

A Journey from Design to Decommissioning

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Introduction

- Project Information Management addresses the needs of organizing, finding, tracking, sharing, monitoring and reusing technical project information and communications throughout the full lifecycle of ESS
- So, what information is it that we need to manage?
- When do we need to manage it?

Facility Information Lifecycle



Facility Information Lifecycle

Design

Engineering

Procurement

Construction

Commissioning

Operation

Maintenance

De-commissioning

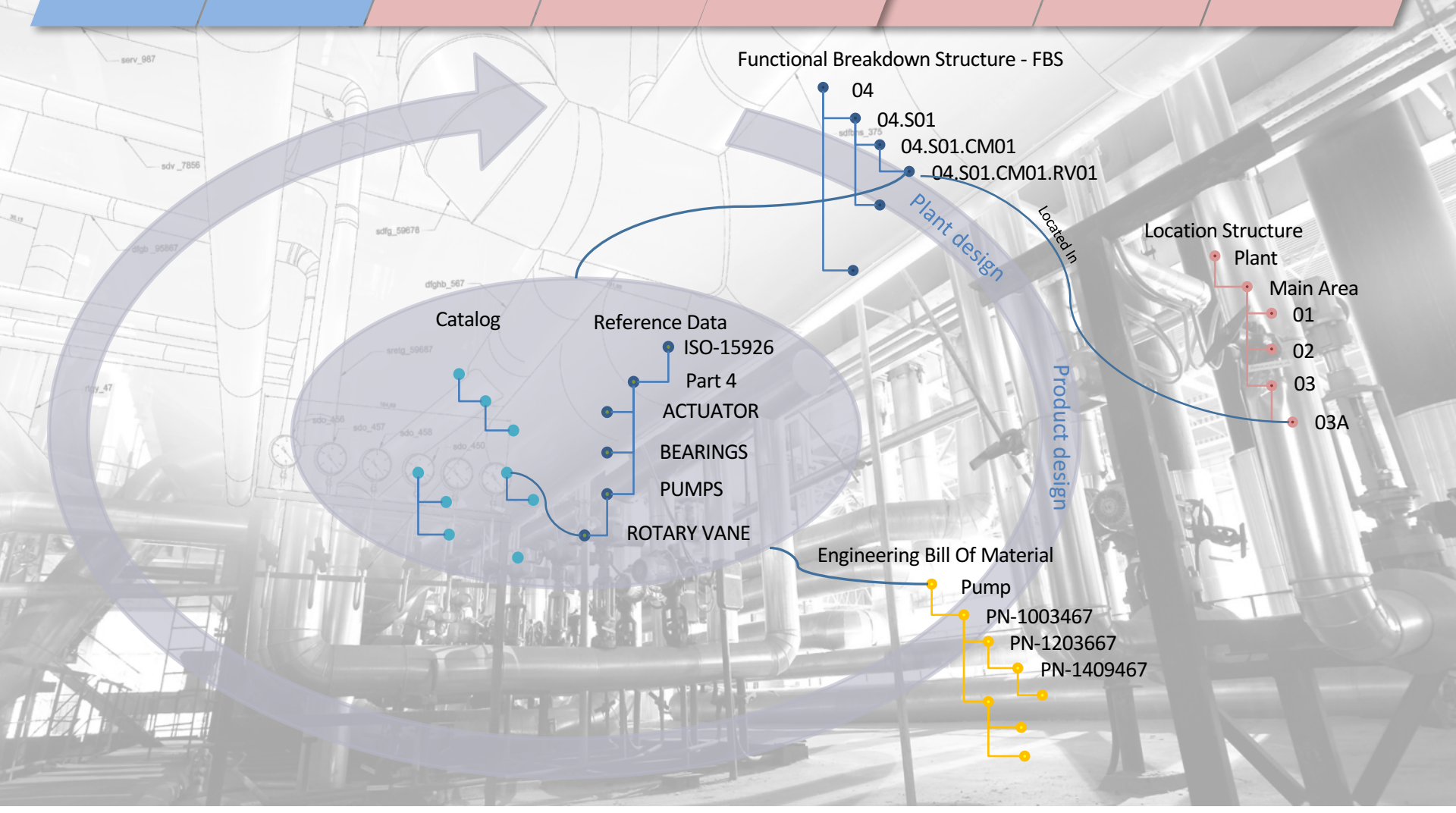
Functional Breakdown Structure - FBS

- 04
 - 04.S01
 - 04.S01.CM01
 - 04.S01.CM01.RV01

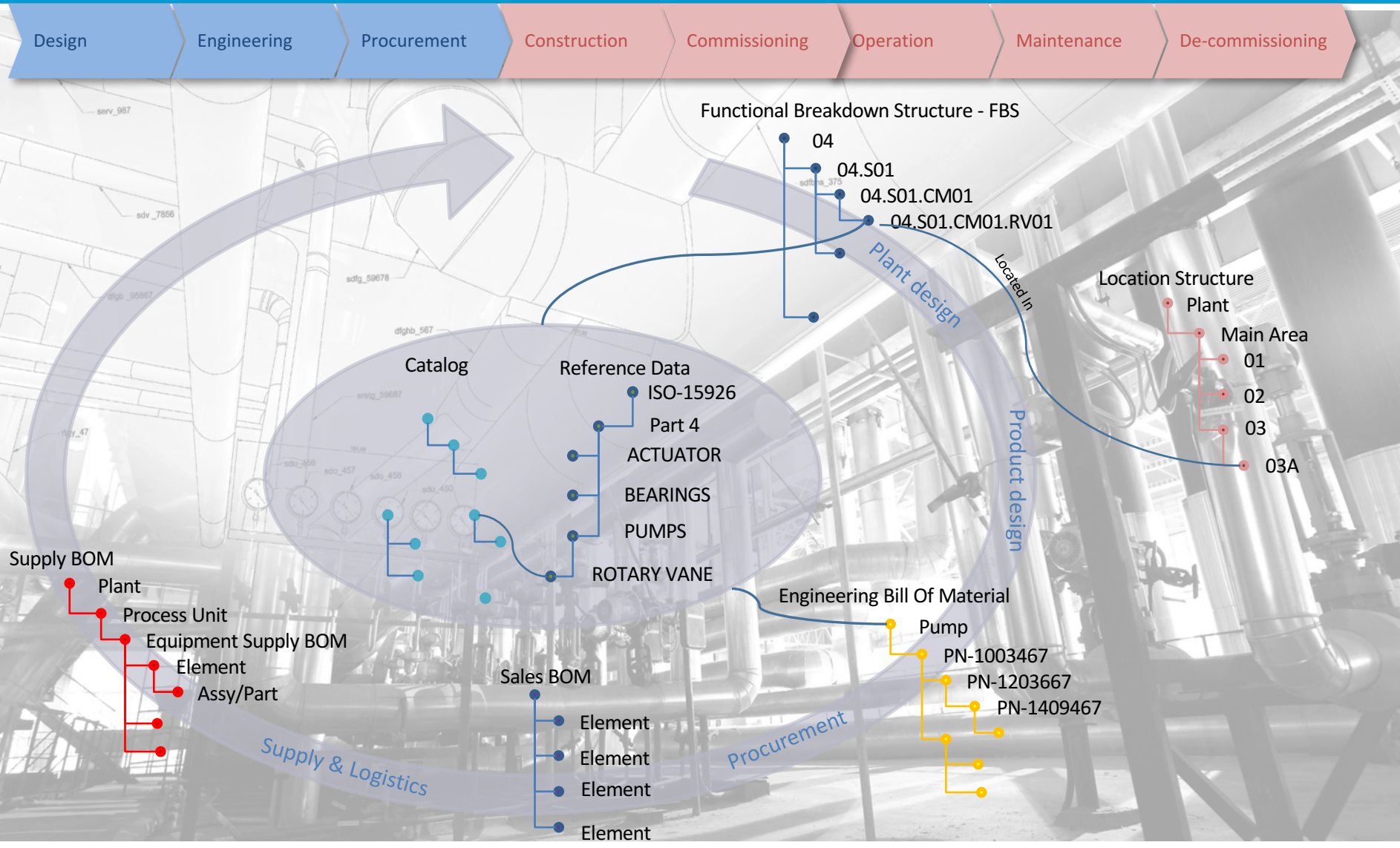
Plant design

Facility Information Lifecycle

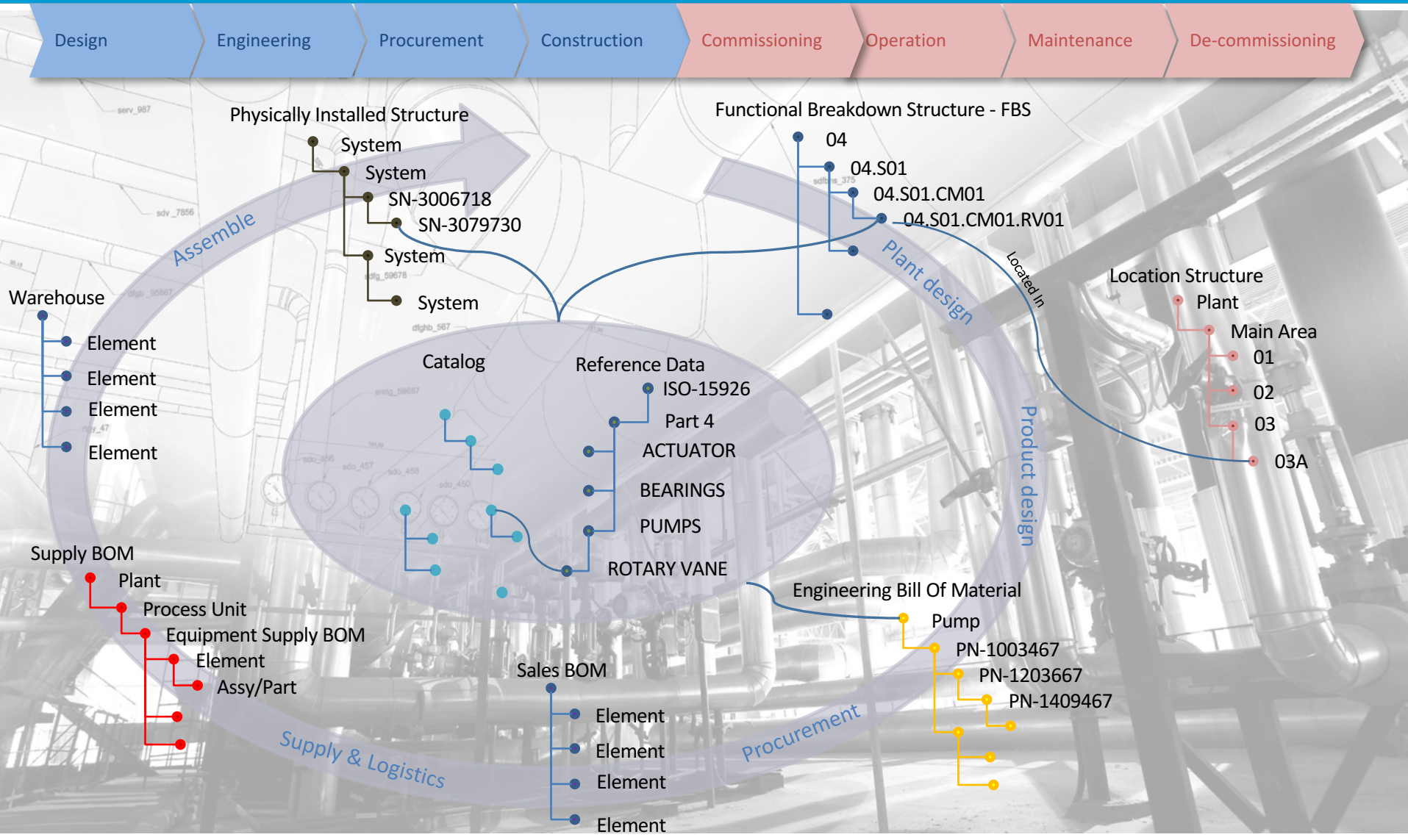
Design Engineering Procurement Construction Commissioning Operation Maintenance De-commissioning



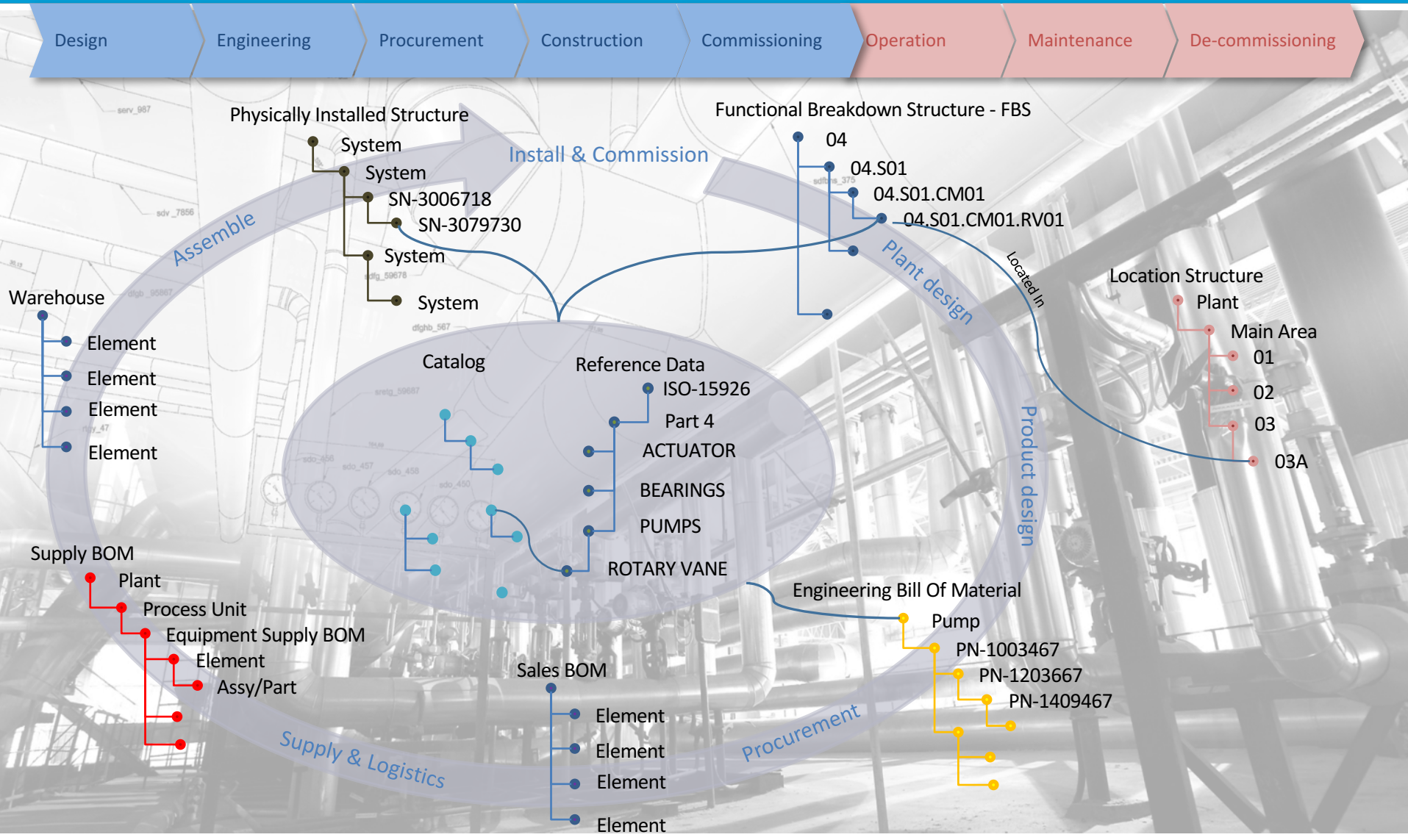
Facility Information Lifecycle



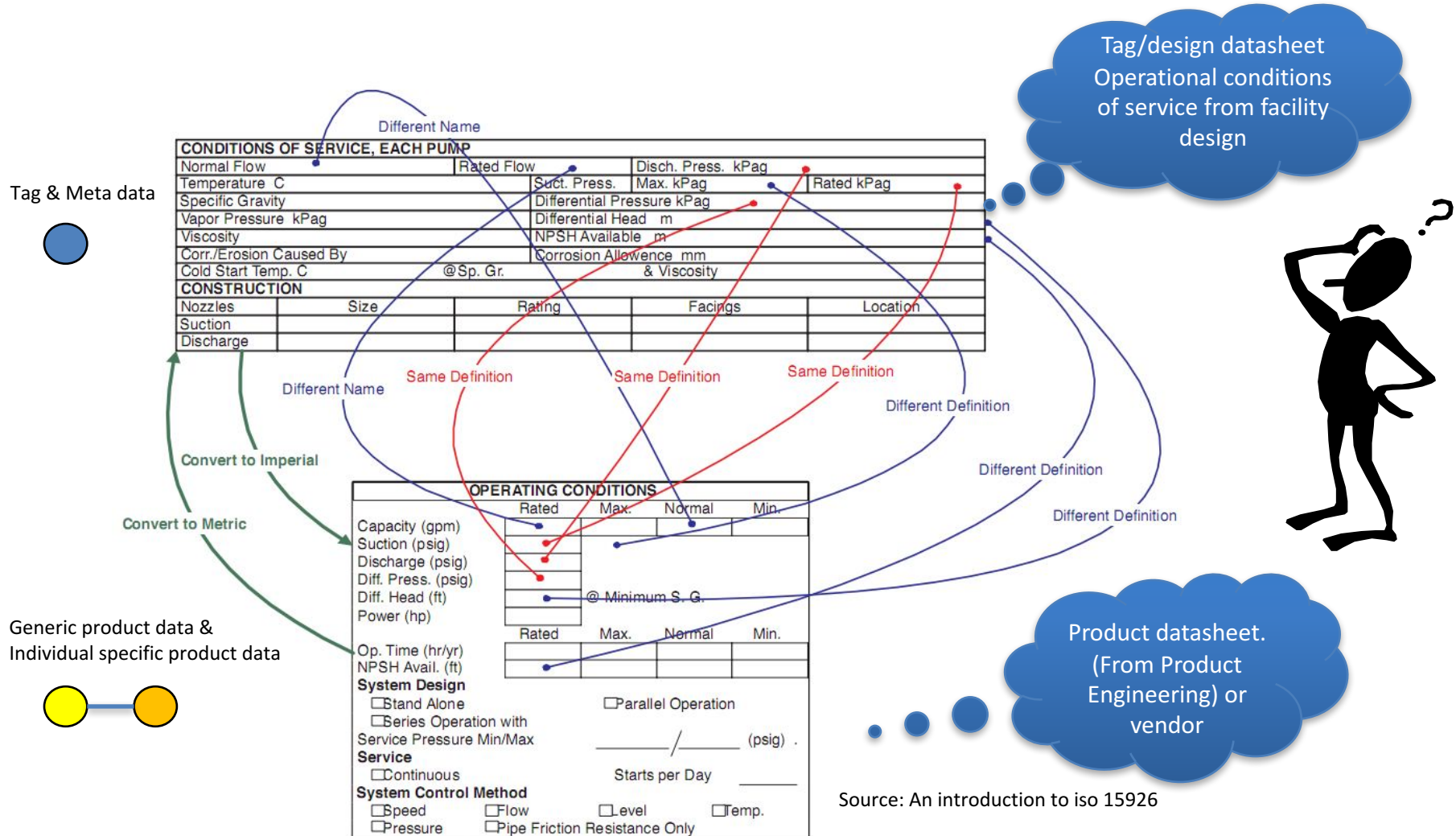
Facility Information Lifecycle



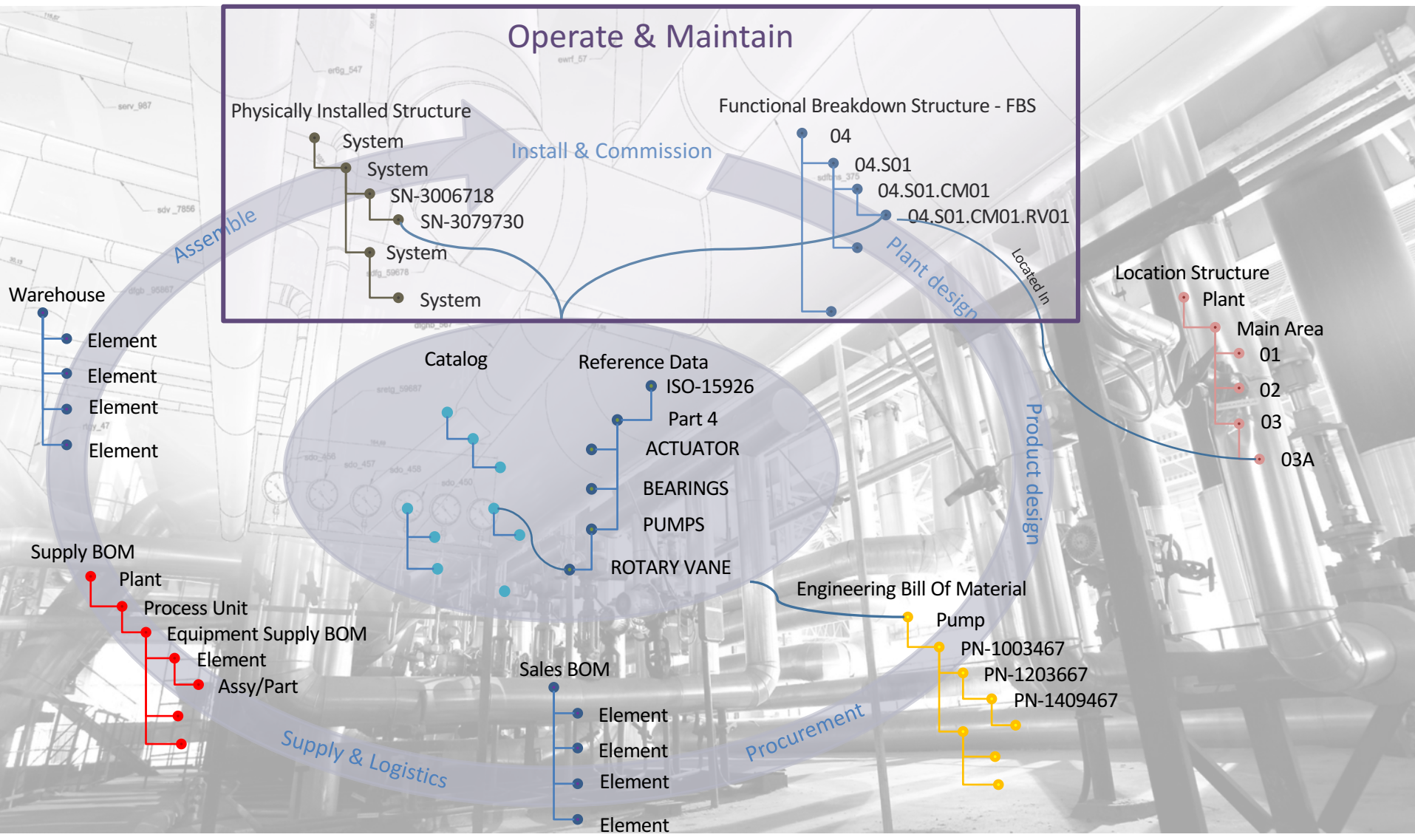
Facility Information Lifecycle



The challenge of consolidating plant and product information



Facility Information Lifecycle



What happens if it is poorly managed?

Research has shown that Operators bear the consequence of poor data consolidation and quality in Plant projects (Capital industries USA):

“The highest costs were incurred by owners and operators (OOs), and 85 % of those costs were incurred during operations and maintenance. The major cost was time spent finding and verifying facility and project information. Operations and maintenance personnel were estimated to have spent \$4.8 billion during 2002 verifying that documentation accurately represented existing conditions and another \$613 million transferring that information into a useful format ”

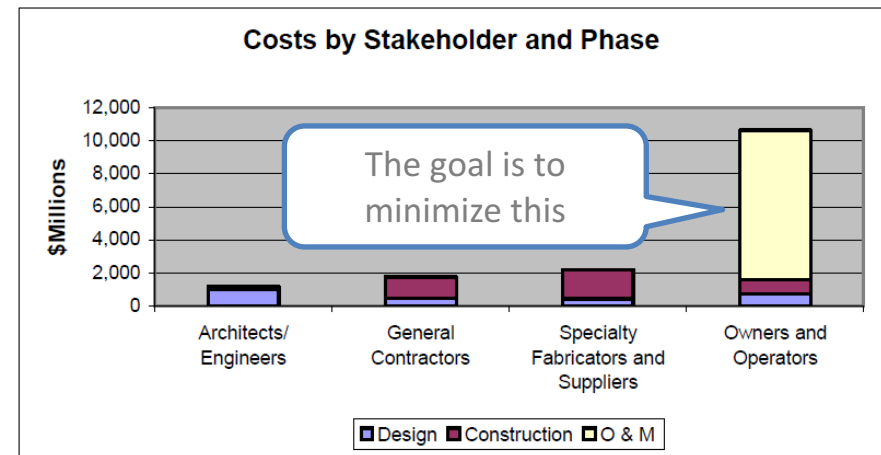


Figure 2: Cost by Stakeholder and Phase

Source: NISTIR 7259 Capital Facilities Information Handover Guide, Part 1

What happens if it is poorly managed?

“Based on interviews and survey responses, \$15.8 billion in annual interoperability costs were quantified for the capital facilities industry in 2002. Of these costs, two-thirds are borne by owners and operators”

Source: NIST GCR 04-867: Cost Analysis of Inadequate Interoperability in the U.S. Capital Facilities Industry

“Interoperability is defined as the ability to manage and communicate electronic product and project data between collaborating firms’ and within individual companies’ design, construction, maintenance, and business process systems.”

Source: NIST GCR 04-867: Cost Analysis of Inadequate Interoperability in the U.S. Capital Facilities Industry