“There were 5 exabytes of information created between the dawn of civilization through 2003, but that much information is now created every two days.”

ERIC SCHMIDT, EXECUTIVE CHAIRMAN AT GOOGLE
Information Management implementation journey:
the MAIRE success story

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Massimo Rosi – Engineering Processes Digitalization Head of Department
Agenda

- MAIRE Digital Transformation Approach
- Information Management Challenges
- Information Management Framework
- Maire adoption deep dive
- Benefits and final conclusion
- Q&A
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MAIRE CORE BUSINESS

We are enablers of innovation and energy transition, working alongside businesses to co-develop sustainable technologies and design integrated solutions in fertilizers, hydrogen, carbon capture & storage, fuels & chemicals, and polymers.
GLOBAL PRESENCE

6,451
TOTAL EMPLOYEES

~26,000
EMPLOYEES & PROFESSIONALS ENGAGED ON PROJECTS

~1,500
TOTAL DELIVERED PROJECTS

45
COUNTRIES
MAIRE Digital Transformation Approach

Our digital solutions enhance EPC execution efficiency and unlock value for plant owners.

- Increase effectiveness & efficiency of EPC processes
- Mitigate risks
- Improve plant operational efficiency
- Reduce plant carbon footprint

Enabler for reducing the plant OPEX up to 30% within 2030
MAIRE Digital Transformation Approach: IM

Document Centric Approach

Data Centric Approach
Information Management Challenges

Data Centric Approach enables

- Live data availability
- Process Automation
- Digitalization
- Data-driven Decision Making
Information Management Challenges

But Data Centric Approach **could lead to**

- Data Redundancy
- Misinterpretation
- Usage of not-certified Data
- Operational Inefficiencies
Information Management Challenges
Information Management Framework

Collect  Govern  Validate  Share

Availability – Accuracy - Reliability – Accessibility
Information Management Framework

Data Collection

Data Production Layer

Engineering Data Sources used by disciplines during project execution
Data Governance

- Data Standardization: creation of Company standard CFIHOS compliant
- Data Harmonization
- Data Integration
Information Management Framework

Data Validation

- Tag & Property Quality Check
- Data Consistency
- Data Certification
Information Management Framework

Data Sharing

• Common **shared environment**
• Integration with **downstream processes**
• **Early data visibility** to final clients
Information Management Challenges

Advantages

- Improving data quality and reducing information duplication
- Planning how, when and why information is shared and released
- Reducing the cost of managing and sharing data
- Providing the building blocks for data-driven decision-making
- Making data easier to find, access and use
- Reducing the risk associated with poorly managed data
- Increasing productivity through the availability and use of data
- Integrate downstream processes
- Early data visibility to client that can start populating operational tools

Risks

- To much data to handle: inefficiencies
- IM activities perceived by the project’s staff as burdensome and unnecessary
MAIRE adoption deep dive

01 Organization
Dedicated roles and organization for managing the new tasks

02 Methodology
Dedicated procedures for supporting processes and daily work

03 Tools
Technical solution to support IM activities
MAIRE adoption deep dive: Organization

Dedicated IM structure, separated from project staff

- IM activities perceived far from project needs.
- Work with a silos approach.

Decentralized organization with dedicated focal point inside project task. Information Manager as a unique reference and coordinator for IM.

- Project staff engagement.
- Daily tasks organized with a data quality and IM perspective.
IM processes are supported by company’s procedures that clearly defines how data are created, managed, validated and published by each disciplines.

In the perspective of a lean approach, these procedures are manly focused on:

- Item Tag quality in terms of correctness and consistency;
- A minimum required set of data extracted from the CFIHOS standard.
MAIRE adoption deep dive: Tools

Neutral and flexible solution, adaptable and scalable according to owner’s requirements.
MAIRE adoption deep dive: Tools

Data Collection

AVEVA Authoring Tools

AVEVA™ Engineering for Equipment Data (company standard)

• Data Centralization;
• Data Ownership;
• Data Standardization;
• Data Quality at source.
MAIRE adoption deep dive: Tools

Data Collection

AVEVA Authoring Tools

Other examples:

• AVEVA™ E3D Design (based on project requirements);
• AVEVA™ Electrical (company standard).
MAIRE adoption deep dive: Tools

Data Governance

AVEVA™ Information Standards Manager for Data Standardization (company standard)
MAIRE adoption deep dive: Tools

Data Quality

AVEVA™ Engineering

AVEVA™ E3D Design

- Custom Rule for Object Tag validation;
- Check on Property Data Type;
- Custom PickList according to the data model.
MAIRE adoption deep dive: Tools

Data Sharing

AVEVA™ Asset Information Management

AVEVA™ Asset Information Management is used as integration layer in case is required by Owner. Anyhow it could be connected to Tecnimont’s proprietary integration solution, used to feed internal and, eventually, external data consumers.
Data Sharing

AVEVA™ Engineering

- Custom View for Data Sharing;
- Custom Plugin In for Automatic Data Export.
Benefits

- **Improved Data Quality**: significant increase in data accuracy, reducing errors and discrepancies by 15%.

- **Cost Savings**: By optimizing data management processes, the project achieves a manhours cost savings of 10%.

- **More efficient final handover**: By adopting an information management approach from the beginning and during daily work, project achieves a manhours cost savings of 20%.

- **Project Monitoring and Control**: decrease in project deviations, better risk management, and timely mitigation of issues;

- **Improved Decision-Making**;

- **Scalability and Reusability**: reduction in setup and configuration time for subsequent projects;

- **Customer Satisfaction**.
Tecnimont achieves a manhours cost savings of 10% optimizing data management processes

**Challenge**
- Streamlining Data Integration;
- Ensuring Data Standardization, Data Accuracy and Consistency;
- Enhancing Project Efficiency and Productivity;
- Facilitating Long-Term Information Lifecycle Management.

**Solution**
- Deployed Information Management lean processes supported by AVEVA Product.

**Results**
- **Improved Data Quality**: The implementation of information management lean process and CFIHOS standard results in a significant increase in data accuracy, reducing errors and discrepancies by 15%;
- **Cost Savings**: By optimizing data management processes, the project achieves a manhours **cost savings of 5%** through reduced manual data entry, improved data quality, and more efficient final handover.
“Information is only as reliable as the people who are receiving it.”

JULIA KOLLER, A LEARNING SOLUTIONS LEAD DEVELOPER
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 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