Representing FIDIC in Europe

Sustainability Pack for forward-looking projects

The engineering sector is stepping up its response to the continued unsustainability of the world’s cities, where some 75% of global environmental constraints are thought to be located, by launching a practical Sustainability Pack for the construction industry and its partners. The pack comprises three publications, including Rethink Cities, a white paper on societal challenges, a Project Sustainability Management manual for consulting engineers, and a Project Sustainability Logbook.

EFCA has been supporting the International Federation of Consulting Engineers (FIDIC) in the creation of the pack that was launched in September 2013 in Spain. They hope it will be used by project stakeholders in their increasingly collaborative approaches as they work towards urban sustainability using emerging technologies, tools and language.

Rethink Cities is published as the sector’s strategic sustainability message, addressing climate risks, infrastructure and cities, and society’s economic development through the provision of an ‘urban toolbox’ approach to turn challenges into opportunities. According to the paper, efficiency, productivity, savings in the use of natural resources and lower maintenance costs can be improved through cooperation and coordinated solutions as well as the use of new technologies including ICTs and ‘smart living’. It emphasises the point that creating synergies can give a more comprehensive approach to sustainable development, reducing both emissions and a city’s vulnerability to climate change. Many impacts can then be avoided, reduced or delayed. It also provides a comprehensive background to each major sector, trends, and the benefits of creating interrelationships.

Consulting engineers aligned with new Directive on Public Procurement by focussing on value

The new EU Public Procurement Directive, due for approval by the European Parliament on 14th January, is going to provide the construction industry with the incentives it needs to help reach the EU growth and sustainability goals. Consulting engineers are particularly upbeat about the changes as procurement will rely less on price alone and more on long-term thinking and innovation – creative services.

The European Federation of Engineering Consultancy Associations (EFCA) welcomes the new Directive. “There was a lot of discussion during the review of the existing Directive,” says Jaap de Koning, chair of EFCA’s internal market committee. “We were very specific in our arguments about the changes we wanted; so we are happy that the European Commission listened and responded. The new Directive offers a real challenge to the market to add value to public projects.”

More holistic thinking

The major change is a widening of the award criteria, giving clients the opportunity to tender for efficient, sustainable projects that are cost-effective throughout their whole life-cycle. The shift has been towards longer-term, more holistic thinking and away from an over-reliance on price.

The new award process will rely on a matrix where price is joined by other criteria such as plan of approach, sustainability, and life-cycle costs, all geared towards adding value. Known as ‘most economically advantageous tender’ (MEAT) this instrument allows clients to set their own weightings on the criteria. “These are really crucial,” explains Mr de Koning, “If a client puts price at 80% and others down to 20% then price becomes the main criteria again.

Incorporating value still depends on the client.”

“There are other elements we favour,” continues Mr de Koning, “consulting engineers and architects will be exempt from the possibility, and part obligation, to go through ‘electronic auctions’. Although you could use internet-based systems for procuring pencils or chairs, it’s impossible for us, and for clients, to discuss a design through a screen. We need to communicate properly.”

There is also a new procedure to strengthen innovative solutions through ‘innovation partnerships’. These allow public authorities to call for tenders to solve a specific problem without pre-empting the solution.

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Good design pays back ten-fold

“There are excellent prospects for greening projects,” says Mr de Koning. “We are very keen to show what we can do to take into account life-cycle criteria, the environment, and sustainability. The design phase is only a small amount of the total construction cost, but that investment in good design phase pays back ten-fold on the construction plans. Issues of durability, sustainability, long-term planning … they all benefit the environment.”

Some parts of the market have already been moving towards a more value-based procurement system. Since 2004, Professor Kashiwagi of Arizona State University has been visiting the Netherlands to explain and expand his approach, which has met with success in parts of Asia as well as in the United States, for embedding ‘best value’ in a market dominated sector.

“Best Value Procurement, or Best Value (BV) as it’s now known because its principles can be used for more than just procurement, is particularly interesting for consulting engineers,” says Mr de Koning. “BV recognises knowledge and experience are not with the client but are somewhere in the market – and the client has to look for it. The client can now say ‘the expert is in the lead, he or she will guide me’.”

Engineers leading

He likens the situation to one of climber and guide. “If you want to climb to the top of a mountain,” he says, “you don’t go to your nearest village and tell them you need seven days, so much food, so many tents. You look first for a guide who knows the terrain, understands the weather, how much food and supplies will be needed, and you put him in front.”

“Clients have a project, they know what they want to achieve, and now they must look for the expertise. We, as engineers, like this position – we can use our creativity as we lead.” BV is a form of MEAT but broader, according to Mr de Koning. “It can also highlight what can go better, as well as what can go wrong,” he says.

At a recent workshop hosted by the Dutch association of consulting engineers, NLingenieurs, and organised jointly with EFCA, Professor Kashiwagi explained how to move from traditional contracting structures to a more efficient future with BVP but added a warning that change will be slow.

Both sides need education

“The problems are not technical,” he said, “but are caused by a change in paradigm … It is more about ‘we’ and ‘us’ now, working on solutions together. Encompassing the whole supply chain forces closer collaboration. The contractor, more used to reacting to a client, must now take on a leadership and managerial role. But both sides need the education.”

According to Mr de Koning, BVP fits perfectly with the new Directive; it offers a way of dealing with it, like the challenge of putting the principle of MEAT into practice. “But there must be a willingness to learn,” he agrees, “both with the client who sometimes has to be convinced it has advantages for him, and with the bidders who have to know how to score well on MEAT too.”

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Project Sustainability Management (PSM) II

Project Sustainability Management (PSM) II is a second edition of the guidelines for consulting engineers dealing with major sustainability issues in their projects. It lists core issues and a set of perspectives to help find more sustainable solutions. The perspectives are described in some detail alongside possible project responses and logical links. A number of processes for the broad inclusion of stakeholder input are also included.

Project Sustainability Logbook (PSL)

Finally, the Project Sustainability Logbook (PSL) 2013 proposes a common language on sustainability and in line with the PSM methodology. It helps stakeholders in collaborative projects when selecting objectives and dealing with specific project issues. The issues are presented in useful tables and the approach helps them to be monitored throughout their life-cycle.

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EFCA has member associations in 24 countries, and is the sole European federation lobbying on behalf of engineering consultancy and related services, a sector that employs around one million staff in Europe. EFCA contributes with a strong and cohesive input to legislative actions of its national associations on issues affecting market conditions. Furthermore, the organisation works as a Europe-wide platform for national associations and their member firms to gather relevant facts and discuss issues with their counterparts.