



EU-JAPAN VIRTUAL COACH FOR SMART AGEING

## **e-VITA Activities Daily Living ICSR 2022 Workshop**



The project has received funding from the European Union H2020 Programme under grant agreement n° 101016453.

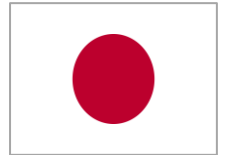


The Japanese consortium received funding by the Japanese Ministry of Internal Affairs and Communication (MIC). Grant n° JPJ000595

# Summary

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- Objective
- Contextualisation
  - Smart living sensors (SLS)
    - Home sensors
    - Wearable sensors - smartwatch
    - Wearable sensors - smartphone
  - Trustworthy AI
- Integration
  - Fiware standard
  - Data Fusion Platform (DFP)
    - 2 solutions
    - Architecture example

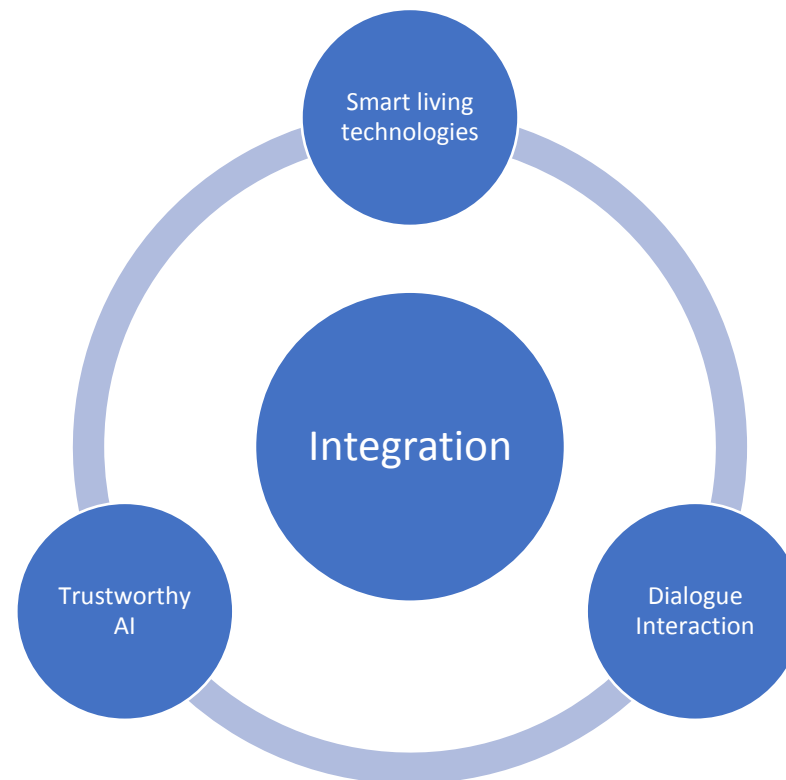


# Objective



## E-Vita objective 2 :

*Develop an advanced intercultural virtual coach with seamless integration of smart living technologies, advanced AI and tailored dialogue interaction*



# Contextualisation - SLS

Home sensors



PIR sensor : Is there someone in the room ?

Contact sensor : Is my door open ?

Climate sensor: Is the house warm enough?

# Contextualisation - SLS

Wearable sensors - smartwatch



Optical sensor : Heart rate & SPO2



Inertial sensor: accelerometer,  
gyroscope

Other sensors: magnetometer,  
altimeter, etc

# Contextualisation - SLS

Wearable sensors - smartphone



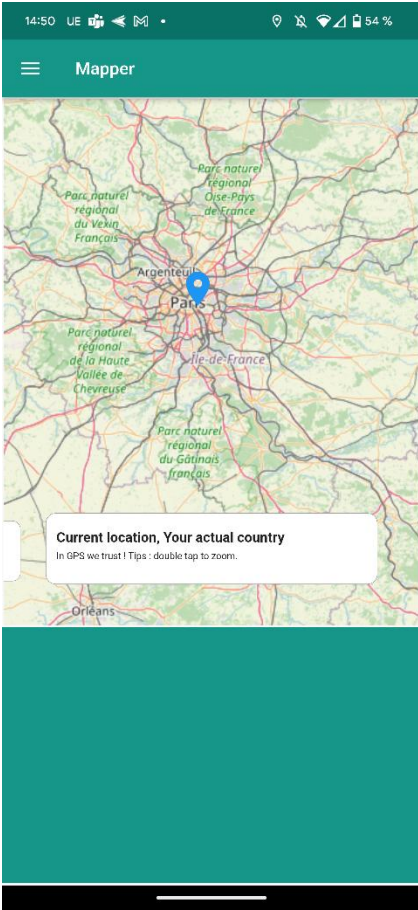
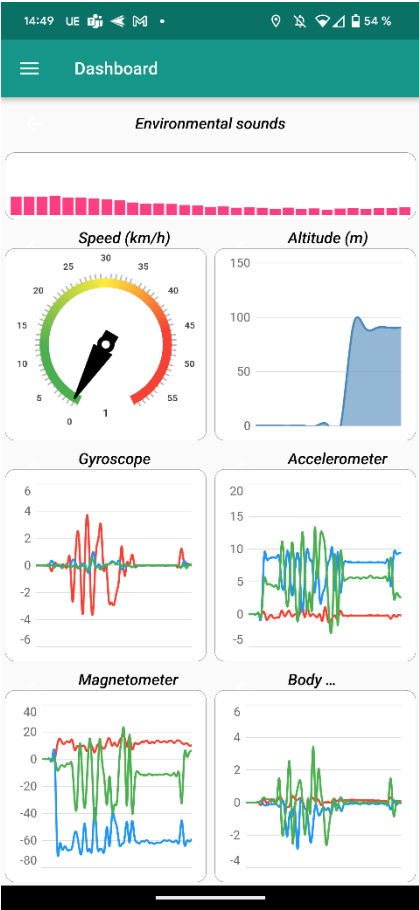
Connected to Internet

Inertial sensor: accelerometer,  
gyroscope

Other sensors: magnetometer,  
altimeter, GPS, etc

# Contextualisation - SLS

Wearable sensors - smartwatch



# Contextualisation - Trustworthy AI

ADL computing



Minimize dependency on data sources to maximize recombination.

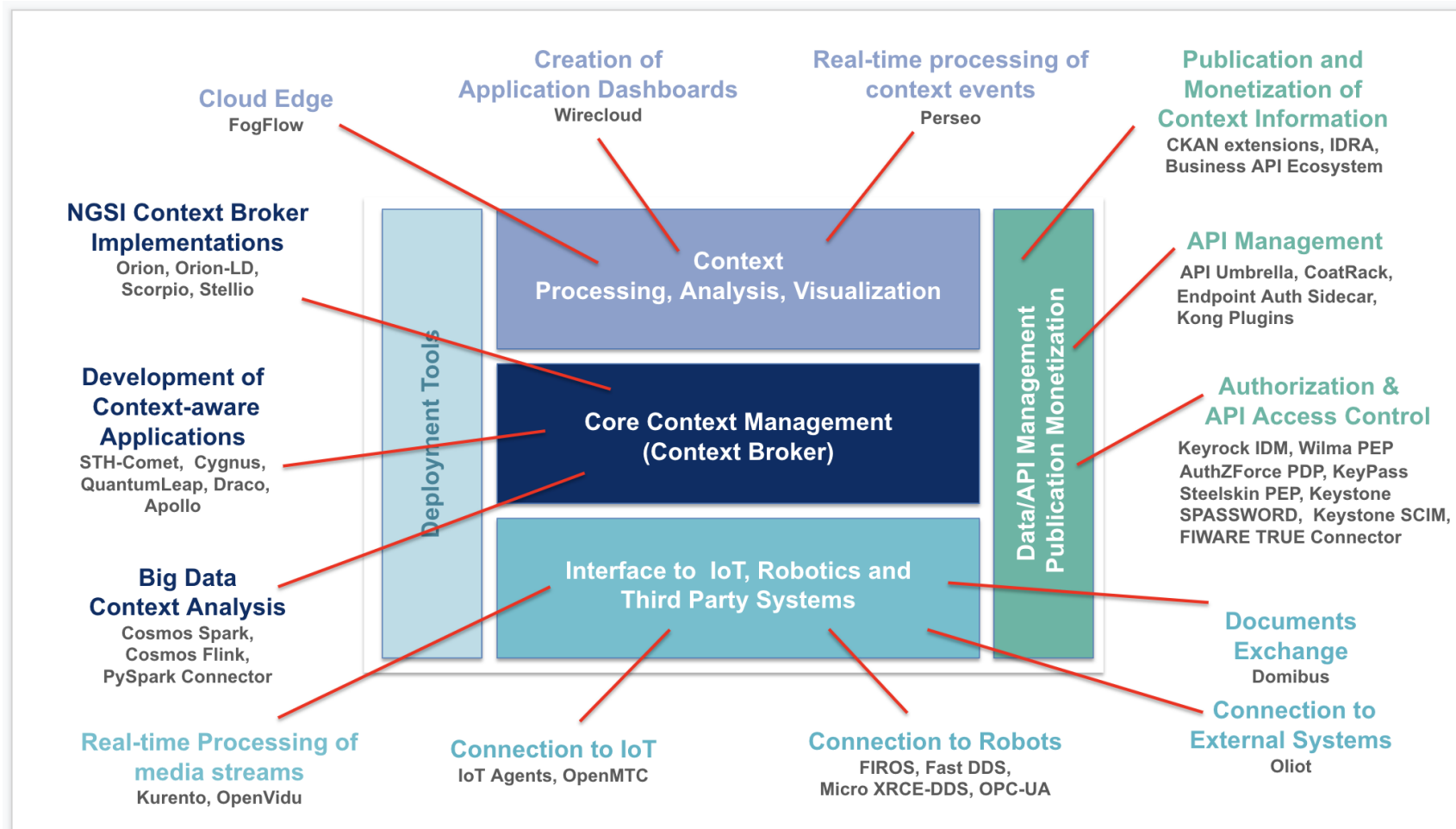
Able to follow the evolution of its sensors in order to keep a real time logic

Measurable and monitored to track its life cycle



# Integration

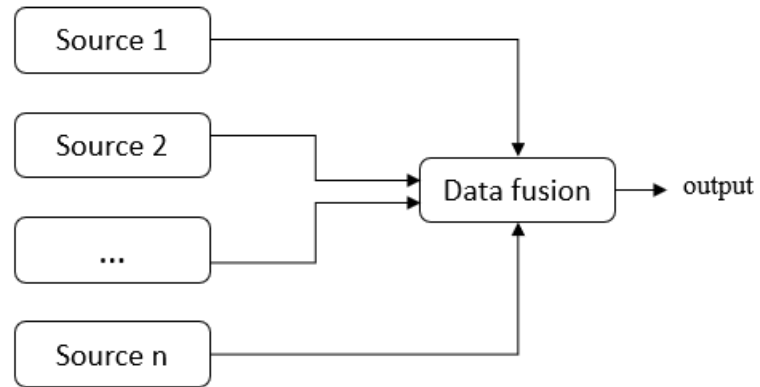
## Fiware Standard



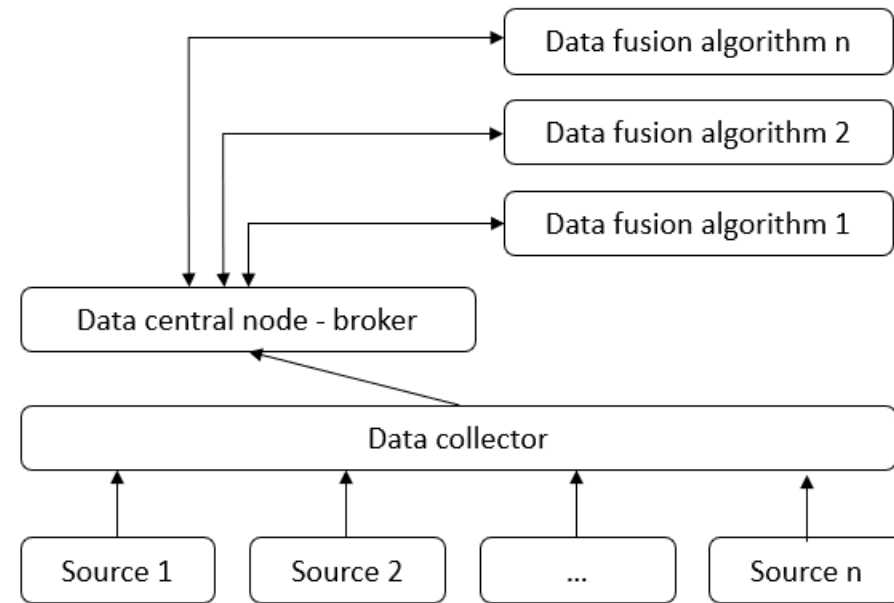
Fiware project : <https://www.fiware.org/>

# Integration - DFP

2 solutions



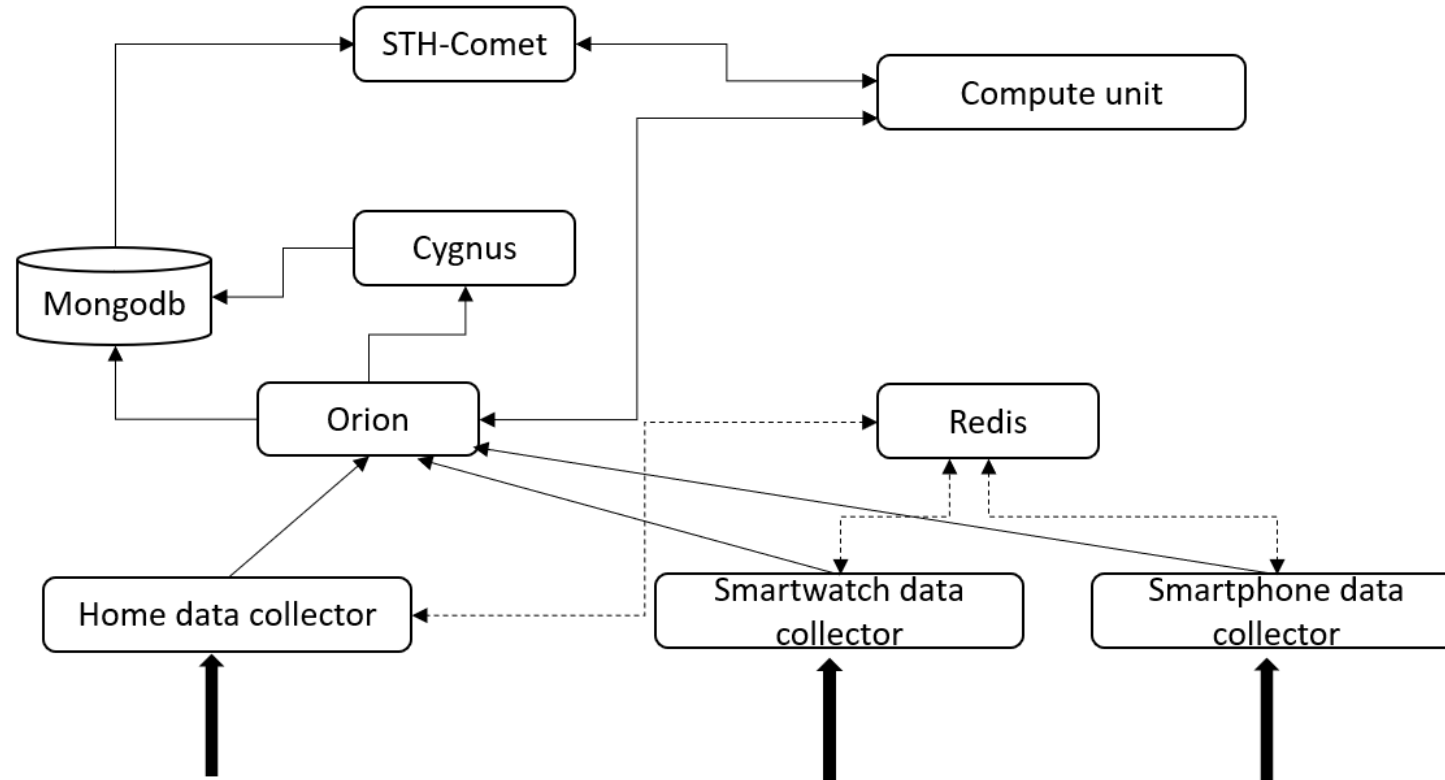
*Algorithmic approach*



*Architectural approach*

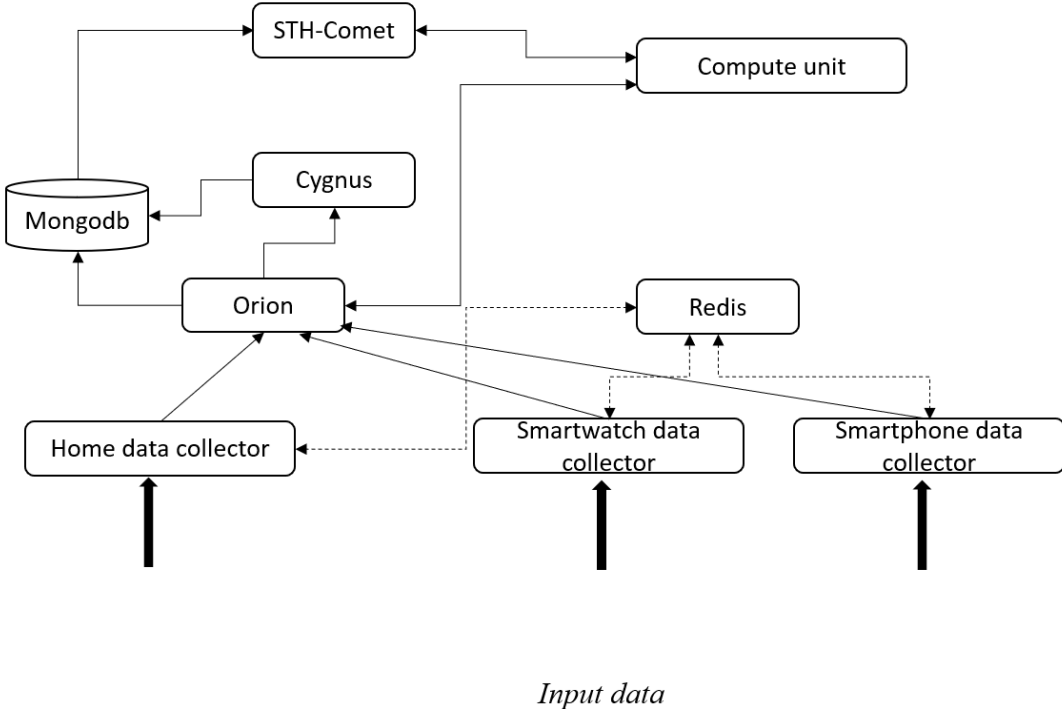
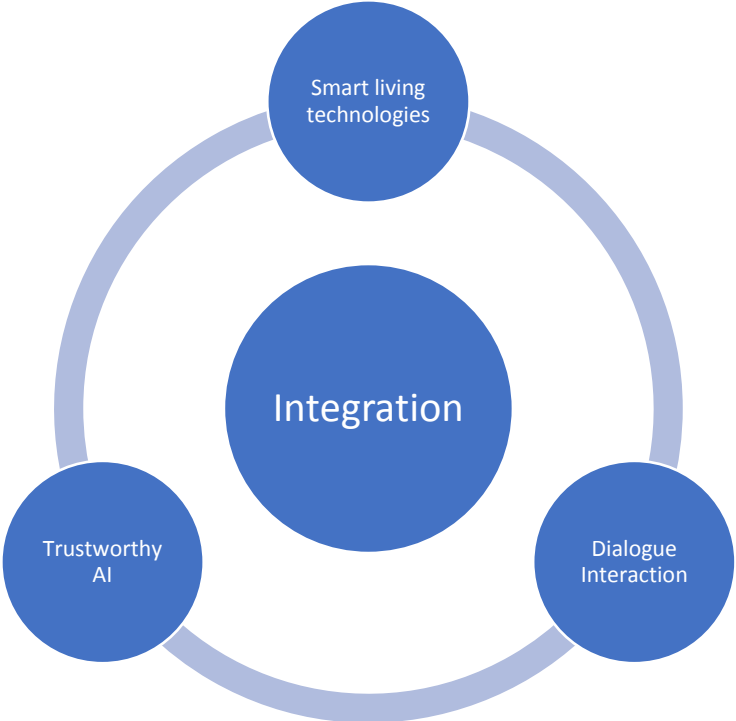
# Integration - DFP

Architecture example



*Input data*

# Conclusion





Thank you for your attention !

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*With the support of*

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- *Gerard Chollet*