

## Emerging Technologies in European Aeronautics: How Collaborative Innovation Efforts Are Shaping the Industry

**Authors :** Nikola Radovanovic, Petros Gkotsis, Mathieu Doussineau

**Abstract :** Aeronautics is regarded as a strategically important sector for European competitiveness. It was at the heart of European entrepreneurial development since the industry was born. Currently, the EU is the world leader in the production of civil aircraft, including helicopters, aircraft engines, parts, and components. It is recording a surplus in trade relating to aerospace products, which are exported all over the globe. Also, this industry shows above-average investments in research and development, as demonstrated in the patent activity in this area. The post-pandemic recovery of the industry will partly depend on the possibilities to streamline collaboration in further research and innovation activities. Aeronautics features as one of the often selected priority domains in smart specialisation, which represents the main regional and national approach in developing and implementing innovation policies in Europe. The basis for the selection of priority domains for smart specialisation lies in the mapping of innovative potential, with research and patent activities being among the key elements of this analysis. This research is aimed at identifying characteristics of the trends in research and patent activities in the regions and countries that base their competitiveness on the aeronautics sector. It is also aimed at determining the scope and patterns of collaborations in aeronautics between innovators from the European regions, focusing on revealing new technology areas that emerge from these collaborations. For this purpose, we developed a methodology based on desk research and the analysis of the PATSTAT patent database as well as the databases of R&I framework programmes.

**Keywords :** aeronautics, smart specialisation, innovation, research, regional policy

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