



# EUROCODES PROMOTION IN THIRD COUNTRIES

Support to the implementation, harmonization and further development of the Eurocodes

C. Andersson, S. Dimova, M. Géradin, A. Pinto, G. Tsionis



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The comments and suggestions of the Eurocodes National Correspondents Group are highly appreciated.



## Executive Summary

The document<sup>1,2</sup> addresses the need to coordinate the activities on the international promotion of the Eurocodes at the Community level and proposes a strategy and an initial programme for their coordinated promotion in third countries.

The goals and interests of the stakeholders in the international promotion of the Eurocodes are analysed. Their convergence naturally calls to set up a framework for coordinated promotion of the Eurocodes in third countries. The coordinated actions will provide considerable benefits for the stakeholders by:

- Paving the way for better coordinated implementation strategies, incl. tools and resources,
- Organizing joint missions involving more than one stakeholder, and
- Making most effective use of the co-financing instruments available at the Community level.

A methodology for promotion of the Eurocodes in third countries is proposed, which aims at better use of the resources available and tailors the promotion actions according to the needs of the individual countries. The methodology encompasses:

- The approach and the tools necessary for coordinated international promotion,
- The identification of target groups within a country,
- The involvement of organizations/individuals interested in international promotion of the Eurocodes.

The general strategy on promotion of the Eurocodes in individual third countries is foreseen to develop and evolve over time depending on:

- The feed-back of the particular country or region in accordance with its plans and commitment to implement or to harmonize its standards with the Eurocodes,
- The experience gained by the European partners during the promotion process.

The analysis gives an overview of the ad-hoc experience gained from the Workshop on promotion of the use of the Eurocodes in the Mediterranean Countries and from the EU-China Conference on Standards and Energy Efficiency in Building. The main objectives and priority tasks of the initial programme for coordinated promotion of the Eurocodes in third countries are specified. A non-exhaustive list of the foreseen promotion materials is given in Annex A.

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<sup>1</sup> The document has been prepared in the framework of the Administrative Arrangement between DG ENTR and the JRC and builds on the co-operation between CEN/TC250 and the JRC.

<sup>2</sup> The document has been prepared in collaboration with DG ENTR.





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# 1. Introduction

The EN Eurocodes are a series of 10 European Standards, EN 1990 – EN 1999, providing a common and coherent approach to all aspects of structural design of buildings and civil engineering works. They will be the reference for technical specifications in publicly procured contracts<sup>3</sup> within the EU and they are also the recommended means to give presumption of conformity with the essential requirements for products with a structural function according to the Construction Products Directive<sup>4</sup> (CPD), relevant to CE Marking. The publication of the Eurocodes, establishing them as European Norms, was completed in May 2007. The EU Member States are now taking the Eurocode parts on board as national standards<sup>5</sup>. They can be used in parallel with National Standards until 2010, when any conflicting National Standards should be withdrawn.

The European Union (EU) is a major actor in world trade and multilateral and bilateral trade negotiations, with a strong interest in open markets, clear regulatory frameworks and the removal of all barriers to trade. The EU has been a major driving force trying to advance the current WTO “Doha Round” particularly looking at the situations of developing countries.

In the construction sector, the EU Member States currently enjoy an advantage in the supply of design services and associated products in third countries because:

- Many professionals in these countries have been educated in Europe, and therefore they use the systems and trust the quality and independence of the European specification processes;
- The European codes (EU and national codes used in the Member States) and standards are used in many countries with historical links to the EU Member States.

The European construction Industry is involved in numerous activities in external markets, comprising project planning and project management, often combined with architectural and engineering services. Highly specialised construction enterprises, such as the construction of infrastructure facilities, involve the export of building materials, elements and modules (e.g. steel grilles, bridge elements) as well as technology and advanced equipment to third countries, where they are not locally available. The European companies have asked the European Commission to promote the use of the Eurocodes outside the EU, since a standardization environment as much as possible in line with the European system will foster their competitive advantage in the high value segment of project design and management and in the areas of niche specialization.

The experience of the European Commission, the Member States and individual experts in promoting the use of the Eurocodes in third countries shows that these countries find considerable interest in the Eurocodes, not solely due to the importance of existing and potential trade links with EU and European Free Trade Association (EFTA) Member States. Some third countries are planning a direct or indirect use of the Eurocodes as/in their National Standards, since the Eurocodes are:

- A complete set of design standards that cover in a comprehensive manner all principal construction materials, all major fields of structural engineering and a wide range of types of structures and products,
- Flexible codes, offering the possibility for each country to adapt them to local conditions and practices through the so-called Nationally Determined Parameters,
- The most advanced and coherent codes of practice,

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<sup>3</sup> Directive 2004/18/EC of the European Parliament and of the Council of 31 March 2004 on the coordination of procedures for the award of public works contracts, public supply contracts and public service contracts

<sup>4</sup> Council Directive 89/106/EEC of 21 December 1988 on the approximation of laws, regulations and administrative provisions of the Member States relating to construction products

<sup>5</sup> Commission Recommendation of 11 December 2003 on the implementation and use of Eurocodes for construction works and structural construction products

- A comprehensive design tool, which over a mid- to long- term period intends to cover additional fields of design, such as protection of the environment, resources, economy, energy saving, safety- and health conditions and security.

The European Commission has always seen the promotion of the Eurocodes in third countries as an important objective. In Guidance Paper L<sup>6</sup> on application and use of the Eurocodes, it is clearly stated that one of the major intended benefits and opportunities of Eurocodes is to increase the competitiveness of the European construction Industry (civil engineering companies, architects, contractors, designers and product manufacturers) in its world-wide activities. It anticipates in this way the growing demand of the European Industry for suitable promotion of the standards on which a significant expansion of their activity potentially builds.

The USA are currently undertaking considerable efforts in order to promote US building codes in certain targeted countries. In such competitive context, the introduction of the Eurocodes gives to third countries, which are currently using European National codes and standards (such as those from BSI and AFNOR), the opportunity to review their policy and alliances. A positive effort is required from all actors (in particular on EU and Member State levels) to avoid that Europe loses out to the main trading competitors (e.g. the USA) during this period of change.

To respond to this challenge, Europe needs to make the best use of its combined resources at both Community and Member State levels to promote the Eurocodes outside the EU. The promotion should encompass not only the possibilities for adoption and use of the Eurocodes, but also the provision of information on their background and structure, and on possibilities for regulatory co-operation and technical assistance in accordance with the needs of the different target countries. A joint effort of the European Commission, CEN, Member States, and the Industry could provide the leverage for better strategic planning and increase the effectiveness and impact of the promotion through improved delivery. These targets could be achieved only through coordination of the promotion actions at Community level.

In 2007, the European Commission developed together with the EFTA, the European Standards Organisations (ESOs) and the National Standards Bodies (NSBs), the Member States and major stakeholders, an Action Plan for European Standardization<sup>7</sup> that outlines actions on international promotion of the European standardization system. It provides a framework for implementing the existing Community practices and instruments for international cooperation when promoting the use of the Eurocodes in third countries.

This document addresses the need to better coordinate the international promotion of the Eurocodes at the Community level and proposes a strategy and initial programme for a more coordinated promotion in third countries. Annex A gives a non-exhaustive list of the foreseen promotion materials.

The document was prepared in the framework of the Administrative Arrangement between DG ENTR and the JRC and builds on their co-operation with CEN/TC250.

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<sup>6</sup> European Commission - Guidance Paper L (concerning the CPD – 89/106/EEC) Application and Use of Eurocodes, November 2003

<sup>7</sup> the “Action Plan for European Standardisation” in liaison with the Communication of the European Commission on “The role of European standardisation in the framework of European policies and legislation” of 18 October 2004 and the Council “Conclusions on European standardisation” of 21-22 December 2004.

## 2. Why better coordinated international promotion?

### 2.1 *The European Commission*

International promotion of European standards usually constitutes a complementary component to a broader set of common foreign policy actions of the EU. Depending on the particular aspect of EU relations with 3<sup>rd</sup> countries the promotion of the Eurocodes would contribute to different objectives:

- **External trade:** The promotion of the Eurocodes should primarily target third countries which are current or potential trade partners for construction products, materials and/or, construction/engineering services where the adoption/use of the EN Eurocodes would be of benefit to the European Construction Sector. It should also contribute to the removal of technical barriers to the application of the Generalised System of Tariff Preferences in trading with the least developed countries with goods and services in the construction sector.
- **Enlargement, stabilisation and association:** The promotion of the use of the Eurocodes should help the Candidate Countries to fully implement the *acquis communautaire* (EU *acquis*) at the time of accession, and support Potential Candidate Countries to progressively align themselves with the EU *acquis*.
- **European Neighbourhood Policy:** The international promotion of the use of the Eurocodes should support the gradual convergence of legislative and regulatory frameworks between the European Neighbouring countries and the EU, with the ultimate goal of achieving a free trade area for goods and services.
- **Development:** Development assistance constitutes a central pillar of EU relations with 3<sup>rd</sup> countries, providing over 7 billion euros in support every year to more than 150 countries and territories. This amount should normally increase over coming years since to meet the Millennium Development Goals, the Member States should by 2015 devote 0.7% of their gross national income to development assistance (in accordance with the Monterrey commitment of 2002). The use of the Eurocodes in public tenders and calls for delivery of development assistance potentially creates added value to development aid through the transfer of state-of-the-art knowledge and technology.

### 2.2 *Member States, Industry and Individual Experts*

The Member States and Industry are important stakeholders in the promotion of the use of the Eurocodes outside the EU, aspiring to safeguard and expand their positions as suppliers of design services and associated products in the global market. Some of these stakeholders have already started promotion actions related to the Eurocodes in countries where they enjoy extensive trade and historical links. A better co-ordination of these and the EU-level efforts should reduce the risk of launching projects that either overlap each other or leave essential gaps uncovered. Such coordination should also substantially contribute towards a more cost-efficient and timely implementation in line with Community policy goals. The approach and existing tools suitable for co-ordinated promotion are presented in section 3.

The individual experts participating in promotion actions have usually been called upon by third countries to provide technical information on the Eurocodes and on the possibilities and potential benefits of their use in the respective countries. Also the efforts of these experts will gain in impact and effectiveness if undertaken in coherence with the promotion activities of the European Commission, Industry and Member States.

### 2.3 CEN

CEN and its members own the copyright of all CEN deliverables, including the Eurocodes developed as European Standards (ENs). In the CEN rules, a clear distinction is made between two types of use in individual countries:

- The adoption of ENs as National Standards (and the withdrawal of any conflicting National Standards), or
- The mere promotion of the ENs as guidance documents with no specific national status.

CEN supports any action aimed at disseminating the results of its work and encourages the adoption of European Standards as National Standards in non-member countries (outside the CEN area). It manages technical assistance programmes that aim to harmonise the quality infrastructure of third countries with the European setup in order to facilitate trade through the removal of technical barriers. In addition, CEN gives a possibility to third countries to take part and follow the work of its Technical Committees by granting statutes of:

- “CEN Affiliate” (currently granted to Albania, Armenia, Bosnia-Herzegovina, Croatia, Egypt, FYROM, Georgia, Israel, Jordan, Lebanon, Republic of Moldova, Montenegro, Russia, Serbia, Tunisia, Turkey and Ukraine), or
- “CEN Partner Standardisation Body” (currently granted to Australia).

The use of the European Standards is subject to an agreement signed by CEN and the country that wishes to use the standards. The CEN/CENELEC Guide<sup>8</sup> establishes the agreed policy for the distribution and sales of CEN/CENELEC publications.

The Technical Committee (TC) 250 “Structural Eurocodes” of CEN is the main source of highly qualified speakers for international promotion of the technical background and national implementation issues of the Eurocodes.

### 2.4 Partner Countries

Many third countries are attracted by the technical advantages offered by the Eurocodes, the most advanced and coherent codes of practice available. The objectives for using the Eurocodes depend on the national standardization agenda of the individual third countries, and could be summarized as follows:

- A wish to update and upgrade National Standards,
- Their currently used National Standards are based on European National Standards that will soon be withdrawn,
- An interest in trading with the European Union and EFTA Member States.

### 2.5 The Way Ahead

The convergence of interests and objectives of all stakeholders naturally calls for setting up a framework to better coordinate promotion of the Eurocodes in third countries. Better coordinated strategies on international promotion potentially:

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<sup>8</sup> CEN/CENELEC Guide 10: “Guidelines for the distribution and sales of CEN/CENELEC publications”

- Improves impact, coherence and continuity of the actions of all stakeholders,
- Creates numerous positive synergies.

Better coordinated promotion of the Eurocodes in third countries would be able to draw upon:

- A common methodology and common promotion tools, allowing for a better use of the available resources and better tailored promotion actions based on the needs of identified target groups in the individual 3<sup>rd</sup> countries;
- The establishment of focal points and the development of an informal information exchange platform to facilitate the coordination.

Better coordinated actions for promotion of the use of the Eurocodes potentially provide considerable benefits to the stakeholders through:

- Putting into operation better coordinated implementation strategies,
- Making available appropriate tools and resources,
- Organizing joint missions involving several stakeholders, and
- A cost-effective use of financial support instruments available at Community and other levels.

## **2.6            *Priority Countries/Regions***

To achieve higher impact of the promotion of the Eurocodes, the efforts should be concentrated to a manageable number of countries/regions. The priority countries/regions listed below have been identified based on considerations related to their interest in taking on board the Eurocodes, their historical background/links with EU member states, the preferences expressed by the European Construction sector and the country's/region's overall commercial/political interest related to foreign policy actions of the EU. Based on these criteria, a currently valid non-exhaustive list of priority countries/regions can be established<sup>9</sup> (based on developments other countries/regions might be added to this list):

- The European Neighbouring Countries of Eastern Europe,
- Russia,
- The European Neighbouring Countries of the Mediterranean Basin,
- The Western Balkan Countries,
- China,
- The Pacific rim,
- The Indian sub-continent,
- South Africa,
- Latin America.

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<sup>9</sup> Please note, not listed in order of priority





## 3. Methodology for promotion in third countries

### 3.1 *Approach*

The “Action plan for the European Standardisation”<sup>10</sup> encompasses the following actions to promote the European Standardisation System internationally:

- Organisation of Information Exchange Meetings with third countries and development of common promotional material;
- Implementation of technical assistance programmes to third countries;
- Establishing a post of “European standards attaché” in the Delegations of the European Commission in strategically important regions;
- Bilateral cooperation events, including consideration of including standardisation issues in business dialogues;
- Intensification of the international dialogue on standardisation in the context of WTO.

With regard to the Eurocodes promotion, international co-operation agreements should, in addition to the official dialogues on political level, also be encouraged between:

- CEN members and National Standards Bodies outside CEN;
- Notified bodies (within the EU) and certification organisations in third countries, and
- Research organizations and laboratories.

It is of central importance that the promotion strategies adopted for the individual partner countries address their particular needs and interests. The strategies must also be well adapted to the target groups present and regularly updated as to be able to adapt to feedback received during the promotion process:

- It is advisable that the actions are aligned as much as possible with the partnership/cooperation strategy papers and action plans for the individual countries or regions to provide for efficiency and continuity in the EU relations and actions, including a better use of Community instruments for funding,
- The Delegations of the European Commission, the embassies of the EU Member States, European or National Chambers of Commerce and other locally present European “delegates” constitute important contact points for up-to-date information on local conditions and developments. Such contacts constitute almost indispensable “tools” to better tailor the promotion strategies and actions to the country’s individual conditions and settings.

A better operational coordination between the Community actions and the existing and planned actions by Member States and Industry potentially prevent duplication of efforts and contributes towards maximising the impact of the Eurocodes promotion activities in third countries. Such coordination should take place at all stages of the process, including drafting of strategies, development of promotion material and implementation of actions. While avoiding the establishment of formal coordination functions and structures, the operational coordination between the European Commission, Member States and Industry should rely on an improved flow of information on relevant actions and contacts both ways, i.e. from the

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<sup>10</sup> the “Action Plan for European Standardisation” in liaison with the Communication of the European Commission on “The role of European standardisation in the framework of European policies and legislation” of 18 October 2004 and the Council “Conclusions on European standardisation” of 21-22 December 2004

European Commission to Member States and Industry but also from the Member States and Industry to the European Commission.

### 3.2 Tools

In addition to the central Cotonou Agreement with African, Caribbean and Pacific States, a number of other new comprehensive instruments (2007-2013) for delivery of EU external assistance and cooperation could potentially be relevant for actions related to the promotion of the Eurocodes:

- The Instrument for Pre-Accession Assistance (IPA)<sup>11</sup>,
- The European Neighbourhood and Partnership Instrument (ENPI)<sup>12</sup>,
- The Development Cooperation Instrument (DCI)<sup>13</sup>,
- The Economic Cooperation Instrument (ECI)<sup>14</sup>.

The above instruments could be successfully combined with other tools, such as business dialogues and co-operation and partnership agreements of the third countries/regions with CEN. The following are examples of such additional co-operation<sup>15</sup> on European level:

- Standardisation, Technical Regulation and Conformity Assessment are already regular topics of the discussions held under the Transatlantic Business Dialogue, the Mercosur-European Business Forum and the EU-Russia Industrialists' Round Table. Business dialogues with Japan and China have also started to address these issues recently;
- CEN and CENELEC concluded a memorandum of understanding with the Mercosur Association for Standardisation, CEN has signed an agreement with the Euro Asian Council on Standardisation and has advanced contacts with the co-ordinating body for standardisation in the Arab countries to explore the potential for future cooperation;
- A strong wish to collaborate with CEN in the field of the Eurocodes was expressed by national standardizers during the Workshop on the use of the Eurocodes in the Mediterranean countries (Varese, 27-29 of November 2006).

Candidate Countries, potential Candidate Countries, and countries included in the European Neighbourhood Programme and/or the former TACIS programme, are eligible to participate in Technical Assistance Information Exchange Office (TAIEX) actions and in twinning programmes, which could be a suitable tool for some of the activities in support of promoting and implementing the Eurocodes in third countries.

The assistance organised by TAIEX provides for:

- Seminars/workshops to present and explain issues related to the EU acquis to a wider audience;
- Experts to be sent to a beneficiary country;
- Study visits for officials of beneficiary countries to Member States.

<sup>11</sup> Council Regulation (EC) No 1085/2006 establishing an Instrument for Pre Accession (IPA) for Community assistance to candidate and potential candidate countries

<sup>12</sup> Regulation (EC) No 1638/2006 laying down general provisions establishing a European Neighbourhood and Partnership Instrument (ENPI)

<sup>13</sup> Regulation (EC) No 1905/2006 establishing a financing instrument for development cooperation

<sup>14</sup> Council Regulation (EC) No 1934/2006 establishing a financing instrument for cooperation with industrialised and other high-income countries and territories

<sup>15</sup> Vademecum on European Standardisation. Part IV: European standardisation in international context. European Commission, DG Enterprise, November 2003

The twinning programmes offer support to:

- Institution building to assist with the transposition, implementation and enforcement of the EU acquis;
- Administrative co-operation for the benefit of EU partner administrations calling on public sector expertise in the Member States;
- Achievement of EU policy objectives through the long-term secondment of Resident Twinning Advisors.

In addition to the larger programmes/tools indicated above it should also be noted that a limited amount of funding often is available in the individual EU Delegations in order to for example support/promote business dialogues between the country and the EU or inform the local business community about EU legislation and norms. Potentially, such funds could be used for some of the events that normally would form part of a Eurocodes promotion campaign in the respective country.

As indicated above, it should not be forgotten that there is not only Community funding available for these promotion actions. Substantial resources can also be mobilised from the Member States and from Industry and their organisations. If properly coordinated, the potentially important sources of funding from Member States and Industry could play a key role, not only through providing additional funding but also through facilitating the establishment of a comprehensive promotion strategy, targeting and involving all local target groups concerned.

Another very important tool supporting the promotion of the use of the Eurocodes is the dedicated website of the European Commission “Eurocodes: Building the Future”<sup>16</sup>, launched in March 2007. In addition to a particular web-page dedicated to the use of the Eurocodes outside the CEN countries, the website offers a wealth of information on all aspects of the functioning and use of the Eurocodes which potentially can play a key role when promoting the Eurocodes in third countries.

### **3.3 Target Groups within a Country**

The promotion of the Eurocodes in third countries should target the Competent National Authorities and those developing and/or using construction sector standards. Hence, the promotion should be directed towards the following strategic groups:

#### **Strategic group 1 – Competent National Authorities**

Within this first group, high level policy aspects relating to standardisation should be addressed and discussed between the European Commission and CEN on the European side, and Government Departments, National Standards Bodies and Certification Bodies from the third country.

#### **Strategic group 2 – Developers and/or users of standards**

Within this second group, representatives of the European side should provide technical information to the individuals and organisations involved in the development and/or use of standards in the third countries. Depending on the country, this may include:

- Public research establishments,
- Industry (trade) organisations,
- Universities,
- Engineering and construction companies.

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<sup>16</sup> <http://eurocodes.jrc.ec.europa.eu>

Activities for Strategic group 2 could include:

- Promotion through seminars and workshops,
- Training for specialists,
- Hosting experts from third countries for study tours in Europe.

A non-exhaustive list of the foreseen promotion material is given in Annex A.

### **3.4 Organisations/Individuals Involved in the Promotion of the Eurocodes**

The promotion of the Eurocodes in third countries could involve the following European organisations (depending on the strategic target group of the promotion as indicated above):

#### **For Strategic group 1:**

- The European Commission (e.g. DG ENTR, the JRC, DG RELEX, DG TRADE, DG ELARG, DG DEV, DG AIDCO and the EU Delegations in the respective countries);
- Senior CEN personnel;
- CEN/TC250: as a stakeholder and as a source of expertise, presenting the Eurocodes system, incl. their scope and implementation (including the adaptability offered by the NDPs);
- Senior Government representatives from Member States with experience in implementation of the Eurocodes (in particular from Member States with well-established strong links with the respective third country);
- Appropriate representatives of EU Industry presenting the benefits of the Eurocodes to the construction industry.

#### **For Strategic group 2:**

- The European Commission (e.g. DG ENTR, the JRC, DG RELEX, DG TRADE, DG ELARG, DG DEV, DG AIDCO AND the EU Delegations in the respective countries);
- CEN/TC250: as a stakeholder and as a source of experts, to provide expertise and insight through presentations, training actions, participation in discussions, etc. primarily on technical issues as appropriate;
- Senior personnel from CEN and EOTA;
- Senior Government representatives from the Member States with experience in implementation of the Eurocodes (in particular those with strong links with the 3<sup>rd</sup> country);
- International Technical Scientific Organizations (ITSO) and Academic institutions: as a source of expertise and scientific/technical help for the adoption of Eurocodes, harmonization of National Standards with the Eurocodes, or further development of the codes;
- Appropriate Industry sector representatives from general construction sector companies or relevant specialised Industries (e.g. steel Industry to implement Eurocode 3).

## 4. Developing the strategy over time

The general strategy on promotion of the Eurocodes in the individual third countries/regions should develop and evolve over time depending on:

- Feed-back received related to the individual country's plans and commitment to look for additional in-depth information on the Eurocodes, to harmonize their standards with the European codes or to implement them as they are;
- The general experience gained by the European partners from the entire promotion process.

The promotion activities could start with workshops/conferences introducing in general terms the Eurocodes (content adapted to the target groups as identified in section 3, Competent National Authorities and developers, users of standards). Each such promotion event should also be tailored to the specific regional- or country representatives participating. Addressing several countries in one event often represents an economic option allowing the initial promotion to reach a large number of potential target countries and target groups. However, to be successful, such regional/multi-country events should only be set up for countries sharing similar background, systems, or intentions, like:

- Language (facilitates understanding, ability to establish a dialogue and organisation of the event (speakers, translators, etc.)
- Current use of design codes (e.g. French, British, Portuguese, Spanish, etc.),
- The country's "agenda" regarding the intention to implement or harmonize their standards with the Eurocodes,
- Eligibility to use the Community instruments for external assistance and cooperation.

Based on feed-back received during such general information sessions on the Eurocodes, groups of countries with similar interests regarding the use of the Eurocodes should be identified.

Countries or regions indicating a solid commitment to harmonize their standards with or to implement the Eurocodes would be further assisted through actions such as:

- Expert missions to assess their current standard system and determine the modifications needed to use the Eurocodes,
- Organization of workshops focused on facilitating the use of the Eurocodes (technical and legal aspects),
- Study visits to Member States, which have experience in the adoption and implementation of the Eurocodes, i.e. have recently undertaken similar steps,
- Twinning or similar programs with Member States institutions to allow more in-depth exchanges of knowledge and experience on technical and practical issues,
- Cooperation in research and further development of standards for structural design.



## 5. Learning from practice

### 5.1 *Workshop on the use of the Eurocodes in the Mediterranean countries*

The Workshop on the use of the Eurocodes in the Mediterranean countries (Varese, 27-29 of November 2006) was jointly organized by the JRC (under the JRC Enlargement and Integration Action) and DG ENTR of the European Commission, and NATO (under the NATO “Science for Peace and Security” Programme) with the participation of CEN, the European Organization for Technical Approvals (EOTA), the Council of the European Producers of Materials for Construction, the International Federation for Concrete, the European Convention for Construction Steelworks, and the French Ministry of Transport, Equipment, Tourism and Sea.

The presentations and discussions showed that the different Mediterranean countries have significantly different agendas regarding possible future use of the Eurocodes, including direct implementation of the codes as they are, using them as reference when revising their existing national codes or applying certain parts or design procedures of the Eurocodes in support of their national codes.

The participants identified the following cooperation mechanisms<sup>17</sup> with regard to the specific needs of the Mediterranean countries:

- Increased sharing of European knowledge and expertise in standardization with the Mediterranean Partner countries through: joint projects under different EU programmes and initiatives; collaboration of the Mediterranean countries with CEN; use of and contribution to the Eurocodes website; access to material providing technical background information on the Eurocodes.
- Assistance from European institutes and organizations for the preparation of training courses, information/training material and design aids and tools for continuing professional development aimed at engineers and students,.
- Networking on research and further development of standards for structural design.

The following actions were recommended for starting official cooperation with the EU in the field of standardization and certification:

- To address CEN through the National Standardization Bodies to determine terms of cooperation;
- To simultaneously address the European Commission through the National Authorities.

### 5.2 *EU-China Conference on Standards and Energy Efficiency in Building*

According to the agreement between the Vice-president of the European Commission G. Verheugen and the Chinese Minister of Construction, concluded during the visit of G. Verheugen in China on 7 of April 2007, a two-day conference was held on 29 and 30 of January 2008 in Beijing with the aim to increase knowledge of the respective systems and

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<sup>17</sup> Workshop on the use of the Eurocodes in the Mediterranean countries, Varese, November 27-29, 2006, Conclusions & Recommendations, <http://elsa.jrc.it/events.php>

exchange views on potential EU – China cooperation in standards and energy efficiency in buildings.

The event was jointly organised by the Chinese Ministry of Construction and the European Commission (DG ENTR) with the participation of DG TREN, DG RELEX, the JRC, CEN, Member States and Industry. The audience encompassed high-ranking Government and Standardization administrators, selected representatives from the Engineering/Architecture consultancy sector and from the Construction Industry. The major objective of the conference was to agree on future actions, including follow-up on the Eurocodes with workshops targeted to different strategic groups of decision makers/users. Promotion material on the Eurocodes, developed by the JRC, was translated into Chinese and distributed to the participants.

The general introductory presentations of the Eurocodes focussed on their technical and functional/political advantages. The following topics were addressed:

- The European construction sector and its standardization systems – an overview,
- EU rules regarding performances and characteristics of construction products,
- Implementation of the EU rules on construction products – notified bodies, public procurement,
- The EN Eurocodes, their development and use,
- Eurocodes/construction products: future developments – towards sustainable construction,
- The Eurocodes: opportunities for scientific and technical cooperation,
- Eurocodes – implementation in Europe,
- How to use the Eurocodes: Example of use of the Eurocodes in China, comparison with Chinese codes.

In his opening address, Mr. Heinz Zourek, Director General of DG Enterprise and Industry of the European Commission, put special emphasis on the Eurocodes as a very advanced, complete and flexible tool for the construction Industry that could constitute an excellent starting point for future cooperation and discussions between China and the European Commission.

The presentations and discussions demonstrated that EU and China are facing similar challenges with regard to the energy efficiency and sustainability concerns related to construction and also that energy efficiency and sustainability must be tightly linked to quality issues in order to be successful. It was also underlined that in order to achieve maximum impact, it is needed to fully integrate all relevant aspects in the entire construction chain, from design standards via construction product standards and rules influencing the construction activities on site to standards/legislation addressing construction and demolition waste. The discussions put forward the need to further the EU-China cooperation in the field of standardization of construction works and construction products. A Memorandum of Understanding will be signed between the European Commission (DG Enterprise and Industry and DG Transport and Energy) and the Chinese Ministry of Construction aiming at the deepening of the scientific and technical collaboration in standardization for construction and energy efficiency.

The organization of this promotion event in China constituted a successful example of coordinated promotion of the Eurocodes in third countries. Important lessons can be drawn to further develop a promotion strategy:

- The availability of the local European representatives (the Delegation of the European Commission, the CEN attaché, the staff of the EU-China Trade Project, the embassies of the Member States, the delegates of the Industry) were essential to mobilise local interlocutors and arrive at a well-designed event where content, participants and implementation modality were properly adapted to the local setting;



- Due to their potential to achieve wider objectives (i.e. sustainability and energy efficiency in construction) the Eurocodes are regarded as the most up-to-date and comprehensive International Codes of Practice. In this aspect the Chinese side expressed great interest in the envisaged future extension of the scope of the Eurocodes to sustainability aspects incl. all six Essential Requirements on construction works as defined in the Construction Products Directive<sup>18</sup>;
- Bi-lateral scientific and technical cooperation on further development of the design standards could bring significant understanding on the compatibility of design methods and on the reliability levels to be achieved, thus “opening the door” to acceptance of design according to the Eurocodes.

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<sup>18</sup> Council Directive 89/106/EEC of 21 December 1988 on the approximation of laws, regulations and administrative provisions of the Member States relating to construction products



## 6. Initial programme of promotion (~1 year)

The main objectives of the initial programme are the following:

- Facilitate interaction between the different stakeholders in Eurocodes promotion in 3<sup>rd</sup> countries, through implementation of further joint actions. This should allow us to better estimate the overall demand/request/need for promotion actions, including the need for preparing common tools for the promotion,
- To develop country/regional strategies for promotion fully taking the local setup into account.

To achieve these objectives the following priority tasks should be accomplished:

- Improved exchange of information and subsequent discussions between the main stakeholders (DG ENTR, DG RELEX, DG TRADE, DG ELARG, DG DEV, DG AIDCO and the JRC of the European Commission, CEN, Member States, Industry, International Technical Scientific Organisations) on:
  - appropriate strategies for the promotion of the Eurocodes,
  - demand/requests for promotion actions in 3<sup>rd</sup> countries,
  - opinions on the respective promotion tools developed,
  - the promotion events planned,
  - what would be the appropriate modes for coordination of the promotion (focal points, information flow, etc.).
- Set up of an information exchange modality for stakeholders to facilitate joint planning, organization and analysis of promotion events,
- Establishment of a “contact point” in the European Commission to be officially addressed by the authorities of a third country for starting cooperation in the use of the Eurocodes,
- Publication and maintenance on the Eurocodes website of a special part dedicated to the promotion in third countries and provide contact information for possible feedback,
- Printing and publication on the Eurocodes website of promotional materials produced.



## Reference documents

The following documents have been referred to:

- Council Directive 89/106/EEC of 21 December 1988 on the approximation of laws, regulations and administrative provisions of the Member States relating to construction products
- Directive 2004/18/EC of the European Parliament and of the Council of 31 March 2004 on the coordination of procedures for the award of public works contracts, public supply contracts and public service contracts
- Commission Recommendation of 11 December 2003 on the implementation and use of Eurocodes for construction works and structural construction products
- European Commission - Guidance Paper L (concerning the CPD – 89/106/EEC) Application and Use of Eurocodes
- Council Conclusions on European standardisation of 21-22 December 2004
- Communication of the European Commission on “The role of European standardisation in the framework of European policies and legislation”, COM(2004) 674
- European Commission - “Action Plan for European Standardisation”, 15th March 2007
- CEN/CENELEC Guide 10: “Guidelines for the distribution and sales of CEN/CENELEC publications”
- “Training and promotion of the EN Eurocodes”, deliverable to the Administrative Arrangement between DG ENTR and the JRC on support to implementation, harmonisation and further development of the Eurocodes
- Council Regulation (EC) No 1085/2006 establishing an Instrument for Pre-Accession (IPA) for Community assistance to candidate and potential candidate countries.
- Regulation (EC) No 1638/2006 laying down general provisions establishing a European Neighbourhood and Partnership Instrument (ENPI)
- Regulation (EC) No 1905/2006 establishing a financing instrument for development cooperation
- Council Regulation (EC) No 1934/2006 establishing a financing instrument for cooperation with industrialised and other high-income countries and territories
- Workshop on the use of the Eurocodes in the Mediterranean countries, Varese, November 27-29, 2006, Conclusions & Recommendations, <http://elsa.jrc.it/events.php>
- Vademecum on European Standardisation. Part IV: European standardisation in international context. European Commission, DG Enterprise, November 2003



## **Annex A. Promotion materials**

### **For Strategic group 1**

Booklets and leaflets published by the European Commission should be made available to Strategic group 1 for facilitating the promotion effort. These documents should provide information adapted, whenever appropriate, to the individual countries. The information/promotion documents prepared by the JRC include the following leaflets:

- The objectives of the Eurocodes (i.e. CPD, procurement directives, international competition, barriers to trade, safety),
- The benefits of using the Eurocodes: all aspects including technical, trade, political, and administrative matters,
- Explanation on the European Standards and Approval System (ETAGs and the Eurocode system) including CE Marking,
- The Eurocodes implementation and its flexibility regarding the differences in climate, traditions, work methods, materials, levels of safety, etc. through elaboration of the National Annexes,
- A brief introduction to EN 1990 – the key Eurocode which explains the underpinning philosophy of the Eurocodes system,
- The innovative aspects of the Eurocodes: possibilities to design innovative structures and products,
- The use of the Eurocodes outside the EU.

Consideration should be given to the translation of these leaflets into the language(s) of the target countries.

### **For Strategic group 2**

All leaflets identified for Strategic group 1 should also be made available for the second group. In addition, the following should also be given in support to the technical presentations:

- Hard copies of previous presentations,
- Technical papers related to the presentations, written by European experts, to which consideration should be given to translation. The technical papers produced in connection with the “Dissemination of information for training” event in Brussels in February 2008 constitute a good starting point for the creation of a library with such materials,
- Appropriate published background and guidance material.





## **European Commission**

### **EUR 23562 EN – Joint Research Centre**

#### **Title: Eurocodes Promotion in Third Countries**

Author(s): C. Andersson, S. Dimova, M. Gérardin, A. Pinto, G. Tsionis

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2008 – 22 pp. – 21x 29.7 cm

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#### **Abstract**

The work reported is a deliverable within the framework of the Administrative Arrangement between DG ENTR and JRC on support to the implementation, harmonization and further development of the Eurocodes. The document addresses the need to coordinate the activities on the international promotion of the Eurocodes at the Community level and proposes a strategy and an initial programme for their coordinated promotion in third countries.

The goals and interests of the stakeholders in the international promotion of the Eurocodes are analysed. Their convergence naturally calls for the setting up of a framework for coordinated promotion of the Eurocodes in third countries. The coordinated actions will provide considerable benefits to the stakeholders through:

- Putting into operation common implementation strategy, tools and resources,
- Organizing joint missions involving more than one stakeholder, and
- Making the most effective use of the co-financing instruments available at the Community level.

A methodology for promotion of the Eurocodes in third countries is proposed, which aims at a better use of the resources available and tailored the promotion actions according to the needs of the individual countries. The methodology encompasses:

- The approach and the tools necessary for coordinated international promotion,
- The identification of target groups within a country,
- The involvement of organisations/individuals interested in the international promotion.

The mission of the JRC is to provide customer-driven scientific and technical support for the conception, development, implementation and monitoring of EU policies. As a service of the European Commission, the JRC functions as a reference centre of science and technology for the Union. Close to the policy-making process, it serves the common interest of the Member States, while being independent of special interests, whether private or national.

