Co-funded by the Erasmus+ Programme of the European Union

2nd Workshop for the validation of needs in Additive manufacturing
27th January 2021

SAM
SECTOR SKILLS STRATEGY IN ADDITIVE MANUFACTURING

Project No. 601217-EPP-1-2018-1-BE-EPPKA2-SSA-B

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DEFINING THE AM DESIGNER FOR POLYMERS PROFILE FOR AM INDUSTRY

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THE PATH

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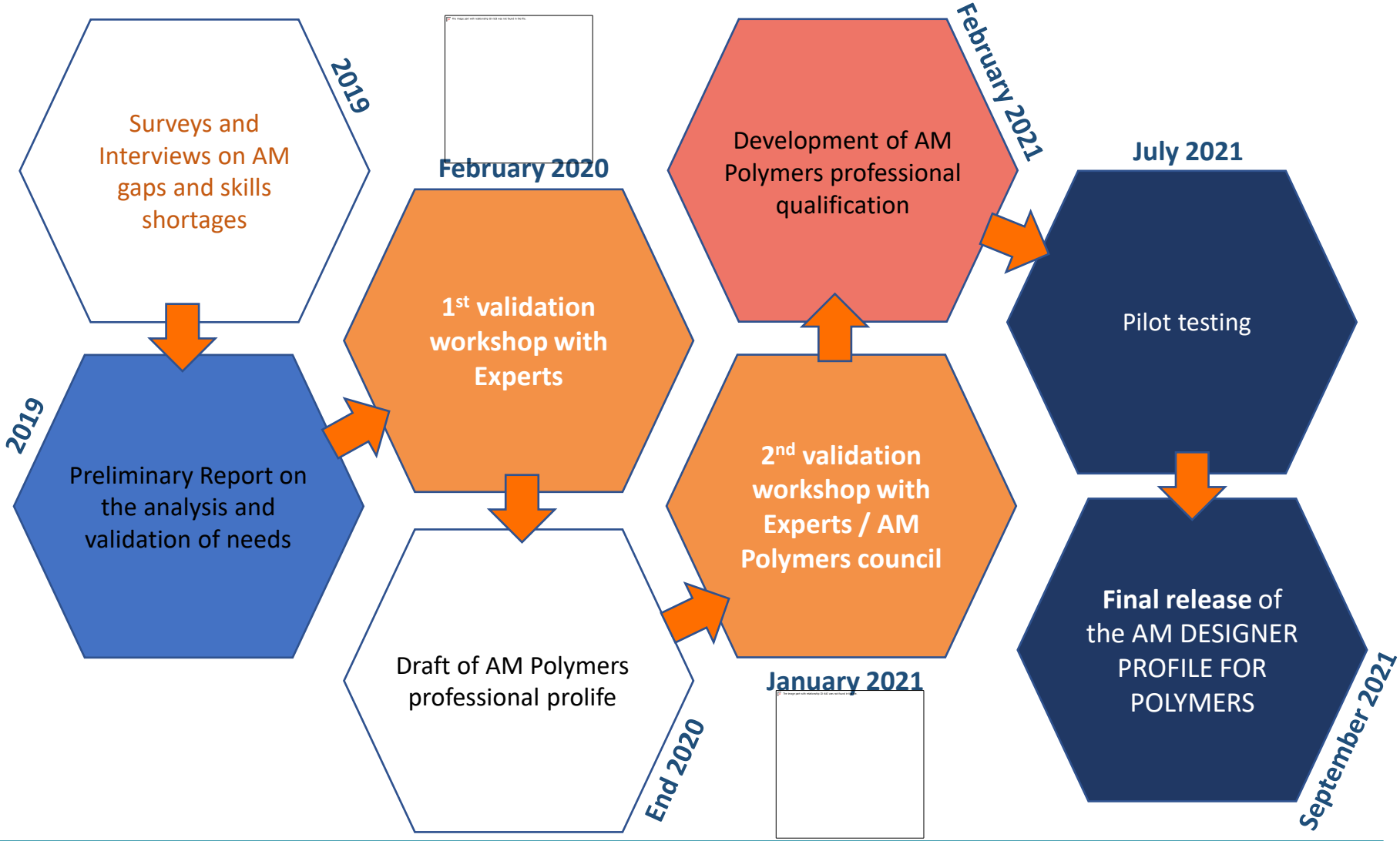

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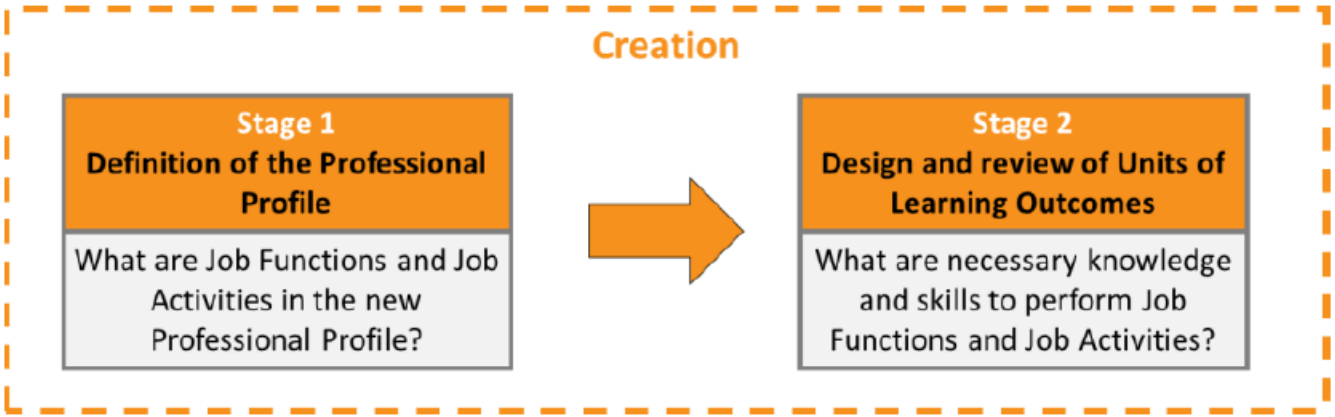
STAGES REQUIRED IN THE DESIGN OF A QUALIFICATION



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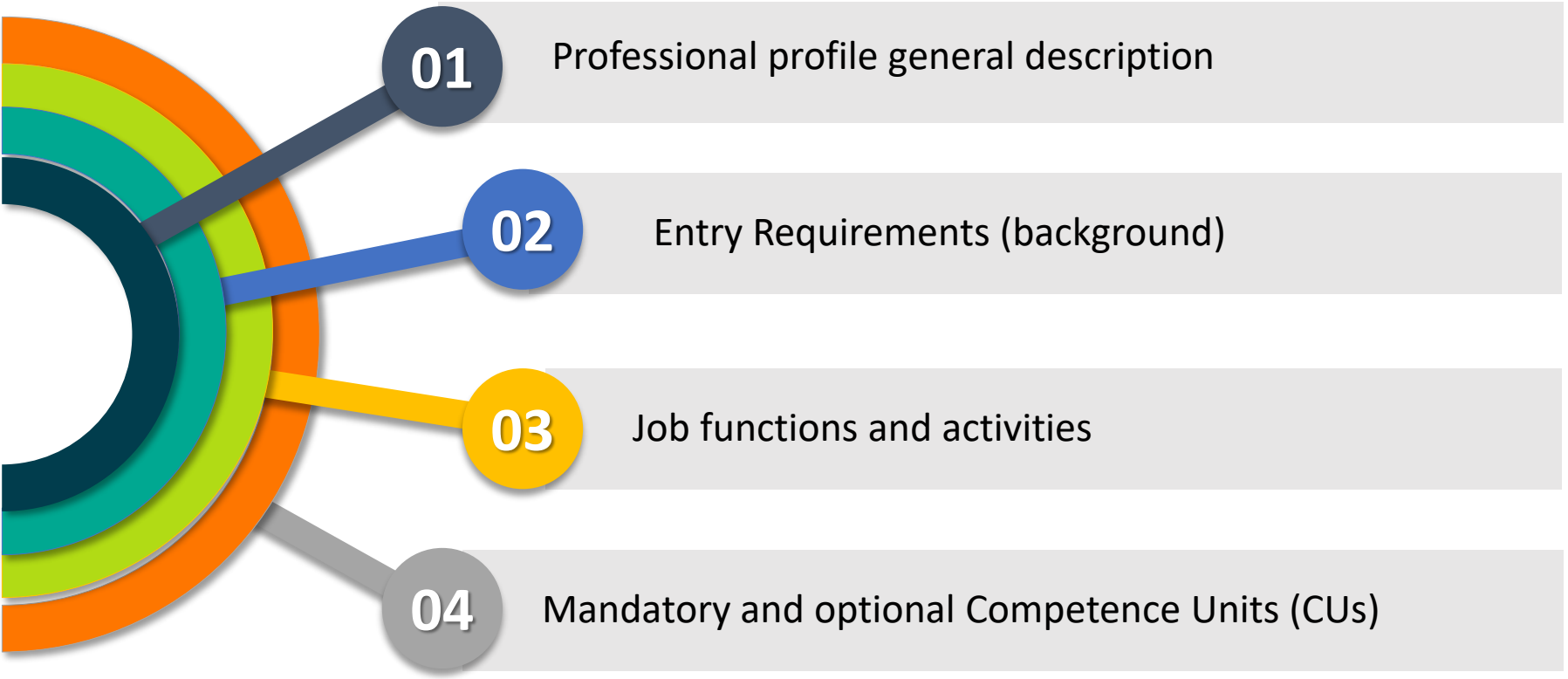
PROFILE PARTS



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AM DESIGNER FOR POLYMERS

Professional profile general description

Question 1:

WHAT IS THE GENERAL DESCRIPTION OF THIS PROFESSIONAL PROFILE CONCERNING ITS MAIN TASKS AND RESPONSABILITIES?

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AM DESIGNER FOR POLYMERS

Professional profile general description

- Design AM solutions for the main Polymer Processes ensuring and validating that parts can be made cost-effective and efficiently.
- Close Polymer Design Proposals by verifying requirements for production and post-processing with the project responsible as well as process requirements, ensuring liaison with other technical areas to sign of drawings.
- Contribute to projects in a teaming environment cooperation with AM Team

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AM DESIGNER FOR POLYMERS

Entry requirements

Question 2: WHAT IS THE REQUIRED PREVIOUS KNOWLEDGE AND/OR EXPERIENCE TO ATTEND THE QUALIFICATION COURSE?

We intend level 6 (bachelor level)

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AM DESIGNER FOR POLYMERS
Entry requirements

- Bachelor's degree in Architecture or Engineering (Mechanical, Automotive, Aerospace, Biotechnical or similar)
- OR Professional qualification in technical product design
- OR Comparable professional experience of at least three years
- **AND** Adequate skills in using 3D CAD tools.

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AM DESIGNER FOR POLYMERS

Job Functions and Activities

Job Functions	Job Required Activities
Design Polymer parts for • Material Extrusion • PBF • Material Jetting • Vat Photopolymerization	• Interpreting process specific part or assembly requirements • Creating new or redesigning existing 3D models using CAD software considering possible post processing operations • Identifying process specific Orientation and Position of parts or assemblies in the build chamber / on the build platform • Validating design with project responsible or project team • Creating all necessary manufacturing documents and parts lists • Closing design project

Question 3: IS IT EXPECTED FROM THIS CANDIDATE TO USE/PERFORM CAD?

(General CAD tools teaching won't be included)

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AM DESIGNER FOR POLYMERS

Job Functions and Activities

Question 5: WHAT IS THE EXPECTED LEVEL OF KNOWLEGE AND SKILLS FOR:

-Simulation

-Process

-Post-processing?

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AM DESIGNER FOR POLYMERS

Competence Units

QUALIFICATIONS

STRUCTURED IN

COMPETENCE UNITS

COMPETENCE UNITS — **include** — **CONTENTS + EXPECTED LEARNING OUTCOMES + ASSESSMENT CRITERIA + TEACHING/LEARNING ACTIVITIES**

components of qualifications, consisting of a **coherent set of knowledge and skills,** organized in **learning outcomes**, that can be **assessed and validated;**

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AM DESIGNER FOR POLYMERS

Competence Units

AM Designer Competence Units		
CU Type	**CU No.**	**CU Name**
Cross Cutting	00	Additive manufacturing Process Overview
Cross Cutting	A	Post Processing for Polymers
Cross Cutting	B	Designing Polymers Parts
Functional	C	Design for Material Extrusion
Functional	D	Design for PBF Polymer
Functional	E	Design for Material Jetting
Functional	F	Design for VAT Photopolymerization
Functional	61	Simulation analysis
Functional	62	Simulation execution

Question 6: IS THERE ANY CUs MISSING? WHICH ONES SHOULD BE OPTIONAL?

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THANK YOU!!
PLEASE GO BACK TO GENERAL ROOM

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