

IMS Manufacturing Technology Platform MTP

 **M4SM** Maintenance for Sustainable Manufacturing

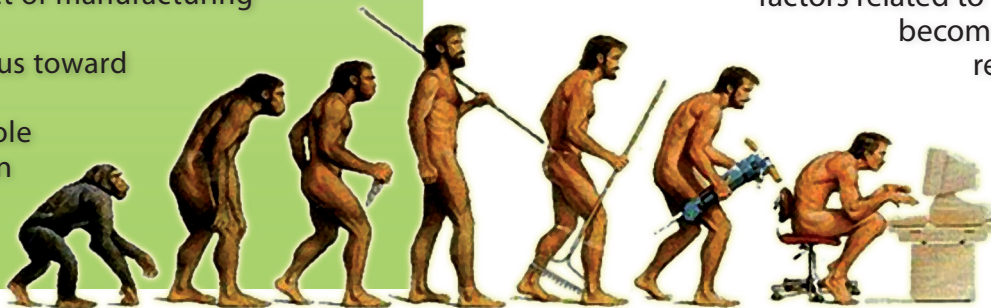

IMS
INTELLIGENT
MANUFACTURING SYSTEMS

M4SM Vision

IMS MTP initiative Maintenance for Sustainable Manufacturing (M4SM) is a research initiative part of IMS platform Sustainable Manufacturing. It aims at creating an international IMS community that will review, promote and disseminate knowledge on the role of maintenance, enterprise asset management and asset lifecycle management for manufacturing sustainability.

M4SM Objectives:

- Promote the role of maintenance for supporting manufacturing sustainability from a technical, organizational and social point of view
- Contribute to the social consideration of maintenance, underlining its importance for sustainability
- Develop new maintenance business models (MBM) to successfully implement new ICT and non-ICT technologies in maintenance operation and management
- Develop and disseminate the concept of e-maintenance and related ICT technology and supporting business processes as a leverage for manufacturing sustainability
- Develop proposals for new maintenance policies in respect of manufacturing sustainability
- Develop consensus toward standards for supporting the role of maintenance in sustainable manufacturing



FOREWORD

Maintenance concept evolution

An important impact on sustainable manufacturing is provided by maintenance. The result of this is an evolution of the traditional maintenance thought: concepts such as “enterprise asset management” or “asset lifecycle management” are becoming popular extensions of newly-evolved maintenance concept. Maintenance can have an impact on all four pillars of sustainability: environment, economy, society, and technology. A right maintenance approach can add value by enabling the maintenance decision makers to plan interventions considering and optimizing the sustainability aspects. As a result, the integration of factors related to sustainability is becoming increasingly recommended in maintenance management.

Today's “Homo technologicus” should discover the role of technology and the value of maintenance for changing the paradigm of manufacturing from “how to produce products most efficiently” into “how to avoid producing products while still maintaining customer satisfaction and corporate profits”

General Information

IMS MTP M4SM initiative has been officially approved by the IMS Board in April 2009 and will end in April 2011. It is still possible to join M4SM as partner. Two kind of partner are established, core partners and normal partners. Participation to M4SM is free of charge, partners contribute to project costs attending M4SM events.

Workplan

Many activities and events have already been done or are planned during the 2 years project duration:

- 1st M4SM workshop in Athens, special session of World Conference on Engineering Asset Management (WCEAM-09), Sept. 2009
(http://www.wceam.com/weblease/clientimages/wceam/WCEAM-HANDBOOK-V3_4.pdf)
- Editing, together with IMS2020, the Special Issue "Sustainable Manufacturing" on the Journal "Production Planning&Control"
(<http://www.tandf.co.uk/journals/cfp/tppccfp.pdf>)
- 2nd M4SM workshop in Verona, special session of EUROMAINTENANCE 2010 Conference, May 2010.
(<http://www.euromaintenance2010.org/>)
- M4SM white paper
- M4SM book

Supporting ORGANIZATIONS

M4SM "Maintenance for Sustainable Manufacturing" initiative is promoted with the support of:

IMS – Intelligent Manufacturing Systems

IFIP Working Group 5.7
on Integrated Production Management

IFAC TC 5.1 – Working Group A-MEST
(Advanced Maintenance Engineering, Services and Technology)

M4SM Partnership

Regions involved in M4SM initiative are: **Europe, Switzerland, USA and South Korea** (plus partners coming from **Canada, Chile and Brazil**). Currently M4SM has established around 30 partnership coming from three different branches: **Industry, University/Research Centers and Research Projects.**

For further information about M4SM, please visit:

www.ims.org

Project partners:

Universities and Research Centers: **Politecnico di Milano, EPFL, ETHZ, Politecnico di Bari, University of Seville, Università di Firenze, Università di Bergamo, UCIMU, Tecnalia-Fatronik, University of Cincinnati IMS Centre, University of Toronto C-MORE Centre, Federal University of Rio Grande do Sul, Universidad Tecnica Federico Santa Maria, Cambridge University, University Henri Poincaré/CRAN, Università degli studi del Sannio, IDEKO, Hongik University, SUPSI, ENIT, Tekniker, VTT, Cranfield University, EURENSEAM (European Research Network on Strategic Asset Management). Associated Projects: **IMS2020, SMAC, iLearn2Main**. Industries (also coming from Involved Projects): **Mel System, MERMEC, Balance Systems, Brembo, Comau, Holcim, Rockwellcollins, Siemens, SAP, Thales, Daimler, Fidia, Bombardier, Hilti, H3G, Barilla, Clariant, Tornos S.A., GIM-CH, EM@SYSTEC, etc.****

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