



Parallel Session 2A – Smart Solutions for Stations

Making Railway Stations Smart

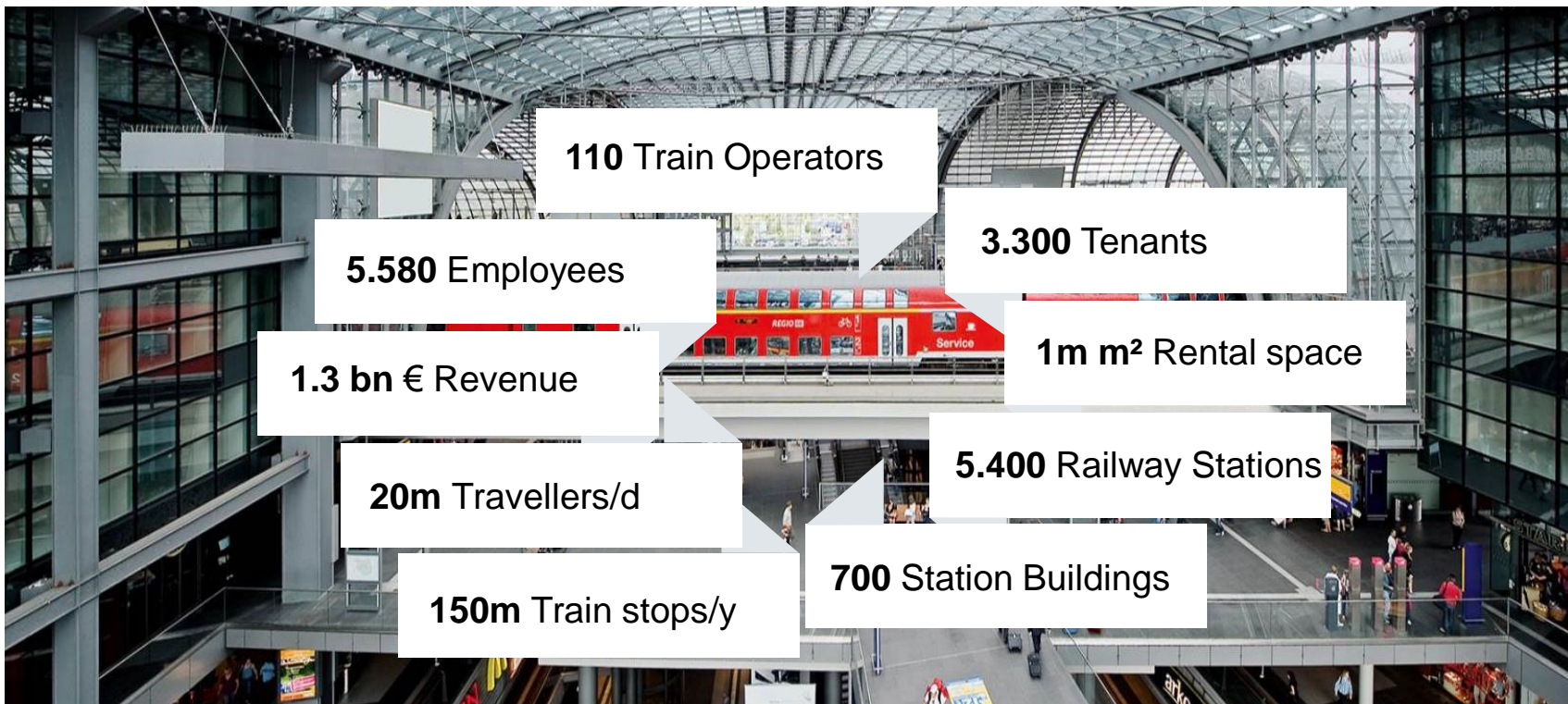
about sensors, data and service quality



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Deutsche Bahn

IoT Project Lead



Our IoT Projects

Existing Assets

- Elevators & Escalators
- Train Station Clocks
- Lighting

IoT from Scratch

- Ice Sensors
- Pax Counting



ADAM: elevators made smart

- Over 3000 Installations
- Developed inhouse
- Works with every Elevator
- Uses Mobile Network
- Open Data



The Station Clock talks back

- Replace expensive time sync
- Device Monitoring
- Sensor Hub
- LoRaWAN IoT Network
- Development w/
 - Clock Manufacturer
 - IoT H/W Engineers
 - Software Engineers



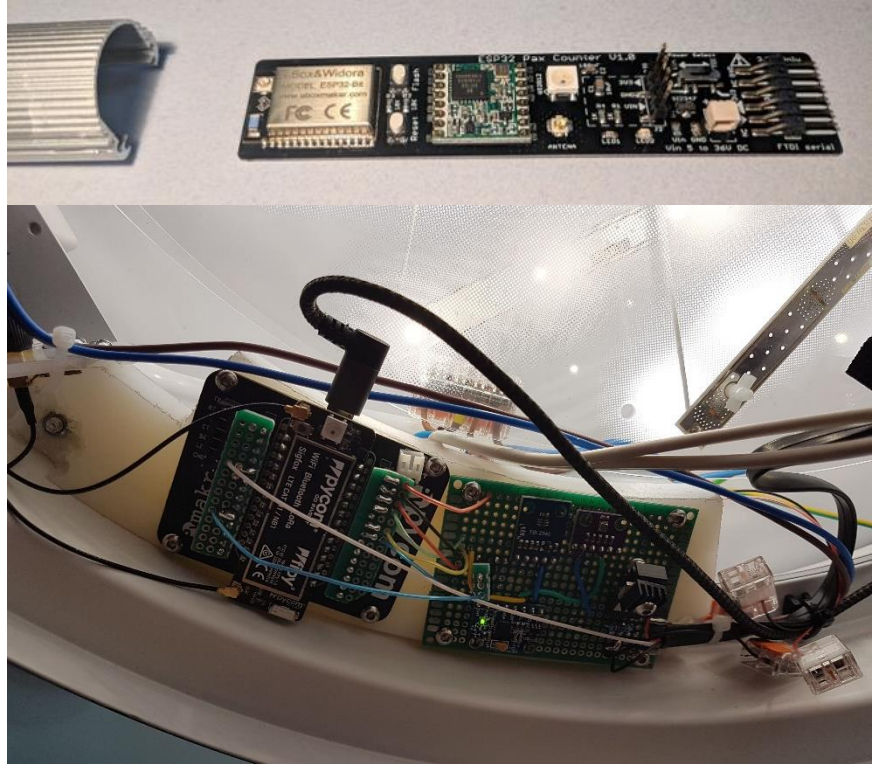
Passenger Flow Metering everywhere

What

- WiFi
- Cameras
- Sensor Mats

Where

- LED Tubes Retrofitting
- Station Clock



Upcoming: Ice Sensors

- Detect Ice, Snow, Hail
- Schedule staff
- Better Service Quality
- Increase Efficiency



Our Goal is Data Driven Operations

- Understand your stations

- Do better planning

- (Re)Act in Realtime

- Predictive maintenance

- Enhance customer experience
- Improve Service Quality
- Efficiency



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Thank you
for your kind attention