SUSTAINABLE DEVELOPMENT AND EUROPEAN CONSTRUCTION SECTOR POLICIES

ΒΙΩΣΙΜΗ ΑΝΑΠΤΥΞΗ ΚΑΙ ΟΙ ΠΟΛΙΤΙΚΕΣ ΤΟΥ ΚΑΤΑΣΚΕΥΑΣΤΙΚΟΥ ΤΟΜΕΑ ΣΤΗΝ ΕΥΡΩΠΗ

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ABSTRACT

Standardization of sustainability is necessary in order to make sustainability a usual criterion for building designers and decisions makers. ISO has created a specific sub-committee for that purpose. The CEN Construction Sector Network attends also that work. It is a real challenge: the great number of possible components of sustainability in a building project, and the different way to approach sustainability is rendering very difficult the definition of universal standards. A pragmatic approach seems to be the only possible one. From a decision-making aid and action standpoint, standardisation will rather have to translate the sensitivity of the phenomena, the reactivity of companies and of surrounding environments, their dynamics as much as their status. Standardisation will concern the methods rather than the products.

ΠΕΡΙΛΗΨΗ

Η προτυποποίηση της αειφορικότητας είναι απαραίτητη προκειμένου να καταστήσει την αειφορία ένα σύνηθες κριτήριο τόσο για τους σχεδιαστές των κτιρίων όσο και για τους αποφασίζοντες. Ο ISO έχει δημιουργήσει μία ειδική υπο-επιτροπή γι’ αυτό το σκοπό. Το δίκτυο CEN Construction Sector παρακολουθεί επίσης αυτές τις εργασίες. H
εργασία αυτή αποτελεί μία πραγματική πρόκληση: ο μεγάλος αριθμός πιθανών στοιχείων αειφορικότητας σε ένα κτηριακό έργο καθώς και οι διαφορετικοί τρόποι να προσεγγίσει κανείς την αειφορία καθιστά πολύ δύσκολο τον ορισμό καθολικών προτύπων. Μία πραγματική προσέγγιση φαίνεται να είναι η μόνη εφικτή. Από την άποψη της υποστήριξης στη διαδικασία λήψης απόφασης αλλά και δράσης, η αειφορικότητα θα πρέπει μάλλον να μεταφράζει την ευαισθησία των φαινομένων και την ανταποκριτικότητα των εταιριών και του περιβάλλοντος γενικότερα, τη δυναμική τους καθώς και τις ιδιότητές τους. Η προτυποποίηση θα αφορά μάλλον στις μεθόδους παρά στα ίδια τα προϊόντα.

1. STANDARDISATION OF SUSTAINABILITY, A NECESSITY

The environmental stakes of the building sector are considerable: appropriation of materials and of areas, implantation and construction/demolition of buildings, everyday consumption of energy and water, waste production, type of mobility induced by urbanisation, etc. A lifetime approach is necessary to take in consideration all these aspects.

But the social dimension of the building industry is also very pronounced, with particular occupational accidents on building sites, housing rights, control of charges for low-income occupants, effects of the constructions on the health of users. The construction industry is Europe’s largest industrial employer and this implies that social aspects are of particular importance in the sector. The fact that the building sector economy is of major importance in the majority of countries, makes clear that the building sector can be a perfect illustration of the concept of sustainable development. The three objectives - economic, social and environmental – should be made to converge, meaning that each one reinforces the other two.

How can we introduce sustainable building in the building market? The European court of justice told recently, precisely on September the 17th, how to do it for environmental criteria. The court gave the conditions on the way environmental criteria could be applied. They must be “connected to the subject matter of the contract”, must not give “unrestricted freedom of choice” of tender, and must be explicitly mentioned in tender notices. The European Commission has previously emphasised this last point as
a way of introducing green requirements into contracts.

A Working Group for Sustainable Construction, gathering participants from the European Commission, Member States and Industry, hold in Brussels, on 20th of May 2001, to elaborate an Agenda for sustainable construction in Europe, has adopted the same conclusions:

“National governments and public bodies (“contracting authorities” in the meaning of the public procurement directives) together constitute the construction industry’s largest client. It is they who must take a lead in promoting sustainability in construction so that it becomes a process driven in the best interests of the client. Both European and national procurement policies require that all public procurement is carried out on the basis of best value for money. If the term “best value for money” is simply a matter of price, such policies are relatively straightforward in their implementation. If tenders are invited on the basis of various other criteria, such as quality, performance specifications, design requirements, time for completion, etc, then the evaluation of such tenders becomes much more complex, if not subjective. The Luxembourg, Cardiff and Vienna Councils have adopted their conclusions indicating that both Commission and Council should work out strategies of integration of environmental aspects into the other policies; in case of possible contradictions between the objectives of public procurement and environmental policies these objectives should be reconciled. Therefore, the interpretation of public procurement legislation should respect its primary objective, which is economical in nature and at the same time it should integrate the environmental aspects, without, however, these environmental aspects replacing the primary objectives of public procurement.

Nevertheless, if more sustainable construction is to be encouraged, procurement cannot remain a purely economic exercise – nor does it have to. In day-to-day practice, conscious of their responsibility regarding the realisation of sustainable development, more and more public purchasers wish to, and actually do, integrate environmental considerations into their procurement policy. If the European Commission and the Member States are determined to press ahead with the “greening” of public procurement,
then a number of solutions need to be considered…”

The report insists on the fact that the quality assessment criteria should include sustainability factors, and the necessity to develop tools such as LCA and LCC for the clients, architects and the consulting engineers.

In France, the association HQE is working for a certification system, in order to characterize precisely the different aspects of environmental approach, regarding both management and performances as well.

Sustainability is not environment, but the rule should be available also for sustainability. We have to remind that Article 6 of the Treaty of Amsterdam, tells that “environment protection requirements must be integrated into the definition and implementation of the Community policies and activities…, in particular with a view to promoting sustainable development”. So we have to create specific indicators of sustainability, in order to enable market to integrate sustainability.

2. THE STANDARDISATION ORGANISATIONS AT WORK

The concepts employed are multiple, make reference to diverse cultural values, and the adoption of a common language is necessary in order to progress together. It is the direction followed by the work recently launched by ISO. Within the framework of a standardisation structure (ISO/TC59/SC3/WG12), responsible to Technical Committee TC59 « Building construction », whose scope includes urbanism, ISO launched in 2000 a standardisation programme on sustainable development within the building sector (sustainable building) under the aegis of Norway and America. This work will be conducted under French convenorship (AFNOR) since the decision, taken in November by ISO, to create a new subcommittee, n° 17, the name of which is “Sustainability in building”, gathering together a large number of European countries (EU + EFTA). Several programs haves started, as shown below:

The CEN Construction Sector Network Workshop held in Malta from 30 September to 1 October 2002 confirms the importance of the work of the proposed ISO/TC59/SC17 ‘sustainable building’ and asks CEN Construction Sector Network Project Environment (CSNPE) together with CEN Management Centre (CMC) to follow the work and ensure
that European stakeholders are fully informed of progress.[1]

<table>
<thead>
<tr>
<th>Nº Projet</th>
<th>Titre anglais / English Title</th>
<th>Titre français/ French Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISO/AWI 15392</td>
<td>Buildings and constructed assets - Sustainability in building construction - General Principles</td>
<td>Bâtiments et ouvrages construits – Développement durable dans la construction – Principes généraux</td>
</tr>
<tr>
<td>ISO/AWI 21932</td>
<td>Buildings and constructed assets - Sustainability in building construction – Terminology</td>
<td>Bâtiments et ouvrages construits – Développement durable dans la construction – Terminologie</td>
</tr>
<tr>
<td>ISO/AWI 21930</td>
<td>Buildings and constructed assets - Sustainability in building construction - Environmental declaration of building products</td>
<td>Bâtiments et ouvrages construits – Développement durable dans la construction – Déclaration environnementale des produits de construction</td>
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<tr>
<td>ISO/AWI 21929</td>
<td>Buildings and constructed assets - Sustainability in building construction - Sustainability indicators</td>
<td>Bâtiments et ouvrages construits – Développement durable dans la construction – Indicateurs de développement durable</td>
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A large confrontation of ideas and techniques now takes place where the European approach, rich in diversity, but in the main convergent, merits being enhanced and supported. Moreover, this work will be carried out in liaison with Technical Committee ISO 207 on environmental management, of which it has adopted many of the methods and which shares very similar preoccupations (climate change, life cycle analysis, etc.). The CEN Construction Sector Network Project for Environment has undertaken for its part considerable work concerning the interrelationships between standardisation work in the building and environment sectors.

**3. HOW TO MAKE SIMPLE**

One of the major difficulties of the exercise is to take into account all parameters concerning the life cycles of buildings. The societal use which is made of these parameters,
the latter being dependent on cultures and on economic or environmental parameters alike, and which the IPP concept translates (see green paper on integrated product policy), is just as relevant as purely physico-chemical or biological characterisations. The complexity of the approach, which only reflects that of life, leads to privileging pragmatic approaches, based on progressive approaches rather than on batteries of universal indicators. Standardisation must strive towards stakeholder involvement by providing them with the tools required in order to fulfil this responsibility, and not by defining good and bad in an absolute manner – thereby withdrawing all responsibility –.

Sustainability is as an economic topic, as well as an environmental one. The concept of life cycle is also available for a simple cost approach, and we have to make those items to converge. “Considerations such as running and maintenance costs and the overall environmental impact of a built facility have nearly always been a lesser consideration, if indeed a consideration at all. Moreover, in many countries, fiscal systems of taxation tend to favour low capital costs over high running and maintenance costs. In most cases, the costs involved in servicing and running built facilities during their lifetime far exceed the initial costs of construction. For most clients therefore, there should be a genuine interest in procuring built assets with low running and maintenance costs” [2]

Standardisation must focus on the information to be provided to the decision-maker and on the methods, not on the products themselves, for which the conditions of use cannot a priori be known. It is the approach which was followed for the French standard XP P01-010 on information concerning the environmental characteristics of construction products.[3]

Generally speaking, standardisation related to sustainable development runs the risk of being abundant and not easily exploitable, taking into account a number of parameters to be integrated if an analytical approach is to be used. A pragmatic approach should therefore be adopted, which integrates as early as its conception the use to which it will be put by the operators. Standardisation concerning sustainable development within the building sector must satisfy operational objectives. Failing this, it would be pious hopes without any true effect on the action, which must be our
objective. The simple observation of difficulties in environmental standardization holds the message that we have to find other ways to advance in the path of sustainability.

4. SOME PRINCIPLES TO MEASURE SUSTAINABILITY

The first stage therefore consists in determining what we expect from standardisation concerning sustainable development in the building sector, the degree of adaptation as a function of the contexts, the manner of using it. It is necessary, as it were, to draw up the « specification » for this quite specific standardisation.

Four families of principles appear to be able to be proposed in this respect.[4]

- Identification of the sensitive points. Status of the critical assets (available area and ecological sensitivity of these areas, qualified labour, natural resources and energy required for manufacturing and transporting the building materials, know-how, etc.) and abilities to regenerate these resources. It is the identification of the limiting factors and of their evolution.

- Satisfaction of needs. Does access to these resources enable to satisfy the needs, is it fair, do they remain any great dissatisfactions?

- Performance. Are the available resources and the critical assets consumed under the most efficient conditions possible? Decoupling between the response to the needs and the appropriation of resources is the sign of increased efficiency in the use of these resources, and favours the preservation of resources for the future generations.

- Adaptability. Here it is a matter of assessing the reactivity of companies to unforeseen phenomena, their ability to apprehend developments in physical or social contexts, and to modify their projects as a function of the observed events. Reversibility, sensitivity and adaptability are the key words for characterising this fourth dimension of sustainable development.

From a decision-making aid and action standpoint, standardisation will rather have to translate the sensitivity of the phenomena, the reactivity of companies and of surrounding environments, their dynamics as much as their status. It is a new generation of standards that should be developed, able to determine the main specific points describing sustainability. Standardisation will concern the methods rather than
the products.

REFERENCES


3. Normes AFNOR XP 01-010-1 et XP 01-010-2