SECTOR SKILLS STRATEGY
IN ADDITIVE MANUFACTURING

D4.6 Pilot Activities Report

Executive summary

2nd Stage Pilots:

Qualification/Professional Profile:

AM Designer for Polymers

2 Competence Units /Units of learning outcomes:

CU 64 - Business for Additive Manufacturing and CU 63 - Certification, Qualification and Standardization in Additive Manufacturing

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

Executive summary

The 2nd stage of real case scenarios was implemented by 14 partners of the SAM consortium in June and July 2021. The goal of the implementation and following feedback collection was to test the implementation of the developed guidelines for the IAMQS (International Qualification System) and receive feedback on possible required improvements. The new developed (in D5.4) professional profile (PP) for Designers for Polymers and two completely new competence units on Certification, Qualification and Standardization and Business for AM were piloted by at least one SAM partner.

The implementation process encompassed the development of training materials, preparation of the assessment material, delivery of lectures, the conduction of the final assessment, collection of participants feedback, handing out certificates of completion to participants who passed the final assessment and development of a national report on the piloting activity. In total, 12 piloting activities were conducted by SAM partners.

After the lecture and assessment, participants were asked to answer a feedback survey to support the evaluation of the piloting activity. 280 from 292 participants of the lectures answered the feedback questionnaire. The results on the profile of attendees show that a broad group referring to age, professional background and country was reached. Most of the attendees (101 of 280) were between 26 and 35 years old. According to the feedback survey, nearly half of the participants were workers when attending the piloting course (117 of 264) or higher education students (110 of 264). The majority of 149 participants were engineers or had a Master's degree and all came from very different sectors but nearly all with a technological background. The feedback survey showed that participants from all over the world attended the pilot courses, such as India, China and Turkey in addition to the partner countries Portugal, Spain, UK, Germany and Ireland. 52 participants (19%) identified as female and 228 (81%) as male.

The overall feedback was very positive and the quality of all courses was very high. The majority of 92% stated that they are satisfied with the course as it met their expectations (255 from 278 answers). 56% were very satisfied with the content of the course in relation to their job activity. 95% would recommend the course to others.

During this second stage of piloting, the overall performance in the final assessment was quite positive. From the 271 final assessments carried out, 77% of the participants passed, while the remaining 23% failed.

These results enabled to conclude that independently of the participants profile and background, the designed courses are suitable to develop advanced AM skills for workers (which represent 41% of the participants replying to survey) and for higher education students (which represent 39% of the participants replying to survey). Still, no conclusion can be made regarding the adequacy for VET students, as they only represent 10% of the overall participants replying to survey. Another result is that the skills and knowledge described in the CUs and taught in the lectures are suitable for successfully completing the examination and finally the AM course.

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.