



# Smart Building IP500

LEADING  
THE CHANGE



IP500® Alliance

Change of an old, traditional lighting to LED lighting  
**with IP500 wireless technology** will deliver all these  
attempts at the same time

# Smart Building IP500



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**using LED lights** with IP500 wireless technology  
**saves 25% - 60% energia**



**IP500** is used for administration and control of LED



**IP500** further used for wireless sensor connectivity



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- access control
- HVAC management
- positioning & navigation
- asset gtracking
- analytics
- makes future planning easier

## What makes IP500 different

**Interoperability** for **all sensors** from **different OEM's**

in **one** network (at RF and network level)

**TRUE Dual Band hopping Technology**

**Performance** with up to **500/1250 kBit/s**

**Scalability**

**Redundancy & Security** "SKALARIX" redundancy database management plus  
highest security according to Async-Crypto-Key-Exchange

**Mesh Network** without fix routes which **serves as "indoor GPS"**

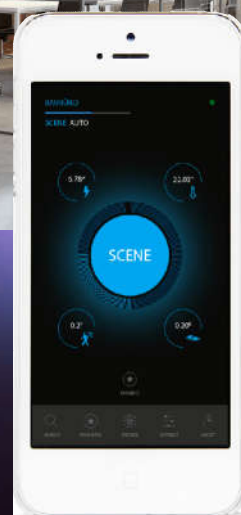


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# A SINGLE PLATFORM FOR LIGHTING AND BUILDING INTELLIGENCE

- fine grain sensor network deployed at every fixture
- on/off occupancy sensing
- ambient light detection creates daylight harvesting functionality
- presentation and other custom modes controlled via mobile device
- unparalleled energy savings





## Luminaire as technology carriers



### Luminaire as technology carriers

- Voltage supply via luminaire

### One contact person (GC)

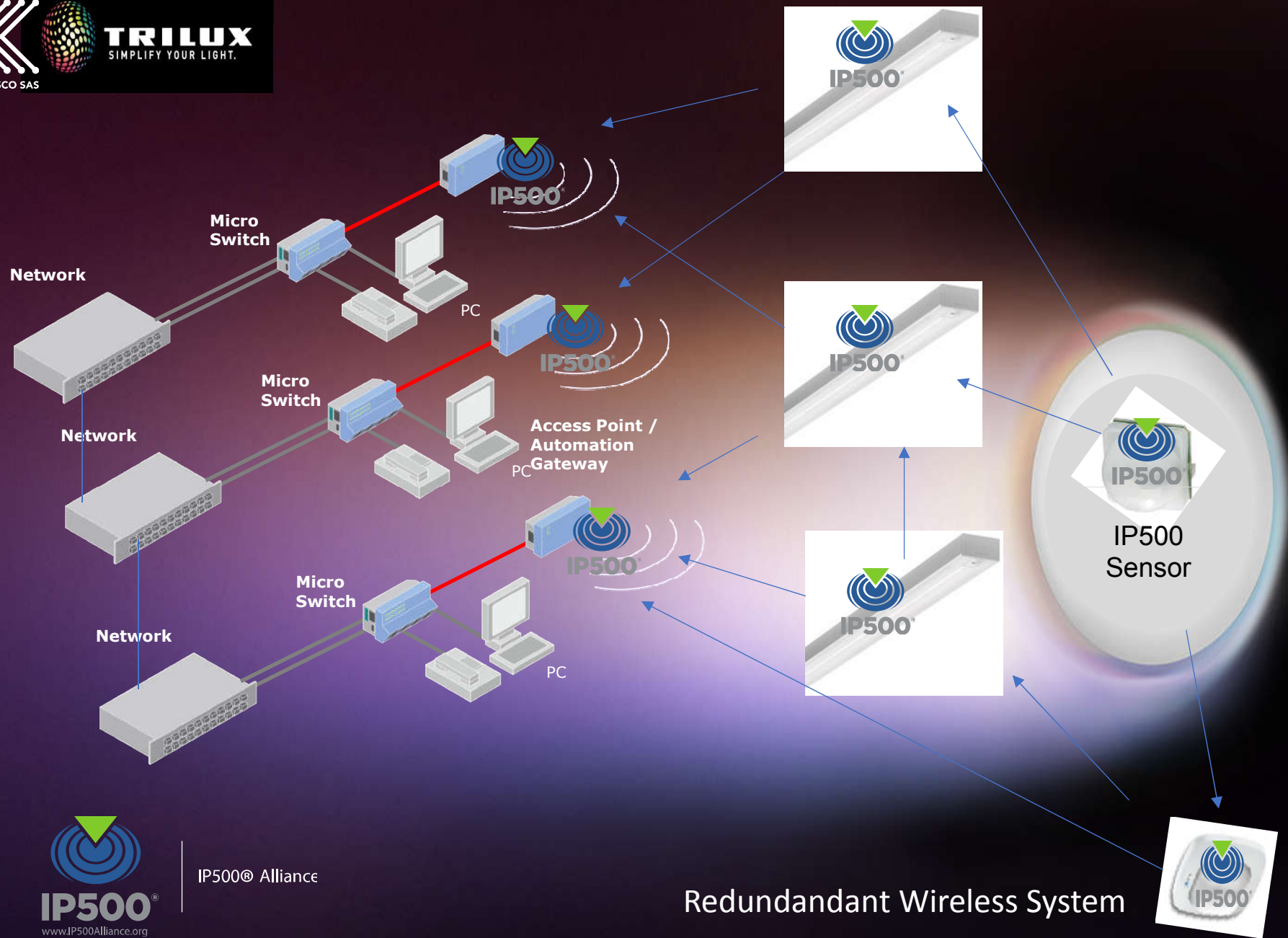
- Consulting incl. lighting design
- Professional project management
- Installation and commissioning

### Reduced expenditures

- Reduced installation effort
- Reduced costs

### Cloud-based services

- Energy Monitoring
- Light Monitoring





## LIGHT / Room / Building MANAGEMENT

- **INTELLIGENT CONTROLS ARE THE FUTURE**
- If lighting comfort and energy efficiency are to be fully exploited, personally designable and individually controllable light cannot be dispensed with
- **Simple planning**
- **HCL integration**
- **Quick installation**
- **Intuitive operation**



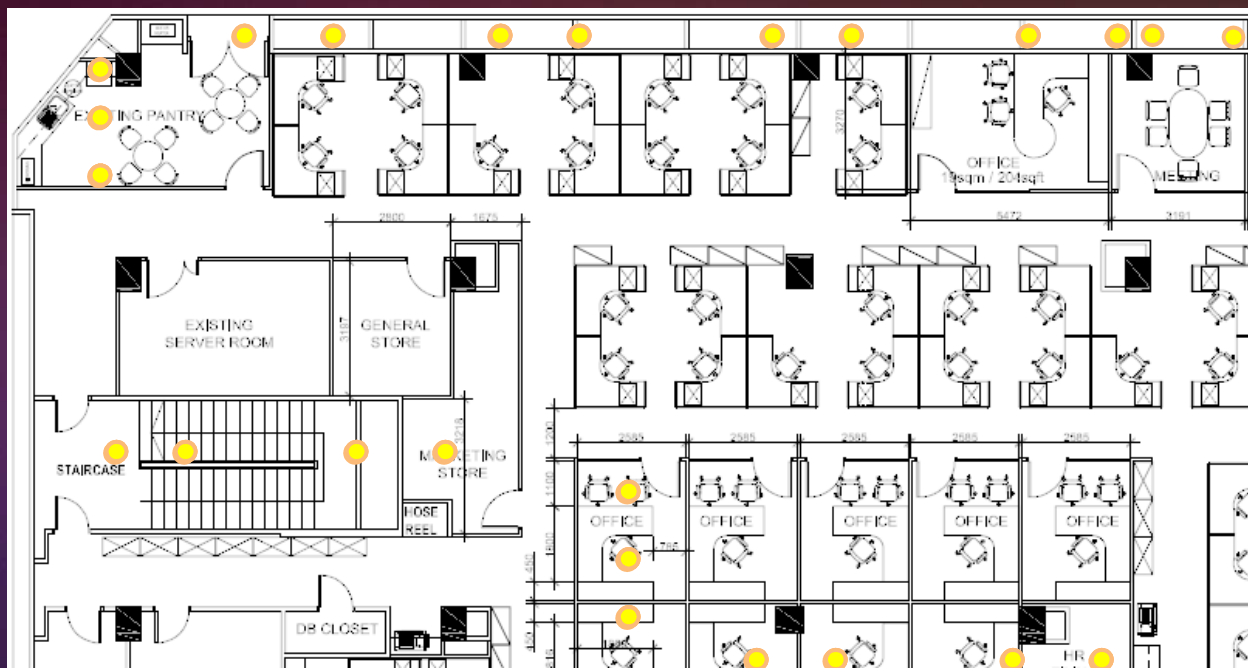
Simple planning



HCL integration



Quick installation



## EVACUATION MODE

like an airline using guiding lights.

the lights flash in a present sequence to guide occupants towards the emergency exist during an evacuation

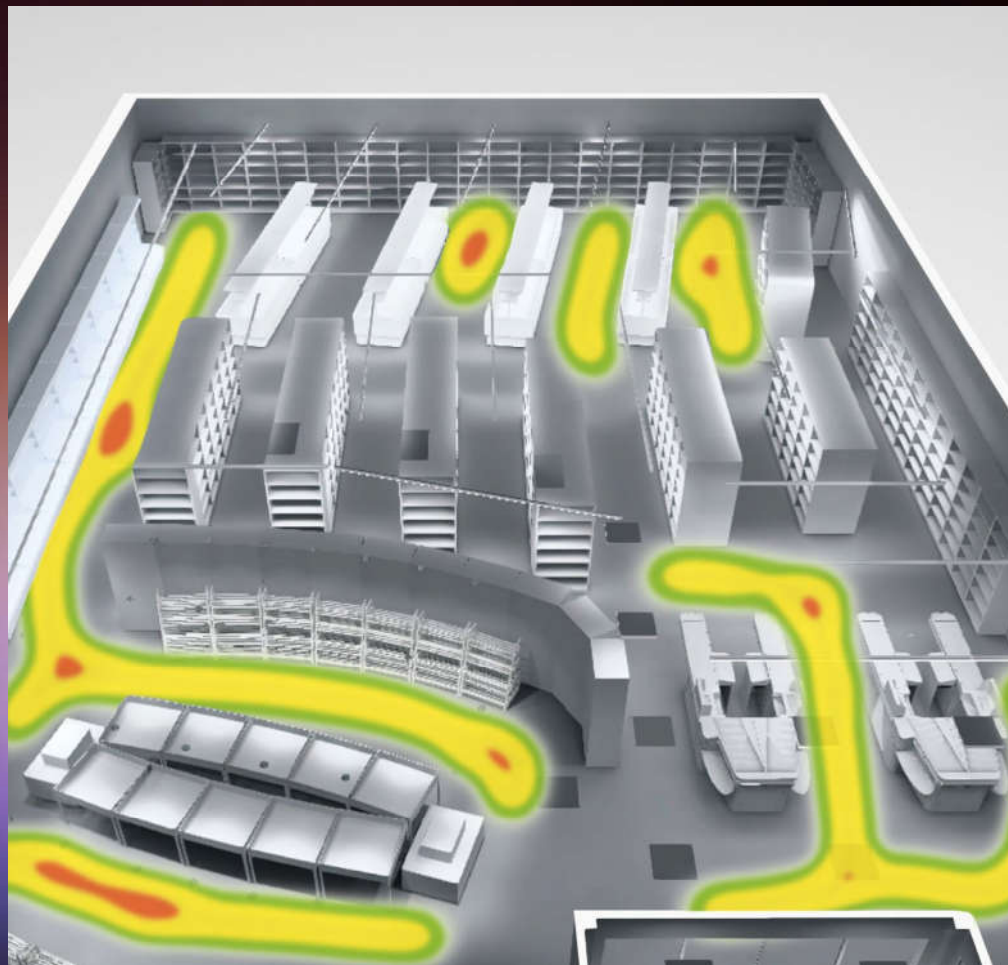
## Services & benefits



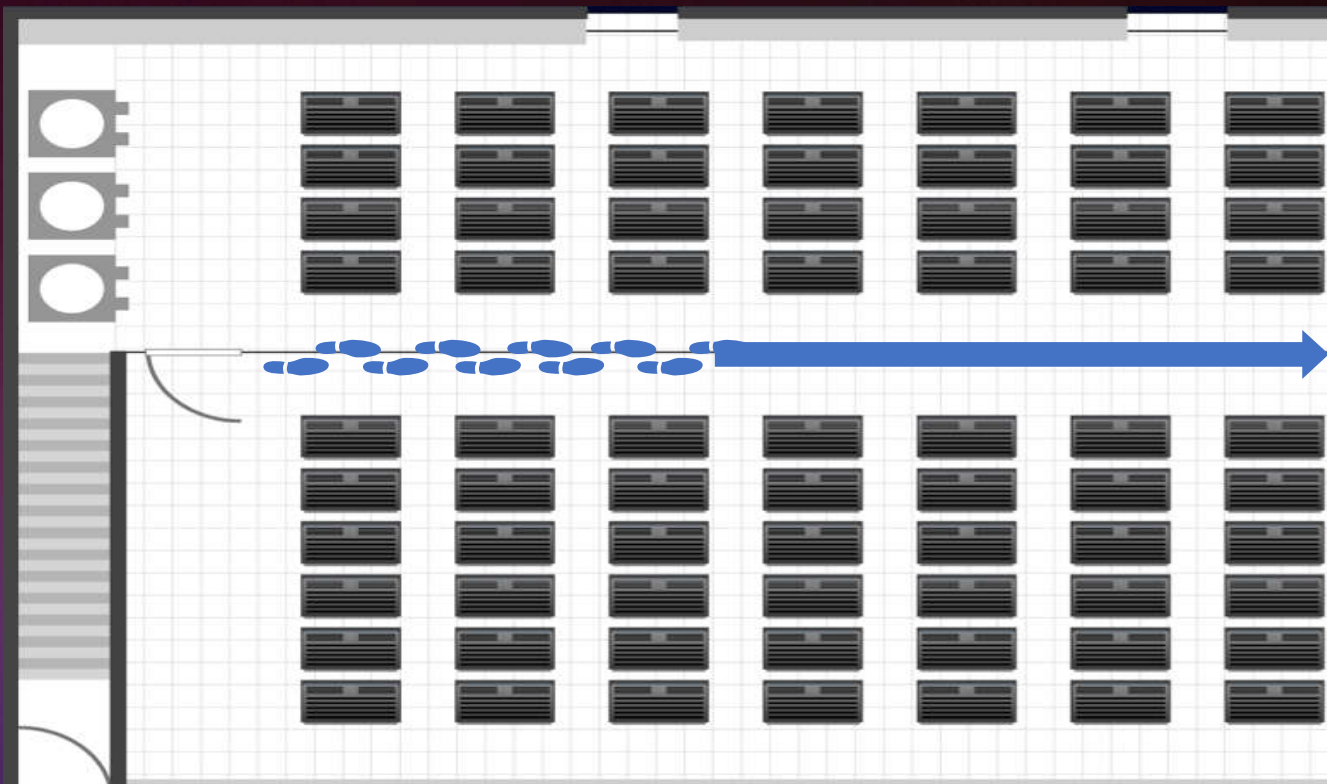
### DATA VISUALISATION

The gathered data is processed and visualised, enabling you to utilise your information to directly increase efficiency.

E.g., a **heat map** can illustrate where the most traffic is generated in order to individually optimise **sales promotion processes**.



# MOTION DETECTION SECURITY ALERTS



Alarms				
Date/Time	Severity	Type	Description	
02/19/2014 10:44	ALERT	OCCUPANCY	Motion has been detected in location '/1st Floor North/Comms Room 1st Floor'.	
02/19/2014 10:44	ALERT	OCCUPANCY	Motion has been detected in location '/1st Floor North/1st Floor Comms Room Lobby'.	

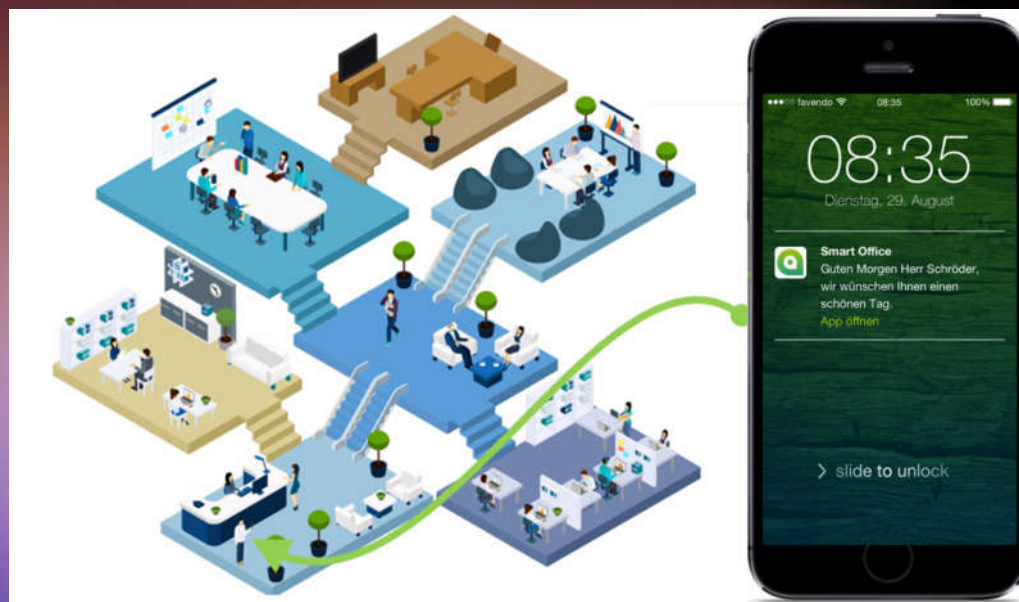


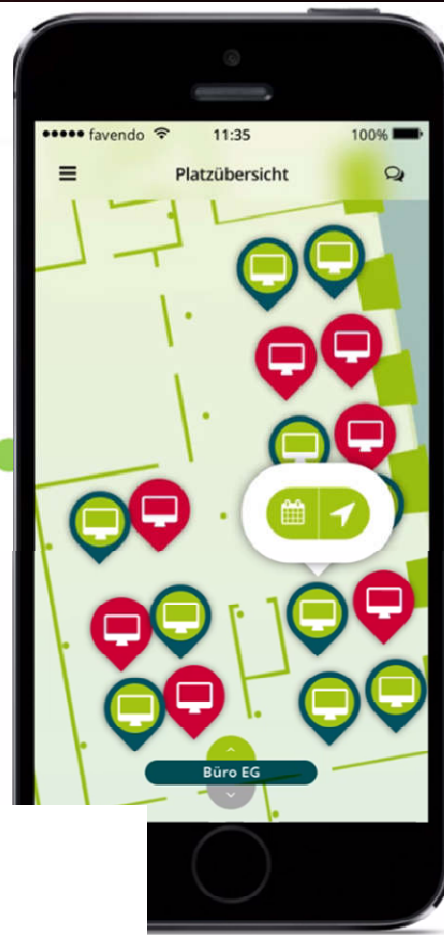
## Services & benefits



### LOCATION BASED NOTIFICATIONS

Employees receive location-based and time-based notifications as they enter the office building.





## Services & benefits



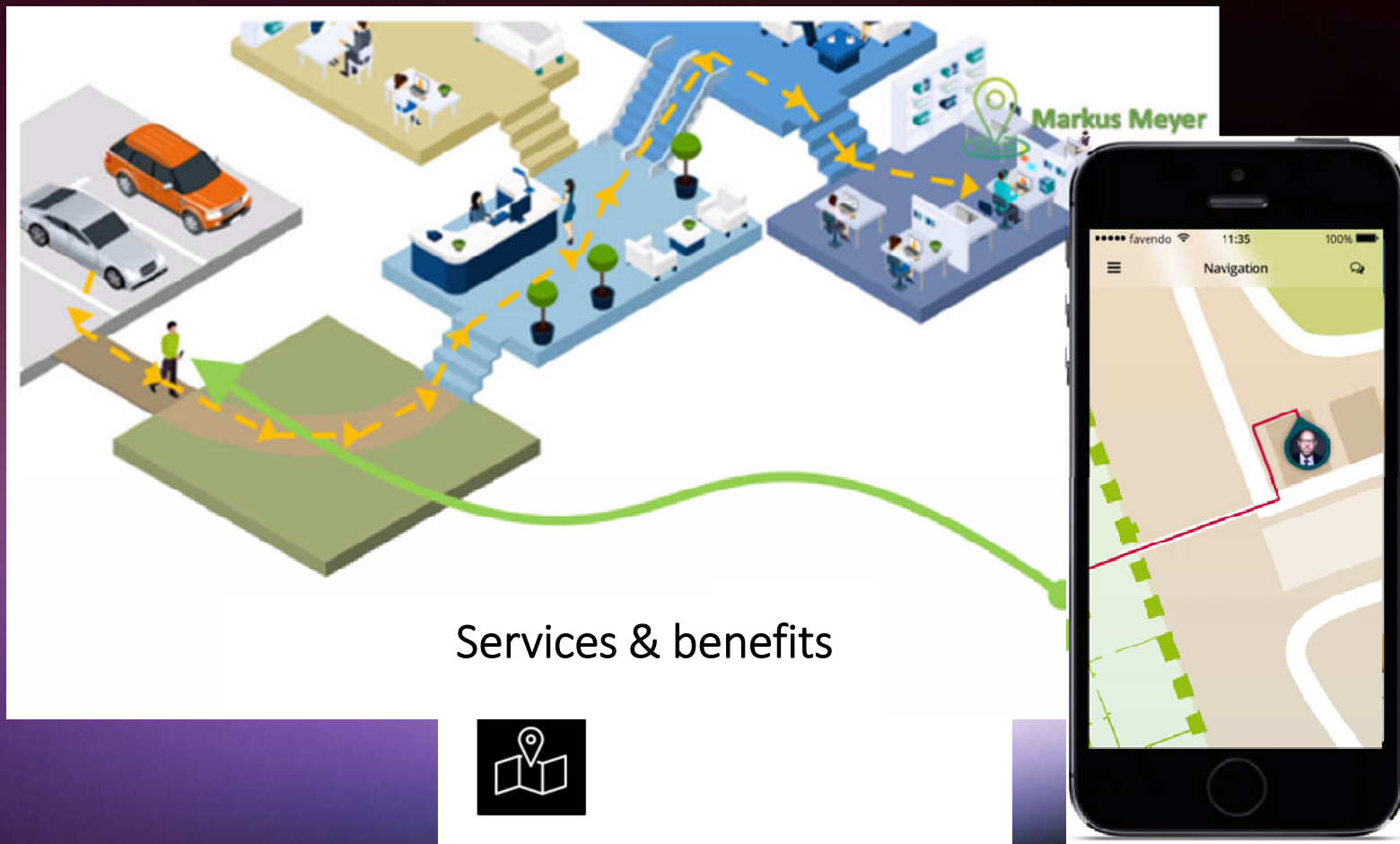
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## AVAILABILITY & OCCUPANCY INFORMATIONS

Overview of the current occupancy of the workplaces



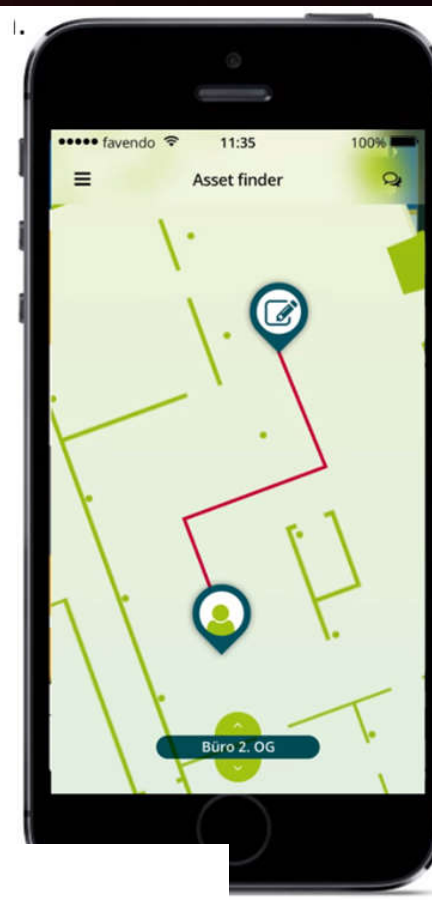


## Services & benefits



### INDOOR POSITIONING AND INDOOR NAVIGATION

Employees as well as visitors are able to be navigated from the car park to the location of a contact.



## Services & benefits



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## INDOOR NAVIGATION & ASSET TRACKING

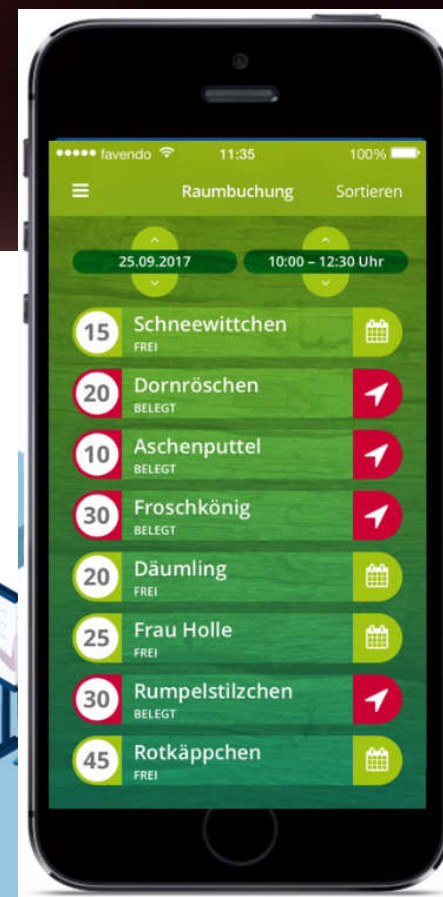
Employees are able to track portable assets like flipcharts and to be navigated to them.

## Services & benefits



### STATUS VISUALIZATION

Status visualization as well as booking of meeting rooms.



## Future !?

- 3D Sensor Technology – how many people, Health, where are they
- Face Detection – individual scenes, security
- Bio Sensor – Healthcare – call the doctor, block the area,
- Noise recognition – Alarm, block areas, call for help
- Priority – Security, Lift, Doors, Emergency stuff



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**Honeywell**

**HEKATRON**  
 Ihr Partner für Brandschutz

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 fiber optic solutions

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 www.futurenetworks.com

**robotina**

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 Aktiengesellschaft

**KABA**  
 BEYOND SECURITY

**ZIEMANN**  
 GRUPPE

**SECURITAS**

**ORANGE**  
 ELECTRIC

**NOVO**  
 LIGHTING

**EATON**  
 Powering Business Worldwide

**UTC Fire & Security**  
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**PcVue Solutions**

**HORIZON**

**DORMA**

**BKS**

**ABI**  
 Sicherheitssysteme

**Schindler**

**ASSA ABLOY**

**STG**  
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 INNOVATIVE CONNECTIONS

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**BOSCH**



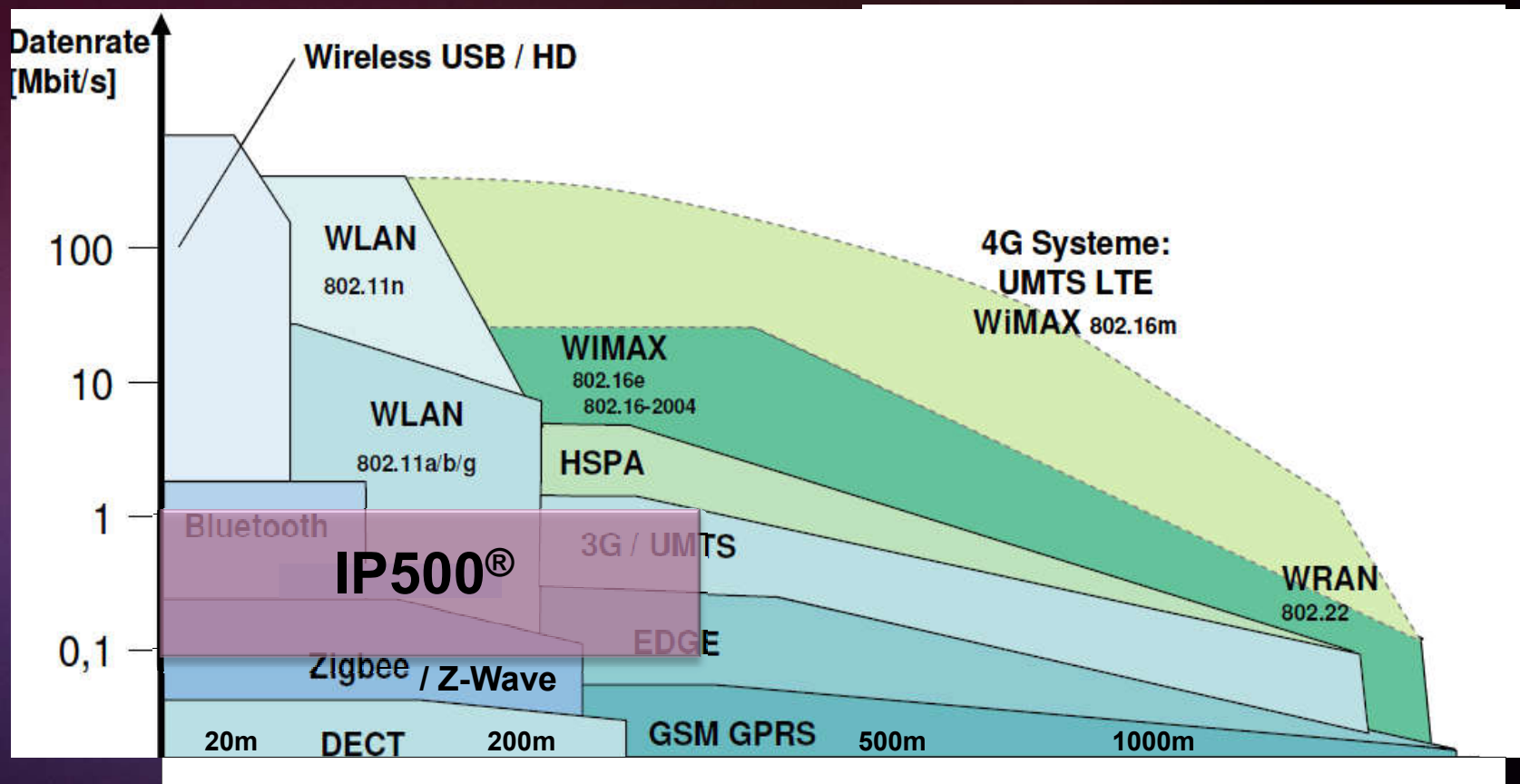
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# Best-In-Class RF Performance at lowest Energy





KiotSCO SAS



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