Offshore Engineering Data

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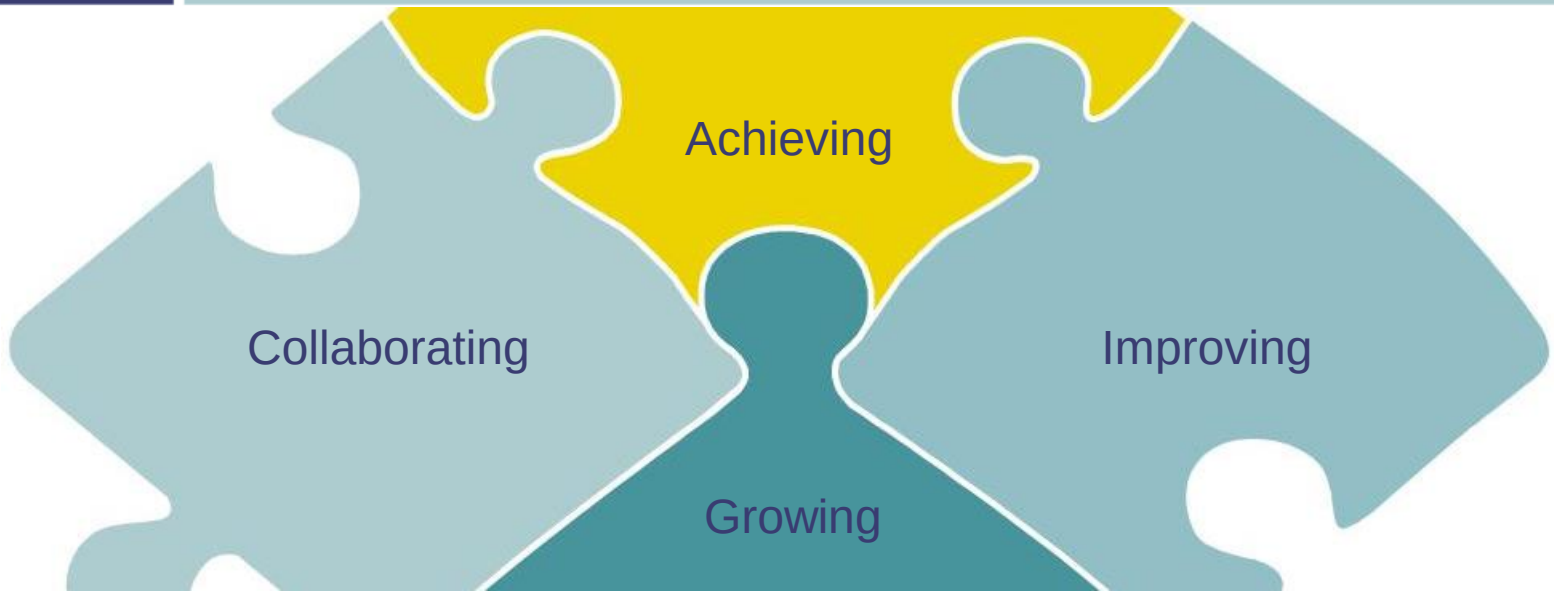


Introduction

- Harvey Johnman
- Information Manager, AMEC Brownfield Engineering
- 25 Years in Data Management & Software Development
- 10 Years in Oil & Gas
- 2 Years in Information Management

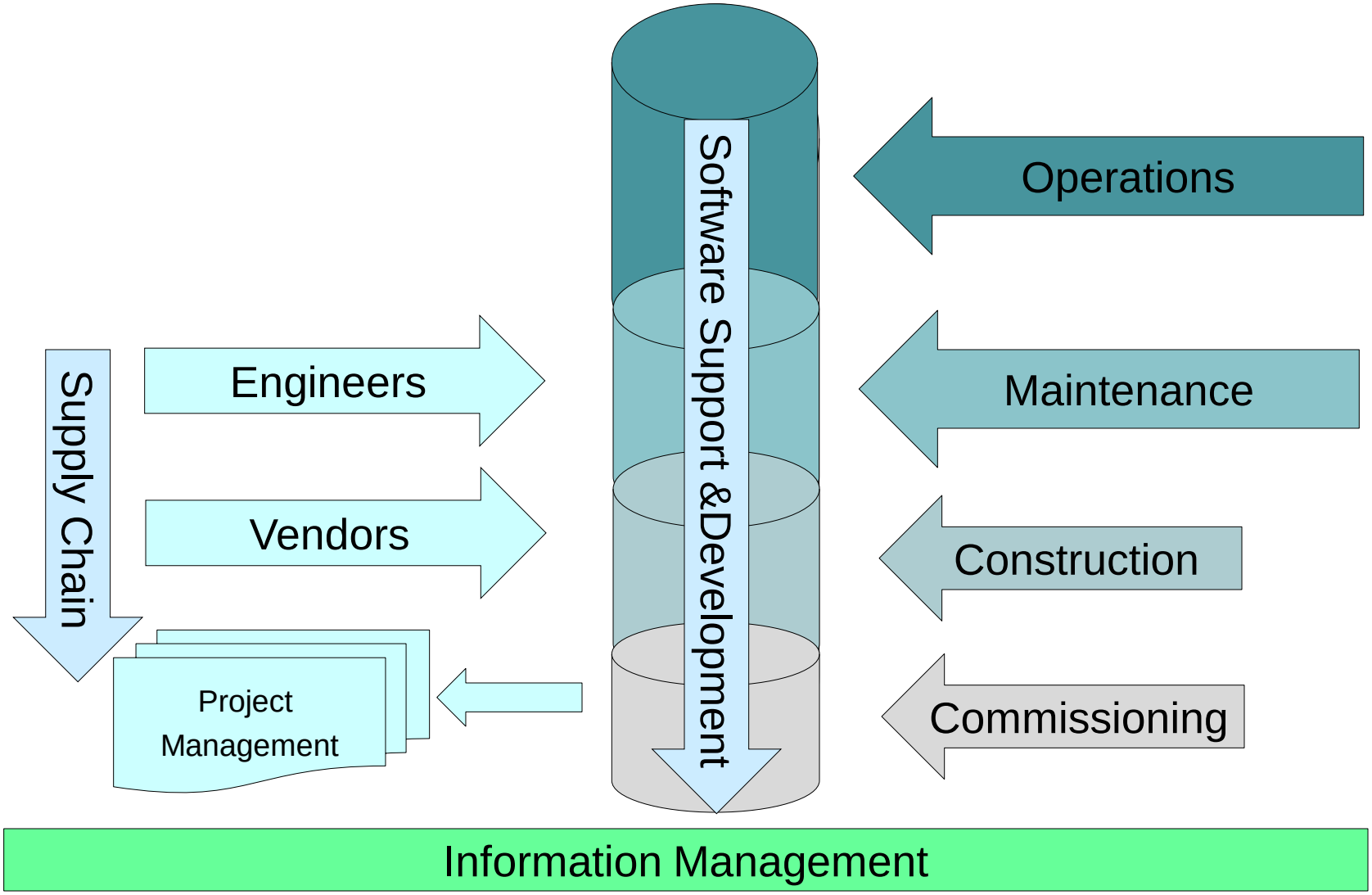
Information Management

Information Management in the context of AMEC is implementing a set of processes and systems that will enable project Engineering Data deliverables to be captured at source by Engineers and Vendors. This data is then managed, reported on and handed over to the client for Operations.

The major challenge is identifying, and then getting an effective level of engagement from each the key functions within the end to end process.

For Functions …. read People.

People - Demand and Supply of Data



1. Operations & Maintenance

How best to Operate and Maintain The Plant – what data do they need?

- WHY do it?
- Fundamental to the Business Case
  - What are the current COSTS in obtaining Information about The Plant?
  - What are the current RISKS in obtaining Information about The Plant?
- Operations and Maintenance need to work harder and smarter in developing a robust Business Case that
  - Reduces these COSTS
  - Removes or Reduces these RISKS

- WHAT is it?
- Fundamental to the Requirements
- Operations and Maintenance need to be present at the start of, and throughout a project. Not just at the end. To define what Data they need and when they need it.

2. Construction & Commissioning

How best to Construct and Commission The Plant – what data do they need?

- Fundamental to the Project Data Requirements
- Construction & Commissioning need to be present at the start of, and throughout a project. Not just at the end. They need to define what Data they need and when they need it.
- Opportunities to further improve the Business Case

- When these functions start to use the data, processes and systems need to be in place to ensure that As-Built data is fed back.

3. Project Management

What information do we need, to know that we are progressing the Project Data Requirements?

- PM needs to
  - Understand the importance of the Engineering Data
  - Recognise that it is a project deliverable
  - Strongly communicate this to the project
- Engineering Data Completion and Maturity acts as a strong indicator of Project Progress
- The Capture, Management and Delivery of Data are Project Tasks that need
  - Estimated
  - Resourced
  - Costed
  - Scheduled
  - Progressed
  - Controlled
- Project Management need to be involved in the definition of report development

4. Engineers

How can we supply the Project Data Requirements?

- Engineers are responsible for the majority of the Functional data
- As the source of 50-70% of the Engineering Data, Engineers need to
  - Understand the importance of the data
  - Recognise that the data is a project deliverable
  - Be responsible for delivering that data
  - Own the processes and systems that capture the data
- To achieve this ownership, they need to
  - Assist in the design of the data capture Software
  - Assist in testing the Software
  - Sign off the Software
  - Assist in the management of the software

5. Vendors

How can we supply the Project Data Requirements?

- Vendors are responsible for the majority of the Physical data
- As the source of 30-50% of the Engineering Data, Vendors need to
  - Understand the importance of the data
  - Be contractually engaged to supply the data
  - Be engaged as early as possible to understand the processes and systems
  - Be given access to systems that to enable effective data capture
  - Be evaluated on their data delivery for future projects

6. Supply Chain

How can we help the Vendors capture and deliver the Project Data Requirements?

- Need to understand the importance of the data
- Engineering Data feeds the Supply Chain Process

- Act as liaison between Engineers and Vendors
- Expedite Data as well as materials

7. IT / Engineering Systems (ES)

How can we help the Engineers and Vendors capture the Project Data Requirements?

- Software vendors or In-house developers (Or a combination of both)
- Develop systems in conjunction with Engineers / Vendors.

- Manage the systems that capture, report on and deliver the data.
- Need to provide appropriate levels of training for those systems
- Need to provide appropriate levels of support for those systems
- Deliver a shared systems strategy with Engineering, Supply Chain & Project Management

8. Information Management

How do we manage all of the above to ensure that it all works?

- Take responsibility for the handover of the data to the recipients
- Develop a Project Information Management Plan that captures all of the above
  - The What – The data management activities
  - The Who – people responsible for the activities
  - The How – the processes and systems used in the activities
  - The When – the plan and schedule for the activities
- Provide a suitable level of Audit & reporting against the Plan
- Bring key people together at appropriate points
- Need to work with all Functions to develop the COST of Information Management to feed the Business Case.

FIVE things we can do better?

1. Build a better Business Case for IM
2. Earlier Engagement for all parties in defining requirements
3. Greater Engagement for all parties in the development of processes and systems
4. Functions to own systems, IT / ES to manage systems
5. Escalate importance of the data in terms of project deliverables