

The background of the image is a deep purple with a network of glowing, intersecting diagonal lines in shades of cyan and magenta, creating a sense of digital connectivity and data flow.

AVEVA WORLD

ACCELERATE INDUSTRIAL INTELLIGENCE

AVEVA WORLD MILAN, MAY 2026

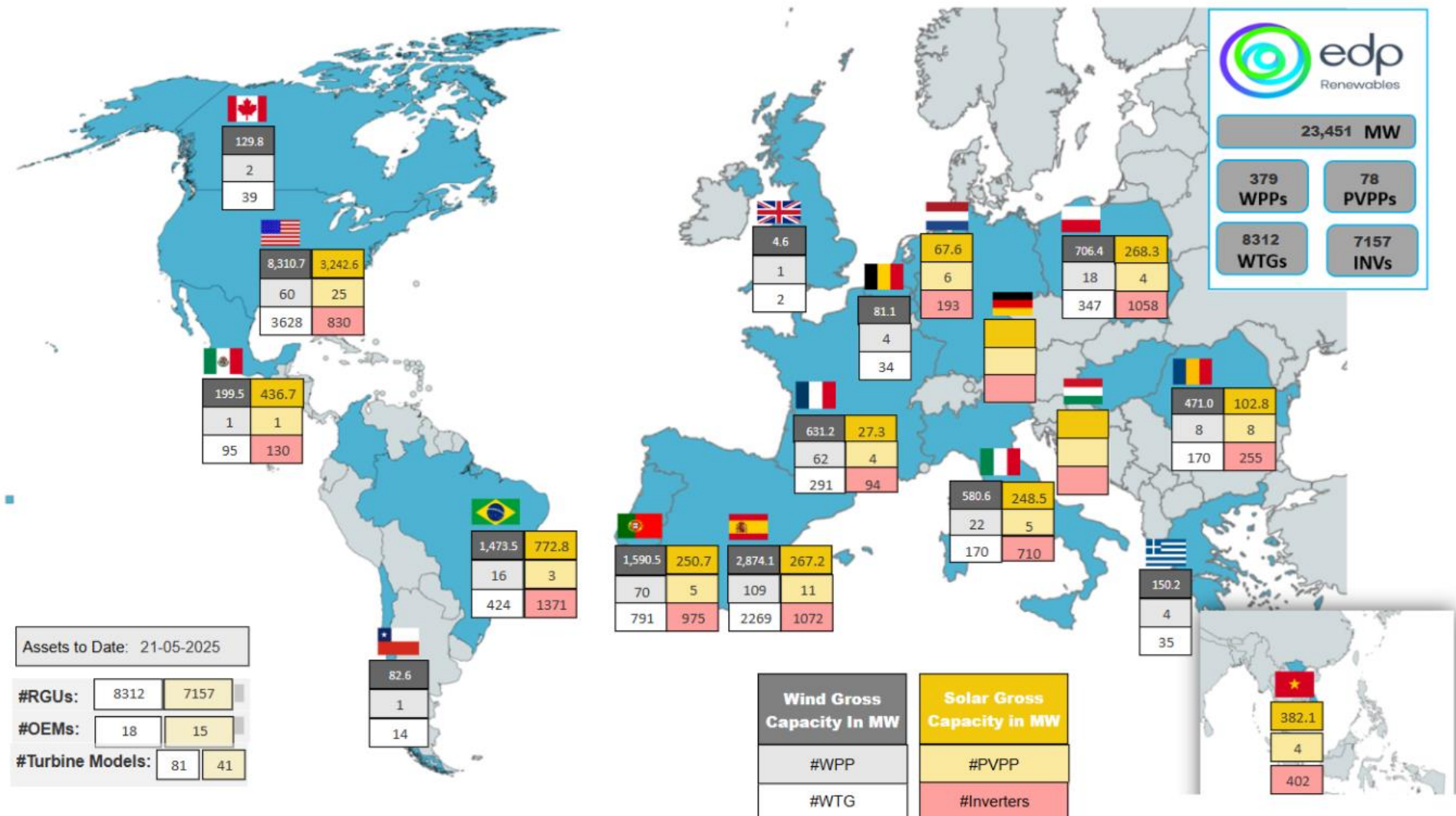
EDP Renewables

Unlocking the Power of Industrial Data with CONNECT and
Databricks

Sergio Valencia Galán - EDPR

AVEVA

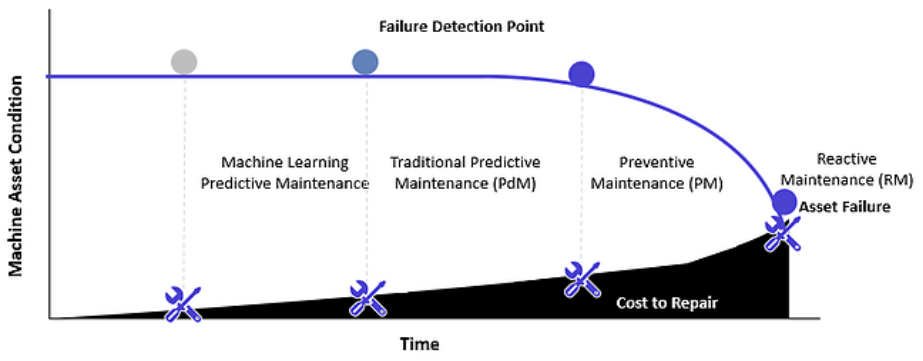
EDPR Fleet



Business Needs

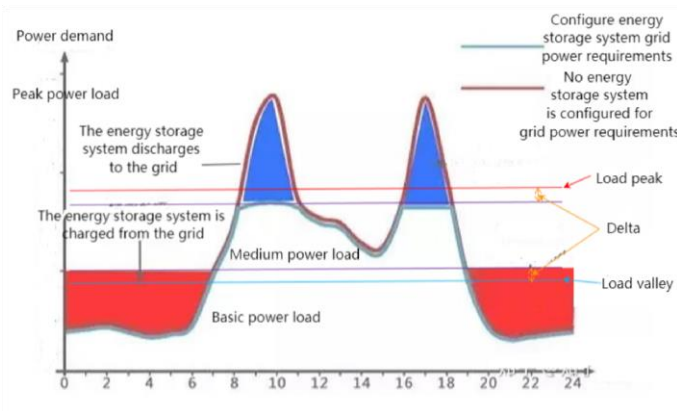
Machine Learning

Predictive Maintenance



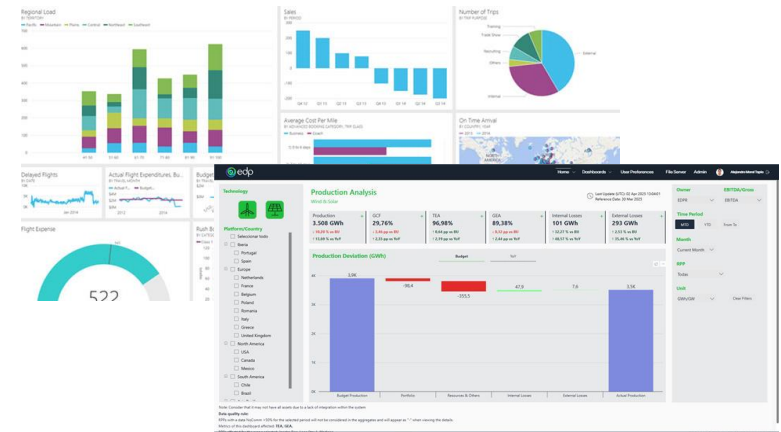
BESS (Storage) Strategy

based in ML Models

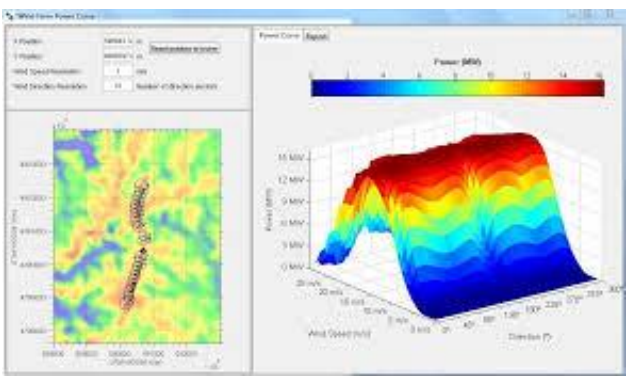


Dashboard on Power BI

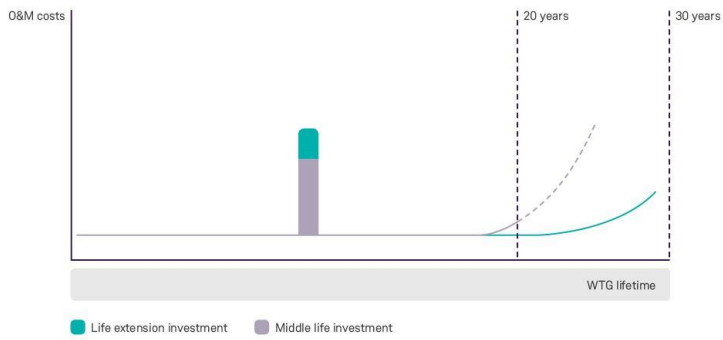
(Advanced Reporting)



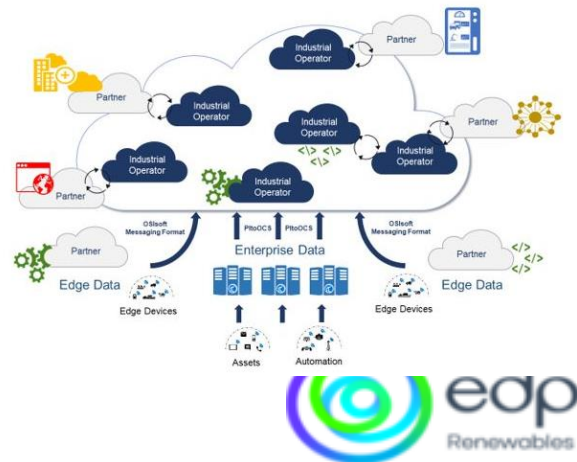
Performance of WTG / INV



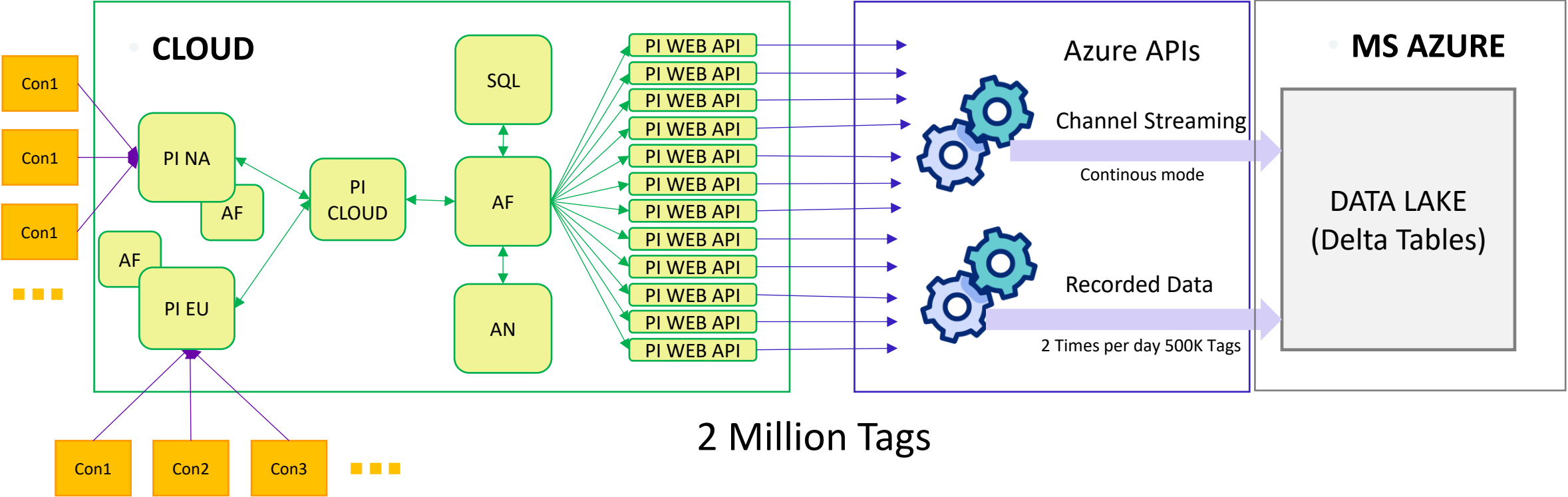
Wind Turbine Life Extension



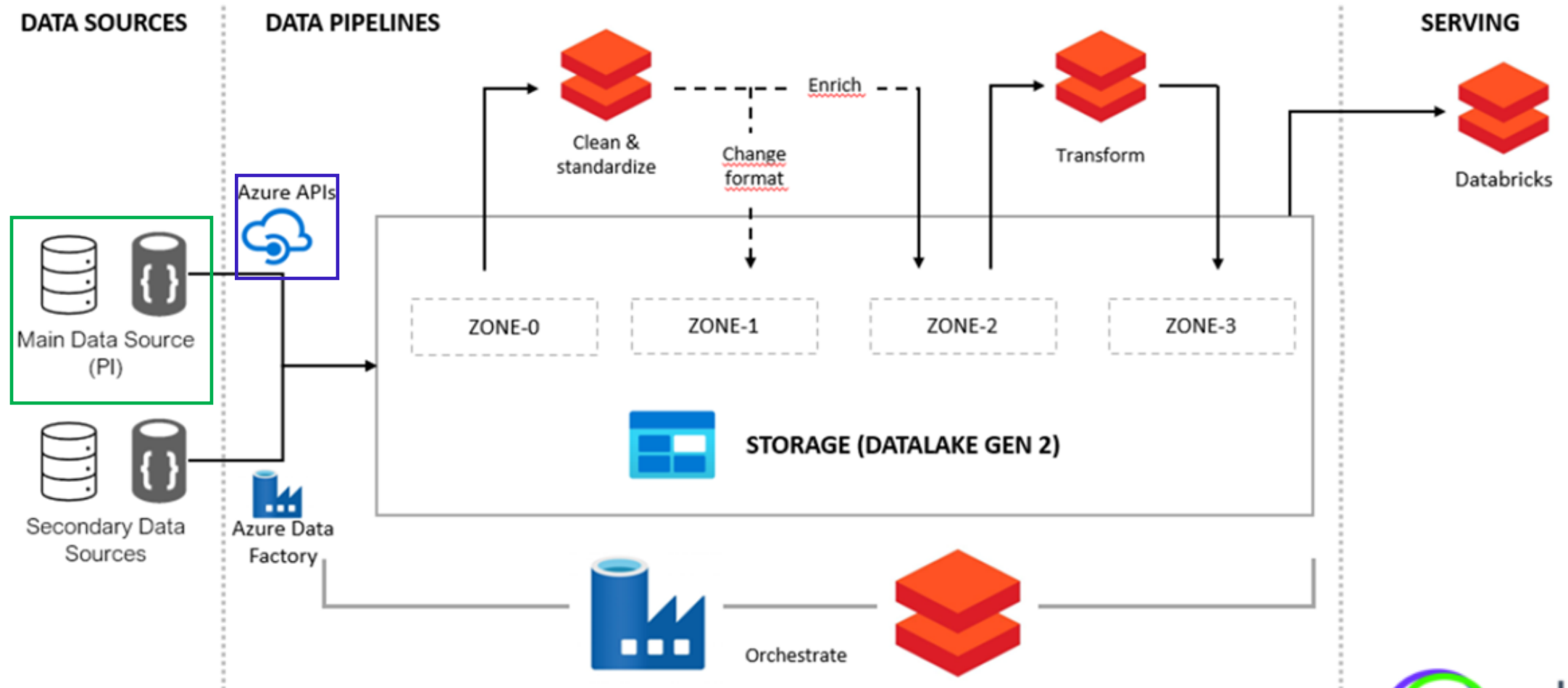
Data Sharing



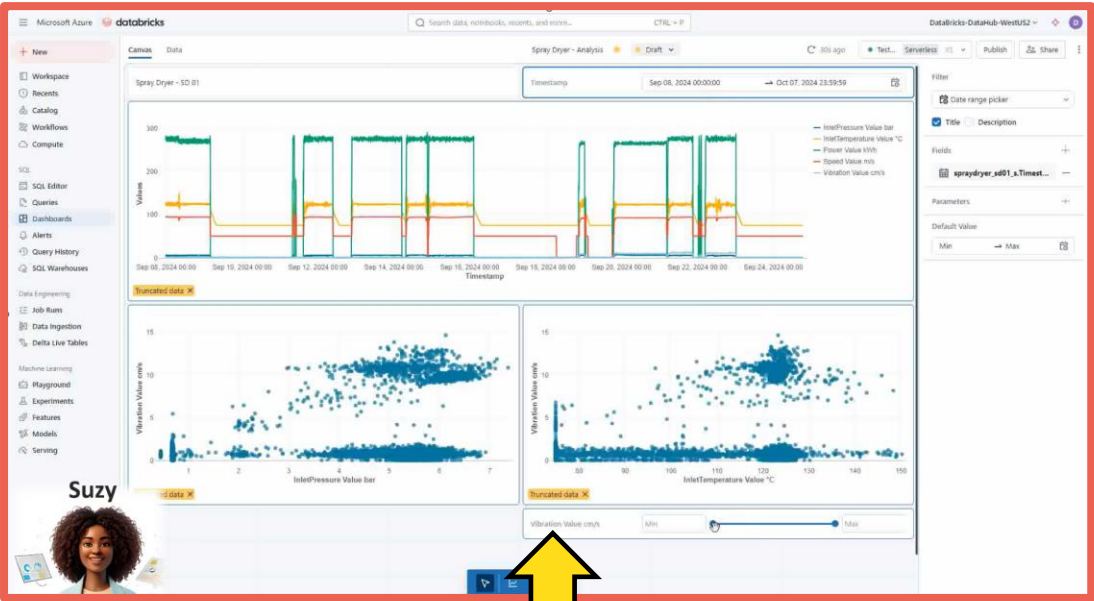
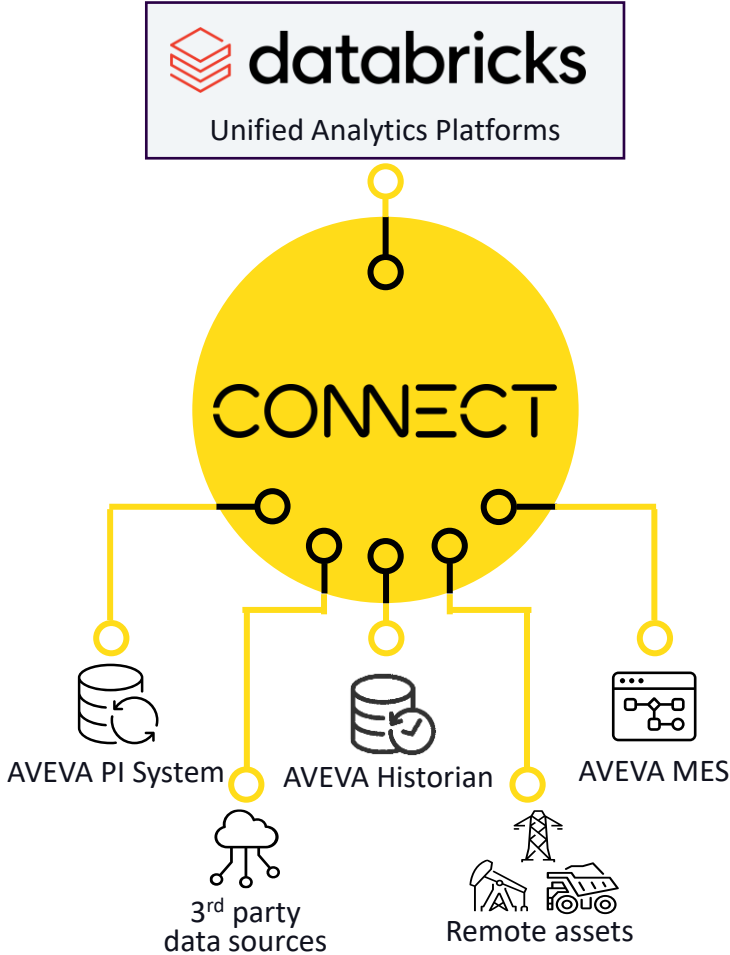
As-is Architecture



As-is Architecture



Today: Live industrial data for data science



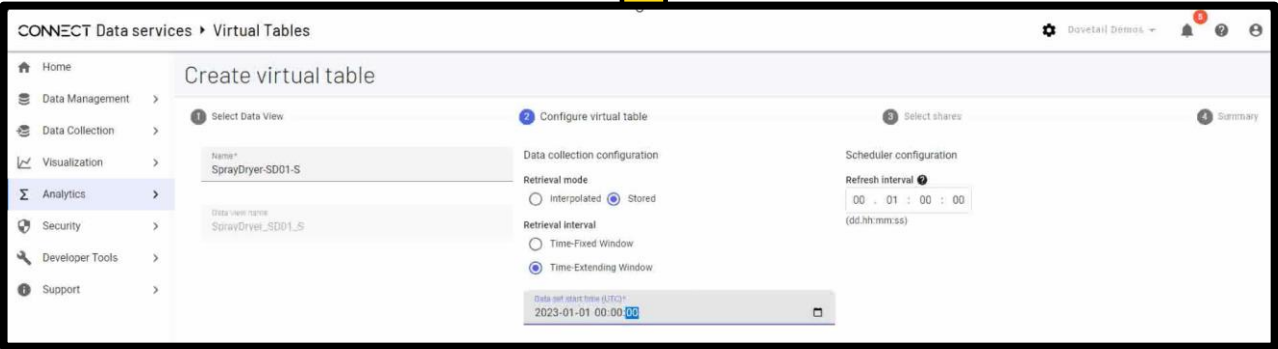
Data Scientist



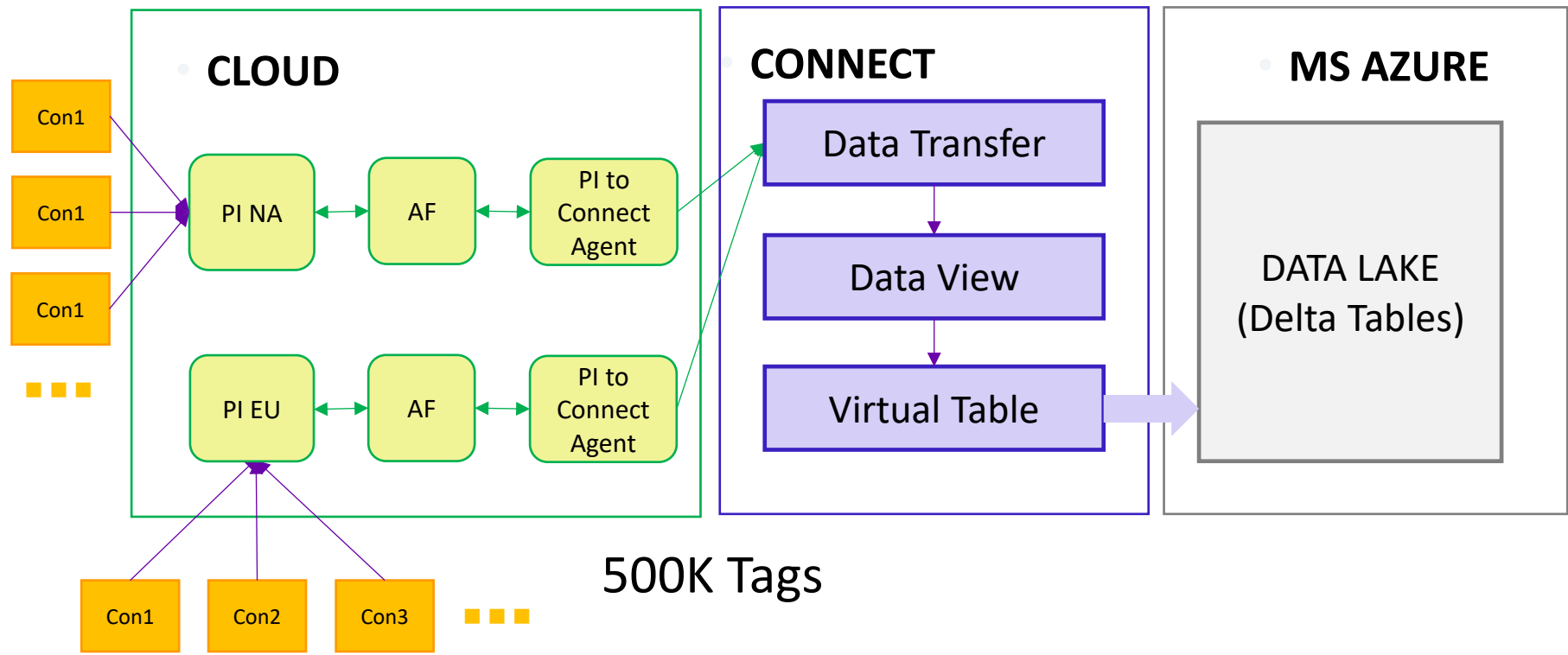
Data Analyst



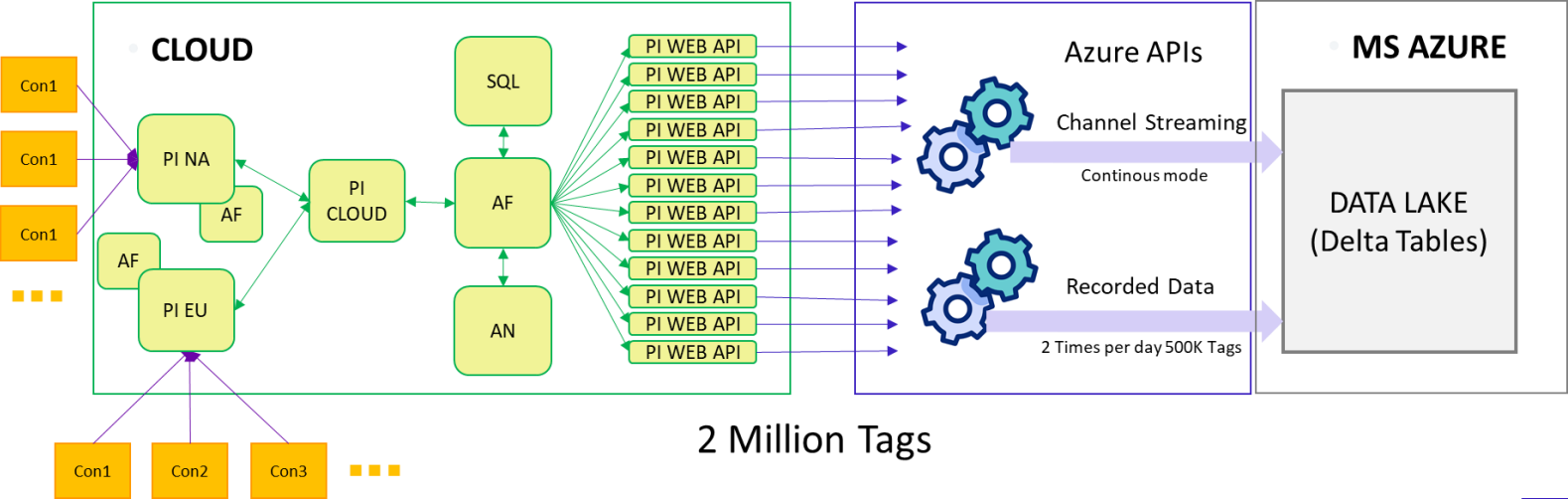
Data Architect



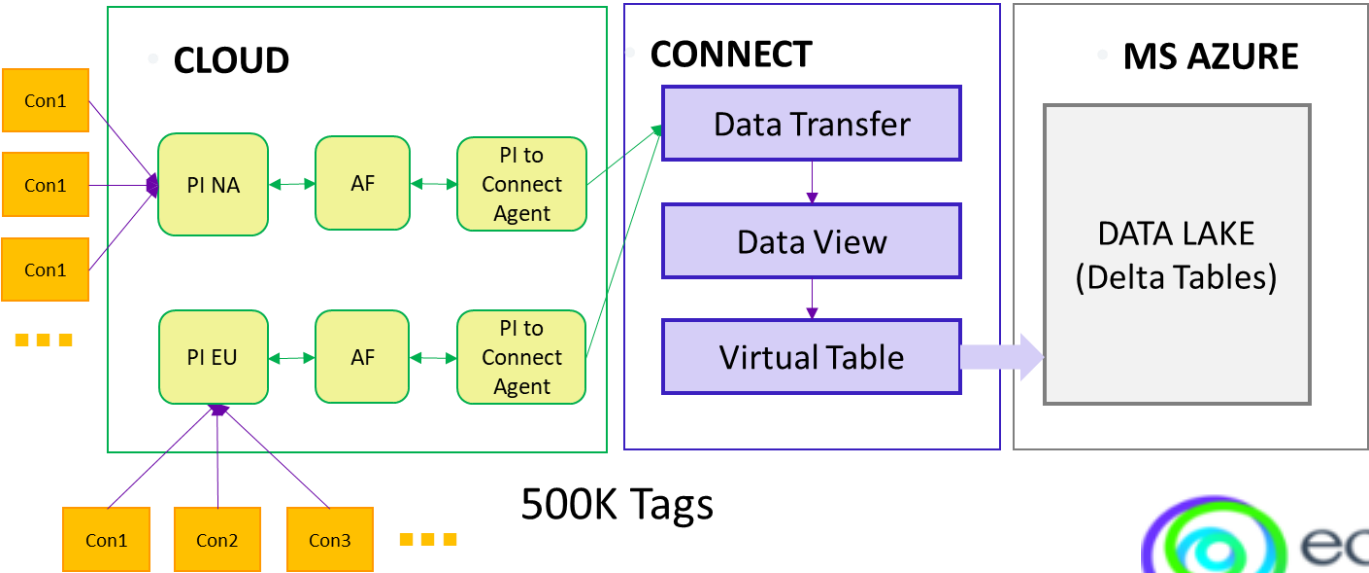
New Architecture



New Architecture



2 Million Tags



500K Tags

Configuration Steps

Data Transfer

PI to CONNECT Agents ▾

Filter Agents...

Download Agent

Description ↑	Status	Version	Data Archive
DATA HUB EU	Good	2.4.2520.0	edprazrppir01
NA	Good	2.2.2174.0	TUPPINA01.CORP.ORG

Manage Agent

Transf

Agent Overview

Agent Description

NA

Agent Namespace

EDPR Data Hub

Agent Status

Registered

Agent Version

2.2.2174.0

AF Server Index Status

Succeeded

PI Points Index Status

Succeeded

Communication Time

23 May 2025, 11:52:49

Transfer Overview

Transfer Name

NA DATA

Transfer Description

Transfer Status

Started

Current Activity

Sending Streaming Data, Backfilling Streaming Gap

Last Modified

29 Apr 2025, 16:27:16

View/Edit Transfer

Remove Transfer

St

Data View

es ▶ Data Views

EDPR Data Hub

Manage Queries

Filter Fields... Add

Index Field

Timestamp

Index

Grouping Fields

Name

Name

Add a Grouping Field

Test1

EDPR Data Hub

Streams

Identifying Field

IdentifyingValue DigitalStateNa...

Property Id - DigitalStateName

IdentifyingValue engunits Uom

Metadata - engunits

Auto Refresh

View in API Console

Timestamp	Name	DigitalStateName	engunits	Id	IsAnnot
22 May 2025, 00:00:00	SUBSTN.AA.WMET01.ALT1HORWDSPD.ACQ.M/S		M/S	PLTUPPINA01.CORP.ORG_981567	false
22 May 2025, 01:00:00	SUBSTN.AA.WMET01.ALT1HORWDSPD.ACQ.M/S		M/S	PLTUPPINA01.CORP.ORG_981567	false
22 May 2025, 02:00:00	SUBSTN.AA.WMET01.ALT1HORWDSPD.ACQ.M/S		M/S	PLTUPPINA01.CORP.ORG_981567	false
22 May 2025, 03:00:00	SUBSTN.AA.WMET01.ALT1HORWDSPD.ACQ.M/S		M/S	PLTUPPINA01.CORP.ORG_981567	false
22 May 2025, 04:00:00	SUBSTN.AA.WMET01.ALT1HORWDSPD.ACQ.M/S		M/S	PLTUPPINA01.CORP.ORG_981567	false
22 May 2025, 05:00:00	SUBSTN.AA.WMET01.ALT1HORWDSPD.ACQ.M/S		M/S	PLTUPPINA01.CORP.ORG_981567	false
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22 May 2025, 08:00:00	SUBSTN.AA.WMET01.ALT1HORWDSPD.ACQ.M/S		M/S	PLTUPPINA01.CORP.ORG_981567	false
22 May 2025, 09:00:00	SUBSTN.AA.WMET01.ALT1HORWDSPD.ACQ.M/S		M/S	PLTUPPINA01.CORP.ORG_981567	false
22 May 2025, 10:00:00	SUBSTN.AA.WMET01.ALT1HORWDSPD.ACQ.M/S		M/S	PLTUPPINA01.CORP.ORG_981567	false
22 May 2025, 11:00:00	SUBSTN.AA.WMET01.ALT1HORWDSPD.ACQ.M/S		M/S	PLTUPPINA01.CORP.ORG_981567	false
22 May 2025, 12:00:00	SUBSTN.AA.WMET01.ALT1HORWDSPD.ACQ.M/S		M/S	PLTUPPINA01.CORP.ORG_981567	false
22 May 2025, 13:00:00	SUBSTN.AA.WMET01.ALT1HORWDSPD.ACQ.M/S		M/S	PLTUPPINA01.CORP.ORG_981567	false
22 May 2025, 14:00:00	SUBSTN.AA.WMET01.ALT1HORWDSPD.ACQ.M/S		M/S	PLTUPPINA01.CORP.ORG_981567	false
22 May 2025, 15:00:00	SUBSTN.AA.WMET01.ALT1HORWDSPD.ACQ.M/S		M/S	PLTUPPINA01.CORP.ORG_981567	false

Rows per page 50 1-50 |< < >



Configuration Steps

Virtual Table

Edit virtual table

Name (readonly)

Test1

Data view name (readonly)

Test

Data collection configuration

Retrieval mode (readonly)

☐ Interpolated

☒ Stored

Retrieval interval (readonly)

☐ Time-Fixed Window

☒ Time-Extending Window

Data set start time (readonly) *

04/21/2025 12:00:00 AM

Scheduler configuration

Refresh interval *

00.00:15:00

Cancel

Save

Delta Sharing Configuration (Databricks)

Microsoft Azure

databricks

Search data, notebooks, recents, and m... CTRL + P

New

Workspace

Recents

Catalog

Workflows

Compute

Marketplace

Catalog Explorer >

Delta Sharing

Shared with me Shared by me

This is all the data shared with your organization. Providers share data with your account through shares. You can view shares from providers and create a catalog from a share to view and use the data.

Looking for data shared with you? Contact your metastore administrator to grant you the USE_PROVIDER privilege to view all inbound shares.

Sharing Identifier

easteur

Explore Data (Databricks)

Catalog

Type to search...

For you All

My organization

- system
- main
- osipi_dev
 - default
 - edpr-datahub-teste
 - test1
 - information_schema
- Delta Shares Received
 - samples
- Legacy
 - hive_metastore

New Query 2025-01-29 6:28pm

New Query 2025-05-20 1:26pm

Run (1000)

hive_metastore default New SQL editor: OFF

1 select * from osipi_dev.edpr-datahub-teste.test1

2 Where tag = 'SUBSTN_AA.WT06.WNAC_WDSPD.ACQ.M/S' and Timestamp >= '2025-04-21 00:58:00' and Timestamp < '2025-04-21 01:58:00'

3 order by Timestamp

Raw results

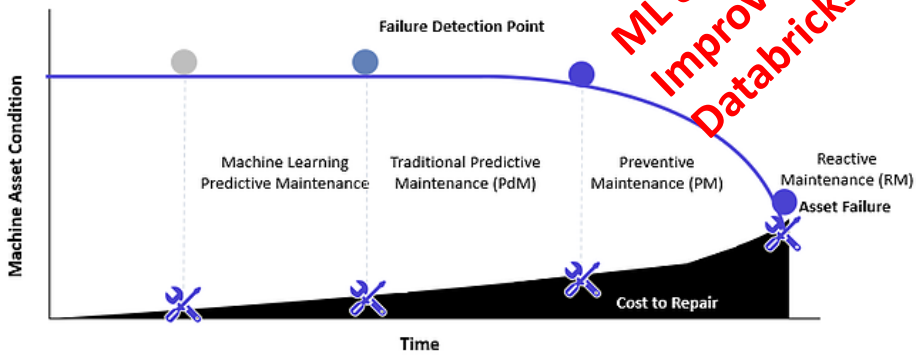
	Timestamp	Name	DigitalStateName	engunits	Id	
1	2025-04-21T00:58:14.8...	SUBSTN_AA.WT06.WNAC_WDSPD.ACQ.M...	null	M/S	PL_TUPPINA01.CORP.ORG_9852...	fa
2	2025-04-21T00:58:20.5...	SUBSTN_AA.WT06.WNAC_WDSPD.ACQ.M...	null	M/S	PL_TUPPINA01.CORP.ORG_9852...	fa
3	2025-04-21T00:58:32.8...	SUBSTN_AA.WT06.WNAC_WDSPD.ACQ.M...	null	M/S	PL_TUPPINA01.CORP.ORG_9852...	fa
4	2025-04-21T00:58:44.7...	SUBSTN_AA.WT06.WNAC_WDSPD.ACQ.M...	null	M/S	PL_TUPPINA01.CORP.ORG_9852...	fa
5	2025-04-21T00:58:50.7...	SUBSTN_AA.WT06.WNAC_WDSPD.ACQ.M...	null	M/S	PL_TUPPINA01.CORP.ORG_9852...	fa



Business Needs

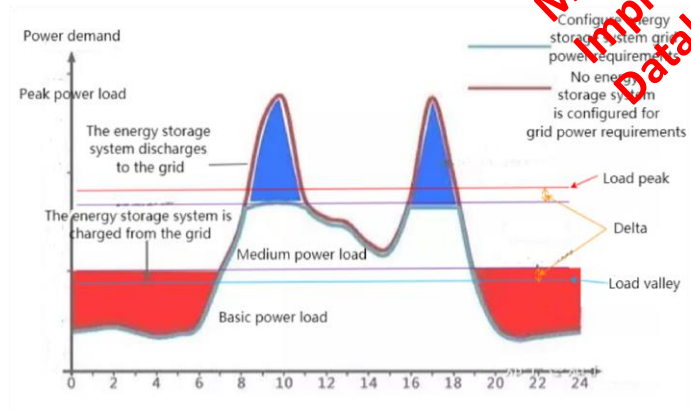
Machine Learning
Predictive Maintenance

ML & DL
Improvement on
Databricks

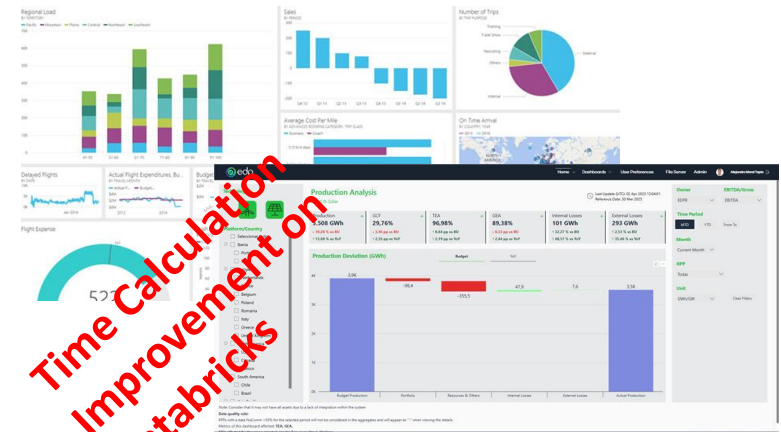


BESS (Storage) Strategy
based in ML Models

ML & DL
Improvement on
Databricks

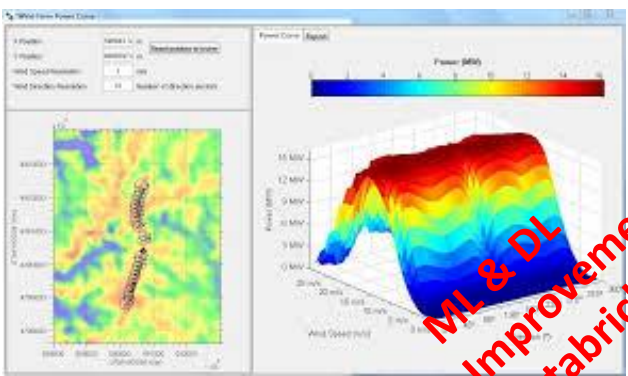


Dashboard on Power BI
(Advanced Reporting)



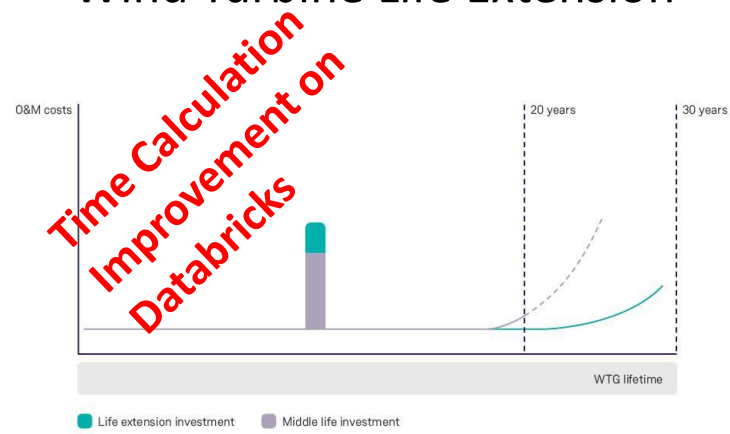
Time Calculation
Improvement on
Databricks

Performance of WTG / INV



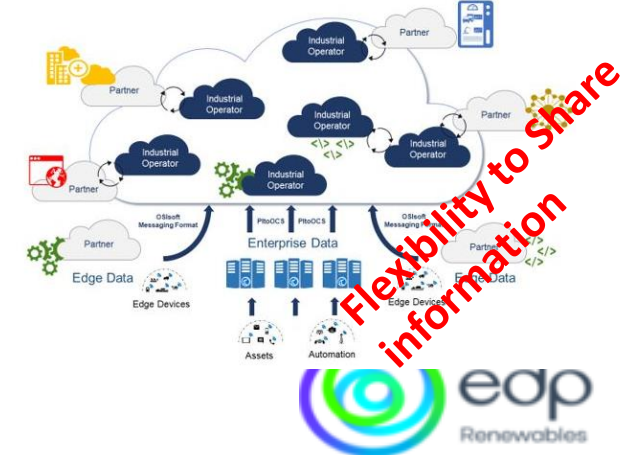
ML & DL
Improvement on
Databricks

Wind Turbine Life Extension



Time Calculation
Improvement on
Databricks

Data Sharing



Flexibility to Share
information



EDP Renewables optimizes energy operations and market decision-making

Challenge

- Improve performance and profitability through access to near-real time data that would enable faster and smarter decision-making, as well as faster responses to critical events, to reduce financial and reputational risk
- Improve asset reliability, reduce unplanned downtime, and extend turbine lifespan
- Securely share data across teams and geographies for global scalability and collaboration

Solution

- Implemented CONNECT streamlining data flows from regional AVEVA PI Systems to Unity Catalog in Databricks with a simplified, cloud-native architecture that delivers near real-time data updates every 15 minutes, instead of every 12 hours.

Results

- **Faster responses to anomalies through access to near real-time data**
- **Improved profitability by enabling teams to adjust energy prices more accurately, reducing deviation from market expectations**
- **Optimization of maintenance and battery strategies**
- **Simplified architecture with reduced configuration time from weeks to 15 minutes and data updates every 15 minutes instead of twice a day**



“By cutting data updates from 12 hours to 15 minutes, we can adjust energy sales based on live plant performance - optimizing prices, reducing deviation, and maximizing revenue.”

This presentation may include predictions, estimates, intentions, beliefs and other statements that are or may be construed as being forward-looking. While these forward-looking statements represent our current judgment on what the future holds, they are subject to risks and uncertainties that could result in actual outcomes differing materially from those projected in these statements. No statement contained herein constitutes a commitment by AVEVA to perform any particular action or to deliver any particular product or product features. Readers are cautioned not to place undue reliance on these forward-looking statements, which reflect our opinions only as of the date of this presentation.

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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