PIKEI new technologies

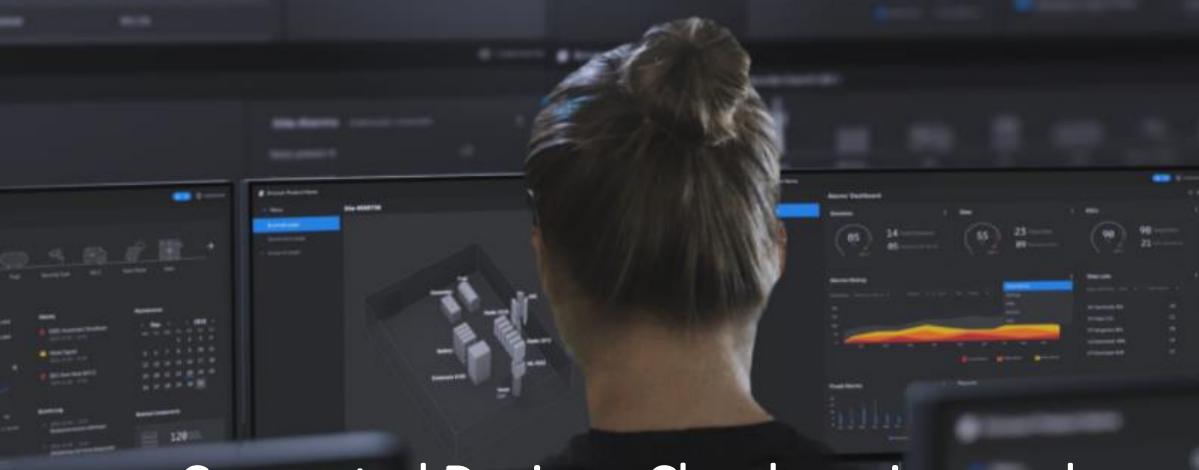
Digital innovation for a sustainable future in agri-food, ambient living and smart city use cases enabled by AI, 5G and IoT

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

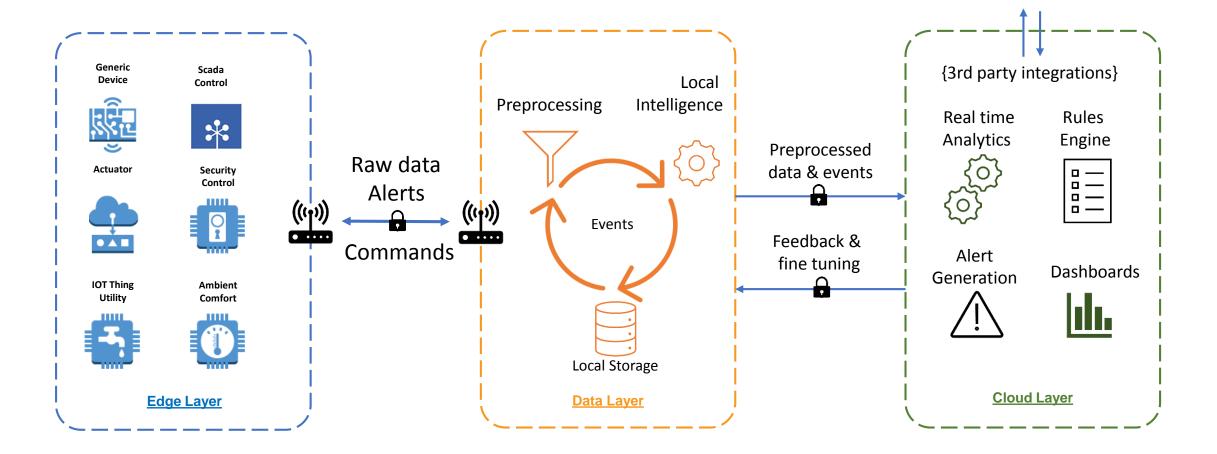
RELEASE

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





System Architecture & Data Flow

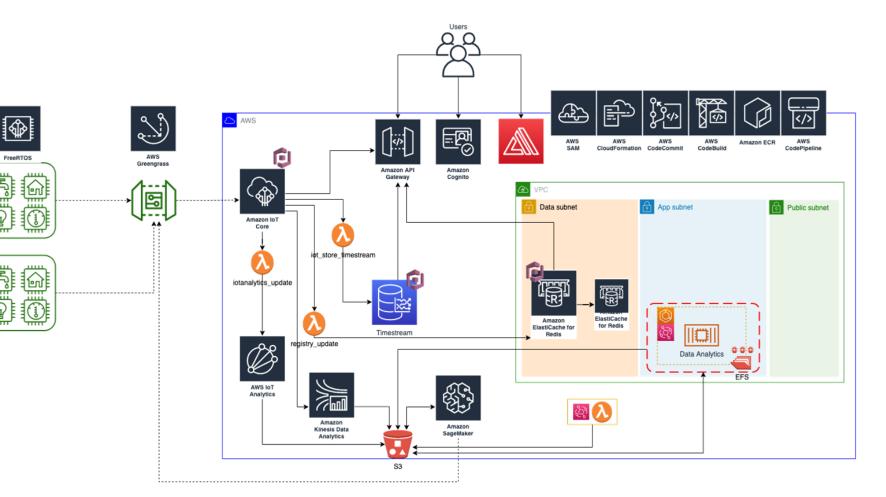






Cloud Native Solution on AWS

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



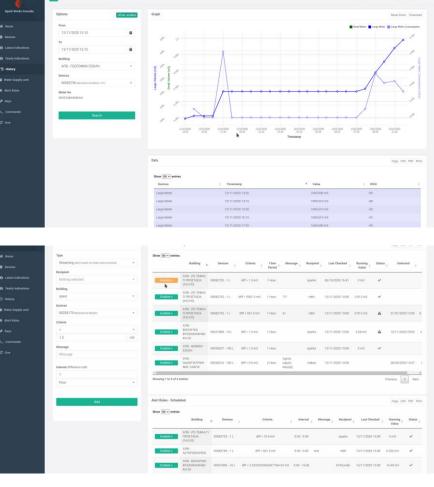


AMBITIOUS Pillar: <u>Al</u>-enabled <u>D</u>ata analytics and forec<u>A</u>sting

- 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







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									🛔 mbirsparks
	Mechanical Meters								
	Meter No	Building	Address (Large)	Volume (Large, m2)	Timestamp (Large)	Address (Smal)	Volume (Small, m3)	Timestamp (Small)	Volume (Total, m3)
		spare	00038179	1,762	17/07/2019 12:06				1,7
	201300270050EVN	ADB - KTHNIATPINH XXOAH	00038203	3.901,958	13/11/2020 12:31	00082149	11.281,151	13/11/2020 12:15	15.183;
	201300384050C	ADD - XHMEIO (NED KTHPIO)	00038625	1.016,993	13/11/2020 12:24	00082827	11.173,855	13/11/2020 13:09	12.190
	201300504050	ADD - DYPTOE DALEAFOTIKHE EXOAHE II	00037543	75,328	13/11/2020 13:08	00082815	1.407,353	13/11/2020 12:45	1.482
	20130099#50	ADB - DYPEOS DAMAFOEIKHE SXOAHE I	00082330	246,590	13/11/2020 12:28	00082623	6.551,634	13/11/2020 12:37	6.718
	2380077@013TPI	ARG - ALTEPOEKOREIO				00082785	782,894	13/11/2020 12:40	785
	26090254050E/TA	ΑΠΟ - ΥΔΡΑΥΑΙΚΗ ΠΑΙΔΙΚΟ ΚΕΝΤΡΟ	00082737	4.852,840	13/11/2020 13:08	00082840	9.973,064	13/11/2020 13:06	14.825
	26100250080E/TA	ΑΠΘ - ΦΙΛΟΣΟΦΙΚΗ ΣΧΟΛΗ (ΠΑΛΑΙΟ ΚΤΗΡΙΟ)	00038632	1.321,690	13/11/2020 13:08				1.32
	2612884008080A	ΑΠΟ - ΠΟΛΥΤΕΧΝΙΚΗ ΣΧΟΛΗ (ΚΤ ΕΔΡΩΝ)	00037870	62.762,250	13/11/2020 13:11				62.76
	26145040050KEN	ADD - EDETHM ANAENDETHPIO K BIBA/KHE	00038673	1.393,401	13/11/2020 12:59	00037880	2.677,937	13/11/2020 12:47	4.07
	2624605005080A	ΑΠΘ - ΠΑΝΕΠΙΣΤΗΜΙΑΚΟ ΓΥΜΝΑΣΤΗΡΙΟ	00037896	1.239,741	13/11/2020 12:16	00038175	9.614,504	13/11/2020 13:09	10.85
	2734458¢08080A	ADB - DOANT/KH 2X (KT MHOUTON MHOUKON)	00076905	56.633,710	13/11/2020 12:34				56.63
	2863255#05080A	ATIO - NOMIRH EXDAH	00038207	10.970,000	13/11/2020 10:30	00082740	16.829,832	13/11/2020 13:08	27.79
L	2863610@10080A	ADD - ODONTIATPIKH NOZ "AXEDA"	00038216	253.999,109	10/11/2020 13:55				253.99
	363252254050EYN	ΑΠΘ - ΚΕΔΕΑ (ΚΕΝΤΡΟ ΔΙΑΔ ΕΡΕΥΝ ΑΠΟΤ/ΤΩΝ)	00038176	4.304,200	13/11/2020 12:57				4.30
	46622510100ΔAA	ADD - BUNDED HAND CONTACT	00082762	4.935,010	13/11/2020 12:29				4.93
	50170100.ΔAA	ADD - BIOAOTIKO GYEIKOMABHM/NH EX	00037885	20.904,360	13/11/2020 13:03				20.90
	57040013V0L	ΑΠΟ - (Π) ΤΕΦΑΑ Π ΠΡΟΣΤΑΣΙΑ (ΤΑΞΥΠ)				00082752	5.147,056	13/11/2020 12:35	5.14
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	872540050KEN	ADD - DONYTEXNIKH EXOAH (KT MOMA)	00038177	123.261,560	13/11/2020 11:14	00082807	9.155,458	13/11/2020 12:40	132.41
	87287Φ050KEN	ΑΠΘ - ΦΙΛΟΣΟΦΙΚΗ ΣΧ (ΥΠΟΓ ΠΤΕΡΥΓΑ)	00037908	1.426,132	13/11/2020 11:28	00082709	4.649,811	13/11/2020 12:58	6.07
	87396#050KEN	ADD - KT ΔΙΟΙΚΗΣΗΣ ΘΕΟΛΟΓΙΚΗ ΣΧ ΛΕΒΗΤ/ΣΙΟ	00037835	14.987,250	13/11/2020 11:14	00038609	11.131,946	13/11/2020 12:10	26.111

Water Monitoring and Management

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





Smart Agriculture

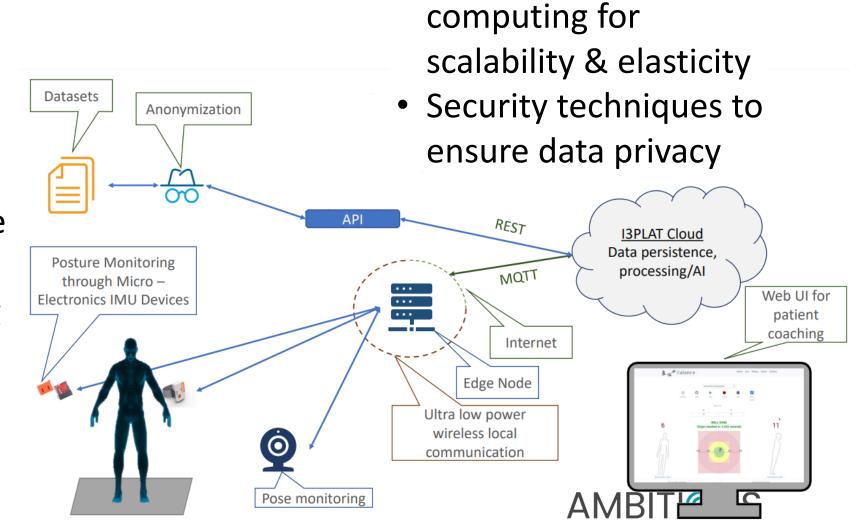
- Weather conditions monitoring
- Fully customized edge node
- Edge processing and post analytics framework for disease detection (dacus)



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

Digital solutions for the 5G era

Keyfacts

01

Background experience

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

02

Awarded

- ΔEH 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











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Thank You!



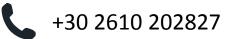
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