BUSINESS PLAN

CEN/TC 395
Engineering Consultancy Services

EXECUTIVE SUMMARY

Within Europe, barriers to cross-border trade are being broken down. Measures are taken at the EU and national levels to facilitate the provision of services in other Member States and to remove obstacles for professionals to work in other countries of the European Union.
The "**Directive 2006/123/EC** of 12 December 2006 on services in the internal market" encourage the development of voluntary European standards with the aim of facilitating compatibility between services supplied by providers in different Member States, information to the recipient and the quality of service provision.
Within this context AFNOR has undertaken a study on the **"**Feasibility and opportunity to develop a standardisation work programme concerning **Engineering consultancy services**".
The study covers consultancy engineering services that apply to:

- Infrastructures and networks
- Buildings
- Industrial units
- Consulting and engineering in industrial technologies mainly present in the following sectors: automotive, aerospace, energy, mechanical, transport etc

The study concluded that standardization was an adapted solution to answer the needs of the engineering consultancy sector identified during the study.

There are many differences in the way engineering services are delivered, and regulated, from one EU country to another. There are also differences in practices, depending on the projects, sectors, clients and actors.

Standardisation could contribute:

- to limit misunderstandings when working abroad for foreign clients;
- to improve quality and safety for end-users and clients;
- to facilitate trans-border activities and transfer of human resources;
- to improve the visibility of the added value provided by the engineering consultancy firms to the clients and to have a better visibility of the services offered to the client.

Standardisation could provide the following benefits **:**

- a clarity in the definition of the scope of services
- a common recognition of the obligations and liabilities of each discipline within the project, which would reduce potential misunderstandings and conflict
- an increased protection for the client

The objective of CEN/TC 395 is to elaborate European standards on "Engineering Consultancy Services" that apply to the services for building, infrastructure and industrial units and industrial products. CEN/TC 395 will focus on developing European standards on terminology in order to answer to the first needs identified during the feasibility study.
After finalizing the terminology work a survey will be made to assess the need for further standardization work in the field of engineering consultancy services.

1 BUSINESS ENVIRONMENT OF THE CEN/TC

1.1 Description of the Business Environment

The following political, economic, technical, regulatory, legal, societal and/or international dynamics describe the business environment of the industry sector, products, materials, disciplines or practices related to the scope of this CEN/TC, and they may significantly influence how the relevant standards development processes are conducted and the content of the resulting standards:

Policy environment

Within Europe, barriers to cross-border trade are being broken down. Measures are taken at the EU and national levels to facilitate the provision of services in other Member States and to remove obstacles for professionals to work in other countries of the European Union. The goal is to provide a "level playing field" in which businesses can compete openly and fairly and in which clients and consumers enjoy increased choice, quality and protection.

The "Directive 2006/123/EC of 12 December 2006 on services in the internal market" establishes general provisions facilitating the exercise of the freedom of establishment for service providers and the free movement of services, while maintaining a high quality of services.

This Directive shall apply to services supplied by providers established in a Member State.

Article 26 5: Member States, in cooperation with the Commission, shall encourage the development of voluntary European standards with the aim of facilitating compatibility between services supplied by providers in different Member States, information to the recipient and the quality of service provision.

CEN Feasibility study realised for the European Commission (Mandate M/371)

Within this context AFNOR supported by the European Federation of Engineering Consultancy Associations (EFCA) and Syntec Ingénierie (France) has undertaken a study on the "Feasibility and opportunity to develop a standardisation work programme concerning Engineering consultancy services".

The aim was to make an inventory of what exists today in different countries in order to evaluate the opportunity and the feasibility to harmonise the best practices and to describe services commitments related to the Engineering Consultancy Services, in the view of a European standardisation approach. The study concluded that standardization was an adapted solution to answer the needs of the engineering consultancy sector identified during the study.

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Services are crucial to the European Internal Market. They are in all sectors, accounting for between 60 and 70% of economic activity in the 27 European Union Member States, and a similar (and rising) proportion of overall employment. This underscores the economic importance of services in the European Union.

Engineering services are technical and managerial, comprising a number of complex skills, and interaction with other professions (consultants, clients and contractors) in the design and construction process. For a project to run smoothly, it is fundamental that the role, scope and liabilities of each player are clearly defined, for each phase of the project.

The consulting engineering business is, largely due to European regulations concerning tendering, becoming more and more an international business. One of the most important preconditions for participation of national consulting engineering firms in international tenders is a common understanding of the content of the work to be done. The use of standard definitions of work packages could avoid misunderstandings and lower transaction costs (or avoid unnecessary costs) for both clients and consulting engineering firms.

There are many differences in the way engineering services are delivered, and regulated, from one EU country to another. There are also differences in practices, depending on the projects, sectors, clients and actors.
At the same time, the number of trans-national partnerships is increasing, project delivery timeframes are shortening, and new forms of contracts are gaining in popularity. Globalisation brings new opportunities on the international markets, but also new competitors closer to home.
The situation today is that the market is quite fragmented, with some major obstacles and challenges facing companies with ambitions to extend their activities across national borders.

1.2 Quantitative Indicators of the Business Environment

The following list of quantitative indicators describes the business environment in order to provide adequate information to support actions of the CEN /TC:

Within the sector of building, infrastructure and industrial units, the industry employs a staff of about 1 million (highly qualified jobs) and generates an annual turnover of more than 100 billions Euros. Half of the companies ranked in the world's top 40 Consulting engineering and architectural groups are European.
For the same group of countries, the basic engineering investments are estimated at 1 600 billions Euros. Exports represent some 28% of production. *(EFCA sources)*

The average size of the Engineering consultancies varies considerably from one country to another, but is generally small: for example, in Denmark, France and Sweden most of the enterprises (more than 90%) have less than 10 employees.

However, international trade in construction design and contracting services, although amounting to some Billions of Euros, is small compared with the total turnover of the sector. Construction is predominantly a national, regional or very local activity; SMEs dominate the sector and the vast majority of construction firms are in competition only with firms in their own locality or at the most in their own country.

Within the sector of Industry (Industrial product), during the last twenty years, a new sector of Engineering consultancy has emerged in Europe.
Manufacturing industries have developed the use of assistance and services for Concept definition, Design, Industrialisation studies of industrial products.
Increasing outsourcing of these services has been observed since 1990 in the automotive, aerospace and in some other manufacturing industries in many countries like: UK, Germany, France, Italy and Spain.
It represents today an employment equivalent to the Engineering consultancy for construction.

The particularity of this sector is the presence of major firms and small and medium-sized companies.

The major clients of Engineering consultancy services for industrial production are: *(2007 IDC Survey for Syntec-Ingénierie)*

- Automotive: 63 %
- Aerospace and defence: 61 %
- Energy: 60 %
- Mechanical industry: 57 %
- Transport, vehicles: 36 %
- Consumer electronics: 31 %

Evolution of the market

The forecasting study conducted in France by BIPE for Syntec-Ingénierie underscored the long lasting growth of the Engineering sector.

From 1999 to 2005, the average annual growth rate of the Engineering sector rose to 4,4 % in volume (7 % in value). The five-year forecasts, for the period 2008-2012, are positive and confirm this trend with an average annual growth rate in volume of 4,5 %.
Parallel to its economic development, Engineering is a sector that is durably buoyant from the standpoint of employment.
(Source :2007 BIPE study on the development of the engineering market for the 5 next years in France for Syntec-Ingénierie).

2 BENEFITS EXPECTED FROM THE WORK OF THE CEN/TC

Today there are differences in the way that engineering consultancy services are delivered, and regulated, from one EU country to another. At the same time, the number of trans-national partnerships is increasing, project delivery timeframes are shortening, and new forms of contracts are gaining in popularity.
All of these developments point to the need for some form of standardisation.

Standardisation could contribute:

- to limit misunderstandings when working abroad for foreign clients;
- to improve quality and safety for end-users and clients;
- to raise the image of the engineering consultancy profession;
- to favour the development of a European insurance market;
- to facilitate trans-border activities and transfer of human resources;
- to improve the visibility of the added value provided by the engineering consultancy firms to the clients and to have a better visibility of the services offered to the client;
- to harmonise the conditions of work and exercise of the profession within the European Union;
- to obtain a common recognition of the obligations and responsibilities of every participant in the project but not superseding national and European legislation

Standardisation could provide the following benefits :

- a clarity in the definition of the scope of services
- a common recognition of the obligations and liabilities of each discipline within the project, which would reduce potential misunderstandings and conflict
- an increased protection for the client
- an increased competitiveness for businesses, both at European and international level
- an increased visibility of the added value that engineering consultants bring to the society

3 PARTICIPATION IN THE CEN/TC

All the CEN national members are entitled to nominate delegates to CEN Technical Committees and experts to Working Groups, ensuring a balance of all interested parties. Participation as observers of recognized European or international organizations is also possible under certain conditions. To participate in the activities of this CEN/TC, please contact the national standards organization in your country.

Many categories of stakeholders intervene in Engineering consultancy activities.
Depending on the sector, the clients, the public or private market, they are organised with some particularities. The weight of some actors can have a considerable influence on how the services are delivered in the country.
Sector of building, infrastructure and industrial units: Engineering Consultancy Firms, Public clients, Private clients, Firms (contractors), Public authority, Insurance, Professional order chambers (Architects, Civil Engineers, Consultancy), Control organisation
Sector of industrial products: Engineering Consultancy Firms, Industrials (automotive, aerospace… sectors), Sub contractors, Public authority, Insurance, Technical Control organisations, Equipment manufacturers

European and international organisms can also contribute to the activities of CEN/TC 395 as for example :

- EFCA : European Federation of Engineering Consultancy Associations
- ACE : Architects' council of Europe
- FEACO : European Federation of management Counsulting Associations
- FIEC : European Construction Industry Federation
- CEPMC : Council of European Producers of Materials for Construction
- NORMAPME : European Office of Crafts, Trades and Small and Medium-sized Enterprises for Standardisation

4 OBJECTIVES OF THE CEN/TC AND STRATEGIES FOR THEIR ACHIEVEMENT

4.1 Defined objectives of the CEN/TC

The objective of CEN/TC 395 is to elaborate European standards on "Engineering consultancy services" that apply to the sectors of buildings , infrastructure, industrial units and industrial products.
There is no intention to harmonise Engineering services.

In a first stage CEN/TC 395 will focus on developing European standards on terminology in order to answer to the first needs identified during the feasibility study.
CEN/TC 395 aims at executing the standardisation work programme taking into account the target dates mentioned in the programme for each standard or other document. When preparing the standards, CEN/TC 395 will take account of the technical specifications, standards and regulations currently available or being prepared in the sector at the international and European levels. CEN/TC 395 shall avoid any duplication of work.

The elaboration of such standards will take into account some recommendations either identified during the study (ex : blocking points) and emerged from the comments received during the enquiry related to the creation of the CEN/TC 395 as for example the large presence of national regulations.

4.2 Identified strategies to achieve the CEN/TC.s defined objectives.

CEN/TC 395 has decided during its first meeting the creation of 2 working groups .

- **WG 1** : Standardisation of terminology for ECS for building, infrastructure and industrial units
- **WG 2** : Standardisation of terminology for ECS for industrial products

CEN/TC 395 has given a task to each working group and some recommendations for the elaboration of the draft standards in order to take into account the comments sent by the national standardization body and the specific comments from the construction sector.

4.3 Environmental aspects

Every product has an impact on the environment during all stages of its life-cycle, e.g. extraction of resources, acquisition of raw materials, production, distribution, use (application), reuse, end-of-life treatment, including final disposal. These impacts range from slight to significant; they can be short-term or long-term; and they occur at global, regional or local level.

Standards writers should consider the need to reduce risks to the environment taking into account the consequences and the likelihood of incidents and accidents. They should as much as possible take into account environmental aspects all along the design, execution, operation, dismantling and study the assessment of the environmental impact during these different stages. The following new business developments should be considered :

- Environmental impact engineering
- Handling climate change
- Energy Management (energy efficiency engineering)
- Disaster management
- Site rehabilitation

5 FACTORS AFFECTING COMPLETION AND IMPLEMENTATION OF THE CEN/TC WORK PROGRAMME

European standards are elaborated on the basis of the principle of openness. The participation of all interested parties is the key to achieve success
The project strongly depends on the cooperation of parties concerned. Projects will have the best chance of success if they are led as collaborative European initiatives. The CEN/TC and WGs should be led by persons who commands the respect of the other members without introducing any competitive element which will destroy the harmony needed to reach agreement.
The establishment of mirror committees in the CEN-member states is essential. A European representation is necessary to have a European standard of good quality.
CEN/TC 395 has to focus on its scope and should be aware of the work done by other CEN /TC.
The notion of service should be the guiding principle for working on standards.