

Information system for small and medium enterprises

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Abstract

This paper describes structure of an information system and application within cooperation of Small and Medium Enterprises (SMEs). The main objective is to create the information system for the small and medium enterprises (ISSME), which allows to apply of the Internet tools and qualitative approach of manufacturing enterprises integration from various regions of EU to global economics. This system is based on the cooperation in VE (Virtual Enterprise), implementing dynamic requirements from the customers and research solutions between small and medium enterprises (SMEs).

INTRODUCTION

Development of communication industry together with increased amount of innovations and technological advance has emerged new methods that can significantly improve development of small and medium enterprises. The competitiveness of SME's is one of the main aspects of building up the industry. Small and medium enterprises primary focus on their production in a small range of products, they are more specialised however there are not able to successfully compete with large and multinational companies owning strong technical and personal basis. Therefore just strong and adaptable parts of SME's are able to reach the sufficient level of competitiveness. Together with the aim of SME's catch up with the new trends and with the aim to be an equal partner to large companies the new communication technologies have changed the way of communication between various companies. These new ways of communications are impacting the whole structure of company. Web IT influences technological, organisational and human resources linked to development and support of the whole life cycle management. Comprise the base for development informational system for small and medium enterprises.

Exploiting the advantages of Internet the informational system of small and medium enterprise is a base for communication. ISSME is oriented towards small and medium enterprises and creates a platform for establishment of cooperation bindings. These cooperation bindings allow SME's to work on such projects that a single SME is not able to perform. It establishes organisational and working groups that are independent from geographical locations.

INFORMATIONAL SYSTEM (ISSME)

The internet interface is the backbone of the information system. The information system is based on internet interface. It uses internet tools and is open to implement new internet technologies. Companies are able to enter the system through extranet and therefore are able to create cooperation links between companies. Cooperation nowadays is very important because a single company usually cannot cover all demands of customers. Cooperation is not concentrated only on a market of single state however permeate through state boundaries into other states, or spreading around the whole world. Therefore SME can compete with the multinational and large companies. Informational

system is an important step forward that improves the competitiveness of SME. Building of projects, cooperation and outsourcing are the important stones of achieving the competitiveness among cooperating companies. Getting into ISSME the company becomes one of the cooperating partners within extranet interconnection between companies. Company is able to create cooperation links between partners at higher communication level. Traditional ways of communication like phone, fax, e-mail are well known. Proposed informational system gives partners on-line communication internet tools. Companies entering the informational system through TCP/IP protocol can fill up the machines, tools, fixtures and service databases. These databases bearing information about facilities aimed for outsourcing. Collecting, processing and transmission of data are performed in a real time. ISSME process these data, classify them, and save them into databases for further processing. Companies can therefore create catalogues of machines, tools, fixtures, services, another facilities and free capacities aimed for web outsourcing. Selection of appropriate partner brings better resistance against rivals. ISSME can be also used when company does not have enough free capacities. ISSME gives information about companies offering their free capacities. Companies use outsourcing can react more flexible in changes and demands of market. When more companies get into cooperating linking's with more partners ISSME becomes the base for virtual enterprises.

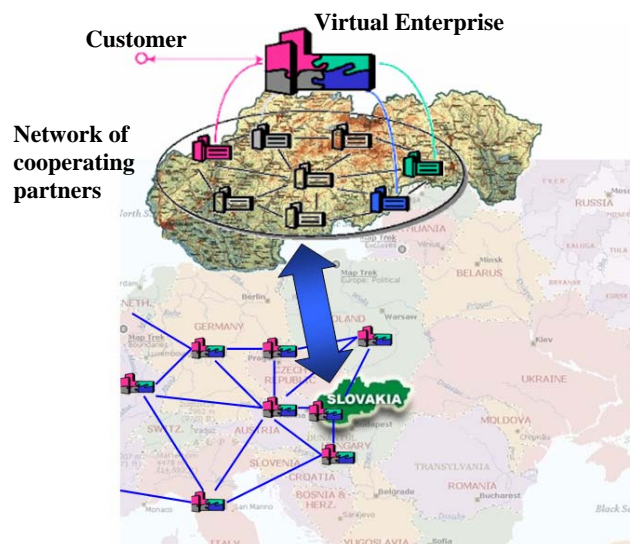


Fig. 1. The cooperation of the Small and Medium Enterprises SMEs within European Union.

The proposed ISSME is mainly designed for companies whose realize understand that some parts of problems can be solved through application of internet and for companies which:

- Does not use the Internet effective
- Communication with partners and customers is ineffective
- Looking for effective presentation of company through the Internet
- Looking for methods of putting themselves on the map
- Will create outsourcing through Internet tools

ISSME offers tools, which are nowadays parts of e-business, especially:

- Presentation of company through the Internet (dynamic, effective using the tools of the Internet)
- Registration system

- Searching system (partners, customers, subcontractors and etc.)
- Catalogues of services and products
- Communication with partners, customers and subcontractors
- Forums for registered users
- Outsourcing of machines, tools, working forces, etc.
- Contact information

ISSME offer companies opportunities to very efficient integrate and apply this system in short time. It improves and gives new tools for building up the cooperation bindings between various companies, searching for new partners, outsource services, offer product and services, and etc.

STRUCTURE OF THE INFORMATION SYSTEM

Structure of the information system is shown on the next picture.

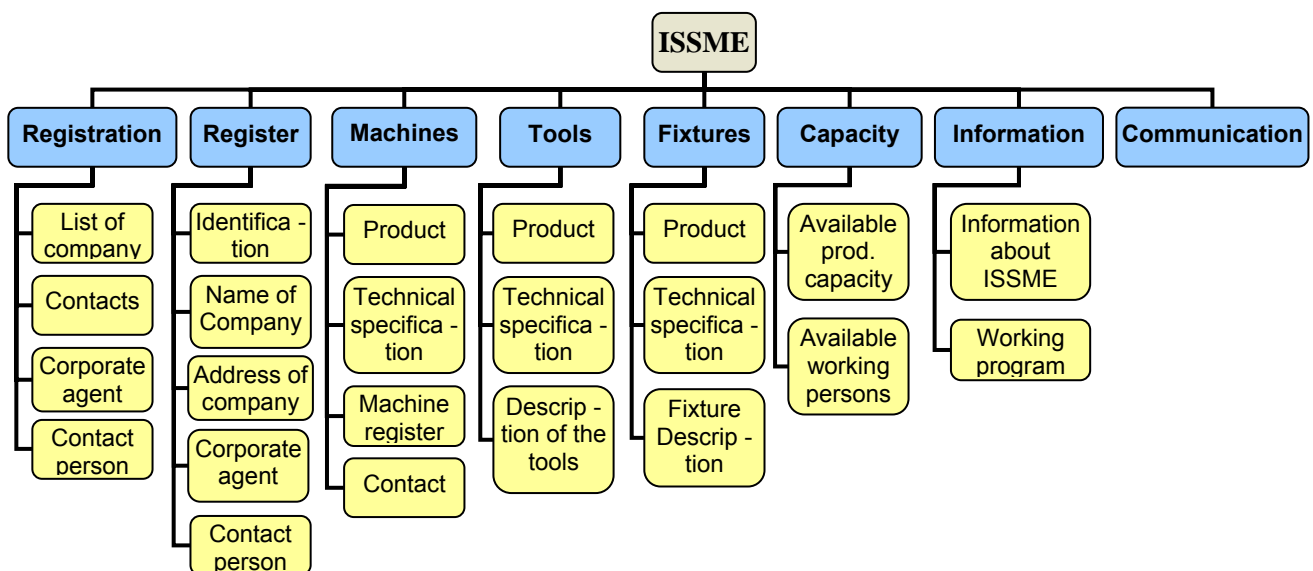


Fig. 2. Structure of information system for small and medium enterprises

Register: This module gives a list of SME's and their capabilities (*machine, tools, preparations and free capacity*).

Machine, tools and preparations modules have the same structure and give an overview about the products of the SMEs. Modules present the machine, tools and fixture categorization for the collaboration.

Capacity module gives information about free production capacities of the SMEs "outsourcing".

Information module gives information about developing ISSME and frameworks developers of the ISSME.

Module *Information:* gives information about the current development of ISSME, working groups of researchers developing the informational system.

Modules *Contact and Communication* are modules, which presents information about partner contacts and collaboration with SMEs.

CONCLUSION

The aim of this "ISSME project" is to create link with cooperation partners, effort to develop and advance long-term binding. The aim of ISSME is to improve the level of cooperation through all branches of industry using new communication tools. The Internet and the WEB force companies think about all living possibilities. ISSME gives new opportunities to look up, find and cooperate with partners. All these tasks can be done through the Internet. Small and medium enterprises can present themselves in the ISSME; they can choose new partners from databases and use very efficient Internet technologies. ISSME helps to improve innovational projects and to build working groups among geographically widespread partners.

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