

# EXIN Agile Scrum

# MASTER



# **Preparation Guide**

Edition 202110



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# 1. Overview

#### EXIN Agile Scrum Master (ASM.EN)

#### Scope

The EXIN Agile Scrum Master certification validates a candidate's knowledge on:

- Agile Way of Thinking
- Scrum Master Role
- Agile Estimating, Planning, Monitoring and Control
- Complex Projects
- Adopting Agile

#### Summary

EXIN Agile Scrum Master is a certification that looks to confirm both skills and knowledge of the Agile principles and Scrum framework.

Agile Scrum is about working together to successfully reach a goal. Agile methodologies are popular approaches in software development and are increasingly being used in other areas. Scrum practices include establishing cross-functional and self-managing teams, producing a working deliverable at the end of each iteration or Sprint. This certification focuses on adopting Agile or Scrum in the workplace and taking on the role of Scrum Master.

The Scrum Master is responsible for ensuring that the Scrum framework is understood by the team. Scrum Masters do this by coaching, training, and facilitating the Scrum team.

The Scrum Master helps the team to produce value. A successful Scrum Master can work well with others, both inside and outside the team. The Scrum Master helps those outside the Scrum team understand which interactions with the Scrum team are helpful and which are not.

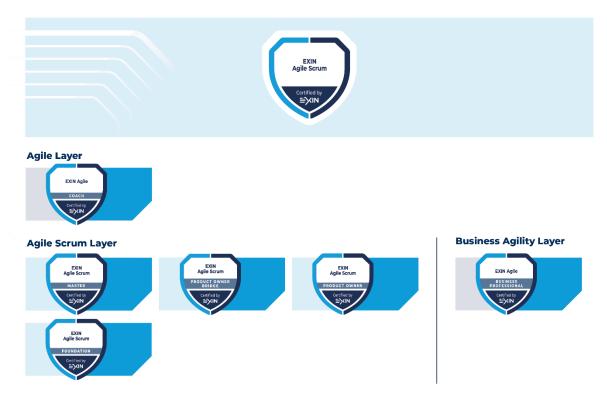
The Agile way of thinking is best known in the field of software development, but the principles are increasingly being applied in other types of projects. Scrum is the most-used Agile methodology and is suitable for all professionals looking to keep their knowledge up to date with the latest developments in the fields of IT and project management, particularly those leading or participating in projects.





### Context

The EXIN Agile Scrum Master certification is part of the EXIN Agile Scrum qualification program.



### **Target Group**

In particular, the certification is suitable for professionals working in an Agile context and who have the ambition to facilitate a Scrum team by assuming the role of a Scrum Master.

#### **Requirements for Certification**

- Successful completion of the EXIN Agile Scrum Master exam.
- Accredited EXIN Agile Scrum Master training, including completion of the Practical Assignments.

Knowledge of Scrum terminology, for instance through the EXIN Agile Scrum Foundation exam, is strongly recommended.

#### **Examination Details**

Examination type:	Multiple-choice questions
Number of questions:	40
Pass mark:	65% (26/40 questions)
Open book:	No
Notes:	No
Electronic equipment/aides permitted:	No
Exam duration:	90 minutes

The Rules and Regulations for EXIN's examinations apply to this exam.





### **Bloom level**

The EXIN Agile Scrum Master certification tests candidates at Bloom Levels 2, 3 and 4 according to Bloom's Revised Taxonomy:

- Bloom Level 2: Understanding a step beyond remembering. Understanding shows that candidates comprehend what is presented and can evaluate how the learning material may be applied in their own environment. This type of questions aims to demonstrate that the candidate is able to organize, compare, interpret and choose the correct description of facts and ideas.
- Bloom Level 3: Application shows that candidates have the ability to make use of information in a context different from the one in which it was learned. This type of questions aims to demonstrate that the candidate is able to solve problems in new situations by applying acquired knowledge, facts, techniques and rules in a different, or new way. These questions usually contains a short scenario.
- Bloom Level 4: Analysis shows that candidates have the ability to break learned information into its parts to understand it. This Bloom level is mainly tested in the Practical Assignments. The Practical Assignments aim to demonstrate that the candidate is able to examine and break information into parts by identifying motives or causes, make inferences and find evidence to support generalizations.

# Training

#### **Contact Hours**

The recommended number of contact hours for this training course is 14. This includes practical assignments, exam preparation and short breaks. This number of hours does not include lunch breaks, homework and the exam.

#### **Indication Study Effort**

112 hours (4 ECTS), depending on existing knowledge.

### **Training Organization**

You can find a list of our Accredited Training Organizations at <u>www.exin.com</u>.





# 2. Exam Requirements

The exam requirements are specified in the exam specifications. The following table lists the topics of the module (exam requirements) and the subtopics (exam specifications).

Exam	Exam Specifications	Weight
Requirements	-1 4 1 4	100
1. Agile Way of		10%
	1.1 Agile Concepts	10%
2. Scrum Maste	r Role	27.5%
	2.1 Responsibilities and Commitment	12.5%
	2.2 Facilitating and Coaching the Team	7.5%
	2.3 Other Roles (Product Owner, Developers)	7.5%
3. Agile Estimat	ing, Planning, Monitoring and Control	32.5%
	3.1 Writing and Maintaining the Product and Sprint Backlog	7.5%
	3.2 Agile Planning	5%
	3.3 Agile Estimation	5%
	3.4 Tracking and Communicating Progress	10%
	3.5 Staying in Control	5%
4. Complex Projects		12.5%
	4.1 Scaling Agile Projects	5%
	4.2 Suitability of Agile for Different Types of Projects	5%
	4.3 Agile Administration in Tooling and Tool Integration	2.5%
5. Adopting Agile		17.5%
· · ·	5.1 Introducing Agile	7.5%
	5.2 Self-management	5%
	5.3 Agile Requirements and Proper Environment	5%
	Total	100%





# **Exam Specifications**

# 1 Agile Way of Thinking

- 1.1 Agile Concepts
  - The candidate can...
  - 1.1.1 explain the Agile way of thinking.
  - 1.1.2 explain how Agile brings predictability and flexibility.
  - 1.1.3 describe how to establish continuous improvement.
  - 1.1.4 differentiate other Agile frameworks and methodologies: Crystal, Extreme Programming (XP), DSDM, LeSS, SAFe and Kanban.

## 2 Scrum Master Role

- 2.1 Responsibilities and Commitment
  - The candidate can...
  - 2.1.1 explain which tasks and responsibilities belong to the Scrum Master role.
  - 2.1.2 analyze a scenario for the best solution to a problem typical to Scrum Masters.
  - 2.1.3 explain which tools to use to facilitate the team.
- 2.2 Facilitating and Coaching the Team
  - The candidate can...
  - 2.2.1 explain how to facilitate the team by removing roadblocks.
  - 2.2.2 explain how to coach and train the team.
- 2.3 Other Roles (Product Owner, Developers) The candidate can...
  - 2.3.1 explain all roles within the Scrum framework.

### 3 Agile Estimating, Planning, Monitoring and Control

- 3.1 Writing and Maintaining the Product and Sprint Backlog The candidate can...
  - 3.1.1 explain why a good definition of done (DoD) is so important.
  - 3.1.2 explain how to write good user stories for services or products.
  - 3.1.3 explain how to maintain the product backlog and how to add product backlog items.
- 3.2 Agile Planning
  - The candidate can...
    - 3.2.1 explain planning of portfolio, products, and roadmaps.
  - 3.2.2 explain the role of the Scrum Master in the sprint planning.
- 3.3 Agile Estimation
  - The candidate can...
  - 3.3.1 explain how to use story points, ideal hours, ideal days and velocity during planning.
  - 3.3.2 recognize errors in estimation.
- 3.4 Tracking and Communicating Progress
  - The candidate can...
    - 3.4.1 identify impediments, deviations, roadblocks and other obstacles that influence the progress positively and negatively.
    - 3.4.2 explain how to create information radiators, how to interpret them and how to act on the results.
    - 3.4.3 explain how to interpret commonly used tracking methods (burn-down chart, velocity, et cetera).
- 3.5 Staying in Control
  - The candidate can...
  - 3.5.1 explain how to manage issues and bugs and how to inform stakeholders.





## 4 Complex Projects

- 4.1 Scaling Agile Projects
  - The candidate can...
    - 4.1.1 explain how to use the product backlog in a scaled environment.
    - 4.1.2 explain how to scale Scrum using Nexus.
- 4.2 Suitability of Agile for Different Types of Projects
  - The candidate can...
  - 4.2.1 explain in which cases it is not possible to use Agile.
  - 4.2.2 explain why having a small team is beneficial for any project.
- 4.3 Agile Administration in Tooling and Tool Integration
  - The candidate can...
    - 4.3.1 explain which tools can help a team to use or adopt Agile and thereby increase the quality of the development process

## 5 Adopting Agile

- 5.1 Introducing Agile
  - The candidate can...
    - 5.1.1 explain how some project management activities are transferred to the Scrum Master role after the transition to Scrum.
    - 5.1.2 identify what can go wrong when transitioning to Scrum.
    - 5.1.3 explain how to deal with resistance to change.
- 5.2 Self-management
  - The candidate can...
  - 5.2.1 explain what self-management means for a team.
  - 5.2.2 explain what it means to have a cross-functional team.
- 5.3 Agile Requirements and Proper Environment
- The candidate can...
  - 5.3.1 explain what changes in culture must be made before adopting Agile.





# 3. List of Basic Concepts

This chapter contains the terms and abbreviations with which candidates should be familiar.

Please note that knowledge of these terms alone does not suffice for the exam; the candidate must understand the concepts and be able to provide examples.

accountability<sup>1</sup> ADAPT (awareness, desire, ability, promotion and transfer) affinity estimation burn-down (bar) chart burn-up chart business value coach collocated team commitment conserver continuous delivery continuous improvement continuous integration customer customer/user needs daily scrum definition of done (DoD) **Developers** diehard distributed team epic user story estimation fine-grained user story flow follower functional requirement Gantt chart grow-and-split ideal days ideal hours impediment increment information radiator internal coaching iteration Kanban board Lean minimal marketable product (MMP) minimal viable product (MVP)

MoSCoW niko-niko calendar non-functional requirement originator osmotic communication other Agile frameworks: Crystal • Extreme Programming (XP) DSDM LeSS SAFe • Kanban pair programming planning poker potentially shippable pragmatist product backlog item product goal Product Owner product roadmap refinement (of the product backlog) release release burn-down (bar) chart release burn-up release planning resistance responsibility<sup>2</sup> return on investment (RoI) roadblock saboteur scaling sceptic Scrum board Scrum Master Scrum team servant leader software tooling split-and-seed splitting teams timebox/timeboxing

<sup>&</sup>lt;sup>1</sup> The Scrum Guide makes a distinction between accountability and responsibility. Accountability means 'making sure something happens'. A person who is accountable may delegate the task. <sup>2</sup> The Scrum Guide makes a distinction between accountability and responsibility. Responsibility means 'doing a certain task'. A person who is responsible executes the task as part of their work.





sprint goal sprint goal sprint planning sprint retrospective sprint review story point swimlane task board test-driven development transitioning to Scrum sprint backlog item user story value value stream mapping (VSM) velocity voice of the customer (VoC) waste Waterfall work-in-progress limit (WiP-limit)





# 4. Literature

# **Exam Literature**

The knowledge required for the exam is covered in the following literature:

 A. Johann Botha The EXIN handbook for Scrum Masters and Product Owners EXIN (2021) ISBN: 9789076531007 Freely available from <u>www.exin.com</u>. Click on 'Certifications' to find the exam. The download can be found under Required reading.

# Additional Literature

B. Ken Schwaber & Jeff Sutherland The Scrum Guide (most recent version)

## Comment

Additional literature is for reference and depth of knowledge only.





# Literature Matrix

Exam	Exam Specifications	Reference		
Requirements				
1. Agile Way of Thinking				
	1.1 Agile Concepts	Chapters 1, 2, 3, 6, 7, 10 Appendix A		
2. Scrum Master Role				
	2.1 Responsibilities and Commitment	Chapters 5, 6, 7, 8, 10		
	2.2 Facilitating and Coaching the Team	Chapters 5, 7, 13		
	2.3 Other Roles (Product Owner, Developers)	Chapters 5, 14		
3. Agile Estimating, Planning, Monitoring and Control				
	3.1 Writing and Maintaining the Product and Sprint Backlog	Chapters 5, 6, 12		
	3.2 Agile Planning	Chapters 5, 6		
	3.3 Agile Estimation	Chapters 7, 10		
	3.4 Tracking and Communicating Progress	Chapters 5, 7, 10, 14		
	3.5 Staying in Control	Chapters 6, 10 Appendix B		
4. Complex Projects				
	4.1 Scaling Agile Projects	Chapters 2, 6, 12, 14		
	4.2 Suitability of Agile for Different Types of Projects	Chapters 1, 2, 5, 13		
	4.3 Agile Administration in Tooling and Tool Integration	Chapter 10		
5. Adopting Agil	5. Adopting Agile			
	5.1 Introducing Agile	Chapters 2, 5, 13		
	5.2 Self-management	Chapters 1, 3, 5, 7		
	5.3 Agile Requirements and Proper Environment	Chapters 1, 2, 13		





# **Contact EXIN**

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