

AME's European Drone Digest

Almost everything you need to know about aerial mobility in Europe...

For the rest, join AME!

2nd Issue - 2nd Quarter 2023

AME's Interview Corner



This Quarter's Conversation with: Andreas Boschen - Executive Director of SESAR Joint Undertaking



Andreas Boschen is Executive Director of the SESAR 3 Joint Undertaking, an institutionalised European private-public partnership set up to accelerate through research and innovation the delivery of the Digital European Sky.

1. In May last year you were elected as new executive Director of SESAR and in July you started your mandate. How has your first year in office been and what was one of the less expected experiences during this time?

As you might expect, it has been a very busy first year. In a relatively short space of time, we successfully put in place the full governance structure of the partnership. This enabled us to move forward with the new Digital European Sky programme, publishing the first calls and selecting 48 new exploratory, industrial and fast-track research projects representing a total investment of EUR 350 million within the framework of Horizon Europe. We also successfully launched five Digital Sky Demonstrators under the Connecting Europe Facility on green aviation and urban air mobility, while a second call for demonstrators was published in the areas of automation and virtualisation. At the same time, we brought to a close a sizeable portion of the SESAR 2020 programme, consolidating the results from over 40 projects and delivering more solutions ready for industrialisation, as well as a wealth of innovative concepts for further advancement. Last not but least, we moved offices from the EU district in downtown Brussels to the Eurocontrol headquarters close to the airport. I have encountered no real unexpected surprises per se, but I am continuously amazed and in admiration of the unrelenting commitment of SESAR 3 JU stakeholders and staff to work together and to deliver quality innovation in ATM for Europe.

2. Let's talk about SESAR 3 Joint Undertaking in more detail. What are the objectives of the new Joint Undertaking and in what way does it differ from the previous undertakings?

Bringing together the EU, Eurocontrol, and organisations covering the entire aviation value chain, including drones, the SESAR 3 JU will invest more than EUR 1.6 billion between now and 2030 to accelerate, through research and innovation, the delivery of an inclusive, resilient and sustainable Digital European Sky. Building on the achievements of its predecessor, the SESAR 3 JU will drive an ambitious programme to make Europe's aviation infrastructure fit for the digital age, while offering quick wins to contribute towards the sector's net zero ambitions.

The SESAR 3 JU differs from its predecessor in a number of ways. The first most obvious change is to the size and composition of the partnership. Bringing together more than 50 founding members in addition to the European Union (represented by the European Commission) and Eurocontrol, the expanded membership includes for the first time operators of unmanned aerial systems (UAS), and major European airlines, as well as a large range of airports of different sizes. In many ways, the membership reflects the diversity of today's aviation landscape and the growing will of stakeholders to join forces in order to deliver change.

In addition to a more diverse and enlarged membership, the other important difference is the mechanisms that we are putting in place to accelerate innovation and fast-track the most promising solutions through large-scale demonstrators, to encourage market uptake by early movers in the industry. The aviation sector has to accelerate its transition to a sustainable and digital future, and we believe that these structural changes to how we innovate allow for greater agility, speed and ultimately the digital transformation on which we are all banking. In this context, I consider the UAS community as a driving force.

We are also stepping up our cooperation with regulatory and standardisation

bodies, notably the European Union Aviation Safety Agency (EASA) and EUROCAE, while creating new synergies between research and innovation activities at European and national level.

3. As the drone industry, we are relative newcomers to the SESAR 3 Joint Undertaking, which aims to facilitate the integration of drones into aviation. How do you see that?

Bringing on board the drone industry in the SESAR 3 JU is critical for ensuring the safe and secure integration of drones into Europe's airspace. Since 2017, we have been engaging with drone stakeholders through our research portfolio dedicated to U-space, the ecosystem under development, based on research by the SESAR 3 JU, which will allow drones to operate at scale.

Thanks to this collaboration, we have seen significant progress towards U-space with deployment taking place gradually across Europe based on increasing availability of blocks of airspace, U-space services and enabling technologies. This has been made possible thanks to the first U-space regulations by the EU, which entered into force in January 2023, promoting a harmonised approach to U-space deployment across Europe. With the our latest research projects, we are facilitating the deployment of more advanced services (U3), such as detect and avoid, integration with manned aviation/ATM, and altitude reference, to name a few. This will also need close cooperation at international level within ICAO.

Public trust and engagement will be key to drone integration. These areas are being addressed in three Digital Sky Demonstrators, which aim to facilitate the implementation of U-space at scale, with test sites planned in Belgium, France, Italy, Ireland and Spain. We recently selected five projects, which will be tasked with fast-tracking the uptake of U-space innovations across Europe, starting immediately. More U-space funding will be made available between now and

2027, as the programme progresses.

Our work goes beyond <u>U-space</u>, with the arrival of e-VTOL aircraft and the need for their safe integration into European aviation. Our portfolio now includes projects addressing Innovative Air Mobility, or IAM, in support of the European Commission's Drone Strategy 2.0, and we also participate in ICAO's new Advanced Air Mobility Study Group, where we ensure that our research is taken into consideration at a global scale.

4. The first SESAR research calls have been launched and projects are underway. Are these projects fulfilling your expectations or, in your mind, are there gaps that have to be filled?

The selected projects fully reflect the ambition of the overall programme to deliver smart and sustainable aviation for Europe. Research by its nature is about testing what does and does not work. The SESAR Innovation Pipeline is set up in such a way as to advance the most promising solutions for modernising air traffic management. Future calls will allow us to cover areas that require further research and innovation. For example, in the UAS domain, there are undoubtedly key areas that remain to be researched in depth, such as flight rules, but, since changing these will have a significant impact on all of aviation, this must be considered in the light of the results from the present wave of research projects.

5. Do you have any specific expectations for the drone industry as part of SESAR?

The drone industry is helping to disrupt positively "business as usual" in air traffic management, developing game-changing innovations and triggering early implementations. The drone community includes stakeholders who are new to aviation and who view aviation problems

from a new perspective. We count on the drone stakeholders to remain highly engaged in SESAR research and innovation in order to deliver the Digital European Sky!

www.sesarju.eu

Regulatory Developments & Curated Reads



Regulatory Developments

EASA workshop U-space implementation

EASA will hold on 22-23 June <u>a workshop on U-space</u> "From the concept to the implementation". The workshop will allow to perform a deep dive in the U-space concept and AMC/GM to the U-space regulatory framework (EU)2021/664/665/666, especially the recently published <u>AMC and GM to Implementing Regulation (EU) 2021/664 — Issue 1</u>. The USSP/S-CISP certification process and the outcome of the Member States Task force on the USSP/S-CISP certification harmonisation, will be also presented.

This workshop is open to industry and authorities, and will be a unique opportunity to ask questions and provide feedback to whom has been directly involved in the development of U-space concept and regulatory framework, as well as the associated AMC/GM.

ICAO workshop

ICAO will hold a webinar on 30 May, from 10:00-11:30 (Montreal Time) called "UTM as an Enabler for Collaborative Operating Environments". A collaborative operating environment could be seen as a volume of airspace with intermixed operations between small unmanned aircraft (UA), complex BVLOS UA, at scale, other new entrants under the Advanced Air Mobility (AAM) umbrella as well as existing manned aircraft in the lower airspace. The webinar will focus on the potential enabling aspects of advanced UTM capabilities and how these could support a collaborative operating environment. The speakers will provide detailed examples of the UTM capabilities that could support the variety of operations conducted by existing users and new entrants, operating in shared airspace.

AME's Secretary General Christoph Raab will moderate the session.

Amsterdam Drone Week (ADW) 2023

Ahead of the ADW, AME took part in the EU Drone Stakeholder meeting on 20.3. These meetings are growing in importance and quality. There are now regular workshops during the day, allowing more in-depth discussions on specific issues. Please find here the program of the 3-days event. At the Amsterdam Drone Week (21.-23.3.23), AME sponsored a 60min session. This allowed AME members to present their views and concerns on U-space implementation in a panel at a prime time of the ADW.

Geneva Air Space World

The <u>Air Space World</u> in Geneva from 8-10 March is an important airspace and near-space management event that gathers ANSPs, suppliers, ATM professionals, innovators and new technology owners over three days of networking and business. First time in Geneva, it presented an interesting mix

of aviation and drone community exhibitors and community. Several leading counter-drone companies were also present underlining the growing importance of C-UAS with the EU's upcoming counter-drone package.

EU Counter-UAS activities

As part of the Drone Strategy 2.0, the EU is about to start its "counter-drone package". This has started with the EU Commission <u>public consultation</u> on the EU Counter Drone Package in March this year. This initiative aims to outline the EU's policy on countering the threats posed by drones. It will also take stock of existing counter-drone support measures and present a strategic vision for further activities. Eventually, this will lead to a communication on counter-UAS in 2024. AME sees the development of an efficient counter-UAS regulatory framework as indispensable for a successful scaling of the EU drone market will actively contribute to its creation.

EU Drone Stakeholder Network Meeting, Helsinki

On 26 January, the EU Drone Stakeholder Network held its latest meeting in Helsinki in close cooperation with the Finnish VTT and Fintraffic. Some 150 participants on site and around 400 online discussed on the EU Drone Strategy 2.0, U-space implementation and various other aspects of drone regulation. The Network has been created by the European Commission and Eurocontrol and is organising several meetings per year in Brussels and other relevant locations around Europe. It is a great framework to discuss with industry peers and regulators on practical aspects of drone regulation.

AME U-space implementation working group

In the context of the announced review of the <u>AMC and GM to Implementing</u>

Regulation (EU) 2021/664 — Issue 1, AME has created a dedicated working group developing proposals for this review. Given the high degree of competence of

our Alliance and its members in this area, AME welcomes the review process and will support it via its working group. Please reach out to <u>us</u> if you would like to know more.

Curated Reads

Global Icing Report for Air Taxi Services

Unisphere, one of AME's members, has published the Global Icing Report for Air Taxi Services. In the paper, they analyzed 30 cities with regards to the annual icing conditions. When deciding where to start a air taxi service, such knowledge is highly useful in analysing the location to get a better understanding of the availability of a service. Icing conditions may be only one parameter among many to consider, however its high variability according to seasons and altitudes and huge impact on flight readiness makes it an indispensable factor to take into consideration.

Article on U-space deployment by Enrique Ventas from ITG

The AME's member Enrique Ventas from the company <u>ITG</u>, has recently written an article on U-space deployment that you can find <u>here</u>. The original version is in Spanish, but by accessing the link you can have instant translation in the main EU languages via the button "translate" on the top left of the window. The articles explores what it takes to have "perfect" U-space area.

Bluenest White Paper

<u>BlueNest</u> has recently published its White Paper entitled "Landing in a brandnew world" on UAM and vertiports. You can download the document <u>here</u>. This whitepaper aims to lay the foundations for enabling the safe integration of Vertiports within urban and non-urban areas and clear the way for the AAM industry to take flight.

KPMG Ireland AAM infrastructure report

Skyports Infrastructure has shared recently on its social media channels the KPMG Ireland AAM infrastructure report. The report underlines why integration with multimodal transport networks is essential for realising the full benefits of advanced air mobility. Skyports' CEO Duncan Walker stated: "Many cities around the world are already building AAM into their roadmaps, strategy and policy as they face challenges of congestion and pollution. Real estate developers and planning authorities should consider how they want to shape connectivity in their cities. Clear long term plans and associated political leadership are essential to reaping the benefits that AAM will bring."

Information event by DG Research & Innovation on REPowerEU's financial opportunities for research and innovation

DG Research & Innovation is organising an information event in Brussels on financial and business opportunities beyond Horizon Europe, which can support the market uptake of new technologies and systems. The event will be introduced by the Director-General of DG Research & Innovation, Mr Marc Lemaître. The programme includes presentations by representatives from the Innovation Fund, the European Investment Bank, the Connecting Europe Facility and the European Innovation Council, followed by questions & answers. This will be an opportunity to learn more about how to bring innovative solutions to the next level, and to network with companies in your area. Here you can download the agenda

Have Your Say: AME's Quarterly Poll



In this edition, we would like to ask you about Urban Air Mobility solutions.

"What do you currently consider the biggest obstacle for implementing Urban Air Mobility solutions?"

- Lack of social acceptance
- Lack of regulatory framework
- Lack of competence in city administration
- Lack of business models
- Other

You can access the poll and answer it here.

We will share the results in the next edition!

Contact Us







LinkedIn Email Website

This Newsletter is free. You received this newsletter because you subscribed to it or you had a previous interaction in the context of the European drone community.

If you want to be added to the distribution list, you can subscribe here.

If you do not want to receive the newsletter anymore, you can unsubscribe

here.

Secretariat Office

Phone: +49/17623881469

Email: christoph.raab@mobilityalliance.eu

Address: Rue de la Loi 227 1000 Brussels, Belgium

Copyright © 2022, Alliance for New Mobility Europe, All rights reserved.