Best Practices in Commissioning, Completions, and Handover of Capital Projects

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PROMETHEUS GROUP
17TH ANNUAL | USER
CONFERENCE
NORTH AMERICA

Agenda

- Intro to Prometheus

- Customer Common Pain Points

- Best Practices

- Co-Console Functionality and How it Helps

- Live Demonstration

Prometheus Group

- Founded in 1998
- Headquartered in Raleigh, NC, USA
- 10 global offices and 1000+ employees
- Integrated and intuitive software
- Partnerships with industry leading companies

TOP 10
Oil & Gas

TOP 8
Mining & Metals

TOP 8
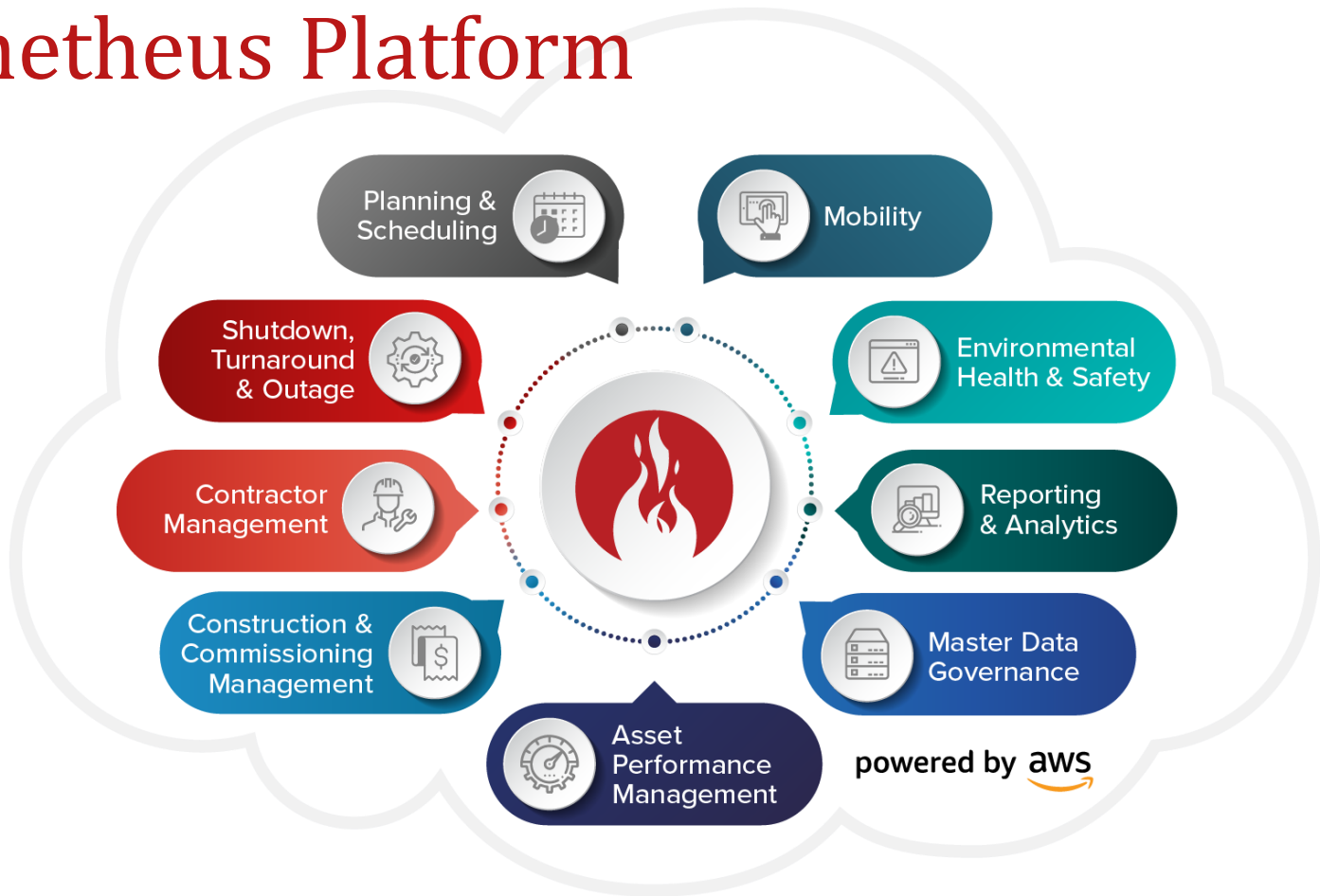Pulp & Paper

TOP 8
Utilities

TOP 6
Chemical

SAP® Certified
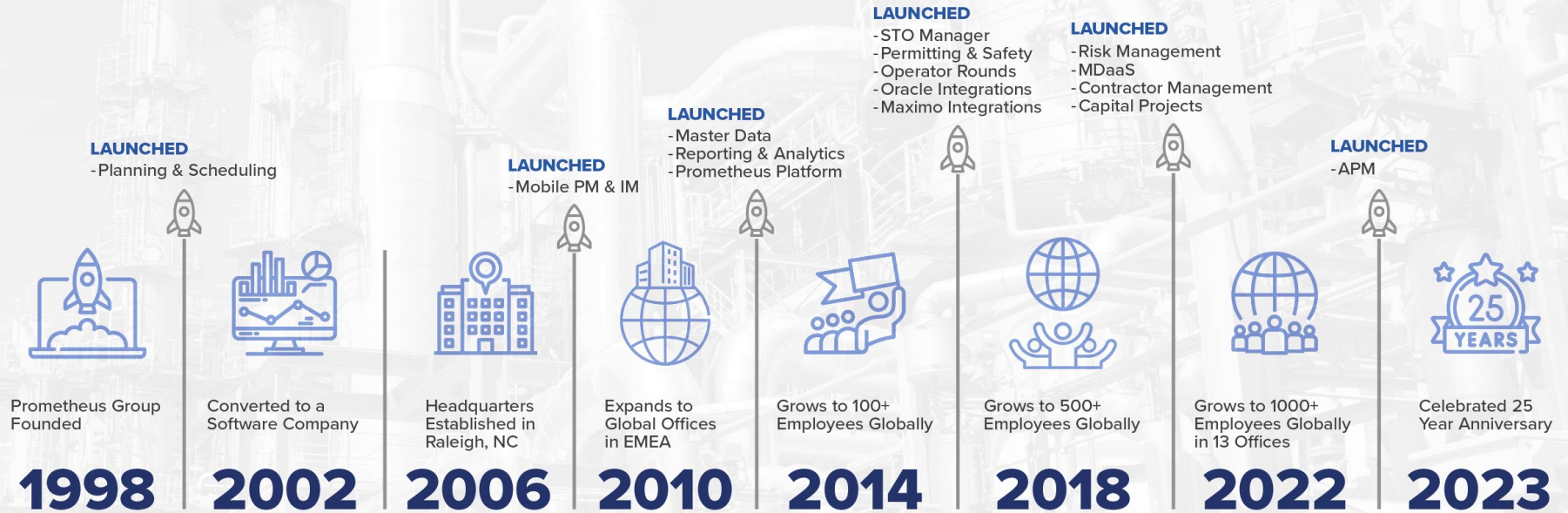Integration with SAP S/4HANA®

ORACLE | Partner

IBM Business Partner

Prometheus Platform

The Prometheus Journey

PROMETHEUS GROUP

LAUNCHED
- STO Manager
- Permitting & Safety
- Operator Rounds
- Oracle Integrations
- Maximo Integrations

LAUNCHED
- Risk Management
- MDaaS
- Contractor Management
- Capital Projects

LAUNCHED
- Master Data
- Reporting & Analytics
- Prometheus Platform

LAUNCHED
- Planning & Scheduling

LAUNCHED
- Mobile PM & IM

LAUNCHED
- APM

Prometheus Group Founded	Converted to a Software Company	Headquarters Established in Raleigh, NC	Expands to Global Offices in EMEA	Grows to 100+ Employees Globally	Grows to 500+ Employees Globally	Grows to 1000+ Employees Globally in 13 Offices	Celebrated 25 Year Anniversary
1998	**2002**	**2006**	**2010**	**2014**	**2018**	**2022**	**2023**

Common Pain Points on Capital Projects

- Scattered locations for project evidence
  - Paper (or "digital" paper)
  - Excel
  - Network drives
- Rework due to incorrect/ missing records
  - Coffee-stained, torn paper = hard dollar cost increase
- Manual management of testing scope
  - Highlighting drawings: "digital" paper or real highlighters!
  - Revisions

Common Pain Points on Capital Projects

- Managing the handover
  - Compiling a handover package manually when you have 1000's of completed records
  - Where does the field data go?
  - ...Is the scope even ready to handover?

- Gap between field work and reporting progress
  - Project dashboards not up to date
  - Management doesn't have a clear picture of real site status

- Preventative maintenance (a.k.a. preservation)
  - How to ensure equipment is maintained, before it's put in service?
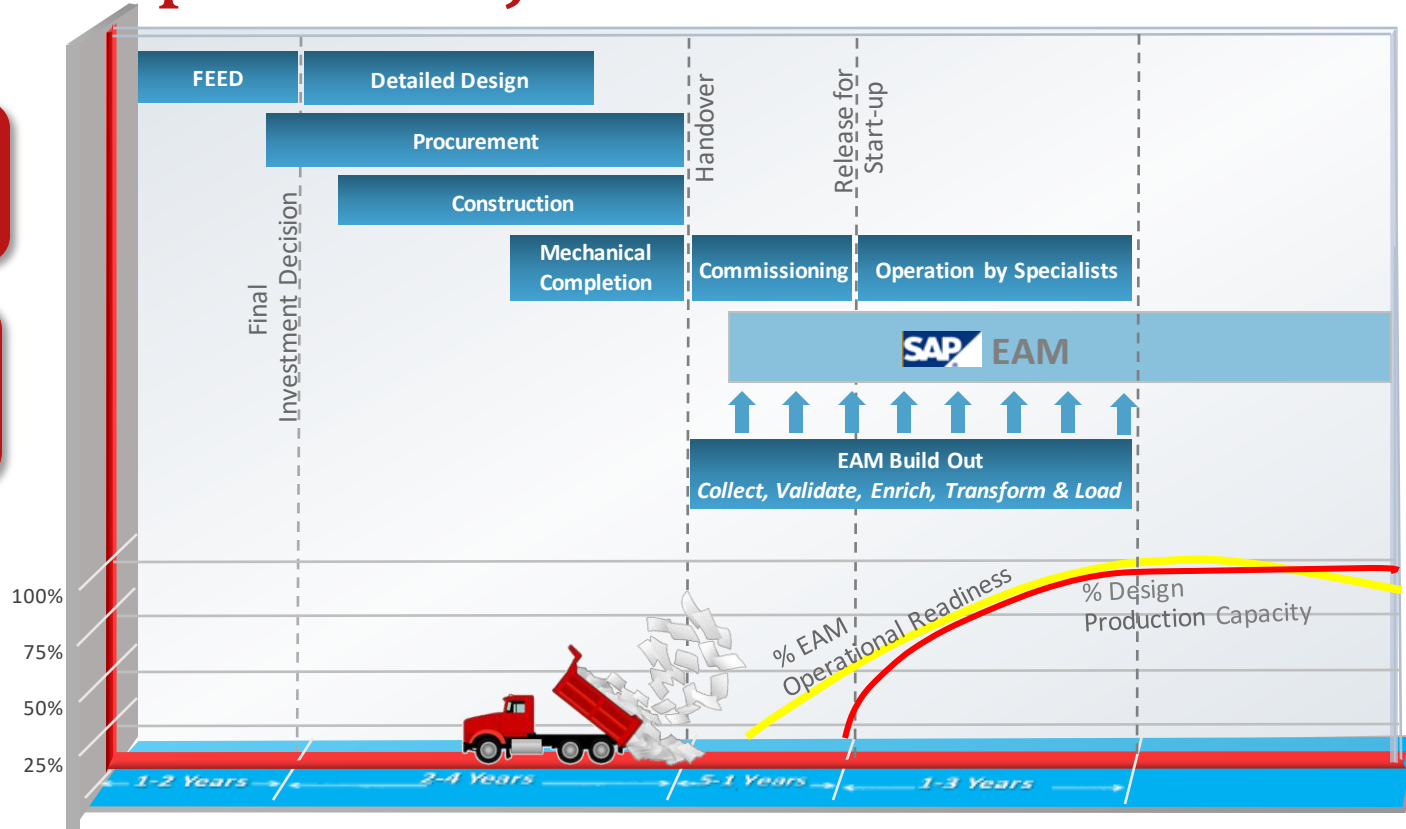 - Surprise (at the end of the job): it wasn't!

Traditional Capital Projects Processes

Many analysts agree that the average loss due to poorly managed information handover can equal over 1.5% of total CAPEX expenditures

Potential Impacts
- Reduced Asset Availability
- Extended Start-up Costs
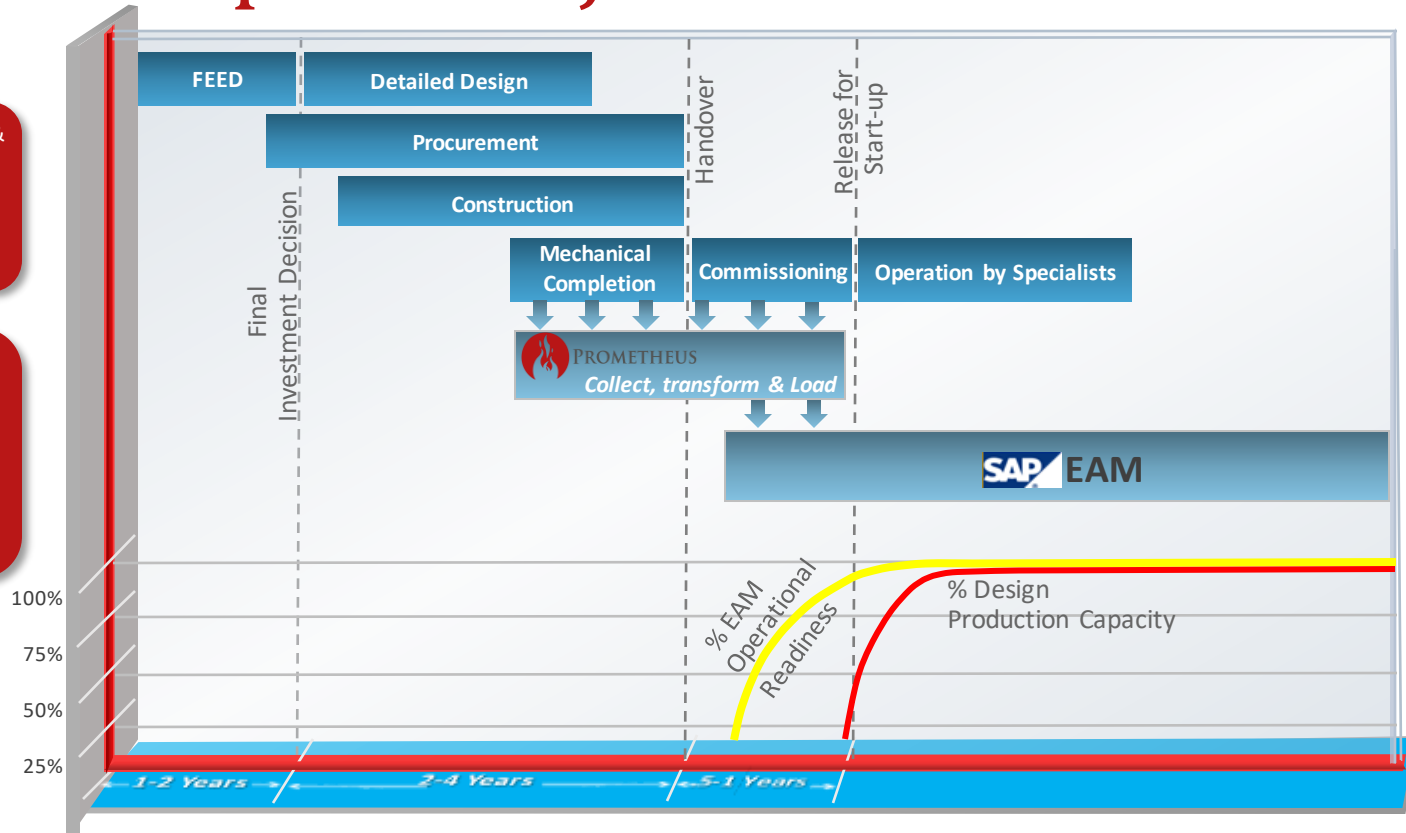- Increased EH&S Risks
- Increased Maintenance Costs

Best Practice Capital Projects Processes

Phased, progressive handover of vendor & design documentation with business process management and auditable MoC enables optimized facility lifecycle information management

Benefits
- Increased production
- Reduced EH&S Risks
- Reduced extended start-up ops costs
- Improved Maintenance productivity
- Reduced MRO spares costs
- Improved warranty management

Best Practices

- Having a complete and accurate data set

- Having an accurate scope breakdown

- Utilizing a tag-type matrix to manage inspections

- Having access to the latest revisions of construction and engineering documentation

Best Practices Cont'd

- Having a predefined and well-organized evidence organizational structure

- Having predefined reporting that can help you track your completion status

- Eliminating paper processes as much as possible

- Creating a well-defined handover procedure
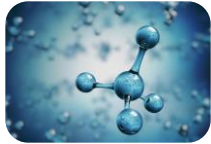
Industries We Serve

Petrochemicals   Gas / LNG   Chemical   Mining & Metals   Fertilizer   Power   Wind Power   Nuclear

Offshore   Pharma   Manufacturing   Ship Building   Welding Shop   Data Centers   Infrastructure
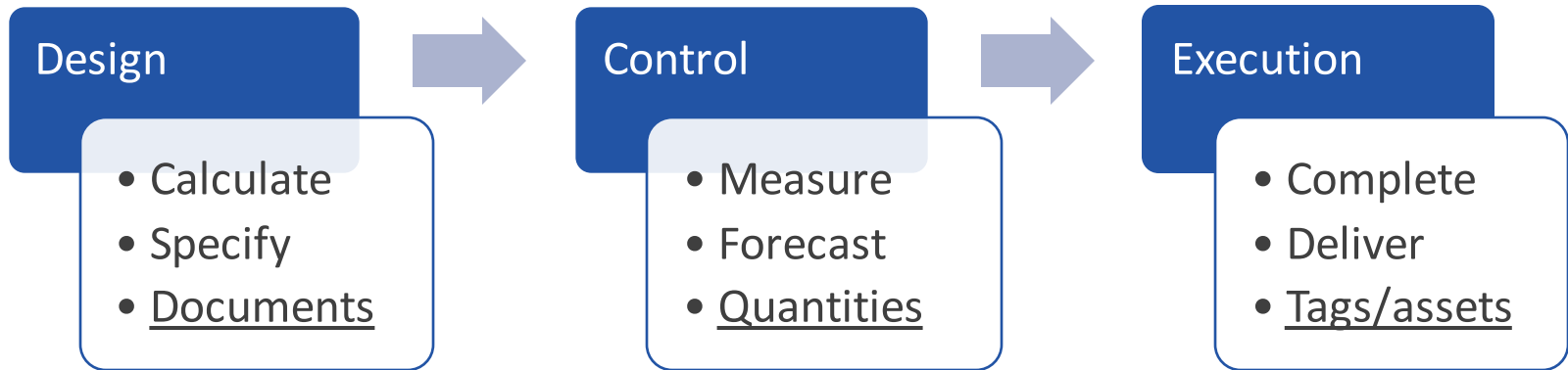
What is Co-Console?

- A **single point of truth** providing a **multi-discipline status** of <u>technical</u> and <u>contractual</u> project completion

- Methodologically prepare, complete and transition **FAT, receipt, installation, function testing, and energization**

- Monitors **individual equipment** based on **critical steps**, keeping the process relatively simple

Project Tools

- Co-Console proves physical completion and technical readiness
- Co-Console is a business critical tool for project execution, in addition to design and control tools

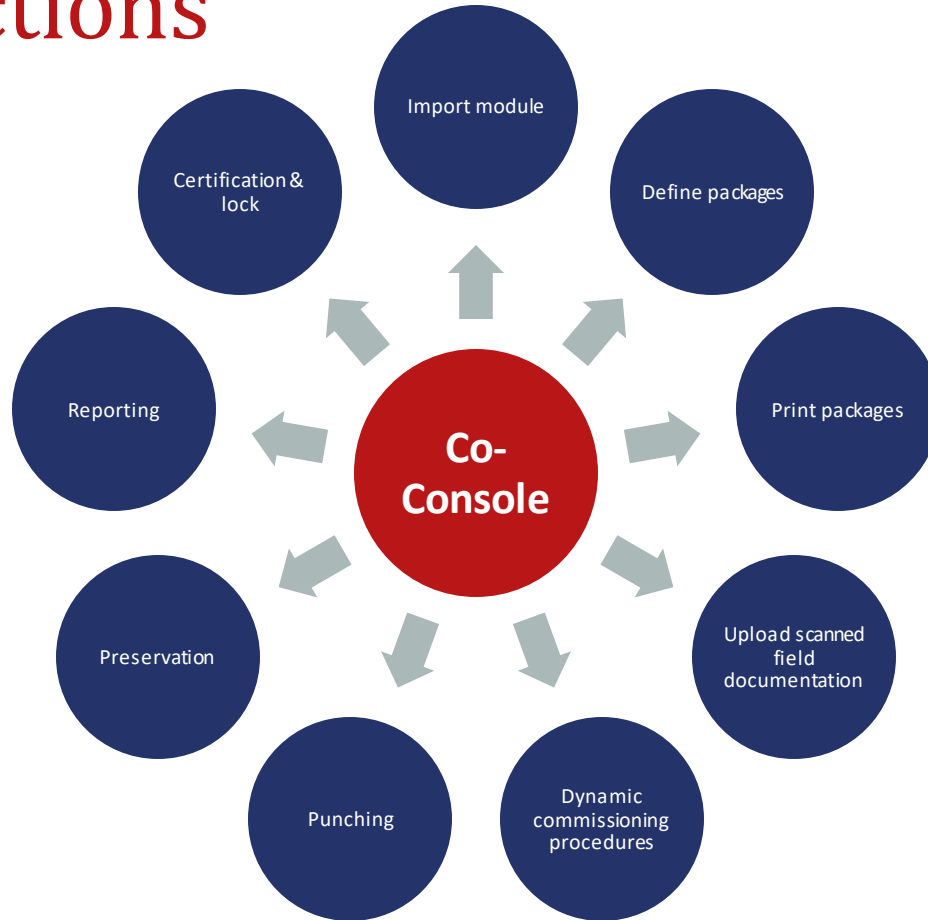| Design	Control	Execution
• Calculate • Specify • <u>Documents</u>	• Measure • Forecast • <u>Quantities</u>	• Complete • Deliver • <u>Tags/assets</u>

Co-Console Functionality and How It Helps

- View commissioning systems, milestones, modules, work packages, and equipment tags: **control your scope**

- Build electronic forms, sign forms, review forms, and add forms to an electronic turnover dossier: **smooth handovers**

- Perform punching, preservation, reporting, certification, and scope locking from a mobile device: **digital field execution saves time and money**

- View built-in reports, link your data to an external dashboard (e.g. PowerBI): **real-time project insight**

Basic Functions

Demonstration

Thank You!

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Questions?