UNCAP will develop an open, scalable and privacy-savvy ICT infrastructure designed to help aging people live independently while maintaining and improving their lifestyle. UNCAP will leverage on commercial biosensors and localisation solutions to monitor in a non invasive way and assist the users. UNCAP will last 3 years starting from Jan. 2015. The project is co-financed by the EU through the Horizon 2020 programme and it involves 23 partners from 9 countries.

**Main Goals**

The main goals of UNCAP are:

- Improve effectiveness of the healthcare processes through more effective evaluation processes during the hospital-hospice recovery.
- Enhance home care treatment and prevention, in order to delay cognitive impairment of elderly and possibly postpone the recovery.
- Support more independent living and improve quality of life of users.

**Service Model**

The UNCAP CERTIFICATION SUITE (i.e., a conformance testing tool) against the SensorThings / SWE standards, will ensure that further technologies can be tested against UNCAP (see T.2.3). This includes a compliance testbed officially defined in agreement with the OGC. The UNCAP CLOUD services can be deployed by public or private service providers to allow provision of care services (or other services developed on top of the UNCAP middleware) through the UNCAP BOXes installed within nursing homes or private homes.

In addition, the UNCAP services can be accessed by General Practitioners, medical helpdesks or other service providers who can be constantly informed about the health status of the patient by accessing relevant records via HL7 standard.

**Users**

- **Aging citizens with minor cognitive impairments**
  - To re-acquire an autonomous life with high quality, be this at their homes or within formal care environments.
  - To reduce the number of visits to healthcare system.

- **Caregivers and family members**
  - To ensure safety and high quality of life for their family member.
  - To reduce physical and psychological burden of care activities.
  - To be constantly updated about state of patients and promptly contacted in case of emergency.
  - To facilitate empowerment of patients and their families, becoming more active in the decision regarding their health.
  - To control the night activity of the patient affected by mobility and/or behavioural problems.
  - To monitor the daily activities in the common spaces (ambulation, posture, possible falls or exit from the safe areas, etc.)
  - To be able to monitor “sentinel events” of a patient at home through automatic recording of relevant data based on specific test scales (InterRAI™) to help them improve monitoring of patients’ health or effects of therapies.
  - To access patient’s health records via interoperable standards.
  - To accurately monitor patients’ physical and cognitive state.
  - To promote healthy lifestyle among patients.
  - To remotely assess patient’s conditions/vital signs and needs.
  - To deliver high-quality low-cost services based on remote and reliable monitoring of patient’s habit patterns and vital signals.

**The Final Product**

The UNCAP BOX is a low-cost (from €40) client running on Android HDMI Dongle. This ensures a computing solution with USB and wireless connectivity within a small device ready to be plugged into a standard TV. The dongle can be replaced by an Android Smart TV, to be deployed within formal (nursing house) or informal care settings.

UNCAP APP for smartphones and tablets running on Android and iOS, which will allow biosignals detection and access to selected UNCAP services online and offline.

The UNCAP CLOUD SERVICES, proving advanced features, e.g. authentication management, guidance, cognitive and physiological assessment, social communication, etc.