

Strategic Space Skills Framework

Building Future-Ready Space Innovation through Education-
Enterprise Synergies



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Executive Summary

The Strategic Space Skills framework translates skills intelligence into actionable guidelines for the design and delivery of education and training programmes. It specifies the required learning outcomes, appropriate education and training formats and assessment methodologies. The aim is to design a skills intelligence framework that provides a solid foundation for ongoing alignment between education and industry needs.

The Framework was designed to implement the constructive alignment principles advanced by Biggs and Tang (2011)¹, ensuring coherence between identified labor market needs and educational responses. Specifically, the aligning of the learning outcomes established in the SpaceVantage project with professional Space Sector standards, should lead to learners that possess the functional knowledge demanded by today's demanding job market.

Figure 2 presents the SpaceVantage five-step methodological approach for the development of the Strategic Space Skills Framework. The five sequential phases, range from identifying the required skill clusters to defining learning outcomes, delivery methods, assessment methodologies and industry validation processes. For each education modality, detailed specifications are provided for content development, delivery methodologies, and quality assurance. Together, these phases ensure that the framework aligns with the needs of the European Space sector and supports the delivery of high-quality education and training programmes across Higher Education (HE), Vocational Education and Training (VET), and entrepreneurial (ENT) capacity-building initiatives.

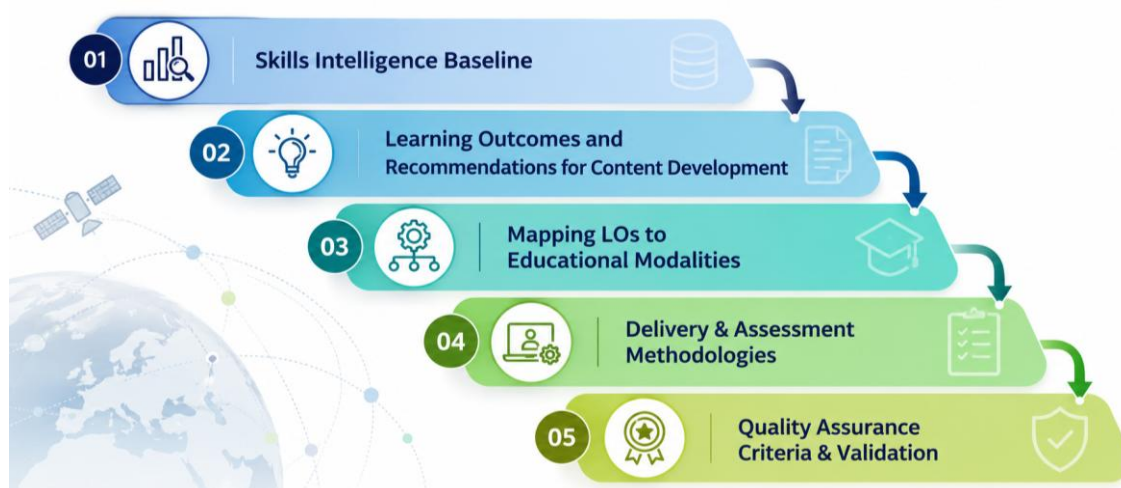


Figure 1: Proposed methodological approach.

Overall, the proposed framework methodological approach aims to bridge the identified critical gap in Space sector education: the translation of labor market intelligence into actionable educational programs that maintain academic rigor while addressing industry needs. Moreover, the proposed framework contribution extends beyond direct benefits to participants—its methodology and collaborative mechanisms that can be adopted across

¹ Biggs, J., & Tang, C. (2011). Teaching for quality learning at university. McGraw-Hill Education (UK)

Europe's Space education ecosystem, creating lasting impact on the sector's competitiveness and innovation capacity. Finally, the modular framework for skills development is documented in standardized formats that enable adaptation to different national contexts, educational and qualification systems. This approach ensures that innovations developed in one region can be effectively implemented across Europe, maximizing the return on investment in curriculum development and training methodologies.