

# W24 - Open Industrialisation in Building



The Fourth Meeting of W24 took place in Tokyo from 28 to 31 October 1996. In charge of arrangements were Professor Dr. Seiichi Fukao and Professor Dr. Shuichi Matsumura and all who took part were full of praise for the official meetings, factory visits, exhibition visits and social programme.

## **As Joint Coordinator Asko Sarja said:**

Overall, everything, here gave us a better understanding of the Japanese way of industrialisation in building. We have good reason to express our warmest thanks to the hosts for their excellent arrangements. This experience will help us take concrete steps towards real industrialisation in building, for the benefit of all partners in construction, and for the current and future life-cycle value of buildings in their changing uses. Still more members, especially from relevant firms are invited to join us in this work in the coming years.

Professor Fukao complements this report in this issue.

The main issues on the Agenda were: Reports on the ongoing work of W24, contribution of W24 to the CIB World Congress in 1998; planning of new W24 activities, and familiarisation of advanced Japanese

industrialised building technologies through company visits, and Japanese reports.

W24 has focused the ongoing work on the following sub-areas:

1. Open industrialisation: Demand-side/User requirements
2. Open industrialisation: Supply-side/Production possibilities
3. Open industrialisation: Linking demand and supply/Communication/Process organisation

The current Work Programme organises the work in five projects as follows:

### **Project Person responsible**

1. Status of industrialisation: Asko Sarja
2. Open industrialisation in building - case studies: Peter Adler
3. Open industrialisation as a challenge to architecture: Frank de Troyer
4. Sustainable open industrialised production: G.Z. Brown
5. Innovation methods for improving productivity in building: N.H. Bertelsen

### **Future Activities**

Concerning future activities, it was felt that the time had come to start the active creation and planning of new activities for W24. As a first step CERF (Civil Engineering Research Foundation) USA has initiated a project proposal entitled "Exploring the International Use of System Modularity for Constructed Facilities", aimed to be included in the Work Programme of W24. All companies and researchers interested in this theme are invited to join the project and to contact CERF or Professor Asko Sarja, who is one of the Coordinators of W24 and in charge of this proposal. Especially members from producer companies, suppliers, contractors and owners are invited.

It was discussed whether the robotics and automation of construction should be included in the programme as a separate project, since the CIB Board had decided to disband the formal Working Commission in this area. It was stated that the central environmental issues related to industrialised building are utilisation of potential savings in materials and energy, as well as optimal recycling of components and materials in industrialised manufacturing and assembly processes. W24 is open to all proposals from members and non-members of the Commission.

### **What is 'Open'?**

The meaning and definition of "Open" in the W24 Title were the subject of prolonged discussion.

The definition in fact is more than merely academic, and includes an important part of the understanding of future developments in industrialised building. Openness is a building concept with many aspects, such as:

- OPEN to individual life-cycle design
- OPEN to competition between suppliers
- OPEN to alternative assemblies
- OPEN to future changes
- OPEN to information exchange
- OPEN to integration of modules and subsystems.

These properties of openness are reflected in product systematics and development, buildings and structural design, manufacturing and production management. They help to improve the flexibility of buildings throughout their service life, the competitiveness of companies applying it, and the international exchange of technologies and products.

In Japan, open components deliveries have rapidly increased during the last decade, as reported by Dr. Shigeaki Iwashita from the Center for Better Living. Selected products are compiled for the use of designers, clients and builders into a vast manual including a wide range of building products.

**Professor Dr. Tech. Asko Sarja**  
Joint Co-ordinator.