

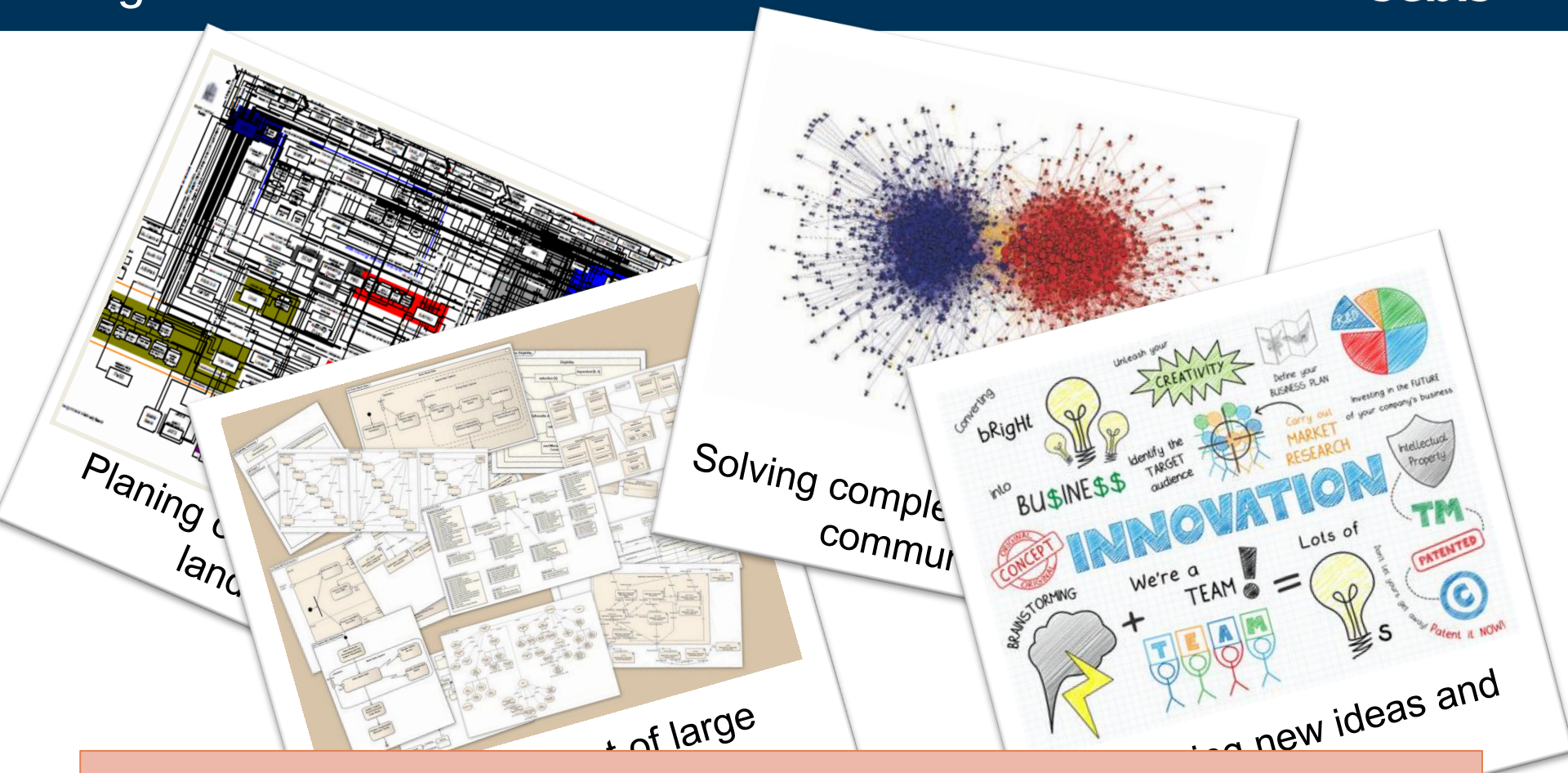
Adaptive Knowledge Intensive Processes with the Case Management Model and Notation

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Collaborative Knowledge Work is Ubiquitous in Organizations



How can software support processes for collaborative knowledge work?

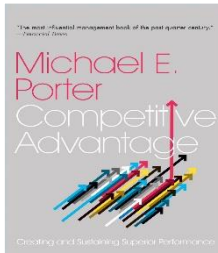
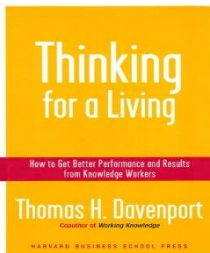
Theoretical Basis of the Research Project Involves Three Different Disciplines

Knowledge Work

Literature on knowledge work in organizations provides an understanding of the problem.

Description of the problem:

- Characteristics of knowledge work
- Complex vs. Complicated problems
- Roles in knowledge work

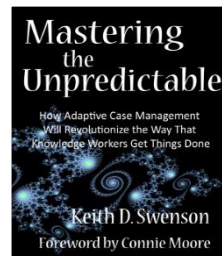


Adaptive Case Management

Adaptive case management is a novel approach to support knowledge-intensive processes.

Solution ideas from ACM:

- Essential requirements for ACM support
- Emergent design of processes
- Evolution of processes with templates

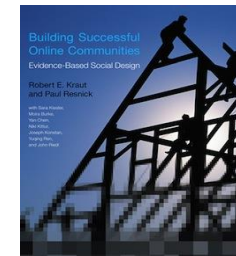
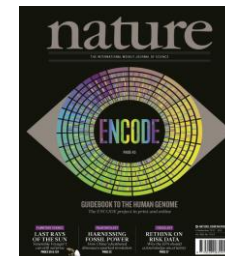


Social Principles and Patterns

Knowledge work relies on the successful collaboration of different roles.

Facilitating collaboration:

- Building successful online communities
- Learning from existing communities on the web
- Principles and patterns



Solution: Empowering Users to Collaboratively Structure Knowledge-Intensive Processes

Goal Orientation

- Describe which goals should be achieved
- Goals guide the stream of work
- Replaces traditional process model

Emergence

- Empowerment and participation of end users
- Adaptability of templates at run-time
- Continuous improvement of templates

Data Centricity

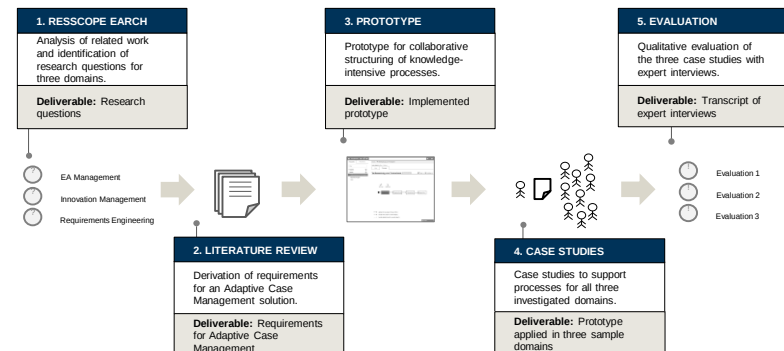
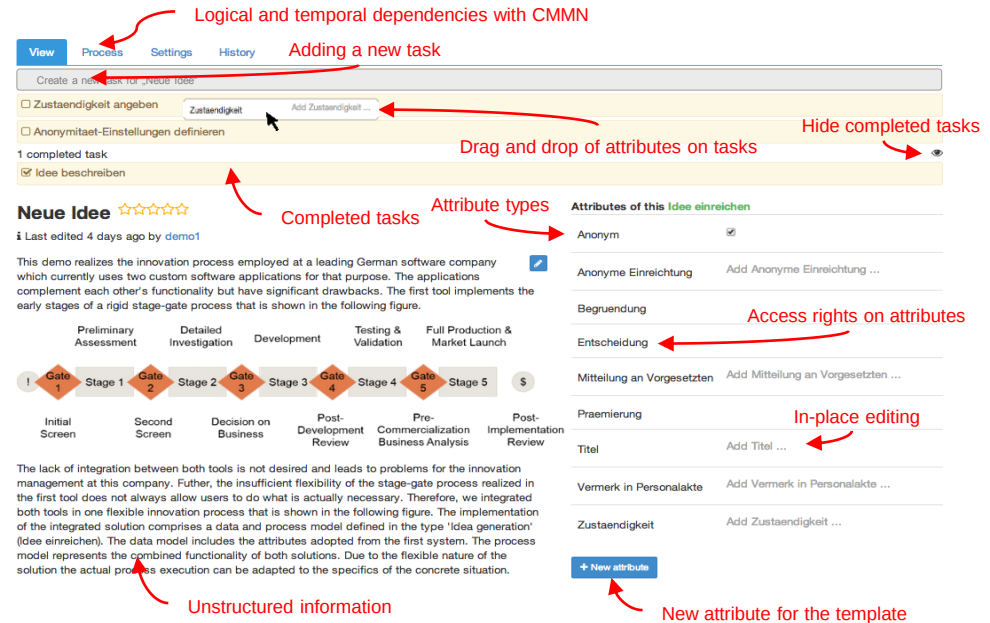
- Data as driver for knowledge work
- Goal-oriented transformation of data
- Integration of processes and data

Collaboration

- Knowledge creation through interaction
- Building a successful online community

Case Templates

- Sharing and preservation of knowledge
- Access to recurring best practice patterns



- Flexible stage-gate process for **Innovation Management**
- Development of a future **Enterprise Architecture** state
- Artefact-oriented **Requirements Engineering** processes with templates

Adaptive Case Management Supports Processes for Collaborative Knowledge Work

Criterion	Classic BPM	ACM
Structure	Process-model	Case-template
Role separation during conception and execution	Yes	No
Time separation between conception and execution	Yes	No
Flexibility of customization	Medium	High
Flexibility of usage	Low	High
Types of processes	Routine process	Knowledge-intensive, weakly structured processes
Process control	Control flow	Goal oriented
System organization	Focused on process	Focused on data
Investment	Low	High



➤ Adaptive Case Management focuses on processes that have a weak structure and are constantly adjusted by everyone involved

- 1) To which extent can CMMN support knowledge intensive processes?
- 2) What is a minimal subset of CMMN elements that can be used for applications supporting knowledge intensive processes?
- 3) What minimal functionality should a runtime system provide to support CMMN and what would it look like?

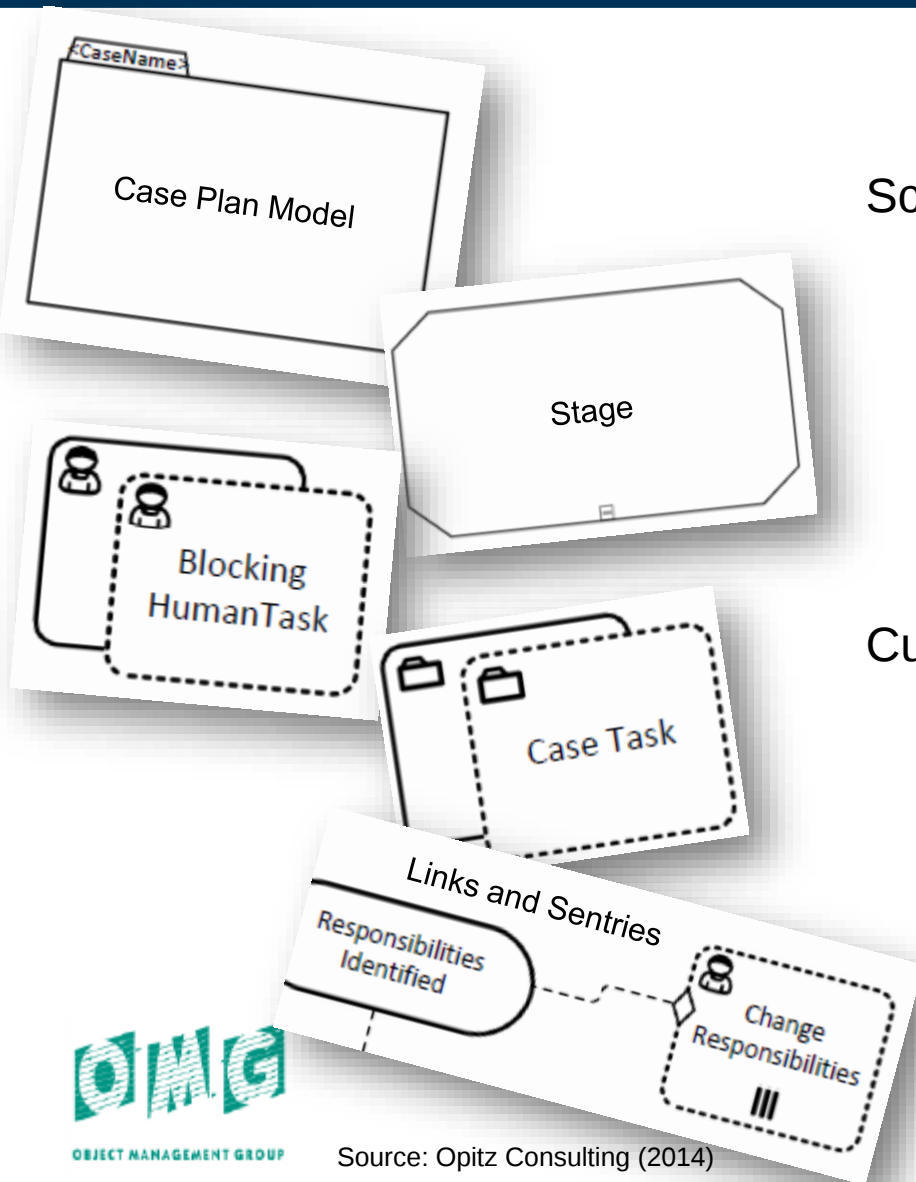




ACM Requirements	CMMN
Focus on final goal instead of process	Achieved through cases, stages and milestones ~
Flexibility at runtime	Model can be altered and extended at any given point throughout the process ✓
Visible progress of the case	Milestones indicate status ~
Integration of data in the case	Data can be added as documents ~
Hierarchical structure of tasks	Stages can contain tasks and also other cases ✓
Definition of logical dependencies between tasks	Links indicate order of tasks ✓
Understandable and adaptable for end users	Limited to experience users ?

➤ Most requirements are supported, but it is up to a runtime-system to provide the functionality required by Adaptive Case Management

Dependencies between tasks are defined with the Case Management Model and Notation (CMMN)



Scope of CMMN

- Common meta-model and notation for modeling and graphically expressing a Case
- Interchange format for exchanging Case models among different tools

Current State of CMMN

- Specifications have been released by the Object Management Group
- Version 1.0 has been released in May, 2014

Advanced users have the ability to interactively alter the process at runtime

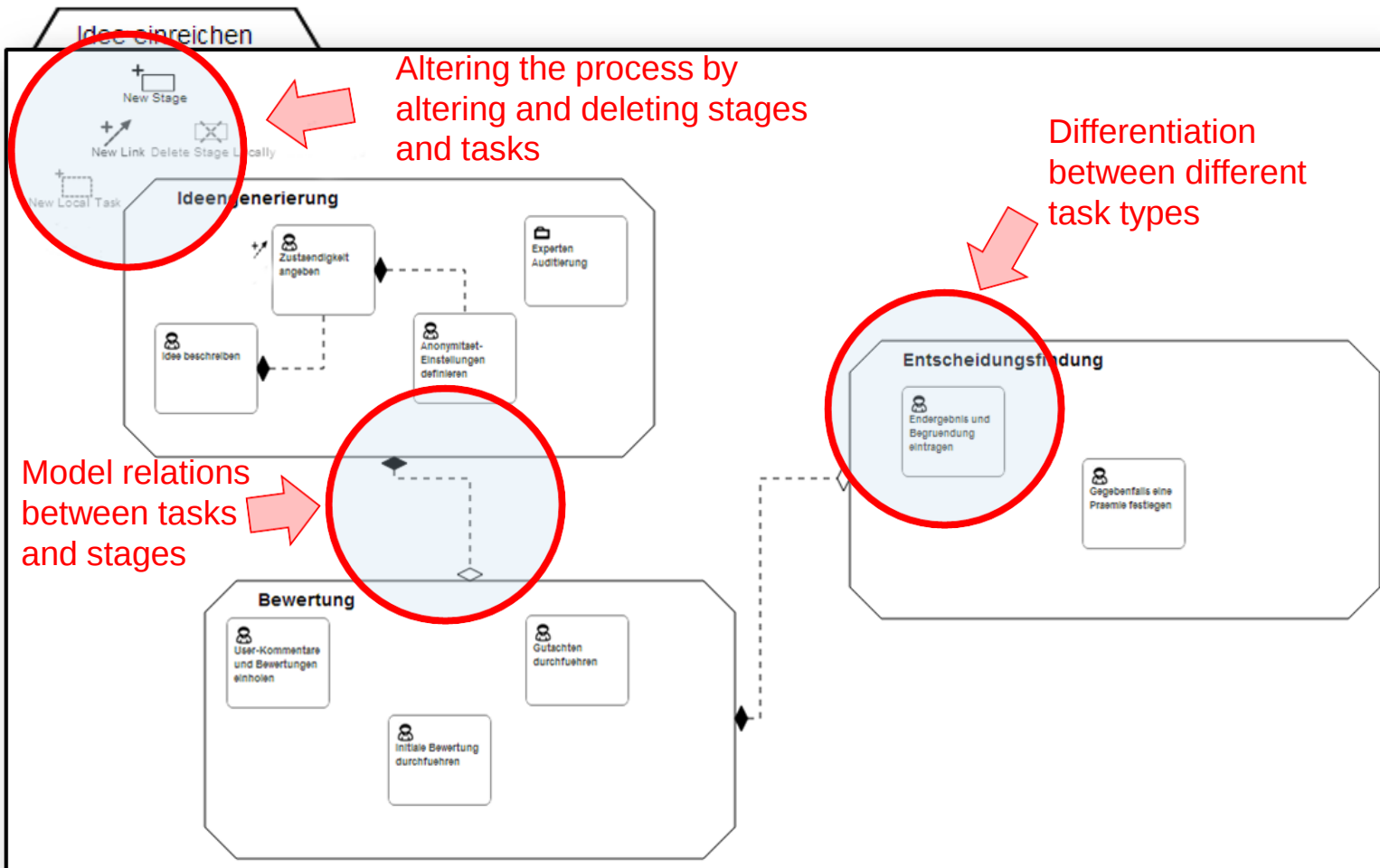
View

Process

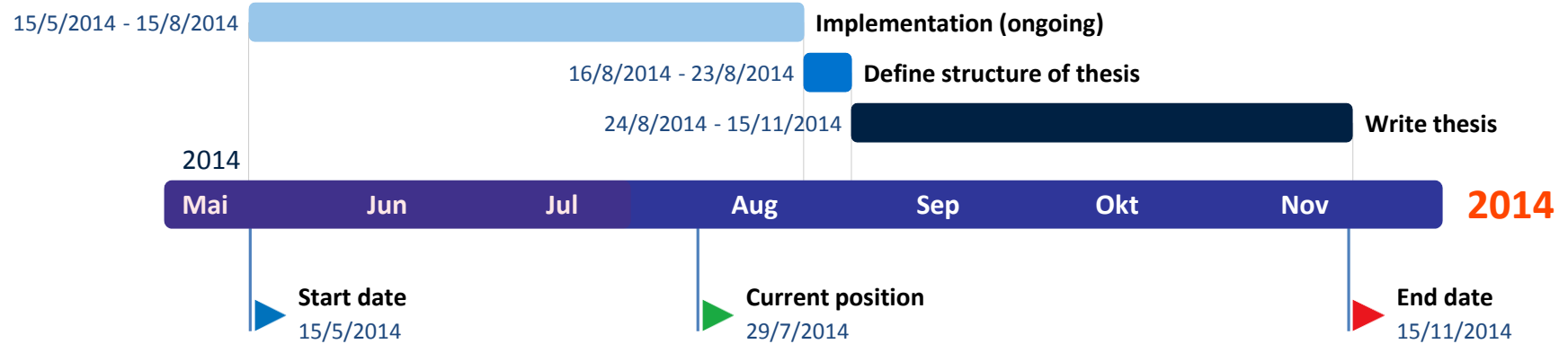
Settings

History

Process of this **Elicit requirements**



Current State of the Thesis



Any questions?

Backup

