



Project Profile

BENEFIT

Better Effectiveness and Efficiency by measuring and modelling of Interventional Therapy

BENEFIT will develop software analysis and imaging methods and tools that will present quantified information, personalised patient models and treatment alternatives before and during minimally invasive surgery procedures. This will provide clinical decision support and improve effectiveness (result on the patient’s well-being) and efficiency (overall costs of treatment) of these complicated procedures.

ADDRESSING THE CHALLENGE

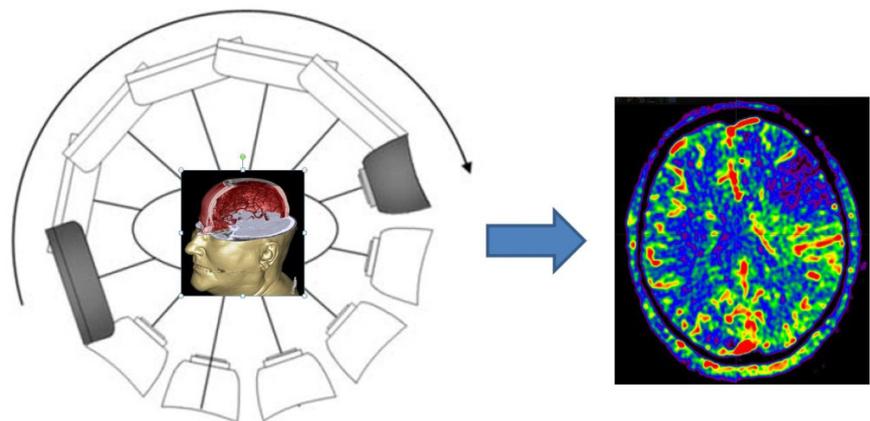
Three challenges are addressed by BENEFIT: societal (to cope with the increasing number of minimally invasive image guided interventions needed for a growing elderly population), economic (to deliver care with quantified targets in terms of quantity, price and quality of care) and technical (to show the technical feasibility of an integrated infrastructure that includes all relevant imaging and data sources, the modelling, analysis and presentation of these data and the integration into a Clinical Decision Support System).

PROPOSED SOLUTIONS

BENEFIT will develop a structural approach for multiple types of interventions, based on an IT framework that will enable information gathering and analysis and decision support before and during minimally invasive interventions, new imaging procedures and quantification and analysis methods to collect this information, patient models that can be personalised based on this information, workflow models and Clinical Decision Support Systems to give advice on optimum follow up, plus tools and methods to assist the physician in performing complicated procedures. BENEFIT brings together an industry-driven consortium of world-class complementary partners with all required know-how in the whole added value chain from technical and clinical

research to manufacturing, business roles and market coverage, and this will enable a breakthrough in the integration of quantification and decision support in treatment decisions.

either develop new niche markets or boost their opportunities in existing markets. For example, DEMCON intends to exploit the commercial needle placement device that can be developed upon completion of the

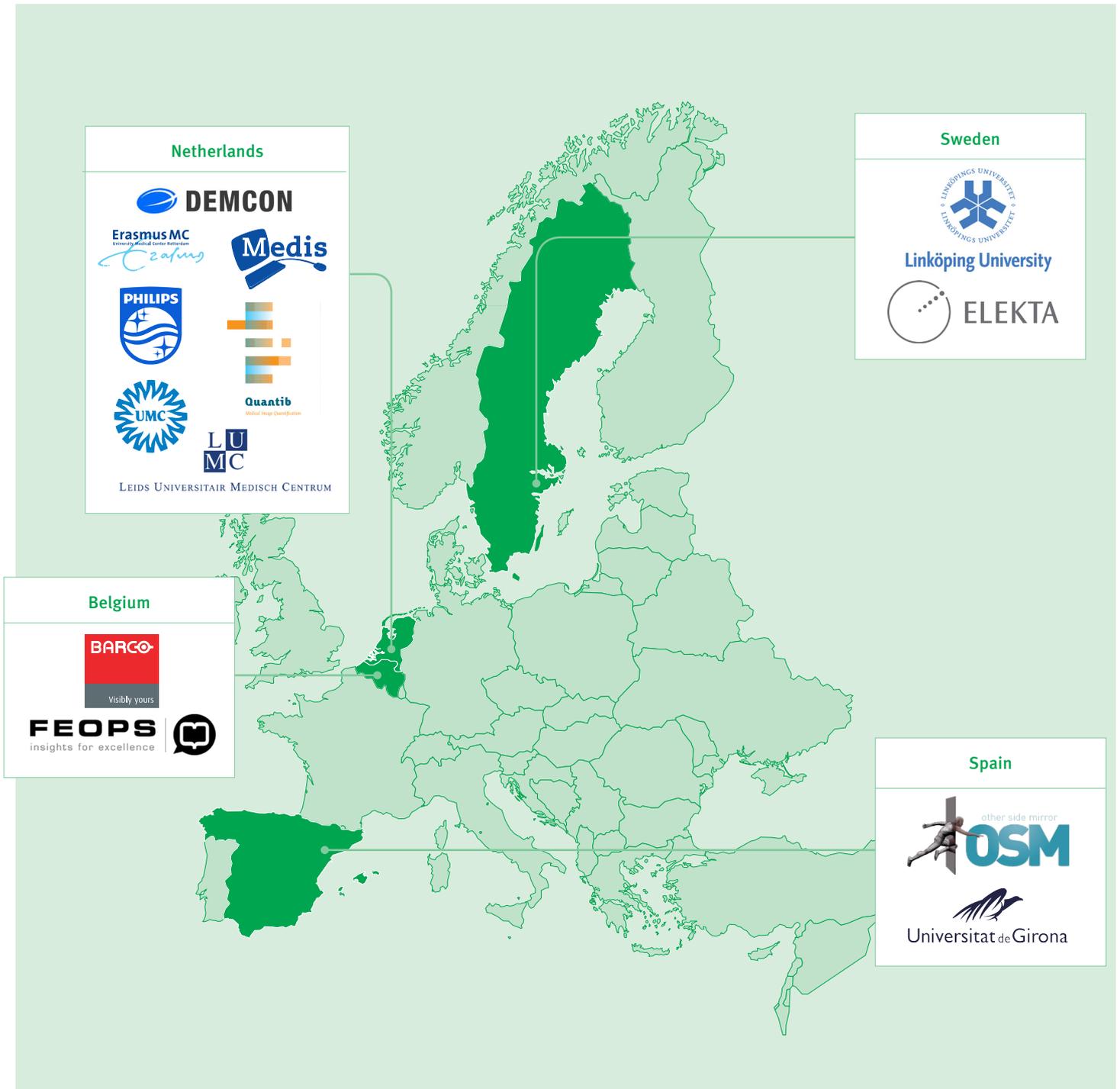


Quantified information to support evidence based minimally invasive surgery

PROJECTED RESULTS AND IMPACT

The co-creation, testing, validation and adaptation in common demonstrators of technical solutions in cardiac, oncology and endovascular applications will enable a fast uptake by companies as well as clinical users and allows large companies to further strengthen their global position in this field. Other partners, especially SMEs, will be able to use the results to

BENEFIT project. Ultimately, this all makes for improved decision making, which does not depend exclusively on the physician’s subjective image assessment and clinical experience, improved patient outcome and lower medical intervention costs, continuous measurement and improvement of effectiveness and efficiency of targeted medical procedures.

**Project start**

July 2014

Project leader

Herman Stegehuis, Philips Healthcare

Project websitewww.benefit-project.eu**Project end**

June 2017

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ITEA is the EUREKA Cluster programme supporting innovative, industry-driven, pre-competitive R&D projects in the area of Software-intensive Systems & Services (SiSS). ITEA stimulates projects in an open community of large industry, SMEs, universities, research institutes and user organisations. As ITEA is a EUREKA Cluster, the community is founded in Europe based on the EUREKA principles and is open to participants worldwide.