



RODIN  
Robotics Digital Innovation Network



# Considerations on the Future of FSTP Actions In Robotics

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Issue 1

Issue date: 31 December 2023



The RODIN project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 825263.

# Considerations on the Future of FSTP Actions in Robotics

## Output of the RODIN FSTP Working Group

### 1 Introduction

The FSTP (Financial Support to Third Parties) instrument has been extensively utilised by the 5 Innovation Actions (IAs) running the networks of Robotics Digital Innovation Hubs. Consequently, substantial experience has been gained in both the best practice of running FSTP projects but also the advantages and disadvantages of FSTP projects as a way to boost the economic competitiveness of European industry. A companion white paper published on the RI4EU web site examined the best practice issues concerned with running FSTP projects. This white paper attempts to review some of the advantages and disadvantages of the FSTP instrument, how well it meets its objectives of increasing European economic competitiveness as well as how it could possibly be changed to better meet those objectives or how other measures might better bring greater competitiveness to Europe.

The FSTP instrument was introduced by the Commission as a method for allowing SMEs, particularly those with no experience of EC collaborative projects, to access funding sources that could help them develop or take on-board new technologies and innovations that would make them more effective and efficient. Given that SMEs represent around 80% – 90% of all businesses in Europe it is argued that making them more efficient increases the overall competitiveness of European business. The FSTP instrument makes accessing funding and innovations easier for small businesses by both reducing the bureaucracy and effort involved but also, importantly, reducing the time between first involvement (application submission) and the completion of the relevant project.

FSTP projects are delegated to, generally, Innovation Actions to run and administer and the calls are characterised by having a focussed topic of application, easier application procedure and short timescales between call deadlines and the award of projects.



## 2 Advantages of FSTP

The FSTP instrument fulfills the surface requirements, through:

- Calls targeted at specific areas and actions. It is far easier for an organisation not familiar with European grant schemes to decide if the particular call is relevant to them or not.
- Simplified application forms. Although not completely jargon-free, the applications are generally easy to fill out and short. This encourages organisations not familiar with EC collaborative project procedures to engage with the application process.
- Short time between first engagement with an SME and, if successful, the completion of the project. One of the problems of many European collaborative projects is that the time between first engagement and the completion of the project may be 4-6 years, which is far too long for most SMEs whose planning horizons rarely extend beyond 2 years.

In addition, the FSTP calls administered by the IAs running the networks of DIHs could utilise their local contacts to identify companies that would benefit from applying for FSTP funding and support them in their application and, if appropriate, putting together a consortium to successfully undertake the project.

Thus, FSTP calls, as currently configured, can encourage SMEs that have not previously engaged with Commission funded projects to get involved and implement innovative technologies and solutions.

### 3 Disadvantages of FSTP Projects

There are a number of disadvantages, or at least sub-optimal aspects, with regard to the current FSTP calls that have been identified by the working group. These may be sub-classified as tactical (i.e. regarding the administration of the calls) and strategic (i.e. regarding the outcome of the calls). Chief among the tactical disadvantages are:

- The current rules regarding the operation of FSTP calls makes the IA operating the calls liable for any defaults by the sub-project partners. This, in turn, makes the IAs more cautious and increases the level of bureaucracy implemented by the IAs which in turn effects the reputation of FSTP as light touch support mechanisms.
- In a similar vein, current funding rules and associated timescales mean that the IA coordinator (or other partner responsible for funding the projects) effectively becomes a bank that lends money to the sub-projects ahead of recouping that money from the EC at the end of the project. This, in turn, limits the number of organisations that are willing to carry out such activities and, potentially, the evolution of innovation ideas for using the FSTP projects more creatively.

In terms of the strategic disadvantages, the major areas identified are:

- Multiplier effects. FSTP projects have an inherent weakness in the sense that their reach is individual companies at a time. Given that the majority of companies in Europe are SMEs, the funding available will always be insufficient to directly support more than a small percentage of those companies. Therefore, it can be argued that this will actually do little to actually change the economic competitiveness of Europe as a whole. However, one important caveat must be made with respect to robotic companies. Many, if not most, robotic companies sell their products to other companies and thereby increase their productivity and overall competitiveness. Thus, by supporting a robotics development company and FSTP project could be gaining multiple increases in efficiency and competitive advantage and a (potentially) a large competitive advantage. Conversely, for an end user company the efficiency gains resulting from the project are likely to be a one-shot improvement, unless the company concerned also acts as a pilot / demonstration plant which could encourage likely competitors to also adopt the technology improvements. Given that most SMEs are end users and are unlikely to want to share the results of their project with competitors, funding these organisations directly will have a limited overall impact.
- Assessment of project proposals. Currently, most assessors of FSTP projects come from a background of standard EC collaborative projects, many from an academic background. Thus, whether overtly or from in-built bias, the experience shows that many assessors of FSTP projects will give greater weight to innovation novelty than to



potential economic performance and impact. While this is not an issue that is unique to FSTP project assessments, it is more significant in that the aim of FSTP projects is to boost economic performance of SMEs, not the degree of novel research. This has resulted, for instance, in projects aimed at the robotic exploration of volcanoes (which have limited economic potential) being assessed higher than the application of more standard agile manufacturing techniques being applied in a new industry such as food assembly (which would have a large economic value if widely applied).

- Long term assessments. Like other EC (and other government) funded projects there is limited long term assessment of the commercial outcomes. This makes it difficult to objectively assess the true value of FSTP projects versus other funding instruments. Currently, most assessments are carried out at the end of the project or may have a limited window of return assessment within the life of the IP. However, for a project aimed at boosting economic performance and competitiveness a minimum time period would be 5 years beyond the end of the project. If the EC really wants to assess which instruments are effective for boosting competitiveness, then long-term assessments need to be put in place.
- Financial support limits. FSTP projects are generally limited in the amount of funding that is made available to organisations. While such funding may be appropriate for a proof of principal, it may not be sufficient to convince a firm to invest in what might still be a risky technology.
- Familiar faces. FSTP projects were designed to encourage new entrants to apply for EC funding. However, organisations familiar with “standard” EC collaborative projects can see such projects as easy targets for additional funding and will already know how to write a proposal that will appeal to assessors.



## 4 Potential Modifications to FSTP Projects

The FSTP instrument clearly has potential to involve more SMEs in the EC funded innovation process than more standard collaborative projects. However, as shown above, there are clear problems in the current way in which it is administered. Looking at the tactical problems a clear improvement could be made by the EC underwriting the costs of all FSTP projects except where there is gross negligence on behalf of the administering organisation. Similarly, the running of FSTP project could be opened up by forward funding all the payment liabilities to FSTP projects. This would have the effect of attracting more organisations more willing to run FSTP projects and, through competition, increase innovation in the schemes.

In terms of strategic outcomes, there are a number of changes that have been identified by the working group. These are:

- Making economic performance (impact) the major factor in the assessment decision to fund new FSTP projects.
- Setting up an EC task force or project specifically tasked with assessing the long term economic outcomes of FSTP and other EC funded projects.
- Look at fast-tracking successful FSTP projects which have shown potential for significantly improving the economic performance of European businesses for further funding opportunities, whether that be a FSTP+ project (i.e. higher funding levels), priority access to the SME instrument or increased eligibility for “standard” collaborative projects.
- Restricting access to FSTP projects such that at least one partner, and the main beneficiary, is a new entrant to European Commission funding programmes.
- Requiring all projects to show in their proposal evaluation a significant multiplier effect. For robotic developers this would simply be showing the productivity improvements that would be expected in their target customers multiplied by their expected number of customers. For end users, this would require a commitment to act as a reference or demonstration site to encourage the take up of robotics by other end users.

## 5 Potential alternatives to FSTP Projects

While FSTP projects have clearly been successful in boosting the economic performance of companies that have not previously engaged with EC funding sources, the major problem is that the money spent on increasing the effectiveness of a single company does not necessarily extend beyond that company. In other words, the multiplier effect can be limited to one. Given that the Working Group was largely made up of people from Digital Innovation Hubs one obvious solution to this problem is to fund DIHs directly. Such funding would improve both the facilities available but also the innovation capacity of each centre. This then could be used to support multiple users of the Hubs which tend to be SMEs. This also avoids any issues with regard to not wanting to share competitive advantage with a competitor as the companies which are customers of the hubs are not competitors.

The other advantage of directing funding to DIHs rather than directly to companies is that it allows for funding to be applied more evenly across Europe, boosting regions and countries that are still developing their robotics capabilities.



## 6 Conclusions

FSTP has been an important instrument in engaging SMEs with the networks of robotics Digital Innovation Hubs. However, it is not without its problems. This paper has highlighted several areas where the instrument could be improved for future application.

The paper has also highlighted that the direct funding of DIHs may be a more effective use of funding for the purpose of boosting the competitiveness of European SMEs.

However, one significant omission in the analysis is the lack of long-term analysis of the economic outcomes of FSTP projects versus other instruments. Therefore, one clear recommendation is that the EC set up long term comparative analysis of the economic outcome of its various instruments. Such an analysis would undoubtedly also benefit from including not just economic outcome but also long-term scientific outcome.

