The British Standards Institution

389 Chiswick High Road

London W4 4AL

United Kingdom

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Eurocodes Promotion Campaign
- Development and Implementation -

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Executive Summary

Background

Eurocodes have been a long time in the making and their development has been tracked in many countries outside Europe through the scientific, academic and industrial communities. Experience has shown that there is considerable interest in Eurocodes outside Europe, as noted in the JRC report, entitled: "The Eurocodes and the Construction Industry, Medium-Term Strategy 2008-2013" (January 2009). However, this report also drew attention to the complexity of the issues involved in their adoption and use and the requirement for a more detailed promotional strategy. This report addresses that requirement.

Analysis of Past Promotions

Information and promotion of Eurocodes, and training in their use, has been going on since the late 1990s with a number of different agencies being involved. However, this activity has been uncoordinated and ad hoc.

It has consisted of:

- Reactive promotions in response to requests from a number of non-European countries, including: Algeria, Morocco, South Africa, Thailand, Tunisia and Vietnam.

- Active promotions sponsored mainly by the EU and the British Government, which have conducted events in India, Italy (aimed at the Euromed countries), Malaysia, Qatar, Russia, Thailand, Ukraine and Vietnam, as well as in other countries outside the scope of this project (such as China, Singapore and Sri Lanka).

These events have had different stated objectives and their outcomes have, in general, not been very well documented. It has proved difficult to evaluate their relative effectiveness, but an analysis of the event content suggests that future events could be given a clearer objective, be better structured, better monitored and their results be given greater transparency. A more serious drawback has been that there has generally been a lack of systematic follow-though, because there has been neither a structure nor funding for this to take place.

Despite these limitations, there has been a commitment to the adoption of Eurocodes in a number of countries in the six target regions within the scope of this project:

- Northern Africa: Tunisia and Morocco have started to implement Eurocode principles in their local standards and regulations.
- South Africa: Eurocode implementation has already begun and is continuing under its own momentum.
- South East Asia: Malaysia and Vietnam have started implementation.
- Eastern Europe: Ukraine has committed to full adoption.

These positive trends need to be enhanced and spread over more countries.

Market analysis

An analysis of the individual target countries using the PESTLE, AIDA and Diffusion of Innovation analytical models, has generally confirmed the internal coherence of the six target regions within the scope of this project, with a few minor exceptions (e.g. Egypt and Ukraine).

Objectives of the strategy

The overall purpose of this strategy is to increase the wider use of Eurocodes in all target regions; however, we also propose that specific promotional activity in the regions be given two separate, but clear objectives:

- Wider acceptance and use: India, the Gulf region and Russia

- Adoption of Eurocodes, or Eurocode principles into local national standards: North Africa, South East Asia, and South Africa.

Generic Actions

We have proposed some actions to enable a better coordination of the overall strategy, principally;

- A European Coordination Point for Eurocodes
- Regional Coordination Points in liaison with the European Coordination Point

National Strategies

On the basis of our individual market analyses, we have proposed a specific objective and strategy for each of the target regions, together with the generic promotional tools to be employed. We have identified possible local partners in each country for the implementation of these strategies

Prioritisation

Recognising there are only limited resources available for the implementation of the overall strategy; we also undertook to prioritise the target regions and the countries within them, employing five criteria:

1. Measurable outcome
2. Importance of the region to European Industry
3. Importance of Europe to the local industry
4. Urgency of taking action
5. Ease of getting a positive result

Prioritisation of Objectives

Each target country was assessed against the five criteria, however a stronger weighting was given to the importance to European industry of the target market (criterion 2). In our analyses, we found that the most important market for European Industry were also the ones least likely to adopt Eurocodes within a three to five year time span. Therefore, we chose to give the priority to the first objective: *wider acceptance and use of Eurocodes.*

Prioritisation of Target Regions

In terms of the construction and design industry, the three most important target markets for European industry are *Russia, India and the Gulf region*.

To establish a priority ranking for these very important markets, we looked at the urgency of taking action (criterion 4) determined by the degree of competition and the possibility of the region being lost to Eurocodes altogether. This resulted in a final ranking of:

1. *Gulf region*, where the Saudi National Building Code, based on American codes is shortly to become mandatory and is being proposed as a regional code

2. *India*, where the Indian National Building Code currently limits the use of Eurocodes in the region but where there is still a possibility of incorporating Eurocodes into upcoming revisions

3. *Russia*, where the only competition is from out-dated codes, many of which date from the Soviet era and where there is already a significant internal lobby for Eurocode use and the incorporation of Eurocode principles into Russian building codes.

Proposed Pilot Actions

We have proposed pilot actions to allow us to test some of our proposals and assist in a further refinement of the overall strategy. As such, they are not intended to reflect all the priorities determined above.

Three actions relate to the generic part of the strategy:

- Testing the feasibility of establishing a European coordination point and a regional coordination point for India
- Better capturing the knowledge and information available from CEN/TC 250 members
- Raising visibility by improving the Wikipedia entry on Eurocodes

One action is related to the urgency of action in the Gulf region:

- Presenting on Eurocodes at an upcoming GCC/GSO conference on construction standards and regulations conference in Qatar

One action is based on maintaining continuity and momentum in Russia:

- Presenting at TAIEX-funded workshop on 'training the trainers' in the use of Eurocodes

One action is based on testing the effectiveness of our proposed tools for the promotion of Eurocodes adoption:

- Organizing a conference in Egypt in Autumn 2010

Summary of Pilot Phase

During the pilot phase, the planned actions proposed were undertaken. As well, opportunities arose to conduct additional actions and maintain the momentum of existing initiatives in target countries favouring the adoption/adaptation or wider use of Eurocodes. These are designated as 'additional actions'.

General

CEN/TC 250 (pilot action)

CEN/TC 250 has a standing agenda item to capture and record national promotional initiatives to the extent consistent with its efficient conduct of its core business.

Wikipedia (pilot action)

A new entry for Wikipedia has been drafted and this can also be used as a core information tool by any body interested in promoting an understanding of Eurocodes or their wider use.

European coordination point (pilot action)

The creation of a European co-ordinating point was investigated, but still needs further elaboration and specification.

Local coordination point (pilot action)

The idea for creating a local coordination point for India utilising the CEN/CENELEC/ETSI European Standardization Expert in India (SESEI) was aborted when the appointee resigned shortly after taking office. The size and complexity of this market still warrants the creation of such a position and it remains a recommendation of the project team.

Gulf Region

Presentation on Eurocodes in Doha: 11 -13 October 2010 (pilot action)

The EU contribution to the conference on the Unified GCC Building Code was increased to four presentations as proposed. These were well-received, although their impact on developments in that region is difficult to determine. This is a region in which promotional activity needs to be backed by political contact, preferable at an EU level.

Egypt

Egyptian conference and workshop: 27th and 28th January 2011 (pilot action)

This pilot action was preceded by two additional actions. There was a pre-meeting in Egypt with EOS to understand their level of interest and their specific areas of concern and interest. This was then followed by a short study visit organized for Dr Nagy Albert, Councillor for International Affairs, to allow him to attend a BSI conference on Eurocodes.

EOS showed significant interest in the proposed conference and workshop, however it proved difficult to agree on a date for our event. It finally took place on 27th and 28th January 2011. Unfortunately, this then coincided with the outbreak of political unrest in Egypt and the conference and workshop were not as well attended as was expected and the delegates were clearly too distracted to give full attention to the various presentations. This made it difficult to adequately evaluate the event.

The most important lesson learned from this event was that the responsibility for developing Egyptian building codes has not traditionally been the province of EOS and their involvement in organizing the event did touch on political sensitivities of which the project team was not aware in its preparation.

Russia and Ukraine

Meeting with Zebra: 7th July 2010 (additional action)

The project team was contacted by Evgeny Mallinin of ZEBRA, an organization dedicated to improving the Russian road system. He expressed great interest in promoting the wider use of Eurocodes in Russia and requested an intensive training programme for members of his association. A meeting in London was arranged in July 2010 as an additional action. At this meeting, Mr Mallinin further developed his request and this lead to the preparation and submission of a formal proposal for a training programme. This has not been taken up by ZEBRA.

Meeting in Moscow: 14th September 2010 (additional action)

The project team were made aware of a conference in Moscow organized by the Centre for Building Research in Russia and the Ceramic Brick association. Team members were unable to attend this event, but were able to brief a CEN/TC 250 representative who had been invited and obtain a structured feedback on the event, using a report template developed for use throughout the pilot phase.

TAIEX Train the trainer workshop: 9th and 10th December 2010 (pilot action)

A BSI Associate Consultant based in Russia was briefed by the project team and appointed to attend on its behalf. This served as a gateway to the further development of the conference planned for St Petersburg.

Conference in St Petersburg: 02 March 2011 (pilot action)

A one day conference was organized in conjunction with the State University of St Petersburg and the National Association of Builders. The event had a good balance of EU and Russian presenters. During the conference, NOSTROY's commitment to an ambitious programme for the introduction of Eurocodes in Russia was confirmed. The current intention is that both local codes (SNIPS) and Eurocodes would be deemed to satisfy regulatory requirements in the Russian Federation. Mr Pugachev (NOSTROY) subsequently presented proposals for further cooperation between NOSTROY and the EU to assist the implementation of the NOSTROY programme. As an additional action, arrangements were made for Mr Pugachev and two of his colleagues to attend the next CEN/TC 250 plenary meeting in May 2011 as observers.

Ukraine Study visit: 15th and 16th February (additional action)

No pilot actions had been proposed for Ukraine, but an opportunity arose to arrange a three-day study visit by Mr Barzylovych and Mrs Lugovets of the Ukrainian Ministry of Regional Development and Construction to assist the Ukrainian programme for the implementation of Eurocodes in Ukraine and the other CIS countries. As in the Russian Federation, it is the intention in Ukraine to have a dual approach to regulatory compliance in which Eurocodes would have equal status with national codes. Following

the study visit, Mr Barzylovych also presented proposals for further cooperation and arrangements were also made for him and for Mrs Lugovets to attend the next CEN/TC 250 plenary meeting in May 2011.

South East Asia

Vietnam study visit: 30th November 2010 (additional action)

No pilot actions had been planned for South East Asia, but the opportunity arose for the project team to participate in a UK study visit arranged for a Vietnamese delegation to better understand the current situation and future intentions and needs of Vietnam in the implementation of Eurocodes as their own national codes. It emerged that there is a clear intention to adopt Eurocodes, although not all of them are currently applicable and that most urgent need is for technical assistance rather than promotion.

South Africa

No target actions had been proposed for this target market, but two opportunities arose to meet with key players in the development of construction codes in South Africa to get further intelligence on South African intentions and requirements in respect of Eurocodes implementation.

Meeting with Prof Johan Retief (Stellenbosch University): 25th March 2011 (additional action)

This meeting confirmed that although South Africa has embarked on a process of adopting Eurocodes principles and incorporating them into the South African code structure, they intend to reorganize their own standards committee structure to better mirror CEN/TC 250's structure. This raises the prospect of closer liaison with CEN/TC 250 and arrangements were made for Prof Retief also to attend the next CEN/TC 250 plenary meeting.

Meeting with Dr Ron Watermeyer: 31st March 2011 (additional action)

Dr Watermeyer reported that there was an internal political struggle between those people (like himself) who wanted South Africa to simply adopt Eurocodes unchanged and those that favoured the incorporation of Eurocode principles into the existing South African code structure. He suggested that industry would generally prefer the simple adoption approach, but that there were vested interests in taking the latter approach. An activity from the EU to promote simple adoption would have to be sensitive to political realities.

Non-target markets

Although the project scope specified six target markets and 20 target countries, interest in Eurocodes is more widespread and the project team took advantage of two opportunities to promote Eurocodes more widely.

Singapore Study visit: 18th to 21st October 2010 (additional action)

This visit was an opportunity to get a detailed update on the implementation of Eurocodes in Singapore. This process is already well advanced, although it is not intended to adopt the whole suite at this time (EC 5, 6, 7 and 8 are not part of their current programme). As Singapore is a regional leader, contacts should be further developed, since it could act as a region Eurocodes champion and regional information point.

Brazil study visit: 28th February 2011 (additional action)

There was a study visit organized by UK Trade and Industry for delegates from Brazil with special interest in British preparations for the 2012 Olympic Games. The project team took the opportunity to meet with the delegates and present Eurocodes. Although there was only limited time for discussion, it emerged that there is both awareness and interest in Brazil. While American codes are also well known and widely used, it was emphasised that US influence would not be allowed to determine any decisions taken in Brazil on their future codes regime. The delegates were put in touch with the National Laboratory of Civil Engineering (LNEC) in Lisbon as a source of Eurocodes information in Portuguese.

Conclusions of the pilot phase

The actions undertaken in the pilot phase did not significantly alter the conclusions arising from the research phase, but did allow some refinement of them.

The situation in the **Gulf region** is still fluid, but the likelihood of the regional adoption of the Saudi Building Code (or its national equivalents) has slightly increased and it might require some political intervention, backed by technical assistance or cooperation to maintain the current pluralistic approach to regulatory compliance characteristic of many countries in the region.

The event in **Egypt** was severely impacted by the political unrest taking place at the time, but did demonstrate the importance of determining the most appropriate organizations with which to deal and the political sensitivities involved. This in turn substantiated the desirability of having a local coordinator with good local knowledge to coordinate and participate in any promotional activity.

The pilot actions in **Russia** and the additional action in respect of **Ukraine** clarified the current intentions of both countries and the common dual approach to regulatory compliance that they favour. It also drew attention to the desire to create a common regional approach throughout the CIS countries. In this target market, the principle requirement has shifted from promotion of the advantages of Eurocodes to practical assistance in the determination of NDPs and in the training of engineers. One obstacle to the wider use of Eurocodes is that these countries have had no input into their formulation of Eurocodes and some closer and more formal liaison with CEN/TC 250 may help to mitigate this.

In **South Africa**, the conclusions of the analysis phase were generally confirmed but it has become clearer that the focus of future promotion should focus on the desirability of simple adoption rather than the current adaptive approach. This also requires increased political sensitivity and understanding of local vested interests.

The situation in **Vietnam** has been further clarified and the need for technical assistance confirmed, but the situation and requirements in the other countries in the target region was not further addressed during the pilot phase.

The conduct of the promotional events revealed a need for further elaboration of a **promotional toolbox**, with information on specific recommendations on planning and organization.

The **importance of technical assistance and training, rather than further promotional activity**, was evident in a number of target countries where the decision to adopt Eurocodes has been taken in principle. This assistance would ideally be organized at a European level, but this would not preclude action at the level of Member States, where the appropriate resources and contacts exist. It is recommended that Eurocodes implementation be a specific component in future EU technical assistance projects in relevant target markets.

Numerous stakeholders were interested in better understanding the differences and similarities between Eurocodes and other codes, such as the American building codes, as well as understanding the economic advantages of using Eurocodes. For these reasons, we would recommend the preparation of a **comparative study to demonstrate the equivalence with other major codes** and where possible, the related economic impact.

The most important conclusion of the pilot phase, however, is the **desirability of a permanent mechanism for the implementation of the strategy itself**. The existence of the project team, and the promotion of its activities, opened up opportunities for additional actions to update information and maintain momentum in specific target markets, even though these had not been selected for pilot actions. If Member states endorse the desirability of active promotion of Eurocodes, it is recommended that a Eurocodes Promotional Strategy Implementation Project be instituted with an appropriate budget to maintain promotional momentum.

Zusammenfassung

Hintergrund

Eurocodes werden seit langer Zeit erarbeitet und ihre Entwicklung wurde durch Wissenschaft, Forschung und Industrie in vielen Ländern außerhalb Europas verfolgt. Die Erfahrung hat gezeigt, dass es ein erhebliches Interesse an Eurocodes außerhalb Europas gibt, wie der Bericht „Die Eurocodes und die Bauindustrie, mittelfristige Strategie 2008-2013“ (Januar 2009) des JRC (Gemeinsame Forschungsstelle der EU) zeigt. Dieser Bericht wies jedoch auch auf die Komplexität der Aspekte bei der Einführung und Nutzung von Eurocodes hin und fordert eine detailliertere Werbekampagne. Dieser Bericht befasst sich mit dieser Forderung.

Analyse von früheren Werbekampagnen

Informations- und Werbekampagnen von Eurocodes, sowie Trainings zu ihrer Verwendung, wurden seit dem Ende der neunziger Jahre von unterschiedlichen Agenturen durchgeführt. Diese Aktivitäten waren jedoch unkontrolliert und ad hoc.

Sie bestanden aus:

- Reaktiven Werbekampagnen als Reaktion auf Anfragen aus einer Reihe von nicht-europäischen Ländern, darunter: Algerien, Marokko, Südafrika, Thailand, Tunesien und Vietnam.

- Aktiven Werbekampagnen vor allem durch die EU und die britische Regierung, die Veranstaltungen in Indien, Italien (mit Blick auf die Euromed-Länder), Malaysia, Qatar, Russland, Thailand, Ukraine und Vietnam sowie in anderen Ländern außerhalb des Rahmens dieses Projektes (z. B. China, Singapur und Sri Lanka) durchgeführt haben.

Diese Veranstaltungen hatten unterschiedliche Ziele und ihre Ergebnisse wurden in der Regel nicht sehr gut dokumentiert. Es hat sich als schwierig herausgestellt, ihren relativen Erfolg zu bewerten, aber eine Analyse der Veranstaltungsinhalte lässt vermuten, dass zukünftigen Veranstaltungen ein klareres Ziel, eine bessere Struktur und Kontrolle und eine größere Transparenz ihrer Ergebnisse gegeben werden könnte. Ein gravierenderer Nachteil ist, dass es in der Regel keine systematische Umsetzung der Maßnahmen gegeben hat, da weder die Struktur noch die finanziellen Mittel dazu vorhanden waren.

Trotz dieser Einschränkungen gab es von einer Reihe von Ländern in den sechs Zielregionen im Rahmen dieses Projektes das Bekenntnis, die Eurocodes umzusetzen:

- Nordafrika: Tunesien und Marokko haben damit begonnen, die Eurocode Prinzipien in ihren lokalen Normen und Vorschriften umzusetzen.
- Südafrika: die Eurocode - Umsetzung hat bereits begonnen und setzt sich durch eigene Kraft fort.
- Südostasien: Malaysia und Vietnam haben mit der Umsetzung begonnen.
- Osteuropa: die Ukraine hat sich zur vollen Annahme verpflichtet.

Diese positiven Trends müssen unterstützt werden und auf weitere Länder übergehen.

Marktanalyse

Eine Analyse der einzelnen Zielländern unter Verwendung der PESTLE, AIDA und Innovationsdiffussions Modelle hat im Allgemeinen, mit ein paar kleinen Ausnahmen (z.B. Ägypten und Ukraine), die interne Kohärenz der sechs Zielregionen dieses Projektes bestätigt.

Ziele der Strategie

Das übergeordnete Ziel dieser Strategie ist es, den breiteren Einsatz von Eurocodes in allen Zielregionen zu erhöhen. Wir schlagen jedoch auch vor, dass spezifische Werbemaßnahmen in den Regionen zwei getrennte, aber klare Ziele verfolgen:

- Breitere Akkzeptanz und Anwendung: Indien, die Golfregion und Russland

- Übernahme von Eurocodes oder Umsetzung der Eurocodes - Prinzipen in nationale Normen: Nordafrika, Südostasien und Südafrika

Allgemeine Aktionen

Wir haben einige Maßnahmen vorgeschlagen, um eine bessere Koordination der globalen Strategie zu ermöglichen, insbesondere:

- Einen europäischen Koordinationspunkt für Eurocodes
- Regionale Koordinationspunkte in Verbindung mit dem europäischen Koodinationspunkt

Nationale Strategien

Auf der Grundlage unserer individuellen Marktanalysen haben wir ein spezifisches Ziel und Strategie für jede einzelne Zielregion vorgeschlagen, die zusammen mit den allgemeinen Werbemitteln zu benutzen sind. Zur Umsetzung dieser Strategien haben wir mögliche lokale Partner in jedem Land ermittelt.

Rangordnung

Aufgrund der nur begrenzt zur Verfügung stehenden Mittel zur Umsetzung der globalen Strategie, haben wir eine Rangordnung der Zielregionen und der dort enthaltenen Länder unternommen, anhand der folgenden fünf Kriterien:

6. Messbare Ergebnisse
7. Bedeutung der Region für die europäische Industrie
8. Bedeutung Europas für die lokale Industrie
9. Dringlichkeit des Handelns
10. Leichtigkeit ein positives Ergebnis zu erzielen

Rangordnung der Ziele

Jedes Land wurde anhand dieser fünf Kriterien bewertet, jedoch wurde eine stärkere Gewichtung auf die Bedeutung des Zielmarktes für die europäische Industrie (Kriterium 2) gelegt. In unseren Analysen fanden wir, dass die wichtigsten Märkte für die europäische Industrie wiederum diejenigen waren, die am wenigsten dazu geneigt sind, Eurocodes innerhalb einer drei bis fünf Jahres-Spanne zu übernehmen. Deshalb haben wir uns dazu entschieden, die Priorität auf das erste Ziel zu legen: eine *breitere Akzeptanz und Anwendung von Eurocodes.*

Rangordnung der Zielregionen

Für die Konstruktions- und Designindustrie sind die drei wichtigsten Märkte der europäischen industrie *Russland, Indien und die Golfregion*.

Um eine Rangordnung für diese sehr wichtigen Märkte zu erstellen, haben wir die Dringlichkeit zu handeln (Kriterium 4) gemessen, basierend auf dem Grad des Wettbewerbs und der Möglichkeit, dass Eurocodes in der jeweiligen Region insgesamt verloren gehen. Daraus entstand folgende Rangordnung:

1. *Golfregion*, wo der Saudi National Building Code, basierend auf amerikanischen Codes, in Kürze gesetzlich verpflichtend wird und als regionaler Code vorgeschlagen wurde.

2. *Indien*, wo der Indian National Bulding Code im Moment die Anwendung von Eurocodes limitiert, aber wo immer noch die Möglichkeit besteht, die Eurocodes in zukünftigen Revisionen einzuarbeiten.

3. *Russland*, wo die einzige Konkurrenz von veralteten Codes kommt, die häufig noch aus der Sowjetzeit stamen, und wo bereits eine bedeutende interne Lobby für die Verwendung von Eurocodes und die Eingliederung deren Prinzipien in russische Gebäudecodes besteht.

Vorgeschlagene Pilotaktionen

Wir haben Pilotaktionen vorgeschlagen die uns ermöglichen, einige unserer Vorschläge zu testen und bei der weiteren Verbesserung der globalen Strategie helfen können. Sie sind nicht dazu bestimmt, alle oben bestimmten Prioritäten wiederzugeben.

Drei Aktionen sind mit dem globalen Teil der Strategie verbunden:

- Die Machbarkeit einen europäischen Koordinationspunkt und einen regionalen Koordinationspunkt für Indien einzurichten zu testen.
- Das Wissen und die Information der CEN/TC 250 Mitglieder besser zu erfassen.
- Eine bessere Sichtbarkeit durch einen verbesserten Wikipedia-Eintrag über die Eurocodes zu erreichen.

Eine Aktion ist mit der Dringlichkeit in der Golfregion zu handeln verbunden:

- Eine Präsentation über Eurocodes in der bevorstehenden GCC/GSO Konferenz zu Konstruktions - Normen und Richtlinien in Qatar zu halten.

Eine Aktion basierd darauf, Kontinuität und Momentum in Russland zu bewahren:

- Eine Präsentation im Rahmen des von TAIEX geförderten Workshop zu “training the trainers” zu geben.

Eine Aktion besteht aus der Erprobung der Effektivität der von uns vorgeschlagenen Maßnahmen zur Förderung der Übernahme von Eurocodes:

- Organisation einer Konferenz in Ägpten im Herbst 2010

Zusammenfassung der Pilotphase

Während der Pilotphase wurden die geplanten vorgeschlagenen Maßnahmen durchgeführt. Zudem entstanden Möglichkeiten, weitere Aktionen durchzuführen und die Dynamik von bestehenden Initiativen zur Annahme/Angleichung oder der breiteren Anwendung von Eurocodes in Zielländern aufrecht zu erhalten. Diese wurden als "zusätzliche Maßnahmen" gekennzeichnet.

Generell

CEN/TC 250 (Pilotaktion)

CEN/TC 250 hat die ständige Aufgabe, nationale Werbeinitiativen zu erfassen und zu notieren, soweit sich das mit der effizienten Bewältigung der Kernaufgaben verbinden lässt.

Wikipedia (Pilotaktion)

Ein neuer Wikipedia-Eintrag wurde erstellt und dieser kann ebenfalls als ein Hauptinformationsmittel benutzt werden von jedem der Interesse daran hat, ein besseres Verständnis oder eine breitere Verwendung von Eurocodes zu fördern.

Europäischer Koordinationspunkt (Pilotaktion)

Die Schaffung eines europäischen Kontaktpunktes wurde untersucht, muss jedoch weiter ausgearbeitet und spezifisiert werden.

Lokaler Kooridnationspunkt (Pilotaktion)

Die Idee einen lokalen Koordinationspunkt für Indien zu schaffen, basierend auf dem dortigen Standardisierungsexperten von CEN/CENELEC/ETSI, wurde verworfen als der Experte kurz nach seinem Antritt von seinem Posten zurücktrat. Die Größe und die Komplexität dieses Marktes rechtfertigen nach wie vor die Schaffung solch einer Position und dies bleibt eine Empfehlung des Projektteams.

Golfregion

Präsentation über Eurocodes in Doha: 11.-13. Oktober 2010 (Pilotaktion)
Der Beitrag der EU zur Konferenz über den Unified GCC Building Code wurde wie vorgeschlagen auf vier Präsentationen erhöht. Diese wurden sehr gut aufgenommen, ihr Einfluss auf die Entwicklungen in dieser Region ist jedoch schwer zu evaluieren. Dies ist eine Region, in der Werbeaktivitäten durch politische Kontakte gestützt werden müssen, vorzugsweise auf EU-Ebene.

Ägypten

Ägyptische Konferenz und Workshop: 27. und 28. Januar 2011 (Pilotaktion)

Dieser Pilotaktion gingen zwei zusätzliche Aktionen voraus. Es gab eine Vorbesprechung in Ägypten mit EOS um ihr Interesse zu erkunden und ihre spezifischen Anliegen und Interessen zu verstehen. Anschließend wurde ein kurzer Studienaufenthalt von Dr. Nagy Albert, Berater für internationale Angelegenheiten, organisiert, um ihm die Teilnahme an einer BSI-Konferenz über Eurocodes zu ermöglichen.

EOS zeigten großes Interesse an der geplanten Konferenz und dem Workshop, jedoch gestaltete es sich schwierig, sich auf einen Termin für unsere Veranstaltung zu einigen. Diese fand schließlich am 27. und 28. Januar 2011 statt. Leider fiel die Veranstaltung dann mit dem Ausbruch von politischen Unruhen in Ägypten zusammen und die Konferenz und der Workshop waren nicht so gut besucht wie erwartet und die Delegierten waren deutlich zu sehr abgelenkt, um mit voller Aufmerksamkeit den verschiedenen Präsentationen zu folgen. Dies erschwerte es, die Veranstaltung adäquat zu bewerten.

Die wichtigste Lehre die aus diesem Ereignis gezogen werden konnte, war, dass die Verantwortung für die Entwicklung von ägyptischen Baucodes nicht traditionell unter der Verantwortung der EOS lag und deren Einbindung in die Organisation der Veranstaltung stoß auf politische Empfindlichkeiten, deren sich das Projektteam während der Vorbereitung nicht bewusst war.

Russland und Urkaine

Treffen mit Zebra: 7. Juli 2010 (zusätzliche Maßnahme)

Das Projektteam wurde von Evgeny Mallinin von ZEBRA kontaktiert, einer Organisation zur Verbesserung des russischen Straßennetzes . Er äußerte großes Interesse an der Förderung der breiteren Verwendung von Eurocodes in Russland und erbat ein intensives Trainingsprogramm für die Mitglieder seines Verbandes. Ein Treffen in London wurde im Juli 2010 als zusätzliche Maßnahme organisiert. In dieser Sitzung spezifisierte Herr Mallinin seinen Wunsch und dies resultierte in der Ausarbeitung und Unterbreitung eines formellen Angebots für ein Trainingsprogramm. Dies wurde nicht von ZEBRA angenommen.

Meeting in Moskau: 14. September 2010 (zusätzliche Maßnahme)

Das Projektteam wurde über eine Konferenz in Moskau informiert, die vom Zentrum für Bauforschung in Russland und dem Verband für Keramikziegel organisiert wurde. Die Teammitglieder waren außerstande an dieser Veranstaltung teilzunehmen, konnten aber einem eingeladenen CEN / TC 250 Vertreter Anweisungen geben. Somit erhielten sie eine strukturierte Rückmeldung über die Veranstaltung anhand einer Berichtsvorlage, die für die Verwendung während der gesamten Pilotphase konzipiert wurde.

TAIEX „Train the trainer“ Workshop: 9. und 10. Dezember 2010 (Pilotaktion)

Ein BSI Associate Consultant mit Sitz in Russland wurde von dem Projektteam eingewiesen und beauftragt, in seinem Namen teilzunehmen. Dies diente als Einstieg für die weitere Entwicklung der geplanten Konferenz in Sankt Petersburg.

Konferenz in Sankt Petersburg: 2. März 2011 (Pilotaktion)

Eine eintägige Konferenz wurde in Zusammenarbeit mit der Staatlichen Universität von Sankt Petersburg und dem nationalen Bauverein organisiert. Die Veranstaltung hatte eine gute Balance

zwischen Rednern aus der EU und Russland. Während der Konferenz wurde NOSTROY's Bekenntnis zu einem ehrgeizigen Programm für die Einführung der Eurocodes in Russland bestätigt. Die aktuelle Planung ist, dass sowohl die örtlichen Vorschriften (SNIPS) als auch die Eurocodes die regulatorischen Anforderungen der Russischen Föderation erfüllen. Herr Pugachev (NOSTROY) präsentierte anschließend Vorschläge zur engeren Zusammenarbeit zwischen NOSTROY und der EU, um die Umsetzung des NOSTROY Programms zu unterstützen. Als zusätzliche Maßnahme wurden Vorkehrungen getroffen, dass Herrn Pugachev und zwei seiner Kollegen an der nächsten CEN / TC 250 Plenarsitzung im Mai 2011 als Beobachter teilnehmen können.

Ukrainische Studienfahrt: 15. und 16. Februar (zusätzliche Maßnahme)

Keine Pilotaktionen waren für die Ukraine vorgeschlagen worden, aber es bot sich die Gelegenheit, eine dreitägige Studienreise von Herrn Barzylovych und Frau Lugovets vom ukrainischen Ministerium für regionale Entwicklung und Bau zu organisieren, um dem ukrainischen Programm für die Einführung der Eurocodes in der Ukraine und den anderen GUS-Staaten zu helfen. Wie in der Russischen Föderation ist es die Absicht in der Ukraine einen doppelten Ansatz zur Einhaltung der gesetzlichen Vorschriften zu verfolgen, in denen Eurocodes einen gleichen Status wie nationale Codes haben. Nach Abschluss des Besuchs präsentierte Herr Barzylovych ebenfalls Vorschläge zur weiteren Zusammenarbeit und auch für ihn und für Frau Lugovets wurden Vorkehrungen getroffen, um ihnen die Teilnahme an der nächsten CEN / TC 250 Plenarsitzung im Mai 2011 zu ermöglichen.

Südostasien

Vietnam Studienreise: 30. November 2010 (zusätzliche Maßnahme)

Keine Pilotaktionen waren für Südostasien geplant, aber es bot sich die Gelegenheit für das Projektteam an einer Studienfahrt einer vietnamesischen Delegation in Großbritannien teilzunehmen, um ein besseres Verständnis der aktuellen Situation und der künftigen Absichten und Bedürfnisse von Vietnam bei der Umsetzung der Eurocodes als ihre eigenen nationalen Codes zu erhalten. Es stellte sich heraus, dass es eine klare Absicht gibt, die Eurocodes zu übernehmen, auch wenn nicht alle Eurocodes derzeit anwendbar sind und technische Unterstützung dringender gebraucht wird als Werbung.

Südafrika

Keine gezielten Maßnahmen waren für diesen Markt vorgeschlagen, aber zwei Möglichkeiten entstanden, um sich mit wichtigen Akteuren in der Entwicklung von Bauvorschriften in Südafrika zu treffen, um weitere Erkenntnisse über südafrikanische Absichten und Anforderungen in Bezug auf die Umsetzung von Eurocodes zu erhalten.

Treffen mit Professor Johan Retief (Stellenbosch Universität): 25. März 2011 (zusätzliche Maßnahme)

Auch wenn Südafrika einen Prozess zur Übernahme der Eurocodes Prinzipien und deren Einarbeitung in die südafrikanische Bauvorschriften eingeschlagen hat, bestätigte dieses Treffen, dass sie trotzem vorhaben, ihre eigene Struktur der Normenausschüsse zu reorganisieren, um sie besser der CEN / TC 250 Struktur anzupassen. Dies erhöht die Aussichten auf eine engere Zusammenarbeit mit CEN / TC 250 und Vorkehrungen wurden auch für Prof. Retief getroffen, um an der nächsten CEN / TC 250 Plenarsitzung teilzunehmen.

Treffen mit Dr. Ron Watermeyer: 31. März 2011 (zusätzliche Maßnahme)

Dr. Watermeyer berichtete, dass es ein internes politischen Gerangel zwischen den Befürwortern (inklusive ihm) einer einfachen und unveränderten Übernahme von Eurocodes in Südafrika und denjenigen, die die Eingliederung der Eurocodes-Prinzipien in die bestehende südafrikanische Code-Struktur bevorzugen, gibt. Er wieß darauf hin, dass die Industrie in der Regel die einfache Übernahme bevorzugen würde, aber dass es bestehende Interessen zur Umsetzung des letztgenannten Ansatzes gebe. Eine Einmischung der EU um die einfachen Übernahme zu fördern müsste mit Vorsicht auf die politischen Realitäten erfolgen.

Märkte außerhalb der Zielregionen

Obwohl der Umfang des Projekts auf sechs Zielmärkte und 20 Zielländer ausgerichtet war, ist das Interesse an Eurocodes weiter verbreitet und das Projektteam nutzte zwei Gelegenheiten, um für eine breitere Verwendung von Eurocodes zu werben.

Singapur Studienreise: 18. bis 21. Oktober 2010 (zusätzliche Maßnahme)

Dieser Besuch war eine Gelegenheit, um ein ausführliches Update über die Umsetzung der Eurocodes in Singapur zu erhalten. Dieser Prozess ist bereits weit fortgeschritten, obwohl es nicht beabsichtigt ist, das gesamte Spektrum von Eurocodes zum jetzigen Zeitpunkt zu übernehmen (EC 5, 6, 7 und 8 sind nicht Teil ihres aktuellen Programms). Da Singapur eine regionale Führungsmacht ist, sollten die Kontakte weiter ausgebaut werden, da Singapur als ein regionaler Eurocodes Vorreiter und regionaler Informationspunkt agieren könnte.

Brasilianische Studienreise: 28. Februar 2011 (zusätzliche Maßnahme)

Es gab einen von UK Trade and Industry organisierten Studienaufenthalt für Delegierte aus Brasilien, die ein besonderes Interesse an den britischen Vorbereitungen für die Olympischen Spiele 2012 haben. Das Projektteam nutzte die Gelegenheit, um sich mit den Delegierten zu treffen und ihnen die Eurocodes vorzustellen. Trotz der begrenzten Diskussionszeit stellte sich heraus, dass Eurocodes in Brasilien bekannt sind und auch Interesse an ihnen besteht. Auch wenn amerikanische Codes ebenfalls bekannt und weit verbreitet sind, wurde betont, dass eine Einflussnahme der USA keine Auswirkungen auf brasilianische Entscheidungen über die zukünftige Codes Struktur haben wird. Die Delegierten wurden mit dem National Laboratory of Civil Engineering (LNEC) in Lissabon als portugiesischsprachige Informationsquelle zu Eurocodes in Kontakt gebracht.

Schlussfolgerungen der Pilotphase

Die Aktionen, die in der Pilotphase durchgeführt wurden, veränderten nicht wesentlich die Schlussfolgerungen die aus der Forschungsphase entstanden sind, aber erlaubten einige Anpassungen.

Die Situation in der **Golfregion** bleibt unbeständig, aber die Wahrscheinlichkeit einer regionalen Einführung des Saudi Building Code (oder der entsprechenden nationalen Vorschriften) hat sich leicht erhöht. Es könnte einiger politischer Einflussnahme, unterstützt durch technische Hilfe oder Zusammenarbeit, benötigen, um den aktuellen pluralistischen Ansatz zur Einhaltung gesetzlicher Vorschriften zu erhalten, der charakteristisch für viele Länder in der Region ist.

Die Veranstaltung in **Ägypten** war sehr stark durch die politischen Unruhen beeinflusst, die zu dem Zeitpunkt stattfanden. Aber sie veranschaulichte wie wichtig es ist, die relevantesten Organisationen zu ermitteln und sich über die beteiligten politischen Empfindlichkeiten bewusst zu werden. Dies bekräftigte wiederum den Ruf nach einem lokalen Koordinator mit guter Ortskenntnis, um alle Werbeaktivitäten zu koordinieren und daran teilzunehmen.

Die Pilotprojekte in **Russland** und die zusätzliche Maßnahme in Bezug auf die **Ukraine** verschafften Klarheit über die derzeitigen Absichten der beiden Länder und über den gemeinsamen dualen Ansatz zur Einhaltung von Vorschriften, den beide befürworten. Auch der Wunsch einen gemeinsamen regionalen Ansatz in den gesamten GUS-Staaten zu schaffen, wurde geäußert. In diesem Zielmarkt hat sich die prinzipielle Anforderung von der Förderung der Vorteile der Eurocodes hin zur praktischen Unterstützung bei der Festlegung der NDPs und der Ausbildung von Ingenieuren verschoben. Ein Hindernis zur breiteren Verwendung von Eurocodes ist, dass diese Länder keinerlei Einfluss auf ihre Formulierung der Eurocodes hatten und eine engere und formellere Zusammenarbeit mit CEN / TC 250 könnte dazu beitragen, dies zu lindern.

Die Schlussfolgerungen der Analysephase zu **Südafrika** wurden in der Regel bestätigt, aber es ist klarer geworden, dass der Schwerpunkt zukünftiger Werbemaßnahmen auf den Wunsch einer einfachen Übernahme gelegt werden sollte, anstatt des aktuellen adaptiven Ansatzes. Dies erfordert ebenfalls eine verstärkte politische Sensibilität und Verständnis des lokalen Besitzstandes.

Die Situation in **Vietnam** konnte weiter verdeutlicht werden, ebenso wie die notwendige technische Unterstützung. Die Situation und die Anforderungen in den anderen Ländern in der Zielregion wurden jedoch in der Pilotphase nicht weiter untersucht.

Die Durchführung der Werbeveranstaltungen hat gezeigt, dass die weitere Ausarbeitung einer **Werbetoolbox** nötig ist, die Informationen über spezifische Empfehlungen zur Planung und Organisation enthält.

Die Bedeutung von **technischer Unterstützung und Ausbildung, anstatt weiterer Werbeaktivitäten**, wurde in einer Reihe von Zielländern offenkundig, in denen die Entscheidung Eurocodes einzuführen im Prinzip bereits getroffen worden ist. Diese Hilfe sollte idealerweise auf europäischer Ebene organisiert werden, würde aber Maßnahmen auf der Ebene der Mitgliedsstaaten nicht ausschließen, in denen die entsprechenden Ressourcen und Kontakte bestehen. Es wird empfohlen, dass die Umsetzung der Eurocodes ein spezifischer Teil künftiger EU-Projekte zur technischen Unterstützung in den relevanten Zielmärkten sein sollte.

Zahlreiche Stakeholder waren daran interessiert, die Unterschiede und Gemeinsamkeiten zwischen den Eurocodes und anderen Codes, wie zum Beispiel den amerikanischen Baucodes, sowie die ökonomischen Vorteile durch die Verwendung von Eurocodes besser zu verstehen. Aus diesen Gründen empfehlen wir die Erstellung einer **vergleichenden Studie um die Gleichwertigkeit mit anderen wichtigen Codes** demonstrieren soll, und, wo möglich, die damit verbundenen wirtschaftlichen Folgen.

Die wichtigste Schlussfolgerung der Pilotphase ist jedoch die **Erwünschtheit eines ständigen Mechanismus zur Umsetzung der Strategie selbst.** Die Existenz des Projektteams und die Förderung seiner Aktivitäten eröffneten Gelegenheiten für zusätzliche Aktionen um Informationen in Zielmärkten zu verbessern, und das dortige Momentum zu wahren, obwohl diese nicht als Pilotmaßnahmen ausgewählt worden waren. Wenn die Mitgliedstaaten den Wunsch einer aktiven Förderung der Eurocodes unterstützen, ist es empfehlenswert, ein Eurocodes Werbestrategie-Implementationsprojekt zu gründen, welches mit einem ausreichenden Budget ausgestattet werden sollte, um die aktuelle Werbedynamik aufrecht zu erhalten.

Synthèse

Contexte

Les Eurocodes ont été en production depuis longtemps, et leur développement a été suivi de près dans beaucoup de pays hors d'Europe, au sein des communautés scientifiques, académiques et industrielles. L'expérience a montré qu'il existait un intérêt considérable hors d'Europe pour les Eurocodes, comme noté dans le rapport du JRC intitulé : « The Eurocodes and the Construction Industry, Medium-Term Strategy 2008-2013 » (Janvier 2009). Cependant, ce rapport attirait également l'attention sur la complexité des questions posées par leur adoption et leur utilisation, et la nécessité du développement d'une nouvelle stratégie promotionnelle. C'est de cette nécessité que traite ce rapport.

Analyse des campagnes de promotion passées

L'information sur les Eurocodes, leur promotion, et la formation à leur utilisation ont été organisées depuis la fin des années 1990 à travers l'implication d'un nombre d'agences différentes. Cependant, cette activité s'est effectuée sans coordination et de manière ad hoc.

Elle a consisté en:

- Des campagnes de promotion réactives, en réponse à des requêtes provenant d'un certain nombre de pays non-Européens, dont: l'Algérie, le Maroc, l'Afrique du Sud, la Thaïlande, la Tunisie, et le Vietnam.

- Des campagnes de promotion actives, sponsorisées principalement par l'Union Européenne et le Gouvernement Britannique, qui ont conduit des événements en Inde, Italie (destinées au pays de l'Euromed), Malaisie, Qatar, Russie, Thaïlande, Ukraine et Vietnam, ainsi que dans d'autres pays hors du champ d'application de ce projet (comme la Chine, Singapour et le Sri Lanka).

Ces événements avaient différents objectifs exposés, et leurs résultats n'ont en général pas été très bien documentés. Il s'est avéré compliqué d'évaluer leur efficacité relative, mais une analyse du contenu des événements suggère que les événements futurs pourraient être dotés d'objectifs plus clairs, en étant mieux structurés, mieux contrôlés et leurs résultats plus transparents. Un inconvénient plus sérieux réside dans l'absence fréquente d'accompagnement systématique des projets à conclusion, en raison de l'absence de structure ou de financement pour que cela puisse se faire.

En dépit de ces limitations, un certain nombre de pays des six régions cibles incluses dans le champ d'application de ce projet se sont engagées à l'adoption des Eurocodes:

- Afrique du Nord: la Tunisie et le Maroc ont commencé à mettre en place les principes des Eurocodes dans leurs normes et règlements locaux.
- Afrique du Sud: la mise en place des Eurocodes a d'ores et déjà débuté, et continue de son propre élan.
- Asie du Sud Est: la Malaisie et le Vietnam ont débuté la mise en place des Eurocodes.
- Europe de l'Est: l'Ukraine s'est engagée à l'adoption complète.

Ces tendances positives ont besoin d'être améliorées et étendues à travers plus de pays.

Analyse de marché

Une analyse des pays-cibles, réalisée en utilisant le PESTEL, l'AIDA et des modèles analytiques de diffusion de l'innovation a essentiellement confirmé la cohérence interne des six régions cibles inclues dans le champ d'application du projet, avec des exceptions mineures (ex: l'Egypte et l'Ukraine).

Objectifs de la stratégie

L'ambition principale de cette stratégie est d'augmenter une utilisation plus étendue des Eurocodes dans toutes les régions cibles; cependant, nous proposons également que les actions promotionnelles spécifiques dans les régions soient dotées de deux objectifs distincts, mais clairs:

- Acceptation et utilisation plus large des Eurocodes: en Inde, dans la région du Golfe et en Russie.
- Adoption des Eurocodes ou des principes Eurocode dans les normes nationales locales: en Afrique du Nord, en Asie du Sud Est, et en Afrique du Sud.

Actions génériques

Nous avons proposé des actions afin de permettre une meilleure coordination de la stratégie globale, principalement:

- Un Point de Coordination Européen des Eurocodes
- Des points de Coordination Régionaux en liaison avec le Point de Coordination Européen

Stratégies nationales

Sur la base de nos analyses individuelles de marché, nous avons proposé un objectif et une stratégie spécifiques pour chacune des régions cibles, en même temps que des outils génériques de promotion à utiliser. Nous avons identifiés des partenaires locaux potentiels dans chaque pays pour la mise en place de ces stratégies.

Hiérarchisation

En reconnaissant la disponibilité de ressources relativement limitées pour la mise en place de la stratégie globale, nous nous sommes également efforcés de hiérarchiser les régions cibles et les pays en leur sein, en utilisant cinq critères:

1. Mesurabilité du résultat
2. Importance de la région pour l'industrie européenne
3. Importance pour l'Europe de l'industrie locale
4. Urgence de l'action à entreprendre
5. Aisance de l'obtention d'un résultat positif

Hiérarchisation des objectifs

Chaque pays cible a été évalué en fonction des cinq critères, cependant un poids plus important a été accordé à l'importance du marché local pour l'industrie européenne (critère 2). Dans nos analyses, nous avons mis en évidence que les marchés les plus importants pour l'industrie européenne étaient également ceux les moins probables d'adopter les Eurocodes dans un laps de temps de trois à cinq ans. En conséquence, nous avons choisi de donner la priorité au premier objectif: *acceptation et utilisation plus large des Eurocodes*.

Hiérarchisation des régions cibles

En ce qui concerne l'industrie de la construction et du design, les trois marchés-cibles les plus importants pour l'industrie européenne sont la *Russie, l'Inde et la région du Golfe*.

Afin d'établir un rang de priorité pour ces marchés très importants, nous avons observé l'urgence qu'il y avait à entreprendre des actions (critère 4), déterminée en même temps par le degré de concurrence et par la possibilité pour la région d'être « perdue » pour les Eurocodes. Le résultat obtenu est le suivant:

1. *Région du Golfe*, où le code national de construction d'Arabie Saoudite (Saudi National Building Code), basé sur les codes américains, va devenir obligatoire sous peu et est proposé comme code régional.

2. *Inde*, où le code national de construction de l'Inde (Indian National Building Code) limite pour le moment l'utilisation des Eurocodes dans la région, mais où il existe toujours une possibilité d'incorporer les Eurocodes dans des révisions futures.

3. *Russie*, où la seule concurrence provient de codes périmés, datant souvent de l'ère soviétique et où il existe déjà un lobby interne significatif pour l'utilisation des Eurocodes et l'incorporation des principes Eurocode dans les codes de construction russes.

Action pilotes proposées

Nous avons proposé des actions pilotes pour nous permettre de tester certaines de ces propositions et aider à l'affinage de la stratégie globale. En tant que tels, elles ne sont pas destinées à refléter toutes les priorités déterminées ci-dessus.

Trois actions ont trait à la partie générique de la stratégie:

- Test de la faisabilité de l'établissement d'un Point de Coordination Européen et d'un point régional de coordination pour l'Inde
- Mieux capturer la connaissance et l'information disponible des membres de CEN/TC 250
- Améliorer la visibilité en améliorant la page Wikipedia sur les Eurocodes

Une action est liée à l'urgence de l'action à entreprendre dans la région du Golfe:

- Présentation sur les Eurocodes à la prochaine conférence GCC/GSO sur les normes et règlements de construction au Qatar

Une action est basée sur le maintien de la continuité et de l'élan observé en Russie:

- Présentation lors d'un atelier financé par TAIEX sur la « formation des formateurs » à l'utilisation des Eurocodes

Une action est fondée sur le test de l'efficacité de nos outils proposés pour la promotion de l'adoption des Eurocodes:

- Organisation d'une conférence en Egypte à l'automne 2010

Résumé de la phase pilote

Durant la phase pilote, les actions planifiées proposées ont été entreprises. De même, nous avons eu l'opportunité de mener des actions supplémentaires et de maintenir ainsi l'élan des initiatives existantes dans les pays cibles favorisant l'adoption/adaptation ou l'utilisation plus large des Eurocodes. Ces actions sont définies comme des « actions additionnelles ».

Général

CEN/TC 250 (action pilote)

Le CEN/TC 250 possède un point de l'agenda permanent consacré à la discussion et à l'enregistrement des initiatives promotionnelles nationales dans la mesure où cela est consistant avec la conduite de son activité principale.

Wikipedia (action pilote)

Une nouvelle entrée pour Wikipedia a été rédigée et pourrait également être utilisée comme outil-clé d'information par toute personne intéressée à promouvoir la compréhension des Eurocodes ou leur utilisation plus large.

Point de Coordination Européen (action pilote)

La création d'un point de coordination européen a été explorée, mais requiert plus d'élaboration et de précision.

Point de Coordination Local (action pilote)

L'idée de créer un point de coordination locale pour l'Inde, utilisant l'Expert européen de normalisation en Inde du CEN/CENELEC/ETSI (European Standardisation Expert in India - SESEI) a été avortée lorsque la personne nommée démissionna peu après son entrée en fonction.

Région du Golfe

Présentation des Eurocodes à Doha: 11-13 Octobre 2010 (action pilote)

La contribution de l'UE à la conférence sur le code de construction unifié du GCC (Unified GCC Building Code) a été portée à quatre présentations, comme proposé. Ces présentations ont été bien reçues, bien que leur impact sur les développements dans cette région est difficile à déterminer. Il s'agit d'une région dans laquelle l'activité promotionnelle doit être soutenue par un contact politique, préférablement au niveau UE.

Egypte

Conférence et atelier en Egypte: 27 et 28 Janvier 2011 (action pilote)

Cette action pilote a été précédée de deux actions additionnelles. Il y a eu une pré-réunion en Egypte avec EOS pour comprendre leur niveau d'intérêt, et leurs domaines d'inquiétude et d'intérêt spécifiques. Ceci fut en suite suivi d'une courte visite d'étude organisée par le Dr Nagy Albert, Conseiller en Affaires Internationales, pour lui permettre de participer à la conférence sur les Eurocodes organisée par BSI.

EOS a montré un intérêt significatif pour la conférence et l'atelier proposés, cependant il s'avéra difficile de s'accorder sur une date pour l'événement. Celui-ci a finalement eu lieu les 27 et 28 Janvier 2011. Malheureusement, cette date a coïncidé avec le début des révoltes politiques en Egypte, et la conférence et l'atelier ne connurent pas la participation attendue, alors que les délégués furent clairement trop distraits pour consacrer toute leur attention aux diverses présentations. Ceci a rendu difficile l'évaluation adéquate de l'événement.

La leçon la plus importante tirée de cet événement fut que la responsabilité pour le développement de codes égyptiens de construction n'a pas traditionnellement relevé d'EOS, et leur implication dans l'organisation de l'événement a mis à jour certaines sensibilités politiques dont l'équipe en charge du projet n'était pas consciente lors de sa préparation.

Russie et Ukraine

Rencontre avec Zebra : 7 Juillet 2010 (action additionnelle)

L'équipe en charge du projet a été contactée par Evgeny Mallinin de ZEBRA, une organisation dédiée à l'amélioration du système routier russe. Il exprima un fort intérêt pour la promotion des Eurocodes en Russie, et demanda l'organisation d'un programme intense de formation pour les membres de son association. Une réunion à Londres fut organisée en Juillet 2010, en tant qu'action additionnelle. Lors de cette réunion, Mr Mallinin développa encore cette demande, ce qui provoqua la préparation et la soumission d'une proposition formelle de programme de formation. Celle-ci ne fut pas poursuivie par ZEBRA.

Rencontre à Moscou : 14 Septembre 2010 (action additionnelle)

L'équipe en charge du projet fut informée de la tenue d'une conférence à Moscou, organisée par le Centre for Building Research en Russie et la Ceramic Brick association. Les membres de l'équipe ne purent participer à l'événement, mais nous parvinrent à briefer un représentant du CEN/TC 250 invité à la conférence, et obtinrent un feedback structuré sur l'événement, en utilisant un rapport-type développé pour être utilisé durant la phase pilote.

TAIEX atelier « Formation des formateurs » : 9 et 10 Décembre 2010 (action pilote)

Un consultant associé de la BSI a été briefé par l'équipe en charge du projet, et participa en notre nom. Ceci servit comme passerelle pour le développement approfondi de la conférence planifiée à Saint Pétersbourg.

Conférence à Saint Pétersbourg : 2 Mars 2011 (action pilote)

Une conférence d'une journée fut organisée en collaboration avec la State University de Saint Pétersbourg et la National Association of Builders. L'événement assura un bon équilibre entre présentateurs européens et russes. Au cours de la conférence, l'engagement de NOSTROY pour un programme ambitieux d'introduction des Eurocodes en Russie se confirma. L'intention actuelle est qu'à la fois les codes locaux (SNIPS) et lesEurocodes soient définis comme satisfaisant les exigences réglementaires de la Fédération de Russie. Mr Pugachev (NOSTROY) présenta ensuite des

propositions de coopération renforcée entre NOSTROY et l'UE afin de soutenir la mise en place du programme NOSTROY. Comme action additionnelle, un accord fut passé afin de permettre à Mr Pugachev et deux de ses collègues de participer à la prochaine réunion plénière du CEN/TC 250 en Mai 2011, en tant qu'observateurs.

Asie du Sud Est

Voyage d'étude au Vietnam : 30 Novembre 2010 (action additionnelle)

Aucune action pilote n'avait été prévue pour l'Asie du Sud Est, mais l'équipe en charge du projet eut l'opportunité de participer à une visite d'études britannique organisée pour une délégation vietnamienne afin de mieux comprendre la situation actuelle, et les intentions et besoins futurs du Vietnam dans la mise en place des Eurocodes en tant que codes nationaux propres. Ceci mit en évidence l'intention claire d'adopter les Eurocodes, bien qu'ils ne soient pas tous applicables actuellement et que le besoin le plus urgent réside dans l'assistance technique plutôt que dans la promotion.

Afrique du Sud

Aucune action ciblée n'avait été proposée pour ce marché cible, mais deux opportunités sont apparues de rencontrer les acteurs clés dans le développement des codes de construction en Afrique du Sud, afin d'obtenir plus d'information sur les intentions sud africaines et les exigences en terme de mise en place des Eurocodes.

Rencontre avec le Professeur Johan Retief (Stellenbosch University) : 25 Mars 2011 (action additionnelle)

Cette rencontre confirma que bien que l'Afrique du Sud ait débuté un processus d'adoption des principes Eurocodes et leur incorporation dans la structure des codes sud africains, elle a l'intention de réorganiser la structure de son propre Comité des normes afin de mieux refléter la structure du CEN/TC 250. Ceci soulève la possibilité d'une liaison plus étroite avec le CEN/TC 250, et des accords ont été passés pour permettre au Prof Retief de participer également à la prochaine réunion plénière du CEN/TC 250.

Rencontre avec le Dr Ron Watermeyer : 31 Mars 2011 (action additionnelle)

Dr Watermeyer rapporta l'existence d'un conflit politique interne entre les personnes (dont lui) qui souhaiteraient que l'Afrique du Sud adopte simplement les Eurocodes sans les modifier, et ceux qui favoriseraient l'incorporation des principes Eurocodes dans la structure existante des codes sud africains. Il suggèra que l'industrie préférait généralement l'approche d'adoption simple, mais que cela se heurtait à des intérêts en place. Une action de l'UE pour la promotion de l'adoption simple devra être sensible à ces réalités politiques.

Marchés non cibles

Bien que le projet cible spécifiait six marchés cibles et vingt pays cibles, l'intérêt pour les Eurocodes est plus répandu et l'équipe en charge du projet a également exploré deux opportunités de promouvoir les Eurocodes plus largement.

Voyage d'étude à Singapour : 18-21 Octobre 2010 (action additionnelle)

Cette visite nous donna l'opportunité d'obtenir un avis détaillé sur le statut de la mise en place des Eurocodes à Singapour. Ce processus est déjà bien avancé, bien que l'ambition ne soit pas d'adopter l'ensemble complet pour l'instant (EC 5, 6 ; 7 et 8 ne font pas partie du programme actuel). Singapour étant un leader régional, les contacts devraient être développés plus amplement, car Singapour pourrait agir en tant que champion régional des Eurocodes et comme point d'information régional.

Voyage d'étude au Brésil : 28 Février 2011 (action additionnelle)

Un voyage d'étude fut organisé par le « UK Trade and Industry » à destination de délégués brésiliens ayant un intérêt spécifique dans les préparatifs britanniques pour les Jeux Olympiques de 2012. L'équipe en charge du projet a saisi l'opportunité pour rencontrer ces délégués et présenter les Eurocodes. Bien que le temps disponible pour la discussion fut limité, il émergea qu'il existe à la fois

une conscience et un intérêt pour les Eurocodes au Brésil. Alors que les codes américains sont également très connus et utilisés, le fait que les Etats Unis ne pourraient être autorisés à déterminer n'importe quelle décision prise au Brésil sur leur futur code fut souligné. Les délégués furent mis en contact avec le National Laboratory of Civil Engineering (LNEC) à Lisbonne en tant que source d'information en portugais sur les Eurocodes.

Conclusions de la phase pilote

Les actions entreprises dans la phase pilote n'ont pas changé de manière significative les conclusions découlant de la phase de recherche, mais ont permis de les raffiner.

La situation dans la **région du Golfe** est toujours fluide, mais la probabilité de l'adoption régionale du Saudi Building Code (ou de ses équivalent nationaux) a augmenté sensiblement et pourrait requérir une intervention politique, soutenue par une assistance technique ou une coopération afin de maintenir l'approche pluralistique actuelle envers la conformité réglementaire, caractéristique de plusieurs pays de la région.

L'événement en **Egypte** fut sévèrement impacté par la révolte politique ayant lieu au même moment, mais montra l'importance de déterminer les organisations les mieux appropriés avec qui traiter, et les sensibilités politiques sous-jacentes. Ceci en conséquence souligna l'utilité d'avoir un coordinateur local avec une bonne connaissance locale pour coordonner et participer à toute action promotionnelle.

Les actions pilotes en **Russie** et l'action additionnelle envers **l'Ukraine** ont permis de clarifier les intentions actuelles de ces pays, et l'approche actuellement duale de la conformité réglementaire qu'ils favorisent. Cela porta également l'attention sur le désir de créer une approche régionale commune pour les pays de la CEI. Dans ce marché cible, l'exigence principale s'est déplacée de la promotion des avantages des Eurocodes vers l'assistance pratique dans la détermination des NDPs et la formation des ingénieurs. Un obstacle à l'utilisation plus large des Eurocodes réside dans le fait que ces pays n'ont pas contribué à la formulation des Eurocodes, ce qu'une liaison plus étroite et formelle avec le CEN/TC 250 pourrait aider à surmonter.

En **Afrique du Sud**, les conclusions de la phase d'analyse ont été confirmées de manière générale, mais il est devenu clair que l'accent sur la promotion futur devrait cibler plus spécifiquement le désir d'adoption simple plutôt que l'approche adaptative actuelle. Ceci requiert également une sensibilité politique plus importante et une compréhension des intérêts en place localement.

La situation au **Vietnam** a été clarifiée plus précisément, et le besoin d'une assistance technique confirmé, mais la situation et les exigences dans d'autres pays de la région cible n'ont pas été traités plus profondément durant la phase pilote.

La conduite des évènements promotionnels a révélé un besoin d'élaboration d'une **boîte à outils promotionnelle**, avec des informations sur les recommandations spécifiques en matière de planification et d'organisation.

L'importance de l'assistance technique et de la formation, plutôt que davantage d'activités promotionnelles, a été mise en évidence dans un certain nombre de pays cibles, où la décision d'adopter les Eurocodes a été prise en principe. Cette assistance serait idéalement organisée au niveau européen, mais ceci n'empêcherait pas une action au niveau des Etats membres, lorsque les ressources et contacts appropriés existent. Il est recommandé que la mise en place des Eurocodes devienne une composante spécifique dans les futurs projets d'assistance technique de l'UE au sein des marchés cibles pertinents.

De nombreuses parties prenantes ont également été intéressées de mieux comprendre les différences et similarités entre Eurocodes et autres codes, comme les codes américains de construction (American building codes), en même temps que de comprendre les avantages économiques de l'utilisation des Eurocodes. Pour ces raisons, nous recommandons la préparation d'une **étude comparative afin de démontrer l'équivalence avec les autres codes majeurs**, et, si possible, l'impact économique associé.

La conclusion la plus importante de la phase pilote, cependant, est le désir **d'un mécanisme permanent pour la mise en place de la stratégie elle-même.** L'existence d'une équipe en charge du projet, et la promotion de ses activités, a ouvert des opportunités pour des actions additionnelles afin de

mettre à jour l'information et de maintenir la dynamique observé dans des marchés cibles spécifiques, bien qu'ils n'aient pas été sélectionnés pour des actions pilotes. Si les Etats Membres manifestent le désir d'avoir une promotion active des Eurocodes, il est recommandé qu'un projet de mise en place de la stratégie promotionnelle des Eurocodes Project soit institué avec un budget approprié pour maintenir la dynamique promotionnelle.

List of Abbreviations and Acronyms

Abbreviation	Explanation
AIDA	Awareness, Interest, Desire, Action model
BSI	The British Standards Institution
CEN	European Committee for Standardization
CENELEC	European Committee for Electro-technical Standardization
CPD	Construction Products Directive
DG ENTR	Enterprise and Industry Directorate-General
DTI	British Government Department of Trade and Industry, now called BERR, the British Government Department of Business, Enterprise and Regulatory Reform
EBRD	European Bank for Reconstruction and Development
EEA	European Economic Area
EFTA	European Free Trade Association
EN	European Standard
EU	European Union
IEC	International Electro-technical Commission
ISO	International Organization for Standardization
JRC	Joint Research Centre
NDP	Nationally Determined Parameters
NSB	National Standards Body
NSSF	National Standardization Strategic Framework
PESTLE	Political, Economic, Social, Technological, Legal and Environmental
SWOT	Strengths, Weaknesses, Opportunities and Threats
TAIEX	Technical Assistance and Information Exchange instrument managed by the Directorate-General Enlargement of the European Commission
TC	Technical Committee
UNIDO	United Nations Industrial Development Organization

Introduction

This Final Report has been prepared by The British Standards Institution (BSI) as part of the DG Enterprise and Industry (DG ENTR) project **No ENTR/09/009: "Eurocodes promotion campaign – development and implementation"**.

The British Standards Institution

BSI is the United Kingdom's National Standards Body (NSB). Founded in 1901 to co-ordinate the development of national standards in the United Kingdom, BSI is the world's first standards body. BSI represents UK economic and social interests across all of the European and international standards organizations and through the development of business information solutions for British organizations of all sizes and sectors. BSI is independent of Government, industry and trade associations.

BSI works with manufacturing and service industries, businesses, governments and consumers to facilitate the production of British, European and international standards, and to put into place the systems assessment and registration, product testing and certification, and training infrastructure that enables companies to compete effectively in the European and international market places.

BSI's role in European and International Standardization

As the UK NSB, BSI is involved in the representation of the UK on behalf of the UK Government in European and International standards fora. Some British Standards (BSs) go on to become European or International standards (ENs or ISOs). The world's most famous series of standards, ISO 9000, for example, began life as a British standard.

An important aspect of the work of BSI is the creation of European Standards (ENs). The EU relies heavily on standardization to reduce technical barriers to trade for products and services whilst assuring appropriate levels of safety and performance. BSI provides a means to participate in European standards activities through the two European standards organizations, of which BSI is a founder member:

- CEN - European Committee for Standardization
- CENELEC - European Committee for Electro-technical Standardization

BSI is also a leading member of the worldwide federations of national standards bodies:

- ISO - International Organization for Standardization
- IEC - International Electro-technical Commission

ISO and IEC represent 148 countries worldwide. They promote the development of standardization to aid international exchange of goods and services and BSI decides whether to adopt these international standards for the UK.

Outline of the Final Report

Section 1 addresses the General Framework for the study.
Section 2 addresses the Methodology.
Section 3 addresses the Analysis of Promotional Activity to date.
Section 4 addresses the Market Analyses.
Section 5 addresses the Promotional Strategy.
Section 6 addresses the Pilot Actions and Conclusions.
Section 7 addresses the Time Plan.

Section 1: General Framework

Section 1 includes information on the General Framework for the study.

1.1 Background Information

Eurocodes in the EU

The Structural Eurocodes are a set of harmonised European standards for the design of buildings and other civil engineering structures. The Eurocodes were developed to improve structural safety and to enhance the competitiveness of the European construction sector and the professionals and industries connected with it, both within and outside the European Union.

Eurocodes constitute a coherent approach to construction design, divided into 58 discrete parts. In the European Economic Area (EEA), these parts were published as European standards and are currently implemented as national standards of the EEA countries. It was foreseen that there would need to be a transition period to allow industry to adjust to the use of Eurocodes and this expired on 1 April 2010. From this date, all national standards that conflict with the requirements of the Eurocodes will no longer be maintained and there is a commitment to their withdrawal, in conformity with CEN rules... Eurocodes are designed to allow adaptation when applied in a national context by means of Nationally Determined Parameters (NDPs). These NDPs are published as National Annexes to the Eurocodes.

The primary objectives of the Eurocodes can be summarised as:

- Providing common design criteria and methods of meeting necessary requirements for mechanical resistance, stability and resistance to fire, including aspects of durability and economy
- Providing a common understanding regarding the design of structures between owners, operators and users, designers, contractors and manufacturers of construction products
- Facilitating the marketing and use of structural components and kits in EU Members States
- Facilitating the marketing and use of materials and constituent products, the properties of which enter into design calculations
- Being a common basis for research and development, in the construction industry
- Allowing the preparation of common design aids and software
- Increasing the competitiveness of the European construction sector, including civil engineering firms, contractors, designers and product manufacturers in their global activities

The development of the Eurocodes is primarily an initiative within the EEA.

Eurocodes in Third Countries

In addition to their implementation within the EU, using the Eurocode approach to construction design would also bring advantages for other countries. The Lisbon Agenda highlighted the need to promote European standards in general throughout the world and promoting the Eurocodes (their adoption and use) more widely would bring benefits, to third countries as well as supporting international trade and competitiveness[1]. To this end, there has been a variety of activities by European and national entities to promote the benefits of the Eurocodes in several countries of the world.

Experience has shown that there is considerable interest in Eurocodes outside Europe, as noted in the JRC publication: “The Eurocodes and the Construction Industry, Medium-Term Strategy 2008-2013” (January 2009), but it has also drawn attention to the complexity of the issues involved in their adoption and use.

A previous report published by the JRC “Eurocodes Promotion in Third Countries” (2008) highlighted the need for a coherent strategic approach to the dissemination of Eurocode related information adapted to the specific requirements of each individual country, as well as for better coordination of

[1] Treaty of Lisbon, Official Journal Of the European Union 2007/C 306/01

promotional activities. In this report, priority countries and regions were also identified. The design of the 'Eurocodes Promotion' project emanated from these needs.

This project is intended to develop a set of six information and promotional strategies for six target countries/regions that are incorporated within a single overall strategic framework capable of extension to other regions. The purpose of developing this strategy document is to assist the European Commission in the implementation of future promotional actions.

1.2 Scope of work

1.2.1 Overall Objective

As detailed in the specifications, the overall objective of this action is to enable an uptake of the high-quality European design codes (the Eurocodes) in third countries (outside the European Economic Area, EEA) and ultimately enhance the competitiveness of the European construction sector and its competitive position on non-EEA construction markets.

More specifically, the action should develop and partly implement a strategy for providing relevant actors in selected third countries appropriate and up-to-date information on the Eurocodes, their functioning and their implementation mechanism, in order to facilitate the countries' uptake of the codes.

1.2.2 Specific Objectives and Actions of the Assignment

The specifications define the need for a dissemination strategy, with the objective of facilitating the uptake of the Eurocodes (fully or partially) in third countries and to implement some of the actions of the strategy. This strategy, fully taking the findings and results of previous Eurocodes promotion/information actions into account, must be fully adapted to the subject matter (the Eurocodes) and the indicated target countries.

This assignment will be delivered by the following actions:

1. Draw relevant lessons from the Eurocodes-related dissemination and information actions carried out by DG ENTR, JRC and CEN (TC 250).
2. Collect information and experience from Eurocodes-related dissemination actions undertaken and planned by EU MS and construction sector associations.
3. Definition of a set of strategies for dissemination/information actions for six different countries/regions.
4. In line with the strategies identified above, define 3-year information/dissemination action plans for the six different regions/countries.
5. Define the necessary tools to implement the action plans identified above.
6. Identify the possible financing sources for future Eurocodes promotional activities, according to the action plans.
7. Production of progress report.
8. Comprehensive work plan for the implementation of several elements in the action plans.
9. Implementation of the first stages, covering the initial 8 months of the agreed work-plan.
10. Participate in a one-day evaluation and workshop to deliver the results of the work.
11. Production of a final report

Section 3 will provide a more detailed description of the activities accomplished (actions 1-7), while section 4 will address the remaining activities to be implemented (actions 8-11) during the life of the project.

1.2.3 Expected Results

The project is expected to help achieve the following results:

- Raise awareness and understanding of EN Eurocodes by key stakeholders in targeted third countries
- Create interest in up-taking the Eurocodes
- Rise in up-take of the Eurocodes in third countries

- Enhance the competitiveness of the European construction sector and its competitive position on non-EEA construction markets

The project will also yield outputs (deliverables and reports) which are further listed at the end of Section 3 and 4.

1.2.4 Project Beneficiaries

The beneficiaries of this project will be numerous and include: the European Commission (and more specifically the Directorate for Enterprise and Industry), CEN (and more specifically CEN/TC 250), National Standards Bodies, construction industry stakeholders in EEA countries and in the targeted third countries (civil engineering firms, contractors, designers, product manufacturers, etc.) and to a larger extent, the general public.

1.2.5 Project Fiche

Project Title	Eurocodes Promotion Campaign – Development and Implementation
Project Funder	European Commission's Directorate-General for Enterprise and Industry (DG ENTR)
Implementer	The British Standards Institution (BSI)
Specific Objective	The overall purpose of the project is encapsulated in a specific objective: "To develop and partly implement a strategy for providing relevant actors in selected third countries appropriate and up-to-date information on the Eurocodes, their functioning and their implementation mechanism, in order to facilitate the countries' uptake of the codes."
Expected Results	▪ Analysis of prior promotional activities ▪ Six regional marketing strategies ▪ Six 3-year action plans ▪ Suite of promotional tools ▪ Selection of pilot projects
Project Beneficiaries	▪ The European Commission (specifically DG ENTR). ▪ CEN (specifically CEN TC 250). ▪ National Standards Bodies. ▪ Construction industry stakeholders, in the EEA and target countries (civil engineers, contractors, designers, product manufacturers etc.) ▪ The general public (through safer buildings/infrastructures). ▪ 3rd countries.
Target Countries	1. Eastern Mediterranean / Gulf states: Egypt, Jordan, Syria, Gulf states 2. South Africa 3. Western Mediterranean: Morocco, Algeria, Tunisia 4. Russia and Ukraine 5. South East Asia: Vietnam, Thailand, Malaysia 6. India
Main Activities	*Part 1: Development of the Eurocodes promotion campaign* ▪ Collect information and draw relevant lessons from the Eurocodes-related dissemination actions carried out by DG ENTR, JRC, CEN (TC 250), EU MS and construction sector associations. ▪ Define a set of strategies for dissemination/information actions for the six target regions and define corresponding 3-year information/dissemination action plans. ▪ Identify the possible financing sources for future Eurocodes promotional activities.

	Part 2: Implementation of a limited number of actions in the Eurocodes promotion strategy as a pilot/test phase ▪ Produce a work plan for the implementation of several elements in the action plans. ▪ Implement a handful of actions, during the last 8 months of this project.
Timing	18-month project (October 2009 – March 2011)
Contact Points	BSI: Keith Moyes – Team Leader keith.moyes@bsigroup.com BSI: Jennifer Sugden – Project Manager jennifer.sugden@bsigroup.com DG ENTR: Manfred Fuchs – Task Manager manfred.fuchs@ec.europa.eu

Section 2: Methodology

Section 2 includes the description of the methodology, including details on the references and information utilised and their sources, as well as measures taken to ensure quality of the work, and on consultations made.

2.1 Our Approach

As described in our proposal, we consider the following aspects to be key cross-cutting factors and principles in achieving good results during the project implementation. As such, these underlie our methodology.

Multi-disciplinary Team and Teamwork

- We have pooled BSI's expertise into a team of internal staff and will draw on additional staff or Committee Members if needed.
- We have focused on the good integration of the team members, thanks to the wide experience of the experts and to the presence of an experienced Project Director. The team members will be encouraged to exchange information amongst them and to ensure good communication.

Principle of Continuity

- The institutions and achievements in place are respected. The project is building on existing and previous achievements.
- There are numerous other projects and events which are in direct relation to this project. Our experts are working in close collaboration with DG ENTR to avoid any duplication with other initiatives and also seek benefit from synergies with them.

Emphasis on Sustainability

This methodology addresses the issue of sustainability by:

- Consolidating a relationship between CEN and particularly CEN's TC/250
- Encouraging the development of a network of contacts with EC Delegations, other NSBs, and other networks in targeted countries;
- Developing a 3-year work plan;
- Developing promotional material which may be used after the duration of the project;
- Translating documents to increase dissemination and information access;
- Seeking funding to ensure the continuation of the promotional campaign implementation
- Transferring knowledge and skills to staff of NSBs and EC Delegations.

Data Management

- All data and information collected and produced throughout the project is and will be stored on electronic folders. Once the project is completed, a CD-Rom with all the relevant data will be sent to the DG ENTR Task Manager.
- BSI's Project Director, Project Manager and Team Leader regularly liaise with the Task Manager appointed by DG ENTR.

2.2 Project Team

For the implementation of the project, we have mobilised the following BSI staff:

BSI Staff	Proposed Role
Mark Wasmuth	Project Director (start of project to end of 2009)
Emmanuel Herve	Project Director (replacement since 2010)
Keith Moyes	Team Leader
Malcolm Greenley	Technical Expert / Liaison with CEN/TC 250
Santa Marku	Marketing / Promotion Expert
Jennifer Sugden	Logistics / Funding / Project Manager

Since the project start, there have been some changes within the Project Team and within the Contracting Authority.

Project Director

Mark Wasmuth was the Project Director from the start of the project until end of 2009, when he left BSI. As of January 2010, Emmanuel Herve (Head of BS Standards Solutions, BSI) was appointed as the new Project Director and is being supported by Jennifer Sugden (Principal International Development Manager, BSI).

Task Manager

In March 2010, Claes Andersson left his post at DG ENTR. His position within the project has been replaced by Manfred Fuchs.

2.3 Description of the methodology

The description of our methodology attempts to answer the following questions:

1) What information did we look for? References and information (2.3.1)
2) How did we obtain the information? And from where? Sources (2.3.2)
3) How did we analyse it? Methods of analysis (2.3.3)
4) How did we test the strategy? Running the pilot and additional actions (2.3.4)

2.3.1 References and information

Activity 1: Assess previous material, actions and lessons learnt

During the first few months of the project, the Team Leader, Technical Expert and Project Manager assessed previous material and initiatives undertaken. When collecting information on previous promotional material, we focused our search on material which was principally targeting the countries and regions identified in the project specifications.

For each promotional event, we sought to gather common information to allow comparisons between events. As well as basic information, such as the date, location, target audience and organiser of the event, we were looking for clear statements of the objectives, preferably with stated measures of success. We also wanted to collect available material produced, such as presentation slides, programmes of the event, attendance lists and feedback forms. We were also looking for the impressions of the target audience and of the organisers for each event by looking at reports and, where possible, by contacting speakers and organisers.

For other types of promotional activities, we looked for printed and online material which referred to the promotion of Eurocodes specifically to third countries or making reference to the promotion of Eurocodes to third countries.

Activity 2: Collect information

For this activity, we went beyond obtaining hard data on the promotion of Eurocodes and also integrated insights, feedback and opinions from stakeholders, including CEN/TC250 members, construction and design agencies, standards bodies, etc. Although this information may be more subjective and less reliable in terms of accuracy, it allowed us to confirm some of the information obtained from hard data and provided a more complete picture.

Activities 1 and 2 ran in parallel, as the collection of information and the assessment of previous material were often done at the same time.

Activity 3: Define strategies for 6 regions

For each country listed in the specifications, we sought to understand the following issues:

- Which construction standards and regulations exist and which are currently being used in each country?
- How is construction managed in the country? What is the role of the government, of trade associations, etc?
- What is the political climate with regards to the EU?
- How does the country operate at present with regards to the marketing and use of building products and structural components? How are aspects such as mechanical resistance, stability and resistance to fire, currently being addressed?
- What type of climate does each country have? Which geotechnical conditions (e.g. ground characteristics, earthquakes, etc) are present in the country? This will be important for setting the Nationally Determined Parameters (NDPs). What local resources and experts could provide advice on NDPs?
- Who and what are the triggers and drivers in the construction sector?
- Who and what are the obstacles to the implementation of the Eurocodes?
- Who are the thought leaders in the area (e.g. standards bodies, trade associations, academics, manufacturers, etc.)?
- In which language(s) are standards published in locally? Do Eurocodes already exist in this language?
- How important for the economy is construction at present in the country?
- What is the level of awareness and interest in the Eurocodes?
- What is the importance of the target market for construction stakeholders in the EU?

Activities 4: Define 3-year work action plans for the different regions / countries and 5: Define promotional tools

Activities 4 and 5 were mainly based on the findings and preparation of the previous three activities.

Activity 6: Identify possible sources of funding

For this activity, we looked at who funded previous promotional activities. When this information was readily available, we contacted these organisations to seek if further funding would be available. In addition, we looked at donors who currently fund similar activities, either within the field of standardization or within the specific target country. We then broadened our search to include stakeholders who might have a vested interest in promoting Eurocodes in third countries, such as construction and design agencies. For each contact, we tried to establish whether our possible activities were in line with their current priorities, whether funding was available and whether there were procedures or deadlines.

Activity 7: Draft and submit a Progress Report

See section 2.5.4 on reporting.

2.3.2 Sources

Desk Research

The first part of the project focused on the development of the Eurocodes promotion strategy and mainly took place in the UK, at BSI's premises. For activities 1: Assess previous material, actions and lessons learnt, 2: Collect information, 3: Define strategies for 6 regions and 6: Identify possible sources of funding, extensive desk research was conducted by the team. The main source of information was taken from websites, trade journals, programmes and presentations of events, promotional material and reports. The purpose was to obtain data on past promotional activities of the Eurocodes, country data (e.g. statistics from National Statistic Offices) and information on possible sources of funding (e.g. websites of funding agencies). The literature review was based on the following types of reports including:

- *Country reports:* e.g. Oxford Business Group Reports, covering Algeria, Bahrain, Egypt, Emirates – Abu Dhabi, Emirates – Dubai, Jordan, Kuwait, Malaysia, Morocco, Oman, Qatar, Saudi Arabia, South Africa, Syria, Tunisia, Thailand, Ukraine; EC Neighbourhood Policy Country Reports and Country Strategy Papers covering Ukraine, Tunisia, Morocco, Jordan and Egypt, United Nations country data.
- *Sector reports:* e.g. Algeria Infrastructure Report, Indian Construction Industry Topics, Construction Industry in India, PMR Intelligence Reports on the Construction Markets in Russia and Ukraine, Construction Industry Survey in Thailand.
- *Legal reports:* e.g. Eversheds.
- *Project reports:* e.g. JRC reports (Varese event, Eurocodes), BSI reports on Eurocodes promotion campaign under the NSSF, UISF reports on events in Northern Africa.
- *Environmental reports:* e.g. UN Global seismic hazard maps.
- *Technical and Professional Newsletters:* e.g. CEN TC Newsletter and La Lettre de la Geotechnique.

Consultations

In addition to the review of published sources, numerous consultations were made either by email, through face-to-face discussions or over the telephone.

These activities involved contacting the following stakeholders:

- EC's Directorate-General for Enterprise and Industry and Joint Research Centre (JRC)
- CEN, CEN Technical Committee 250 and relevant sub-committees
- Construction and design stakeholders
- National Standards Bodies in Europe and in target third countries
- Government bodies in Europe and in target third countries
- Academic institutions and trade / professional organisations in Europe and in target third countries

Face-to-face Meetings:

Below is a list of the meetings held within the first phase of the project. Most of the meetings were attended by the Team Leader and some in conjunction with other members of the team.

- 03 November 2009, London: Steve Denton, Director of Bridge and Structural Engineering, Parsons Brinckerhoff and convenor of the Horizontal Group – Bridges of CEN TC/250.

- 11 November 2009, Brussels: first Monitoring and Steering Committee meeting held at DG ENTR.

- 16-17 November 2009, Lisbon: CEN/TC250 Meeting.

- 10 December 2009, London: Construction Sector Advisory Group (CSAG). The Team Leader presented the project and established contacts with British construction industry representatives and government officials. Met with Paul Davis, chairman of Paul Davis & Partners, a London-based architectural and urban design practice; Hugh Docherty, Director of Waterman, an international engineering and environmental consultancy; John Nutt, Executive Committee of Scott Wilson, a multi-disciplinary international design and engineering consultancy for the built and natural environments; Dr Andrew Hinton, Andrew Hugill and Michael Ward of UK Trade and Investment.

- 26 January 2010, Brussels: Eurocodes National Correspondents (ENC) meeting.

- 5 February 2010, Watford: Haig Gulvanessian, Consultant attached to the BRE (an independent and impartial, research-based consultancy, testing and training organisation, offering expertise in every aspect of the built environment and associated industries), Chair of SC1 and convenor of Expert Group for EN 1990.

- 5 February 2010, Watford: Gerard Canisius, Senior Structural Engineer, Scott Wilson

- 17 February 2010, London: Nary Narayanan, Consulting Engineer, Clark Smith Partnership

- 18 February 2010, Brussels: Discussed possibilities of funding from CEN (European Committee for Standardization) with Alexandre Dechaumont, International Cooperation Manager.

- 19 February 2010, London: Howard Taylor, Chartered Engineer and Advisory Committee Chairman on Structures

- 24 February 2010, London: Chris Hendy, Head of Bridge Design at Atkins

- 2-3 March 2010, Russian Federation: Political dialogue on Eurocodes
    - Attended the Construction Sector Sub-Group conference and the EU-RUS Regulatory dialogue meeting
    - Consulted with Jean Armand Calgaro (Chairman of CEN/TC 250) and Leonid Malov (Russian Standards Expert)

- 17 March 2010, Paris: Consulted with Jean-Armand Calgaro (Chairman of CEN/TC 250), Jacques Trinh (French Mirror Committee of Eurocode 5 with experience in the Far East) and Roger Frank (former Chair of Eurocode 7 and now AFNOR representative for the Maintenance Group).

- 31 March 2010, London: BSI Eurocodes Launch and met with Sibdas Chakrabati, Former Director of Bridges at the Highways Agency and Satish Desai (Visiting Professor School of Civil Engineering and Construction Penrhyn Road, Kingston University).

- 10 May 2010, Brussels: second Monitoring and Steering Committee meeting held at DG ENTR.

- 24 June 2010, London: Tariq Nawaz, Consultant in Construction and Speaker at previous NSSF / BSI promotional events for Eurocodes.

Annex 1 includes notes of the above meetings.

<u>Email and Phone Correspondence</u>

In addition to the above meetings, which for time and cost purposes mainly took place in the UK and Europe, our team contacted the EC Delegation of each target country to brief them on the project, collect information and establish contacts. The first contact was preliminary and may require follow-up during the second phase of the project in the target countries where the pilot actions will take place.

We also relied on our strong international network and good working relationships with CEN and National Standards Bodies. Throughout the project, we contacted members of this network to collect information and insights, including DIN (Germany), AFNOR (France), AENOR (Spain), NEN (The Netherlands), DS (Denmark), ASI (Austria), SIS (Sweden), SFS (Finland), UNMZ (Czech Republic), PKN (Poland), ASRO (Romania), LVS (Latvia), and EVS (Estonia).

A questionnaire was prepared in English to provide a consistent guide of questions to be asked to the NSBs and appropriate authorities (e.g. Ministry of Construction). The questionnaire was sent out by email. In most cases, they were followed by telephone interviews. The questionnaire can be found in Annex 8.

The questionnaire responses are set out in the table below:

Western Mediterranean		
Algeria	Questionnaire sent out to: Directeur General, M Mohamed Chaieb Aissoui, Institut Algérien de Normalisation, IANOR	Follow-up call with M. Aissaoui, Directeur de la Normalisation (Institut Algérien de Normalisation, IANOR). Asked us to the send the questionnaire again.
Morocco	Questionnaire sent out to: Chef Exécutif, M Abdellah Nejjar of SNIMA	Completed the questionnaire over the phone with Mr Kabbaj Mekki (Service de Normalisation Industrielle Marocaine, Ministère de l'Industrie, du Commerce, de l'Energie et des Mines, Responsable du Bâtiment et du Génie Civil) – see notes in annex 1 Waiting for official response to the questionnaire by the two relevant government departments: 1) Département de l'Equipement et du Transport (which looks after infrastructure) 2) Département de l'Habitat (which looks after construction buildings).
Tunisia	Questionnaire sent out to: Directeur General, M. Aymen Mekki, INNORPI	Completed the questionnaire over the phone with Samir Ben Cheikh, Responsable du Département Normalisation INNORPI (Institut National de la Normalisation et de la Propriété Industrielle ; National Institute for Standardization and Industrial Property) – see notes in annex 1
Eastern Mediterranean / Gulf states		
Egypt	Questionnaire sent out to: Dr. Mohamed Hanry Barakat, Chairman, of EOS and to Dr. Gamal Abu Taleb	Completed relevant parts of the questionnaire over the phone with Dr. Gamal Abu Taleb Chairman, British Engineering Institutions-EGYPT (BEIE) – see notes in annex 1
Jordan	Questionnaire sent out to: Dr. Yaseen M Khayyat, Director General, JISM and subsequently to Dr Al-Zubi (JISM: Jordan standards body)	Written response – see questionnaire response in annex 1
Syria	Questionnaire sent out to: General director, Syrian Arab Organization for Standardization and Metrology (SASMO)	No response
Gulf states	Questionnaire sent out to: Mr Nabil A Molla, Governor, SASO, Dr Saleh Al-Mogrin, Director General Professional Affairs (Saudi Council of Engineers); Aamer Mostafa Ahmad (SMA: UAE standards body); Dr Al-Kawari (QS: Qatar Standards body)	Dr Saleh Al-Mogrin responded to the questionnaire and discussed questionnaire on the phone – see meeting notes in annex 1
Eastern Europe		
Russia	Questionnaire sent out to: Mr Grigory	Written response – see translated questionnaire

	Elkin, President, GST R and subsequently to Mr Konstantin Zhiliaev Head of Technical Regulations Section, Construction Department, Ministry of Regional Development	response in annex 1
Ukraine	Questionnaire sent out to: Ms Larysa Losiuk, Head of DSSU and subsequently to Mr Dmytro Barzylovych Director, Directorate of Technical Regulations in Construction	Written response – see annex 1
South East Asia		
Vietnam	Questionnaire sent out to: Dr Ngo Quy Viet, Director General, STAMEQ and to Vietnam's Directorate for Standards and Quality	Contacted Miss Van (Vietnam Directorate for Standards and Quality) who recommended we send her an email. She will then forward it to the Ministry of Construction. Follow-up 25 June 2010 by Roger Frank who is visiting the Ministry of Construction.
Thailand	Questionnaire sent out to: Mrs Ratanaporn Chuengsanguansit, Secretary-General, TISI Thai Standards Institute	Thai Standards Institute asked us to send the questionnaire again.
Malaysia	Questionnaire sent out to: Mrs Fadilah Baharin, Director General, DSM	Contacted Miss Marshitah (Department of Standards, Malaysia) who recommended talking to Miss Nor Hashima (Sirim Berhad, Malaysia). Completed relevant parts of the questionnaire over the phone with her – see notes in annex 1
South Africa		
South Africa	Questionnaire sent out to: Dr. Bonakele Mehlomakulu, Chief Executive Officer, SABS and subsequently to Terrence Moodley (SABS: South African Standards)	Chased questionnaire. Completed questionnaire subsequently returned – see annex 1
India		
India	Questionnaire sent out to: Sharad Gupta, Director General, BIS and to Joythi Rani of the Construction Industry Development Council and to T Viswanathan (Engineer working in India)	Following telephone contact with BIS the questionnaire was resubmitted to the BIS Information Department. The questionnaire was completed and returned by CIDC and by T Viswanathan (Engineer working in India) completed the questionnaire – see annex 1

Throughout the project, we also used our own internal network of contacts within BSI to gain further insights. For example, a brainstorming meeting was held at BSI (04/12/2009) with the project team, as well as with other BSI staff to discuss the market template of questions which would be asked to the relevant stakeholders. Our team attended regular meetings within BSI focused on the development and promotion of Eurocodes. We also had access to Committee members on construction standards and organised a few separate meetings to gain further information.

Most of these contacts served both as a source of information, as well as a vehicle to promote the project.

Our most recent telephone contacts include;

- 20 February 2010: Telephone conference with Paras Shah, Structural Engineer for Scott Wilson
- 11 May 2010: Telephone interview with Frank Faraday of FIEC
- 25 May 2010, Telephone interview with Martin Van Der Putten of EFCA

- 25 May 2010: Telephone interview with Saleh El-Mogrin, Saudi Council of Engineers
- 25 May 2010: Telephone interview with Miss Marshitah, Department of Standards, Malaysia
- 26 May 2010: Telephone interview with Miss Nor Hashima, Sirim Berhad, Malaysia
- 26 May 2010: Telephone interview with Adrian Joyce of ACE

The Project Team logged contact details of all stakeholders contacted in a master list. The intention is to use this as a working document in progress, which will be updated throughout the project. This list can be found in Annex 2.

On-line survey

In addition, we prepared a short survey in order to gain further understanding of the use of Eurocodes, the importance of target markets and the preferred communication channels - mainly from the perspective of European-based construction and design organisations.

We used Survey Monkey to prepare the survey electronically. The survey consisted of 10 closed questions and was sent via email to approximately 3,000 people. As a target audience, we selected organisations and individuals who purchased Eurocodes from BSI over the last three years. We used this data as an indicative representation of European consumer trends of Eurocodes.

We received responses from 134 participants of which:

- 85% have their head office based in Europe
- 58.2% are private organizations, 15.7% sole traders and 29.9% chose “other”, which included: manufacturers, service providers, consultants, research centres and institutes, trade associations, technical industrial centres and software developers.
- 62% are stakeholders from the design and construction sector (41.8% primarily design companies, 6% primarily construction companies and 14.2% both a design and construction company)

The results of the survey can be found in annex 12 and are further analysed in the Strategy section.

2.3.3 Methods of Analysis

As the raw data was being collected and feedback was being collated from all the contacts established with relevant stakeholders, the team proceeded to the analysis. Regular internal meetings were organised to discuss findings and to further organise the implementation of the next activities. As well, some preliminary ideas for the strategy were discussed with external stakeholders to obtain feedback. The BSI Eurocodes launch event organised on the 31 March 2010 was a good opportunity to gain insights on our initial findings.

Review of previous promotional material

From the material we collected, we were able to categorise events in terms of the message that was being communicated and the objectives of the event (mainly through the content of the presentations). We also compared the format of the material with the target audience and reviewed the feedback when possible (although this was in most cases difficult to obtain).

For the websites, we looked at the data available and how accurate and up-to-date it was. We also looked at the number of “hits” or “visits” and their browsers’ country of origin.

Survey and questionnaire results

Three weeks after having sent out the survey, the results were automatically collated from Survey Monkey. The key findings were included in the relevant sections of the strategy. As for the questionnaires, the information collected on the phone, by email and through meetings was incorporated in the country market analyses.

Strategy-defining tools

To proceed with the development of the strategy, the Team Leader elaborated a market template based on the PESTLE analysis model. This template was used to capture relevant data for each target market, including comments on the data. The Team Leader also prepared a draft letter and list of topics to be discussed for circulation to contacts. Our team mainly used the following strategy-defining tools as a basis for the definition of the strategy: SWOT analysis, PESTLE analysis, AIDA model, and pull and push strategies.

SWOT Analysis

This tool is used to understand the Strengths, Weaknesses, Opportunities, and Threats of a product, business or project. In this case, the SWOT analysis will help reveal the strengths and weaknesses of Eurocodes, as well as the opportunities and threats present in each country / regional market. It will allow our team to prepare ourselves for possible obstacles and develop an appropriate strategy.

PESTLE Analysis

This tool is used to analyse the Political, Economic, Social, Technological, Legal and Environmental factors, which are used to assess the market for a business or organizational unit strategic plan. The PESTLE analysis will help define the market and expose potential risks. The PESTLE analysis can form a part of the SWOT analysis.

AIDA model

AIDA (Awareness, Interest, Desire, Action) is a model which illustrates the different stages a consumer passes through before purchasing a product or service. In conjunction with the maturity cycle, this model can help determine the level of information to be disseminated during the promotion campaign. For example, this could entail the spread of information to create Awareness on the Eurocodes, create Interest in the Eurocodes, create a Desire to adopt the Eurocodes, call for Action with the uptake of the Eurocodes.

Pull and push strategies

A *pull strategy* applied to the promotion of Eurocodes would consist of disseminating information directly to the consumers of Eurocodes, which would include owners, operators and users, designers, contractors and manufacturers of construction products; whereas, a *push strategy* would focus on disseminating information to national standards bodies, for example.

2.3.4 Running the pilot and additional actions

Activity 8: Establish a Work Plan for the implementation of actions

Once the Progress Report and pilot actions were approved by the Commission, our team prepared the organisation of the three key pilot actions. This was achieved by establishing contacts with local organisations or partners, discussing the logistics including costs and timing of the activities, identifying the key speakers and target audience. In addition to the pilot actions, our team also implemented additional actions and responded to ad hoc requests (e.g. study visits, meetings). The timeframe for the implementation of the actions was between July 2010 and March 2011.

Activity 9: Implement the first stages of the agreed Work Plan

The team was active in the implementation of the actions. Once the actions were implemented, debriefing sessions with the speakers and organisers, as well as feedback from the participants helped

the team draw lessons from the implementation of these actions and to test the validity of the promotional strategy presented in the Progress Report.

Activity 10: Participate in an evaluation and validation workshop

The next "Eurocodes National Correspondents" meeting organised by the Commission is scheduled for 13 April 2011 in Brussels. Further to the Task Manager's suggestion, the Team Leader and Project Manager will present the findings of the study to the ENC members.

The objective of the presentation is to describe the pilot actions that were implemented, as well as a brief overview of the additional actions carried out. Further to this description, the team members will present the issues and findings and address the recommended further actions and lessons learnt. This will be an opportunity for ENC members and other interested parties to ask questions and discuss the conclusions and next steps.

Activity 11: Draft and submit a Final Report

See section 2.5.4 on reporting.

2.3.5 Difficulties encountered

When collecting information and reviewing previous promotional material, it was often difficult to get hold of feedback forms from past events, and in some cases to obtain the presentation material. However despite these difficulties, enough information was gathered to be able to identify the type of actions that have been conducted in the past. The Team Leader assessed which actions were successful and what the obstacles were based on the information available.

When sending out the questionnaires, we faced the following difficulties: language issues and delays in response. These delays were mainly due to the need to obtain "official responses" requiring the approval from the NSB's hierarchy, usually the Ministry it is part of.

For this reason, the questionnaire was tailored throughout the project to suit the nature of the recipients (e.g. standards bodies, ministries) and was also translated into Russian and French to ensure maximum understanding by the relevant target markets.

2.4 Project Visibility

Throughout the project activities, the project was presented to all stakeholders contacted and a project brief was included in most written correspondence.

Interest in the Eurocodes was also received from non-target countries, such as Japan (from the Japan Society for Civil Engineering), Singapore (SPRING, the National Standards Body in Singapore; the Singapore Building & Construction Authority); China (EC Delegation in China); Belarus (Gosstandart of Republic of Belarus who recently expressed their interest to participate in the work of CEN/TC 250); Kazakhstan (KAZGOR Design Academy) and Panama (Centro de Agencias, S. A.). During our discussions with these countries, this project was also referred to.

In addition, an article was drafted for the May 2010 publication of the CEN/TC250 Newsletter (see Annex 3).

2.5 Evaluation and Monitoring

As part of the implementation phase, we integrated monitoring and evaluation activities to enable us to determine whether the actions have accomplished the desired effect and to ensure quality of the work.

2.5.1 Project Management

The Project Director has been contributing to the evaluation and monitoring of the project by providing:

- Overall supervision of the project, including monitoring of management, financial and administrative systems, and monitoring of progress
- Support to the formulation of working documents, analysis and supervision of project reports

- Support to ensure that experts and project implementation are following EC procedures
- Management of the budget: the accounting of the project is being done at BSI's headquarters, based on supportive documents provided by the team members
- Templates and formats to the project that may facilitate project operation
- Guidance when comparing the project performances to the general objectives of the project, its method and actions

2.5.2 Quality Control Tools

To ensure a regular flow of communication with the EC Task Manager, monthly reports were submitted to the Task Manager. These can be found in Annex 4.

Regular internal meetings were held at BSI to discuss the progress of the project and difficulties encountered.

Throughout the project, we have been monitoring the allocation of resources via a series of spreadsheets linking the programmed resource allocation with the information provided by the timesheets for each expert.

All travel arrangements within the scope of a project are controlled by the invoices issued by our travel agent. These documents are then counterchecked with the information provided by the timesheets.

2.5.2 Monitoring and Steering Meetings

At the inception of the project, a Monitoring and Steering Group was established by the Task Manager. The first Monitoring and Steering meeting took place in Brussels on 11 November 2009. Minutes of the meeting, including a list of attendance and the agenda can be found in Annex 5.

The second Monitoring and Steering meeting took place in Brussels on 10 May 2010. The agenda and minutes can also be found in Annex 6. The purpose of this meeting was to discuss the progress of the project and to present the strategy to the members of the meeting, in order to gain their insights and feedback and to raise any difficulties encountered.

A third meeting took place in Brussels on 29 June 2010 with the Task Manager and Project Team to discuss the progress report and more precisely the selection of pilot actions. The minutes of this meeting can be found in Annex 16.

An informal meeting took place in Brussels on 11 February 2011 between Manfred Fuchs and Jennifer Sugden to discuss the progress of the pilot actions.

A final Monitoring and Steering meeting took place on 12 April 2011 between Manfred Fuchs (EC), Artur Pinto (JRC) and, Keith Moyes and Jennifer Sugden (BSI). Pilot actions were discussed together with the impacts they had on the interim report. Amendments to the final report were agreed.

The Project, its methodology and its findings were presented to an Evaluation and Validation Workshop organized as part of the ENC Meeting on 13 April 2011. The presentation can be found in *Annex Promotion 4* Presentation of Keith Moyes ENC meeting – 13 April 2011.

2.5.3 Deliverables

The following table provides an overview of the main deliverables provided for each completed activity:

Activities	Deliverables / Outputs
Activity 1: Assess previous material, actions and lessons learnt	- Assessment of material, information and lessons learnt on previous actions promoting the implementation of Eurocodes - List of contacts
Activity 2: Collect information	- Compilation of materials and information on Eurocodes and their promotion

Activities	Deliverables / Outputs
Activity 3: Define strategies for 6 regions	- Market analysis of selected countries / regions identified in the specifications - Set of dissemination strategies
Activity 4: Define 3-year work action plans for the different regions / countries	- 3-year Work Action Plans[2]
Activity 5: Define promotional tools	- List of recommended marketing / promotional tools
Activity 6: Identify possible funding sources	- List of possible financing sources - Project Brief
Activity 7: Draft and submit a Progress Report	- Progress Report
Activity 8: Establish a Work Plan for the implementation of actions	- Work Plan for the implementation of several elements in the action plan
Activity 9: Implement the first stages of the agreed Work Plan	- 4-6 actions implemented (in reality, we delivered 8 pilot actions and 8 additional actions) - Promotional material - Evaluation forms - Press coverage
Activity 10: Participate in a one-day evaluation and validation workshop	- Workshop materials - Minutes of the evaluation and validation workshop
Activity 11: Draft and submit a Final Report	- Final Report
Monitoring and Steering Group Meetings	- Minutes of the Steering Group meetings

2.5.4 Reports

All required reports will be prepared by the Team Leader and the Project Director and delivered to the DG ENTR in accordance with the specifications.

Progress Report

Topics	Presentation	Timing
- Present the general framework for the study and a glossary describing the relevant terms that are to be used; - Describe the methodology used, including details on the references and information that are utilised and on their sources, on measures taken to ensure quality of the work, and on consultations made; - Specify how the work was undertaken in respect of the agreed work programme; - Adequately present the results obtained as well as explain the work undertaken during the first 7 months (the actions No. 1-6 as indicated under section 4.1.3, above) of the assignment and present a well-elaborated approach to the remaining elements of the agreed work programme based on the indications under point 4.1.3. This should include a complete strategy, the complete 3-year information/dissemination action plans for the six different regions/countries as well as an indication of the tools necessary for implementing these action plans.	- Max 70 pages including illustrative material; - Main supportive documents will be attached in annexes; - Submitted in English, together with an 8-page summary in French and German (it was agreed with the Task Manager that this would not be necessary at this stage)	- Submitted to the Commission no later than seven and a half months after the signature of the contract.

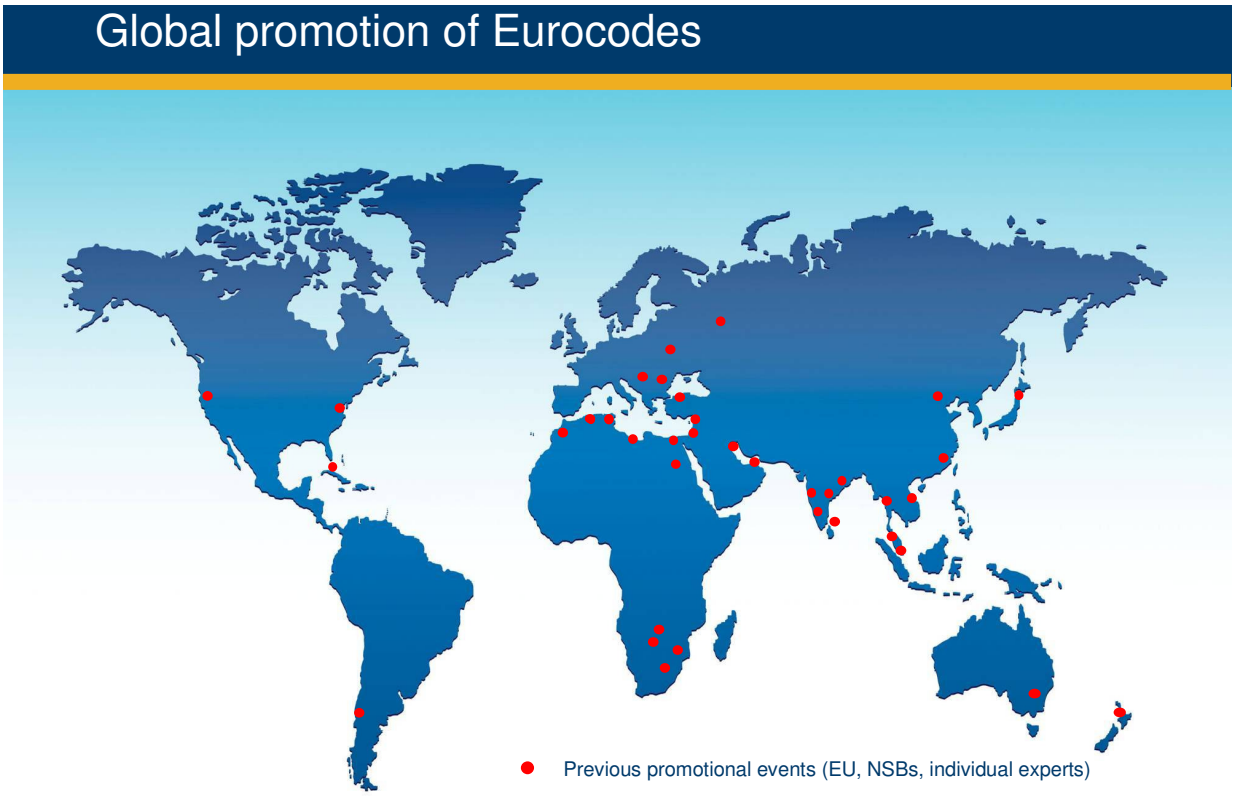
[2] After discussion with the Task Manager, it was agreed that at this stage the elaboration of three-year work plans would not be relevant without the clear identification of an owner and of resources available.

Final Report

Topics	Presentation	Timing
- The methodology used, including details on the references and information that have been utilised and the sources of these, on measures taken to ensure quality of the work, and on consultations made; - How the work was undertaken in respect of the work programme; - The characteristics of the work undertaken (ideas; innovative elements; technical feasibility and likelihood of findings resulting in successful further work, positive and negative aspects experienced); - The collaboration established during the course of the work (for example, involvement of Commission services and national administrations, public and private bodies in the sphere of construction; industry associations and authorities at local, regional and national level; experts and special knowledge bodies; etc.); - The comprehensive results of the work undertaken with regard to all elements of the agreed work programme as indicated under point 4.1.3. of the specifications; - Indicate lessons learned from the implementation phase of this assignment and clearly point to any possible need for modifications (based on such lessons) of the previously developed strategies and actions plans.	- Max 100 pages including illustrative material; - Main supportive documents will be attached in annexes; - Submitted in English, together with an 8-page summary in French and German.	- Submitted to the Commission no later than sixteen months after the signature of the contract.

Section 3: Analysis of Promotional Activity to date

Throughout their long development period (since the 1980s), there has been considerable interest in the Eurocodes, mainly from the construction and design industry both in the EU and in third countries. Promotional activity of Eurocodes has been going on a regular basis throughout that time within and outside the EU. For the purpose of this project, we have focused on the promotional activity organised for target third countries, as identified in the specifications. These activities have been the result of both market push (active promotion) and market pull (reactive promotion), as explained below.



3.1 Market Pull – Reactive Promotion

Pull activity is information, training or promotion in response to unprompted interest throughout the scientific, educational and construction world in all the target markets and elsewhere that has resulted in invitations to present or undertake training and workshop sessions on Eurocodes. This has been prompted by three main factors.

Firstly, there is the intrinsic merit of the product. Eurocodes have evolved as a coherent, integrated, flexible, cost-effective approach to design that has advantages over other existing design regimes. Design to Eurocodes offers the prospect of better and more economic construction with corresponding advantages to both practitioners and clients, as identified in the SWOT analysis.

Secondly, there is the access it will give local practitioners to the European market. From 1 April 2010, Eurocodes have become the default design regime for any publicly-funded projects throughout the European Union. While it will still be possible to design to other codes, it will be necessary to demonstrate their equivalence in complying with European regulation. Any practitioners in the target market will have to be competent in their use if they wish to tender for these projects. The greatest advantage will accrue to them if Eurocodes are also applicable to local design work. In some countries, such as India, it is not merely a question of local companies gaining access to the European market. Many European design companies routinely outsource work to offices and subsidiaries in those countries as a low cost alternative to EU-based activity.

Thirdly, there is the issue of the growing obsolescence of the existing codes of third countries, where those codes are based on European national codes: typically English and French. From 1 April 2010, these European codes will no longer be maintained and the target countries will be required to take a decision in the long term.

From our point of view, there are five alternatives available to them: 1) maintain the local codes through their own national resources; 2) adopt the Eurocodes; 3) adopt alternative codes, such as the American Unified Building Code; 4) Create their own national codes possibly based on existing ones (e.g. Eurocodes, American Unified Building Code or other)?; 5) Do nothing.

3.1.1 Reactive promotional activities

Reactive promotional activity in response to requests by local institutions has been significant over many years, but is has generally been sporadic. Much of it has consisted of training activities, delivering presentations at conferences, seminars and workshops, and less often the organisation of working groups.

When analysing previous promotional activities, we were looking for information on the objectives and measures of success of the event, the speakers, the topics presented, the number of participants, the organisers, and feedback received. The information we were able to obtain has been included in the list below.

The **Union des Ingénieurs et Scientifiques utilisant la langue française (UISF)** participated in a number of activities in the target countries. Based on a phone interview with the UISF, it us our understanding that the UISF was asked to participate in events upon request of the target countries themselves. Examples of their interventions include:

- Conference in Tunisia (Tunis) in December 2003 on “La pathologie des constructions – tenue aux séismes” organised by the Centre Technique du Ministère de l’Equipement tunisien (CETEC) and the Association Tunisienne de Génie Sismique (ATGS) with the collaboration of the UISF.
- Conference in Tunisia (Tunis) in December 2004 organised in collaboration with the CETEC, the ATGS and the UISF under the aegis of the Ministère de l’Equipement tunisien on “ La construction parasismique et la normalisation européenne”. Delegates from Tunisia, Algeria and Morocco attended these events.
- Seminar in Vietnam to raise awareness on the Eurocodes in the field of civil engineering (2004).
- 2-day conference in Morocco (Casablanca) entitled “Les normes et la qualité dans la construction” (Standards and Quality in Construction) held on 30 September and 1 October 2005 (200 delegates from the Maghreb, Senegal and other African countries) organised by the Ecole Hassania des Travaux Publics in Casablanca (EHTP) and the Union des Ingénieurs et Scientifiques utilisant la langue française (UISF), in liaison with AFNOR and AUF and under the aegis of the Ministère de l’Equipement et du Transport du Maroc. The objectives were a) to stimulate cooperation amongst countries of the Maghreb with the intention of adopting a standardisation system derived from the European standardisation system for the design and calculation of buildings and infrastructure; b) to report the progress of the approach of enterprises and master builders in Morocco.
- Training in Tunisia in December 2005 on “Raising Awareness on the Eurocodes” organised by the Institut Scientifique et Technique de Sfax (Tunisia) with the participation of the UISF.
- Meeting in Tunisia (Tunis) in June 2006 in collaboration with the UISF. Topics included: seismic action, the adaptation of Eurocodes to the North African context and education, research and industrial development.
- Seminar in Algeria (Tlemcen) at the University of Tlemcen from 16-20 November 2006 on “Quality and Standardization in construction (“Normatica”)” organised by the Faculté des Sciences de l’Ingénieur de l’Université Abou Bekr Belkaid de Tlemcen, l’UISF, l’Association des Enseignants de l’Université de Tlemcen with the cooperation of AFNOR (French NSB) and IANOR (Algerian NSB).

Jean-Armand Calgaro (current Chair of TC 250) who contributed to:

- Algiers 2003 a Conference on “Risk Management and European Design Standards” in Algiers,
- Tunisia 2004 a Conference on “Eurocodes: General Overview” in Tunisia

- Morocco 2005 International workshop on “Standards and Quality in the field of Construction”
- Algeria 2006 international workshop “Normatica”
- Tunisia 2008 Conference on “Sciences for Engineers and Development in North Africa”

Note: most of these contributions were organised via the UISF (as described in the paragraph above).

R P Johnson of the School of Engineering University of Warwick reported on the following training he delivered by invitation of the local Institutes for Steel Construction:

- 22 lectures in South Africa (Pretoria, Stellenbosch, Johannesburg, Durban, Cape town)
- 5-day course in Qatar
- Lectures in Kuala Lumpur, Malaysia

Paul Lüchinger, Meyer Bauingenieure AG, Switzerland reported on a presentation on “Design and Assessment of Structures as Concentrated Planning Process”, which he delivered at the IABSE Symposium in Bangkok in September 2009.

The **JRC** reports that a series of lectures took place in South Africa, as listed below.

- 24 Oct, 2008, Johannesburg : Eurocode 7: Geotechnical Design (With Examples)
- 22 Oct, 2008, Durban: Eurocode 7: Geotechnical Design (With Examples)
- 20 Oct, 2008, Cape Town: Eurocode 7: Geotechnical Design (With Examples)
- 19 Sep, 2008, Johannesburg: Eurocode 3: Design of Steel Structures (With Examples)
- 17 Sep, 2008, Durban: Eurocode 3: Design of Steel Structures (With Examples)
- 15 Sep, 2008, Cape Town: Eurocode 3: Design of Steel Structures (With Examples)
- 22 Aug, 2008, Johannesburg: Eurocode 2: Design of Concrete Structures (With Examples)
- 20 Aug, 2008, Durban: Eurocode 2: Design of Concrete Structures (With Examples)
- 18 Aug, 2008, Cape Town: Eurocode 2: Design of Concrete Structures (With Examples)
- 11 Jul, 2008, Johannesburg: Introduction and Overview of the Eurocode System
- 9 Jul, 2008, Durban: Introduction and Overview of the Eurocode System
- 7 Jul, 2008, Cape Town: Introduction and Overview of the Eurocode System
- 20 Nov, 2007, Durban: Eurocode 3: Design of Steel Structures
- 19 Nov, 2007, Durban: Eurocode 2: Design of Concrete Structures
- 16 Nov, 2007, Johannesburg: Eurocode 3: Design of Steel Structures
- 15 Nov, 2007, Johannesburg: Eurocode 2: Design of Concrete Structures
- 13 Nov, 2007, Cape Town: Eurocode 3: Design of Steel Structures
- 12 Nov, 2007, Cape Town: Eurocode 2: Design of Concrete Structures
- 27 Jul, 2007, Durban: Introduction and Overview of the Eurocode System
- 25 Jul, 2007, Johannesburg: Introduction and Overview of the Eurocode System
- 23 Jul, 2007, Cape Town: Introduction and Overview of the Eurocode System

3.1.2 Feedback on reactive promotional activities

When available, feedback received for the above events was positive in terms of the number of participants who attended the events, the impressions gathered from the organisers and/or of the speakers. For example, the 2005 conference in Morocco was well attended (200 participants). The Eurocodes theme was much appreciated and the participants became conscious of the problems that they would face once the national codes of France would no longer exist (as reported in an UISF report). Seismic action appeared as a crucial area of focus for the region and stimulated vivid debates. There was a strong interest and will to further cooperate on the establishment of a standardization system related to the European one, bearing in mind the local specificities. The seminar in Tlemcen, in Algeria was attended by 220 participants. According to feedback reports from the organisers, the participants showed interest in the topics. Reports on these events can be found in annex 14.

3.2 Market Push – Active Promotion

Push activity is promotional activity sponsored by European agencies and organizations that seek economic advantage for European business in the design and construction sector by the widest use of Eurocodes throughout the rest of the world. Any European design company now has to be competent in

the use of Eurocodes in order to serve the European market and it is clearly more cost-effective if the same expertise can be employed in work undertaken for clients in other parts of the world. Although it is appropriate to consider the attractiveness of the target markets in any prioritisation of future activity, the promotional message should be focussed on the advantages to the local market, rather than the opportunities for the European design industry.

Of the two (active and reactive promotion), active promotion of Eurocodes in the target markets has been the most limited to date. This has been of two main types: targeted (directly addressed to the target markets) and untargeted (general information and promotion mainly aimed at the various European national territories, but available for any interested enquirer).

3.2.1 Targeted activities – conferences

It appears that the two main players engaged in targeted activities have been the European Commission and the British Government Department of Trade and Industry (DTI) (now called BERR, the Department of Business, Enterprise and Regulatory Reform), under its joint DTI-BSI 'National Standards Strategic Framework' (NSSF) initiative. From our findings, it appears that other standards bodies and national governments have not been as active in promoting Eurocodes in third countries.

The **European Commission**, under the auspices of the Joint Research Council (JRC), organized:

- A conference in Varese entitled "Eurocodes: Building the Future in the Euro-Mediterranean Area" in 2006
- A conference in Moscow under its EU-Russia Regulatory Dialogue initiative in 2008
- A conference in Bangkok, Thailand in 2009 entitled "Towards the Eurocodes Era: Background and Applications"
- An round-table discussion and conference in Moscow under its EU-Russia Regulatory Dialogue in the construction sector in March 2010

The **DTI-BSI NSSF** initiative led to a series of conferences on Eurocodes:

2004

- 1 day conference in Malaysia (Kuala Lumpur) entitled Construction standards in Malaysia (80 delegates)
- 1.5 day conference in Vietnam (Hanoi) entitled Construction standards in Vietnam (220 delegates)

2005

- 1.5 day conference in India (New Delhi) entitled Construction standards in India (40 delegates)
- 1 day conference in Dubai entitled Construction standards in Dubai (80 delegates)

2006

- 1.5 day conference in Qatar (Doha) entitled Construction standards in Qatar (70 delegates)
- 1 day conference in Syria (Damascus) entitled Construction standards in Syria (90 delegates)
- 1 day conference in India (Bangalore) entitled BSI Roadshow (80 delegates)
- 1 day conference in India (Chennai) entitled BSI Roadshow (90 delegates)
- 1 day conference in India (Mumbai) entitled BSI Roadshow (90 delegates)

2009:

- Conference in Ukraine on European standards and regulations in the construction field including the CPD and Eurocodes as part of a EuropeAid project at which Professor Klimov reviewed the progress and procedures for application of the Eurocodes in Ukraine.

3.2.2 Feedback on targeted activities – conferences

All these above promotions received mainly positive feedback, according to the organizers and the speakers contacted.

The goal of the **Varese workshop in 2006** was "to contribute to the objectives of the Euro-Mediterranean Partnership by facilitating the harmonization of the legislative and regulatory frameworks of the Mediterranean Partners with those of the European Union in areas such as standardization of structural design of works and certification of construction products. The opportunities for market access and facilitation of trade offered by the use of the European System for Standardization and Certification for construction have been presented. Special attention was paid to the improvement of safety in construction, and particularly to the contribution of the state-of-the art seismic design standards to the earthquake risk mitigation."

It was attended by high-level representatives of National Authorities, NSBs, academia and industry from Algeria, Egypt, Jordan, Morocco and Tunisia. It included presentations by A. Salama, Chairman of Housing & Building National Research Center, Egypt, T. Al Hadid, Director, Building Research Center, Jordan, K. El Harrouni, Ecole Nationale d'Architecture, H. Hassis, Ecole Nationale d'Ingénieurs de Tunis. The discussions lead to recommendations on the possibilities for cooperation, harmonization in the construction field and the specific needs of the Mediterranean region, particularly in respect seismic design guidelines. It was reported that Eurocodes are already used in the revision of existing national codes and that several countries are planning their direct implementation. A number of structural designers of companies that participate in international projects are using the Eurocodes and there are universities offering courses on Eurocodes. There were no delegate feedback forms employed at this conference and we could find no clear measure of success.

The **Moscow workshop in 2008** had the following stated goal: "To gather and make available information on the EU and Russia Standardization and Certification Systems for construction. Its main objectives were:

- To present the European Standardization and Certification System, the basic concepts of the Eurocodes and of the prepared tools for their implementation (training courses, designer's guides, worked examples, handbooks, manuals, design aids, software).
- Overview of the possibilities for co-operation to reduce divergences in standardization.
- Identification of the specific needs for enhanced business and technical cooperation between EU and Russia.
- Setting-up of a network of institutes/experts aiming at information exchange and scientific and technical cooperation.

It led to a further conference in 2010 and continuation of the EU-Regulatory dialogue.

We have not been able to determine if there are delegate feedback forms available from this event.

The **Conference in Bangkok in 2009** entitled "Doing business with the EU" had the goal of explaining the provisions of the Eurocodes, facilitating an exchange of views and networking and cooperation amongst stakeholders.

The **NSSF programme** had common goals, described as "part of the ODPM (Office of the Deputy Prime Minister) drive to promote Eurocodes overseas."

The BSI event in **Malaysia** was attended by 80 delegates and there were presentations by Dato Chong Cho Ha, of the Ministry of Science, M C Hee of the Institution of Engineers and Mohamed bin Mohm Narrudin, General Manager of Construction Industry Development Board. The report of the event referred to positive feedback from delegates and relevant authorities.

Similarly, the well attended event in **Vietnam**, which had contributions from Professor Nguyen Van Lien, of the Ministry of Construction, Dr. Ngo Quy Viet of STAMEQ (the standards body) and Nguyen Huu Dung of the Department of Science and Technology. Dr Cao Duy Tien wrote that they were looking for further support on how to implement Eurocodes in the near future. A meeting was planned with CEN in 2007, but this never took place.

The BSI conference in **New Delhi** was incorporated into a much larger conference and was not well attended (40 delegates). The response of one of the presenters, Mr Tariq Nawaz was that enthusiasm for Eurocodes was fairly muted and that some delegates saw America as a more important target market than the EU and felt that an understanding of American codes was a higher priority.

The **BSI Roadshows** the following year were much more successful. The presentations were all rated as “Very Good” or “Good”. 65% of respondents indicated they would like more information about Eurocodes. 77% stated that India should consider Eurocodes as their national codes. BSI was invited to supply Eurocodes experts to the 2007 World Congress in Bangalore. Some delegates said they would have liked more practical application or worked examples. One of the BSI experts (Nary Narayanan) reported that the Indian Concrete Institution was particularly interested and that the Indian Roads Congress had proposed a two or three day seminar in Delhi. He reported as follows:

“Following our recent conferences in India, I thought I would set out my impressions. BSI might find them as useful pointers for future action.

It is fair to say that there is considerable interest in Eurocodes in India.

The Indian Concrete Institute was particularly excited by the prospect of using up to date and modern codes in their construction, which is booming. The Secretary General telephoned me on the night before our departure from Chennai and conveyed his appreciation. It was more than just being polite. He said that he had had an upbeat feedback from the delegates. I understand that some people who attended the seminar cannot wait to get hold of copies of EC2 and start applying it to projects. When I questioned him on the acceptability of Eurocodes to Regulatory authorities, he said that he saw no difficulties. He may be right in practice; but I think there is a formal process to be gone through. I got the impression that they would like to discuss with BSI how they can receive copies of Eurocodes at a reasonable price.

In Mumbai there was a contingent of senior and influential engineers from the Indian Roads Congress – I believe that it is similar to our Highways Agency. They are based in Delhi. They are in the process of rewriting the bridge code (also may be others codes). From what little I could glean, Eurocodes will represent a quantum leap from their current practice. They seemed very keen to have modern codes. I pointed out to them that the image of India from outside is extremely positive and glowing and that they should have codes of practice commensurate with such an image. I think they understood my point. They wanted a seminar in Delhi that included the bridge parts. They mentioned 2-3 day seminars.”

During the **Doha event**, BSI signed a Technical Cooperation Agreement with Qatar Standards. The seminar was designed to introduce Structural Design Eurocodes. Over 80 participants from key public sector ministries and private sector consultants and contractors took part. Amongst the attendees was Dr Rasid bin Fahad, Secretary General of the GCC Standardisation Organisation (GSO), based in Riyadh. Dr Fahad, having seen the success of the Qatar event and the signing of the Cooperation Agreement expressed interest in exploring a similar arrangement for GSO.

Although a response analysis was conducted, we have not been able to obtain individual delegate response forms for these events.

Although most of these events had a stated objective, this was not related to success measures and the reports from the organizers generally undertook qualitative and anecdotal evaluations. It has not been possible to make comparisons between the different events in terms of the effectiveness of their presentation material as perceived by the delegates or in terms of their achievement of their objectives.

3.2.3 Review of promotional content – presentations for conferences

When conducting our analysis for the promotional content, we looked whether the presentations cohered to develop a common theme, at what level they were pitched, whether they were informative or promotional, and if they were specifically targeted to the country in which the event was held or the countries from which the delegates came from.

Data collated on promotional activity to date has indicated that activities were generally, ad hoc and uncoordinated. Much of the activity was poorly documented and its overall effectiveness has been difficult to measure. However, the key result has been that there is a significant level of awareness about Eurocodes in many countries. Events have been well attended and there have been detailed technical discussions of particular codes. Both before and after specific events, they have been actively considered for adoption as national codes in many of the target countries, including Vietnam, Thailand, South Africa and the Ukraine and, on a more selective basis, in Morocco and Tunisia. There is also considerable interest in Russia.

The presentation material from the three main EC sponsored activities (Varese 2006, Moscow 2008 and Bangkok 2009) has been analysed in terms of how it addresses the standard AIDA decision making model (Awareness; Interest; Desire; Action).

The presentations that we have reviewed are of three main types:

- General high level information on the evolution and structure of the codes, their role in the European regulation and the European New Approach Directives.
- The general principles and philosophy behind the Eurocodes and (occasionally) the specific advantages they offer over more prescriptive codes.
- Detailed examination of individual codes aimed at experts.

Some presentations directly promote the use of Eurocodes by, for example, giving examples of major projects that have been designed to Eurocodes but they are the exceptions. Some provide general information and top level descriptions of the individual codes their operation in Europe. Others appear to plunge into a detailed examination of their content and how the Eurocodes philosophy is realised in their application.

Without being present at the events, and in the absence of delegate feedback forms, it is difficult to estimate their effectiveness in promoting the Eurocodes message. However, few of them are structured to tell a coherent story or give a clear message and propose any action. Many of the slides in the more technical presentations are very 'busy' consisting of indigestible details of diagrams and formulae. These may be appropriate for the audience at which they are intended, but have little actual promotional value. One particular weakness is that very few of the presentations were specifically targeted at the national or regional audience. They often seem to be of general application designed for repeated use and given only minimal customisation to the current event.

Our observation is that the promotional content presented has generally been focussed on increasing awareness and provoking interest, but has not directly addressed the question of need (Desire) or the decision process that would lead to Action. Where the target markets have gone beyond these stages of the decision process, it has been largely on their own initiative and without systematic support form the European agencies.

To gain further insight, we provide below a deeper analysis of approximately 50 presentations (presented during the three EC-funded events) on the basis of 5 content types:

1. General and high level
2. Descriptive and informative
3. Technical and informative
4. Promotional
5. Targeted to the specific national or regional audience

Although these categories overlap each other and are somewhat subjective, they do provide a useful framework of analysis.

Summary of presentational content	
General and high level	26
Descriptive and informative	31
Technical and informative	20
Promotional	16
Targeted to audience	8

Varese 2006			
Presenter	**Subject**	**Content**	**Targeted**
Claes Andersson	Eurocodes in an enlarged market	General Promotional	Yes
Ostermann	Opportunities in the	General Descriptive	No
Horst	Role of TC 250	General	No

Varese 2006			
Presenter	**Subject**	**Content**	**Targeted**
Bossenmeyer		Descriptive	
Mancini	Opportunities for technical cooperation	General Descriptive	Yes
Jean-Armand Calgaro	Eurocodes, history and present	General Descriptive	No
Haig Gulvanessian	EN 1990 The Head code	General Descriptive	No
Jean-Armand Calgaro	Design of bridges with Eurocodes	General Descriptive Promotional	No
Gerhard Sedlacek	Implementation of Eurocodes in Europe	General Descriptive Promotional	No
	Assistance in the use of Eurocodes	General Promotional	No
Roger Frank Jean-Armand Calgaro	Eurocodes education and training	General Promotional	No
M P Petrangeli	Practical application of Eurocodes in the Mediterranean countries	General Promotional	Yes
Tariq Nawaz	Use of Eurocodes outside Europe	General Promotional	No
Dr Paul Luchinger	Future of Eurocodes	General Descriptive Promotional	No
Johan Van Tiel	International cooperation in standards	General Descriptive	No
Artur Pinto Silvio Dimova	JRC and the further development of Eurocodes	General Descriptive	No
E C Carvalho	Eurocode 8	General Descriptive	No
M Fardis	Design of buildings to Eurocode 8	Technical Descriptive	No
Andre Plumier	Eurocode 8 Steel and composite	Technical Descriptive	No
B Kolias	Seismic Design for bridges	Technical Descriptive	No
Paulo Pinto	Eurocode 8-3: Assessment and refitting buildings	Technical Descriptive	No
A Pecker	Eurocode 8-5	Technical Descriptive	No
M N Fardis	Eurocode 8 and other seismic codes	Technical Descriptive	No
Arturo Pinto	Prenormative research in support of Eurocode 8	Technical Descriptive	No
Alex Barber	Response reduction factors in different seismic codes	Technical Descriptive	No
A J Kappos	Background studies carried out on Eurocode 8	Technical Descriptive	No
A Mrbarki	Post-seismic structural damage evaluation	Technical Descriptive	No

Russia: Moscow 2008			
Presenter	**Subject**	**Content**	**Targeted**
Malcolm Greenley	Eurocodes outside Europe	Promotional	No

Russia: Moscow 2008			
Presenter	**Subject**	**Content**	**Targeted**
		General	
Nick Burge	EU Russian relations	General	Yes
Jean Armand Calgaro	Action on Bridges	Descriptive General	No
Dimova	Implementation in the EU	Descriptive General	No
Gulvanessian	EN 1990	Descriptive Technical	No
Mancini	Opportunities for technical cooperation	Descriptive Technical	Yes
Ville de Goyet	Important structures built with Eurocodes	Promotional	
Odesskij	Eurocodes: a tool for building safely	Technical	No
Sedlacek	Sustainability and Innovation	Descriptive Promotional	No
Svanidse	Harmonisation of construction standards	Descriptive Promotional	Yes
Andersson	European standardization system for the construction sector	Descriptive General	No
Calgaro	Eurocodes, past present and future	Promotional General Descriptive	No
Da Costa	International cooperation in standardization	General Descriptive	No
Formici	Eurocode 1	General Descriptive/Technical	No
Kirillov	Vulnerability analysis and risk assessment	General Promotional	Yes
Sedlacek	Eurocodes: opportunities for technical cooperation	General/Technical Promotional	No

Thailand: Bangkok 2009			
Presenter	**Subject**	**Content**	**Targeted**
Samnuk Tangtermsirikul	Standardization system in Thailand	Descriptive	Yes
Andersson	European standardization system for the construction sector	Descriptive General	No
J L Trinh	EN 1991:Actions on structures exposed to fire	Technical	No
J L Trinh	Eurocode 2: Design of concrete structures	Descriptive Technical	No
J L Trinh	EN 1991 1 2: Actions on structures	Descriptive Technical	No
J L Trinh	EN 1991-1-4: Wind actions	Descriptive Technical	No
Jean-Armand Calgaro	Towards the Eurocodes Era	Descriptive Promotional	No
Jean-Armand Calgaro	Traffic load on bridges	Descriptive Technical	No

From the strong technical quality of the presentations, it can be assumed that the preparation of presentations required considerable effort on behalf of the speakers. These may well have been effective in capturing the attention of their intended audience and maintaining their interest in the subject.

However, these presentations also illustrate the difficulty of putting together a coherent conference or workshop in which all the presentations are coordinated and connected, which embodies a clear call for action and has a clear intent to take the audience beyond 'Awareness' and 'Interest' and towards 'Desire' and 'Action'.

Summary of presentations slides analysis

Conferences and workshops have been a key element in the promotion of Eurocodes. They have usually been well-attended and overall (as far as we can judge) well-received. There was no evidence that the advantages of Eurocodes for public and private procurers and the practical implications of adopting or acquiring Eurocode competency were fully addressed during past events. Future events would benefit from a more clearly themed approach, where presentations are more consistent with the action that the event is trying to prompt (e.g. standards adoption or standards acceptance and use) and case studies are used to illustrate the practical implications of the use of Eurocodes.

3.2.4 Untargeted activities – printed material

Booklets: The JRC has produced a series of booklets promoting the use of Eurocodes, aimed at a general readership. These have been distributed at conferences and are available from the JRC website, including:

- The Eurocodes and cooperation in the Euro-Mediterranean Area
- The Eurocodes: Getting prepared
- The Eurocodes: Implementation and use
- The role of EN 1990: the key head Eurocode
- The Eurocodes: JRC contribution
- The Eurocodes: Use outside EU
- The Eurocodes: Use outside EU (in Chinese)
- The Eurocodes: Use outside EU (in Russian)
- The Eurocodes: What are they?

Presentations:

- Design of bridges with the EN Eurocodes
- Eurocodes in an enlarged market
- European system for standardisation and certification for construction products
- European Technical Approvals
- Future activities of the Horizontal Group for Bridges
- The EN Eurocodes and the role of CEN/TC250
- The Eurocodes: history and present
- The future of EN Eurocodes
- Trade with construction products in the enlarged market
- Training Workshops on Eurocodes

JRC: Policy Support Documents:

- Eurocodes database for Nationally Determined Parameters
- Eurocodes promotion in third countries
- Identification of needs for improved fire protection by use of the Eurocodes
- Needs to achieve improved fire protection as regards the implementation and development of the EN Eurocodes
- Pre-normative research needs to achieve improved design guidelines for seismic protection in the EU
- Purpose and justification for new design standards regarding the use of fibre-reinforced polymer composites in civil engineering
- Purpose and justification for new design standards regarding the use of glass products in civil engineering works
- Training and promotion of the Eurocodes

JRC: Scientific and Technical Reports:

- Design of floor structures for human induced vibrations
- Design of lightweight footbridges for human induced vibrations

Most of these documents are useful for introductory information on the Eurocodes and could be used again as a basis for the development of future promotional material. However, this material would need to be tailored to provide specific and targeted information in order to ensure interest from the target audience. A wider distribution of the documents could also be envisaged to increase the chances of getting the message through.

Nationally-based introductions and guides:

There a number of these available from NSBs, but their distribution and promotion have not generally been targeted beyond their national territories. None of the NSBs that we contacted reported any current promotional plans beyond their own national territory. The wider distribution of these publications in the target countries is something that needs to be considered in the in the action plans.

3.2.5 Untargeted activities – websites

The untargeted activities are mainly through the maintenance of Eurocodes website pages or Eurocodes micro sites. These sites are maintained by the European Commission, by CEN, and by CEN TC 250. There are also a number of CEN members that have created Eurocodes web pages or micro sites. There are also a few websites dedicated to the Eurocodes which are maintained by professional bodies or trade associations (e.g. Construction Expert site, which has recently been re-launched by the UK-based Institution of Civil Engineers).

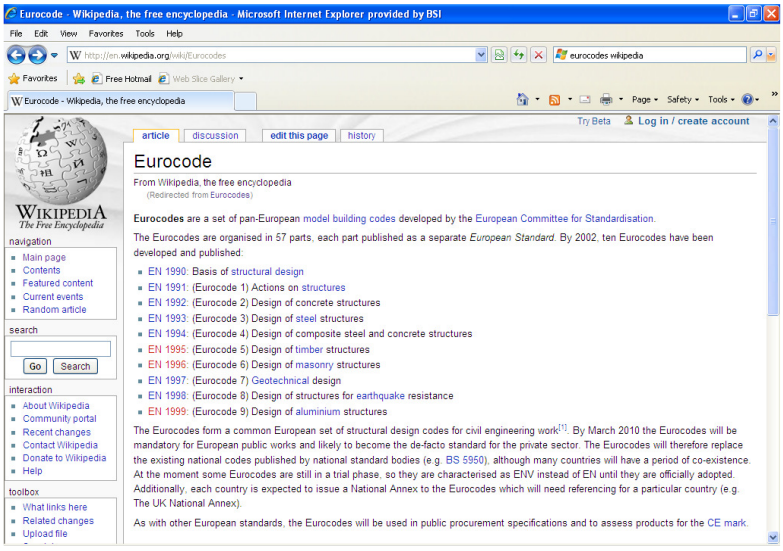
As part of our research, we reviewed a number of websites dedicated to Eurocodes or with specific web pages dedicated to Eurocodes. A list of these sites is given in Annex 7.

The **European Commission's JRC website:** Eurocodes Building the future is full of good information, but it has also lacked new input recently. Its major informational weakness is that the database of European National Annexes has not yet been populated. Completing this will require the full cooperation of European NSBs and is a resource-intensive task, but the failure to do so will deprive practitioners in the target markets that wish to export their services to Europe form obtaining vital information from the most prominent of the current Eurocodes website. http://eurocodes.jrc.ec.europa.eu/

CEN and many members have dedicated Eurocodes pages on their web sites with basic descriptive information, but the NSB pages are largely sales aids for the publications or any books or guides that have been produced.

The **Eurocode Expert website** is a well respected UK site maintained by ICE and IstructE in the UK, but it has not been systematically updated in recent times and its pertinence has decreased. http://www.eurocodes.co.uk/

The **Wikipedia Eurocode entry** is quite basic and has little substantial of informational value beyond a simple description of the suite of standards. It has no real promotional value as it currently stands.



Search Engine results

According to Google Analytics, the approximate average monthly number of search queries on Google matching the keyword “eurocode” (plus related keywords) over the last 12-months (May 2009-April 2010) for all countries was 206,881. We also conducted a search engine ranking to identify the top 5 results obtained from www.google.uk, www.google.com and www.google.fr (search undertaken in April 2010).

Top 5 hits on key word ‘Eurocodes’ from www.google.uk and www.google.com

1. Welcome to Eurocodes: http://www.eurocodes.co.uk/
2. Eurocodes The Codes: http://www.eurocodes.co.uk/Eurocodes.aspx
3. Eurocode - Wikipedia, the free encyclopaedia: http://en.wikipedia.org/wiki/Eurocode
4. Eurocodes: Building the future - The EC website: http://eurocodes.jrc.ec.europa.eu/
5. EUROCODES British Standards - BSI Shop: http://shop.bsigroup.com/en/Browse-by-Subject/Eurocodes/

The first two hits were for the British ‘Eurocodes Expert’ Site, third is Wikipedia, the fourth is the Commission/JRC site and the fifth is the BSI shop.

Top 5 hits on key word ‘Eurocodes’ from www.google.fr

1. Eurocodes, codes de construction en Europe: http://www.eurocode1.com/
2. Eurocodes, codes de construction en Europe: http://www.eurocode1.com/fr/index.html
3. Eurocodes – Wikipédia : http://fr.wikipedia.org/wiki/Eurocodes
4. Bilan de la qualité de l’air : http://www.developpement-durable.gouv.fr/Bilan-de-la-qualite-de-l-air-en.html
5. Eurocodes – Assistance OA : http://www.eurocodes.setra.equipement.gouv.fr/

The first two hits were for the Eurocodes1 website, the third was Wikipedia, the fourth seemed unrelated and the fifth was of the French government. Further down the list, were the websites of the French Training Institute of the Ecole des Ponts, AFNOR, the JRC and the Eurocodes Expert.

Website hits

Where possible, we obtained information on the number of “hits” or “visits” of these websites and on the origin of their visitors.

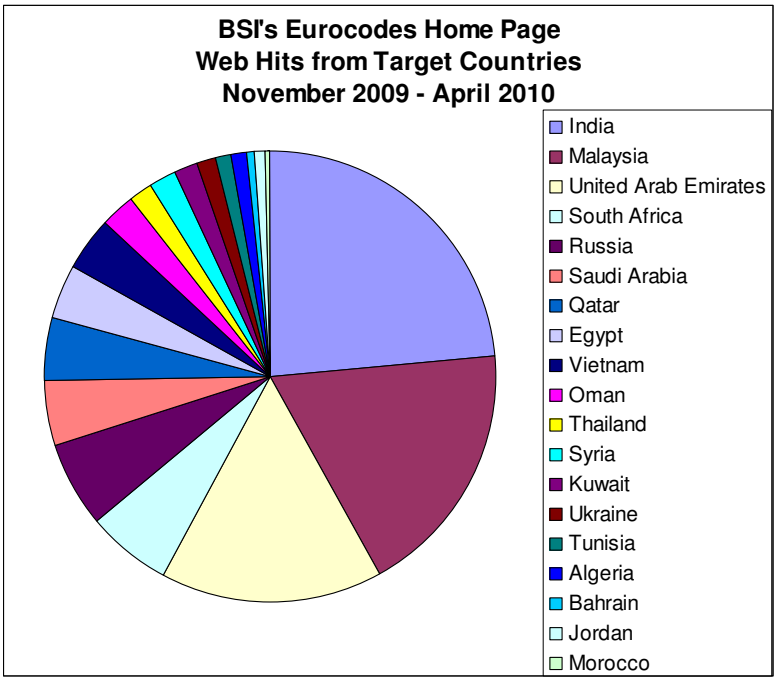
JRC website: In April 2010, there were 232,000 hits. Only two of the target markets were amongst the top 30 countries who visited the website: Russia with 2,499 hits (0.85% of total) and India with 834 hit (0.46% of the total).

Construction Expert website: These numbers represent the “visits” between 01/05/09 and 30/4/10:

Country	Hits
Total	82 000
Malaysia	1184
India	1156
Russia	484
Vietnam	435
Ukraine	375
Egypt	339
South Africa	331
Thailand	173
Algeria	119
Syria	83
Tunisia	54
Jordan	38
Morocco	28

BSI website: Below is a table with the number of "hits" received from the target countries. These represent a negligible part of the total.

Country	Nov 2009	Dec 2009	Jan 2010	Feb 2010	March 2010
Total	1088	1029	1432	2122	2528
UK	548	465	784	1344	1618
India	28	23	14	30	32
Malaysia	16	14	24	11	44
UAE	11	20	18	23	20
Russia	3	4	7	8	11
Egypt	3	6	3	6	3
Qatar	4	2	7	4	9
Vietnam	6	3	5	2	4
Saudi Arabia	2	8	4	6	9
Ukraine	1	2	1	2	0
Oman	1	1	3	5	4
Thailand	2	3	2	0	3
Tunisia	0	1	1	0	4
Algeria	1	2	1	1	0
Morocco	0	0	1	0	1



DIN website: Below is a table with the number of "hits" received from the target countries. These represent a negligible part of the total.

Country	Hits
Germany	3164
Malaysia	15
Russia	7
Vietnam	3
Saudi Arabia	3
UAE	3
India	3
Thailand	3
Ukraine	2
South Africa	2
Tunisia	1
Egypt	1

SIS website: 775,000 visitors (in total from 171 different countries) visited the website (not specific to Eurocodes) since 1 January 2009. Unfortunately, it was not possible to break down the Eurocodes-specific enquiries.

Country	Hits
Total	775 000
India	1660
Russia	1312
Ukraine	374
Thailand	292
Egypt	248
Malaysia	169
Vietnam	141
South Africa	112
Jordan	62
Qatar	38
Algeria	30
Kuwait	30
Tunisia	30
Oman	22
Syria	20

Summary of website analysis

The most prominent sites are very general, not well maintained and have little in way of recent information. They are usually informational, but not promotional. While NSB sites are usually sales oriented, they promote national products rather than the Eurocodes concept and offer very little background information. Generally, these sites provide high level information and news and are mainly promotional tools for the sale of Eurocodes by the CEN members. The JRC website remains by far the most important and global website and its continued maintenance and improvement is a priority.

Overall, these websites are very European–based. Although they received hits from the target countries, they represent only a small percentage of the total.

In the Western Mediterranean region, there is more interest from Syria and Jordan than from the Gulf States but the total numbers are too small to draw any conclusions.

Russia and India both show significant interest, but only compared to the other target markets. This may simply reflect the very large populations of these countries.

These websites should continue to be maintained, but we should also consider channelling information to websites in target countries hosted by their governments or by local trade and professional bodies, such as the FIDIC member bodies.

3.2.6 Conclusions on previous promotional material

Promotional activity to date has been focussed on maintaining and enhancing the awareness and interest in Eurocodes developments. It has been largely informative and descriptive, concentrating on the merits of the product, the integrated design philosophy it embodies, and detailed technical descriptions of the content of the various individual Eurocodes. The presentations seemed to have been targeted at a relatively academic and scientific audience, inviting further technical discussion rather than provoking a decision as to adoption and use.

There has been some promotion of benefits and achievements, but it is a small part of the overall activity. The main events have focussed on general information exchange in a workshop environment but without a clear intention or overall structure to the events or an anticipated outcome. In the context of the AIDA model, they have contributed to the maintaining awareness and provoking interest, but have not tended to move the participants towards desire and action.

Overall, previous promotional activities have also been uncoordinated and fragmented. As most activities have been ad hoc, it is unclear whether objectives were defined and whether clear follow through and monitoring of effectiveness or results were conducted. Nonetheless, this uncoordinated activity has had significant success to date, with an expressed intention from a number of target or adjacent countries to adopt (or adapt) Eurocodes, for example:

Singapore: SPRING (Singapore Standards body) has signed a contract with CEN to adopt all the Eurocodes and is seeking a leadership role in South East Asia which will assist in their further adoption or adaptation in the region.

Malaysia: Following initial contacts going back to 2002, Malaysia has used a Eurocode to develop a level 3 document (country-specific construction standard). From correspondence with the Department of Standards Malaysia in 2009 and more recent contacts with Sirim Berhad in May 2010, we understand that Malaysia has taken the steps to adopt EN1992-1-1 Eurocode 2 for Design of Concrete Structures. In 2009, the Department of Standards, Malaysia, SIRIM Berhad and the Institution of Engineers, Malaysia organized a conference on adopting Eurocode – Basis of structural design, EC 1 (Actions on structures) and EC 2 (Design on concrete structures) to prepare local industry fro the withdrawal of BS 8110, the most widely used design code in Malaysia.

Vietnam: The Ministry of Construction is implementing 3 Eurocodes and is working on national Annexes with BSI (Prof Nary Narayanan).

South Africa: The South African Loading Code SANS 10160 has been based on Eurocode principles, but has a different scope. SANS 10100, on concrete structures, currently under development, will also be based on EN 1992-1. Professor Zingoni of the University of Cape Town, South Africa has also stated that, 'South Africa has formally chosen to go the Eurocode way' - meaning it will adopt Eurocodes 2 to 9 and its own versions of the head Eurocode and Eurocode 1 (Johan Retief).

Russia: Has translated 4 Eurocodes. The new Russian law, introduced in December 2009 is based on the EU New Approach and is far more permissive than the old regulations that have hitherto restricted innovation in the Russian construction sector.

Ukraine: The ministry of Regional Development has published a programming document “National Concept for the Development of a Regulatory Framework in Construction for 2010-2015” which references Eurocodes and a second document “Developing Measures for introduction into Ukraine of Eurocodes in Construction Design.” In the Ukraine, translations of Eurocodes can be used pending their formal adoption as Ukrainian national standards. EC 2 has already been adopted and there is a plan already in place to adopt a further 20 Eurocodes parts.

It is difficult to attribute any of these positive developments to the specific promotional activity. It is possible (even probable) that the intrinsic merits of the product that have been communicated through the academic, scientific and business communities over many years, are the principal reasons why these countries have taken the steps that they have taken. For example, Ukraine, which has not been subject to much specific promotional activity, has probably taken the Eurocode route for political

reasons as part of its drive towards EU membership. Similarly, Malaysia conducted its own survey of existing codes to arrive at its conclusion.

In India, there have been repeated requests for further conferences and workshops which suggest that there is still considerable interest, but the level of Eurocode use and the level of Eurocode incorporation into University curricula have been reported to be quite low. Promotional activity in this target market cannot be regarded as having been particularly effective.

We recommend that the next phase of promotion further focuses on the commercial advantages of using of Eurocodes and on the practical implications of introducing Eurocode competency into a design company and of adopting Eurocodes as national codes. The early adoption of Eurocodes in a country such as Austria could serve as a model. The promotion also needs to take into account the perceived drawback of using Eurocodes. It would be useful to include case studies of a major project in which they were employed, highlighting the reasons for taking the decision and how it was managed.

With the exception of the JRC and Construction Expert websites, most websites have been mainly focussed on promoting the sale of standards and related products. For most of the NSBs, there is no remit to promote the Eurocode concept outside their national territories which limits their investment in providing more general or more globally relevant information.

The published material is generally of good quality, but has not been refreshed recently and we need to explore new means of gaining wider distribution for it.

Section 4: Market Analyses

4.1 Product analysis – the Eurocodes

Below is a SWOT analysis of the Eurocodes in third countries based on information and feedback collected throughout the research phase.

Strengths	**Weaknesses**
For users • State-of-the-art • Consistent, coherent and integrated • Common design language • Permissive, not prescriptive • Better adapted, lower cost, sustainable design • Facilitates multinational projects • More control for contractors • Wider range of tenders *For adopters* • Embody best current research • Guaranteed, low cost maintenance by CEN TC 250 • Guaranteed further development and expansion • Pricing in accordance with local policy	*For users* • Significant retraining costs • More complicated to use • Requires new calculation software • May be considered over-specified for some uses: e.g. private house building • Not prescriptive • Do not cover execution or products specifications *For adopters* • Default values do not maximise benefits • Determining NDPs and publishing National Annexes is resource intensive • Need complementary execution standards • Need complementary product standards • Need regulatory change • The designation 'Eurocodes' may represent a branding problem
Opportunities	**Threats**
For users • Introduction of best practice • Common design practice for local and export market • Wider export opportunities, particularly in the EU • Easier to gain access to outsourcing possibilities *For adopters* • Complete replacement of outdated codes • Increased sales revenue	*For users* • Increasing specification to American Unified building code • Slow up-take in Europe • Increasing number of Chinese and Japanese contractors operating with different codes *For adopters* • Restrictive CEN copyright policy (royalties on sales outside member territories)[3] • Slow pace of regulatory reform

[3] European standards are the copyright of CEN and exploitation rights are assigned to the CEN members. These rights are set out in CEN/CENELEC Guide 10. CEN/CENELEC policy is to encourage the adoption of European Standards in territories outside the CEN area. When a European Standard is adopted with the minimal change necessary to adapt it to local circumstances this is allowed on the basis that sales of the resulting national standard will not attract a royalty payable to CEN. However, sales of that standard outside the national territory will be subject to a royalty commonly set at 30% of the CEN 'reference price' of the equivalent European standard. Since CEN does not itself sell standards directly to the public, the reference price is set at the same level as an International Standard with the same number of technical pages. Standards bodies adopting CEN standards should report their foreign sales. Typically, these are not on a significant scale and any royalty is waived. However, examples in the past have shown that this can become an issue, such as when SPRING (Singapore Standards Body) were in discussions with CEN about the adoption of Eurocodes in Singapore, this provision in contract led to long series of negotiations between the two bodies. The adoption of Eurocode principles with extensive use of text directly lifted from them should also be subject to formal contractual agreement with CEN. Any promotion of Eurocodes with a view to eventual adoption should include a clear statement of the process by which the local standards body can gain quick, easy copyright clearance.

4.2 Market Analyses

When conducting an analysis of the 6 target regions, we felt it was necessary to first test the internal coherence of the target regions by conducting individual country analyses. We concentrated on PESTLE and AIDA analyses, also gave some consideration to the Diffusion of Innovation model. We also attempted to assess market attractiveness.

4.2.1 PESTLE analyses

Western Mediterranean and Egypt

ALGERIA
Political
Government type: Socialist 'People's Democratic Republic'. **Political orientation:** In the past decade, Algeria has striven for greater stability and economic liberalization and is assuming a greater regional diplomatic role and bolstering ties to the EU.
Economic
GDP: $136.4 billion (2009) **GDPGrowth:** 2.6% (2009), 2.8% (2008), 3.1% (2007) **Main trading partners:** US 23.9%, Italy 15.5%, Spain 11.4%, France 8%, Netherlands 7.8%, Canada 6.8% (2008) **Trade with the EU:** EU to Algeria 2009: €14.6 billion. Imports from Algeria 2009: €17.3 billion. EU imports from Algeria consist notably of energy (98.4%). Algeria's trade in services: Exports: €2.1b imports: €4.8). Signed an Association Agreement under the Euromed Partnership in 2002. **General:** Hydrocarbons represent 98% of export receipts. With the onset of the financial crisis, GDP growth slowed to 2%. Economic diversification is a keystone of the five-year reform plan. The European Commission has contributed some €40m to helping Algerian firms enter new markets. Algeria has also joined the EU-Algeria Association Pact and the Arab Free Trade Zone.
Construction industry size: 2008: $1.82b; 2007: $1.77b; 2006: $1.72b **Construction activity:** Air transport continues to see sustained growth, with a large-scale development programme. To meet growing container traffic demand, annual container-handling capacity will be extended. Contracts for the construction of the Hauts Plateaux Railway have been awarded. Construction industry growth was maintained in 2009 due to heavy government deficit spending. A five-year national development plan culminating in 2009 has helped the formerly stagnant construction sector to meet the Algeria's building needs. One of the most important urban developments is the $8bn makeover of Algiers's waterfront. Several new cities are planned for construction. Office space is in demand in Algiers. The 2010 five-year plan targets up to $150bn in investments in transport and other infrastructure projects and aims to produce another 1m housing units while encouraging higher-quality construction. Several large-scale petrochemicals projects are under way, including a joint venture between Egypt's Orascom Construction Industries and Sonatrach for the Sorfert Algérie complex. The East-West Highway contract which was awarded to Japanese consortium COOJAAL and a Chinese consortium, is due for completion in 2010. In Q1, 2009, the govt. authorized building contracts worth $8.2bn. Chinese firms offering competitive prices and quick construction have been active in the Algerian housing sector – in June 2009 the Zhejiang Construction Investment Group won a €10m contract to build 450 homes in Oran.

A number of ad hoc initiatives were held in Algeria, such as a conference in Algeria (Batna) on 8 and 9 November 2005 organised by the Laboratoire National de l'Habitat et de la Construction on "Geotechnics and Natural Risks" (30 participants from different Wilayas and representing different institutions: universities, laboratories, enterprises, design practices, Technical and Control Departments, administrations, etc.). One of the conclusions of the seminar was to consider the elaboration of a national code with regards to geotechnics, engineering and construction.

Social

Languages: Arabic, French and some Berber also English for business and technical purposes.

Legal

The legal system is socialist, based on French and Islamic Law

A Complementary Finance Law imposes tight restrictions on imports and required that new foreign investment must be in the form of joint ventures with at least 51% share of ownership by Algerian partners.

Technical

Standards body: Institut Algérien de Normalisation (IANOR)

Codes in current use: Mixture of national codes and old European codes.

Environmental

Environmental concerns: Mountainous areas subject to severe earthquakes; mudslides and floods in rainy season.

Environmental commitment: Signed but not ratified many agreements (e.g. Climate Change-Kyoto Protocol, Desertification, etc.).

EGYPT

Political

Government type: Republic

Political orientation: Egypt is a leader in the Arab world with traditional ties to Europe and America The Prime Minister was appointed by the President in 2004 with a brief to liberalize the nation's economy. In 2008, Egypt was nominated by the World Bank as the most improved economy in terms of ease of doing business.

Economic

GDP: $190.2 billion (2009 est.) **GDP Growth:** 4.7% (2009); 7.2% (2008) 7.1% (2007)

Main trading partners: Italy, US, Spain 6.2%, India, Syria, Saudi Arabia, Japan, Germany

General: The Egyptian economy has been gaining thanks to the wide-ranging reforms that the country began implementing in 2004 and the subsequent awakening of domestic demand long depressed due to decades of sluggish growth. Foreign direct investment $20bn in July 2007 to July 2008. Hydrocarbons extractions constitute 17%; manufacturing, 17%; agriculture nearly 17%; wholesale and retail trade, 11%; construction and real estate, 7%; financial and telecommunications services, 7%.

Construction industry size: 2008: $5.0b; 2007: $4.9b; 2006: $4.5b

Construction activity: The nation's construction sector continued to enjoy strong growth in 2008, with domestic demand from real estate developers remaining firm, coupled with demand from new infrastructure projects in the transport sector.

Egypt expects investments in transport projects to reach $8.6bn within the next three years.
Egypt has a massive unmet housing demand of 6m units. The government has announced a number of initiatives with a plan for 1.3m new units by 2011.

Commercial: Gulf developers are also beginning to look beyond residential real estate to new opportunities in the commercial and hospitality sectors.

Social

Languages: Arabic, but English and French widely understood by educated classes.

Education: Egypt has at least 9 schools of architecture, including: American University of Cairo; Helwan University; Cairo University; Ain Shams University; Arab Academy for Science and Technology; Alexandria University; Mansours University.

Legal

Based on Islamic and civil law (particularly Napoleonic codes); accepts compulsory ICJ jurisdiction with reservations.

Technical

Standards body: Egyptian Organization for Standardization and Quality (EOS)

Codes: Current national codes are a mixture of British, French and some German. American codes are widely used and have been heavily promoted. Some Eurocode use.

Environmental

Environmental concerns: Periodic droughts and frequent earthquakes.

Environmental commitments: Signed but not ratified many agreements (e.g. biodiversity, Kyoto Protocol, Desertification, etc.).

MOROCCO

Political

Government type: Parliamentary constitutional monarchy.

Political orientation: With ties to Africa, the Middle East and Europe, the Kingdom often plays the role of moderator in regional issues, like the Arab-Israeli conflict.

The EU is Morocco's biggest trade partner, accounting 60% of trade. 5m Moroccans work in Europe and they represent the 2nd biggest source of foreign revenue after exports. In 2008, Morocco was granted an "advanced status" from the EU, shoring up bilateral trade relations with Europe.

The US has been a historic political ally, but not the major trading partner.

Economic

GDP: $91.84 billion (2009) **Growth:** 5.1% (2009), 6.2% (2008), 3.2% (2007 est.)

Main trading partners: Spain 19%, France 17.4%, Brazil 7%, US 4.5%, Belgium 4.4%, Italy 4.2%.

Trade with EU: EU export to Morocco 2007: **€13b;** EU imports from Morocco 2007: **€7.3b.** Morocco's economy is still relatively dependant on trade in textiles and agricultural products, which together accounted for 52% of EU imports from Morocco in 2007.

General: The economy has remained insulated from the worst effects of the world crisis. Phosphates production accounted for more than a third of 2008 exports.

King Mohammed VI has recently launched two national economic strategies:

- Plan Maroc Vert: €10.8bn of investments by 2020 to create 1.5m jobs in the agriculture sector, and add around €7.65bn to GDP.
- Plan Emergence: To establish new industrial zones and boost training to increase efficiency.

Tourism has seen solid growth in recent years and six integrated resorts costing €4.05bn are being built in accordance with a national tourism strategy. Medical tourism is also getting a boost from the construction of €162m health and wellbeing complex.

Construction industry: 2008: $4.22b 2007: $4.23b 2006: $3.79b

Construction activity:

Infrastructure:

- Dams: $ 32m
- Drinking water $70m
- Roads: 10 year programme $1.2b
- Highways; 4 year programme $1.7b
- Tourism: Six large resorts €4.5bn are still in the works.

In April 2009, the African Development Bank provided Morocco a €240m loan to upgrade airport infrastructure.

The New Cities programme to create 15 new cities began with the construction of the city of Chrafate, due for completion in 2020. Some tourist-related real estate projects under the Plan Azur are on hold due to the departure of foreign developers, but the first of Morocco's seaside resorts, Saïdia, celebrated its opening on June 2009. While high-end office complexes abound, many major cities are facing a shortage of affordable office space.

Public housing: constitutes $2b per year.

A five-year transport sector strategy was unveiled in 2008. With a €11bn budget for infrastructure works. Casablanca Port is being expanded and the new Tanger-Med, is set to be one of the world's largest ports.

Following the global construction slowdown, Morocco is focusing on government-backed social housing projects.

Social

Languages: Arabic (official), Berber dialects. French often the language of business, government, and diplomacy

Education: There are at least 5 schools of architecture and civil engineering. Most higher education takes place in French.

Legal

Legal system: Based on Islamic law and French and Spanish civil law systems. Has not accepted compulsory ICJ jurisdiction.

Morocco is a signee of the UN Convention Against Corruption and has introduced reforms to improve the public procurement process.

Construction regulation: There is a regulatory framework supported by standards.

Technical

Standards body: Service de Normalisation Industrielle Marocaine (SNIMA).

Moroccan codes: Existing codes were based on French codes and other European standards. They are aware of Eurocodes and are planning to progressively adopt them, or to take Eurocode principles and adapt them.

Environmental

Environmental concerns: Northern mountains geologically unstable and subject to earthquakes; periodic droughts.

Environmental commitment: Party to: Biodiversity, Climate Change, Climate Change-Kyoto Protocol, Desertification, etc. Signed, but not ratified Environmental Modification.

Morocco is a model of water management and further improvements are due under the National Wastewater Management Programme. There are increasing incentives for ecotourism projects. Under a ten-year plan, 40,000 to 50,000 ha of forests are replanted annually with indigenous trees. Casablanca is slated to become the world's first "green airport" by 2010, with wind power generating 90% of its energy needs.

TUNISIA

Political

Government type: Republic.

Political orientation: Has taken a regional leadership role through its promotion of regional integration organizations like the Arab Maghreb Union (AMU), and its attempts to achieve an equitable peace settlement between Israel and Palestine. It also has strong economic and political ties with Europe and the US.

Economic

GDP: $40.04 billion (2009) **GDP Growth:** 0.3% (2009), 4.6% (2008), 6.3% (2007)

Main trading partners: France 29.6%, Italy 21%, Germany 8.8%, Libya 5.8%, Spain 5%, UK 4.8%. The EU is the largest trading partner, accounting for 72.5% of imports and 75% of exports. In 1995, Tunisia was the first Mediterranean country to sign an Association Agreement and the first enter in a free trade area.

Trade with EU: EU exports to Tunisia 2009: **€8.9 billion,** EU imports from Tunisia 2009: **€7.9 billion.** Tunisia's main exports to the EU in 2009 are manufactured products (75.6% of which 28,5% clothing and 27.5% machinery and transport equipment) energy (16.4%) and agricultural products (5.4%). Major imports from the EU are machinery and transport equipment (38%), textiles 13%), chemicals (9.9%) and energy (8.5%).

General: Tunisia has cultivated offshore service sectors. Investors are drawn by competitive incentives, a tight legal framework, the quality and cost of labour and a stable political environment. The manufacturing base has moved away from its traditional emphasis on textiles to more advanced manufacturing and services operations. Tunisia's openness to trade, including a free trade zone agreement with the EU and increasing trade liberalization has also been an important contributor to its success. The government also encourages partnerships with foreign firms.

Construction industry: 2008: $2.23b 2007: $2.11b 2006: $2.04b

Construction accounts for 7% of GDP and employs one-third of the country's working population. It is led almost entirely by small private firms but this is set to change.

Tunisia's current development policy is to encourage large-scale projects, which will in turn attract an increasing amount of foreign investment. These projects have also promoted growth in construction-related segments, such as the construction materials industry and workforce training, which is currently being modernized and expanded.

Over $1bn has also been earmarked for investment in the rail sector during the 11th development plan (2007-2011), including funds to build the first part of a new rapid rail network, which should be completed by 2021. Tunisia will call upon a mix of World Bank, European Investment Bank and African Development Bank funding.

Similarly, the government is working to expand and upgrade the country's highway network.

The construction of a new deep-water port at Enfidha is about to begin.

Two of the largest building projects are Sama Dubai's $5bn Mediterranean Gate mixed-use development and Gulf Financial House's $3bn Tunis Financial Harbour (TFH), which will be the first offshore financial centre in North Africa.

Social

Languages: Arabic (official and one of the languages of commerce).French has no official status but is widely used in education. Most Tunisians are able to speak it.

Education: There are 6 major colleges and Universities, mainly teaching in French and at least one school of architecture. Eurocodes are starting to be taught, e.g. in the Ecole Nationale d'Ingénieurs de Tunis.

Legal

Based on French civil law system and Islamic law; has not accepted compulsory ICJ jurisdiction.

Technical

Standards body: Institut National de la Normalisation et de la Propriété Industrielle (INNORPI).

Codes currently in use: BAEL-91(concrete), CM-66 (steel) PS-92 (earthquake design), French Ministry of transport code for bridge loads. A number of engineers are familiar with Eurocodes (Hedi Hassis).

Environmental

Environmental concerns: Earthquakes, limited natural fresh resources; deforestation; overgrazing; soil erosion; desertification.

Environmental commitment: Party to many agreements: e.g. Climate Change-Kyoto Protocol, Desertification, Ozone Layer Protection, etc.

Eastern Mediterranean and Gulf

BAHRAIN

Political

Government type: Constitutional monarchy.

Political orientation: Strong regional orientation with the launch of the Gulf Common Market at the start of 2008. Maintaining existing ties with Western powers like the UK and US, while also reinforcing links with Asia, including a free trade agreement signed with Singapore in late 2008.

Economic

GDP: $19.59 billion (2009) **GDP Growth:** 2.9% (2009); 6.3% (2008) 8.4% (2007).

Main trading partners: India, Saudi Arabia and UAE

General: First oil producer in the region to experience a decline in production so has a history of economic diversification. The Vision 2030 diversification plan is wide reaching, but has been focused on the financial sector which accounts for 22% of GDP. Bahrain is renowned for its transparent business climate.

Construction Industry: 2008: $1.07b; 2007: $ 984m; 2006: $795m.

Construction activity: Bahrain is in the midst of a massive infrastructure upgrade:

- $350m Khalifa bin Salman Port (KBSP) and a 1-sq-km logistics zone (Bahrain Logistics Zone) is being constructed and will provide ample opportunity for private investment.
- King Fahd Causeway is being upgraded through a $17m five year plan.
- The most publicized road project is the Bahrain-Qatar Causeway, which is due for completion

in 2013.
- $685m earmarked for internal highways.
- Expansion of the Bahrain International Airport
- Rapid population growth, rising tourism levels and a strong financial services sector means that $8bn worth of real estate projects are currently under development.

The Vision 2030 document maintains state commitment to essential infrastructure and real estate development.

Social

Languages: Arabic but English is the common business and technical language.

Education: Architectural colleges in Kingdom University and New York Institute of Technology, Bahrain.

Technical

Standards body: Bahrain Standards & Metrology Directorate (BSMD).

Codes: A wide variety of codes is used, but Eurocodes are not particularly prominent. Bahrain will probably adopt the new Saudi Building Code, based on the American International building code in the next five years.

Legal

Based on Islamic law and English common law.

Has not accepted compulsory ICJ jurisdiction

Environmental

Environmental concerns: Periodic droughts; dust storms.

Environmental commitments: Has signed, but not ratified many agreements (Biodiversity, Climate Change, Kyoto Protocol, Desertification, Hazardous Wastes, etc.).

KUWAIT

Political

Government type: Constitutional Emirate.

In 2009, parliament was dissolved. There were elections for a new government which saw Islamist groups losing ground and the election of four female MPs for the first time in Kuwaiti history.

Political orientation: Kuwait has retained strong ties with both its near neighbours and has a strong relationship with the US.

Economic

GDP: $116.2 billion (2009) **GDP Growth:** -17% (2009), 8.5% (2008); 4.4% (2007.)

Main trading partners: Japan 18.5%, South Korea 14.7%, India 10.9%, Taiwan 9.8%, US 9%, Singapore 8%, China 6.1% (2008).

General: Kuwait has a wealthy, relatively open economy. Petroleum accounts for nearly half of GDP, 95% of export revenues, and 95% of government income.

Kuwait has done little to diversify its economy, but in 2009 pledged to spend up to $140 billion in five years to diversify the economy away from oil, attract more investment, and boost private sector participation in the economy.

Construction industry: 2008: $1.22b; 2007: $1.20b; 2006: $1.15b.

Construction activity: In spite of strong recent growth, construction represents only 2% of GDP ($2.3 billion). Following several years of plentiful infrastructure and real estate projects, the credit crunch has caused a slow down with another reduced budget for 2009-10.

However there is still has an estimated $3bn worth of infrastructure projects under construction and over $24bn planned.

Private real estate development has dried up since new laws in February 2008. However, the government announced plans for a series of projects to provide low-cost homes in the country and indicated that the private sector may be encouraged to participate in these developments and this will provide a boost to the construction sector.

Social

Languages: Arabic (official), English widely spoken.

Education: Education is a central part of the government's strategy. With the government committed to investing heavily in the sector, public expenditure on education increasing by 9% in real terms between 2003/04 and 2005/06 (the latest year for which statistics are available).

Legal

Civil law system with Islamic law significant in personal matters; Kuwait has not accepted compulsory ICJ jurisdiction.

Technical

Standards body: Public Authority for Industry, Standards and Industrial Services Affairs (KOWSMD).

Environmental

Environmental concerns: Sudden cloudbursts, sandstorms and dust storms.

Environmental commitment: signed but not ratified many agreements (e.g. Biodiversity, Kyoto Protocol, Desertification, etc.).

OMAN

Political

Government type: Monarchy.

Head of government: Sultan and Prime Minister.

Political orientation: Mainly regional - Gulf Cooperation Council (GCC).

Economic

GDP: $52.95 billion (2009) **GDP Growth:** 6.4% (2008); 5.8% (2007).

Main trading partners: China 31.7%, South Korea 17%, UAE 11.7%, Japan 11%, Thailand 7.1% (2008). The Sultanate is also central in the efforts to boost trade and commerce among the GCC member states.

General: The measured and deliberate pace of growth over the last few years should ensure sustainable expansion over the long term. The economy escaped the worst effects of the global financial crisis, but there was a loss of some project funding as a number of international investors pulled out of the country. Oman is building its non-oil sector under the long-term economic road map, "Vision 2020".

Construction industry: 2008; $2.14b; 2007: $2.90b; 2006: $2.27b.

Construction activity: The government has committed increasingly substantial amounts of money to building up the country's transport infrastructure which had a large share of the $36bn development

plan for 2006-10. Six regional airports are being developed and the government is in the process of planning the Sultanate's first rail link.

The government's 2009 budget listed a number of major increases in transport spending including $1.72bn for new projects.

More recently, in July 2009 $228m was allocated to port and civil aviation development.

Oman's construction industry has maintained a steady rate of growth despite the economic crisis of 2008 and 2009. Construction can be seen across virtually every sector of the economy, including large-scale expansions in the tourism and transport sector.

Social

Languages: Arabic (official), English and Indian dialects

Education: Public expenditure on education accounts for around 4.5% of GDP, or 26% of total government spending. Oman has invested in innovative: The Blackboard Learning System.

Legal

Based on English common law and Islamic law; ultimate appeal to the monarch; has not accepted compulsory ICJ jurisdiction.

Oman's strict building regulations have been relaxed to try and keep up with domestic demand and growing tourist industry.

Technical

Standards body: Directorate General for Standards and Metrology (DGSM).

Current codes: Wide variety, but mainly American and old British codes. Oman will probably adopt the Saudi Building Code.

Environmental

Environmental concerns: Sandstorms and dust storms, periodic droughts, pollution from oil spills; limited natural fresh water resources.

Environmental commitment: Party to Biodiversity, Kyoto Protocol, Desertification and other agreements. Signed, but not ratified: Marine Dumping.

QATAR

Political

Government type: Emirate.

Political orientation: Qatar plays a leading role in regional politics and is established as an independent voice in international politics and a trusted mediator in regional conflicts.

Economic

GDP: $93.63 billion (2009) **GDPGrowth:** 9.5% (2009); 13.4% (2008); 17.3% (2007)

Main trading partners: Japan 38.3%, South Korea 20.8%, Singapore 11.1%, India 4.6%, Thailand 4.3% (2008)

General: Qatar's economy is one of the fastest growing in the world.

Despite massive oil and gas reserves, economic diversification remains a top priority. Qatar aims to make the non-energy sector account for 80% of the economy by 2015.

Real estate looks set to enjoy sustained growth thanks to demand from a young and rapidly growing

population. The government is encouraging the private sector to take a stronger role in economic diversification but considering the scaling back of activity by the private sector.

Construction industry 2008: $4.48b; 2007: $3.96b; 2006: $3.34b

Construction activity: In 2008, the Public Works Authority underwent a major reorganization in preparation for major project expansion and in the 2008-09 budget, $8.4bn was allocated for infrastructure projects. Transport projects include the multibillion-dollar Doha Expressway and the Qatar-Bahrain Causeway. Mass-transit systems, such as a Doha metro, light-rail system and a more extensive bus network are also under development. The railway system is being expanded to become an integral part of a network linking all the Gulf states.

The New Doha International Airport is one of the largest projects in Qatar with completion foreseen for 2015. The port at Mesaieed is undergoing expansion.

The global financial crisis has certainly has caused lines of credit to dry up, but the government's enthusiasm for building is expected to sustain the construction sector.

Social

Languages: Arabic (official), English commonly used as a second language.

Education: The UAE federal government allocated $2bn for the sector in 2009.

Legal

Based on Islamic and civil law codes. Has not accepted compulsory ICJ jurisdiction.

Technical

Standards body: Qatar General Organization for Standards and Metrology (QS).

Current codes: It is assumed that Qatar uses similar codes as Saudi Arabia, however this was not confirmed.

Environmental

Environmental concerns: Dust storms and sandstorms; limited natural fresh water resources.

Environmental commitment: Party to but not ratified many agreements (e.g. Climate Change-Kyoto Protocol, Desertification, Hazardous Wastes, etc.).

SAUDI ARABIA

Political

Government type: Monarchy.

Political orientation: Regional leader with strong links to America.

Economic

GDP: $384 billion (2009) **GDP Growth:** 0.2% (2009), 4.4% (2008), 3.3% (2007 est.).

Main trading partners: US 17.2%, Japan 15.3%, South Korea 10.2%, China 9.4%, India 5.9%, Taiwan 4.6%, Singapore 4.4%.

General: Saudi Arabia remains the economic powerhouse of the Arab world, even during difficult global conditions. Like other Gulf countries, it is intent on diversifying its economy – a plan that received a significant boost from 2009's fiscal expansion program, funded largely by massive reserves from the five-year oil boom.

Construction industry: 2008: $24.59b; 2007: $23.62b; 2006: $22.04b.

Construction activity: The latest budget focuses on large-scale infrastructure projects and ensuring the continuity of high living standards through health and education investments.

The construction sector is seen as a key element in economic diversification, despite the global downturn, which has made private investors cautious.

Over the next five years some $400bn in investments has been earmarked by the Saudi Arabian authorities. There are more than a dozen new cities planned, including the expansion of two massive industrial zones – Jubail Industrial City, likely to attract over $80bn and Yanbu Industrial City on the Red Sea, likely to see $30bn in capital investments.

The 2009 budget expanded funding to the transportation and telecommunications sector, to $5.1bn, the bulk of which will go to road construction.

Under the Eighth Development Plan (2005-10), $9.5bn had been allocated to transport infrastructure. The new National Transportation Strategy, covering the next 10 to 15 years, will focus on maritime transport. A new market in dry bulk shipping will be created at Ras Az Zawr, which will be integrated into the North-South rail line. A new container port is planned for King Abdullah Economic City and the Jeddah Islamic Port will see its container capacity increase.

Major road projects include the reconstruction of the Mecca-Jeddah highway and 8000 km of new roads.

Railway expansion is a more recent development with the ambitious east-west Land Bridge, which will link Jeddah with the Riyadh-Dammam line. This is currently under construction, with the first part contracted to a Chinese engineering firm in 2009. The North-South Railway that will link state mining facilities is proceeding under the management of the Saudi Railway Company and is expected to be completed by 2012 at a cost of up to $6.7bn.

Social

Languages: Arabic but English is the common business and technical language.

Education: Dominated by the public sector, but 2008 saw the opening of the first private university, Al Faisal University. The King Saud University has a college of Architecture and Planning, but Eurocodes are not taught to any depth.

Legal

Justice is administered according to the Shari'a by a system of religious courts.

Technical

Standards body: Saudi Standards, Metrology and Quality Organization (SASO).

Current codes: Mainly old British and French codes. American and Japanese codes to a lesser extent. New Saudi Building Code (SBC) in use. Expected to become mandatory in the next 2 years. (Dr Saleh El-Mogin).

Environmental

Environmental concerns: Frequent sand and dust storms, desertification; depletion of underground water resources, coastal pollution from oil spills.

Environmental commitment: signed but not ratified many agreements (e.g. Biodiversity, Kyoto Protocol, Desertification, etc.).

UNITED ARAB EMIRATES

Political

Government type: Federation of emirates with specified powers delegated to the UAE federal government and other powers reserved to member emirates.

Political orientation: Regional.

Economic

GDP: $231.3 billion (2009) **GDP Growth:** -3.5% (2009), 7.4% (2008), 6% (2007).

Main trading partners: Japan 26.5%, South Korea 10.9%, India 10.7%, Iran 7.5%, and Thailand 6.1% (2008).

General: The UAE has an open economy with a high per capita income and a sizable annual trade surplus. Successful efforts at economic diversification have reduced the portion of GDP based on oil and gas output to 25%

The country's Free Trade Zones, which offer 100% foreign ownership and zero taxes, are helping to attract foreign investors.

Construction industry: 2008: $14.01b; 2007: $14.03b; 2006: $12.26b.

Abu Dhabi construction activity: The government is pushing ahead with its ambitious infrastructure and development plans in the capital city and beyond.

2009 saw the Department of Transport's Surface Transport Master Plan (STMP), with projects such as the widening of the Mafraq-Ghweifat highway and the introduction of the urban public transit system. The STMP calls for environmentally friendly public transport.

The Emirate's main airport is scheduled for expansion and about half of the planned $6.8bn worth of expansion has already been completed.

The Abu Dhabi Ports Company (ADPC) and the Department of Transport is preparing to shift operations at the main port at Mina Zayed to the massive Khalifa Port in the new industrial area at Taweelah currently under development.

There is also a$3bn railway project aims to connect all six countries of the GCC.

The effects of the slowdown have made project financing more difficult and competition between contractors for existing projects fiercer.

Lower building costs have switched the emphasis from the luxury market to the middle- and low-income segments.

Dubai construction activity: The Road and Transport Authority (RTA) was created in 2005, charged with enhancing the existing public transport system. Dubai metro, the longest driverless system in the world, is vital to this strategy and will open in 2010.T he RTA is investing $1bn in the construction of a tram network.

Dubai has been the world's most buoyant construction market with more than $1.1trn of projects underway.

The real estate market in Dubai has witnessed unprecedented growth since 2003, driven by rapid economic expansion and increasing interest from foreign investors following the liberalization of the sector.

However, the global financial crisis, tight international credit, falling oil prices, and deflated asset prices caused GDP to drop nearly 4% in 2009 and raised doubts about Dubai's solvency.

In December 2009, Dubai received a $10 billion loan from Abu Dhabi.

Social

Languages: Arabic (official), Persian, English, Hindi, Urdu.

Education: The UAE federal government allocated $2bn for the educational sector in 2009. Campus branches of institutions such as the Paris-Sorbonne University and New York University have been

established in Abu Dhabi. The UAE University and Zayed University are of great importance in reducing the number of foreign skilled workers.

Legal

Based on a dual system of shari'a and civil courts; has not accepted compulsory ICJ jurisdiction.

Technical

Standards body: Emirates Authority for Standardization and Metrology (ESMA).

Current codes: It is assumed that the UAE use similar codes as Saudi Arabia, however this was not confirmed.

Environmental

Environmental concerns: Frequent sand and dust storms, lack of natural freshwater, desertification; beach pollution from oil spills.

Environmental commitment: Party to Biodiversity, Kyoto Protocol, Desertification, Hazardous Wastes and other agreements.

JORDAN

Political

Government type: Constitutional monarchy with parliament becoming more prominent. Jordan is seeking to liberalize both the economy and government. Joined WTO in 2000, and began to participate in the EFTA in 2001.

Political orientation: Jordan is developing its relationships with Western powers and other emerging markets and is positioning itself as an important link between the East and West, with efforts to mediate the Israel-Palestine conflict, as well as to build links with US President Barack Obama.

Economic

GDP: $22.82 billion (2009) **GDPGrowth:** 3.1% (2009); 5.6% (2008); 6.6% (2007)

General: Jordan's economy is among the smallest in the Middle East, with insufficient supplies of water, oil, and other natural resources. Is heavily reliant on foreign assistance, which has declined since the global crisis and hit attempts to reduce the large budget deficit.

Main trading partners: India 16.2%, Iraq 16.1%, US 13.1%, Saudi Arabia 6.9%, UAE 4.6% (2008).

Trade with the EU: EU exports to Jordan 2008: €2.6 billion, EU imports from Jordan 2008: €0.3 billion. Jordan's economy is dominated by services, which represent around 75% of GDP. Jordan's leading export services sectors are travel and transportation.

Construction industry: 2008: $972m; 2007: $864m; 2006: $818m

Construction activity: Jordan's transport sector is one of the most developed in the Middle East.

Plans have been announced to build a $1.2billon metro system for Amman (expected to take 10 years to complete), a new airport terminal and an international rail network.

While the government is spearheading many of the initiatives, private sector companies are also contributing expertise and financing.

The 60-km Amman Ring Road is due for completion in 2011.

The Queen Alia International Airport is being upgraded with $700m of investment for a new developments and upgrading existing facilities.

The Aqaba Development Corporation has announced that construction on a new port is set to begin

by the end of the first quarter of 2010.

Social

Languages: Arabic (official), English widely understood among upper and middle classes.

Education: Jordan has long had the leading education system in the Arab world with 10 public and 12 private universities.

Legal

Based on Islamic law and French codes.

Technical

Standards body: Jordan Institution for Standards and Metrology (JISM).

Environmental

Environmental concerns: Droughts and periodic earthquakes.

Environmental commitment: signed but not ratified many agreements (e.g. Biodiversity, Kyoto Protocol, Desertification, etc.).

SYRIA

Political

Government type: Republic.

Political orientation: Syria is assuming a greater regional role, working closely with Saudi Arabia and Turkey. Syria and Iran have pledged to increase bilateral trade, and may collaborate on a Middle Eastern gas pipeline and inter-regional transportation development. Syria's exports hit $14.4bn in 2008 with the Greater Arab Free Trade Area accounting for 69% of exports.

Damascus is pursuing a political partnership agreement with the EU to increase bilateral trade – the bloc currently accounts for 27% of Syria's exports and 40% of its imports.

US-Syrian relations improved with the election of Barack Obama, with American envoys, including former President Jimmy Carter, visiting Syria throughout 2009. Some US sanctions have been waived.

Economic

GDP: $54.99 billion (2009 est.) **GDP Growth :** 1.8% (2009), 4.3% (2008), 5.7% (2007)

Main trading partners: Iraq 30.7%, Germany 9.8%, Lebanon 9.6%, Italy 6.4%, France 5.5%, Egypt 5.4%, Saudi Arabia 5.1% (2008).

General: Syrian economic growth slowed in 2009 to 2.2% in real terms as the global economic crisis affected oil prices and the economies of Syria's key export partners and sources of investment.

Despite recent modest reforms, the economy remains highly controlled by the government. Long-run economic constraints include declining oil production, high unemployment and inflation, rising budget deficits.

Construction industry: 2008: $2.17b; 2007: $2.24b; 2006: $2.12b.

Construction activity: The government's Five-Year Plan (2006-10), called for the transport sector to increase its share of GDP to 16%. The plan targets extending the main road system and includes such projects as the $300m Aleppo-Yaroubiyah motorway. Syria's airports are undergoing modernization and expansion. In January 2008, the SCAA awarded a $59m contract for the rehabilitation and expansion of the airport's ageing terminals.

Gulf construction companies have converged on Syria in the past five years. Most future infrastructure projects will likely be contracted under the build-operate-transfer model, with the government pledging

to spend $50bn on the sector between 2009 and 2015.

The British Syrian Society held an international PPP conference in Damascus in October 2009 to increase private sector participation in construction, leading to a PPP procurement law being drafted at the end of the year.

Syria is facing a large housing deficit, and needs up to 687,000 homes built. Syrian Qatari Holding is looking at building replacement homes for those currently living in illegal housing. The Ministry of Electricity will also require additional power plants to increase its energy capacity an additional 5000 MW by 2020.

In late 2009, the government launched a tender for pre-qualification bids for road networks to the Syrian borders, while a metro system for Damascus is also in the pipeline. Local developers have found it difficult to receive financing given a cap on lending by public banks.

Commercial office space in the capital was ranked eighth-highest in the world by Cushman Wakefield, although several purpose-built office and commercial developments are under way, which will drive down the price.

After the first shopping mall opened in Damascus in 2004, many larger shopping centres have followed. After strong initiatives from the Ministry of Tourism to encourage investment, some of the biggest regional real estate players, including Qatari Diar, Saudi Bin Laden Group and Kharafi Group, have entered Syria with tourism-related projects.

Social

Languages: Arabic (official); Kurdish, Armenian, Aramaic, Circassian widely understood; French, English somewhat understood.

Education: The Syrian government has doubled the percentage of budget funding towards education since 2000. The Aga Khan Development Network is supporting government efforts to increase English and IT training, while private universities have also emerged since 2001, when the education sector was liberalized.

Legal

The legal system is based on Islamic law and Napoleonic codes. Syria accepts compulsory ICJ jurisdiction with reservations.

Technical

Standards body: Syrian Arab Organization for Standardization and Metrology (SASMO).

Environmental

Environmental concerns: dust and sand storms.

Environmental commitment: Party to many agreements including the Kyoto Protocol, Desertification, Hazardous Wastes, Ozone Layer Protection etc.

South East Asia

MALAYSIA

Political

Government type: Constitutional monarchy.

Economic

GDP: $209.8 billion (2009 est.) **GDP Growth:** -2.2% (2009), 4.6% (2008), 6.2% (2007).

Main trading partners: Singapore 13.9%, China 12.2%, US 10.9%, Japan 9.8%, Thailand 5.4%, Hong Kong 5.2% (2009 est.).

General: Malaysia's well developed manufacturing sector produces a diverse range of goods. The first three quarters of 2009, however, witnessed steep decline in the country's economic growth. Volume of exports reduced drastically due to reduced consumer goods demand globally. The situation, however, improved somewhat in the Q4FY09. The Tenth Malaysia Plan is all set to be introduced in June 2010.

Construction industry: 2008: $6.00b; 2007: $5.86b; 2006: $5.60b.

Construction activity: Growth in Malaysia's construction sector has picked up recently. According to CIMB, a Malaysian bank, the industry registered growth of 5.8% in 2008 and forecasts a growth rate of 5% in 2009, and it seems increasingly likely that the industry will pull through any slowdown and become more competitive in the process.

In the coming years, the property market could be strengthened by a renewed drive to bring in foreign investors attracted by the incentives that already exist.

Malaysia's transport infrastructure is one of the best in the region and improvements and extensions are ongoing despite the global economic downturn, presenting opportunities for a range of contractors and operators.

It seems likely that in the future there will be renewed emphasis on improving the current infrastructure, with motorway improvements and extensions and more investment to improve the rail system. The country's ports and airlines will also continue to look to keep ahead of the regional curve.

Social

Languages: Bahasa Malaysia (official), English, Chinese, Tamil, Telugu, Malayalam, Panjabi, Thai.

Education: Malaysia has at least 11schools of architecture and civil engineering.

Legal

Based on English common law; judicial review of legislative acts in the Supreme Court at request of supreme head of the federation, Has not accepted compulsory ICJ jurisdiction.

Construction regulation: ACT 520: 1994 came into force on 24 July 1994 to establish CIDB (Lembaga Pembangunan Industri Pembinaan Malaysia) as the governing body entrusted with the responsibility to provide effective leadership and coordination among Construction Industry players in Malaysia.

Technical

Standards body: Department of Standards Malaysia (DSM). DSM subcontracts standards development to SIRIM (the previous standards body).

Current codes; BS 8110 is widely used. Local codes are based on British standards, but under revision. Surveyed a number of different types of codes but decided Eurocodes were best suited to local need. Using Eurocode – Basis of structural design, E 1 and E 2 and in the process of adopting E 3, E 7 and E 8. (Nor Hashima).

Environmental

Environmental concerns: Flooding; landslides; forest fires.

Environmental commitment: Party to, but not ratified, many agreements, including Kyoto Protocol, Hazardous Wastes, Ozone Layer Protection, etc.

THAILAND

Political

Government type: Constitutional monarchy and a Parliamentary democracy.

Political orientation: Thailand has developed increasingly close ties with other ASEAN members: Indonesia, Malaysia, the Philippines, Singapore, Brunei, Laos, Cambodia, Burma, and Vietnam.

Economic

GDP: $269.6 billion (2009 est.) **GDP Growth:** -2.8% (2009), 2.5% (2008 est.), 4.9% (2007 est.),

Main trading partners: US 10.9%, China 10.6%, Japan 10.3%, Hong Kong 6.2%, Australia 5.6%, Malaysia 5% (2009 est.)

Thailand's main trading partners include the EU, the USA and Japan (exporting partners) and Japan and China (importing partners). Thailand has been a WTO member since 1 January 1995.

General: Thailand is an emerging free-enterprise, pro-investment economy with a well-developed infrastructure and strong export industries. The global financial crisis of 2008-09 caused the economy to contract about 2.8%.

The Thai government is now focusing on financing domestic infrastructure projects to revive the economy, but persistent internal political tension threatens to damage the investment climate.

Construction industry: 2008: $7.40b; 2007: $7.21b; 2006: $7,10b.

Construction activity: The transport sector has attracted a range of new investments in recent years, particularly in areas such as alleviating Bangkok's traffic and double-tracking rails in industrial areas. By March 2009, the government was forecasting an economic recovery from the third quarter, which should help restore momentum in the construction sector as projects that were put on hold are re-activated.

The National Statistical Office (NSO) carried out a Construction Industry Survey in 2009. The main findings of the survey are that building construction represents 6.5% of the activity. 16.8% of construction establishments constructed for the Government.

Social

Languages: Thai. Business and technical languages Thai and English.

Education: National: Thailand enjoys a high level of literacy, and education is provided by a well-organized school system including numerous vocational colleges, and universities. The private sector of education is also well developed.

Thailand has at least 6 schools of architecture and civil engineering.

Legal

Based on civil law system with influences of common law; has not accepted compulsory ICJ jurisdiction.

Technical

Standards body: Thai Industrial Standards Institute (TISI).

Current codes: This information has not yet been confirmed.

Environmental

Environmental concerns: Land subsidence in Bangkok area resulting from the depletion of the water table; droughts.

Environmental commitment: Party to many agreements including the Kyoto Protocol, Hazardous Wastes, Ozone Layer Protection, etc.

VIETNAM

Political

Government type: Communist state.

Political orientation: Vietnam's declared policy is to "Implement consistently the foreign policy line of independence, self-reliance, peace, cooperation and development." As of December 2007, Vietnam had established diplomatic relations with 172 countries (including the United States). Vietnam holds membership of 63 international organizations such as the United Nations, ASEAN, NAM, La Francophonie, WTO.

Economic

GDP: $92.84 billion (2009 est.) **GDP Growth:** 5.3% (2009), 6.2% (2008), 8.5% (2007).

Main trading partners: US 18.9%, Japan 13.6%, China 7.2%, Australia 6.7%, Singapore 4.2% (2008).

General: Vietnam is a densely-populated developing country still recovering from the ravages of war, the loss of financial support from the old Soviet Bloc, and the rigidities of a centrally-planned economy. Vietnamese authorities have reaffirmed their commitment to economic liberalization and international integration.

Vietnam joined the WTO in January 2007 following more than a decade-long negotiation process. Agriculture's share of economic output has continued to shrink from about 25% in 2000 to about 21% in 2009.

Construction industry: 2008: $2.26b; 2007: $2.27b; 2006: $2.02b.

Construction activity: Vietnam's economy has been growing very quickly and attracts a lot of foreign direct investment, driving demand for various infrastructure projects and buildings. The Vietnamese construction industry is booming. The Vietnamese government is inviting foreigners to participate in its 160 large infrastructure projects. For example Ho Chi Minh City has 6 Metros, 3 light railways and 7 provincial road projects for foreigners to invest in.

Demand for commercial buildings and residential housing both exceed the supply that the construction industry can meet.

However, there are common problems that construction companies will encounter.

- Interpretation of laws and regulations: even though the central government has a complete set of laws and regulations related to the construction industry, foreigners cannot easily follow them since local governments always have their own interpretation.
- Many current construction projects suffer from a shortage of labour and materials.
- The infrastructure is not sufficient and people suffer from high power rates, unstable voltage, high communication costs and traffic jams.
- The concern of Vietnamese buyers about low costs means they do not care about structure and design.
- The most profitable projects are residential housing and office accommodation.
- There is a huge shortage of residential housing in Hanoi and Ho Chi Minh City due to the availability of money from foreign investors and overseas Vietnamese, so the price of houses and apartments has risen sharply.
- Foreign companies wishing to invest in Vietnam also face a shortage of office accommodation and this has resulted in extremely high office rental rates.

Social

Languages: Vietnamese (official), English (favoured as a second language), some French, Chinese, and Khmer.

Education: At least two schools of architecture and civil engineering.

Legal
Based on communist legal theory and French civil law system; has not accepted compulsory ICJ jurisdiction. **Construction Regulations:** Law on Construction, 2004.
Technical
Standards body: Directorate for Standards, Metrology and Quality (STAMEQ) and Ministry of Construction also involved in standardization. **Current codes:** National codes based on old codes. The Eurocodes are progressively being adopted.
Environmental
Environmental concerns: Occasional typhoons with extensive flooding, especially in the Mekong River delta. **Environmental commitment:** Party to:, but not ratified, many agreements, including Kyoto Protocol, Hazardous Wastes, Ozone Layer Protection, etc.

India

INDIA
Political
Government type: Federal republic with 28 states and 7 union territories. **Political orientation:** Neutral, with traditional connections to UK.
Economic
GDP: $1.095 trillion (2009) **GDP Growth:** (2009), 7.4% (2008), 9% (2007). 7% average since 1997. **Main trading partners:** UAE 12.3%, US 11.7%, China 5.4%, Singapore 4.5%. **Trade with the EU:** EU exports to India 2007: €26.2b, EU imports from India 2007: €29.4bn. Trade in services; EU exports to India 2007: €6.7b, EU imports from India 2007: €5.5b. **General:** India is developing into an open-market economy. Economic liberalization began in the early 1990s. Services represent half of India's output and are the major source of economic growth. India has capitalized on its large educated English-speaking population to become a major exporter of information technology services and software workers. Domestic demand has re-emerged as a key driver of growth, as exports have fallen since the global crisis started. India has increased the pace of privatization of government-owned companies, partly to offset the budget deficit. India's long term challenges include widespread poverty, inadequate physical and social infrastructure, limited employment opportunities, and insufficient access to basic and higher education.
Construction industry: 2008 : $91.9b; 2007 : $90.7b; 2006 : $82.3b. **Construction activity:** The construction industry in India is the second largest industry of the country after agriculture. The investment in construction accounts for nearly 11% of India's Gross Domestic Product (GDP) and nearly 50% of its Gross Fixed Capital Formation (GFCF). The construction sector is set to grow at a 15 % growth rate Anything from $320bn to $485bn has been suggested as the figure that is needed to build a viable

infrastructure and replace, upgrade and renew India's roads, railways, ports, airports and power stations. (Construction India 2010).

Social

Languages: Hindi 41%, Bengali 8.1%, Telugu 7.2%, Marathi 7%, Tamil 5.9%, Urdu 5%, etc.

English enjoys the status of subsidiary official language but is the most important language for national, political, and commercial communication;

Education: India has at least 33 Schools of Architecture and civil engineering. Much of the education takes place in English. They do not commonly teach Eurocodes (CIDC).

Legal

Based on English common law; judicial review of legislative acts; accepts compulsory ICJ jurisdiction with reservations.

Construction regulations: The National Building Code of India (NBC), a comprehensive building Code, is a national instrument providing guidelines for regulating the building construction activities across the country. It serves as a Model Code for adoption by all agencies involved in building construction works, including Public Works Departments, other government construction departments, local bodies and private construction agencies.

The Code mainly contains administrative regulations, development control rules and general building requirements; fire safety requirements; stipulations regarding materials, structural design and construction (including safety); and building and plumbing services.

A Project for comprehensive revision of NBC was taken up under the aegis of National Building Code Sectional Committee, CED 46 of BIS and its 18 expert Panels; involving as many as 400 experts. It contains 11 Parts: Integrated approach; definitions; administration; development controls and general requirements; fire and safety; building materials; structural design; constructional practices; building services; plumbing services; landscaping.

Standards body: Bureau of Indian Standards (BIS).

Construction codes: BIS publishes the National Building Code which is the default code for private and public works. Design to Eurocodes is not compatible with the code and not acceptable. There is no intention to adopt Eurocodes some Indian engineers are familiar with Eurocodes, but Eurocode use is not growing and the EU is not seen as a target market (CIDC). However, other sources say that Eurocodes can be used where local codes are not considered suitable.

Environmental

Environmental concerns: Droughts; flash floods, as well as widespread and destructive flooding from monsoonal rains; severe thunderstorms; earthquakes.

Environmental commitment: Party to, but not signed, many agreements, including Kyoto Protocol, Desertification, Hazardous Wastes, Ozone Layer Protection, etc.

South Africa

SOUTH AFRICA

Political

Government type: Republic with 9 provinces.

Political orientation: Regional leadership.

Economic

GDP: $280.6 billion (2009 est.) **GDP Growth:** -1.8% (2009), 3.7% (2008), 5.5% (2007).

Main trading partners: Japan 11.1%, US 11.1%, Germany 8%, UK 6.8%, China 6%, Netherlands 5.2% (2008).

Trade links with China are becoming increasingly important.

Trade with the EU: South Africa is the EU's largest trading partner in Africa. EU exports to South Africa 2008: €20,215 million, **E**U imports from South Africa 2008: €22,157 million.

Trade in services: EU exports to South Africa 2007: €5,704 million, EU imports from South Africa 2007: €4,321 million. South Africa has a TDCA agreement with the EU with aim of establishing free trade between the countries.

General: South Africa's economy grew by 4.9% between 2006 and 2007, with real GDP having increased for 33 consecutive quarters. The natural resources sector functions as the main driver of the domestic economy and exports, due to the bullish commodities market, while the motor and tourism industries provide further success stories. Other sectors are struggling however; including textiles, despite an agreement with China to limit exports to South Africa.

Construction industry: 2008: $11.48b; 2007: $10.08b; 2006: $8.61b.

Construction activity: There have been massive infrastructure improvements in preparation for the 2010 World Cup, with railway tracks being laid, airports expanded and new stadiums built. The South African Department of Transport has been under pressure to upgrade infrastructure, with World Cup bring an estimated 3m fans. The country's ports are currently operating at full capacity, and $3.47bn has been scheduled for investment in infrastructure and handling equipment.

The railways have had $4.72bn of investment over the past five years. The South African National Roads Agency Limited (SANRAL) has an investment programme to upgrade or build 5000 km of new road over the next five years.

South Africa's construction industry is working overtime, with money pouring in for everything from luxury hotels to infrastructure. The sector's contribution to GDP is predicted to grow to around 10% by 2014.

In terms of infrastructure, the construction industry has been earmarked for projects worth $55.6bn, under the expanded public works programme (EPWP) and the Accelerated and Shared Growth Initiative (ASGI).

The residential real estate sector still accounts for the lion's share of investment with demand outstripping supply.

Social

Languages: IsiZulu 23.8%, IsiXhosa 17.6%, Afrikaans 13.3%, Sepedi 9.4%, English 8.2%, Setswana 8.2%, Sesotho 7.9%, Xitsonga 4.4%, other 7.2% (2001 census). Main technical and commercial language is English.

Education: There are 108 private higher education providers currently operating as opposed to just 21 public ones. There are at least 7 schools of architecture and planning.

Legal

Based on Roman-Dutch law and English common law; has not accepted compulsory ICJ jurisdiction.

National Buildings and Regulations Act 1977.

Technical

Standards body: South African Bureau of Standards (SABS).

Current codes; South Africa has its own codes based on British codes, but there is wide consensus on the need to Eurocode principles in national codes. (Loading code already embodies Eurocode principles). A recent Eurocode Summit proposed that further adoption was not urgent and should await full implementation in Europe (Johan Retief).

Environmental

Environmental concerns: Prolonged droughts.

Environmental commitment: Party to many agreements including the Kyoto Protocol, Desertification, Hazardous Wastes, Ozone Layer Protection, etc. Has signed but not ratified these agreements

The Green Building Council of South Africa (GBCSA) was established in 2007. GBCSA launched the Green Star South Africa Environmental Rating System for Buildings (Green Star SA) in November 2008 for new commercial buildings. This rating system can be used to measure the "greenness" of a building's design and construction against the Green Star SA objectives of reducing environmental and human health impacts.

Eastern Europe

RUSSIAN FEDERATION

Political

Government type: Federation.

Political orientation: Regional but seeking closer links with EU.

Economic

GDP: $1.232 trillion (2009) **GDP Growth:** -7.9% (2009), 5.6% (2008), 8.1% (2007).

Main trading partners: Netherlands 12.2%, Italy 9%, Germany 6.9%, Turkey 5.9%, Ukraine 5%, China 4.5%, Poland 4.3% (2008).

General: Russia has quickly moved to a more market-based and globally-integrated economy. The rapid privatization process has left equity ownership highly concentrated. The protection of property rights is still weak and the private sector remains subject to heavy state interference.

Russian industry is primarily split between globally-competitive commodity producers and other less competitive heavy industries that remain dependent on the Russian domestic market. The government since 2007 has embarked on an ambitious program to build up the country's high technology sectors, but with few results so far.

The economy had averaged 7% growth since 1998 but the Russian economy was one of the hit by the 2008-09 global economic crisis. The Central Bank of Russia spent one-third of its $600 billion international reserves to maintain the value of the Rouble and the government also devoted $200 billion in a rescue plan to increase liquidity in the banking sector and aid Russian firms.

The economic decline appears to have bottomed out in mid-2009 and by the second half of the year there were signs that the economy was growing, albeit slowly. Long-term challenges include a shrinking workforce, a high level of corruption, and poor infrastructure in need of large capital investment.

Construction industry: 2008: $74.48b; 2007: $65.79b; 2006: $57.72b.

Construction activity: According to *Russian Construction Review,* the construction sector is powering economic growth in the Russian Federation and reporting year-on-year profit growth of 68.8%. To meet huge domestic demand over 120 new building materials facilities were launched in the first half of 2006. Preparations for the Sochi Winter Olympics in 2014 and the Asia Pacific Economic Cooperation (APEC) Summit to be held in Vladivostok in 2012 have provided a major boost to construction activities in Russia. These two events are driving huge investments in Sochi and Vladivostok for construction and modernization of roads, railways, tunnels, airport facilities, power infrastructure as well as construction of sports venues.

Retail buildings construction has been driven by the growing retail sector in Russia and is expected to

drive commercial construction in coming years.

Industrial and Commercial Construction to prosper: Industrial and commercial construction are expected to perform comparatively well over the period 2009-2014. The industrial market is expected to see a compounded annual growth rate of 17.0% over this period.

Social

Languages: Russian, many minority languages.

Education: There are at least 7 major schools of architecture and civil engineering.

Legal

Based on civil law system; judicial review of legislative acts; has not accepted compulsory ICJ jurisdiction.

New Russian Standardization Law introduced in December 2009 that will facilitate more permissive approach to construction standardization.

Technical

Standards body: Federal Agency on Technical Regulating and Metrology (GOST R). Construction standardization sub-contracted to the Ministry of Regional Development.

Current codes: Mostly Russian codes.

Environmental

Environmental concerns: Volcanoes and earthquakes on the Kamchatka Peninsula. Air and agricultural pollution, deforestation; soil erosion and some areas of radioactive contamination.

Environmental commitment: Party to many agreements on pollution, climate change and others.

UKRAINE

Political

Government type: Republic.

Political orientation: Since Ukraine gained its independence in 1991, the population has been split between those looking for greater integration with the West and those who continue to hold ties to the East. Ukraine became a World Trade Organization (WTO) member in May 2008 and is expected to make continued progress on the reforms needed for closer economic ties with the EU, including a possible free trade agreement. The country is also flirting with the idea of NATO membership.

Economic

GDP: $117.1 billion (2009 est.) **GDP Growth:** -14.1% (2009), 2.1% (2008), 7.9% (2007),

Main trading partners: Russia 21.1%, Turkey 5.3%, China 3.8% (2009).

Trade with the EU: The EU is Ukraine's foremost commercial partner and accounts for about one third of its external trade. EU exports to Ukraine 2008: €25.14 billion, EU imports from Ukraine 2008: €14.36 billion.

General: Ukraine's economy remains in robust shape with foreign investors undeterred by the growing political tension. Ukraine continues to thrive, achieving one of the highest real GDP growth figures in the region. Growth has mainly been driven by a rapidly rising standard of living and Ukraine's its export-based industries, thanks to increased global demand for metals, machinery and chemicals. WTO accession should benefit many sectors and boost exports overall. The state is likely to have a major role in boosting capital expenditure and infrastructure development.

Construction industry: 2008: $1.79b; 2007: $2.16b; 2006: $1.90b.

Construction activity: Preparing to co-host Euro 2012 football tournament is providing a massive boost to the construction sector. The government is planning to spend $4.43bn on infrastructure development and renewal, including the development of the road system, the upgrading of the country's airports, as well as the construction of new football stadiums and visitor accommodations. The government will provide about 27% of the funding for these projects, private investment is expected to fill the gap. This provides a great opportunity and wide scope for more foreign companies to enter the Ukrainian market as both construction companies and as suppliers of heavy equipment. Moreover, with the formal accession of Ukraine into the World Trade Organization (WTO) in May 2008, the government was committed to completely removing barriers to entry for foreign construction firms.
Social
Languages: Ukrainian (official) 67%, Russian 24%, other 9% (includes small Romanian-, Polish-, and Hungarian-speaking minorities). **Education:** There are at least 10 schools of Architecture and civil engineering.
Legal
Based on civil law system; judicial review of legislative acts; has not accepted compulsory ICJ jurisdiction.
Technical
Standards Body: State Committee of Ukraine on Technical Regulation and Consumer Policy (DSSU). DSSU sub-contracts construction standardization to Ministry of Regional Development. **Current codes:** Mainly old Russian codes.
Environmental
Environmental concerns: Inadequate supplies of potable water; air and water pollution; deforestation; radiation contamination in the northeast from 1986 accident at Chernobyl Nuclear Power Plant. **Environmental commitment:** Party to many agreements, including: Air Pollution, Kyoto Protocol, Hazardous Wastes, Ozone Layer Protection, etc.

4.2.2 AIDA analysis

We have placed each target region on the appropriate place within the AIDA model: **A**wareness; **I**nterest, **D**esire, **A**ction with some indicative data to explain our assessment.

Countries	AIDA	Sample data
Western Mediterranean		
Algeria	Desire	B Ameur presentation to Varese conference
Egypt	Desire to Action	Varese conference EOS invitation to Hugh Berridge to present on Eurocode promotion Use of Eurocode 8 and Eurocode 1991-2
Morocco	Desire to Action	Seminar organised in 2005 by Ecole Hassania des Travaux Publics in Casablanca (EHTP) and the Union des Ingénieurs et Scientifiques utilisant la langue française (UISF) Attended Varese conference
Tunisia	Desire to Action	Varese conference
Gulf Region		
Bahrain	Interest	Doha conference

Kuwait	Interest	Response of Saleh Al-Mogrin of the Saudi Council of Engineers Invitation to participate in GCC workshop on construction Standards Construction work already employing Eurocodes
Oman	Interest	
Qatar	Interest	
Saudi Arabia	Interest	
United Arab Emirates	Interest	
Jordan	Interest	
Syria	Interest	
South East Asia		
Malaysia	Action	BSI conference Adaptation of Surveyed a number of different types of codes but decided Eurocodes were best suited to local need. Using Eurocode – Basis of structural design, E 1 and E 2 and in the process of adopting E 3, E 7 and E 8. (Nor Hashima)
Thailand	Desire	EU Mission
Vietnam	Action	BSI Conference Adoption process underway BSI and British Embassy Assistance
India		
India	Interest	BSI conference BSI Roadshows Invitations to repeat these events
South Africa		
South Africa	Action	Adopted Eurocode principles in loading code Other adaptations on the way
Eastern Europe		
Russia	Interest to Desire	Moscow conference in 2008
Ukraine	Action	Conference in 2009 EuropeAid project aimed at harmonizing regulations and standards in the construction sector with those in EU Conference in 2010 Papers published by the Ministry of Regional Development

4.2.3 Diffusion of Innovation

Most of the national standards bodies in the target markets are part of a government department. In some cases, the standardization activities specific to the construction sector are the responsibility of the relevant ministry (e.g. Ministry of Construction). Therefore formal adoption will inevitably be a top down, government-driven decision. However, this decision will still be influenced by the attitudes and aspirations of the local industry practitioners.

In the Western Mediterranean region, the strong commercial and growing political links with Europe can work together to achieve a desired result.

In the Gulf region, code use has generally been determined by contract on the basis of cost and value for money. This has allowed some Eurocode use in the past. However the region is seeking closer economic integration through the GCC and harmonization of standardization through the GSO. The regional leader, Saudi Arabia has already taken the decision to base its own codes on those of America and there is a probability that design to these codes will become mandatory. This could spread throughout the region. The position of Syria and Jordan is less clear. In Jordan, there is significant interest in harmonising with the European regulatory system.

In South Africa, standardization is not directly controlled by the government and decisions on adoption and use of Eurocodes appear to be driven by the academic and professional community on the basis of technical content. The decision to adopt Eurocode principles into local codes has already been taken and the process is already underway. The only issue in South Africa is the pace at which this process can proceed.

In South East Asia, Thailand and Malaysia appear to have a more bottom up approach than in Vietnam. In Malaysia, the decision to adopt Eurocodes has been taken in principle and the process has begun. Thailand has shown enthusiasm for past promotional efforts on behalf of Eurocodes, but the current position is less clear and the respective roles of government and the design community in taking this decision are less certain. In Vietnam, diffusion of innovation appears to be top down and decisions in favour of adoption of Eurocodes need to be confirmed with the Ministry of Construction and the momentum maintained.

In Eastern Europe, both Ukraine and Russia are highly centralised and bureaucratic in their orientation, but pressure from industry is still a significant influencer.

India is also a bureaucratic country, but is emerging rapidly from its autarkic past and is open to best practice from other countries. Although Eurocode use is still minimal, there has been an enthusiastic response to past Eurocodes promotions and requests for them to be repeated. The importance of the European market for the export of Indian design skills is likely to become a significant factor in their wider use, irrespective of local decisions.

4.2.4 Attractiveness of target markets

With 6 target regions and 20 individual countries, we have evaluated each country and each region against three criteria:

- Attractiveness of the target market for European design and construction companies
- Attractiveness of the European market for the target market's local industry
- Level of interest in Eurocodes in the target market

Attractiveness of the target markets to European Industry

The attractiveness of the market to the European design community was mainly determined by publicly available statistical data on the size of the local construction industries and the scale of major infrastructure and other construction activity set out in the PESTLE analyses above.

This was supplemented by the comments of the experts consulted throughout our research and by the on-line survey we conducted. The survey was based on contacts within BSI and is inevitably UK-oriented and the survey size is too small for its findings to be regarded as definitive, only indicative.

On line survey: Current importance of the target countries

Country	High % No.	Medium % No.	Low % No.	Don't know % No.	Not appl. % No	Total No.
W Med						
Algeria	3.8 (3)	6.4 (5)	16.7 (13)	10.3 (8)	62.8 (49)	78
Egypt	3.9 (3)	5.2 (4)	15.6 (12)	11.7 (9)	63.6 (49)	77
Morocco	3.8 (3)	6.3 (5)	17.7 (14)	10.1 (8)	62 (49)	79
Tunisia	1.4 (1)	6.8 (5)	17.6 (13)	9.5 (7)	64.9 (48)	74
Gulf & E Med						
Abu Dhabi	8.2 (7)	9.4 (8)	15.3 (13)	8.2 (7)	58.8 (50)	85
Bahrain	2.6 (2)	7.9 (6)	14.5 (11)	11.8 (9)	63.2 (48)	76
Dubai	6.3 (5)	15.0 (12)	12.5 (10)	8.8 (7)	57.5 (46)	80
Kuwait	4.1 (3)	4.1 (3)	15.1 (11)	12.3 (9)	64.4 (47)	73
Oman	2.6 (2)	7.9 (6)	11.8 (9)	13.2 (10)	64.5 (49)	76
Qatar	5.1 (4)	10.1 (8)	11.4 (9)	11.4 (9)	62 (49)	79
Saudi Arabia	7.7 (6)	6.4 (5)	14.1 (11)	11.5 (9)	60.3 (47)	78
E Med						
Jordan	0.0 (0)	2.7 (2)	17.3 (13)	13.3 (10)	66.7 (50)	75
Syria	0.0 (0)	2.7 (2)	17.3 (13)	13.3 (10)	66.7 (50)	75

S E Asia						
Malaysia	3.9 (3)	6.6 (5)	15.8 (12)	9.2 (7)	64.5 (49)	76
Thailand	4.0 (3)	2.7 (2)	16.0 (12)	10.7 (8)	66.7 (50)	75
Vietnam	4.2 (3)	0.0 (0)	15.3 (11)	13.9 (10)	66.7 (48)	72
India	1.3 (1)	12.8 (10)	14.1 (11)	10.3 (8)	61.5 (48)	78
E Europe						
Russia	11.3 (9)	8.8 (7)	13.8 (11)	8.8 (7)	57.5 (46)	80
Ukraine	5.3 (4)	7.9 (6)	13.2 (10)	9.2 (7)	64.5 (49)	76
South Africa	2.6 (2)	11.5 (9)	16.7 (13)	7.7 (6)	61.5 (48)	78
EU	51.2 (456)	6.8 (7)	6.8 (7)	6.8 (7)	25.2 (26)	103

On-line survey: Future importance of target markets

Country	High % No.	Medium % No.	Low % No.	Don't know % No.	Not appl. % No	Total No.
W Med						
Algeria	3.6 (3)	13.1 (11)	23.8 (20)	8.3 (7)	51.2 (43)	84
Egypt	5.1 (4)	10.3 (8)	17.9 (14)	12.8 (10)	53.8 (42)	78
Morocco	3.6 (3)	12.0 (10)	22.9 (19)	8.4 (7)	53.0 (44)	83
Tunisia	3.7 (3)	11.0 (9)	23.2 (19)	8.5 (7)	53.7 (44)	82
Gulf						
Abu Dhabi	9.0 (8)	11.2 (10)	19.1 (17)	11.2 (10)	49.4 (44)	89
Bahrain	3.7 (3)	7.4 (6)	23.5 (19)	12.3 (10)	53.1 (43)	81
Dubai	6.9 (6	18.4 (16)	18.4 (16)	10.3 (9)	46.0 (40)	87
Kuwait	3.8 (3)	10.0 (8)	23.8 (19)	12.5 (10)	50.0 (40)	80
Oman	3.7 (3)	11.1 (9)	22.2 (18)	11.1 (9)	51.9 (42)	81
Qatar	3.5 (3)	16.5 (14)	21.2 (18)	9.4 (8)	49.4 (42)	85
Saudi Arabia	8.5 (7)	12.2 (10)	18.3 (15)	12.2 (10)	48.8 (40)	82
E Med						
Jordan	1.3 (1)	7.5 (6)	23.8 (19)	13.8 (11)	53.8 (43)	80
Syria	1.2 (1)	6.2 (5)	25.9 (21)	12.3 (10)	54.3 (44)	81
S E Asia						
Malaysia	8.5 (7)	4.9 (4)	23.2 (19)	11.0 (19)	52.4 (43)	82
Thailand	6.2 (5)	6.2 (5)	21.0 (17)	13.6 (11)	53.1 (43)	81
Vietnam	4.9 (4)	2.4 (2)	26.8 (22)	12.2 (10)	53.7 (474)	82
India	9.4 (8)	15.3 (13)	16.5 (14)	9.4 (8)	49.4 (42)	85
E Europe						
Russia	14.3 (12)	14.3 (12)	11.9 (10)	11.9 (10)	47.6 (40)	84
Ukraine	6.0 (5)	9.6 (8)	20.5 (17)	12.0 (10)	51.8 (43)	83
South Africa	4.9 (4)	14.6 (12)	19.5 (16)	11.0 (9)	50.0 (41)	82
EU	58.8 (60)	7.8 (8)	5.9 (6)	5.9 (6)	21.6 (22)	102

Adrian Joyce of the Architects Council of Europe assessed priorities for his members as follows;

1. The Euro-med region as highest priority because of strong existing ties with the region

2. Eastern Europe is ranked second target market. Ukraine has strong links with Poland and wishes to join the EU. As co-hosts of the next European Championship there is significant work to be had. Russia is still regarded as a difficult place to work, but is potentially a huge market. Russia also sees the EU as one of its target markets.

3. The gulf region is ranked third, but activity is dominated by the big design companies and by design-and-build contracts, where the emphasis is on cost rather than design quality.

The other three target regions are of interest but not major interest to ACE members.

India is a huge market but only has 14k registered architects. South Africa may be of some interest to British and Dutch architects, because of traditional historic ties, but South East Asia is largely an unknown quantity.

Attractiveness of the European market to the target regions

It has been difficult to determine the importance of the European market from our contacts in the various countries. However, the strong trade links that exist between the Western Mediterranean countries and to some extent in India suggest that it could be a significant factor. India also has traditional links with the UK and European design companies are already out-sourcing design work to India. However, the construction industry as a whole is very centred on the local (usually the national) market in terms of the total number of players.

Interest in Eurocodes

The level of interest in Eurocodes was set out in the AIDA analysis above.

Summary

Region	Market size	% of total	Current importance	Future importance	Eurocode interest AIDA
	$ billions		Average of % high and % medium	Average of % high and % medium	
Western Med	13.27	5	4.7	7.8	Desire to Action
Gulf	48.61	19	6.96	8.99	Interest
Eastern Med	2.04	1	1.35	4.05	Desire to Action
S E Asia	15.3	6	3.57	5.52	Desire to Action
India	91.9	36	7.05	12.35	Interest
E Europe	76.27	29	8.33	11.05	Desire to Action
South Africa	11.48	4	7.05	9.75	Action
Total	**258.87**	**100**			
EU			29	33.3	

It is not surprising that the EU is seen as by far the most important target market for European practitioners. According to the results of the on-line survey, it appears that the future importance of all the target markets is expected to increase, with India, the Gulf and Eastern Europe seen as the most important in the future. They are also the three largest markets, representing 84% of the total for the regions included in this survey. Although South Africa is a much smaller market, it too is expected to become more important to European design and construction agencies.

4.2.5 Influential non-target markets

China

In compiling data for these market assessments, we became aware of the growing importance of China, both as a trading partner and as a significant player in the construction industry in many of the target countries. While China is outside the scope of this project, we recommend that the initiatives already underway between the EU and China should continue since it will have an increasing influence in all markets and the decisions they take will impact more generally.

Singapore

Singapore is a regional leader and a major member of ASEAN. The country has taken the decision to adopt Eurocodes nationally and has signed an agreement with CEN. As such, Singapore's participation in any promotion in the region is desirable and their experiences would be a valuable aid to their neighbouring countries. They could serve as a regional model for how to implement Eurocodes.

4.2.6 Conclusions

The market analyses tend to confirm the coherence of the target regions with a few minor exceptions:

- We believe that Egypt is more naturally treated as part of the Western Mediterranean region than the Eastern European region. Its dependence on old European codes and its place in the North African earthquake region make it a good candidate for adoption, although this decision does not appear to have been taken yet.

- Jordan and Syria are not members of the Gulf Cooperation Council and could be treated separately from the other countries in the region.

- The Russian Federation and Ukraine have much in common, but Ukraine seems to be moving more quickly towards closer political and economic ties with Europe and more quickly to the formal adoption of Eurocodes. The two markets could be considered separately.

- Despite the political differences between Thailand and Malaysia on the one hand, and Vietnam on the other, the South-East Asian region does seem to be a coherent target market. All three countries are members of ASEAN.

The countries with the greatest likelihood of adoption of Eurocodes or Eurocode principles tend to be less attractive as markets for European industry than those where formal adoption is less likely. The major exception is the Russian Federation where the incorporation of Eurocode principles is a realistic aim in the longer term.

4.3 Funding Opportunities

4.3.1 Research

As part of our research, we contacted over 50 organisations to explore possible funding sources for the preparation and/or implementation of promotional activities. Emails were the main means of communication with the Project Brief sent in attachment (see Annex 11). In some cases, these were followed up by telephone conversations and web research. Some discussions were also held face-to-face when possible. The organisations we contacted included:

- European Commission and its agencies (e.g. TAIEX, JRC, EC Delegations in target third countries)
- CEN, the European Committee for Standardization
- National Standards Bodies in Europe
- National Standards Bodies in target third countries
- Construction industry organisations
- Governments of EEA Member States

4.3.2 Findings

From the responses received, we were able to draw the following conclusions. As we are still receiving responses, this part of the report will be updated at the end of May 2010 accordingly.

JRC, Joint Research Centre:

The JRC has already been heavily involved in the promotion of Eurocodes, including in the participation of events that took place outside of the EU. However, as the JRC is not mandated to finance events outside of the EU, these events were financed by different sources (e.g. TAIEX).

The JRC, under the framework of the Memorandum of Understanding with DG ENTR on the Eurocodes, has the ability to support external events only if explicitly asked by DG ENTR. It would therefore be possible for the JRC to provide support, under explicit request, to events for the promotion of Eurocodes. This could include:

- Providing support to the promotion of future activities, by adding a specific page on their website http://eurocodes.jrc.ec.europa.eu/home.php announcing events or other activities related to the promotion of Eurocodes outside of the EU.

- Providing previous promotional material, including a series of leaflets, and booklets (already available on their website). Although JRC has currently no intention to further expand this collection, if a need is identified it could be discussed with the JRC and DG ENTR.

- Providing speakers to participate in events if considered appropriate.

- Providing feedback on the initiatives and suggested promotional activities.

- Any other contribution would have to be decided on a case-by-case basis.

TAIEX:

From the feedback we received from CEN, the JRC and other stakeholders, all seemed to point towards TAIEX, as a possible source of financing for events. TAIEX is the Technical Assistance and Information Exchange instrument managed by the Directorate-General Enlargement of the European Commission.

From the list of our target countries, the TAIEX mandate to provide assistance covers the following beneficiary countries: **Algeria, Egypt, Jordan, Morocco, Syria, Tunisia, Ukraine and Russia**. The beneficiaries of TAIEX assistance includes those sectors, both public and private, who have a role to play in the beneficiary countries in the transposition, implementation and enforcement of EU legislation or in the case of the ENPI countries, in deepening economic and political cooperation by sharing the experience gained during the enlargement process.

The main target groups are:

- Civil servants working in public administrations; at national and sub-national level and in associations of local authorities;
- The Judiciary and Law Enforcement authorities;
- Parliaments and civil servants working in Parliaments and Legislative Councils;
- Professional and commercial associations representing social partners, as well as representatives of trade unions and employers' associations;
- Interpreters, revisers and translators of legislative texts.

As TAIEX does not provide direct support to private citizens, or to individual companies, it will be important to consider the use of a local facilitator, such as CEN, when applying for funding. This may increase our chances of success.

Twinning:

Twinning is a European Commission initiative that was originally designed to help candidate countries acquire the necessary skills and experience to adopt, implement and enforce EU legislation. Since 2003, twinning has been available to some of the Newly Independent States of Eastern Europe and to

countries of the Mediterranean region. Of our target countries, these include: **Algeria, Egypt, Jordan, Morocco, Tunisia, and Ukraine**.

Twinning may be of interest for this project, either as an opportunity for funding new long-term actions, such as technical assistance to develop Nationally Determined Parameters or for punctual activities to be delivered within an existing and relevant twinning project.

EC Delegations in target countries:

Amongst all the EC Delegations from the target countries contacted, only a few were aware of the Eurocodes, promotional activities in their country and/or of projects related to the normative framework in the construction industry (e.g. India, Syria and Ukraine). However, generally speaking, EC Delegations indicated that they were not aware of the situation regarding building codes, construction standards and Eurocodes in their country.

Most EC Delegations appear to be organised around the following sections: Politics, Press and Information, Economics and Trade, Cooperation and Development, Governance and Institutions, Contracts and Finance, Administration. In terms of resources, this does not allow for dedicated sector-specific specialists, such as for the construction sector.

Trade relations between the EU and the target countries are very important for EC Delegations; however, specific trade promotion activities are usually undertaken by the MS embassies. Overall, there is a general lack of capacity to fund or sponsor promotional activities.

The Euro-Mediterranean Partnership:

Under the Euro-Mediterranean Partnership, a number of programmes and projects have been launched. Of our list of target markets, these initiatives were established in collaboration with the following countries: **Algeria, Egypt, Jordan, Morocco, Syria and Tunisia**. As part of the Euro-Med Partnership, the following projects (and / or their follow-up programmes) could be relevant to support the uptake and adoption of Eurocodes and possibly provide funding for specifically targeted activities:

- INVESTinMED project, a euro-Mediterranean network of organisations committed to investment promotion and trade facilitation, strengthening SME collaboration and exchange of best-practices (2008-2011);
- Euro-Med Quality project, which supported efforts by the Mediterranean Partner countries to develop and market quality products, through training, awareness raising and regional seminars (2004-2008) - if there is a follow-up to this project.
- MED-ENEC– Energy efficiency in construction (2005-2008) - this project is now complete; however it appears that a follow-up project is foreseen. Entitled MED ENEC II, it will aim to support partner countries to best control their energy consumption in the building sector.

However, in order to consider benefiting from funding under these programmes, it will be important to receive proper introductions, possibly by DG ENTR.

The Euro-East Partnership:

Just as with the Euro-Med Partnership, the Euro-East Partnership could possibly provide funding opportunities. Of our list of targeted countries, Russia and Ukraine fall within the beneficiary countries of this partnership. However, at this stage, the current programme objectives do not appear to be directly relevant to the promotion of Eurocodes. It would be interesting to monitor any upcoming programmes and projects.

CEN, the European Committee for Standardization:

From our contacts with CEN, it appeared clear that they do not have funds available to finance promotional activities. However, they strongly recommended working with TAIEX and also confirmed that they could provide support in applying for funds from TAIEX. Although CEN is not in a strong position to provide financial resources, it would be interesting to explore how CEN could provide a coordination role for future promotional activities of Eurocodes and possibly drive the ownership actions through secondments.

Standards Bodies in the EU MS:

Some of the older standards bodies in the EU MS (e.g. AFNOR in France and BSI in the United Kingdom) have previous or historical links with some of the target countries and specifically with their standards bodies, such as the UK with India or France with Morocco. As these links are often entrenched in the use of building codes and standards, these existing relationships could be very useful in promoting the use and or adoption of Eurocodes in selected target countries.

From the feedback we received from EU MS Standards Bodies, although some (e.g. BSI in India) have already conducted promotional activities for construction standards / building codes / Eurocodes, we understand that most NSBs in the EU are currently busy with the promotion and adoption of Eurocodes within their own country and therefore have insufficient resources to allocate for the promotion of Eurocodes internationally.

Standards Bodies in the target countries:

The standards bodies in target countries would most likely be involved in such activities, if their government supported the actions.

EBRD, European Bank for Reconstruction and Development:

EBRD financing for private sector projects generally ranges from €5 million to €250 million, in the form of loans or equity. The average EBRD investment is €25 million. Smaller projects may be financed through financial intermediaries or through special programmes for smaller direct investments in the less advanced countries.

To be eligible for EBRD funding, the project must:

- be located in an EBRD country of operations
- have strong commercial prospects
- involve significant equity contributions in-cash or in-kind from the project sponsor
- benefit the local economy and help develop the private sector
- satisfy banking and environmental standards.

Of the countries of operations listed in the "Guide to EBRD financing" (October 2009), **Ukraine and Russia** are the only ones which are part of our list of targeted countries. As the sectors supported by the EBRD include: Manufacturing, Municipal and environmental infrastructure, Property and tourism, and Transport, there is possibility that the EBRD could be a funding stream for the promotion of Eurocodes.

UNIDO, the United Nations Industrial Development Organization:

UNIDO's focus covers developing country capacity building in the area of standards, metrology, testing, certification, accreditation etc. As such, UNIDO provides support to a number of standards bodies in the developing world. They primarily cover agro-industry related standards and conformity capacity building.

The feedback we received from UNIDO indicated that they could potentially provide speakers to events depending on the nature of the promotional activities. UNIDO's regular newsletters could also be a vehicle to promote activities undertaken in conjunction with UNIDO.

NATO, North Atlantic Treaty Organization:

NATO was active in the organisation of the "EUROCODES: Building the Future in the Euro-Mediterranean Area" event held on 27-29 November, 2006 in Varese, Italy. For this reason, we are exploring whether NATO would consider funding future promotional activities on Eurocodes, if precise proposals were submitted - either under their "Security through Science" Programme or another initiative. Although the organisation was contacted, we have yet to confirm with NATO whether future sponsoring could be envisaged.

Construction Industry:

From the feedback we received, stakeholders in the Construction Industry (academic and industrial circles and trade and professional bodies, e.g. British Engineering Institutions in Egypt and the Union

International des Ingénieurs et des Scientifiques utilisant la langue française, based in Paris, France) have expressed their interest (e.g. by providing speakers, and possibly covering their expenses), and could consider their involvement in promotional activities as a potential PR move. However, it is to be noted that the involvement of construction industry actors will strongly depend on the nature of the activities and most importantly, on the attractiveness of the market.

Governments of EEA Member States and of target third countries:

At this stage, only a few contacts were established with the Governments of EU Member States to enquire on funding opportunities. However, in most cases there appears to be little or no funds available. However, once the target activities are selected, it may be of interest to contact relevant Member State Governments, for example through their export promotion divisions or ministries of industry and/or construction, and possibly target country Governments to seek funding or other support.

4.3.3 Conclusions and next steps

Our initial task was to identify possible sources of funding. From the feedback obtained, we recognize that most organisations do not have available funding. However, what we have noticed is that some organisations are willing to provide support in other ways, such as by providing speakers, subsidising a venue, promoting events and initiatives, endorsing activities or sponsoring a particular aspect of an activity.

Another point to be noted is that the nature of the action will strongly influence the type of sponsoring and support that can be obtained. Once the promotional actions are selected and further defined, in terms of the target country, the nature of the activity, the timing and target audience, this will allow for a more focused approach to fund raising and sponsor seeking.

The success of obtaining support for activities will also strongly depend on how the activities are positioned and presented to the sources, and how these are aligned with the organisations' needs and resources.

Although some organisations may have indicated at this stage that they do not have funding, we strongly recommend keeping relevant organisations informed of the promotional actions that will be delivered. For example, we suggest that EC Delegations should be informed of future promotional activities that will be held in their country, once the actions are further developed and closer to being implemented.

Section 5: Promotional Strategy

5.1 Objectives of the strategy

We also further considered the strategic objectives that we should aim at in each country and what measures of success would be appropriate. We propose the two following key objectives, from which measures of success inevitably stem: 1) acceptance and wider use of the Eurocodes, and 2) formal adoption.

Objective 1 – Promote Wider Acceptance and Use of Eurocodes

The principal aim of promotional activities in target markets is the wider acceptance and use of Eurocodes. This will inevitably follow if they are adopted locally, but adoption or adaptation of Eurocodes may not be a realistic possibility. In some target markets, the only achievable objective should be to promote their wider acceptance by both public and private contractors and their wider use by practitioners in the local market.

The success criteria in these cases will be the acceptance of the use of Eurocodes in national regulation; wider acceptance of design to Eurocodes in invitations to tender for national construction works; wider use of Eurocodes by local practitioners and the common teaching of Eurocodes in Universities and other schools of architecture and civil engineering. This is a more indeterminate objective and much more difficult to measure, however it is more realistic to achieve.

Objective 2 – Formal Adoption

The formal adoption of Eurocodes as the national building design codes is the preferred objective for each target market. Formal adoption of Eurocodes, and their preferential reference in local regulations (as in Europe), is the best assurance of their wider use in the local market. In the longer term formal adoption could create a critical mass within the ISO community and potentially lead to the adoption of Eurocodes at the International level, although this is at best likely to be a long term process. Acceptance as International standards will give Eurocode principles a status that they do not have when viewed as primarily a European invention for European purposes, although this will be resisted by America and may not be practicable.

This will require a common process to be undertaken in each country. It might involve the amendment of national regulation. It will certainly involve formal adoption by the local standards body, the determination of Nationally Determined Parameters and their publication as National Annexes and a managed transition to the common use of Eurocodes in the local market.

This process is very similar to the one that European Union Member States are currently going through. Realistic objectives and timescales for the fulfilment of the strategy should recognise the difficulties that EU MS have encountered. Where formal adoption is the goal, then the next phase of promotional activity should focus on assisting the target countries to understand and go through this process.

The clearest measure of success would be actual formal adoption of the full suite of existing codes with a commitment to adopt additional codes that are currently under development or are awaiting mandates to develop.

However, it should be noted that adoption may not be always be a transparent outcome. Some countries may opt for partial adoption of selected codes (Eurocode 7 and Eurocode 8 have aroused particular interest). Given the integrated and internally consistent nature of the Eurocodes, partial adoption would be a regrettable outcome, but it might be the only one that is feasible in the short to medium term. In other cases, Eurocode principles will be incorporated into national codes with no formal reference to the originating documents. This is already the case in Malaysia and South Africa. However such transpositions, or adaptations, should still be counted as a measure of success.

The two objectives are not mutually exclusive. Promoting the wider use of Eurocodes is the primary focus in those target markets where there is little prospect of adoption in a five year time frame. However, it is also an activity that is relevant to those markets in which adoption is a reasonable aim

and in which the process of adoption has already begun. Therefore, there is also a requirement in these latter countries for promotional activity to help clarify the process and address the advantages and practical issues involved in adoption.

5.2 General Actions to promote Eurocodes

Coordination

Eurocodes Coordinating Point

The main criticism of past promotional activity has been the lack of follow through on interest that has been aroused. We propose addressing this weakness through the establishment of a European Coordination point. This would require funding and resource. It would become a repository of information on current Eurocodes activity, promotional events, key experts, frequently asked questions, adoption policy and procedures, and would be a means of routing specific technical enquiries to an expert able to advise on them. It would also be responsible for maintaining and promoting the use of the Eurocodes web site. The proposed Eurocodes Coordinating Point would go beyond the JRC's current role and activities. It would also be responsible for maintaining contacts with key players and stakeholders in the target markets and funnelling information to them as it becomes available.

This could be located within the EC itself, or sub-contracted to another organization: e.g. CEN, JRC, a European trade Association or a CEN member body.

Local coordination points

Amongst its recommendations, the JRC's 2008 report proposed the establishment of the post of "European standards attaché" in the EC delegations in each target country. We suggest a similar proposition.

Alternatively the regional coordination points could be established in other interested organizations. For example, CEN is in the process of appointing a standards attaché for India. Acting in liaison with the European coordination point, this Attaché could serve as the regional coordination point for India. Another possibility is that this activity could be taken by the Trade attaché of one of the CEN Member Embassies in each country. For Francophone countries the French Embassy in each country might be appropriate. For Anglophone countries, the British Embassy might be more appropriate.

Raising visibility: 'Quick wins'

In line with our analysis of the previous promotional activities, there are a number of actions we recommend implementing to improve the visibility of Eurocodes, which we have called "Quick Wins".

Wikipedia

We recommend that the Wikipedia entry is re-written under the aegis of CEN TC 250, under its Chair Jean-Armand Calgaro. This could be done in several languages, including English, French, Russian, and Spanish.

We also propose a second Wikipedia Page, listing projects designed in accordance with Eurocodes by country to give greater visibility to their growth and influence. This could then be advertised to the main players in the European construction industry who would be invited to routinely deposit data on the page. Wikipedia does not allow entries that advertise, but simple factual data about who, what and where should be acceptable.

National annex database

Easy access to data on EC member NDPs is a necessary resource that should be available through the European coordination point.

The JRC currently has a database in place to host this information, but it is not up-to-date. EU MS should be urged to make their data available at the earliest opportunity. This would be of most use to the Western Mediterranean countries for French documents, as well as for seismic-prone countries

looking into Greece and Italy's national annexes. Given that this database has restricted access and includes commercially sensitive information, this proposal would need to be given further consideration.

Publications

The JRC range of booklets represents a good resource, but its distribution has been largely passive. Users have to navigate through the JRC website and download them passively. We recommend that the publications are made available to identified Professional and Trade Associations in each target country and that they are encouraged to upload them on their own websites. Translations of relevant publications should also be considered.

Capturing CEN TC250's activities in the promotion of Eurocodes

As part of its regular meetings, CEN TC/250 has already included the promotion of Eurocodes in its agenda. However, this is often one of the last points and due to time constraints, it is often overlooked. We suggest moving this point up on the agenda. This would allow for more discussions to take place around this particular issue of communication Eurocodes.

We also suggest that the Committee Members are contacted prior to the meetings to allow them to report on promotional activities that they are aware of, have participated in, foresee to attend, suggest organizing, etc. Committee members should be encouraged to share and post their presentation slides and other promotional materials. Sharing of information could be formalized in the Committee's procedures document N250.

For those countries where we feel there is a good prospect of adoption in the near future, we recommend the establishment of a CEN "Eurocodes for Third Countries" Expert Group, involving members of the CEN TC/250 and representatives of the NSBs of the targeted countries and regions. This would provide an excellent communication platform and allow for further collaboration amongst the beneficiary countries and the European community. It would also provide a reliable source of information on matters related to Eurocodes in each specific country. The recommendation of creating this working group could be on the agenda of the next CEN TC/250 plenary meeting in June 2010.

5.3 Strategy for target regions

Below we present our proposed strategy for each target region.

Western Mediterranean, including Egypt

These countries only represent 5% of the value of the total construction market in the target regions. However, they have local standards regimes based on European codes and have strong connections with the EU. Because of their proximity and growing economic ties with Europe they remain attractive markets for European companies. As such they were identified by ACE as the highest priority for their members.

The countries in the region are subject to earthquakes and have a long-standing interest in Eurocode 7 and Eurocode 8. A number of conferences and training activities have already taken place with regards to these topics.

Formal adoption or adaptation of Eurocodes is a realistic objective in the countries of this region and increased use will inevitably follow. The countries of this region could follow a similar path to EU Member States with a transition phase where old codes continue to be used for some period after adoption of Eurocodes.

Targeted promotion in the Western Mediterranean and Egypt should be focused on:

1. Building on the existing commitment for Eurocodes 7 and 8 and promoting the advantages of adopting the full suite of Eurocodes as a support to regulation rather than as part of regulation, within a framework similar to the New Approach in Europe. The target audience would include the regulatory bodies and the standards bodies of each country of the region.

2. Providing technical assistance in developing national annexes.

3. Maintaining assistance to local industry in training and use of Eurocodes.

Due to the mutual dependency of these suggested activities, they could be suitable to form part of a technical assistance programme. There is also scope for regional synergies, although language differences should be reflected in these activities.

Contacts who expressed interest	▪ Samir Ben Cheikh, Responsible for the Department of Standards, INNORPI, Tunisia ▪ Mr Kabbaj Mekki, Responsable du Bâtiment et Génie Civil, Service de Normalisation Industrielle Marocaine ▪ Essam Shams El Din, Head of Standards at EOS, Egypt ▪ Dr Gamal Abu-Taleb, Chairman, British Engineering Institutions, Egypt (network of engineers, support and organising of events) ▪ Mr Absi, UISF
Other potential collaborators	▪ Mourad Bakhoum, Professor, Structural Engineering Department, Cairo University, Egypt ▪ Egyptian Society of Consulting Engineers, Egypt ▪ Society of Egyptian Architects, Egypt ▪ Fédération Marocaine du Conseil et de l'Ingénierie, Morocco ▪ National Order of Architects, Morocco

Gulf Region

Collectively, these countries are a lucrative potential market for European design and construction companies and represent 19% of the total construction market under examination. The size of the opportunity varies from country to country. Its perceived importance was reflected in the results of the BSI on-line survey. Dr Saleh el-Mogrin of the Saudi Council of Engineers also identified Europe as a market that his member organizations are interested in.

Regulatory regimes in the Gulf region have tended to be permissive in terms of which codes are acceptable, although American codes have been widely used for major infrastructure and construction projects. Code use has generally been determined by the client and the focus has generally been on cost and value for money.

In the past, there has been interest in Eurocodes and the BSI conference in Doha was well attended and well received. However, there is little prospect of formal adoption in the region as a whole. The regional leader, Saudi Arabia has already published its own Saudi Building Code, which is based on American ICCI-codes. This is likely to become a regional code adopted by all members of the GCC, through the auspices of the GSO, although this process could take as much as five years.

A more serious consideration is that the Saudi Building Code is currently voluntary, but this is due to become mandatory in the next year or two for all construction in Saudi Arabia. If this approach became common in the GCC area, then it would preclude the use of Eurocodes in the region.

In October 2010, the Gulf Standards Organization is organizing a GCC Workshop on Building Codes and has requested a paper to be delivered on Eurocodes with reference to technical regulations and the European Standards that are cited in them. This is timely in view of the threat that the Saudi Building Code represents and the invitation should be accepted.

Targeted activity in the Gulf region needs to operate at three levels:

1. There needs to be political action to persuade Saudi Arabia to maintain its current permissive policy and to allow the Eurocodes to compete with other design regimes on the basis of open competition and to prevent a regional code becoming mandatory in other Gulf countries. This activity should be considered a priority and its timing will be crucial to any further activity in the region.

2. There needs to be positive promotion to major public and private contractors to establish the benefits that design to Eurocodes can bring, in terms of more cost effective and environmentally responsible design with success stories and case studies.

3. The Eurocodes need to be promoted to local practitioners as a means of gaining access to the potentially lucrative European market.

Jordan and Syria are not major target markets for Europe and their own indigenous construction industries are not large. However, as they are not members of the GCC and have stronger links with the EU, we propose that they be treated separately from the Gulf countries.

1. Promotion in Jordan and Syria should be more targeted on the benefits of harmonization with European practice and the strengthening of ties with Europe.

Contacts who expressed interest	▪ Karim Sulaybikh, International Cooperation, GSO ▪ Dr Saleh Al-Mohgrin, Director General, Professional Affairs, Saudi Council of Engineers, Saudi Arabia
Other potential collaborators	▪ Ministry of Municipality and Urban Planning, Department of Building Regulations, Qatar ▪ Dr Shapour Mehrkar-Asl, Institution of Structural Engineers, UAE ▪ Tamim, Samman, Associate Professor, Faculty of Engineering, King Abdulaziz University, Saudi Arabia ▪ Mohammed Naqadi, Ministry of Municipal and Rural Affairs and a member of the national committee that formulated the new Saudi Building Code, Saudi Arabia ▪ Elzayat Majdi, (private), UAE ▪ UAE Contractors Association ▪ Jordan Engineers Association ▪ Saudi Council of Engineers ▪ Order of Syrian Architects and Engineers

South East Asia

These countries represent only 6% of the total target market and were not rated as very important in the BSI on-line survey. However, there is considerable interest in the Eurocodes and steps have already been taken to adopt the Eurocodes, or Eurocode principles, locally. Vietnam has taken the decision to adopt 3 Eurocodes and BSI provided assistance in the preparation of Nationally Determined Parameters. Malaysia has already adapted one Eurocode and has conducted a survey of competing codes and concluded that Eurocodes are the most appropriate for their purposes. The situation in Thailand is less clear and its readiness to adopt Eurocodes has not yet been established.

1. Promotional activity in Malaysia and Vietnam should aim at maintaining this momentum. Promotion should be linked to practical assistance to the industry, rather than on selling the idea of Eurocodes as such. Due to the different nature of these two countries, we suggest that separate activities should be dedicated to each country, rather than adopting a regional approach. There is already a stated requirement in Malaysia for:

    - technical assistance in the determination of NDPs
    - preparation of guidance material
    - training of local industry.

2. At this stage, it would be premature to decide what type of promotional activities would be the most suitable for Thailand, as the situation level of interest for the Eurocodes remains unclear. It cannot be assumed that the activities proposed for Malaysia and Vietnam is yet appropriate for Thailand.

3. Singapore has already signed an agreement with CEN to adopt Eurocodes. Singapore could be a valuable local resource in maintaining momentum and providing practical guidance in the process of adoption.

Contacts who expressed interest	▪ Miss Nor Hashima, Sirim Berhad, Malaysia ▪ Miss Marshitah, Department of Standards, Malaysia
Other potential collaborators	▪ Ministry of Construction, Vietnam Institute for Building Science and Technology, Vietnam ▪ Nguyen Xuan Hai, Institution of Structural Engineers, Vietnam

	▪ David Hack-Gin Lau, Institution of Structural Engineers, Malaysia ▪ Jeffrey Chiang, Lecturer, Monash University, Sunway Campus, Malaysia ▪ Chor Hee, Structural Consulting Engineer and principal of M C Hee & Associate, Malaysia ▪ Association of Consulting Engineers, Malaysia ▪ Institution of Engineers, Malaysia ▪ Ir. David Lau Hack Gin, Chairman, Institution of Structural Engineers, Malaysia Division ▪ Malaysian Institute of Architects ▪ Pertubahan Aktek, Malaysia ▪ Association of Siamese Architects, Thailand ▪ Consulting Engineers Association of Thailand ▪ UIA Thai Section

India

India is the largest single market under consideration and potentially offers good opportunities for European construction and design industry. There are already strong links with European companies, which frequently outsource work to India. Some experts have commented on the difficulty of doing business in India. Past promotions have been enthusiastically received and there have been several requests to repeat them. The teaching and further use of Eurocodes will probably continue under its own momentum through the activities of these companies and it is this process that could be assisted and the acceptability of Eurocodes in local construction activity protected.

However, India has its own National Building Code. The experts we have consulted, including the Construction Industry Development Council, have asserted that this code is mandatory and at present precludes the use of Eurocodes in that market. However, this has been contradicted by other experts who have stated that they can be used in designated circumstances and that there is enthusiasm for the adoption of Eurocode principles in updating Indian codes.

Targeted activity in India needs to operate at three levels:

1. At this stage, it seems unlikely that India would adopt the full suite of Eurocodes. However, there has been clear interest in two particular sectors: concrete and steel. We could foresee Eurocodes 2 (concrete structures) and 3 (steel), as being used as the basis for future revisions of India's national code. For this reason, we suggest establishing further contact with stakeholders such as the Indian Concrete Institute to mobilise the support of their members to introduce Eurocodes principles in the National Building Code.

2. There is still work needed in raising awareness on Eurocodes 2 and 3. Promotional activity should address practical issues concerned with these specific codes. The target audience should include local practitioners and trade and professional bodies. It will therefore be important to stress the advantages of the Eurocodes to the local design community and to engage with the major professional bodies that have enthusiastically received past promotions. Because of the size of the country and its federal nature, promotional activity could be organised on a 'road show basis'.

3. In the long term, and depending on the success of the incorporation of Eurocodes 2 and 3 concepts in the Indian National Building Code, further activities targeting other Eurocodes could be foreseen.

4. We are aware that CEN is looking into the secondment of European Standardization Expert under the SESEI project. This project aims at establishing a European standardization expert to operate in India with the task to increase visibility of the European standardization system and promote the use of European and international standards in India. Being involved in future promotional activities in India could possibly be included in the secondee's remit.

Contacts who expressed interest	▪ Er.Ar. S P Anchuri, Anchuri & Anchuri, Chairman, Indian Association of Structural Engineers, Vice Chairman, Indian Concrete Institute, Chairman, Association of Consulting Civil Engineers, Convener, Indian Institute of Architects (support and

	organising of events) ▪ Satish Desai, Visiting Professor, School of Civil Engineering and Construction Penrhyn Road, Kingston University (good contacts in India)
Other potential collaborators	▪ B. Roy, Executive Director of CES, one of the biggest knowledge based service providers in South and Southeast Asia India ▪ Alok Bhowmick, Director of B&S Engineering Consultants Pvt. Ltd., India and on Scientific Committee of IABSE ▪ Subhashchandra Govind Joglekar, (private), India and on Scientific Committee of IABSE ▪ Ashok Kumar, Scientist, Architecture and Planning Division, Central Building Research Institute, India and on Scientific Committee of IABSE ▪ Lakshmy Parameswaran, Head of Bridges & Structures, Central Road Research Institute, India ▪ Ninan Koshi, Advisor, RITES, India ▪ Rajiv Goel, Tandon Consultants Private Limited, New Delhi, India ▪ Builders Association of India ▪ Consulting Engineers Association of India ▪ The Indian Institute of Architects ▪ Indian Buildings Congress ▪ Indian Water Works Association ▪ Institution of Engineers, India ▪ National Foundation of Indian Engineers (NAFEN)

Russian Federation

The Russian market potentially offers good opportunities for European construction and design industry (29% of the total), although it has been difficult for European companies to penetrate the Russian market. There is considerable Awareness and Interest that needs to be maintained through the links already established through the EU-Russia Regulatory Dialogue. Adaptation rather than simple adoption is a more realistic aim in the longer term, although the pace at which it occurs is likely to be difficult to influence.

In the meantime, targeted promotional activity should be focussed on:

1. Maintaining the EU-Russia Regulatory Dialogue.

2. Participating in promotions upon request (reactive promotion).

3. Promoting wider use of Eurocodes by the Russian industry to allow industry pressure to influence the pace of formal incorporation of Eurocode principles into Russian standards. The message should focus on the practical value of Eurocodes in multinational projects.

4. Promoting dialogue between European and Russian construction and design agencies to share lessons learned, case studies and best practices.

Contacts who expressed interest	▪ Mr Konstantin Zhiliaev, Head of Technical Regulations Section, Construction Department, Ministry of Regional Development ▪ Ministry of Industry and Trade, Russia ▪ Dr. I. Kirilov, Kurchatov Institute, Russia ▪ Evgeny Malinin, Director, Foundation Zebra, Russia ▪ Leonid Malov, Standards Expert, Russia
Other potential collaborators	▪ Melnikov Central Research and Design Institute of Steel Constructions, Russia ▪ Kucherenko Central Research Institute of Steel Constructions ▪ Vasilchenko Gennady and Philip Wilson, Malishev Wilson Engineers ▪ Constructors' Union of Russia ▪ SOVNET ▪ Union of Architects of Russia

Ukraine

In Ukraine, the adoption process has already begun and could be further encouraged. We are aware that Latvia is organising a meeting in June 2010 inviting the Ukrainians to discuss developments, and the Ministry of Regional Development has already published two programme papers on adoption of Eurocodes in Ukraine.

Formal adoption or adaptation of Eurocodes is a realistic objective in Ukraine and increased use will inevitably follow. Ukraine could follow a similar path to EU Member States with a transition phase where old codes continue to be used for some period after adoption of Eurocodes. Promotional activities will focus on supporting the process of adoption of Eurocodes, rather than on the Eurocodes concept.

Targeted promotion in Ukraine should be focused on:

1. Further developing the relationship with the Ministry of Regional Development responsible for construction standardization. The message should focus on: European integration, closer ties with the EU and harmonisation.

2. Providing technical assistance in developing national annexes.

3. Maintaining assistance to local industry in training and use of Eurocodes.

Contacts who expressed interest	▪ Mr. Dmytro Barzylovych, Director, Directorate of Technical Regulations in Construction, Ministry of Regional Development and Construction, Ukraine
Other potential collaborators	▪ Kyiv National University of Construction and Architecture KNUCA

South Africa

South Africa has seen considerable construction activity fuelled by the upcoming FIFA World Cup, but this has now largely been completed. It is not a major market by itself (4% of the total), but it was still rated as of growing importance in the BSI on-line survey.

South Africa has moved from Desire to Action. Adaption has already commenced with the publication of the Loading code based on Eurocodes. This process makes full adoption unlikely for South Africa, but already it has been announced that further codes will also be based on Eurocodes. The pace at which this is occurring may be accelerated by concerted activity, but assistance, particularly in training, is likely to be more effective than promotion of the Eurocode concept as such. However, it appears that South Africa has the necessary resources to maintain this momentum even without specific targeted action.

However, the importance of South Africa is not only as a single country, but as a regional leader whose decisions and actions are likely to be of significant importance in adjacent countries. For example, a number of universities from South Africa have signed cooperation agreements with other universities in the region and many students from the region are trained in South Africa. The theme of any promotional activity in South Africa should be based on enhancing its leading role within the region.

The current situation in other Southern African countries was not part of the scope of this project and their potential for both Eurocode use and adoption is not known, but it seems highly probable that they will be following the lead of South Africa.

1. We propose that any specifically promotional events should be based in South Africa, but should invite active participation from regulators, standardizers, academics and design professionals from adjacent countries to present on the specific situation and needs in the region as whole.

    a. Promotional activity should therefore embody a promotion of South Africa as a pioneer and a model for other countries in the region.

    b. The central message would be that the adoption and use of Eurocodes represents ‘best practice’ and will bring Southern Africa to the cutting edge of design, while also strengthening trade links with Europe.

Contacts who expressed interest	▪ Professor Johan Retief, Part-time Senior Researcher, University of Stellenbosch, South Africa
Other potential collaborators	▪ Spencer Erling, Institution of Structural Engineers, South Africa ▪ Jan Wium, University of Stellenbosch, South Africa ▪ Phiroshaw Camay, CEO, South African Institution of Civil Engineers (SAICE) ▪ Geoffrey Krige, Anglo American Corporation and Chairman of the Mining Structures Committee in South Africa ▪ South African Association of Consulting Engineers ▪ South African Institute of Architects ▪ Southern African Institute of Steel Construction

5.4 Prioritisation of target countries

In assessing priorities for the six target regions, we have considered a number of parameters:

1) The possibility of achieving a concrete measurable outcome

The first parameter favours those countries where adoption is a realistic objective. These countries are: North Africa, South East Asia, South Africa and Ukraine. We are not sure what the situation is in respect of Thailand, Syria and Egypt. We recommend that these target markets would benefit from further promotional activity (of the kind set out below), but their greatest need is for sustained assistance in the adoption process.

As these target countries are relatively small in terms of the total construction market and as the types of activities needed to achieve adoption / adaptation are resource-intensive, we therefore recommend for the purpose of prioritization that promotional activity in these countries should be on a reactive basis. If there are invitations for promotional activity in these countries with funding available, then the actions set out in 5.4 below would be appropriate. Promotional activities should be focused on target countries where wider acceptance and use of Eurocodes is the objective.

2) The potential value of the market to European industry

The second parameter favours the three largest individual markets: India, Russia and the Gulf region. Because of the size of the market, the potential returns on any successful promotional activity are likely to be relatively high.

3) The importance of the European market for industry in the target market and the degree of interest in Eurocodes already expressed

The third parameter is the most difficult to assess, but there is a reasonable assumption that the countries of North Africa would regard the EU as a higher priority than others, due to their traditional ties with Europe and the political and economic incentive for closer integration with the EC countries. Ukraine, with its clear political intent to join the EC would also regard Europe as a key market. Russia's geographical position and willingness to engage in dialogue on the harmonization of regulation also suggests that Europe is seen as a key market. Because of the traditional links with the UK and because a number of European companies already use it as a low-cost resource for the sub-contracting of design work, It is also assumed that India regards Europe as an important market for the export of its design skills. South Africa and South East Asia appear to have much more local regional focus.

4) The urgency of taking action

The fourth parameter encompasses those countries where a decision has not yet been made about the adoption and further activity could assist decision making (e.g. Egypt) and those countries where there is a danger of Eurocodes being excluded from the market (the countries of the Gulf region).

5) Ease of getting a positive result

The fifth parameter concerns the likelihood of a successful outcome for any promotional activity. Those countries with a clear commitment to adopt are the most likely to be responsive to any promotional activity. These include Ukraine, South Africa, North Africa, Thailand and Vietnam.

In Russia, there is a clear interest in Eurocodes and a desire to be involved in further promotional activity. However, Russia is still a very bureaucratic country and it might prove difficult to affect the pace at which change occurs.

The commitment in Thailand and Egypt is still unclear but it seems probable that they will follow the regional trend.

Jordan has already indicated that it will not be adopting Eurocodes but is seeking to improve its European connections and is positioning itself an intermediary between East and West and might be susceptible to a permissive approach to Eurocode use.

India has an incentive to develop Eurocode competency in order to export its skills to Europe. There is also some enthusiasm for selected Eurocodes as a basis for future revisions of its National Building Code, but it is a large market and sustained promotional activity across its many states would be resource-intensive.

The Gulf States may be the hardest market to penetrate, because of the competition from the intensively promoted American codes. With the publication of the Saudi Building Code and the steps already in hand to promote it as a regional code it will be hard for Eurocodes to increase their penetration of this market. The maintenance of a permissive regulatory environment in which Eurocodes can at least compete for market share is probably the best that can be hoped for.

Criterion	Priority		
	High	Medium	Low
Measurable outcome (adoption)	Ukraine South Africa Morocco, Tunisia, Algeria Malaysia, Vietnam	Egypt, Thailand Syria? India? Russia?	Gulf states Jordan
Importance of market to European Industry	Gulf states Russia India	North Africa Ukraine	South Africa South East Asia
Importance of Europe to local Industry	Ukraine North Africa	Russia India Gulf states Egypt, Jordan, Syria	South Africa South East Asia
Urgency of taking action	Gulf region Egypt	India Russia Thailand Vietnam	Ukraine South Africa Morocco, Tunisia, Algeria
Ease of getting a positive result	Ukraine South Africa North Africa Malaysia, Vietnam	Russia Thailand Egypt Jordan? Syria?	India Gulf States

There is no scientific process for giving relative weighting to these different parameters, but we propose the following:

The ultimate aim of any European funded activity should be a positive return to European industry, so the importance of the target market should be the main determinant. This means that Objective 1 (wider use) takes priority over Objective 2 (adoption) where we propose that the greatest requirement is for technical assistance rather than promotion as such.

The three highest priorities are therefore the Gulf States, India and Russia.

These three regions all represent a huge opportunity for Europe and the ultimate acceptability of Eurocodes in these markets is still subject to some doubt. We would propose that the Gulf region be given the highest priority because of the urgency of taking action, while recognising that the goals for this region are relatively modest (continued acceptance of Eurocodes) and the penetration of a market in which American codes are well entrenched will be difficult to affect..

We would propose India as having the second highest priority, because of its traditional links with Europe and its potential as resource for European design agencies and because action is needed to counteract possible competition from American codes and possible exclusion of Eurocodes from the local market.

We suggest Russia is the third priority, as there is no immediate threat of competition from American codes and because there are already political moves towards a more permissive regulatory environment that would allow the continued penetration of the Russian market by Eurocodes.

5.5 Tools to promote wider use of Eurocodes

In countries where adoption or adaptation of Eurocodes is not a practicable objective within a five-year time frame, promotional activity should focus on three main target audiences:

1. **Industry:** The focus should be on advantages to local industry of acquiring Eurocode competency and of using Eurocodes in their own design work, both for the national and for the export market.

2. **Government:** The focus should be on the political and economic advantages to governments and regulatory agencies of maintaining a regulatory regime that allows design to Eurocodes as one means of meeting the requirements of local regulations and permits clients to determine the choice of applicable codes in their contracts.

3. **Clients:** The advantages to public and private procurement agencies of allowing design to Eurocodes in their calls to tender.

Further awareness raising

Workshops and conferences have been very successful at raising the profile of Eurocodes and have been well attended and enthusiastically received. We would propose retaining this as the main communication device, but would urge that there is a mechanism in place to maintain contacts established to promote further dialogue. Our proposal for regional contact points linked to a European coordination point would be a key element in this process.

We propose the following conference modules as the primary promotional tool.

Module for promoting the use of Eurocodes by local industry

This module should address the following issues:

- Cost effective design for local markets
- Access to European and other markets
- The problems of implementation within companies
- Advantages for contractors and public procurement agencies

The purpose of the module would be to get a round table discussion on the advantages and difficulties of acquiring a Eurocode competency.

The target audience should include design professionals, regulators and representatives of public and private procurement agencies.

The action would involve sourcing speakers on the following topics:

- The local regulatory and standards environment
- The local design industry, current and future priorities
- The Eurocode design philosophy
- The future developments in Eurocodes
- Eurocodes and regulations in Europe (the New approach philosophy)
- Eurocodes in action in the region and around the world
- Why private and public procurement agencies should favour the use of Eurocodes in commissioning of projects
- Case studies in a the use of Eurocodes in a multinational project
- Case studies in the process of acquiring Eurocode competency
- Presentations on the available learning tools.

Module on technical aspects of Eurocodes

There is still a requirement for a more technical discussion of Eurocodes aimed at a professional and scientific audience that still want to understand in detail how the Eurocodes operate and how they differ from other codes. The purpose of this conference will be to provide updated information and invite a round-table discussion of their particular features.

The target audience would be primarily:

- Design professionals
- Academic and scientific community

This conference module would involve sourcing speakers on the following topics:

- The origin and development of Eurocodes
- The Eurocode philosophy
- Future developments in Eurocodes
- The relationship between Eurocodes and other codes: e.g. American codes, British codes
- Eurocodes 1 – 9
- Eurocodes training

Publicity

The proceeding of the events should be written up as an article for use by the trade press and the proceeding of the event, including presentations, should be made available to the trade or professional associations for direct upload on their own web sites.

Language

In most of the target markets, the effective technical and business language is either English or French. Promotion material should be prepared in these languages, as appropriate, and presentations given in that language. However in other countries, this should be supplemented by translation of material into the local language. This is particularly the case in Russia and Ukraine, where Russian translations of presentational material should be prepared, even if the presentations are given in English. Similarly, some general presentation material for use in the Gulf region should be available in Arabic.

CEN is urged to take a positive view on requests to translate the Eurocodes themselves into local languages and CEN members are also urged to take a permissive approach to the dissemination of such translations.

5.6 Tools to promote the adoption of Eurocodes

Technical assistance

In target markets where there is a clear desire and where action is either imminent or already underway, such as in Algeria, Morocco, Tunisia, South Africa, Malaysia and Vietnam, the greatest benefit would come from technical assistance to facilitate the adoption process at three levels;

1. **Regulatory level:** assistance in the review and drafting of enabling legislation and the incorporation of Eurocodes into the system for building inspection

2. **Adoption level:** assistance in the adoption of Eurocodes and the determination of NDPs and their publication as national annexes

3. **User level:** assistance in training local practitioners, building inspectors and other regulatory officials, to enable them understand and use Eurocodes through workshops, eLearning tools and the creation of curriculum modules for local schools and colleges of architecture and structural engineering

This type of sustained activity would meet the demand that we have identified for practical follow-up activity in those countries where interest in formal adoption has been expressed but where progress has been inhibited by lack of local resources.

A technical assistance programme specifically designed to assist in the adoption of Eurocodes would be desirable. However, the integration of technical assistance activities within the specifications of other technical assistance programmes where the remit is wider could also be foreseen. For example in Tunisia, a project is being launched under EuropeAid to provide support to the quality infrastructure (EuropeAid/129939/D/SER/TN). Technical assistance activities to promote the adoption of Eurocodes could be included within this project

Where there has been no decision on adoption there may also be a value in a conference to assist in the decision making process or maintain momentum. In addition to module promoting the use of Eurocodes and their technical aspects there should also be a module to promote a positive decision in favour of Eurocodes and to promote formal adoption rather than ad hoc adaptation.

Module to promote formal adoption

The focus of this conference module would not be on the technical content of Eurocodes, but on why they should be adopted and used nationally:

- Advantages for regulatory authorities
- Advantages for standards bodies
- Advantages for contractors and public procurement agencies
- Advantages for the local design community

The purpose of the conference module would be to get a round table discussion on:

- The need to adopt or not
- The decision taking process and assistance that can be given to assist decision taking
- The practical implications of adoption for regulators and the help that would be available
- The practical implications for the Standards bodies and the help that would be available
- The practical implications for the local design community

The target audience should include:

- Regulatory agencies
- Standardization bodies
- Public and private contractors

- Design professionals

The module would require sourcing of speakers for the following topics:

- The local regulatory and standards environment
- The local design industry, current and future priorities
- Eurocodes in the context of European Regulation (the New Approach)
- Eurocodes and their relationship to execution codes and product standards: what do you need to adopt?
- Eurocodes as an integrated suite of standards
- The CEN system: maintenance and further development of Eurocodes
- Adoption of European Standards
- Case study on NPS, withdrawing standards and residual standards
- Adoption or adaptation
- Assistance available to countries wishing to adopt

The outcome of the conference should be identify a clear intent and to set up a system of further contact to pursue the interest though to a commitment and the commitment through to initial implementation. It is crucial to the success of such a conference that there is commitment from European NSBs to provide the technical support to standards developers if required.

Further publicity

The proceeding of the events should be written up as an article for use by the trade press. The full proceedings, including presentations should be made available to the trade or professional associations for direct upload on their own web sites.

Language

In most of the target markets, the effective technical and business language is either English or French. Promotion material should be prepared in these languages, as appropriate, and presentations given in that language. However in other countries, this should be supplemented by translation of material into the local language. This is particularly the case in Russia and Ukraine, where Russian translations of presentational material should be prepared, even if the presentations are given in English. Similarly, some general presentation material for use in the Gulf region should be available in Arabic.

CEN is urged to take a positive view on requests to translate the Eurocodes themselves into local languages and CEN members are also urged to take a permissive approach to the dissemination of such translations.

Recommendations on the organizing of events

On the basis of the experience gained from the pilot actions, the following checklist of organizational issues to be considered was drawn up.

PREPARATION

AIDA analysis

The general AIDA analysis for the target country needs to be checked in respect of the hosts and the target audience.

In the actions undertaken during the pilot phase of the project, the hosts had a good general awareness of Eurocodes and their willingness to be involved in organizing the events demonstrated both Interest and a Desire for action. However, this level of Awareness, Interest and Desire cannot be assumed to be shared by the audiences. In the Cairo conference (and to some extent in the subsequent workshop), it became clear that there was a diversity of awareness levels and that the degree of interest exhibited by EOS was not necessarily shared by all the delegates.

Consequently, the hosts need to be involved in the development of the proposed programme to ensure

that it properly meets the needs and expectations of the people who are to be invited. However, they must also be asked to be open about any disparity between their own requirements and knowledge and that of the audience they are proposing to invite.

For this reason, we recommend an in-country pre-meeting with the hosts to ensure that the content of the event is pitched at an appropriate level.

Pre-meeting

We recommend that the preparation of any promotional event begins with an in-country meeting with the potential local hosts or sponsors. This meeting is necessary to determine:

Clear objectives for the event that meet the needs and expectations of the hosts or sponsors, including follow up actions that can be delivered.

The appropriate type of event: most formal events are appreciated and well attended and of some value, but it is necessary to determine what type of event will best advance the agreed objectives:

- Informative, awareness-raising conference
- Technical workshop
- Formal training (i.e. with worked examples)
- Round table discussion

The target audience:

- Regulators
- Contractors
- Academia
- Practising designers and engineers

The level of Awareness, Interest, Desire or Action of the target audience:

- Appropriate message
- Presentations at the right level of Technical knowledge
- Feedback forms soliciting the appropriate information

Roles and responsibilities:

- Organization
- Invitations
- Promotion
- Budget
- Logistics

Venue

The appropriate venue needs to be determined at an early stage. This should be selected in the context of previous promotional activity. In some countries, it is not cost-effective to limit all activity to the capital city. Regional events can often spread the message more widely and elicit a more positive response. Holding a conference in St Petersburg, rather than in Moscow, seemed to be appreciated both by the hosts and the delegates.

The appropriate type of venue needs to be determined. For a large conference and an audience primarily drawn from business, it is usually preferable to use a hotel or conference centre with good and flexible conference facilities, including appropriate technical support, reception and catering capability. Typically, these venues are centrally located with good public transport links and are well known to taxi drivers.

For the conference in Cairo, we selected the Four Seasons hotel. This seemed to be a well known venue for many of the delegates. The hotel offered a large amphitheatre that would have been fully adequate for the maximum expected attendance, with good catering and reasonably spacious reception and break-out space.

However, other types of venue might serve just as well, especially for smaller events such as workshops, training sessions, meetings or round-table discussions. For example, if the hosts are

Universities, Technical Institutions, Trade Associations, Standards Bodies or government departments, then they might be able to offer adequate conference, training or meeting facilities. However, this must be researched in advance.

The Cairo workshop was hosted by EOS, the Egyptian standards body, in their main meeting room. As there were political disturbances at the time of delivery, the workshop was not as well attended as anticipated and the room proved adequate. However, had there been a larger attendance, the effectiveness of the event might have been compromised by the distance of the venue (EOS is not located in the centre of Cairo), by the lack of space in the room and possibly by difficulties in the management of both the registration and the catering.

The Conference in St Petersburg was hosted by the Polytechnic University. The meeting room itself was the right size for the confirmed number of delegates and the AV and translation facilities were also good. However had this been a chargeable event, it is probable that delegates would not have received a particularly favourable impression of the overall organization of the event due to the catering and break out spaces which were in the same room as the conference.

Venues need to be properly researched, preferably by on-site visits and this is best undertaken by people with specific experience of conference organization.

Organization of the event

Where possible, the event should be organized by a local company specializing in events organization, preferably in the construction sector. This involves additional expense, but is usually the best way to maximise the benefits on the day. It may not be reasonable to expect the host or sponsor to take on this all this activity, even if they have the necessary competences in-house. It is difficult to manage the organization of events effectively from outside the target country.

Lead times

The necessary lead time will vary according to the event. A roundtable discussion might take less time to organise than a conference or workshop, because it will not necessarily require the preparation of presentations. However, a long lead time is always preferable. For conferences and workshops a lead time of at least 6 months is generally required, but for larger events this might extend to one year, especially if the event requires the presence of lead experts or high ranking officials whose diaries are heavily booked for a long time in advance. Adequate lead times are also required for:

- Booking the venue
- Commissioning and briefing of speakers
- Preparation of presentations
- Review and adjustment of presentations
- Translation of presentations
- Promotion of the event
- Issue of invitations
- Confirmation of attendance
- Logistics of event
- Preparation of handouts (e.g. UBS containing presentations)
- Visa applications

DELIVERY

Theme, tone and objectives

The theme and purpose of the event should be predetermined well in advance of the event. It is also necessary to build in sufficient time to review the presentations in light of the theme and objectives to ensure:

- A consistent and connected message is being conveyed
- There is no overlap in content
- Presentations can be delivered in the allocated time
- There is adequate time for Q & A

Speakers

During the pilot phase, the choice of speakers was taken from within a group of highly regarded experts known to the project team. The world-wide reputation of these speakers gave authority to the events. However, in further promotional activity this group needs to be expanded to allow a wider range of input.

Different types of speakers need to be recruited to address aspects of the promotional activities not fully covered in the pilot events. For example:

- Experts of recognised authority from the CEN/TC 250 community with special responsibility for each Eurocode Part
- Regulators able to speak authority on the integration of Eurocodes within the EU or within specific EU countries
- Practitioners able to present case studies in the use of Eurocodes in specific projects or the problems of introducing Eurocode capability within their own organizations
- Academics able to present on the integration of Eurocodes in University curricula
- Local speakers of established reputation to speak authoritatively on the same range of issues as the above speakers

Agenda

The agenda should reflect the aims and objectives of the event, but also needs to be structured to reflect some general principles:

- The agenda should reflect the requirements and interests of a specific, homogeneous audience rather than a mixed audience.
- Introductions should be as brief as possible. Speaker profiles should be part of the delegate pack and it is not necessary to reproduce their details in the introductions.
- Promotional events should be a dialogue not a monologue so should allow sufficient time for Q&A. If it becomes necessary to adjust timings, it is generally preferable to contract presentation time rather than Q&A or discussion time.
- There needs to be a good balance between local and visiting speakers. Local champions are more effective than visiting champions.
- The length of presentations should not overtax the audience. Thirty to forty minutes is usually a maximum. Longer, more technical presentations should preferably be broken into separate modules with Q&A at the end of each module.
- A clear message is generally more important than comprehensiveness.

Content

There is general interest in learning about Eurocodes and how they are being implemented and used in Europe, but it is also important for local audiences to understand the differences with local practice and that found in Eurocodes. This is one aspect of content that has often been lacking. There is a need for:

- Comparisons with local codes and local regulations
- Comparisons with other internationally recognised codes.

The preparation of these comparisons might be a lengthy process and this needs to be built into the lead times.

A systematic comparison of Eurocodes with ICC codes is a resource that should be prepared in advance and be available for any promotional event.

Logistics

An effective event will require good management of the logistics. This includes:

- Efficient registration process
- An appropriate layout of the room for the type of event
- Coffee breaks and lunch breaks that conform to local practice. In Arabic countries, some consideration should also be given to prayer times. In Egypt this was not considered necessary,

but in other Arabic countries it might be more important.

- AV equipment needs to be appropriate and properly tested
- Handouts should be prepared and available in sufficient quantities to meet 100% attendance
- Internet connections need to be verified if there are to be live demonstrations.
- Internet facilities and work areas should be available for presenters

Language

In many target countries English or French are widely spoken languages, particularly amongst the regulatory, academic, technical and business communities, but it is usually preferable to conduct the event in the local language.

Even where understanding of English or French is good, many delegates might not comfortable in expressing themselves in these languages. It should also be remembered that presenters may not themselves be native speakers of English or French and audiences may not be familiar with a variety of different accents.

These issues should be determined during the preparation meeting. If use of local language is considered important, then this will affect both the lead times for the event and the timing of the agenda:

- Lead times must allow for the translation of the presentations and their verification
- The delivery of presentations must accommodate either simultaneous or consecutive translation
- This additional time must be allowed for in the agenda

FEEDBACK and FOLLOW UP

Feedback

The use of feedback forms or more open questionnaires are useful. In addition, delegates should be invited to submit written questions at all stages of the event for consideration at a final wrap up session.

Contact details should be requested: email addresses; business cards etc.

If possible, a recording of Q&A sessions should be undertaken to allow for later consideration and analysis.

Follow up

This is the most difficult aspect of any promotional event and the one where past events have most frequently failed. In implementing pilot actions, the project team were often conscious of their inability to commit to concrete follow up actions.

Each event should have pre-determined follow up actions which should only be proposed if they can be undertaken and are supported by appropriate resources.

These follow up actions might consist of:

- Follow up meeting with a view to developing dialogues or the signing formal agreements
- The commitment of technical resources
- Training
- Further events

If it is not possible to offer certain concrete follow up proposals, then this needs to be clearly established in the preparation meeting with the host or sponsor so that expectations are not raised only to be disappointed.

During the event, certain potential champions might emerge and these should routinely be contacted to solicit further assistance.

5.7 Actions for the Pilot Phase

The actions of the pilot phase are not seen as part of the implementation of the strategy itself, but as a means of testing certain aspects of it, in order to allow further refinement of the report prior to its final submission for acceptance.

In proposing the following actions, we have not necessarily been looking at the highest priority markets, as set out in paragraph 5.4 above. Instead, we have been guided more by the utilisation of opportunities that have arisen quite independently of this project and of the strategy we are proposing. Nonetheless, we are proposing three actions, each of which addresses one of our three highest priority markets.

This section is reported in the way it was initially drafted, i.e. actions suggested to be implemented in the pilot phase. The next section (section 6) will detail the actual actions that were carried out.

5.7.1 Pilot Phase - Quick Wins

In our strategy, we propose some 'quick wins' and some general actions. Implementing these actions will not be especially resource-intensive, but they are all seen as actions that should precede the implementation of the different target market strategies, in order to help lay the foundations for the full implementation of the strategy.

Capturing CEN TC250's activities in the promotion of Eurocodes

One of the difficulties which we have encountered in conducting our research is that much of the Eurocodes promotional activity has been conducted in an ad hoc way at the instigation of many different agencies and has been difficult to locate. The TC 250 members are often aware of this activity through their industry, governmental and academic contacts, but their information has not been systematically captured. As part of its regular meetings, CEN TC/250 has already included the promotion of Eurocodes in its agenda. However, this is often one of the last points and due to time constraints, it is often overlooked. We suggest moving this point up on the agenda. This would allow for more discussions to take place around this particular issue of communication Eurocodes.

☑ This action has already been achieved, as described in item 9 of the agenda for the TC 250 meeting which took place in June 2010 (see Annex 13).

Wikipedia

In our research, we found that Wikipedia is a widely used information resource. However, the current Eurocodes entry is very basic and fails to capture what is new about the Eurocodes approach, how it relates to their design codes and how the Eurocode philosophy is being adopted in more and more countries.

We suggest commissioning the drafting of the Wikipedia entry under the aegis of CEN TC 250, under its Chair Jean-Armand Calgaro. This could be done in several languages, including English, French, Russian, and Spanish.

We could then monitor the effectiveness of this tool in terms of the number of referrals to other dedicated Eurocodes web sites that result from it.

Action to be completed by end of 2010.

5.7.2 Pilot Phase - Coordination Points

Eurocodes Coordinating Point

We have proposed that there would be an advantage in having a regional coordination point for each of the high priority target markets with links to a European coordination point. We propose that one of our pilot activities should be to test the feasibility of this proposal.

We believe in the value of having a European Coordination Point to provide a resource for all activity in the target markets (and elsewhere), whether that activity is reactive or active. We propose that one of the target actions will be to examine the feasibility of creating this position. Our preferred option would

be that this is located in CEN, where there will be well-established links with DG ENTR, the JRC and with TC 250. However, there are other options that could be explored. Our pilot action would consist of closely defining the role of such a coordination point and the resources it would need and then to explore possibilities for funding and hosting, with a view to making a proposal by the end of 2010.

Action to be completed by end of 2010

Local coordination point

We also propose exploring the feasibility of creating an Indian coordination point. CEN, CENELEC and ETSI have just announced the appointment of 'Seconded European Standardization Expert in India (SESEI). The SESEI is responsible for promoting all three European Standards Organizations (ESOs). A press release on this new appointment can be found in annex 15. We propose that we try to gain agreement with CEN that one of the Expert's priorities should be the promotion of Eurocodes. Through the auspices of CEN, we then propose meeting with this Expert to brief him on our project and our strategy for the Indian market and our concept of a 'regional coordination point'.

These two initiatives would test the validity or practicability of our proposal for coordination points, although it will not be possible to fully validate their effectiveness in the timescale of the project itself.

Action to be completed by end of 2010

5.7.3 Gulf Region

In our prioritisation of target markets, we identified the Gulf region as a high priority in terms both of its market potential and the urgency of taking action. The GCC (GSO Standardization Organization) is organising a workshop in Doha, Qatar on the "Unified GCC Building Code" (11-13 October 2010). Further information on the event can be found in annex 15.

The European Commission has been invited to present on the relationship between standards and regulations in the Construction field in Europe. It is crucial that we respond to the invitation to present at the GCC conference. We therefore propose that one pilot action should consist of the preparation of the presentation material to be used at the conference.

Although this activity offers a limited scope to test the validity of any specific aspect of the strategy, participating in this event may allow us to test aspects of the proposed module.

We also propose approaching the organizers to extend this invitation to a half-day Eurocodes session to allow up to 4 presentations. This would have greater value and could be used to validate aspects of our conference module on promoting the use of Eurocodes by local industry. If we can gain agreement for this session, we would prepare a tailored delegate response form to assess the impact and effectiveness of the presentation, the importance of the European market to the delegates and their future intentions with respect to Eurocodes and seek information on their additional requirements.

Action to be completed by end of October 2010.

5.7.4 Egypt

Egypt is not a high priority market, but it has one of the most active indigenous design and construction industries in the Mediterranean region. However, it is also a country we have identified as a potential adopter of Eurocodes in which no clear decision has yet been made and where concerted action might achieve a positive effect.. Recent contact with EOS (Egyptian Standards Organization) has prompted a request for a more formal meeting in August 2010 and this could be used as a gateway to set up a more comprehensive event for later this year (possibly Autumn 2010) to test the effectiveness of the themed conference modules aimed at the promoting the adoption of Eurocodes and to identify the need for further refinement.

Again, we would prepare targeted delegate response forms to determine the response to specific presentations, the pertinence of the event overall, the intentions of the delegates and their further needs and requirements. On the basis of this feedback, we would attempt to gain the commitment of European agencies to follow up actions aimed at maintaining the momentum gained by the event.

Action to be completed by end of 2010.

5.7.5 Russia

There is TAIEX project in Russia to train the trainers in the use and application of Eurocodes on the 9th and 10th of December in Moscow. Information on this TAIEX event can be found in annex 15. We propose attending this event and using it as a gateway for a more comprehensive event in 2011. This follow-up event could be hosted in Europe rather than in Russia, depending on the nature of the event and the stakeholders invited, although this more comprehensive event would probably fall outside the scope of this project.

The purpose of this pilot action, therefore, is not to test specific aspects of the strategy but to maintain momentum and contacts and provide a bridge to more formal implementation of the strategy in one of our highest priority markets.

Action to be completed by January / February 2011.

Section 6: Pilot Actions and Conclusions

Section 6 details the implementation of the pilot actions as identified and agreed with the Commission (see Section 5) and the implementation of additional actions that were developed further to ad hoc requests.

6.1 Calendar of Actions

The table below sets out the actions undertaken during the pilot phase of the project. They are of two types:

1. Actions specified in the project report (Pilot actions)
2. Actions additional to those specified in the project report (Additional actions)

Date	Target Market	Country	Type of action	Action
07 July 2010	**Eastern Europe**	Russia	Additional	Meeting with Evgeny Malinin, Zebra
01-04 August 2010	**Gulf region**	Egypt	Pilot	Meeting
13-14 September 2010	**Eastern Europe**	Russia	Additional	Meeting
11-13 October 2010	**Gulf region**	Qatar	Pilot	Doha Conference
16 October 2010	**All**	All	Additional	Presentation to ENC
17 October 2010	**Gulf region**	Egypt	Pilot	Conference attendance
18-21 October 2010	**South East Asia (not target)**	Singapore	Additional	Study visit
30 November 2010	**South East Asia**	Vietnam	Additional	Study Visit
9-10 December 2010	**Eastern Europe**	Russia	Pilot	Train-the-trainer TAIEX Workshop
26-27 January 2011	**Gulf region**	Egypt	Pilot	Conference and workshop
January-February 2011	**All**	All	Pilot	Wikipedia entry
10 February 2011	**Not applicable**	Various	Additional	Presentation to Seismic conference in Lisbon
15-16 February 2011	**Eastern Europe**	Ukraine	Additional	Study visit
28 February 2011	**Latin America (not target)**	Brazil	Additional	Study Visit
02 March 2011	**Eastern Europe**	Russia	Pilot	Conference
25 March 2011	**South Africa**	South Africa	Additional	Meeting with Prof. Johan Retief
31 March 2011	**South Africa**	South Africa	Additional	Meeting with Dr. Ron Watermeyer
26-27 May 2011	**Eastern Europe** **South Africa**	Russia Ukraine South Africa	Additional	Arranged attendance at 39th CEN/TC 250 meeting "Structural Eurocodes"

6.2 Actions undertaken during the Pilot phase

For ease of reference, the actions proposed in Section 5.7 are reproduced here in the text boxes. The actions undertaken are grouped according to target market or country rather and in date order. The project team drafted a common template for reporting of actions.

General action – CEN/TC 250

Capturing CEN TC250's activities in the promotion of Eurocodes

One of the difficulties which we have encountered in conducting our research is that much of the Eurocodes promotional activity has been conducted in an ad hoc way at the instigation of many different agencies and has been difficult to locate. The TC 250 members are often aware of this activity through their industry, governmental and academic contacts, but their information has not been systematically captured. As part of its regular meetings, CEN TC/250 has already included the promotion of Eurocodes in its agenda. However, this is often one of the last points and due to time constraints, it is often overlooked. We suggest moving this point up on the agenda. This would allow for more discussions to take place around this particular issue of communication Eurocodes.

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This action has been achieved. Promotion is now on the agenda of TC/250 plenary meetings. The CEN/TC 250 membership has played a significant role in all the pilot actions undertaken by the project team. However, it is not envisaged that CEN/TC 250 has an active role in promotion beyond acting as one means of gathering intelligence and consolidating it in its regular newsletter and even this role should not be to the detriment of its core responsibilities.

General action – Wikipedia

Wikipedia

In our research, we found that Wikipedia is a widely used information resource. However, the current Eurocodes entry is very basic and fails to capture what is new about the Eurocodes approach, how it relates to their design codes and how the Eurocode philosophy is being adopted in more and more countries.

We suggest commissioning the drafting of the Wikipedia entry under the aegis of CEN TC 250, under its Chair Jean-Armand Calgaro. This could be done in several languages, including English, French, Russian, and Spanish.

We could then monitor the effectiveness of this tool in terms of the number of referrals to other dedicated Eurocodes web sites that result from it.

A new entry has been drafted to present the philosophy behind Eurocodes and recent developments (see Annex Wikipedia entry). At present, the text has not yet been uploaded on Wikipedia. It has not yet been established that it meets the editorial requirements for Wikipedia. However, this text could also serve as basic factual account for use in other areas. For example, it could be presented on other informative websites, such as the JRC's.

General action – Eurocodes Coordinating Point

Eurocodes Coordinating Point

We have proposed that there would be an advantage in having a regional coordination point for each of the high priority target markets with links to a European coordination point. We propose that one of our pilot activities should be to test the feasibility of this proposal.

We believe in the value of having a European Coordination Point to provide a resource for all activity in the target markets (and elsewhere), whether that activity is reactive or active. We propose that one of the target actions will be to examine the feasibility of creating this position. Our preferred option would be that this is located in CEN, where there will be well-established links with DG ENTR, the JRC and with TC 250. However, there are other options that could be explored. Our pilot action would consist of closely defining the role of such a coordination point and the resources it would need and then to explore possibilities for funding and hosting, with a view to making a proposal by the end of 2010.

The creation of a European coordination point is an idea that needs further elaboration. The JRC and CEN have collaborated on a project to develop the appropriate functionality. The deployment of this utility awaits the resolution of legal and copyright issues and this currently in hand.

However, we now believe that it is not merely the creation of an information resource that is of primary importance. The existence of the Project Team throughout this pilot phase has provided a focus for activity and a point of contact for other agencies which led to new opportunities and unplanned additional activities being undertaken.

General action – Local Coordination Point

Local coordination point

We also propose exploring the feasibility of creating an Indian coordination point. CEN, CENELEC and ETSI have just announced the appointment of 'Seconded European Standardization Expert in India (SESEI). The SESEI is responsible for promoting all three European Standards Organizations (ESOs). A press release on this new appointment can be found in annex 15. We propose that we try to gain agreement with CEN that one of the Expert's priorities should be the promotion of Eurocodes. Through the auspices of CEN, we then propose meeting with this Expert to brief him on our project and our strategy for the Indian market and our concept of a 'regional coordination point'.

These two initiatives would test the validity or practicability of our proposal for coordination points, although it will not be possible to fully validate their effectiveness in the timescale of the project itself.

The Seconded European Standardization Expert in India (SESEI) resigned soon after appointment. For this reason, this action could not be completed. Although the SESEI appointed by CEN, CENELEC and ETSI was not able to validate our proposal for a local co-ordination point in India, the pilot phase of the project has confirmed the value of having a local resource in the target regions. In both Egypt and Russia, the presence of a local expert, already engaged in Technical Assistance activities, was very helpful, in making introductions, preparing the Project Team for appropriate actions, giving insights into the political realities and assisting in the logistics. In Russia, the local contacts were a key factor in the success of the event that was undertaken in the pilot phase.

Similarly, contacts in Ukraine resulted in the opportunity to organize a short study visit under the aegis of the Project which was valuable in understanding and connecting with the latest developments in that target country.

GULF STATES

Gulf Region

In our prioritisation of target markets, we identified the Gulf region as a high priority in terms both of its market potential and the urgency of taking action. The GCC (GSO Standardization Organization) is organising a workshop in Doha, Qatar on the "Unified GCC Building Code" (11-13 October 2010). Further information on the event can be found in annex 15.

The European Commission has been invited to present on the relationship between standards and regulations in the Construction field in Europe. Although this activity offers a limited scope to test the validity of any specific aspect of the strategy, participating in this event may allow us to test aspects of the proposed module.

We also propose approaching the organizers to extend this invitation to a half-day Eurocodes session to allow up to 4 presentations. This would have greater value and could be used to validate aspects of our conference module on promoting the use of Eurocodes by local industry.

The EU representation to the conference in Doha was increased to 4 presentations, as proposed, and a report of the event is set out below.

Pilot action – Qatar Conference

Country: Qatar
Date: 11-13 October 2010
Target Market: Gulf and Eastern Mediterranean
Objective for target market: Whilst the adoption of Eurocodes is unlikely for the whole region, to ensure the region remains "permissive" towards the use of structural codes (which is currently adopted by most Gulf States).
Type of action: Conference on Unified GCC Building Code
Purpose of action: To have a presence at the Forum and provide a balanced alternative to the adoption of the Saudi unified Building Code as the mandatory standard for the region.
Venue: Grand Hyatt Doha, Qatar
Target audience: Delegates attending the forum – especially from Gulf States other than Saudi Arabia.
Presenters: • Malcolm Greenley, Secretary of CEN/TC 250, BSI • **Jean-Armand Calgaro,** Chairman of CEN/TC 250 • **Giuseppe Mancini,** Chairman of CEN/TC 250/SC2 • **Artur Pinto** , JRC, Ispra

- 17 other presenters, including 2 from the US (ICC and ASTM), Australia, Turkey.

Description:

An invitation was extended to “Europe” through CEN and the EU Commission to provide a presentation on a theme of “Eurocodes and the technical regulations and the European Standards that are cited in the Eurocodes” to be presented at the first Forum of the GCC Unified Building Code.

The Gulf Cooperation Council (GCC) for the Arab States aims to achieve coordination, integration and interconnection between the member states in all areas of their economies leading to unity and economic agreement through a coordinating economic, financial and monetary policies and commercial, industrial and customs regulations.

A key element of this objective has been the creation of the GSO (Gulf Standardization Organization) with a view to harmonization standardization within the membership.

Saudi Arabia is the dominant country in the region and as such hosts the offices of the GCC and GSO in Riyadh.

The ICC American Building Code has been working in close cooperation with Saudi Arabia standards for several years in order to develop the first Saudi Building Code which is based on the ICC. This has recently been published and therefore the adoption of the Eurocodes by Saudi Arabia is highly unlikely.

The underlying rationale behind the forum was to promote the Saudi Code for adoption as the mandatory GCC Building Code in the region.

Currently, it is considered that the Gulf region operates on a permissive basis with respect to the use of codes in the design of structures, providing they are internationally recognized codes, for example - American, European, British and Japanese codes.

The presentations were well received and clearly there is considerable interest in the Eurocodes. Concrete is the main interest to the Gulf States.

At the end of the conference, there was a lengthy debate as to how to proceed. My impression was that the smaller States were not keen to be “directed” by Saudi Arabia. The result was that there would be a Technical Committee (Panel) to be formed with two representatives from each of the Gulf States with a view to considering and evaluation of the experiences with Eurocodes/American and Australian codes - there was some difficulty in agreeing the composition and terms of reference for this TC. It was agreed that the first meeting of the TC would be held in Qatar in December 2010.

Attendance: 150 delegates from the Gulf states which included delegates from Qatar, Saudi Arabia, UAE (Dubai and Abu Dhabi), Bahrain, Kuwait, Oman,

Feedback:

Our feedback from the organizers was naturally very polite and appreciative – see Annex 4 Certificate of appreciation. There were several questions during the Panel sessions directed to Eurocodes, such as timescale for implementation in Europe, but the forum was essentially a one-way dialogue.

Giuseppe Mancini reported he had received questions related to the casting of massive concrete structures and the thermal effects, he adds that for a future event consideration should be given to particular problems, such as the ones identified in the questions, at the level of design and show how the use of Eurocodes can help in solving such problems.

Conclusions:

Whilst the positive was that the Saudi Code was not immediately adopted as the GSO Unfified Building Code, it will be difficult to establish how the Gulf states Technical Committee is operating and what the decision it has made until after they are agreed and published – which will be too late to sway any argument.

The team concluded that cooperation in education (scientific/technical/training) in the region is the way forward in order to create a better understanding of the Eurocodes.

Next steps:

It is felt that when the area of North Africa / Gulf region is more stable, a Eurocodes Workshop for Gulf States somewhere in the Gulf would be appropriate.

There also needs to be political level contact (similar to the EU-Russia Regulatory dialogue) to develop a more common approach to regulations in the construction field.

Annexes:
Annex 1: List of Delegates (in part)
Annex 2: Extract from Newspaper article
Annex 3: Agenda of Forum
Annex 4: Certificate of appreciation
Annex 5: Photographs of event

EGYPT

Egypt

Egypt is not a high priority market, but it has one of the most active indigenous design and construction industries in the Mediterranean region. However, it is also a country we have identified as a potential adopter of Eurocodes in which no clear decision has yet been made and where concerted action might achieve a positive effect.. Recent contact with EOS (Egyptian Standards Organization) has prompted a request for a more formal meeting in August 2010 and this could be used as a gateway to set up a more comprehensive event for later this year (possibly Autumn 2010) to test the effectiveness of the themed conference modules aimed at the promoting the adoption of Eurocodes and to identify the need for further refinement.

Again, we would prepare targeted delegate response forms to determine the response to specific presentations, the pertinence of the event overall, the intentions of the delegates and their further needs and requirements. On the basis of this feedback, we would attempt to gain the commitment of European agencies to follow up actions aimed at maintaining the momentum gained by the event.

Additional action – Meeting

To prepare the ground for the proposed pilot action in Egypt, a pre-meeting was arranged, in which a Project Team member went to Egypt for a meeting with Dr Mohamed Hany Barakat, Chairman of EOS, (Egyptian Organization for Standards). Dr Barakat also arranged a half day seminar at which the Project was introduced to EOS staff and some representatives from the Egyptian industry.

Country: Egypt
Date: 02 August 2010
Target Market: Gulf Region
Objective for Target country: To promote the formal adoption of Eurocodes by the Egyptian Organization for Standardization and Quality Control (EOS) and their wider use by the Egyptian construction Industry.
Type of action: 1 day meeting with a presentation on the EC project to EOS staff and industry guests.
Purpose of action: To validate the AIDA analysis and to determine the requirement for active promotion in Egypt.
Hosts: Dr Mohamed Hany Barakat, Chairman of EOS, (Egyptian Organization for Standards)
Venue: EOS Head Office
Description: Keith Moyes met with EOS staff and Dr Barakat and delivered a presentation of the project to EOS staff and industry guests. Dr Barakat indicated that there was considerable interest in closer alignment with the EU, although the top priority was in the field of medical devices.

Many Egyptian codes are still closely aligned with old British Standards so there would be an issue of maintenance in the future.

He was enthusiastic about hosting a conference and workshop in Cairo to introduce the topic.

The presentation was well-received. Although most attendees had a good understanding of English, they were reluctant to speak it, but there were a number of questions raised:

- Delegates wanted to know what advantages there were for Egypt in using Eurocodes.
- They stressed that safety issues were paramount but that there was growing concern about 'green' building.
- They asked about construction product standards.
- They were interested in a comparison between Eurocodes and American codes (they were interested in the research conducted in Malaysia and asked if it had been made publicly available.)
- They reported difficulties in reconciling Egyptian standards based on US standards and those based on old European ones (e.g. British Standards).
- They reported that the use of codes was not generally taught in Universities, where courses were based on general engineering principles.
- They asked whether it was planned to publish Arabic translations – saying that written Classic Arabic was a common language even if there were differences in spoken Arabic.

Feedback:

There was no formal use of feedback forms, but attendees were asked to complete a questionnaire asking them to indicate their understanding of the current situation in Egypt, their acquaintance with Eurocodes and their priorities.

16 questionnaires were completed.

The feedback from Dr Barakat was much more positive and it was agreed that the conference should be arranged for late November of early December 2010.

Attendance:
There were 29 registered attendees, of which 11 were EOS employees.

Meeting with Dr Barakat;

Dr Barakat explained that his top priority was to get a fast track process in place for affixing CE marks on a range of Egyptian products. He was seeking an agreement with CEN to provide notified body services for the export of medical devices, toys, pressure vessels and car components.

He was looking to harmonize Egyptian regulations with European Directives.

Conclusions:

The meeting was positive in that it identified that there would be a positive response to a Eurocode conference. There seemed to be an awareness of Eurocodes and the potential issues of maintaining Egyptian codes, the level of awareness was not high.

Annexes:
Annex Egypt 1 Agenda

Annex Egypt 2 Presentation *Annex Egypt* 3 Attendance sheet *Annex Egypt 4* Completed questionnaires

Additional action – Study Visit

Following this meeting, it was arranged for Dr Nagy Albert, Councillor for International Affairs, to attend the second annual BSI conference on Eurocodes at the Confederation of British Industries Conference Centre on 17 October 2011 and to meet the project team to initiate planning of the proposed conference in Cairo.

Annex Egypt 5 BSI 2nd Conference on Eurocodes programme.

Pilot action – Conference

Following these actions, a one-day conference and one-day workshop were organized to target the Eurocodes message to two separate target markets. EOS offered to organize the invitations and to host the workshop. This action was originally planned for November 2010, but EOS changed the agreed dates twice and it was eventually decided to move it to the end of January 2011. Unfortunately, this then coincided with the eruption of political disturbances in Egypt and the expected attendance was not fully achieved. Those delegates who did attend were clearly distracted by the events and the evaluation of the pilot action was, therefore, compromised.

Country: Egypt
Date: 26-27 January 2011
Target Market: Gulf Region, Eastern Mediterranean
Objective for target country: Formal adoption of Eurocodes as the preferred means of regulatory compliance
Type of action: Two day event, consisting of a conference and workshop entitled: "Harmonized Standards for Construction in Egypt" Day 1: Conference promoting the New Approach concept as it applies to the construction industry Day 2: Technical workshop on the Eurocodes of primary importance to Egypt
Purpose of action: To test the current state of awareness and desire for Eurocodes in Egypt and the effectiveness of a conference more specifically targeted to two different audiences.
Day 1: Conference
Hosts: • Dr Nagy Albert Councillor of International Relations • Dr. Mohamed Hany Barakat, Chairman of EOS
Venue: Four Seasons Hotel, Cairo
Target audience: Primary target audience: • Ministry of Trade and Commerce • Regulatory authorities • Public and private contractors • The construction industry • Standards developers Secondary target audience: • Designers

- Academia

Objective for primary target audience: To promote the formal adoption of Eurocodes by the Egyptian Organization for Standardization and Quality Control (EOS) and their wider use by the Egyptian construction Industry.

Presenters:

- Dr Nagy Albert
- Dr Barakat
- Keith moyes
- Adamantia Athanasopolou
- Tariq Nawaz
- Jean-Armand Calgaro
- Malcolm Greenley
- Roger Frank
- Giuseppe Mancini

Description:
The conference concentrated on the relationships between codes and regulations, the situation in Europe and its relevance to the Egyptian situation (see programme).

The presentations were aimed primarily at the role of Eurocodes in regulation, with an overview of the New Approach adopted in Europe; details of the current position in Europe; and the particular advantages for regulators. There was then an overview of Eurocodes and a presentation on the advantages of Eurocodes for contractors. Finally there was a presentation on the way Eurocodes addresses the problems of foundations.

There was confusion about the status of Eurocodes (standards or regulations) even after the presentations. The different regulatory status of Eurocodes in Europe caused confusion.

The status report on the uploading of NAs into the JRC database gave an impression of reluctance in Europe to embrace Eurocodes.

Attendance:
Over 100 participants were expected, but because of the political demonstrations in Cairo, less than half that number attended. At the lunch break, most were checking the evolving situation on their mobile phones and only half-a-dozen stayed for the second session.

We relied on EOS to attain the target audience. Due to the circumstances, it was difficult to measure whether this was achieved.

Feedback:
Feedback forms were prepared, but only two people stayed long enough to complete one.

One was very appreciative and the other indicated a desire for a more detailed and practical presentation on the Eurocodes themselves. This delegate also attended the Workshop the following day and his comments were more positive, but did not stay for the whole session.

Feedback 2: Issues raised by Mohamed Abdul Karim: Mediterranean Contracting Co.

Needs:

- More awareness about codes (even Egyptian ones) as most engineers and contractors do not know much about codes.
- Advise Universities how to educate students about the importance of codes
- Advise authorities to update regulations with periodic tests of codes
- Attend to the conflicts within current Egyptian codes first
- Change laws relating to construction
- Need a ‘change plan’ to improve the quality culture in Egypt
- Need to develop a ‘learning culture’ in Egypt

- Need governmental support in order to be able to apply codes

Concerns:
- Language problem
- Cost of materials, educated engineers and equipment
- Dependence on imports for construction materials
- Lack of support for regulations and laws (enforcement issues?)
- Time frame to apply new codes
- Need assistance and training during implementation
- Low level of current interest in the construction industry (i.e. attendance)

Questions to project team
- What challenges do you face with other Arab countries?
- Do you have any power to convince authorities to change laws?
- What approach will you be following with the authorities?

Priorities:
- To apply existing codes effectively
- Educate all stakeholders (engineers, labour, customers, suppliers
- Export market is not likely to be a priority for some years – too many problems in Egypt
- More support for technical education

Despite existing laws and regulations, nobody in Egypt really cares about health & safety and environmental issues

Mediterranean Contracting Co. intentions
- To co-operate with EOS to improve construction standards
- To assist with translations if required

Conclusions:
The effectiveness of the event is hard to evaluate because of the issues that arose with the current political climate.

Egypt aspires to be regional leader and decisions they take could affect many of their neighbours.

There are many competing design regimes (ICC, ACI, ASSHTO, ISCC, API, EPRI, CORPS), so Eurocodes have to demonstrate their superiority.

The name (*Euro*codes) was considered unfortunate, despite this issue being directly addressed in one of the presentations.

Egyptian construction industry is not very export-oriented.

There is a desire to create a common market for the Arabic-speaking countries.

One participant drafted a series of questions for the planned Q 7 A session, but did not stay to discuss them (see below).

The substance of his submission was that Egypt has many problems of publicising, supporting and enforcing current regulations, so these internal problems need to be addressed before the Egyptian construction industry can seriously considering exporting its skills or products.

Annexes:

Annex Egypt 6 Conference Attendance sheet
Annex Egypt 7 Conference Programme
Annex Egypt 8 Conference Presentations
Annex Egypt 9 Conference Feedback forms

Day 2: Technical Workshop

Host: Dr. Mohamed Hany Barakat, Chairman of EOS

Venue: EOS Headquarters

Target audience:

Primary target audience:

- Design practitioners
- Academia

Secondary target audience:

- Regulators
- EOS
- Contractors

Objective for target audience:

To increase awareness and understanding of Eurocodes amongst design professionals in Egypt.

Attendance:
40 people attended. The audience was composed of EOS staff and industry invitees.

Of those that completed feedback forms and indicated their job title:

- 6 were from industry
- 5 were from government
- 2 were from Academia
- 1 was from EOS

Feedback:

15 people completed feedback forms, but several only referred to the morning session. The feedback was generally very positive.

Analysis of feedback forms

Rating	**1**	**2**	**3**	**4**	**5**
Conference					
Content			**3**	**3**	**1**
Presentation			**3**	**3**	**2**
Workshop					
Content		**1**	**12**	**24**	**66**
Presentation		**1**	**5**	**38**	**67**

Description

After an introduction by Dr Albert, there were presentations on key Eurocodes of interest to Egypt. In particular, the Head Code and the codes on Concrete, Seismic and Geotechnics.

After a good attendance in the morning, there was a drop off in the afternoon, although those that stayed had a lively discussion at the end of the formal presentations.

Conclusions:

The workshop was more successful than the conference with more active involvement in technical issues. However, most participants did not return after the morning session.

It emerged that there were some internal political issues. The responsibility for developing Egyptian building codes lies with the Housing and Building Research Centre and they

seemed to be querying why EOS had organized this event.

There is ministerial contact on a regular (but intermittent) basis to try to harmonize building regulations within the Arab countries; although we were informed that progress is slow.

Some of the participants were clearly familiar with Eurocodes, but others may not have been. It was unclear whether we had pitched the presentations at the right level of detail for the majority of participants.

There is a requirement for more specific training and technical support and this is as important as pure informational and promotional activity.

The readiness of Egypt to commit itself to formal adoption or adaptation is not clear, despite Dr Barakat's enthusiasm.

During the events, it was suggested that a committee could be created including key stakeholders such as the BRC, EOS, university professors, engineers, etc. to discuss possible further developments.

Next steps :

There needs to be a meeting with the Building Research Centre to discuss the present situation and the role that the BRC will play in the adoption/adaptation of Eurocodes.

Annexes:

Annex Egypt 10 Workshop Programme
Annex Egypt 11 Workshop Attendance sheet
Annex Egypt 12 Workshop Presentations

RUSSIAN FEDERATION

Russia

There is TAIEX project in Russia to train the trainers in the use and application of Eurocodes on the 9th and 10th of December in Moscow. Information on this TAIEX event can be found in annex 15. We propose attending this event and using it as a gateway for a more comprehensive event in 2011. This follow-up event could be hosted in Europe rather than in Russia, depending on the nature of the event and the stakeholders invited, although this more comprehensive event would probably fall outside the scope of this project.

The purpose of this pilot action, therefore, is not to test specific aspects of the strategy but to maintain momentum and contacts and provide a bridge to more formal implementation of the strategy in one of our highest priority markets.

Several actions were implemented for Russia, including pilot actions (participation in a TAIEX train-the-trainer event in Moscow and organisation of a conference in St Petersburg) and additional actions (meetings and arranging for Russian delegates to attend the next CEN/TC 250 meeting).

Additional action – Meeting with ZEBRA

We took advantage of a contact made during the EU - Russia Regulatory dialogue meeting in Moscow 2010 to meet with a Mr Malinin, who expressed great interest in Eurocodes on behalf of his Association, ZEBRA, as an additional action.

Country: Russian Federation
Date: 07 July 2010
Target Market: Eastern Europe
Objective for target country: Promote the adoption and wider use of Eurocodes
Type of action: Meeting with Evgeny Malinin (ZEBRA)
Purpose of action: To explore the possibility of involving ZEBRA in promotional activity in Russia
Hosts: Project team, Jennifer Sugden, Keith Moyes, Malcolm Greenley, Volodymyr Yakubov
Venue: BSI HQ
Description: Mr Malinin made contact with the project team following the EU–Russian Regulatory Dialogue meeting in Moscow. He explained that ZEBRA is an independent, non-profit, organization with the aim of improving the safety and efficiency of Russian roads, using the lessons learned from countries in Europe. He explained that Russian regulations are too restrictive and that his organization endorses the more flexible approach taken in Europe and exemplified by Eurocodes. He suggested that his organization would be involved (in some undefined way) in the development of the new Moscow St Petersburg railway and that it was pressing for it to be designed according to Eurocode principles. He indicated that ZEBRA had the support of senior figures in the Russian government (including Mr Putin).

He urged the project team to organize the training of Russian engineers in Eurocodes. When referred to the upcoming TAIEX training in Moscow, he indicated that he had in mind something more intensive, including study and site visits. We proposed that his engineers attend the workshop on 'Bridge Design to Eurocodes' being held by Steve Denton in Vienna on 4th to 6th October 2110. The project team informed him that there was no provision in the project budget for such intensive training but that BSI could arrange it, if funding was available from his side. The project team subsequently drafted a proposal for the training of Russian engineers in accordance with his specifications, but Mr Malinin never responded to this proposal.
Comments: There is a clear need for more formal training of engineers that are especially interested in gaining Eurocodes competency ahead of any formal requirement to use them in Russia, but this needs adequate organization and funding. There is a danger of further promotion raising expectations that cannot then be met.

Additional action – Moscow meeting Barry Haseltine

Through our contacts in CEN/TC 250, we were informed that Barry Haseltine (Consultant to Jenkins & Potter Consulting Engineers) was attending a meeting in Moscow organised by TSNIISK (Centre for Building Research in Russia) and the Ceramic Brick Manufacturers Association in conjunction with the CIB Commission W 23 Wall Structures meeting. The Project Team briefed Mr Haseltine and asked him to prepare a report of the meeting using the reporting format that we had devised.

Country: Russia
Date: 14 September 2010
Target Market: Eastern Europe
Objective for target country: Promote the adoption and wider use of Eurocodes
Type of action: Informal meeting in Moscow attended by Barry Haseltine (member of CEN/C 250). The meeting was organized by TSNIISK (Centre for Building Research in Russia) and the Ceramic Brick Manufacturers Association in conjunction with the CIB Commission W 23 Wall Structures meeting.
Purpose of action: To obtain information on the reception of Eurocodes in Russia and their future intentions.
Hosts: Oleg Ponomarev, Deputy Director of TSNIISK
Venue: Hotel Ismailov, Moscow
Description: A paper was presented by J S Wolkov, who is one of the people responsible for evaluating Russian Codes of Practice. He is Head of Department for Technical Rule Setting, Foreign Relations and Publishing in NIC Stroitelstov.

He was knowledgeable about the whole suite of Eurocodes and very knowledgeable about EC 2, in particular.

He reported interest amongst Russian engineers in the possibility of using Eurocodes as the basis for new Russian codes, although most were not in favour of simple adoption.

Mr Wolkov was sceptical about their applicability to Russian climatic conditions (but had not appreciated the full flexibility that NDPs and National Annexes allowed).

He noted that Russia had been employing the limit state principle for much longer than Europe.

He said that the Russian use of mathematical symbols was very different from Europe and was embodied in a vast array of textbooks, so why change now?

He also noted that in Russia it was permissible to design according to any codes so long as those codes are available in Russian had been registered with the Russian Standards Body.

Barry Haseltine responded with a presentation and the subsequent discussion was polarised. Some people argued that Russia should start being more outward facing and that the EU was a good place to start. This faction included Mr Gerashchenko, the CEO of APKSM. He noted that the huge effort expended on Eurocode development would save a lot of effort.

The opposite view was expressed by manufacturer of masonry products (and a member of APKSM) who wanted nothing to do with Eurocodes and asked: “what is wrong with our codes, why adopt someone else’s codes?”

Barry Haseltine informed the meeting of the upcoming TAIEX training in Moscow.

Mr Michael Kogler of Wienerberger announced that EN 1996-1-1 was now available in Russian on the Wienerberger web site. There was no mention of copyright clearance.

Conclusions:
There is awareness of Eurocodes in Russia and the situation is fluid. There is a strong internal lobby for their wider use but there is also considerable resistance to their more formal adoption in Russia on a ‘not invented here’ basis.

Their use seems to be dependent on their being available in Russian. There has been ad hoc translation but appears to have been no formal arrangement with CEN.

Attendance: Circa. 50

Annexes;
Annex Russia 1 CIB Agenda
Annex Russia 2 Attendees lists
Annex Russia 3 Meeting poster

Pilot action – Moscow TAIEX train-the-trainer Workshop

TAIEX organised a workshop in Moscow in December 2010. The JRC requested a representative of BSI to attend the workshop and present the project. Leonid Malov, BSI Associate Consultant based in Moscow attended the workshop and delivered a short presentation. Further to this presentation, the Moscow State University of Civil Engineering requested further collaboration with CEN/TC 250 and BSI.

Country: Russia

Date: 9-10 December 2010

Target Market: Eastern Europe

Objective for target country: Promote the adoption and wider use of Eurocodes

Type of action: TAIEX train-the-trainer Workshop on Eurocodes 0, 1, 2 in Moscow

The meeting was organized by TAIEX and the Ministry of Regional Development of Russian Federation.

Purpose of action: Train a set of potential Russian trainers (selected at a pre-workshop stage) for dissemination of the knowledge on Eurocodes 0, 1, 2 to a wider audience of the Russian construction science, design, industry and regulatory communities.

Hosts: Chair Person Mr. Igor Kirillov Leading Researcher Hydrogen Energy and Plasma Technology Institute Kurchatov Institute

Venue: Moscow

Description:

The TAIEX Eurocodes conference was held with success – a resolution was signed by all main parties (see annex) stating the following:

"Experts, institutes and other stakeholders from EU and RF confirmed a need in progressing towards an effective convergence in technical regulations in the construction domain, in harmonization of the standards and compliance assessment procedures, in approaches to provision of integrated safety/security of the built environment, in provision of education and training on Eurocodes, in reducing of technical barriers in international trade. In view of these goals, the following recommendations have been developed:

1. Regulative Dialogue EU-RF in construction domain shall be extended in three new dimensions:
    1) education, training and deepening of qualification of the experts in construction domains and integrated safety/security of the built environment with taking into account improvements of the national Russian standards and Eurocodes,
    2) mutual monitoring of the changes of normative basis of technical regulation in EU and RF and exchange of the visits of experts,
    3) cooperative work of experts on new (third) generation of the Eurocodes on consensus basis.
2. In order the experts can effectively work on harmonization of the Russian norms and the Eurocodes it is necessary to activate work along the educational dimension. It is proposed the following contact points for educational – from EU side – Torino Polytechnical University (Italy) and Delft Technical University (the Netherlands), from RF side – Moscow State Construction University (Telichenko V.I.). Extension of this cooperation to other Universities from EU and RF should be pursued. Appropriate framework for cooperation should be established by the contact point in cooperation with Joint Research Centre Ispra (A. Pinto), TC250 CEN (J.A. Calgaro) and Russian Academy of Architecture and Construction (Travush V.I.).
3. It is proposed the following contact points for technical regulation monitoring dimension – from EU side – Joint Research Centre Ispra (A. Pinto), from RF side – Association of the Construction Universities of RF (Telichenko V.I.). Appropriate actions and tools for cooperation should be established by the contact points within framework of ongoing bi-directional Regulative Dialogue Russia-EU."

Leonid Malov's presentation was of interest to the audience despite the very short time that was allocated to his presentation. As a result of his presentation, Leonid Malov received an official request from Mr. Telichenko (Rector of Moscow State University of Civil Engineering) for BSI to assist in professional training of specialists.

Conclusions:

There is political commitment and a strong interest for further technical training and guidance material translated into Russian.
Target Audience: Structural engineers, civil construction designers, Civil construction educators, consultants and public officials
Attendance: 77
Next steps As a follow-up, it was suggested to prepare a conference in St Petersburg.
Annexes; *Annex Russia 4* Leonid Malov's Presentation slides (EN) *Annex Russia 5* Draft Workshop Programme *Annex Russia 6* Leonid Malov's Presentation slides (RU) *Annex Russia 7* Resolution between EC JRC, CEN/TC 250, Russian Academy of Architecture and Construction Sciences and the Moscow State Construction University

Pilot action – St Petersburg Conference

The stated purpose of the conference arranged for St Petersburg was not to test the strategy as such, but to maintain links and dialogue. In this respect, it was very successful. We were able to obtain the participation of Mr Pugachev, Head of Technical Regulation Department of the National Association of Builders (NOSTROY). He is a former head of the Russian Standards Body, (GOST) but is now charged with devising and implementing a programme for the introduction of Eurocodes in Russia. Following the conference he has submitted some proposals for how the EU can assist this programme.

Country: Russia
Date: 02 March 2010
Target Market: Eastern Europe
Objective for target country: Formal adoption of Eurocodes as the preferred means of regulatory compliance
Type of action: One Day conference entitled "The use of Eurocodes in the Russian Federation"
Purpose of action: To present the Eurocodes suite with special reference to Eurocode 3 'Design of Steel Structures' and to initiate a discussion of the role of Eurocodes in Russia. To test the level of awareness and interest outside of Moscow
Hosts: St Petersburg State Polytechnic University and the National Association of Builders (NOSTROY)
Venue: St Petersburg State Polytechnic University
Target audience: Primary target audience: • Regulatory authorities • Public and private contractors • The construction industry • Designers

Presenters:

- Keith Moyes (BSI)
- Martin Poljansek (JRC)
- Malcolm Greenley (BSI)
- Sergey Pugachev (Head of Technical Regulation Department of NOSTROY)
- Nicolay Popov (Head of Construction Reliability of the Russian Scientific Research Institute of the Construction)
- Dmitry Shatov

Description:

Jean-Armand Calgaro (Chairman of CEN/TC 250) had been invited as one of the principle speakers, presenting both the Head Code and EC-3, but was prevented by illness from attending. Malcolm Greenley made his presentation for him and offered to take any technical questions back to Mr Calgaro for answers.

Following the welcome and introductions, there was a presentation on the Eurocodes in the EU Regulatory system by Martin Poljansek of JRC.

This was followed by a presentation by Mr Pugachev, setting out the legal framework for his current regulatory harmonization programme. This is intended to be part of a two track process in which Eurocodes and existing Russian standards and norms will both be deemed to satisfy regulatory requirements.

Malcolm Greenley then presented on EN-0 and EN-3.

Mr Popov then presented a detailed comparison of Eurocodes and existing Russian codes.

There was a further presentation by Dmitry Shatov on the specific suitability of EC-3 for the design of light steel structures, which he asserted were not well covered by existing Russian norms and standards.

This initiated a lively technical debate. Several members of the audience had good knowledge of Eurocodes and they were split between those who preferred to simply update existing norms and those who favoured Eurocode adoption and use.

In subsequent discussions with the Project team, Mr Pugachev emphasised that his programme would go ahead despite the reluctance of some people in the industry.

He proposed that the most urgent need was not for more promotional activity but practical co-operation with Europe to complete the writing of National Annexes and to assist in training. He offered to send the project team his proposals for the way ahead.

He was invited to attend the next CEN/TC 250 plenary meeting in Ispra and this has subsequently been arranged.

Attendance: circa 98 delegates

Conclusions:

There is considerable (but not universal) interest in Eurocodes in Russia.

There is a will and a programme to complete their adaptation to Russian needs and to have them available as a means of meeting Russian regulatory requirements.

Further events should be aimed at formal training, rather than promotion.

Feedback:

Overall, the feedback from the delegates was positive. The detail can be found in the annexed feedback forms.

NOSTROY Proposals on working groups for Eurocodes implementation in Russia.

Considering the agreements that were reached on the conference on March 2, 2011 in Saint-Petersburg National Association of Builders (NOSTROY) suggests to choose main directions of work on Eurocodes implementation in Russia and gather several working groups with regard to the interests of British Standard Institution (BSI) and European Commission within the framework of Eurocodes promotion (II phase of the work).

The National Association of Builders is working on translation, editing and preparation of National Annexes for the Eurocodes 1990, 1991, 1992, 1993, 1994, 1998, 1999.

Considering that the work on National Annexes preparation will be performed in the year of 2011 our organization suggests gathering working groups to work on the mentioned documents.

The main suggested issues of working groups are:

- Discussion of terminology and compilation of specialized vocabulary;
- Organization of comparable calculation performance using the Eurocodes and Russian national building standards;
- Drawing up of National annexes considering the experience of CEN and EU member-states;
- Discussion of the ways of how to adapt and verify software for the proper usage of Eurocodes;
- Organization of bilateral visits to testing laboratories in EU and Russia.
- Getting the information on EN/ISO standards which are referred to in Eurocodes.

This work is proposed to be started in the near future to be able to write adequate National Annexes for the translated Eurocodes.

In addition, National Association of Builders proposes that it would be advisable to prepare and sign a framework agreement (memorandum) between the CEN TC 250 and Russian GOST TC 465 “Construction”.

Next steps:

It could be beneficial to arrange for NOSTROY delegates (and possibly other key stakeholders) to attend the next CEN/TC 250 plenary meeting in May 2011.

This would also be an opportunity to clarify the role of NOSTROY in the context of the EU–Russia Regulatory Dialogue process and to clarify the position of Mr Pugachev and his remit to introduce Eurocodes into the Russian Federation.

Annexes:

Annex Russia 8 Conference Programme (EN)
Annex Russia 9 Conference Programme (RU)
Annex Russia 10 Presentations
Annex Russia 11 Attendance list
Annex Russia 12 Feedback forms
Annex Russia 13 Proposals for future cooperation with EU

Additional activity – CEN/TC 250 meeting on 26-27 May 2011 (Italy)

The Project Team arranged for Mr Pugachev - Director, Department on Technical Regulating, National Association of Builders in Russia (NOSTROY) and Mr Timashkov Specialist, Department on Technical Regulating, National Association of Builders in Russia (NOSTROY) to attend the next CEN/TC 250 plenary meeting on 26-27 May 2011 as observers, with a view to developing a closer relationship between CEN/TC 250 and the equivalent Russian Standards Committee GOST TC 465. At the meeting, Mr Pugachev made a presentation on the NOSTROY Eurocodes implementation programme and his proposals for further cooperation between NOSTROY and CEN/TC 250.

Mr Pugachev and Mr Timashkov subsequently met with Mr Calgaro (Chair of CEN/TC 250) and Mr Pinto (JRC). At this meeting, it was agreed that Mr Pugachev would arrange for his proposals to be tabled at the up-coming EU-Russia Regulatory Dialogue meeting (scheduled for 31/05/2011).

Annex Ispra Draft Programme of 39th meeting of CEN/TC 250 (Ispra, Italy)

UKRAINE

Additional action – Study visit

No pilot actions were planned in respect of Ukraine, but an opportunity arose to arrange a short study visit for Dmytro Barzylovych, Director of Directorate for Technical Regulations in Construction, Ukrainian Ministry of Regional Development and Construction and Svitlana Lugovets, Head of Department for standardization in Construction, Ukrainian Ministry of Regional Development and Construction to the United Kingdom. This provided an opportunity to clarify the situation in Ukraine and feed additional feedback on other CIS countries. Following the study visit, Mr Barzylovych also submitted formal proposals for co-operation with Europe.

Country: Ukraine

Date: 15-16 February 2011

Target Market: Eastern Europe

Objective for target country: Formal adoption of Eurocodes as the preferred means for regulatory compliance.

Type of action: Three day study visit

Purpose of action: To determine the current situation in Ukraine and identify actions needed to promote formal adoption of Eurocodes in Ukraine.

Hosts:
Project team: Jennifer Sugden, Malcolm Greenley, Keith Moyes, Volodymyr Yakubov

Venue: BSI headquarters

Target audience: Regulators and standardisers

Attendance:

- Dmytro Barzylovych: Director of Directorate for Technical Regulations in Construction, Ukrainian Ministry of Regional Development and Construction
- Svitlana Lugovets Head of Department for standardization in Construction, Ukrainian Ministry of Regional Development and Construction

Presenters;

- Volodymyr Yakubov (BSI)
- Jonathan Griffin (BSI)
- Malcolm Greenley (BS, TC 250)
- Chris Hendy (WS Atkins, TC 250)
- Dr Brian Simpson (ARUP, Head of Geotechnical Division and TC 250)
- David Kelly – by teleconference (Arup manager for the Ukraine)
- Sharon King (BSI)
- Cheryl Smith (BSI)

Stated purpose of the study visit:

1. To develop a vision and an action plan for Eurocodes implementation in Ukraine and other CIS countries.
2. To present the possible components of the implementation programme.
3. To talk to potential contractors for the suggested components
4. To learn about Eurocodes implementation in the UK
5. To raise the following questions.

Questions:

1. What is the status of the documents that regulate construction projects including housing, public buildings, stadiums, airports, etc. (a standard, a law, a regulation))?
2. What is the relationship between a code and a standard?
3. Which European and national documents regulate the implementation of those requirements of EU Directive 98/1065/EEC not implemented in Eurocodes (e.g. environmental and sanitary security, operational security, noise protection)?
4. Which EN categories of B and Bh are adopted as national (BS)?
5. What regulates the utilisation of standards without the EN status in the B and Bh categories supporting Eurocodes (such as EN 1997 EUROCODE 7 - Geotechnics. Design, Calculation, Parameters)?
6. Ukraine has developed proposals on the legalisation of the EN standards as interstate standards in order to promote the Eurocodes in the CIS countries. Which procedural steps have to be taken by the MNTKS (Interstate Science and Technology Commission for Standardisation, Technical Codes and Certification in the Field of Construction) for such a solution to be legitimate?
7. In the CIS countries, it is the current practice to publish interstate standards in a two-column layout in order to preserve the authenticity of the translated text. If a decision is made to develop interstate documents harmonised with the EN, these two columns could contain the Russian and English texts (with precedence given to the Russian text). This layout makes it possible to avoid the problem of the incorrect translation and provides an English-speaking designer (supplier) with an opportunity to directly apply a CIS standard. Is this acceptable? Which procedural steps have to be taken by the MNTKS for such a solution to be legitimate?
8. Note that it will not be possible for MNTKS to make payments to CEN for using the official CEN language version for the purpose of translation quality control in the course of the development of interstate regulatory documents.
9. L Guidelines recommend packages of Eurocodes for the implementation focused on structure types. However, there are no construction projects in practice, whose design would only require calculations to be made for one type of the structure (such as reinforced concrete structures). However, it is not possible to use calculations based on different approaches toward the reliability assurance, different loads and impacts (1990, 1991) for the same project. What are the actual Eurocodes implementation packages?
10. How many BS construction standards are there (i.e. in ISC 91 and 93)? How many of them are harmonised European standards (BS EN)?

Description: Session 1

BSI made a presentation on the on Eurocodes developments in the UK.

Dmytro Barzylovych (DB) made a presentation on the regulatory situation in Ukraine. He explained that the Ukraine and the other CIS countries (Russia, Belarus and Kazakhstan) do not currently have Eurocodes in their regulations.

The CIS countries favour two different approaches:

1. Adoption of Eurocodes and withdrawal of national standards (the EU EFTA approach)
2. Coexistence between Eurocodes and pre-existing national codes and standards

DB said that there is no alternative to moving towards the adoption and use of Eurocodes. He noted that Belarus has decided to withdraw their conflicting standards and only have Eurocodes and European product standards.

In the Ukraine, they were pursuing a two track approach:

- Eurocodes + NAs + European product standards
- Revise and modernize the existing Ukrainian building standards by adopting the Eurocode calculation principles to align them with Eurocodes.

DB reported that the first package of 20 Eurocode Parts has been translated and the

corresponding NAs developed.

MG questioned why the Ukraine would go to the trouble of revising existing codes when a ready made suit of codes (Eurocodes) are available for immediate adoption. DB replied that the cost developing the standards was miniscule compared to the cost of adoption by industry.

DB said that it was important for Europe to realise that US Construction Companies have groups of Russian speaking engineers already investigating alternative calculations to US codes.

DB reported that on the 15th February there was a Parliamentary hearing in the Ukraine regarding coexistence between Eurocodes and National codes and the necessary changes to the existing law – probably will become law next week.*(NOTE: 4th March 2011 the President of Ukraine signed the Law on parallel use of national building standards and Eurocodes)*

DB explained that in the old Soviet Union there were two types of documents:

1. Voluntary Standards for construction products.
2. Mandatory Construction Norms with a wider scope than Eurocodes, including requirements for building, planning, organization of construction sites, safety requirements etc.

DB explained the history of why the technical issues for construction were absent from laws.

History of standardization in Ukraine and old Soviet Union started in the 1930s. This work was taken over by Research Institutes after the collapse of Soviet Union. After some years of neglect, work accelerated from 2001. In 2002 Russia adopted new Technical Regulation laws. In 2009 legal obstacles were removed to enable the CIS countries to work together again.

In 2002 Ukraine decided that their regulations should align more closely with Europe. Today Eurocodes represent 10% of the Construction Norms.

DB explained that the Ministry of Regional Development and Construction is the only body entitled to adopt standards in Ukraine or to approve Construction Norms

The Ukraine NSB also issues technical approvals which are equivalent to ETAs

In Ukraine the law is separated into 2 elements:

1. Technical Regulations
2. Standardization + laws in construction

In 2006 a Technical Regulation in Buildings was adopted (the first TR developed under the new approach). Until 2009 this TR was the only one in the CIS. In 2009 somewhat different TRs were adopted in Russia, Belarus and Kazakhstan.

DB expressed his ambition to have Eurocodes adopted in all CIS countries to enable closer integration of their markets At the last CIS Summit Meeting, Technical Regulations were high on the agenda.

There is an Interstate Governmental Council of Ministers of Construction responsible for recommendation on harmonization. There was a meeting of Ministers in May in Kazakhstan and will be another one in September at which DB could arrange a presentation on Eurocodes. This meeting will probably be held in Kazakhstan.

DB said that the harmonization agenda was being driven by Ukraine.

He identified the problems of translation, because there appeared to be differences between the English and German language versions.

He noted that the Ukraine would benefit from closer integration of the CIS countries and that the EU penetration of the CIS construction market could be accelerated by EU assistance to those countries.

DB offered to prepare a simple proposal for this assistance.

BSI gave demonstration of its new Eurocodes Plus project (in development) as an example of the kind of high end products being developed by European NSBs as an aid to the easier use of Eurocodes

Description: Session 2

A presentation was given by Chris Hendy, who explained the W S Atkins involvement in Eurocode drafting and implementation (Eurocodes and Execution Standards).

He also introduced his books on Designers' Guidance on Bridge Design' which he had written for Thomas Telford, the publishing arm of the ICE (Institute of Construction Engineers).

He also reported that Atkins has produced advice to clients on implementation, including the legal framework of PPD and CPD through the Association of Directors of Environment, Economy, Planning and Transport (ADEEPT).

He said that Atkins has been designing bridges to Eurocodes for more than a year. Hendy added that the Implementation of Eurocodes has identified several issues:

- More documents are required for the design
- The codes are more complex

However, Eurocodes are more suitable to Finite Element Modelling (FEM) through the use of computer software. More importantly they facilitated greater economy (suggested savings of up to25% for steel bridges and nearly 15% for concrete bridges) due to the less prescriptive nature of the Eurocodes relative to the old British Standards.

He explained the challenges of implementation of Eurocodes to the Designer, who must have a thorough knowledge of structural design principles and a better knowledge of mathematics and computer modelling.

He said that Atkins strongly recommends that designers must be trained adequately both in the use of Eurocodes and the appropriate software.

Atkins has developed its own internal training on Eurocodes, which includes:

- 27 separate subject modules
- 17 practical workshops.

Their training has extended beyond their own engineers to suppliers & clients although Atkins courses are specific to their audience and do not mix internal and external groups.

He summarised the challenges any company implementing Eurocodes will need to address:

- Cultural changes
- Terminology
- Greater use of 1st principles
- Greater use of finite element modelling
- Better knowledge of mathematics
- Some technical change – design formulae not all the same as before
- Re-training of all structural engineers with a range of previous experience
- Upgrading software and design tools
- Fitting new standards into existing established procurement processes

Description: Session 3

Dr Simpson made a presentation on ARUP and illustrated the range of major projects that have been (or are being) designed to Eurocodes.

DB explained about the current situation in Ukraine (see above).

There was a detailed exchange of views on technical issues, specifically relating to Geotechnical design.

DB expressed some reservations about the application of Eurocode 7. He also emphasised that in large countries (such as Russia) a single set of NAs might not suffice.

Dr Simpson mentioned the existence of a number of good technical papers that addressed many of the issues DB had raised and offered to send a list of the relevant references (list sent).

Both representatives of ARUP expressed interest in an internet depository for successful Eurocodes projects.

Conclusions:

A three day study visit was not able to address all the questions raised by DB.

Ukraine is firmly committed to implementation of Eurocodes and their wider use and has taken significant steps already.

Ukraine claims to be driving the agenda for their acceptance or adoption throughout the CIS countries (although Russia might not agree with this assessment).

Ukraine is adopting a permissive approach where both revised Ukrainian and Eurocodes were complementary means of compliance with regulation.

Progress is more dependent upon technical assistance in writing NAs and in training than in further promotional activity. DB offered to send his own proposals for the steps that are necessary.

MG invited him to attend the next TC 250 plenary meeting (attendance arranged).

Next steps:

It could be beneficial to arrange for Ukrainian delegates from the Ministry of Regional Development and Construction to attend the next CEN/TC 250 plenary meeting in May 2011.

Annexes :

Annex Ukraine 1 Chris Hendy's presentation
Annex Ukraine 2 Dmytro Barzylovych's presentation (RU)
Annex Ukraine 3 Dmytro Barzylovych's presentation (EN)
Annex Ukraine 4 Dmytro Barzylovych proposals
Annex Ukraine 5 Study Visit agenda
Annex Ukraine 6 List of questions from the delegates
Annex Ukraine 7 Chris Hendy ICE document
Annex Ukraine 8 Tariq Nawaz presentation

Additional activity – CEN/TC 250 meeting on 26-27 May 2011 (Italy)

Following the study visit, the Project Team arranged for Mr Barzylovych – Chief of Department, Ministry of Regional Development and Construction of Ukraine and Mrs Lugovets – Head of Standardisation Division, Department of Technical Regulation and Scientific Development, Ministry of Regional Development and Construction of Ukraine to attend the next CEN/TC 250 plenary meeting on 26-27 May 2011 as observers, with a view to developing a closer relationship with CEN/TC 250. At the meeting, Mr Barzylovych made a presentation on the current situation in Ukraine and his proposals for European assistance in their implementation of Eurocodes.

Mr Barzylovych and Mrs Lugovets subsequently met with Mr Calgaro (Chair of CEN/TC 250) and Mr Pinto (JRC) to discuss the best way of proceeding. It was suggested that the most appropriate

mechanism for obtaining the necessary technical support might be a formal EU Twinning project. And the project team agreed to take this proposal forward.

Annex Ispra Draft Programme of 39th meeting of CEN/TC 250 (Ispra, Italy)

VIETNAM

Additional action – Study Visit

No pilot actions were planned for Vietnam, however the opportunity arose to participate in a UK study visit by delegates from Vietnam. This was undertaken as an additional action.

Country: Vietnam

Date: 30 November 2010

Target Market: Vietnam

Objective for target country: To promote the formal adoption of Eurocodes by the Ministry of Construction in Vietnam and their wider use by the Vietnamese construction Industry.

Type of action: Study visit

Purpose of action:

The purpose of the visit was to:

- Assess the situation of Eurocodes in Vietnam
- Present the EC-funded project on the Promotion of Eurocodes in Third Countries
- Discuss opportunities to organise training and for the adaptation of standards

Hosts: British Standards Institution

Venue: BSI headquarters, High Road, W4 4AL London, UK

Target audience:

Primary target audience:

- Ministry of Construction
- Regulatory authorities
- Standards developers

Attendance:

- Mr. **Dr. Nguyen Trung Hoa**, Director General, Department of Science, Technology and Environment, Ministry of Construction of Vietnam
- Mr. **A/Prof. Dr. Cao Duy Tien**, Director General, Vietnam Institute for Building Science and Technology, Ministry of Construction of Vietnam
- Mr. **Dr. Luong Duc Long**, Director General, Vietnam Institute for Building Materials (VIBM)
- Mr. **Vu Dinh Thanh**, Deputy Director General, Vietnam Institute of Architecture Urban and Rural Planning (VIAP)
- Mrs. **Ma. Tran Thanh Y**, Manager, Vietnam Institute of Architecture, Urban and Rural Planning (VIAP), Research Department of Construction Standardization, Ministry of Construction of Vietnam
- Mrs. **Do Nguyet Anh**, Official, International Cooperation Department, Ministry of Construction of Vietnam

Presenters:

- Mr. **Jonathan Griffin**, Head of Market Development in construction, BSI
- Mr. **Malcolm Greenley**, Programme Manager in Construction and Secretary of CEN/TC 250, BSI

- Ms. **Jennifer Sugden**, Principal International Development Manager, BSI
- Mrs **Ping Yu**, International Affairs Manager, BSI

Description: Study visit from Vietnamese delegation on construction and Eurocodes in Vietnam and the EU (half-day):

1) Presentation of construction standards and situation in Vietnam
2) Presentation of Eurocodes in Europe
3) Discussion of collaboration opportunities and further support

Key points of the meeting:

Construction in Vietnam

- In the Vietnamese legislation, each ministry is responsible for the development of their own sector standards.
- The Ministry of Construction (MoC) is responsible for the development of construction standards and implementing them into the Vietnam Integrated Construction Standards system.
- MoC's mandate is, in collaboration with the Ministry of Science and Technology, to develop and implement standards for:
  - Building materials
  - Construction
  - Fire protection
  - Technical systems of buildings
  - Safety of users for buildings
  - Urban technical infrastructure (e.g. road, bridges, rail, etc.)

Eurocodes Promotion and previous support in Vietnam

- BSI already worked with Vietnam in 2007 and 2008 on the promotion of Eurocodes. Most presentations were concerning specific Eurocodes, in particular Eurocode 8.
- In 2007, with the support of the British Embassy in Vietnam, MoC delegates travelled to BSI.
- Prof. Roger Frank recently visited Vietnam to discuss Eurocode 7 (2010).
- Singapore has also invited Vietnam to attend presentations on European Standards.
- In general, there is not much cooperation in standardization with other countries in ASEAN (apart for TBT). Thailand and the Philippines are using American codes, while Cambodia and Laos are less developed in standardization.

Eurocodes in Vietnam

- Since 2003, Vietnamese leaders in construction have shown interest in applying European standards.
- Vietnam has already translated all Eurocodes into Vietnamese EC 0-9, but not all Eurocodes parts are applicable to Vietnam MoC (No EC 6).
- The translation agency IBST is responsible for translating and adapting the Eurocodes.
- Eurocode 7 has been translated and submitted to Mr. Tien. It has been agreed that the MoC would stipulate the application of Eurocode 7.
- Interested in: fire protection and decentralisation of urban management; planning underground structure; architecture Building Information Modelling (BIM); Finishing Materials; Technical Building users (FM); Building Regulations.
- Bridges, roads and underground structures are also interesting and important in Vietnam.

Eurocode 8 in Vietnam

- Vietnam has a special interest in Eurocode 8 (seismic) and discussed the earthquake mapping of Vietnam with BSI in 2007.
- The Seismic map of Vietnam was developed and integrated in Building code 02/2009/BXD.
- The National Annexes have been developed for Eurocode 8. Previously, Vietnam applied the Russian standard for earthquakes, but Eurocode 8 is more flexible.
- The MoC has stipulated the application of Eurocode 8 for Vietnam.

Energy efficiency / climate change and construction in Vietnam

- Energy efficiency, energy savings are priorities for Vietnam. Within this field, there are two sub-sectors of interest: building material production and residential buildings.

- It would be important to develop national annexes in these two sub-sectors.
- Climate change is also a priority for Vietnam. According to the IPCC (Inter-governmental panel on climate change), Vietnam is one of the 5 countries most vulnerable to climate change and rising sea levels. Vietnam has already received help from DANIDA, World Bank, etc. The MoC is responsible for assessing the impact of climate change to infrastructure.
- Now implementing a UNEP project (grant) to promote green buildings in Vietnam via training.
- Role of the MoC is to study and stipulate technical standards for energy efficiency of technical systems of the buildings (e.g. lighting, ventilation, energy management in buildings, etc.).
- Energy auditing is being practiced, where certificates are issued for buildings which relate directly to standards.
- Eurocodes is linked to energy efficiency (e.g. conference in Beijing in 2008).

Technical Infrastructure Projects in Vietnam
- Underground railway system: 5 projects (European consultants are involved in the design)
- Highway from Hanoi to Ho Chi Minh (approx. 1,800 km)
- Ports and bridges
- Ministry of Transport and Prime Minister prepared feasibility study for high-speed rail from Hanoi to Ho Chi Minh. But the project was rejected because of the size of investment. They will now break it up into smaller projects, e.g. Hanoi to Vinh (approx. 300 km) and Ho Chi Minh to Nha Trang (approx. 450 km).
- 80%of Vietnamese projects are using European standards and are encouraged to use them.

Issues
- Problems of copyright: will go see CEN.
- Development of national annexes in Vietnam.
- Issues with translation which need to be clarified.
- Want to use BS/ISO/EN, but currently, national standards conflict with BS/ISO/EN.

Support needed
- Identify someone from the BSI TC on Eurocodes who could assist Vietnam.
- Assistance for the development of the other national annexes (only have one for Eurocode 8 at the moment).
- Assistance in developing a comprehensive methodology for national annexes.
- Provision of technical training and train-the-trainer courses.
- Provision of technical guidelines for users and integration in the university curriculum.
- Support in moving towards conformity with BS/EN standards.
- Support in identifying standards in fire protection and decentralisation of urban management / planning underground structure / architecture or in recommending appropriate agencies.

Feedback:

The delegates were interested in the discussion and followed up with BSI after the visit. After visiting BSI, the delegates were planning to visit the EC and CEN in Brussels.

Conclusions:

What was learned from the action
There is still considerable interest from Vietnam in Eurocodes. Actions have already been undertaken to translate and stipulate the Eurocodes in their legislation, however further assistance is required.

Impact on the strategy
This meeting confirmed the assumptions laid out in the Promotional Strategy for Vietnam. Future actions in Vietnam should aim at maintaining the momentum and focus on practical assistance and mentoring (e.g. developing National Annexes, technical training, guidance, etc.). The role of Singapore as the regional leader (centre of knowledge) should be further explored.

Next steps: Develop a strategy (roadmap) for Vietnam, considering support for the preparation and finalization of national Annexes, a training and education programme and regional support from Singapore.
Annexes: *Annex Vietnam 1* List of Ministry of Construction in Vietnam Delegation *Annex Vietnam 2* Letter from the Ministry of Construction in Vietnam to the British Embassy in Vietnam *Annex Vietnam 3* Copy of business cards *Annex Vietnam 4* Picture of the Vietnamese delegation at BSI

SINGAPORE

Additional action – Study visit

Singapore is not one of the target countries in South East Asia, but is an important country in the region whose practice and policy could be a significant influence on the three countries that compose the Target market, so the Project team took the opportunity of participating in a study visit from Singapore to learn more about developments in the region.

Country: Singapore
Date: 18-21 October 2010
Target Market:
Objective for target country:
Type of action: Singapore Study visit to the UK (BSI) in order to get an update on the development and implementation of EN Structural Design Codes (in particular EC 2-1-1 and/ or EC 3-1-1 1 & EC 4-1-1 for building structures) by BSI, UK Industry and the UK Regulator and to learn from the UK their experience in implementing Eurocodes and related issues so that local stakeholders can better prepare themselves for the adoption of more Eurocode parts in Singapore.
Purpose of action: To better understand the current situation in Singapore and to identify issues of relevance to other south East Asian countries. Because of its strong historic links with the UK, Singapore decided to adopt the Eurocodes as their national structural codes in 2007. This decision was made in the knowledge that the British Standards on which their national codes at the time were based, were to be withdrawn and would not maintained after the full implementation of the Eurocodes. Whilst Singapore is not a target country for the project, it is important to encourage and assist Singapore through their adoption and implementation process as this is the first country outside of Europe to commit to full adoption of the Eurocodes. Singapore aspires to be a regional leader and could act as a champion and knowledge hub for adoption in ASEAN region countries.
Hosts: BSI
Venue: CBI Conference Centre in London, and various locations in the UK.
Target audience: The study visit delegates from structural and civil engineering communities, architects, Regulators and building control officials, and standardizers.
Attendance: The delegation comprised 10 senior representatives from the civil and structural engineering community in Singapore together with two members of the National Standards Body of Singapore (SPRING).
Presenters; • Malcolm Greenley: Secretary of CEN/TC 250, BSI • Jonathan Griffin: Head of Market Development, BSI Construction department. • Clare Price Committee Manager, BSI Construction department

- Jennifer Sugden: Project team member, BSI
- Keith Moyes: Project team member, BSI.
- Steve Denton: Technical Director Bridges, Parsons Brinckerhoff and CEN/TC 250
- Haig Gulvanessian: Consultant, ex Director of Structures at BRE, CEN/TC 250

Description:

Study visit from Singaporeans visiting the UK on inward mission organized by BSI to undertake various meetings, site visits and attend the BSI Eurocodes Conference.

The visit included attending a meeting at BSI with the Eurocodes Promotion Project team plus Steve Denton of Parsons Brinckerhoff and other key people from the BSI Construction Department, and was timed for attendance at the second BSI Eurocodes Conference.

The agenda for the Study Visit also included site visits to the Steel Construction Institute, Arup, Aecom and UK Local Authorities for Building Control.

It emerged that Singapore has already implemented 20 Eurocode parts as national (SPRING) standards SS EN 199X-X. they are planning to adopt a total of 33 Eurocode Parts and are keen to finalize the remaining 13 parts, through the development their relevant National Annexes. It is scheduled that 9 National Annexes will be finalized by Q1 2011 and the remaining 4 bridge Parts will be published in 2012.

They are not planning to adopt EC 5,EC 6, EC 8 and EC 9).

Feedback: The Singaporeans were very appreciative of the assistance provided by BSI and the Project Team in the coordination of their study visit, which was considered a great success.

Conclusions: Singapore remains the pace setter of the adoption of Eurocodes internationally. This has been mainly due to the encouragement and assistance provided by BSI and the adoption of the English language standards in Singapore. Similar dedicated assistance should accelerate the process in other markets where adoption/adaptation id the primary objective.

Next actions: Maintain strong links with Singapore and the National Standards Body (SPRING) with a view to creating a centre of knowledge for the ASEAN region.

Annexes:
Annex Singapore 1 List of Delegates & agenda of study visit
Annex Singapore 2 Eurocodes implementation schedule for Singapore

SOUTH AFRICA

No pilot actions were planned for South Africa, but two opportunities arose for gaining further intelligence about developments in that country. As a result, Project Team members participated in two meetings. Both confirmed that South Africa is committed to Eurodes as the structural design regime best suited to their needs. The principal issue that arose is whether they should opt for simple adoption of the whole suite of codes or whether it would be best to have an interim arrangement under which selected Eurocodes are adapted and published as SANS standards with a different scope and structure to the Eurocodes themselves. There may well be political factors at work and any promotion must reflect the vested interests of the various parties in that country.

Additional action – Meeting with Prof Johan Retief

Country: South Africa
Date: 25 March 2011
Target Market: South Africa
Objective for target country: Formal adoption of Eurocodes
Type of action: Meeting with Prof Johan Retief – Stellenbosch University SA
Hosts: Jean-Armand Calgaro
Venue: Neuilly – Paris
Purpose of action: To meet with Prof Johan Retief to explore ways of assisting South Africa with the adaption/adoption of Eurocodes in SA. It was noted that South Africa intend to restructure their structural codes committees to better mirror CEN/TC 250 and its sub committees
Attendance: • Malcolm Greenley, Secretary of CEN/TC 250, BSI • Jean-Armand Calgaro, Chairman of CEN/TC 250 • Milan Holicky, EN 1990 expert from Czech Republic • Johan Retief, Professor of Structures at Stellenbosch University and champion of Eurocodes adoption in SA
Description: The meeting was arranged in Paris with John Retief, taking the opportunity of his attendance at an ISO/TC 98/SC 2/WG 1- revision of ISO 2394 Bases of Design - meeting at Bureau Veritas in Neuilly sur Seine Paris. The Current situation regarding the Eurocodes in South Africa is that between 2008 - 2010 the South African Loading Code (SANS 10160) has been revised to take account of (and to reference) EN 1990, EN 1991, EN 1997 and EN 1998 in adaption of the Eurocodes. Furthermore SA has decided to adopt EN 1992-1-1 as their concrete code although it was noted that EN 1992-1-2 Concrete fire design can't be adopted until EN 1991-1-2.
Comments: Structural codes in SA are not mandatory but are based on Building Regulations and demonstration of conformance with the "national codes" similar to the UK. In SA EN 1990, EN 1991, EN 1997 and EN 1998 have in part (where relevant to SA) been adapted for inclusion in the latest revision of SANS 10160 (published in 2010).

Concrete is the most important material code to SA and there has been a decision by the relevant South African WG to adopt EN 1992-1-1. There is a problem with the adoption of EN 1992-1-2 because EN 1991-1-2 hasn't as yet been adopted, nor is it presently considered.

A related project is the adaptation of EN 1991-4 and EN 1992-3 for water retaining structures, maintaining a degree of consistency with BS 8007.

There has been no decision regarding steel, composite, timber or masonry as yet.

In an independent initiative Prof Alphonse Zingoni of University of Cape Town has been arranging short courses with visiting experts such as Nary Narayanan, Frans Bijlaard, Joost Waalraven, K Ranasinge, A Bond et al. Roger Frank recently presented the prestigious Jennings lecture, speaking about EN 1997.

The main interest for SA is concrete for buildings (private and commercial). Steel is extensively used in SA, mainly for industrial and mining structures. Currently SA steel codes are based on Canadian and Australian codes. SA wants to gather experience on EN 1993 before a decision is to be made on the way forward.

Eurocodes adaption and/or adoption will be by incremental steps, and will require the restructuring of the SABS Structural Committees to give impetus and focus.

The problem is that there is a single SABS General Construction Committee with a remit that covers all aspects of construction from products to design of structures. It is the intention to create a committee structure based on CEN/TC 250 and its SCs which will be formed under the direction of the SA Institution of Civil Engineering.

There was considerable discussion regarding the benefits of adoption as opposed to adaption. Although there is a strong sentiment for adoption, difficulties arise between matching Eurocode Parts with the local capacity, necessitating the incremental process.

Although the flexibility derived from the National Annexes is fully appreciated, this does not always satisfy the local needs.

Johan Retief considers that simple adoption would actually slow down the implementation of Eurocodes in SA, especially in areas such as steel structures and bridge design. However, this approach could effectively cause divergence from the Eurocodes and lead to difficulties in accepting future revisions (next generation 2015) of the Eurocodes.

The African Concrete Code is currently in abeyance. The main drivers of Eurocodes in Africa are SA (who have decided to adopt EC 2) and North African countries such as Libya and Egypt.

Due to the political situation in the North African region Retief suggests that there is unlikely to be much progress in the near future.

Conclusions:

When the reorganization of the Structural Codes Committees have been achieved in SA it would be appropriate to forge closer links between these committees and CEN/TC 250. This could be supported by SABS observer status at the relevant TC 250 and SC meetings and also the organization of a Conference/Workshop in SA to encourage adoption (2012/2013).

The JRC could also provide some assistance.

Next actions:

Invite SA to the Ispra meeting of CEN/TC 250 to give a presentation to the Committee on Eurocodes in SA and an opportunity to meet with the current experts of TC 250

Annexes:

Annex South Africa 1 Memorandum - EUROCODE AND SOUTH AFRICAN STANDARDS FOR STRUCTURAL DESIGN
A Case for improved Cooperation

Additional action – Meeting with Dr Ron Watermeyer

Country: South Africa
Date: 31 March 2011
Target Market: South Africa
Objective for target country: Formal adoption of Eurocodes
Type of action: Meeting with Dr Ron Watermeyer
Hosts: Project Team
Venue: BSI Office
Purpose of action: To obtain an update on the situation in South Africa and verify information from Johan Retief
Attendance: • Keith Moyes (BSI) • Malcolm Greenley (BSI) • Dr Ron Watermeyer: Director of Sodelund & Schutte (PTY) Ltd.
Description: Dr Watermeyer had requested to view BSI's Eurocodes Plus product to determine the suitability of its approach to his work in ISO. Following the presentation the project team took the opportunity to ask him for his views on the current situation in South Africa.
Comments: Dr Watermeyer explained that South African regulation is performance-based and that it is permissible to use any codes that can be shown to meet their requirements. However, it is his hope that Eurocode adoptions will become the referenced, default, codes. He said that current regulations reference many SABS standards, but that SABS was having difficulty in writing these supporting standards for organizational and resource reasons (see also Johan Retief). He said that there is a growing trend in South Africa in support the full adoption of Eurocodes rather than continue to adapt their principles into S A codes. The concrete sector is the most positive. The steel sector accepts that this will eventually have to happen but that it is not urgent. They are still happy to use the steel codes based on the Canadian model. Masonry and timber sectors see themselves as being at the back of the queue. Both are short of funding. One of the main dissenting voices was Stellenbosch University (Johan Retief) which wanted to adapt Eurocode principles into new South African codes. This was because they had obtained funding for this purpose. He stated: "Cut off the funding and this obstacle would disappear."

When asked about the calculation of NDPs and the writing of National annexes he expressed the opinion that the easiest approach would be to adopt the UK National Annexes. The two countries were very similar in terms of climate and geography and geotechnical and corrosion conditions specific to SA were already well-covered by existing documents.

He said that recently-constructed bridges in South Africa had been conspicuously over-designed.

He warned that it was necessary to talk to the right people – certain associations had little credibility in South Africa.

Feedback:

Following the meeting, Ron Watermeyer contacted Jan Wium of Stellenbosch University to confirm whether the intention was for South Africa to adopt or adapt further Eurocodes. The reply he received was as follows:

Dear Ron

As Chair person of the working group responsible for the revision of SANS 10100-1 I would like to answer your question as follows:

- Although the general consensus at the meeting held at SABS on 8 February 2008 was that the "Eurocode shall be adopted", this surely must be seen against the background that sufficient information is needed of the impact which such a step would have on the local industry. Also, the working group for each material should be comfortable with the contents of the standard to be adopted. It is however true that the spirit of the consensus was that adoption should be the preferred option for a variety of reasons.

- The working group for the revision of SANS 10100-1 initially embarked on a cautious path before making a final informed decision on whether to adopt or to adapt EN-1992-1-1.

- It was necessary to determine what the implications would be if EN-1992-1-1 is adopted, taking into consideration the scope of the document but also the current local practice and experience in South Africa. It would be irresponsible to adopt without a thorough evaluation of the standard(s) and of local practice.

- Having gone through such an evaluation, the working group agreed that EN-1992-1-1 can be adopted for the revised SANS 10100-1, subject to a few items which need to be highlighted in either an introduction to the code, or in an annexure.

- The Institute for Structural Engineering is a departmental body at the Department of Civil Engineering at Stellenbosch University through which research is carried out. Some members of this Institute are involved in code development and are members of the JSD, but there is no official linkage between these bodies.

I trust this clarifies the situation.

Conclusions:

South Africa is clearly heading in the direction of Eurocode adoption, but there might be an unnecessary use of interim measures.

South Africa will retain a permissive regulatory regime based on performance based requirements.

The speed at which events occur depends on internal political factors which are unlikely to be greatly influenced by promotional activity.

Next actions: None
Annexes: None

Additional activity – CEN/TC 250 meeting on 26-27 May 2011 (Italy)

The Project Team arranged for Professor Retief of Stellenbosch University to attend the next CEN/TC 250 plenary meeting on 26-27 May 2011 as observer with a view to developing a closer relationship with CEN/TC 250. Mr Retief made a presentation on the current situation in South Africa, noting that SABS was reorganizing its construction committees to more closely mirror those in CEN. He also expressed great interest in the further development of Eurocodes.

Annex Ispra Draft Programme of 39th meeting of CEN/TC 250 (Ispra, Italy)

PROJECT PROMOTION

Promotion of the project

No specific pilot actions in this respect were proposed, but the project has been promoted at two meetings.

Additional action – ENC meeting 16 September 2010

Date: 16 September 2010
Type of action: Presentation to update ENC Group Members on the "Eurocodes Promotion Campaign – Development and Implementation" project
Purpose of action: To update Members as to the progress of the BSI project on the "Eurocodes Promotion Campaign – Development and Implementation"
Hosts: European Commission
Venue: Centre Albert Borchette, rue Froissart, Brussels – Eurocodes National Correspondants Group meeting
Target audience: All Members of the ENC Group
Presenters: Malcolm Greenley
Description: Malcolm Greenley attended the meeting to provide members of the ENC with an update as to progress of the BSI project to develop a promotion strategy for Eurocodes in targeted third countries. During the presentation the opportunity was stressed that implementation of the Eurocodes in Europe isn't particularly encouraging. Consequently it is difficult to promote the Eurocodes to third countries as "the most modern and integrated suite of structural codes in the world" when the take up and implementation by the European countries is not particularly positive.
Attendance: Malcolm Greenley – Secretary to CEN/TC 250 ENC Group Members list to be advised. The attendance of the meeting was low, possibly because of short notice and on a Friday at the end of the holiday period
Feedback: None
Next actions: Presentation of Final report to ENC Group meeting in Spring 2011 (13th April 2011
Conclusions: Await minutes and attendance sheet from meeting - MF
Annexes: *Annex Promotion 1* Agenda of the 20th ENC meeting – 16 September 2010. *Annex Promotion 2* Presentation of Malcolm Greenley

Additional action – LNEC Workshop

Date: 10 February 2011
Type of action: Short presentation at a two day workshop

Purpose of action: To raise awareness of project
Hosts: The Laboratório Nacional de Engenharia Civil (LNEC)
Venue: LNEC, Lisbon
Target audience: Seismic specialists from Europe and the Mediterranean area
Attendance: Circa. 100 seismic specialists
Presenters: Keith Moyes
Description: Because of registration problems, the Workshop started late and there Q & A session concerning my presentation was cut short. The idea that Eurocodes were being actively promoted outside the EU was well received. There was interest in why South America and China had not been included in the project. I was able to refer to the upcoming UKTI study visit by a Brazilian delegation and the opportunity this afforded for raising awareness of Eurocodes in that country.
Conclusions: The idea of actively promoting the wider use of Eurocodes is appreciated but does not seem to be a top priority for European practitioners
Annexes: *Annex Promotion 3* Keith Moyes Lisbon Presentation

BRAZIL

Additional action – Study visit

At the meeting in Lisbon, one delegate specifically enquired as to why South America was not one of the target markets for the project. The project team took the opportunity of a study visit to the UK to meet with Brazilian delegates to introduce the topic of Eurocodes and their applicability to that region.

Country: Brazil
Date: 28th February 2011
Target Market: Brazil **(**Not one of the target markets)
Objective for target country: To raise awareness and interest in Eurocodes
Type of action: Study Visit arranged by UK Trade and Investment SindusCon SP Mission
Purpose of action: Whilst Brazil is not a designated target market, it was felt this was an opportunity to present and promote an overview of the Eurocodes programme and to test the level of awareness and interest in one of the key markets outside the scope of the project The specific purpose of the action was to make the visitors from Brazil aware of the Eurocodes programme and provide information especially with respect to the availability of information on Eurocodes in Portuguese on the LNEC website.
Hosts: UK Department of Trade and Industry (UKTI)
Venue: UKTI , Kingsgate House, 66-74 Victoria Street, London, SW1E 6SW
Target audience: The structural and civil engineers and architects among the Brazilian trade and industry representatives
Attendance: 25 delegates from SindusCon SP and 4 UKTI representatives
Presenters; Malcolm Greenley, BSI and Secretary of CEN/TC 250
Description: Study visit from Brazilian delegation on construction (SindusCon SP) visiting the UK on inward mission organized by UKTI to undertake various meetings, site visits and visit EcoBuild in relation to the Olympic Games of 2012. The delegation comprised 25 delegates (senior representatives from the association and Brazilian construction companies) – list attached. SindusCon SP has 9,000 affiliated companies, SindusCon São Paulo represents the construction sector. http://www.SindusConsp.com.br/Home_ingles.asp The BSI presentation was an Introduction to BSI and to the Eurocodes. Several delegates were aware of the Eurocodes. They rejected the idea that Brazil would be influenced by the oil industry and adopt US codes. . Outside the meeting the Laboratório Nacional de Engenharia Civil) LNEC in Lisbon was contacted, as it is know that they have links with Brazil. They advised as follows: "*Following the publication of the 1st package of Portuguese Eurocode Standards (NP EN), we had an internal meeting at LNEC concerning precisely their dissemination in Brazil, Angola*

and Mozambique. In the case of Brazil, we decided to establish contact with the National Standards Body of Portugal (IPQ) in order to analyze what should be the best way to get the interest of Brazilian designers. As far as we know, IPQ has some kind of cooperation agreement with Brazilian National Standardization Body (ABNT) and with the National Institute of Metrology, Standardization and Industrial Quality (INMETRO). IPQ told us that they will make contact with these two institutions and will report back to LNEC."
Feedback: Unfortunately, due to time constraints, an in-depth two-way dialogue was not possible. However the limited feedback was positive with several delegates wanting to discuss Eurocodes outside the meeting. Thanks were received by email from Dean Brotherton at UKTI for BSI's input and advising that the visitors had enjoyed the visit to the UK and found it informative.
Conclusions: There is sufficient interest in Eurocodes to justify a positive action to promote dialogue with Brazil on their potential adoption. This should be carried out in conjunction with LNEC/IPQ.
Next actions; Follow up with Valeria Martinez from the British Consulate - General in São Paulo to identify delegates who showed interest in Eurocodes and ensure a liaison between LNEC/IPQ is encouraged.
Annexes; *Annex Brazil 1* List of Delegates *Annex Brazil 2* Programme of study visit *Annex Brazil 3* Presentation by Malcolm Greenley

6.3 Conclusions: Implications for the strategy

By and large, the pilot actions confirm the main elements of the strategy although lessons have been learned during the process. They are divided into what we learned about the Target Markets and what we have learned about our proposed actions.

For the target markets we wanted to verify our AIDA analysis and our selection of the primary objective:

- Wider use within a permissive regulatory framework; or
- Formal adoption or adaptation as an internal driver for wider use.

6.3.1 Target markets

Gulf

In our AIDA analysis, we proposed that the Gulf region as a whole was at the Interest stage and that the objective should be to promote wider use of Eurocodes within a permissive framework.

The AIDA analysis was confirmed by the generally positive response to the presentations made in the conference at Doha.

However, the real issue in the region now seems to be political rather than commercial. Through a positive and sustained programme of active collaboration, American standards have now been accepted as the basis of the Saudi Code. There is a strong desire to create an Arabic speaking common market (the GCC) and to establish a common set of building codes for the whole region. Although some of the feedback we have received suggests that the other Gulf States might be reluctant to be dominated by Saudi Arabia and might prefer to retain a more permissive approach to regulatory compliance, the decision-making process is likely to be at a political level and the arguments held behind closed doors. The pace at which this will occur is uncertain, but a time frame of 'not less than 5 years' was suggested.

It is not clear the extent to which industry pressure can contribute to the decision making process, since the ruling elites in these countries are often the main contractors.

To maintain a presence for Eurocodes in the region and allow them to demonstrate their superiority in the market place might require political action, backed by the necessary technical input to adapt Eurocodes for the region and make them available in Arabic.

Promotional activity of the kind outlined in the Project Report will continue to be welcomed, but its ultimate effectiveness must be in doubt.

Egypt

On the basis of the Egyptian contribution to the BSI Eurocodes conference and our other research, we had estimated Egypt to be at the stage of Desire, moving towards Action and formal adoption or adaptation was proposed as the primary objective.

In our Project Report, we also suggested that Egypt might more naturally be considered as part of the Western Mediterranean Target Market rather than the Gulf Region.

Our discussion with Dr Barakat seemed to confirm this AIDA analysis and our prime objective. There was a clear desire to align Egyptian regulations more closely with those of the European Union, although the Construction sector was not necessarily the highest priority for Egypt.

The conference and workshop were seriously impacted by the political events that were occurring at the time and were not able to provide as much additional information as we hoped, but there were several useful indicators. However, we would be reluctant to over-interpret this very limited feedback.

The most important lesson we learned is that in Egypt, building codes are not seen as the province of EOS. They are currently drafted and maintained by the Building Research Centre and there seemed to be an implied scepticism that EOS should have been involved at all in the organization of the event.

In the conference, we were explicitly trying to promote the New Approach concept, with light, requirements-based regulation supported by detailed industry-led voluntary standards. This obviously aroused concern about roles and responsibilities in Egypt and the message brought to the surface some internal political issues.

The only substantial industry feedback we received was from a single delegate who obviously felt strongly enough about the issues to draft a series of specific comments. These in turn suggested that there are serious internal issues to do with the consistency and clarity of existing regulations, codes and standards and the inadequacy of the current Egyptian enforcement regime. He did not report any significant industry interest in exporting Egyptian skills to the European Union and suggested that Egypt needed to resolve existing problems before moving to a new regulatory or standards regime.

Overall, the level of awareness about the Eurocodes themselves varied widely. In the conference, there were delegates that seemed to have relatively little understanding, but in the subsequent workshop there was a significant level of detailed knowledge.

Our proposal that Egypt be regarded as part of the Eastern Mediterranean Target Market did not seem to be supported by our meetings. Egypt is involved in ministerial level discussions on Arabic common codes with the Gulf countries as the main players, but Egypt seems to regard itself as a special case with a potentially leading role in much of Saharan and sub-Saharan Africa. We would recommend that further promotional activity in Egypt should be on a bilateral basis, rather than as part of a regional plan.

Eastern Europe: Russia and Ukraine

During the pilot phase, it became clear that developments in Russia and Ukraine have to be seen in the light of regional developments covering all the CIS countries. There is a programme to harmonize regulations in all the CIS countries to create a more integrated regional market and this is seen as more important than gaining access to the EU market. This is a positive development, because other CIS countries are even more committed to Eurocodes than Russia has been.

Russia

In our interim report, our AIDA analysis indicated that Russia was at the stage of Interest to Desire. This was confirmed by our meeting with Mr Malinin of ZEBRA, but in subsequent actions it became clear that Russia is now moved beyond that to the Action stage. Mr Pugachev of NOSTROY has been given a mandate to introduce Eurocodes into Russia according to an ambitious programme. This would be as part of a parallel process, in which existing Russian codes would also be updated with the intention that both Russian codes and Eurocodes would be deemed equally valid means of regulatory compliance. However, the position of NOSTROY and the relationship between his programme and the political level discussions taking place under the EU-Russia Regulatory Dialogue needs to be clarified.

We now propose that further activity in Russia should have three, consecutive elements. The first is in terms of technical cooperation and assistance to complete the identification of Nationally Determined Parameters and the drafting of National Annexes. Because of the size and climatic and geotechnical variety, a single National Annex for each Eurocode Part might not be sufficient to fully realise the potential of Eurocodes. This work ideally needs to be done quickly, to allow Mr Pugachev to meet his implementation programme. At the meeting in Ispra, it was agreed that Mr Pugachev would arrange for his proposals for technical cooperation to be tabled at the next EU-Russia Regulatory Dialogue meeting as this seemed the most appropriate forum for their consideration. The results of these discussions are unknown at the time of reporting.

Alongside this activity, there is clearly an urgent requirement for training of Russian designers and engineers. Mr Malinin may not have had a budget to permit training on normal commercial terms, but his association obviously has many members ready to undergo intensive training. His failure to take advantage of the TAIEX training already organized was disappointing.

Training of Russian designers and engineers will probably need additional funding from the European side.

In the informal meeting attended by Mr Haseltine and again in the St Petersburg conference, there was a clear difference of opinion amongst Russian designers and engineers. Some are very comfortable

with traditional methods of working and are protective of Russia's own history and distinctive contribution in the development of design codes, which in some instances have preceded Eurocodes. The fact that Russia had no involvement in the development of Eurocodes is clearly an issue for some people.

Although the primary focus should be on getting Eurocodes into the Russian regulatory framework through technical cooperation and in training, there is still some promotional work needed, with a specific focus on the advantages of Eurocodes for efficient design and the challenges faced by companies in acquiring Eurocode competency.

Ukraine

Our AIDA analysis identified Ukraine as being already at the Action stage and so was not considered to be a high priority and no pilot actions were envisaged. However, we received a request for a study visit with purposes that were directly relevant to the project and this visit was incorporated as an additional action.

Our AIDA analysis was confirmed by the study visit organized for Mr Barzylovych and Mrs Lugovets and further confirmed on 4th March 2011, when the President of the Ukraine signed a Law on the parallel use of National building codes and Eurocodes in the Ukraine, in line with the model now favoured in Russia.

The terms in which the study visit was requested, and the highly detailed nature of the questions for which answers were required, clearly indicate the desire for the implementation of Eurocodes to be the subject of a formal EU Technical Assistance Project and we would propose that this might be the most effective way to further the strategic objectives in the interim report.

This conclusion notwithstanding, the priority for Ukraine is for technical assistance to complete the writing of National Annexes and training for Ukrainian designers and engineers. At the meeting in Ispra, it was agreed that an EU Twinning project was probably the most appropriate mechanism for this activity.

Further promotional activity is not a significant requirement.

South Africa

Our AIDA analysis identified South Africa as already being at the Action stage and so not a high priority for further promotional activity. However, an opportunity arose to test our understanding in meetings with Johan Retief and Ron Watermeyer. What emerged from these meetings is that South Africa will retain a permissive approach to regulatory compliance but that the intention to employ Eurocode principles in South African standards is not in question. However, the debate has shifted to one of adaption versus adoption. Ron Watermeyer asserts that industry favours simple adoption as the quickest and most coherent approach, but that there are vested interests that favour adaptation as an interim measure. However, this is only the view of one man.

Jan Wium of Stellenbosch University confirmed that there is an agreement in principle to adopt rather than adapt, but that this will require a detailed investigation of each Eurocode to assess its suitability to South African conditions and practice.

It is understood from the different stakeholders we met that there is an interest in South Africa to more closely mirror the CEN committee structure.

Any purely promotional activity in South Africa should focus on this specific issue but its value must be doubtful.

Wider use of Eurocodes will also be facilitated by further training.

South East Asia

Again, there were no specific activities planned for this Target Market, but the Project team took advantage to participate in a study visit to understand more about the situation in Vietnam, which confirmed the AIDA evaluation that Vietnam was at the Action stage.

Vietnam

The recent study visit from Vietnam confirms that they have taken the decision in favour of Eurocodes (although they might not adopt all of them) and are also at the stage where technical assistance and training are taking precedence over further promotion. They have been requesting this for at least four years, but there is currently no mechanism, or commitment that will ensued that this happens.

Singapore is the regional leader and their endorsement I of Eurocodes is not in doubt, but they too are looking to Europe for further help.

The situation in Thailand and Malaysia has not been further explored.

India

India remains one of the most important of the target markets, but the situation remains as indicated in the Project Report. There is interest but no commitment at this stage. Because of India's role as a sub-contractor for European companies, it is likely that there will be some spread but widespread use will require further promotional activity. However, this is a market whose dynamics we do not yet understand with sufficient clarity. It is unfortunate that the CEN appointee did not stay in post long enough to allow any feedback on the best way to approach this market.

6.3.2 Promotional activity plan verification

In addition to updating our understanding of the Target markets, the pilot actions also gave additional insights into the conduct of the activities themselves.

Doha Conference

This was a well organized event, with a sufficient lead time to ensure that everything worked smoothly. However, this was important because the event was not free and delegates made a significant investment in fees and hotel accommodation.

It drew attendees from all parts of the region. The American and Saudi organisers clearly expected to have a clear agreement on the export of the Saudi Building Code to the other GCC countries. In this respect, they may have been disappointed that some of the smaller states and Emirates were reluctant to make that commitment. There remained an interest in Eurocodes.

This event raises the possibility that events in this region and in other target market might be arranged on a commercial (or at least on a cost-recovery basis).

Egypt conference and workshop

The value of having a contact based in-country was demonstrated by the assistance our contact was able to provide in making introductions and opening up the possibility of for promotional activity. This confirms our view that Eurocodes promotion should be an activity added to any future Technical Assistance projects that might be undertaken in any of the target countries. This would include the both a requirement to investigate local needs and intentions and to fund necessary technical assistance.

The event itself revealed certain problems that need to be addressed in any follow up actions.

Problems encountered:

Commitment of the host to a date

We relied very much on EOS to agree an appropriate date. Several dates were proposed, and speakers were contacted with a view to their availability, only for the date to be changed at a late stage. In the event we were not able to target the presentations or prepare the event as well as we would have wished. For example, there was not sufficient time to prepare all the presentations on a USB device for distribution with the delegate pack.

Intentions

Dr Barakat was clearly committed to closer alignment of Egyptian Regulation with those in Europe, but the construction sector may not be his top priority.

Delegates

We relied on EOS to get the right delegates for both the conference and the workshop, but were concerned that invitations were sent out late and that there was insufficient follow up to confirm their attendance. It would have been preferable to take on more of the organization and planning ourselves or to employ a local agency. We had specified our target audiences for the conference and the workshop, be it was not possible to ensure that they had actually been secured.

Language

While it is clear that many delegates had good English skills, there were clearly some that were not comfortable enough with their language skills to engage with the presenters in English. We were also conscious that our presenters were not all native English speakers and this may have presented additional difficulties for some delegates. Simultaneous translation would have assisted with this.

It would also have been preferable to have had time to prepare the presentations in Arabic to ensure that they were understood by all delegates and remained as an information resource to which they refer later. EOS had agreed that they would all be uploaded onto the EOS web site, but they would have had more value if they were not all in English.

Political understanding

In our dealings with EOS, we were able to use their good offices to introduce us to the Egyptian market, but we were not sufficiently aware of the political realities in Egypt: in particular, the leading role of the Building Research Centre in the development and maintenance of Egyptian codes and their sensitivity about EOS taking the lead in our promotional initiative. With better local knowledge at our disposal we would have invited the Building Research Centre to be co-sponsors of the event.

Interaction

There was less interaction between the presenters and the audience than we had hoped for. However, when it did occur at the end of the workshop, there was good feedback obtained. We now feel that there was probably too little time allocated for Q & A in the programmes for both days.

Presentations

- Confusion between standards and technical regulations
- Different set-up of building codes vs. regulations vs. standards

St Petersburg conference

In certain respects, the St Petersburg conference was more successful than the conference in Egypt. Again, we were able to use the contacts of an expert already located in Russia to initiate the event. He was then able to identify a local agency with specific expertise in conference organization in this field.

This agency was able to find a large number of potential invitees and to take steps to confirm their attendance. This would have been less important if the event had been a paying one. However, some delegates expressed their appreciation that it was a free event.

We were able to arrange for simultaneous translation and for the translation of presentations into Russian and this undoubtedly contributed to the success of the event. However, time constraints meant that we did not get the Russian presentations in time to translate them into English and the Project Team was not able to follow some of the debate as closely as we would have liked.

Time constraints also meant the logistics were a bit rushed and obtaining visas was a problem.

One of the best presentations was a detailed comparison between Eurocodes and existing Russian codes (SNIPS). This is an exercise that would be of great benefit in all target markets, but will require considerable advance preparation.

There was a much greater level of interaction than in Egypt, partly because the conference was held in the native language and partly because more time had been allocated for Q & A in the programme.

Holding the event in the second city was able to demonstrate that interest in Eurocodes exists outside the Capital and this is something that should be trialled in other target markets, especially in the larger countries, such as India.

One major advantage was that one of the Russian presenters had practical experience of using Eurocode 3 and his advocacy was probably more valuable than any of the arguments brought forward by the European presenters.

Presentations

Despite efforts to tailor the conferences and workshops to the target audience it was difficult to get the balance right.

Presenters were given a brief on the purpose of their presentations and specimen content, but sometimes found it difficult to tailor their knowledge and expertise to meet these requirements.

The conference in Egypt, in particular, brought to the fore a confusion that probably exists in other target countries about whether the Eurocodes are regulations or standards. We were trying to promote the New Approach as a model for how standards and regulations could work together but unable to substantiate this approach by reference to the actual situation in Europe because the exact regulatory status varies from country to country. This confusion also brought to the fore the issue that Eurocodes cannot be seen in isolation from product standards and execution standards and the role of design codes in the whole regulatory system of the target countries, including issues of enforcement and testing. This is something that needs to be addressed in future promotional activity.

The level of commitment and enthusiasm for using Eurocodes within the EU is also an issue on which we were not able to give a suitably clear and positive message.

Our pool of presenters was fairly limited. Although they are all recognised experts in their field they may not always have been the most effective people to promote the particular message we wished to convey. In particular, we felt that the experience of practising designers and engineers and of design companies in acquiring Eurocode competency and in employing Eurocodes in actual projects was lacking to some extent.

We also found that it is important to get good local participation so that the events become more of a dialogue. In the St Petersburg conference, there was a much more satisfactory balance between European and local presenters.

On the basis of these findings, we have developed some recommendations on the organization of events which we have added to the promotional toolbox set out as chapter 5.6 above.

Recommendation on the coordination of the strategy

The strategy would be best advanced by a project or group tasked with the implementation of action plans for the main target markets and should have sufficient resources to implement the campaigns. If such a group is not brought into being, the actions on the pilot phase will have few long-term benefits and might lead only to a sense of disappointment.

For those countries where adoption or adaptation is the preferred objective, there needs to be a framework for co-operation with CEN/TC 250.

Technical assistance in the preparation of NDPs and the publishing of National Annexes is the primary requirement.

There is also a need for training programmes for those countries where the decision has already been taken. In addition to training, such as the TAIEX event in Moscow 2010, there would be benefit in more intensive training and in the greater use of study visits, with on-site meetings with European practitioners. Future Technical Assistance projects in any of the target markets should contain a Eurocodes implementation component.

These activities should take priority over further purely promotional events.

The organization and coordination of these events would be part of the remit of this project team or group.

This group should be responsible to the European Commission and have the resources necessary to maintain the implementation process over a sufficiently protracted period. It is unrealistic to suppose that the stated objectives for the target markets can be achieved in less than 5 years. The justification for an investment by the Commission in such a group will be dependent on a commitment by Member States to the objective of the wider promotion of Eurocodes. On the basis of discussions during the Evaluation and Validation Workshop, it is not yet clear that the priorities of Member States are such as to give a clear mandate for the Commission to proceed on the basis of this recommendation.

In the Gulf region, particularly, there should be political level contacts to maintain the current regulatory permissiveness in most countries of the region. This should be through the European Commission and be of a similar kind to EU-Russia Regulatory Dialogue. This action would be outside the remit of the implementation group.

Outstanding issues – comparison with other codes

Numerous stakeholders were interested in better understanding the differences and similarities between Eurocodes and other codes, such as the American building codes, as well as understanding the economic advantages of using Eurocodes. For these reasons, we would recommend the preparation of a **comparative study to demonstrate the equivalence with other major codes** and where possible, the related economic impact.

Outstanding issues – translations and copyright

There was a clear desire, especially in Eastern Europe, for closer formal liaison with CEN and with CEN/TC 250, in particular. Existing structures, such as Affiliate Membership and Partner Standardization Body status were not considered appropriate to this need, especially in those countries where the preparation and maintenance of construction codes is not in the remit of the local National Standards Body (e.g. in Egypt, the Russian Federation and Ukraine). CEN should be urged to consider more flexible forms of liaison with relevant bodies in the target markets.

In a number of countries, there has been a significant level of informal translation of Eurocodes by interested parties. While this is desirable for the promotion of Eurocode use, this translation activity is uncoordinated, the accuracy of the translations is unverified and often the translations are unauthorised and their distribution is not in accordance with any CEN policy. This is not an issue that the Project Team wished to take up with any of its contacts, but it is one that will undoubtedly concern CEN and its members.

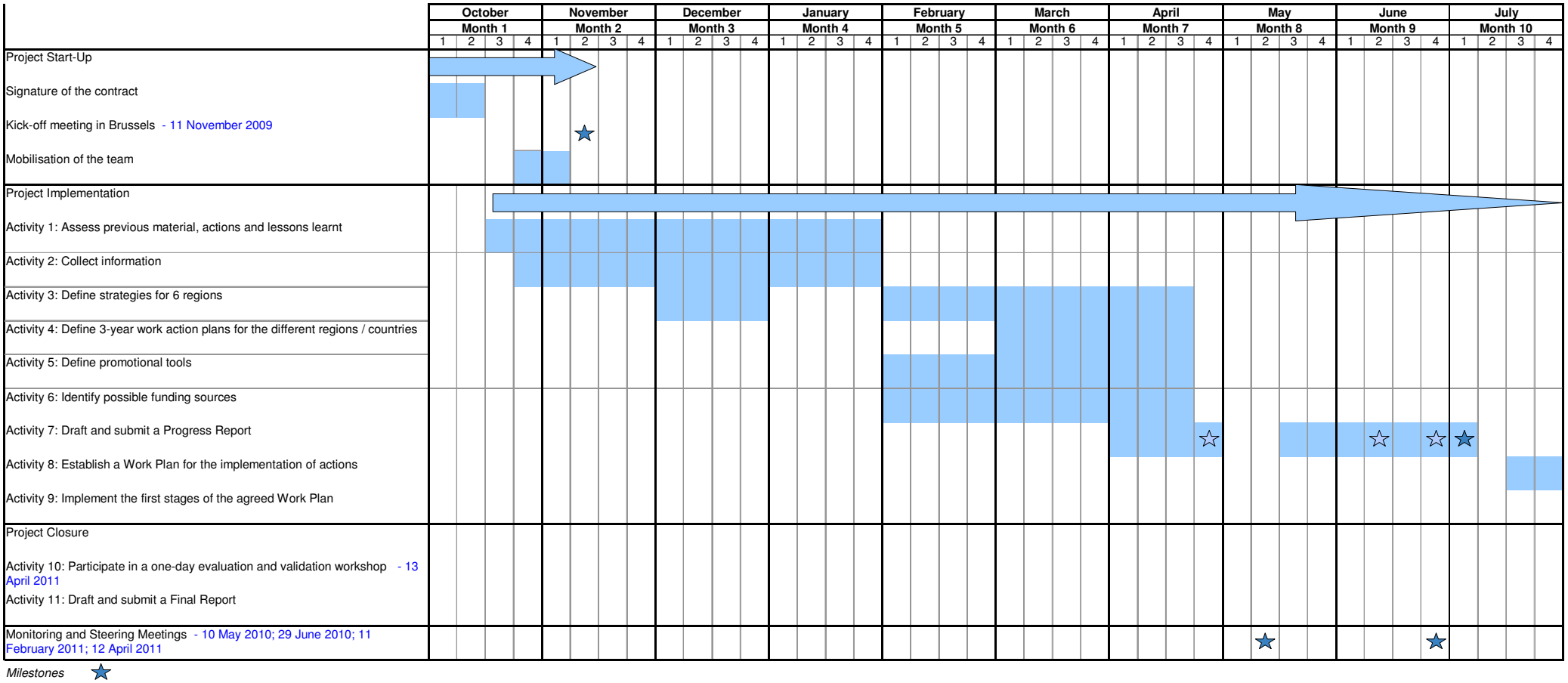
One of the tasks of the recommended new implementation group Team would be to open discussions with CEN CCMC to resolve these outstanding issues.

Section 7: Time Plan

The Time Plan provides information on the timing, sequence and duration of the proposed activities, taking into account mobilisation time. In addition, it also identifies the major milestones in execution of the contract and their timing, including an indication of how the achievement of these will be reflected in reports.

The Time Plan as submitted in the Proposal has been adjusted to reflect the implementation of activities throughout the project duration and the contract extension.

The contract was extended by 2 months until 05 June 2011 to enable the project team to present the project findings at the ENC meeting on 13 April 2011 and at the CEN/TC 250 plenary meeting on 26-27 May 2011. This extension also allowed for all the pilot and additional actions to be delivered during the life of the project.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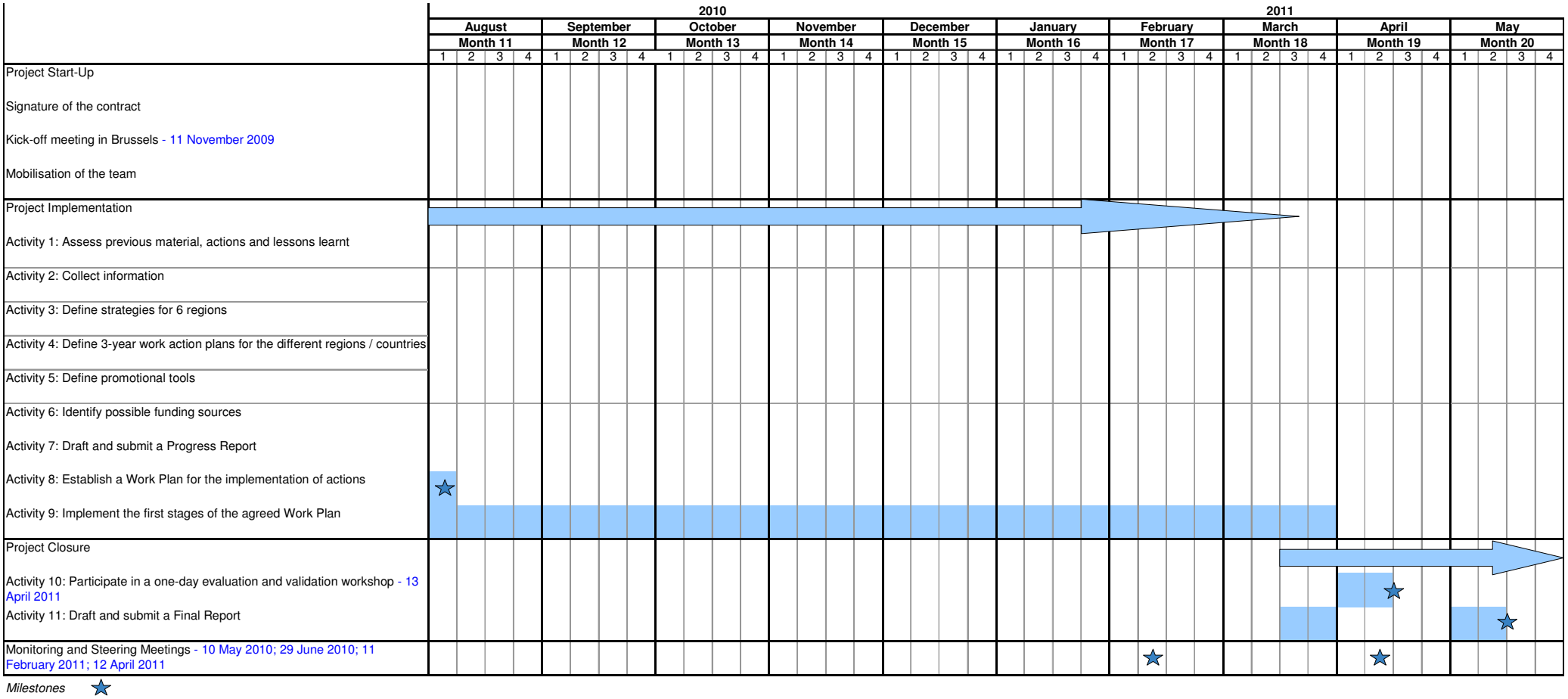
Project Start-Up
Signature of the contract
Kick-off meeting in Brussels - 11 November 2009
Mobilisation of the team
Project Implementation
Activity 1: Assess previous material, actions and lessons learnt
Activity 2: Collect information
Activity 3: Define strategies for 6 regions
Activity 4: Define 3-year work action plans for the different regions / countries
Activity 5: Define promotional tools
Activity 6: Identify possible funding sources
Activity 7: Draft and submit a Progress Report
Activity 8: Establish a Work Plan for the implementation of actions
Activity 9: Implement the first stages of the agreed Work Plan
Project Closure
Activity 10: Participate in a one-day evaluation and validation workshop - 13 April 2011
Activity 11: Draft and submit a Final Report
Monitoring and Steering Meetings - 10 May 2010; 29 June 2010; 11 February 2011; 12 April 2011
Milestones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