



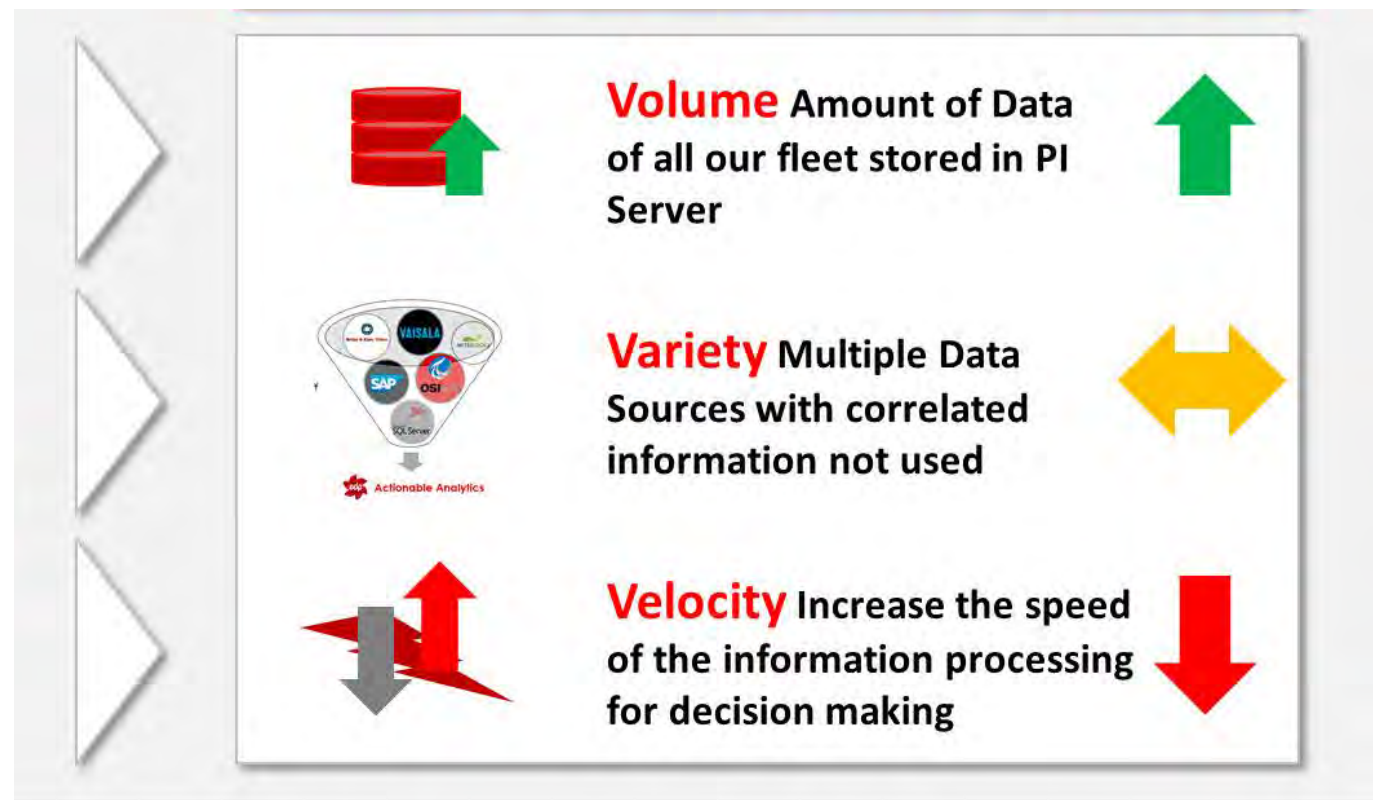
**WORKSHOP
RENEWABLE**
SEVILLA 3 MAYO 2022



Big Data Approach in EDPR

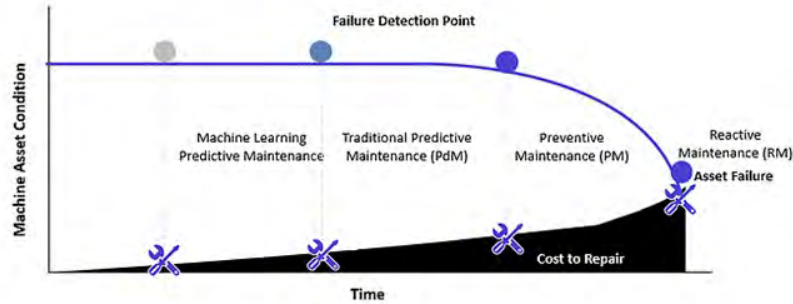
Sergio Valencia Galán

WHY USE BIG DATA IN EDPR

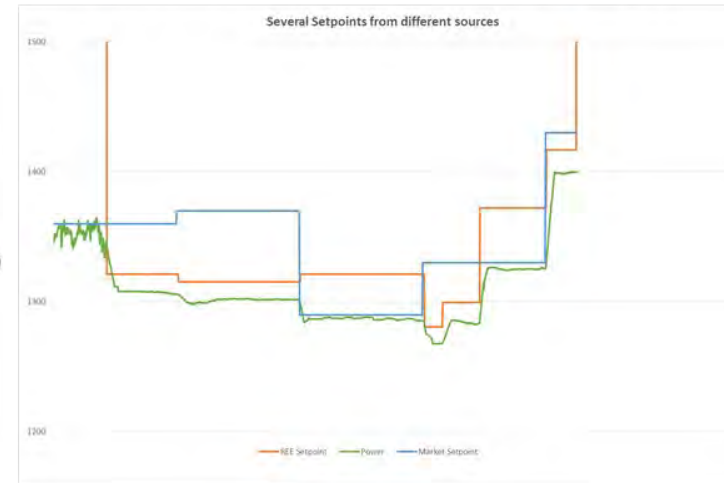


BUSINESS NEEDS

Machine Learning Predictive Maintenance



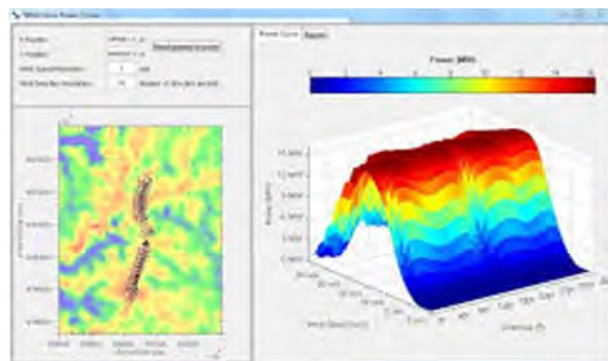
Operation Optimization



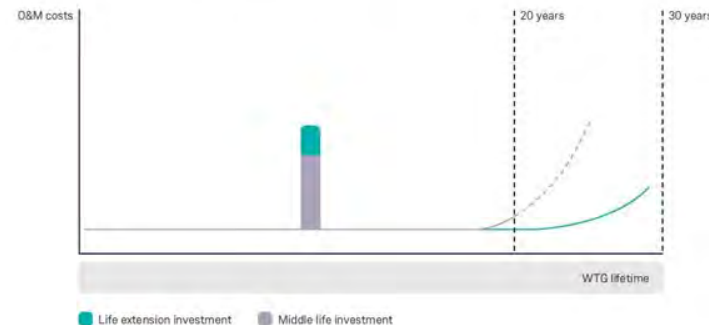
Advanced Reporting



Performance of Wind Turbines



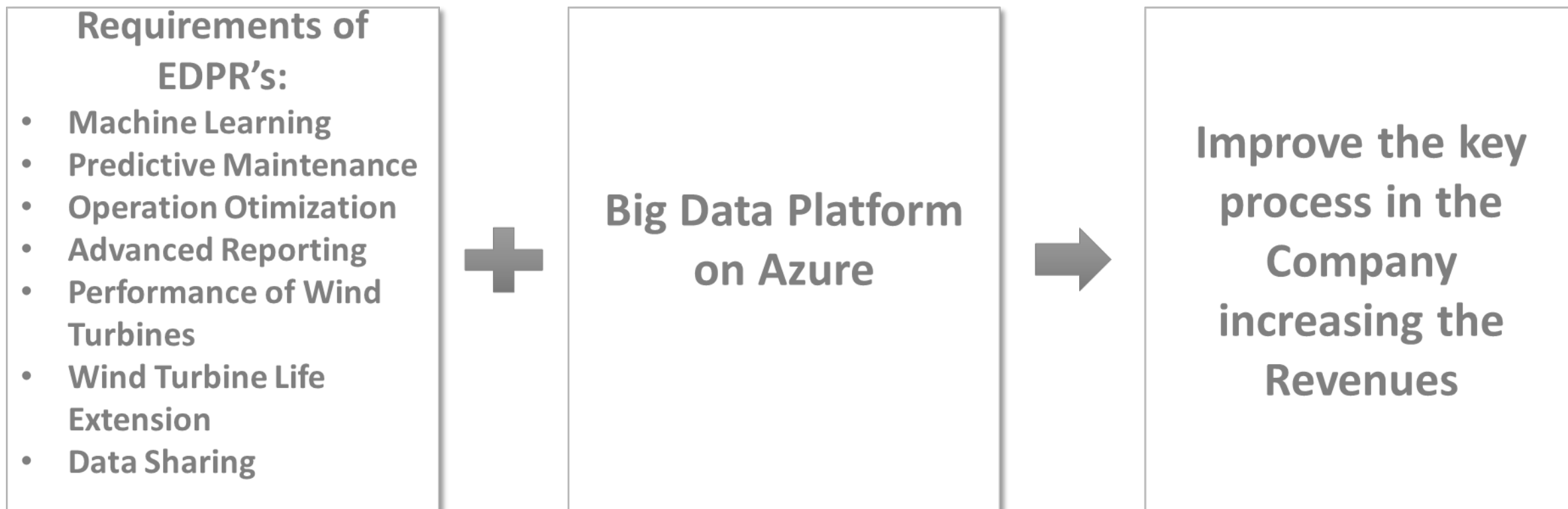
Wind Turbine Life Extension



Data Sharing



CHALLENGE



Scope: A new paradigm for business and innovation in the Company

ISSUES FOUND

Issues

Impacts

No standardized,
structured process for
data collection

No consistency
between systems for
same data elements

Data Governance roles
are defined by system

Multiple & inconsistent
processes

No prioritization of data
sources

Data is manually
entered between
systems

Time is spent validating
data before analyzing
data

Compliance and
regulation analytics

Bad Quality of data
than provokes
erroneous calculation
(not accurate)

These issues
can be
grouped into
4 broad
categories

Assets Impact

Missed opportunities for wind farms operations and innovation, energy up-selling, data asset leverage and new revenue opportunities.

Risk Impact

Wind farms operations risk from bad data and convoluted models. Reputation risk from poor operations, maintenance reporting, fines and avoidable data errors.

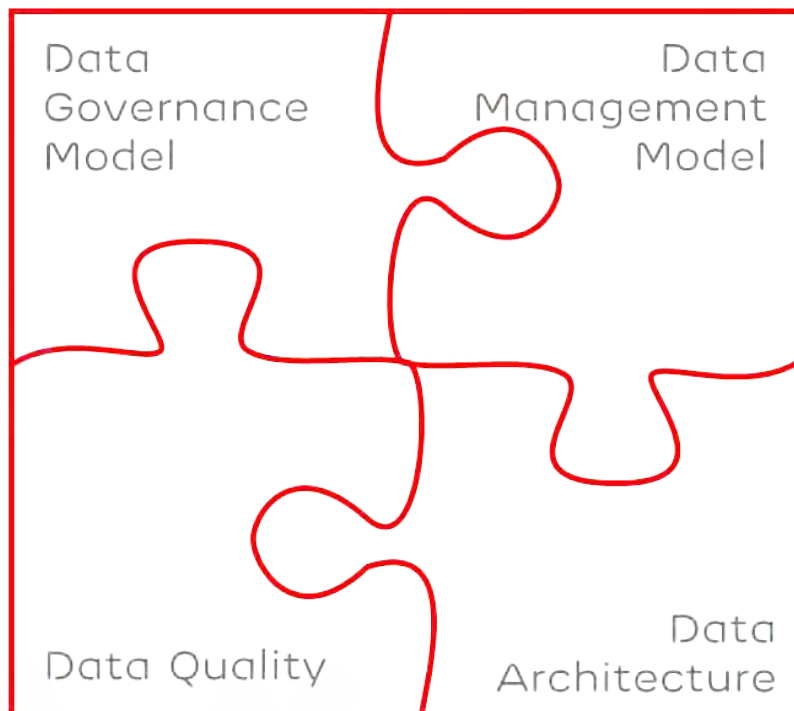
Operational Impact

Managing costs and operating in complex global environments require automation which depend on accurate, consistent, precise, accessible and transparent data.

Compliance Impact

Data management is essential in order to efficiently extract information, justify data decisions, provide transparent audit trails

DATA GOVERNANCE MODEL



Data Governance

People involved, roles and responsibilities, day-to-day processes and procedures, measurement mechanisms, and technology enablers



Data Management

Process to implement de Data Governance Model, data shared, transversal calculations,



Data Quality

Metrics and Measurement to identify problems, process definition, and when is a good data or not



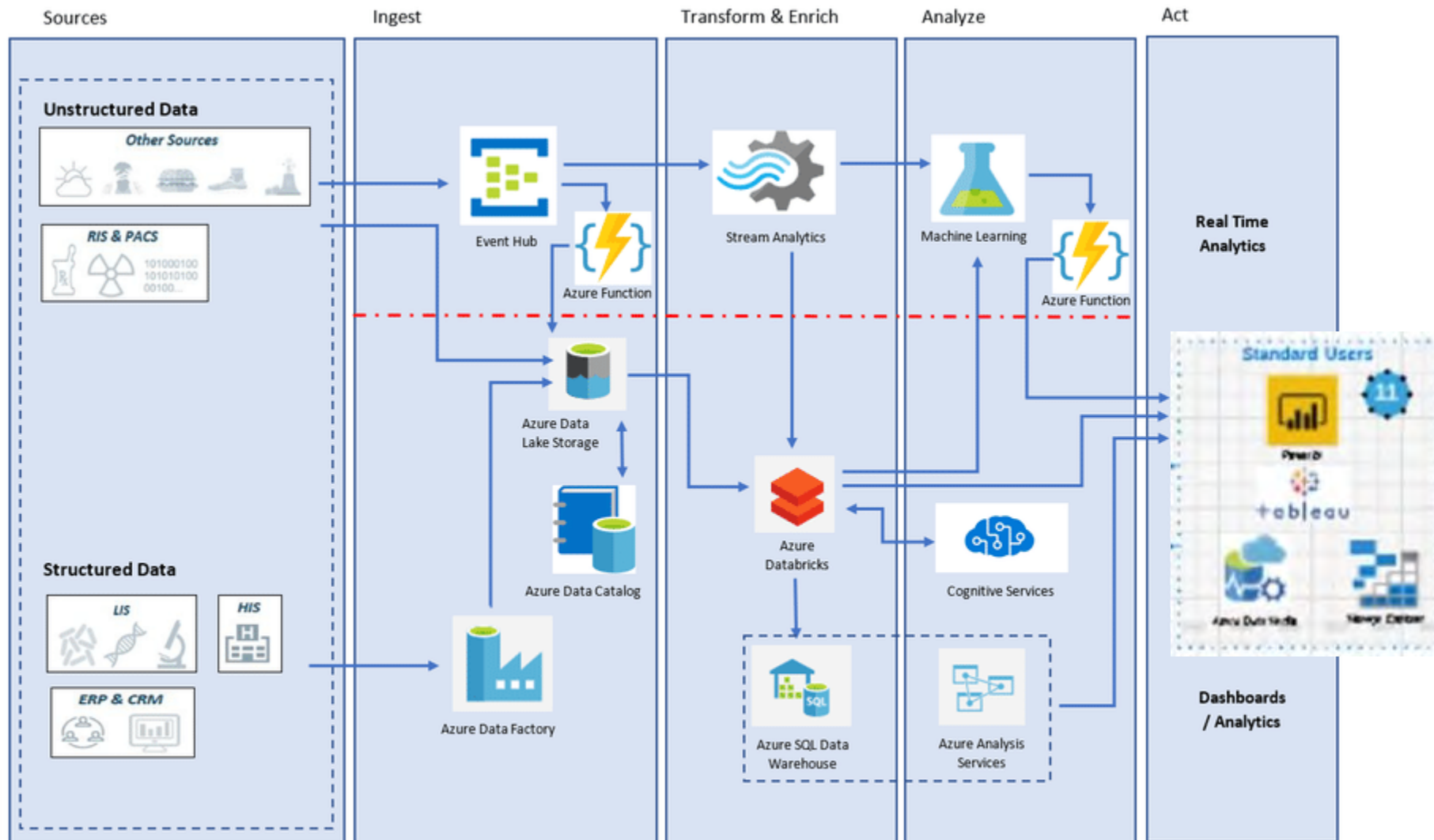
Data Architecture

Global Data Architecture definition

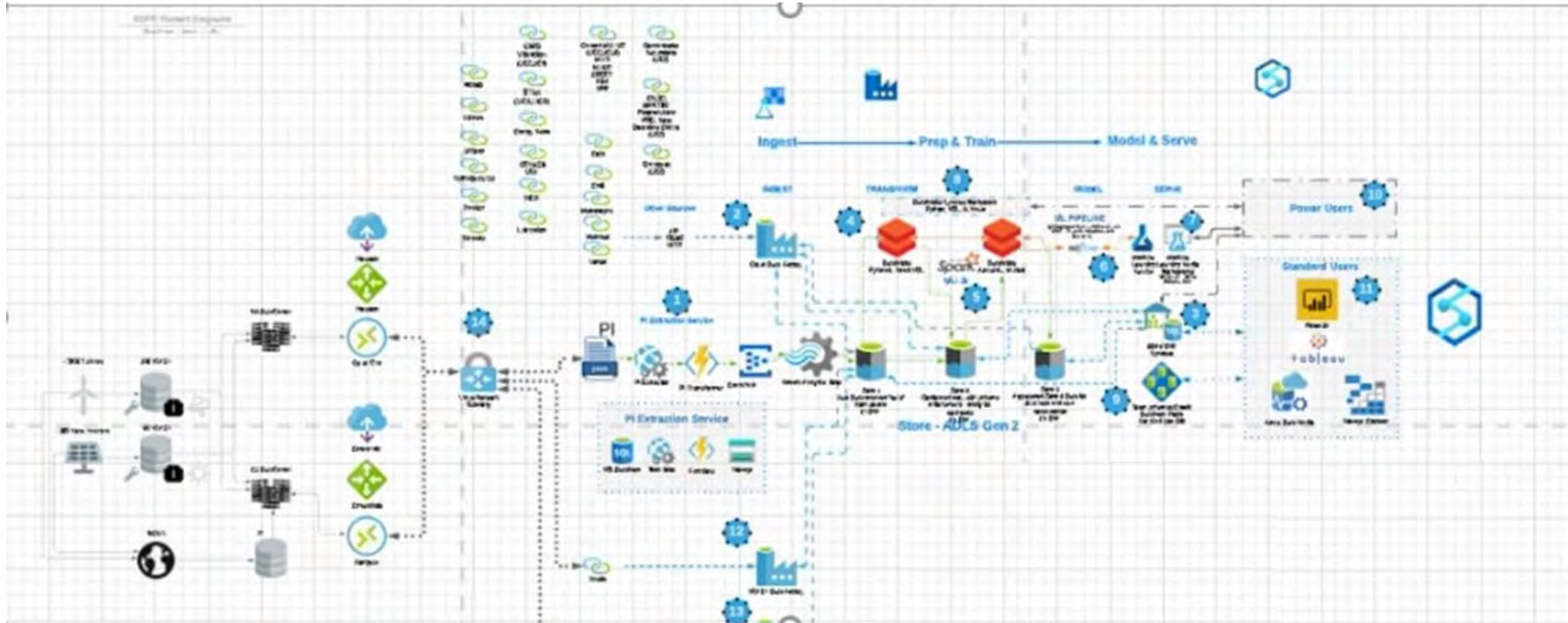
DATA QUALITY PROCESS



ARCHITECTURE



ARCHITECTURE



GOALS



FALEMINDERIT