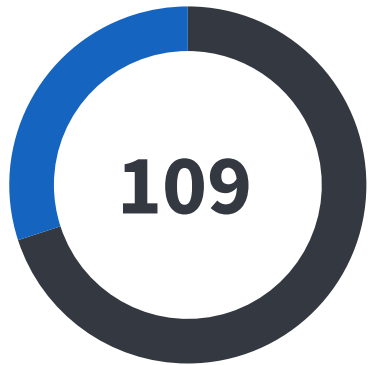


Large-Scale Agile Development Patterns

Ömer Uludağ, sebis day, 24.06.2021, München

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Large-Scale Agile Development Patterns in numbers



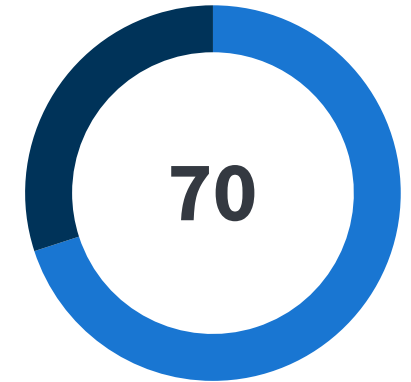
Interview partners

Survey of 20 companies from various industries, from automotive to insurance



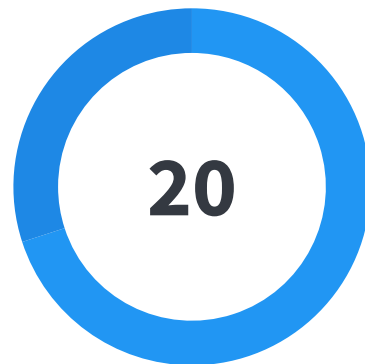
Pattern candidates

Identification of more than 300 pattern candidates from interviews to address stakeholder-specific concerns



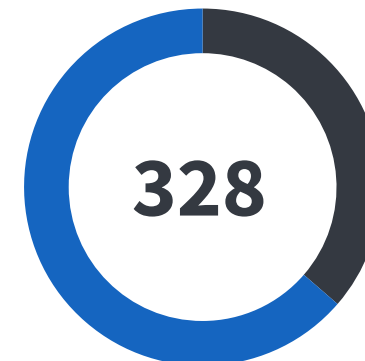
Interviews

109 interviews with more than 15 different roles from the Large-Scale Agile Development area



Theses

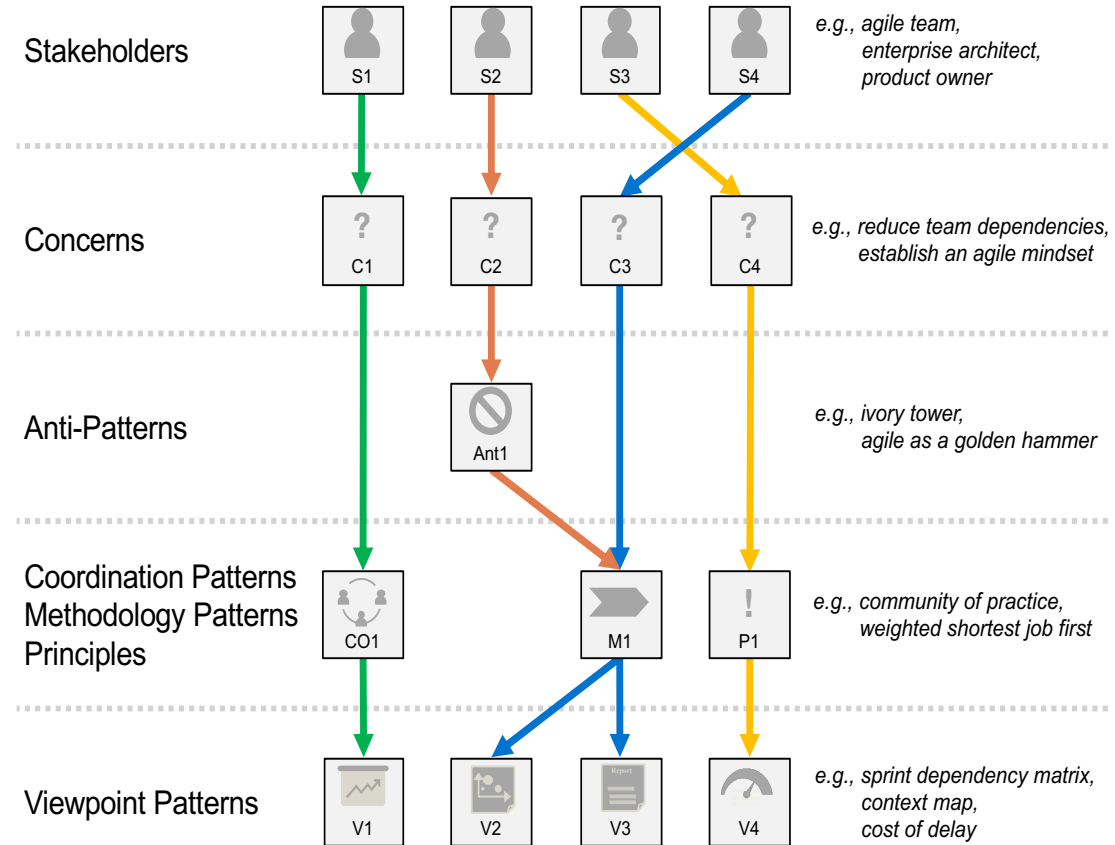
3 Bachelor theses, 4 Master theses, and 2 Guided researches related to Large-Scale Agile Development Patterns



Identified patterns

Identification of 70 patterns observed in at least three companies (Rule of Three)

Conceptual overview of the Large-Scale Agile Development Pattern Language



CO-Pattern Overview

Id	CO-1
Name	Community of Practice
Alias	Community, Guild
Summary	A Community of Practice are groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis.

Example

A vehicle dynamics development department of CarCo aims to transform its current traditional matrix organization to an agile organization by launching a large-scale endeavor with seven agile teams and more than 100 involved stakeholders. During this transformation process, CarCo has difficulties in aligning the agile teams working in the same department as they have no regular meetings on discussing common topics. Furthermore, the software architects of the large-scale agile endeavor recognize that the agile teams use some tools that are incompatible with each other making the integration of their sub products nearly impossible.

Context

Traditional agile approaches such as Scrum do not offer support large-scale cross-team coordination. Thus, establishing efficient coordination and knowledge sharing mechanisms between agile teams as well as between the experts in the teams might be difficult without having suitable knowledge sharing forums.

Example for a CO-Pattern – Community of Practice

Problem

The following concern is addressed by Community of Practice:

- How to create a platform for active knowledge sharing and discussion?

Forces

The following forces influence Community of Practice:

- Facilitating shared context and knowledge across the organization is difficult
- Internal silos create gaps in knowledge and communication between agile teams

Solution

A Community of Practice meet regularly for knowledge sharing about a specific domain [Wenger et al. 2002]. The focus is to talk about practices that are applied and not to discuss theories. The participants of a Community of Practice are typically not from the same team, but from many different teams all across the organization. In the best case, many different practices can be presented and discussed, leading to a wide knowledge base. The participation in a Community of Practice is usually voluntary. In contrast to the M-Pattern Empowered Community of Practice, a traditional Community of Practice is not able to make binding decisions for the organization.

Variants

A Community of Practice can be set up for a variety of domains. A Community of Practice have been identified in the following domains: Architecture, Testing, Interfaces, Deployments, Leadership, and Infrastructure. In addition, a Community of Practice can also have some decision-making power for different topics, which is described in the M-Pattern Empowered Community of Practice.

Consequences

The following benefits of Community of Practice are known:

- Encouraging knowledge sharing for diverse topics
- Breaking up silos
- Enabling a culture of continuous improvement

The following liabilities of Community of Practice are known:

- Requiring an active involvement of participants
- Topics in the agenda could be too diverse and broad
- Providing right incentives to the participants is challenging

See Also

Community of Practice may be utilized in combination with the following M-Patterns:

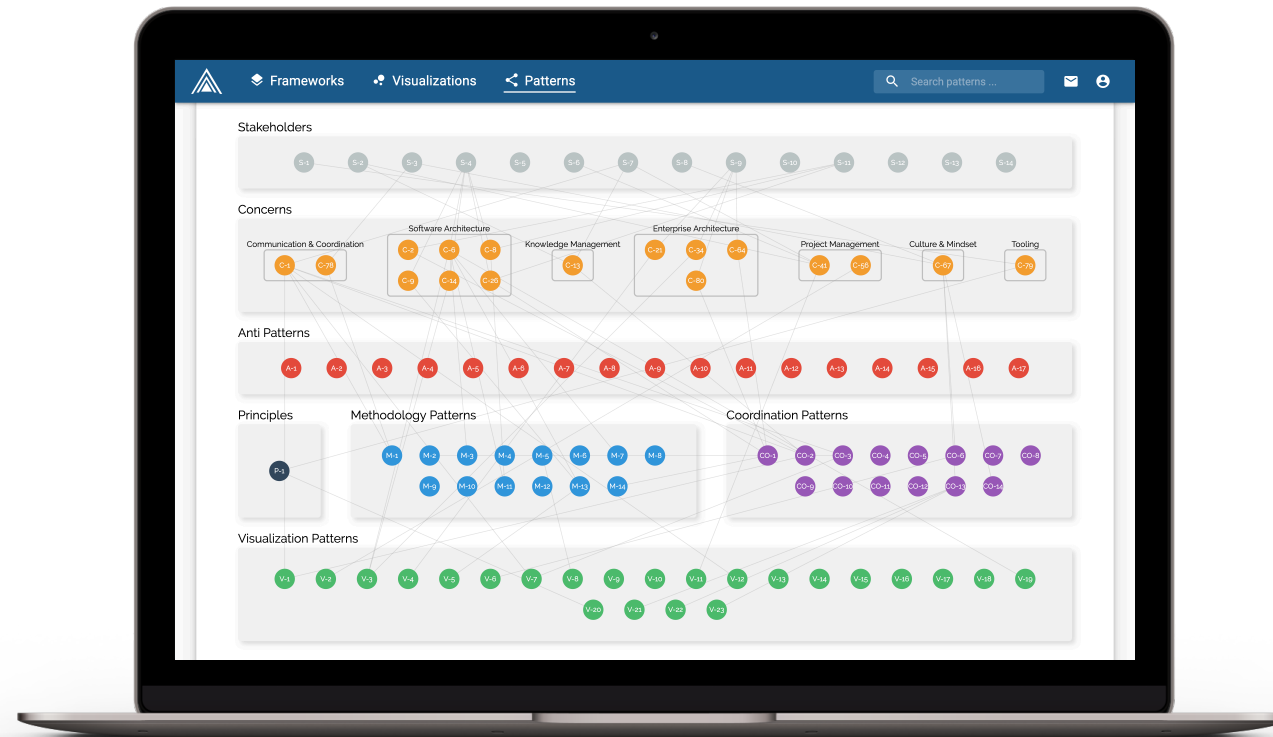
- Consensus-Based Decision Making
- Empowered Community of Practice

Other Standards

Community of Practice is also recommended and practiced by the following scaling agile frameworks:

- Disciplined Agile Delivery
- Large-Scale Scrum
- Scaled Agile Framework
- Spotify Model

Use the Pattern Graph to address your stakeholder-specific concerns



Link to the Pattern Graph visualized in the Scaling Agile Hub:

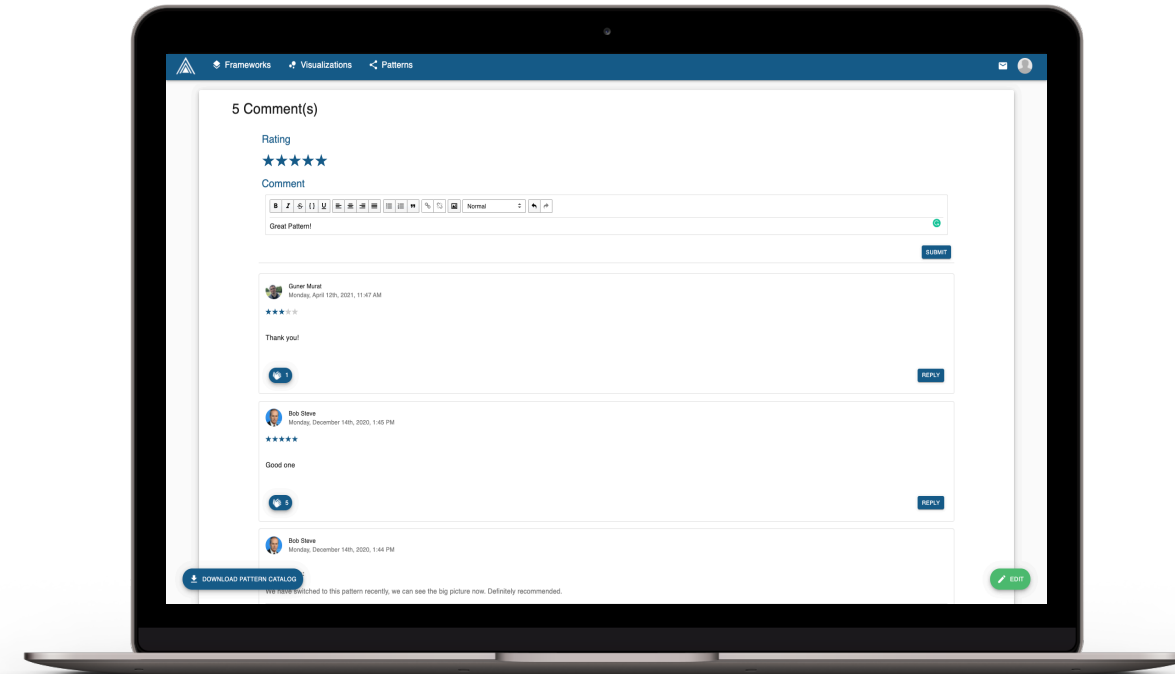
<https://scaling-agile-hub.sebis.in.tum.de/#/patterns>



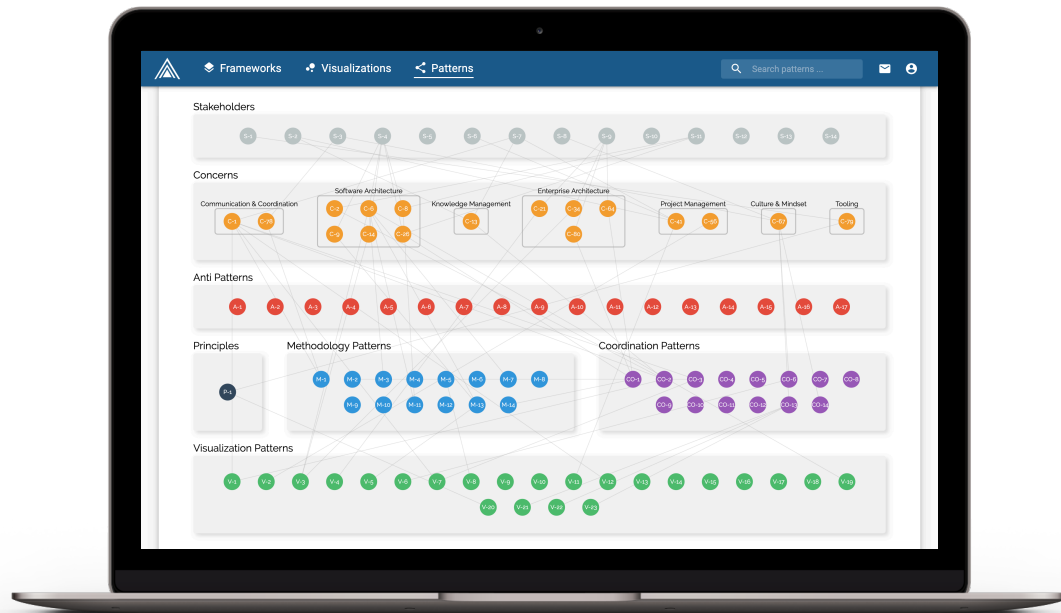
Become a part of the Large-Scale Agile Development Pattern Community!

Use the Activity Feed to explore recently rated patterns

Share your experience of using specific patterns with the pattern community



Use the Platform or the Pattern Catalog to address your concerns in Large-Scale Agile Development!





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