



ACCELERATING
INNOVATION

Modernizing Data Infrastructure ERCO's Leap to a Unified, Future-Proof Data Ecosystem

Session ID#: 5-1575

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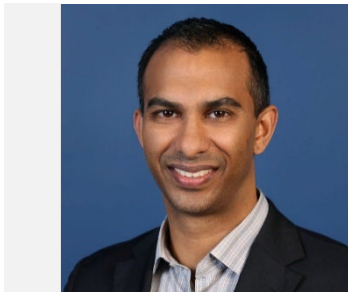
How can we use Data to:

1. Drive change on the plant floor to improve operations
2. Manage plant operations to drive operational excellence
3. Realize Enterprise Optimization to delivery business outcomes
4. Build Intellectual Property into systems to retain knowledge
5. Accelerate Innovation to transform our business



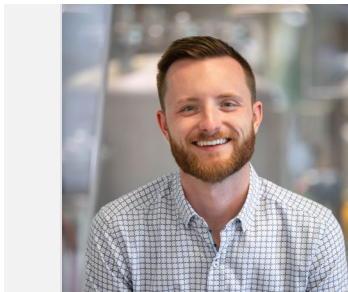
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Business Development Manager / Emerson





ERCO Worldwide: About the Company

125 Celebrating 125 Years of Reliability, Growth & Innovation
1897/2022

- Research and Development, Toronto, Ontario**
Formed in 1940
- 1932 Incorporated in Toronto**
2020 New ERCO Corporate office,
Mississauga, Ontario
- Buckingham, Gatineau, Quebec**
Operating since 1897
- North Vancouver, British Columbia**
Operating since 1957
- Grande Prairie, Alberta**
Operating since 1992
- Valdosta, Georgia**
Operating since 1996
- Saskatoon, Saskatchewan**
Operating since 1962 / ERCO Worldwide since 1997
- Hargrave, Virden, Manitoba**
Construction completed in 2002
ERCO purchased in 2003
- Thunder Bay, Ontario**
Operating since 2003
- Mininco, Chile**
Operating since 2006
- Port Edwards, Nekoosa, Wisconsin**
Operating since 1967 / ERCO purchased in 2005
Converted and expanded to membrane cell technology in 2009
- International Dioxide, North Kingstown, RI**
Operating since 1950
ERCO purchased in 2017

- Global chemical supply and manufacturing company with multiple manufacturing sites in North and South America
- **ERCO Worldwide** has a 125-year history of producing chemicals and continues to play a pivotal role in supplying environmentally preferred chlorine dioxide technology and services to the pulp and paper industry.
- **ERCO Worldwide's** chloralkali business serves a variety of industries including municipal and industrial water treatment, food processing, fertilizers, agricultural intermediates, and oil and gas.
- **ERCO Worldwide** is the second largest producer of sodium chlorate in the world



Business Priorities



Responsible Care

Our commitment to sustainability is a core principle covering all aspects of the company's business and product lifecycle



Process Safety

Process Safety Management (PSM) is covered under Chemistry Industry Association of Canada (CIAC) & American Chemistry Council (ACC)



Operational Efficiency

Providing quality products to our customers at reasonable cost to meet customer/vendor sustainability goals.



Mechanical Integrity & Reliability

Optimizing Capital Investments to assure constant availability of critical systems & equipment

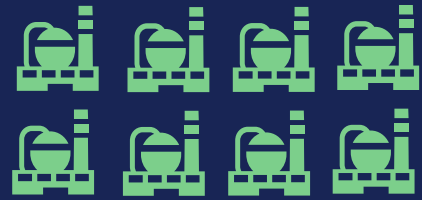


The challenge

WHY? – Digital Transformation

HOW to digitally transform a successful business, with 125 years of history, to be better prepared for the future?

ERCO's Data Structure (before)



8 sites, 3 product lines



4

Legacy and in House Built
Historians



Different Spreadsheets and Script
Based Tools for Visualization



ERCO's Challenge

Need Data for Informed Decisions

Resource Management

Management & Maintenance of In-House-Built Tools



Solution & Learnings

Emerson-ERCO – Lakeside Partnership with AspenTech Software

Solution Selection

Modern Solution

 Secure, up to
date solution

 Modern, yet cost
efficient


Solution Selection

Modern Solution

 Secure, up to date solution

 Modern, yet cost efficient

Fits the needs

 Provide the solution needed to the users

 Site and enterprise optimization


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Implementation considerations

 Migration of Existing Data

 Implementation partners


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Future Proof

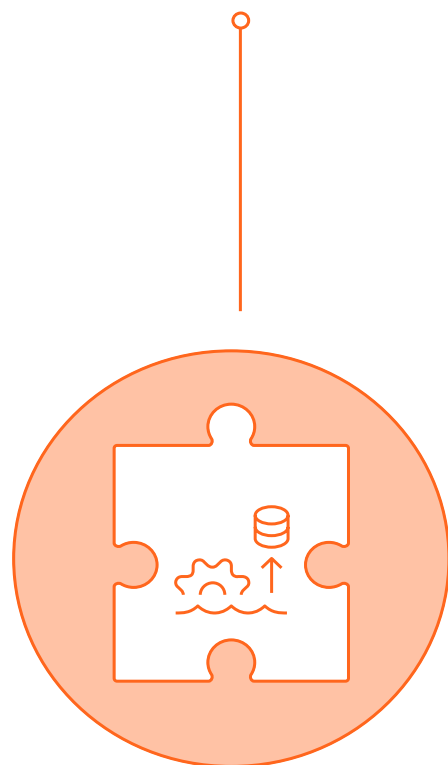
 Establishes Digital Infrastructure

 Provide the foundation for future projects

Project Scope

Standardization

Implement AspenTech IP.21 and AspenOne Process Explorer

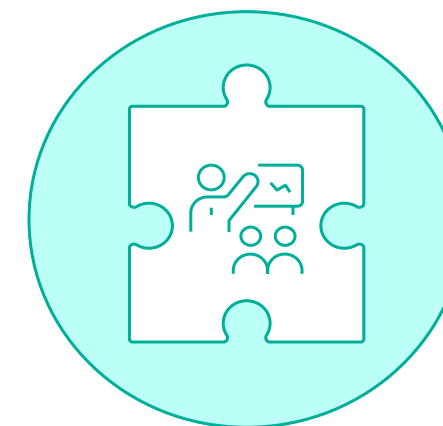
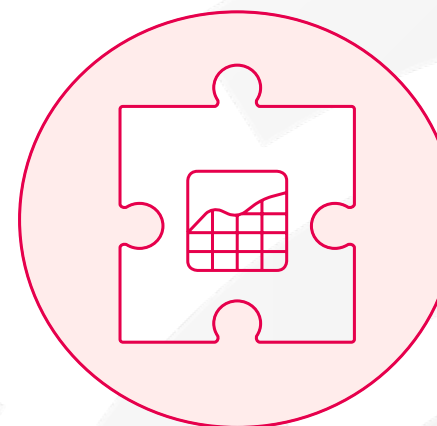


Data Migration

Transfer 12,000 data tags to new system.

Data Visualization

Collect and visualize data across the enterprise.

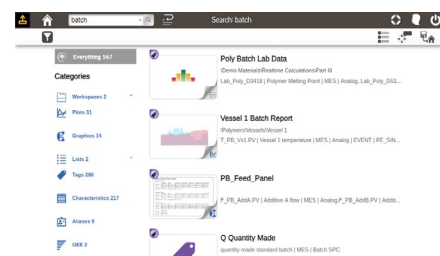


Training

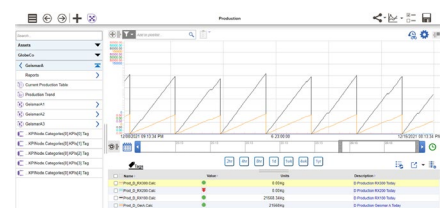
Provide training and transition support to users.

Discover

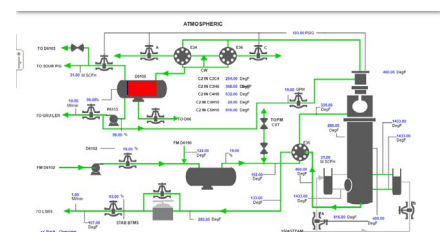
Search for data and artifacts



Navigate by files or asset hierarchies



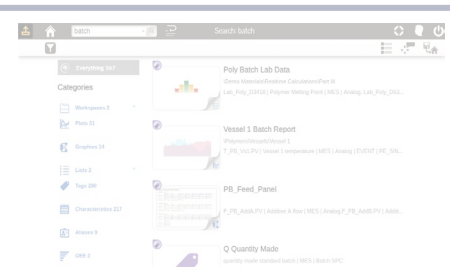
Browse the physical process



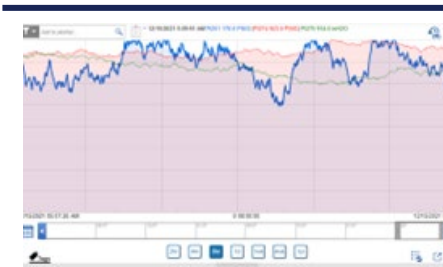
Discover

Visualize

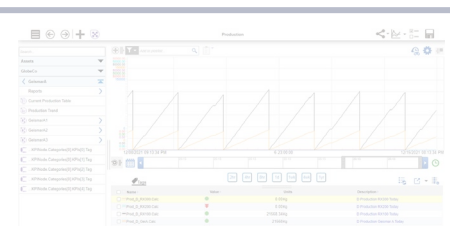
Search for data and artifacts



Visualize data through trends and charts



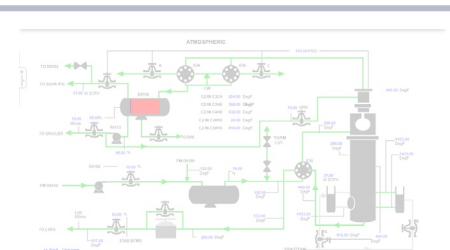
Navigate by files or asset hierarchies



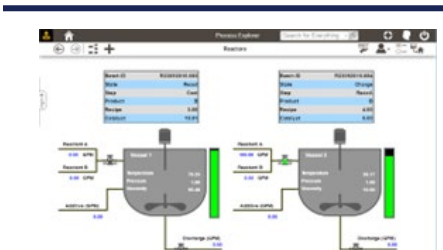
Tables

A screenshot of a data table. The table has several columns, including 'Start Time', 'End Time', 'Status', and 'Value'. The data is organized into rows, with some rows highlighted in yellow. The table is set against a light purple background.

Browse the physical process



Graphics

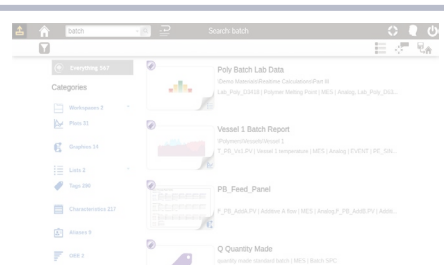


Discover

Visualize

Analyze

Search for data and artifacts



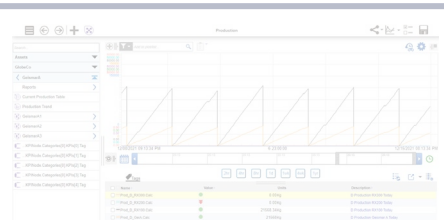
Visualize data through trends and charts



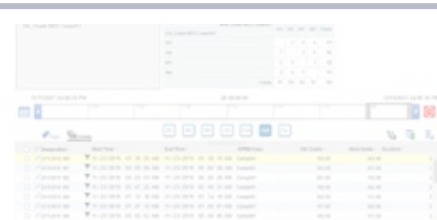
Analyze process performance



Navigate by files or asset hierarchies



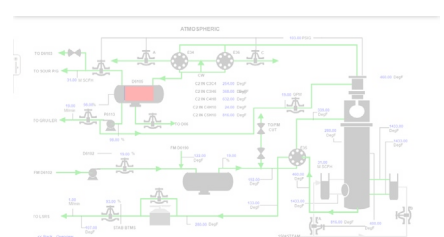
Tables



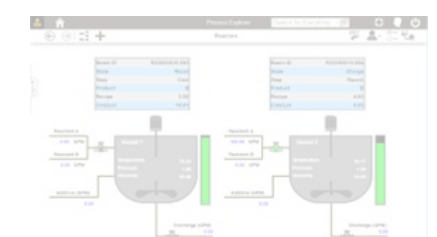
Determine whether the process is in control



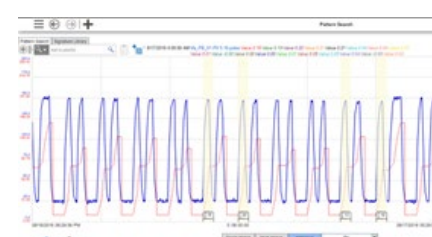
Browse the physical process



Graphics



Look for patterns in process behavior



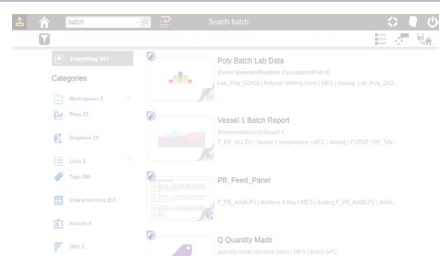
Discover

Visualize

Analyze

Document

Search for data and artifacts



Visualize data through trends and charts



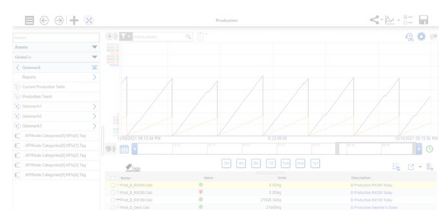
Analyze process performance



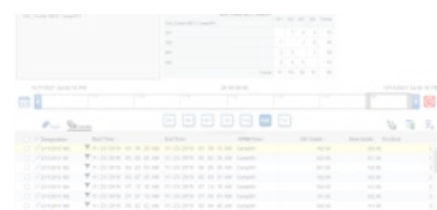
Attach observations to process data



Navigate by files or asset hierarchies



Tables



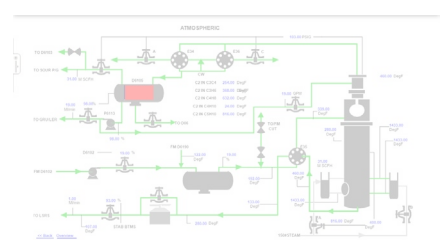
Determine whether the process is in control



Integrate conversations with process data



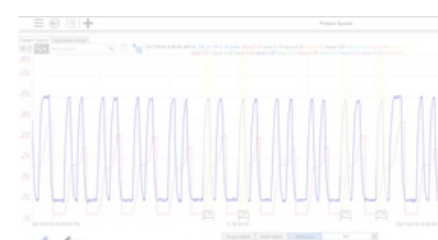
Browse the physical process



Graphics



Look for patterns in process behavior



Share important analyses with others



Discover

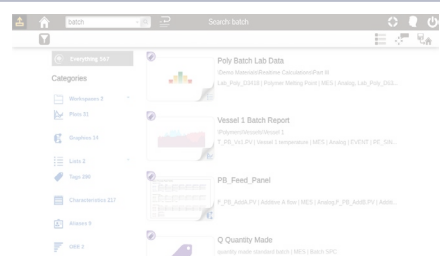
Visualize

Analyze

Document

Monitor

Search for data and artifacts



Visualize data through trends and charts



Analyze process performance



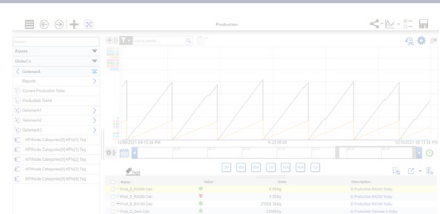
Attach observations to process data



Track real-time batch performance



Navigate by files or asset hierarchies

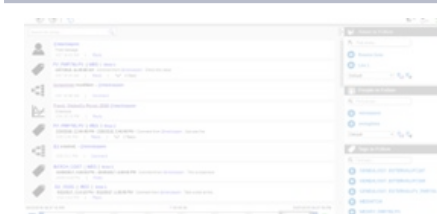


Tables

Determine whether the process is in control



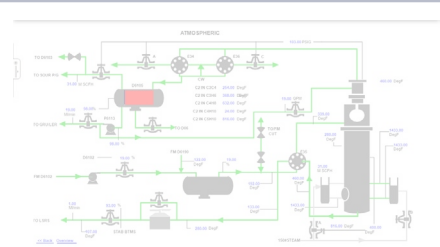
Integrate conversations with process data



Track important KPIs across the enterprise



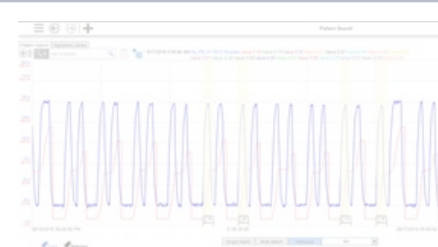
Browse the physical process



Graphics



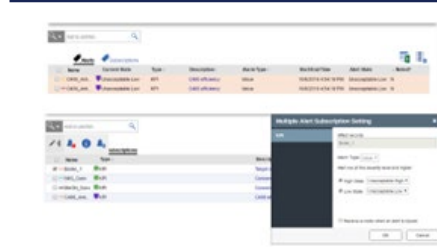
Look for patterns in process behavior



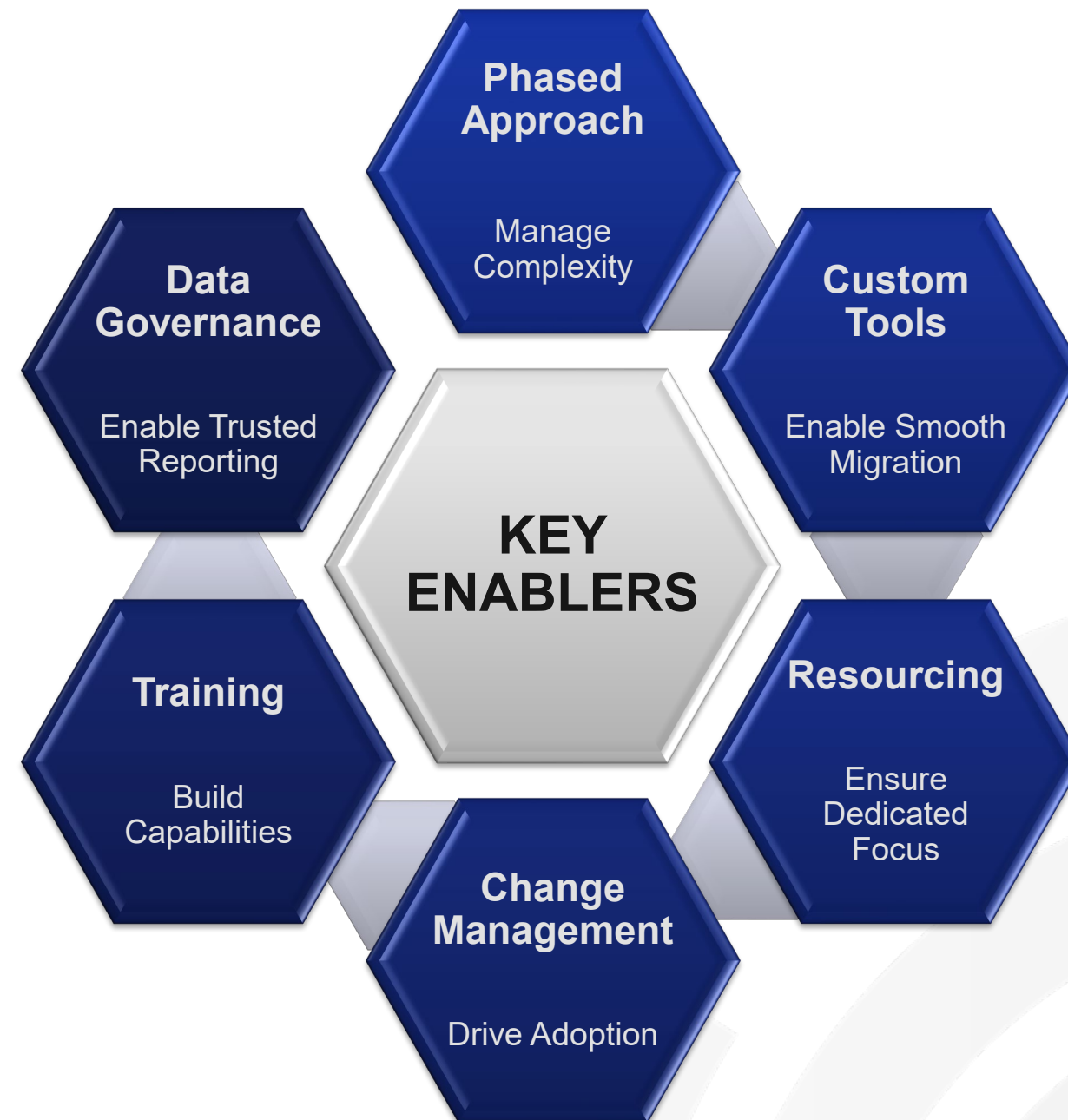
Share important analyses with others



Be alerted to process excursions



Project Challenges & Progress



Expected Results: Unlocking Value Through Standardization

Operational Gains

- Unified data historization & visualization
- Cross-site tool standardization
- Foundation for predictive analytics

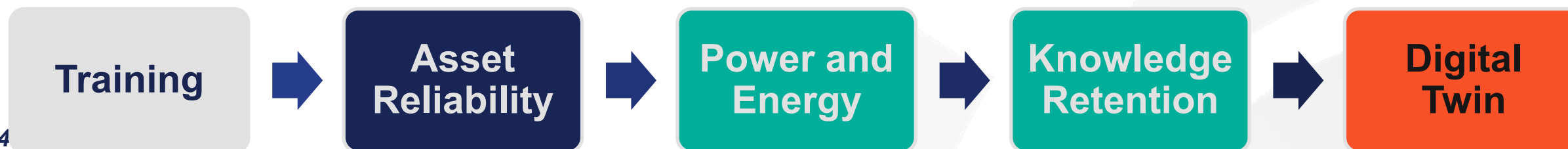
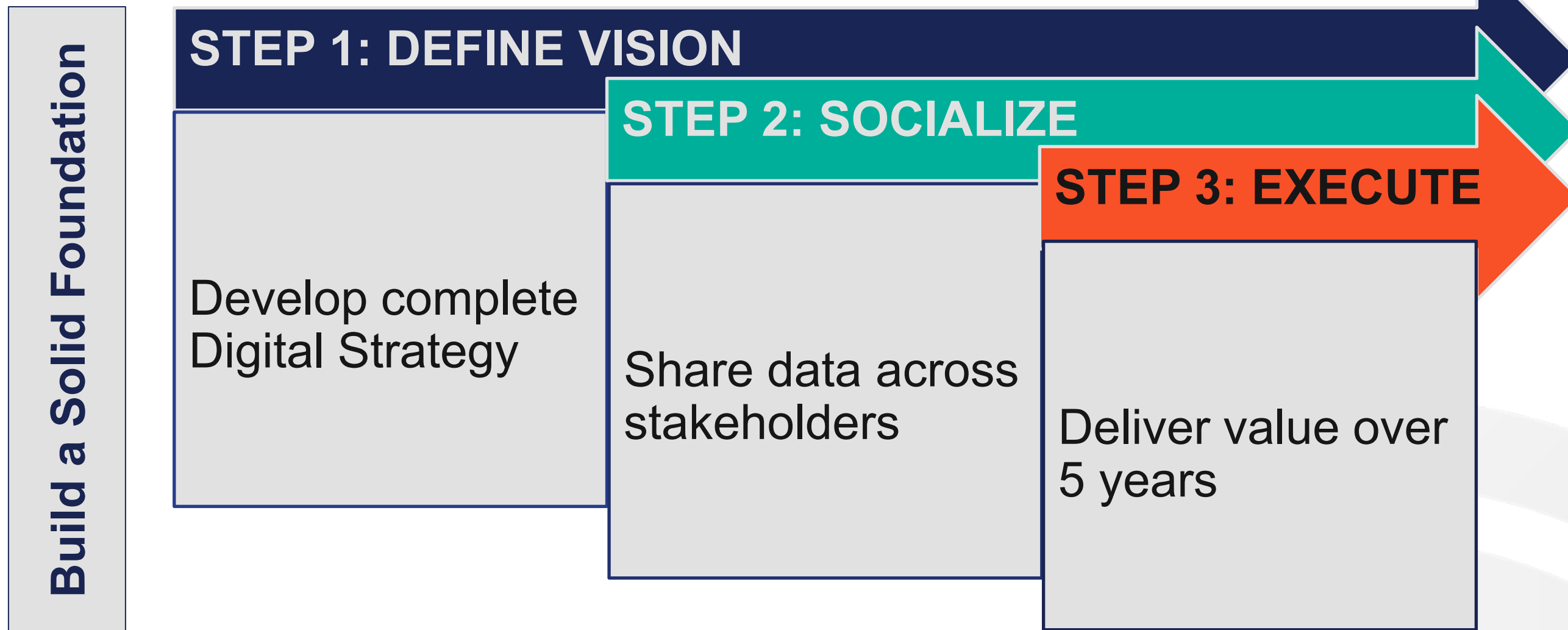
Transformation Catalyst

- Standardized data platform
- Auto-updated via licenses
- Single source of truth

Platform Scalability

- Predictive maintenance readiness
- Real-time performance monitoring
- Enterprise-wide alignment

The Road Ahead: Building a Digital Future



Key Takeaways

- **Implementation Learnings:**
 - Resource Requirements
 - Phased Approach
 - How to manage & socialize capabilities
- **Expected Results:**
 - Standardized real-time data, visualizations & reporting
 - Integration of various data sources to drive decision making at all levels of the organization.
- **Future Development:**
 - Integration of intellectual property & embedded knowledge into data management systems
 - Overall organization digital transformation strategy, anchored through standardized data



Emerson Impact Partner



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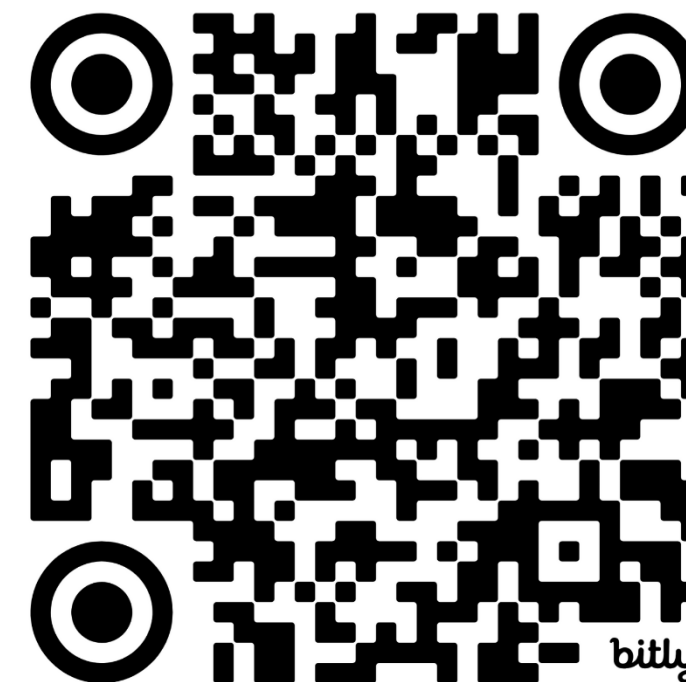


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