AVEVAWORLD

OCTOBER 2024

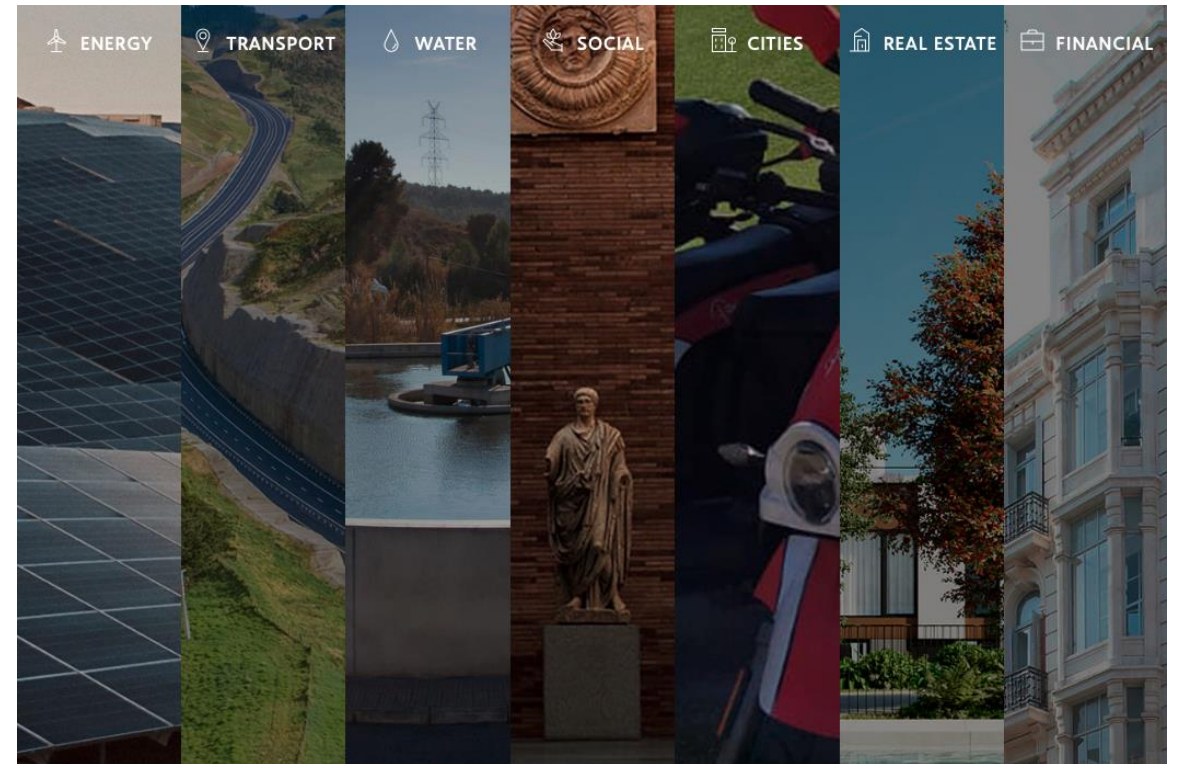# ACCIONA:
The Greatest Collaborations

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Guillermo Hijós | O&M Desalination Middle East and Oceania Director, ACCIONA

AVEVA

Who is Acciona?

- We are a global group that develops and manages sustainable infrastructure solutions, especially in renewable energy

- Six years ago, we embarked on a journey towards the digital transformation of Water since it's an essential resource for humanity, which is becoming increasingly scarce

- We use AVEVA's tools to build digital solutions that would help enhance production processes

ENERGY | TRANSPORT | WATER | SOCIAL | CITIES | REAL ESTATE | FINANCIAL

Who is Acciona?

Our goal: To make a positive contribution to society and to the planet, providing sustainable solutions to the most urgent issues such as global warming and water scarcity.

24,894
GWH Produced in 2023

1,190
HM3 Volume of Water
Treated in 2023

+6,000
Km of Roads Constructed
in more than 25 Countries

950,000
m2 of social infrastructure
over the last 14 years

100%
Of Emissions Offset

13.6
M T CO_2 Emissions avoided
by Renewable Generation

AVEVA

Success collaboration stories

... many of us, to be here today.

Collaboration is one of the keys to meeting major challenges

OUR CHALENGES

DESALINATION PLANTS MANAGEMENT

PAS

Sector Problems

Unavailability of qualified personnel with operational knowledge

Lack of a standarized data analysis approach

Increasingly lower/more competitive tariffs with a higher associated risk

Increasingly larger amounts of data manage w/o proper value creation

Large number of different sources generating data

Increasing cybersecurity risks

Reverse osmosis

PAS

Developed Solution

Expert analysis of plant operation and maintenance

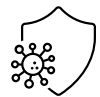Standardize industry KPIs on real time and automatize reporting

Assist the decision-making process ensuring plant optimal's performance maximizing asset life

Maximize value generation from available data
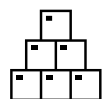
Unifying facilities data sources on a single data base

Provides a cyber-secure tool for data analysis

Reverse osmosis

PAS

What else is PAS?

PI System-based software that gathers whole OT systems data

Assist in the troubleshooting process

Facilitates Compliance and handover process providing a structured data base

Available in-premise and in cloud

Standardized data model that allows customization of the product and performance in real time de-coupled from data generating sources

Reverse osmosis

PAS

Other Market opportunities

Easy development for other water business areas- increased market potential

Allows integration with AI Solution for an added value

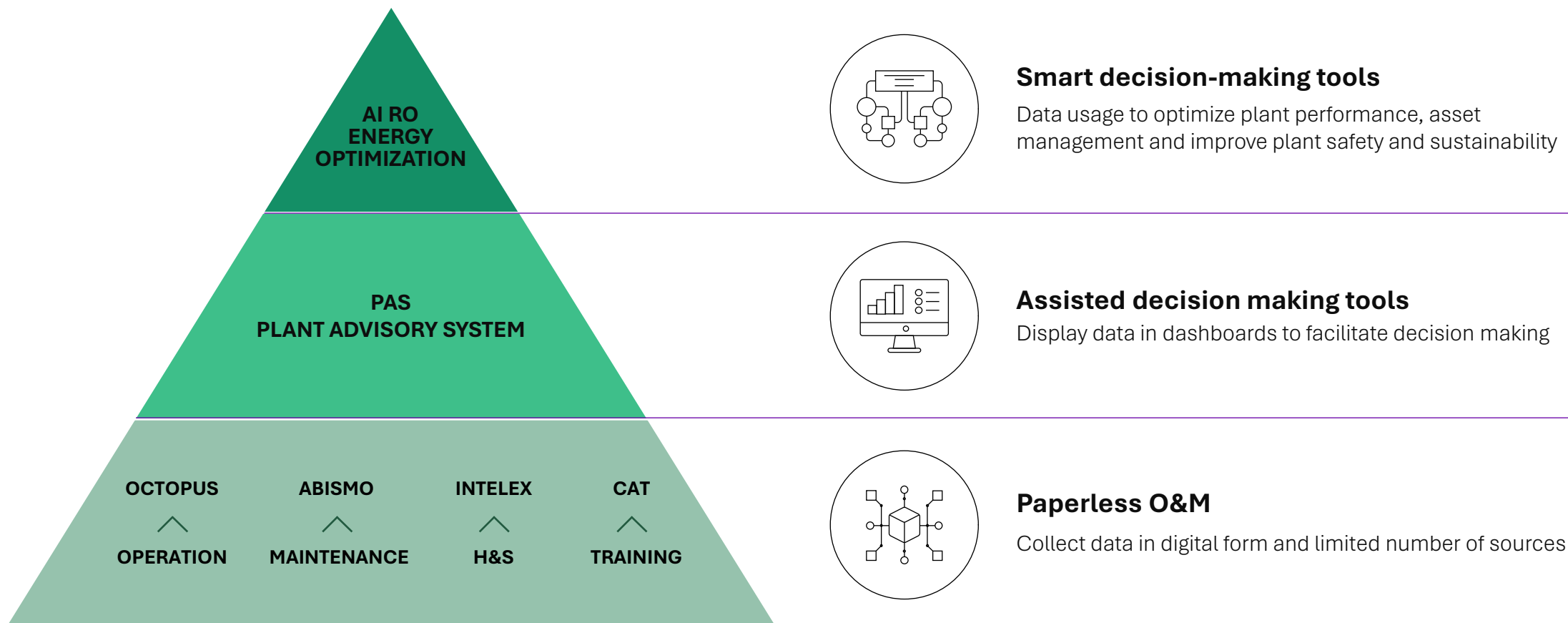Limited or inexistent competition with a comparable tool

Better understanding of market needs

Water Sector

PAS

Integration on Acciona's Digitalization Strategy

AI RO ENERGY OPTIMIZATION

PAS PLANT ADVISORY SYSTEM

OCTOPUS	ABISMO	INTELEX	CAT
∧	∧	∧	∧
OPERATION	MAINTENANCE	H&S	TRAINING

Smart decision-making tools

Data usage to optimize plant performance, asset management and improve plant safety and sustainability

Assisted decision making tools

Display data in dashboards to facilitate decision making

Paperless O&M

Collect data in digital form and limited number of sources

PAS

Data Resourcing

DCS operational data – OPC UA Connection

CMMS – API Connection

COMS – API Connection

Web data – PI Web API

Other **O&M Registers** – CSV / PI Adapters / PI web API
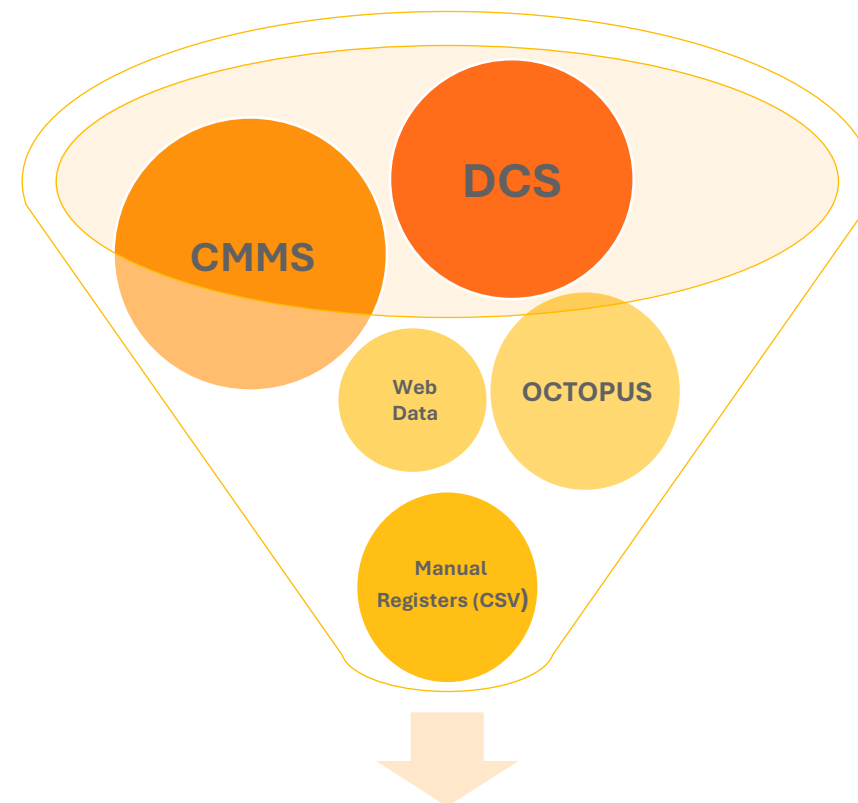
Plan Management System

PAS
PAS Structure
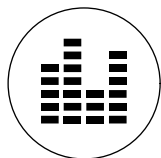
General Management
Energy Consuption
Chemical Consumption
Water Availability and Quality

Operations Control
Systems Performance Analysis
Pumping Systems Monitoring
Process Mass Balance

Maintenance Control
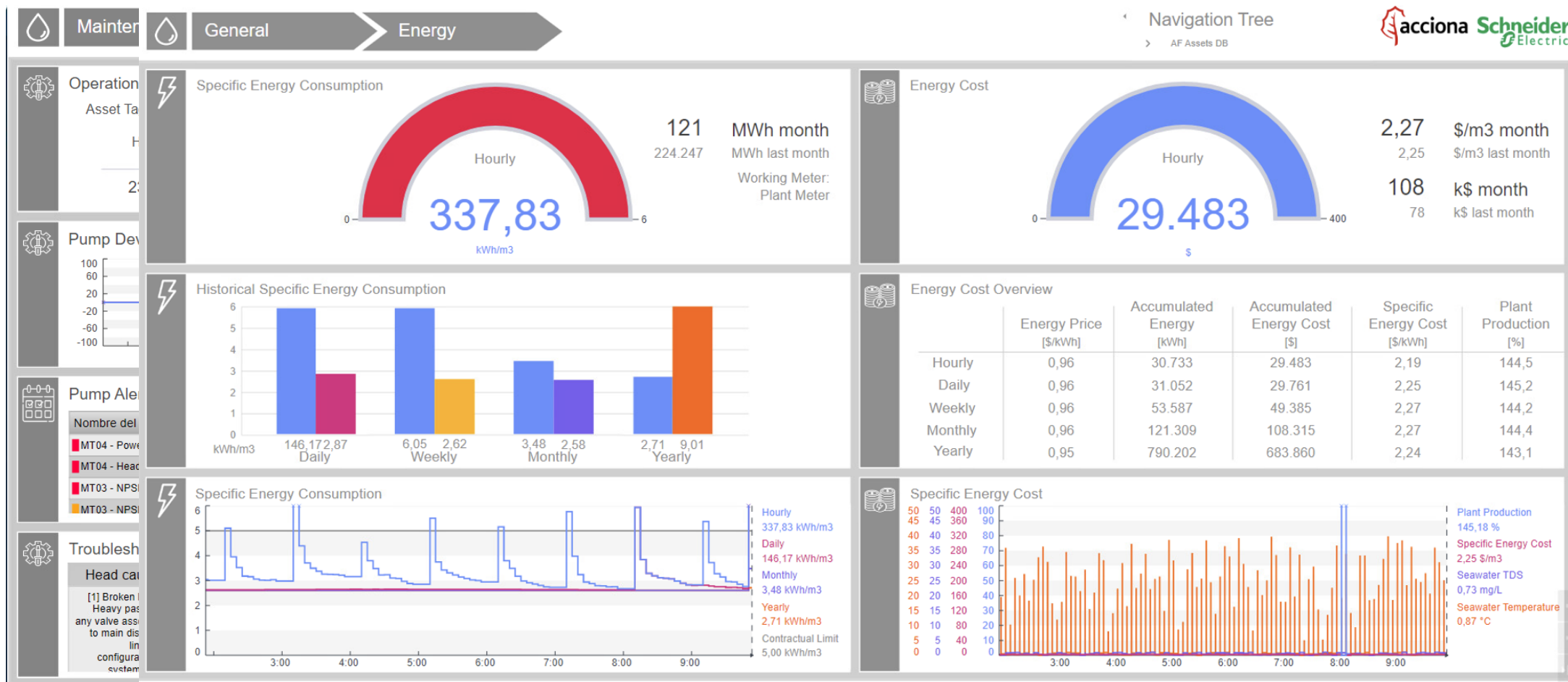Assets Performance
Maintenance KPIs
Inventory registers

Progressive levels allows a transition from an **overview to a detailed analysis**

General overviews and KPIs for company's management

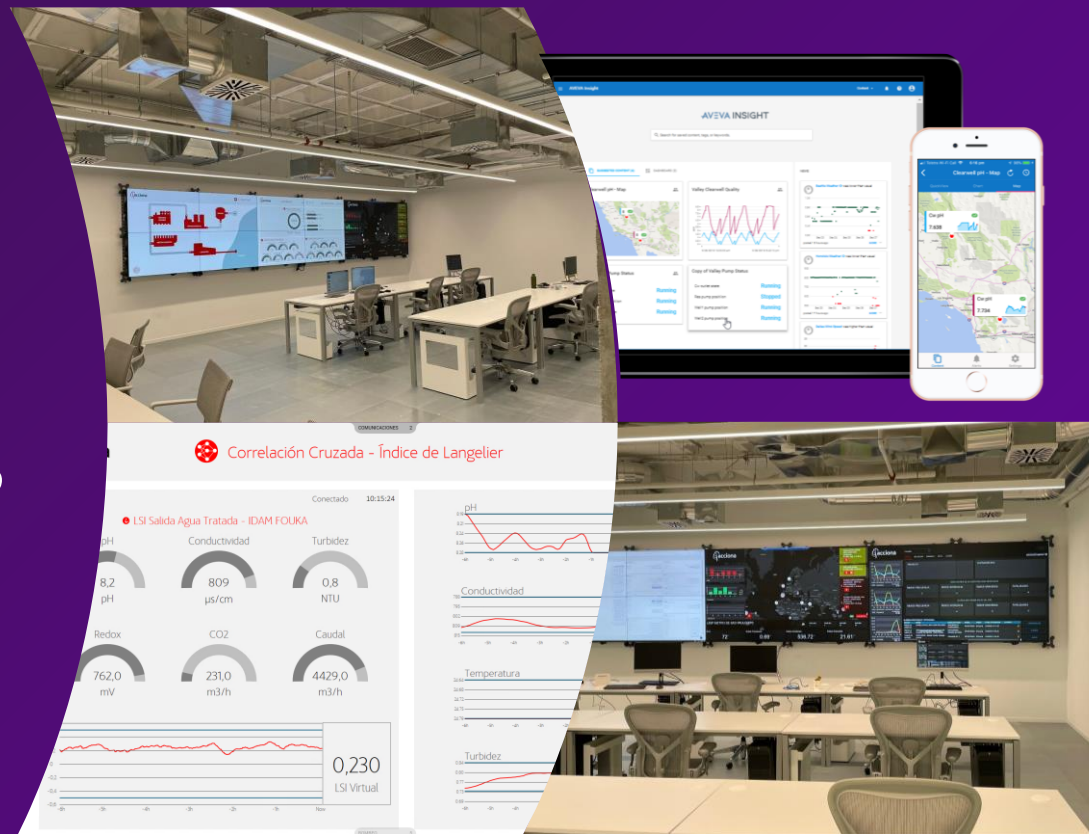**Depth Systems analysis,** ensuring precise, real-time control of plant O&M technical team

PAS

Look and feel

OUR CHALENGES

Insight to CONNECT data services migration

CECOA – AVEVA^{TM} Insight

What is AVEVA Insight?

AVEVA Insight gives us easy access to your industrial information in the cloud. From anywhere, at any time. You can…

- Connect easily to production data in real time.
- Have plant KPIs and visibility into what is happening.
- Compare between assets or plants.

What did we do with it?

- We have created KPIs to display the most relevant information for each plant to O&M team.
- We have shared our information with our clients to be more transparent in the execution of our contracts.

What did we achieve with it?

- Increased efficiency in our O&M teams thanks to having information available immediately.
- Increased confidence from our clients in our operations.
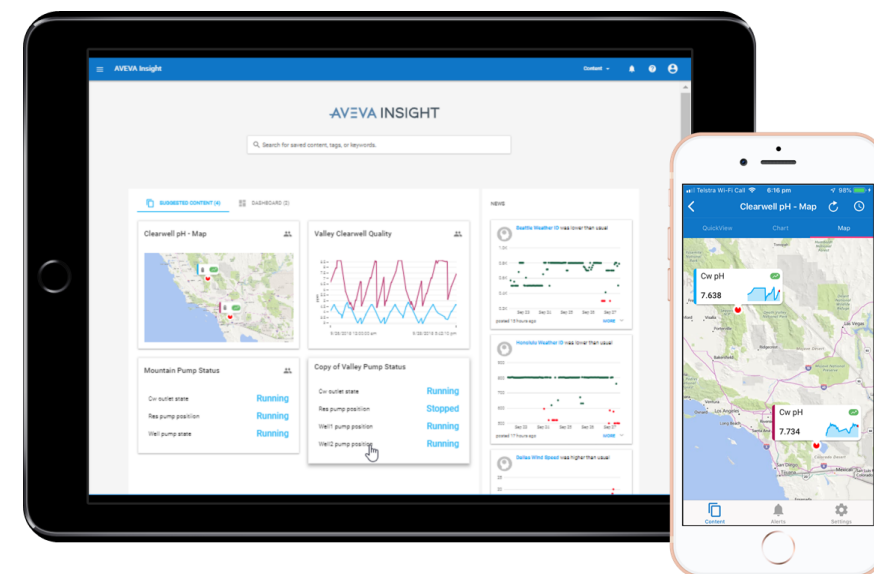
CECOA – CONNECT data services

Redesigned. Reengineered, Re-everythinged

CONNECT data services is the logical next step – offering AVEVA Insight-like functionality plus so much more.

Although Insight will continue to operate, the AVEVA roadmap for CONNECT data services is more extensive and fast.

For that reason, Acciona has decided to migrate all data, visualization dashboards and mathematical models, that are currently hosted on Insight, to CONNECT data services.

The new features of this platform, such as the possibility of using Industrial Graphics in the dashboards created for the visualization environment, or the better integration with Advanced Analytics, encouraged us to embark on this path in collaboration with the AVEVA team: the migration of our industrial solution to the cloud.

A year and a half ago, AVEVA contacted us to offer their help in the tasks necessary to change to the new environment. They created for us a Lighthouse project adapted to our needs, where we would work side by side to achieve our goal.

Lighthouse Project

The present architecture
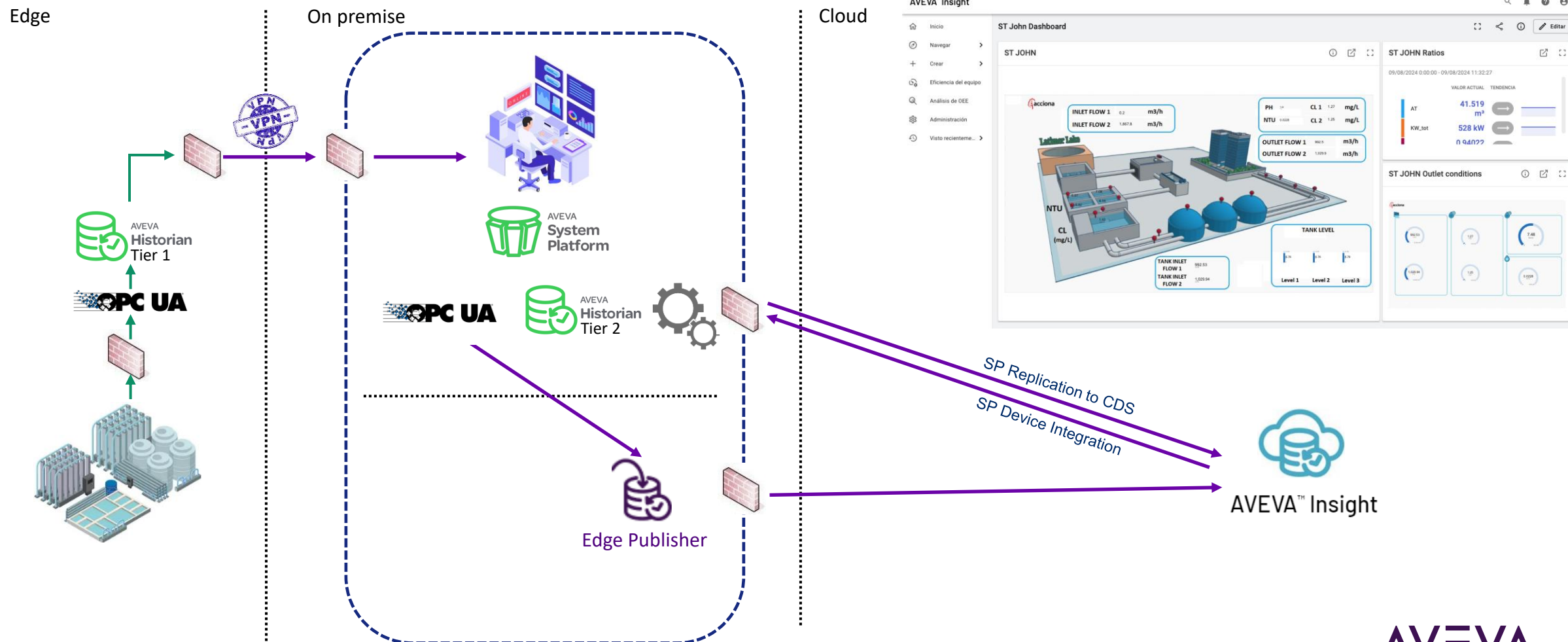
Lighthouse Project

The new architecture

Edge | On premise | Cloud

- AVEVA Historian Tier 1
- OPC UA
- AVEVA System Platform
- OPC UA
- AVEVA Historian Tier 2
- AVEVA Adapter for OPC UA

SP Replication to CDS
SP Device Integration

CONNECT visualization services

AVEVA Advanced Analytics

OSM 9 Ideal Conditions

CONNECT data services

- STORE
- SEE
- SHAPE — Rest API
- SHARE — Rest API
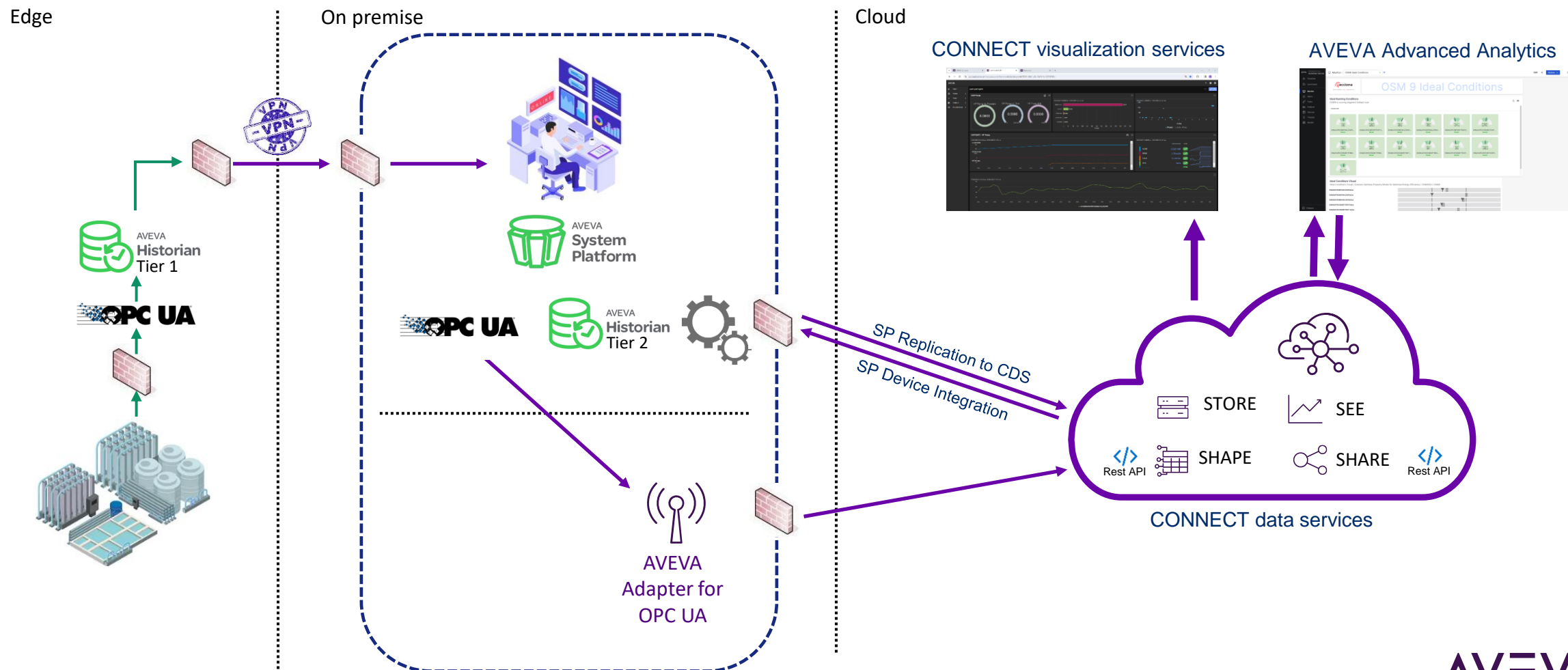
AVEVA

AVEVA Lighthouse Program

The value of engagement

AVEVA's Lighthouse program guided Acciona along the journey to CONNECT

- Providing insight to and trust in newly available CONNECT capabilities
- Migrating Insight advanced analytics models to CONNECT advanced analytics
- Helping create new CONNECT visualization services dashboards
- Guiding Acciona through all steps
  (e.g. data migration, add new OPC UA data, updated user management, answer cyber security questions, etc)

Great customer – vendor collaboration

- Joint Acciona, Schneider Electric and AVEVA team collaboration resulted in deployment of a solid platform ready for the future
- Acciona provided rich and honest product feedback to help improve product quality

Acciona's alliance with Schneider and AVEVA creates new digital solutions for water

Challenge

- Digitalization improves the management and maintenance of water infrastructures. But there are not many market solutions that meet the needs of this sector. The management of large desalination plants is a complicated job that requires analyzing multiple data sources to make the right decisions at the right time. Sharing the KPIs of our plants with our O&M teams, as well as our customers, is key to the continuous improvement of our processes and to maintaining the reliability of our customers.

Solution

- Acciona, Schneider and AVEVA have joined forces to create the world's first decision support software for desalination plants and improve information sharing with CONNECT.

Results

- Expected 2-5% reduction on OPEX costs

- Higher levels of availability and asset life

- Less personnel required and less qualified

- Standardization of reporting and analytical tools

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Questions?

Please wait for the microphone.

State your name and company.

Please remember to...

Navigate to this session in the mobile app to complete the survey.

Thank you!

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AVEVA

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ABOUT AVEVA

AVEVA is a world leader in industrial software, providing engineering and operational solutions across multiple industries, including oil and gas, chemical, pharmaceutical, power and utilities, marine, renewables, and food and beverage. Our agnostic and open architecture helps organizations design, build, operate, maintain and optimize the complete lifecycle of complex industrial assets, from production plants and offshore platforms to manufactured consumer goods.

Over 20,000 enterprises in over 100 countries rely on AVEVA to help them deliver life's essentials: safe and reliable energy, food, medicines, infrastructure and more. By connecting people with trusted information and AI-enriched insights, AVEVA enables teams to engineer efficiently and optimize operations, driving growth and sustainability.

Named as one of the world's most innovative companies, AVEVA supports customers with open solutions and the expertise of more than 6,400 employees, 5,000 partners and 5,700 certified developers. The company is headquartered in Cambridge, UK.

Learn more at www.aveva.com

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