

STEPWISE

# Smart residents living in a Smart environment



# Agenda / Practical Cases



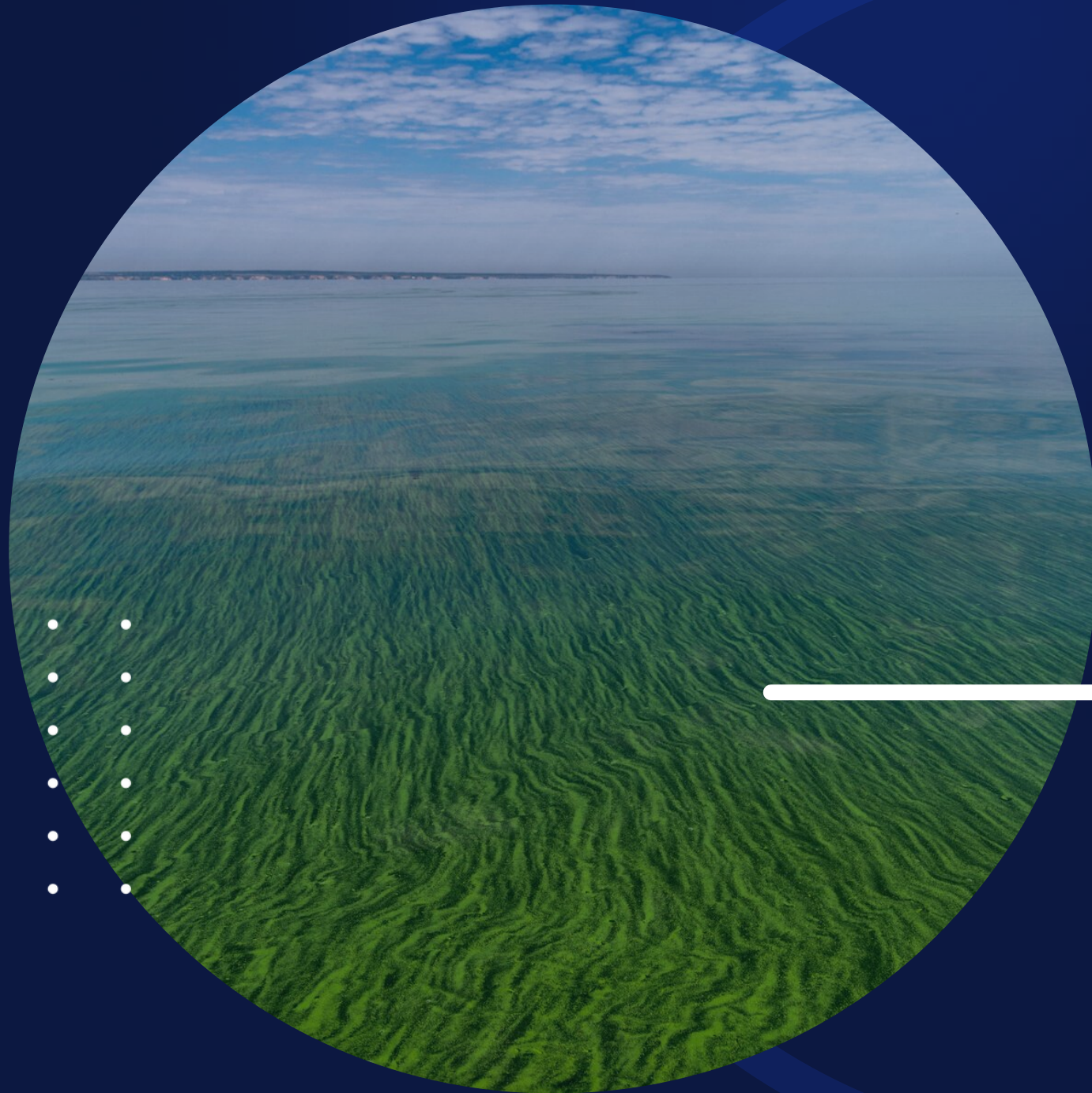
Smart  
Environment



Digital Passport  
for Buildings

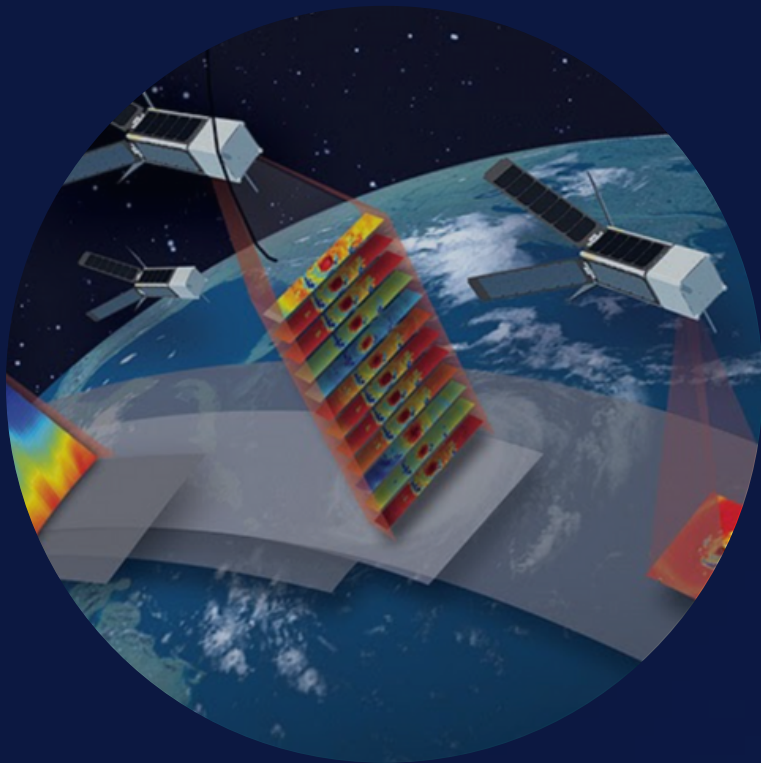


# Smart Environment / Challenge



- 1** Cyanobacteria produce toxins that can affect humans and animals
- 2** Swimming and bathing as most common health effects
- 3** Problems for drinking water treatment systems

# Smart Environment / Digital Solutions



Visual monitoring & field tests of cyanobacteria level

Datasource: drones, satellites, crowdsourcing and public data

Early warning system for society & city authorities



# Smart Environment / System Architecture

## Data source



Satelites



Drones

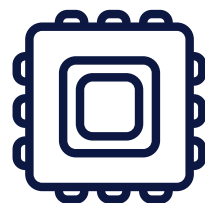


Crowdsourcing

## Cloud



Cloud Processing

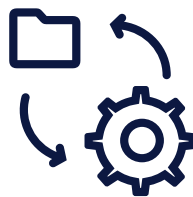


IOT Core



Cloud Telemetry

## Enrich

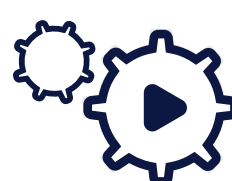


Data Processing



Public Data

## Analitics



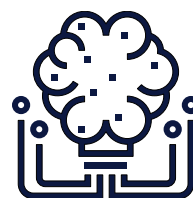
AI Engine



Query Engine



In-house Software



Machine Learning

## Activate



Visualisation



Alerting

## Export



Media



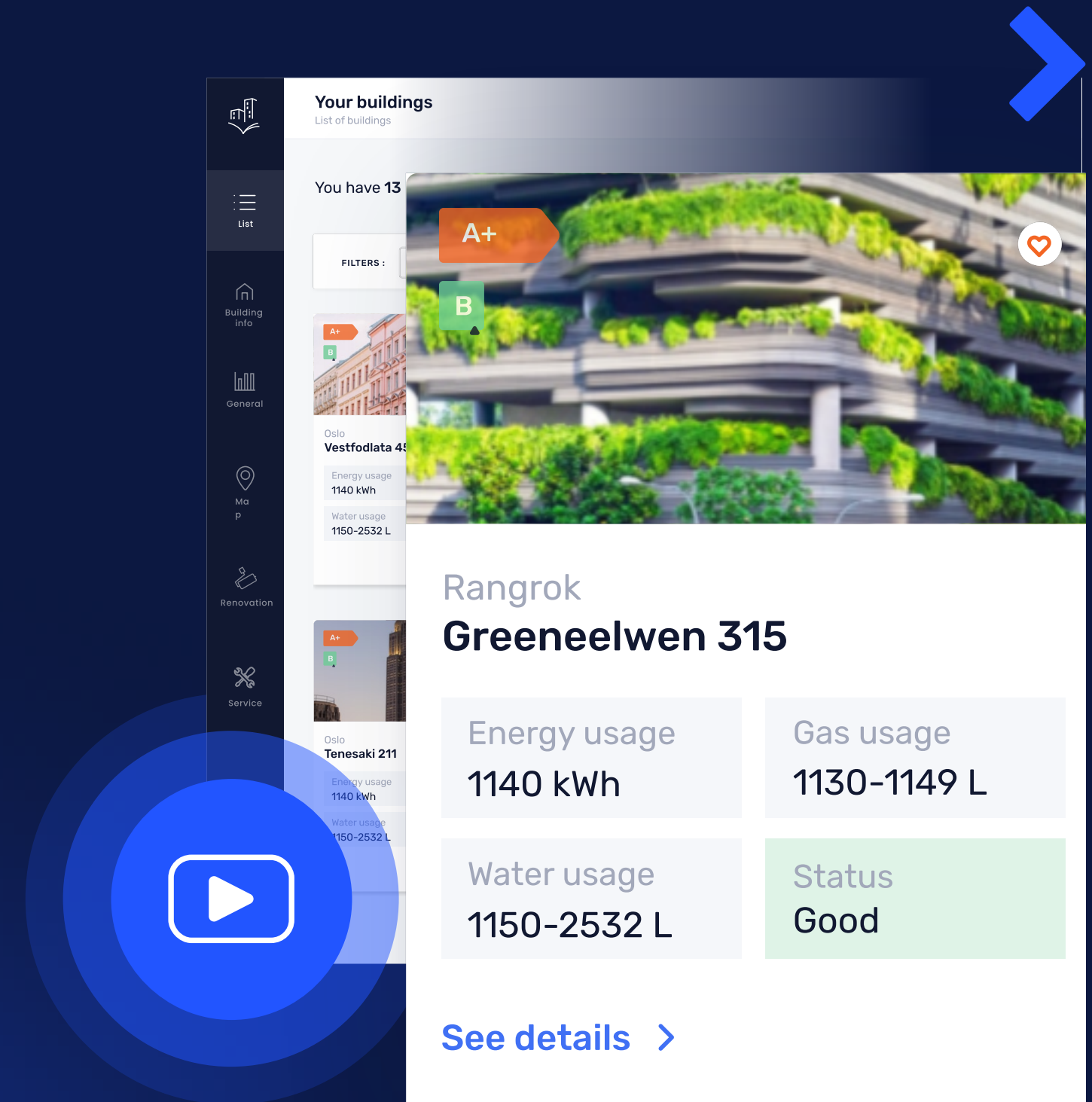
Society

# Digital Passport for Buildings / Digital Solution

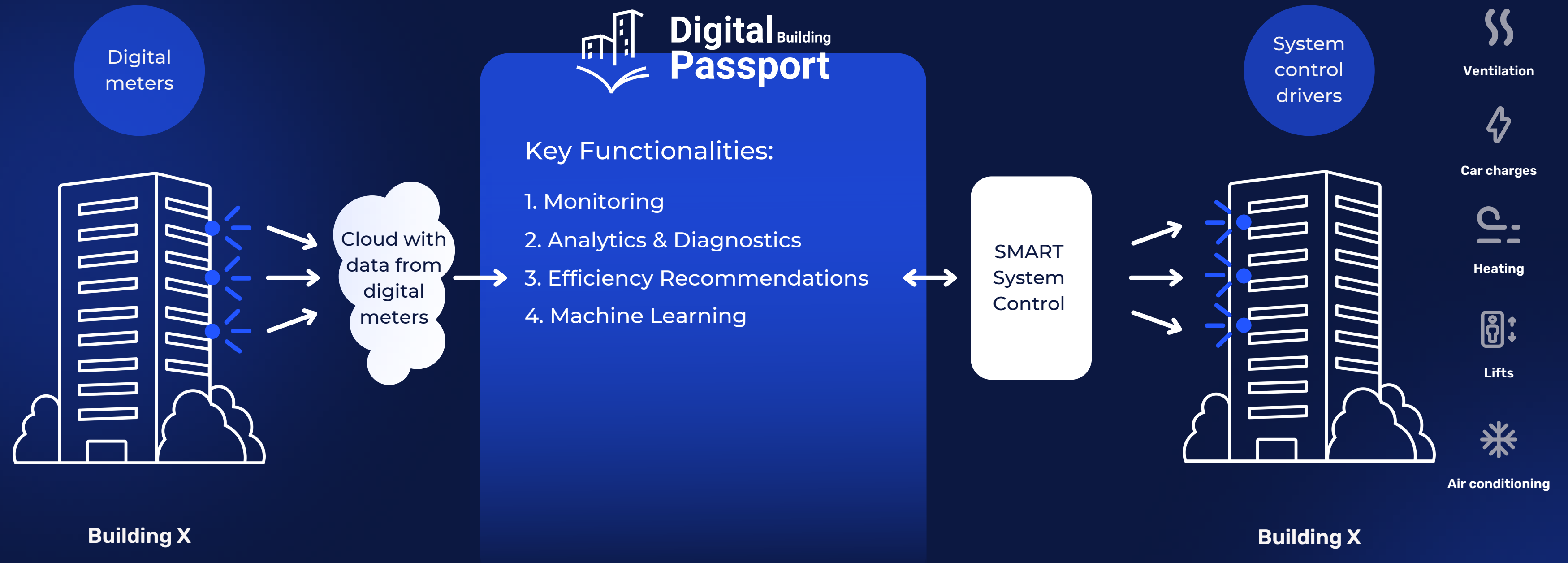


## Zero-energy buildings requires

- Intelligent Administrative tools
- Intelligent Building Automation & Control System
- Recommendations for Energy - Efficiency & Maintenance



# Digital Passport for Buildings / System Architecture



# STEPWISE

## Stepwise Team

Founded 2016

Sectors: Fintech, Industry 4.0,  
Smart Cities & Smart Buildings

Who are we? 35 Software Architects & Engineers,  
DevOps, UX/UI, Data Engineers and Scientists

 /stepwise.pl

 /in/krzysztofszukiec



Krzysztof Szukieć

CEO

✉ krzysztof.szukiec@stepwise.pl

☎ +48 888 634 442



Digital Building  
Passport



★★★★★  
17 REVIEWS



Deloitte.  
Technology **Fast 50**  
2021 CENTRAL EUROPE  
#15 Central Europe  
#5 in Poland