

ACTIVAGE  
PROJECT

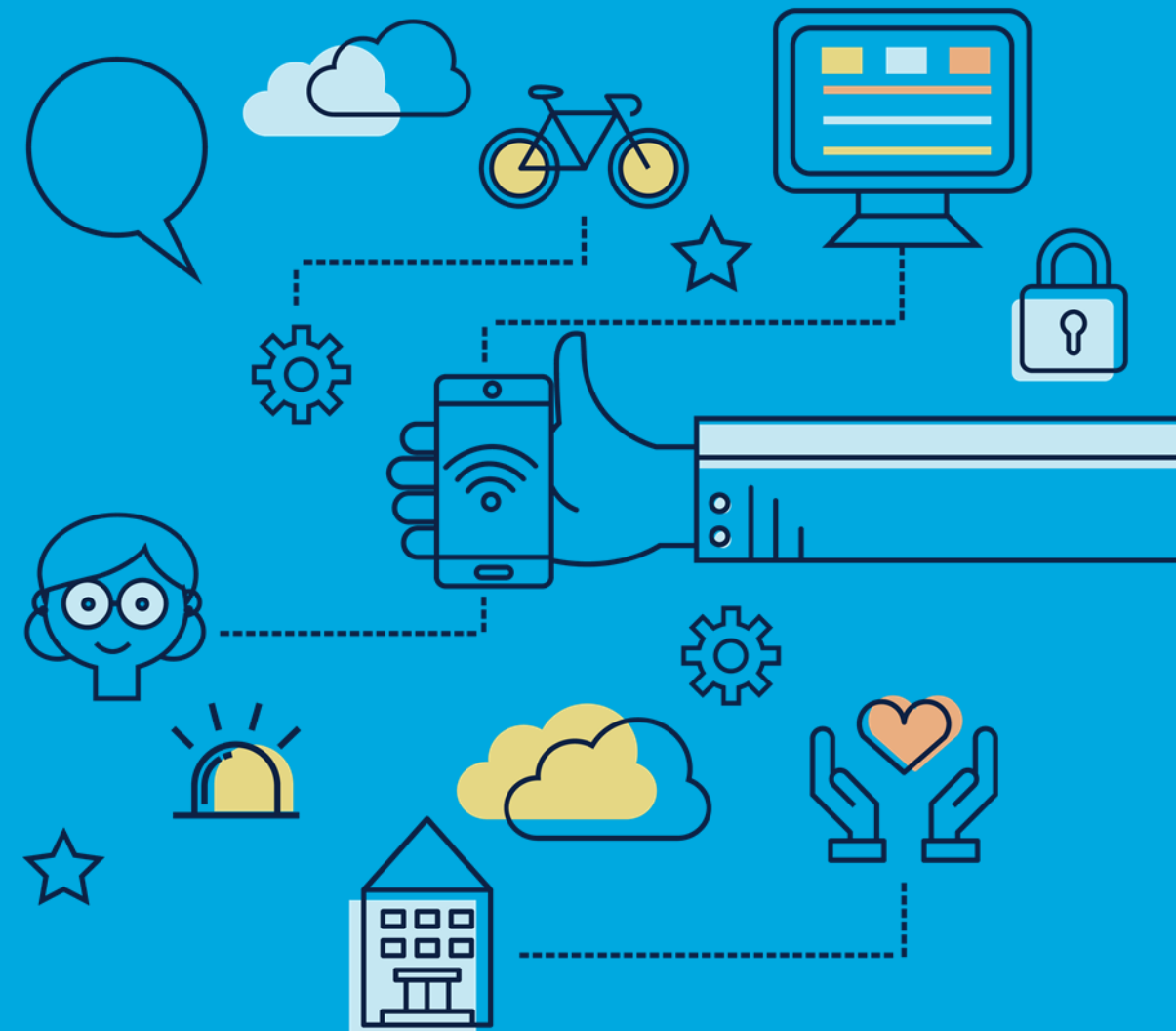
# ACTIVAGE PROJECT

EUROPEAN INDUSTRY PARTNERSHIP  
COLLABORATIVE EVENT

AMSTERDAM APRIL 17<sup>TH</sup> 2019

**AUTHOR: SERGIO GUILLEN**

Project deputy coordinator  
MYSHERA



**Breaking barriers for a  
sustainable Active and Healthy  
Ageing through IoT technologies**

# OUR AMBITION



**ACTIVAGE is about setting the grounds for the Digital Transformation of Social Care that will change the life of 100 million people across Europe, including us.**

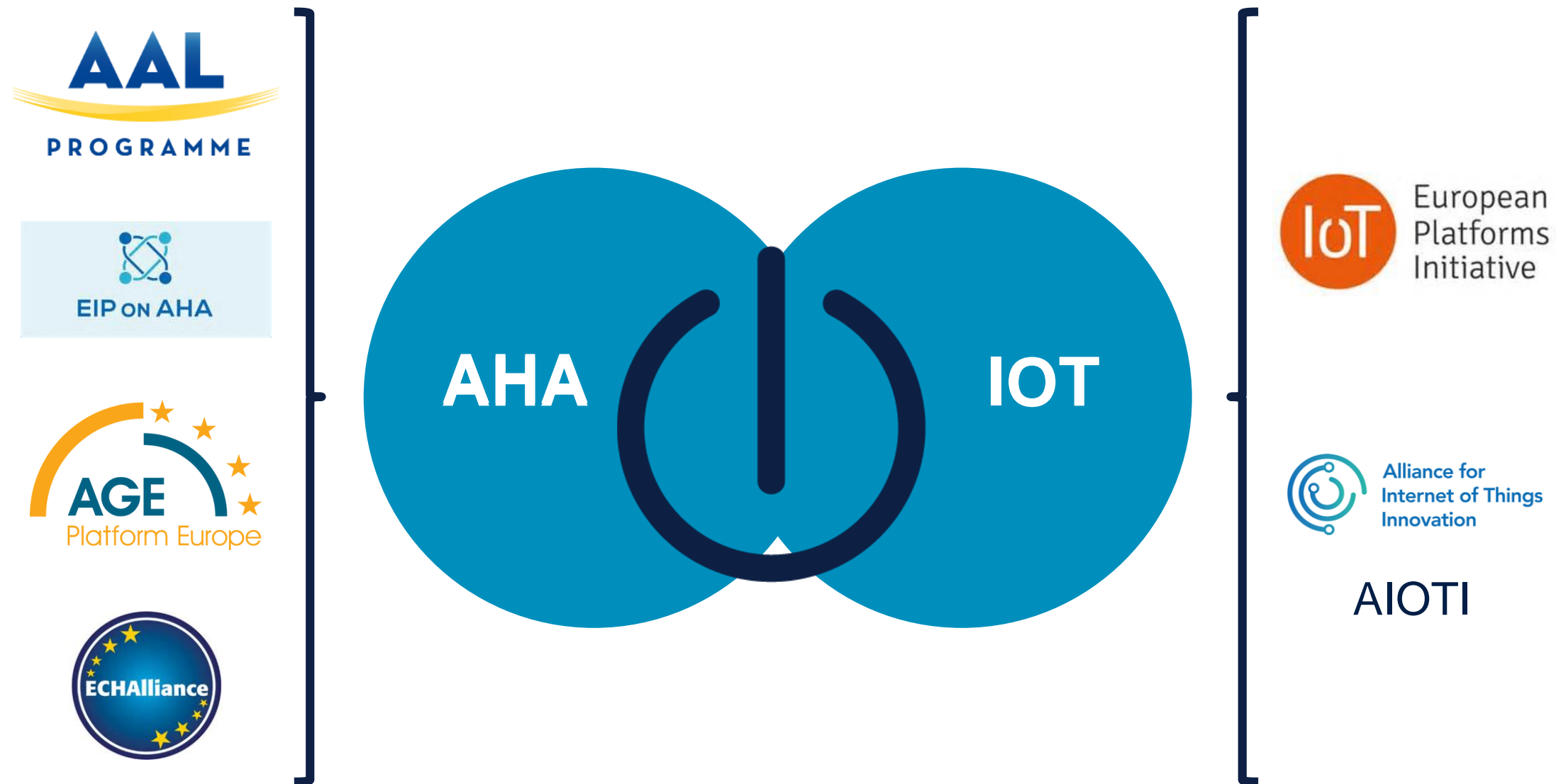
**PERSONAL CENTERED  
AHA-IoT ECOSYSTEM**



# JOINING TWO DOMAINS

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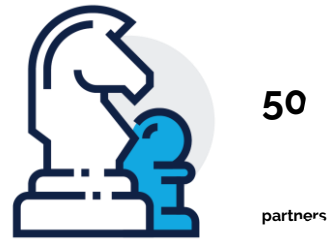
ACTIVAGE is founded on the cross – road of two big strategic initiatives launched by the EU Commission in the frame of the **European Digital Single Market**



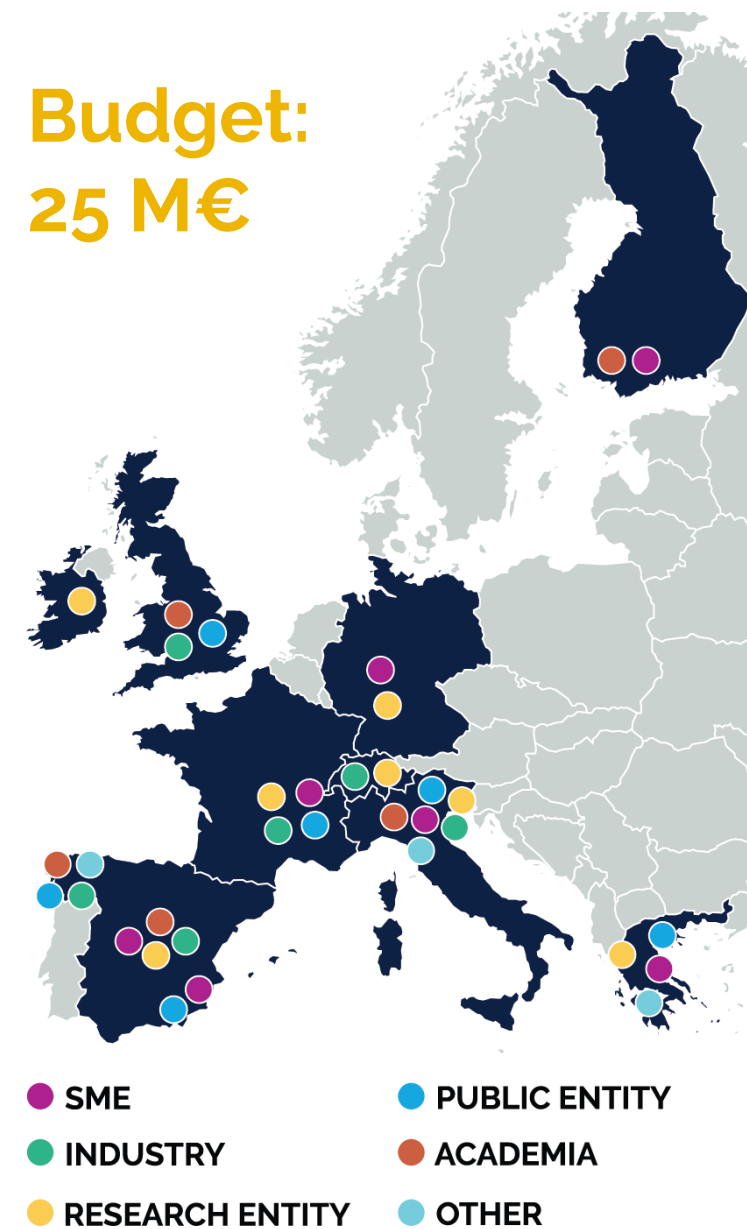


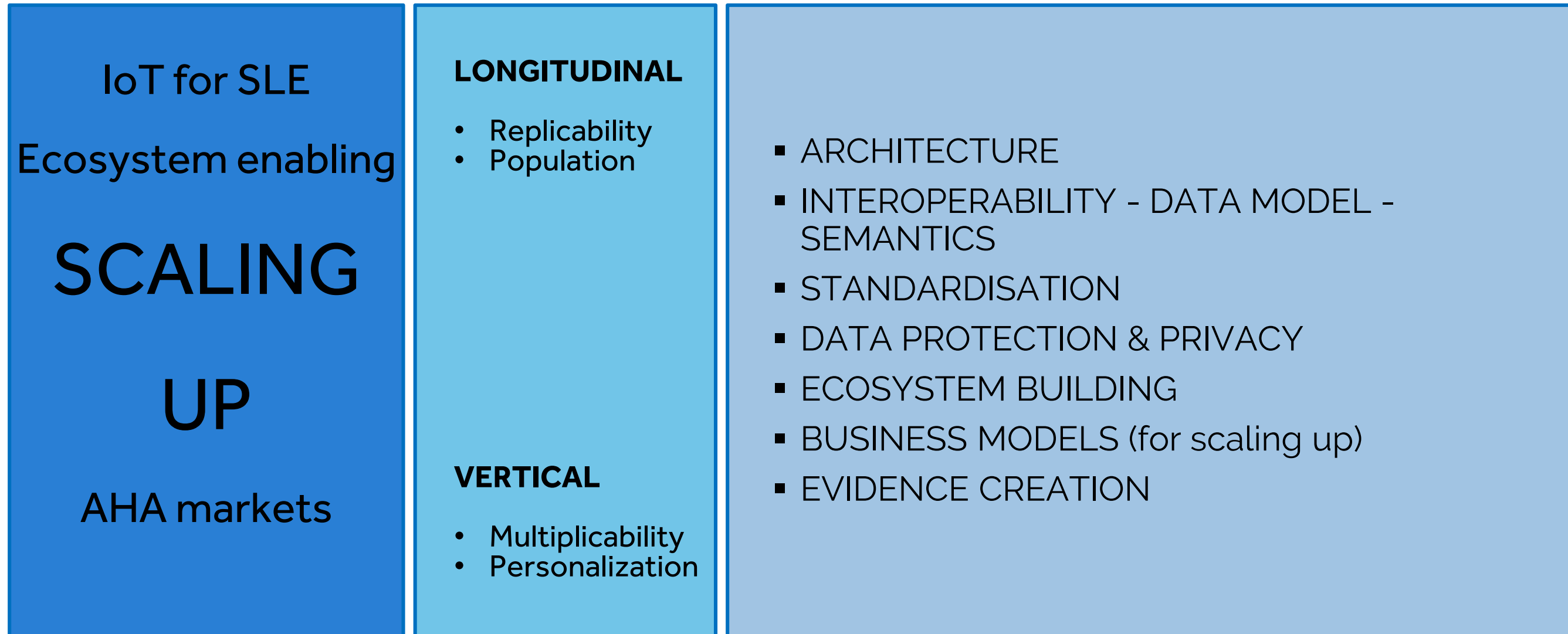
# ACTIVAGE IN NUMBERS

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PROJECT



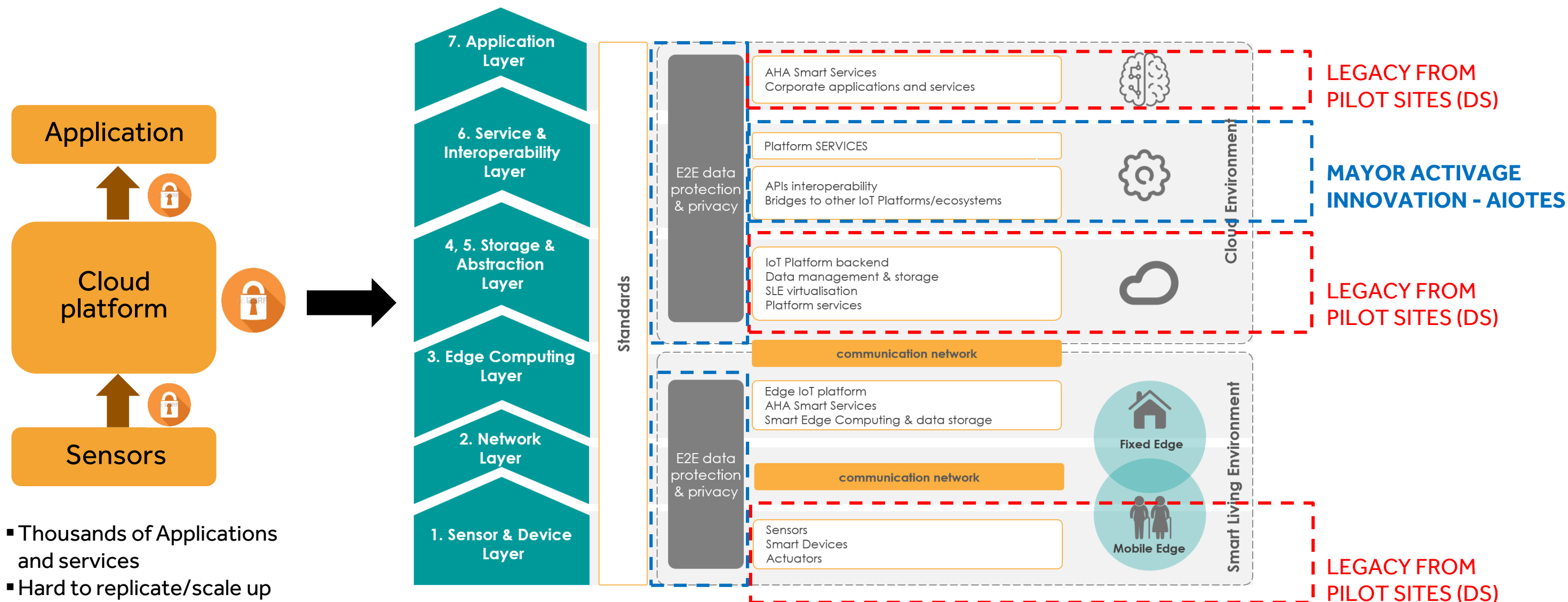
Budget:  
25 M€

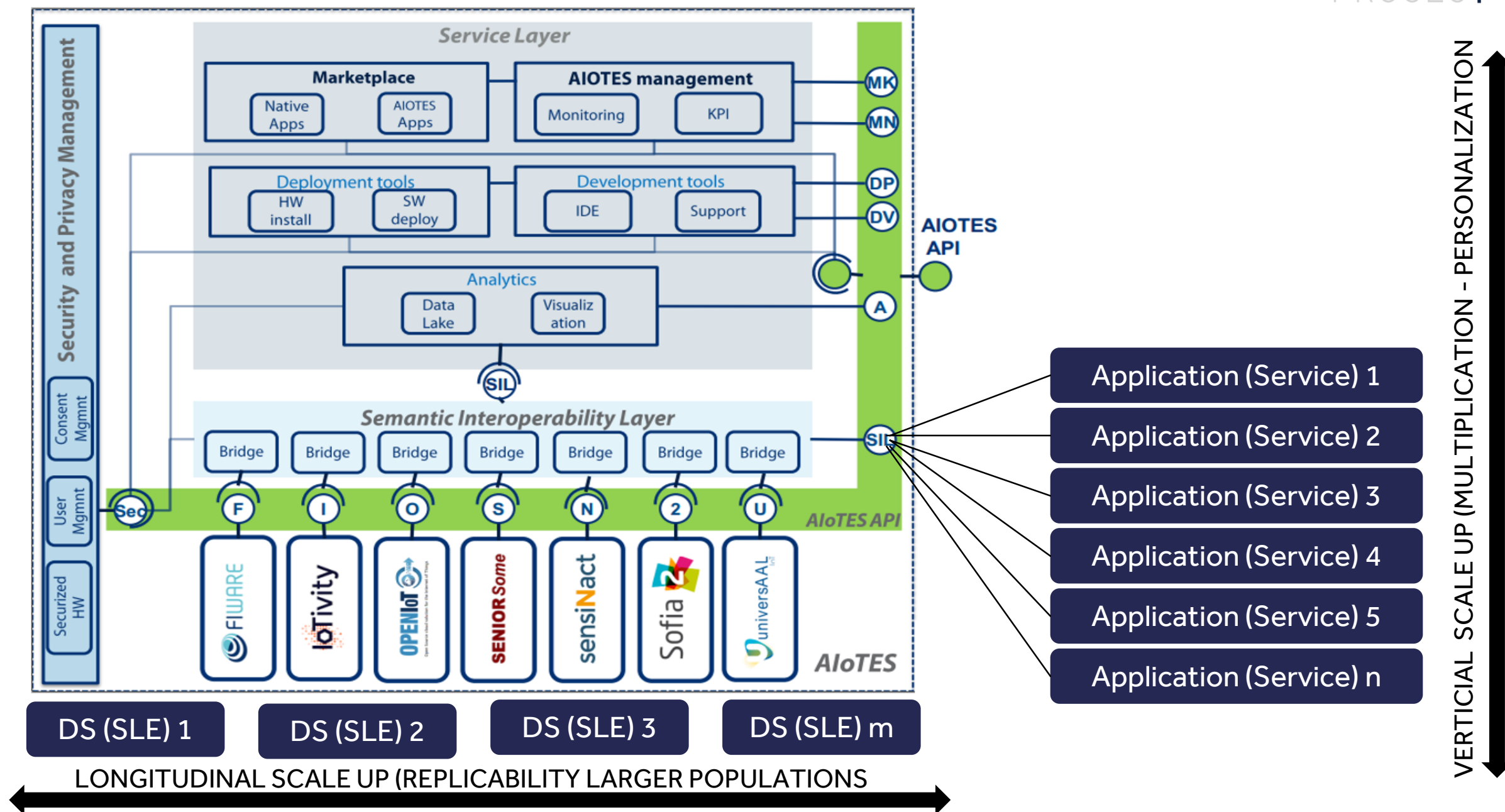




# ARCHITECTURE

Moving from legacy to full IoT ecosystem







# ACTIVAGE STANDARDIZATION ACTIVITIES

## Global mapping and alignment



# ACTIVAGE STANDARDIZATION ACTIVITIES



## Data Modelling towards Data Markets

- Physical world to Data
  - OMA LwM2M data Models and OMA LwM2M Objects range for ACTIVAGE in OMNA (HOPU)
    - In particular, we have the block of objects reserved for vendors (32969 – 33009)
  - ETSI SmartBAN chaired (CSEM)
    - Contributions to the current standards for Body Area Networks communications based on Bluetooth
- Data Quality Validation
  - IEEE PAR2510 Standard for data integration sensors integration in IoT
- Data Exchange
  - ETSI ISG CIM - FIWARE Data models contributions (HOPU)
    - Contributed to all the ETSI ISG CIM documents: Architecture and Data Models, Context management and cross-domain by design
  - ETSI SAREF – Semantics interoperability
    - Cooperating with SAREF extensions as SAREF4CITY to explore opportunities for AHA domain.
    - Exploring value from home appliances (refrigerators, etc.) for behavioural monitoring.
    - Additional analysis for integration with AIOTES Semantic in progress (NUIG)



# ACTIVAGE STANDARDIZATION ACTIVITIES

## Standardisation collaboration in SAREF



- **ETSI SAREF eHealth extension**

- STF 566 (TS 103 410-8)

- SAREF4EHAW: SmartM2M; Extension to SAREF; Part 8: eHealth/Ageing-well  
Domain DTS/SmartM2M-103410-8-SRF4EHAW

[https://portal.etsi.org/webapp/WorkProgram/Report\\_WorkItem.asp?WKI\\_ID=51404](https://portal.etsi.org/webapp/WorkProgram/Report_WorkItem.asp?WKI_ID=51404)

- Definition of the extension being cooperated by HOPU on behalf of  
ACTIVAGE as part of SmartM2M action STF566 (Q1/Q2 2019)

<https://portal.etsi.org/STF/STFs/STFHomePages/STF566#who>

- Implementation in progress of mapper / adapter from NGSI to NGSI-  
LD (including SAREF reference model) for Q2/Q3 2019

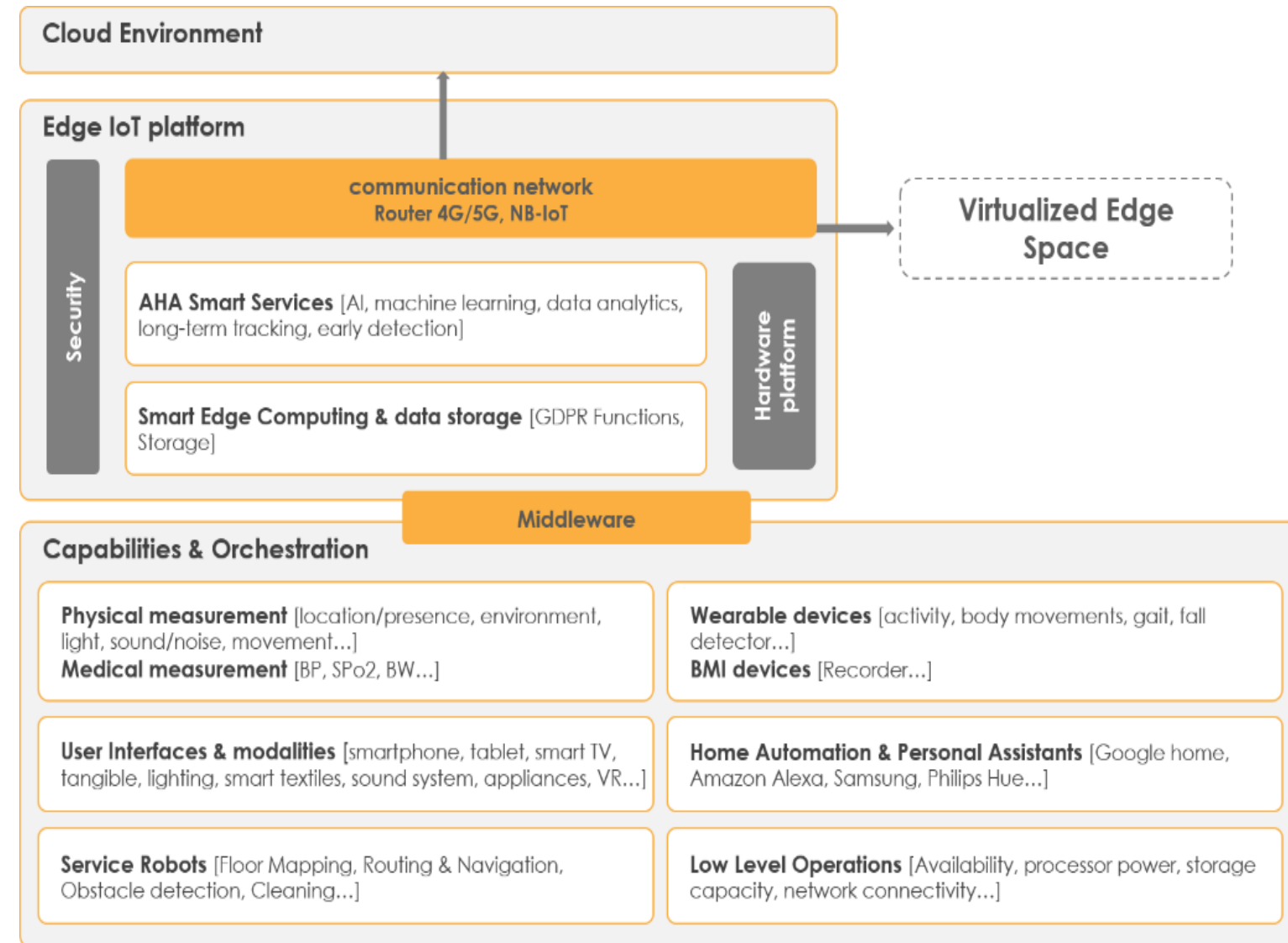


# NEW ÁREAS OF RESEARCH AND INNOVATION

## TWO BATTLEFIELDS OF RESEARCH AND GAPS TO ADDREESS IN IoT for SLE

### 1. The EDGE (The far west)

- Standardisation
- Security & privacy management
- AI, Smart devices, virtual sensors
- BMI (no invasive)
- Robotics



# NEW ÁREAS OF RESEARCH AND INNOVATION

## TWO BATTLEFIELDS OF RESEARCH AND GAPS TO ADDRESS IN IoT for SLE

### 2. The DATA ECONOMY in SILVER AGE

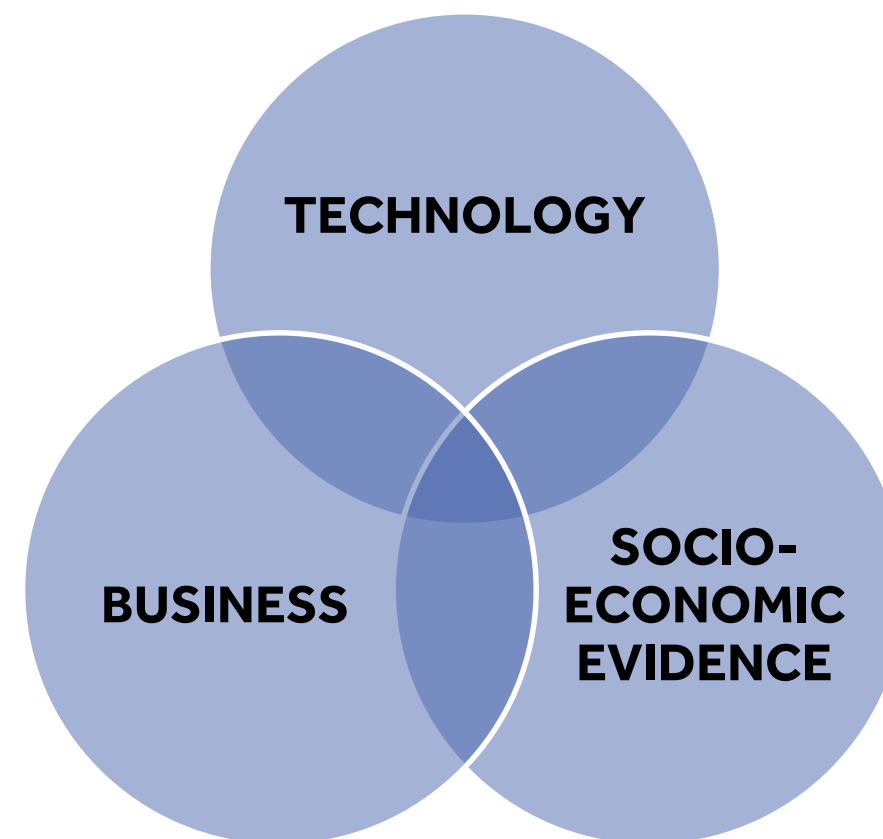
- Based on AIOTES ecosystem:
  - De-coupling data generation and data consume
  - Data sharing across IoT platforms
  - Data re-use across applications and services
  - Data lakes
  - Data analytics
  - BIG DATA
  - DATA MARKETS



# IN SUMMARY



**Drive the digital transformation of Active and Healthy Ageing**





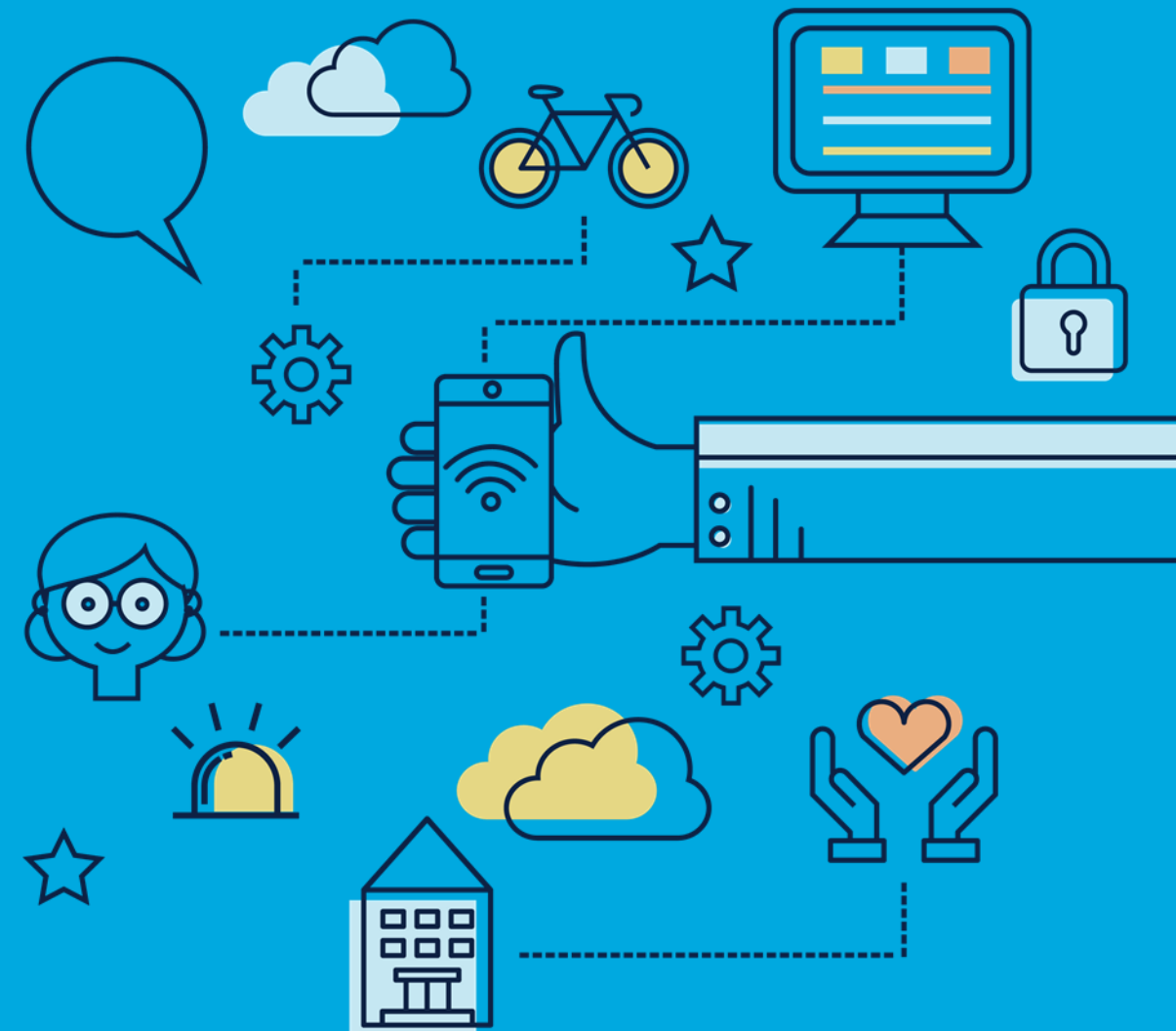
# THANKS FOR YOUR ATTENTION!

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Coming soon:

IoT for Smart Living Environments:  
Challenges and Recommendations for Ageing Well

An AIOTI oficial publication



1

## Data security and privacy ecosystem

- GDPR compliance

2

## Scale up

- **Vertical** -> expand service to broader population targets
- **Longitudinal** -> create a rich portfolio of services that fit better and more accurate the changing needs of large population cohorts

3

## Interoperability

- IoT infrastructure Independence
- Cross services interoperability vendor unlocking

4

## Data centric

- Maximise compliance with GDPR
- Adapt to technology evolution trends
- Re-use of data & sharing of data -> data banks

5

## Sustainability

- Innovation -> openness
- Business models and



# ACTIVAGE CITIES & REGIONS IN EUROPE



DS 1 GAL: Deployed in Galicia,  
in North-West of Spain



DS 2 VLC: Deployed in  
Valencia, a city in East Spain



DS 3 MAD: Deployed in  
metropolitan area of Madrid



DS 4 RER: Deployed in Parma,  
Emilia-Romagna region



DS 5 GRC: Central Greece,  
Metamorfosis & Pilea-Hortiatis



DS 6 ISE: Deployed in Iser  
Department in East France



DS 7 WOQ: Deployed in several  
cities in Hesse Federal State



DS 8 LEE: Deployed in Leeds, city  
in North of England



DS 9 FIN: Deployed in cities of Turku,  
Oulu, Tampere & Helsinki



# AHA-IOT SERVICES



## Living outdoors with freedom



Monitoring outside home



Support for transportation and mobility



Exercise promotion



## Living safe at home



Daily activity monitoring at home



Safety, comfort and Security at home



## Preventing mental decline



Cognitive stimulation



Exercise promotion



## Taking care of diseases



Integrated care for chronic conditions



Emergency trigger



## Promoting Social connections



Prevention of social isolation

