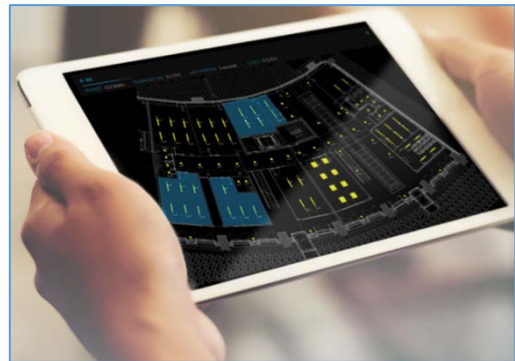


## Optimize space utilization

Many companies have little or no information about how employees, customers and other users utilize “space”. A visualization of the real-time occupancy, as well as the analysis of historical data are available through smartengine’s software solutions. Based on the collected data, both the current allocation and use of space and the planning of future requirements, can be optimized.



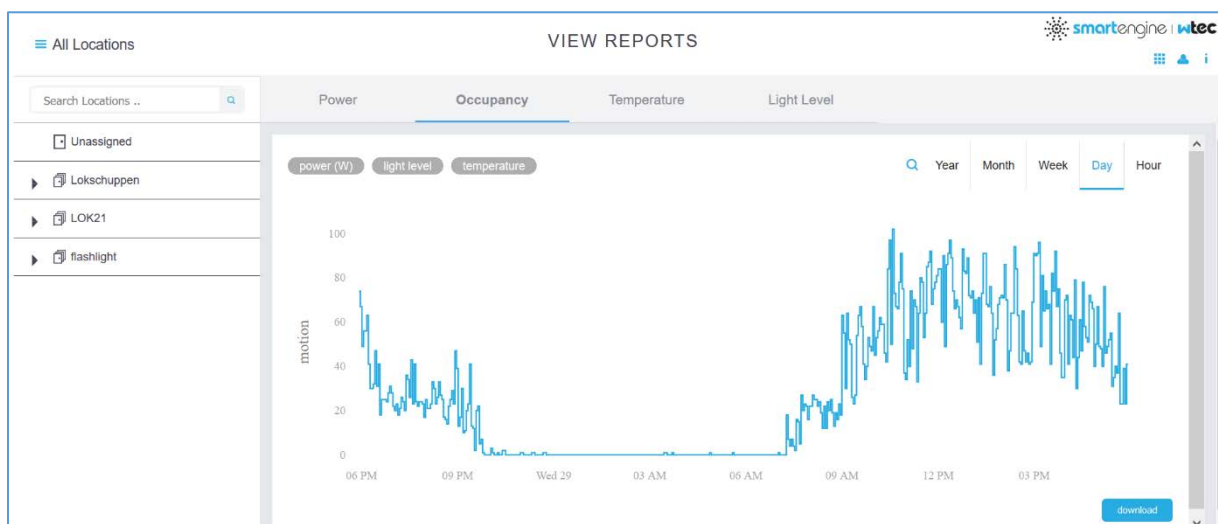
### smartengine provides valuable data and insights into your space occupancy and utilization

smartengine collects live data on various parameters and is able to provide insights into space utilization and occupancy. These insights are presented in metrics, floorplans and graphs and enable a deep-dive to deliver valuable insights:

- occupancy: how much of your space was utilized and to what intensity?
- utilization: how well was the capacity of a room or zone utilized?
- development over time and trends
- most and least used rooms/zones
- metrics by campus, building, floor, room, room type, time of the day and so on
- clustering according to similar patterns

Combining occupancy data with other sources of Business Intelligence such as HR data and business KPIs will lead to valuable insights on the current situation and correlations. These insights will help you plan the future and optimize so you actually provide the space your organization needs.

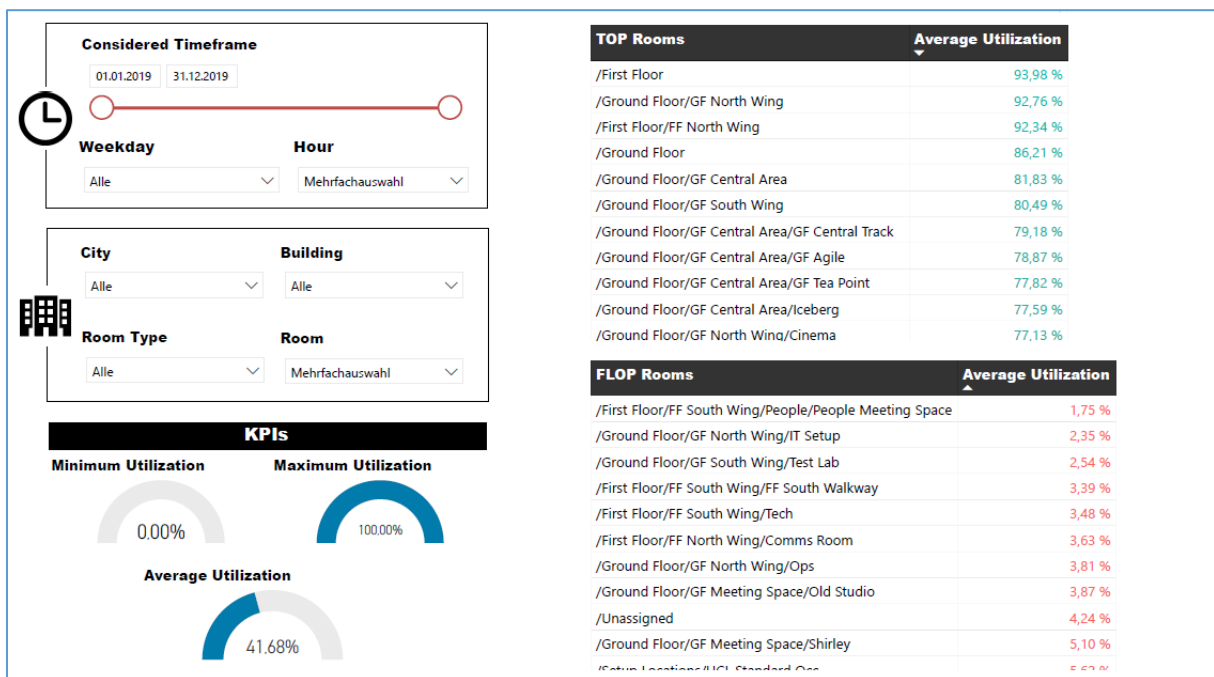
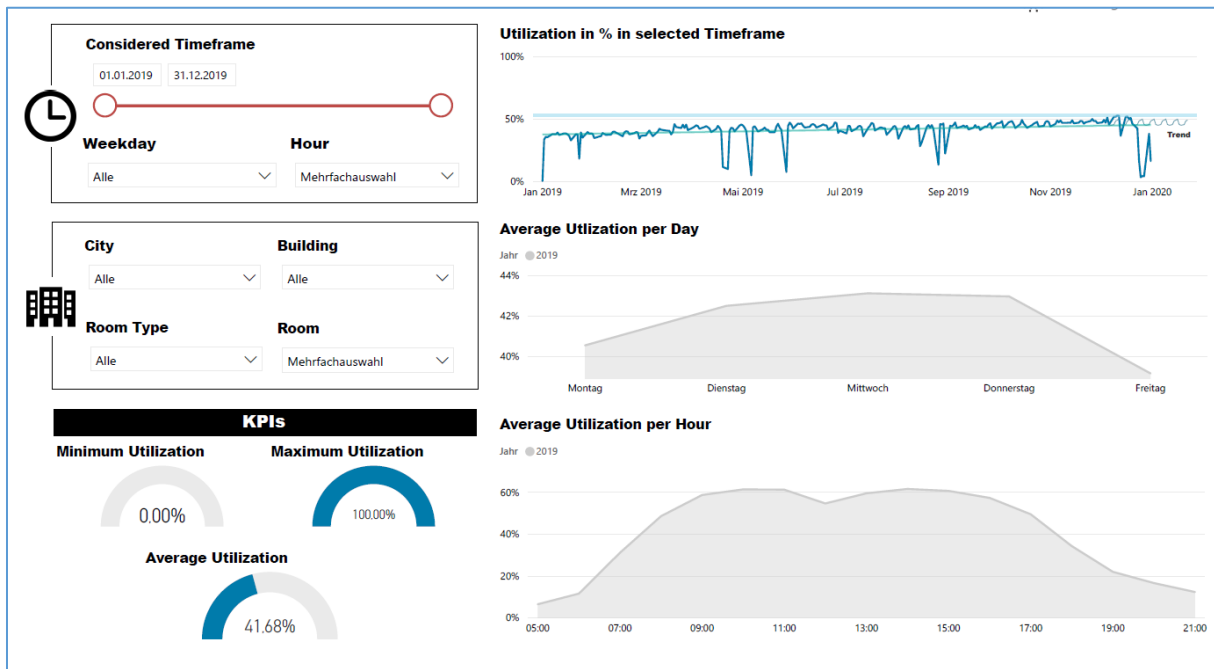
The dashboard (smartmanager software) provides a logical tree of the building (or campus) via the floor to the room down to the single sensor. On each of these logical levels sensor data can be visualized per selected time frame and exported.



Visualization of floor-plan based heatmaps showing each individual sensor position is currently available in our end-user control Apps for iOS, TV and Android. Via the open API a third party integration of the collected data is easily possible. The release 5 of the smartmanager software will include these visualization implementations from the mobile features (release Q1 2020).



The collected data can be exported to other tools developed by wtec to create more detailed reports. See examples below:



smartengine   wtec				GSHQ Daily Averages																								
So Type	Floor/Area	Location	Sub Location	Day	Weekday																							
					Ave	12AM	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	12PM	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM
0	ALL	All		105	5	0	0	1	10	37	180	560	966	1139	1174	1086	1093	1176	1166	1100	938	644	309	135	84	56	43	27
1	ALL	GF		129																								
1	ALL	FF		108																								
2	WING	GF	GF Central Area	272																								
2	WING	FF	FF Central Area	259																								
2	WING	GF	Refuel	249																								
2	WING	GF	GF North Wing	212																								
2	WING	FF	FF North Wing	173																								
2	WING	GF	GF Meeting Space	151																								
2	WING	GF	GF South Wing	142																								
2	WING	FF	FF Meeting Space	115																								
2	WING	FF	FF South Wing	113																								
3	ENCLOSED	FF	FF Meeting Space	6 Kings Heath	440																							
3	ENCLOSED	FF	FF Meeting Space	2 Sutton	315																							
3	ENCLOSED	FF	FF South Wing	8 Longbridge	300																							
3	ENCLOSED	GF	GF Meeting Space	15 Selly Oak	263																							
3	ENCLOSED	FF	FF Meeting Space	3 Hockley	254																							
3	ENCLOSED	FF	FF Meeting Space	4 Handsworth	247																							
3	ENCLOSED	GF	GF Meeting Space	14 Small Heath	243																							
3	ENCLOSED	FF	FF South Wing	7 Kingstanding	231																							
3	ENCLOSED	GF	GF South Wing	Photo Studio	226																							
3	ENCLOSED	FF	FF Meeting Space	12 Moseley	206																							
3	ENCLOSED	GF	GF South Wing	Photo Studio	186																							
3	ENCLOSED	GF	GF Meeting Space	13 Yardley	166																							
3	ENCLOSED	FF	FF Meeting Space	11 Harborne	159																							
3	ENCLOSED	FF	FF Meeting Space	9 Ladywood	144																							
3	ENCLOSED	FF	FF Meeting Space	10 Edgbaston	133																							
3	ENCLOSED	FF	FF Meeting Space	5 Winson Green	125																							
3	ENCLOSED	GF	GF South Wing	Lightbox Room	117																							
3	ENCLOSED	FF	FF North Wing	Web Dev	107																							
3	ENCLOSED	GF	GF Central Area	GF Store	99																							
3	ENCLOSED	GF	GF Meeting Space	17 Digbeth	86																							
3	ENCLOSED	FF	FF Meeting Space	1 Aston	82																							
3	ENCLOSED	GF	GF Meeting Space	16 Bournville	69																							