

**WORKING GROUP  
SUSTAINABLE CONSTRUCTION METHODS AND TECHNIQUES**

**MINUTES OF THE FIRST MEETING (SHORT VERSION)**

**ARCHITECTS' COUNCIL OF EUROPE OFFICES  
BRUSSELS**

**2003/01/23 from 10.00 until 17.30**

- 1.0 Welcome to all participants, short introduction of the Working Group's theme and task;**  
**Livia Tirone:** DG Environment is in charge of drafting the Urban Thematic Strategy for the 6<sup>th</sup> Environment Action Programme and expects the Working Group Sustainable Construction Methods and Techniques (SCMT) to make recommendations for policy at EU level, MS level, regional and local levels, which will ensure the conditions in the market to 'mainstream pockets of good practice' across Europe, including the accession countries.
- 2.0 First tour de table – everyone introduced themselves: name, professional background, personal field of expertise;**
- 3.0 Presentation and agreement of Terms of Reference**  
The Terms of Reference were presented and commented and subsequently approved;  
The most relevant and content structuring questions are:
- I. What is the State of the Art of sustainable construction;
  - II. What are the barriers that are preventing the mainstreaming of pockets of good practice;
  - III. What are the recommendations to overcome these barriers;
  - IV. What relevant examples of quantitative and qualitative targets can be proposed.
- 4.0 DG ENV introduced the Urban Thematic Strategy, the expected outputs and the timetable for this working group;**  
What is at hand is the definition of the strategy on urban environment in construction.  
In the past the focus of the European Commission was on one legislative instrument, in the future there is a focus on a thematic strategy with a broad range of products / options in order to have more effect in the market.
- 5.0 Second tour de table – everyone talked on the potential of the theme as they see it from their own background and sector;**  
**Nigel Mortimer:** In order to reduce CO2 emissions, the built environment is a big challenge;  
The main difficulty lies in the refurbishment of existing buildings;  
The lack of experience in this field has a technical and non-technical background.  
**Vesa Peltonen:** The city needs to be approached in a thematic way, as opposed to focusing on detail. One barrier persists: better buildings have higher costs;  
Regulations should ban bad practice and there should be incentives/stimulation for good practice.  
**Owen Lewis:** How can we deliver better buildings ? The technical dimension that the architect can deliver is only one aspect, there are others:
- 1) Legislation, Regulation and Standards – including LCA;
  - 2) Integrated design processes and tools;
  - 3) Implementation of performance based construction – measurable results, post-occupancy monitoring and evaluation;
  - 4) Research and innovation implementation in the building sector.

**John Goodall:** The technology is there. But how do you make it happen and move to action ? Half of the construction industry is dealing with the existing building stock.

**Takahiko Hasegawa:** Implementation is difficult because there is not a coherent message in favour of the environmental performance of buildings (taxes, instruments on the whole, environmental labelling, legislation...).

**Philip Bennett:** A lot of good practice is taking place. It may be happening less rapidly than expected but the economic interests of the sector must also be safeguarded; Sustainable construction has to focus more on each phase of the construction life cycle. This IPP-type life-cycle thinking has been applied in recent years to construction products. Environmental Product Declarations for construction products have been developed in a number of European countries.

**Chiel Boonstra:** It is important to focus on the integration of sustainability in daily practice, not as an 'add-on'; The performance-based approach is critical – Whole life cost and Life cycle analysis. Define and agree performance targets for buildings.

**Manfred Hegger:** The dissemination of the knowledge is important, focusing on formal and informal learning. Learning tools should be attractive, to tempt people to do good practice.

**Chris Luebke:** The building sector requires a multidisciplinary background, global connectivity, doing the business of sustainability every day. With an optimistic and enthusiast positioning, the 'sustainability challenge' is highly motivating.

**Thierry Prost:** The issue to focus on is about how to integrate the existing technologies and tools and the evaluation of the potential in what is already existing; Local actors – the municipalities, are very important.

**André Sougné:** The education of architects, engineers, contractors, manufacturers / material suppliers is very important;

There is a need for research in the field of materials. It is necessary to supply a better product for the same price.

**Juan Campos Morales:** The approach to the subject needs to be holistic and to cover social and economic aspects of sustainability;

The aim is to close the circle, avoiding to reinvent the wheel, and to put now the recommendations into action.

**Luc Bourdeau:** A lot has been achieved but the progress is slow. The main questions are: 'how can we progress? Who has to do what ?' starting from the state of the art. Promote innovation and best practice. The construction sector has to be pushed, governments have to set example – for example in the social housing sector.

**Eduardo de Oliveira Fernandes:** Sustainability is very complex and has a lot of parameters to find a consensus on what will be the generally accepted 'metering system for good practice', especially taking into consideration that we are far from having enough knowledge in the relevant areas – and without forgetting the social and economic areas.

**Alain Sagne:** There is a need for more integration and for a holistic approach, which requires e.g. adequate co-ordination in the Commission Services.

**Livia Tirone :** In order to understand what barriers are preventing the implementation of good practice and then to define which can be the most motivating measures to overcome existing barriers, all the actors in the building sector need to be addressed individually.

## 6.0 "State of the art" in the field under study:

*(This topic was not sufficiently discussed to reach a consensus and conclusions as yet)*

- The State of the Art as seen from the point of view of the European Commission we can be convinced that the necessary level of technology has been achieved (e.g. DG XVII experiences of demonstration projects) The question is whether this information is widely accessible and whether replication is therefore possible.

- There is still a need to improve on the available skills and on the available knowledge ('we need better materials')

**7.0 Two 10 minutes presentations were made, the first by Takahiko Hasegawa (OECD) and one by John Goodall (FIEC);**

*(Presentation sheets available)*

- Issues raised:
- Whole life cost of buildings;
  - Sustainable Procurement;
  - Sustainable Performance Indicators.

**8.0 to 10.0 Discussion summing up on direction and scope, the focus is on barriers and Measures;**

***Methodology***

- The question is one of defining the correct recipe (methodology) and not necessarily changing the ingredients of construction, in order to make it more sustainable.
- The tools to improve the design from a sustainability point of view are available, but the assessment process doesn't have the right tools as yet. Therefore the use of the sustainable design label is difficult.
- Performance based design is necessary, as opposed to regulated design.
- Energy consumption targets need to be adapted to the different bio-climatic zones in Europe.
- Energy rating of buildings as a consequence of the energy performance in buildings directive is one step in the right direction. But this passport that is thus being created for buildings can go a lot further and include other aspects of sustainable construction.
- Public buildings have to set an example! Public procurement (especially the buildings funded by the European Commission) have to take leadership in balance with management.
- The construction industry has got a lot of money and could also take steps.

***Cost barrier***

- Procurement methods can be an effective tool to overcome the cost barrier.
- The economically most advantageous tender (EMAT) is a very loose concept – it includes construction price, but it can also include Whole life cost (environmental, running and maintenance costs) and therefore sustainability.
- If the correct information is on the side of the consumer, then the content value is directly related to the economic value.
- It is difficult to connect construction costs to operation costs, because it is not always the same people who pay for it.
- Taking time to design is very critical if the aim is quality. All the more when the aim is to bring down construction costs via efficiency in a context of competitiveness.
- The appropriate multi-disciplinarity of the design team is also a critical element when sustainable construction is at stake. This can in itself be a cultural problem in some European cultures.

***Refurbishment***

- Public bodies also have to lead the retrofitting sector.
- Often the decision on whether to renovate or to new build is taken too early in the process
- Sustainable renovation is much more difficult to implement than sustainable new build. There is lack of demand for sustainable renovation. Consumer confidence has to be created and the issue of replicability has to be addressed.
- The critical point on whether to renovate or whether to new build lies in the fact if the structure is adequate for the future use.

- To help with the question of whether to go for renovation or new build, a method of how to value an existing building has to be used (1 hour old or 10 years old). The fact that in the books buildings lose their economical value at a faster rate than in real life makes the refurbishment even less likely.

#### ***Consumer***

- Marketing and branding can have a strong impact. Therefore if conditions are set for European Commission and community spending, the effect can be very strong.
- The consumer is an underdeveloped actor. The enormous health benefits and economic and environmental benefits should be enough to create a demand of voluntary nature. Also the increased use of environmental management systems will increase awareness.
- Consumers have to be helped to understand the difference between sustainable construction and not – creating awareness.
- Procurement method – SPEER method – first step is to communicate with the client, especially the uneducated client, with qualitative and quantitative values.

### **11.0 Recommendations**

This list of recommendations is a beginning of what will become a focal point of discussion in future meetings of this working group:

#### ***Tools/Methodology***

- More effective implementation of existing good legislation;
- Global performance based assessment method for buildings;
- Environmental labelling of buildings (e.g. HQE in France);
- Involve the manufacturers in achieving environmental targets;
- Member States must define targets for all the measurable outputs and inputs related with sustainable construction, starting with CO<sub>2</sub> emissions and therefore energy efficiency;
- Municipalities have to have an environmental strategy directly related with environmental performance based targets (as opposed to abstract or arbitrary sounding points systems) such as CO<sub>2</sub>, water, ... which include whole life building assessment;
- Make design tools that incorporate building performance automatically widely available (could be paid for by manufacturers who include in the programmes their materials).

#### ***Financial Incentives***

- As banks have a long-term relationship with buildings via their mortgages, they must differentiate between those that contribute to the Member States targets and those that don't, at least by allocating lower interest rates to sustainable buildings;
- Funds that only finance socially responsible developments ought to have tax benefits and give tax benefits to their investors;
- Fiscal incentives on the house you buy or rent;
- Increase permissible construction area on a site as an incentive towards sustainable construction, as the impact on the environment and on the local infrastructures is reduced;
- Reduced outputs and reduced demand on local infra-structures, therefore reduced local taxes.

#### ***Refurbishment***

- Reduced VAT rating for sustainable refurbishment of buildings;
- Shorter approval times (and bureaucratically simpler procedures) for sustainable refurbishment of buildings;
- Incentives for the pre-fabrication of most critical components to be refurbished (toilets...).

#### ***Marketing***

- Visible meters will contribute to awareness of the end user;
- Make a wide campaign for increasing the awareness of the end user, using the media (awards, opinion articles...).

**12.0 Distribution of tasks:**

All participants will contribute with their comments delivered during the meeting, focussing on the four main questions (point 3.0)

DG ENV is working simultaneously on the outline Communication on the Urban Thematic Strategy and needs input to start this task.

**13.0 Communication and circulation of documents (CIRCA);**

**14.0 Dates for future meetings.**

The timetable of meetings and relevant steps was agreed.