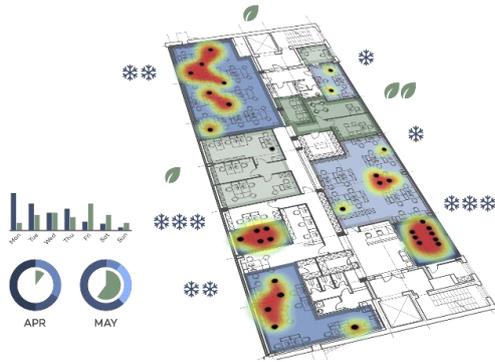




# GDPR-compatible People Counter



**Challenges:** Inefficiencies through varying occupation of rented spaces, and lacking insight in business relevant human behaviour

**Approach:** Utilizing AI powered GDPR-compatible sensors accumulating flow data to generate business insight.

**Outcome:** Occupation insight, easy to integrate with existing systems through web API.

## Challenges from the industry

Aspects of space management involve the understanding of how an organization is using rented spaces or how customers are moving in a retail store.

Without real-time data on this human behaviour, many decisions are based on rough calculations, estimations, or reference numbers from other organisations. This comes with an extra cost for utilities like heating and lighting as well as rent, and the inability to react to sudden or subtle changes.

On another scale, incorrectly dimensioned shared spaces, like meeting rooms, seating areas, cashiers, or counters can cause bottle necks or unnecessary cost. Without tangible information on usage patterns, business can suffer from the impact of a compromising space layout and in return lose their employees' efficiency through frustration.

## Service and Approach

Automated space management solutions such as Computer Aided Facility Management (CAFM) and Integrated Workplace Management Systems (IWMS) have successfully lowered operating costs, avoided bottle necks for retail, and thereby increased efficiency for many companies.

AFRY helps their customers to get the needed insight through an AI/ML powered sensor solution which protects the privacy of the people, while extracting

occupancy insights, and feeding data to the space management systems.

Through a well proven machine learning algorithm, using a deep neural network, the use of edge computing and encryption, Flowity extracts anonymous data from video input. The System is capable of actually positioning individuals giving insight to their walking trajectories and behaviours. Also, more granular data such as gender distribution and proportion of adolescents and adults can be retrieved.

## Expected Outcome

The Flowity System can be installed at a customer to give immediate insight in business relevant, human behaviour. Alternatively, it can be integrated within the existing video system.

The occupation insights can be accessed in real time through a web interface, or can be integrated into existing systems via the Flowity API through standard protocols like WIFI, MQTT, MODBUS, OPC UA.



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