



ACTIVAS

BUILT ENVIRONMENTS FOR AN ACTIVE, SAFE AND HEALTHY LIFE

Built Environments
for an Active, Safe
and Healthy Life

Project Details

Project Designation | ACTIVAS – Built Environments for an Active, Safe and Healthy Life

Project Code | 46101

Operation Typology | Incentive System for Technological Research and Development - Mobilizing Programs

Operation Code | POCI-01-0247-FEDER-04

Thematic objective | TO 1 - Reinforce research, technological development and innovation

Intervention Region | North, Center, Lisbon

Lead promoter | KENTRA technologies, Lda

The logo for ACTIVAS, featuring the word in a bold, blue, sans-serif font. The letter 'A' is stylized with a blue triangle pointing to the right, and the letter 'V' is stylized with a blue triangle pointing to the left.

Project Details

Approval date | 2020.11.24

Start date | 01.07.2020

Completion date | 06.30.2023

Total eligible investment | €5,298,365.57

European Union financial support through the ERDF |
€3,578,761.91

Funding Program | Operational Program Competitiveness and
Internationalization (POCI), Operational Program Lisbon (PO Lisbon)

CONSORTIUM



Co-financed by:

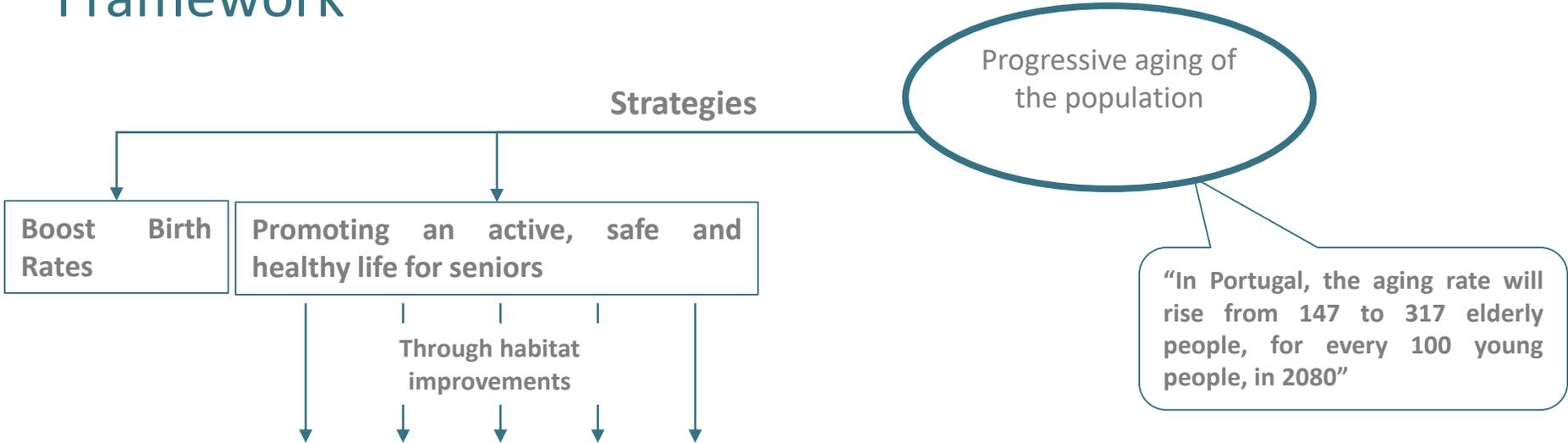




- The ActiVas project constitutes a disruptive and diversified response to the challenges addressed by the aging of the population, one of the greatest challenges of today's societies, in terms of the environment and built spaces.
- The built environment (our habitat) – as a space where this fringe of the population tends to spend more time consecutively – plays a crucial role in combating isolation and providing a greater and better quality of life.

ACTiVAS

Framework



Instrumentation of the built space, allowing a more interactive, collaborative environment with the capacity for non-intrusive functional assessment and healthy living habits

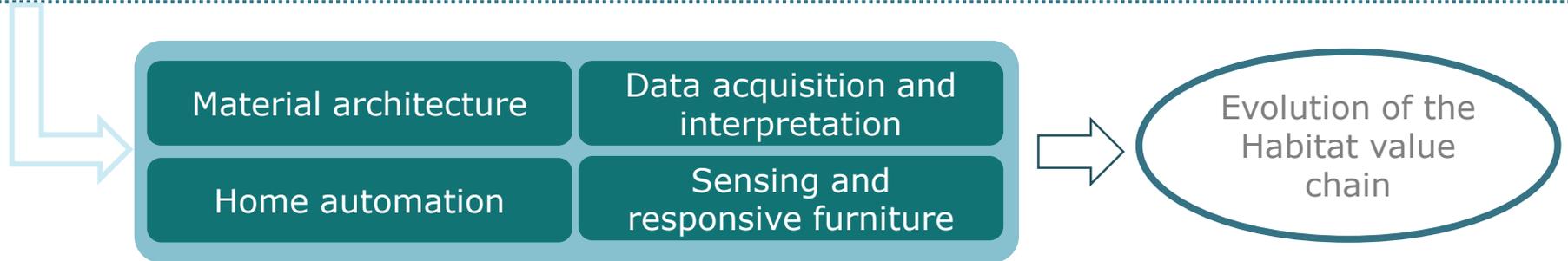
Transformation and adaptation of spaces or environments built over time, according to the evolution of the needs of the inhabitants of that same space

Design, validation, evaluation and enhancement of information and communication technologies for the construction of smart, safe and healthy environments

Creation of connected collaborative networks, promoting the articulation of efforts in the provision of informal care and strengthening proximity care networks

Scope

Investigate, develop and demonstrate in a real environment the use of a set of “active & healthy life” solutions that promote the availability of intelligent products and services to support the proximity and health care network. Under the motto “Live well and healthy in your home and with the quality you deserve”, the consortium will seek solutions that will impact and promote a new concept of evolutionary habitat, which transforms and adapts, accompanying all stages of life.





Objectives

- Evolve the concept of Habitat, providing it with adaptive and transformative capacity, in line with the needs of different age groups;
- Understand the determinants of health, well-being and illness;
- Prevent and treat diseases in seniors;
- Promote active aging and health self-management;
- Optimize informal health care and methods;
- Providing health care and informal integrated care more effectively;
- To reduce the existing “gap” between the senior population and the other fringes of society;
- Combat the isolation of the senior population.

ACTIVAS

Priority Domains



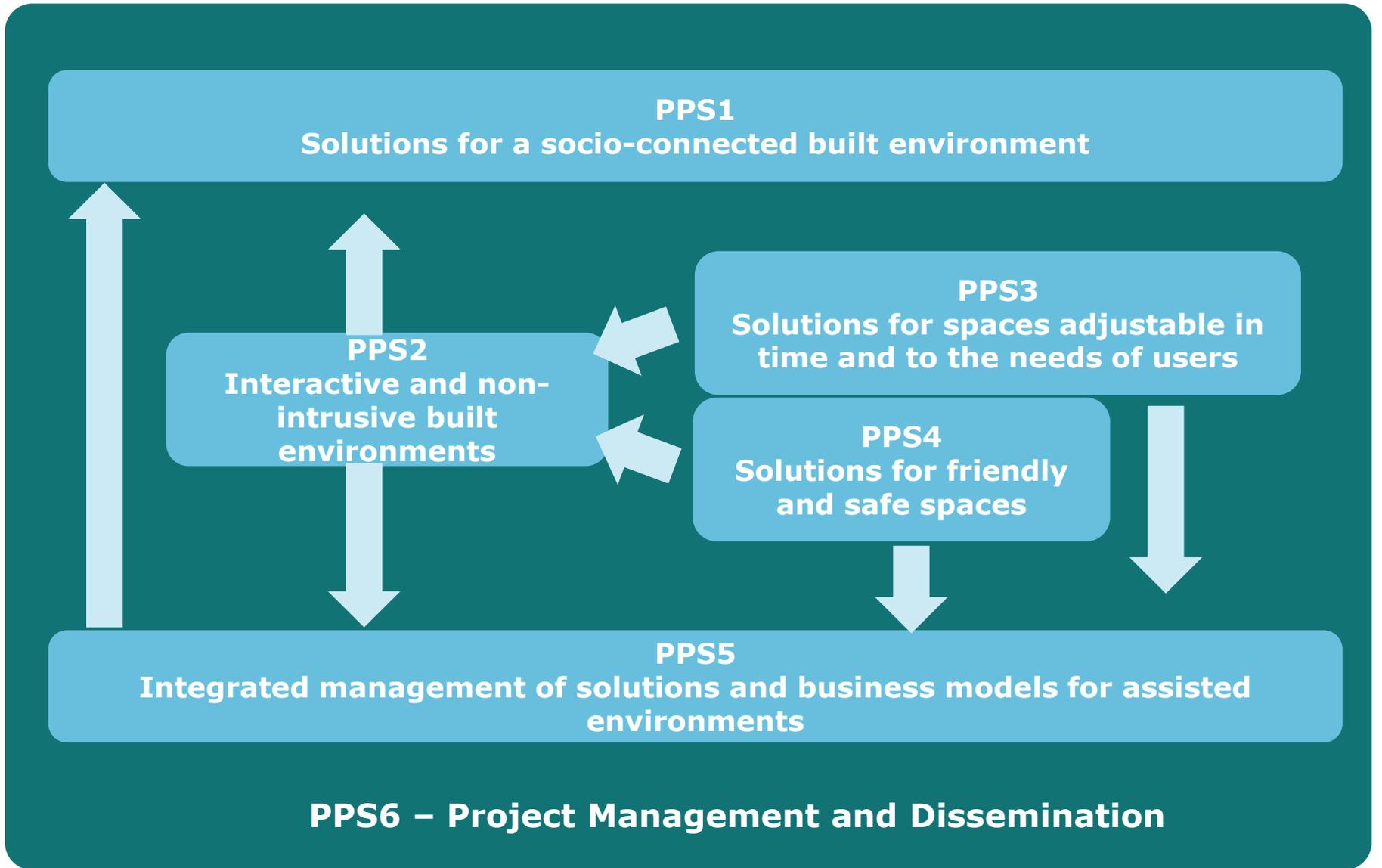
- **Habitat** (business areas: Construction, Cork and wood, Home automation, Furniture, New materials/advanced materials, New sustainable and efficient production methods, Paints and coatings)
- **Materials and raw materials** (areas of expertise: Application of advanced technologies to raw materials and materials)
- **Health** (areas of expertise: Aging and active life, Advanced technologies applied to health)
- **ICT** (areas of activity: Components and sensor engineering; Internet of Things; Telecommunications and infrastructure; ICT applied to health).



PPSs – Products, Processes or Services

The ACTIVAS is structured in 6 different PPS (Products, Processes and Services) that interrelate and complement each other for the project as a whole.

ACTIVAS



PPS1 - Solutions for a socio-connected built environment

SPECIFIC OBJECTIVES

- Research and development of an agnostic service platform, which communicates with other platforms and allows the joint collection and aggregation of data;
- Design and specification of central models (ontologies, taxonomies, protocols);
- Definition of an interoperability model between systems that ensures effective communication between all sources of information;
- Research and development of integrated security mechanisms;
- Research and development of two modules for the promotion of human functionality;
- Development and evaluation of prototypes of connectivity solutions;
- Integration of vertical solutions developed within the scope of other PPS, carrying out longitudinal pilots aimed at validating the vertical solutions developed;

8 Partners

8 Activities

46 Tasks

9 Milestones

48 Deliverables

PPS2 - Interactive and non-intrusive built environments

SPECIFIC OBJECTIVES

- Investigate and develop a solution for artificial virtual agents and for artificial robotic agents, allowing different interactive artificial agents to be made available, which effectively reach a target audience with specific characteristics, taking advantage of virtual and robotic solutions;
- Investigate and develop a gateway Interface with 15 different sensors, in order to provide access to static (e.g. physiological parameters sensors) and mobile (e.g. falls) hardware devices on the platform;
- Develop a prototype of a home automation solution integrated with building materials, in order to provide non-intrusive integrated home automation solutions in new or improved building materials;

7 Partners

7 Activities

22 Tasks

24 Milestones

28 Deliverables

PPS3 - Solutions for spaces adjustable in time and to the needs of users

SPECIFIC OBJECTIVES

- Study of different solutions for sensing furniture materials and surfaces, specifically focusing on a new solution;
- Study of the functionalization of surfaces of wood-based products with visual or digital outputs. Research, development, validation and prototyping of:
 - Sensory and functional 3DF structures;
 - Adaptive systems using wood-based structures;
 - Functional and responsive furniture;
 - Modular constructive system;
- Integration of solutions developed within the scope of the different PPS;

8 Partners

6 Activities

18 Tasks

16 Milestones

21 Deliverables

PPS4 - Solutions for friendly and safe spaces

SPECIFIC OBJECTIVES

- Research and development of sensing ceramic-based materials for flood detection;
- Research and development of ceramic-based materials with sensing to detect toxic gases and infer possible fire outbreaks;
- Research and development of a home automation system for the management and control of sensorized information;
- Development of a module that aggregates all the information from the sensor systems;
- Construction of a prototype sensing system for flood detection;
- Construction of a prototype sensor system for monitoring air quality;
- Research and development of solutions integration in a constructive modular structure;

6 Partners

6 Activities

18 Tasks

14 Milestones

21 Deliverables

PPS5 - Integrated management of solutions and business models for assisted environments

SPECIFIC OBJECTIVES

- Study and develop procedures, tools and necessary support that facilitate the certification (post-project) of technological products oriented towards smart, safe and healthy environments, complying with the requirements imposed by the National Data Protection Commission and Infarmed;
- Ensure the involvement of 3 different types of users during all phases of the project, namely: 100 primary users (elderly), 5 national reference secondary users (caregivers), and 2 tertiary users (municipal authorities);
- Validate the concept at two internationally recognized sites in the field of Active and Healthy Aging, Newcastle and Groningen, both recognized by the EIP AHA;

4 Partners

7 Activities

15 Tasks

8 Milestones

18 Deliverables

PPS6 - Project Management and Dissemination

SPECIFIC OBJECTIVES

- Create a cohesive, coherent and appealing visual identity;
- Create and manage a website exclusively dedicated to the project;
- Participate in at least 8 technological and 10 scientific events;
- Publish scientific articles in co-authorship;
- Organize about 6 workshops / seminars to disseminate and demonstrate project results;
- Ensuring compliance with the schedule and budget;

10 Partners

3 Activities

12 Tasks

8 Milestones

12 Deliverables



Thank you!



activas@mobilizadores.pt
<http://activas.pt/portal/>