eBIZ-TCF: An Initiative to Improve eAdoption in European Textile/Clothing and Footwear Industry

ICE 2009
Leiden, 22-24 June 2009

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A cooperation project called for by the European Commission to facilitate large scale adoption of e-business in the TCF Industries

- **Start**: January 2008
- **Duration**: 24 months
- **Budget**: 1.4 Mln €
- **Involvement**: >160 European organisations
Ultimate Objective
Create a favourable environment for the European Textile Clothing and Footwear industries that stimulates and enables the uptake of ICT and eBusiness Technologies

1) General architecture for eBusiness with highest possible compliance with existing European and international public standards for B2B transactions in the TCF sectors
2) Extensive pilots in all Europe to create best practices and to validate the architecture
3) Awareness creation
Project Partners

Textile & Clothing Industry
Footwear Industry
ICT & Textile expertise
Professionals Textile, Footwear and Retailing

>160 between Textile, Clothing & Footwear SMEs, large enterprises, retail companies, facilitators, ICT experts.

Standardisation body (CEN)
Project Methodology

Analysis
State of the art: degree of eAdoption
- Set of standard specifications of business documents and processes
- Indications about the ICT infrastructure

E-Business Architecture
- Architecture validity
- Large scale impact and best practices

Pilots

Awareness
- Creation of broad consensus
- European eBusiness Guide
Analysis: Level of eBusiness Adoption

- Large number of enterprises involved in some form of eBusiness particularly in Western and Central Europe BUT:
  - Small number of transactions
  - Small number of connections and functions
  - Limited to one or two large trading partners who “demand” use of their systems
higher level of adoption in “downstream” supply chain than “upstream”

- Highest levels of downstream systems in Western and Central Europe because of influence of large retailers
- Highest levels of upstream systems in Southern Europe where production is still relatively important
Analysis: Obstacles to eBusiness Adoption in TCF sectors

- Structure of sectors – many SMEs, few leaders
- Poor return on investment from existing solution – often at “demand” of large enterprise
- Lack of time, money, skilled personnel, particularly in SMEs
- Inconsistency in data content in different existing specifications: no de-facto standard
Project Methodology

- Analysis
  - Set of standard specifications of business documents and processes
  - Indications about the ICT infrastructure

- E-Business Architecture

- Pilots

- Awareness
Objectives of the architecture

➢ Definition of a **general architecture** for eBusiness in the two key areas of:
  - (a) production to retail relationship
  - (b) manufacturing networks

➢ The highest possible **compliance with existing European and International public standards** for B2B in the FTC sector.

➢ A business and technical reference for **pilots** implementation to achieve interoperability between existing systems and organisations.
Business level: Standards specifications

- Textile/Clothing industry
  - Sectorial upstream specifications
  - Sectorial downstream specifications
- Footwear industry
  - Sectorial upstream specifications
  - Common downstream specifications

Many specifications:
- CEN/ISSS
- Texweave
- Moda-ML
- CEN/ISSS
- FINEC
- SHOENET
- Many
- CEN/ISSS
- Texweave
- OASIS UBL
- GS1
Architecture: methodology

- Defined on three levels: business level, middleware level and communication level
- At each level: identified the standards specification to be used
- Business level: completely specified for certain business processes
- Middleware level and Communication level: only indications (need further work on ICT architecture and standard profiling).
Architecture: business level

- Supply chain: set of business processes
- Business process: set of activities
- Activity: sequence of one-way document exchange transactions
- Transaction: triple (sender, doc, receiver)
- Document: data model (syntax-independent)
- Document implementation (reference to standard specifications implementing the data model).
Downstream: standards

- 3 processes (cyclic replenishment, preorder, VMI), 17 Documents
- XML Schemes: WWS profile; CEN/TEXWEAVE; CecMadeShow project
- UBL use profiles: Mapping between abstract level of Document Models into UBL syntax
  - 17 use-profiles for UBL documents has been produced (sector specific)
  - 4 proposal of UBL template submitted to OASIS UBL TC
  - In progress: definition of UBL schemes for the T/C sector
- GS1 XML template: compatibility; no TCF use-profiles defined.
Processes: 8

- Supply: yarn, fabric, garment-accessories
- On-line stock service

Documents: 64

Specifications: CEN/TexWeave, MODA-ML
Footwear Upstream

- Processes: 1 (component supply)
- Documents: 17
- Specifications: CEN/Efnet; Shownet
Definition of the reference product classification

- Needed for product catalogues (mainly downstream)

- Recognition of possible classification systems:
  - There is an existing GS1 GPC system for footwear and T/C, problems with stakeholders.
  - Meeting with specialists are running to get inputs.
  - There are national classifications:
    - DTB and EAS, probably converging, Germany
    - GENCODE/IFTH in France

- Guide lines to adopt them
  - GPC as a global reference but with mapping with local classifications
Project Methodology

Analysis

E-Business Architecture

- Architecture validity
- Large scale impact and best practices

Pilots

Awareness
What are the pilots

- Groups of companies to:
  - Test the validity of proposed architecture
  - Test interoperability of different systems
  - Create the base for large scale adoption and best practices

- Organised into two phases:
  - 1\textsuperscript{st} phase: 4 pilots, July-October 2008
  - 2\textsuperscript{nd} phase: 13 pilots, January-August 2009
PILOTS, the beginning...

- 4 Small clusters, facilitators supporting industries
- More than 40 companies initially involved from 10 countries ...

(Initial) countries:
- Bulgaria
- Czech Republic
- Croatia
- France
- Germany
- Italy
- Netherlands
- Portugal
- Romania
- Spain
On July 2008 a public Call for ‘Expression of Interest’

- 21 proposals were submitted;
- 13 pilots, from 20 countries; 4 follow up from 4 phase, 4 scheduled for the second phase, 5 new selected;
- More than 130 organisations directly involved, 25 IT suppliers
- Further 200 as first follow-up
Key Pilot Actors

- 1 facilitator (coordinating the whole pilot, subcontractor of the eBiz consortium)
- 1 or several producers
- 1 or several retailers (only in downstream pilots)
- 1 or several IT providers
# Pilots 1st phase: Overview

<table>
<thead>
<tr>
<th>Name</th>
<th>Facilitator</th>
<th>Countries</th>
<th>Nº service providers</th>
<th>Nº end users</th>
<th>T/C or F</th>
<th>Upstream or Downstream</th>
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</thead>
<tbody>
<tr>
<td>PT 1</td>
<td>Footwear INESC Porto, Portugal</td>
<td>PT</td>
<td>1</td>
<td>4</td>
<td>F</td>
<td>Both</td>
</tr>
<tr>
<td>2 Scriba Net</td>
<td>Scriba Net, Italy IT, ES, UK</td>
<td></td>
<td>1</td>
<td>6</td>
<td>T/C</td>
<td>D</td>
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<tr>
<td>3 ES pilot</td>
<td>INESCOP, Spain ES</td>
<td></td>
<td>1</td>
<td>5</td>
<td>F</td>
<td>U</td>
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<tr>
<td>4 TQR</td>
<td>TQR Consortium, Italy IT</td>
<td></td>
<td>1</td>
<td>5</td>
<td>T/C</td>
<td>U</td>
</tr>
</tbody>
</table>

4 Pilots | 4 | 20
Pilots 1st phase: Results

- Validity and improvement of the architecture
  - No major technical problems reported for the upstream supply chains
  - No major technical problems for the document exchanges in the downstream parts
  - Some countries reluctant in using GS1 product identification systems
  - Major problems with Global Product Classification
  - Requirements for additional documents
  - Requirements for the middleware architecture: web services

- Demonstrating interoperability
  - Between eBiz architecture and companies ERPs/RMSs (Problems with product classification, product identification, location identification)
  - Between eBiz and other doc. exchange systems: Shoebiz, Shoenet, Scribanet proprietary platform.
Pilots 1\textsuperscript{st} phase: Results (2)

- **Uptake and potential impact**
  - More than 1000 el. messages exchanged per month in the Spanish and Italian pilots
  - Set-up phase for the other two pilots (low data exchanges).
  - Market interest: more than 135 companies directly involved in the second phase pilots; expected immediate propagation to more than 300 companies.
## Pilots 2nd phase: overview

<table>
<thead>
<tr>
<th>Name</th>
<th>Facilitator</th>
<th>Countries</th>
<th>N° service providers</th>
<th>N° end users</th>
<th>T/C or F</th>
<th>Upstream or Downstream</th>
<th>Budget</th>
<th>Notes</th>
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<td>1 IHC</td>
<td>Textile&amp;Sewing Institute, Bulgaria</td>
<td>BG, AT, FR</td>
<td>1</td>
<td>3</td>
<td>T/C</td>
<td>D</td>
<td>47</td>
<td>Call for EOI; merged from 2 proposals</td>
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<td>2 Gorski</td>
<td>Assoc. Fashion Retailers, Finland</td>
<td>FI, EE</td>
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<td>D</td>
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<tr>
<td>3 Alpina</td>
<td>Siller A.G. Germany</td>
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<td>6</td>
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<td>D</td>
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<tr>
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<td>HU GR NL</td>
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<td>9 (&gt;100)</td>
<td>both</td>
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<td>F</td>
<td>Both</td>
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<tr>
<td>8 Net</td>
<td>Scriba, Italy, Euwide</td>
<td>IT, ES, Euwide</td>
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<td>10 (&gt;100)</td>
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<tr>
<td>9 ES pilot</td>
<td>INESCOP, Spain</td>
<td>ES</td>
<td>3</td>
<td>3</td>
<td>F</td>
<td>U</td>
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<td>already in eBiz, phase 2</td>
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<tr>
<td>10 Info Lab</td>
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<td>U</td>
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<tr>
<td>11 ARAS</td>
<td>TXT Gmbh, Germany</td>
<td>DE, BG, Euwide</td>
<td>1</td>
<td>3 (&gt;100)</td>
<td>T/C</td>
<td>D</td>
<td>60</td>
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<td>12 eOlonia</td>
<td>Centri COT, Italy</td>
<td>IT, FR, DE</td>
<td>1</td>
<td>3</td>
<td>T/C</td>
<td>Both</td>
<td>58</td>
<td>already in eBiz, phase 2</td>
</tr>
</tbody>
</table>
| 13 Quick Order| Silva e Sistelio, Portugal     | PT, IT                      | 2                    | 2            | T/C      | U                      | 30     | already in eBiz, phase 2                                              

13 Pilots: 25138 (> 300)
Pilots: Some conclusions

- Key issues: usability (of documentation), standards-based on European level, scalable architecture, awareness, incremental adoption, perceived value
- Good acceptance of pragmatic approach
- SME based sector presents a never ending set of different processes and models
- Conventional standard-based approach benefits SMEs (e.g. common guidance, critical mass adopters), but lacks flexibility
- The eBiz-TCF approach to achieve interoperability is based on a mix of standardisation and continuous informal activities
Further Information:  www.ebiz-tcf.eu

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