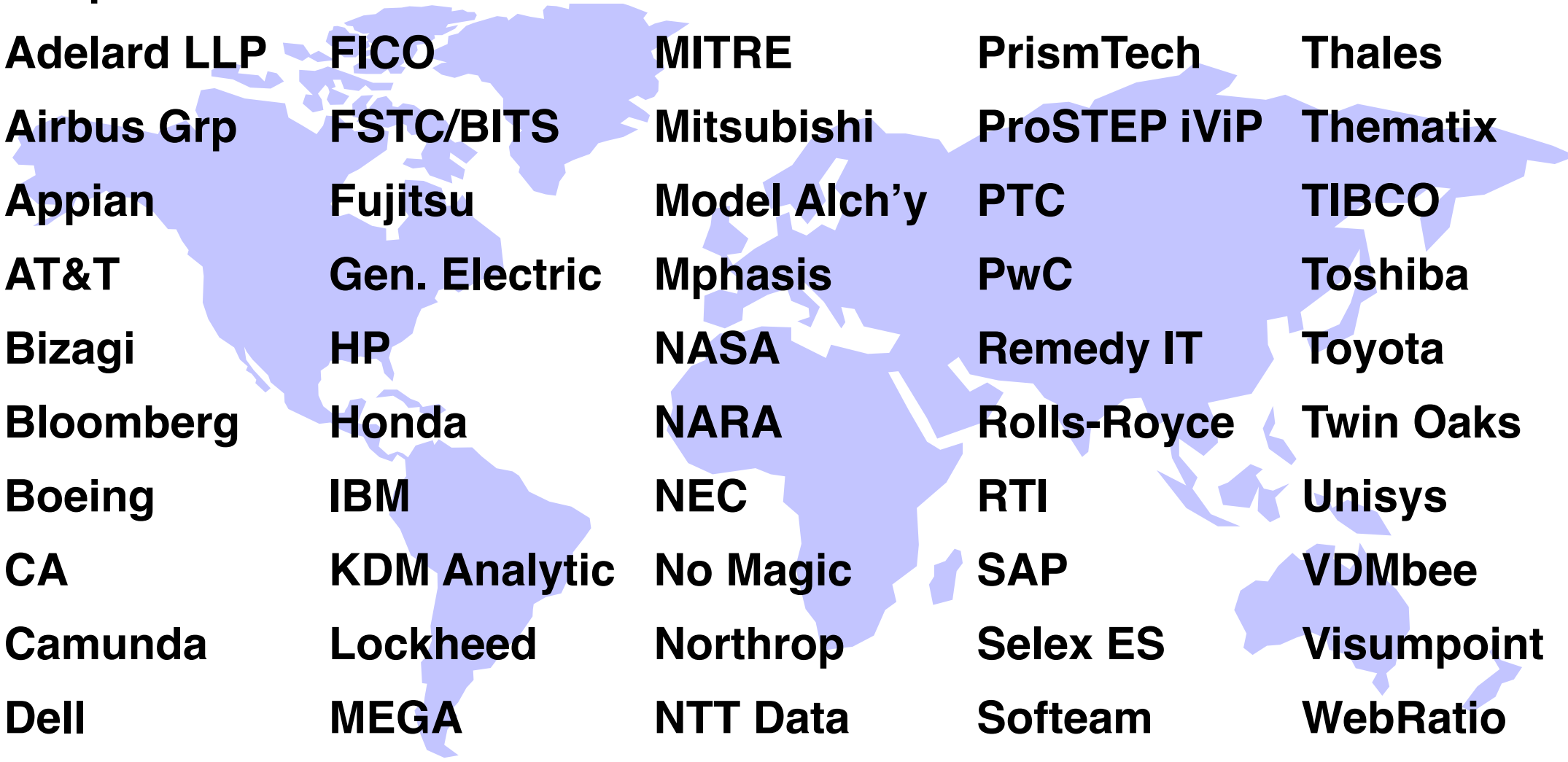# OMG - A brief introduction

Andrew Watson
OMG Technical Director

Introducing OMG

- **One of the most successful forums for creating open integration standards in the computer industry**
  - **Modelling platforms (UML, BPMN, SysML & related work)**
  - **Integration platforms (DDS, CORBA & related specs)**
  - **Vertical domain specifications (Manufacturing, Finance, ...)**
  - **Commercially-available implementations**

- **Member-controlled industrial consortium**
  - **Both vendors and users**
  - **Not-for-profit**

- **Interfaces freely available to all**
  - **Visit http://www.omg.org**

Worldwide Membership

ACORD	EDM Council	Micro Focus	Orbus	Sparx
Adaptive	EMC	MID GmbH	OSD	State St
Adelard LLP	FICO	MITRE	PrismTech	Thales
Airbus Grp	FSTC/BITS	Mitsubishi	ProSTEP iViP	Thematix
Appian	Fujitsu	Model Alch'y	PTC	TIBCO
AT&T	Gen. Electric	Mphasis	PwC	Toshiba
Bizagi	HP	NASA	Remedy IT	Toyota
Bloomberg	Honda	NARA	Rolls-Royce	Twin Oaks
Boeing	IBM	NEC	RTI	Unisys
CA	KDM Analytic	No Magic	SAP	VDMbee
Camunda	Lockheed	Northrop	Selex ES	Visumpoint
Dell	MEGA	NTT Data	Softeam	WebRatio
Eclipse Fndn.	Microsoft	Oracle	Software AG	(200+ more)

Liaisons & Reciprocal Memberships

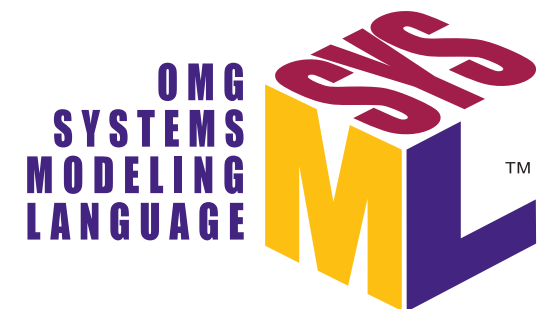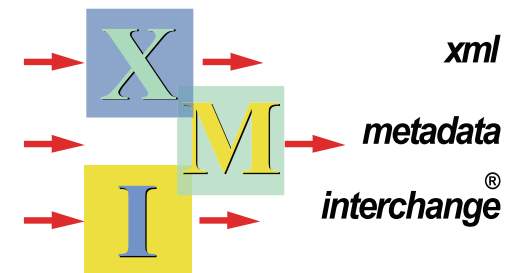OMG Introduction   4

Home of Modelling Standards (1)

- **Meta-Object Facility (MOF)**
  - **Reresents abstract models, XMI serialisation**

- **Unified Modelling Language (UML)**
  - **Models & notations representing software**

- **Systems Engineering Modelling Language (SysML)**
  - **Extends UML for represent complex systems**

- **Unified Profile for DoDAF and MODAF (UPDM)**
  - **Visual notation for DoDAF & MODAF models**

- **Ontology Definition Metamodel (ODM)**
  - **Bridges OWL, RDF, CL, UML, ER modelling**

Home of Modelling Standards (2)

- **Business Process Model & Notation (BPMN)**
  - **Ubiquitous in business modelling**

- **Case Management Model & Notation (CMMN)**
  - **For insurance claims, mis-selling claims etc.**

- **Semantics of Business Vocabulary & Rules (SBVR)**
  - **Precise definitions, english-language syntax**

- **Decision Model & Notation (DMN)**
  - **Standardises widely-used decision tables**

- **Interaction Flow Modelling Language (IFML)**
  - **Models user interaction & UI control behaviour**

OMG at work: Unified Modelling Language

- **Successor to multiplicity of OO A&D notations of early 90s**

- **UML 1 result of OMG process begun in 1994, completed 1997**
  - **UML market grew ~20% pa during 2001-3 IT recession**
  - **UML 2 published 2005, still under active development**

- **By 2008 > 70% of Software Development Orgs used UML**
  - **Dozens of tools**
  - **Books, training**
  - **Engineer certification**
  - **Custom profiles (e.g. UPDM)**

- **Standards not a zero-sum game**
  - **Standards grow markets**

UNIFIED
MODELING
LANGUAGE

™

ManTIS (Manufacturing) Task Force

- **Chartered as Manufacturing Domain Task Force in 1996**
  - **Merged with Utilities DTF in 2002 to create ManTIS DTF**

  "The mission of the Manufacturing Technology and Industrial Systems Domain Task Force is to foster the emergence of cost effective, timely, commercially available and interoperable software components for the Manufacturing and Industrial Systems domain through the development of standard specifications using the OMG process."

- **Chairs: Uwe Kaufmann (ModelAlchemy Consulting)**
  Michael Pfenning (XPLM)

- **Web site: http://www.omg.org/mantis**
  Email: mantis@omg.org

ManTIS Specifications include ...

- **Requirements Interchange Format (ReqIF)**
  - **Open, non-proprietary, XML-based, developed with German motor manufacturers & ProSTEP iViP association**

- **EXPRESS Modelling Language Metamodel**
  - **MOF metamodel of ISO 10303-11 EXPRESS STEP language**

- **Product Lifecycle Management (PLM) Services**
  - **Supporting Product Lifecycle collaboration; derived from ISO 10303-214 STEP & OMG PDM Enablers specification**

- **Computer Aided Design (CAD) Services**
  - **CORBA interoperability specification for Mechanical CAD, CAM & CAE tools**

ManTIS future directions

- **RFP for integrating Product Lifecycle Management & MBSE**
    - **Possible INCOSE collaboration**

- **Collaboration with OMG SE-DSIG (SysML)**

- **Anticipating requirements from IIC use-cases/test beds**

For more information

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Thank You!

Questions?