

DISASTER RESILIENCE

PITCH SESSION



- **Location:** *Turkey / Istanbul*
- *Local Government / Istanbul Metropolitan Municipality*
- **Experience:** *Taken many roles on Earthquake based Urban Regeneration Projects, Coordination of City-wide planning studies, Participation in City Resilient studies*
- **Contact:**
 - *Mehmet Akif LEVENT*
 - *Administrative Assistant of Vice General Secretary / Geomatic Engineer*
 - *mehmet.levent@ibb.gov.tr*
 - *+90 505 4530989*
 - *Furkan KARAMUSTAFA*
 - *Administrative Assistant of the Head of Earthquake Management Studies*
 - *Furkan.karamustafa@ibb.gov.tr*
 - *+90 212 455 2197*

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Pre-standardisation in crisis management (including natural hazard and CBRN-E emergencies)

3 major needs

- *Before and after measure studies for disasters especially to the earthquake, the correct data need during a disaster.*
- *Prioritization for urban transformation with building risk analysis*
- *Difficulty of making case analysis before disasters and the high costs of continuous data collection by survey analysis.*

Description of the Project Idea

- *Building Tracking and Damage Tracking System For A Disaster-Sensitive City: Gathering data about physical and geotechnical status of buildings and performing pre-disaster Istanbul-wide structure analysis. Detection of damaged structures in disaster. Management of the post-disaster process.*

List of the complementary skills we need

- *More experience on Low Power Wide Area Network(LPWAN) Technology and Cloud System for data storage*

Smart Building Monitoring and Tracking System

Needs / Benefits

- Before and after measure studies for disasters (especially to the earthquake)
- Prioritization for urban transformation with building risk analysis
- Roadmap for preventive measures
- Difficulties of preparing case analysis before disasters
- The high costs of continuous data collection by common survey analysis.



Solutions

OUTPUTS

- Gathering data about the physical and geotechnical status of the buildings and performing pre-disaster Istanbul-wide structure analysis.
- Detection of damaged structures in disaster.
- Management of the post-disaster process.

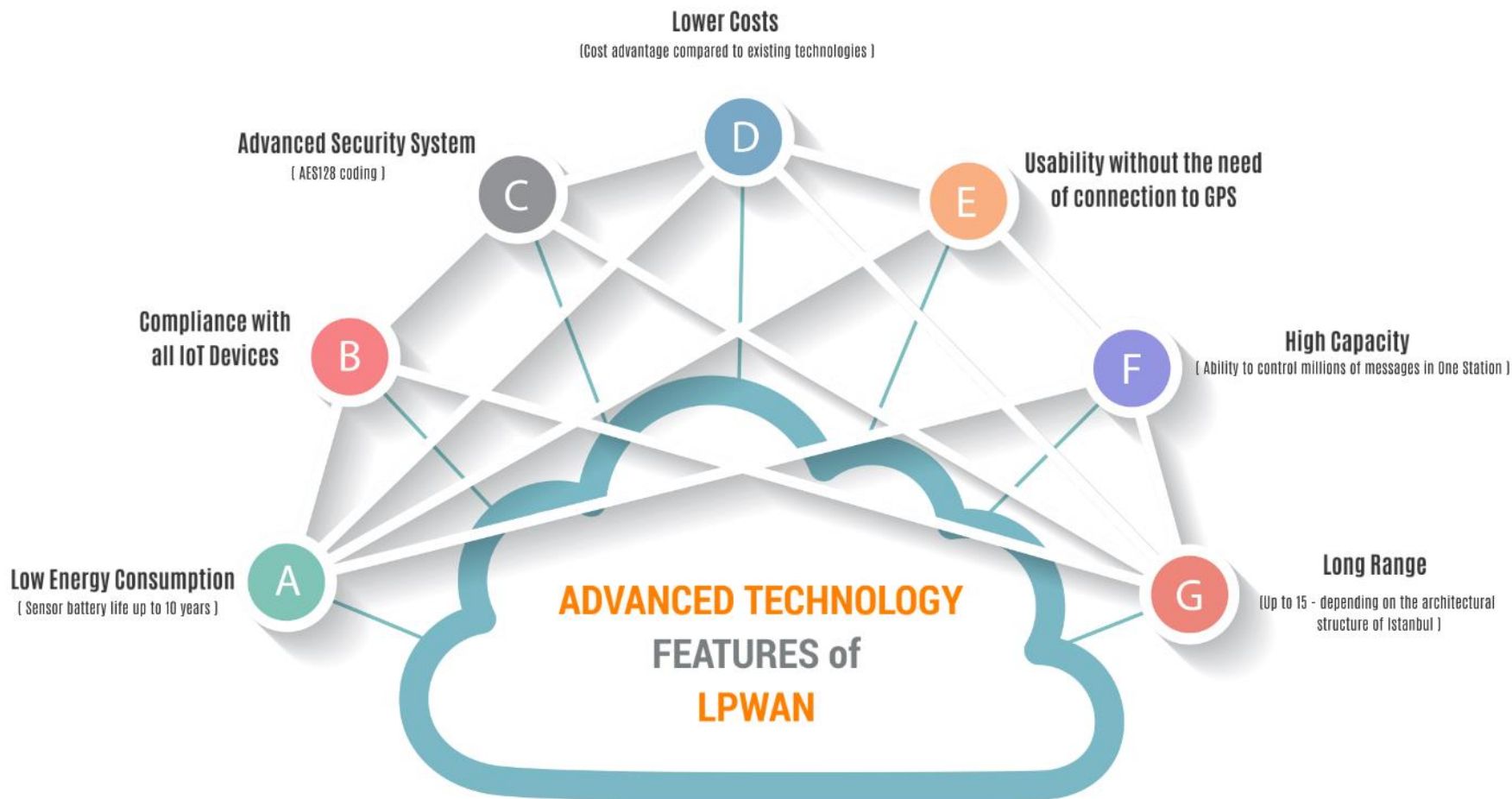


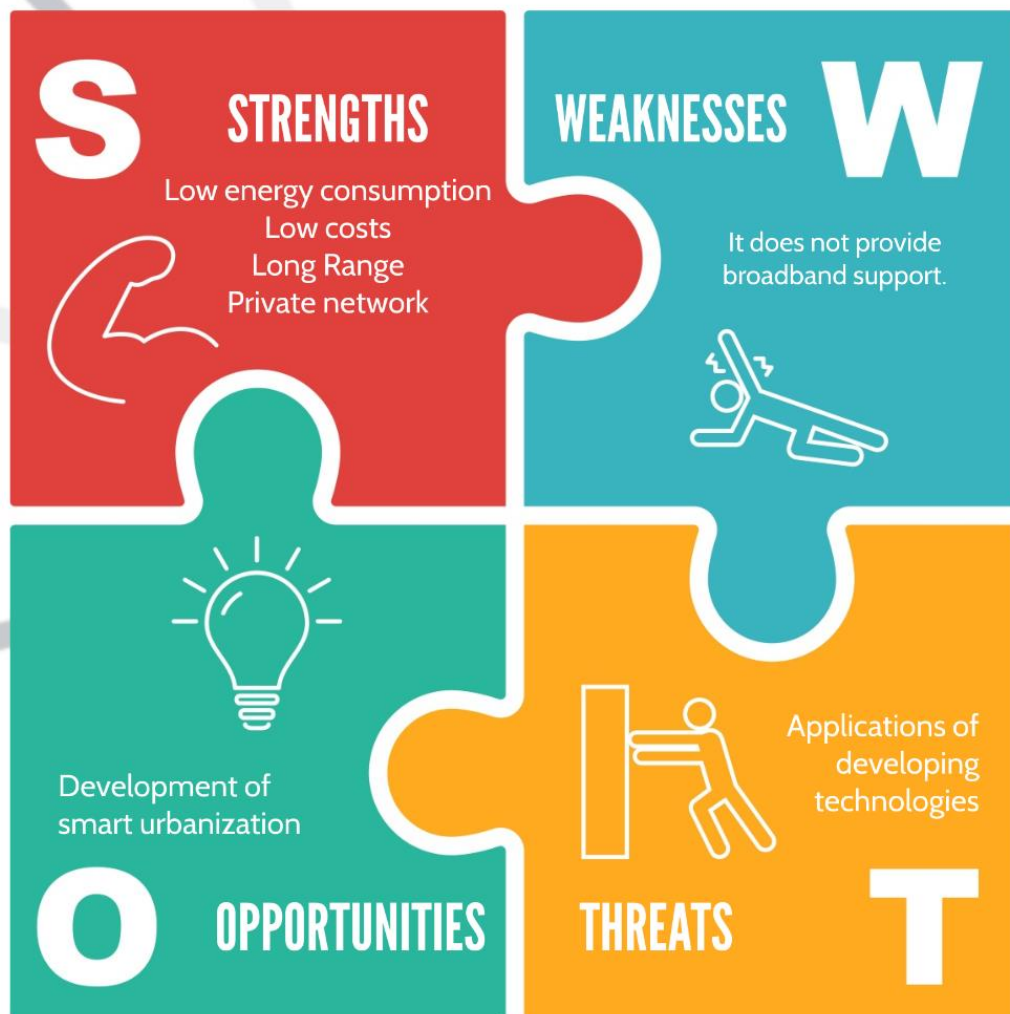
WHAT is LPWAN?



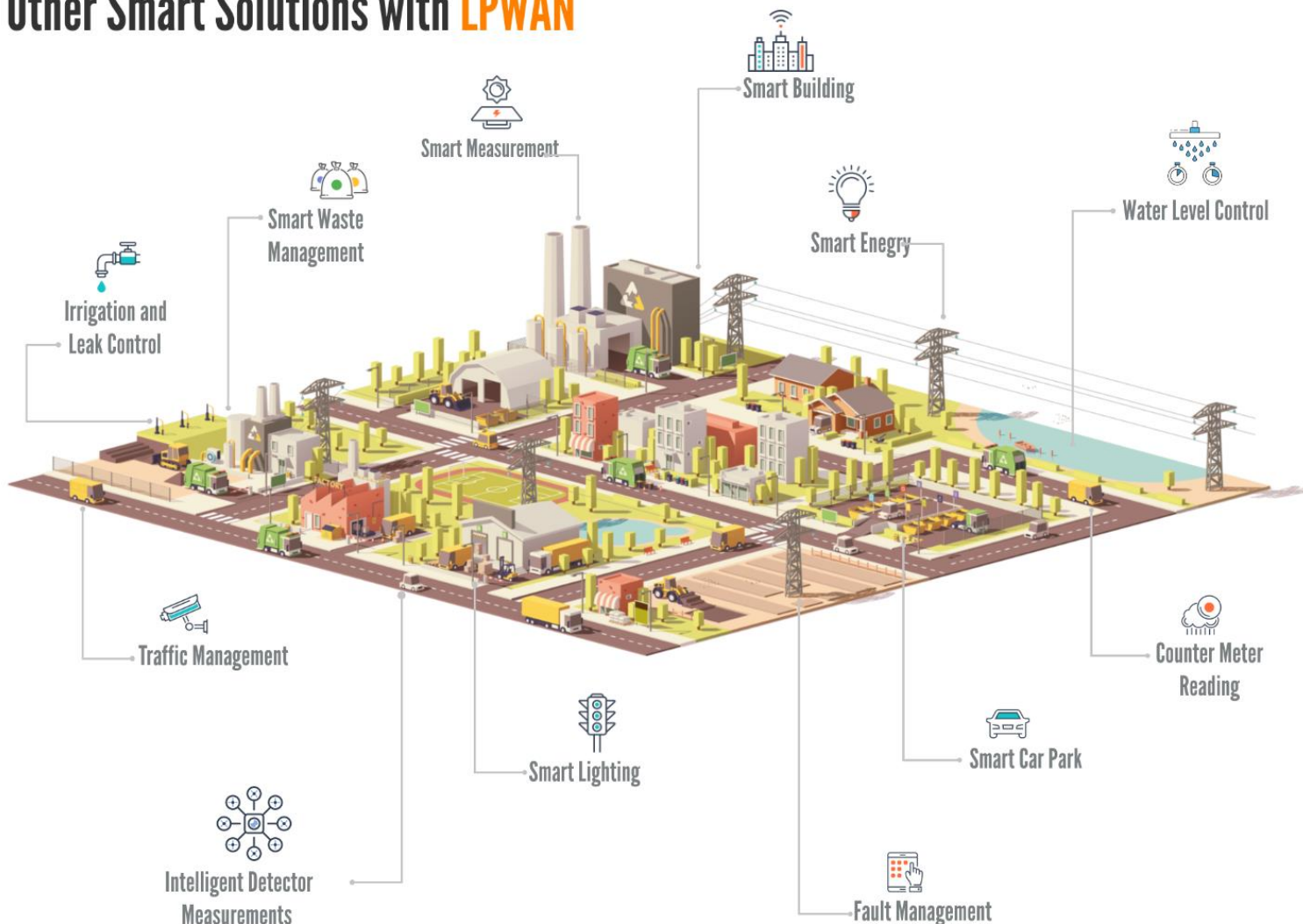
LPWAN (Low Power Wide Area Network) ;

It is a wireless communication technology protocol developed with a low energy consumption to create a wide area communication especially for applications in IoT field.

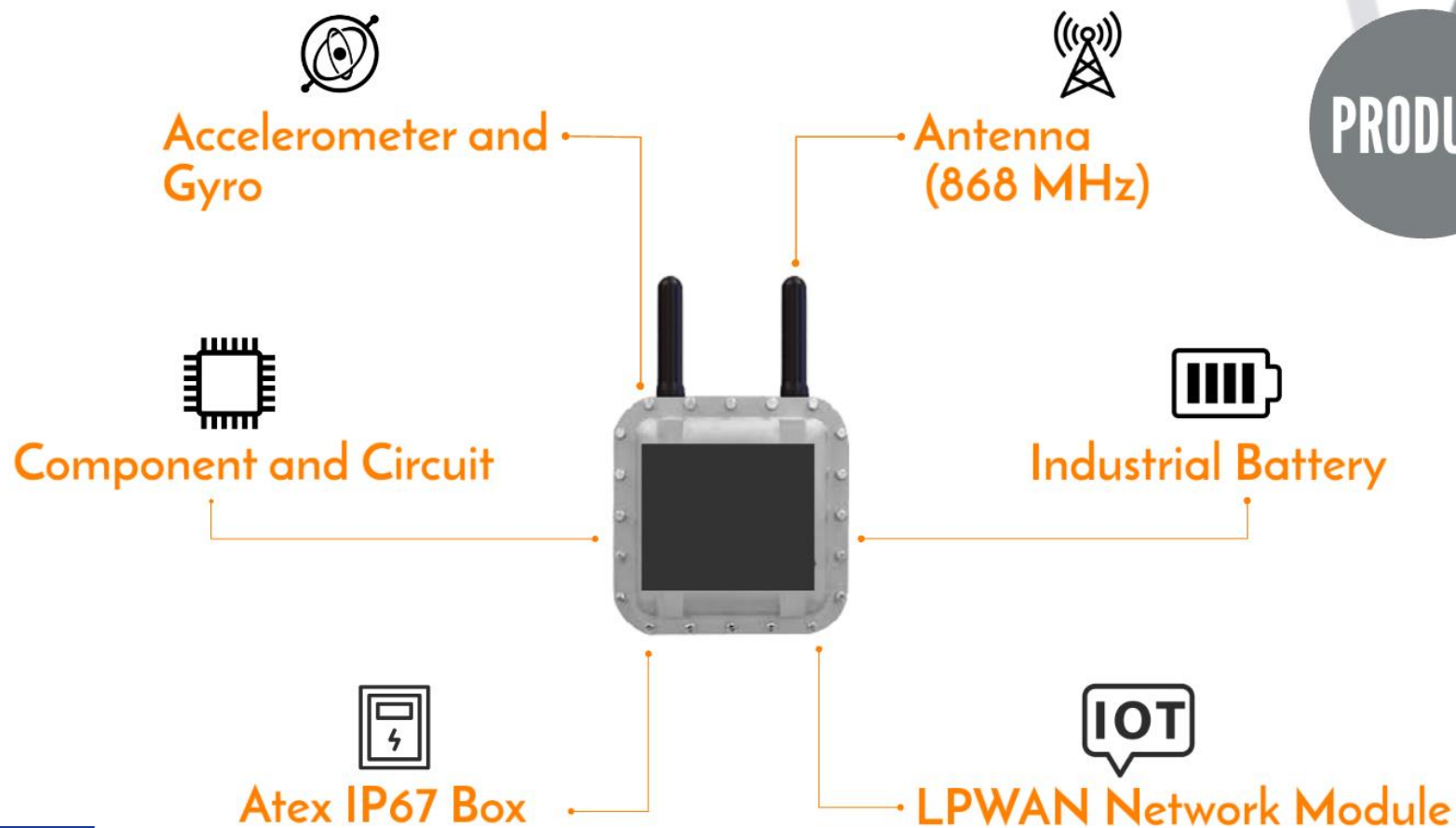




Other Smart Solutions with LPWAN

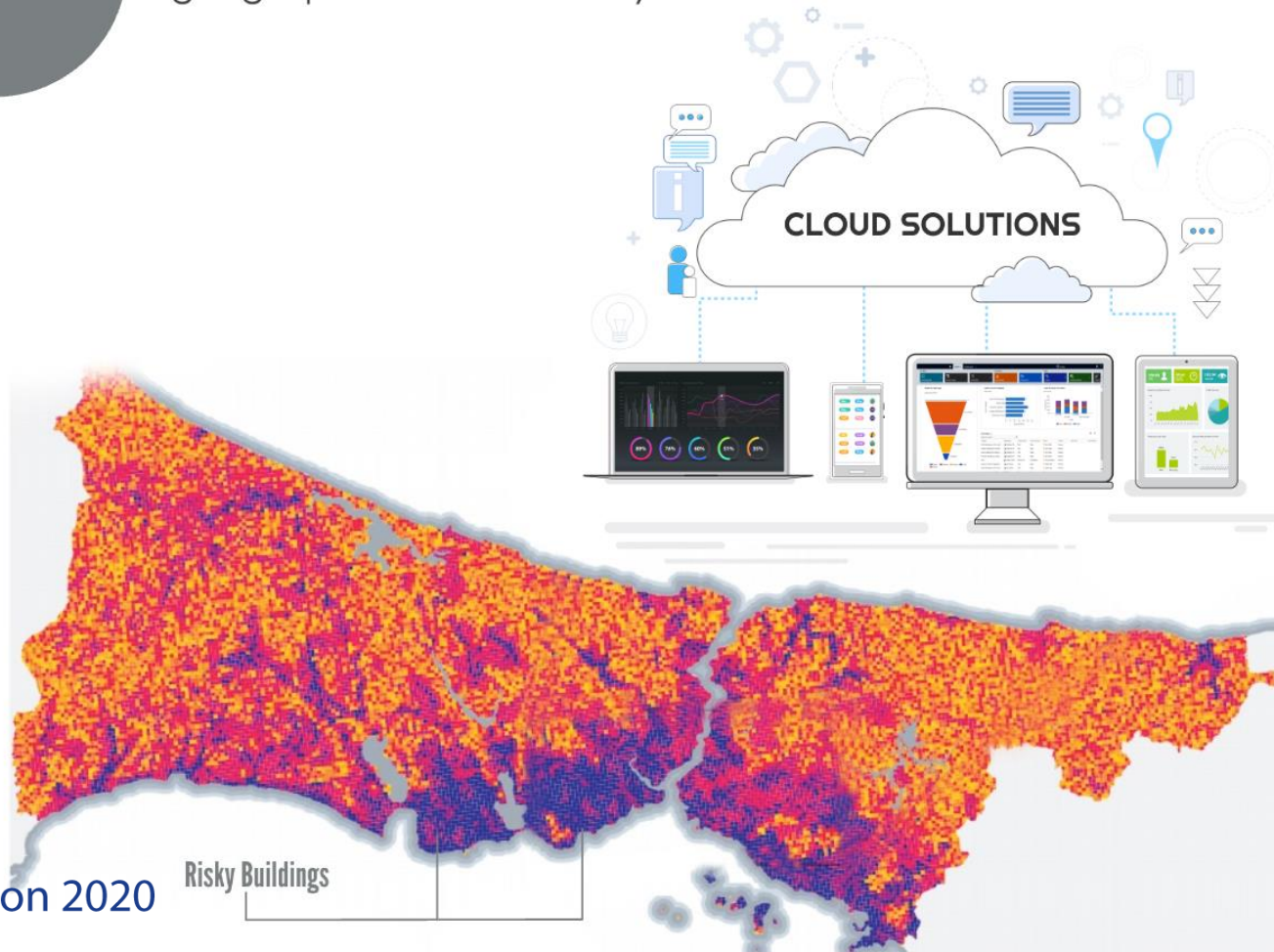


Building Monitoring and Tracking System



AUTOMATION

The building monitoring and tracking system will have a process-based cloud software technology developed on the geographic information system infrastructure.



Skills

- *Smart city solutions with use of LPWAN technology to realize disaster based measure studies based on real time data.*

Tools

- *Building Tracking and Damage Tracking System Sensors*

Demo Center/Area

- *100 sensors for 100 buildings are collecting data*

Infrastructures

- *LPWAN Tecnology is used to gather data*

Partnerships

- *PPP should be realized*