Contribution for project proposal on FP7-WP2011-12

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1. Introduction

• Project proposal maintaining PROMETHEUS consortium and further develop some of the previous work;

• Addressing FP5-WP2011-12 challenge 5 – ICT for Health, Ageing Well, Inclusion and Governance;

1. Introduction

• Focusing in one of the objectives:

  – Objective ICT-2011.5.1: Personal Health Systems (PHS), in domain a1) Neurodegenerative diseases;

  – Objective ICT-2011.5.4: ICT for Ageing and Wellbeing, in domain b) Smart and self-adaptive environments prolonging independent living;
2. Objective ICT-2011.5.1

- Objective centred in Personal Health Systems (PHS);
- Require strong involvement of clinical users and engage experts in regulatory approval;

2. Objective ICT-2011.5.1

- Expected impact:
  - Reduced hospitalisation rate and improved disease management, treatment or rehabilitation at the point of need, through more precise assessment of health status;
  - Strengthened evidence base on medical outcomes, economic benefits and effectiveness of the use of Personal Health Systems in evolved care models;
  - Reinforced medical knowledge with respect to efficient management of diseases;
  - ...
2. Objective ICT-2011.5.1

- For domain *a1) Neurodegenerative diseases* we can find interested PME sub-contractor (IPN - [www.ipn.pt](http://www.ipn.pt)) in Portugal;

- Funding scheme: a) IP/STREP

- Call: FP7-ICT-2011-7

3. Objective ICT-2011.5.4

- Objective centred in Ageing and Wellbeing;

- Expected impact:
  - *proven impact for early detection of ageing-related risks, substantial reduction in costs through standardisation and increased quality of life;*
3. Objective ICT-2011.5.4

- For domain b) *Smart and self-adaptative environments prolonging independent living* we can find interested PME sub-contractor (Meticube – [www.meticube.pt](http://www.meticube.pt)) in Portugal;

- Funding scheme: b) STREPs

- Call: FP7-ICT-2011-7

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3. Objective ICT-2011.5.4

Use Cases

- Ambient Assisted Living (Fall Detection): Mr. John Doe is home alone and falls down stairs. The environment detects the fall, thanks to the monitoring system (sound, image, inertial) he installed at his place. The fall is identified as a danger situation and activates an alarm. John Doe’s wife is alerted that someone fell at home, and takes action. The system serves the principle of always provides the service in case of need.
3. Objective ICT-2011.5.4

Use Cases

- Ambient Assisted Living (Behaviour Analysis – Epileptic seizure): Mr. Smith suffers from epileptic crises. One night he went to the fridge getting a cup of milk. Suddenly he stops walking and he suffers a seizure. This behaviour pattern is identified as abnormal and related with the epilepsy condition and the emergency procedure is triggered immediately. The patient can live ensured about he will receive help in case of need.

- Ambient Assisted Living (Behaviour Analysis – Degenerative diseases): Mr. Smith was diagnosed in a very early stage of the Alzheimer disease. He needs to be constantly monitored in order to detect disorientation situations and ensure his safety. Additionally he must engage in memory games in order to stimulate his memory skills and retard the advance of the disease. The monitoring system must constantly analyze his behaviour patterns to evaluate his stage of disease and self-adapt to the patients condition, e.g. adapt the memory games content, difficulty level and interface.
3. Objective ICT-2011.5.4

Use Cases

• Ambient Assisted Living (Autonomy Rising): Mrs. Jane Doe has conditioned mobility but she can easily control her house equipments by simply performing easy gestures in front of the monitoring system. Example: Open and close a door with a hand, head or mouth gesture.

- Sensors
  - Detects a movement pattern
  - Sends a signal for door to open

- System Monitor
  - Permantly Monitoring

- Mobile Robot
  - Establish a call with taxi service for persons with limited mobility
  - Calls Taxi
  - Taxi arrive and signals the robot

• Ambient Assisted Living (Autonomy Rising): Mrs. Stone wants to go out and meet her friends. She wants to call a taxi, but the telephone is far from reach. She activates a calling device in the wheelchair arm and a mobile robot with integrating calling service assists her performing the task. She can activate the call by speaking the word “Taxi” and the call is established. Some time later the taxi arrives and she is notified by the robot.
Thank you!