

eNSEMBLE

Pilot institutions: CNRS, Inria, Université Grenoble Alpes, Université Paris-Saclay

Scientific directors: Mr. Gilles Bailly, Mr. Michel Beaudouin-Lafon, Mr. Stéphane Huot, Ms. Laurence Nigay

Key strengths of the project

The proposal deals with the general aim of a paradigm shift from personal computing to collaborative computing. The vision is to bring about a transformation in the design of collaborative systems from personal to collaborative computing, and the goal is to fundamentally revisit the entire stack of digital services. The global scientific ambition is relevant and innovative with respect to the addressed topic.

The scientific program is very well formulated, and it is articulated in five axes and sub-axes that identify the actions foreseen. The aim of each sub-axes is described with a clear narrative, also presenting the expected outcome and scientific obstacles to be removed.

The design of collaborative programs foresees to engage at once with engineering, design, organisational, educational, and regulatory concerns. The proposal considers the entire collaborative stack, from infrastructure to users and their social relations, in an integrated manner. Herein lies the truly innovative character of the proposal.

The proposal indicates several impacts that the program is likely to produce, and lists number of actions foreseen for the 'animation' of the program: education and training, communication, and dissemination (yearly conferences and bimonthly seminars), valorisation and transfer activities. The proposed program could undoubtedly have a significant impact in terms of overcoming the existing commercial silos of assets in information technology generally, by opening new models of collaborative working, and applying new understandings of human-computer interaction with artificial intelligence and AR and VR. The proposal can also enable French partners in the telecoms, cloud, and digital services sectors to position themselves in this market. It may also have impact on legislation and legal framework.

The governance structure is appropriate for the actions foreseen. The management and implementation plan builds on the recent restructuring of the French universities Paris-Saclay and UGA that are leading institutions in the field. There are four leading scholars that will act as programme directors, with excellent scientific track record, and with extensive experience in research coordination and leadership, including a series of large European projects, and in combination of innovation and technology development.

The team is composed of well known and highly qualified scholars that have scientific standing and experience in the field. The proposal involves scholars in Computer Science and Human-computer interactions. Other scholars in social sciences (management and economics, sociology, law, etc.) are part of the team dealing with managing the communities and the transversal challenges.

Main weaknesses of the project

The linkages between axes and between actions foreseen should be clearly specified in the proposal. In some cases, the text pointed out the relationships between different axes and actions therein, but this needs to be done in a systematic way to avoid the impression of overlapping. The interview largely clarified this point, but it needs to be controlled during the project development.

It is not completely easy to understand the interplay between teams, the deliverables, and the organisation of the research program.

It is important to assess the extent to which this proposal may come into conflict with the intellectual property of the major information tech companies in this sphere, both in software and hardware, and operating at global scale with nearly unlimited resources. The project team were confident at interview that this was an avoidable risk, but it should not be underestimated.

Recommendations and areas for improvement

The involvement of the different participant organizations in the sub-axes must be clearly designed to avoid confusions in the respective roles. The activities, timelines and deliverables should be more clearly defined.

Relationships with stakeholders and communities need to be carefully developed in order to achieve the desired impact. The innovation the program wants to bring in the field will need to build on co-operation and open collaboration with other players in order to maximise benefits to them and to minimise the risk of opposition and legal proceedings from global infotech corporations should they conclude that their commercial interests are under threat.

The proposal foresees two main phases: a maturation period of 2 to 3 years, followed by concretisation. A permanent monitoring system of the project achievements should be implemented, and a self-assessment of the project is recommended after the maturation phase, before moving on with the concretization phase.

General assessment

The proposal is highly innovative and builds on a strong existing collaborative research base between the two leading universities in the field, other poles of scientific activity and the leading ONRs.

It fits well with the PEPR remit and is suitable for funding.

The committee recommends this program for funding.

This summary is the result of the Committee's collective analysis of the project, taking into account the discussions of the Committee during its meetings.