

Subject:

Increasing Funded Research for Members (Objective: How GLF-CEM can influence the direction of funded research?)

1.1. Identify research needs

1.2. Funding agencies

1.3. GLF's role in increasing interaction among member universities

A. History and status quo

The construction business seems to keep an aura of being local or, at least, focused on national agendas.

Also during the last decade construction industry has not been considered as inventive and innovation-driven. Therefore merely “construction” as subject of research has no real chance to get funding.

The global challenges are not disciplinarily oriented, therefore trans-disciplinary research will be the standard case.

Construction is still not on the forefront of the research agendas. It is important to describe the benefits for society, which can be gained by activities of CEM expertise. In the past this has not been done to the necessary extend.

B. Better involvement of the construction industry in major research topics

In Europe more and more research money is allocated with the EU. So it is important to address the different frameworks (European frameworks) for research.

- **6th European framework programme (2002 – 2006)**
 - **Seven key areas** for the advancement of knowledge and technological progress within FP6 have been chosen: genomics and biotechnology for health; information society technologies; nanotechnologies and nanosciences;

aeronautics and space; food safety; sustainable development; and economic and social sciences. With a view towards achieving the biggest possible impact, over **€12 billion** has been allocated to them.

- **7th European framework (2007 – 2013)**
 - **Cooperation programme – the core of FP7, over €55 billion.** The core of FP7 and its largest component by far, the *Cooperation programme* fosters collaborative research across Europe and other partner countries, according to several key thematic areas. These themes are: health; food, agriculture and fisheries, and biotechnology; information and communications technologies; nanosciences, nanotechnologies, materials and new production technologies; energy; environment (including climate change); transport (including aeronautics); socio-economic sciences and the humanities; space and security.
- **8th European framework**

European research needs in the construction sector have been focused by the ECTP, the European Construction Technology platform (www.ECTP.org). Networking among the big European players in construction industry.

Nearly all EU-states have matched or mirrored this platform by national platforms, for example the GCTP, the German Construction Technology Platform (www.gtcp.de). 117 members, no fee. Information service, not very strong network activities. I am member of the steering group.

This is undertaken in order to influence the definition of future funding guidelines in the European Union. It is a long-term process.



Activities of ECTP and parallel initiatives:

- B2B
- reFINE

Activities of the BBB-Professoren

“BBB” stands for Baubetrieb – Bauwirtschaft – Bauverfahren

The BBB-Professors, the German Association of University Professors in Construction Engineering and Management have relaunched activities to issue a new memorandum on education in CEM. The first issue was published in 2005 by Professor Berner and was signed by all 30 to 45 active and retired BBB-professors. The next issue will focus on the benefits for society, which can be achieved or supported by activities in construction engineering and management.

C. Needs for research activities with participation of the construction disciplines

There is a number of items, where the Civil Engineers, and within the civil engineers the Construction Engineering and Management, can play a significant role for society. Those are for example:

- Energy-efficient buildings
- Refurbishment of buildings in built environment (much energy is already consumed)
- Better integration of different parts of building (HVAC, structural, finishing, façade)
- Development of infrastructure for future distribution of energy and material flows
- Mobility of people in urban areas
- monitoring and improvement of existing infrastructure
- Civil safety and disaster mitigation