Growing the Market for Steel in Construction
An initiative of leading steel companies managed by the International Iron and Steel Institute

Programme Overview

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About the Programme
A worldwide consortium to grow the market for steel in construction is being launched in February 2005 with the International Iron and Steel Institute (IISI) providing the project management. It is a five year programme with an anticipated total budget of €14.25 million. The initial participating companies include Mittal Steel, Arcelor, Posco, Corus, IMIDRO, BlueScope Steel, Tata Steel, Ruukki, CELSA, Erdemir, and Ispat Industries.

The goal of the programme is to stimulate growth of up to 10% in the use of steel in construction by 2010. This increase represents an estimate 27 million tonnes of finished steel consumption compared to 2002, or with a margin of €10/tonne, a profit value of €270 million per year. The goal will be achieved primarily through a focus on growing the market in residential construction.

Objectives
The specific objectives of the project are to:

(1) Improve understanding of the market for construction including how and where steel is used through substantive research and gathering of data,
(2) Identify best practice approaches to market growth and provide tools and processes to help participants grow their markets,
(3) Demonstrate how best practice and innovation can be combined to break local paradigms in housing construction, and
(4) Increase the demand for steel by raising its image as a sustainable construction material and show the steel industry as an attractive investment.

Opportunity
It is estimated that worldwide consumption of finished steel used in construction was 275 million tonnes in 2002. This equates to 44 kg per capita. Increasing world consumption of steel in construction would have a dramatic effect on profit margin for those companies positioned to serve the market.

A review of examples of best practice indicates an opportunity to increase the use of steel in construction. In particular the satisfaction of the universal need for housing presents an attractive opportunity for the steel industry, as it is a large market with generally low penetration by steel. Increasing steel intensity to an identified practice of 30 kg/m², and estimating world demand for new housing due to a growing population at 45,000 per day with an average size of 100 m², would create a potential demand for steel in the order of 50 million tonnes per year.

Benefits of Participation
By delivering the objectives participants will gain:

(1) Knowledge and tools that will allow them to create additional value through increased sales and margins in existing and new construction markets,
(2) Access to market development processes, techniques and tools to build the capability to address construction market development opportunities, and
(3) By working collaboratively, the participating companies will be able to leverage an improved image as providers of construction solutions that meet changing market needs for economically, environmentally and socially preferred housing.

Method
The programme is divided into 3 main work elements, each operating in parallel.
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The first stage is based on extensive market research, providing companies with an efficient way to access best available information on markets and construction technology solutions.

The second stage focuses on the deployment of the research using knowledge management approaches to build market development capability for participating organisations.

The third stage is centred on an international competition for architects, allowing companies to benefit from construction solutions using current and innovative design and building processes, followed by building the winning entries. These building demonstrations will be coupled with significant international events to increase the visibility while the programme deliverables may be leveraged by companies in their local markets.

The project will be designed to create value for the participating companies and provide them with a differentiated advantage. A full-time project team of 3 to 5 people will be retained to manage the work while representatives of the programme participants will join in conducting the work.

**Advantage of a Global Approach**

Construction is the largest market supplied by the steel industry, but the market is characterised by many regional and local differences. However, the underlying drivers appear to be global. There is an undisputed shortage of housing that is fit for purpose in nearly all countries, be they developed or developing. The need to address the shortage quickly, cost effectively, and in a way that does not diminish the world’s natural resources is increasing.

The work done in the scoping phase of this project demonstrated there are pockets of best practice covering all types of construction amongst the IISI members, but that no region has fully exploited the contribution steel can make to improved construction. A global project run under the auspices of IISI offers the participants the opportunity to learn from best practice. By transferring existing best practices between markets the participating companies will be able to grow their position and create additional value for themselves and their stakeholders.

The scoping team engaged the internationally respected architects Grimshaw and Partners in concept development (Figure 1). They have demonstrated that current practices and technology, coupled with innovative approaches, can lead to steel intensive housing with a sustainable advantage.

A survey by Davis Langdon Consultancy also shows that architectural firms are no longer just local, but national, regional and even international. The survey showed that while steel may not be the incumbent material for housing construction in many large markets, it is perceived as being the most sustainable material available.

This project presents an opportunity to collaborate globally to combine existing best practice with collaboration between regions and disciplines to create the broadest possible base of knowledge. Participating companies can enhance the value of their market development activities regionally and locally and so create additional value for themselves and stakeholders.
Organisational Structure
A conceptual view of the organisational structure is provided in Figure 2.

The programme is run by the Steering Group. Each Full Member may appoint a representative to the Steering Group, with each company having one vote. Project Groups are formed to manage and globally coordinate the three main programme elements: market research, knowledge management and competition & demonstration. Regional Teams are formed to conduct the programme in those locations agreed by the Steering Group. The World Steel Construction Council is a forum for bringing all programme participants together to share the latest developments of the programme and to provide a significant networking opportunity to help grow the use of steel in construction. IISI provides the programme management.

Who Should Participate
This programme will be of interest to organisations that will benefit from the increased use of steel in construction. These organisations include those:

- Producing steel for construction, including flat, long and stainless products,
- Steel industry suppliers such as iron ore, coal, zinc and paint companies,
- Rollers, fabricators, distributors, designers and builders that use steel,
- Trade associations that coordinate market development activities,
- Government agencies and non-governmental organisations interested in providing safe, affordable and sustainable housing solutions that improve community well being.

Companies would be more suited to participating as Full or Associate Members or Sponsors, while trade associations, government agencies and non-governmental organisations would likely be best served by participating as Supporting Members or Sponsors.
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How to Participate
The programme seeks to attract organisations interested in supporting the growth of steel use in the construction market. Three levels of membership are offered: Full Member, Associate Member and Supporting Member.

Full Member
- Full rights to any developed intellectual property
- Access and rights to use all programme outcomes and deliverables
- Appoint a representative to the Steering Group
- May appoint representatives to the Project Groups and/or Regional Teams
- Participation in the World Steel Construction Council
- Use of the programme brand identity
- Pay an annual participation fee based on total revenue, within a range of €50,000 to €300,000

Figure 2. Matrix organisational structure.
Associate Member
- Rights to use any developed intellectual property
- Access and rights to use all programme outcomes and deliverables
- May appoint representatives to the Project Groups and/or Regional Teams
- Participation in the World Steel Construction Council
- Use of the programme brand identity
- Pay an annual participation fee based on total revenue, within a range of €5,000 to €150,000

Supporting Member
- Participation in the World Steel Construction Council and other meetings as may be agreed by the Steering Group
- Use of the programme brand identity
- No annual participation fee

An additional opportunity to participate in the programme is to become a sponsor of the international architecture competition and building demonstration projects.

Sponsor
- Association of the sponsor with the competition and demonstration building including rights to use programme identity
- Promotion of the sponsor through the programme communication materials
- Demonstrated use of the sponsor’s products and services if appropriate
- Pay a sponsorship fee or provide contribution in kind as negotiated

About IISI
IISI was founded in 1967. It is a non-profit research organisation with headquarters in Brussels, Belgium. IISI is one of the largest and most dynamic industry associations and serves as a world forum for the international steel industry. IISI currently has a membership of more than 115 steel producing companies and over 60 national and regional steel federations and steel research organisations. The members come from more than 50 countries and the countries in which the companies are located account for over 95% of total world steel production. Nearly all the world’s major steel producers are members of the Institute.

More Information
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