



PRESS RELEASE

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AURORA: Creating space for Urban Air Mobility in our cities

As cities grow larger, they increasingly face problems caused by transport and traffic. Urban Air Mobility (UAM) offers a promising opportunity to mitigate road (surface) congestion by taking urban mobility to the third dimension – the airspace. The EU-funded project AURORA (sAfe Urban aiR mObility for euRopeAn citizens) will develop and integrate safety-critical technologies to support autonomous flight UAM in urban environments, focusing its demonstrations primarily on emergency-related applications. To foster adoption of UAM, AURORA will involve end-users and relevant stakeholders in all phases of its journey.

Urban Air Mobility is a fairly new concept for European cities and regions. Integration of UAM services and operations into existing mobility plans, in particular SUMP (Sustainable Urban Mobility Plans), is hindered by various technological, regulatory, economic, environmental, social and operational barriers. To address these challenges, AURORA brings together a multidisciplinary team with expertise in aeronautics, smart mobility, intelligent transport systems, urban planning and citizen engagement.

The overall objective of AURORA is to **develop and integrate safety-critical technologies to support autonomous flight UAM in urban environments**, i.e. intelligent self-piloted Urban Air Vehicles, capable of autonomous trajectory generation and landing while detecting and avoiding obstacles (both in the air and on the ground) in normal and abnormal conditions.

Silvio Semanjski, SealAero: " Safe and robust autonomous flight operations are crucial for the adoption of UAM. We start from state-of-the-art passenger-carrying VTOL aircraft and incrementally advance existing automated flight solutions towards fully autonomous self-piloting one with artificial intelligence-supported environment perception sensing capability. To test and validate our solutions, a digital twin environment will be developed to serve as a testbed for both virtual demonstrations and real-world demonstrations, taking place in a controlled environment, reaching TRL level 6"

AURORA's demonstrations will focus on **how UAM can serve as an extended hand to emergency-related applications**, such as medical emergency services and/or critical mobility infrastructure-related services. Fully autonomous, self-piloting or pilot-augmented UAM applications can make a significant societal difference in this context, which is why such services – for example, delivery of medication, medical samples, emergency kits etc. to inaccessible areas – are likely to be among the earliest adopted ones because their direct benefit is immediately visible.

At the same time, AURORA will contribute to a more sustainable society by **developing and benchmarking a set of Sustainable Urban Air Mobility indicators**, expanding the existing Sustainable Urban Mobility Indicators (SUMI) framework to include the UAM perspective. These indicators will allow to assess the impact of UAM in terms of potential benefits, dealing with different aspects such as: quality of life, economic issues, environmental footprint and overall mobility system performance. Aspects covered will include perception, monitoring and mitigation in urban environments.

To support cities and authorities, AURORA's innovative **UAM Transition Framework** will address the barriers – technological, regulatory, economic, environmental and social – that are currently impeding



the introduction of UAM services and their integration in the multimodal urban mobility ecosystem. AURORA's UAM Transition Framework will define the different lifecycle stages of UAM implementation, from idea to operation, allowing stakeholders to assess their 'UAM readiness level' and describing which conditions need to be fulfilled in order to be able to take the next step.

Last but not least, AURORA aims to work on **building knowledge and public acceptance** within society for introducing UAM at urban/suburban and peri-urban/inter-urban level. Dedicated activities are foreseen to, on the one hand, increase the level of knowledge and acceptance among the general public and, on the other hand, to build and share knowledge among UAM stakeholders.

Sandra Lima, European Passengers' Federation: "With a strong social component, AURORA goes beyond purely technological innovation. Within AURORA, EPF will lead the research on public acceptance, user involvement and co-creation activities. By involving stakeholders and citizens from the early phases of development, we aim to co-create meaningful services that answer to real needs."

AURORA believes in creating solutions that do not only extend and complement current mobility systems, but more importantly have a beneficial impact on people and society. By facilitating the integration of UAM in a safe, secure, quiet and green manner, AURORA proposes to pave the way towards smarter cities and pioneering services. AURORA's unique multidisciplinary consortium will not only bring exciting new technological developments, but also ensure that innovation in UAM meets the needs of citizens and stakeholders, resulting in services that create added value for them.

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Visit our website: <https://www.aurora-uam.eu>

About AURORA

The EU-funded AURORA project ([aurora-uam.eu](https://www.aurora-uam.eu)) aims at connecting technologies and key actors to foster the adoption of Urban Air Mobility (UAM). Focusing on emergency-related applications, AURORA will develop artificially intelligent, urban autonomous flight solutions for Unmanned Aerial Vehicles (UAVs) and self-piloting passenger-carrying VTOL (Vertical Take-Off and Landing) aircraft.



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Project partners



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