

## **Abstract**

This research delves into the nexus between quantum technologies and their prospective role in enhancing secure satellite communications, with a particular focus within the European Union (EU) space security and defence. Embarking on an interpretivist research design, the study employs qualitative content analysis and fieldwork at the European Union Agency for the Space Programme (EUSPA) to elucidate the interplay between quantum principles and the EU's space endeavours. Through an exploration of quantum key distribution via space, the research shows a promising future for the secure transmission of critical data. To harness these quantum advancements effectively, substantial investments within the EU are essential. Against the backdrop of the evolving EU space strategy for security and defence, the research contemplates the centralisation of space matters within a singular, specialized EU body. In the broader context, the study underscores the urgency for international regulations to navigate the burgeoning complexities of space technology advancements and to safeguard against the threats of space weaponization. As the EU navigates unexplored space areas, the combination of quantum innovation, strategic coherence, and international cooperation emerges as crucial in guiding the EU towards a strong presence in space.