



Barry Mawson
Structures Consultant, Capita
Symonds, Cwmbran, UK

Editorial

Publication of the structural Eurocodes is now virtually complete and progress is well on with the production of the National Application Documents, most of which should be available by mid-2007. So during in the new year, in Europe, we should see design Engineers starting to apply these new standards. In the "Briefing Note" that follows, the Highways Agency of the United Kingdom set out their current position. They propose to introduce the codes as soon as possible and the note states "there will soon be little option her but to use Eurocodes for the design of highways structures, and designers must be ready for their introduction and they must effectively manage the costs and programme implications of introducing new design standards".

The switch to Eurocodes represents the first major change for all designers of structures since the switch to limit state design. This time it is a case of less change to the principles for design and more one of change to documents style and procedure.

The new codes provide a unified approach to structural design, which compares favourably with the compartmentalised approach of our existing UK codes.

However designers will find that they will need to refer to more document's than just as the codes, as the codes set out the principles which must be applied and give some application rules, but not the complete application process. Using the principles defined in the codes users will have to develop their own application procedures in many cases. National Application Documents are being published in the each country defining alternative values for certain parameters set out within the codes, in order to comply with each country's own approach to building regulations etc., these are referred to as Nationally Determined Parameters. Other material which designers will need, which was included in many cases within British Standards, is being produced by other bodies such as ICE, IStructE, The Concrete Centre, The Steel Construction Institute and the British Standards

Intitute, withier Published Documents. These all contain guidance on application procedures.

Thus designers, changing to the new codes, will have to familiarise themselves with referencing the new documents and this aspect of code implementation can only happen by use generating familiarity, with only limited support from external training, as the principles of the design will, in general, not change.

Harmonisation of the codes with other standards is taking place and separate standards are produced, for example concrete specification and workmanship for both steel and concrete structures etc.

Many designers have preferred to wait for developments, but now is the time to start serious involvement in the standards. Already cohorts of graduates are preparing to enter the profession aware of the existence and style of the new codes from their university courses and we must take advantage of this soon. Although the briefing note specifically refers to bridge design for the UK market, the Eurocodes will be applicable over a large area of the world and, as their reputation builds, this will extend further. There are potential opportunities that the new codes will provide UK engineers in Europe and on the world stage. Yes the initial costs are there, but the benefits promised are much more.

In November 2001 the ICE published a Special Edition of Civil Engineering devoted to the Eurocodes, as a general introduction, this remains a useful reference. Now much more detailed guidance is available, including the Thomas Telford Guides and the web site "Eurocode Expert". Finally, as the latest documents of their type, these codes represent the latest advance to a comprehensive set of structural codes produced anywhere in the world.