Editorial

Welcome to the first issue of the TC250 Newsletter.

In my letter dated 6 February 2008, I suggested the publication of a TC250 newsletter with a very simple objective: to disseminate information on the Eurocodes, workshops, conferences, use of the Eurocodes outside the EU. It is not very easy to create something which has to demonstrate its usefulness. Nevertheless, several experts from TC250, other CEN/TCs or involved in the European standardisation at their national level sent me first contributions.

This first issue of the TC250 Newsletter is only an attempt to see how TC250 members and other people react to the dissemination of non-technical information which may be interesting from a professional point of view. If this experience is conclusive, the “product” will be developed to become a tool for the communication between CEN/TC250 and the construction sector.

Jean-Armand Calgaro,
Chairman of CEN/TC250

Eurocodes contribute to EU-China Trade Dialogue

The EU-China Conference on Standards and Energy Efficiency in Building was one among a series of others that are organised in the frame of the EU-China Trade Project 2004/2008 (learn more: www.euchinawto.org). The conference in Beijing on 2008/01/29-30 was hosted by the Ministry of Construction of the People’s Republic of China, the EU Directorate-General for Enterprise and Industry, and the EU-Directorate-General for Transport and Energy.

Panel of discussion forum 1: Construction Design and Material Standards in EU and China

The Conference should bring together EU and Chinese representatives from government institutions, standards organisations, industry associations and business to discuss issues related to standardisation in construction sector in general, and energy savings in particular, to exchange experience, and to identify issues and possibilities for future collaboration.
Considering and respecting the huge increase of energy consumption, Chinese policies and regulations focus in direction towards quality and energy efficiency in buildings and construction. Quality control and standardisation are urgently needed. An enormous effort has been undertaken to prepare and implement new standards for buildings taking into account the state of the art. The construction of buildings has to be managed as a concerted play of all disciplines in the construction sector.

In this context, the contributions on the Eurocodes were embedded. First, an overview of the structure and state of development (Horst Bossewmaier) followed by some aspects of implementation (Matti Virtanen) and use (Paul Lüchinger) of the Eurocodes as well on Future Developments (Claes Andersson) have been presented. The positioning of these contributions within the conference programme immediately after the policy address reflects the importance, which is attributed to the Eurocodes within the global Standard families.

The Eurocodes are recognised as design codes for practice of high quality and coherence. Especially with regard to the large number of different regions in China, the Chinese are highly interested in the way of handling specific local/regional conditions. In addition, Eurocodes are a good basis for better mutual understanding, discussions, and exchange of experience.

Dr. Paul Lüchinger, TC250 Expert

**JRC activities related to Eurocodes**

**A sustained contribution**

Since 1992, JRC/ELSA has been contributing to the development and updating of the Eurocodes, by participating in research projects, carrying out reference seismic tests, fostering networking and participation of EU Member States research institutions and industry, as well as promoting international collaboration.

In 2005 the Directorate General Enterprise and Industry (DG ENTR) of the European Commission committed the JRC to assist in the implementation, harmonisation and further development of the Eurocodes, along the lines of the Commission Recommendation of December 2003.

Starting from May 2008 and within a three-year Memorandum of Understanding with DG ENTR, the JRC will undertake actions aiming to provide IT support to implementation and monitoring, foster dissemination and training on Eurocodes, facilitate promotion outside EU, define a concept for evolution of the Eurocodes to additional fields of design and develop a concept for design standards to incorporate sustainability and other emerging aspects.

**Collaboration with CEN/TC250**

A fruitful collaboration was established with CEN/TC250, its Subcommittees and Horizontal Groups. The plan of the collaborative work foresees that CEN/TC250 is responsible for maintenance and further development, while the JRC will lead promotion, training, and further harmonization actions. The contribution of CEN/TC250 was essential for the successful completion of the JRC efforts, e.g., training/promotion strategies, IT tools and workshops.

The JRC activities develop in close collaboration also with other stakeholders, namely the European Technology Platforms, National Standards Bodies, National Authorities, Academia, International Technical and Scientific Organisations, Research Institutions and Industry.

**Support of the implementation, harmonisation and further development of the Eurocodes**

Within the 2005-2008 Administrative Arrangement, the following objectives were pursued:

- Harmonisation of European design of constructions and construction products;
- Implementation of the Eurocodes (training programme);
- International promotion of the Eurocodes;
- Achieving increased protection of constructions against earthquakes and fire;
- Fostering innovation in construction.

**JRC activities in support to the implementation, harmonisation and further development of the Eurocodes (2005-2007)**

A series of IT tools were developed, namely:

- Eurocodes website, with the purpose to collect and disseminate information on the Eurocodes, [http://eurocodes.jrc.ec.europa.eu](http://eurocodes.jrc.ec.europa.eu);
- Nationally Determined Parameters (NDPs) database, as a fundamental source of data for further harmonisation;
- Centralised Eurocodes helpdesk, with the objective to assist national standards bodies and CEN/TC250 in maintenance;
- Background documents database, which is a unique source of information on the theoretical justification of technical rules, on the recommendations for the NDPs and on the
National decisions about the choice of the NDPs. According to a strategy for training and promotion discussed with partners, the JRC produced a collection of leaflets and booklets, organised a series of workshops and published all material on the Eurocodes website.

A pilot project for harmonisation has been agreed with CEN/TC250 and international technical and scientific organisations. The main objective was to define a unified European view on the strategy for harmonisation of the Eurocodes.

Based on research experience, networking and consultation with experts, research needs to achieve increased protection against earthquakes in Europe were identified. Scientific networks were set-up with the objective to investigate on the needs for design standards for the use of FRP composites and glass in civil engineering works. The JRC also coordinated two ad-hoc groups which reported on the national implementation and use of the Eurocodes fire parts and on the standardisation needs to achieve improved design guidelines for fire protection.

The following publications, which resulted from the work of the JRC, can be downloaded from the Eurocodes website:

1. Purpose and justification for new design standards regarding the use of glass products in civil engineering works, EUR 22856 EN, Joint Research Centre, 2007.
3. Pre-normative research needs to achieve improved design guidelines for seismic protection in the EU, EUR 22858 EN, Joint Research Centre, 2007.

For further information contact eurocodes@jrc.it, or visit http://eurocodes.jrc.ec.europa.eu.

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First International Symposium on Geotechnical Risk and Safety

Shanghai, October 2007

The chairman of SC 7 attended the “First International Symposium on Geotechnical Risk and Safety” held in Shanghai from 18 to 19 October 2007. The symposium was organised by Tongji University of Shanghai and dealt with the topics: geohazards, risk management, reliability assessment and code development and harmonization.

The chairman of SC 7 had been invited to give an invited lecture on “Eurocode 7 Geotechnical design and its latest developments”. Most of the 80 contributions to the Symposium came from China; 20 came from Europe. The European contributions met with a very positive response and were a great success.

It became clear during the discussions that the Eurocodes are a shining example for the Asian colleagues who are eager to develop a code on geotechnical design for the Asian-Pacific region.

During the conference the Geotechnical Safety Network (GEOSNet: http://geosnet.geoengineer.org) held a meeting and established a task group “Design Codes Updates” to disseminate and discuss activities in geotechnical standardisation all over the world. The chairman of SC 7 will be coordinator of this task group.

Bernd Schuppener,
Chairman of SC7

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A trip to Laos and Thailand

During the trip to Laos and Thailand, I was invited to pay a visit to the Chulalongkorn University and the Council of Engineers in Bangkok.

At the Council of Engineers Centre a lecture was scheduled on April 01, 2008. It aimed at presenting the set of Eurocodes:

- explanation of main concepts, and
- information on practical applications carried out, first projects already built or in progress, technical reasons for the Eurocodes use in this transition period, technical benefits resulting from these first experiences, etc.

1 Prof. Ekasit LIMSUWAN of Chulalongkorn University; Rajatin SYAMANANDA, Member of the Council Board.
2 http://www.coe.or.th. The policy of the Society is relating to education: to support and promote the education institutions in particular to provide training courses for engineers; to prepare for examinations for the issuance of licences to the applicants, ..., relating to practicing profession: to set up the engineering profession standards, to support and engage in stipulating that all engineers in the government and the private sector must have a license for practicing the controlled engineering profession, to support and promote continuous development.
Thailand has a Code of Practice close to the ACI and AASHTO Codes, as most of Thai Professors and Engineers graduated from US universities. It appears more and more that these Codes, elaborated for the US conditions, are not directly fit for Asian conditions. Presently a group gathering many Asian countries (Thailand, Vietnam, Cambodia, Laos, Brunei, Myanmar, Indonesia, Malaysia, Singapore, etc) is preparing an Asian standard for construction. Some members of this Commission attended the meeting, they seem having interest to the Eurocodes because of some following features:

- the editing works achieved by the experts of the different European Union member states, i.e. cooperation of the EU on the whole;
- the adopted format: a common model in Eurocode 0 for structural safety of all construction types (steel, concrete, etc) and natures and its transparency. Nevertheless room is still remaining for easy adjustment according to local specific conditions;
- the modelling for actions (Eurocode 1).

May we conclude there is a will of exchange, of more explanation on the particular Eurocodes objectives, on the expected issues for trading?

An Asian Code imbued with the Eurocodes format should be beneficial for the European community in Asian regions.

Dr. J.L. Trinh,
Member of the French mirror group or the Eurocodes

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**STESSA 2009 Conference**

**“Behaviour of steel structures in seismic areas”**

**Philadelphia, 16-20 August 2009**

The STESSA International Conferences are entirely devoted to the Behaviour of Steel Structures in Seismic Areas. They represent a very suitable forum for bringing together specialists from different Countries and different experiences, just united by the common interest on the behaviour of steel structures in seismic areas.

STESSA 2009 is the sixth edition of such Specialty Conference and it will be held in Philadelphia (United States). Previous editions of the Conference were held in Timisoara (Romania, 1994), Kyoto (Japan, 1997), Montreal (Canada, 2000), Naples (Italy, 2003) and Yokohama (Japan, 2006). Large success was obtained by previous editions of the STESSA Conference, as testified, for example, by the fact that about 150 participants coming from 20 countries took part in the last edition of the Conference in Yokohama.

The main scope of the STESSA 2009 Conference is enabling researchers and practitioners to present and assess the results from recent research on minimization of the earthquake damage, on seismic retrofit and on the collapse behaviour of steel structures. In addition, numerous research projects on steel structures using recently-commissioned large-scale earthquake simulation facilities will be ready for dissemination.

The main topics of the STESSA 2009 International Conference are:

- Performance-Based Design of Structures
- Seismic, Wind and Exceptional Loads
- Material Behaviour
- Member Behaviour
- Connection Behaviour
- Global Behaviour
- Analytical and Experimental Methods
- Mixed and Composite Structures
- Passive, Semi-active and Active Control
- Strengthening, Repair and Monitoring
- Codification
- Design, Fabrication and Practice

The Conference will be organized in working sessions introduced by the Chairman and the General Reporters, followed by oral presentations and open discussion. As in the past, it will encourage the exchange of ideas and information as well as the promotion of a fruitful collaboration among those experts who are involved in research, codification and application of steel structures in seismic areas.

Federico M. Mazzolani,
Conference Chairman

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**PROHITECH 2009 Conference on**

**“Protection of historical buildings”**

The PROHITECH 2009 International Conference is a special conference mainly devoted to the protection of relevant buildings and constructions belonging to the Cultural Heritage. The Conference will be held in Rome (Italy) on 21 to 24 June 2009. Rome can be legitimately considered one of the most important places in the World from the historical point of view.

The main subject of the Conference is mostly represented by the use of innovative technologies, namely those relying upon mixed reversible systems, for the protection of historical buildings under extreme conditions due to catastrophic events, such as earthquakes, volcanic eruptions, tsunamis, fires, blasts, impacts and shocks.

Such study field is receiving more and more interest all over the world, due to the widely shared policy of protecting historical constructions by means of techniques which exploit the advantageous peculiarities of different materials and devices combined together, and allow easy removal and substation, if necessary.

The main scope of the PROHITECH 2009 Conference is to focus on the development of sustainable methodologies for the use of reversible mixed technologies in the protection of existing historical constructions.
constructions, with special emphasis to historical and monumental buildings, which are particularly prone to earthquake and catastrophe risk.

So, the Conference is aimed at collecting the contributions of the main outputs from the most outstanding Institutions operating worldwide in the field of Cultural Heritage. At the same time, it will be a suitable opportunity for disseminating the results of the research activity coming from the PROHITECH project, developed in the years 2004-2008.

The main topics of the PROHITECH 2009 International Conference are:

- Traditional restoration techniques
- Damage assessment
- Risk analysis
- Intervention strategies
- Innovative materials and techniques
- Reversible mixed techniques
- Experimental analyses
- Numerical analyses
- Calculation models
- Design guidelines and codification
- Validation criteria
- Monitoring and diagnosis
- Robustness and reliability
- Vulnerability to natural hazards (earthquakes, tsunamis, volcanic eruptions…)
- Vulnerability to man-made hazards (fire, blast, impact, shock…)
- Protection systems against catastrophic actions
- Rehabilitation of old bridges
- Conservation of the religious heritage
- Study cases

The technical programme of the Conference will consist in working sessions introduced by the Chairman, followed by oral presentations and open discussion. Outstanding experts will be invited for keynote lectures, presenting the most recent developments in theory, design and practice with reference to the protection of relevant historical and monumental buildings in various parts of the world. In addition, Special Sessions are envisaged.

Consequently, the PROHITECH 2009 Conference is expected to provide a remarkable contribution to the development of advanced techniques for the protection of the valuable building heritage.

Federico M. Mazzolani,
Conference Chairman

On the future developments of European building codes, the BIBM Congress was enriched by two presentations from CEN/TC250 authorities:

- Prof. Jean-Armand Calgaro (CEN/TC250 Chairman) has given a presentation about the future of Eurocodes. He explained the four key areas that will be dealt with: maintenance, harmonization, promotion and further developments. Precast concrete industry that has immediately applied Eurocodes into standards covering its structural products reacted very positively and supported all action that could lead to more sustainable design of constructions.

- Prof. Eng. Giuseppe Mancini (CEN/TC250/SC2 Chairman) has presented how Eurocode 2 offers more freedom to precast producers when it comes to conceiving more and more enhanced structures. He has demonstrated that with Eurocode 2 precast concrete industry is geared towards achieving materials savings and reducing weight, and thus the cost of transport and assembly. The participants have appreciated very much this practical presentation that corresponds exactly with their permanent search.

Among the other presentations, we can mention:

- A presentation of the “Lisbon strategy and environment protection” by Heikki Salmi, advisor to the Director General of DG Enterprise.

- A clear information about the Construction Products Directive revision was given by Vicente Leoz Argüellez head of Unit “Construction, Pressure equipment, Metrology” of DG Enterprise. Precast concrete industry was quite reassured by the proposed definition of “made to measure products”: hopefully, this concept will probably not create a way for crafty producers to avoid CE Marking and thus establish an unfair competition. On the other hand, industry was very surprised by dispositions related to “micro-enterprises” because it did not understand why product standards would not cover these enterprises as presently.

- Dr. Juan Carlos Lopez Agüi, President of CEN, presented the relation of standards with innovation, the existing dispositions to facilitate this relation and the integration of environmental aspects.

- Many other presentations were oriented towards “sustainability” and innovation.

- Dr. Fabienne Robert head of fire section at CERIB explained her concern about the evolution of Fire Safety Engineering methods. She developed the shortcomings that might be observed and the potential level of risk they could create. She recommended continuing serious researches to overcome the existing problems.

Michel Vallès,
Chairman of CEN/TC229

BIBM 08 “Life needs concrete solutions”

19th BIBM (European Federation for Precast Concrete) International Congress and Exhibition, Vienna, May 7-10, 2008

Under the heading “Life needs concrete solutions”, the precast concrete industry addressed at its congress several topics of the upcoming policies and legislation at the European level, as well as market trends.