

[Facts Sheet]

1st Round of AM Surveys 2019

MARCH 2020



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72 % of the companies using AM Technologies are applying it to Metals

Industry Skills Needs in Additive Manufacturing

An Industry Survey on AM Skills was conducted in 2019 with 164 companies from 29 countries (in Europe and outside) to find out employers/industry needs with regards to AM skills and identify current and possibly future gaps. Results have revealed that currently 72 % of the companies using AM technology in Europe are applying it to metals, while 63 % are applying it to plastics.

In terms of most required Professionals, the demand is high and very high for AM Designers, AM Process Engineers and AM specialists /coordinators and intermediate for Operators and AM Materials Engineers, which indicates a change from other studies carried out in the past. (Figure 1).

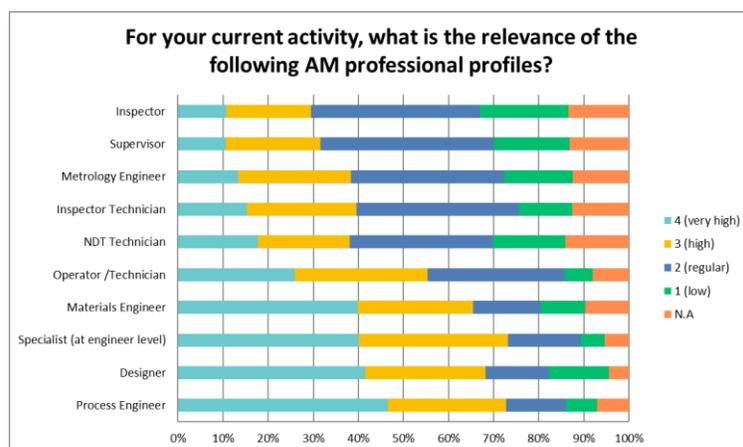


Figure 1 – Priorities of AM Professionals according companies

Results have also revealed that current professionals are still lacking knowledge on post processing; being expected that within the next 2 years AM professionals will need even more knowledge on certification and validation (figure 2).

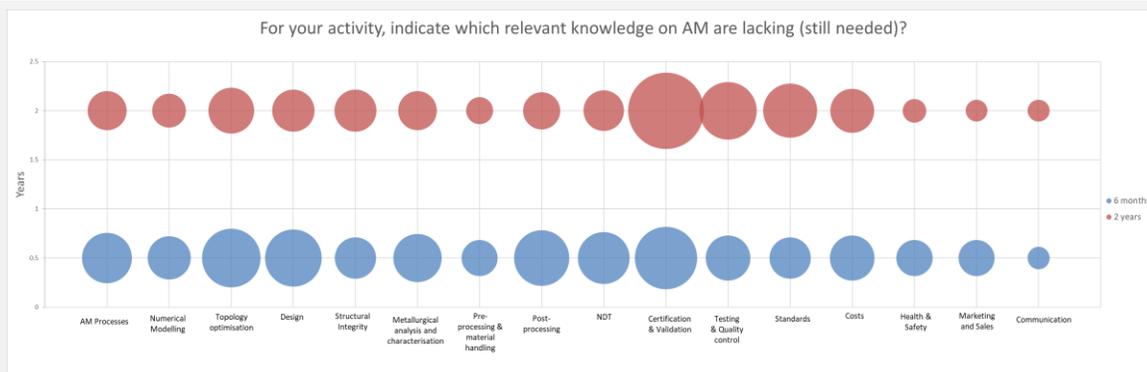


Figure 2- Relevant knowledge on AM still needed 2019 to 2021 according companies

Future research activities will be focused on four AM value chain segments: end of life, products, post-processing, modelling and simulation

Technology Trends in Additive Manufacturing

In parallel the consortium, undertook another Survey on AM Skills and Technology Trends with 90 Research and Technology Centers in Europe, to find out which new technologies are appearing in R&D&I activities, and consequently which skills will be required in the future.

The results achieved indicate that the focus of future research activities will on AM end of life cycle; products, post-processing, modelling and simulation, which will increase from 2021 to 2025 (Figure 3).

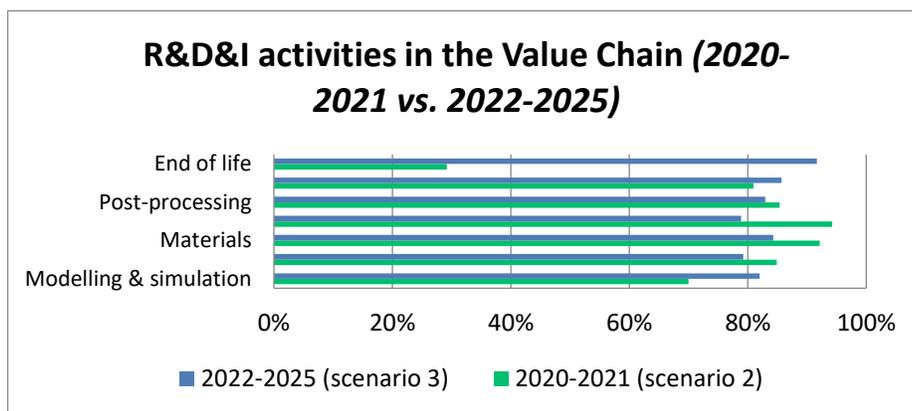


Figure 3 - R&D&I activities in AM Value chain for both periods/scenarios

In terms of studied AM sectors, they seem to change from Automotive, Aerospace and Industrial Tooling (the most mentioned in 2019) to Construction, Health and Energy sectors (expected to increase until 2025). While, in terms of technology trends new materials will be explored, zero defects manufacturing, real time control and traceability will be the priority for the next 5 years (Figure 4).

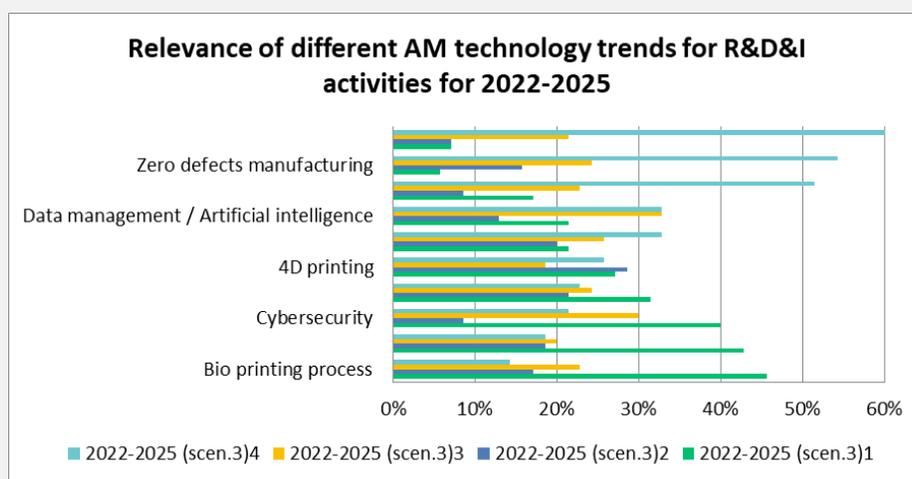


Figure 4 - R&D&I activities in terms of AM technology trends for 2022-2025 period

All these findings are being considered and will be further explored in SAM project, thus with important implications for the consolidation of the European Qualifications and training System in AM, as well as for the definition of new professional profile, if needed, or even for upskilling/reskilling of current professionals.

SAM is developing European Observatory in AM that will identify and anticipate the right skills and deliver them to the Industry/Companies through a solid network of European Training Centers

About the Project



Erasmus+ Sector Skills Alliances

Sector: Additive Manufacturing

Participants and Countries: 8 countries: Belgium (EWF, EPMA, CECIMO, Materialise), Germany (LZH Laser Akademie), Greece (Panepistimio Patron), France (EC Nantes), Italy (POLIMI), United Kingdom (MTC, Renishaw, Brunel University, Spain (IDONIAL, Lortek, AITIIP), Portugal (ISQ).

Project duration: 4 years (1.01.2019 – 31.12.2020)

Website: www.skills4am.eu