

# EU-MATHS-IN a service network, Math in Industry

Volker Mehrmann<sup>2</sup>

<sup>2</sup>Inst. f. Mathematik, TU Berlin [mehrmann@math.tu-berlin.de](mailto:mehrmann@math.tu-berlin.de)

April 2013

A follow up of the  
**Forward Look Math in Industry**  
initiative.

**AIM:** to create and manage a European Infrastructure that unleashes maximal impact of mathematics on innovations in key technologies by enhancing communication and information exchange between the various stake-holders:

- **Mathematicians in academia and research institutes** (e.g. the creators of novel mathematical tools and expertises).
- **R&D-staff in industry** (the end-users of mathematical tools and expertises)
- **SMEs with large mathematical content in their products, services and activities** (e.g. the missing link between “creators” and “end-users” that transform mathematical innovations from academia into production-level software to be used in industry).

The goal is to found a European association that forms a European network of networks in industrial math, promoted by EMS and ECMI.

Based on our past experience, we strongly believe that without such an association it will be almost impossible to get EU infrastructure funds in the direction of the previously unsuccessful initiative for a European Infrastructure Mathematics for Innovation (EIMI).

**Promoting members:** EMS (European Mathematical Society) and ECMI (European Consortium for Mathematics in Industry)

**Members:** National (or multinational) networks that gather (in an inclusive and non-discriminatory manner) research groups, laboratories, institutes and centres that are active in the field of **Industrial Mathematics and Mathematics for Innovation**.

## Long-term goals

- a.- Establish strategic connections among the national networks and centers working in the field of Industrial Mathematics and Mathematics for Innovation.
- b.- Create a European service unit that can foster the competitive advantage of the European industry through international cooperation.
- c.- Promote the technological aspects of mathematics raising public awareness.
- d.- Stimulate the cooperation at European level of mathematical research with companies and administrations.
- e.- Establish a one-stop-shop at European level for industrial users of mathematical scientific research results.
- f.- Provide European industry, in particular SMEs, with a competitive advantage taking profit of the scientific excellence of the continent.
- g.- Acquire funding for the performance of activities that serve the realisation of the described goals.

]

- a.- Set-up of EU-MATHS-IN portal.
- b.- Start job portal.
- c.- Start thematic software depository.
- d.- Continuing Professional Development Exchange Market.
- e.- Continuation of "Success Stories in Industrial Math"

For national networks:

- Joint critical mass for funds acquisition
- Opportunities to expose math expertise to industrial needs
- Strengthen role of math for industry in the participating countries
- Support "emerging" countries, European solidarity
- Increase math contribution and participation to industrial innovation through interaction with other disciplines
- Strengthen roles of networks

For local nodes:

- Increased visibility
- Increased funds
- Increased accessibility to and opportunities to work with industrial partners

For ECMI and EMS:

- Complementary experience of promoting partners
- cooperation with networks and nodes
- Implementing recommendations of FLMI
- Maximise access to funds and participating key players