


Proposal Evaluation Form

	<p>EUROPEAN COMMISSION</p> <p>Horizon 2020 - Research and Innovation Framework Programme</p> <p>PHC 21 – 2015: Advancing active and healthy ageing with ICT: Early risk detection and intervention</p>	<p>Evaluation Summary Report- Research and innovation actions/Innovation actions</p>
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Call: H2020-PHC-2015-single-stage
Funding scheme: Research and Innovation action
Proposal number:
Proposal acronym: YYY
Duration (months): 48
Proposal title: Responsive Engagement of the Elderly promoting Activity and Customized Healthcare
Activity: PHC-21-2015 Risk detection RIA

N.	Proposer name	Country	Total Cost	%	Grant	%
1	TECHNISCHE UNIVERSITAET MUENCHEN	DE				
2	DANMARKS TEKNISKE UNIVERSITET	DK				
3	TECHNISCHE UNIVERSITEIT EINDHOVEN	NL				
4	ECOLE POLYTECHNIQUE FEDERALE DE LAUSANNE	CH				
5	KOBENHAVNS UNIVERSITET	DK				
6	FRAUNHOFER GESELLSCHAFT ZUR FORDERUNG DER ANGEWANDTEN FORSCHUNG EV	DE				
7	Alreh Medical Sp. z o.o.	PL				
8	Heinz Kettler GmbH & Co. KG	DE				
9	BIOZOON GMBH	DE				
10	SmartCardia	CH				
11	ArjoHuntleigh AB	SE				
12	PHILIPS INTERNATIONAL B.V.	NL				
13	DIN DEUTSCHES INSTITUT FUER NORMUNG E.V.	DE				
14	Sturrr BV	NL				
15	STICHTING ZUIDZORG	NL				
16	Lyngby-Taarbæk Kommune	DK				
17	NEUROLOGISCHE KLINIK BAD AIBLING GMBH & CO BETRIEBS KG	DE				
18	LES HOPITAUX UNIVERSITAIRES DE GENEVE	CH				
	Total:		6,078,658		4,588,316	

Abstract:

The health expenditure in the EU is expected to rise by 350% by 2050 compared to an economic expansion of only 180% and the provision of Long Term Care (LTC) will pose an increasing challenge to the sustainability of public finances in the EU, due to an ageing population. YYY therefore represents a solution that seeks to prevent elderly citizens from loss of function and a decline of being able to perform Activities of Daily Living (ADLs) independently leading ultimately to entering LTC. YYY is a personalized prevention and intervention system that promotes the activity of the elderly by monitoring and evaluating their daily habits, considering both personal medical history as well as real-time gathered data from a series of wearable and embedded sensors, in order to mitigate loss of function and to arrest associated and/or consequential morbidities via a number of physical and virtual activity intervention modules. YYY is an open solution that proposes its own innovative systems while remaining compatible with existing sensing systems and technologies. This is demonstrated by YYY's cross-compatibility and integration of Philips' HealthSuite Digital Platform (HSDP). Both REACH functionality and additional services by stakeholders and 3rd parties via the HSDP are inserted into the target environment through compact, preconfigurable and easily deployable smart furniture :Personalised Interior Intelligent Units (PI²Us). All consortium partners join their combined knowledge and developed expertise to fully deploy YYY in a naturalistic use-case environment via Lyngby. YYY entails multiple benefits for the elderly and for care systems it contributes to a significant reduction of cost though reducing the amount of doctor's care and LTC admissions. YYY will allow European industry including SMEs to capitalise on the European high-tech-knowhow and make Europe a market leader in prevention technologies, services and underlying health care ICT platforms.

Evaluation Summary Report

Evaluation Result

Total score: 15.00 (Threshold: 12)

Form information

SCORING

Scores must be in the range 0-5.

Interpretation of the score:

0 The proposal fails to address the criterion or cannot be assessed due to missing or incomplete information.

1 Poor. The criterion is inadequately addressed, or there are serious inherent weaknesses.

2 Fair. The proposal broadly addresses the criterion, but there are significant weaknesses.

3 Good. The proposal addresses the criterion well, but a number of shortcomings are present.

4 Very good. The proposal addresses the criterion very well, but a small number of shortcomings are present.

5 Excellent. The proposal successfully addresses all relevant aspects of the criterion. Any shortcomings are minor.

Criterion 1 - Excellence

Score: **5.00** (Threshold: 4/5.00 , Weight: 100.00%)

Note: The following aspects will be taken into account, to the extent that the proposed work corresponds to the topic description in the work programme. If a proposal is partly out of scope, this must be reflected in the scoring, and explained in the comments.

Clarity and pertinence of the objectives

Credibility of the proposed approach

Soundness of the concept, including trans-disciplinary considerations, where relevant

Extent that proposed work is ambitious, has innovation potential, and is beyond the state of the art (e.g. ground-breaking objectives, novel concepts and approaches)

The objectives of the proposed work are clear and pertinent to the topic description. They cover both early detection of risks associated with ageing by means of behavioral changes using an ICT infrastructure for disease prevention as well as personalised interventions to mitigate the detected risks.

The proposed approach to the design of a personalised early risk detection, prevention and intervention system that incentivises active participation of the elderly by monitoring and evaluating their daily habits is highly credible. This is supported by its use of both personal medical history data as well as multi source real time data collected by the REACH system and the advanced fusion methodology proposed. Furthermore these are used to mitigate age-related loss of function via a number of physical and virtual activity intervention modules that can be seamlessly integrated into a smart home environment, for example via personalised intelligent interior units embedded into furniture and living environments.

The technological implementation of the proposed approach is convincingly supported by the planned crosscompatibility as an open scalable solution incorporating a set of REACH-specific technologies while remaining compatible with existing sensing systems and technologies. Adherence to privacy by design principles throughout the project execution is extremely well presented.

The concept is clearly presented and sound. For example, through a user-centric approach credible motivation strategies will be developed to keep the user engaged in using the system over time and significantly enhancing user acceptance. Highly appropriate data analysis and planning methods will be used to correlate the user-generated profile with appropriate preventive intervention measures both to demonstrate the link between changes in behaviour and the detected risks of loss of function, and to enhance positive behaviour-related patterns, such as motivation, engagement and empowerment. The proposed pilot in the form of a full-deployment in a naturalistic home-care user case environment is highly credible and proposes relevant metrics to measure both whether the project objectives have been achieved as well as the impact envisaged.

The proposal builds on multi-disciplinary research as expected from the topic description.

The proposal is highly ambitious and presents significant innovation potential, for example the development of smart furniture units and its use for user monitoring and intervention within a smart home environment. The state of the art is exhaustively described and significant progress beyond is demonstrated in several areas, for example a time series analytical framework will be developed that adopts a model-free approach, thus enabling behavioral pattern recognition with minimal manual effort.

Criterion 2 - Impact

Score: **5.00** (Threshold: 4/5.00 , Weight: 100.00%)

Note: The following aspects will be taken into account, to the extent to which the outputs of the project should contribute at the European and/or International level:

The expected impacts listed in the work programme under the relevant topic

Enhancing innovation capacity and integration of new knowledge

Strengthening the competitiveness and growth of companies by developing innovations meeting the needs of European and global markets, and where relevant, by delivering such innovations to the markets

Any other environmental and socially important impacts (not already covered above)

Effectiveness of the proposed measures to exploit and disseminate the project results (including management of IPR), to communicate the project, and to manage research data where relevant

The proposal will contribute to the provision of evidence of risk detection and intervention based on the final pilot use case deployment. The proposal will have impact in terms of improvements of outcomes for individuals, (eg. longer period of healthy living and decreased burden on the family), care systems (e.g. cost savings through reduced amount of doctor's care and LTC admissions) and wider society and these are credibly presented.

The arguments provided for reaching global leadership in ICT based innovation for active and healthy ageing are convincing and credible for instance through the enhanced smart furniture product and the Philip's HSDP platform.

Credible evidence for strengthening of the competitiveness of the proposers has been provided in the form of comprehensive and convincing individual exploitation plans along with expected turnover goals for the period of 3-7 years upon completion of the research which is remarkable.

The dissemination outreach of the project has been extremely well and concisely planned in order to maximise the proposal impacts. A clear description of the exploitable REACH products and services has been provided along with individual exploitation channels and dissemination strategies.

Criterion 3 - Quality and efficiency of the implementation

Score: **5.00** (Threshold: 3/5.00 , Weight: 100.00%)

Note: The following aspects will be taken into account:

Coherence and effectiveness of the work plan, including appropriateness of the allocation of tasks and resources

Complementarity of the participants within the consortium (when relevant)

Appropriateness of the management structures and procedures, including risk and innovation management

The work plan is presented in a clear and structured way and appropriate for the research proposed. Work package leaders, participants and task leaders are clearly outlined. The allocation of resources is generally appropriate however the number of pm allocated to WP9 is low considering the number of deliverables and partners.

The consortium consists of complementary partners equipped to carry out the planned cross-disciplinary work with partners with access to end-users as well as specialists with expertise in a wide range of relevant fields including neurology, clinical trials, rehabilitation care and ICT based clinical intervention.

The project management structures and procedures are clearly defined; they are rather complex yet effective for coordinating the large number of partners involved in the project. Risk management is appropriate and major critical risks are outlined along with appropriate risk mitigation procedures. Although a specific task (Task 9.3) is to be devoted to Innovation management, this is not sufficiently detailed at the proposal stage.