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Increasing the competence and maturity for user-centred product creation

- What is “maturity of the user-centred design process” ?
- Why is maturity important ? -Advantages of achieving a higher maturity level
- Defining goals for improving capabilities
- Levels of maturity / Maturity assessment
- Improving the maturity of the user-centred design process
- Common deficits in user validation and user-centred design



What is “maturity of the user-centred design process” ?

- **Ability of an organisation to execute their essential processes with an appropriate degree of**
 - Efficiency
 - Quality
 - Reliability
- **Based on knowledge, skills, and experience**
- **Process developed by learning of individuals and organisational learning**
- **Related to process maturity in software development - Capability maturity model CMM)**



Why is maturity important ?

- **Maturity defines what an organisation is able to do with a high degree of competence and reliability**
 - **Capability gaps become visible**
- **Short term perspective: It makes no sense to try to carry out tasks if the competence is not available**
 - **Call in external expertise or scale down ambitions**
- **Long term perspective: Maturity is a learning process for the individual and the organisation**
- **Assessment of own goals and existing capabilities helps:**
 - **To set realistic goals for process improvement**
 - **To develop a clear vision of responsibilities and roles of individuals**



Advantages of achieving a higher maturity level

- **Confidence, reliability, quality of the ability to deliver appropriate results**
- **Reduced risk of failures and costs for the partners**
- **Meet the needs & expectations of customers & users**
- **Examples of mature industries:**
 - **Food industry, automotive manufacturing**
- **„Brute force approach“ (market experiments) adopted by entertainment industry, publishing, software industry, „new economy“ often ends with dramatical failures**



Meeting user needs: Cases to consider

**User needs were
severely
underestimated for**

- **PC**
- **GSM phones**
- **Navigation systems
in cars**

**Expectations were
disappointed for**

- **CDI**
- **Interactive TV**
- **CD-ROM
publications to
substitute print**
- **Speech HCI**



Defining goals for improving capabilities

- **Based on clear understanding of the needs:**
 - **Recognized problems**
 - **Knowledge of the competitive situation**
 - **Customer demand and user response**
 - **Demands of cooperation partners**
- **Raising the level of maturity does not mean “more user validation!”: It means that just as much as necessary is done, and as efficiently as possible.**



The levels of maturity

- **0 Incomplete**
- **1 Naive**
 - User validation is carried out ad-hoc and with arbitrary means.
 - The approach and methods are neither reflected nor selected according to their power and effectiveness.
 - The activity depends on the enthusiasm of individuals.
- **2 Repeatable**
 - User validation is carried out systematically.
 - Appropriate and tested methods and approaches are used.
 - User validation is supported throughout the organisation.
 - The results are used to guide decisions and are communicated.
- **3 Defined**
 - The process is standardized, documented.
 - All stakeholders understand their role and contribute accordingly.
 - The product creation process is systematically adapted to specific goals and context of the product.
 - User validation is integrated as a principle into product creation.



Maturity assessment

- **Creates awareness for the issue and guides the learning process**
- **Assessment carried out by external expert or by the organisation itself**
- **Use maturity assessment checklist!**
- **Decide whether each element described in the checklist is present**
- **Share information about actual practices of elements**
- **Draw conclusions about the level of maturity**



Maturity for user-centred product creation

- **A user-centred product creation process requires knowledge, resources, and commitment**
- **Must be tailored to the organisation and products**
- **Process improvement - You need:**

1) Awareness

2) Commitment of resources: Time, manpower, authority, decision making structures

3) Knowledge: Facts, skills, experience



Maturity assessment and improvement

Comparison of required and available capabilities guides organizational development (process improvement)!

(For those who are familiar with SPI: Levels 1 and 2 are defined accordingly, but there is also a level below 1)

- **Recommendation: Learn from experienced experts (coaching)**
- **Coaching is a way to develop competence for and the quality of user oriented activities in the project**



Improving the maturity of the user-centred design process

- **Attract individuals with the competence needed**
or
- **Plan a learning process**
 - All members of the organisation must develop a basic understanding
 - Role holders must develop competence in their area
 - Acquire **knowledge, skills** and **experience**
- **Rule of thumb: Three typical projects should be carried out with competent supervision to achieve a level of professional competence.**



Common deficits in user validation and user-centred design

- **Lack of clear, explicit and common objectives in the project consortium**
 - **Customer not involved**
 - **Users and customers are not specified in product requirements**
- **The capabilities are insufficient to carry out a competent user-oriented product creation process**
 - **Management responsibility; insufficient budget and time**
- **The technical approach selected is unrealistic or faulty**
 - **Subjective / objective measurement confused**
 - **Users are not available or too few users**