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SCAN ME

EASA Innovative Air Mobility Implementation Forum

In cooperation with:

Alliance for New Mobility Europe · ASD · Drone Alliance Europe · Global UTM Association · JEDA

IAM Hub – Towards a system of systems

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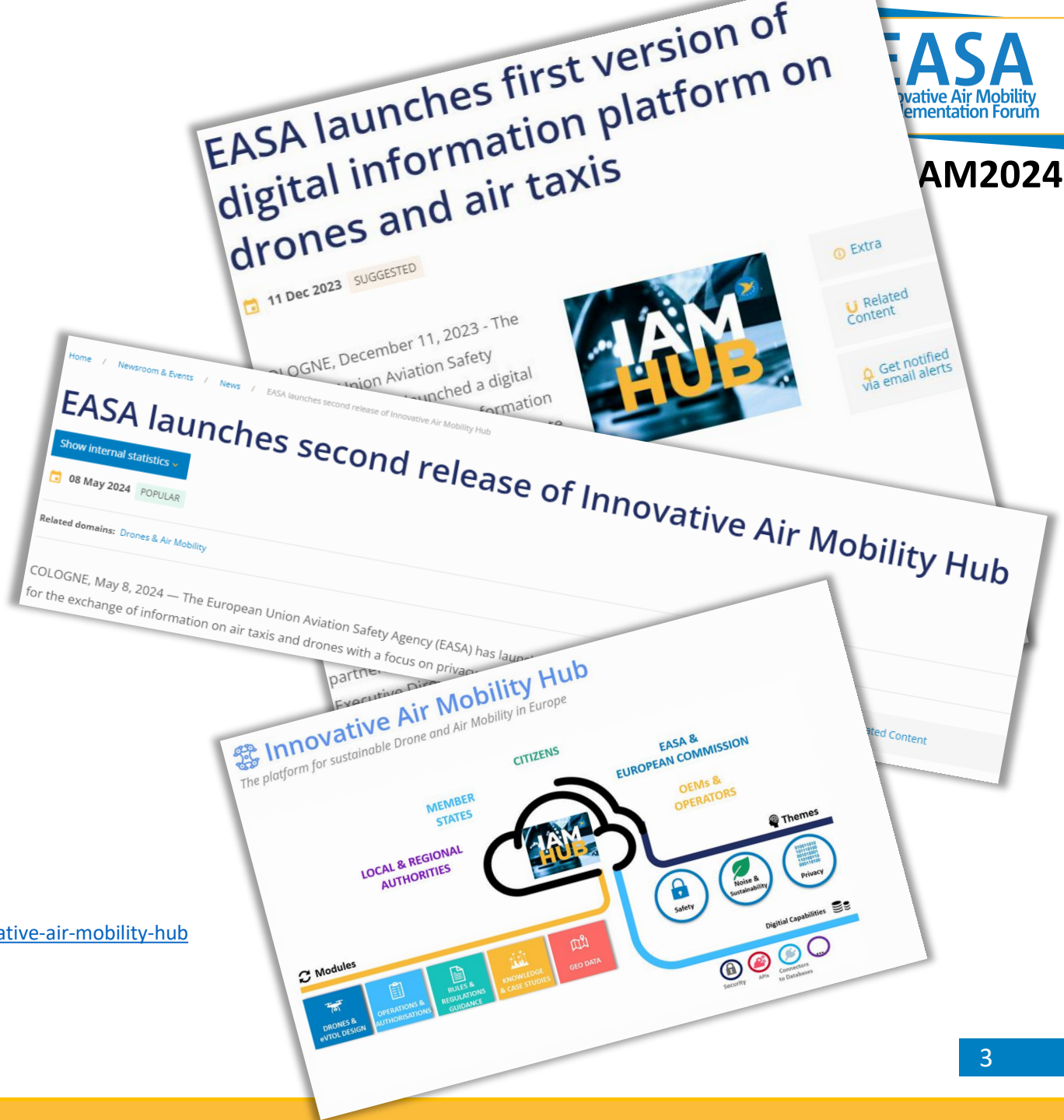
IAM Hub

Towards a system of systems

Goal:

- Inform about current and future capabilities
- Collect feedback for the next phase
- Inform about the city perspective



Release 1 - 11 December 2023

Release 2 – 08 May 2024

Release 3 – 15 July 2024

https://www.easa.europa.eu/en/domains/drones-air-mobility/drones-air-mobility-landscape/innovative-air-mobility-hub

Rationale and mandate

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Rationale

May 2021

Findings

- Need to address key concerns: safety, privacy, environment, noise
- Need to build trust
- Need for authorities to work together

Mandate

European Parliament Initiative
EU Drone Strategy 2.0. - Flagship 7

European Parliament

DRONE STRATEGY 2.0

November 2022

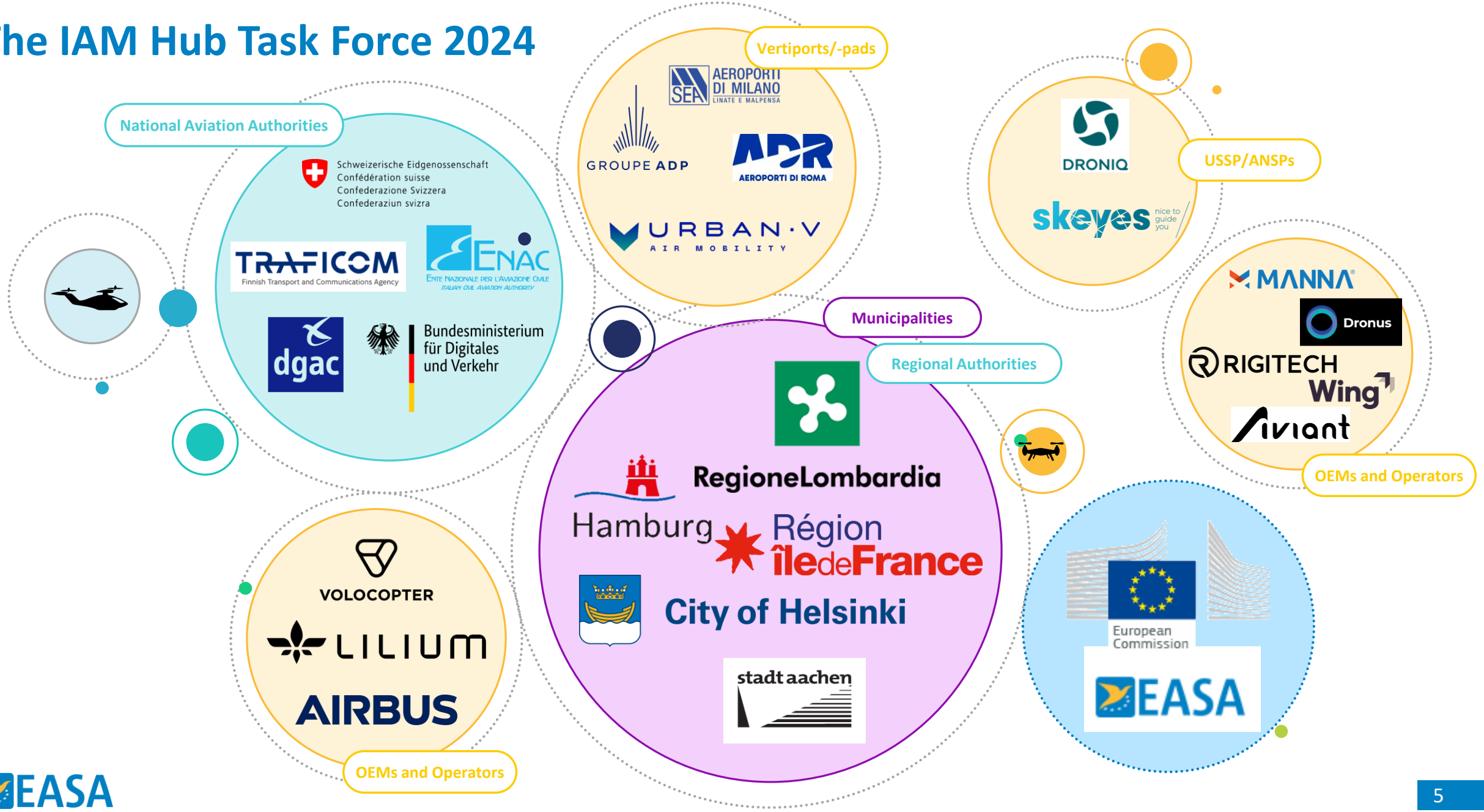
Overall objective

To enable a safe, secure, efficient and sustainable implementation of IAM in Europe by providing an **interactive web-based multi-governance platform for the IAM ecosystems** in support of the Drones Strategy 2.0

Phasing

Phase I - Pilot Project	Phase II - Preparatory Action	Phase III - Operational
2022-2024	2024-2026	2026+
Closing	Launched 10/2024	Under consideration

The IAM Hub Task Force 2024



Key stakeholders helped to define the IAM Hub capabilities

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Connect
IAM communities

- ✓ **Best practices & lessons learnt sharing** between Member States
- ✓ **Demand** (tenders) and **offer** (services) publication
- ✓ Help **IAM integration** at different levels of **authorities' ecosystem**
- ✓ **Manage societal impact** through consultation

Communicate
on IAM impact

- ✓ **Promotion of transparent information** on **noise and Sustainability**
- ✓ Comprehensive explanation on **Privacy, Security & Safety effects**
- ✓ Support to **local decision-making**

Multi-governance platform for Innovative Air Mobility and Services

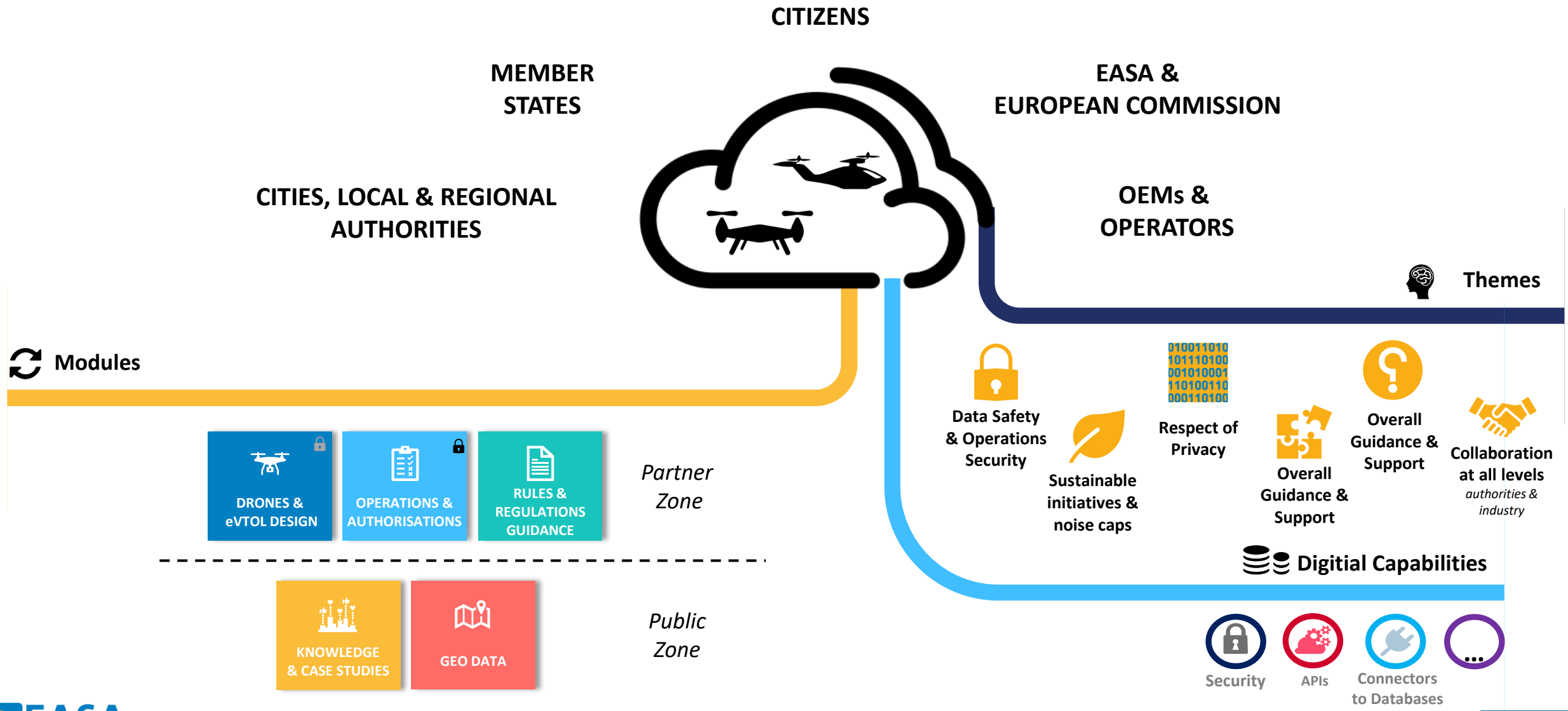
Support
IAM Implementation

- ✓ **Guidelines for on-boarding** of all stakeholders
- ✓ **Single gateway** to digital regulations, filtered per **operation & user & location**
- ✓ Fostering of **EU rules' content and format harmonization**

Centralize
IAM data

- ✓ **Products** characteristics
- ✓ **Operations** information
- ✓ **Contacts** database
- ✓ **Geographical** data

The IAM Hub is a unique platform to connect the IAM eco system



The IAM Hub - Partner zone

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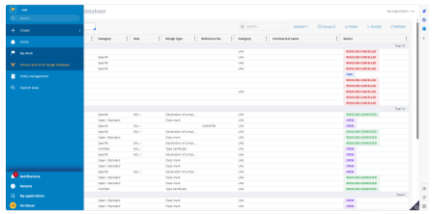
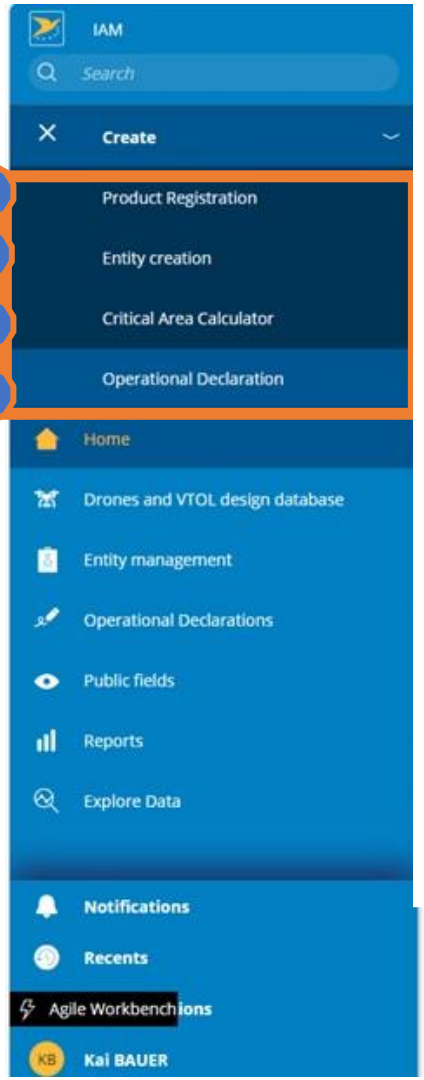


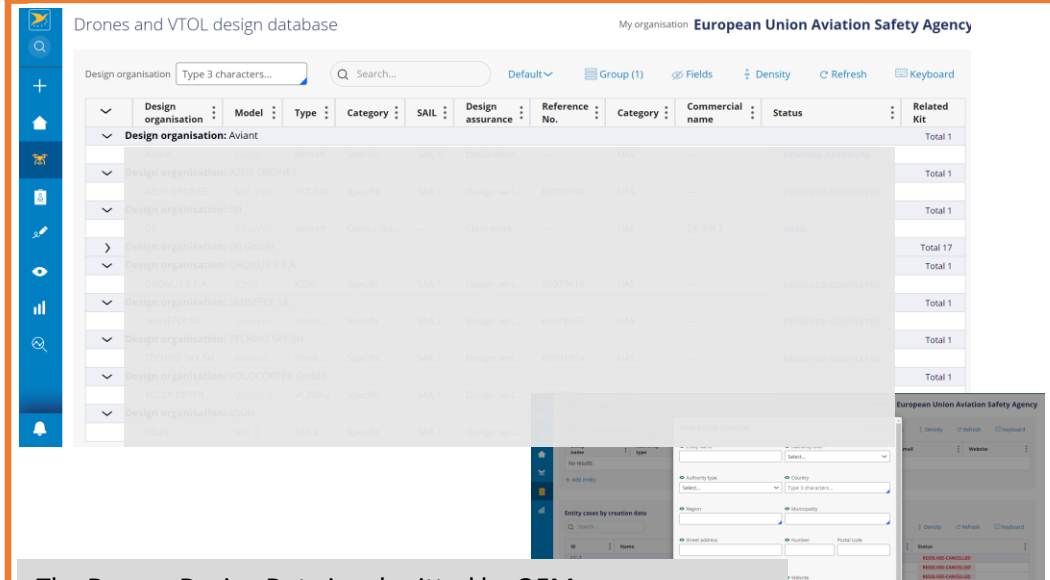
More info on the Innovative Air Mobility Hub. IAM Hub login →

EASA

The IAM Hub – Partner Zone



1 Drone design data base for all drones operated in the EU

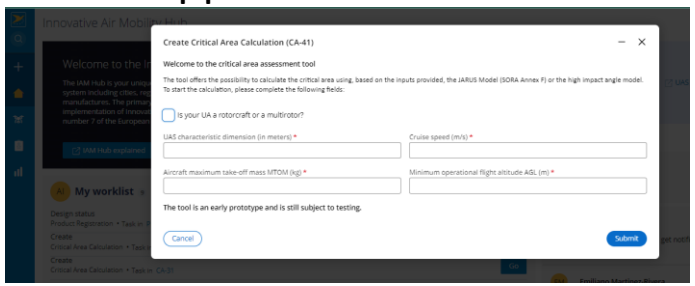


The Drones Design Data is submitted by OEMs
and verified in the system depending on the category.
Currently EASA DVR and CE-marked drones are in the system.

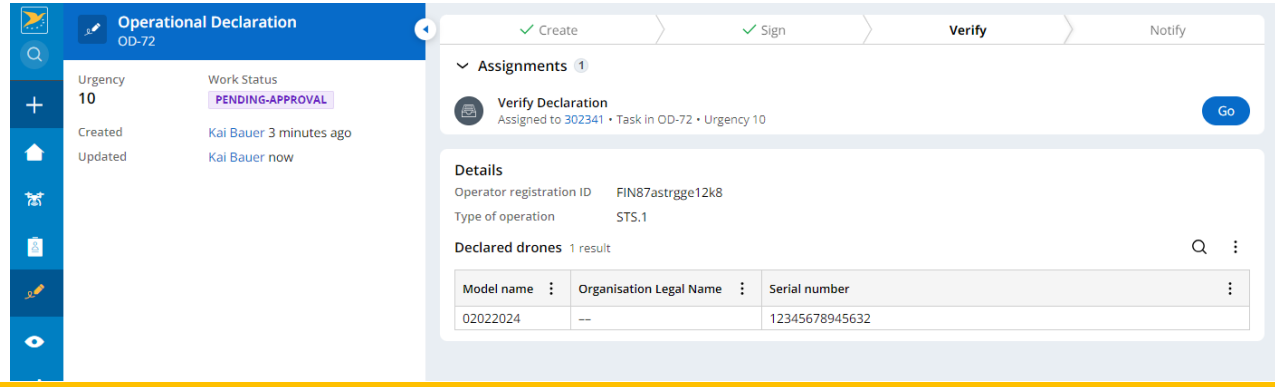
2 Multi-governance system

Incl. Municipality, Fire & Police Department

3 Run the critical area calculator to support SORA



4 Submit an operational declaration (standard scenario – pilot test with Irish Authority



The IAM Hub – Public Zone

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The IAM Hub – Public Zone: Managing rules and guidance

Increasing safety by making robust information publicly available through the EASA website, fully accessible to online search engines.

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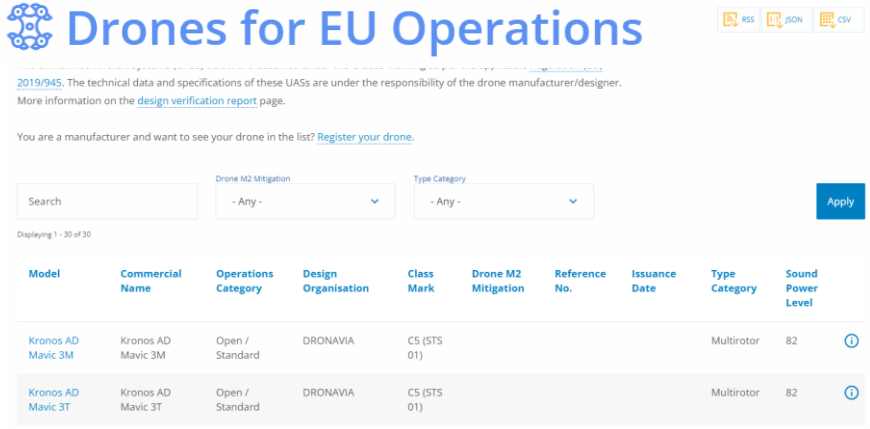
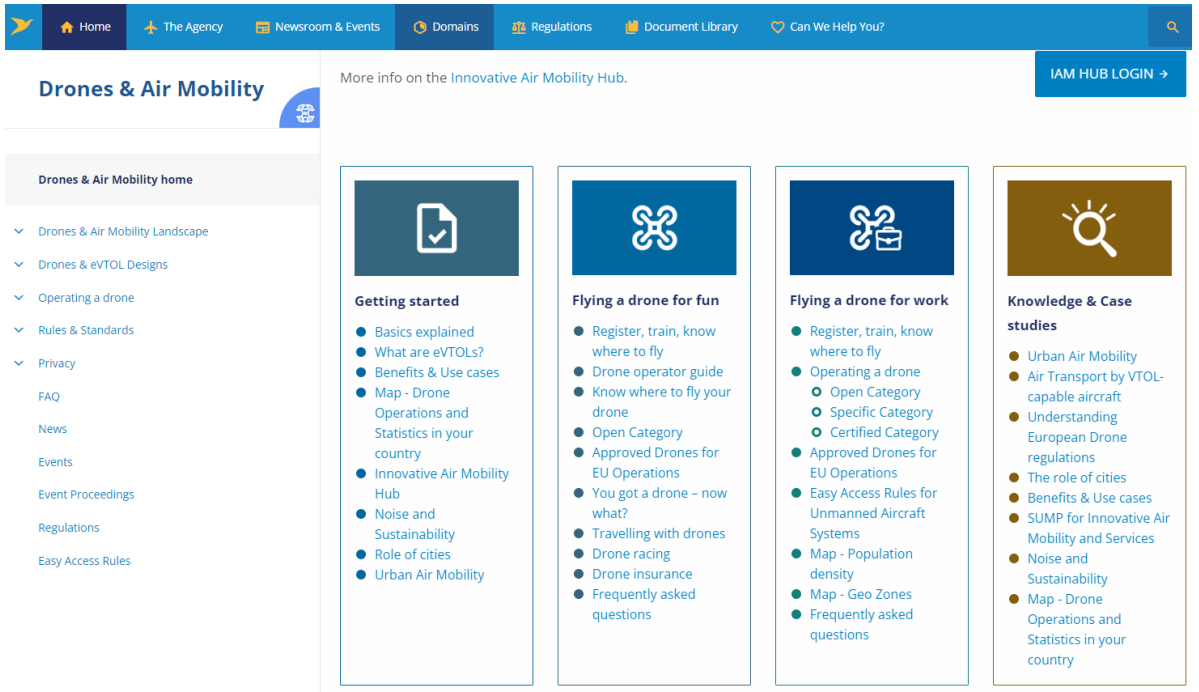
Guidance for cities

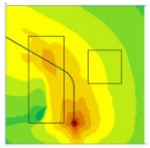
Robust data – digitally transferred from the Member Area



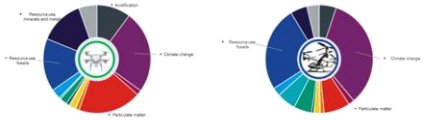
Rules, Guidance and knowledge for the drone community



Robust information on noise and sustainability



By measuring drone/eVTOL noise for noise impact assessment with **EASAs CT4 NORAH** tool and using the EASA drone noise measurement guidelines



By developing a robust methodology to assess environmental impacts on a life-cycle basis: EASA **Environmental Footprint Aviation (EFA)** methodology for Drones/eVTOLs

EASA

[Drones & Air Mobility | EASA]

The IAM Hub – Public Zone: Managing rules and guidance

Increasing safety by digital rules

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EASA Critical Area Assessment Tool (CAAT)

Welcome to the critical area assessment tool

The tool offers the possibility to calculate the critical area using, based on the inputs provided, the JARUS Model (SORA Annex F) or the high impact angle model. To start the calculation, please complete the following fields:

☐ Is your UA a rotorcraft or a multirotor?

UAS characteristic dimension (in meters) *

Cruise speed (m/s) *

Aircraft maximum take-off mass MTOM (kg) *

Minimum operational flight altitude AGL (m) *

Cancel

Calculate

/easa-critical-area-assessment-tool-caat

EASA Critical Area Assessment Tool (CAAT) | EASA

The IAM Hub Public Zone – Geo Information

Fully integrated with the EASA website

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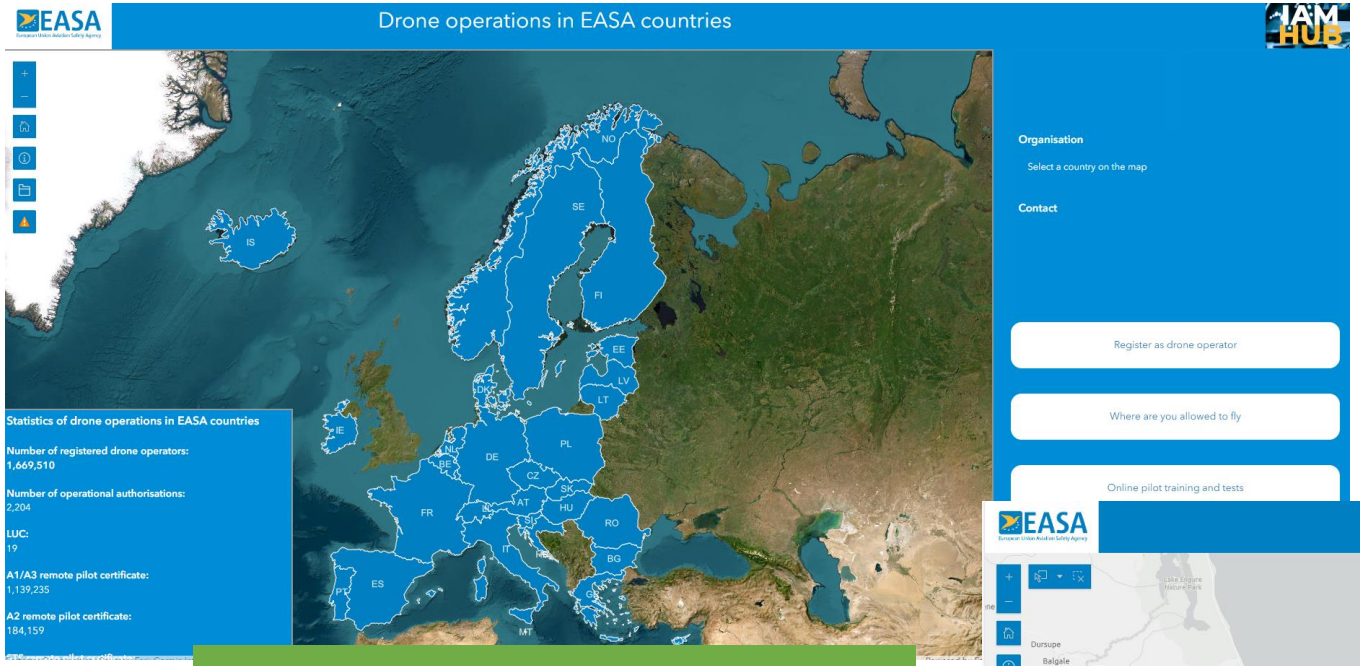
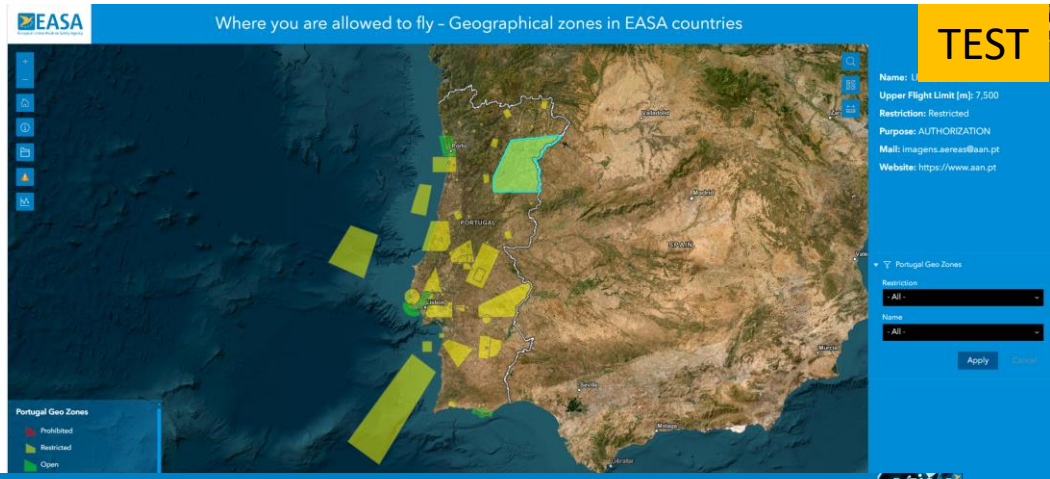
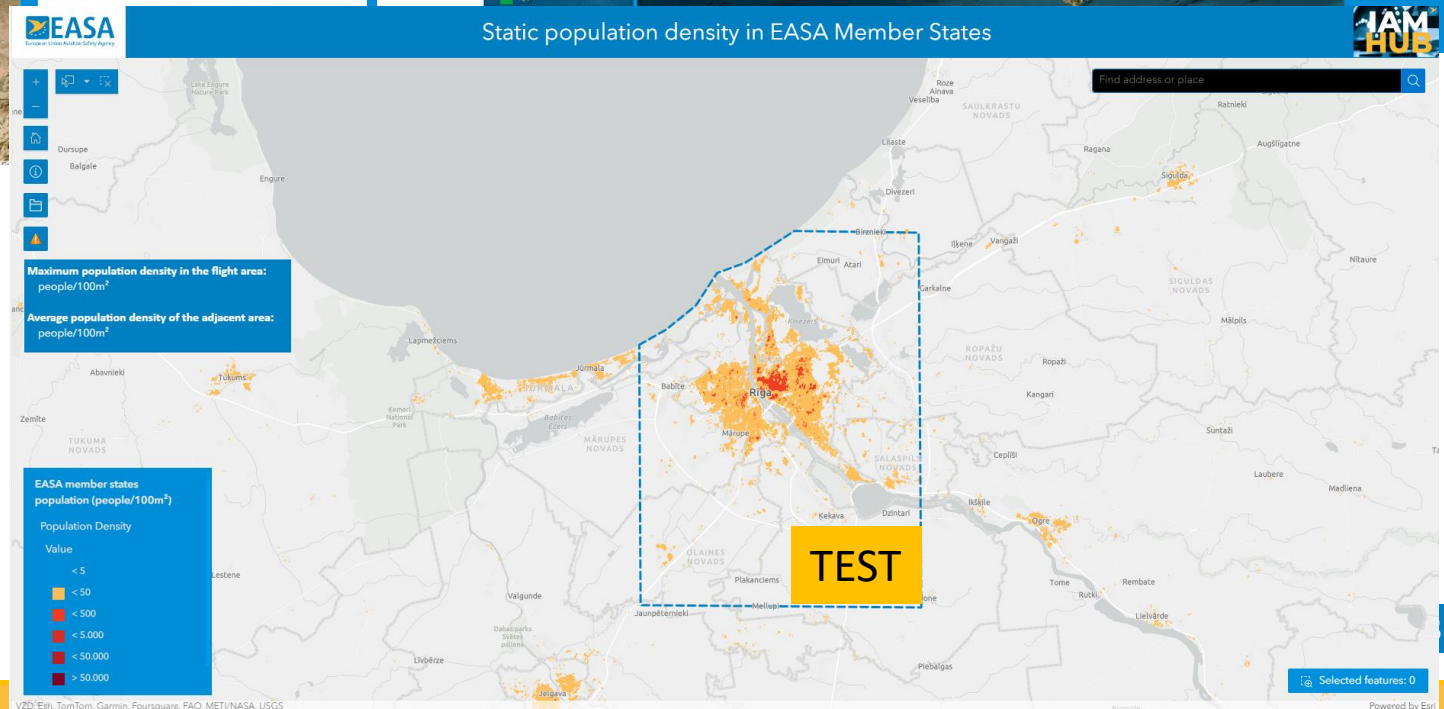


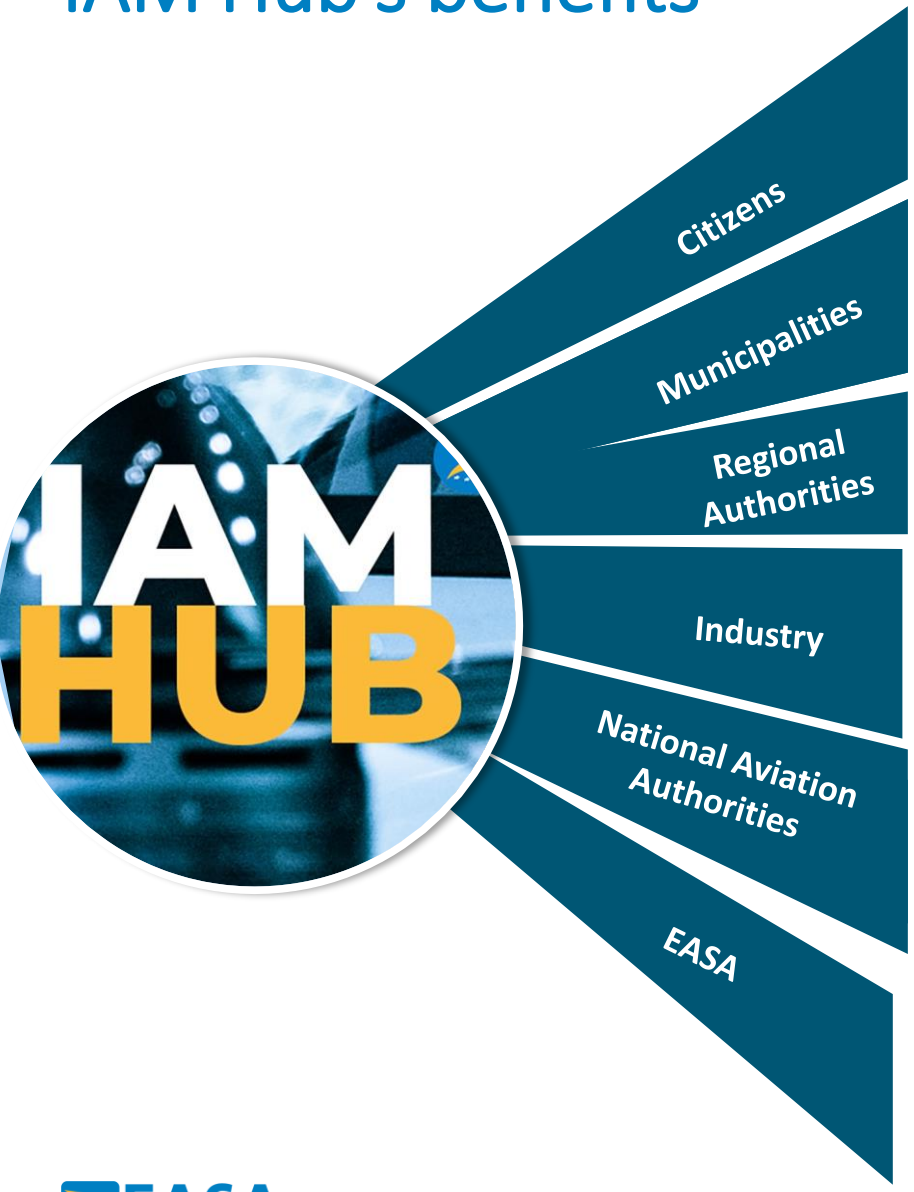


Member State authorities contacts and statistics



[Drone Operations in EASA Member States - Statistics and key information from your member state | EASA]

IAM Hub's benefits



Basic understanding and data on the benefits and drone and eVTOL operations from a **trusted source**

Targeted **guidance and data** on how drone and eVTOL operations can benefit cities
Liaise with other cities and actors in Europe

Understand how drone and eVTOL operations can be **integrated in regional transport networks**

Manufacturers: **approved drone design** data centrally available to NAAs and the public
Operators: **standardised SORA functionalities**, population density data to improve approval process

Access to all verified drone design data for operational authorisations
Improved applications due to standardised IAM Hub eRules and SORA functionalities
Standardised material to support public acceptance

Enhance safety by providing robust data and automated guidance to NAAs, industry and cities (e.g. Approved drones, population Density, statistics)
Digitised data and work flows

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What's next?

IAM Hub Phasing

Phase I - Pilot Project	Phase II - Preparatory Action	Phase III - Operational
2022-2024	2024-2026	2026+
Closing	Launched 10/2024	Under consideration

IAM Hub Phase II: Towards a system of systems

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Assessing key functionalities with Member States

Providing basic information and digital rules (eSORA), noise and environmental footprint

Multi-governance platform for Innovative Air Mobility and Services

Testing machine-to-machine (API) functionalities with IAM Hub Task Force partners

Use key functionalities end-to-end with Pioneer Cities and Member State Partners

Phase II: Next generation digital rules & guidance

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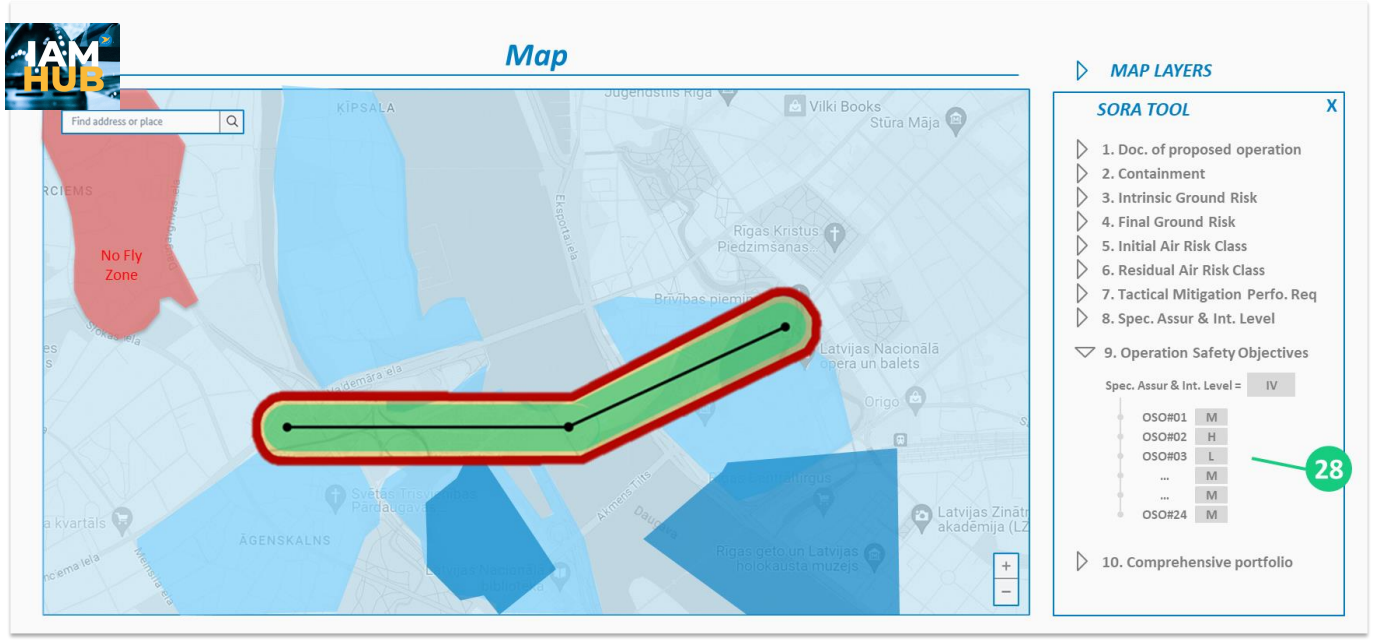
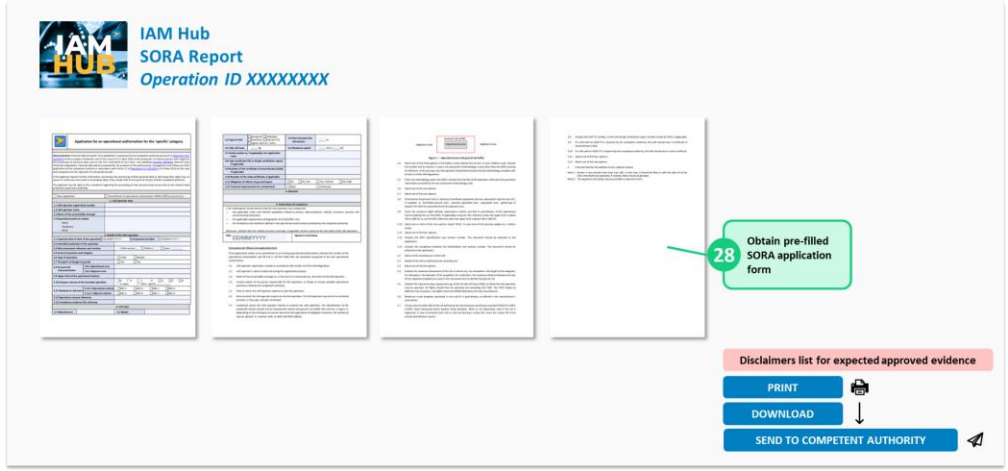
IAM Hub to provide a digital application (eSORA) to guide through the SORA AMC …



… calculating the Ground Risk Class …

… to generate a draft report for basic use cases…



… allowing integration with NAA and industry systems

Phase II: Addressing citizen concerns about noise and environmental impacts

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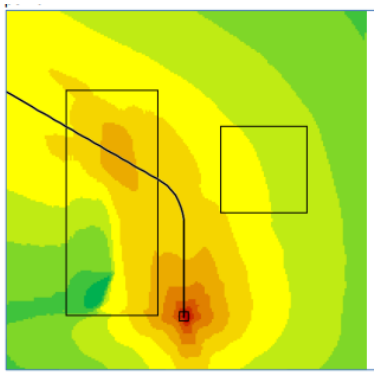
NORAH



By measuring drone/eVTOL noise for noise impact assessment with **EASAs CT4 NORAH** tool and using the EASA drone noise measurement guidelines. 2024 results currently under review.

By expanding the understanding of wild life impacts with the support of other EU-funded projects

EFA

By developing a robust methodology to assess environmental impacts on a life-cycle basis:
EASA **Environmental Footprint Aviation (EFA)** methodology for Drones/eVTOLs
First public consultation for Delivery Drones ended 5 September 2024.
Second public consultation expected for 2025

Environmental Research - Rotorcraft Noise | EASA
EASA finalises guidelines on noise measurements for drones below 600 kg | EASA

Phase II: Expanding the functionalities on population density and geo zones

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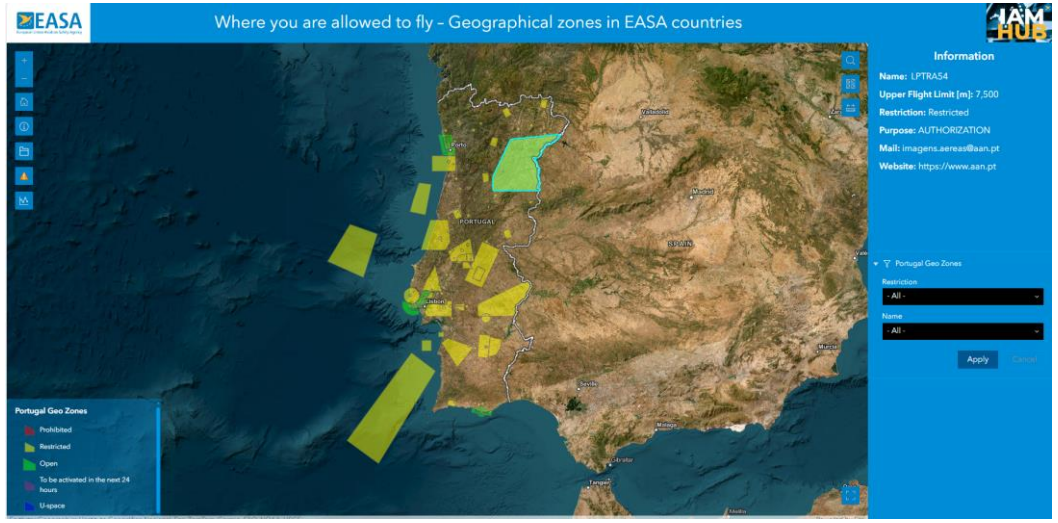
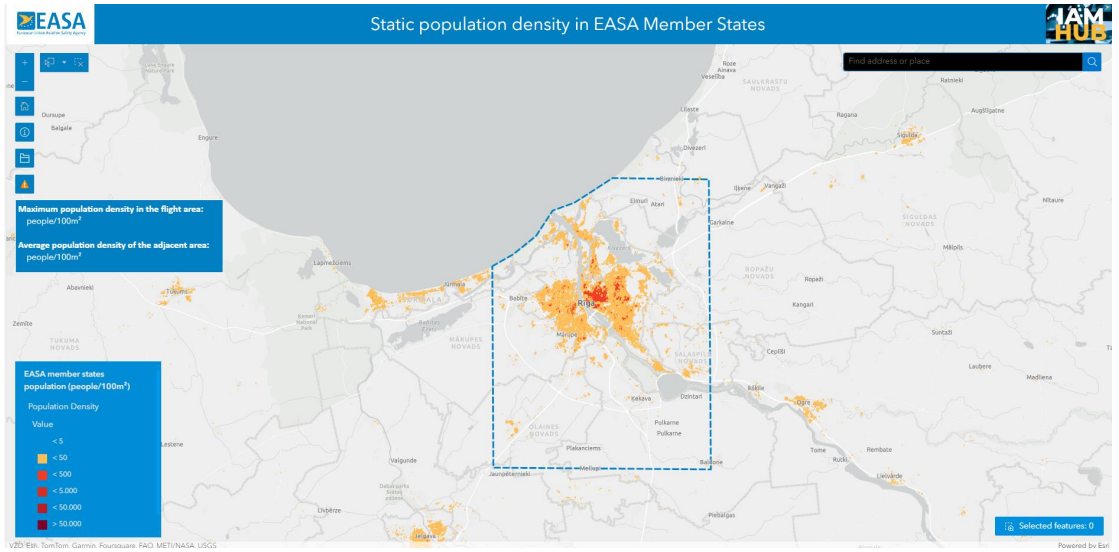
More countries



More cities



Cities perspective: issues in cities and for citizens?

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Presentation by the City of Helsinki

- Addressing citizens needs: health care & logistics
- Experience from the authorization process

What you can do

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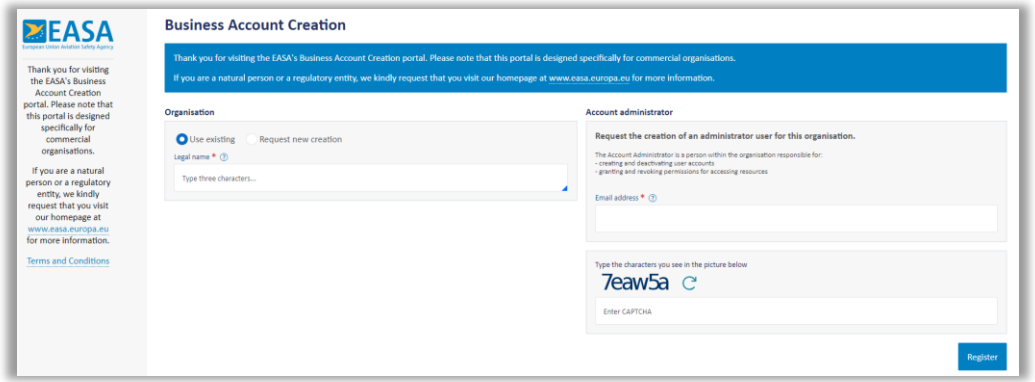
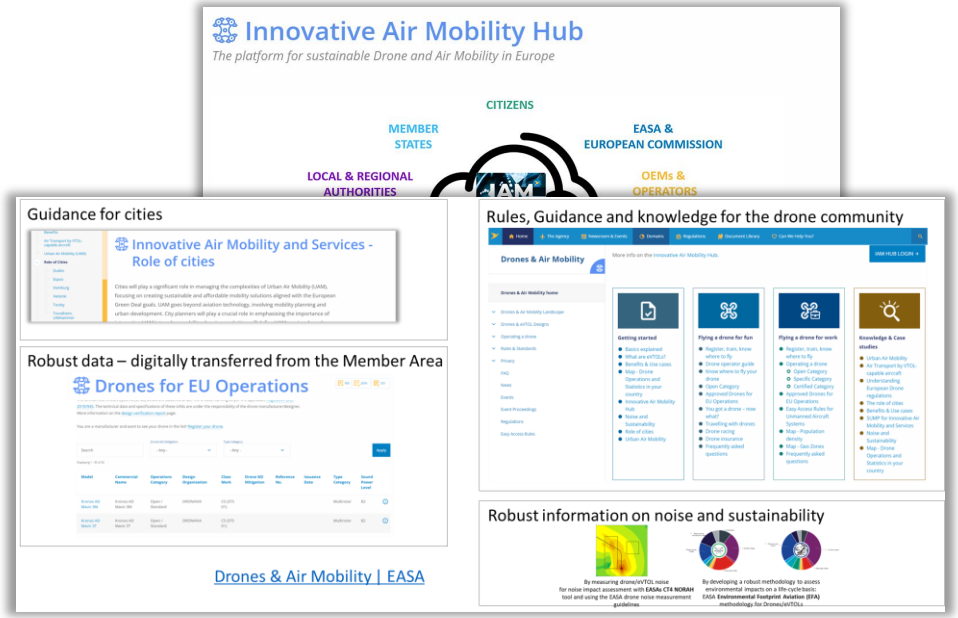
(Encourage) Drone OEMs to register their drones with the IAM Hub



1. **Register your company** on the IAM Hub
   Drones & eVTOL Designs | EASA
2. **Register your drone type**
3. **Every Monday the public list of drones will be updated** (Drones Design Database | EASA (europa.eu))

Provide co-ordinated input for Phase II



Drones & Air Mobility | EASA

Innovative Air Mobility Hub

1. **What needs to be improved?**
2. **What new functionalities would you need**
3. **What priority do you see**

Provide your feedback here.

EASA
Innovative Air Mobility Implementation Forum

In cooperation with:

Alliance for New Mobility Europe
ASD
DRONE ALLIANCE EU
Global UTM Association
JEDA Joint European Drone Associations

Any Questions

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