



Maximising the socio-economic impact of Software as a Service (SaaS) and Internet of Services (IoS) research projects. The SEQUOIA Support Action is defining a systematic socio-economic framework in support of exploitation practices to be advantageously pursued by projects to assess their socio-economic impact.

At a glance

SEQUOIA:

Socio-Economic Impact Assessment for Research Projects.

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What can research projects do to contribute to European priorities such as promoting socio economic growth?

Today, research projects need to engage more with objectives that go beyond technological achievements. According to the ICT work programme 2009-2010, technologies developed under Challenge 1 (Pervasive and Trustworthy Network and Service Infrastructures) are expected to be tailored to **meet key societal and economic needs**. Furthermore, the socio-economic implications of new technological solutions need to be assessed at an early stage.

Context

Today's socio-economic circumstances have put increased pressure on funding bodies to demonstrate that resources are spent in the most effective and efficient manner. Confirming this, the Europe 2020 Flagship Initiative 'Innovation Union'¹ communication suggests reforms in innovation systems in order "to **get more value for money**". The definition of an adequate research evaluation model is on national political agendas both inside and outside Europe. Better evaluation methods are needed to identify what works and what does not, and why, as well as what could and should be scaled up.

SEQUOIA is a support action co-funded by the European Commission under the Unit 'Software & Service Architectures and Infrastructures' which aims to translate these generic statements into more specific socio-economic objectives. It develops a self-assessment methodology by which research projects in the SaaS and IoS areas can assess the impact of their project outputs against the social and economic dimension of their target beneficiaries. Through its **methodology** SEQUOIA helps projects focus more on the creation of value and aims at giving them qualitative and quantitative value information to help them become more aware of their social and economic innovation capabilities. In this way, the new projects will be able to **self-evaluate** their potential output in terms of socio-economic benefits, and possibly re-orient their activities in order to improve such impact.

¹ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions SEC(2010) 1161

The methodology

Starting from the experience of the ERINA² study and FASSBINDER project, SEQUOIA³, uses a mixture of the traditional techniques such as Cost Benefit Analysis and Multi-criteria Methods revised and adapted to the SaaS and IoS research domain.

The SEQUOIA methodology identifies **four steps**:

- Step 0: the choice of an appropriate time frame
- Step 1: identification of the project type, scope and its stakeholders
- Step 2: mapping the outputs, the outcomes and the impacts (in qualitative terms)
- Step 3: perform parallel multiple analyses for each project.

The performance of **parallel multiple analyses** is an important step by which projects are able to evaluate not only the monetary and monetisable costs and benefits but also develop **qualitative** indexes to assess benefits on society which cannot be evaluated in quantitative terms but are still fundamental elements especially in a research environment

What does the SEQUOIA methodology offer?

- an analysis of the results of the projects considering only the development process and the potential future exploitation (ex-post analysis);
- an analysis of the outputs of the projects in comparison with a baseline case (improvement from the ex-ante scenario (baseline) towards the ex-post scenario (exploitation of project outputs));
- an analysis of the societal impacts of the projects (analysis of the outcome) in qualitative terms.

SEQUOIA today and next steps

SEQUOIA is at the moment **studying 47 research projects** co-funded under the European Commission Unit 'Software & Service Architectures and Infrastructures' and is **assessing their socio-economic impact** by applying its methodology. Thanks to this exercise by the end of the project a self-assessment methodology will be ready for adoption for on-going and future research projects.



SEQUOIA Consortium



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² www.erinastudy.eu

³ www.fassbinder-project.eu