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Communication and Information Exchange of Corporate Consortia in the Shipbuilding Industry

Bremen Institute of Industrial Technology and
Applied Work Science

Division of Product Development, Process Planning
and Computer Aided Engineering

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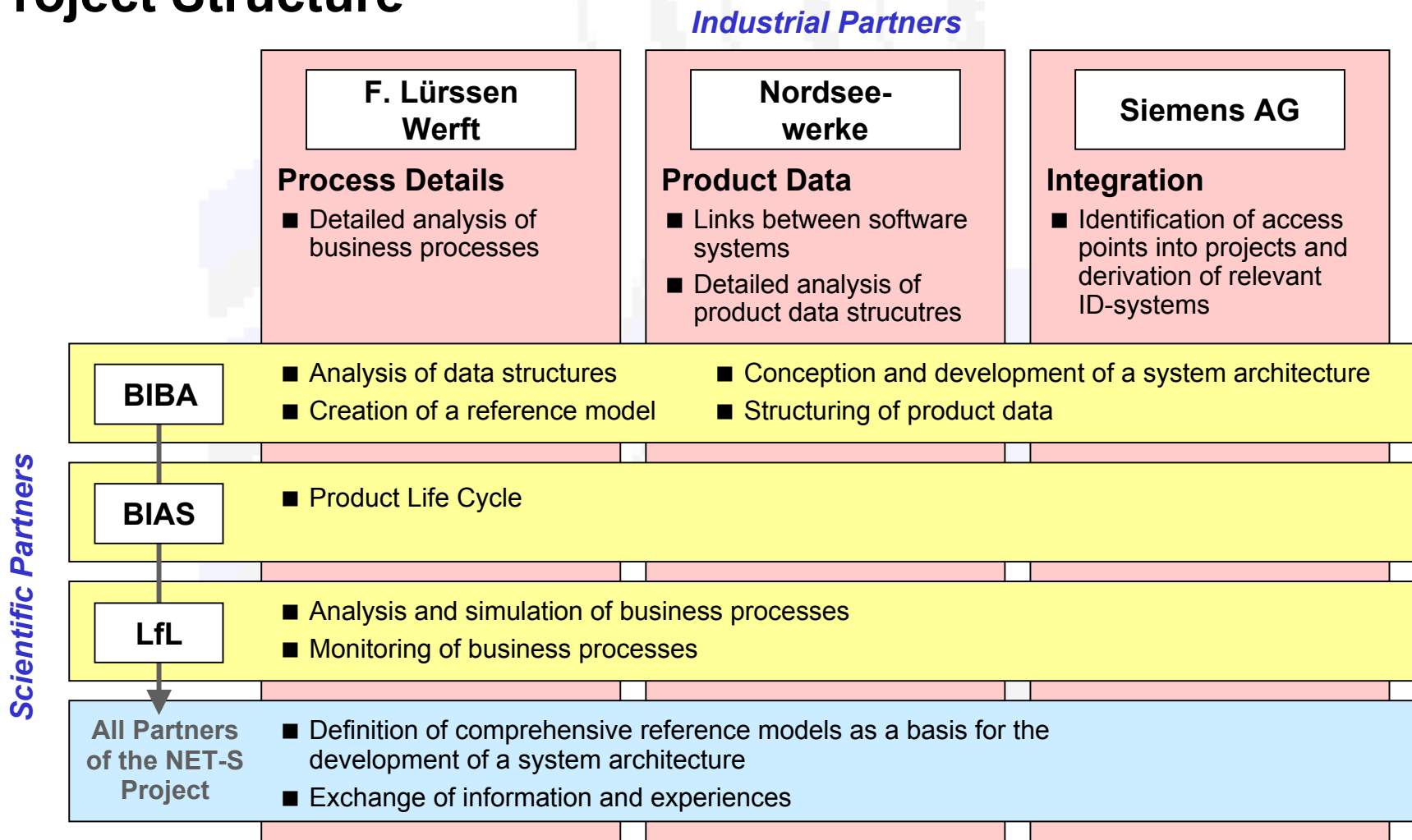
Introduction of the NET-S Research Project

- Project Structure
- Goals and Vision of the NET-S Research Project
- Topics Addressed in the NET-S Research Projects
- Analysis Phase

First Results

- Attribute Classification of Component Parts
- Integration of System Suppliers/
Role of Partner vs. Role of Component Supplier

Project Structure



Goals and Vision of the NET-S Project

Main Goal:

Reduction of cost and time

(Partial) Goals:

- I *Process model*
- II *Product data model*
- III *Communication*
- IV *Utilisation of existing tools*

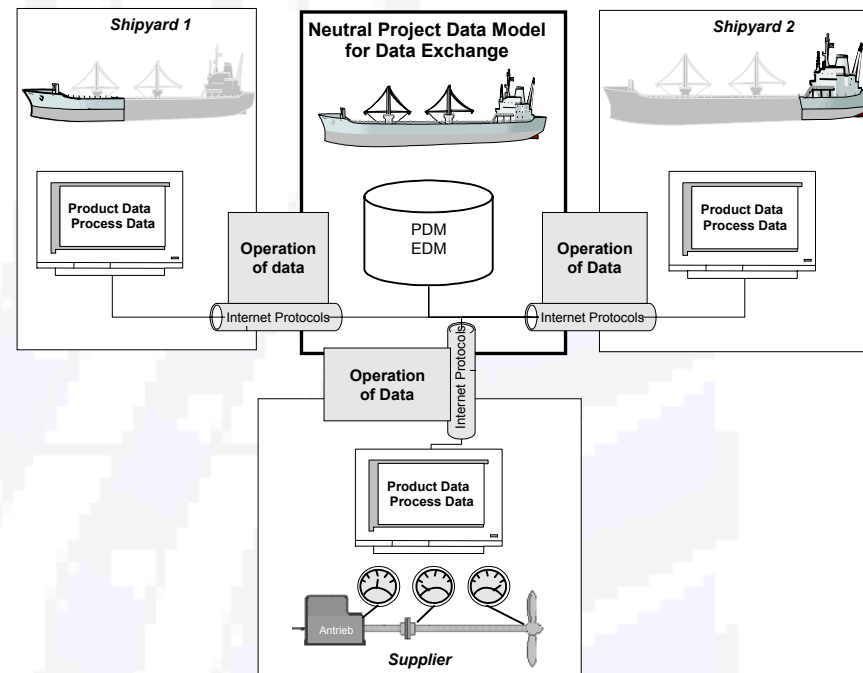
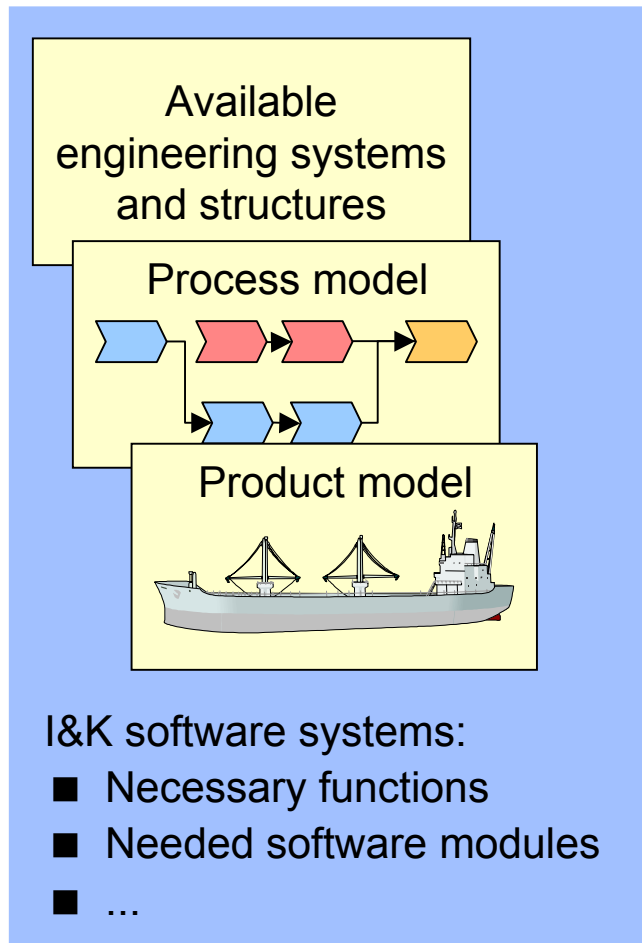
Ancillary Goal:

- A *Life cycle analysis*



Development of a ***dynamic, network oriented reference model*** for product data and processes as well as a dedicated ***communication basis*** for cost reduction and shorter time to market

Topics Addressed in the NET-S Project

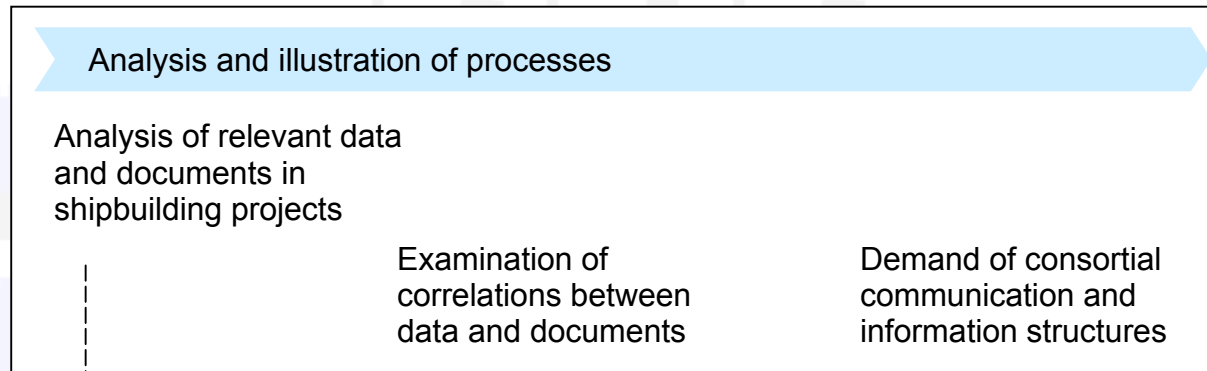


- Reference model** for organisational cooperation of consortia and the exchange of product data
- Information and communication basis** for a cooperative product development in the shipbuilding industry

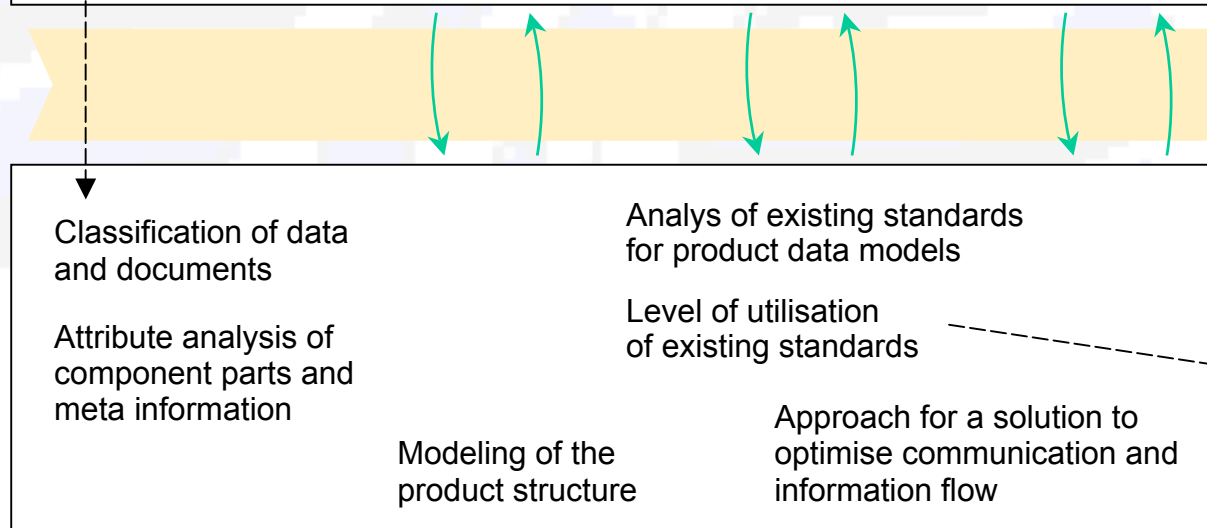
Research Activities

Preparation of a Communication and Information Basis

*Research Activities
of the Industrial
Project Partners*

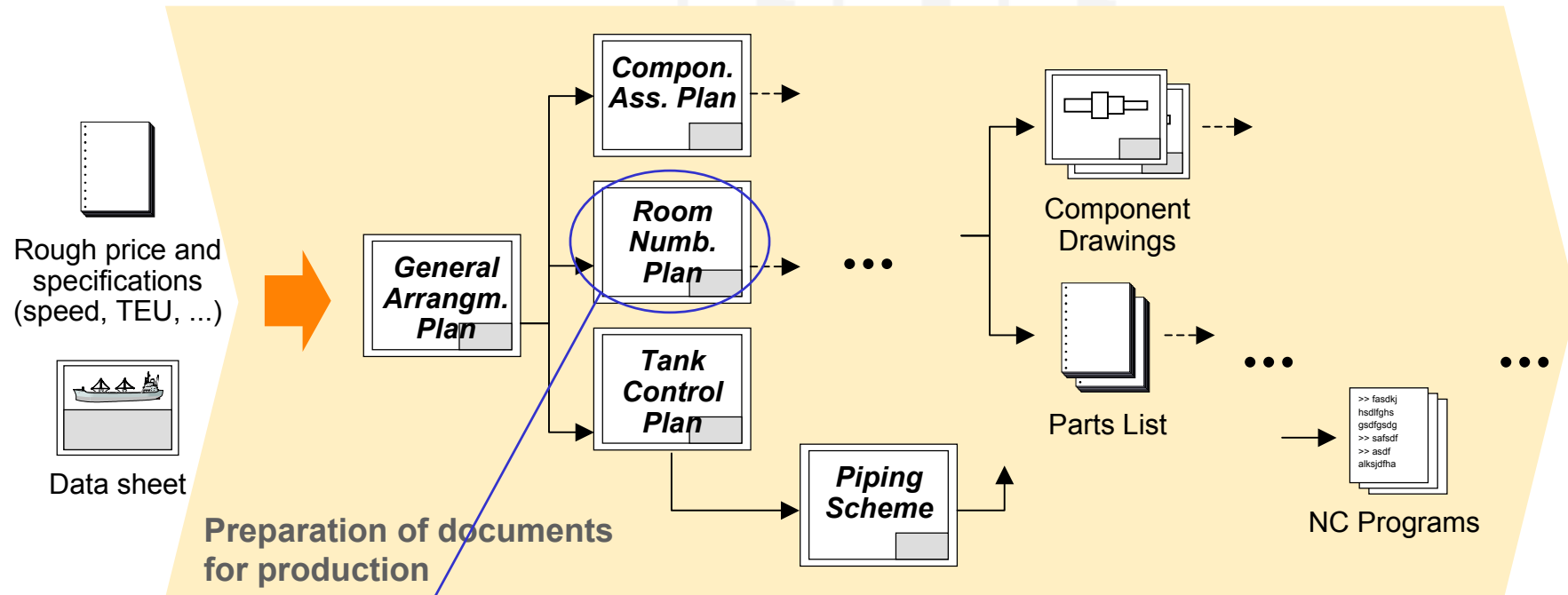


*Conceptional
activities of the
BIBA*



Analysis of Identification Systems

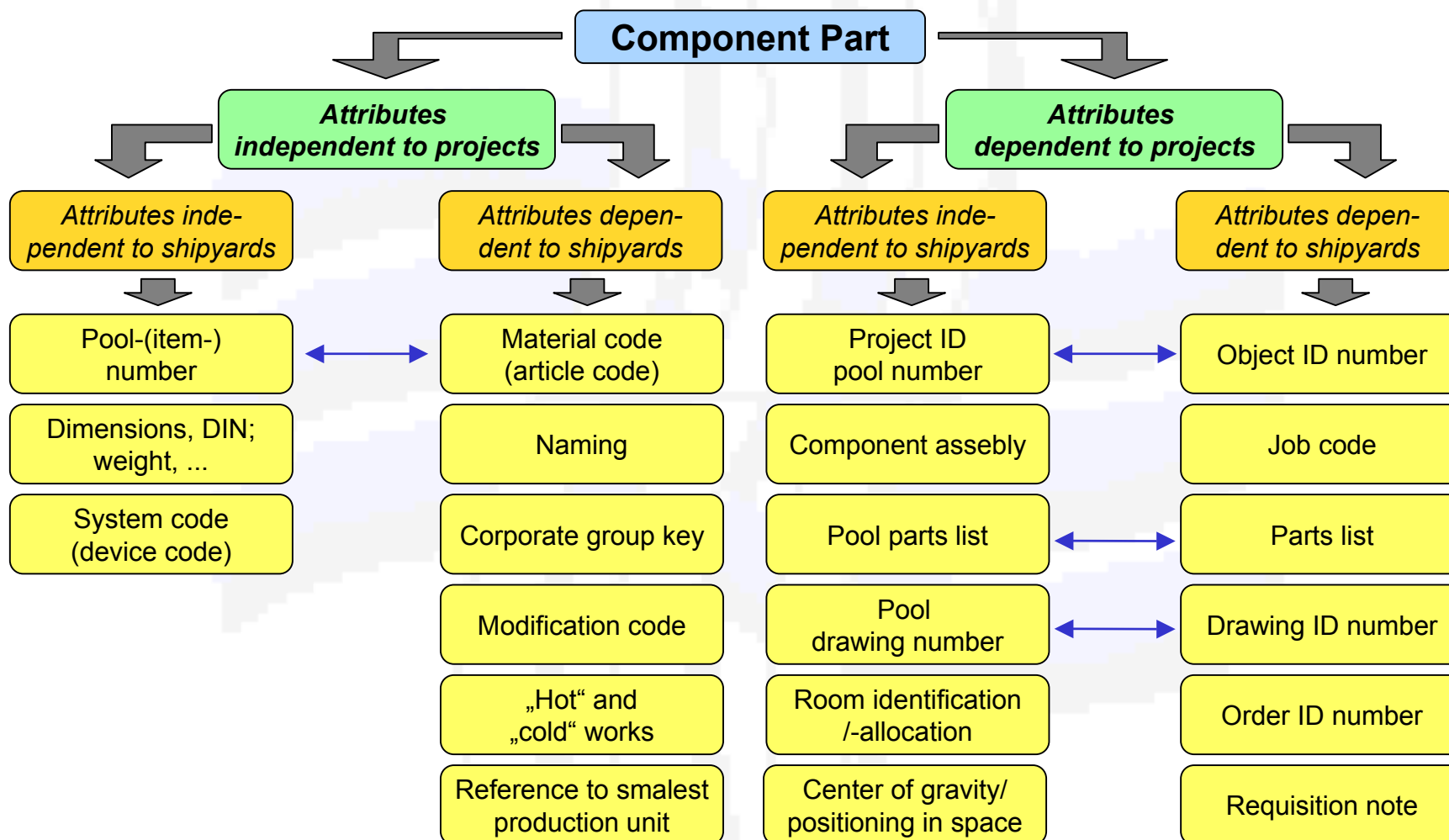
along the accuracy of documents during design and production



Analysis of documents using a check list

- Which software systems are used to create the documents?
- Document content
- Flow of created data and documents
- ...

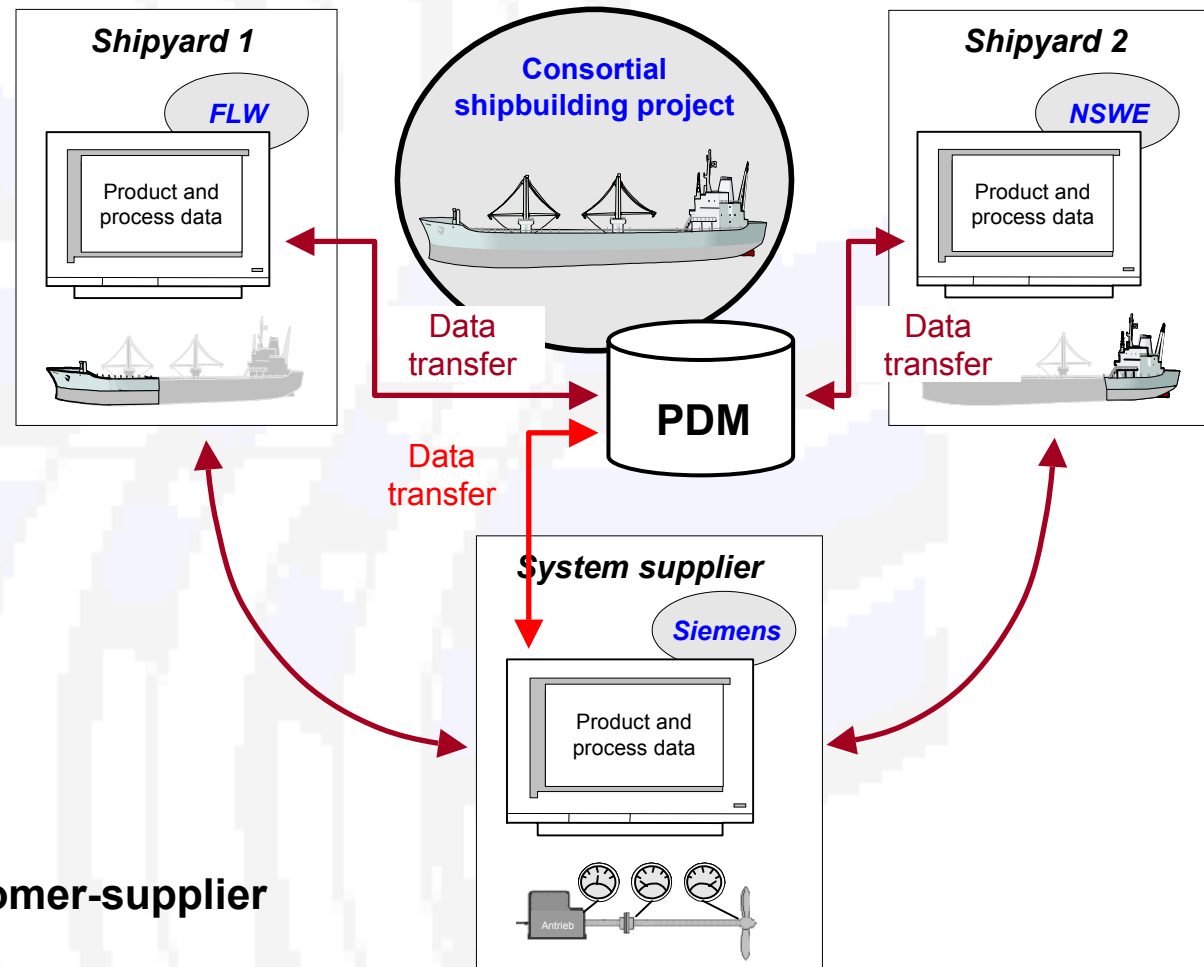
Attribute Classification of Component Parts



Integration of System Suppliers

Problems

- Late integration of system suppliers into the development and production process:
 - Time pressure
 - Additional costs
 - Decrease of quality
- Low level of innovation by using existing concepts
- Available know-how is not completely used



➔ **Goal: Cooperative customer-supplier relationship**

Definition of Roles

Role as a Partner	Role as a Supplier
<ul style="list-style-type: none"> ■ Integration in pre-acquisition phase → Cooperative development and presentation of customer specific solutions ■ Functional responsibility for the complete system by the system supplier ■ Coordination of sub-suppliers in responsibility of the partner ■ Agreement of partnership with alternatives <ul style="list-style-type: none"> a) Rewards for activities during acquisition b) Cooperative realisation of the project ■ Cooperative transparent and continuous scheduling ■ Defined revisionary processes ■ Cooperative project management with defined milestones and checklists ■ Initiation of »Application Design Workshops« for the complete system 	<ul style="list-style-type: none"> ■ Defined request by a shipyard with target specifications and defined performance data <ul style="list-style-type: none"> a) during the shipyard's phase of acquisition b) when the shipyard already got contracted → Request for a fixed charge ■ Requests for engineering services and components: <ul style="list-style-type: none"> a) Framework for requests during the acquisition phase b) Target specification during the realisation phase ■ In-time delivery of a component part or a service ■ Verification of the warranted characteristics of the single component part

Revisionary Management

Demands and Characteristics

Demands

A professional revisionary management is based on an ideal planing of technical solutions (configuration management) as well as the organisation

The effects of revisions are analysed in reference to technique, time, costs and ressources in every state of a project

The project as well as the roles and responsibilities must be structured

Partner Characteristics

- A partner is integrated in the revisionary management of the shipyard and the end customer
- The shipyard gains arguments to charge modification demands in terms of costs or deadline shifts
- Early identification of technological barriers
- Improving the transparency of the project

Supplier Characteristics

- Modifications only take place through cancelling of existing orders or setting up new ones
- Revisions only take place when the supplier itself is responsible for a mistake
- If modifications have been decided a supplier can only react

Questions?

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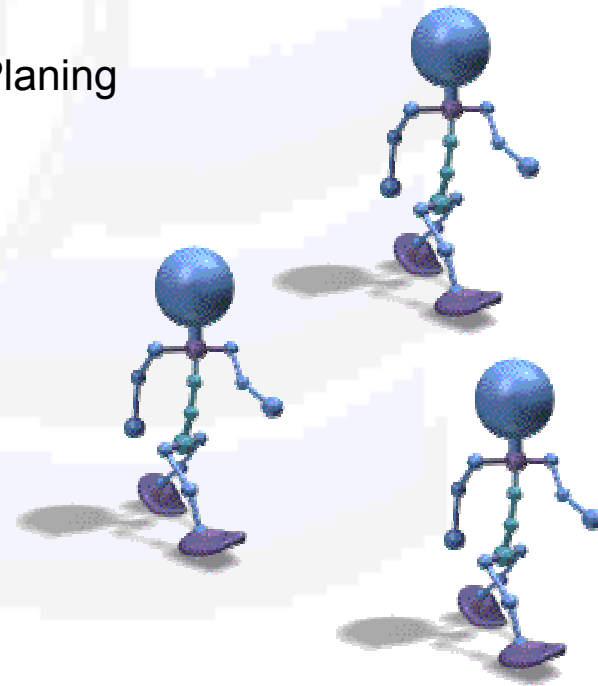
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Thank you very much for your attention!