



Overview of Pilot Sites & Indicative Value-Added Services

Grant agreement: 688467
Tryferidis Athanasios (CERTH)

- Overview of the 4 project pilot sites covering 4 domains
 - eHealth // Pilea-Hortiatis (Greece)
 - Smart Energy & buildings // Martim Longo (Portugal)
 - Smart Buildings // Oslo (Norway)
 - Smart Parking // Tromsø (Norway)

- For each Pilot site:
 - Use Cases realised per pilot site
 - Available IoT Infrastructure
 - Indicative related Value-Added Services for the 2nd Open Call

- Other indicative micro-services for the 2nd Open Call

Pilea-Hortiatis Pilot Site - *eHealth*

Partners: MPH, CERTH, GNOMON

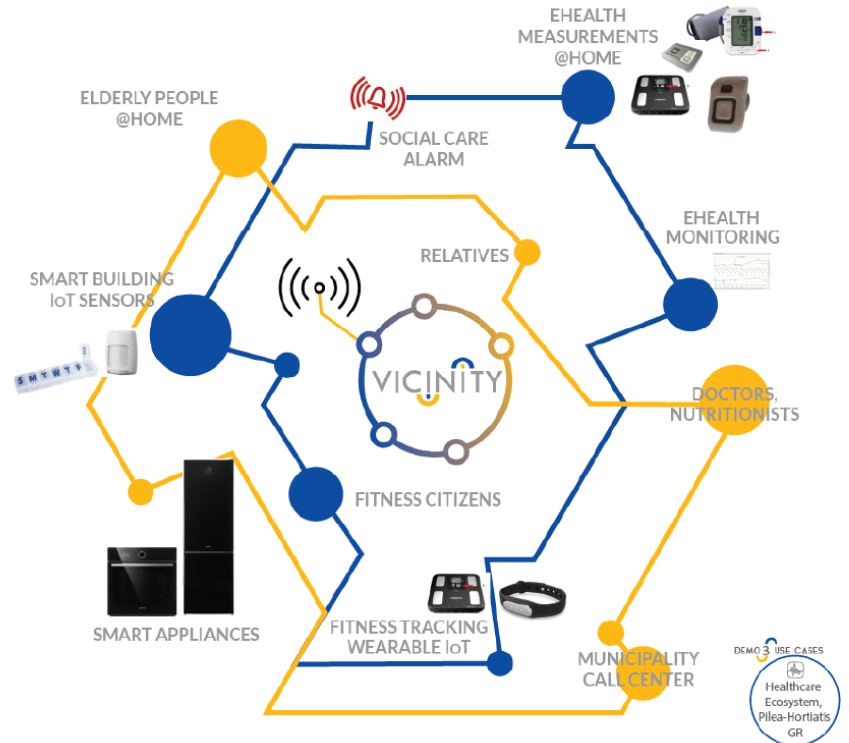
DEMO 3 USE CASES



Healthcare

- a. eHealth & Assisted Living (eHealth, Smart Building)
- b. Fitness & Preventive Medicine (eHealth, Wearable IoT)

MUNICIPAL SCALE ASSISTED LIVING & EHEALTH ECOSYSTEM, GREECE

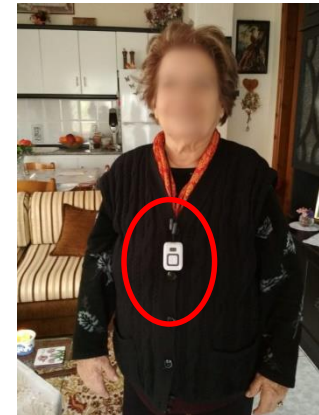
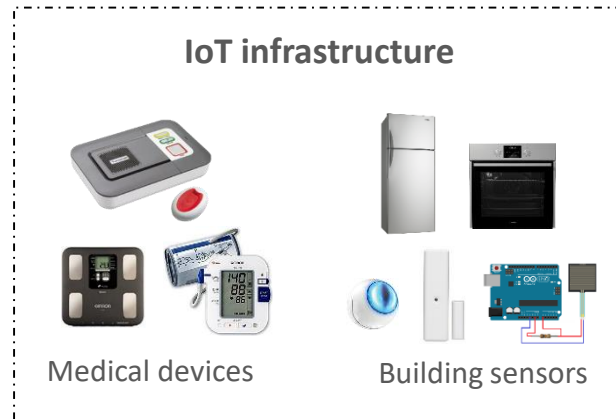
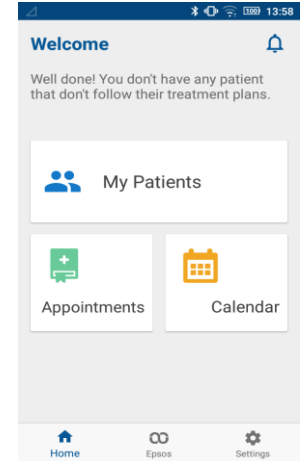


Use Case 1-Assisted living

The Use Case provides **assisted living services** for remote monitoring of **elderly people** of the municipality. The aim is to better monitor elders who leave alone in order to prevent unwanted situations.

Offered services:

- **Storing** of medical data respecting the **GDPR** regulations.
- **Analysis on medical data** regarding frequency and type of measurements, alerts on outliers etc.
- Monitoring of elder's activity at home with **building sensors**, in order to be able to detect **abnormal conditions** and raise events when deviating from usual habits.

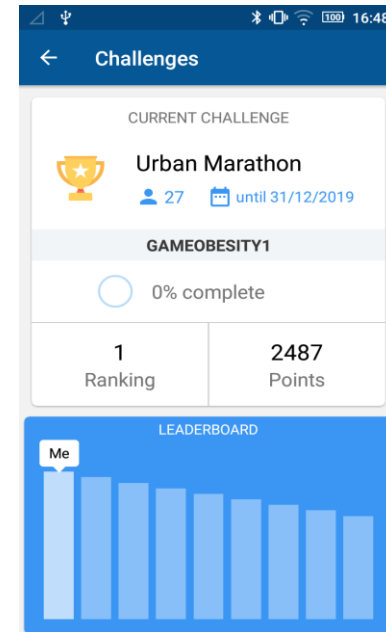
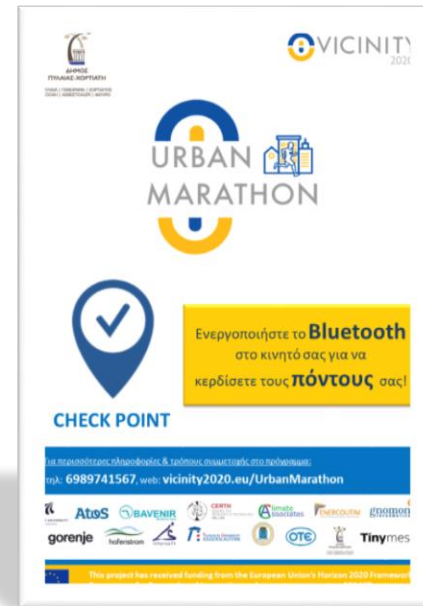


Use Case 2- eHealth Urban Marathon

The Use Case aims to promote a **healthier lifestyle** to the **middle-aged citizens** of the municipality, though a fitness competition. The aim is to support citizens to change their everyday habits in order to obtain a better quality of life.

Offered services:

- **Storing** of medical data respecting the **GDPR** regulations.
- **An awarding, gamified point system** according to the citizen's diet program, activity and visits to gym, called **"Urban Marathon"**.
- **Aggregated analysis** of citizens medical data giving an overview of the population's activity.



eHealth Services:

- **Analysis** of real time data from e.g. fitness trackers or beacons in sports centers
- Monitoring of **medical treatment** plans based on IoT equipment, e.g. drug dispenser, dash buttons.
- Detection of **social difficulties** of the elderly via IoT devices and psychological profiles

Martim Longo Pilot Site – Smart Energy and buildings

Partners: ENERC

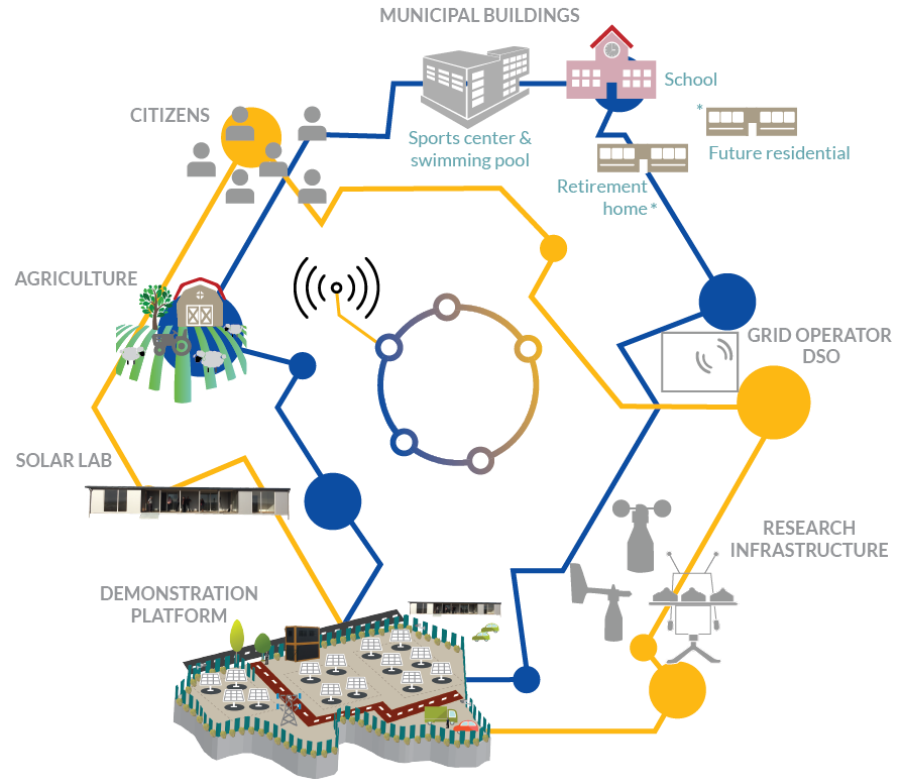
DEMO 2 USE CASES



Smart Energy and Buildings

- a. Solar Demonstration Platform (RES generation), Solar Lab (Energy, Building)
- b. Municipal buildings cluster (Buildings, Energy)

SMART ENERGY ECOSYSTEM, PORTUGAL, ALCOUTIM



Use Case 1 - IEQ and Energy Municipal Services

The Use Case facilitate dynamic data collection from various sources, including sensors and other cloud services with the goal of offering a Dynamic Building Audit.

Offered service:

- Dynamic Building Audit from energy and environmental sensors and real-time monitoring of thresholds.

IoT infrastructure

Sensors that measure:

- Temperature
- CO2
- Humidity
- electrical current (3-phase)
- electrical pulse count
- water pulse count
- single phase count

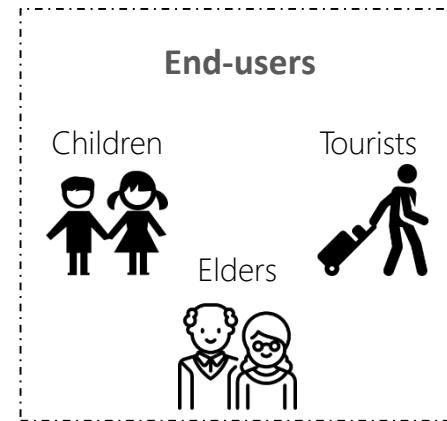
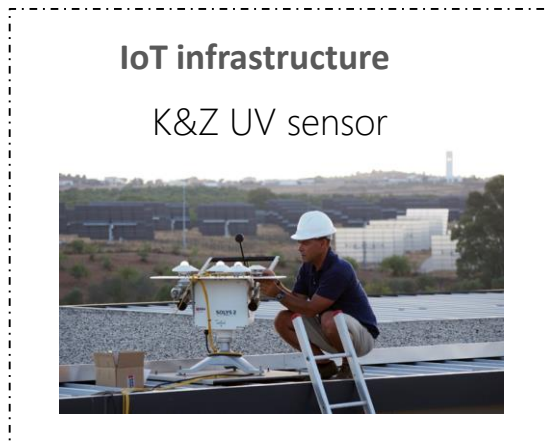


Use case 2 - UV (Ultraviolet radiation) info services (Local to Local Services)

The use case aims to demonstrate re-use of existing equipment for local services through VICINITY Platform.

Offered service:

- Monitoring of the ultraviolet radiation index in order to prevent any harmful effects on the health of students and the elderly

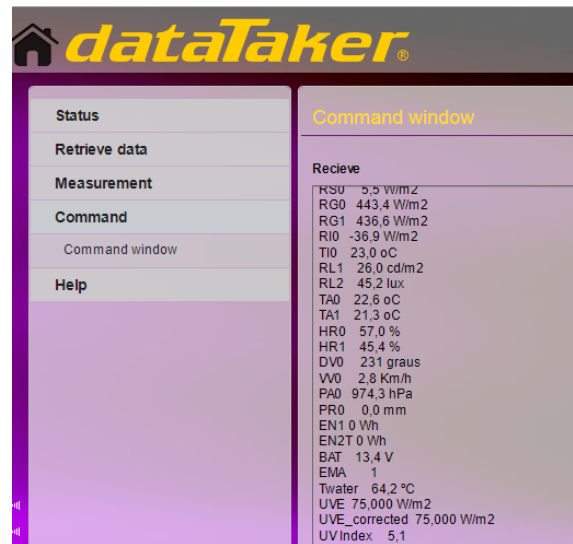


Use case 3 - Distributed Energy Assets Management

By monitoring the meteorological conditions of the area, will allow more accurate predictions and scheduling for actions like **washing of the solar systems** plus usage optimization of the resources and the equipment.

Offered service:

- PV panels Smart Clean. O&M for distributed renewable production resources.



Datalogger data from SolarLab

Indicative Services for Martim Longo Pilot Site

Cross-domain services with energy :

- Consideration of **prediction** of renewable **energy production**, e.g. with solar irradiance measurements in above services.
- Consideration of price signals from the energy market in above services.
- Analysis of **energy savings**, and of its impact, maybe in context with other data.

Oslo Pilot Site – Smart Buildings

Partners: TINYM

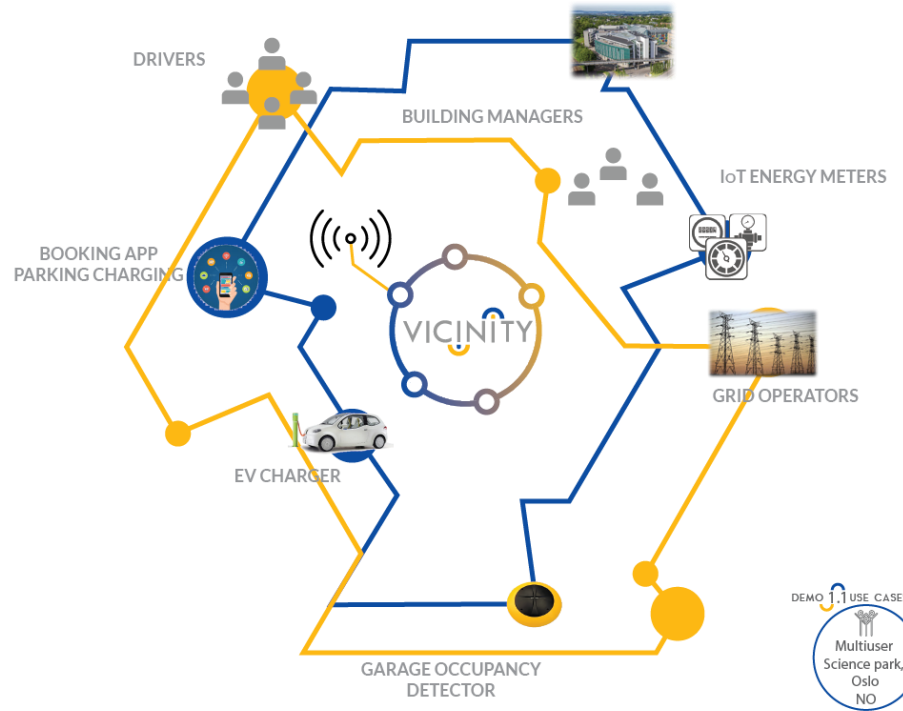
DEMO 1.1 USE CASES

Multiuser
Science park,
Oslo
NO

Smart buildings, Neighbourhood and Cities

a. Building Preformance (Building, Energy, Environment)
b. Parking (ITS, Energy, Building)

MUNICIPAL SCALE SMART BUILDINGS, ENERGY AND MOBILITY ECOSYSTEM, NORWAY



DEMO 1.1 USE CASES

Multiuser
Science park,
Oslo
NO


Use case 1 - Predictive operations

The use case deals provides cleaning staff with **data on room usage** and **notifications** when a room needs cleaning.

Offered service:

- **Cleaning** and **waste** removal notification service and warning

IoT infrastructure
Occupancy, door sensors

Predictive Operations				
Room	Visits	Last Cleaned	Clean?	Info
Handicap Toilet 1	15	a day ago	✘	

Room: Handicap Toilet 1 ✕

Status
✘ Needs cleaning

Number of room visits
15

Last Cleaned
a day ago

Comment
No comment

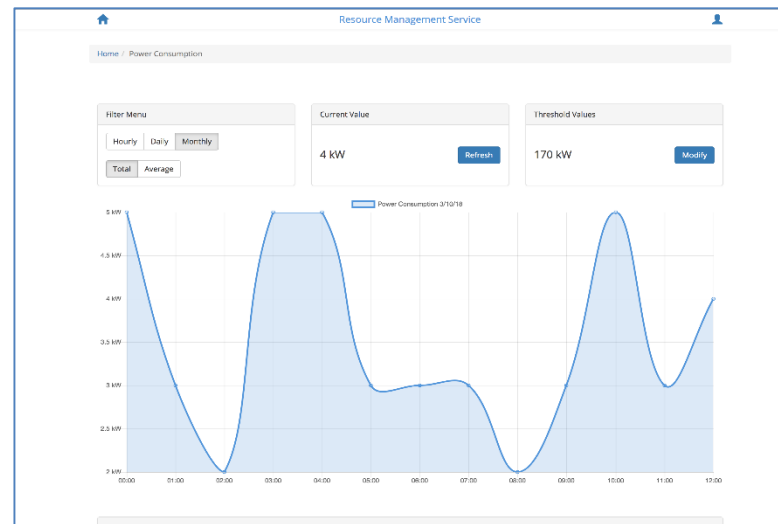
Clean
Close

Use case 2 - Resource management

The use case will support **decision making** on **energy management** with appliances control. Combined with **weather forecast** data from YR the service can **predict** upcoming **electricity peak loads** based on estimated needs for additional heating or cooling of the premises.

Offered service:

- Management and prediction of energy consumption.



Building automation services:

- Capturing the **subjective experience** of a room's **indoor climate** and/or “cleanness” status on a specific time to plan climatization and cleaning.
- Using the **occupation information** of a room to plan climatization and cleaning.
- Integration **BIM models** with dynamic data from sensors; dynamic audit.

Tromsø Pilot Site – Smart Parking

Partners: HITS

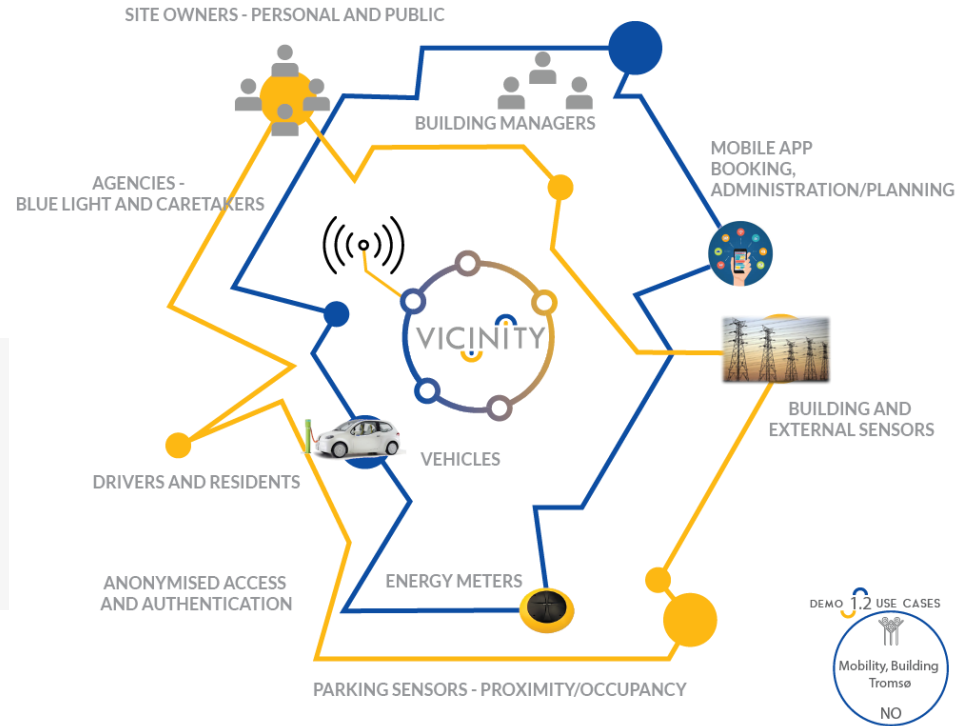
DEMO 1.2 USE CASES

Mobility, Building Tromsø

NO Transport, Parking, eHealth and Assistive living

a) Shared parking
b) Access for bluelight agencies

MUNICIPAL SCALE TRANSPORT, PARKING, EHEALTH AND ASSISTIVE LIVING, NORWAY

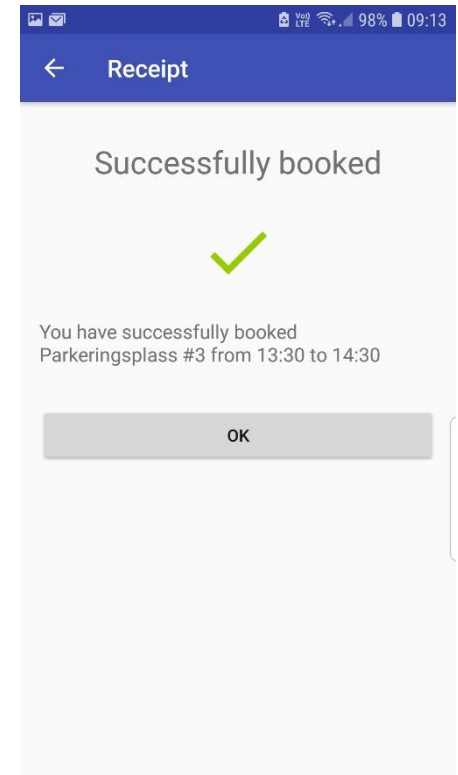
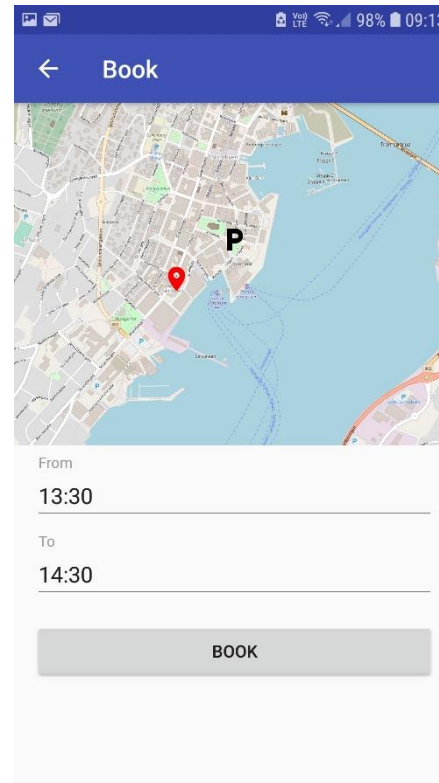


Use case 1 - Shared parking/priority parking

This use case offers a smart parking solution for cluster of buildings.

Offered service:

- A ticketing service is offered to the parking space owner and vehicle user.



Use case 2 - eHealth Emergency parking

This use case offers a smart parking solution for cluster of buildings in the case of an emergency.

- A priority ticketing service is offered to the benefit of parking space owner and caretaker driver.

Dr. Charlotte – responsible for taking care of and following up handicapped residents at Teaterkvarteret



Smart Parking Services:

- Solutions for the **integration** of smart parking **with other transport related sectors**.
- Smart **integration of Electric Vehicle charging stations** into smart parking solutions, including consideration of current status and technical information.
- **Smart transaction** and rental models for vehicles and parking space that consider access, need, ownership.
- **Smart booking systems**, e.g. **integrating Outlook** or other personal information managers.

Micro – Services:

- Frameworks that provide **incentive mechanisms** or **micro-payments**, using e.g. **smart contracts**.
- Frameworks that make the development of **interactive applications** on top of the VICINITY platform more efficient and easy, e.g. by software components that help to **analyze, visualize** data provided by VICINITY, or to interact with users.
- Provision of information from **personal information managers** (such as **Outlook**)
- Integration and co-creation with **social network platforms** such as **MyData** or **DIGIME**.

Questions & Answers



AALBORG UNIVERSITY
DENMARK

Atos



CERTH
CENTRE FOR
RESEARCH & TECHNOLOGY
HELLAS

Aclimate
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