

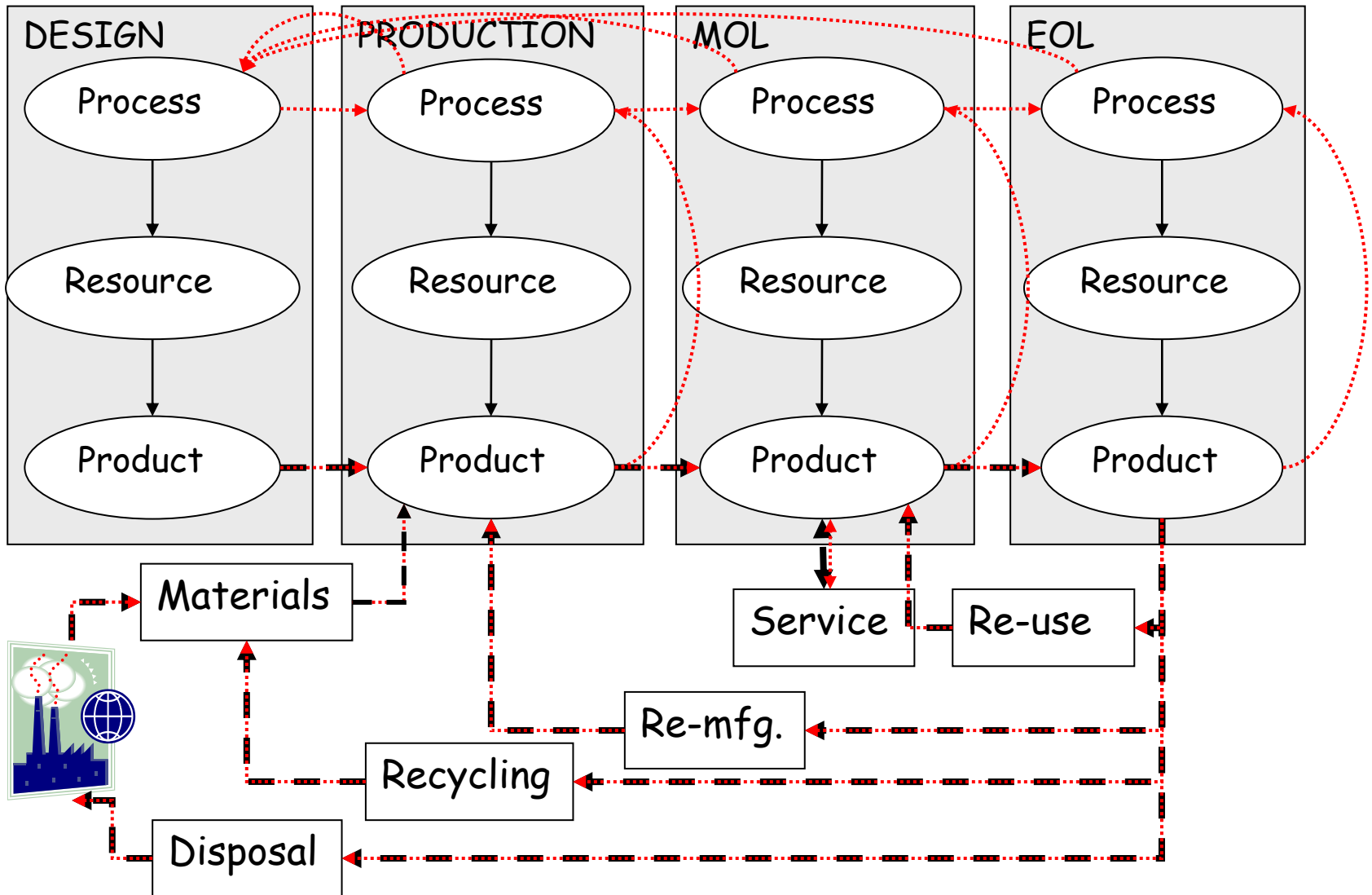


Linked Knowledge in Manufacturing, Engineering and Design
for Next-Generation Production

Dimitris Kiritsis

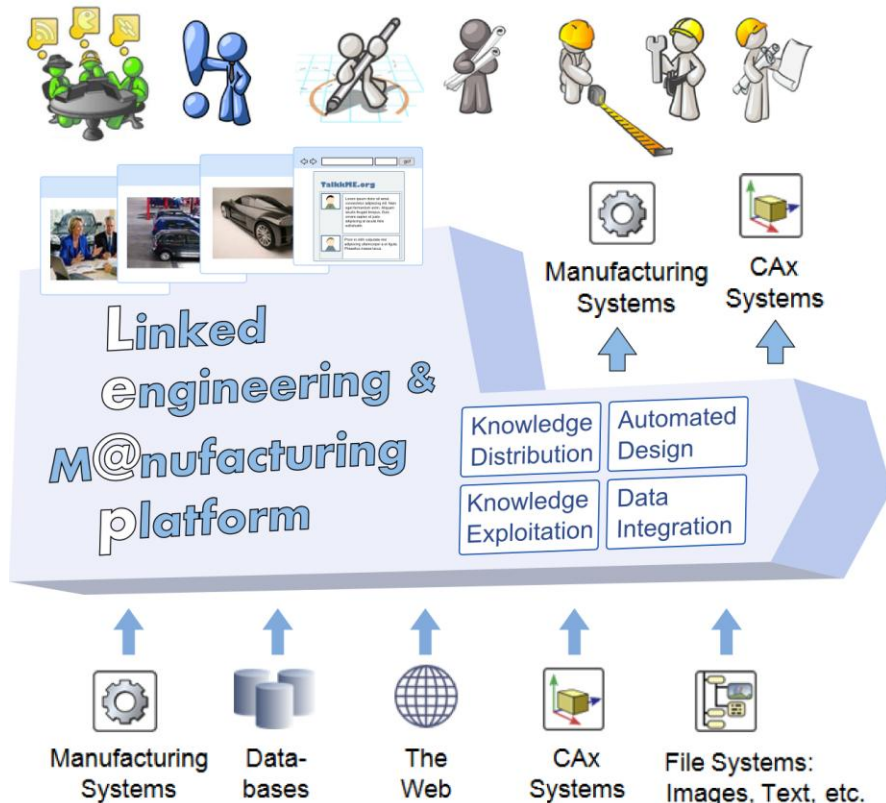
EPFL

dimitris.kiritsis@epfl.ch



Provision of

- a holistic view on data, persons and processes across the full product lifecycle.
- by integrating all relevant product lifecycle information incl. novel information sources in LEAP
- to improve the design, efficiency and sustainability of products and processes in manufacturing



LinkedDesign enables

Data federation

- across trusted sources in the product lifecycle
- independent of its format, location and origination time

Context-driven access and analysis of federated information

- integrated role-driven information access
- manufacturing-specific data analytics like simulations and sentiment analysis

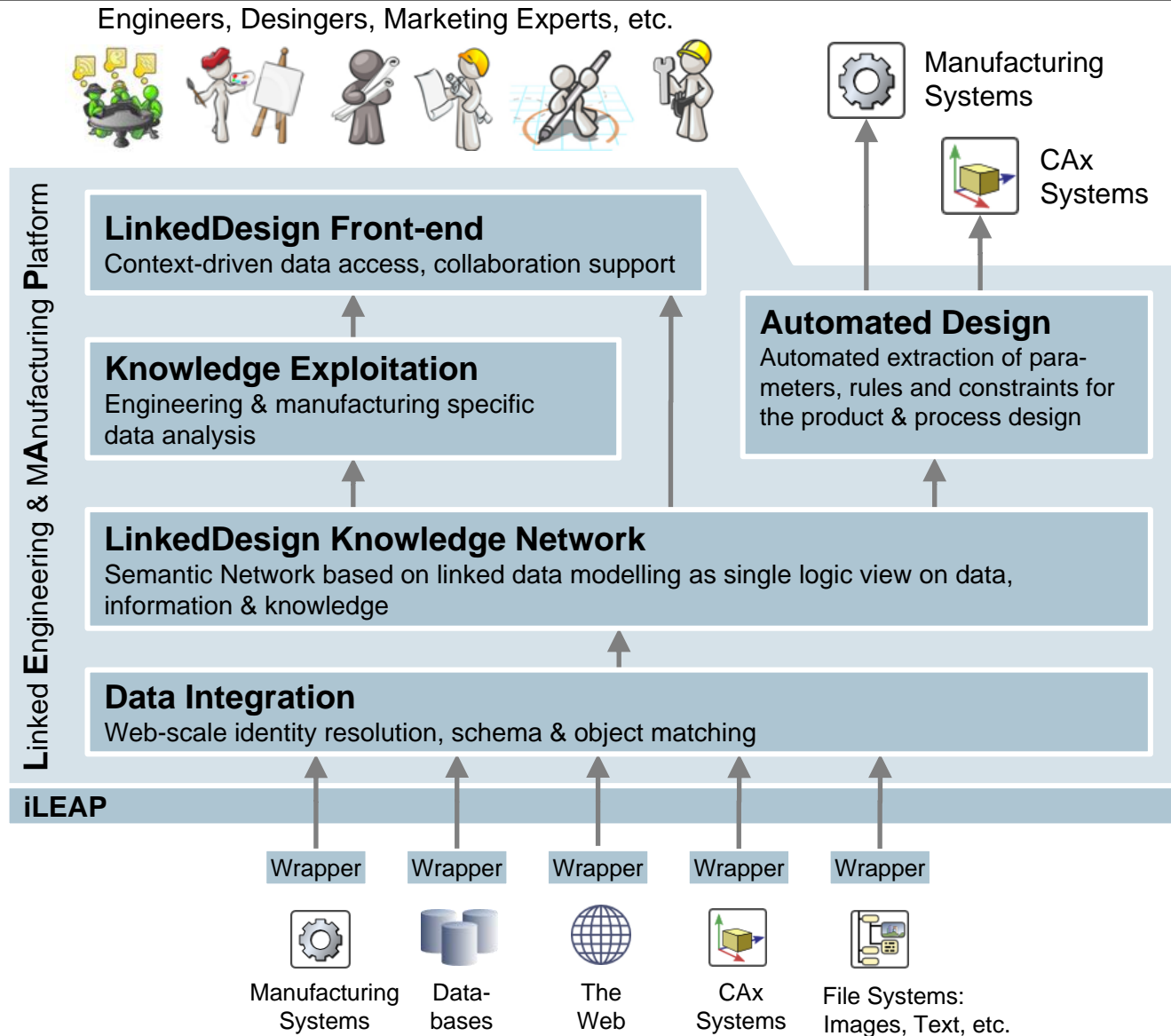
User collaboration

- collaboration workbench to foster cross-discipline user collaboration and information exchange

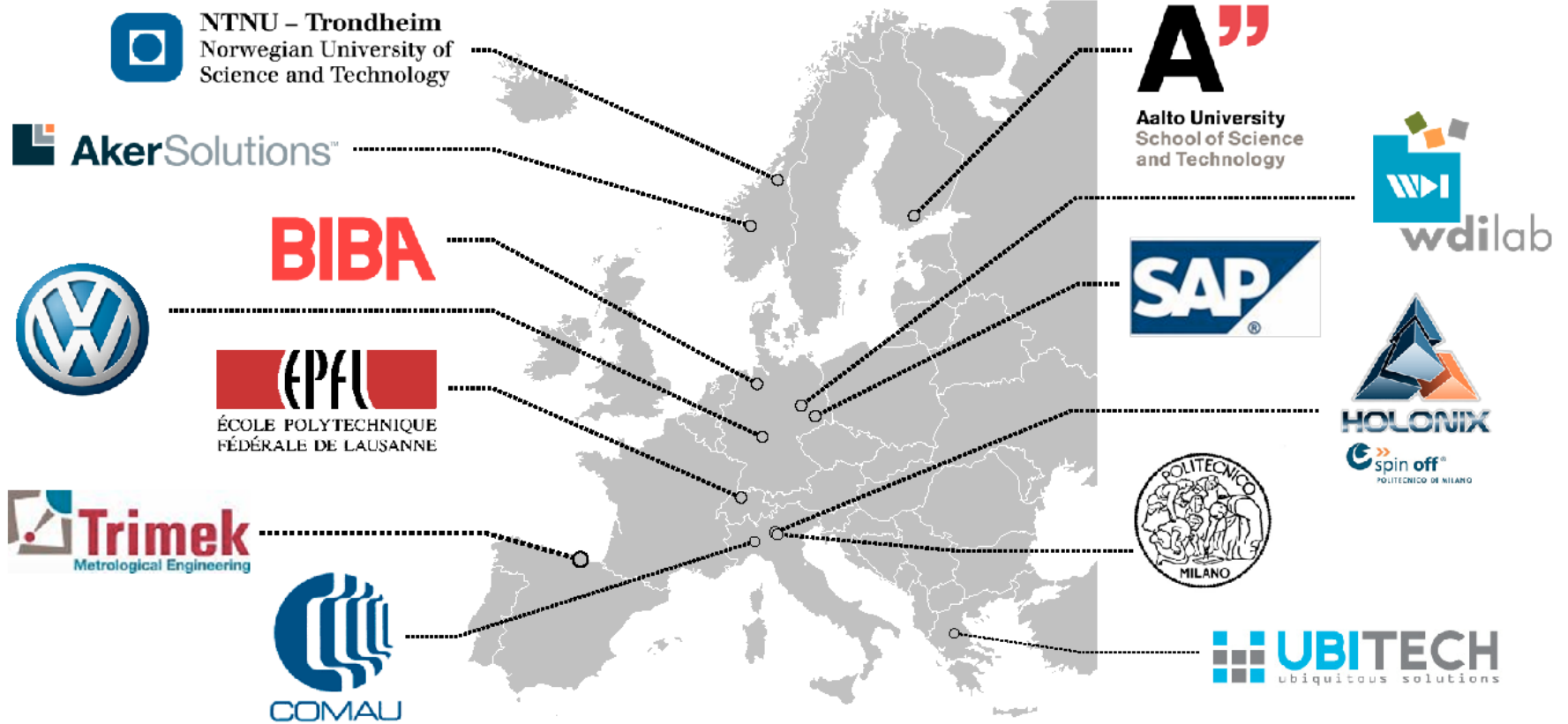
Feedback into existing systems

- backwards integration of enriched information
- connections to engineering systems (e.g. CAX)

Research Topics in the targeted Project Landscape



Partner ecosystem



For the development of collaboration with exchanges of experiences and knowledge at the international level, LinkedDesign will propose the creation of an IMS MTP (Manufacturing Technology Platform) project on Standardisation within the framework of the Intelligent Manufacturing Systems (IMS) program with partners from the other IMS regions.

Preliminary contacts have been already initiated with well recognised organizations such as NIST (USA) and KAIST (South Korea).

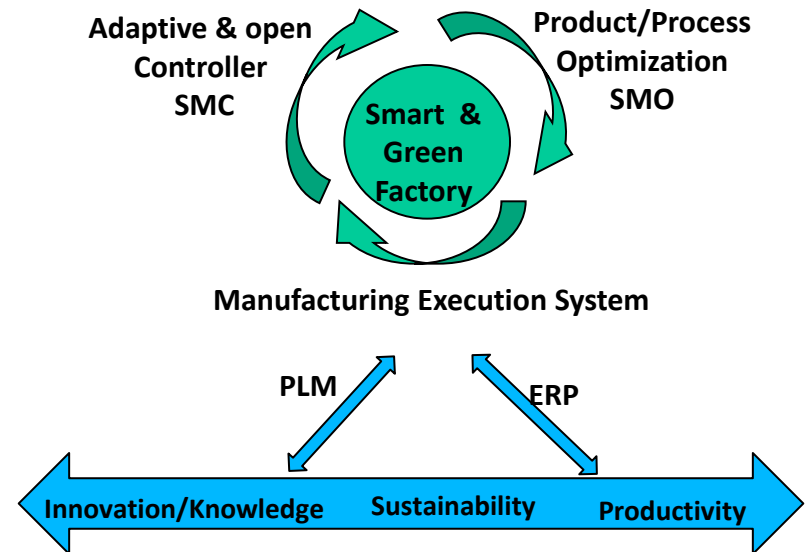
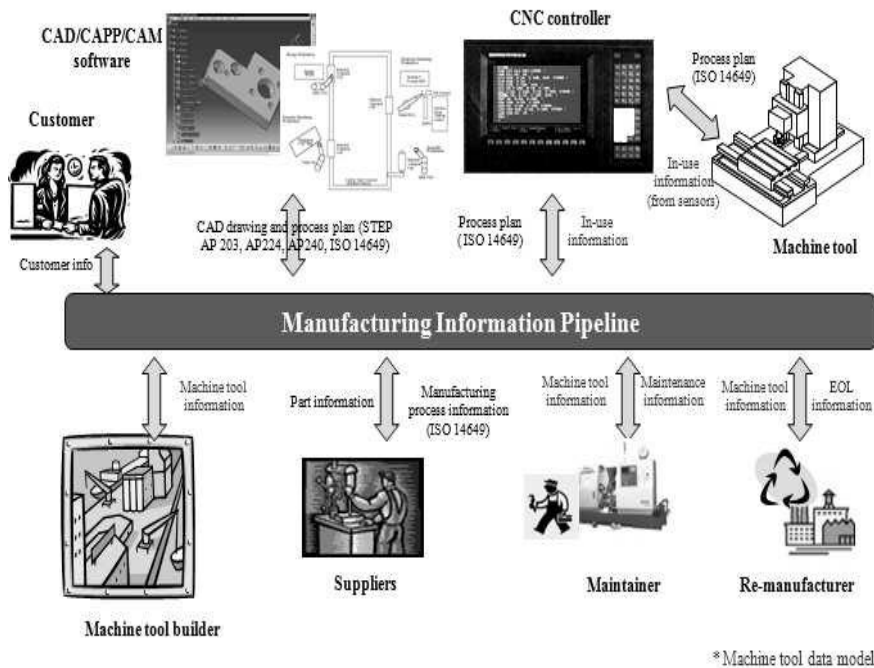
The invitation will be extended to other potential international partners such as Keio University (Japan), UFRGS (Brazil) and Shanghai Jiao Tong University (China) with particular and explicit focus on the development of Semantic Standards for Product Design and Manufacturing.

The topic of the IMS-MTP will be: **“Semantic Standards for Linking Engineering Knowledge for Product Design and Manufacturing”**

Possible collaboration with FoFdration

T7.3: Dissemination strategy and roadmap

“... Links will be established in order to achieve international dissemination and consultation within the standardization activities such as annual meetings with the ISO TC184/SC4 & SC1 groups. Other partners within the ISO group will be also invited to participate as advisors: NIST (US), Steptools (US), KTH (SW). They will particularly contribute to the dissemination and benchmarking activities...”



From the foundation concept...

...to realistic outcomes