Scattered locations and different stakeholder views

Experiences from a user interface enhancement project for an insurance software solution

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SAP User Experience, Industry Applications

Agenda

- SAP and the User Experience Organization
- SAP's UCD Process
- The project: Claims Management
- Challenges in a Distributed Project
- Conclusions

SAP and the User Experience Organization

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SAP's UCD Process

The project: Claims Management

Challenges in a Distributed Project

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A word to SAP

- **Founded in 1972 as Systems Applications and Products in Data Processing, SAP is the recognized leader in providing collaborative business solutions for all types of industries and for every major market.**
- **More than 34,000 customers worldwide supported by branches in 50 countries worldwide, headquartered in Walldorf, Germany.**

SAP's User Experience Organization - geographically

SAP‘s User Experience Organization

Team Competencies

- Design & Research Methodology (Palo Alto)
- UI Standards and Guidelines (Palo Alto and Walldorf)
- UI Services (Walldorf)
  - Accessibility, Infrastructure and Product Design
- Application User Interface Design (Walldorf, Palo Alto, Bangalore, Shanghai)
- SAP Netweaver User Interface Design (Walldorf)

SAP‘s UCD Process

SAP and the User Experience Organization

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SAP UCD Goals & Benefits

User Centered Design (UCD):

- Both a philosophy and set of methods
- Focuses on designing for and involving end-users in the development process

Goal:

Deliver retail quality user experiences for SAP products and services

Benefits:

Core activities developed over past 20+ years to address goals of creating more usable & satisfying systems—making them more:

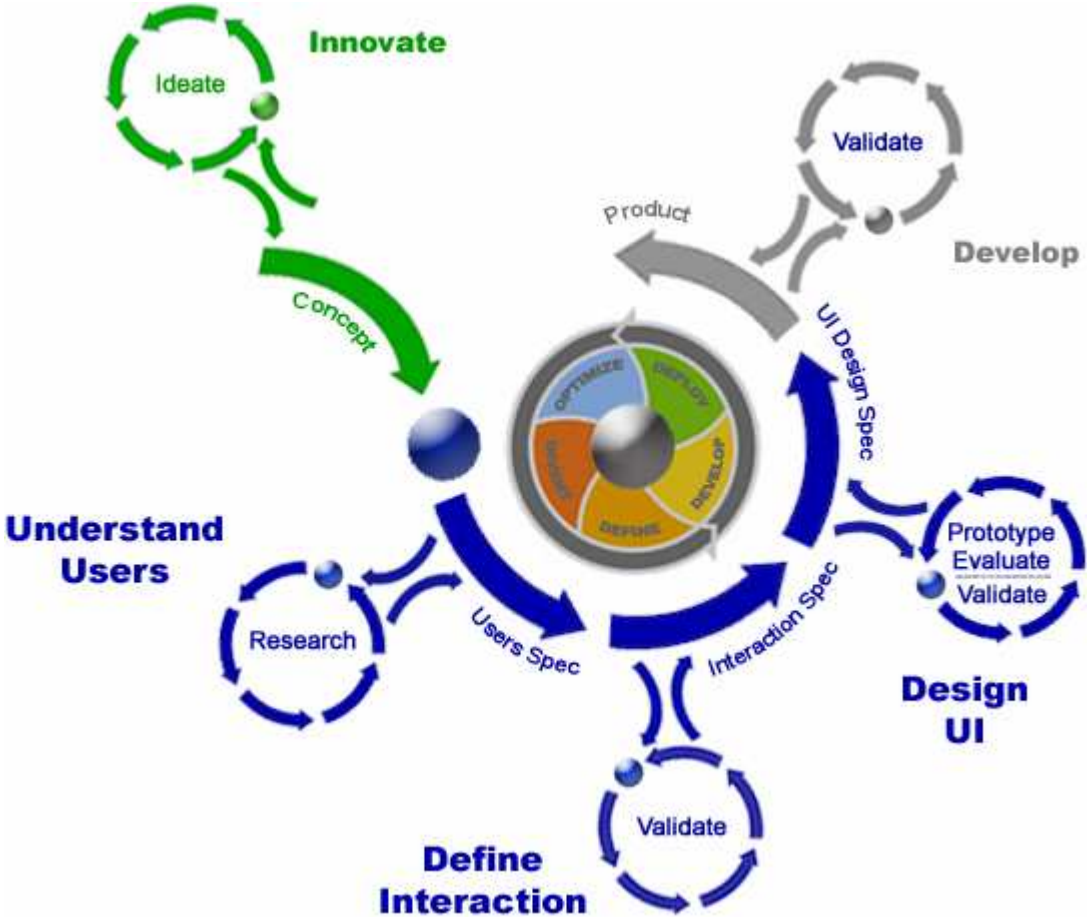
- Effective → achieve real business needs & goals
- Efficient → work smoothly & responsively
- Easy to learn → leverage simplicity & consistency, so that the effect of a user's actions are the same in different parts of the software
- Pleasant to use → minimize frustrations & avoid (repetitive) pain points
- Predictable → allow users to anticipate successful interactions
- Profitable → improves sales & helps SAP retain customers

SAP UCD Principles

Principles

1. Focus on “real” end-users
2. Validate UI requirements & designs
3. Design, prototype, & develop UIs iteratively
4. Understand & design for “holistic” user experience

The SAP User Centered Design (UCD) Lifecycle



The project: Claims Management

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Project Background

Business background

- Industry solution for insurance, one part of the solution is Claims Management
- First project focus on Workers Compensation, mainly US driven processes

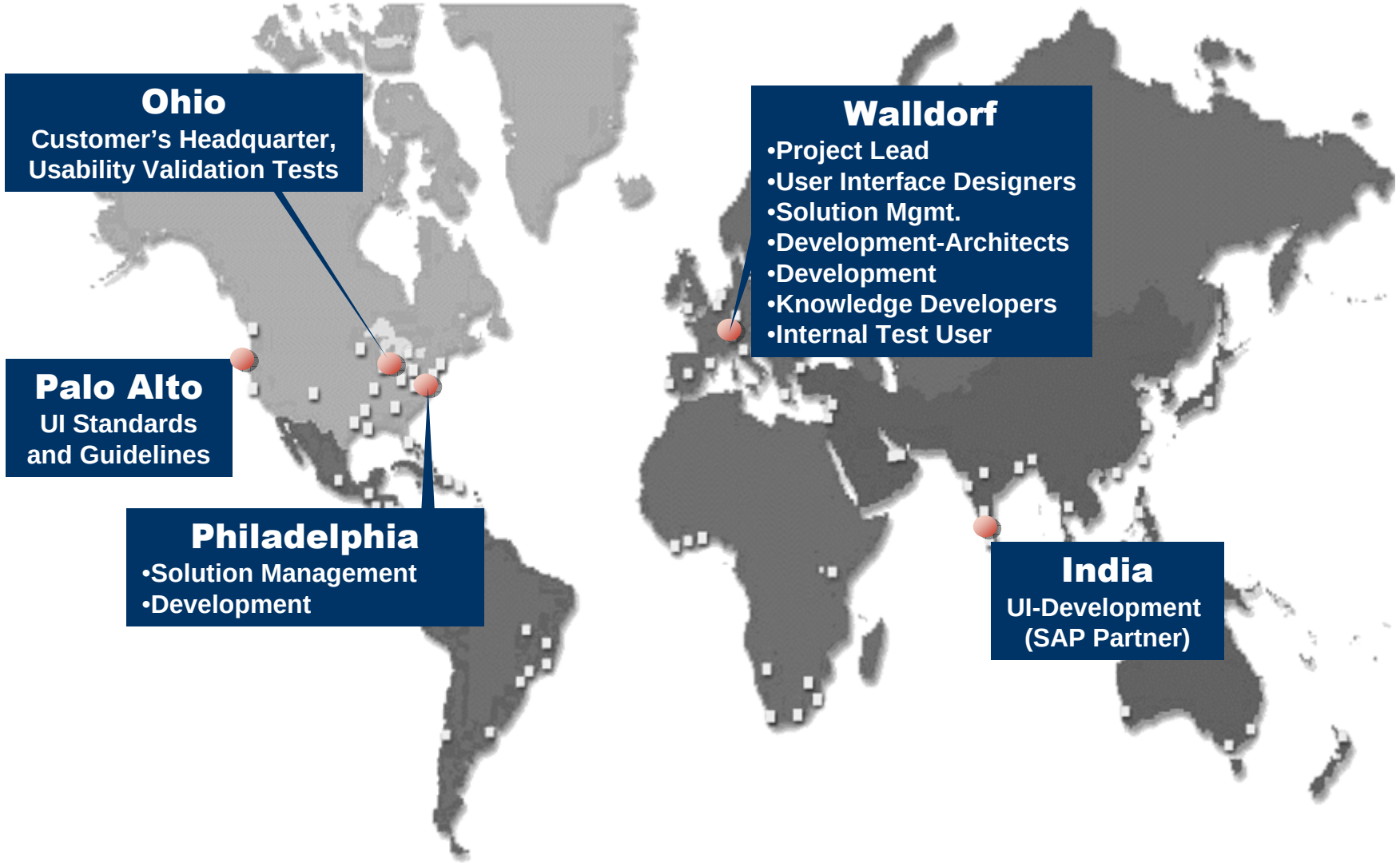
Why a new UI

- Current solution has a high reputation on functionality aspects
- But: Feedback from users (existing users as well as prospects), that system is powerful but complex on first view

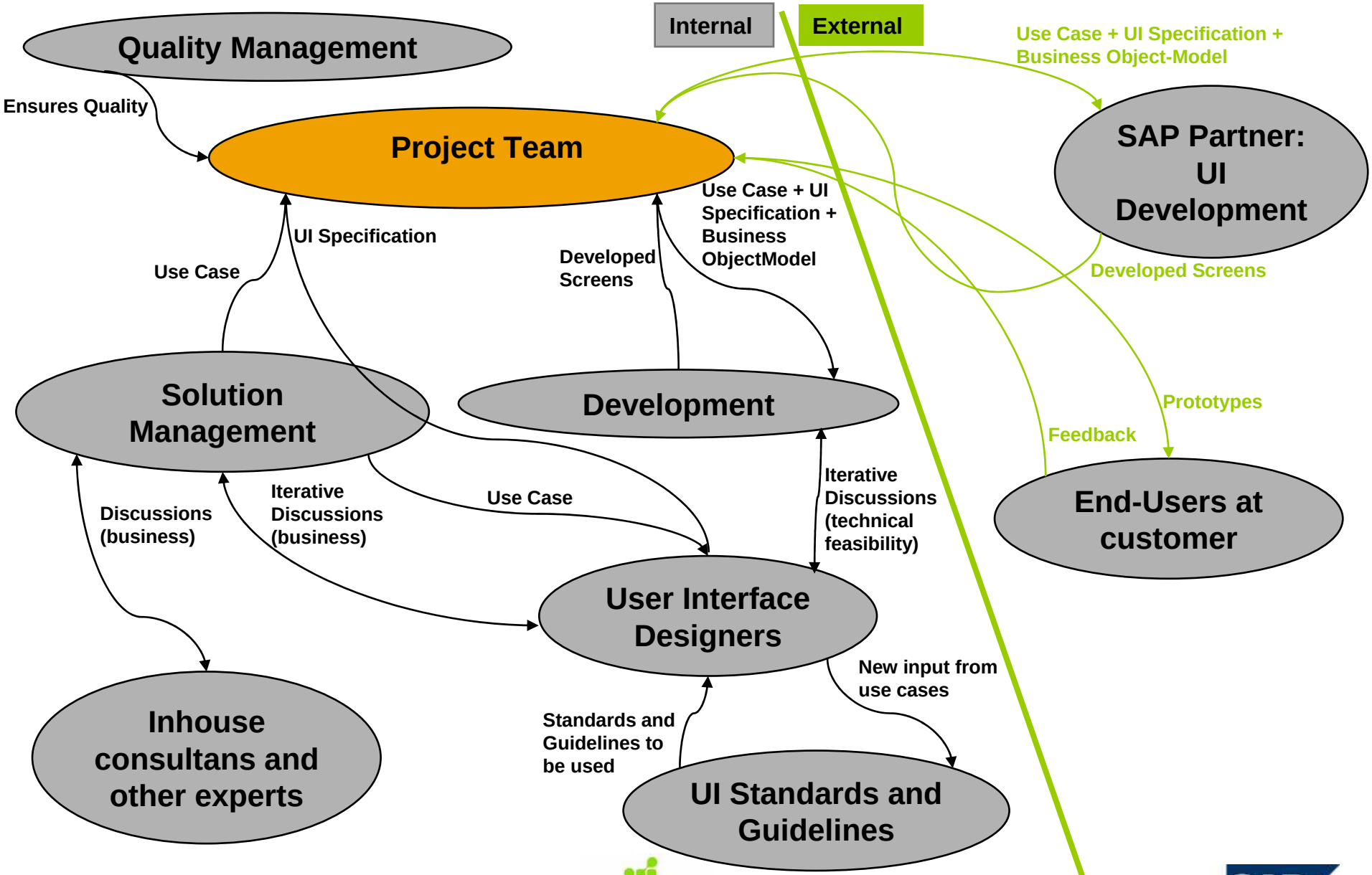
Timelines

- Project was kicked off in late autumn 2005
- 1st wave of screens are developed and are currently tested within SAP‘s Quality Management processes.

Geographical Project Set-Up



Project Setup: Who Works With Whom



UCD in the project (1/2)

User Research

- Solution Management Team has profound knowledge on business and end-user processes (even used to be acting in the user role)
- Use cases topics were collected, prioritized and elaborated one by one.
  - Use Cases were discussed in detail in several one-week workshops either in Philadelphia or Walldorf
  - Participating stakeholders:
    - Solution Management
    - User Interface Designers
    - Development Architects
    - Field-Consultants

UCD in the project (2/2)

UI Design and Validation

- Low fidelity prototypes were created in the workshops, alongside with detailing the use cases
- Prototypes were later refined to high-fidelity using an in-house tool which directly renders the correct UI-controls
- Intense iterative discussions on prototypes with stakeholders
  - Discussions with Solution management and development on prototypes, including a formal review-process
- Prototypes used for end-user feedback sessions, onsite at a customer in Ohio, USA.
  - First Feedback Session end of January 2006: Using PowerPoint Prototypes on Paper to get feedback if the project is heading into the right direction
  - September: Extensive feedback session with several end-users testing with html-prototypes based on the high-fidelity designs.
- Planned: Intra-Subject tests in lab-environment
  - User feedback sessions with end-users recruited nationwide, selected in cooperation with a market research company.

Challenges in a Distributed Project

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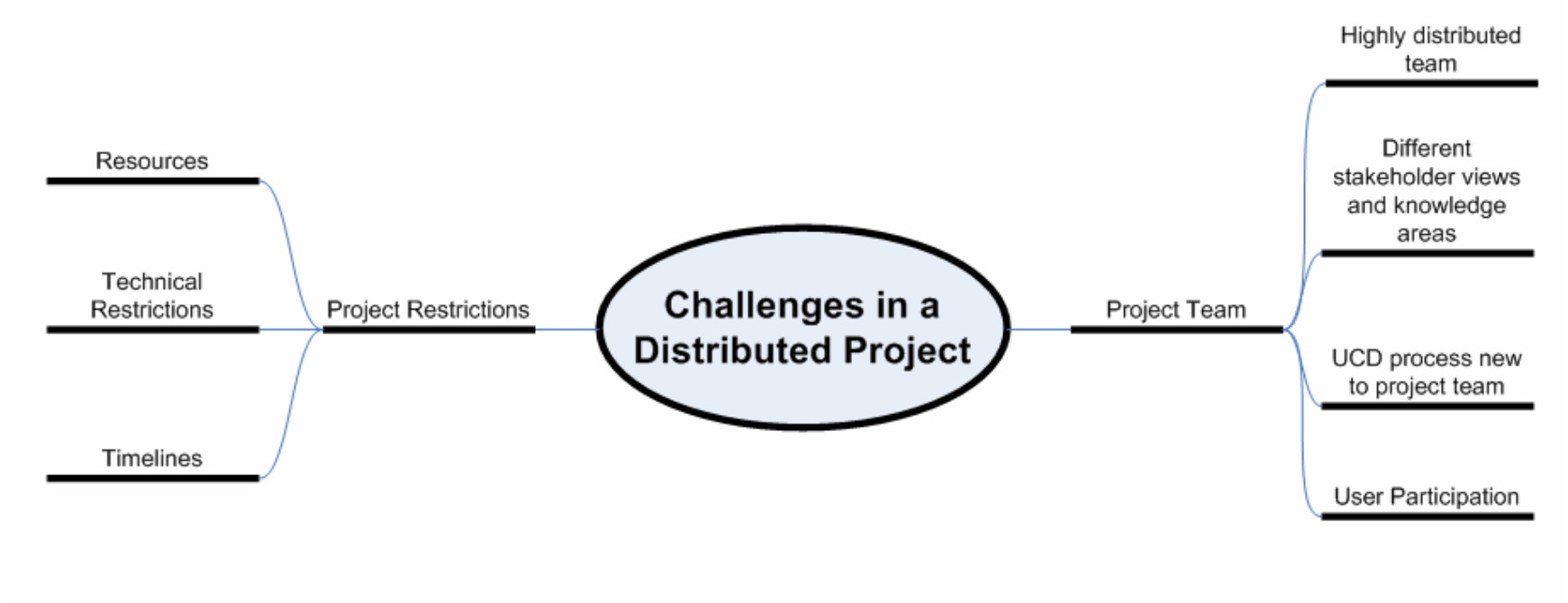
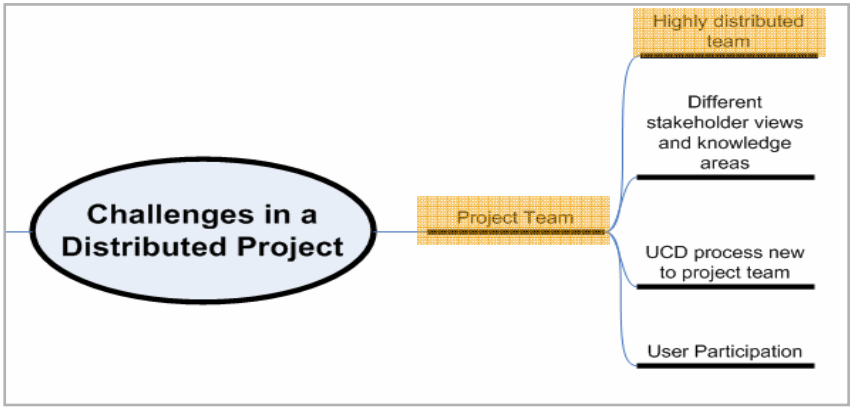
Challenges in a Distributed Project



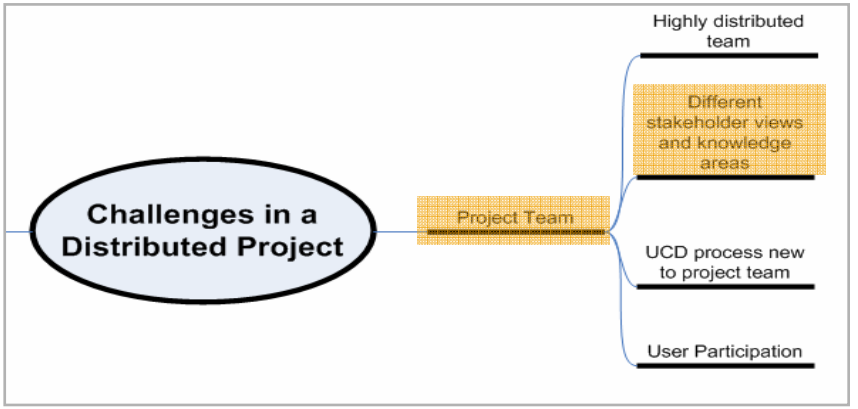
Challenges in a Distributed Project – Project Team (1/4)



Highly Distributed Team

- Language problems
  - English in general, though all project team members have a good command
  - Very specific industry (insurance) terms
- Different time zones
  - Shorter time-frame for telephone / video conferences
- All-hands workshops
  - Very effective but time-consuming and expensive (travel)

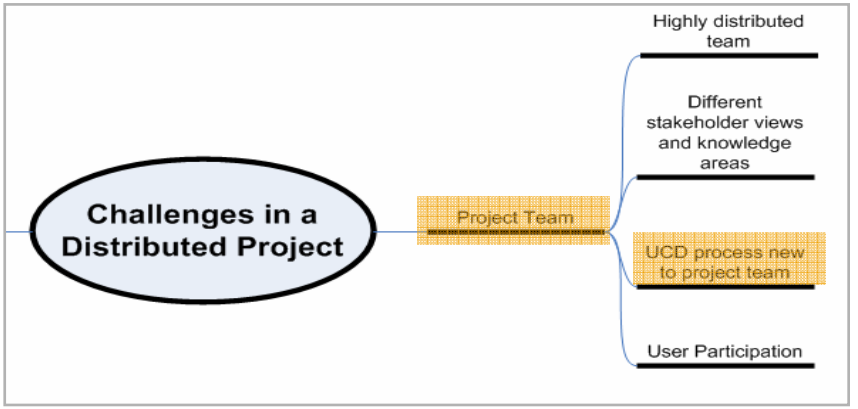
Challenges in a Distributed Project – Project Team (2/4)



Different stakeholder views and knowledge areas

- **Solution Management:**
  - **Business Driven**
- **User Experience:**
  - **Usability, Accessibility, Design**
- **Development:**
  - **What is technically possible**
- **Offshore-Development:**
  - **Understanding the specified use cases and designs**
- **End-Users:**
  - **Not available for the project permant or on short notice**
  - **Long planning for site visits and user feedback sessions**

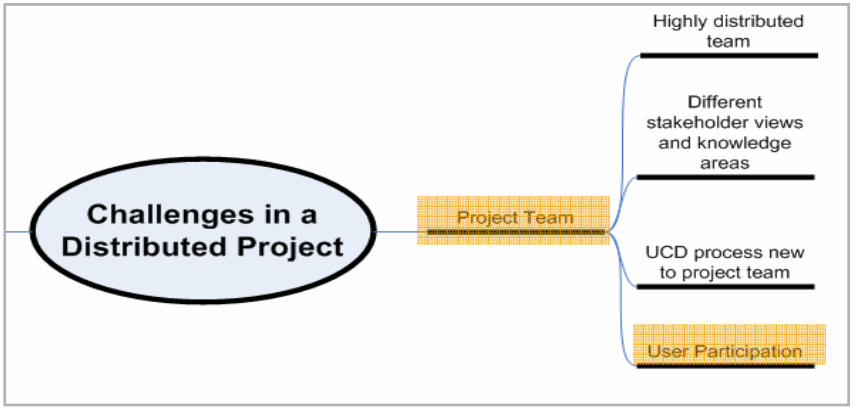
Challenges in a Distributed Project – Project Team (3/4)



UCD process new to project team

- Education of project team to follow UCD process required
- Though project team complies with the UCD approach, certain UCD or participatory design principles are partially bypassed due to Project Restrictions
- Not always easy to explain that e.g. also an old and successful SAP navigation paradigm might need to be re-evaluated if it benefits exactly those users who will be working with a certain piece of software

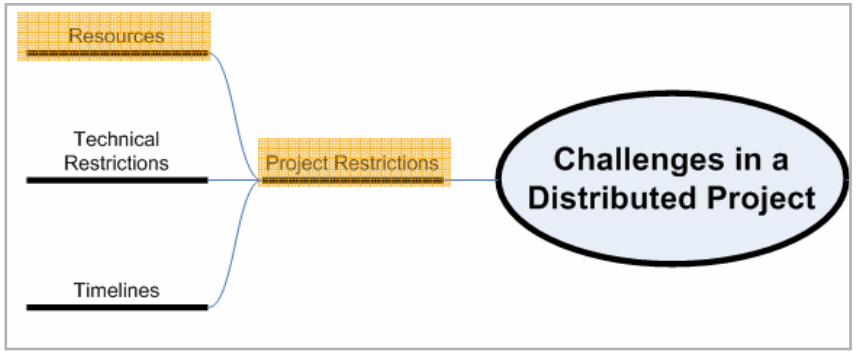
Challenges in a Distributed Project – Project Team (4/4)



User Participation

- No user research with end-users at beginning of project. Though, having very detailed and end-user near use cases from Solution Management
- Question, how often a customer's resource and time can be used for usability testing
  - ➔ Important to keep up with very good relationship with customer

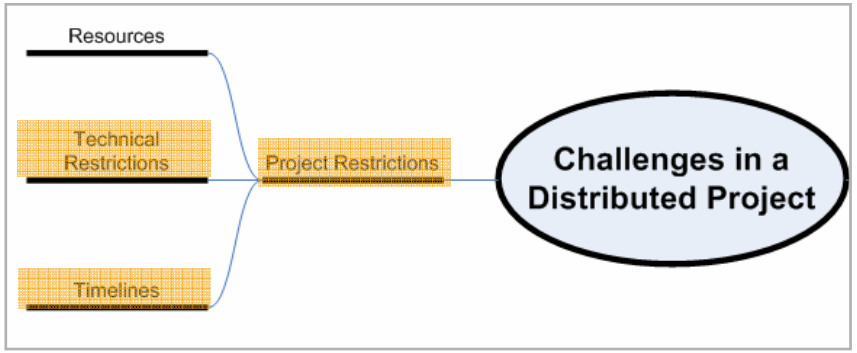
Challenges in a Distributed Project – Project Restrictions (1/2)



Resources

- Not always possible to have project members assigned to project with 100%
- Development: New technology and immense project scope
  - Parts of development outsourced to a SAP partner
  - Restrictions on functional-development in the backend-services for the first release ➔ Not all what has been designed could be technically realized in the same way
- User Interface Design Resources restricted to two full time assigned User Interface Designers

Challenges in a Distributed Project – Project Restrictions (2/2)



Technical Restrictions

- Frontrunners with new Java User Interface technologies
- Not all UI elements yet available as an UI building block.
  - Design could not always be realized as specified

Timelines

- For use cases which were developed by the offshore-partner, deadlines needed to be strictly kept
  - For on time-delivery of developed screens, UI Design specification had to be handed over, hardly any delay possible
  - Challenge to not loose oversight of whole use case scope through working too focused on those parts having a tight deadline.

Conclusions

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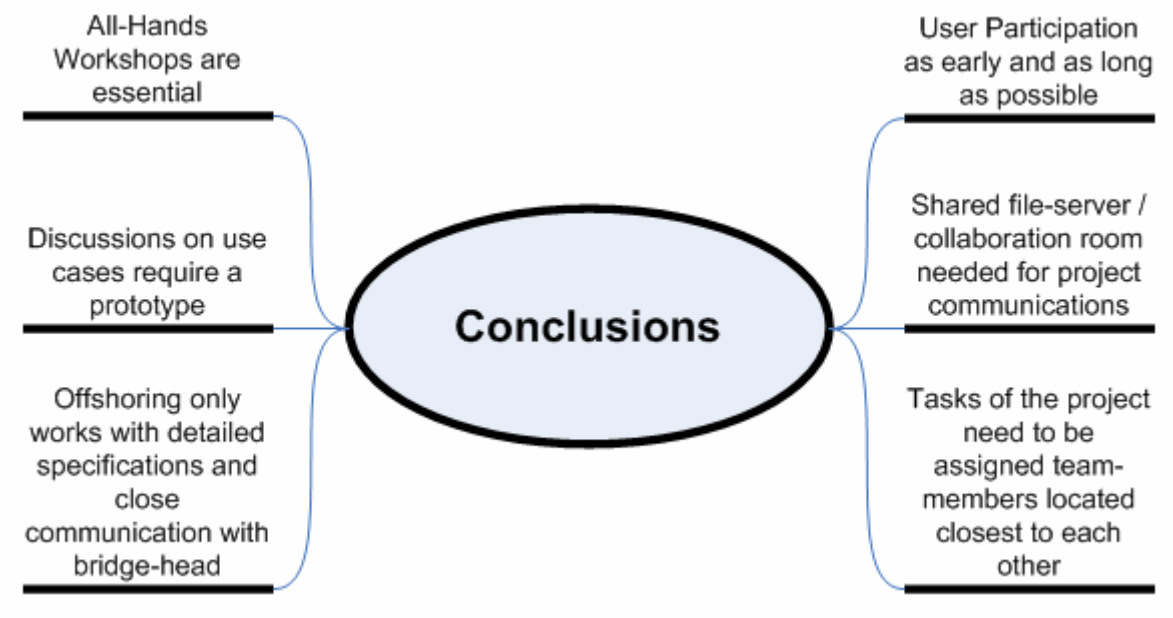
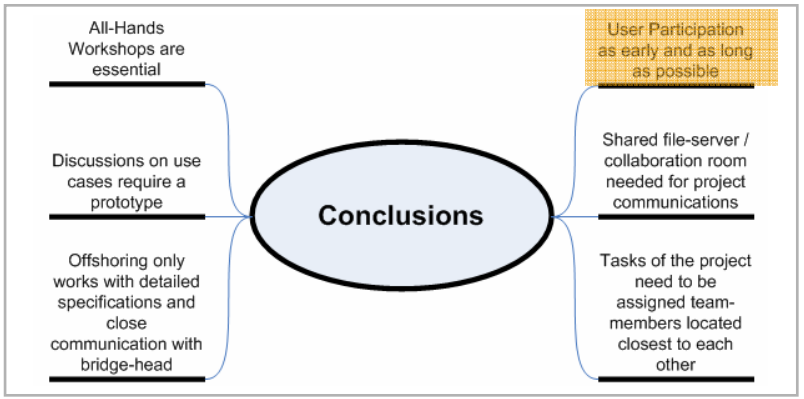
Conclusions (1/7)



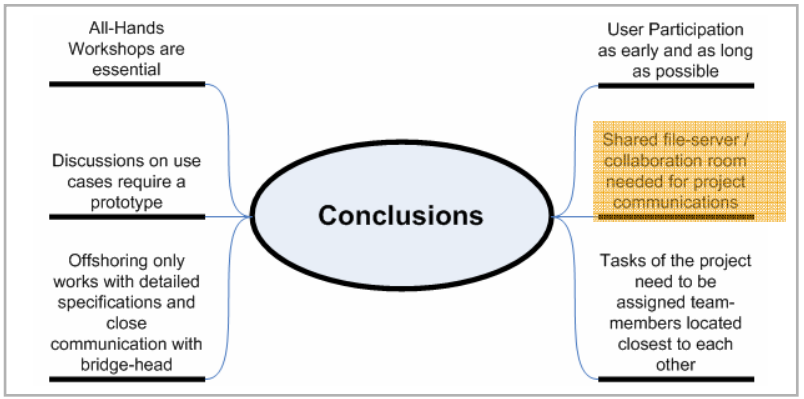
Conclusions (2/7)



User Participation as early and as long as possible

- Do User Research even though having very profound input from business specialists within the company
- Use Cases need to be validated with end-users before design-iterations start (low fidelity prototype might be included in validation)
- Get user feedback on a regular base and on smaller project milestones
  - Feedback Sessions with a very large scope might cause higher rework-efforts as design and development is maybe already much further ahead.

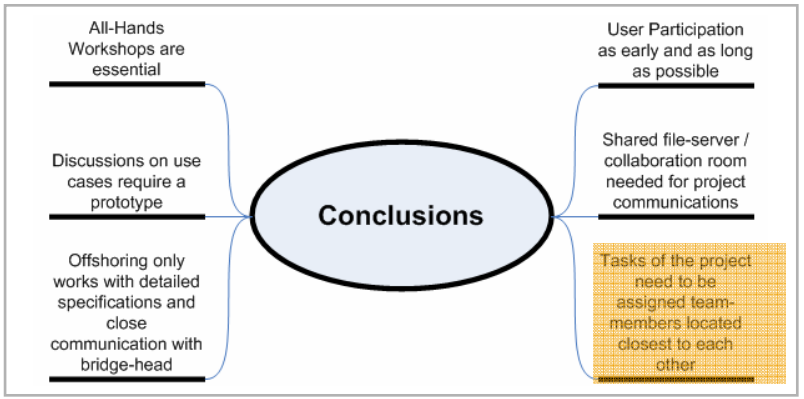
Conclusions (3/7)



Shared file-server / collaboration room needed for project communication

- All files, whether design-prototypes or meeting-minutes were stored on a central server to enable all company-internal users to access them
- If possible (depending on confidentiality of data) also allow external end-users to access shared documents as well.
  - Access might be restricted to not show all internal documents

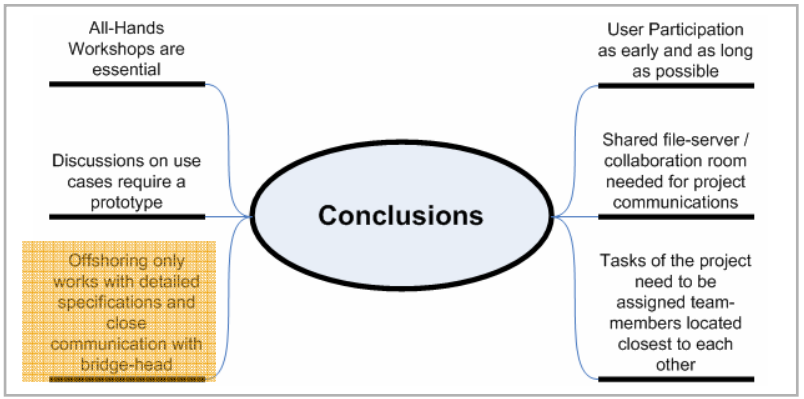
Conclusions (4/7)



Tasks of the project need to be assigned to team-members located closest to each other

- **Work is more effective when a business expert based in Walldorf, Germany works together with a User Interface Designer also based in Walldorf**
- **Project lead needs to closely monitor dependencies between stakeholders**
- **Less language barriers, less time-zone differences**
  - **Share tasks of the project within two time-zones (e.g. Central European and Eastern Standard time) at the maximum**

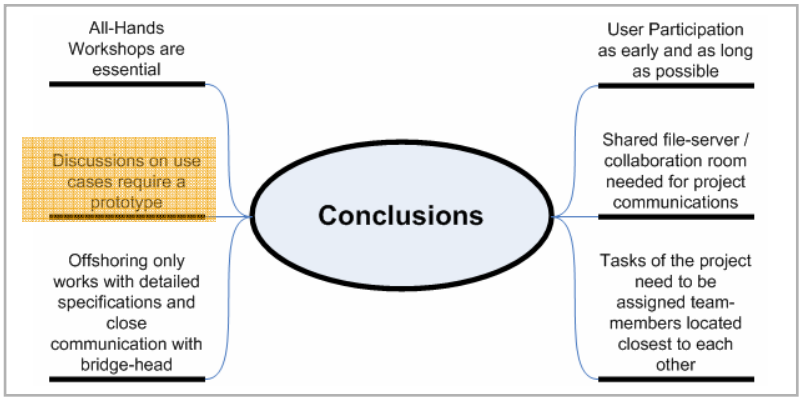
Conclusions (5/7)



Offshoring only works with detailed specifications and close communication with a bridge-head

- **A bridgehead needs to be defined, acting as a person channeling communication to and from the offshore team.**
- **Specifications (Use Cases, UI-Designs etc.) need to be exact and detailed to allow offshore-team to work fast and without too much conferring back with main team**

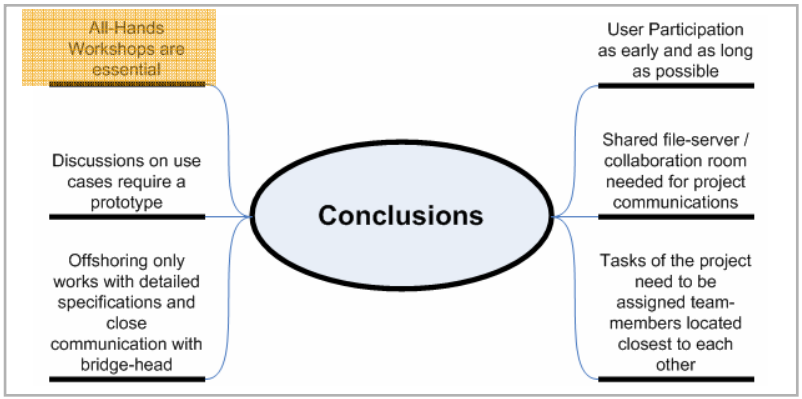
Conclusions (6/7)



Discussions on use cases require a prototype

- Without a design artifact, stakeholders might not get to a common understanding in the discussions
- Low fidelity prototypes are important, but in this project they were a bit problematic
  - Stakeholders and users were missing how the real screen-estate would like in real
  - Because of this, there were discussions on how the design would look like in real, though this normally would be part of a later design phase
- The usage of the in-house design tool was important
  - The tool allowed pixel-exact, high-fidelity prototyping with exactly those UI building blocks the development-team uses

Conclusions (7/7)



All-Hands workshops are essential

- All-Hands work on the same goal
- No disturbance by other meetings, telephone calls etc.
  - Therefore very effective team-work is possible
- Enables easier understanding of other stakeholder's topics and views
- No problems with different time-zones as the whole team is in one location
- Learn from different problem solving techniques / approaches of different stakeholder's professional background and culture.

THANK YOU FOR YOUR ATTENTION !

QUESTIONS – SUGGESTIONS

Be invited to visit the SAP Design Guild Pages:

- www.sapdesignguild.org

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