

Scrum and PRINCE2® Together making projects work

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If we want to use Scrum in large projects, we are in a happy situation. Scrum and PRINCE2 are compatible and share a common outlook. Indeed, each method covers aspects only partially addressed by the other. Today, I want to show how Scrum and PRINCE2 together make for an effective project environment.

Key questions

As we know, Scrum is a *product* development method. In Germany, many call it a “project management” method. But this is simply false.¹ Scrum can be used in any development situation, whether for change management, ongoing development or projects. Scrum’s strengths lie in its team emphasis, agility, and

product-orientation. Scrum leaves open, however, a few important questions, such as:

- How do we fill the Product Backlog with the initial requirements?
- Where does the investment decision take place?
- How do we put the team together?

PRINCE2 focuses on project *management*. It sees product development and delivery as “specialist” work within the process model, with little further definition. PRINCE2 thus shies away from central team issues, such as:

- How does the delivery planning and work actually happen?
- How do the teams organize their daily work?
- How do we embed change control etc. in the practical development work?

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Please note: the original presentation was held in German at the Scrum Day in Berlin, 12 June 2013. To reach the widest audience, I provide this summary in English. © 2013 James Mitchell Lee.

¹ The Scrum Guide presents Scrum as *product* development method (<http://www.scrum.org/Scrum-Guides>; version Oct. 2011). In fact, the word “project” only appears 3 times in the Scrum Guide. Two occasions refer to considering sprints as projects (p 8). The third instance seems to be a typographical error, since “product” fits the context better (p. 11).

Scrum and PRINCE2 can help each other at answering these questions.

PRINCE2: an overview

Before showing how Scrum and PRINCE2 can be used in harmony, I shall first say a few words about PRINCE2. (Since we’re at Scrum Days, I shall refrain from summarizing Scrum.)

First an historical note. PRINCE2’s predecessors, PROMPT and PRINCE, concentrated on specifically on IT projects. In fact, they had a waterfall-like structure. In 1996, PRINCE2 was completely reworked to be suitable for all kinds of projects. In the reworking, the authors removed the waterfall aspects, because they do not fit every kind of project. More importantly, they realized that only an iterative and incremental approach made sense.

PRINCE2 is composed of 4 integrated elements, consisting of 7 Principles, 7 Themes, 7 Processes and Tailoring to the Project Environment.²

The PRINCE2 Principles lay the method’s foundation. All other elements build upon and help fulfill them in a practical way. The PRINCE2 Themes offer best practices in key areas of concern in any project. The PRINCE2 Processes pave the steps for managing a project. Finally, the manual gives advice on using the method in diverse environments, since all projects must take note of the project’s size, complexity, importance, risks etc.

PRINCE2 defines a project as “a temporary organization that is created for the purpose of delivering one or more business products

PRINCE2’s Core Elements

Principles

- Continued business justification
- Learning from experience
- Defined roles and responsibilities
- Manage by stages
- Manage by exception
- Focus on Products
- Tailor to suit the project environment

Themes

- Business Case
- Organization
- Quality
- Plans
- Risks
- Change
- Progress

Processes

- Starting up a Project
- Initiating a Project
- Directing a Project
- Managing a Stage Boundary
- Controlling a Stage
- Managing Product Delivery
- Closing a Project

Tailoring to the Project Environment

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according to an agreed Business Case”.³ We note here 3 things:

- A project is temporary.
- A project is product- or results-oriented.
- A project seeks to fulfill a business case.

Thus, PRINCE2 handles temporary initiatives. It does not attempt to cover every kind of development environment, as Scrum does.

Starting a project

As noted above, Scrum assumes that the basic requirement set already exists and that the fundamental investment decision has occurred. Here, the PRINCE2 elements, *Business Case*, *Starting up a Project*, and *Initiating a Project*, can muscle the job. The *Business Case* evaluates the benefits against the costs and risks in the project. The pro-

² The official handbook is: Office of Government Commerce, *Managing Successful Projects with PRINCE2*. (London: TSO, 2009). In German translation, *Erfolgreiche projekte managen mit PRINCE2*. Also see: <http://www.prince-officialsite.com>.

³ *Managing Successful Projects with PRINCE2*, p. 3.

cesses *Starting up a Project* and *Initiating a Project* guide us step-wise through creating the Business Case and the initial high-level planning, including the constitution of the project team.⁴

Planning in PRINCE2: products and incremental development

The PRINCE2 planning strategy aligns with Scrum in stressing product creation and using an incremental approach (Principles *Focus on Products* and *Manage by Stage*). Product-orientation means first that planning starts by defining the needed products, and second, a product may be called “finished” only when fully tested and accepted. Likewise in Scrum, the “definition of done” means usually a tested, functioning product.⁵

The “product-based planning” technique in PRINCE2 has no Product Backlog, but it does have a Product Checklist. We could, however, easily employ a Product Backlog as defined by Scrum here.

More importantly, the requirements definition and product planning occurs in

⁴ During the presentation, a lively discussion ensued about whether a Business Case is “unnecessary overhead”. It was suggested that Business Model Canvas might be a better method. Two important notes: First, PRINCE2 is open to using other methods to create a Business Case. It insists only that the investment decision is documented and reviewed actively during the project. A BMC can provide this documentation and can be minimal, if that is sufficient for taking the investment decision. Second, BMC is *not* part of Scrum. Thus a Scrum environment undertaking a project must resort to some external means for arriving at the investment decision. Assuming the investor “will just decide” is not agile; it’s just reckless.

⁵ Bureaucracy in projects arises through attention to activities and the perceived need to control them and their performers, rather than products or results. See <http://www.teamworkblog.de/2012/05/aktivitaeten-basierte-planung-ist-fur.html> (in German).

PRINCE2 on a stage-by-stage basis (see figure 1, below). The first two processes mentioned above assure agreement on the high-level requirements for the final products, and that they support the Business Case. But, the detailed requirements planning occurs at end of each stage, as the team prepares the stage plan for the next stage. At their core, stages set the “stop or go” decision points for the Project Board, who thus represent the interests of the investor, i.e. the person or organization committing the resources to the project.

Stages in PRINCE2 occur sequentially and have no specific name or content. The next group of sensible products required to achieve the benefits drive a stage’s content and scope. Stages are themselves timeboxed, or they may be run as one or more Sprints following Scrum principles. Furthermore, PRINCE2 includes the “MoCSow” prioritization technique to scope stages or to evaluate change requests.⁶

PRINCE2 recommends that those doing the work plan that effort, in cooperation with key stakeholders such as the users. Admittedly, PRINCE2 does not insist upon self-organization as Scrum does. But, it notes nevertheless that the best plans and the best results arise when the teams propel the planning process.

⁶ *Managing Successful Projects with PRINCE2*, p. 51 and 93.

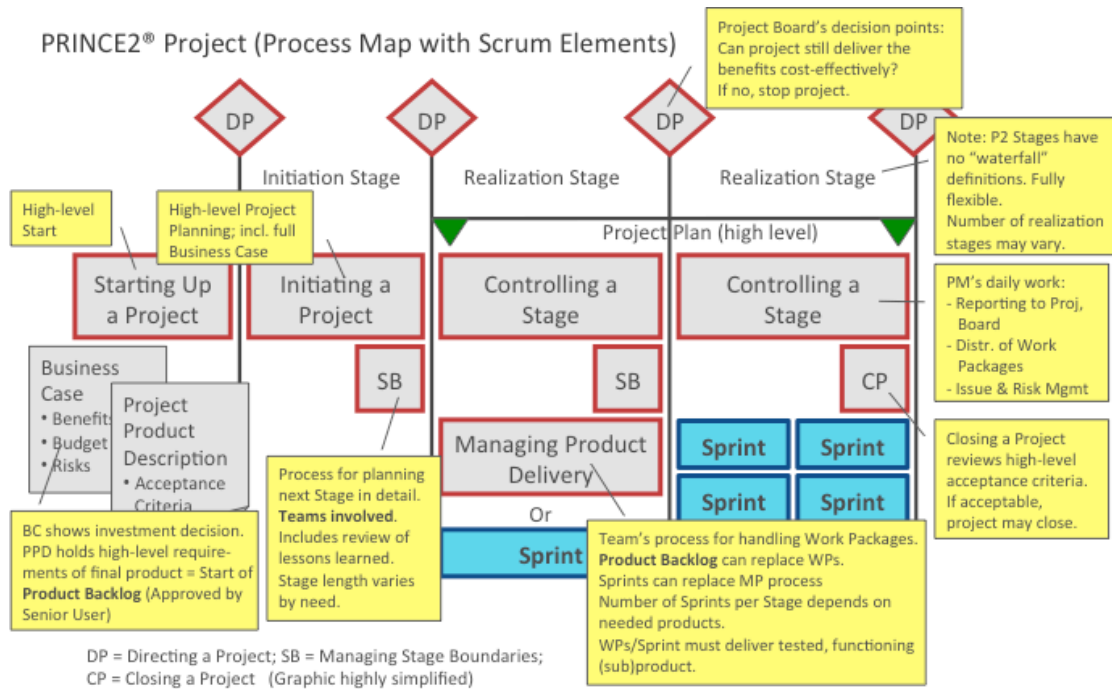


Figure 1: The PRINCE2 Process Map with Scrum Elements (simplified & annotated)

Readers with a severe allergy to “command and control” styles of project management may react aversely to the process name *Controlling a Stage*. Before hives break out, we should understand its content. It is mostly about assuring the stage stays within the tolerances set by the Project Board. That means, above all, timeboxing and money-boxing the stage. Should the tolerances be threatened, the Project Manager escalates to the Project Board. As the discussion of roles below shows, this procedure resembles turning to the Product Owner in Scrum. Moreover, PRINCE2 recommends de-scoping as a possible remedy.

Lessons learned and the Retrospective

The PRINCE2 Principle, *Learning from experience*, requires that teams gather and record “lessons learned” and integrate them as the project moves forward. The team records lessons in a Lessons Log and communicates them in a Lessons Report. The Lessons Report may be “published” so that teams in

other projects can likewise gain from them. At a minimum, PRINCE2 suggests collecting lessons at the end of each stage. Even better, they should be recorded and incorporated continually. Since PRINCE2 does not dictate how to amass such lessons, the Scrum Retrospective would work well.

Project roles

In PRINCE2 the Project Board consists of three roles, the Project Executive, the Senior User and the Senior Supplier, who carry final accountability for the project. In particular, the Executive answers for the benefit-cost relationship, the Senior User for the users’ needs, and the Senior Supplier for the feasibility and product quality. Furthermore, each role represents the interests of their stakeholder group.

The Senior User, in combination with the Executive, plays a similar role as the Product Owner in Scrum (see figure 2, below). As the Scrum guide shows, the Product Owner

answers for the results.⁷ Likewise, the Senior User is accountable for the requirements and decides in the case of requirement conflicts. The Project Executive becomes involved when additional money is required or the benefits to the project change.

Scrum also brings a role missing in PRINCE2, namely the Scrum Master. The advantage of the Scrum Master is that he/she acts independently from the “benefits accountability line” that runs from the investor through the Product Owner (in Scrum) or

PRINCE2 has a classic Project Manager. This role is famously not the same as the Scrum Master. Here, the two methods do show philosophical differences. Where Scrum insists on full self-organization, PRINCE2 remains more traditional in making the Project Manager responsible for reporting to the Project Board. In

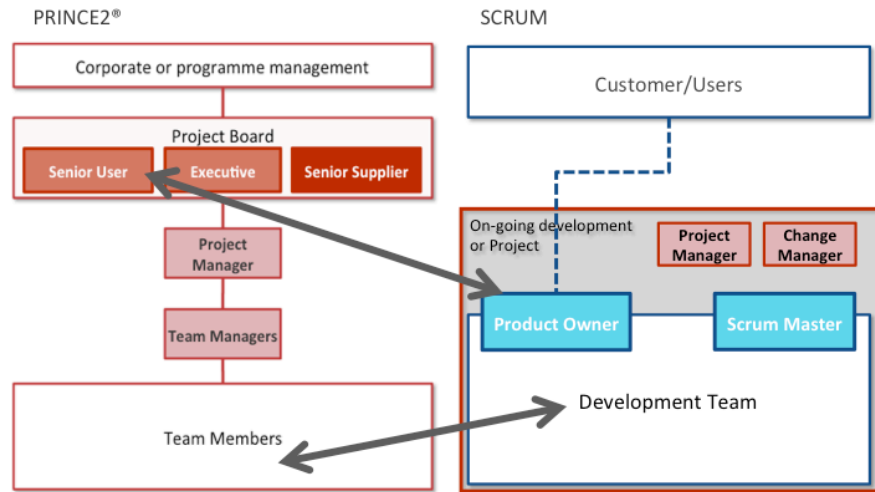


Figure 2: PRINCE2 and Scrum organizational charts (simplified)

Scrum, the Project Owner handles some of these reporting aspects. PRINCE2 lacks a “servant leader” like the Scrum Master to coach the team and monitor the process.

through the Senior User, Executive and Project Manager (in PRINCE2). The Scrum Master can, therefore, attend to the needs of the team and the health of process and the environment without conflicts.

How does Scrum help PRINCE2?

PRINCE2 gives sparse attention to the dynamics and needs of the development team in its daily work. Scrum’s strengths lie in the team environment created.

Communication issues dog every project. The Daily Scrum offers the most effective means of assuring active exchanges where it matters the most, in the delivery teams.

Likewise, we see measuring the velocity of the specific team as vital to getting a realistic assessment of what can be accomplished.

How Scrum and PRINCE2 together cover all the bases

Figure 3 summarizes the combination of Scrum and PRINCE2. It has no ambition of completeness, covering just the key points. The overlapping area in the center maps items held in common by both methods. On the right and left we see unique elements of the individual methods.

⁷ The Scrum Guide, p. 5.

PRINCE2 can profit from Scrum. Likewise, *in a project context*, Scrum gains from PRINCE2 without sacrificing self-organization in the team. Fortunately, both methods have at heart a healthy dose of realism and flexibility. Both cure the worst illnesses plaguing project management as

currently practiced: unrealistic, activity-based planning (Gantt-Chart), all design/requirements up front, little accountability for requirements definitions, and lack of a rigorous improvement process during the project.

Several organizations in Germany have successfully combined PRINCE2 and Scrum. Sometimes they have started with PRINCE2 and added Scrum, sometimes vice versa. Sometimes their project management and product development units have existed as two separate environments and they needed to build a bridge between them. By using workshops with the teams and management, we at expertplace have had little trouble in bringing them together. As long as the various players recognize that the goal is great

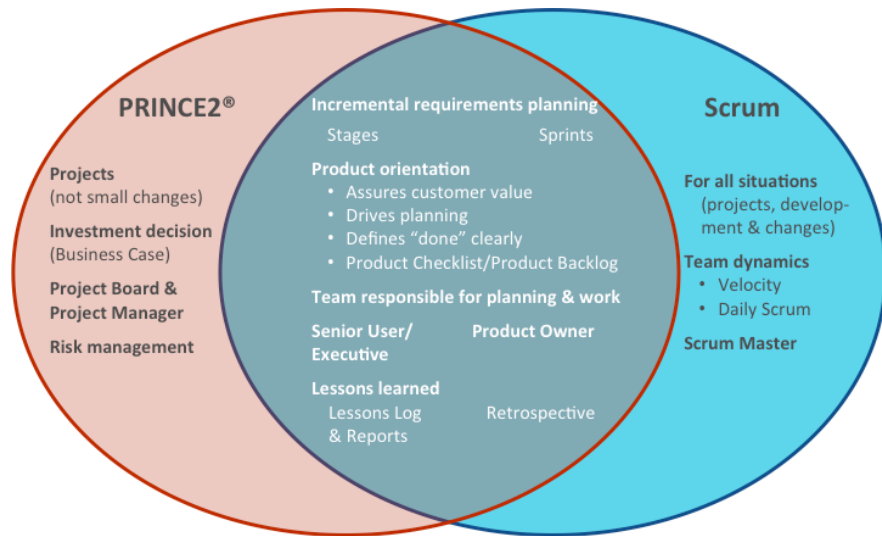


Figure 3: PRINCE2 & Scrum: Similarities and differences.

products in efficient projects—not the use of a particular method—they have achieved fruitful results.

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