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How agile architecture can be applied in large-scale agile environments –

Part 3: Which processes can promote collaboration between agile delivery teams?

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The first of the two weeks in which Peter wants to tackle the three defined core architecture processes is over and on Monday morning of the second week he is very enthusiastic to complete the conception work. The week before he had a deep dive into the first process area, *architecture planning*. He defined how strategic themes are to be translated from the portfolio level to the programme and team levels into architecture topics with an increasing amount of detail, and how they are to be passed on to the teams. Full of motivation, he opens his laptop and looks at the second and third core processes: *architectural agile delivery support and visualisation*, and *architecture oversight*.

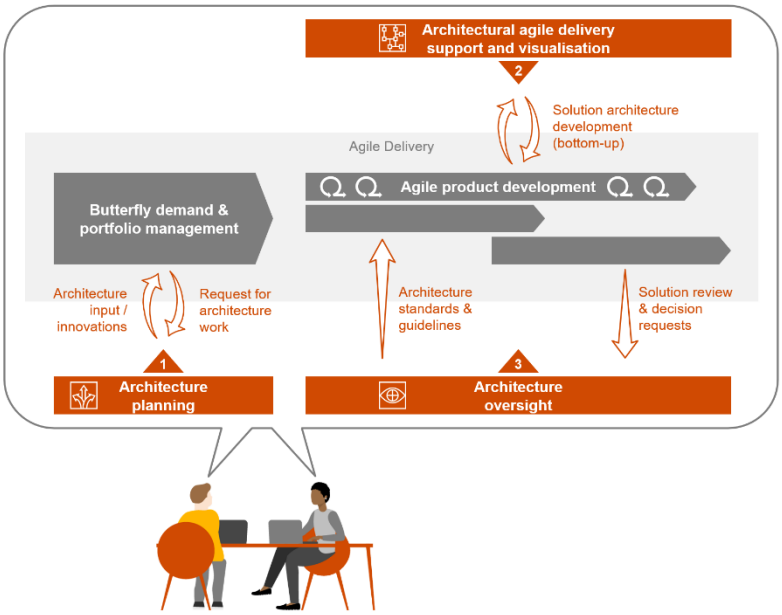

Figure 1: Architectural planning process

Architectural agile delivery support and visualisation

Peter knows that the architecture planning process is a good starting point, but he still fears that it will not be sufficient to achieve a stronger operational collaboration and alignment across the Solution Architects and teams. He recalls the conversation with Solution Architect Max in which he mentioned that the entire Butterfly Programme lacked one or more overarching architecture view(s) that reflected the continuous development of the IT landscape. Consequently, each team started to create their own diagrams which were inconsistent with each other.

Peter remembers the early days of his career when Enterprise Architects were creating and plotting out large wallpaper architectures. For the Butterfly Programme, he is unable to envision how he and the other Architects will be able to maintain such a comprehensive and detailed architecture view continuously. Hence, he seeks a discussion with Sheela, a colleague working on another large IT programme. Sheela confirms Peter's doubts that in scaled agile environments the landscape often evolves too quickly and at different speeds to be represented in one big overview. She explains at the whiteboard that in her programme, a combination of a high-level target architecture vision and individual architecture diagrams per business initiative has worked very well for them.

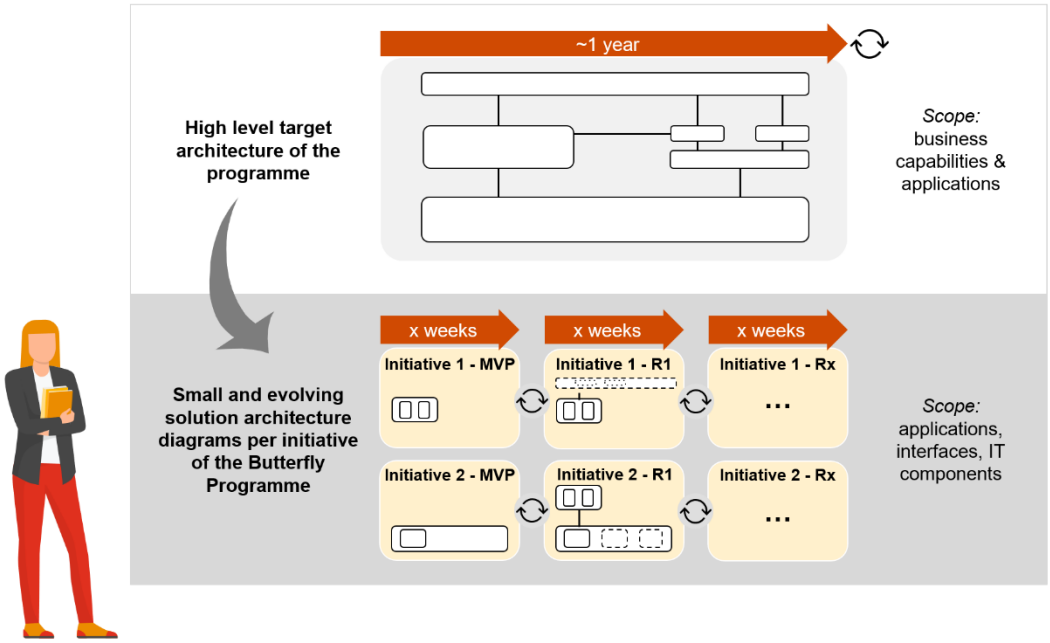

Figure 2: Agile architecture visualisation

Sheela continues by saying that the architecture vision points out the key architecture building blocks required to shape the future IT landscape for the next few years. It serves as an overall guide for the Architects and teams, whereas the initiative diagrams document the concrete solution architecture needed to deliver business features in the next sprints/increments. They are created as part of the architecture support where Domain and Solution Architects work out the detailed solution designs with the teams. With these solution views, the Architects are able to bring the programme's architecture principles to life and also help the teams identify external interfaces and dependencies to foster cross-team alignment.

Sheela points out that in her case, the previously reactive documentation of the IT has switched towards a proactive style whereby Architects continuously enter planned architecture elements and thus quickly identify potential refinement needs and dependencies.

The next day, Peter reflects on the discussion with Sheela with a view to resetting the use of architecture documentation in the Butterfly Programme. He is aware that this requires certain level of modelling standards and a degree of change management. As a result, he takes her advice and engages his new Programme Architecture Office team to set up the new diagram structure and to develop the diagrams continuously in strong collaboration with the Solution Architects. He also hopes to strengthen the role of the new team this way and establish it as a central point of contact for Architects and development teams.

Additionally, during the conversation with Sheela, Peter realised that he had little information about her IT programme, even though she works in the same organisation. Over the past few weeks, he has done some research and read that a collaborative enterprise architecture tool is essential for breaking down the barriers to other programmes and organisational units. Such a tool would allow him to view Sheela's solution

architectures, for example. It would create organisation-wide transparency and serve as a single source of truth for architecture information. This would allow everyone to gather information quickly and locate the appropriate contact person for each solution or component.

Peter plans to initiate a software selection procedure for an enterprise architecture tool to take advantage of these benefits for his Butterfly Programme and the entire organisation.

Architecture oversight

Peter knows that architecture governance or any other form of governance has been a delicate topic within agile programmes. On the one hand, the agile working mode encourages autonomy in the different delivery teams. On the other hand, the programme does not exist in isolation and needs to be embedded in the enterprise architecture and be in line with the corporate strategy. Therefore, Peter wants to focus on three areas of oversight:

1. A definition of **architecture principles and standards** that help the teams to come up with solutions that are aligned with the overall enterprise architecture
2. An **interaction model** that fosters touchpoints and co-design work between the delivery teams and the respective Solution and Domain Architects.
3. An **architecture decision framework** sets out the criteria defining which decisions can be taken autonomously by the teams (and their Solution Architect) and which require more formal alignment within the programme or even with programme-external authorities.

Peter starts with the first task, the **architecture principles and standards**, which are an integral part of the intentional architecture. He knows that principles like architecture and integration design or data strategy are not yet documented in the Butterfly Programme. He therefore decides to meet with his Solution Architect Max again and drafts an initial outline of what to cover. But before getting into content-related topics, Peter would like to continue focusing on structural and process-related adjustments.

Peter moves on with the **interaction model**. It is clear to him that the Solution and System Architects are the most important multipliers for communicating the architectural principles to the teams and for reviewing and discussing their challenges and solution designs.

He identifies a couple of steps in their agile working process in which the Architects can provide input and support to the delivery teams:

1. The *Inspect & Adapt Workshops,* during which all teams plan the next increments and in which cross-team dependencies and the need for architecture work can be identified.
2. The *Sprint Planning Sessions,* in which the Solution Architects take part to understand where they need to provide support in the coming weeks and where they can influence which architectural tasks need to be prioritised.
3. The bi-weekly *Architecture Community Meetings,* at which architecture needs are discussed and the teams reflect on which solutions and standards have proven practical.

To that end, Peter instructs his Programme Architecture Office team to focus on these interaction points in order to proceed and take part in those discussions.

Regarding the **architecture decisions framework**, Peter has to wait for some input from his manager Maria. She wants to find out about the existing decision authorities defined in the programme and the relevant decision bodies outside the programme.

On Friday evening, Peter sits back and reflects on his last, tough week and on everything that has been accomplished. Secretly, he is glad that the release delay escalated things. Tit meant that he was spurred into action and had the opportunity to reflect on some particular points:

Figure 3: Key takeaways on collaboration processes between agile delivery teams

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