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Scrum in a Traditional Project Organization

by Remi-Armanda Collaris & Eef Dekker & Jolande van Veen

Scrum is a framework for managing Agile teams. An important practice in Scrum is that the development teams are self-organizing. This means that the team determines and optimizes its approach to its specialist work. Development teams are enthusiastic about it, that's for sure. They quickly apply Scrum, but quite soon it becomes clear that the organization in which they work has to accommodate the new approach. The question is how to do that.

The answer of an enthusiastic Scrum expert will be: just do Scrum, and everything will work out fine. There are, however, quite a few aspects of project management which Scrum does not cover, like resourcing, budget affairs, business case, communication with stakeholders, project setup and support. These aspects could be filled in with the help of other methods, for example with a management method like PRINCE2.

In this article we show how, in our work as consultants with Ordina, we have embedded Scrum teams in existing PRINCE2 project organizations. This is a challenge, for Scrum introduces a couple of new roles which do not clearly map to roles in the existing organization. Moreover, applying Scrum asks for a different mindset, which means that responsibilities of existing roles will be different as well.

1. Traditional Project Situation

First, let's sketch a standard PRINCE2 project organization. The Project Board issues a project assignment to a Project Manager, who establishes teams and, if the size of the project demands it, appoints Team Managers. The Project Manager translates the project assignment into work packages for the different teams. The Team Manager translates the received work package into tasks for the individual team members. This situation is visualized in figure 1.¹

¹ We don't show reporting and communication lines here.

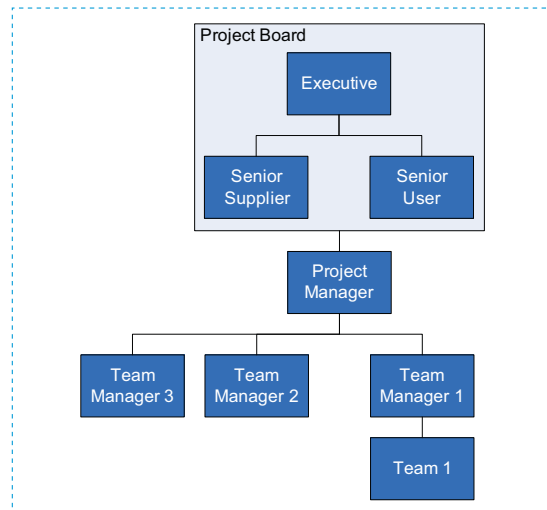


Figure 1: Traditional project organization

2. Project Organization With Scrum

In a project organization with Scrum, the Project Board issues a project assignment to a Project Manager, who in turn forms a Scrum Team for the software development part of the project assignment. This has consequences for the project organization and the responsibilities of the different roles in the organization.

As before, the Project Manager is still the one who hires people in the project. In that sense, there still exists a hierarchical relationship. However, there is no work package in the sense of a well-defined amount of functionality which is given to the team, but there is a work package as assignment in terms of the goal to be reached. Figure 2 shows the organization chart. It is important to note that the vertical line to the Scrum Team differs somewhat in meaning from the traditional situation in figure 1: the Project Manager supports the team to self-organize. We'll explain this later.

Scrum helps the team to deliver value to the business early. The

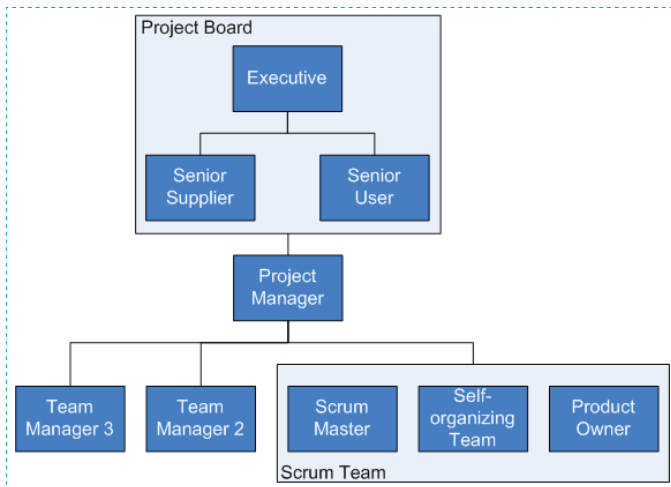


Figure 2: Project organization with one Scrum team

team is fully transparent to all stakeholders with regard to the tasks they are performing, progress they have made and impediments that slow the team down². In order to do so, Scrum introduces the following management roles:

- Product Owner
- Scrum Master
- Self-organizing team

The *Product Owner* represents all stakeholders for the team. He defines desired pieces of functionality and prioritizes them during the project, he decides on data for delivery to production, he guards the coherence of the deliveries and accepts the incrementally growing solution.

The *Scrum Master* facilitates the team and sees to it that the team applies the Scrum practices and does not lose focus. He also removes impediments that emerge in the daily work of the team, either by taking action himself or by invoking others, higher in the organization's hierarchy.

The *self-organizing team* is a management unit. Scrum assigns responsibilities which traditionally are in the hands of a Team Manager or Project Manager to the team as a whole³.

The Scrum Master works closely together with the team. This role resembles that of the traditional Team Lead, with an important difference: the Scrum Master does not stand 'above' the team but on the same level. He stimulates the team to organize itself and to commit to a clearly defined, realistic work load. The Scrum Master does not receive a Work Package but the team puts it together per Sprint (iteration) from the high priority Product Backlog items.

The Product Owner is also at the same level as the team. In this

² We do not explain Scrum here at length, but confine to organizational aspects. More information about Scrum can be found at www.scrumalliance.org/pages/what_is_scrum.

³ Details can be found in the table in the next section.

role he is the single point of contact for decisions about priority and functionality, but he cannot order the team to take on more work than the team is willing to commit to. In compiling and prioritizing the Product Backlog, the Product Owner is driven by the value which the Backlog items deliver to the demand organization. Both the Scrum Master and the Product Owner are involved in the daily practices of the team and must be prepared and able to spend a sufficient amount of time fulfilling their roles.

3. A Shift Of Management Responsibilities

In the previous section, we have shown how the new Scrum roles fit in the existing project organization. Adding these roles and omitting the Team Manager role means that the management responsibilities in the project organization are reallocated. In order to do this, we need to know what is expected of the

Scrum roles. Briefly: the Product Owner represents the business, the team is self-organizing and the Scrum Master facilitates the team. Figure 3 shows a view of management responsibilities for the traditional and for the Scrum situation.

There are tasks that do not change in the Agile situation. These are mainly the tasks at the level of Project Board and Project Manager. There is, however, one important shift: not scope is the main driver, but goal. In the traditional situation, teams are focused on the solution which is specified beforehand (scope). The goal of the business is not so clearly in focus for the team. In the Agile situation, goal is the central issue and scope is less important. The business goal must be reached; the scope may change during the project. The shift from scope-driven to goal-driven management goes hand in hand with a different mindset for all stakeholders in all layers of the organization.⁴

In the Agile situation, some Project Board and Project Manager responsibilities are delegated to the Product Owner. This is true for 'Prioritize requirements' (within the tolerances set by the Project Board) and 'Align the Stakeholders'.

In the task 'Distribute work packages at team level' we assumed in the previous section that there is one self-organizing team. If there are more such teams, this task means that these teams together receive the work package and in discussion with the Product Owner decide which team will execute which part of the work package. In the traditional situation, the Team Manager is responsible for the team, in the Agile situation the team takes over the responsibility for distributing tasks and ensuring commitment.

A comparison of the responsibilities of Team Manager and Scrum Master shows that their roles are alike in various ways. The most important difference is that in the Agile situation the team itself gives commitment for the work, while traditionally the Team Man-
⁴ More on this change of mindset and practices, see also our article 'Software process improvement with Scrum, RUP and CMMI: three reasons why this is a bad title', Agile Record, April 2010. More information at www.scrumup.eu/publications.html.

Task	Traditional			Agile with Scrum			
	Project Board	Project Manager	Team Manager	Project Board	Product Manager	Product Owner	Scrum Master
Procure a project assignment					✓		
Obtain commitment of stakeholders		✓			✓		
Plan a project			✓			✓	
Arrange resourcing and means			✓			✓	
Distribute work packages at team level			✓			✓	
Manage the project's risks			✓			✓	
Report on the project's progress			✓			✓	
Manage the project budget			✓			✓	
Take measures to avoid transgressing tolerances			✓			✓	
Manage project dependencies			✓			✓	
Prioritize requirements		✓			✓		✓
Keep project and team focused on the agreed scope		✓	✓	✓			
Keep project and team focused on the agreed goal		✓			✓	✓	✓
Align the stakeholders			✓			✓	
Make a teamplan				✓			✓
Distribute tasks among team members				✓			✓
Make risks and impediments for the team visible				✓			✓
Facilitate the team in applying Scrum				✓			✓
Give commitment to the work			✓	✓		✓	
Report on the team's progress				✓		✓	

Figure 3: Management responsibilities in traditional and in Agile situations

ager performs this task. The Scrum Master does not commit to the content, but coaches the process, facilitates the team and works on impediments signalled by the team.

4. Changing The Organization

In order to introduce Scrum into an organization requires not only a new distribution of management responsibilities, but also a new mindset in the whole organization. An Agile Coach can help accomplish this.

In Scrum literature you find a double task for the Scrum Master: on the one hand he facilitates the team, on the other he coaches the project organization in introducing Scrum. In the organization chart of figure 2, the Scrum Master is positioned below the Project Manager. This position at the same level as the team sometimes hinders a good execution of the coaching activities with regard to Project Manager, Project Board members and the rest of the organization. He does not have mandate in his position. Moreover, not all Scrum Masters are well-equipped to do the coaching. For an adequate coaching of Project Manager, Project Board members and the rest of the organization, thorough knowledge of Agile development methods (Scrum, XP), specialist methods (SDM, DSDM, RUP) and management methods (PRINCE2) are needed, as well as experience with software process improvement initiatives in complex organizations. We therefore advise to have a separate person to take over the coaching role, the Agile Coach, who is given a clear mandate to coach the organization.

To summarize, it is one thing to have a clear picture of what shift of responsibilities is needed. It is quite another to make an organization go through this shift and to capture the right mindset. This takes more than following a workshop or reading a book. The Agile Coach can support the growth of commitment within the organization and channel this commitment to the right actions. ■

> About the authors



Remi-Armand Collaris

is a consultant at Ordina, based in The Netherlands. He has worked for a number of financial, insurance and semi-government institutions. In recent years, his focus shifted from project management to coaching organizations in adopting Agile using RUP and

Scrum. An important part of his work at Ordina is contributing to the company's Agile RUP development case and giving presentations and workshops on RUP, Agile and project management. With co-author Eef Dekker, he wrote the Dutch book RUP op Maat: Een praktische handleiding voor IT-projecten, (translated as RUP Tailored: A Practical Guide to IT Projects), second revised edition published in 2008 (see www.rupopmaat.nl). They are now working on a new book: ScrumUP, Agile Software Development with Scrum and RUP (see www.scrumup.eu).



Jolande van Veen

is project manager at Ordina. She is a certified Scrum Master and has a lot of experience in managing projects and line organisations in complex environments that use Agile.

We hope to hear from you soon and are happy to work in any improvement suggestions you might have.



Eef Dekker

is a consultant at Ordina, based in The Netherlands. He mainly coaches organizations in implementing RUP in an agile way. Furthermore he gives presentations and workshops on RUP, Use Case Modeling and software estimation with Use Case Points. With

co-author Remi-Armand Collaris, he wrote the Dutch book RUP op Maat, Een praktische handleiding voor IT-projecten, (translated as RUP Tailored, A Practical Guide to IT Projects), second revised edition published in 2008 (see www.rupopmaat.nl). They are now working on a new book: ScrumUP, Agile Software Development with Scrum and RUP (see www.scrumup.eu).