



WORLD SB 14 BARCELONA

Are we moving as quickly as we should? It's up to us!

General conclusions

Discussions at World SB14 Barcelona sessions focused on the topics that seem determining in order to understand, measure and reduce buildings and cities environmental impact and contribute to social advance towards sustainability. In this regard, contributions concentrated on several themes which – for different reasons – appear before the eyes of the community that works in this field as significant in the improvement of buildings and urban environment sustainability nowadays. Themes in very diverse areas and which, owing to their significant number, could well comprise the first general conclusion of the conference by showing the attention that was drawn towards these topics.

Some of these focal points analysed in Barcelona, though already addressed in previous conferences and therefore not new, outline some topics in a novel way. Thus, traditional constructive systems always allow new interpretations depending on knowledge evolution, extracting new and appropriate lessons. Other subjects have emerged at the Conference and some topics have become established key topics for the future.

There were focal points linked to methodological questions, such as the application of Life Cycle Analysis, LCA, as an adequate instrument in assessing sustainability in building. Consequently, numerous presentations tried to continue outlining the LCA as the key instrument in environmental assessment and its communication, closely studying its integration in construction and its use in building and built environment assessment tools.

Likewise, topics such as considering embedded energy in construction materials in environmental impact assessment of buildings were relevant, both within the area construction materials and systems, as in the debate of another of the star Conference topics: nearly zero energy buildings (nZEB), a debate marked by European legislation but with a great global impact.

Because the subject of standards, references and, furthermore, passing on best practices as essential elements in the evolution towards a sustainable built environment proved to be one of the most relevant Conference topics. The discussion on nZEB, with the implications that their definition and application can bring, became a way to gauge the most relevant topics in sustainability in building.

Another finding was the evidence of how important it is to consider the urban scale and to possess strategies and models that apply in an area where environmental aspects cross with economic and social requirements. Cities are, and will increasingly continue to be, the place where the answers to environmental challenges are tested, and their complexity is at once a



resource and a demand, a weakness and strength. Proving this was another major Conference topic: building renovation – and its extension to the urban scale through neighbourhood regeneration – where the complexity in establishing targets, scopes and action scales exceeds the process of new construction, simpler in actions and responsibilities.

Also, stakeholders' role became very evident. Especially the user's role – who is already recognised as the key figure in the improvement process – but also project designers, developers, contractors, manufacturers, technicians, policy makers, etc. World SB14 Barcelona has been able to present the scientific-academic sphere – traditional main player in the Sustainable Building Conference Series, SB Conferences – and the industrial world, public administrations and institutions together, all sharing their concerns and looking for solutions, describing new paths and new challenges that these conferences must address in the future. It is important to highlight the important role that national GBCs took in this Conference and preparatory SB Conferences, stimulating progressive process of transforming reality, advancing in society's knowledge and awareness.

Naturally, classic topics in this area, such as assessment tools and technical aspects of sustainability – like for example constructive materials and systems – had an important role in the Conference topics. Their focus and advances were also related to the topics exposed previously in this report which structured the conference.

And it is on these topics that, **as in a sort of Decalogue**, the following conclusions of the Conference can be highlighted, gathered and presented as a list of conditions that we must solve to reply affirmatively to the question that was asked: *Are we moving as quickly as we should?*

Urban environment as a priority, with regional and local adjustments.

1. **There are no universal solutions.** Solving sustainability problems requires global reference frameworks, common methodologies, but local expressions in both targets and scopes. The strong presence of the Mediterranean Area within the Conference was an evidence of the expression these singularities take in this particular area, of a wide social, geographical and cultural scope.
2. **It will happen in cities.** Cities are not only the environment where already one half of Humanity lives and where future population increase is going to occur – and with it habitability demands of the future -, but it is also the place where our relationship with the environment can be best rethought, tackling growing life quality demands.
3. This will not be achieved on an urban scale without integrating all the actors and stakeholders in a **collaborative framework** where energy efficiency and low impacts are joined with other social demands referred to satisfying basic needs and improved life quality.



Precise goals and reference models

4. We are not going to achieve this either without **renovating the built environment**. For many countries and regions, urban renovation and regeneration are key strategies to face the challenges of the future, especially climate change. Thus, establishing goals, tools and models in this particular field - and in the environment where most people live – become a necessity.
5. Because our goals will not be achieved without people, especially **users**. Therefore, awareness and training are crucial factors in the future of sustainable building. Not only do we need to adapt and adjust training for technical professionals and other sector stakeholders, as was seen in the debate on the role of Universities; we also need to involve users. This entails including awareness and training in daily life, as the examples of architecture schools renovation and new construction showed, presenting them as opportunities not only for students but also for families.
6. We will not achieve our goals without properly constructed, explained and accepted **reference models**. Building nearly zero energy buildings and zero carbon human settlements are challenges we must face, both from the scientific community and manufacturers or through political and regulatory action. Of course, we must face them coherently. And good examples must be ready for their replication under varied local conditions. They must contribute with technical and process management solutions, as well as financing solutions that make them viable.
7. But it is not a **financing** problem, even though financing can be a problem. The fact that sustainability is already a general and accepted social demand, which grows as a recognisable quality factor in the market is indisputable. It is also true that efforts are being made to establish it. All sector stakeholders, including those in the financing world, must be committed to achieve it. The conference has proven that we have in our hands successful experiences and advances.

Scientific methodology

8. We need better, more reliable and friendly **assessment tools**, capable of including economic and social aspects, going beyond environmental ones, whilst recognising local singularities and, above all, able to communicate, create and allow participation. This will mean more complex, demanding and precise assessment tools. We shall need to find an acceptable balance between this complexity and adequate accuracy.
9. **Life Cycle Analysis**, LCA, of materials, elements and buildings will become a key tool when it manages to solve the problems concerning its application to buildings and the built environment while remaining understandable for the wider public. Evolution from a manageable tool for construction materials to a complex instrument aimed at buildings



and the built environment, joined by the need to become comprehensible for a wider public, appear to be essential in the fruition of LCA in our sector.

10. We will not have adequate **construction materials and systems** for sustainability without transparency. Directing products towards clear environmental building strategies, making them become links in building value chains, and transparency in communicating and justifying their contribution to key environmental features in buildings and surroundings (with LCA as a fundamental element) will be decisive.

An answer

Thus, the answer to the Conference question and *leitmotiv* seems to be unanimous: NO, we are not moving as quickly as we should. This means we must continue working, we have to carry on advancing in our sustainability challenge intensely. These conclusions can help us direct our path so that, sooner than later, we can finally reply affirmatively to the question was raised. GBCe takes on the commitment and, in the three years that separate us from the event in Hong Kong, we shall redouble our efforts, in all ways possible.

Barcelona, January 2015