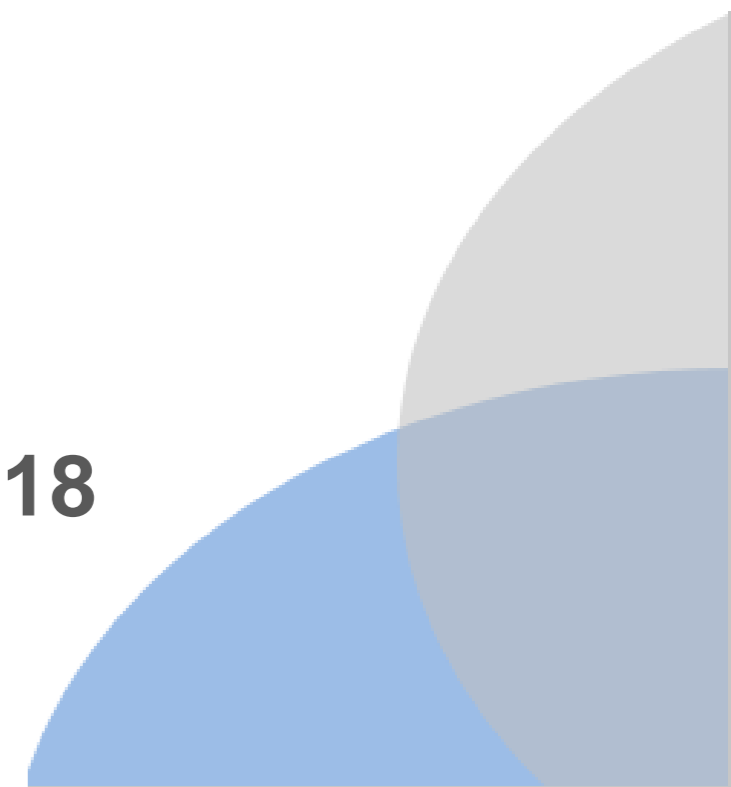




Partnership of European Regions on Energy Efficiency in Buildings

Innovation Map and Pilot Projects

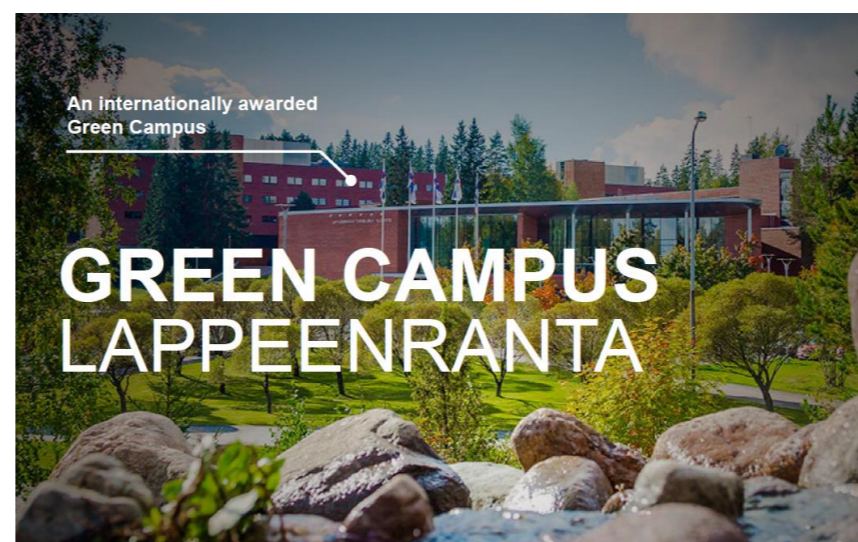
Brussels, 24 January 2018



Smart Campus: Awarded project under Call launched by EC to pilot interregional innovation projects presented 30th October 2017

Objective: develop “Smart Campus” projects in the partnership regions, which will improve energy efficiency in buildings and the energy generation and distribution systems.

Duration: year 2018



Academia/research centres:

1. University of Trieste (UniTS) (Italy)
2. University of Udine (UniUD) (Italy)
3. Ljubljana University (Slovenia)
4. Building Institute /Malaga University (Spain)
5. Lappeenranta University of Technology (Finland)
6. Instituto Superior de Engenharia of the Algarve University (Portugal)

Governments/public institutions:

1. Directorate of the Energy Service, Regione Friuli Venezia Giulia (FVG) (Italy)
2. Andalusian Energy Agency (Spain)
3. Lappeenranta City, Wirma business services (Finland)
4. Energy Directorate – Ministry of Infrastructure (Slovenia)
5. AVITEM l'Agence des villes et territoires méditerranéens durables, Provence, Alpes Côte d'Azur Region (France)
6. Areal Regional Energy and Environmental Agency of the Algarve Region (Portugal)



Industry sector:

1. ABB SpA (multinational) - *industrial supplier*
2. Blue Energy Group SpA (Italy) - *energy trader*
3. OverIT (Italy) - *ICT for energy enterprises*
4. Technological Corporation of Andalusia, CTA (Spain) - *Private-Public Partnership*
5. Green Energy Showroom, Energy efficient buildings Cluster (Finland)
6. Iskraemeco – *energy collector (Slovenia)*
7. Enercutim, Alcutim Solar Energy Association (Portugal)

End-users' representatives from different countries:

1. Academic community (University of Udine (Italy), University of Trieste (Italy), University of Ljubljana (Slovenia), University of Malaga (Spain), Lappeenranta University (Finland), Algarve University (Portugal)): students, professors and staff from the related campus.
2. AEIT (Italian Association of Electrical, Telecommunication, Automation and Computer Engineers) – *Network of stakeholders, FVG Section (Italy)*
3. Responsible for maintenance of public buildings in the regions involved.
4. REDEJA – *Energy Management Network of the Andalusian Regional Government (Spain)*
5. GEN-I – *Energy supplier (Slovenia)*



University Buildings Energy Efficiency Roadmap for the Development of Smart Campuses

- Carry out an **assessment on the actual energy consumption measurements and control systems at university campus buildings** in the involved regions
- Carry out a **technology road map**, selecting promising technologies and smart energy management systems IoT driven.
- Develop a **policy dialogue**, leading to specific regional policy commitments. A **portfolio of technical, financial and legislative solutions and services to meet the challenges locally and regionally** will be produced.
- Stimulate urban symbiosis approach:
- **Improving and developing interoperability of building automation.** Open data protocols will help your facility seamlessly communicate



Smart Campus. Proposal for Activities 2018



University Buildings Energy Efficiency Roadmap for the Development of Smart Campuses

Support from EC:

- Specialised expertise on legal issues
- IPR
- Business development support
- Taxation
- Certification procedures
- Protocols and on the combination of different public and private funding instruments.

- Task 1. Energy Auditing of Campus: carry out an assessment on the actual energy consumption measurements and control systems at university campus buildings in the involved regions (starting from results already achieved in FVG and Lappeenranta) and demonstrate innovative solutions achieved through their research activities;
- Agreement among partners:
- Time framework: January-march 2018?
- Coordinator: Lappeenranta?
- Main Activities: Existing data, technical shining examples: Green Campus
- Proposed Subtasks:
 - Task 1.1. Energy Auditing in each campus
 - Task 1.2. Summary of BAT in energy efficiency in buildings
 - Task 1.3. Comparative study on BAT to Smart Campus and Smart public buildings in the participating regions
- Other tasks and subtasks.



➤ Task 2. Technology Road Map, selecting promising technologies and smart energy management systems IoT driven. Improving and developing interoperability of building automation: Open data protocols will help your facility seamlessly communicate, which is crucial in a facility manager's quest toward building optimization and makes new IoT based services possible to evolve.

The Technology Road Map will include Urban symbiosis : stimulate urban symbiosis approach, for example, UniUD has implemented an innovative reuse of heat waste coming from the local hospital and university buildings are connected to the district heating.

➤ Agreement among partners:

➤ Time framework: February-June 2018?

➤ Coordinator: FVC?

➤ Main Activities: Technology Road map in each existing campus,
Conclusion and Interregional MapT

➤ Proposed subtasks:

- Task 2.1. Regional Technology Road Map.
- Task 2.2. Executive Summary Road Map for each region.
- Task 2.3. Partnership Road Map

➤ Other tasks and subtasks



➤ Task 3. Business Plan:

including Policy Dialogue, Guidelines & Replication: leading to specific regional policy commitments that can accelerate the progress towards EU policy objectives.

A portfolio of technical, financial and legislative solutions and services

Guidelines should be structured in order to be usable at different scales and by different Countries and should also integrate actual European policies;

Results obtained in the Pilot, can be generally applied to **Public Administration Buildings**.

Support in or PPI applied to Energy saving in the Building Sector, starting from the innovation technologies achieved. New industry needs can rise from the pilot and prototypes and startups might be funded to this extent; creating conditions for the involvement of new private actors and for creating PPP to leverage investments for competitive technologies.

The Business plan will include the potential legal and administrative constraints, that different regions and countries may have towards Energy policies; in particular Public Administrations are not completely able to technically assess and verify the effectiveness of services delivered through long-term energy supply contracts due to the lack of technical knowledge and assistance. Business and financial plan for the deployment of technologies and innovative solutions should be set up and the partnership will need help in such activity.



➤ Agreement among partners:

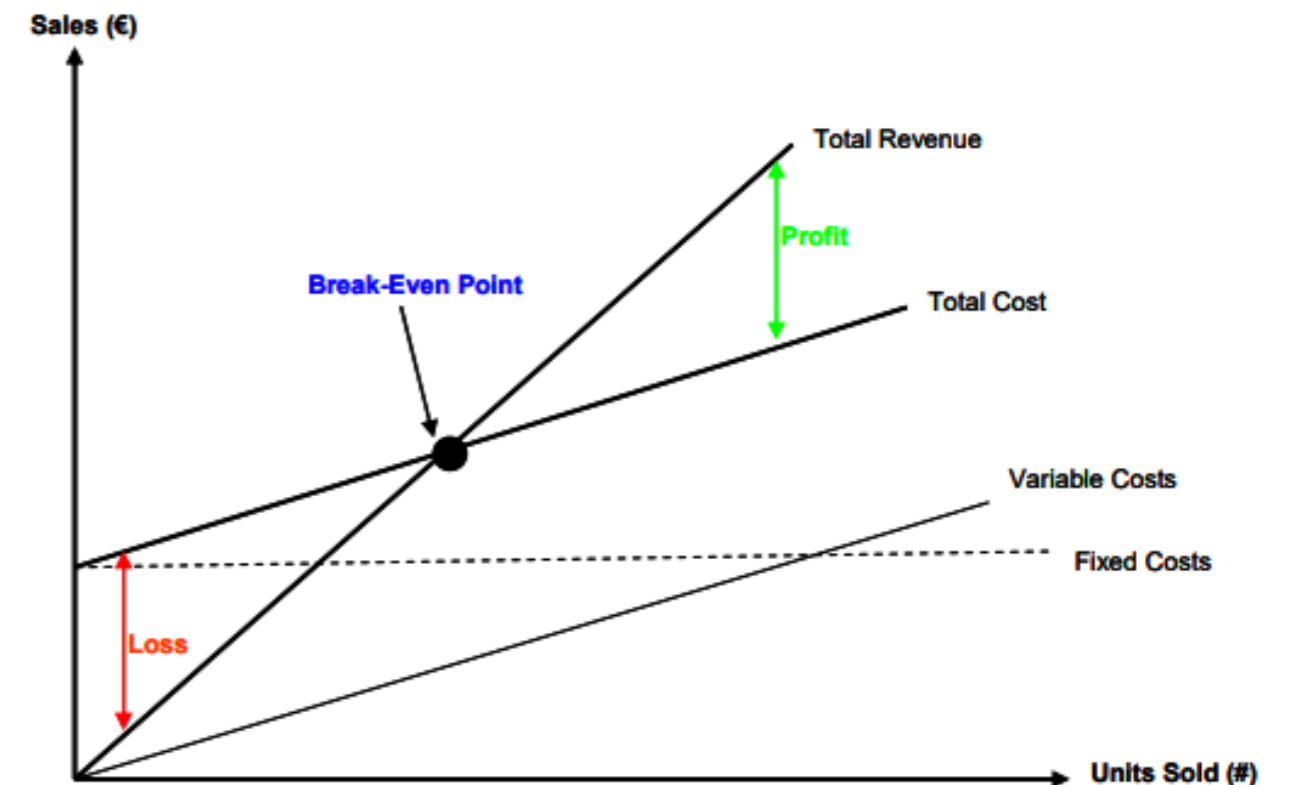
➤ Time framework, main activities: March-December 2018

➤ Coordinator: AAE?

➤ Main Activities: Establishing of Regional Groups. Contracting technical advise. Elaborating Business Plan for Smart Campus development Technology Roadmap in each existing campus, Comparison and exchange of data among Regions

➤ Proposed subtasks:

- Task 3. Business Plan, including Policy Dialogue, Guidelines & Replication: a portfolio of technical, financial and legislative solutions and services
- Task 3.1. Establishing of regional stakeholders group
- Task 3.2. Contracting Advice
- Task 3.3. Business Plan for Smart Campus.
- Task 3.4. Guidelines for Sustainable Smart Campus
- Task 3.5. Summary Report
- Task 3.6. Deployment of Smart Campus among Partnership



➤ Task 4. Management and Communication

The Communication Plan will include the main meetings of the partnership as well as main dissemination actions. The Communication Plan will include dissemination strategy of the project as well as the relations with main stakeholders.

➤ Agreement among partners:

➤ Time framework, main activities: March-December 2018

➤ Coordinator: PACA and AVITEM?

➤ Main Activities: Drafting the Communication Plan. Approving of Communication Plan. Main meetings of the partnership

➤ Proposed subtasks

- Task 4.1. Management and contracting
- Task 4.2. Coordination: main milestones
 - Kick-off Brussels 23th Jan 2018;
 - Lapperanta meeting in Feb 2018 task 1;
 - FVG Meeting in May2018 task 2;
 - EUSEW Bruss June 2018 mid-results;
 - Open Week Oct Brussels task 3;
 - Final meeting Malaga Nov 2018.
- Task 4.2. Drafting the Communication's Plan and Dissemination strategy
- Task 4.3 Approval of the Communion's Plan
- Task 4.4. Disseminating activities and coordination with other S3 partnerships



Debate among members on the consortia on the main potential bottlenecks to be contracted as 3rd party-financed. The main barriers can be overcome with the support of DG REGIO and enhancing the collaboration among partners, including specialised expertise on legal issues, IPR, business development support, taxation, certification procedures and protocols and on the combination of different public and private funding instruments.

➤ Agreement among partners:

➤ Time framework, main activities: March-December 2018

➤ Coordinator: AAE and JRC?

➤ Main issues to be contracted: ideas for Technical, Communication, legal and economical.

➤ **Technical advice?**: For instance in our partnership Task 1.3. Comparative study on Best Available Technology addressed to Smart Campus and replication to other public buildings.

➤ **Travelling cost for participating regions?**: For instance in our partnership as Task 4.2. Coordination Lappeenranta meeting in Feb 2018 task 1; FVG Meeting in May 2018 Task 2; EUSEW Brussels June 2018 mid-results; Open Week Oct Brussels Task 3; Final meeting Malaga Nov.

➤ **Economical, financial and juridical advice?** For instance in our partnership Task 2.3. Partnership Road Map, Tasks 3.3. Business Plan for Smart Campus and Task 3.4. Guidelines for Smart Campus.





Smart Campus Project. Proposed chronogram and main milestones



Main milestones and meetings

- 24th January 2018, Brussels: Kick-off Meeting
- February 2018, meeting in Lappeenranta : Task 1
- May 2018, meeting in FVG Region: Task 2
- June 2018, Brussels, meeting in EUSEW: Mid Results from Smart Campus
- October 2018, Brussels, meeting in EWRC - European Week for Regions and Cities: Task 3
- November 2018, Final meeting in Malaga.
- Other main meetings taking part in partners-countries, commission for discussion and coordination.
- 21 February: Covenant of Majors meeting in Brussels.

More information:

<http://s3platform.jrc.ec.europa.eu/sustainable-buildings>

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