

# SMART BUILDING: AN APP FOR DETECTING PEOPLE IN A BUILDING

**Innovations and Benefits** - The goal of this app for smartphone/tablet is to allow a Central System (Building Energy Management System BEMS) to understand if people are present in a specific area or room of a building in order to optimize the demand of energy resources (heating, air conditioned, lightning etc.).

**Use** - Energy management of building networks and residential complexes consisting of several buildings (urban districts, facilities). The model is suitable for the tertiary sector (offices), residential (condos, social housing, etc.), both for new buildings and smart districts and for existing buildings where it represents the most competitive method to reduce energy consumption. The service allows for energy reductions of between 25 and 40% (in relation to the age and difficulty of the network) with return on investment times of between 3 and 6 years for networks over 10 buildings.

**Past and present activities** - The application has been developed and tested in the buildings and offices of the ENEA Casaccia Center and is available in the Google Play Store. A server system has also been developed that plays the role of BEMS. It is currently being updated to improve its performance. It can be flexibly adapted to different contexts and needs.

