EUROPEAN COOPERATION IN SCIENCE & TECHNOLOGY

CONSENSUS EVALUATION REPORT

GENERAL OVERVIEW

Open Call Collection	*OC-2019-1*
Proposal Reference	*OC-2019-1-23678*
Proposal Title	*Open European Network for ENTerprise InnOVation in High Value Manufacturing*
Proposal Acronym	*ENTOV-HVM*
Review Panel	*RP 4 - Advancing knowledge on physics, (nano) materials and (bio) chemical processes*
Evaluation Status	*Final*

EVALUATION

SUMMARY TABLE

S&T EXCELLENCE			NETWORKING EXCELLENCE			IMPACT			IMPLEMENTATION	Marks
Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Total
3	4	4	3	4	3	3	4	3	5	36

COMMENTS

S&T EXCELLENCE

Soundness of the Challenge

Q1 - Does the proposal demonstrate a comprehensive command of the state of the art in the field and present a relevant and timely challenge?	Mark
The proposal addresses this question in a good manner. Main strengths: The proposal demonstrates a comprehensive command of the state of the art in the field and presents a relevant challenge. The state-of-the-art approaches in respect to reducing the time for the diffusion of innovation in high value manufacturing represent a highly fragmented picture, which differ significantly not only from region to region, but also in relation to the type of innovations and research efforts involved. The challenge of navigating the labyrinth of the ecosystem available to early career researchers and young innovators is a formidable one; it is also a challenge that many fail to master, thus ending up “eaten by the shadows” and not contributing the value they could to research, industry and society as a whole. It is certainly a good insight to state that "the state-of-the-art might be best reflected in partnership structures between industry manufacturers, machine / supply chain partners and universities in theform of advanced manufacturing centres..."The aim of the proposal is to support early career researchers and young innovators to overcome the main challenges in mastering the diffusion of innovation curve. The focus is on the high value manufacturing where specific barriers for diffusion of the innovation process exist. The main strength of the proposal is in its comprehensive explanation of the state-of-the art of the innovation process in HVM, benefits of the effective partnerships structures (ecosystem) and mechanisms for inclusion of early career researchers and young innovators into the innovation curve.	3

The proposal has some weaknesses and the following improvements are necessary: The importance of the project challenge is too shortly described. The timeliness of the challenges is identified but summary represented in the description of the proposal.There is a clear lack of academic references.Regarding the challenge it is hard to understand what they really mean and what they concretely want to achieve.In spite of the comprehensive presentation of the state-of-the-art in HVM, the proposal lacks a clear explanation of the challenges. More specific discussion is needed, particularly as the proposal addresses the HVM industries, within which, in general, large enterprises operate in closed innovation system. In case there are some specific restrictions about the considered HVMs (e.g. size, open innovation system), those limitations need to be described.	

Progress beyond the state-of-the-art

Q2 - Does the proposal describe an innovative approach to the challenge that advances the state of the art in the field?	**Mark**
The proposal addresses this question in a very good manner. Main strengths: The proposal describes an innovative approach to the challenge that advances the state of the art in the field. The applicant described very well how the challenge will be approached and emphasizes the innovativeness of the approach. The proposal reflects an original and well-established approach.As mentioned, the approach is beyond the state-of-the-art because it applies a living systems perspective based on the principle that innovation is the flow of knowledge from its place of origin to the place where it is needed. The theoretical foundation is excellently described, the architecture of the innovation web, the foundation theory and application of the living system perspective is presented in a comprehensive way. The proposal would benefit from certain improvements: The proposal is based on assumptions that are asserted with a strong conviction. It would be better to give way to more questions and debate. Sometimes it gives the impression that the results of ENTOV-HTM are already delivered in anticipation.Minor shortcomings might be noticed in regard to the practical implementation of the model; it might be difficult to achieve full understanding and cooperation with representatives of the HVM industry, particularly when they will need to cooperate with theoretically educated researchers. For example, which are the existing models and best practices of innovation systems for HVM, what will be the main advantages for early career researchers and young innovators in their paths towards the diffusion in innovation curve using such a complex approach.	4

Q3 - Are the objectives presented relevant to the challenge, clear and ambitious?	**Mark**
The proposal addresses this question in a very good manner. Main strengths: The project presents well both objectives: research coordination objectives as well as capacity-building objectives. Research objectives and how these objectives will be fulfilled in the project are described in detail. The objectives are SMART. The research coordination objectives (RCO) are focused on the distribution of tasks, sharing of knowledge and know-how, and the creation of synergies within and between the working groups to achieve the intended deliverables. Relevant objectives- Well detailed and articulated objectives The proposal would benefit from certain improvements: From the description of the proposal results is not clear that the objectives entail building critical mass to drive scientific progress, thereby strengthening the European Research Area.With a large	4

number of objectives, the implementation of the project might cause some difficulties in monitoring of the progress and achieving the set of goals. Also, the differentiation between the RCO and CBO is in certain parts of the text unclear, while CBO can also be considered more likely as an action plan for the activation of the entire innovation process.	

NETWORKING EXCELLENCE

Added value of networking in S&T Excellence

Q4 - Does networking bring added value in tackling the challenge in relation to existing efforts at the European and/or international level?	**Mark**
The proposal addresses this question in a good manner. Main strengths: The Action will be connected with various European associations organizations and the associated research disciplines to ensure added value of the Action on three levels: national, European and to a certain level also international/global. Multiple current European programmes provide a diverse range of support for projects for accelerating technology transfer in advanced manufacturing across a broad spectrum of maturity levels and industries. To add value to these efforts, ENTOV-HVM seeks to pro-actively partner / “sister” with such in order to share the insights generated, especially due to its novel living systems perspective. These collaboration activities will additionally improve the impact ENTOV-HVM has to science, society and competitiveness. The expressed intention is positive. The proposal mentions examples in the field of technology transfer and links to other EU activities on S&T Excellence. Additionally, proposal will pro-actively seek for partners to share the insights due to its novel living systems perspective The proposal has some weaknesses and the following improvements are necessary: The proposal does not clearly explain how it will pro-actively partner / “sister” ... in order to share the insights generated. The proposal could [SA1] enhance transferability and represent sustainability options on the European and international level by extending the collaboration with other, related activities, such as Living Labs, People-centered development approaches, Open innovation concepts, Design thinking, etc.	3

Added value of networking in Impact

Q5 - Does the proposed network contain, or present a credible plan for securing, the critical mass and expertise for achieving the objectives and thus addressing the challenge?	**Mark**
The proposal addresses this question in a very good manner. Main strengths: The proposed network contains a credible plan for securing, the critical mass and expertise for achieving the objectives and thus addressing the challenge. The required critical mass and expertise are based on the need to populate the working groups with a suitable number of appropriately skilled individuals who are active across the diffusion of innovation curve. The current proposer network is deemed as meeting these minimum requirements, whereby active solicitation of further members will be pursued to extend beyond this minimum requirement. Diversity of the network in terms of expertise. Diversity of the network in terms of backgrounds. A diverse set of expertise is included in the proposal in order to create a wide view of the diffusion of the innovation process at the HVM; it places a specific focus on expertise at all levels and from different disciplines. The experience in these disciplines will also need to derive from different organizational contexts, such as Higher Education, Business Enterprises, (Private) Non-Profits, and Government and Intergovernmental Organizations across the participating countries. The proposal would benefit from certain improvements:	4

The proposed network could be more precise about securing the critical mass and expertise for achieving the objectives and thus addressing the challenge.

Q6 - Does the proposal identify the most relevant stakeholders and present a clear plan to involve them as Action's participants?	Mark
The proposal addresses this question in a good manner. Main strengths: The involvement of stakeholders is identified and described well in the proposal.The role of the stakeholders and the approach to communicate them are clearly described. The proposal makes a distinction between different types of stakeholders: those who are involved in the project, those who are not involved but interested. The stakeholders will be involved through their participation in all events and through solicitation of their input to all policy-relevant elements of the deliverables, i.e. the policy recommendations in papers The proposal has some weaknesses and the following improvements are necessary: It is not explained clear which other Actions may contribute to the project success. The proposal does not clearly specify who compose the different categories of stakeholders. The involvement of stakeholders is not very well defined. Further emphasis on how to attract and engage stakeholders, besides informing them about the action and inviting them to participate in the action, would be an additional strength and value in the proposal.	3

IMPACT

Impact to science, society and competitiveness, and potential for innovation/break-throughs

Q7 - Does the proposal clearly identify relevant and realistic impacts for science, society and/or competitiveness (including potential innovations and/or breakthroughs)?	Mark
The proposal addresses this question in a good manner. Main strengths: The proposal identified relevant and realistic impacts for science, society and competitiveness. The proposal enumerates a list of diversifies, relevant actions. The impact to the science, society and competitiveness will be given by (primarily ITC) participants, a number of the actions is presented. The proposal has some weaknesses and the following improvements are necessary: The potential breakthroughs are summary identified in the proposal description. The proposal does not explain well how the actions will generate a significant impact. Some of the presented impacts of the proposal are quite general and will need further elaboration, for example, the impacts related to assuming authorship, orchestrating co-authors, etc. With such actions, it is difficult to establish key performance indicators and to clearly identify potential innovations and/or breakthroughs.	3

Measures to maximise impact

Q8 - Does the proposed networking clearly contribute to knowledge creation, transfer of knowledge and career development?	Mark
The proposal addresses this question in a very good manner. Main strengths: The proposed networking clearly contributes to knowledge creation, transfer of knowledge and career development. To maximize the scientific, technological and socioeconomic impact of the activities a set of design principles will be employed: •Training offerings will be: Free of charge. Classified as public domain knowledge. Part of offering joint-certified by secondary proposer institutions. offered in face-to-face, online and hybrid formats.Additionally provided as podcasts and streaming media. • Events • Publications. The proposal describes the creation and transfer of knowledge in a detailed manner. In order to maximize the scientific, technological and socioeconomic impact of the activities, a set of design principles is proposed, from training, to events and publications. The proposal would benefit from certain improvements: The proposal could have given some precision on the volume and nature of actions that are envisaged. To clearly contribute to knowledge creation / transfer of knowledge, further elaboration on these two actions is needed, the plan is only descriptive and not ambitious enough.	4

Q9 - Is the plan for dissemination and/or exploitation of results clear and attainable and does it contribute to the dialogue between science and the general public or policy?	Mark
The proposal addresses this question in a good manner. Main strengths: ENTOV-HVM events (training schools and joint research-industry workshops) are open to the public, hosted by local organizations and consciously integrate local stakeholders of the diffusion of innovation process. While these events will be accompanied by a variety of publications and other media distributions channels, ENTOV-HVM will make a special effort to engage with policy makers at all levels since their influence on the diffusion of innovation process is significant and the (ineffective) implementation of their policies one of the major challenges being tackled by ENTOV-HVM. There is a consciousness of the importance of disseminating towards the general public. The main proposed dissemination and exploration tools are events, which will be open to public, hosted by local organizations and will consciously integrate local stakeholders of the diffusion of the innovation process. A special effort will be put into engaging with policy makers at all levels due to their influence on the diffusion of the innovation process. The proposal has some weaknesses and the following improvements are necessary: The proposal should give more precision on the plan for dissemination towards the general public. The plan for the dissemination and exploitation of results is not clear and will most probably not succeed in establishing an open and engaged dialogue between science and the general public or policy. Some activities would require more specific information, also the target indicators have not been presented.	3

IMPLEMENTATION

Coherence and effectiveness of the work plan

Q10 - Is the work plan (WGs, tasks, activities, timeframe, deliverables and risk analysis) appropriate to ensure the achievement of the objectives?	Mark
The proposal addresses this question in an excellent manner. Main strengths: The work plan is coherent, realistic and appropriate to ensure the achievement of the objectives. The planned deliverables are the most appropriate results to achieve the stated objectives. The planned time frame for the implementation is achievable. The tasks and activities planned are adequate for assuring achievement of the results and deliverables. Well detailed tasks. The action plan is presented in comprehensive way, seven ITC-led work-groups which will meet in conjunction with training schools held at alternating ITC proposer institutions. All the working groups, their tasks and activities are clearly described. In the explanation of the particular deliverables, different training sessions and workshops, there are some of additional descriptions included, which could probably be included in other sections of the proposal. It would be advised to rewrite and shorten this part of the proposal and rearrange some of the information to other sections, which lack the description or details (e.g. dissemination & exploitation). Additionally, the risk analysis does not cover all of the main activities, e.g. the active participation of the identified stakeholders.	5