**Host organization: University of Malta**
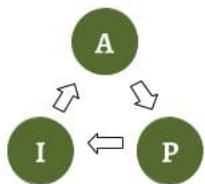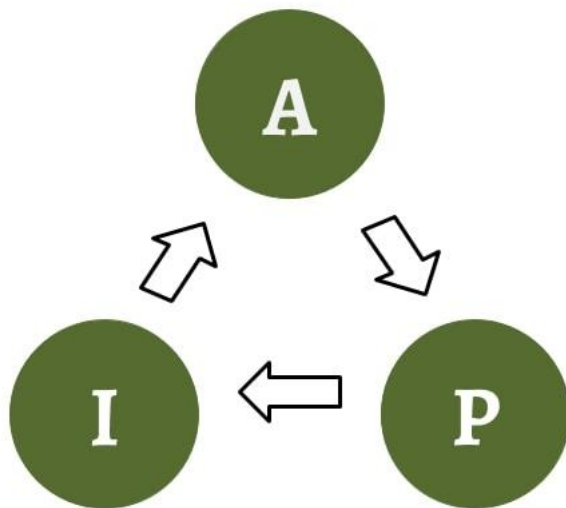**Country: Malta**
**Organization role: Coordinator and WP leader**
**Project Acronym: BehAPI**
**Project start and end date: 1 March 2018 to 28 February 2021**
**Type of MSC action, H2020: RISE**



BEHAPI
Behavioural Application Program Interfaces

**Your story:**
**Project objectives and research field:**
APIs (Application Programming Interfaces) are outward facing, software membranes that enable software components to interact and overcome incompatibilities due to platforms, languages, data structures and formats. This project develops technologies for augmenting APIs with behavioural information to assist software construction, facilitate verification, and expedite software deployment.

**Tell us why the topic is important and/ or how it brings to advancement in your research field:**

APIs have disrupted how software is developed nowadays, where the software "glue" has become as important as the internal working of the software components themselves. The technology has drastically altered markets such as banking, tourism and healthcare. It has led to the API economy, lowering the barriers to entry for specialists using APIs to offer services for anything from facial and speech recognition,

telephony, global positioning, stock predictions and targeted advertising. Although API-based software may be easier to construct, it is also harder to construct *well*. The codebase is substantially larger (in size). It is typically developed by multiple entities and has more complex interdependencies. It is expected to be "always-on" and provide privacy and security assurances for the personal data handed over to it. All this provides a unique opportunity for academia to apply the behavioural theories and technologies developed over the last 30 years to solve these problems that have a direct impact on society.

**What are the benefits of participating in an MSC action?**

Through the secondments, graduate schools, bootcamps and other activities in the project, BehAPI provides a platform where academia and industry can interact and join forces towards a common goal. It enables academia to understand better the immediate problems faced by industry and direct efforts towards these needs. It also allows industry to preview the emerging technologies that are being developed in academic R&D laboratories and identify areas where these technologies can be of use to them. All this contributes towards an ideal setting where both sides can help bridge the proverbial technological "last mile". This will lead to the creation of new products, start-ups and possibly markets. It will also advance the state-of-the-art of existing software; since this pervades every aspect of society, it has the potential to improve the livelihood of millions of people.

**Did you encounter any challenges during application/ implementation and did you get any help?**

Setting up a consortium of more than 20 partners across 9 different countries is no trivial task; managing it to ensure a smooth progress is even harder. The focus area of the project is also quite dynamic: employees frequently move from one academic institution to the other and industrial partners quickly change their strategic priorities in reaction to changes in the market. The implementation of this project would not have been possible without the help of the national contact points, support staff at the participating institutions and the European Commission project officers.

**Would you recommend others to apply? What useful advice/ tips can you give them?**

It is definitely worth applying. It is an opportunity to learn new skills, establish important contacts and further one's career. For large consortia like ours that bring together both academic and industrial partners, it helped to have partners that are located within the same country: in our case, most participating countries have one academic and one industrial partner.

**What strategies did your organization use to attract the fellow/s? Are they in line with national strategies supporting the widening EC policy?**

Various partners had already participated together in previous European projects. The experience of working together within these projects was very positive and it was therefore not hard to encourage these partners to join the consortium. They, in turn, had an instrumental role in attracting the new members of the consortium. The focus area of the project, Information and Communications Technologies, is very much in line with national strategies and the fact that the coordinator of the project is from an EU Member State eligible for widening support is a clear manifestation of the European Commission's Widening policy.