

# **Overview on EM Standardisation and International Consensus Activities**

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## EM Standardisation

### CIMOSA Participation in Standardisation

- Germany: DIN/NAM 430.5 “Architektur, Kommunikation und Integration ”
- Europe: CEN TC 310/WG1 “Systems Architecture”
- ISO TC 184/SC5/WG1 “Industrial Systems and Automation/Modeling and Architecture ”
- ISO TC 184/SC5/WG4 “Manufacturing Software and its Environment”
- ISO TC 184/SC5 “Study Group on Vocabulary”
- IEC/SC65A/ISO/TC184/SC5 JWG15 on “Enterprise Control Systems Integration”



## **EM Standardisation**

### **CEN, ISO, IEC, OMG, BPMI**

- ISO IS 14258 “Concepts and Rules for Enterprise Models” ISO TC 184/SC5/WG1
- ISO IS 15704 “Requirements for Enterprise Reference Architecture and Methodologies”
- EN ISO IS 19439 “Framework for Enterprise Modelling” CEN and ISO
- EN ISO WD 19440 “Constructs for Enterprise Modelling” CEN and ISO
- ENV 13550 “Enterprise Model Execution and Integration Services” CEN TC 310/WG1
- ISO 1600 Series “Manufacturing Software Capability Profiling for interoperability” ISO TC 184/SC5/WG4
- IEC/FDIS “Enterprise Control Systems Integration” IEC/ISO JWG 15
- new work item proposal “Decisional Reference Model” CEN TC 310/WG1
- new work item proposal “Formalisation of Constructs for Enterprise Modelling” CEN TC 310/WG1 and ISO TC 184 SC5/WG1
- new work item proposal “Process and Model Interoperability” ISO SC5/WG1
- Request for proposal “UML™ Profile for Business Process Definition” OMG
- BPMI WD “Business Process Modeling Language (BPML)” BPMI.org



## **EM Standardisation**

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#### EN ISO WD 19440 “Constructs for Enterprise Modelling”

- Set of Modelling Constructs reduced to
  - domain (the scope of the model)
  - Functionality: Business Processes, Enterprise Activities, Events
  - Information: Enterprise Object, Object View, and specialisations Product and Order
  - Resourcing: Resource, Capability, Functional Entity
  - Organisation: Organisational Cell, Decision Centre, Organisational Unit



## **EM Standardisation**

### **CEN, ISO, IEC, OMG, BPMI**

#### ISO 1600 Series “Manufacturing Software Capability Profiling for interoperability”

- **DIS Part 1 – Framework**
  - specifies a framework for interoperability of a set of software products used in the manufacturing domain and to facilitate its integration into manufacturing applications
- **DIS Part 2 – Methodology**
  - specifies a methodology for constructing profiles of manufacturing software capabilities.
- **WD Part 3 – Interfaces - Protocols and Templates**
  - specifies interoperability models of software unit object interfaces and related protocol options, as well as mappings from the interoperability models to models of capability classes, templates, and profiles.
- **Proposal Part 4 - Conformance test methods, criteria, and reports**



## **EI3-IC Initiative**

### **Enterprise Inter- and Intra-Organisational Integration**

- **Conclusion and Future Activities**
  - **International consensus on the contents of enterprise inter- and intra-organisation integration is a prerequisite for real industry acceptance and application of the technology**
    - **A number of future research activities**
    - **Need for common terminology**
    - **Continue international forum for consensus building**
  - **Future Workshops and Conference**
    - **ICEIMT'04 Toronto, Canada**