



# TOOL-EAST

**Open Source Enterprise Resource Planning and  
Order Management System for Eastern European  
Tool and Die Making Workshops**

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“Open Source Enterprise Resource Planning and Order Management  
System for Eastern European Tool and Die Making Workshops”



June 04<sup>th</sup>, 2008, Radenci, Slovenia

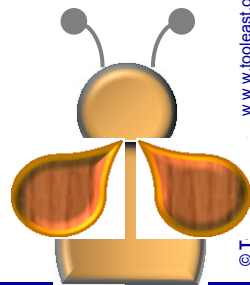




## Buzz words

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- ERP (offline-online) - federated
- CRM (online)
- Open Source (Offline product base)
- Tool-and-Die manufacturers (Clients)
- Regional ICTs (business solution/support providers)
- Collaboration and industrial clusters/ network
- Transfer of knowledge based from Western to Eastern Europe T&Ds

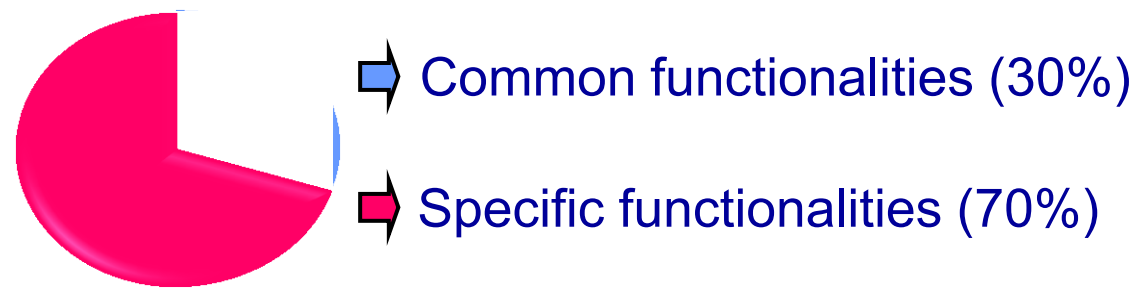


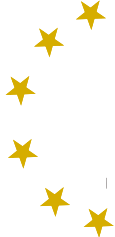


- Not free – but much low price based on license
- Advance service network
- Better quality in terms of stability
- Better support in product development and integration
- More channels for support and customization



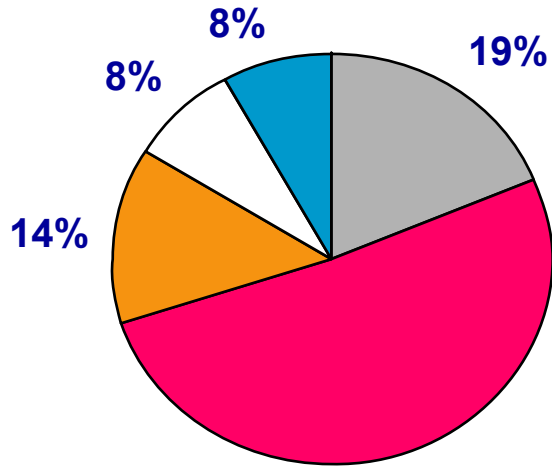
- Networked business: Key success factor in global market arena
- Integrated support system: To survive in an industry which is dominated by large multinational enterprises
- SMEs do not have resources for the implementation of complex ERP Systems
- Functionalities of standard ERP applications do not fulfil the specific requirements for SMEs





## Spread of ERP applications:

For 500 largest firms in Poland



- ➔ with ERP
- ➔ currently implementing
- ➔ without, planning to implement
- ➔ without, not planning to implement
- ➔ other answers

Source: Argos, 2002

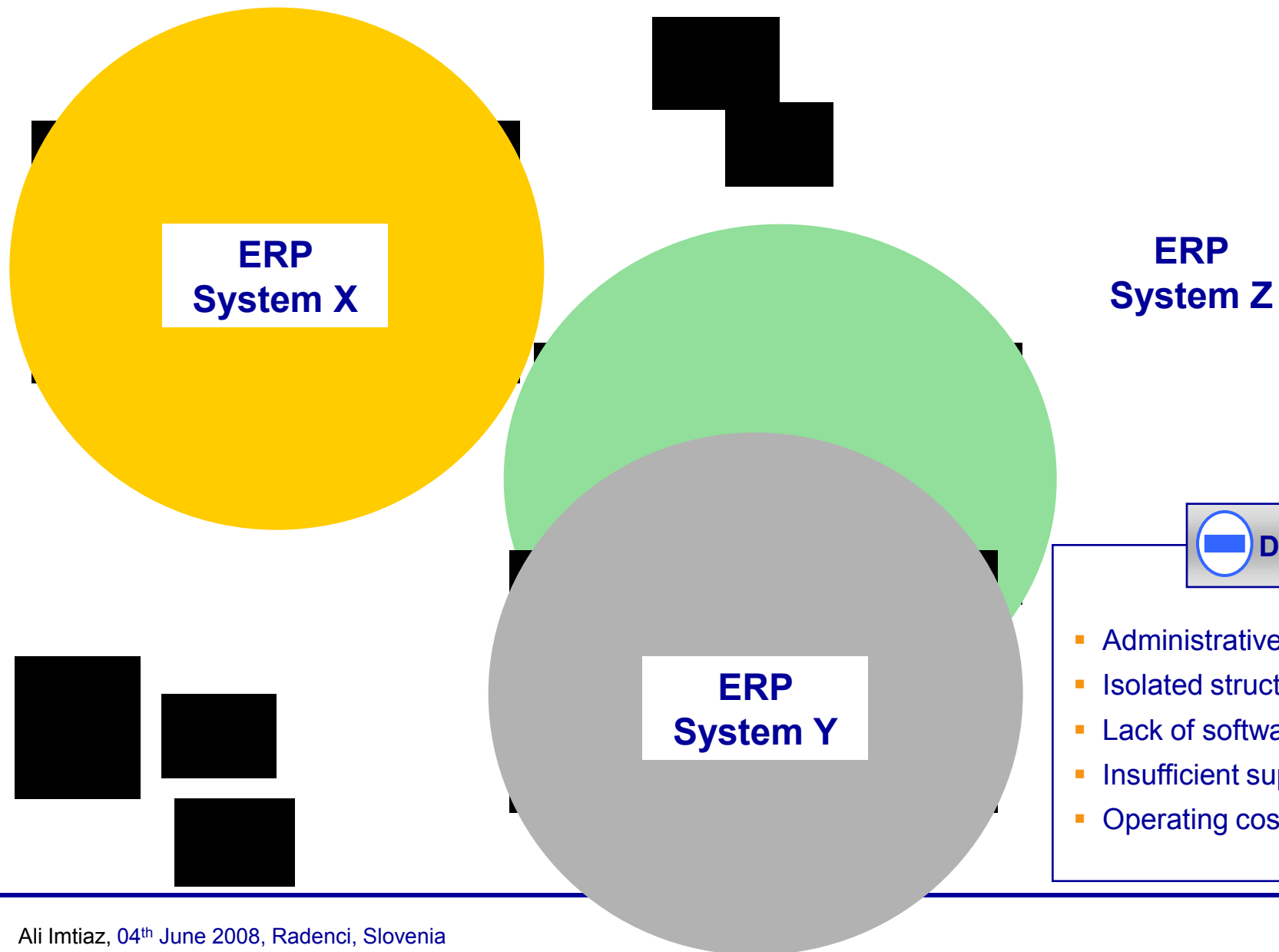
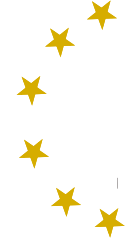
## Lack of ERP assignment

- In comparison to Western Europe and USA the support with ERP systems is very low
- For example 95 % of the German enterprises with more than 500 employees have an ERP system

## Potential for the Software Vendors

- Average sales growth of 12 % (Western Europe: 6 %)
- ERP (CRM) market volume in 2002 in Eastern Europe was 165 Mio. € (20 Mio. €) and will increase with average sales growth until 2007 to 195 Mio. € (26 Mio. €)

Source: Gartner, 2004



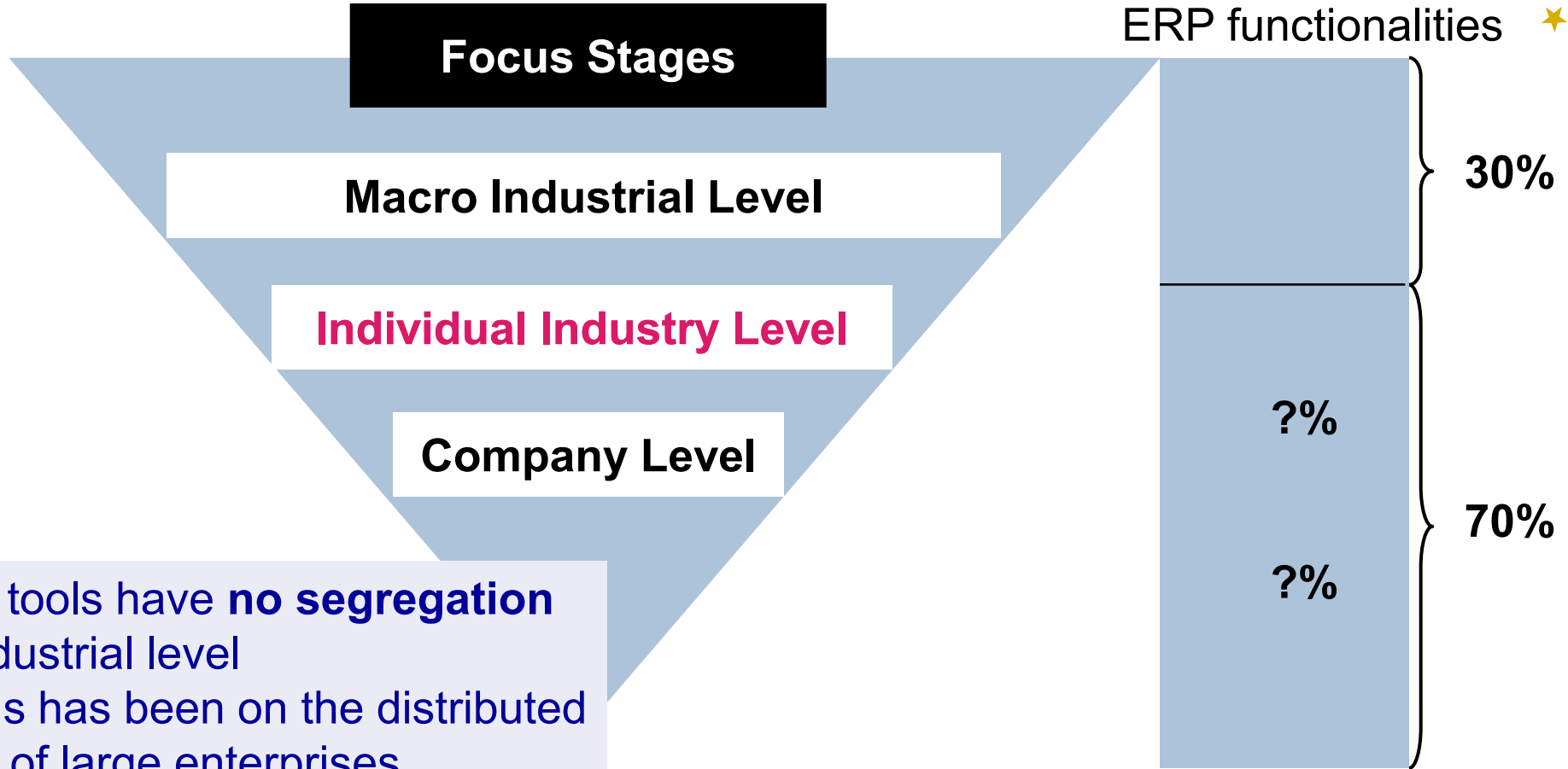
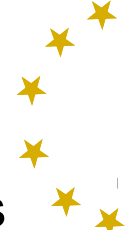
**ERP System Z**

 **Disadvantages**

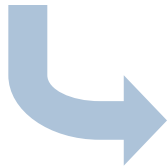
- Administrative expenditure and cost
- Isolated structure
- Lack of software flexibility
- Insufficient support of business
- Operating cost are too high



# Introduction (Hierarchical focus for research)



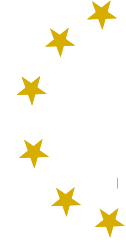
- ERP tools have **no segregation** at industrial level
- Focus has been on the distributed units of large enterprises



- Analysis of current industrial needs
- Lack of **affordable** ERP applications for SMEs
  - Existing ERP solutions do not support **common** platforms



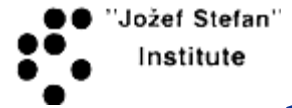
# Project expertise and Vision



## Research experts

ERP-/PPC and open source experts

Tool-and-Die manufacturing experts



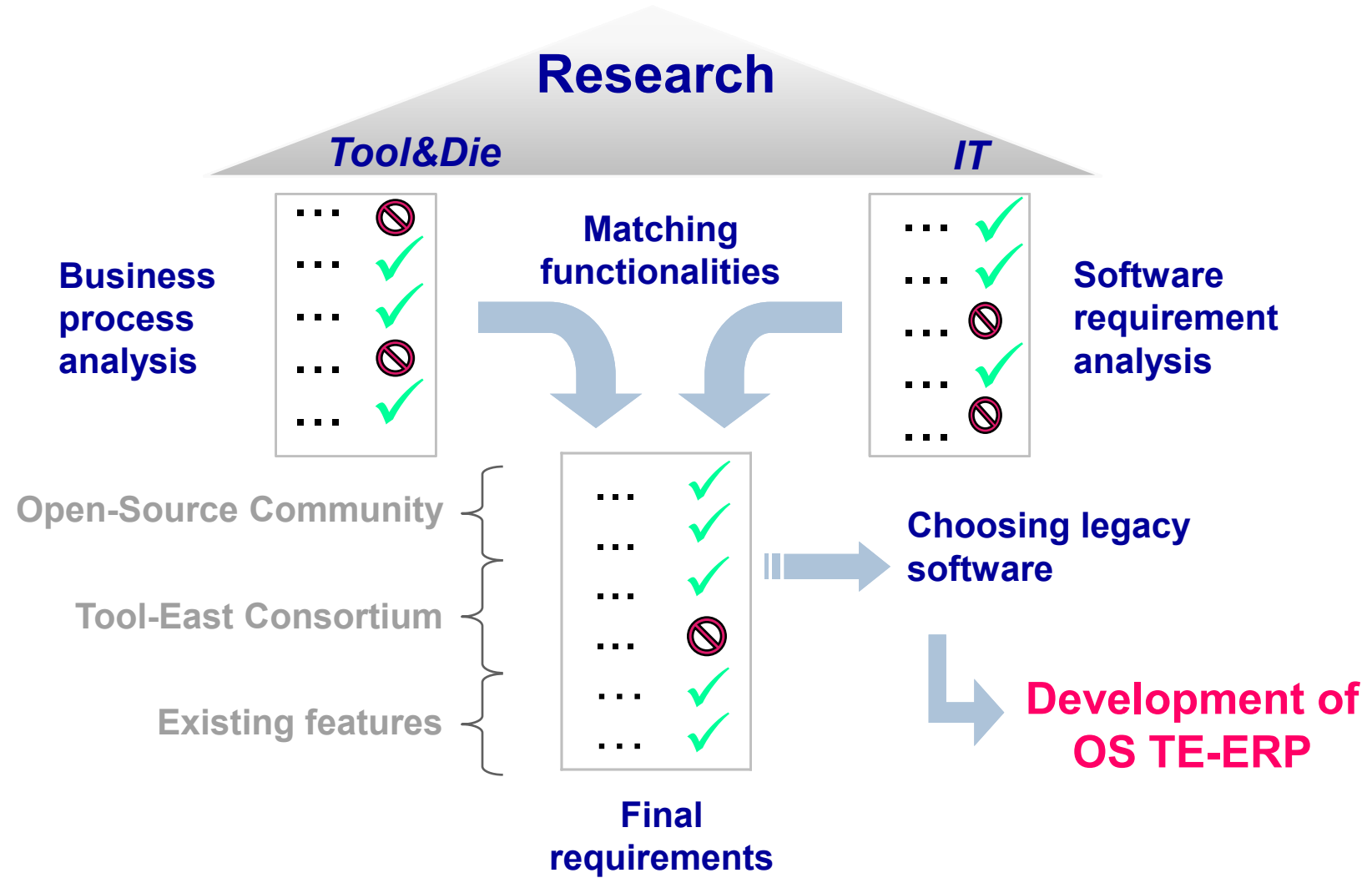
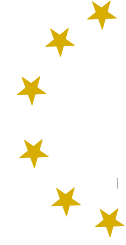
**“To enable Eastern European SMEs to participate and collaborate in Dynamic Business Networks by Developing open source Enterprise Resource Planning (ERP) application with Customer Relationship Management (CRM) functionalities”**

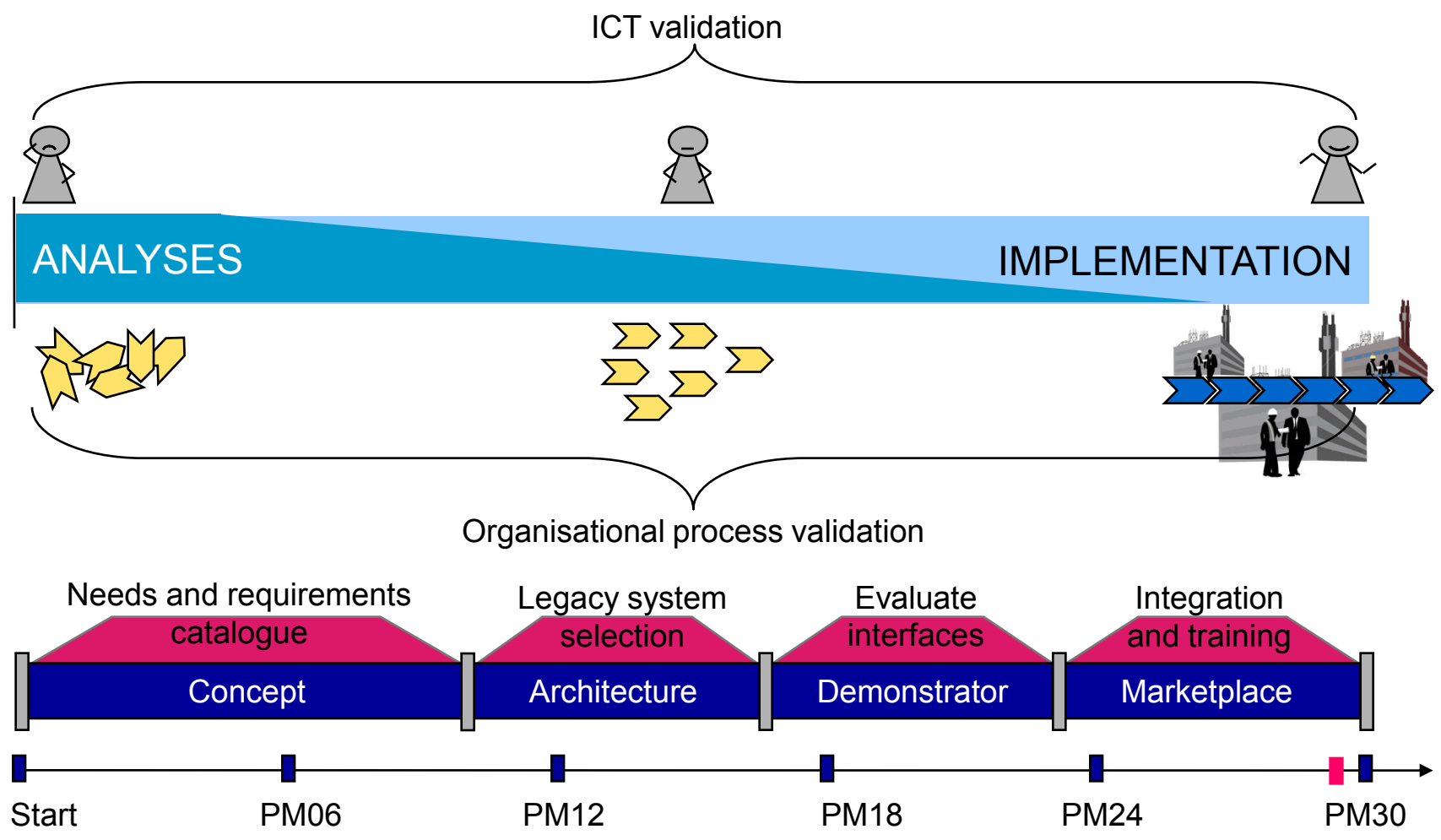
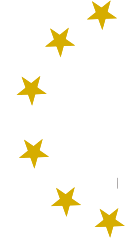


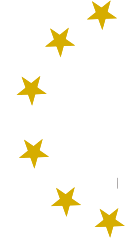




# Project status - Technical

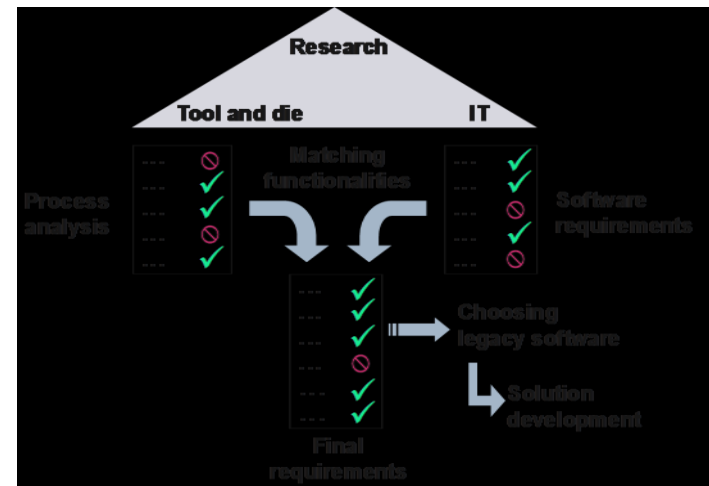


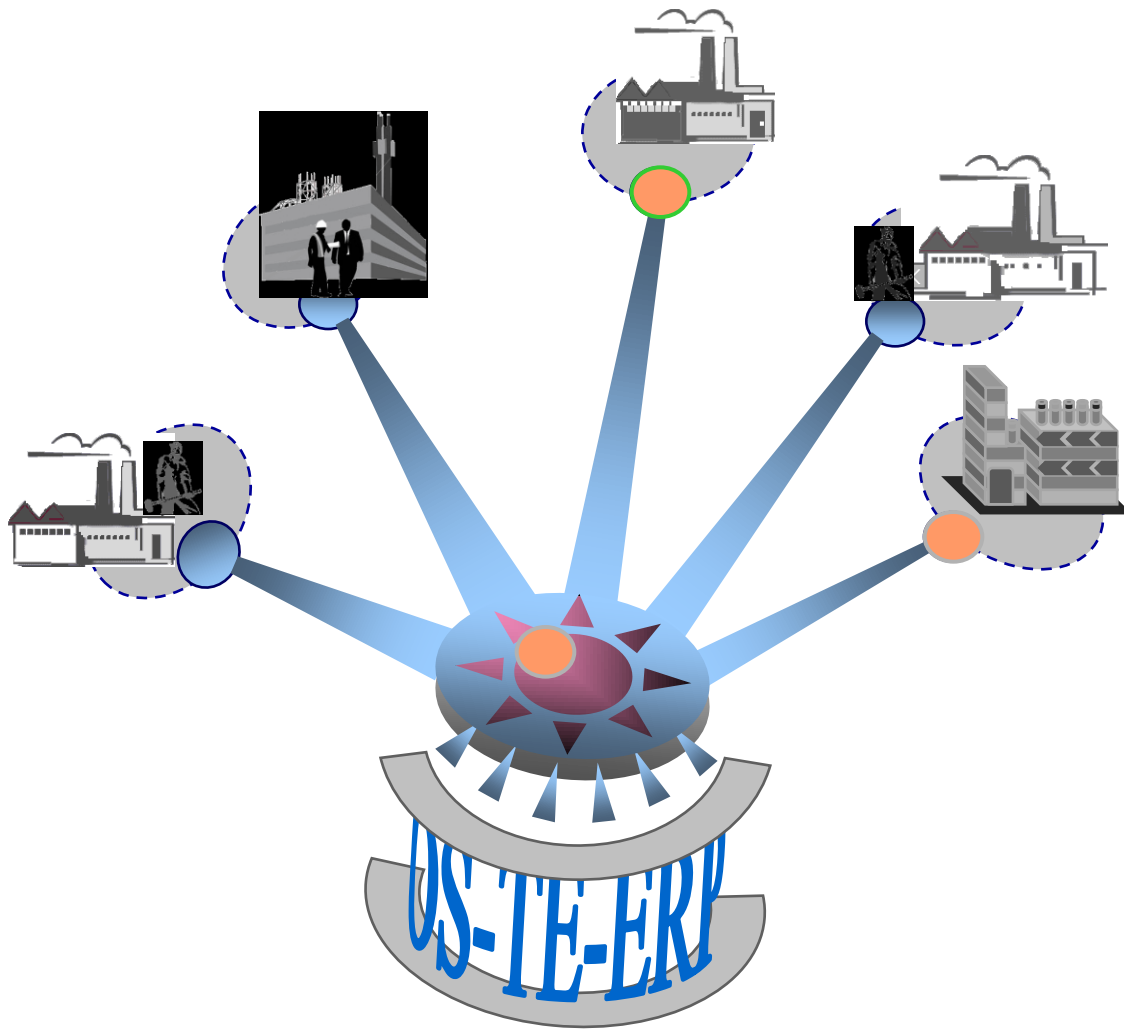




- ✓ **Module I :** Definition of a generic **business process model** for Tool-and-Die making workshops
- ✓ **Module II :** Open source software **architecture and application development**
  - Adaptation and improvement of one existing open-source ERP solution;
  - Development of another new open-source ERP application is not ambition
- ✓ **Module III :** **Standard interfaces** for open-source applications
- ➡ **Module IV :** **Customised training and education**

✓ Achieved  
➡ Ongoing steps





## Specification

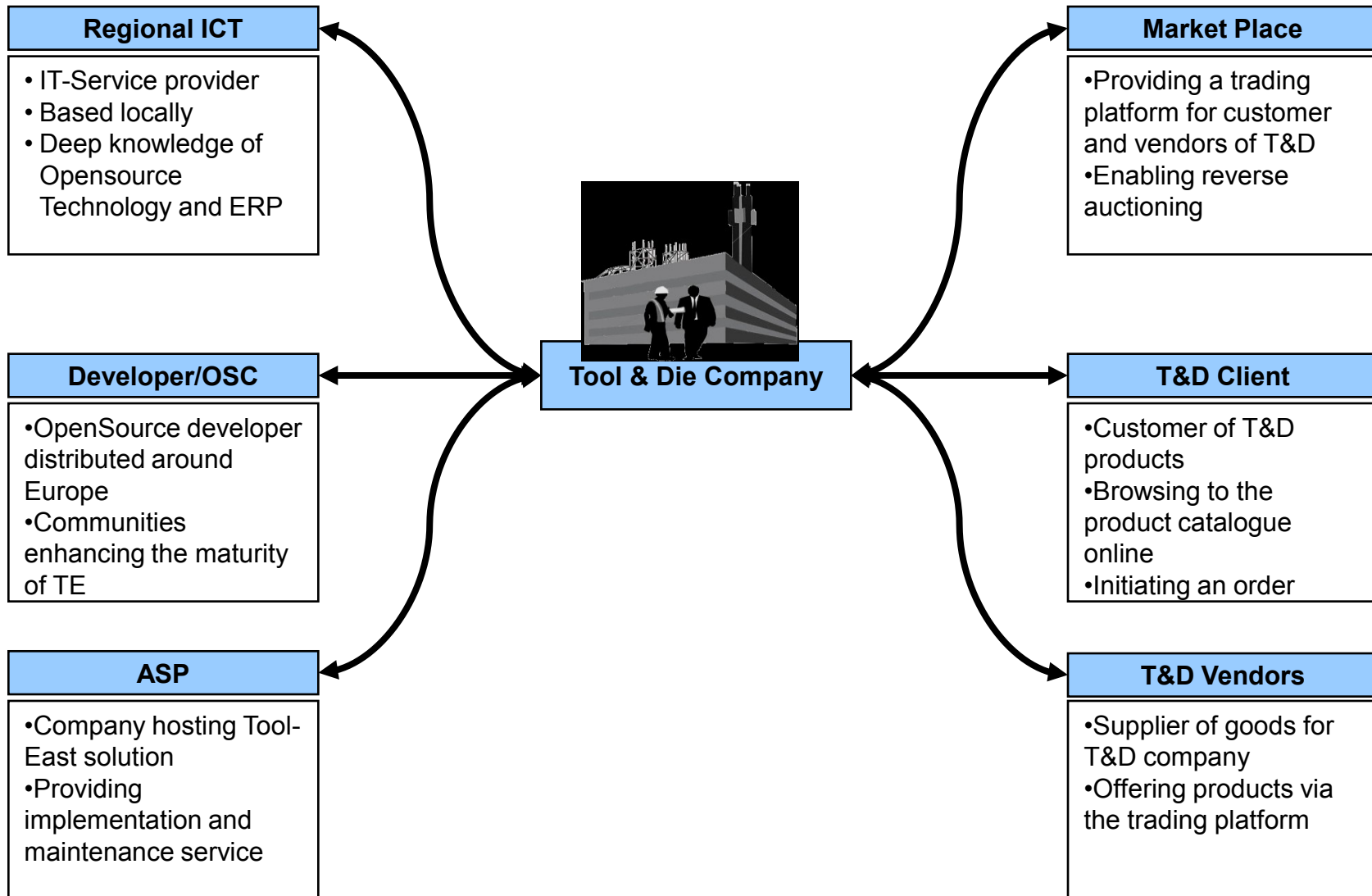
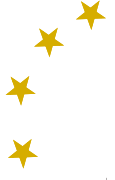
- Web services driven application
- Inter platform communication
- Open source application
- Consistent customer orientation

## Advantages

- Common standardized interface
- Smooth sync in & sync out
- 1 to 1, 1 to many & many to many communication channels
- Flexibility of use and development

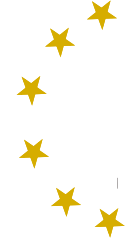


# Main Stakeholders





# Tool-East Scenario Overview



## Portal Users



Tool-East Portal provider

## Tool-East Portal

### Industrial Marketplace

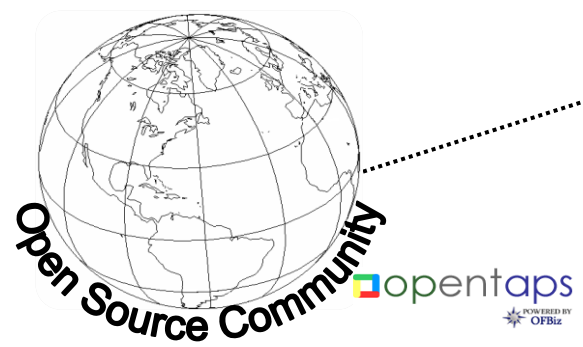
**Public**  
 T&D directory Search  
 Registration

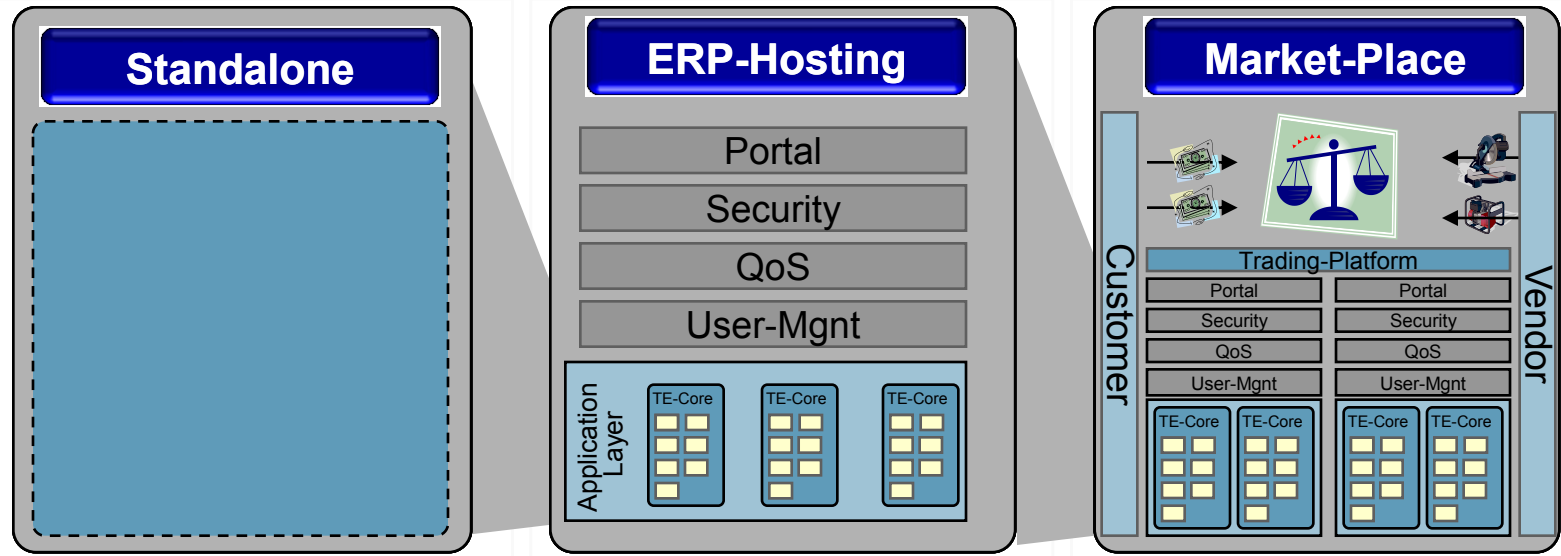
**Members (CRM)**  
 Partner matching  
 Data exchange  
 Order / client Mgt

**ERP hosting**

**Developer's site**  
 Software Host  
 Dev. & Exploitation

**Additional Services**  
 Web adds,  
 Technical tips,  
 Cross selling ...



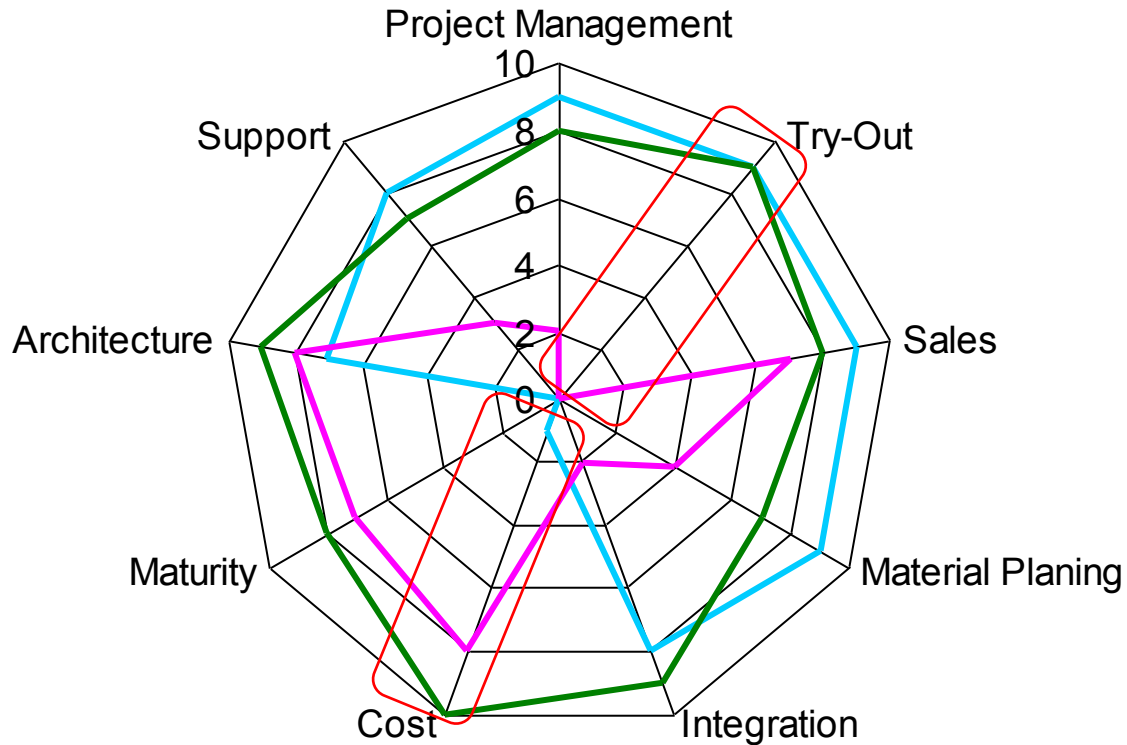


<b>Stakeholder</b>	T&D; RICT; OSC	T&D;RICT; OSC,ASP	T&D;RICT; OSC,ASP, Market Place op.
<b>Features</b>	<ul style="list-style-type: none"> <li>• Basic ERP-Functionality</li> <li>• Easy to use and customized for T&amp;D needs</li> <li>• Build and Run by/with RICT support</li> </ul>	<ul style="list-style-type: none"> <li>• Hosting of ERP application</li> <li>• Outsourcing of ERP-development and maintenance</li> </ul>	<ul style="list-style-type: none"> <li>• Trading platform (B2B) – Purchase as well as Selling</li> <li>• Collaboration platform – Company profiles</li> </ul>
<b>Benefits</b>	<ul style="list-style-type: none"> <li>• Open Source with good cost/benefit relation</li> <li>• Safeguarding further development</li> </ul>	<ul style="list-style-type: none"> <li>• Reducing fix-cost</li> <li>• Outsourcing of customizing and maintenance</li> </ul>	<ul style="list-style-type: none"> <li>• Innovative sales channel</li> <li>• Bundling purchase activities</li> </ul>





## Unique Selling Proposition



Source: ERP-Z Zufriedenheitsstudie, Trovarit; TE-Deliverable 3.2; Expert Interviews during the conference EPR-Days in Aachen

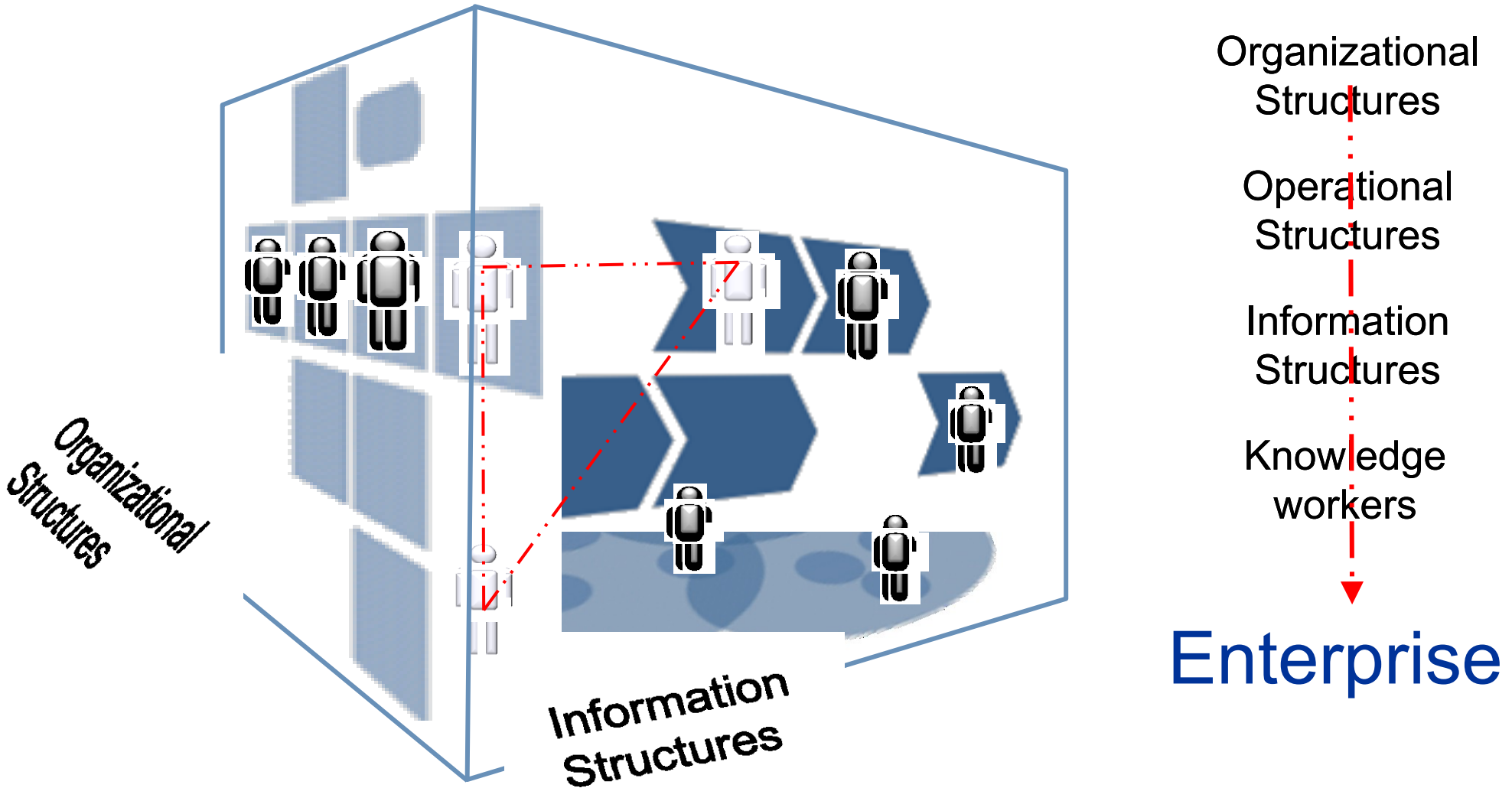
Legend: █ Closed Software (avg) █ Open Bravo █ Tool-East

## Details

- Differentiation potential for outmost in the functional coverage and in the cost
- (OpenSource) Maturity is not that relevant for closed-software
- Architecture is not a differentiating characteristic
- Dimensions are derived from studies and verified in expert interviews

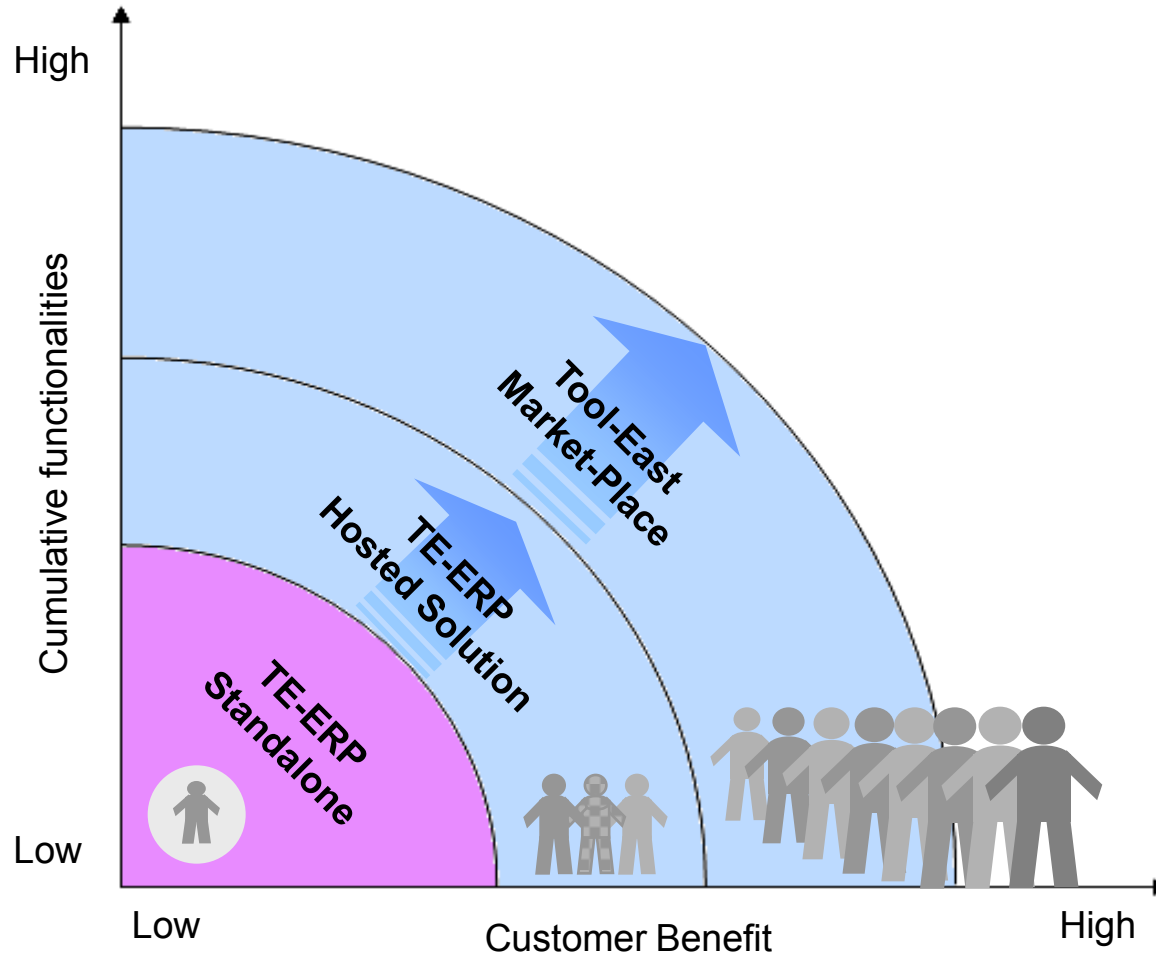
=>Based on the USP the most probable market share of Tool-East could be estimated





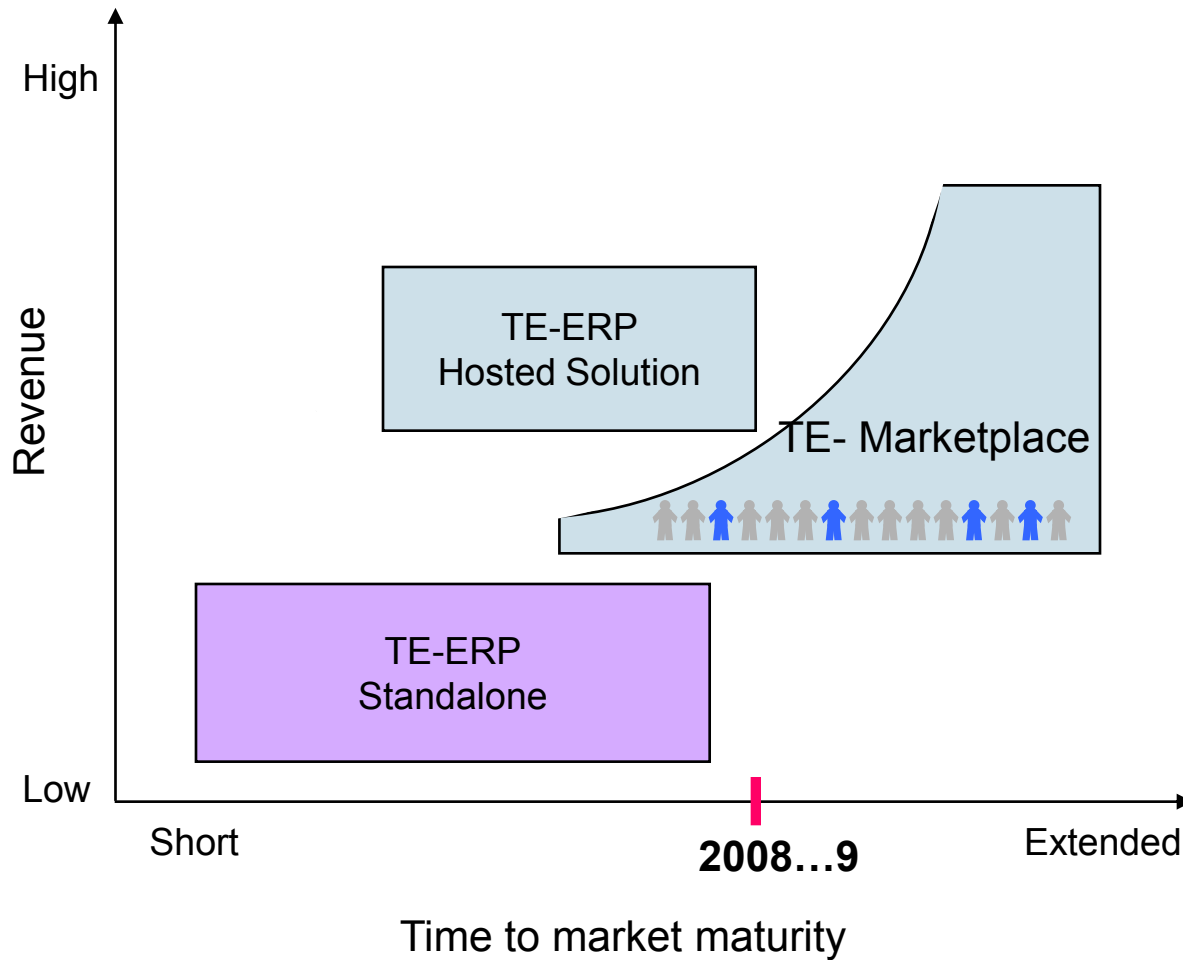
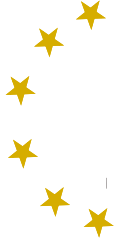


# Commutative functionalities to user benefits





# Time to market maturity of revenue streams



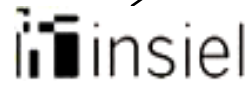
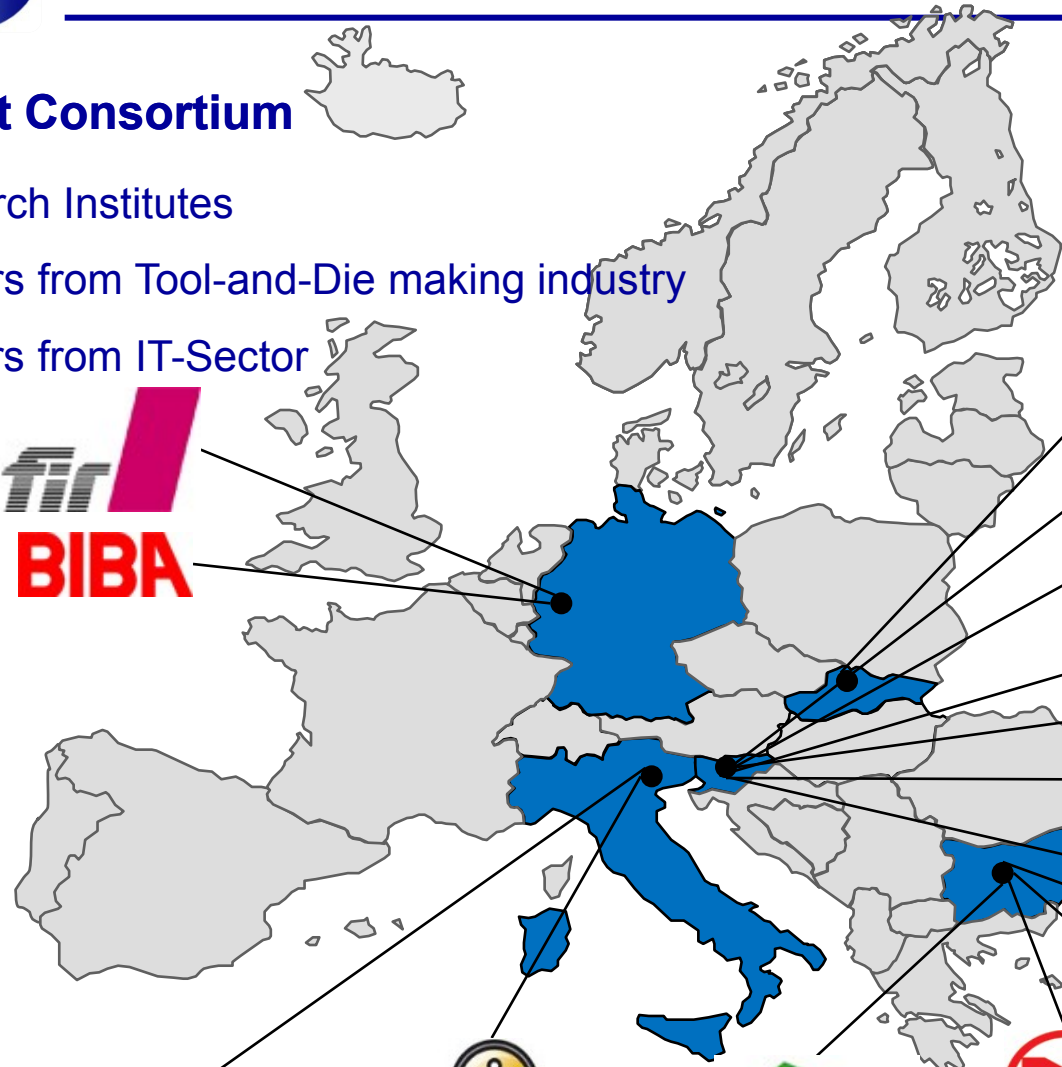


# Tool-East Consortium



## Tool-East Consortium

- 3 Research Institutes
- 7 partners from Tool-and-Die making industry
- 5 partners from IT-Sector





## Next events in June 08

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17<sup>th</sup> of June - Celje: Regional Chamber of commerce and TCS

- Training session and product overview

23<sup>rd</sup>/ 24<sup>th</sup> June - Belgrade: TCS & Regional chamber of commerce

- Intro session and standalone product overview

3rd week of June -Trieste: INSEAL

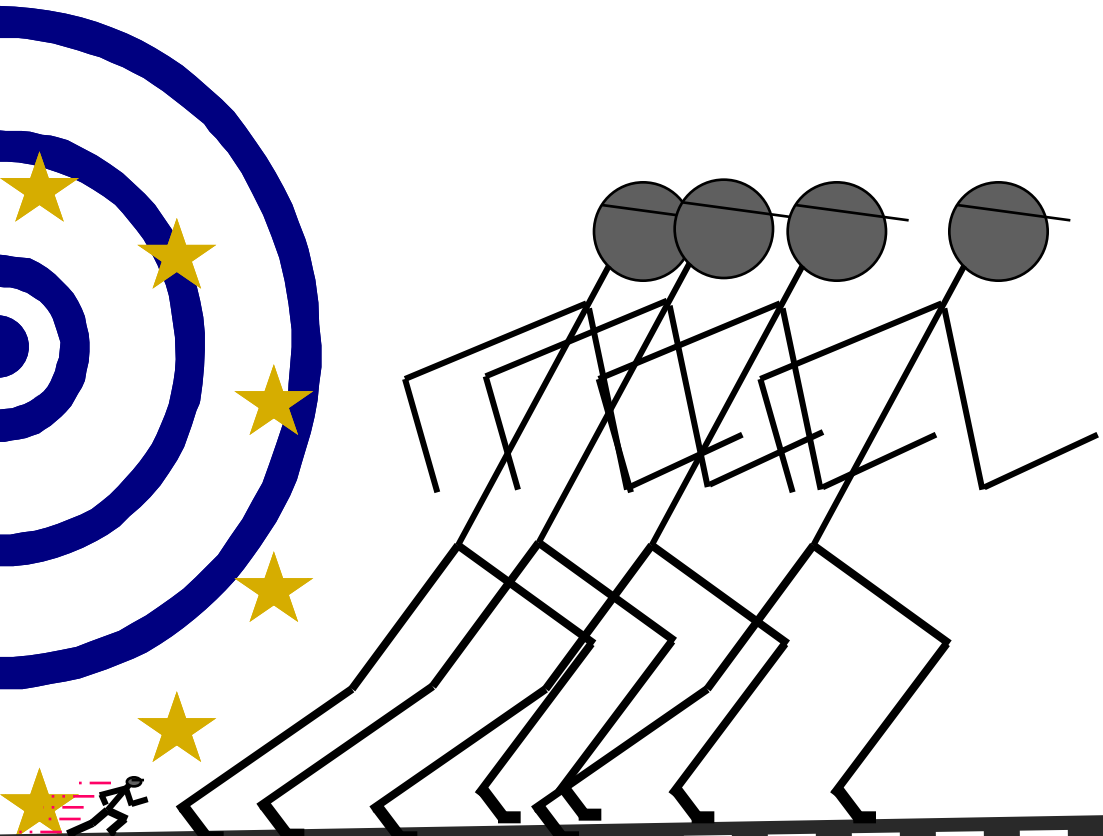
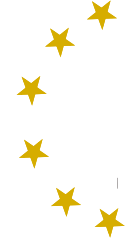
- Intro session and product overview

Last week of June Sofia: IT-Partners

- Intro session and product overview



# Thank you for your attention!



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Tool-East strengthening the role of SMEs in Europe's success

...the project website  
[www.tooleast.net](http://www.tooleast.net)

