

Integrated Solution for Innovative Elderly Care – Data, Ethics and Regulations



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Concept

- INCARE is designed to support seniors to live independently and reduce or optimize the amount of care they require;
- INCARE builds on the results of the two projects:
 - **AAL NITICS** “Networked InfrasTructure for Innovative home Care Solutions”;
 - **FP7 RAPP** “Robotic Applications for Delivering Smart User Empowering Applications”;
 - and adds new functionalities that help elderly to remain physically active.

Objectives

- Develop a platform that is intuitively usable, affordable, secure, non-intrusive, reliable and safe;
- Support elderly to maintain a healthy and active life;
- Support elderly people to be confident and feel more positive both indoor and outdoor
- Reduce stress and burden for informal caregivers.

Acknowledgement

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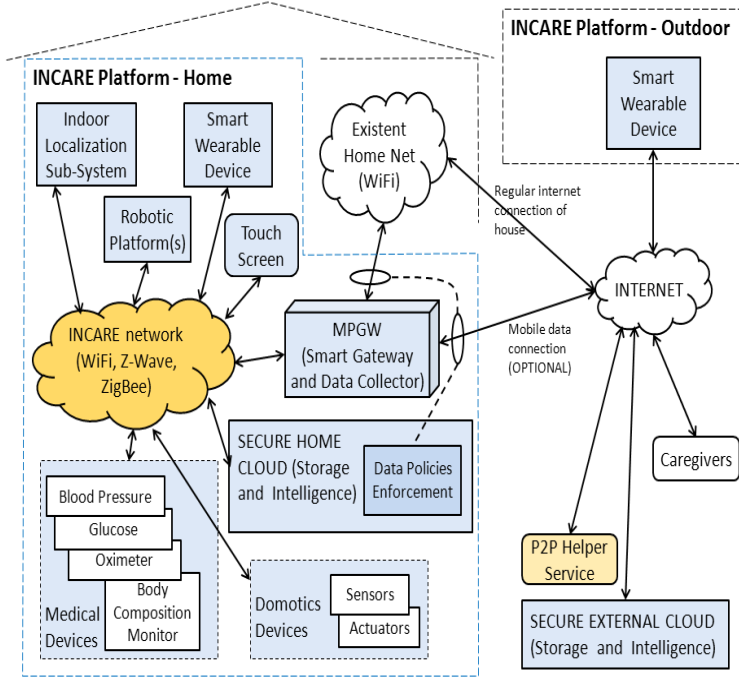
Functionalities

INCARE user level functionalities		
NITICS <ul style="list-style-type: none"> • health monitoring • home automation • fall detection • agenda&reminders • alerts • GUI and tools for caregivers 	RAPP <ul style="list-style-type: none"> • email (voice msg.) • cognitive exercises • news • weather forecast 	NEW <ul style="list-style-type: none"> • exergames • hazard detection • outdoor: fall detection, alerts & localization • multimodal UI for elderly



Architecture

- INCARE architecture:
- Enhanced GDPR compliance by design and implementation;
 - Confers sustainability and market competitiveness;
 - Use of open standards for interoperability and future integration of medical devices compliant with emerging regulation;
 - Has minimal dependence on external services;
 - Is end-user friendly through extensive trials.



Data, Ethics and Regulations



- Liability in human-robot interaction: when a robot and a human are involved in an accident, who bears responsibility?
- Data security in robots: how to protect a robot from cyber attacks?
- Ethical issues go two ways:
 - do robots pose a threat to humans and how should we design robots such that they act ethically?
 - Is people’s interacting experiences with robots different from people’s interaction experiences with most other technologies?
- Should we design robots that foster emotional bonds in users?
- Should robots be able to change their own code?

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