SCRUMstudy
Targeting success

A Guide to the

SCRUM BODY OF KNOWLEDGE

(SBOK® Guide)

14. SCALING SCRUM FOR ENTERPRISE

A Comprehensive Guide to Implementing and Scaling Scrum, with Practical Examples

(Includes insights into how Artificial Intelligence can enhance Scrum processes)

14. SCALING SCRUM FOR THE ENTERPRISE

This chapter emphasizes additional aspects of Scrum that are applicable to programs and portfolios. Scaling Scrum for the enterprise, as defined in *A Guide to the Scrum Body of Knowledge* (*SBOK® Guide*), is applicable to the following:

- Programs, portfolios, and/or projects in any industry
- Products, services, or any other results to be delivered to business stakeholders

The term "program" in the *SBOK® Guide* refers to a collection of related projects and/or subprograms that must be managed in a coordinated fashion to produce and deliver program components. The term "portfolio" refers to a collection of programs and/or projects within the same organization that may or may not be related to each other and may or may not need to be managed in a coordinated fashion to meet portfolio objectives. From the Scrum framework perspective, programs and portfolios can be treated in a similar fashion but at various levels in the enterprise and thus potentially require different amounts of coordination for the underlying programs and/or projects.

This chapter addresses the impacts (to inputs, tools, and outputs) that a program or portfolio has on the fundamental Scrum processes described in chapters 8 through 12. This chapter also introduces additional processes that apply solely to programs and portfolios that are not relevant at a project level. To facilitate the best application of the Scrum framework, this chapter identifies inputs, tools, and outputs for each process as either "mandatory" or "optional." Inputs, tools, and outputs denoted by asterisks (*) are mandatory, or considered critical for project success, whereas those with no asterisks are optional.

It is recommended that those individuals being introduced to the application of the Scrum framework for the enterprise focus primarily on the mandatory inputs, tools, and outputs; while Program/Portfolio Product Owners, Chief Product Owners, Product Owners, Program/Portfolio Scrum Masters, Chief Scrum Masters, Scrum Masters, and other more experienced Scrum practitioners strive to attain a more thorough knowledge of the information in this entire chapter. It is also important to realize that although all processes are defined uniquely in the *SBOK® Guide*, they are not necessarily performed sequentially or separately. At times, it may be more appropriate to complete some processes in parallel or iteratively, depending on the specific requirements of each program or portfolio. This chapter is written from the perspective of a single program or portfolio team that coordinates and prioritizes activities of multiple underlying Scrum projects and/or programs. Additional information pertaining to the application of Scrum at the project level can be found in chapters 2 through 7, which cover Scrum principles and Scrum aspects.

Enterprise Scrum vs. Single Scrum Project

When dealing with Scrum at an enterprise level, there may be several hundred Scrum Teams, with several thousand people working in multiple projects within programs and/or portfolios in the company. Applying Scrum processes at a program or portfolio level will have certain impacts on the underlying projects. In general, the Scrum projects are still executed using the fundamental Scrum processes discussed in chapters 8 through 12 for typical small projects; with the additional inputs, tools, and outputs outlined in chapter 13 for large projects (having multiple Product Owners and/or Scrum Masters).

The impacts of programs and portfolios to the Scrum project-level processes described in chapters 8 through 12 are outlined in section 14.1 of this chapter as additional inputs, tools, and outputs. The additional processes and considerations that are relevant only at the program or portfolio level are addressed in sections 14.2 through 14.8.

Some of the questions that arise at the program or portfolio level are similar to those that come up on a large Scrum project. The synchronization between teams and overall collaboration are the biggest challenges faced in a large Scrum project, and these challenges also exist at the program or portfolio level. The biggest challenges for a program or portfolio, however, may occur on the business side, because the business priorities of different projects may conflict with each other and may sometimes also conflict with the overall goals of the program or portfolio and need to be aligned. As in a large Scrum project, additional inputs, tools, and outputs are required to address additional prioritization, alignment, and coordination efforts. Some reasons for additional inputs, tools, and outputs needed for programs and/or portfolios are as follows:

Product Owners

- Program and Portfolio—Need for alignment of conflicting business goals
- Program—Need for collaboration between the Program Product Owner and the Product Owners from the projects in the program, such as:
    - refining of the Prioritized Program Backlog,
    - interfacing with business stakeholders to synchronize messages, and
    - avoiding duplication of work within the program (i.e., synergy)
- Portfolio—Need for collaboration between the Portfolio Product Owner, the Program Product Owners, and the Product Owners from the programs and projects in the portfolio, such as:
    - refining of the Prioritized Portfolio Backlog,
    - interfacing with business stakeholders to synchronize messages, and
    - avoiding duplication of work in the portfolio (i.e., synergy)

Scrum Masters

- Program and Portfolio—Need for collaboration between Scrum Masters when addressing impediments
- Program—Synchronizing the work of the Scrum Teams from multiple projects, if required
- Portfolio—Synchronizing the work of the Scrum Teams from multiple programs and projects, if required

Scrum Teams

- Program and Portfolio—Need to manage dependencies among Scrum Teams
- Program and Portfolio—Need to manage shared resources and any resource conflicts between Scrum Teams
- Program and Portfolio—Need to define certain guidelines and standards that should be adhered to by Scrum Teams for all projects of the program or portfolio (e.g., security standards within the organization or legal and/or government regulations for specific industries)—these may need to be documented by the Scrum Guidance Body.
- Program and Portfolio—Requirement to set up and maintain an environment to be used by multiple Scrum Teams

14.1 Impact of Programs or Portfolios to Fundamental Scrum Processes

Tables 14-1 through 14-4 outline a summary of the impacts of programs and portfolios to the fundamental Scrum processes for each project phase.

14.1.1 Initiate

The additional inputs from the program/portfolio level that need to be taken into consideration for the Initiate phase are as follows:

Process	Summary of Impacts of a Program or Portfolio
8.1 Create Project Vision	The project vision is created with additional input from the program/portfolio the project belongs to. Beyond that, there is no other change to this process. **Additional Input: Program/Portfolio Product Owner** The roles of the Program/Portfolio Product Owner are described in sections 3.7.4.1 and 3.7.4.2. **Additional Input: Program/Portfolio Scrum Master** The roles of the Program/Portfolio Scrum Master are described in sections 3.7.4.3 and 3.7.4.4. **Additional Input: Program/Portfolio Business Stakeholders** Program/portfolio business stakeholders are described in section 14.3.3.5. They influence all projects in the program/portfolio. **Additional Input: Prioritized Program/Portfolio Backlog** The Prioritized Program/Portfolio Backlog is described in section 14.6.1.2. The Prioritized Program/Portfolio Backlog contains requirements for the program or portfolio that may impact the Project Vision.

Process	Summary of Impacts of a Program or Portfolio
8.2 Identify Scrum Master and Business Stakeholder(s)	The Scrum Master and the business stakeholder(s) of the project are identified with additional input from the program/portfolio the project belongs to. Beyond that, there is no other change to this process. **Additional Input: Program/Portfolio Product Owner** The roles of the Program/Portfolio Product Owner are described in sections 3.7.4.1 and 3.7.4.2. **Additional Input: Program/Portfolio Scrum Master** The roles of the Program/Portfolio Scrum Master are described in sections 3.7.4.3 and 3.7.4.4. **Additional Input: Program/Portfolio Business Stakeholders** Program/portfolio business stakeholders are described in section 14.3.3.5. They influence all projects in the program or portfolio.
8.3 Form Scrum Team	There is no additional impact to this process for a project in a program or portfolio.
8.4 Develop Epic(s)	The Epics are developed with additional input from the program/portfolio the project belongs to. Beyond that, there is no other change to this process. **Additional Input: Prioritized Program/Portfolio Backlog** The Prioritized Program/Portfolio Backlog is described in section 14.6.1.2. The Prioritized Program/Portfolio Backlog contains requirements for the program or portfolio that may impact the development of Epics. **Additional Input: Program/Portfolio Risks** Program and portfolio risks are described in sections 7.6.1 and 7.6.2. Risks related to a program or portfolio also impact the projects that are part of the respective program or portfolio. During risk assessment of the program or portfolio, if it is determined that a risk may affect an individual project, relevant information about the risk must be communicated to the Product Owner and Scrum Team. Program and portfolio risks become inputs to the *Develop Epic(s)* process and these risks can have an impact on how this process is conducted.

Process	Summary of Impacts of a Program or Portfolio
8.5 Create Prioritized Product Backlog	The Prioritized Product Backlog is created with additional input from the Prioritized Program/Portfolio Backlog. Beyond that, there is no other change to this process. **Additional Input: Prioritized Program/Portfolio Backlog** The Prioritized Program/Portfolio Backlog is described in section 14.6.1.2. The Prioritized Program/Portfolio Backlog contains requirements for the Program/Portfolio that may impact the creation of the Prioritized Product Backlog.
8.6 Conduct Release Planning	Release Planning is conducted with additional input from the program/portfolio the project belongs to. Beyond that, there is no other change to this process. **Additional Input: Program/Portfolio Product Owner** The roles of the Program/Portfolio Product Owner are described in sections 3.7.4.1 and 3.7.4.2. **Additional Input: Program/Portfolio Scrum Master** The roles of the Program/Portfolio Scrum Master are described in sections 3.7.4.3 and 3.7.4.4. **Additional Input: Prioritized Program/Portfolio Backlog** The Prioritized Program/Portfolio Backlog is described in section 14.6.1.2. The Prioritized Program/Portfolio Backlog may contain key coordination dates and/or deadlines for some requirements that the project need to adhere to.

Table 14-1: Impact of a Program or Portfolio to Fundamental Scrum Processes—Initiate Phase

Figure 14-1 displays the "Create Release" screen in Vabro, where users define a release name, description, and target release date before saving and continuing.

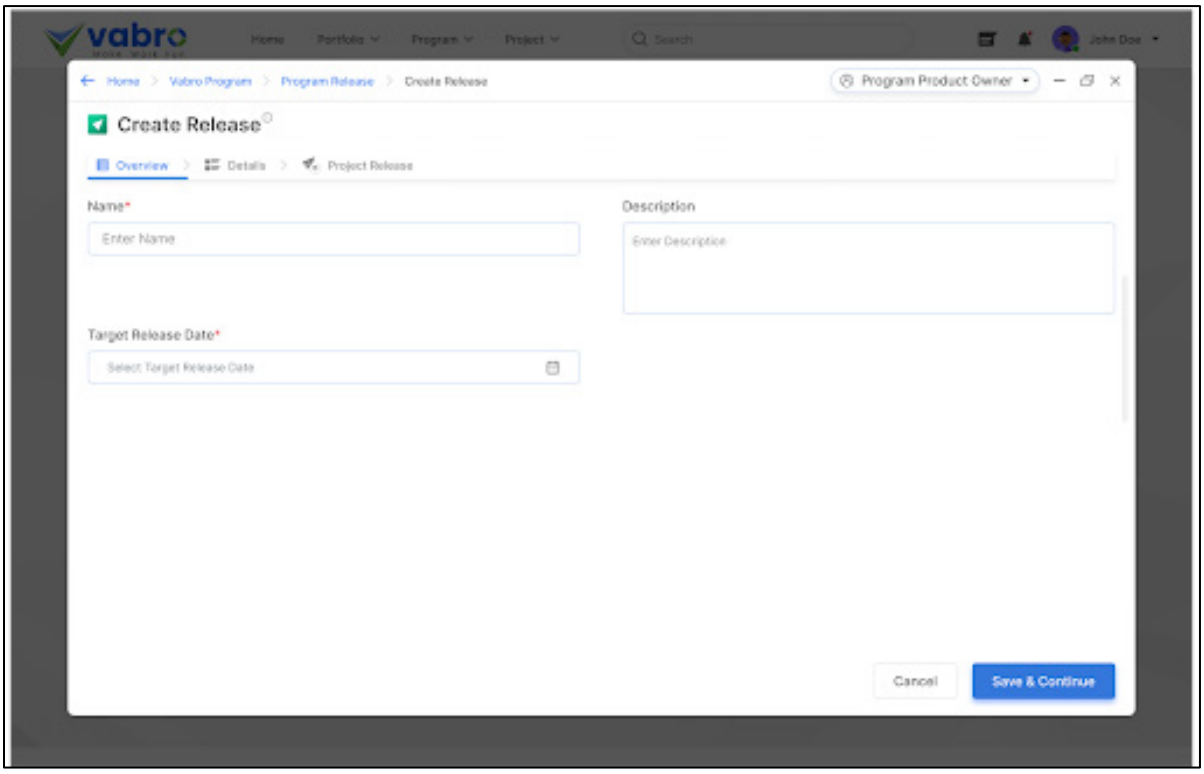


Figure 14-1: Creating a Release during Initiation (Source: Vabro)

14.1.2 Plan and Estimate

Using Scrum on a program/portfolio level has no impact on the Plan and Estimate phase of the respective projects in the program/portfolio.

14.1.3 Implement

The additional inputs from the program/portfolio level that need to be taken into consideration for the Implement phase are as follows:

Process	Summary of Impacts of a Program or Portfolio
10.1 Create Deliverables	Creation of the deliverables is not impacted by using Scrum at the program or portfolio level.

10.2 Conduct Daily Stand Up	Conducting the Daily Stand Up is not impacted by using Scrum at the program or portfolio level.
10.3 Refine Prioritized Product Backlog	When refining the Prioritized Product Backlog, new or changed requirements from the program or portfolio level need to be prioritized and incorporated into the Prioritized Product Backlog as appropriate. **Additional Input: Program/Portfolio Product Owner** The roles of the Program/Portfolio Product Owner are described in chapters 3.7.4.1 and 3.7.4.2. In this process, the Program/Portfolio Product Owner communicates any updated requirements form the program or portfolio level to the project. **Additional Input: Prioritized Program/Portfolio Backlog** The Prioritized Program/Portfolio Backlog is described in section 14.6.1.2. Any changes in the Prioritized Program/Portfolio Backlog need to be incorporated into the project's Prioritized Product Backlog.

Table 14-2: Impact of a Program or Portfolio to Fundamental Scrum Processes—Implement Phase

14.1.4 Review and Retrospect

Representatives from the program or portfolio may provide feedback during the Sprint reviews or retrospectives. Beyond that, there is no other change to the Review and Retrospect phase of a project.

Process	Summary of Impacts of a Program or Portfolio
11.1 Demonstrate and Validate Sprint	Representatives from the program/portfolio may provide feedback. Beyond that, there is no other change to this process. **Additional Input: Program/Portfolio Product Owner** The roles of the Program/Portfolio Product Owner are described in sections 3.7.4.1 and 3.7.4.2. **Additional Input: Program/Portfolio Business Stakeholders** Program/portfolio business stakeholders are described in section 14.3.3.5.
11.2 Retrospect Sprint	The *Retrospect Sprint* process is not impacted by using Scrum at the program or portfolio level.

Table 14-3: Impact of a Program or Portfolio to Fundamental Scrum Processes—Review & Retrospect Phase

14.1.5 Release

Applying Scrum at the program/portfolio level may have an impact on individual project releases, since there may be dependencies between the different project releases. For example, if the deliverables of two projects, A and B, should ideally be released together, but the deliverables of project A are delayed, then this may impact the release of the deliverables of project B, even if the deliverables of project B are completed on time.

Figure 14-2 shows a "Program Release Dashboard" from the Vabro platform, tracking multiple software releases, their progress, user stories, and current status.

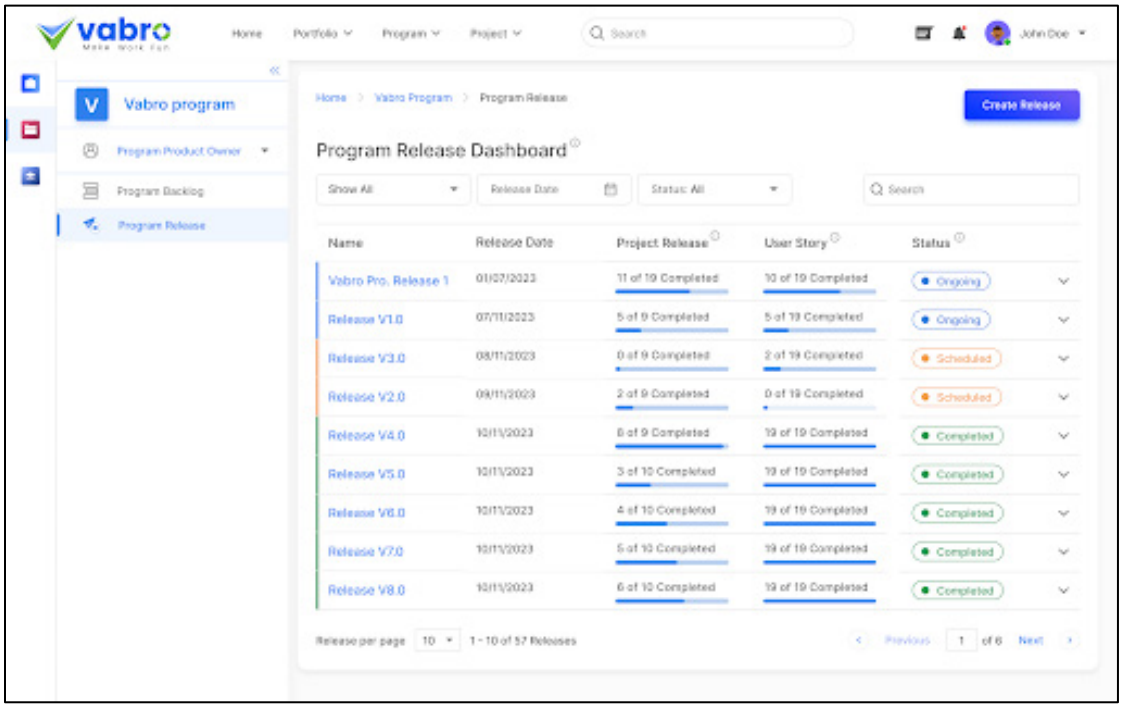


Figure 14-2: Program Release Dashboard (Source: Vabro)

Process	Summary of Impacts of a Program or Portfolio
12.1 Ship Deliverables	Deliverables for a program or portfolio are created in the same way as they are for individual projects. However, they may be some dependencies on deliverables from other projects that need to be coordinated by the Program/Portfolio Product Owner or the Program/Portfolio Scrum Master. **Updated Input: Program/Portfolio Product Owner** Described in sections 3.7.4.1 and 3.7.4.2. **Updated Input: Program/Portfolio Scrum Master** Described in sections 3.7.4.3 and 3.7.4.4.
12.2 Retrospect Release	The *Retrospect Release* process is not impacted by using Scrum at the program or portfolio level.

Table 14-4: Impact of a Program or Portfolio to Fundamental Scrum Processes—Release Phase

14.2 Additional Processes to Scale Scrum for the Enterprise (Program/Portfolio)

All Scrum projects that are part of a larger program or portfolio can apply Scrum processes, as described in chapters 8 through 13, with the additional impacts as described in Section 14.1.

However, when scaling Scrum for the enterprise, certain additional processes may be required to manage the added complexity of several hundreds or thousands of people working on the associated projects, and the additional coordination requirements at a program or portfolio level. All these processes are not necessarily sequential and can be applied in parallel and iteratively as required by the enterprise.

Figure 14-3 presents an overview of scaling scrum at the enterprise level. Describes how multiple scrum teams and organizational layers interact to deliver complex products through synchronized planning and collaboration.

14.3 Create/Update Program or Portfolio Teams—In this process, additional roles are created or identified to manage programs and portfolios. These roles include Program Product Owner, Portfolio Product Owner, Program Scrum Master, Portfolio Scrum Master, business stakeholders, and supporting services.

14.4 Create/Update Program or Portfolio Components—In this process, the program or portfolio Product Owners, Scrum Masters, and business stakeholders identify and create the common components and resources required for the program or portfolio. The Minimum Done Criteria are defined, and all other relevant business stakeholders are identified. Dependencies between projects are addressed, common impediments are discussed, and best practices are shared. Sometimes, recommendations for improvements to the Scrum Guidance Body are made.

14.5 Review and Update Scrum Guidance Body—In this process, the Scrum Guidance Body recommendations are regularly reviewed by the members of the Scrum Guidance Body and are updated when necessary. Changes in the membership of the Scrum Guidance Body are also addressed. The main objective of this process is to constantly monitor and work towards improving the productivity of the Scrum projects, programs, and portfolios within the organization.

14.6 Create/Refine Prioritized Program or Portfolio Backlog—In this process, the Program or Portfolio Backlog is first created based on the program or portfolio requirements. On an ongoing basis, the Prioritized Program or Portfolio Backlog is reviewed to add or update requirements, risks, and priorities.

14.7 Create/Update Program or Portfolio Releases—In this process, the program or portfolio releases are planned, considering any dependencies between the releases. Program or portfolio release planning will impact release planning at the project level. The Program or Portfolio Release Schedule is created and should be revisited regularly based on the progress of project deliverables, new or changed requirements or their priorities, and other factors.

14.8 Retrospect Program or Portfolio Releases—In this process, the Program or Portfolio Product Owner and business stakeholders get together to retrospect a program or portfolio release and to also discuss and internalize the lessons learned. Often, these lessons learned lead to Agreed Actionable Improvements to be implemented in future releases. Sometimes, improvements to the Scrum Guidance Body may be recommended.

14.3 Create/Update Program or Portfolio Teams

INPUTS

1. Company Vision and Mission*
2. Senior Management*
3. Organizational Resource Matrix
4. Consultants

TOOLS

1. Company Human Resource Plan*
2. Stakeholders Analysis*

OUTPUTS

1. Portfolio Product Owner*
2. Program Product Owner*
3. Portfolio Scrum Master*
4. Program Scrum Master*
5. Business Stakeholders*
6. Supporting Services*

14.4 Create/Update Program or Portfolio Components

INPUTS

1. Company Vision and Mission*
2. Portfolio Product Owner*
3. Portfolio Scrum Master*
4. Program Product Owner*
5. Program Scrum Master*
6. Organizational Resource Matrix
7. Scrum Guidance Body Recommendations
8. Business Stakeholders

TOOLS

1. Communication Plan(s)*
2. Company Human Resource Plan*
3. Stakeholder Analysis*
4. Scrum of Scrum (SoS) Meeting*
5. Scrum of Scrum of Scrums (SoSoS) Meeting
6. Communication Techniques
7. AI-powered Scrum Project Tool

OUTPUTS

1. Minimum Done Criteria*
2. Shared Resources*
3. Identified Business Stakeholders*
4. Updated Impediment Logs*
5. Updated Dependencies*
6. Product Owners Collaboration Plan*
7. Scrum Masters/Scrum Teams Collaboration Plan*
8. Recommended Scrum Guidance Body Improvements

14.5 Review and Update Scrum Guidance Body

INPUTS

1. Regulations*
2. Recommended Scrum Guidance Body Improvements*
3. Scrum Guidance Body Members*

TOOLS

1. Members Selection Criteria*
2. Scrum Guidance Body Meetings*
3. Performance Reports
4. Benchmarking

OUTPUTS

1. Updated Scrum Guidance Body Recommendations*
2. Actionable Escalations
3. Updated Scrum Guidance Body Members
4. Rejected Updates to the Scrum Guidance Body Recommendations

14.6 Create/Refine Prioritized Program or Portfolio Backlog

INPUTS

1. Company Vision and Mission*
2. Prioritized Program or Portfolio Backlog*
3. Portfolio Product Owner*
4. Portfolio Scrum Master*
5. Program Product Owner*
6. Program Scrum Master*
7. Product Owner Collaboration Plan*
8. Scrum Masters/Scrum Teams Collaboration Plan*
9. Scrum Guidance Body Recommendations
10. Company Policies
11. Industry Standards
12. Assessment/Benchmarking Results

TOOLS

1. Prioritized Program or Portfolio Backlog Review Meetings*
2. Communication Techniques*
3. Epic/User Story Prioritization Methods
4. Epic/User Story Workshops
5. User or Customer Interviews
6. Questionnaires
7. AI-powered Scrum Project Tool

OUTPUTS

1. Updated Prioritized Program or Portfolio Backlog*
2. Recommended Scrum Guidance Body Improvements*
3. Personas
4. Identified Risks

14.7 Create/Update Program or Portfolio Releases

INPUTS

1. Definition of Done*
2. Dependencies*
3. Prioritized Program or Portfolio Backlog*
4. Portfolio Product Owner*
5. Portfolio Scrum Master*
6. Program Product Owner*
7. Program Scrum Master*
8. Potentially Shippable Deliverables from Projects
9. Impediment Logs
10. Scrum Team Lessons Learned
11. Release Planning Schedules

TOOLS

1. Release Planning Meetings*
2. Scrum of Scrum (SoS) Meetings
3. Scrum of Scrum of Scrum (SoSoS) Meetings
4. AI-powered Scrum Project Tool

OUTPUTS

1. Program or Portfolio Releases*
2. Program or Portfolio Release Schedule*
3. Updated Prioritized Program or Portfolio Backlog
4. Updated Dependencies

14.8 Retrospect Program or Portfolio Releases

INPUTS

1. Portfolio Product Owner*
2. Program Product Owner*
3. Portfolio Scrum Master*
4. Program Scrum Master*
5. Prioritized Program or Portfolio Backlog*
6. Program or Portfolio Releases
7. Business Stakeholders
8. Scrum Guidance Body Recommendations

TOOLS

1. Retrospect Program or Portfolio Meetings*
2. Scrum Guidance Body Expertise

OUTPUTS

1. Agreed Actionable Improvements*
2. Assigned Action Items and Due Dates*
3. Recommended Scrum Guidance Body Improvements

Figure 14-3: Scaling Scrum for the Enterprise

Note: Asterisks (*) denote a "mandatory" input, tool, or output for the corresponding process.

14.3 Create/Update Program or Portfolio Teams

Program or portfolio teams need to be created and/or identified before Scrum processes can be applied in an enterprise environment. Some important roles include Program Product Owner, Portfolio Product Owner, Program Scrum Master, Portfolio Scrum Master, business stakeholders, and supporting services.

It is important to note that all these people need not be identified and assigned at the beginning of the program or portfolio. Some key persons may be identified early on, while others may be assigned over time depending on the specific requirements of the program or portfolio.

Outputs from the *Create/Update Program or Portfolio Teams* process become inputs to the process after the initial team is created. For example, once the Program Product Owner or Program Scrum Master are identified, these individuals would be involved with any future changes or updates to the program team.

Figure 14-4 shows all the inputs, tools, and outputs for the *Create/Update Program or Portfolio Teams* process.

Figure 14-4: Create/Update Program or Portfolio Teams—Inputs, Tools, and Outputs

Note: Asterisks (*) denote a "mandatory" input, tool, or output for the corresponding process.

14.3.1 Inputs

14.3.1.1 Company Vision and Mission*

The company vision and the company mission are important inputs for any project, but they are even more crucial in planning programs and especially portfolios. Programs and portfolios should be driven by the overall mission and vision of the enterprise as this ensures unity of effort throughout the organization. Understanding the company vision helps the portfolio or program teams keep their focus on the organization's objectives and the future potential of the company. The Program or Portfolio Product Owners can take guidance and direction from the company vision to create each Project Vision Statement. The company mission provides a framework for formulating the strategies of the organization and guides overall decision making. The Project Vision Statement must be framed such that its fulfillment helps the organization fulfill its mission.

14.3.1.2 Senior Management*

Senior management includes senior representatives from within the internal organization of the company that are benefiting from, or responsible for, the program or portfolio deliverables. Senior management of the company could include the Chief Executive Officer, Chief Technology Officer, Chief Finance Officer, Vice Presidents, Directors and other senior employees from different divisions within the organization.

14.3.1.3 Organizational Resource Matrix

The Organizational Resource Matrix at a program or portfolio level should include the employees in the organization who have the skills and availability to perform senior roles related to Scrum projects. For more information on the Organization Resource Matrix, see section 8.2.1.5.

14.3.1.4 Consultants

If all the skills required to set up and manage Scrum programs or portfolios within the organization are not available internally within the company, then external consultants may be leveraged to guide the senior management in establishing the necessary program or portfolio teams.

14.3.2 Tools

14.3.2.1 Company Human Resource Plan*

The company's Human Resource Plan provides general information on when particular personnel will be available for various projects, programs, and portfolios. The plan also provides information about skills and capabilities available inside the company, and on plans for hiring personnel required for future efforts.

14.3.2.2 Stakeholder Analysis

Various stakeholder analysis techniques can be used to identify and analyze business stakeholders and any other relevant stakeholders impacted at the program and portfolio levels. Stakeholder analysis techniques can also be used to assess the interests, involvement, and potential impact of each identified stakeholder to the program or portfolio. Stakeholder analysis is also helpful in understanding the communication and involvement requirements needed to benefit the program or portfolio.

14.3.3 Outputs

14.3.3.1 Portfolio Product Owner*

Described in sections 3.7.4.2.

14.3.3.2 Program Product Owner*

Described in section 3.7.4.1.

14.3.3.3 Portfolio Scrum Master*

Described in sections 3.7.4.4.

14.3.3.4 Program Scrum Master*

Described in section 3.7.4.3.

14.3.3.5 Business Stakeholders*

In this process, business stakeholders that will play key roles in the program or portfolio are identified, including customers, users, and sponsors of the program or portfolio. Business stakeholders influence the program or portfolio itself and also influence the associated projects (within the program or portfolio) throughout each project's development. Program or portfolio business stakeholders can also help define the project/program/portfolio vision and provide guidance regarding business value. Program business stakeholders interface with the portfolio business stakeholders to support the Program Product Owner and Portfolio Product Owner to ensure alignment of the program with the goals and objectives of the portfolio. Program and/or portfolio business stakeholders are also involved with identifying business stakeholders for the individual projects and ensuring that the vision, objectives, outcomes, and releases of those associated projects within the program/portfolio align with those of the program/portfolio. At the portfolio level, business stakeholders could include members of the executive board of a company or government organization. At the program level, business stakeholders may include senior executives and the sponsor(s) of the program and associated projects.

14.3.3.6 Supporting Services*

At a program or portfolio level, support services should include people or groups responsible for managing training, logistics, marketing, finance, infrastructure, architecture, and other supporting services required for the successful functioning of the program or portfolio. Some of these people may also be working full-time for the program or portfolio. For more information on supporting services, see section 3.2.2.

14.4 Create/Update Program or Portfolio Components

In this process, the Program or Portfolio Product Owners, Scrum Masters, and business stakeholders identify and create the common components and resources required for the program or portfolio. The Minimum Done Criteria are defined, and all other relevant business stakeholders are identified. Dependencies between projects are addressed, common impediments are discussed, and best practices are shared. Sometimes, recommendations for improvements to the Scrum Guidance Body are made.

It is important to note that all program or portfolio components need not be created at the beginning. This is typically an iterative process as some key program or portfolio components are created early on, and others could be created or updated later as more information becomes available.

Outputs from the *Create Program or Portfolio Components* process become inputs to the process after their initial creation. For example, once the Minimum Done Criteria are identified, they will become inputs when the program or portfolio components are being updated.

Figure 14-5 shows all the inputs, tools, and outputs for the *Create/Update Program or Portfolio Components* process.

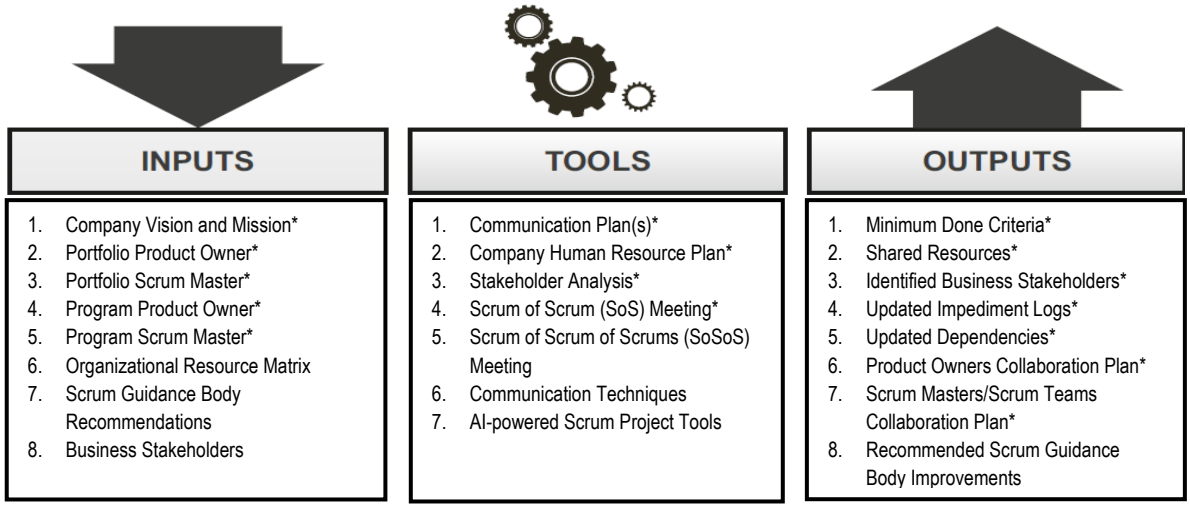


Figure 14-5: Create/Update Program or Portfolio Components—Inputs, Tools, and Outputs

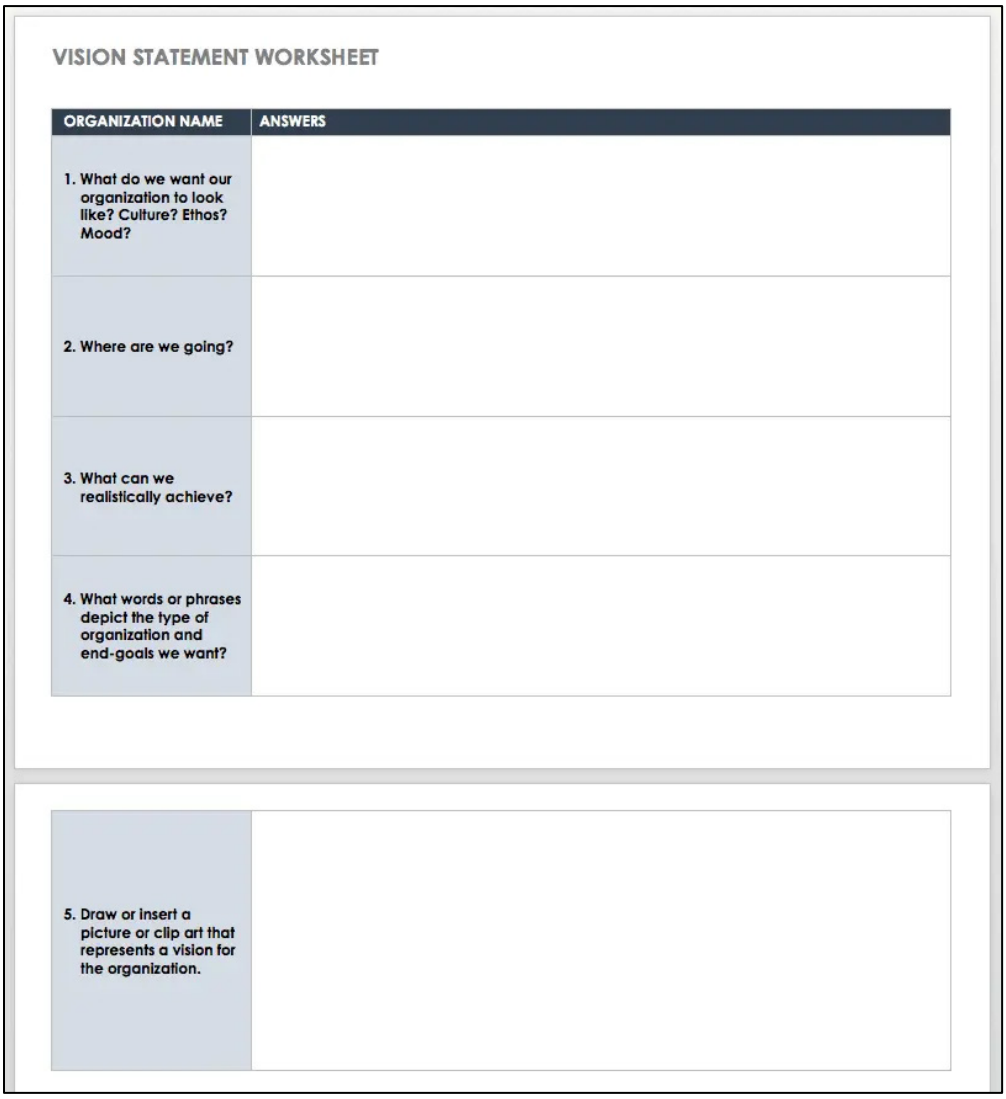
Note: Asterisks (*) denote a "mandatory" input, tool, or output for the corresponding process.

14.4.1 Inputs

14.4.1.1 Company Vision and Mission*

Both the company vision and the company mission are important inputs for any project, but even more so for programs and portfolios. Programs and portfolios should be driven by the overall mission and vision of the enterprise as this ensures unity of effort throughout the organization. For more information on the company vision and mission, see section 14.3.1.1.

Figure 14-6 shows a Vision Statement Worksheet with five prompts to define an organization's culture, goals, achievements, keywords, and a visual representation.

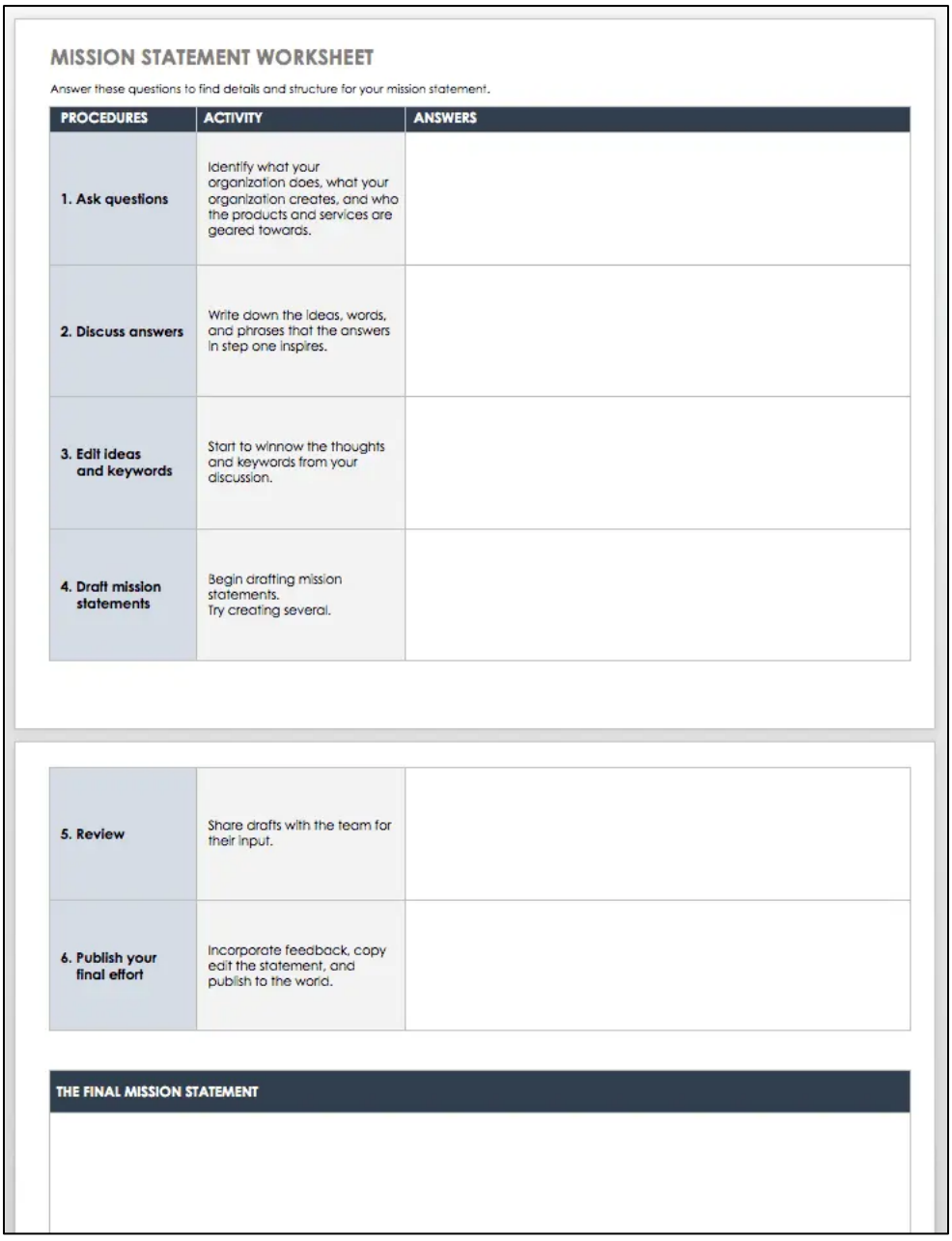


VISION STATEMENT WORKSHEET

ORGANIZATION NAME	ANSWERS
1. What do we want our organization to look like? Culture? Ethos? Mood?	
2. Where are we going?	
3. What can we realistically achieve?	
4. What words or phrases depict the type of organization and end-goals we want?	
5. Draw or insert a picture or clip art that represents a vision for the organization.	

Figure 14-6: Company Vision Statement Template (Source: Smartsheet)

Figure 14-7 shows a Mission Statement Worksheet outlining six steps to create a mission statement, from asking questions to publishing, ending with space for the final statement.



MISSION STATEMENT WORKSHEET

Answer these questions to find details and structure for your mission statement.

PROCEDURES	ACTIVITY	ANSWERS
1. Ask questions	Identify what your organization does, what your organization creates, and who the products and services are geared towards.	
2. Discuss answers	Write down the ideas, words, and phrases that the answers in step one inspires.	
3. Edit ideas and keywords	Start to winnow the thoughts and keywords from your discussion.	
4. Draft mission statements	Begin drafting mission statements. Try creating several.	
5. Review	Share drafts with the team for their input.	
6. Publish your final effort	Incorporate feedback, copy edit the statement, and publish to the world.	

THE FINAL MISSION STATEMENT

Figure 14-7: Company Mission Statement Template (Source: Smartsheet)

14.4.1.2 Portfolio Product Owner*

Described in section 3.7.4.2.

14.4.1.3 Portfolio Scrum Master*

Described in section 3.7.4.4.

14.4.1.4 Program Product Owner*

Described in section 3.7.4.1.

14.4.1.5 Program Scrum Master*

Described in section 3.7.4.3.

14.4.1.6 Organizational Resource Matrix

Described in section 8.2.1.5.

14.4.1.7 Scrum Guidance Body Recommendations

Scrum Guidance Body recommendations are especially important at the program and portfolio levels as appropriate guidance is needed for a potentially considerable number of related projects. For more information on Scrum Guidance Body Recommendations, see section 8.1.1.7.

14.4.1.8 Business Stakeholders

Described in sections 3.2.2 and 14.3.3.5.

14.4.2 Tools

14.4.2.1 Communication Plan(s)*

The Communication Plan(s) define how information is to be disseminated to business stakeholders and throughout the programs, portfolio, and organization as a whole. It should also define how and when to communicate and what mode of communication should be used. The portfolio roles provide guidance and input to the Communications Plan for the associated programs within the portfolio. Similarly, the program roles provide guidance and input to the Communications Plan for the projects within the program.

For more information on the Communications Plan, see section 12.1.3.4.

14.4.2.2 Company Human Resource Plan*

Described in section 14.3.2.1.

14.4.2.3 Stakeholder Analysis

Described in section 14.3.2.2.

14.4.2.4 Scrum of Scrums (SoS) Meeting*

The purpose of the Scrum of Scrums (SoS) meeting is similar to its use in large projects. At the program level, representatives from each underlying project in the program meet at regular intervals for Scrum of Scrums (SoS) meetings. For more information on SoS meetings, see section 13.3.5.

14.4.2.5 Scrum of Scrum of Scrums (SoSoS) Meeting

At the program and especially at the portfolio level, it makes sense to have another layer of meetings. Representatives from relevant or interrelated programs and projects in the program or portfolio meet at regular intervals, or as required. In attendance there would be representatives from each of the Scrum of Scrums meetings. This additional level of meetings is called the Scrum of Scrum of Scrums (SoSoS).

Figure 14-8 depicts the structure of a scrum of scrums of scrums (SoSoS) meeting. Illustrates cross-team coordination, issue escalation, and alignment across large-scale product or portfolio initiatives.

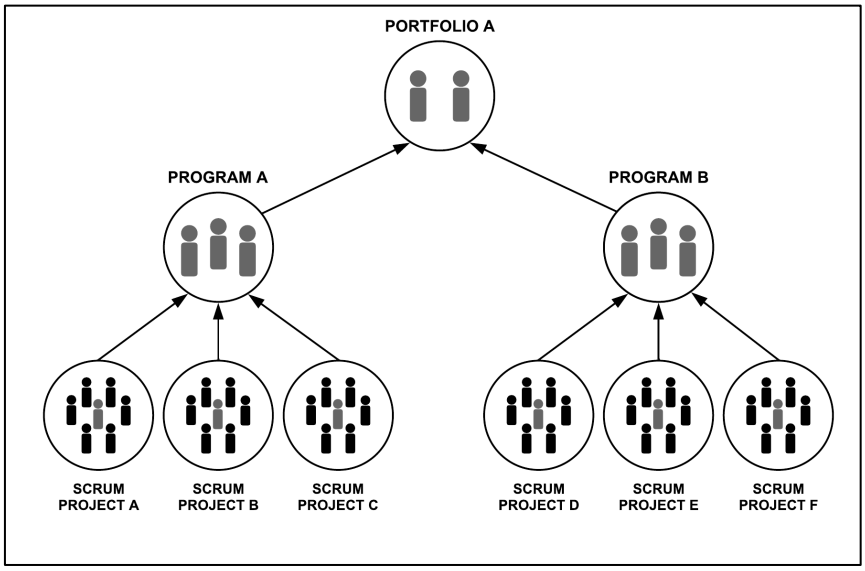


Figure 14-8: Scrum of Scrums of Scrums (SoSoS) Meeting

In this example, there are six Scrum projects going on simultaneously. Scrum projects A, B, and C are part of one program while Scrum projects D, E, and F are part of another program. A Scrum of Scrums meeting is held to coordinate the interdependencies within each of the two programs. A Scrum of Scrums of Scrums meeting may then be conducted to coordinate and manage dependencies across the two programs of the portfolio.

14.4.2.6 Communication Techniques

At the program or portfolio level, communication methods and techniques must scale to a larger number of participants and also due to the fact that not everyone will be in the same workplace. Additional considerations should be made for push versus pull communication types, for example, dashboards or reports published online for business stakeholders to view on demand (pull) or sent directly (push) at regular intervals. Communication across larger groups may utilize more tools, such as web meetings, email, instant messaging, and message boards when face-to-face communication is not possible. Use of an AI-powered Scrum Project Tool may also facilitate communication at a program or portfolio level. For more information on communication techniques, see section 10.3.2.2.

14.4.2.7 AI-powered Scrum Project Tool

At a program or portfolio level, the AI-powered Scrum Project Tool provides the ability to scale in order to manage the additional roles, coordination, reporting, communications, and other relevant requirements. For more information on the AI-powered Scrum Project Tool, see sections 2.4.4 and 13.3.8.

14.4.3 Outputs

14.4.3.1 Minimum Done Criteria*

The Minimum Done Criteria defined at a portfolio level applies to all underlying programs and projects. Similarly, the Minimum Done Criteria at the program level applies to all underlying projects. The cascading set of Done Criteria ensures that all underlying Done Criteria meet the minimum requirements established at the higher levels. The Scrum Guidance Body may be involved with defining the Minimum Done Criteria at a portfolio level. For more information on the Minimum Done Criteria, see section 5.4.4.

14.4.3.2 Shared Resources*

Described in section 13.2.4.

14.4.3.3 Identified Business Stakeholders*

Business stakeholders at the portfolio or program level are an input to this process. Additional business stakeholders are identified in this process. For more information on business holders relevant at the project level, see section 8.2.3.2.

14.4.3.4 Updated Impediment Logs*

Impediments faced by individual projects may be relevant to other projects within the program or portfolio. Therefore, the project-level Impediment Logs may need to be shared with the other projects and/or programs. As a result of the Scrum of Scrums (SoS) or the Scrum of Scrum of Scrums (SoSoS) meetings, there may be a need to update the project-level Impediment Logs. There could also be Impediment Logs at program or portfolio levels. For more information on the Impediment Log, see section 10.1.1.4.

14.4.3.5 Updated Dependencies*

There may be dependencies between inter-related projects and even between programs within the enterprise that need to be identified. Consequently, there should be coordination among the associated projects to manage those dependencies.

Examples of dependencies could include:

- Shared release dates for inter-related projects
- Dependencies between releases
- Dependencies pertaining to inter-related features

As a result of coordinating program or portfolio components, there may be a need to update the known dependencies with new dependencies or changes to existing dependencies. For example, there may be dependencies between projects within a program or portfolio. Looking at two projects A and B in a program, these two projects may need to have the same release date, or project A can be released only after the release of project B. In either case, if project B is delayed, project A will also be delayed, even if its deliverables are ready on time. For more information on dependencies at the project level, see sections 8.5.2.6 and 9.4.2.3.

14.4.3.6 Product Owners Collaboration Plan*

Described in section 13.2.2.

14.4.3.7 Scrum Masters/Scrum Teams Collaboration Plan*

Described in section 13.2.3.

14.4.3.8 Recommended Scrum Guidance Body Improvements

As a result of the *Create/Update Program or Portfolio Components* process, suggestions or feedback may be provided for potential improvements to the Scrum Guidance Body documentation. These recommended improvements will be discussed and agreed to or rejected by the Scrum Guidance Body (see section 14.5, *Review and Update Scrum Guidance Body*). If the suggestions are agreed to, they will be incorporated as updates to the Scrum Guidance Body documentation.

14.5 Review and Update Scrum Guidance Body

In this process, the recommended Scrum Guidance Body improvements are regularly reviewed by the members of the Scrum Guidance Body and are updated when necessary. Changes in the membership of the Scrum Guidance Body are also addressed in this process. The main objective is to constantly monitor and work towards improving the productivity of the Scrum projects, programs, and portfolios within the organization.

It is important to note that the process *Review and Update Scrum Guidance Body* is typically an iterative process, since Scrum projects continuously engage in retrospectives where improvement opportunities are regularly identified and are forwarded up to the program and portfolio levels. At the program or portfolio level, the Scrum Guidance Body reviews inputs from program and portfolio level retrospectives, identifies improvement opportunities, and helps in disseminating good practices across the enterprise.

Figure 14-9 shows all the inputs, tools, and outputs for the *Review and Update Scrum Guidance Body* process.

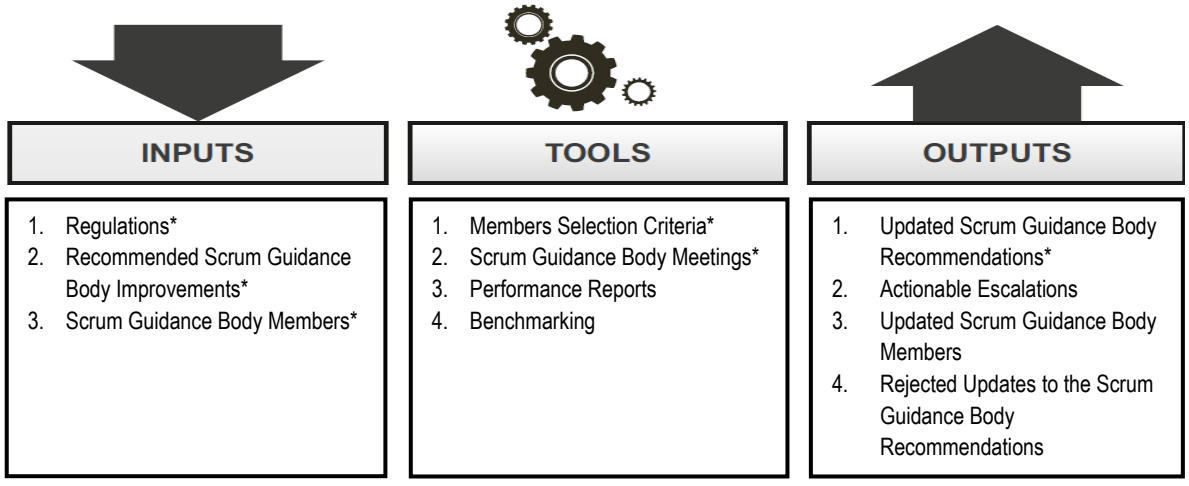


Figure 14-9: Review and Update Scrum Guidance Body—Inputs, Tools, and Outputs

Note: Asterisks (*) denote a "mandatory" input, tool, or output for the corresponding process.

14.5.1 Inputs

14.5.1.1 Regulations*

Regulations include any federal, state, local, or industry regulations that the program or portfolio must adhere to. User Stories created to meet government regulations within a stipulated time period are included in the Portfolio or Program Product Backlog. At times, Scrum Guidance Body recommendations may need to be updated to reflect new regulations.

14.5.1.2 Recommended Scrum Guidance Body Improvements*

As a result of Scrum retrospectives and other processes, suggestions, and feedback to revise or enhance the Scrum Guidance Body guidelines, templates, and other documentation may be made. If the Scrum Guidance Body agrees with any suggestions or feedback, relevant changes will be incorporated as updates to the Scrum Guidance Body material and provided as recommendations to the project, program, and portfolio teams.

14.5.1.3 Scrum Guidance Body Members

The Scrum Guidance Body (SGB) members can include Scrum experts, Scrum coaches, external consultants, selected Scrum Masters, Product Owners, and team members (on all levels). However, there should be a limit on the number of members that the SGB can have to ensure that it remains relevant and does not become prescriptive in nature.

14.5.2 Tools

14.5.2.1 Members Selection Criteria*

Members selection criteria are created to define the Scrum Guidance Body members, their roles and responsibilities, the number of members, and their required skills and expertise. Each organization can have its own selection criteria for Scrum Guidance Body members; however, it is recommended that every member has Scrum expertise and can contribute effectively to the Scrum Guidance Body.

14.5.2.2 Scrum Guidance Body Meetings*

The Scrum Guidance Body meets regularly to discuss the potential need for an update of the Scrum Guidance Body recommendations (e.g., suggested improvements from retrospectives and other processes, updated regulations that need to be incorporated into the documentation, etc.). The Scrum Guidance Body decides the frequency of these meetings based on the specific needs of the enterprise.

14.5.2.3 Performance Reports

There may be reports available about the performance of Scrum projects, programs, and portfolios. Such performance reports might include information related to team velocity, delivered functionality, completion status, and so on. The Scrum Guidance Body can consider this information when determining improvement opportunities.

14.5.2.4 Benchmarking

Benchmarking is the process of comparing an organization's business processes and performance metrics to those of leading companies in the same or other industries. An enterprise should regularly benchmark its own practices against those of successful organizations (in order to keep up with the competition) and against current and upcoming industry standards and practices.

14.5.3 Outputs

14.5.3.1 Updated Scrum Guidance Body Recommendations*

After reviewing and considering the Scrum Guidance Body improvement suggestions, performance reports, and benchmarking data, changes may be necessary to the existing documentation. Any approved changes will lead to an update of the Scrum Guidance Body material and will be provided as recommendations for the current or future Scrum projects, programs, and portfolios.

14.5.3.2 Actionable Escalations

The Scrum Guidance Body may determine that some company policies do not allow teams to obtain the maximum benefits from the application of Scrum. In such cases, an escalation should be triggered in order to gain approval for a policy or other change.

14.5.3.3 Updated Scrum Guidance Body Membership

As a result of assessing the Scrum Guidance Body membership, new members may be added, and existing members may leave the Scrum Guidance Body.

14.5.3.4 Rejected Updates to the Scrum Guidance Body Recommendations

Recommended Scrum Guidance Body improvements may not always be accepted. If a recommended improvement is rejected by the Scrum Guidance Body members, an explanation of the reason(s) for the rejection is provided as feedback to the relevant parties.

14.6 Create/Refine Prioritized Program or Portfolio Backlog

In this process, the Program or Portfolio Backlog is first created based on the program or portfolio requirements. On an ongoing basis, the Prioritized Program or Portfolio Backlog is updated and maintained with new or updated requirements, risks, and priorities.

Any outputs from the *Create/Refine Prioritized Program or Portfolio Backlog* process become inputs to the process after their initial creation. For example, the Prioritized Program or Portfolio Backlog is created for the first time during this process, but it becomes a mandatory input to subsequent refining/updates.

Figure 14-10 shows all the inputs, tools, and outputs for the *Create/Refine Prioritized Program or Portfolio Backlog* process.

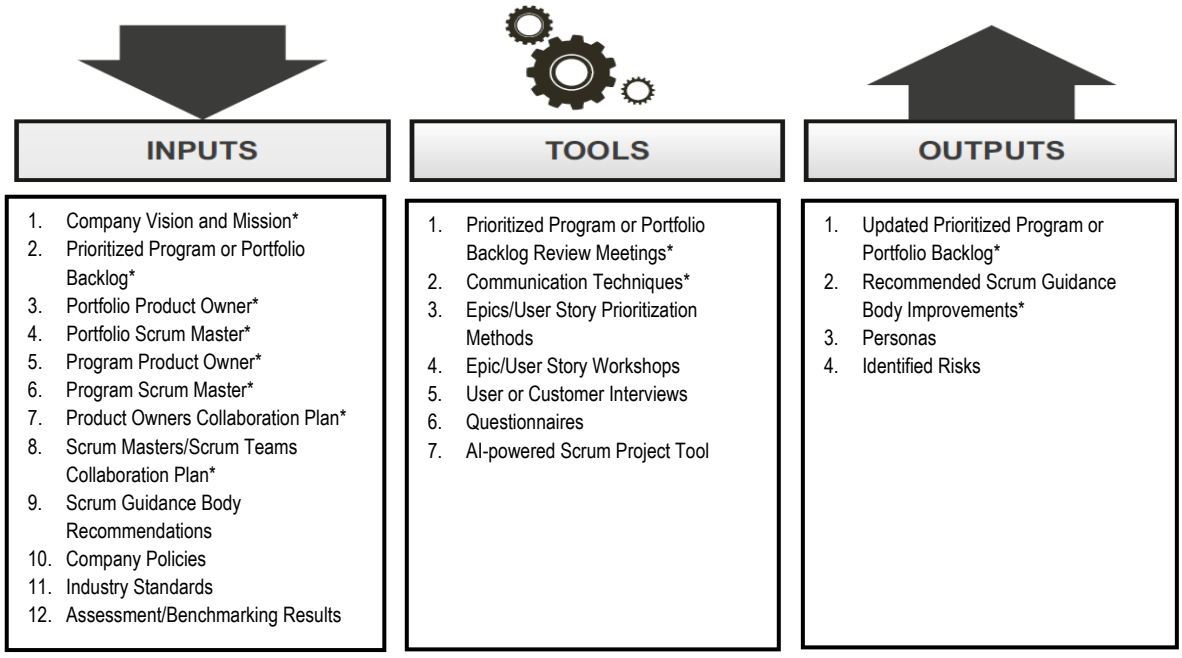


Figure 14-10: Create/Refine Prioritized Program or Portfolio Backlog—Inputs, Tools, and Outputs

Note: Asterisks (*) denote a "mandatory" input, tool, or output for the corresponding process.

14.6.1 Inputs

14.6.1.1 Company Vision and Mission*

Described in section 14.3.1.1.

14.6.1.2 Prioritized Program or Portfolio Backlog*

The Program or Portfolio Product Owner develops the Prioritized Program or Portfolio Backlog, which contains a prioritized list of high-level business and project requirements, preferably written in the form of large Epics at a program or portfolio level. The Product Owners of individual projects later refine these as they create and prioritize the Product Backlogs for their own projects. These Prioritized Product Backlogs have much smaller but more detailed User Stories that can be estimated and committed by individual Scrum Teams. These details are shared between different projects to avoid unnecessary duplication of work effort.

The Prioritized Program Backlog plays a similar role at the program level as the Prioritized Product Backlog does at the project level. It captures the requirements for the program and their priorities. There are a few differences, however. The creation of the respective deliverables and their acceptance are handled within the projects of the program. Done or Acceptance Criteria for each Product Backlog item/User Story may be defined at the program level. The teams must adhere to these criteria, but new criteria can be added, as required.

The length of a Sprint is project specific and can therefore vary from project to project within a program. In addition, velocity varies from team to team. Therefore, it is not necessary to have very granular User Stories at the program level. Typically, programs have high-level requirements in the form of Epics, and the refinement of Epics at the program level goes only far enough to ensure that each respective Epic is clearly understood and that tangible Acceptance Criteria for the program can be defined.

The Prioritized Portfolio Backlog plays the same role at the portfolio level as the Prioritized Program Backlog does at the program level. The items in the Prioritized Portfolio Backlog provide inputs to the various Prioritized Program Backlogs and to the Prioritized Product Backlogs of each of the corresponding projects. As with the Prioritized Program Backlog, only minimal, if any, refinement of Epics is done at this level, because the refinement is handled within the associated projects at the level of each of the Prioritized Product Backlogs.

The Program or Portfolio Product Owner continuously refine the Prioritized Program or Portfolio Backlog to ensure that new business requirements are added, and existing requirements are properly documented and prioritized. This ensures that the most valuable requirements in meeting the portfolio or program's objectives are prioritized as high and the remaining are given a lower priority.

The Prioritized Program or Portfolio Backlog presents a larger picture of all projects that are part of the program or portfolio. Therefore, it can provide significant guidance regarding project goals, scope, objectives, and the expected business benefits.

14.6.1.3 Portfolio Product Owner*

The Portfolio Product Owner is responsible for the creation and the refining of the Prioritized Portfolio Backlog. For more information on the role of the Portfolio Product Owner, see section 3.7.4.2.

14.6.1.4 Portfolio Scrum Master*

At the portfolio level, the Portfolio Scrum Master plays a similar role as the Program Scrum Master plays for a program. He or she is a facilitator, solves problems, and removes impediments at the portfolio level. For more information on the role of the Portfolio Scrum Master, see section 3.7.4.4.

14.6.1.5 Program Product Owner*

At the program level, the Program Product Owner is responsible for and is the driver of the creation and the refining of the Prioritized Program Product Backlog. For more information on the role of the Program Product Owner, see section 3.7.4.1.

14.6.1.6 Program Scrum Master*

At the program level, the Program Scrum Master plays a role similar to that of the Scrum Master in a project. He or she is a facilitator, solves problems, and removes impediments at the program level. For more information on the role of the Program Scrum Master, see section 3.7.4.3.

14.6.1.7 Product Owners Collaboration Plan

Described in section 13.2.2.

14.6.1.8 Scrum Masters/Scrum Teams Collaboration Plan

Described in section 13.2.3.

14.6.1.9 Scrum Guidance Body Recommendations

When creating and refining the Prioritized Program or Portfolio Backlog, Scrum Guidance Body recommendations provide best practices that should be taken into consideration at the program or portfolio level. For more information on Scrum Guidance Body Recommendations, see sections 8.1.1.7 and 10.3.1.11.

14.6.1.10 Company Policies

Company policies are a set of principles, rules, and guidelines formulated or adopted by an organization. Changing company policies could affect existing Epics or User Stories that were created based on existing policies.

14.6.1.11 Industry Standards

New industry standards or changes to existing standards need to be implemented in order to maintain a viable product or service. Therefore, User Stories related to meeting these standards need to be included in the Prioritized Program or Portfolio Backlog and prioritized accordingly. Sometimes, the Scrum Guidance Body recommendations may also need to be changed to reflect new or changed industry standards.

14.6.1.12 Assessment/Benchmarking Results

Primarily, assessment or benchmarking results will necessitate an update to the Scrum Guidance Body recommendations for best practices. The results can also help set a minimum standard when creating a product or service and may lead to changes to the Done Criteria. Sometimes new assessments or benchmarking results may also provide impetus for a Program or Portfolio Product Owner to develop new Epics to implement any additional or updated best practices.

14.6.2 Tools

14.6.2.1 Prioritized Program or Portfolio Backlog Review Meetings*

Participation in the Program or Portfolio Backlog review meetings is quite different from participation in the Product Backlog review meetings at the project level. Scrum Teams participate in the refining sessions at the project level. At the program or portfolio level, there is representation from each project within the program or from each program and/or standalone projects within the portfolio. However, to streamline the meetings, it is recommended to have only one or a few representatives from each project or program attend at the program or portfolio level. Refer to related sections 6.5.1.2 and 10.3.2.1 for more information.

14.6.2.2 Communication Techniques*

Described in section 10.3.2.2.

14.6.2.3 Epics/User Story Prioritization Methods

At the program or portfolio level, there is normally a smaller number of requirements/Epics/User Stories than at the project level. Also, these requirements will be at a very high level and prioritization will be driven primarily by the business requirements (as determined by the business stakeholders), the Portfolio Product Owner, and the Program Product Owner. For more information on prioritization methods, see section 8.5.2.1.

14.6.2.4 Epic/User Story Workshops

Compared to projects, User Story Workshops for programs and portfolios aim to produce only higher-level Epics/User Stories as their outputs, so there will be significantly fewer Epics/User Stories at this point. However, the meetings still provide value as they are attended by representatives from the projects within the program or from the programs within the portfolio and these individuals can carry relevant information back to their respective teams. The Program or Portfolio Scrum Master typically coordinate these workshops. This ensures that requirements are well defined and understood throughout the program or portfolio. For more information on User Story Workshops, see section 8.4.2.2.

14.6.2.5 User or Customer Interviews

Described in section 8.4.2.4.

14.6.2.6 Questionnaires

Described in section 8.4.2.5.

14.6.2.7 AI-powered Scrum Project Tool

An appropriately designed AI-powered Scrum Project Tool provides an easy-to-understand view of the Prioritized Program or Portfolio Backlog and also helps the Program or Portfolio Product Owner to view and prioritize the requirements/Epics/User Stories. For more information on the AI-powered Scrum Project Tool, see sections 2.4.4 and 13.3.8.

14.6.3 Outputs

14.6.3.1 Updated Prioritized Program or Portfolio Backlog*

The Prioritized Program or Portfolio Backlog may be updated with new or updated Epics/User Stories; work related to new Change Requests or identified risks; and/or to reflect the reprioritization of existing Epics/User Stories. Refining the Program or Portfolio Backlog might result in a decision to initiate a new project (for example, to create a framework or a common web-interface to be used by all projects).

14.6.3.2 Recommended Scrum Guidance Body Improvements*

As a result of the *Create/Refine Program or Portfolio Backlog* process, suggestions or feedback might be provided for potential improvements to the Scrum Guidance Body documentation. These recommended improvements will be discussed and agreed to or rejected by the Scrum Guidance Body. If any of the suggestions are accepted, they will be incorporated as updates to the Scrum Guidance Body documentation. For more information, see the *Review and Update Scrum Guidance Body* process.

14.6.3.3 Personas

Described in section 8.4.3.2.

14.6.3.4 Identified Risks

Risks related to a program or portfolio will also impact the projects that are a part of the respective program or portfolio. During risk assessment of the program or portfolio, if it is determined that a risk may affect a lower-level program or project, relevant information about that risk must be communicated to the respective Product Owner and Scrum Team. Program and portfolio risks become inputs to the *Develop Epics* process for the relevant project(s) and can have an overall impact on how this process is conducted. For more information on identifying project risks, see sections 7.4.1 and 8.4.3.4. Program and portfolio risks are discussed in section 7.6.

14.7 Create/Update Program or Portfolio Releases

In this process, the program or portfolio releases are planned, considering any dependencies between the releases. Program or portfolio release planning will impact release planning at the project level. The Program or Portfolio Release Schedule is created and should be revisited regularly based on the progress of project deliverables, new or changed requirements or their priorities, and other factors.

The Release Planning Meeting is used to review the existing releases and plan for new releases.

Outputs from the *Create/Update Program or Portfolio Releases* process become inputs to the process after their initial creation. For example, initial program or portfolio releases may be created for the first time during this process, but these become mandatory inputs for future program or portfolio releases.

Figure 14-11 shows all the inputs, tools, and outputs for the *Create/Update Program or Portfolio Releases* process.

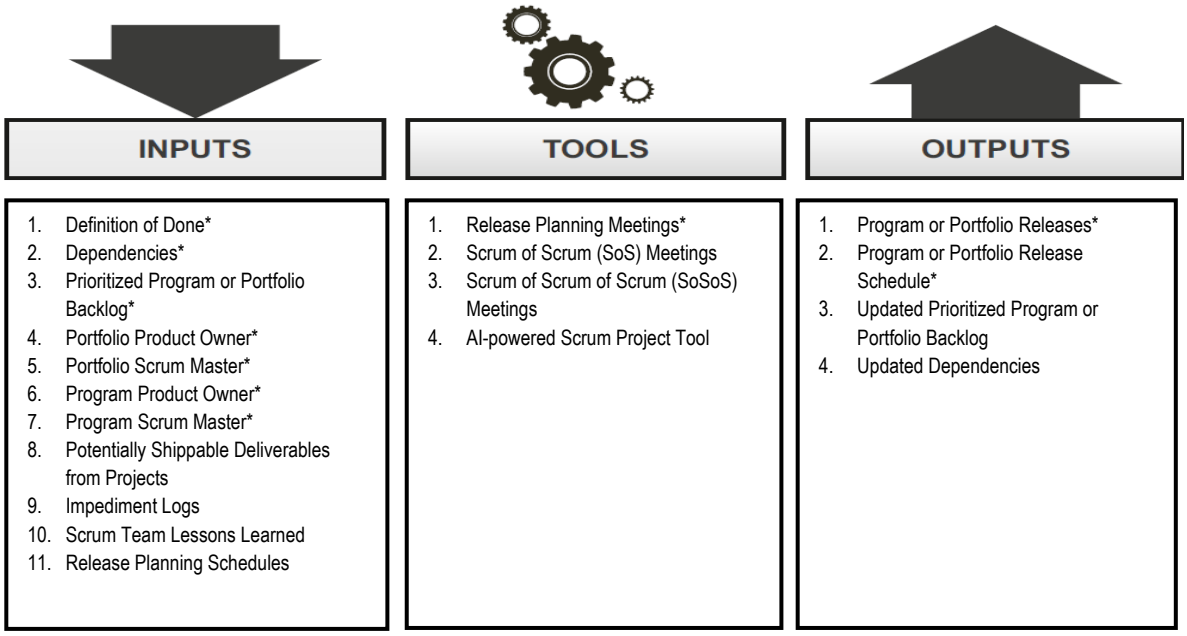


Figure 14-11: Create/Update Program or Portfolio Releases—Inputs, Tools, and Outputs

Note: Asterisks (*) denote a "mandatory" input, tool, or output for the corresponding process.

14.7.1 Inputs

14.7.1.1 Definition of Done*

The Definition of Done (or Done Criteria) defined at the program or portfolio level can be used as the minimum Done Criteria for projects across the enterprise. For more information on the Done Criteria, see sections 5.4.3 and 8.5.3.2.

14.7.1.2 Dependencies*

Described in sections 8.5.2.6 and 8.5.3.5.

14.7.1.3 Prioritized Program or Portfolio Backlog*

Described in section 14.6.1.2.

14.7.1.4 Portfolio Product Owner*

Described in section 3.7.4.2.

14.7.1.5 Portfolio Scrum Master*

Described in section 3.7.4.4.

14.7.1.6 Program Product Owner*

Described in section 3.7.4.1.

14.7.1.7 Program Scrum Master*

Described in section 3.7.4.3.

14.7.1.8 Potentially Shippable Deliverables from Projects

Potentially shippable deliverables from projects are valuable inputs for coordination at the program or portfolio level. At the end of each Sprint in a project, product increments or deliverables are completed. The User Stories included in these increments meet the Done Criteria as well as their respective Acceptance Criteria.

14.7.1.9 Impediment Logs

Described in sections 10.1.1.4 and 14.4.3.4.

14.7.1.10 Scrum Teams Lessons Learned

Described in section 11.2.3.5.

14.7.1.11 Release Planning Schedules

These schedules, while tentative and subject to change, are vital to gauge whether or not the respective projects are likely to meet their required deadlines and are especially crucial with respect to dependencies. For more information on the Release Planning Schedule at the project level, see section 8.6.3.1.

14.7.2 Tools

14.7.2.1 Release Planning Meetings*

Release Planning Meetings take place between the Portfolio Product Owner, Program Product Owner, Portfolio Scrum Master, Program Scrum Master, and other relevant business stakeholders from the business and project teams to ensure that all program and portfolio releases are planned properly. The program and portfolio releases in turn provide valuable inputs to plan releases at the project level.

14.7.2.2 Scrum of Scrum (SoS) Meetings*

Described in section 13.3.5.

14.7.2.3 Scrum of Scrum of Scrum (SoSoS) Meetings*

Described in section 14.4.2.5.

14.7.2.4 AI-powered Scrum Project Tool

The AI-powered Scrum Project Tool helps the teams to easily view planned program or portfolio releases, make appropriate changes if required, and also plan additional releases. For more information on the AI-powered Scrum Project Tool, see sections 2.4.4 and 13.3.8.

14.7.3 Outputs

14.7.3.1 Program or Portfolio Releases*

A program or portfolio release includes the releases for all the underlying projects in the program or portfolio. There are typically two ways in which program or portfolio releases happen:

1. All deliverables for the underlying projects are completed but kept ready to be released as determined by the program or portfolio. There may be a specific release date on which the whole program or portfolio is released to the end customer.
2. Deliverables are released at a project level whenever they are ready, for example, in DevOps, which allows for continuous development, implementation, and deployment.

14.7.3.2 Program or Portfolio Release Schedule*

A Program or Portfolio Release schedule includes target dates for different releases planned at the program or portfolio level.

14.7.3.3 Updated Prioritized Program or Portfolio Backlog

The Prioritized Program or Portfolio Backlog is updated as existing releases are reviewed and proposed changes or new releases are added. Updating of Program or Portfolio releases may also impact the prioritization of Epics/User Stories in the Prioritized Program or Portfolio Backlog. For more information on the Prioritized Program or Portfolio Backlog, see section 14.6.1.2.

14.7.3.4 Updated Dependencies

Dependencies may be updated based on discussions in the Release Planning Meetings or sessions.

14.8 Retrospect Program or Portfolio Releases

In this process, the Program or Portfolio Product Owner and business stakeholders get together to retrospect a program or portfolio release and to also discuss and internalize the lessons learned. Often, these lessons learned lead to Agreed Actionable Improvements to be implemented in future releases. Sometimes, improvements to the Scrum Guidance Body may be recommended. These meetings may be scheduled after each program or portfolio release.

Figure 14-12 outlines "retrospect program or portfolio releases." includes inputs from scrum teams and stakeholders, tools like retrospective meetings, and outputs such as improvement actions and guidance body updates.

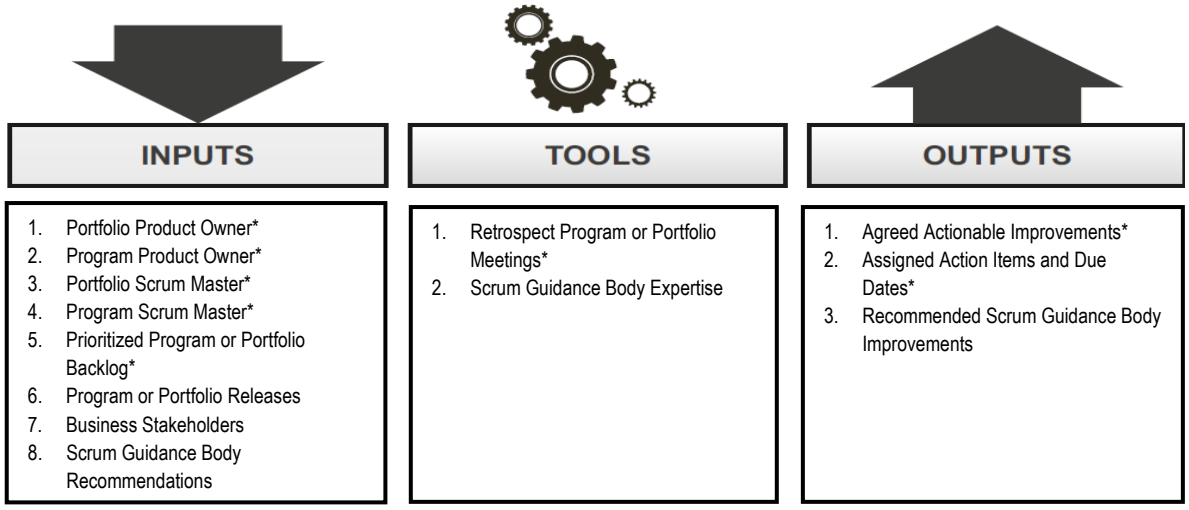


Figure 14-12: Retrospect Program or Portfolio Releases—Inputs, Tools, and Outputs

Note: Asterisks (*) denote a "mandatory" input, tool, or output for the corresponding process.

14.8.1 Inputs

14.8.1.1 Portfolio Product Owner*

Described in section 3.7.4.2.

14.8.1.2 Portfolio Scrum Master*

Described in section 3.7.4.4.

14.8.1.3 Program Product Owner*

Described in section 3.7.4.1.

14.8.1.4 Program Scrum Master*

Described in section 3.7.4.3.

14.8.1.5 Prioritized Program or Portfolio Backlog*

Described in section 14.6.1.2.

14.8.1.6 Program or Portfolio Releases*

Described in section 14.7.3.1.

14.8.1.7 Business Stakeholders

Described in sections 3.2.2 and 14.3.3.5.

14.8.1.8 Scrum Guidance Body Recommendations

During a retrospective of Program or Portfolio releases, the Scrum Guidance Body recommendations provide pertinent best practices including information on administrative procedures, audits, evaluations, and project transition criteria. This is similar to the role the Scrum Guidance Body Recommendations plays at the project level retrospectives (described in section 12.2.1.5).

14.8.2 Tools

14.8.2.1 Retrospect Program or Portfolio Meetings*

The Retrospect Program or Portfolio Meeting is similar to the Retrospect Release Meeting held at the project level (see section 12.2.2.1). The major difference is that the Retrospect Program and Portfolio Meetings are held much less frequently than the Retrospect Release Meetings and include the Program/Portfolio Product Owner, the Program/Portfolio Scrum Master, and the business stakeholders for the program or portfolio.

14.8.2.2 Scrum Guidance Body Expertise

Described in section 8.4.2.7.

14.8.3 Outputs

14.8.3.1 Agreed Actionable Improvements*

Described in section 11.2.3.1.

14.8.3.2 Assigned Action Items and Due Dates*

Described in section 11.2.3.2

14.8.3.3 Recommended Scrum Guidance Body Improvements

As a result of the *Retrospect Program or Portfolio Releases* process, suggestions or feedback may be provided for potential improvements to the Scrum Guidance Body documentation. These recommended improvements will be discussed and agreed to or rejected by the Scrum Guidance Body. If any of the suggestions are accepted, they will be incorporated as updates to the Scrum Guidance Body documentation. For more information, see the *Review and Update Scrum Guidance Body* process.

The Essential Guide to Successfully Deliver Projects using Scrum

A Guide to the Scrum Body of Knowledge (SBOK® Guide) provides comprehensive guidelines for the successful implementation of Scrum—the most popular Agile product development and project delivery approach. Defined in the SBOK® Guide as a flexible framework, Scrum can be applied to portfolios, programs, or projects of any size or complexity across industries to deliver products, services, or other results.

This Fifth Edition is based on the collective knowledge gained from thousands of projects across diverse organizations and industries. It reflects contributions from a large number of experts in Scrum and project delivery. Feedback from the global Scrum community played a vital role in shaping improvements and additions, making the SBOK® Guide a truly collaborative effort.

Unlike other Scrum references, the SBOK® Guide is available for free on Scrumstudy.com, along with free certifications, webinars, videos, and study guides. It is ideal for professionals seeking a foundational understanding of Business Analysis or exploring careers in related fields. The Guide addresses real-life challenges faced by Scrum practitioners and explains how to solve them using modern tools and Artificial Intelligence (AI).

Designed to be accessible and engaging, the SBOK® Guide follows the 80-20 rule—80% of key concepts can be learned by reading just 20% of the content, with the remainder available for deeper reference. It is more readable than most Scrum books, which are often either too simplistic or overly detailed.

The SBOK® Guide serves as a reference for both experienced practitioners and those with no prior knowledge of Scrum or project delivery methods. Organized for easy navigation, the SBOK® Guide aims to inform, support, and inspire all readers through its rich, collaborative content.

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