Foreword to STEP 1

This publication is the first major output from the Structural Timber Education Programme (STEP) work initiated by Eurofortech and supported by the Commission of the European Communities under the Comett programme. It represents a commendable effort by about 50 people from 14 European countries to make Eurocode 5 operational and accepted by the users.

Eurocode 5 is a legal document aimed at the qualified engineer with a basic knowledge of timber and timber structures. It gives the requirements for design, but not their background. It cannot stand alone. It has to be supported by textbooks explaining the general philosophy of the Eurocodes, especially Eurocode 5, and giving the background for its requirements and detailed design rules. The STEP lectures are such a textbook for direct use by instructors at engineering schools and a basis for writing national textbooks.

The STEP project is closely linked to Eurocode 5, the European code for the design of timber structures (ENV 1995-1-1 and 1995-1-2). Work on Eurocode 5 began in 1973 when John Sunley - at that time at the UK Forest Products Laboratory, later director of TRADA - initiated the drafting of a model code for the design of timber structures in Working Commission W 18 of CIB (The international council for building research, studies and documentation). The initiative of John Sunley was very timely; the result - the CIB Structural Timber Design Code - was published in 1983 and was immediately accepted as the basis for the timber part when the Commission of the European Communities in 1985 initiated drafting a set of European design codes: the Eurocodes.

Eurocode 5 is the result of tremendous cooperative efforts involving people from industry and most timber researchers in Europe (with substantial contributions from Australia, Canada, and USA). The main forum for this cooperation has been CIB W 18; most of the technical details have been discussed in this working group, and the background has been reported in the proceedings from its meetings: so far 26 volumes, about 10000 pages.

Devoted and qualified authors are one reason for the successful outcome. Equally important is the management of the project. In this respect STEP has been extremely lucky. The management and reviewing committees headed by Hans J. Blass have done an outstanding job.

Hans Jørgen Larsen,

Chairman, Eurocode 5 Drafting Committee

Foreword to STEP 2

The European Confederation of Woodworking Industries, Cei-bois, is the spokesbody and representative organisation of the woodworking sector in Europe. With a production value of 78,000 MECU in 1994 (EU 12 countries) and a workforce of 1,7 million, woodworking is an important manufacturing sector in Europe. With the accession of Austria, Finland and Sweden to the European Union in 1995, this importance has increased even more.

Nevertheless, and still all too often, the wood sector is looked upon as being traditional, using a raw material with a lot of aesthetic qualities but about which little is known regarding physical and mechanical characteristics. This has certainly been the case in the past with regard to the use of wood for structural construction elements. Whereas semi-probabilistic methods have been used for quite some time to calculate the safety of steel and concrete structures, these were never really applied to wood and calculations are often made on the basis of "traditional" methods with safety coefficients.

Yet a lot of research has been performed over the last years aiming at a better characterisation of the material wood. This has contributed to the development of Eurocode 5. Eurocode 5 is a calculation standard for designers/specifiers with sufficient knowledge of wood. As such, it only provides calculation rules but no background information. The merit of the STEP publication "Timber Engineering" is that it translates theoretical Eurocode-rules into concrete solutions.

The fact that this work has been performed at a European level is a sign of its comprehensiveness and quality. It will therefore largely open up the "designer market". In the past, wood and calculation methods for wood were insufficiently known. This being "unknown thus unloved" made designers quickly switch to other materials. We are convinced that this handbook and the evolution towards innovation and quality on the part of wooden element manufacturers, will contribute to a wider and more justified use of wood as a construction material.

We therefore wish to congratulate the authors and collaborators, STEP and Eurofortech, for their efforts and hope that in the various countries the necessary attention will be given to this initiative.

A.P. Mesquita

Cei-bois President