

# IS 98025 - INTEC

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## Introduction of

## Information and Communication Technologies in the Construction Sector

### Context

The European construction sector is of major importance to the European economy. The present situation of this sector is clearly marked by pressure for competitiveness and the strong need for transformation in the construction business. Rising costs for personnel and the globalisation of the markets are encountered by rising expectations for education standards and the use of innovative technologies. The most important factor for competitiveness is the introduction of modern and innovative technologies. Other sectors (i.e. the automotive sector) are in the process of successfully introducing information and communication technologies (ICT) to improve their efficiency in management as well as in the production process. There still is a strong deficit in the competent use of ICT (Internet, Intranet, Extranet => linking business with other business', customers and administration) in the construction sector, although the ICT-applications in the enterprises already exist.

By raising the awareness for the effective use of ICT in the construction sector, the competitiveness of European construction companies, especially small and medium sized enterprises can and will be strengthened.



### Objectives

The objectives of the INTEC-project were to raise awareness and to give practical information for the introduction of information and communication technologies in the construction sector. To achieve this aim the INTEC project addressed two target groups: on the one hand the decision makers in construction companies and on the other hand technical advisors working with the construction companies. Hereby a prevalent awareness for the use of ICT in SMEs was ensured.

The main tasks to ensure the success of the sectorial awareness raising campaign in the construction sector were the following:

- Raising awareness among the 4.500 construction companies in Rhineland-Palatinate.

- Elaboration of training modules and the organisation of two workshops.
- Publication of an ICT-guide which facilitates the access to ICT and points out best practice applications in various fields of the construction sector.
- Creation of a sectorial web-site which should become an interactive meeting place for construction related ICT.

### Process

In the first phase of the INTEC project, general promotion and identification actions have been developed. These actions were aimed at three major objectives:

- Identification of appropriate ICT-solutions for SMEs in the construction sector.
- Detecting the main reasons

which hinder SMEs to adopt new information technologies.

- Increasing awareness among the construction companies about the use of electronic business solutions.

One of the basic elements at this stage of project was the elaboration of an ICT-roadmap. The objective of the roadmap is to develop a scenario for ICT, adapted to the needs of the SMEs in the construction sector. The roadmap includes the development of ICT concerning entrepreneurial activities, processes, networks and integration concepts as well as an outlook on future ICT developments. On the basis of an overall market analysis on the use of ICT in construction the contents of training modules for the construction sector have been defined. Two training sessions were held in Mayance and Trier. The concept of the training was passed on to the Luxembourg Chamber of Crafts which organised an extra seminar. In order to bundle the activities in the field of ICT a web-site for the construction sector has been elaborated during the project. This web-site contains devices, applications and links to related websites. Another key element of the project is a guide for SMEs indicating possible ways of introducing ICT in the construction sector. This guide is currently translated into English and will be distributed to interested companies all over Europe.

## Results

The construction sector is marked by some specific characteristics which hinder the introduction of ICT:

- The high dominance of SMEs (more than 92% of the enterprises have less than 10 employees).
- The regional orientation (only the very big companies participate in international projects).

- The maintenance of traditional values (i.e. in management structures) and work processes.

During the project the INTEC consortium carried out a successful awareness raising campaign. Via the sectorial associations, the Chambers of Industry and Commerce and the Chambers of Crafts in Rhineland-Palatinate more than 4.500 enterprises have been contacted by press releases, direct mail shots and personal interviews. The general interest of construction companies in new ICT was high. More than 350 companies contacted the INTEC partners and asked for further information. However during the INTEC seminars it became obvious that only a few companies are actively planning to introduce ICT into their business processes. These companies are mainly construction companies working in the private sector which are interested to use the Internet for promotion purposes. Construction companies working in the public sector so far lack a real (i.e. cost relevant) incentive to adopt ICT. In order to stimulate these companies their clients (i.e. public authorities) have to impose slight pressure by gradually replacing traditional information and communication structures by new ICT. One example is the field of public procurement. So far calls for tenders are generally published in regional newspapers and tender bulletins. When public authorities start to publish the tenders online by using the advantages of modern ICT construction companies will react and adopt ICT.

## Impact and achievements

After having officially finished the INTEC project, the results will be distributed via various European networks (EIC, IRC, ISPO). But the project does not stop here. The project partners have agreed to continue the seminars on regional, national and European level as well as to

keep and to develop the projects website. The close collaboration with the Luxembourg Chamber of Crafts which has been developed during the project will be extended. Besides that, the INTEC project partners have participated in a call for projects issued by the German ministry of economics. The aim of this project is to introduce concrete model solutions in construction companies (i.e. elaboration of an Internet based databank for regional tenders with the possibility to hand in the bid online).

## Contact Details

### Project Name:

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### Project Partners:

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- Handwerkskammer Trier
- Baugewerbeverband Rheinhessen-Pfalz
- Universität Kaiserslautern – Lehrstuhl für Betriebsorganisation und Fertigungstechnik (FBK)
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