



Robotics Digital Innovation Network



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FSTP Evaluation & Best Practice

This document provides an evaluation of the operation of the Funding Support to Third Parties (FSTP) Instrument based on the operational experience of six projects working with the Instrument in the area of robotics development and exploitation. The aim is to give some practical best practice guidance plus and evaluation of operational benefits and difficulties of the instrument. The document summarises the first phase output of the RODIN Working Group set up to discuss practical experience of operating the FSTP instrument.

The FSTP Working Group was originally set up with the 5 IA projects that are running the Networks of Digital Innovation Hubs in robotics, i.e. agROBOfood, DIH², HERO, RIMA & TRINITY. The need for the Working Group was identified at the RODIN Summer Camp on 11th & 12th June 2020.

Working Group Aims

The aims of the FSTP Working Group were developed following the 2020 RODIN Summer Camp and confirmed at the first on-line meeting held on 4th February 2021. It was agreed that the working group should operate in two phases. The first phase has the aim of providing feedback and insights on the way the current FSTP instrument works, together with some suggested changes that might make the instrument more effective. Specifically, the aims of the first phase were agreed as:

- Evaluate the perceived benefits and difficulties of the FSTP instrument
- Evaluate potential changes to the instrument that could make it more effective and / or more efficient
- Provide some Best Practice insights

The second phase aims were agreed as to evaluate the FSTP instrument in terms of its overall effectiveness in achieving greater European SME innovative capacity and to examine alternative mechanisms that could be employed to achieve the same aims, potentially more effectively. However, it was agreed that this second phase should only be undertaken when the FSTP actions of the IA projects were nearing completion in order to gain the full experience of the FSTP projects.

It was also agreed that other robotics projects operating the FSTP instrument should be invited to join the RODIN FSTP Working Group, particularly for the second phase. However, it was also recognised that many of the IA projects' partners, as well as RODIN partners, brought considerable experience of other FSTP projects. Initially the ESMERA project was invited to join the first phase of the FSTP Working Group.

Activity Framing

To frame the activities of the Working Group the following four questions were posed to stimulate the discussion:



1. Does the FSTP instrument achieve its intended goals of:
 - a. Involvement of SMEs particularly those not normally participating in EC projects
 - b. Does it increase overall SME involvement in EC programmes?
 - c. Does it attract new entrants?
 - d. Does it increase geographic reach?
 - e. Increase in the spread of digital technologies within SMEs
 - f. How much technology transfer takes place (academia to industry or industry to industry)
 - g. What evidence is there on continued application of such technologies?
 - h. Increasing the exploitation capacity of SMEs
 - i. Are the right firms or sectors being attracted?
 - j. What is the success rate for exploitation? Is this significantly higher than normal?

2. Is the FSTP instrument efficient and effective? In particular:
 - a. What administrative burdens are imposed on the funding organisation(s)? How can these be alleviated?
 - b. Common problems encountered
 - c. Is it an efficient use of public money, cf “standard” collaborative research projects?
 - d. Is there evidence that this increases the innovative capacity of industry better than standard collaborative research programmes?
 - e. Are the funding levels, funding rates, timescales and reporting requirements correct?
 - i. Are these universal? Are there sector / geography specificities
 - f. Are the assessment criteria correct and sufficient?
 - g. Is there sufficient flexibility in the instrument and the way it is administered, e.g. ability to pivot?
 - h. Are serial applicants a problem

3. What changes could be made to increase the effectiveness of current (H2020) FSTP actions?

4. Should the FSTP instrument have greater or lesser use in Horizon Europe? What changes would increase its effectiveness?

The following sections are, in general, based upon the consensus view of the Working Group, although in a few cases alternate views are listed. In general these latter arise from different project perspectives or objectives.

Perceived Benefits of FSTP

The perceived benefits of the FSTP instrument can be classified as those accruing to the beneficiary, the project / Innovation Hubs and the EC / wider community, although there is overlap between these three classifications.



Beneficiary Benefits

The main benefits of the FSTP instrument over standard Framework collaboration projects from the point of view of beneficiaries (particularly SMEs) are seen as follows:

- The instrument allows greater flexibility to target specific technology or application interests. This provides a potentially wider range of interests to be covered that would be possible with a traditional collaboration project with the same funding. The flexibility of approach can also be used to fine tune the individual FSTP calls in terms of the type of support offered and the access to large scale / project facilities. However, it was noted that while FSTP actions do allow a flexibility of approach, this flexibility is framed by the details of the FSTP calls. Thus, while options such as the ability to pivot the objectives of the project in light of findings from nascent markets would be attractive to many SMEs, few FSTP calls allow such a degree of flexibility.
- The relatively short length of the FSTP process, from application to completion of project is more in line with the timescales of SMEs investigating or developing new products or markets and thus more attractive than a traditional collaboration project. By contrast, for a technology transfer project involving a Higher Education establishment, as well as an SME, the HE organisation can face increased difficulties in providing staff for such a project because of the unattractive nature of a short-term post and potential lack of continuity.
- The FSTP is seen as a low barrier mechanism which is more attractive for SMEs and can attract new entrants to the EC collaborative project environment. Much of this is to do with the simpler application procedure associated with FSTP calls, however the initial higher success rates of applications experienced in the early FSTP calls also contributed to lower effective cost of applying for such grants. However, in many recent project FSTP calls the success rate has dropped to closer to that associated with traditional collaborative project calls. Nevertheless, the simpler application process is still seen as a positive attribute of FSTP calls by many applicants.
- The FSTP instrument is also seen as a good mechanism for new entrants to EC innovation grant funding, primarily because of the simple application procedure. However, it was also acknowledged that there are still difficulties for completely new entrants in understanding the purpose and process of the FSTP instrument and in understanding the common acronyms and nomenclature. Further to this, many potential target companies simply were simply unaware of the FSTP calls and their relevance to the company's business.

Benefits for Projects and Innovation Hubs

In addition to the benefits of the FSTP instrument offered to third parties, it can also bring direct benefits to the project administering the FSTP calls and to associated Innovation Hubs. These benefits were seen to be:



- The ability to test central developments of the project with a range of third parties. This is particularly the case where the central project is developing either tools or an approach that is intended to be taken up by industry. Through the FSTP calls companies and other organisations can be recruited and paid to either develop or test (or both) various aspects of the approach or tools in a variety of setting, thus getting early real-work exposure and feedback for the project.
- Similar to the above, it is possible to test multiple hypotheses in parallel with a variety of FSTP beneficiaries and thus evaluate the optimum approach to be taken within the main project to maximise the post-project take-up and impact.
- The FSTP instrument provides a powerful tool for Innovation Hubs to test their services, particularly where the support is in form of innovation vouchers. However, this benefit is still apparent where the beneficiary receives cash to support their own development plus development support from the central project.
- The FSTP instrument can also provide Innovation Hubs with a mechanism to strengthen their brand, particularly in their local area. Both the promotion of the FSTP calls and the subsequent publicity of the project results can raise the visibility of the Hub with its target client base.
- The process of the FSTP call can also provide a project / Innovation Hub with cost effective / free overview of the marketplace in terms of application areas and technologies in which firms are active together with nascent demand for services.

Benefits of the FSTP Instrument for European Commission / Wider Community

The main benefits perceived for the EC and the wider community were as follows:

- Greater outreach, in terms of the number of small organisations reached within the funding available. However, there was a mixed view on whether the FSTP instrument was maximising innovation capacity within Europe or even whether the right organisations were being attracted to achieve this. These concerns are discussed below in the perceived difficulties section.
- Attraction of new entrants to the EC innovation ecosystem, although it was noted that this was not an automatic result of the use of the FSTP instrument but instead required active management by the organisations running the calls. Nevertheless, the framework of the FSTP instrument did facilitate the attraction of new entrants.

Perceived Difficulties with FSTP

The perceived difficulties with the current FSTP instrument are discussed below in terms of, first, the beneficiaries of the calls, second the projects running the calls and lastly for the EC / wider community.



Perceived difficulties of the FSTP instrument for beneficiaries

While the FTSP instrument is generally perceived to have substantial benefit for beneficiaries, there are some perceived downsides. These include:

- While the FSTP instrument supports innovative companies and organisations the management of the overall projects, from Project Officer downwards, is risk averse. High levels of innovation come with high risk of failure, but such projects are not favoured by the selection process and safer development strategies are encouraged to avoid failure. While this might produce positive statistics in terms of each FSTP experiment producing incremental improvements, it actually discourages the riskier innovations that, along with failures, may produce the occasional big win. This risk averse nature of the instrument's management makes it less appealing for companies that want to explore truly innovative products and services.
- Associated with the risk averse nature of the general approach is the tendency for a conservative approach to the running of the projects. Thus, in many projects the original objectives of a project will be maintained even in the face of evidence that an alternative objective, or pivot, may be more effective.
- There can be a lack of clarity with some FSTP projects that use central project resources about the use of central project IP after completion of the project. There should be standardisation of the approach such that at best such IP is made freely and non-exclusively available for exploitation or, at worst, that the terms of the use of central project IP is made clear within the call documents.
- The multitude of FSTP schemes can make it difficult for a small organisation to find the best fit for their intended development. Worse still the slightly different terminology and application procedures used by different projects can be confusing.

Perceived difficulty of the FSTP instrument for Projects running the Calls

For the projects running the FSTP instrument calls the perceived difficulties are:

- The administrative burden of running the calls and managing the projects is high, with no significant innovation return for the dedicated effort. This restricts the number of organisations that are capable and willing to undertake such a task.
- The handling of finance for FSTP experiments is a specific cause of concern for organising projects and specifically the contracting organisation. First, the fact that the FSTP funding is not separated from consortium funding is a source of additional, and preventable, risk and can result in cashflow problems. Second, the liability assumed by the contractual organisation is unequal: payment to the third-party organisations is contractual but the repayment from the EC for these funds is not guaranteed. Finally, in times of negative interest the effect of holding significant sums, effectively on behalf of third-party organisations is not taken into account by the EC.



- There is a concern with the availability and quality of reviewers, or at least the reviews they carry out. This is partly to do with the number of project evaluations which need to be carried out, and the limited pool of reviewers. Another concern is that the accepted rate for the evaluation of proposals is insufficient to ensure that a detailed, in-depth review can be undertaken.
- There was an associated concern that evaluators tended to place more emphasis on scientific excellence rather than taking into account the goals of the particular projects that organised the FSTP calls where, for instance, impact might be the primary driver. This tendency emphasised the need for a rigorous on-boarding procedure for reviewers and a review oversight process.
- There is a potential, but manageable, difficulty with attracting the most appropriate organisations to apply for FSTP calls. In order to reach target groups and persuade them to participate a very active approach needs to be taken. This generally involves locally based promotions, particularly events, and seeking the support of industry and membership organisations.
- It was noted that it could be difficult to elicit proposals from EU11 organisations and that those proposals that were received tended to not be written in a manner that would lead to a high evaluation score, even where the underlying content was good. This was thought to be because of a mixture of differing expectations from funding programmes together with a lack of experience with other EC funded innovation projects. While many projects managing FSTP calls offer a pre-proposal screening service, they were not funded or equipped to offer a full proposal advice service and, indeed, it is felt that this would not fully address the difficulty. One approach to address this this problem is through a form of positive discrimination, either by targeting selected regions or applying quotas.
- Lastly there is a concern regarding the consistency of advice from Project Officers regarding the administration of FSTP call and the management of resulting projects. There needs to be a consistent approach, based upon the extensive experiential data now produced.

Perceived difficulties of the FSTP instrument for the EC / Wider Community

The perceived difficulties of the FSTP instrument for the EC / Wider Community area as follows:

- The impact assessment of FTSP actions is too narrow in focus, generally focussing on the results of individual experiments in the short term. This approach does not emphasise the multiplier effect that is necessary if a large scale in an industries innovation capacity is to be effect ted. There is also a need to evaluate the long-term impact of the FSTP instrument, although this is a difficulty faced by many innovation support instruments.



- There was a view expressed that the funding rate offered through the FSTP instrument may not attract the most appropriate organisations. First, the notional 100% rate, is probably significantly higher when the support from the central project is factored in. Second, given the high rates of submission now common and the associated lower success rates, requiring a contribution from the beneficiary would indicate a commitment to exploit the results. The counter-argument is that, if the FSTP instrument was implemented as a higher-risk, high innovation tool, more organisations would be prepared to test out risky ideas if they receive full compensation of their costs.

Suggested Changes to the operation of the FSTP Instrument

This section addresses the changes that could be made to the procedures around the existing instrument, to make it easier to administer. These are not fundamental changes to the instrument which will be addressed in the Phase 2 of the Working Group. The main changes that were seen as potentially beneficial were as follows:

- Separate FSTP funding from consortium funding in accountability terms. It was seen as important that FSTP funding is accounted for separate to any other consortium funding. Without this there is a danger that the consortium is required to cross-subsidise potential shortfalls on the FSTP commitments.
- There needs to be clarity on the audit requirement for FSTP recipients. As the aim of FSTP is to simplify the administration the same audit limits should apply for FSTP projects as with standard Framework collaborative projects. However, and linked to the above, these limits for individual projects should be transparently passed through to the EC without a further requirement for audit on any consortium partner.
- Allow negative interest costs to be claimable project costs for FSTP project funds. This would correct the situation where the consortium incurs interest costs for holding FSTP funding on behalf of the recipients and for which they get no direct benefit.
- The expectations for the time, and funding, it takes to review an FSTP project should be increased. This would allow for greater scrutiny of the proposals and greater consistency of evaluation results.
- To achieve the aims of increasing innovation capacity across Europe there should be greater stress on multiplier effects in impact assessments as opposed to the direct effects of one organisation and its customer base. Such an emphasis would encourage FSTP projects that made effort to spread the technology knowhow, and thus innovation capacity, across multiple organisations.
- There should be clarity on targeting calls, particularly in relation to EU11 countries and regions. There are good reasons to believe that some form of positive discrimination may have greater long term impact than non-targeted calls. However, there is concern



that this may be seen as jeopardising impartiality and therefore either a general clarification is needed or there should be clarity given in each specific call text for consortia to run FSTP projects, i.e. it may be that a specific call would allow targeting where this was seen as advantageous in a specific application or technology area.

Best Practice Insights

At the outset it was recognised that there are comprehensive guides to best practice particularly in terms of the mechanics of setting up and running FSTP calls and of managing the experiments thereafter. Indeed, the EC has published guides that highlight the legal requirement together with good practice¹. By contrast the intent of this section is to give some insights into best practice from people and organisations that have real experience of running FSTP calls and how to avoid some of the problems.

This list of insights is not comprehensive and may be added to as further experience is gathered.

- Make sure all decisions are recorded. Simple as this sounds it is important for consistency that all decisions regarding the administration of the FSTP calls are recorded and, where they have an impact upon the submission or evaluation of proposals, are made publicly available. Lack of consistency can lead to problems later and, potentially, to claims of unfairness or inequality in the review process.
- Hold local seminars to promote calls, particularly where the primary targets are SMEs. Many SMEs will only travel a limited distance to attend physical events but in person events have been shown to increase participation rates from relevant organisations as compared to virtual events. Using a local organisation with knowledge of the local ecosystem is an important step in reaching the target demographic. Local Digital Innovation Hubs can be a useful resource here. The seminar style has been shown to attract relevant organisations where the central theme of the seminar is a technical area relevant to the call with the details and advantages of the call being only a small part of the seminar. While time consuming, such seminar can significantly increase the number of new entrant applicants and the number of novel and innovative projects. This is particularly useful where the target group is SME end user organisations.
- Develop comprehensive on-boarding procedure for evaluators. Such on-boarding procedures should be designed to align the evaluations with the objectives of the call and to calibrate their scoring of proposals. This process should set the expectation of the type and quantity of feedback required, not simply the scoring system. The feedback provided by the reviewers is an important output of the process and can be particularly valuable for proposals that do not get funded. Example evaluations along with clear criteria for scoring are a useful resource here.

¹ Guidance note on financial support to third parties under H2020

- There needs to be a clear redress procedure that is developed and published before the FSTP call is launched. Such a redress procedure should be clear on the limited criteria by which an evaluation can be re-addressed, e.g. conflict of interest, and needs to make clear that the technical assessment of expert evaluators is not open to challenge.
- EC Audit thresholds should be adopted for all FSTP experiments. These experiments are meant to be light touch instruments and having tighter audit requirements than larger collaborative projects is not in keeping with this. In practice, given that most FSTP experiments will be below the EC threshold, this means that audit certificates should not be required in the vast number of cases. Of course, proof of achievement of project objectives, or sound reasoning why they have not been achieved, is still a part of good project management and is to be expected.

Conclusions & Recommendations

The overall consensus is that the FSTP instrument, while not perfect, is a good tool for attracting new entrants to the EC innovation ecosystem and for spreading innovation capacity throughout Europe. There is debate, in particular, on whether a higher-risk acceptance would help achieve the goals more effectively and whether different funding rates would attract more relevant candidates, while reducing the oversubscription rate.

Four main recommendations for the European Commission are proposed:

Recommendation 1: While some work has been done there should be greater effort to promote consistent approach and terminology, particularly if the FSTP instrument is to be widely used within the Horizon Europe programme.

Recommendation 2: There should be consideration given to launching and evaluating high-risk FSTP projects for specific areas. By high risk we mean projects which have high ambition (relative to the low funding levels) but which also come with a higher risk of failure. It is important to stress that failure of an experiment is not failure of the approach, which is why comparative evaluation is required. Such high-risk projects should also adopt more agile management approaches, such as acceptance of changed targets and objectives during the experiment run-time.

Recommendation 3: There should be consideration given to launching and evaluating a call for FSTP projects with lower contribution rates in certain target application areas. Although there is some belief that this may increase the exploitation activity generated by experiments, there is currently no direct proof of this. Again, a comparative evaluation could help inform future strategy.

Recommendation 4: Along with the evaluations recommended above there should be a long term evaluation of FSTP instrument to establish whether it achieves its



objectives in a cost-effective manner or whether some alternative should be established.

Working Group Membership

The following is a list of the membership and affiliation of the FSTP Working Group.

Name	Organisation	Project(s)
Adam Schimdt	TNO	RODIN / HORSE
Ali Muhammed	VTT	DIH ² / RobotUnion
Anna Dymoyska	Funding Box	RIMA / DIH ² / DIHNet
David Bisset	iTechnic	RODIN / HERO
Dragana Petkovic	Biosense	AgroboFood
George Michalos	LMS	ESMERA
Iwa Stefanik	F6S	Trinity
Jonathan van der Meer	PRISMA	EUROC / RIMA / DIH ²
Marco Rosa	euRobotics	RODIN
Maren Boedding	University of Twente	HERO
Maurits Butter	TNO	RODIN / DIHNET
Natasa Siljkovic	Civitta	RODIN
Panagiotis Karagiannis	LMS	RIMA
Pavan Sriram	F6S	Trinity
Sotiris Makris	LMS	ESMERA
Geoff Pegman	R U Robots	RODIN / ECHORD / ECHORD++