

# W082 - Future Studies in Construction



An Invitation to Participate in an Important W082 Project

Following the successful completion of the Project "Sustainable Development and the Future of Construction" W082 has commenced its next major venture.

This new project aims at developing Performance Indicators for a Sustainable Built Environment.

- Construction Related Sustainability Indicators
- Setting Targets & Monitoring Performance in the Built Environment

## Background

The W082 Project Sustainable Development and the Future of Construction studied the consequences of sustainable development for the construction industry in the future. That study concluded that "the next step should be to reach a more consensus vision through a global common model and to set up indicators and policies to translate this vision into reality".

Sustainability indicators are needed to set targets and to measure the performance of the built environment. Decision-makers and policy-makers may apply the indicators to evaluate economically viable and technically feasible strategies to improve the quality of life. Different actors in building processes may use the indicators as guidelines and tools to enhance current practices and to improve the quality of construction. The indicators can be used for measuring the sustainability of building projects,

the capability of different actors and the state of different regions or nations.



**Pekka Huovila**

## **Objectives**

The project aims at:

- defining and validating construction related sustainability indicators
- implementing the indicators in measuring the sustainability of building projects (buildings and the built environment) and different actors involved in creating and maintaining them at the national level
- implementing the indicators in comparing the sustainability of building projects, regions and nations at the international level.

## **Scope**

The scope of the project may be defined along the following lines:

- sustainability indicators include both qualitative and quantitative issues
- sustainability indicators cover environmental, economic, social, cultural and institutional aspects
- building projects cover buildings and the built environment
- the building process starts from initiation of the project and finishes at the end of the life cycle of the facility (including demolition and possible treatment after that)
- the indicators have a common structure at the international level, but they may have different weights at a national level
- the indicator framework is compatible with the futures scenario, thus enabling the evolution of indicators and their contents along the time
- the indicators are practical and they will be validated in pilot cases.

## **Tasks**

The project comprises the following tasks:

- definition of the framework and the contents of sustainability indicators in the building sector based on the UN working list of sustainability indicators and other known international or national lists of indicators
- implementation and validation of the indicators in national case studies
- definition of a futures scenario; linking the indicators to the scenario
- benchmarking the indicator values and targets in different regions and nations.

## **Deliverables**

The project will result in the following deliverables:

- a common framework and methodology for sustainability indicators in the building sector

- results and experiences from implementing the indicators in practice
- a full set of validated indicators with information and guidance
- a futures scenario supporting the targets and the choice of indicators
- regional, national and global targets for indicators at a prenormative level.

## Organisation

The proposal is being prepared in consultation with representatives from Finland, France, Ireland, Malaysia, the Netherlands, South Africa, Spain and United States, who are already committed to the project. All other experts are now invited to join the project.

The project intends to co-ordinate the work with selected CIB Commissions, who it is expected will be in a position to provide an input to the envisaged work. These will include:

- TG22 - Environmental Design Methods in Materials and Structural Engineering
- TG38 - Urban Sustainability
- TG39 - Deconstruction
- W100 - Environmental Assessment of Buildings,

and possibly also with certain joint projects of CIB with its Partner Organisations, including:

- a joint CIB - IEA project on Environmental Labelling
- a joint CIB - FIG project on Performance Indicators for the Built Environment

## Time Schedule

The project has mapped out certain preliminary milestones:

- May 1999  
Project proposal completed (comments for improvement are still welcome)  
open invitation to participation (mail, CIB Bulletin, WWW)  
first nations start the work; others look for funding etc.
- September 1999  
Presentation of the project at the W082 meeting in Cape Town  
national situation reports of the first countries  
further instructions to those who have not as yet commenced the work
- May 2000  
Presentation of the project at the W082 meeting in Atlanta  
first national draft reports given as examples to others
- October 2000  
Presentation of the project highlights at the CIB/GBC Sustainable Building Conference in Maastricht  
first national reports and start the international synthesis
- April 2001  
CIB World Congress: national reports and international synthesis  
the work continues beyond the CIB World Congress.

See: [CIB Publication 225](#) or <http://bativille.cstb.fr/cib.htm>

See: [www.un.org/esa/sustdev/worklist.htm](http://www.un.org/esa/sustdev/worklist.htm)

## Contact Address

Pekka Huovila, VTT Building Technology, PO Box 1801, 02044 VTT Finland  
Tel: + 358 9 456 5903, Fax: + 358 9 456 6251