BENEFITS -
Building an Expertise Network for an Efficient Innovation & Training System

MATURITY OF SMES IN TERMS OF PLM

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BENEFITS project

Building an Expertise Network for an Efficient Innovation & Training System (BENEFITS) is a project supporting by European Union through the European Program INTERREG IVA France-Channel-UK

Objectives of the WP3:
- Investigate the requirements, problems and benefits of the PLM-based solutions for extended enterprises (including SMEs and OEMs)
- In particular the integration of suppliers product development processes with OEMs through the PLM

Problems to be addressed:
- Management of various versions and configurations of products (including supplier parts)
- Knowledge management (requirements, manufacturing capabilities, testing knowledge, suppliers knowledge, ...)
- Product development in collaboration with suppliers (communication issues, design sharing, project management, ...)
PLM concept
There are at least five questions that must be taken into account in the management of the life cycle of the product (Liu et al, 2009):

- **When**: the step where management occurs
- **Who**: people, organizations involved in PLM
- **What**: objects to manage in the PLM
- **Why**: challenges, motivations and objectives of PLM
- **How to**: the features and technologies that support PLM
PLM concept

- Defining general guidelines
- External/internal Evaluation STEEP, SWOT
- Business model supporting product/service
- Product portfolio

**Strategy**
- Decides

**Process**
- Implement

**Organization**
- Use

**Tools**
- Specify of the operational organization/Structure
- Skills, motivation, turnover management
- People and culture management

- Change management: CR, ECR, ECO
- Standards, Data mining
- Capture, Dissemination, Transformation, sharing
- End of life decision making

- 3D Model, CAX (CAD, CAM, ...)
- Requirements tools (Doors, etc.)
- PDM, ERP, CRM, SCM, MES, ... tools
- Product models
PLM adoption

Level of collaboration through PLM

- What are the activities of each level of co-PLM?
- What is the actual level of collaboration?
- What are the requirements elements to improve the level of collaboration?
<table>
<thead>
<tr>
<th>Level</th>
<th>Working Practice</th>
<th>Framework of maturity levels for collaborative PLM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><strong>Strategy</strong></td>
</tr>
<tr>
<td>1</td>
<td>Unstructured</td>
<td>The PLM topic in terms of collaboration has been recognized and its importance have been agreed</td>
</tr>
<tr>
<td></td>
<td>collaboration</td>
<td>Work must be done to define the PLM concept</td>
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<td>Identification of potential supplier takes place</td>
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</tbody>
</table>
Future work

SOTA
- PLM definition
- Industrial needs
- OEM/Supplier Collaboration
- PLM models

Results
- 4 axes PLM
- Questionnaire
- BPMN

Future Work
- Maturity levels
- PLM adoption
- Questionnaire
- Implementation

Indicators:
- maturity
- Adoption
Thank you for your attention

Question?