

## A transnational network including actors from all the Footwear supply chain



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## 1. The company: About INESC Porto

INESC Porto is a legally independent, private, non-profit association, recognized as a public interest institution, appointed Associated Laboratory by the Ministry of Science and Higher Education.

INESC Porto has developed ShoeBiz for CTC “Portuguese Shoe Technological Centre” a system for electronic integration of SMEs in the Shoe Industry. Inside ShoeBiz the Shoecom data model was used which defines the format of the documents to be sent from one company to another.

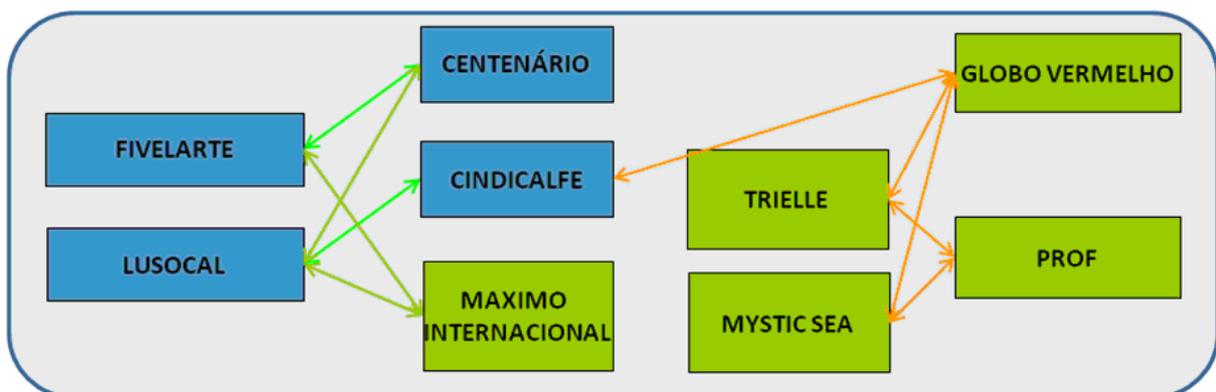
INESC Porto acted as the facilitator for the described action and it coordinated and monitored the related activities.

## 2. The context

The network extends over the whole footwear pipeline and includes shoemakers, shoes component manufacturers, wholesale shoe traders and retailers in Portugal and Spain.

Three shoemakers Cindicalfe (Indústria de Calçado), Centenário (Camilo Martins Ferreira&fillhos Ld) and Máximo Internacional exchange documents with two of their component suppliers: Lusocal (Artigos Para Calçado) and Fivelarte (Componentes Para Calçado).

On the downstream side, the two wholesalers, Maximo Internacional and Trielle Espanã (this one selling and buying footwear in both Spain and Portugal), exchange documents with both Globo Vermelho and Prof (Santos & Júnior), a retail company with 18 shops in Portugal, who import about 60% of footwear articles from Italy.



## 3. The objective

Many problems affected daily operations of these companies, related to the use of non interoperable systems (that are sometimes old systems, like fax or phone calls).

The objective of this action was the adoption of interoperable business architecture for the exchange of documents among the partners, so to produce:

- the replacement of old ineffective systems (fax, phone, etc.);
- the integration of electronic exchange of documents with company ERP without data re-typing;
- the lowering of error risks;
- the acceleration of the business procedures.

## 4. The decision making process

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In the last years Portuguese companies, and in particular those manufacturing and assembling shoes, introduced great changes in their production systems. They did it in order to face new challenges such as smaller orders and a greater mixed variety of shoe models. However, and despite these efforts, communication processes between small and medium sized footwear companies have not evolved so much. Fax and phone are the main communication channels, exchange of business information like catalogues, orders and delivery notes very informal and non uniform. Commitments are delayed, and deliveries happen very frequently.

According to the strategic roadmap specified for the Portuguese shoe Industry, it is imperative to promote the deployment of easy and cost effective communication methods between companies. This will allow companies, particularly SMEs, to exploit new business models, to increase the number of commercial transactions and to better deal with rapid-variations of customers' demand. Based on this framework, ShoeBiz was developed as a secure and Internet-based communication platform for B2B exchanges between SME. Within this context the Portuguese eBIZ-TCF pilot was developed in 2008, with the aim to promote the adoption of de facto standard communication methods, processes, documents and protocols and to enable SMEs to stay in business through the exploitation of new business models.

## 5. The solution

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The network is now based on the ShoeBIZ platform which has been adapted to comply with the eBIZ-TCF Reference Architecture. This platform is designed to support the secure exchange of standard business documents and has been made available by CTCP (Centro Tecnológico do Calçado de Portugal). It was developed by INESC Porto for CTCP in 2006.

The ICT supplier Oficina de Soluções, adapted their companies' ERP to interoperate with the ShoeBIZ platform and also provided the necessary training for the companies involved.

Documents exchanged between the shoe makers and the component suppliers are: order, order confirmation, order status, catalogue (including image).

Retailers, distributors and shoe producer exchange: shoe catalogues, orders, order confirmations, despatch advices.

## 6. The obstacles

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The major difficulties faced include the implementation of new business process for management of catalogues, the harmonization and formalisation of existing business processes with customers and suppliers and the elimination of the fax-oriented culture in the companies involved. Mapping of articles' references was also an important issue to deal with. For the ICT Company, management of the organizational and technical aspects of the project was the major difficulty.

## 7. Benefits

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The shoe makers and the component suppliers have increased dramatically the transfer of information from/to business partners and decreased the number of errors due to the manual reentry of data and due to communication misunderstandings with customers and suppliers (for example, lack of acknowledgments and wrong prices). More in details, before the eBIZ adoption their ordering processing framework was heavily based on phone/fax communication. The average percentage of error incurred by three companies' staff in order-processing was 15%. Early evidences of the eBIZ implementation mark a clear improvement which ranges between halving errors up to virtually no-errors (1% in the worst case).

Moreover eBIZ has allowed company to study the harmonization and formalization of communication with customers and suppliers.

From the ICT company involved in the program, eBIZ is expected to trigger the selling of B2B modules in the existing ERP solution and thus increase sales and the competitiveness of the company in the sector, since the developed solution can be replicated to most all the companies, with few implementation costs for the ICT provider. The data model and the B2B processes implemented are applicable to mostly all the companies in the footwear sector. Moreover the ICT Company has developed new B2B solutions that did not have and increased its know-how and expertise in the area of B2B.

This network has also established a link between the ShoeBIZ platform and the Shoenet platform in Spain, allowing companies registered in each platform to be accessible by its peers in the other platform enabling Company Profile data and shoe catalogues with prices to be exchanged between the two networks.

## 8. Lessons learnt

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ICT providers are key drivers for e-Business implementations, especially in small companies.

Statement by Mr. Carlos Carneiro, CEO of Oficina de Soluções:

“For an ICT provider eBIZ offers many advantages. With the eBIZ-TCF standard we can minimize the effort for integration processes between the companies, namely in the implementation in the field. Before that, in many small companies what prevented small companies to adopt EDI solutions was the high cost of mapping articles codes and document format between customers and suppliers, as each company wants to use their own.”



## 9. The future

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The link implemented between ShoeBIZ and Shoenet is opening up new opportunities for the extension of the network. In Portugal, the ICT supplier Oficina de Soluções is actively proposing eBIZ-TCF implementations to its customers in the footwear industry and CTCP is committed to extending the eBIZ-TCF compliant ShoeBIZ platform to other associated footwear companies.

INESC Porto reports that will propose the adoption of eBIZ to other companies in the Textile/Clothing/Footwear sector through the correspondent national associations. INESC Porto reported also the intention of creating cross-sector national projects through the direct involvement of relevant ICT companies in those sectors. For the automotive sector, the Facilitator collaborated in the specification of an eBIZ-like project for the European Community, where he will disseminate and potentiate the usage of eBIZ Reference Architecture.

## 10. To know more

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- [www.eBIZ-TCF.eu](http://www.eBIZ-TCF.eu)

## 11. Key Words

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SUPPLY CHAIN - NETWORKED SUPPLIERS - eBIZ-TCF - FOOTWEAR