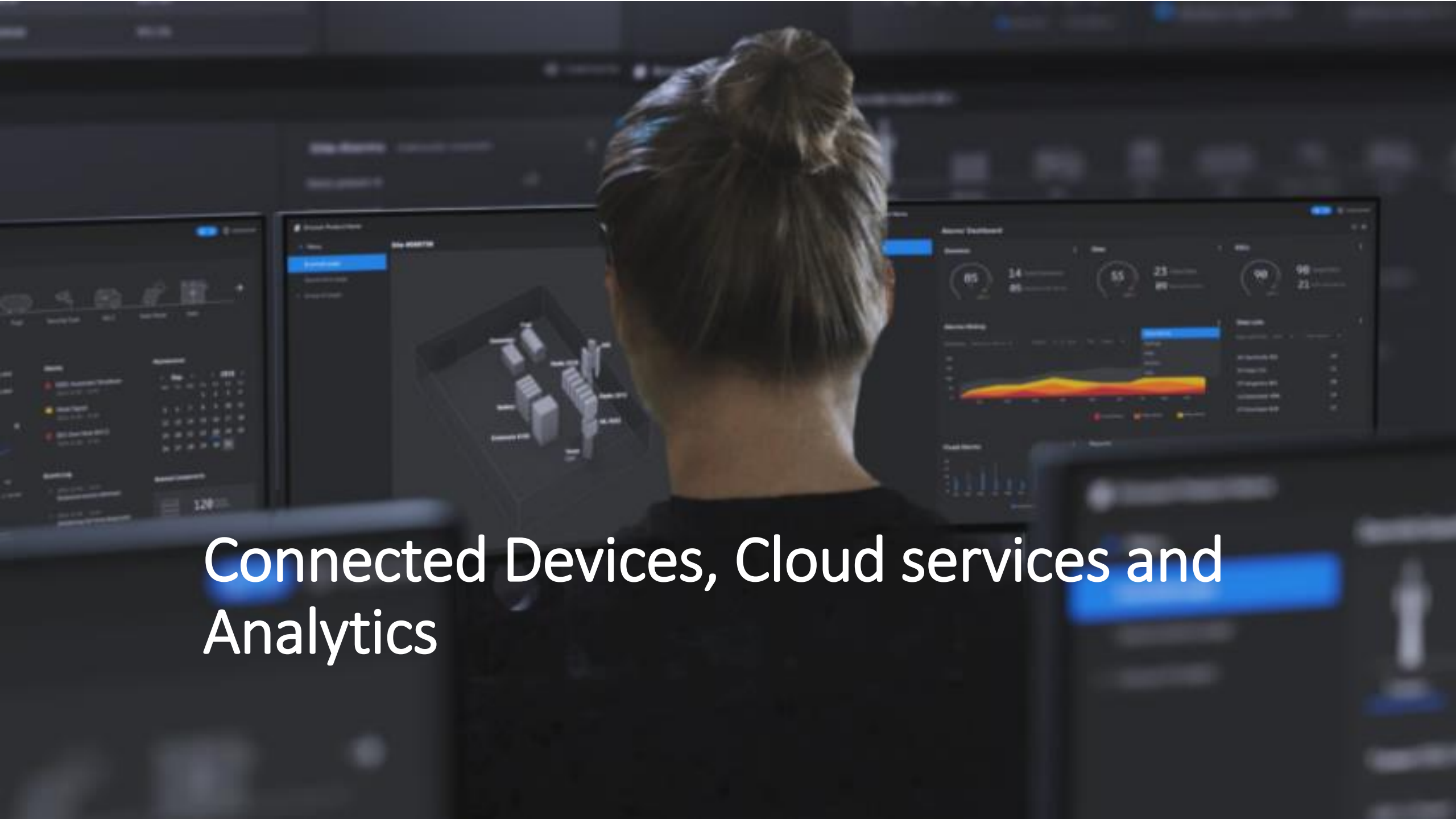


Digital innovation for a sustainable future in agri-food, ambient living and smart city use cases enabled by AI, 5G and IoT

The AMBITIOUS project Use Cases

Christos Panagiotou

Co-Founder



Connected Devices, Cloud services and Analytics

Digital Data Intelligence to Drive Operational Efficiency



CONSULT

on the architecture, implementation and integration, facilitating business processes, increasing reliability and competitiveness

CREATE

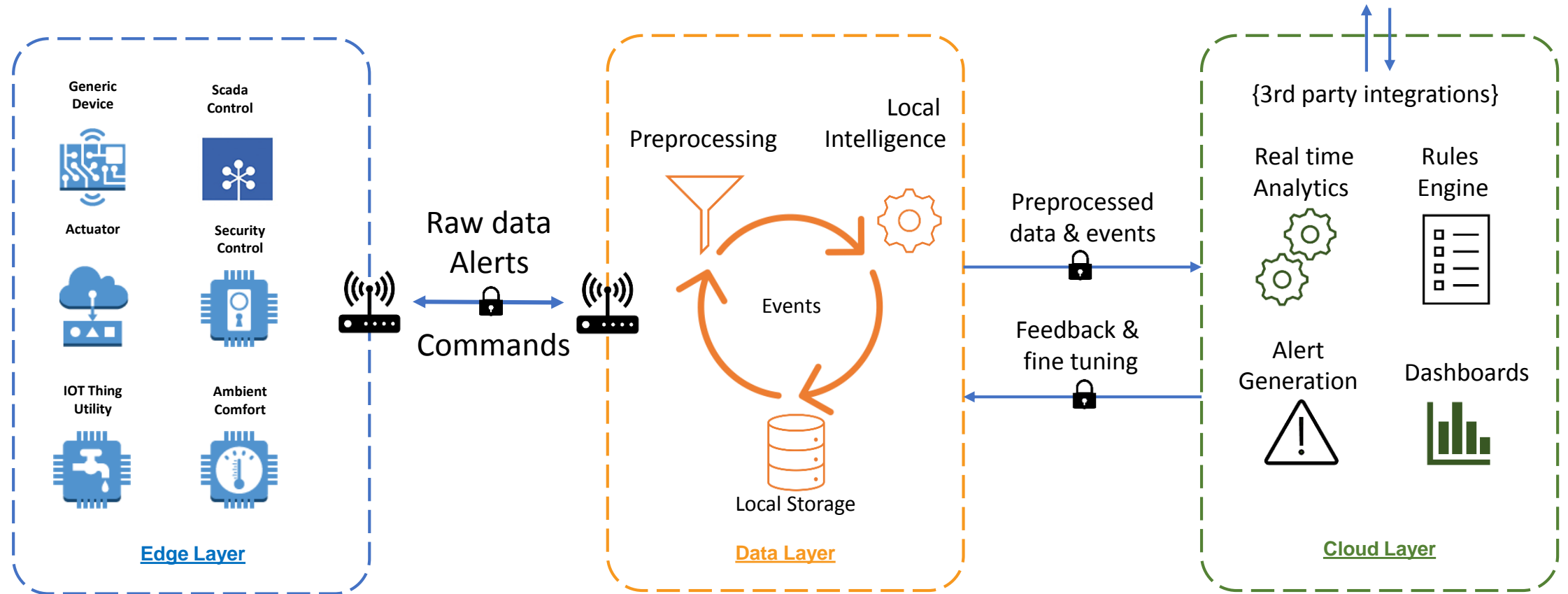
highly efficient and scalable solutions tailored to the specific application requirements and final deployment environment

RELEASE

quality ICT projects, supporting the definition and continuous evolution of the software development, through the agile ecosystem



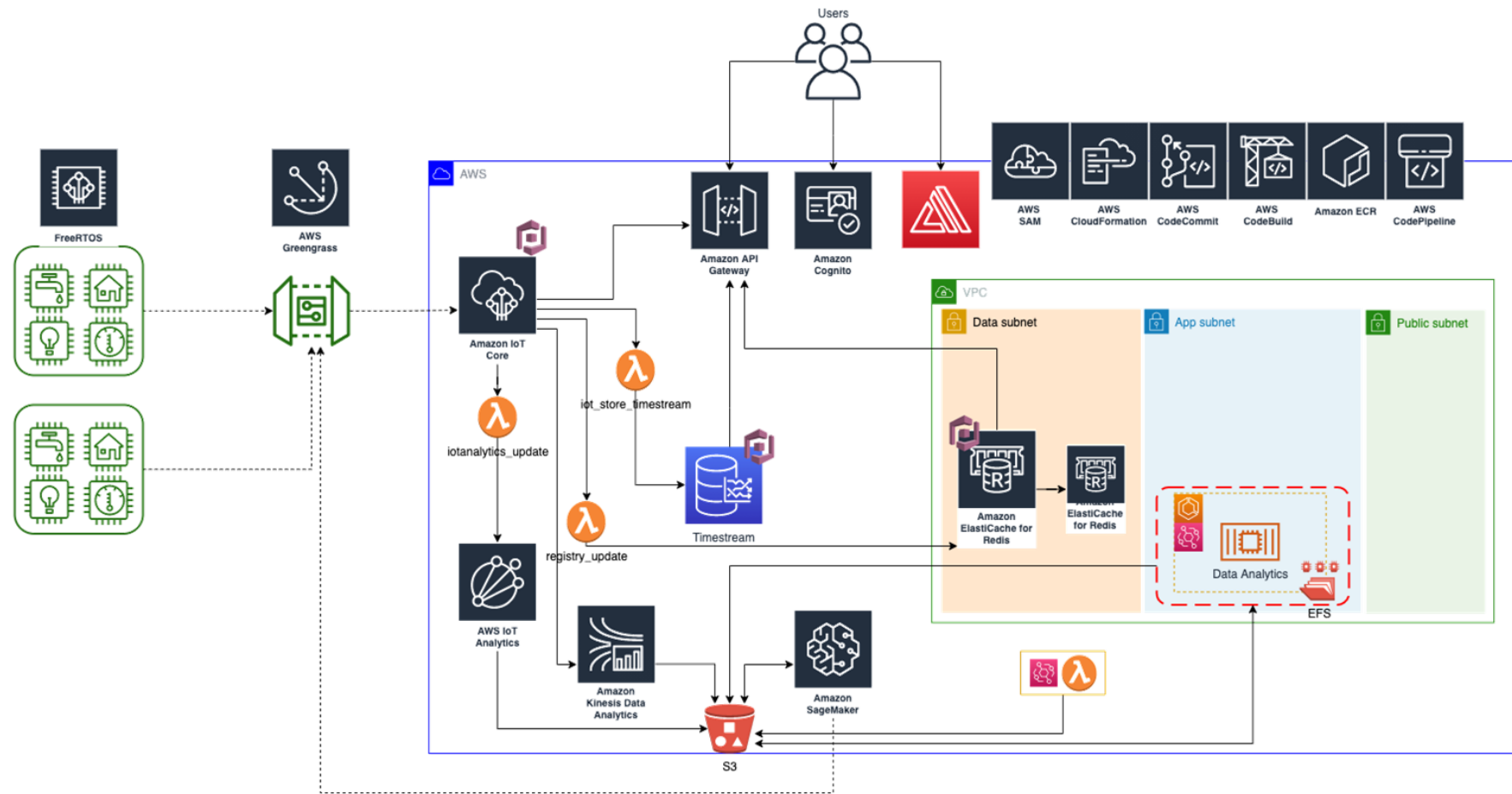
System Architecture & Data Flow





Cloud Native Solution on AWS

- Infrastructure
 - Management
 - Elasticity
- End – to – end security
- AAA
- Time series DB
- Stream – based analytics
 - Data analytics
 - Edge analytics





AMBITIOUS Pillar: AI-enabled Data analytics and forecAsting

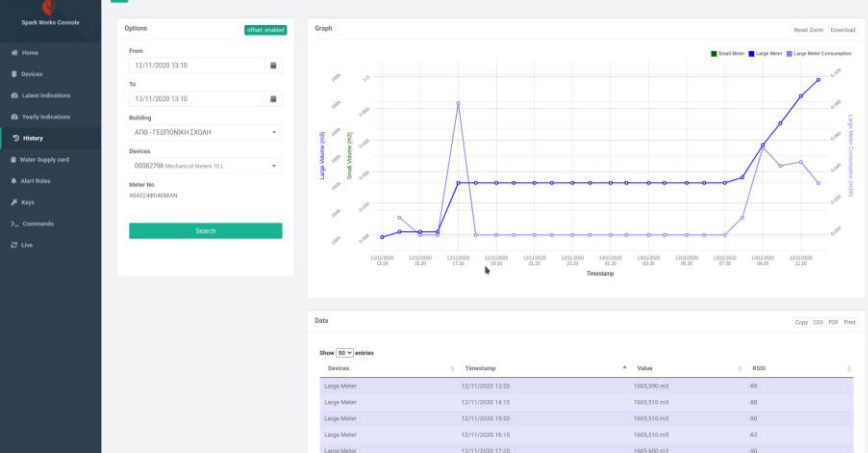
- AIDA UC2
 - Water consumption monitoring
 - Water consumption prediction
 - Abnormalities Detection (e.g. leakage)
- AIDA UC3
 - Environmental conditions (weather station)
 - Irrigation management
 - Disease detection, insect presence
 - Olive tree (dacus)
- AIDA UC4
 - Heart function primary screening
 - Fall detection





Water Monitoring and Management

- Smart metering network of devices and
- Fully customized edge processing and analytics framework for collecting and analyzing the collected data



The interface shows a list of alerts with columns: Building, Device, Criteria, Time Period, Message, Recipient, Last Checked, Running Value, Status, and Detected. The table is filtered to show 5 entries.

Building	Device	Criteria	Time Period	Message	Recipient	Last Checked	Running Value	Status	Detected
ATN - (E) TERBA PIPETADIA (TAIYI)	0002702 - 1 L	diff + 1.5 m3	1 Hour	spark	mb@sparks	30/10/2020 16:41	0 m3	✓	
ATN - (E) TERBA PIPETADIA (TAIYI)	0002702 - 1 L	diff + 5000.0 m3	1 Hour	FF	mb@sparks	13/11/2020 13:08	0.012 m3	✓	
ATN - (E) TERBA PIPETADIA (TAIYI)	0002702 - 1 L	diff + 501.5 m3	1 Hour	a1	mb@sparks	15/11/2020 13:08	0.012 m3	▲	21/11/2020 12:06
ATN - BOKO7NO BIFEGOMAMH/KX EX	0003788 - 10 L	diff + 1.5 m3	1 Hour	spark	mb@sparks	13/11/2020 13:08	3.08 m3	▲	12/11/2020 20:02
ATN - HONARH EKOH	0003807 - 100 L	diff + 1.5 m3	1 Hour	spark	mb@sparks	13/11/2020 13:08	0 m3	✓	

The table lists mechanical meters with columns: Meter No, Building, Address, Volume (Large, m3), Timestamp, Address (Small), Volume (Small, m3), and Volume (Small, m3). The table is filtered to show 20 entries.

Meter No	Building	Address	Volume (Large, m3)	Timestamp	Address (Small)	Volume (Small, m3)	Volume (Small, m3)	
201300276052YN	ATN - KTHNATPIKH EKOH	0003820	3,911,938	13/11/2020 12:31	0002149	11,281,151	13/11/2020 12:15	15,183,109
20130038005C	ATN - HONARH (MEO KTHPO)	0003825	1,016,949	13/11/2020 12:24	0002927	11,173,856	13/11/2020 13:09	12,190,849
20130030405D	ATN - PIPYTO PALAYOTIKH EKOH 9	0003743	75,329	13/11/2020 13:08	0002815	1,407,353	13/11/2020 12:45	1,482,881
20130099495D	ATN - PIPYTO PALAYOTIKH EKOH 8	0002930	246,990	13/11/2020 12:28	0002623	6,551,634	13/11/2020 12:37	6,798,224
23807780133PI	ATN - AZEPOTIKOPEO				0002785	782,894	13/11/2020 12:40	782,894



Smart Agriculture

- Weather conditions monitoring
- Fully customized edge node
- Edge processing and post analytics framework for disease detection (dacus)

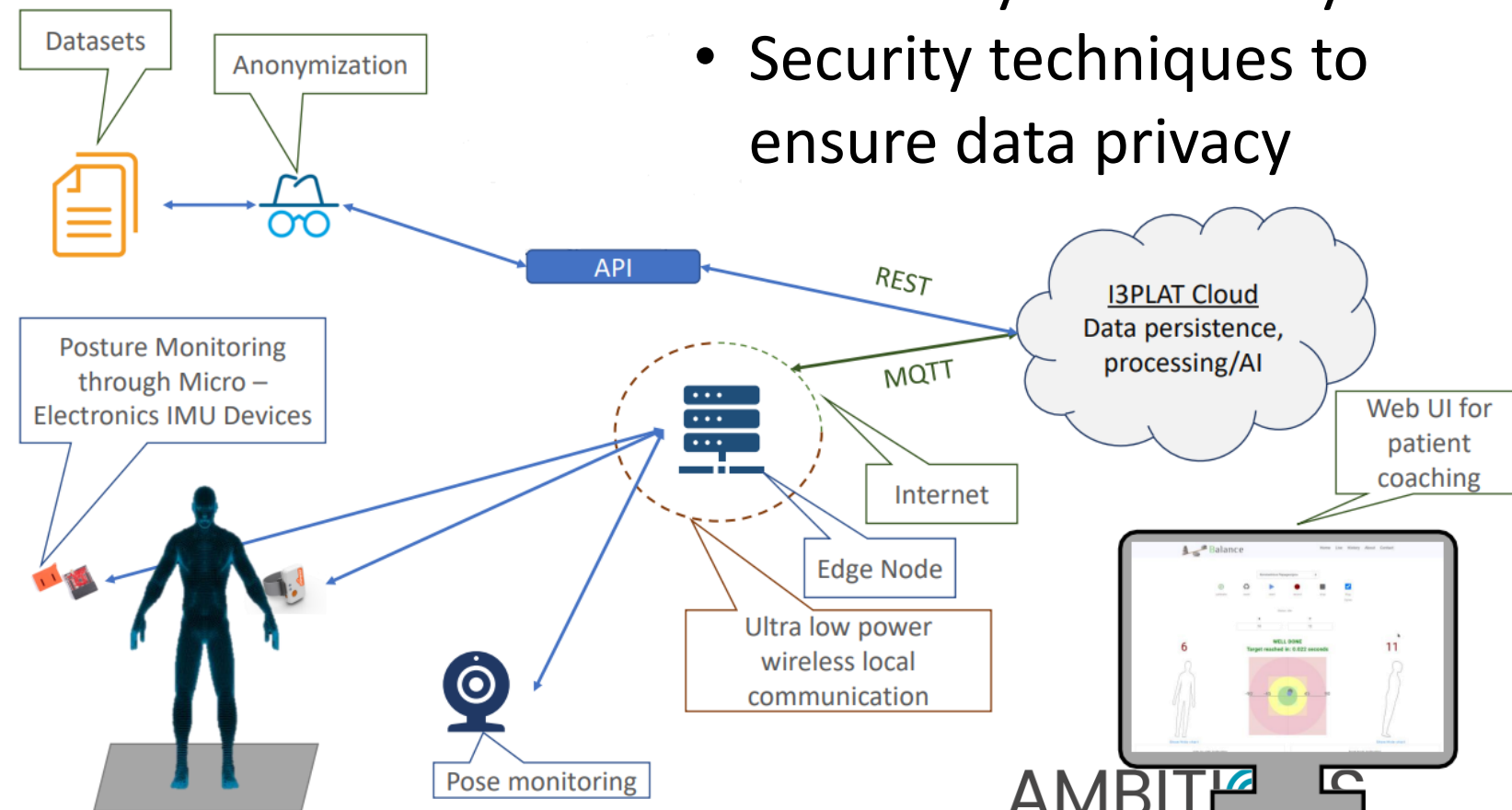




Ambient Assisted Living

- Low Power CPS systems for physiological monitoring
- Deep learning methods for posture assessments
- Web UI for coaching and routines execution

- Edge/Cloud computing for scalability & elasticity
- Security techniques to ensure data privacy



Keyfacts



01

Background experience

- 10+ EU/GR public funded projects
- 30+ projects in the private sector
- 5+ projects in the public sector

02

Awarded

- ΔΕΗ BITE Awards, 2023
- Incubators for innovation & technological transfer in the Mediterranean, 2023

03

Certifications

- ISO Certified (9001, 27001, 27701)
- 2 x AWS Cloud Architects

04

Demographics

- Team of Senior Electrical/Computer Engineers
- 2-women (28%)
- Average age: 38,4



Demographics

- Team: 7-persons
- 2-women (28%)
- Average age: 38,4

Founding team:

Dimitris Karadimas – dipl. Electrical & Computer Engineer
15+ years in design and developing ICT projects



Christos Panagiotou – dipl. Computer Engineer & Informatics
15+ years in design and developing ICT projects





Thank You!



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