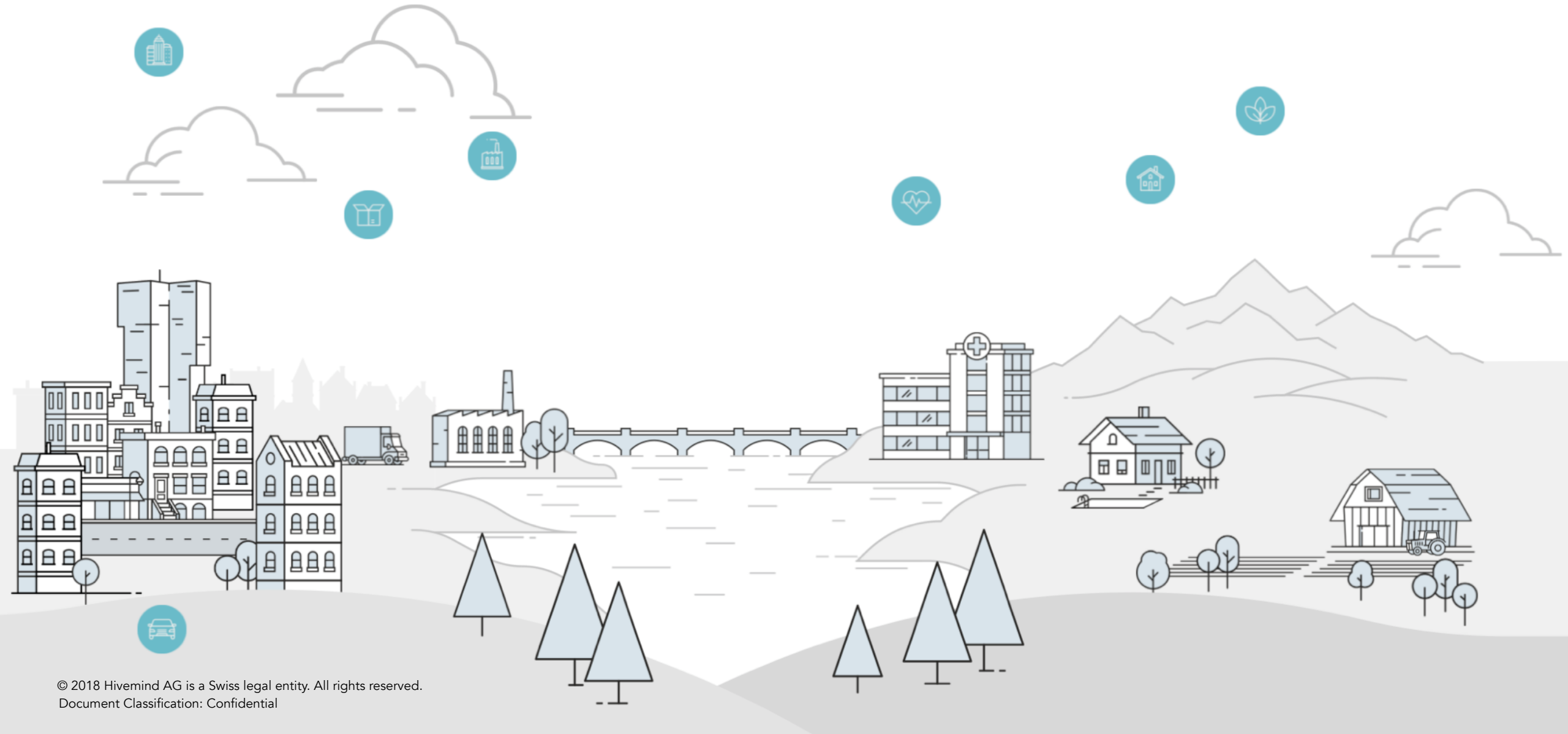


## Introduction

July 2018



# About Hivemind AG

We are a dynamic, creative and agile Swiss company. We enable the digital transformation of companies and cities through the Internet of Things and lead the innovation process within the digital revolution. Our hardware, connectivity and software specialists strive to change the world. Our experienced executives see and define visions for a sustainable digital future.

**"The future of service providers lies in the networking and automation of their value added processes in order to optimize them in a targeted manner and thus remain competitive in the long term."**

# Agenda

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# Hivemind: Leading edge of IoT evolution

The “Internet of Things” is a growing strategic trend as everyday objects connect to the internet, allowing them to share information so that they can learn and adapt for efficiency and greater functionality. These digital networks can range from global manufacturing processes to smart appliances in a consumer’s home leading to tremendous opportunity for businesses in every sector.

Hivemind has helped clients to develop solutions in new and emerging fields leading digitally interconnected innovation. Functions such as Industrial Internet, Distributed Mobility, Consumer Lifestyle Innovation and Global Digital are in high demand and relate directly to the interconnected, adaptive-learning power of the Internet of Things.

We’ve assemble a network of experts that lead technology practice. Hivemind AG is uniquely positioned to provide strategic leadership services and solutions to meet client’s talent and needs relating to the Internet of Things.



# Solutions and Portfolio

## **Hivemind IoT Platform** - Managed Service Platform

- Device Management, Global Carrier Network, IoT Application Enablement

## **Software Development** / ProServ

- Application development, Enterprise System Integration, Continuous integration,

## **Consulting Engineering**

- Design, Plan, Integration, Execution

# Hivemind IoT Platform

Hivemind IoT Platform is a highly scalable collection of web services to connect, manage and maintain IoT devices. By using Hivemind IoT Platform you have access to state of the art technologies while benefiting from a thoughtful designed user experience. Hivemind's IoT Platform cloud-based backend offers all the opportunities you need for powerful application enablement.

Hivemind IoT Platform offers you a library of Devices Templates and data source integrations for you to start right away!



# Hivemind IoT Platform

## - Connectivity Manager

- LoRaWAN, 2G/3G, 4G/LTE, NB-IoT, HTTP, MQTT, COAP
- Custom Connectivity

## - Device Management

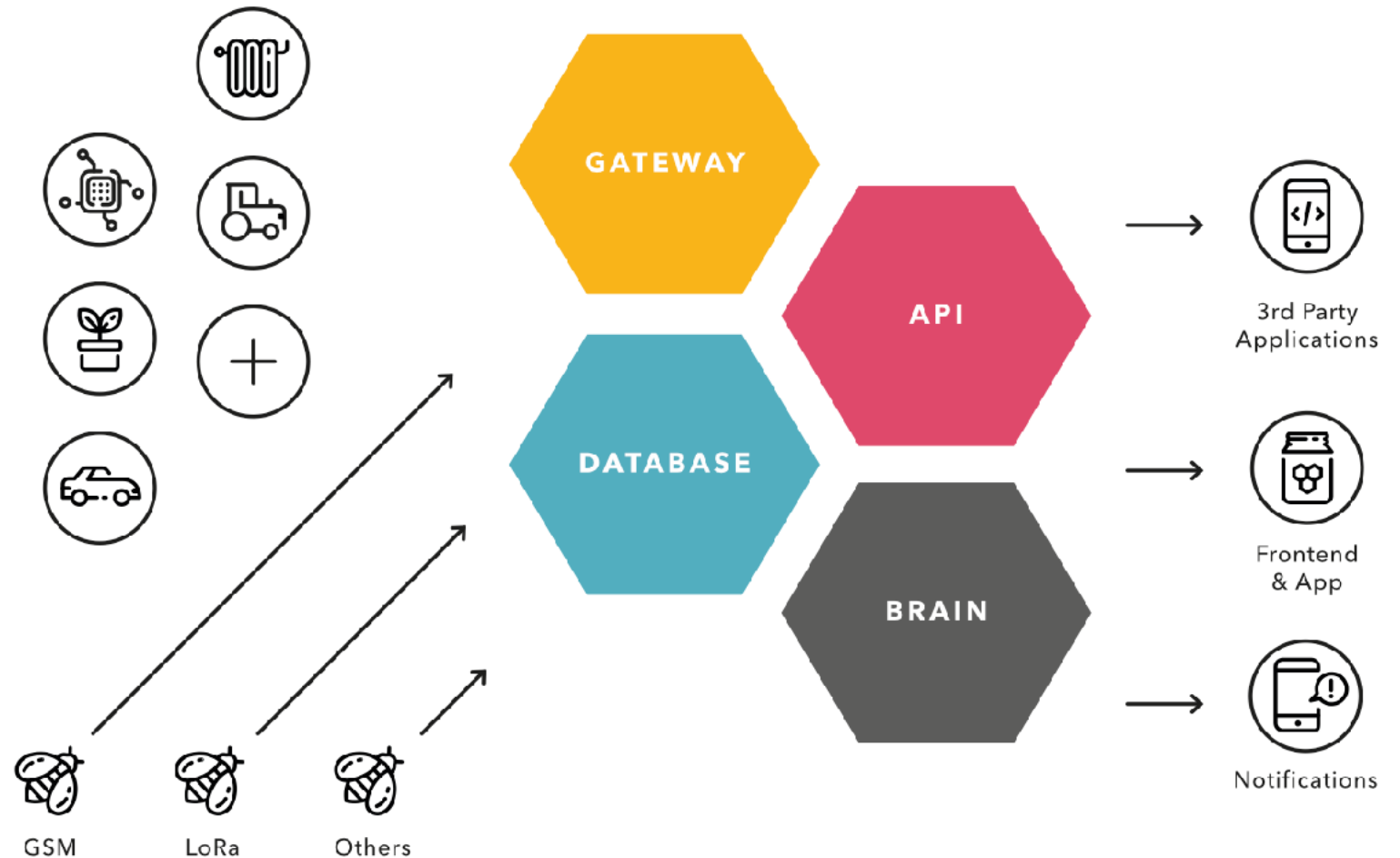
- Device Typ Management
- Device Typ Library
- Data Parsing
- Sensor data
- Logs

## - Rule Engine (Brain)

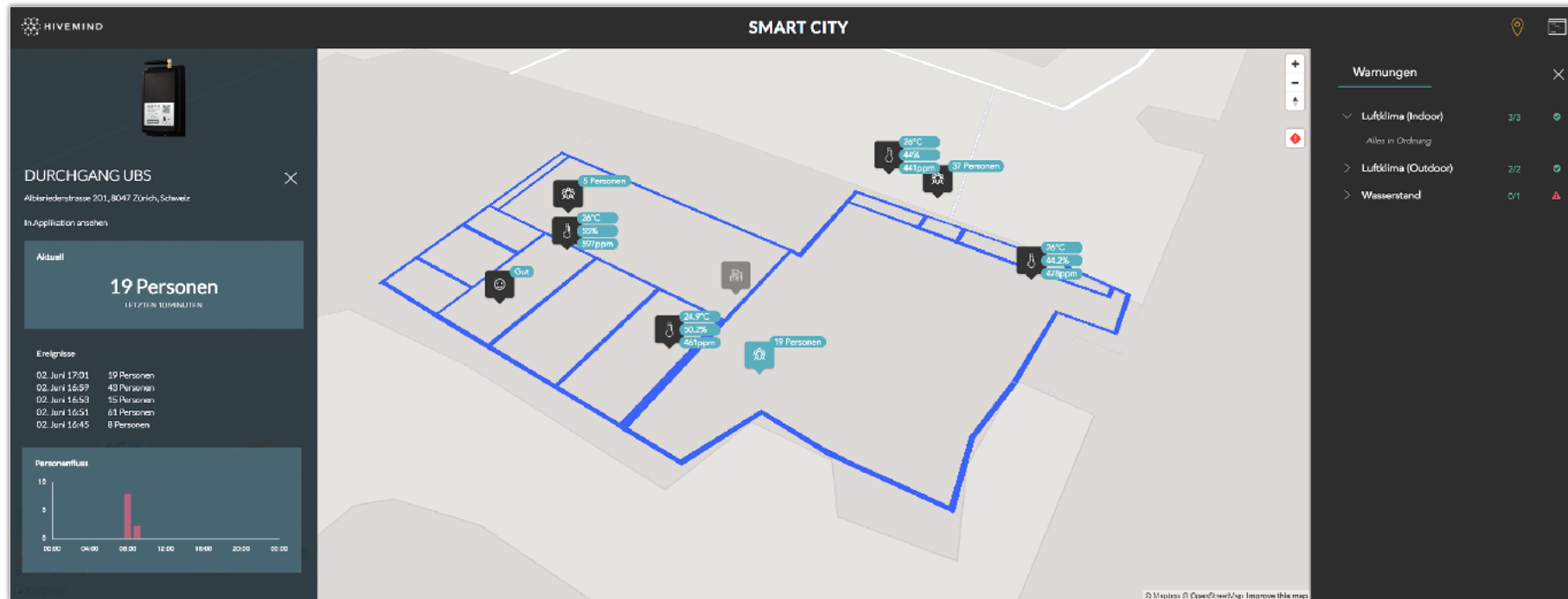
- Event driven actions
- Rule Type Logic
- Storage Management

## - Integrations

- Rest API
- Enterprise (Microsoft Azure, Salesforce.com, Tableau)
- Carriers (Swisscom, Lorient, Tracknet, TTN)



# Smart Framework



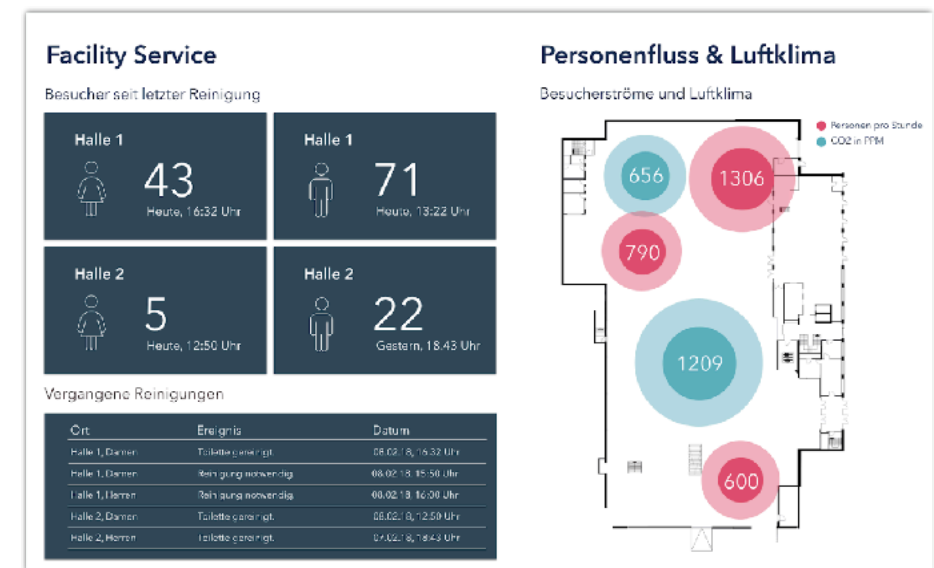
The Hivemind Smart Framework obtains the data from the Hivemind IoT Platform and enables the clear and map based representation of a wide variety of specialized applications or individual sensors in cities, neighborhoods and buildings.

# Business Applications

Individual specialist applications based on the smart framework allow the application-specific presentation of the desired data.

The applications are adapted to the respective user groups. The data can be optimally visualized and used.

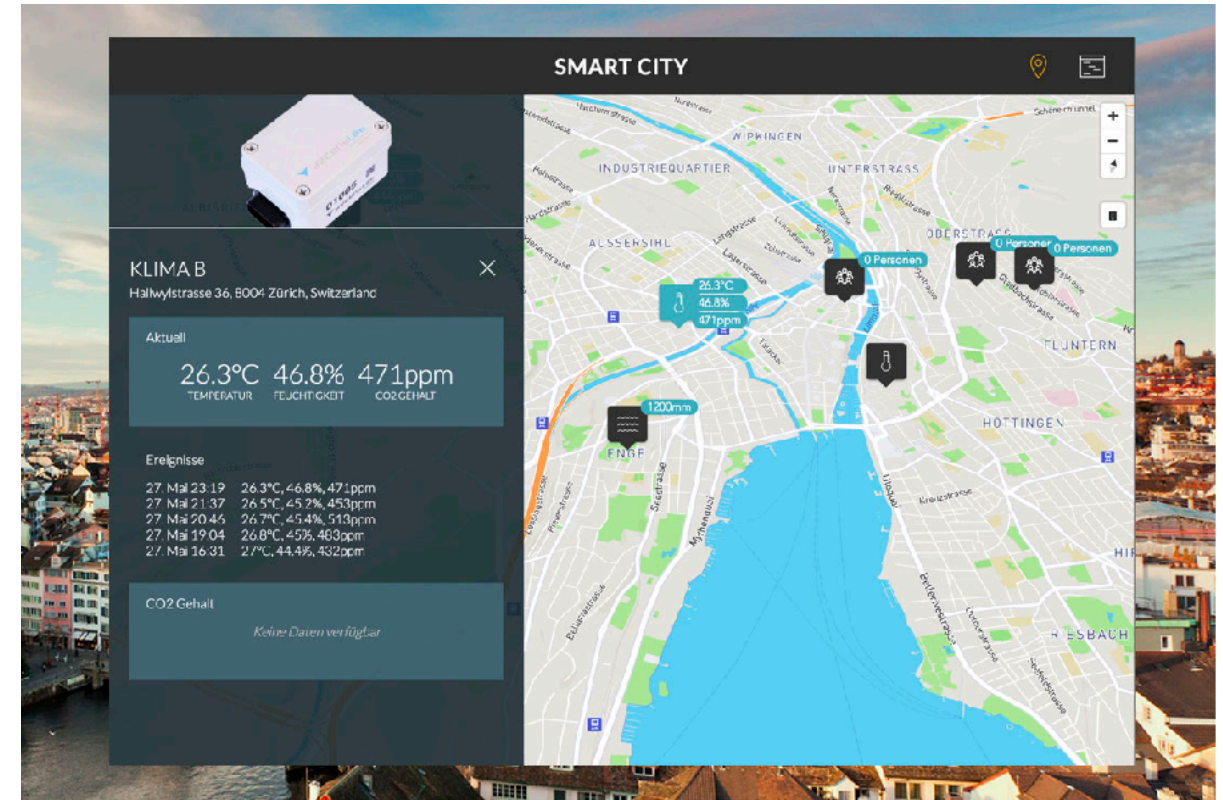
Rule-based data values allow the automatic triggering of messages or alarms and the optimization of corresponding business processes.



# Smart City

Based on the Hivemind IoT Platform, Hivemind and Partner Cities such as Basel and Zürich have developed an application, which makes it possible to easily and quickly map use cases in the Smart City and Facility Management areas.

The SmartCity Cockpit has a clear map view that enables overall coordinators to oversee all existing use cases and needs. Detailed visualizations in corresponding specialist applications enable in depth analysis and actions by the operations responsible.



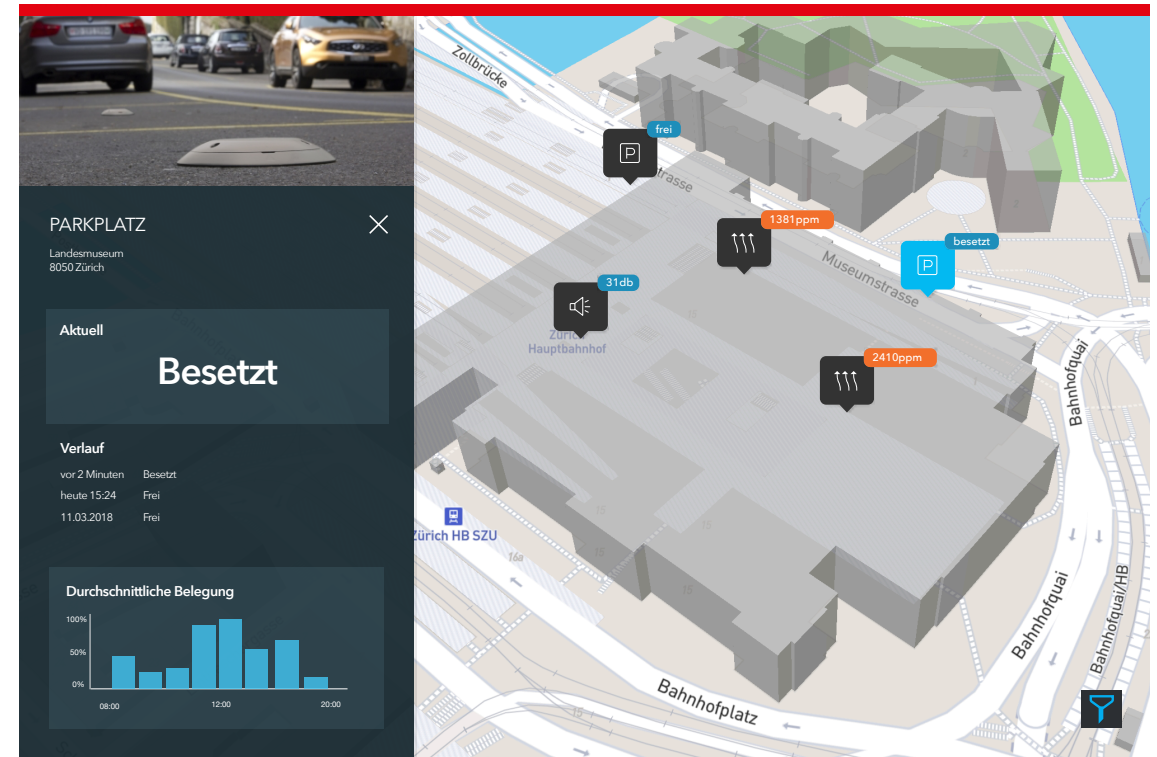
# Smart Facility

The Hivemind smart facility application can be combined with existing home automation solutions and adds the human factor to the smart building ecosystem.

The smart facility application helps to optimize the use of space and enables smart communication between sensors, building users and operators.

This can, for example, reduce heating costs, improve air quality with fresh air supply, and optimize service.

Facility Managers receive new insights into needs and optimization potential





# Smart Agriculture

Together with the farmers association of Bern and the Swiss Federal Department of Agriculture, Hivemind is currently developing a smart agriculture application. A wide variety of agricultural sensors are linked via the Hivemind IoT Platform and displayed within the specific smart agriculture application.

The system can be expanded at any time and can also access existing data sources such as weather APIs.

Goal is the creation of an open smart farming IoT ecosystem.

The data can be accessed via mobile devices or a web interface and should support the farmers with data-driven action plans.





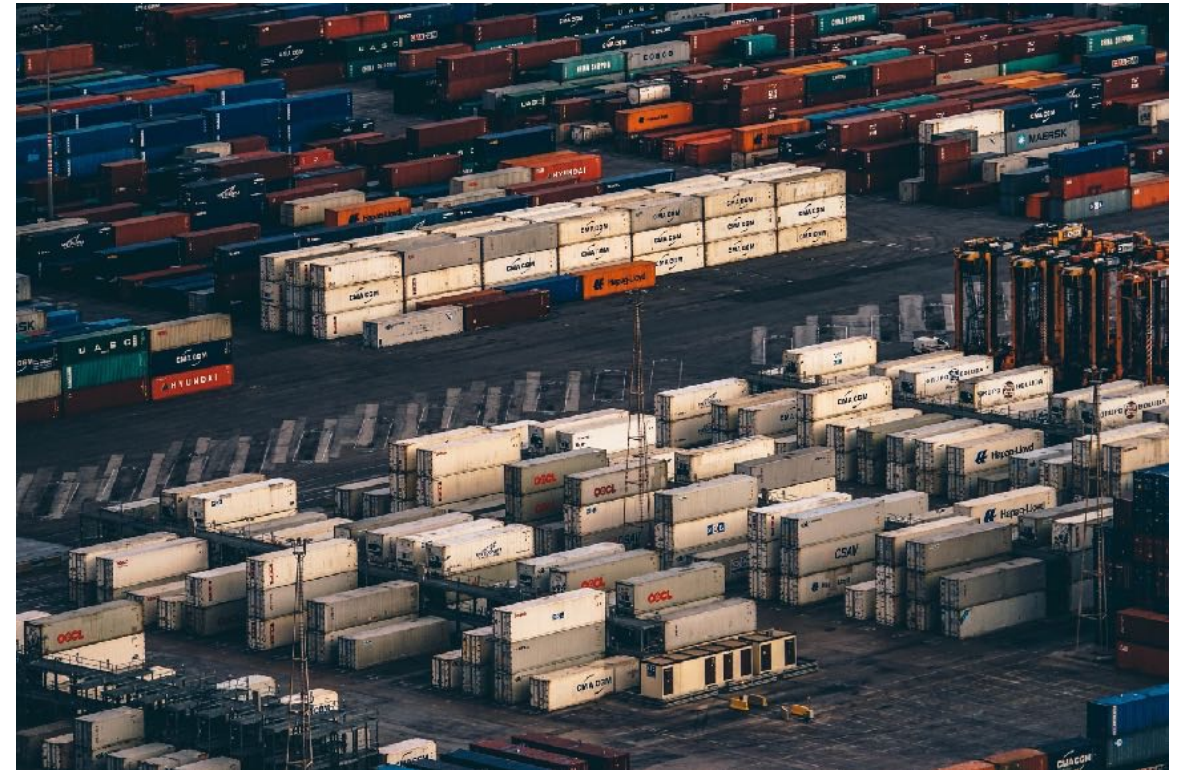
# Smart Logistics

The installation of sensors along the transport chain enables our partner to gain instant access to his logistics information.

Transport Documents, Temperature and current Location are constantly available. Problems such as gaps in the cooling chain can be addressed instantly.

Responsibilities for losses are documented and can be addressed.

- Realtime shipping tracing and alerts
- Cold chain integrity
- Accountability in case of incident
- Realtime Location Informations
- Low costs and high impact



# Smart Health

IoT offers extensive capabilities and use cases within the health sector. Using a combination of various wireless communication channels, devices are always online while recording biomedical data. The data can be analyzed quickly by complex software platforms giving doctors more insight into the patient's condition. Patients can move freely allowing them a more comfortable experience. Doctors have the ability to remotely analyze patients, even if they are in the city, in the parks around the hospital, or at home.

