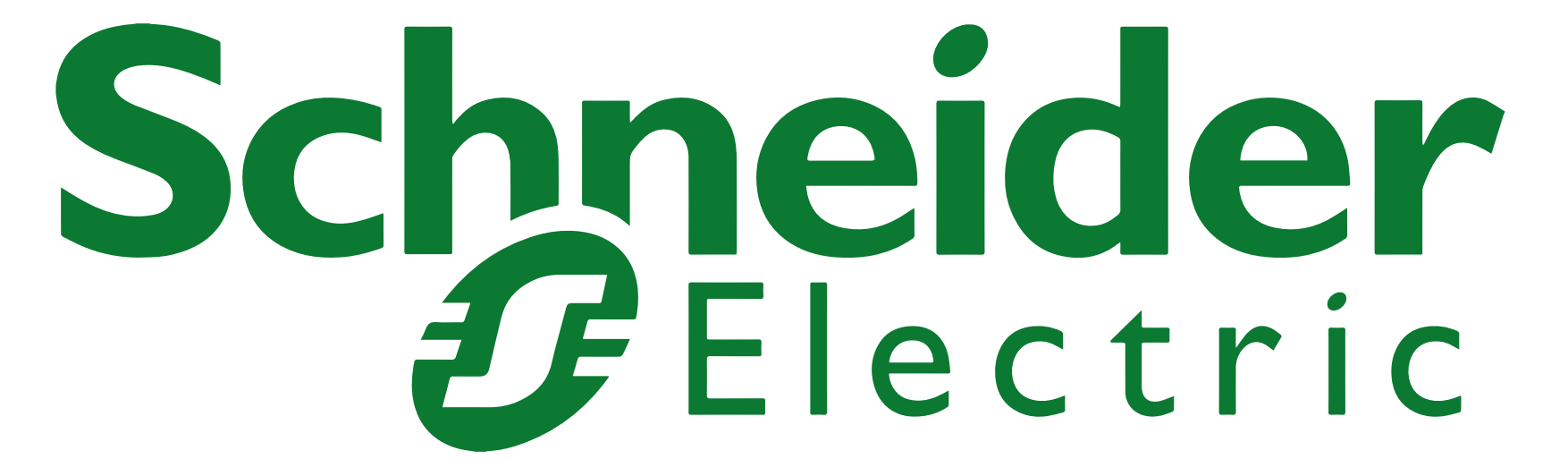




# CommONEnergy



## PEOPLE MOVEMENTS TRACKING

Knowing how people move inside a shopping centre is one of the most useful information for the managers.

It allows to conceive and design stores where the different applications are working in harmony with the people inside the store, opening new possibilities for efficiency as well as promotion / advertising.

In addition, the movements tracking is completely anonymous and not subject to any limitation related to people privacy.

### TECHNOLOGY



### USE

The application is available for any kind of commercial building and is highly modular. Different stakeholders may be interested by the information:

- the overall counting is useful for the facility manager or the security manager;
- the waiting time in the cash area is useful for the store manager to improve the customer satisfaction, for instance by opening directly new supermarket checkouts when needed, etc.

Each tracking sensor covers a designed area and the number of sensors can be unlimited, calculated based on the specific application.

The sensors are applicable both on new and existing buildings, requiring only a cabled Ethernet LAN with a number of ports equal to the number of installed sensors.

### INNOVATIVE POTENTIAL

The movements analysis allows knowing the zones with more people concentration (useful information to sell the advertising spaces in that area) or how much time the people spend waiting in a zone (e.g. the cash area).

Counting the people present in an area (or in the whole shopping centre) is a useful information for safety purposes or to use with maximum efficiency the different plants (lighting, heating, cooling) dedicated to that area.

### FEATURES

The people movements tracking has the following characteristics:

- Each sensor can track the movements of a single person inside the defined area
- Each sensor can speak with the adjacent sensors (dedicated to an adjacent area) to follow the track of a person
- Each sensor can define the number of people going through a virtual line defined by the user
- Each sensor can calculate the time a person spends inside a defined area
- Combining the information coming from more than one sensor (entry / exit) can allow estimating the number of people in an area / the whole shopping centre.



Photo from the tracker, with graphical representation of people entering

### COMPATIBILITY WITH OTHER TECHNOLOGIES

The people movements tracking is integrated, using web-services, to the iBEMS (intelligent Building Energy Management System, see flyer).

The application through the iBEMS is connected to all other components and the values can be used for system adjustment.

In parallel, the people movements tracking is a stand-alone web server and can be accessed for live monitoring from the sensors.

### BENEFITS

**BENEFITS FOR SHOPPING CENTRES' VISITORS:**



- Less time waiting in the cash machines / checkouts thanks to an action taken by the shopping centre manager based on the People Movements Tracking data
- Ability for the shopping centre's manager to show on their website the peak periods in terms of visitors

**BENEFITS FOR THE SHOPPING CENTRE MANAGER:**



- Analytics of visitors in the shopping centre (analysis per hour, per day and per area)
- Optimisation of the management of all plants using prediction algorithms with data from the People Movements Tracking
- Promotions for the shopping centre can be deployed on specific time slots using information from the application's data

### CASE STUDIES

The people movements tracking is implemented in the COOP Modena Canaletto (Italy) demo case.



### CONTACT DETAILS

**FRANCESCO ROSSI**  
francesco.rossi@schneider-electric.com

**STEFANO MANGILI**  
stefano.mangili@schneider-electric.com

The project CommONEnergy (2013-2017) focuses on transforming shopping centres into energy efficient and high-indoor-environmental-quality buildings, by developing smart renovation strategies and solutions supporting their implementation and assessing their environmental and social impact.

- 3 demo cases, 8 reference buildings & 23 partners from across Europe
- 25 technologies developed and installed in 4 years
- Up to 75% reduction of energy demand, leading to costs reduction
- A payback time of maximum 7 years

