GreenSoul

ICT-platform for higher engagement in energy efficiency among users of public buildings

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One source of unnecessary energy consumption in buildings is the misuse of energy consuming devices and systems. Thus, a conscious use of that devices is essential in order to achieve the EU 20-20-20 targets. The GreenSoul project aims to enhance energy awareness of users and help them change their energy consumption behaviour. This will be succeeded by changing the way people use energy consuming devices and by embedding intelligence in the devices themselves, which could autonomously decide about their operation mode and energy consumption. GreenSoul research and innovation focuses on reduction of energy consumption within public buildings.

Key components

Baseline creation

The GreenSoul project will install an energy monitoring platform at six public buildings (see Figure 1) to evaluate and impact the way people use energy consuming shared and personal devices. The current behaviour of the buildings energy consumption should be modified fundamentally to ensure acceptable energy savings. The evaluation process is based on diversified data material to allow comprehensive results as a baseline. The baseline creation is necessary to model the standard conditions of the building. The baseline model plus an energy audit (current state of pilot sites – see Figure 2) will be the issue to be able to correctly asses the improvements made by the GreenSoul interventions. The models created within this phase will be updated after every piloting phase in order to take into consideration any potential modification of the behaviour of the building.

Pilot Buildings

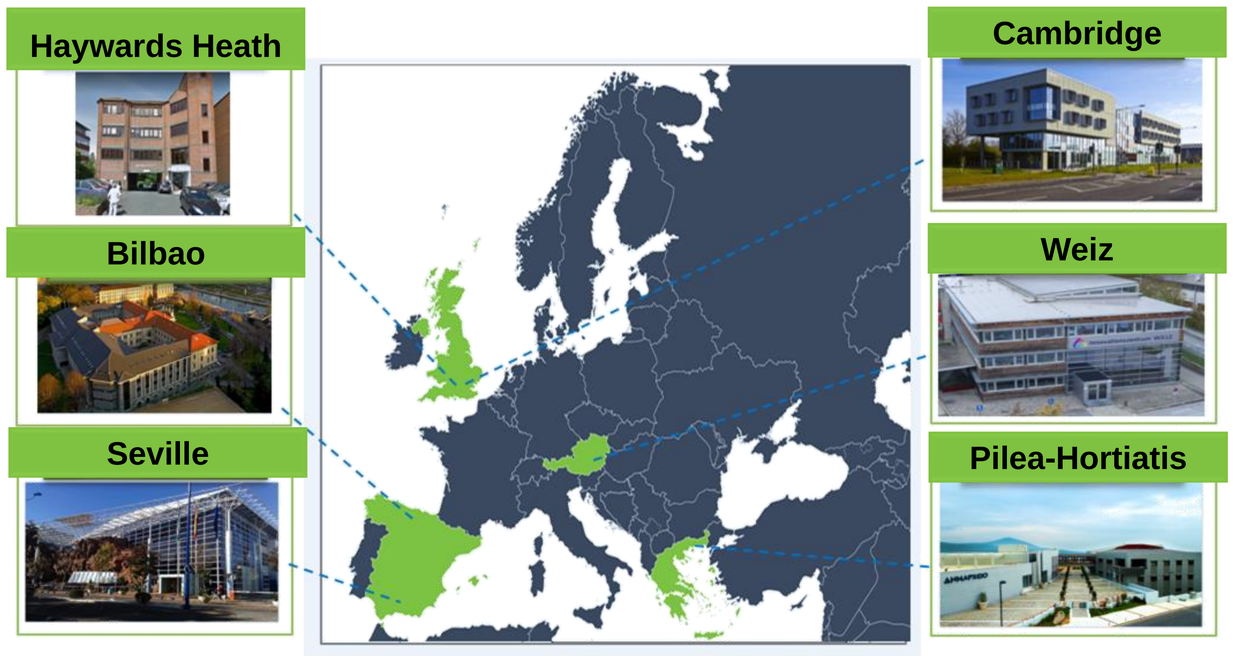


Figure 1: GreenSoul pilot buildings

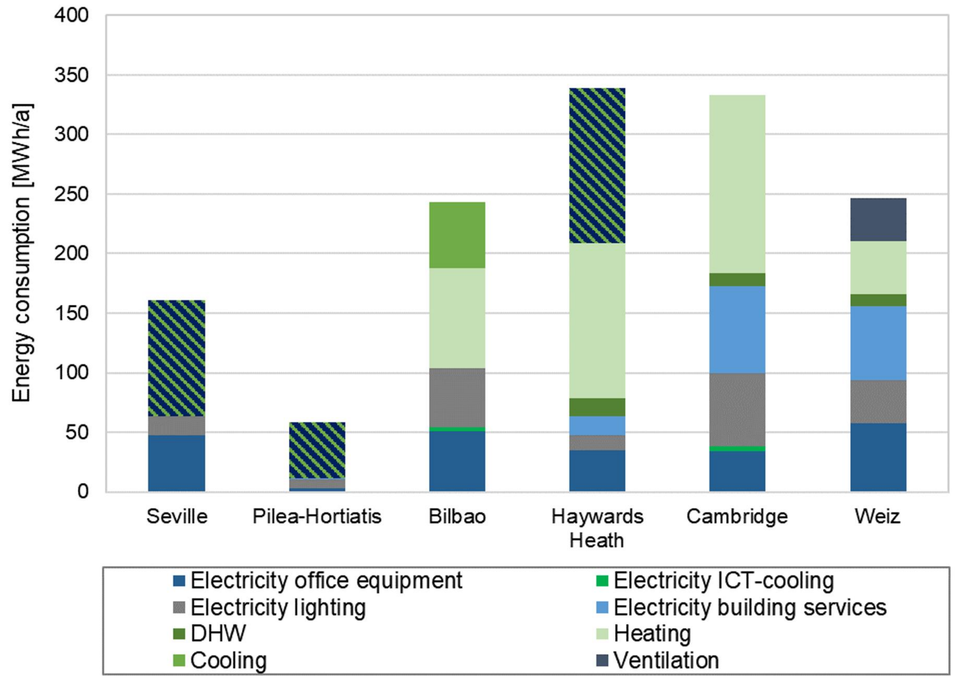
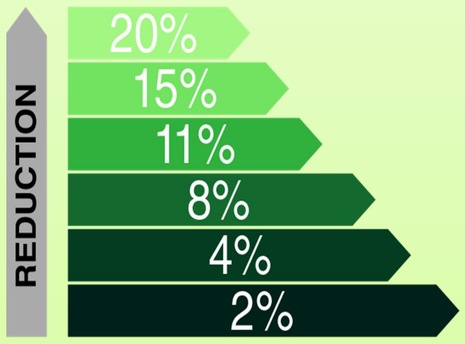


Figure 2: Distribution of energy usage within the pilot areas

Expected Impact

GreenSoul research and innovation focus on the reduction of the energy misuse in public spaces. The purpose is to design and develop an integrated ICT platform which will help to reach an expected reduction in energy efficiency of about 20 %.



6. Intelligent control at device level (- 5%)
5. Manual control due to behaviour change (- 4%)
4. Awareness through GreenSoul platform (- 3%)
3. Energy awareness spread to personnel (- 4%)
2. Awareness of building energy manager (- 3%)
1. Smart monitoring (- 2%)

Partners

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