.

An ideal work package structure is probably around 6 with WP 1 management and WP 6 dissemination and communication. This means 4 WPs for the research/ innovation actions. Some proposals try to add an evaluation WP but this can also be lumped in with Management.

Management covers the project management. Tasks could be: organising consortium meetings, consortium agreement, reporting, coordination of advisory/stakeholder board, communication (both internal and dissemination/ communication with outside world), exploitation. Scientific management and progress monitoring occurs in every WP but you need to make sure that this is co-ordinated.

Participation in work packages between partners needs to provide evidences that the proposal is more than a compilation of individual activities.

**A deliverable is something tangible**, a concrete output which will be drivers to achieving the end goal. Therefore, there should be a link between objectives and deliverables.

Milestones are not the same as deliverables. Milestones mark the point when progress can be checked i.e the end of an action particularly if it is sequential or progress cannot be made until this action or task has been completed. Make sure that milestones are defined/quantified in such a manner to allow a go/no go decision, or a verification whether the target in the milestone has been reached.

**Get WP leaders to make the first draft of WPs but in collaboration with other partners. It is not the WP leader's WP. It is owned by the consortium.**

The structure for the WPs which you must follow is given as:

Objectives  
Description of task deliverable  
Deliverable

Make sure the objectives are the same as the objectives set in Section 1.1.

Do not start to add extra objectives. Sometimes in drafting it is easy to get mixed up between objectives and description.

### **Bad example of objectives in a WP**

These are not objectives but descriptions and could each be tasks within a WP [again these are examples from actual draft proposals]:-

- to pilot project specification (project plan & technical specification)
- to implement industrial pilots at sites
- to commission/integrate of pilots
- to measure pilot results
- to validate performance

Set out each task or sub- task clearly describing what will be done - describe the activity not the theory/ rationale. You are not justifying why (this should already have been done in sections 1 and 2). You are setting out **how it will be done**.

Set WP Leaders a limit of drafting maximum two pages per WP (*note six WPs of two pages is already 12 pages*) .

Each task should have a start and end month e.g. start M2 end M34

Do not have all the tasks starting and ending at the same time. You need to spread the activity across the time span of the project.

For 36 month project ensure most of the tasks are completed by say M34. Only the final conference and final project report should be down for M35 and M36.

Set out deliverable but no more than 2 or 3 per WP. There might be outputs e.g in terms of a number of research papers which you can put together as a deliverable rather than putting each one as deliverable itself.

Describe briefly but clearly who will do what .There must be balance of effort between partners not WP leaders doing everything or almost everything.

### 3.2

- Describe the organisational structure and the decision-making ( including a list of milestones (table 3.2a))
- Explain why the organisational structure and decision-making mechanisms are appropriate to the complexity and scale of the project.
- Describe, where relevant, how effective innovation management will be addressed in the management structure and work plan.

*⚠ Innovation management is a process which requires an understanding of both market and technical problems, with a goal of successfully implementing appropriate creative ideas. A new or improved product, service or process is its typical output. It also allows a consortium to respond to an external or internal opportunity.*

- Describe any critical risks, relating to project implementation, that the stated project's objectives may not be achieved. Detail any risk mitigation measures. Please provide a table with critical risks identified and mitigating actions (table 3.2b)

### 3.3 Consortium as a whole

**You should have a management objective in Section 1.1 and a dedicated Work Package on Management**

*⚠ The individual members of the consortium are described in a separate section 4. There is no need to repeat that information here.*

- Describe the consortium. How will it match the project's objectives? How do the members complement one another (and cover the value chain, where appropriate)? In what way does each of them contribute to the project? How will they be able to work effectively together?
- If applicable, describe the industrial/commercial involvement in the project to ensure exploitation of the results and explain why this is consistent with and will help to achieve the specific measures which are proposed for exploitation of the results of the project (see section 2.2).

### Project management

As this comes near the end of the application form it is often not given sufficient attention. You must be able to demonstrate that the project will be well managed and that all partners in the consortium have a role to play. The evaluator will look at both capacity to deliver and also the level of co-ordination between the partners.

Useful to create two tables? You cannot delegate responsibility but you can sub- contract some services. Explain what these will be. Are you going to hire a new project manager? If so define briefly their essential credentials. Cross reference to section 4. Keep management structures simple.

## Partners tables

Partner/ their speciality / their contribution to project

## Events table

List all the key events such as Steering Group meetings conferences/workshops etc. This is not same as the milestones but some of the events could also be milestones.

## The consortium

### **REMEMBER YOU MUST BE ABLE TO DEMONSTRATE THE MULTI- ACTOR APPROACH**

**Link back to your objectives and the impact how the consortia will fulfil these?**

You must ensure all sectors are included with a clearly defined role for each partner. It must be a genuine contribution. Often this section is left to the last minute and as a result can be weak. Sometimes when reaching this section in the drafting the realisation is that you are already near or over the page limit so you feel under pressure to make this section very short. This is mistake. The section on the consortium needs to be at least a page. Cross referencing with Section 4 is also essential.

The information about each partner and CVs go in Section 4. So you do not need to describe each partner in detail here but you need to show how they fit together and what each brings to the project. Diagrams and tables can be useful here.

Show that all partners have their own specific expertise that is complementary to that of the others. There should be no unnecessary/ duplicated partners. A good spread in terms of geographical areas, type of organisation, background/expertise is a plus. Show that the consortium has been built around the impact that needs to be achieved. Which partners do you have on board and how do they collectively achieve maximum input on the target group?

## Industrial commercial involvement/ benefits

SME involvement is regarded highly by the EC. You could refer to the value chain (all the organisations from the raw material and successive elaborations to the final product). Explain why commercial partners are motivated to be in the consortium (and not in a competitive conflict of interest). What aspects are SMEs particularly involved? How will they take forward commercialisation and exploitation of results?

## Risk

**You must enter some risks - it is impossible to have “no risk”.**

Be explicit on technical / scientific/ exploitation risks. Not just the usual project management risks that count for all projects, like late delivery of intermediate results, exceeding budget provisions, etc.

Provide a mitigation / contingency plan .

Could be presented in a table?:

risk	//	impact level	//	risk level	//	remedy & prevention.
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Various Tables are required to be completed but all these come near the end of application process and do not leave to last minute to complete them.

*It is very important to cross-check that the information entered in these tables matches with what has been said elsewhere in the application.*

**Table 3.1b: List of work packages**

**Table 3.1c: List of Deliverables**

**Table 3.2a: List of milestones**

**Table 3.2b: Critical risks for implementation**

**Table 3.4a: Summary of staff effort**

**Table 3.4b: ‘Other direct cost’ items (travel, equipment, other goods and services, large research infrastructure) for each participant if the sum of the costs for ‘travel’, ‘equipment’, and ‘goods and services’ exceeds 15% of the personnel costs for that participant.**

## SECTION 4 and 5

### A separate pdf covers Section 4 and 5

There is no page limit to this section but this does not mean that you should not follow the principle of keeping text concise, clear and simple. **Again remember the evaluator.** Here they quickly wish to see that you have in the consortium the right experience and capacity to deliver. They are not interested in pages of material about the organisation or long lists of publications. Section 5 needs to cover Ethics if there are any ethical issues e.g. using animals or GMO crops? Ethics can be linked to RRI. Do not just gloss over ethics issues. There is a tick box in Part A on ethics. If this box is ticked then you must address the issue in Section 5.

### Section 4

- a description of the legal entity and its main tasks, with an explanation of how its profile matches the tasks in the proposal;
- a curriculum vitae or description of the profile of the persons, including their gender, who will be primarily responsible for carrying out the proposed research and/or innovation activities;
- a list of up to 5 relevant publications, and/or products, services (including widely-used datasets or software), or other achievements relevant to the call content;
- a list of up to 5 relevant previous projects or activities, connected to the subject of this proposal;
- a description of any significant infrastructure and/or any major items of technical equipment, relevant to the proposed work;
- [any other supporting documents specified in the work programme for this call.]

This section should be the easiest and can be done well in advance of deadline but far too often the Co-ordinator is trying to get all the information from partners at the last minute. This leads to poor and less coherent presentation. This section is also the opportunity outside the page limit to show what each partner and people involved bring to the project. Discipline is needed in editing this section so that it is written in a common style. In concentrating effort on sections 1-3 this section can often be neglected (or even regarded by some partners as not very important).

Keep the description of the partner to one page maximum. Keep it relevant to the topic. You do not need to give the whole history of the organisation. Roles should match what you have said in Work Package descriptions. Do not put everything about the roles here and avoid putting it in WP descriptions and also in Section 3.3 on the Consortium. What you say here should match what is said elsewhere.

Each CV should be no longer than about one-third of a page. The evaluator is not interested to know the entire career history of persons involved. Cover the aspect relevant to the proposal. Do not take the lazy approach of letting partners submit their standard CVs which can often run to 3 or 4 pages. *[Note -Many partners simply send their standard CVs to the Co-ordinator and let the Co-ordinator sort it out.]*

It says 5 examples- **so give only 5** but make sure that they are relevant to the topic.

You should say who they are and their specific role in the project. Everyone is named and who has CV should have a specified role or why are they included? Make sure that you include the CV of administrator(s) and finance manager not just the scientists. Bring out management, dissemination, communication skills as well as scientific ones. Also it is a good idea for each partner to set out its gender and equality policy and also policy for data protection. This can be cross referenced with section on Gender in Sections 1-3.

#### Example of CV :

**Prof. Dr. xxx yyyy** (female) (UK) has been working at [Department of xxxxx] at the xxxxx University in UK on [SUBJECT] Her current responsibilities include:

Project management, coordination and harmonization of deliverables for all projects, communication with the client/s and sub-consultants and presentation of all deliverables;

Development of projects, coordination between different contractors

Collaboration and development of projects

**Recent related projects include:**

(1) Co-ordinator for FP7 project xxxx 2011-15

(2)

(3)

(4)

(5)

**Publications:**

(1)

(2)

(3)

(4)

(5)

**Her role in [PROJECT ACRONYM]** is advice and participation in the whole project area, assistance in data collection and developing design parameters, advice and participation in development and testing of new environmentally friendly materials, national and international dissemination. She will lead WP 4 on XXXXXXXX.

## **Budget**

The budget figures are included in the electronic form part A.

Panliska Ltd has developed separate guideline about completing the budget sections.

Particular attention needs to be paid to working out staff effort by person-months per Work Package.

These figures are also inserted in the Work Package description and tables on summary of staff effort.

So it is essential to know quite precisely who will be doing what.

The figures of person-months need to match the text. For example do not put in a high number of months for an organisation under a WP and then fail to have description of what they will be doing.

Also all partners must have some staff effort allocated in management and dissemination/communication.

Make sure that your budget is balanced between partners. The Co-ordinator's budget is usually a bit higher than other partners but should not be excessively high compared with other partners.

## GLOSSARY OF TERMS and EXPRESSIONS

**Aim** Only take aim once. Proposal should have just one single aim. Do not use word again. So do not say the aim of this objective is .....Do not say aim of dissemination is....

**Ambition** not to be confused with the aim.

**Communication** This relates to how you intend to communicate results and engage with relevant stakeholders and policy makers.

**Deliverables** This is what the project will deliver to the EU . They need to be tangible most often reports but could be an innovative process or product. Each Work package should have several deliverables but not more than say 3 or 4 per WP. Be careful of things which lead to deliverables but are not deliverables as such e.g. Workshops and events are not deliverables but they could be milestones.

**Dissemination** This is about the messages and providing open access.

**Exaggeration** Be careful not to exaggerate the impact that your proposal will deliver. Make sure that the impacts are actually in your control. Do not make wild claims about the number of jobs or that the project alone will necessarily solve all the problems and challenges.

**Exploitation** means the use of results in further research activities other than those covered by the action concerned, or in developing, creating and marketing a product or process, or in creating and providing a service, or in standardisation of activities.

**Ethics** Consider all the potential ethical questions e.g. where project involves testing on humans or animals.

**Evaluators** The most important persons you have to convince.

**Gender** This must be strong section and can be linked up with RRI.

**Innovation** Saying something is innovative does not make it innovative . You must say how it is innovative. Avoid starting section ‘This is a very innovative project....’

**Goals** Avoid using word “goal”- you are not playing football. It has the same meaning as aim or objectives - so only adds to confusion.

**Market-creating innovation** helping Europe to better capture innovative ideas with the potential to create new markets and strengthen the industrial base.

**Objectives** While the proposal should have one “aim” it needs to have several objectives but be careful of having too many. Objectives set at Section 1 should then follow through to be the same objectives for Work Packages.

**Open Access** Open access applies to those data needed to validate the results presented in scientific publications..

**Open Innovation** Open up the innovation process to all active players so that knowledge can circulate more freely and be transformed into products and services that create new markets, fostering a stronger culture of entrepreneurship.

**Open Science** There are four approaches: actions addressing specific aspects of Open Science; contributions to the development of the European Open Science Cloud (EOSC); open data-driven science; explicit references to the use/experimentation of open science approaches (e.g. knowledge- or data-sharing, spreading of best practices through networks, platforms and hubs).

**Outputs** Be careful not to mix up outputs with “ deliverables.

**RRI** A good description covering Responsible Research and Innovation is now a must for all applications. Problem is that the standard template does not yet accommodate a section on RRI.

**Results** Be careful when using terms “results” not to get mixed up with deliverables. No need to say the results of the project each time- it is obvious when you say results you mean the project.

**Positioning** (of the project) This section is often misunderstood by applicants as to what positioning means, the EC is expecting you to say the TRL levels at start and end of project.

**Project or proposal** Avoid using “project” or “proposal” in text use the acronym for the proposal instead.

**Risks** You must list some risks and means to ameliorate them. A project cannot have no risks.

**Stating the obvious** Avoid stating the obvious for example “We have put together a strong international set of partners who will collaborate together.” of course you have -you could not bid otherwise.

**TRL** Expected Technology Readiness Levels are often given in the Call especially for Innovation Actions.

**Typeface** Times New Roman 11 is now standard as per official EC guidance of January 2017.

**Website** All projects are now expected to have their own dedicated website. There is no need to go to great lengths to describe a website.

**Will/Shall** Avoid using the future tense. Try to write bid in the present tense . It reads much better and indicates that you are ready now rather than at sometime in the future.