IOT ON ACTIVE & HEALTHY AGEING

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A very simple message: ACTIVAGE is here to plant a seed that will change the life of 100 million people across Europe, including us.

Me → You
CONTEXT

ACTIVAGE is founded on the cross-road of two big strategic initiatives launched by the UE Commission in the frame of the European Digital Single Market.

Triple Win:
- Better Quality of Life and autonomy for the European Senior citizen
- Sustainability of the Health Care System
- Competitiveness of the European Industry and creation of jobs

Vertical domains:
- Digital Transformation in Health and Care
- Smart connected Factories
- Smart Farm

Horizontal enablers:
- Internet of Things
- European Data Platforms
ACTIVAGE CONTEXT
Ageing population

- Mortality rates have fallen significantly: heavy impact on health and social care systems

- Final goals for EU initiatives related to older adults: Active ageing and independent living

- Active and Healthy Ageing (AHA) community pretends to answer and prevent health and social care systems challenges through Internet of Things (IoT)

- Removing interoperability barriers to convert the current available IoT platforms in a DYNAMIC ECOSYSTEM with connected devices and open systems and architectures integrated within different areas
The VISION of ACTIVAGE is to be the global world-wide reference for providing the EVIDENCE that STANDARD-SECURE-INTRAOPERATIVE IOT ECOSYSTEMS enable new BUSINESS MODELS and cost-effective solutions for ACTIVE AND HEALTHY AGEING, contributing to the sustainability of the health and care systems, the competitiveness of the European industry through innovation, and the improvement of the quality of life and autonomy of older adults in the form of independent living.

SIMPLICITY IS NOT A FEATURE OF ACTIVAGE!!

Lets put in more simple words for our guests (and some of our consortium members)…
“My Quality of Life is better because I have a blend of affordable services that fit my (our) needs. I’m feel free to choose what is better for me (us) any time and I’ve full control on my life”

“As Service Provider, I have enlarged my portfolio de services for the living of senior people customers and I’m able to upgrade, downgrade, adapt to the very personal needs of my customers. Moreover, I’ve enlarged my customer base!!!! And now I’m more profitable!! “

“In my small company we are developing a new advanced algorithms to predict risks of and prevent Falls. Our competitive advantage is that we only use context data and no wearables. Well leverage spreaded IoT ecosystems throughg Europe to reach international market. We rose 500K of venture capital to go international”

“In my town we have deployed an IoT smart City infrastructure Inaddition to city services we are providing platform service to our Social Care Office to deliver multiple services through providers to senior citizen in town”

ACTIVAGE have to prove with measurable key performance indicators that all the above and more is possible and true.
HOW WE ARE GOING TO IMPLEMENT
MAIN ACTIVAGE OBJECTIVES

• **Prolong and support** the independent living of older adults in their living environments

• Respond to **real needs of caregivers, service providers and public authorities**

• Deployment of **innovative and user-led large scale pilots** across **nine Deployment Sites in seven European countries** based on the IoT technologies

• Create the **first European interoperable and open ecosystem**, reusing existing IoT platforms, technologies and standards that will enable to develop AHA IoT services and solutions at large scale.

• Assess the **socio-economic impact**, the benefits of **IoT-based smart living environments** in the quality of life and autonomy of older citizens, and in the **sustainability** of the health and social care systems → new business models
ACTIVAGE CONSORTIUM

Number of partners in the local ecosystem

9 DS in 7 countries
49 partners
1.642 PMs

Targeting

7.200 users
6.000 elderly
1.200 carers
ACTIVAGE USE CASES

1. Daily activity monitoring
2. Integrated care
3. Monitoring assisted persons outside home
4. Emergency trigger
5. Exercise promotion
6. Cognitive stimulation
7. Prevention of social isolation
8. Safety, comfort & Safety at home
9. Support for transportation & mobility

Assistive technologies
Housing
Transport & mobility
Behaviours
Disease management
Age-related changes
Social engagement
Environmental factors
Individual factors
UC MAPPING TO USER GROUPS

1. Daily activity monitoring
2. Integrated care
4. Emergency trigger

7. Prevention of social isolation

8. Safety, comfort & Safety at home

3. Monitoring assisted persons outside home

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UC MAPPING TO DS

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IOT LEGACY PLATFORMS

1. FIWARE
2. OPENIoT
3. sensiNact
4. Sofia
5. universAAL
IOT DEVICES

1. In-door sensors/actuators
2. Outdoor sensors
3. Wearable sensors
4. Health devices
5. User interaction devices
AHA-IOT GENERIC ARCHITECTURE
Baseline

Sensor Domain

Edge Domain

IoT Platform Domain

AHA Services Domain

Beneficiaries Domain

INTEROPERABILITY

Multicinity of Data Sources

PRIVATE

Data Protection & Privacy
Access control
Storage @ edge
Edge computing

PUBLIC

Data Protection & Privacy
Anonymization
Aggregation
Fusion
Storage
Analytics
Quality & Integrity
Governance
Trust building

AHA Services & Solutions

INDIVIDUALS

ORGANIZATIONS

Users
The most radical and disruptive innovation produced by ACTIVAGE will be the creation of a **standards-based IoT Ecosystem for Health and AHA** that includes a “Person Centered Data Management Framework”
TOWARDS AND IOT ENABLED SOCIETY

We got DATA

Give us SOLUTIONS!!
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Thank you for your attention

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