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Winning the Operations Data Race

Element & Cargill

Amar Rama
Yung Wallace

AVEVA

About Element

Empowering People to Win the Operations Data Race

Customers use Unify as the operations data on-ramp to achieve common use cases



Descriptive

Plant / Equipment Monitoring



Predictive

Predictive Maintenance, Risk Reduction



Diagnostic

RCA, Anomaly Detection



ESG

Energy Optimization, Decarbonization

Element's Customers Represent



\$267B

Annual Revenue



\$253B

Fixed Assets



\$365B

Market Cap



503K

Employees

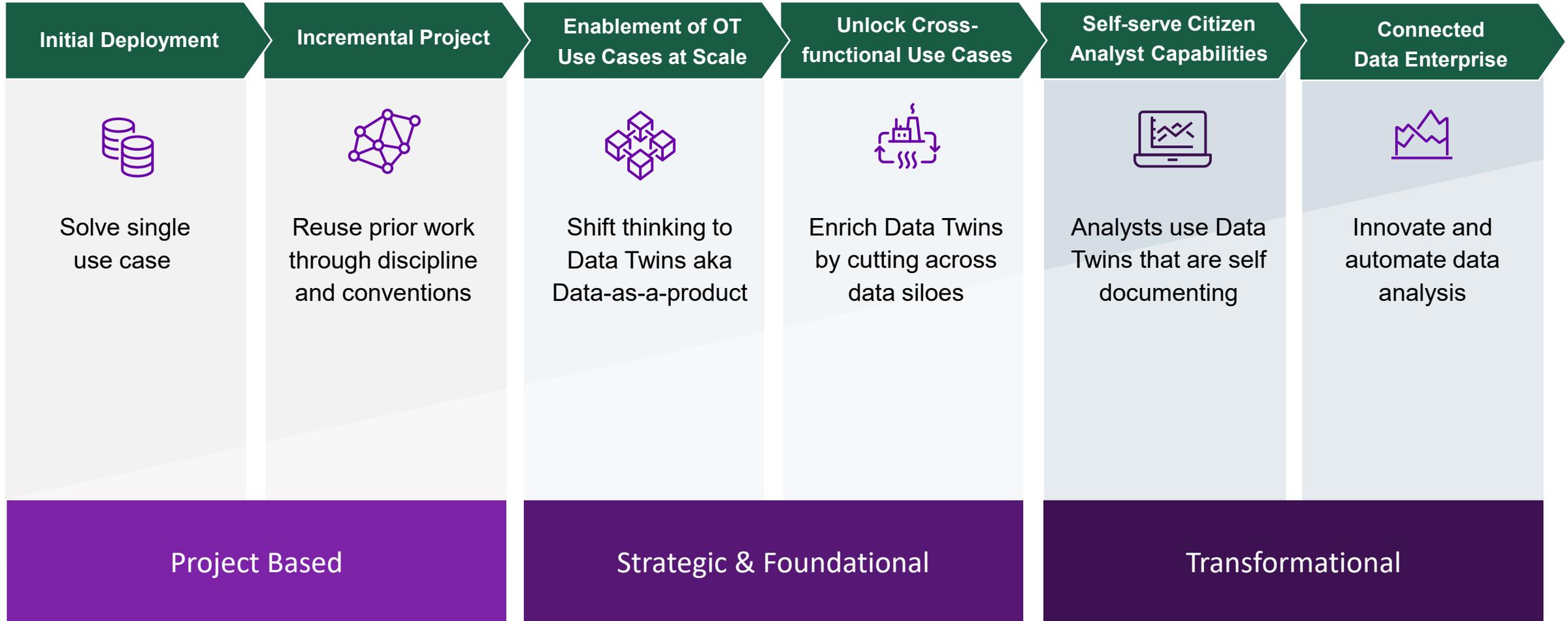
Selected Partners



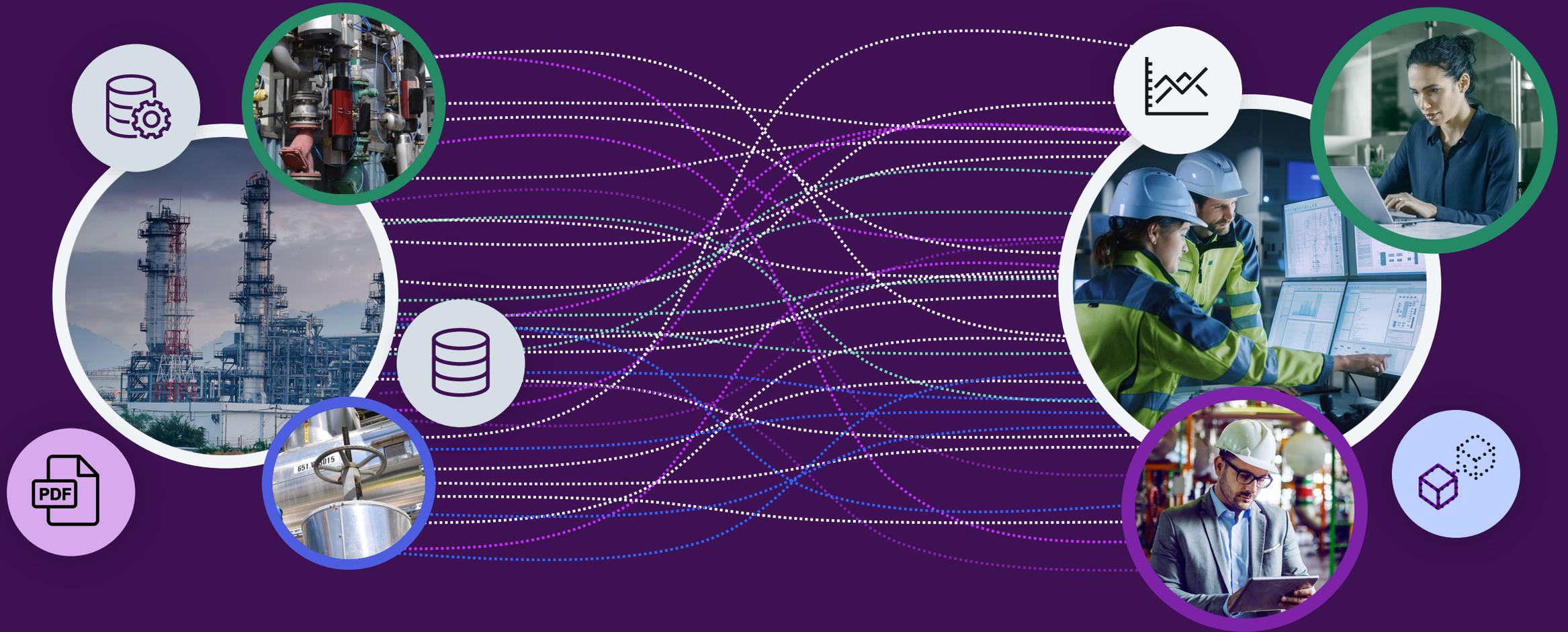
Selected Customers



The IX Journey

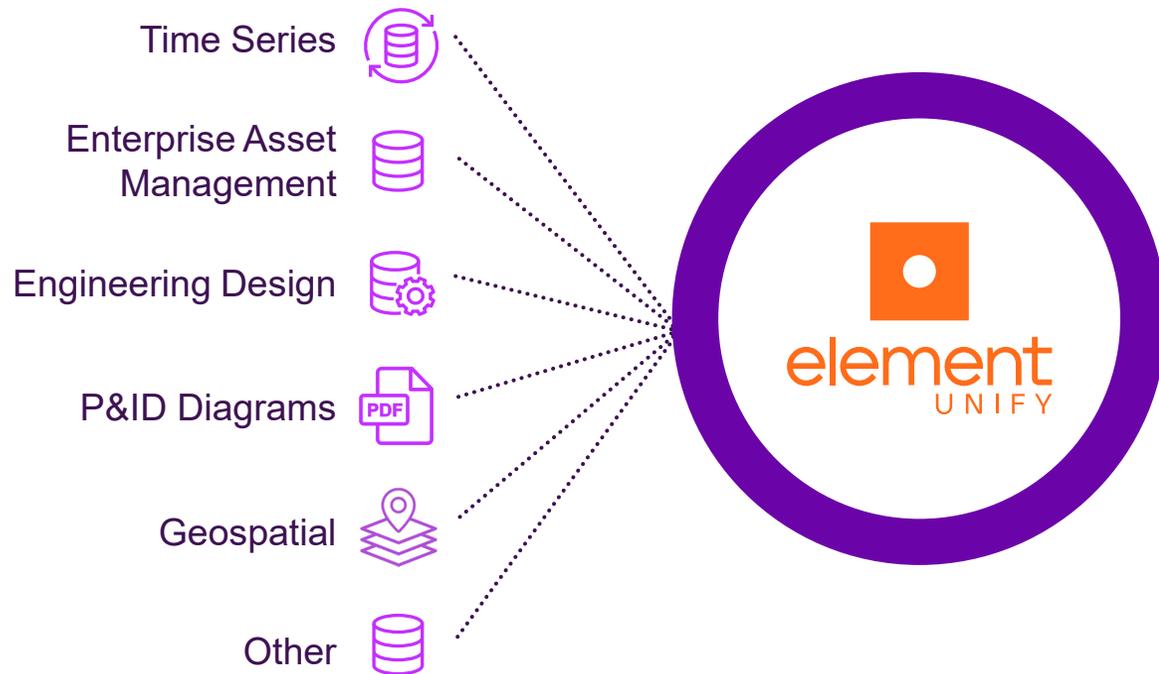


Disconnected Data is Overwhelming Builders

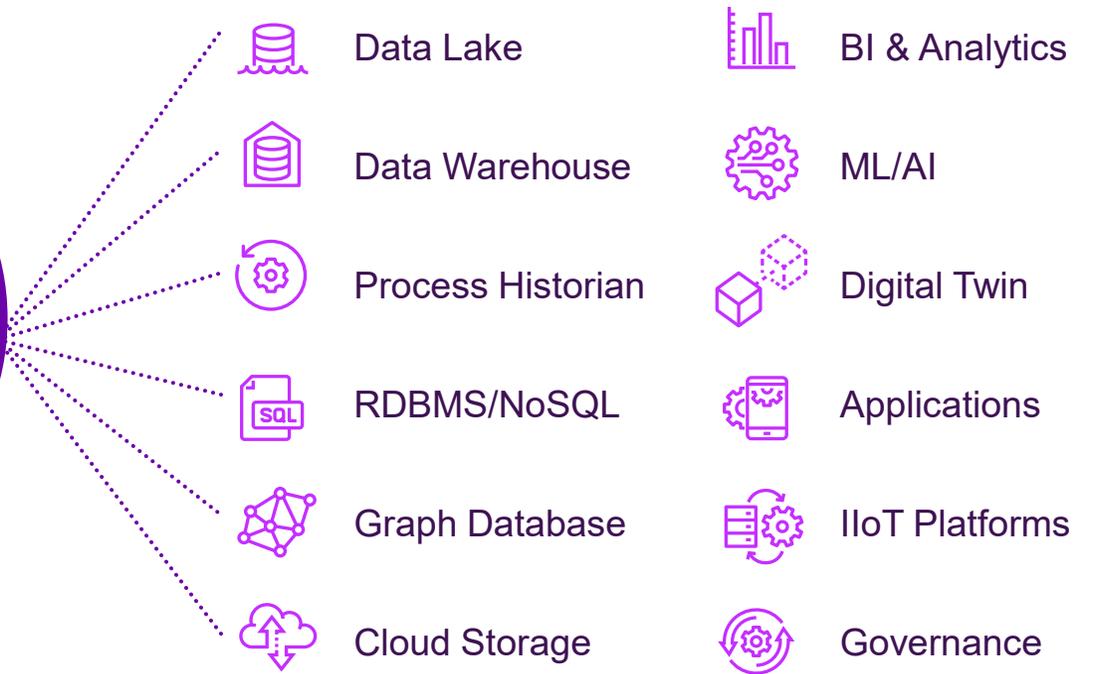


Element Unify

Data



Analytics & Digital Operations



Automate Data Contextualization

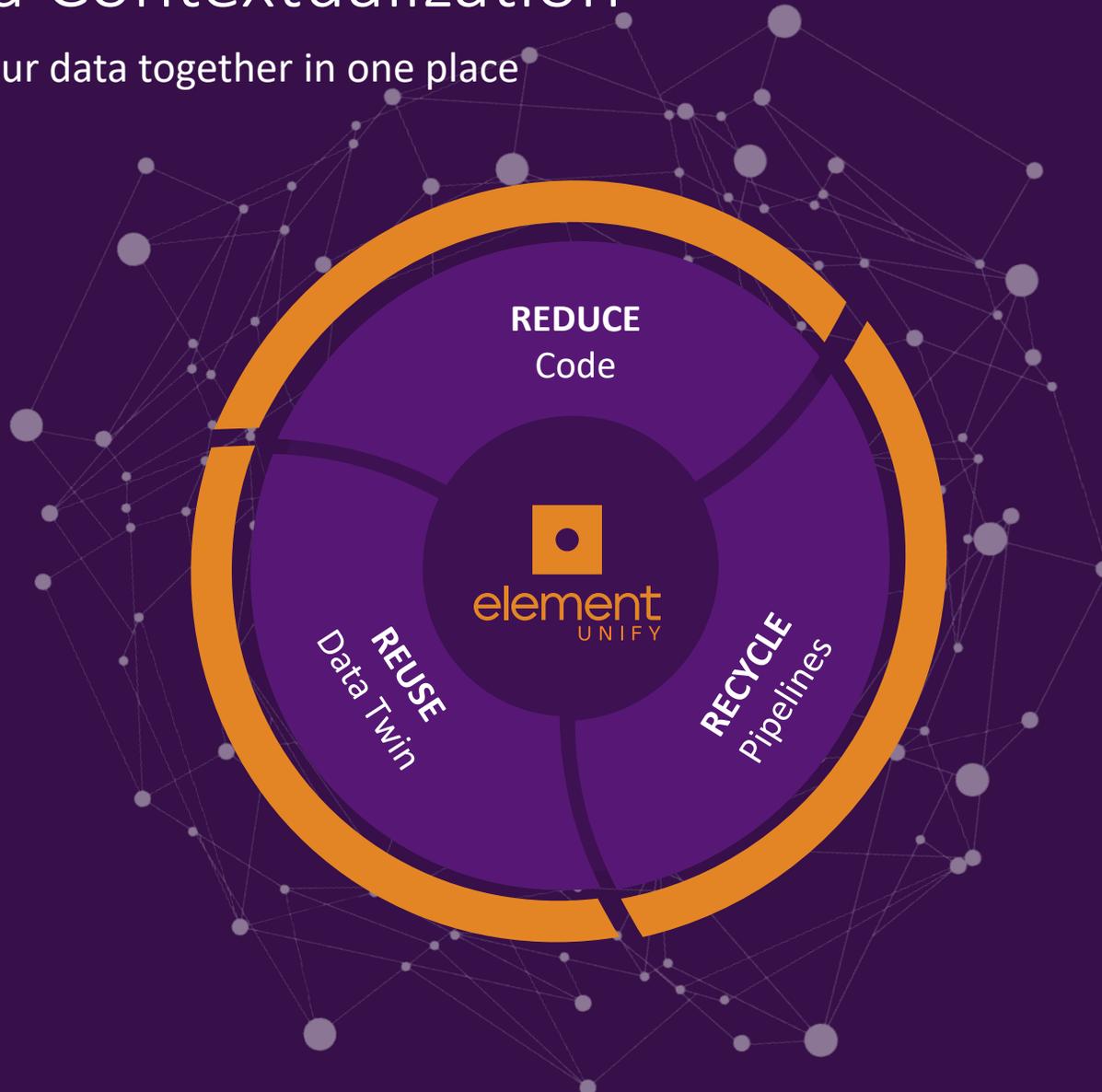
Element Unify brings all your data together in one place



Pre-built
Connectors



No Code
Pipelines



Template
Library



Unify
Graph

An abstract digital network visualization with a dark green background. A complex web of thin, light blue lines connects numerous small, glowing nodes in shades of blue, cyan, and magenta. The network appears to flow from the left side towards the right, where it becomes more dense and eventually fades into a bright, horizontal light streak. The overall effect is one of dynamic connectivity and forward motion.

What's Next?

CASE STUDY

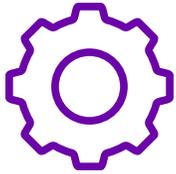
Cargill's Sioux City Plant

Yung Wallace

Corporate Smart Manufacturing SME - MES/MOM,
Enterprise Data and Advanced AI/ML Integration

AVEVA

Building a Smart Manufacturing Data Fabric



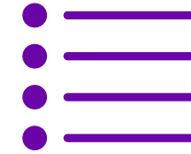
Challenge

- Moving from data projects to an **enterprise-wide data strategy** that could directly link operational data to business transformation



Solution

- Adopt Element Unify to **align all IT/OT/ET data sources** to the ISO 14224 Asset Hierarchy to produce shared operational KPIs



Results

- Trusted, **high-quality data twin** with normalized KPIs and advanced analytics at scale
- **2-4 weeks versus 6 months** in operational gains at each plant

Challenge

- Organize and structure multiple datasets to build a model for a single Soybean plant @ Sioux City.
- The CASC organization uses Element Unify to integrate and contextualize data from the following sources:
 - P&IDs
 - SAP
 - RtDuet
 - Cargill Asset Framework (CAF)

Plant Information	
SAP Level	Count
L1 (Plant)	1
L2 (Area)	7
L3 (Process)	31
L4 (Subprocess)	169

Solution/Implementation

- One pipeline built integrating 8 datasets from 4 data sources with a total record count of 10,300
- **38 templates** were built and applied, representing critical equipment including:
 - Compressors
 - Conveyors
 - Pumps
 - Mills & Heat Exchangers

P&ID Datasets	
P&ID Sheets Processed	45
Instruments Extracted	1143
Equipment Extracted	672
SAP Datasets	
Equipment Records	1724
FLOC Records	2456
rtDuet Dataset	
Records	678
CAF Dataset	
Records	3582

Results

- 216 no-code transformations were executed to cleanse, organize and integrate the different data sources together
- The output of the pipeline resulted in **95% reduction in data records** by shrinking individual records and making the data associated with critical equipment more dense

Pipeline Input		Pipeline Output	
Records	10300	Records Synced to AF (from Element Unify)	493
		Records submitted for SME Validation	490

Transformations used in Pipeline	
Column Join	20
SQL Query	41
Select Columns	40
Validator	16
SQL Split	15
ReSplit	15
Advanced Join	7
Concatenate Columns	9
Union	23
Rename Columns	22
Map Template	3
Split Column	2
Dataset Sink	1
Map Values	2
Total	216



“Unify is the glue that holds our Smart Manufacturing program together. We want people to be able to serve their own data needs, without an army of developers.”

– *Corporate Smart Manufacturing Leader*



Element Unify Data Contextualization



element
(Booth 11)

Amar Ramakrishnan

VP, Product Management

- Element
- amar@elementanalytics.com



Yung Wallace

Corporate Smart Manufacturing SME - MES/MOM , Enterprise Data and Advanced AI/ML Integration

- Cargill
- yung_wallace@cargill.com

Questions?

Please wait for the microphone.
State your name and company.



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