



Digital Product Process

Digital Product Process 2008-2012



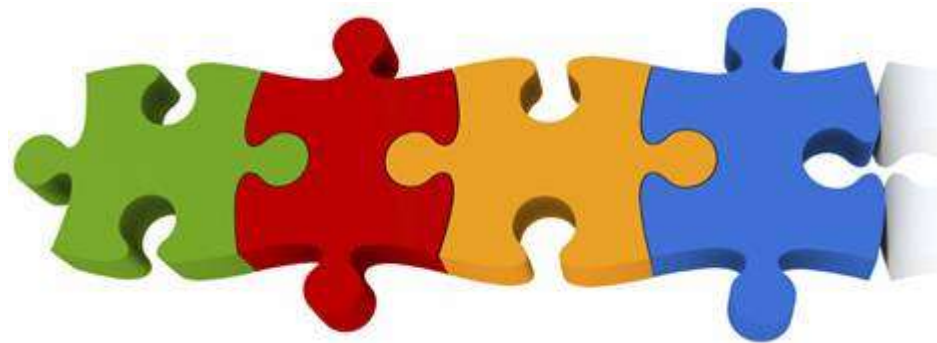


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**For better productivity:
product management from concept to recycling.**

- Programme duration: 2008-2012
- Programme volume: 100 million euros, of which approx. 40 million euros from Tekes
- Further information: www.tekes.fi/dtp



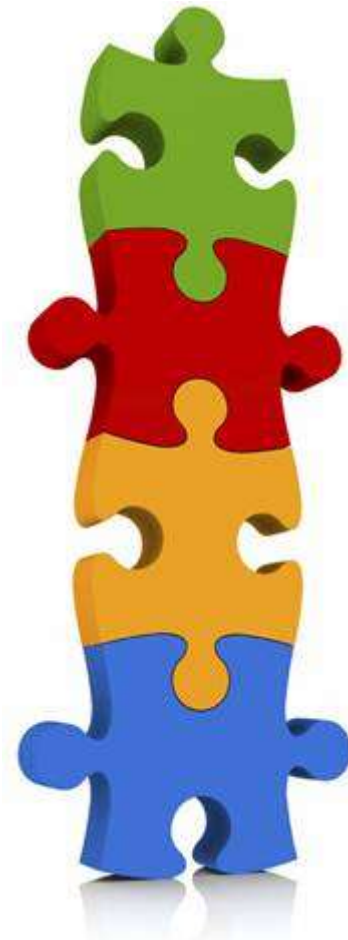
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Challenges of the digital product process

- **Success requires networking, combining know-how, and a solid flow of information in the product process**
- **The product process must**
 - **meet the needs of the customer**
 - **produce good quality**
 - **manage the information in the network**



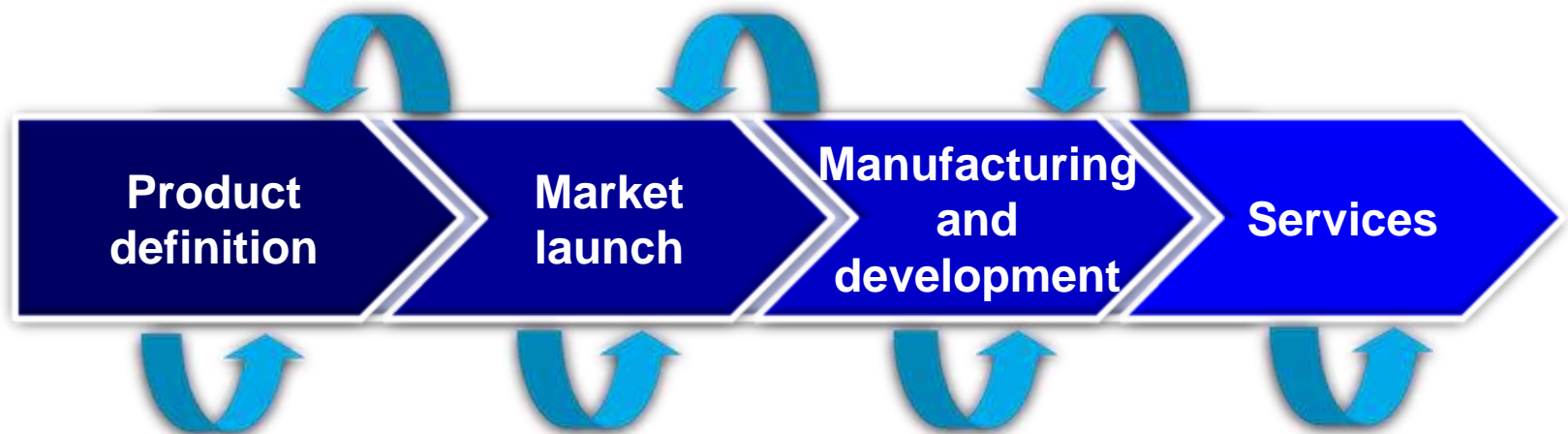
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Digitalising product information strengthens operations

- Short time-to-market
- Capacity and supply chain management
- Information distribution and change management
- Compliance with customer requirement
- Product and process quality and accuracy
- Productivity and economic efficiency



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Objectives of the programme

- To intensify cooperation across organizational boundaries
- To strengthen research concerning product processes
- To promote the readiness of industry to exploit research information from leading experts around the world
- To encourage Finnish companies to use advanced ICT applications for improving competitiveness
- To ensure growth possibilities for product development and design companies on international markets

Programme mission

Advanced ICT utilization in product process ensures information usability throughout the product life cycle.





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Target groups

- The programme is aimed both at enterprises and research units
- Target groups includes enterprises that supply the customer with
 - a physical product, system or
 - a related service that is developed, planned and supplied as a cooperation of several organisations
- Target sectors
 - Metal and mechanical engineering industry
 - Construction and construction product industry
 - Machinery and equipment for the energy and environment sector
 - Communications and electronics
 - Wood product industry
 - Bio, pharmaceutical, and food industry
 - Engineering companies





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Main targets of development projects



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Example project 1: R-taso Oy

Planning as a part of the supply chain

- R-taso plans and manufactures staircase and working platform elements
- The company has developed planning automation as a part of a network supply chain
- The customer integrates the R-taso product planning module to the overall plan already at the beginning, product planning is a flexible part of the whole
- Communication with the user in real time during the planning stage
- Notable benefits are expected
 - contributing to the development and standardisation in the field
 - better competitive position
 - minimising the duration of planning
 - shorter processes





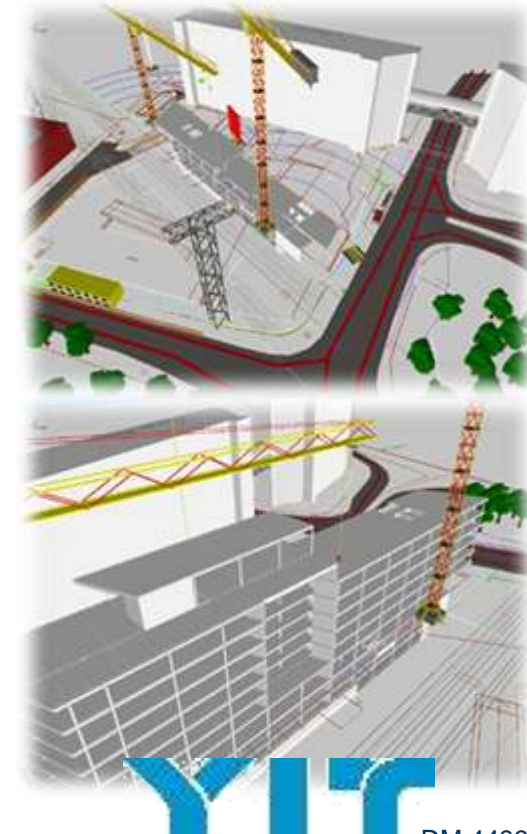
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Example project 2: YIT Oy

Simulation of a building project

- Delfoi Oy simulated the building project of the YIT head office
- The overall schedule of the project was checked through simulation: it was detected that the project would be late
- The simulation also helped to notice that the crane was located in the wrong place
- Crane shifts and another assembly team were added according to the simulated utilisation rates
- Risks can be eliminated with better and earlier planning

It was important that the different parties participated in the simulation process. This made it necessary to accurately define the assembly orders, site use, crane locations and other necessary initial data.





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Example project 3: Fläkt Woods Finland

Information and life cycle management

- Fläkt Woods Finland is a specialist company in ventilation and air handling
- Information and life cycle management supporting digital modelling carried out in cooperation with Autodesk
- Shorter product development time
- Better quality of product development: information transferred more efficiently from planning to production, parts more compatible
- Shorter time-to-market
- Easier customer-specific tailoring



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Example project 4: Hakaniemen Metalli Oy

More competitiveness from parametric modelling

- Hakaniemen Metalli Oy manufactures innovative sheet metal structures with laser technique
- The company has developed parametric product and system models used in automation of paper and pulp industry component planning and conveyor system configuration
- Product modelling together with the product development organisation of the customer from the variations of the product family
- System models can meet the customers needs for change already during the sales phase and the customer can approve of the changes quickly before production
- Improved accuracy of delivery, overall productivity and customer satisfaction
- Through renewed product management and know-how, the company has become a system supplier



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Example project 5: Patria Land & Armament

**The product development of wheeled vehicles
was speeded up by 20-25%**

- **Patria Land & Armament develops and manufactures customer oriented military and special vehicles and related services to international markets**
- **Business initiatives: product development & planning unification and reuse of data**
- **Business challenges**
 - Very short delivery times for vehicles
 - Long waiting time for parts and components
 - Compliance with international official requirements
- **Project success factors**
 - Planning system for large assemblies
 - Management and global distribution of planning data
 - User test adapted to the roles of the system users
 - Support from technology partner (Ideal Product Data Oy)
- **Results**
 - Added reuse of planning data
 - Less mistakes and better quality
 - Tighter integration with subcontractors
 - Product development process speeded up by 20-25%



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International activities

- **Information and expert services for companies**
- **Use of the services of international experts**
- **Networking with international partners**
- **Thematic seminars for companies and researchers**
- **Seminars on applying the best procedures in companies**



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