




Smart Cities Marketplace




Space for Urban Air Mobility Webinar

10/02/2021 11:00 CET

Laurence Duquerroy, Roberta Mugellesi Dow, [ESA]

Dr Vassilis Agouridas, Smart Cities Marketplace/Airbus
Tom Roller, Hensoldt GmbH for the City of Ingolstadt
Joshua Serrao, City of Amsterdam



ESA UNCLASSIFIED



European Space Agency



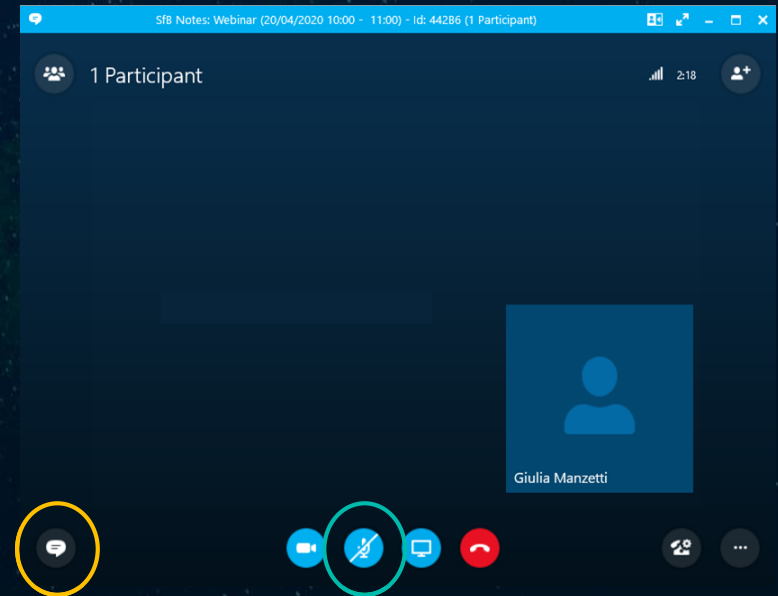
Laurence Duquerroy - ESA



WELCOME TO THE WEBINAR!

Before we start...

- Due to the number of attendees, please **keep your microphones muted** at all times and switch off the webcam function
- You can use the **conversation function** anytime to submit your questions. They will be addressed during the Q&A at the end of the webinar

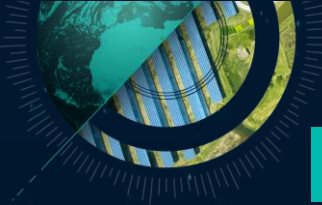




AGENDA

- ESA introduction
- “Space for Urban Air Mobility” Invitation to Tender
 - Objectives
 - Use cases
- Invited Speakers
 - Dr Vassilis Agouridas, Smart Cities Marketplace/Airbus
 - Tom Roller, Hensoldt GmbH for the City of Ingolstadt
 - Joshua Serrao, City of Amsterdam
- How to apply: funding and tender information
- Open Questions & Answers session





THE EUROPEAN SPACE AGENCY

Purpose of ESA

To provide for and promote, for exclusively peaceful purposes, cooperation among European states in space research and technology and their space applications.

Facts and figures

- Over 50 years of experience
- 22 Member States
- 8 sites across Europe and a spaceport in French Guiana
- Over 80 satellites designed, tested and operated in flight



space transportation



science



human spaceflight



earth observation



telecommunications
and applications



navigation



exploration



operations



technology



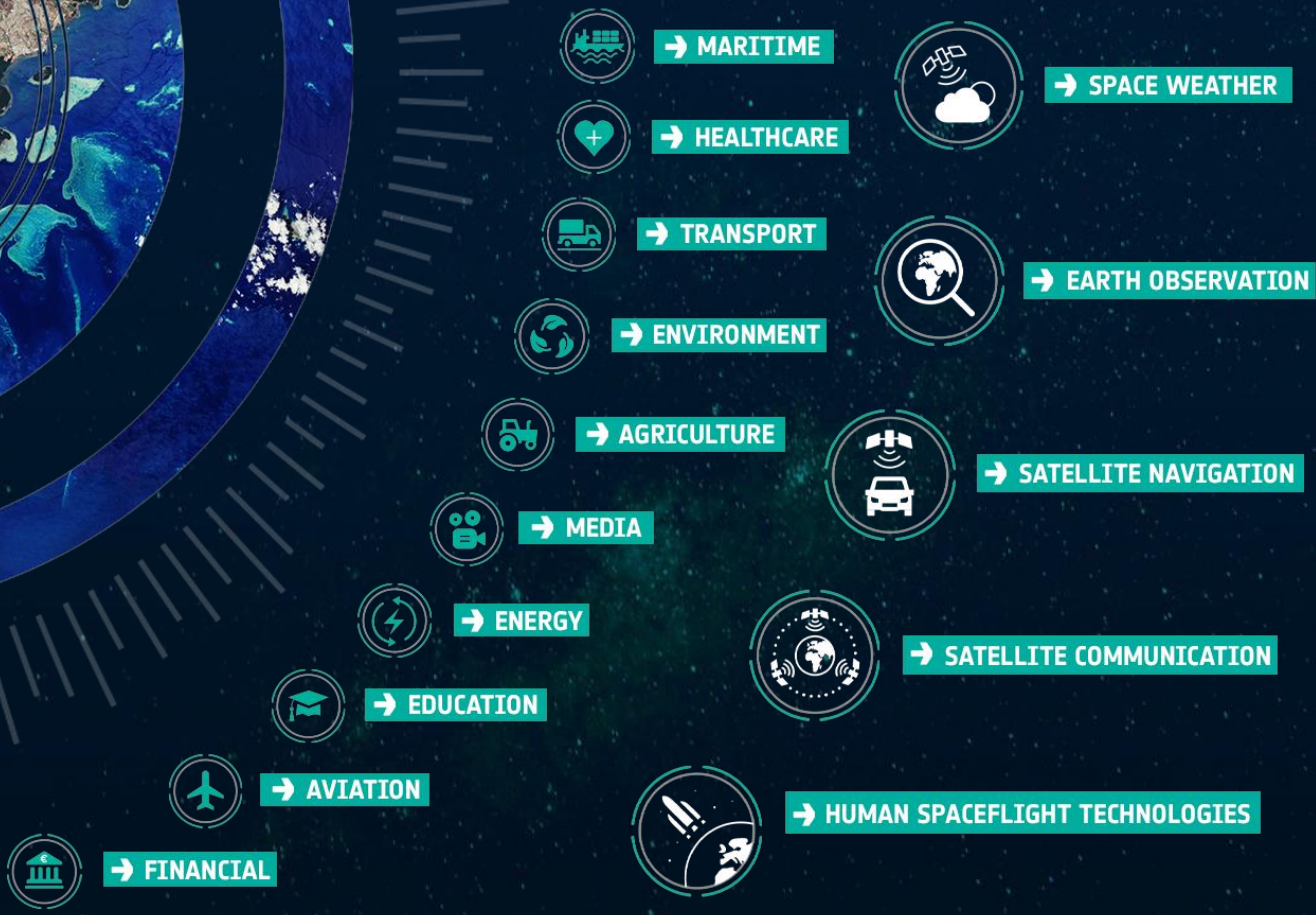
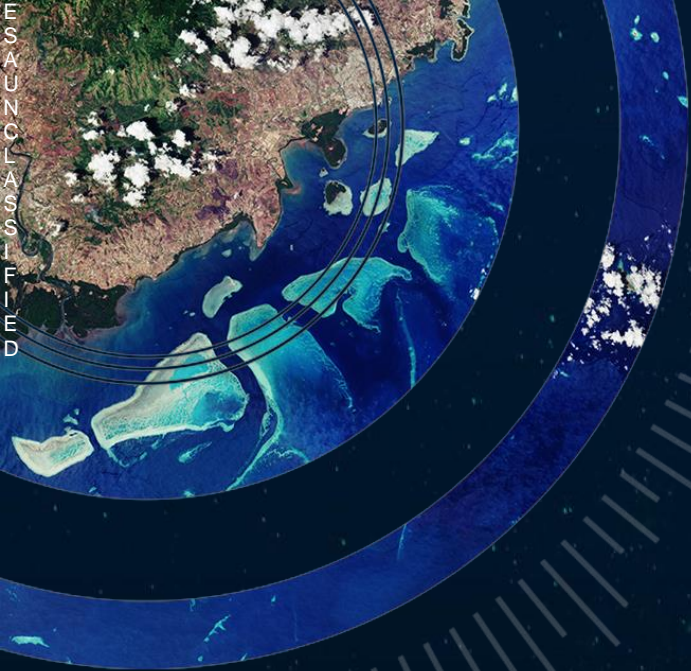
ESA SPACE SOLUTIONS

The largest space innovation network in the world

- The go-to place for great business involving space to improve everyday life.
- Supporting European start-ups and SMEs to develop businesses using space technology and data.
- Offering funding, business and technical support to help to generate successful business, and create positive socio-economic impacts.



UNCLASSIFIED



Ca. 50 drones and UAVs related activities (studies and pilots)

Maritime surveillance & environment monitoring



Agriculture



Energy & Critical Infrastructures



Natural resources



Demining



Disaster & Crisis management



Transport & Logistics



RPAS/Drones operations Support



Tourism & Cultural heritage



Telecom & Media

Next step...

Space for Urban Air Mobility

to foster innovation enabled by
Space technologies and data





Roberta Mugellesi Dow - ESA



Enabling Study

- It is estimated that in 2050, over 60% of the world population will live in urban areas. As demand for transportation continues to increase, alternatives to ground-based transportation have emerged to enable urban travel and commuting.
- Urban Air Mobility is used to describe systems that enable on-demand, highly automated, passenger or cargo-carrying air transportation services within and around the city environment usually in a low altitude airspace, with vehicles ranging from small drones to passenger aircrafts .
- Governments and technology companies have started to look at Urban Air Mobility (UAM) as a viable option for the passenger and cargo transport.
- OEMs and startups are racing to launch the first electric vertical take-off and landing (eVTOL) aircraft by 2025.
- Purpose of this enabling study is to identify and analyse the technical feasibility and economic viability of sustainable services using UAM and space assets.



Space for UAM to foster innovation enabled by space technologies and data

Space for Urban Air Mobility – The Market

- The Urban Air Mobility (UAM) Market is expected to grow by about 10% during the period 2025-2035.
- The need to increase operational efficiency, reduction of human intervention for intercity transportation, growing investment activities are key factors expected to drive market growth.
- Europe and North America are advancing faster investing in these technologies and the emergence of many startups in both regions has made UAM important markets for the industry.
- Barriers are UAM airspace integration, separation from hazards (e.g., terrain, obstacles, other aircraft), contingency management, demand–capacity balancing, traffic flow management, scheduling, and spacing, others.
- The regulations for the Urban Air Mobility industry are now being drafted. A roadmap is also being laid for bringing the UAM into commercial usage in the next 5-6 years.



Image credit: Lilium air taxi



ESA-funded invitation to tender on Urban Air Mobility

Invitation To Tender is open from 16 February 2021

until 30 April 2021

Funding up to € 200K per activity (100% ESA funded)

Duration 9 months

Objectives of Space for UAM initiative

Call for tenders

Define innovative space-based applications in support of the development and operations of UAM services

- technical feasibility & economic viability assessment
- roadmap for services implementation definition
- follow-on demonstration project preparation

€ 200K per study (100% funded) - duration 9 months

Tender opening on 16 February 2021

In collaboration with European Cities



Passenger transport
Good Delivery
Public Safety
Emergency services
Integration in air traffic services

Space for Urban Air Mobility – Use cases



• Use case 1 – Goods delivery

Rapid delivery of packages from local distribution hubs to a dedicated receiving location. Deliveries could be unscheduled and routed as online orders are placed. Applied to Medical packages delivery



• Use case 2 – Public safety

UAM also includes aircraft operations for tasks in urban areas such as public safety, medical evacuations and rescue, news gathering, ground traffic assessment, weather monitoring



• Use case 3 – Emergency services

Assist in emergency situations by saving workers' lives; able to provide a safer birds eye view of a situation allowing to get a better overview and understand what is required before going in person; collecting evidence used to analyse the scene of an accident. The emergency services spend a lot of time documenting the details of an accident with laser scanners and photos before it can be cleared up. Technology onboard UAM can do this quicker, saving time, money, and potentially lives by enabling the debris from an accident to be cleared away more quickly.



- Use case 5 – Integration in air traffic services

Safe integration of UAM into airspace; support U-space services for traffic management and communication; procedures for no-fly zones, ensuring separation with manned aircraft, and autonomous non-cooperative detect-and-avoid technologies



- Use case 2 – Passenger transport

Resembles current public transit options such as subways and buses with scheduled operations or on-demand door-to-door. Vehicles could be autonomously operated and can accommodate 2 to 5 passengers at a time

The Power of Space



Satellite Navigation

- For UAM vehicles' high precision positioning, navigation and tracking
- GNSS systems complemented with Satellite and Ground based augmentation and high accuracy techniques
- Future High Accuracy and Authentication services of European Galileo system



Satellite Communications

- will safely and securely connect mobile UAM vehicles with control centers in the absence of terrestrial communications or in case of terrestrial network failures.
- will track vehicles and allow to maintain an up-to-date situational awareness.
- 5G convergence between SatCom and terrestrial communications



Earth Observation data

- provide diverse geospatial, environmental, weather, mapping information, which will
- support UAM operations
- contribute in the strategic planning of the UAM infrastructure

Users and stakeholders engagement

- User & Stakeholder driven initiative
 - to focus on relevant solutions for user & stakeholders communities, addressing their vision, needs, requirements, constraints, etc.,
 - in the aim to investigate future sustainable services



Bidders shall engage with and involve in the study relevant representatives of the target user/stakeholders communities.

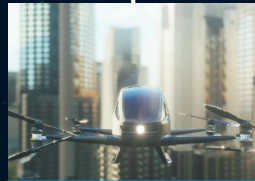
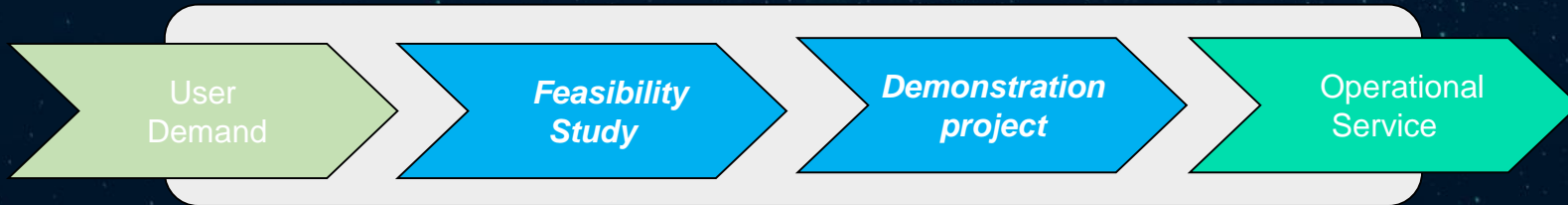
Letter(s) of interest/intent from this (these)user(s)/stakeholders to be provided with the proposal

- In addition, ESA is establishing partnerships with some European Cities interested in the initiative, which may provide guidance and feedback during the study(ies) and contribute with inputs towards potential follow-on demonstration project(s)

Space for Urban mobility Feasibility Study(ies)

A first step towards developing operational services

ESA may support follow-on Demo/pilots projects



**Call for Tenders
Space for UAM**



Call for proposals AO 10494: up to 3M+ Euros
up to 50% funded for non-SMEs,
up to 80% funded for SMEs

An overview of the UIC²

UAM Initiative Cities Community

WALK.RIDE.DRIVE.FLY



Dr Vassilis AGOURIDAS

Leader, UAM Initiative

EU Smart Cities Marketplace

*Head of Public Co-Creation
& Ecosystem Outreach*

AIRBUS, Urban Mobility



SPACE FOR URBAN AIR MOBILITY

ESA ITT (Invitation-To-Tender)

Information Session

Wednesday 10 February 2021



EU Urban Air Mobility

A Community and the Voice of **43** cities / regions

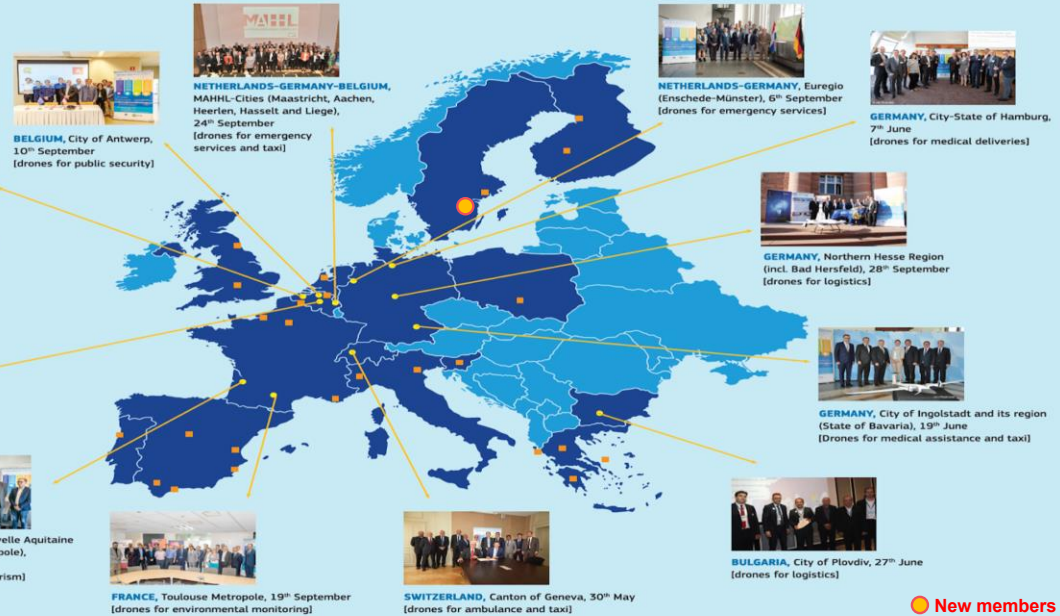
FrontRunners [●] 12 demonstrator projects (17 cities / regions, incl. 2 Cross-border)

Fellows [■] (25 cities / regions)

Madrid (ES), Oxfordshire County (UK), County Durham (UK), Skyros Island (GR), Amsterdam (NL), Region of Peloponnese (GR), Ionian Islands Region (GR), Turin (IT), Trikala (GR), Eurometropole: Lille-Kortrijk-Tournai (BE-FR), Tampere (FI), Stockholm (SE), Region Ile de France (Paris Region - FR), Padua (IT), Ljubljana (SI), Oulu (FI), Malaga (ES), Metropolis GZM (PL), Le Havre Metropole (FR), Turnhout (BE), Liria (ES), Seville (ES), Benidorm (ES), Aix-Marseille Metropole & Region Sud (FR), Porto (PT)

Norrköping

More than **500 diverse stakeholders** mobilised across **Europe** to work on bringing **urban mobility** to the **3rd dimension!**



● New members in 2021

UIC²

UAM Initiative Cities Community





Mobility solutions in smart cities

Motto of UAM initiative:

Smart mobility in smart cities:

WALK.
RIDE.
DRIVE.
FLY.



Source: Adapted from Frost & Sullivan

Typical multimodal mobility solutions in smart cities/regions do not consider air mobility



A definition of Urban Air Mobility (UAM)

Urban? Suburban? Regional?....

simply put, it is about...



UIC²

UAM (Urban Air Mobility) Initiative
Cities Community

**Very-low altitude air traffic
over populated areas
at scale**



City-centric & Citizen needs-driven

**Sustainable Urban Mobility
Policy & Demonstrators**
focused on UAM by addressing:

1. UAM interfaces with *public transport**
2. Mobility as a Service
3. Ground infrastructure for UAM
4. ATM / UTM concepts for UAM in accordance with the U-Space framework

* Or other interfaces: e.g. logistics platform, emergency services hubs, etc.



Towards integrated airspace

AIRBUS BOEING

Source: Airbus Boeing Joint Paper: A New Era of Aviation, 2020

Modernizing ATM

TODAY: SEPARATE UTM & ATM

NEAR TERM: UTM & ATM CONVERGENCE

FUTURE: UTM & ATM INTEGRATED AIRSPACE



ATM: Air Traffic Management
UTM: Unmanned Traffic Management

■ ATM ■ UTM ■ Integrated

ESA UNCLAS
26/12

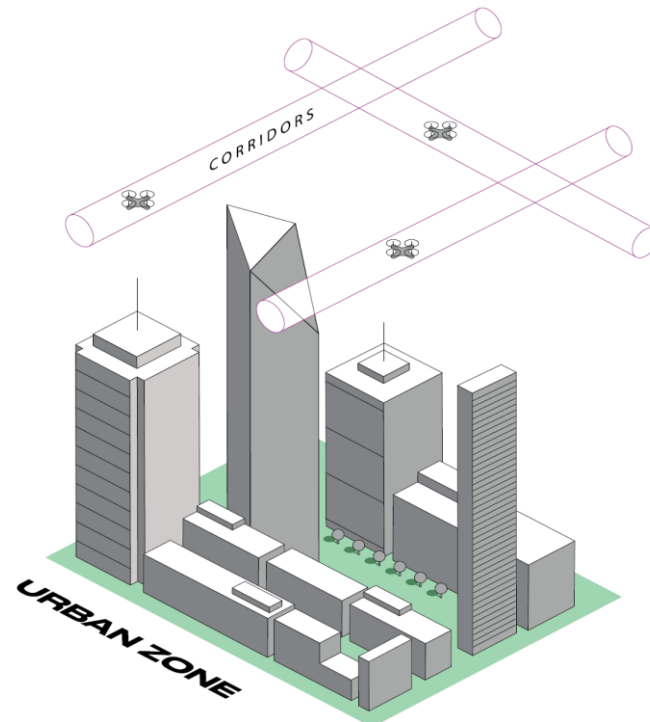
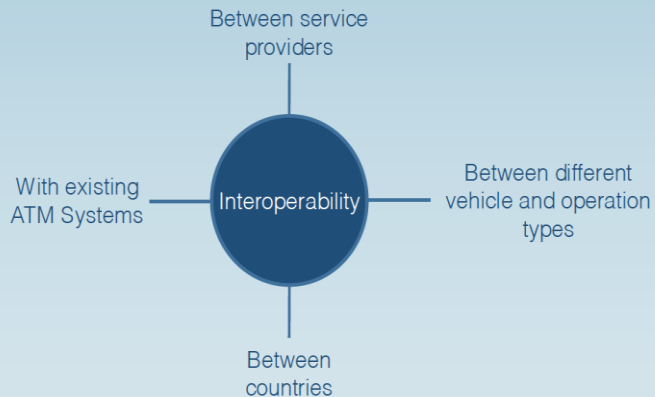




Urban traffic goes to the third dimension!

AIRBUS BOEING

UTM: Interoperability



'Urban' implies more than increased levels of safety and security



Urban air traffic sets . . .

- ✓ Airspace digitalisation
- ✓ New infrastructure (*aviation + mobility*)
- ✓ New interfaces (*aviation + mobility*)
- ✓ New business / services
- ✓ New mindset for policy and regulatory approaches (*e.g. embracing innovation*)



Source: Free and Hanseatic City of Hamburg, 2020



New perspectives for industry

New economic spaces above cities

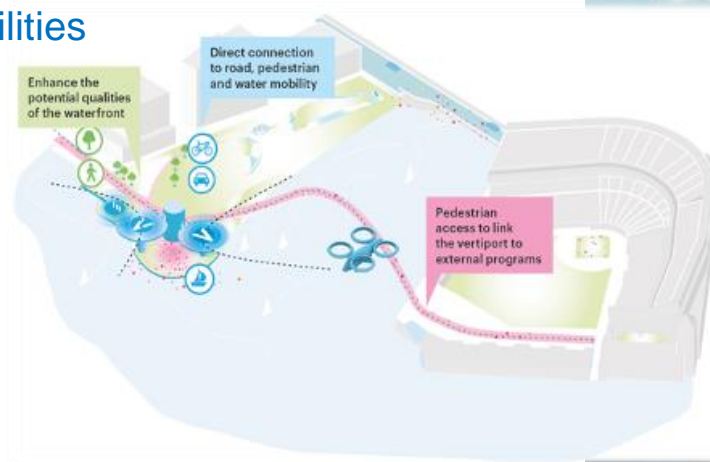
New perspectives for mobility

. . . a new 'status quo'



UAM offers cities new opportunities . . .

- ✓ But also new tasks and responsibilities



Source: AIRBUS



AIRBUS

- ✓ At the same time, as a layer of government closest to citizens, cities are an essential player in having a **deciding role** in the governance of the urban airspace / U-Space



Multilevel Governance of the Urban Sky

AMSTERDAM
DRONE 2020
WEEK hybrid

Smart Cities Marketplace

Cities and Regions already supporting ...



Manifesto on the Multilevel Governance of the Urban Sky by the UAM Initiative Cities Community – UIC²

Amsterdam, 01 December 2020

The UAM Initiative Cities Community (UIC²) of the EU's Smart Cities Marketplace – formerly known as EP-SCC Urban Air Mobility (UAM) Initiative – is thankful to the European Commission for supporting it through its smart cities marketplace platform since October 2017.

The members of the UIC² recognise the importance for harmonised and universal U-Space regulation at EU level. We acknowledge the need for approval of urban flight operations at national level, in alignment with U-Space regulation. Moreover, we recognise the need for national and regional competent civil aviation authorities to lead the legal implementation and approval of urban flight operations in accordance with the principles of subsidiarity and proportionality.

The members of the UIC² also recognise and request that the role of the cities and regions as one of the competent authorities is explicitly acknowledged and referenced in the prospective U-Space legislative clauses of Member States. This is an imperative in the context of multilevel governance of U-Space and responsive decentralised policy implementation.

1. Cities/Regions have a deciding role for allowing the operation of UAM services of public interest (e.g. future public transport, postal-deliveries, emergency services) in alignment with the needs and preferences of their citizens.
2. Cities/Regions have a deciding role in establishing to what extent UAM/U-Space operations can be conducted in their territories.
3. Cities/Regions have a deciding role where UAM/U-Space flight operations are permitted within their territories (e.g. geo-fencing, day / night-time restrictions, noise and visual abatements).
4. Cities/Regions have a deciding role where take-off and landing sites are to be built.
5. Prosecution of infringements of the public use of the urban airspace over a city/regions remains a local task.

The members of the UIC² trust that the above requests will be treated with consideration and attention in: a) the forthcoming European U-Space Regulatory Framework by acknowledging the imperative for multilevel governance of U-Space and b) the legislative process of U-Space Regulation by Member States.



Background

The UAM Initiative of the Smart Cities Marketplace has enabled cities and regions to become UAM role models and to discuss their opinions and concerns directly with European and State Member authorities and policy making bodies, including DG-Move, EASA, Eurocontrol and SESAR 3). For example, the German UIC² members are building a partnership, since 2019, that is supported by the BMVI (Federal Ministry of Transport and Digital Infrastructure) to focus on open exchange and collaboration as well as standard setting for more future UAM cities and regions.

The efforts and engagement of UIC² alongside with the European Commission's support have resulted in fruitful interactions and concrete actions towards sustainable and integrated urban mobility, some of which are highlighted below:

- The invitation to UIC² to become member of U-Space Network of Demonstrators in October 2018. This has helped us to be in contact and discuss with ANDR (Air Navigation Service Providers), industry actors and national authorities regularly.
- The invitation to UIC² Task Forces (representatives, including Mayor/Vice-Mayors) to meet with the former Commissioner of Transport (Violeta Bulc, DG-Move) in May 2019. This has allowed us to share the progress of the community's work as well as the specific challenges faced by the local authorities in sustainably nurturing and safely advancing the UAM ecosystem.
- The invitation to UIC² to participate in U-Space regulation drafting workshops at EASA Headquarters in May 2019. This allowed UIC² to further emphasise the importance of the role of cities and regions in the governance of urban airspace.
- The preparation of an EU (European Investment Bank) Advisory Hub assignment for UAM since 2019, and its launch in February 2020 to both support UIC² members towards the development of their business models and carry out an early market assessment of the UAM sector.
- The development of two UAM-dedicated calls for funding in the context of sustainable urban mobility under the H2020 framework (2019-2020), namely the UAM Research and Innovation Action (RIA, BG-3-8) and the UAM Coordination and Support Action (CSA, LG-1-12) calls. These enabled some UIC² members and their industrial and academic partners to participate in consortia and be awarded respected funding for their projects starting in Q1 2021.
- The invitation and assignment to the UIC², in December 2019, of the task to develop the Fraunhofer BfDing on UAM in the context of the Sustainable Urban Mobility Plan process (SUMP-UAM). The ongoing city/region-led work sheds light, based on first-hand experience from the UIC², into the challenges, opportunities, lessons learnt and initial recommendations to effectively integrate UAM aspects in the SUMP processes of cities and regions across Europe.

UIC² highly acknowledges and appreciates the European Commission's support and dedication towards this community that has led to its recognition as the leading city/region-driven community on UAM.



City of  Enschede



 Górnolśląsko-Zagłębiowska Metropolia



Stadt Ingolstadt



OULU



Regionalmanagement NordHessen



City of Ljubljana



THE CITY OF TAMPERE



NORRKÖPING



Ayuntamiento de Málaga
Área de Gobierno de Innovación y Digitalización



Gemeente Heerlen

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Spaceflight Technologies



Satellite Communication



Satellite Navigation



Satellite Earth Observation



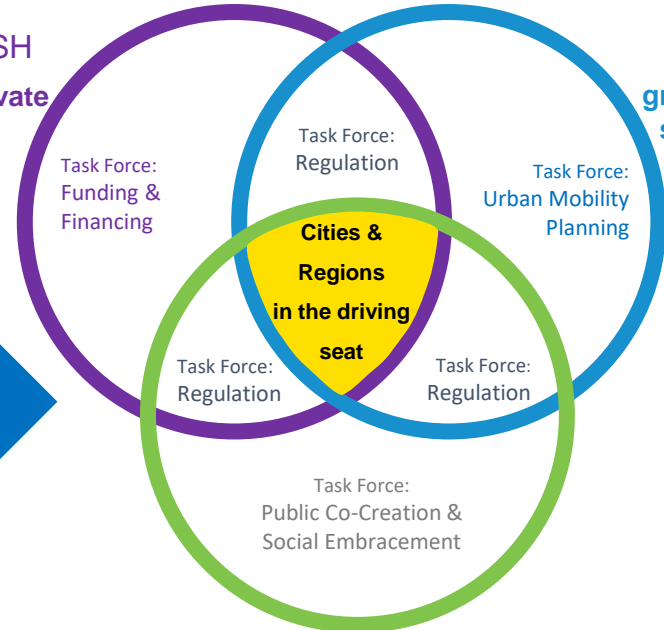
Space Weather



A three-fold approach is required

ESTABLISH
public & private
support

SEEK
ground & air
synergies



CO-CREATE
with citizens



Thank
you!



Smart Cities Marketplace

Dr Vassilis AGOURIDAS
Leader, UAM Initiative

*Head of Public Co-Creation
& Ecosystem Outreach*
AIRBUS, Urban Mobility

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AIRBUS



HENSOLDT

Detect and Protect.

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Urban Air Mobility Initiative

City of Ingolstadt and its region



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The strength of the UAM Ingolstadt Initiative lies in its partners

Aims of the city:

- Public acceptance
- Shaping UAM for the citizen's benefit
- Set framework for technical development
- Increasing economic attractiveness of the region



UAM-Ecosystem with > 75 partners

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Objective of the UAM Network Ingolstadt



Mission

“The network focuses on the demonstration and feasibility towards regular UAV flights and their integration into the extended transportation, infrastructure and economic system in the urban area of the city of Ingolstadt and the adjacent rural area.”

Result of a member survey in early 2020



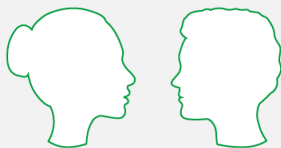
We Operate Worldwide



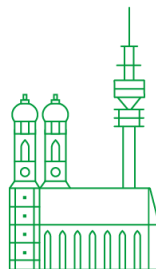
Ø 34 Years



11 Nationalities



24% Female & 76% Male



Located in Munich



Launched in 2018

Current challenges in IT security

Security is currently
a by-product



"Security by design"
has long been
neglected



Hardly controllable
supply chains



Standard
Security solutions
resolve only
symptoms



Exponentially growing
of IoT devices and
device networking



Mass of lines of code leading
to cyber attacks



Lack of technical
sovereignty
and cyber security



Previously used
systems are developed
with the emphasis on
functionality



The Cyber solution

Secure IT instead of IT Security based on seL4

TRENTOS

MiG-V

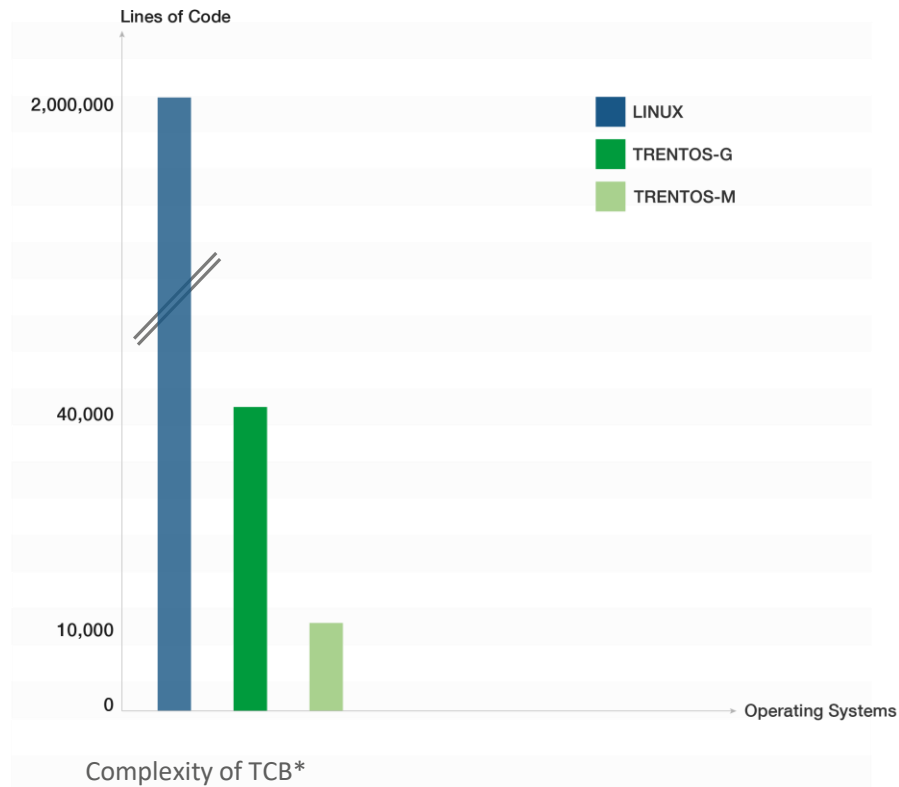
CONSULTING

Our offer

Trusted Entity Operating System

TRENTOS – two levels of security based on the seL4 Microkernel

TRENTOS



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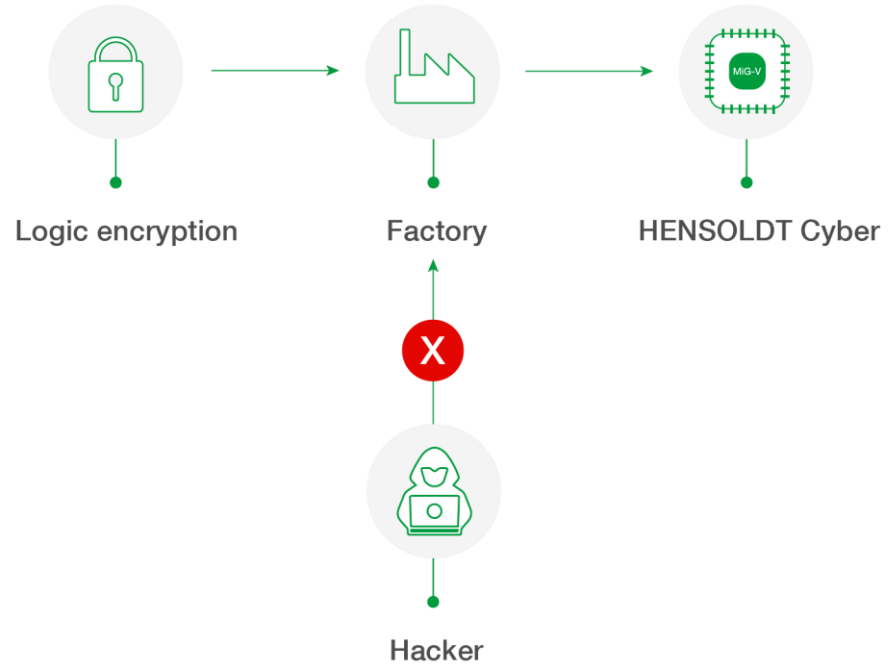
*Trusted computing base



MiG-V

Made in Germany RISC-V – Logic encryption

MiG-V

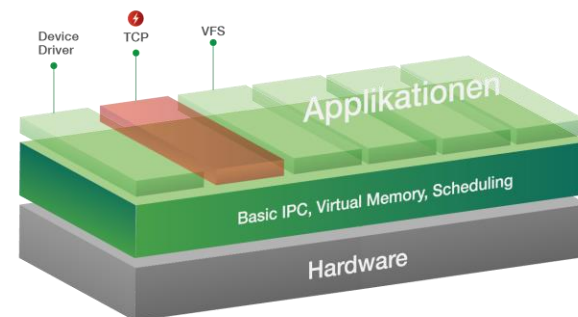
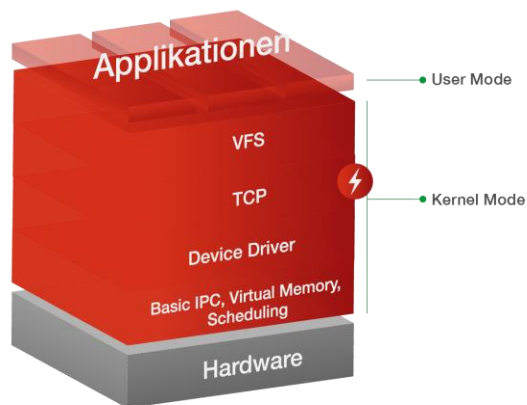


Monolithic vs. microkernel-based operating systems

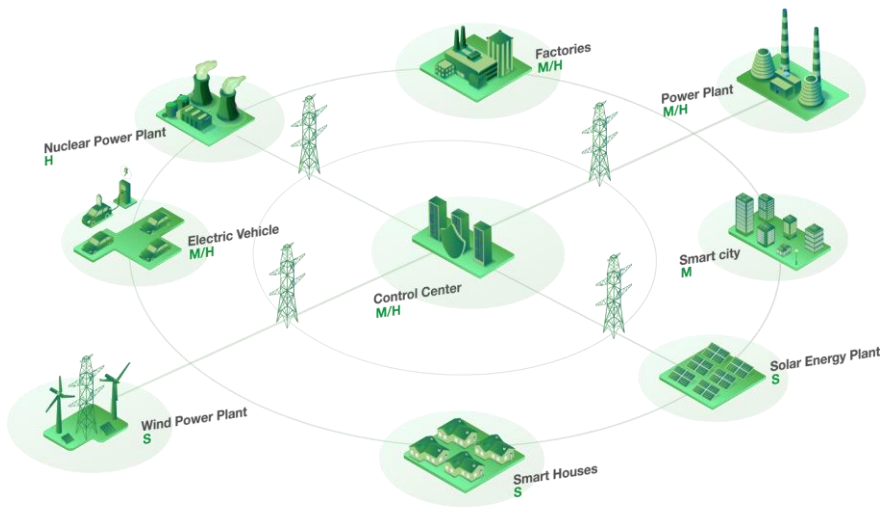
Main differences

Example

- Ripple20 includes 19 vulnerabilities in a TCP/IP stack.
- In a monolithic system, these vulnerabilities are critical - up to and including remote code execution.
- In a microkernel-based system, the same flaw affects only one isolated component-ideally a non-critical one.



Need of an ecosystem



S – Single Core Processor
 M – Multi Core Processor
 H – High Performance Processor

Memberships



Partners



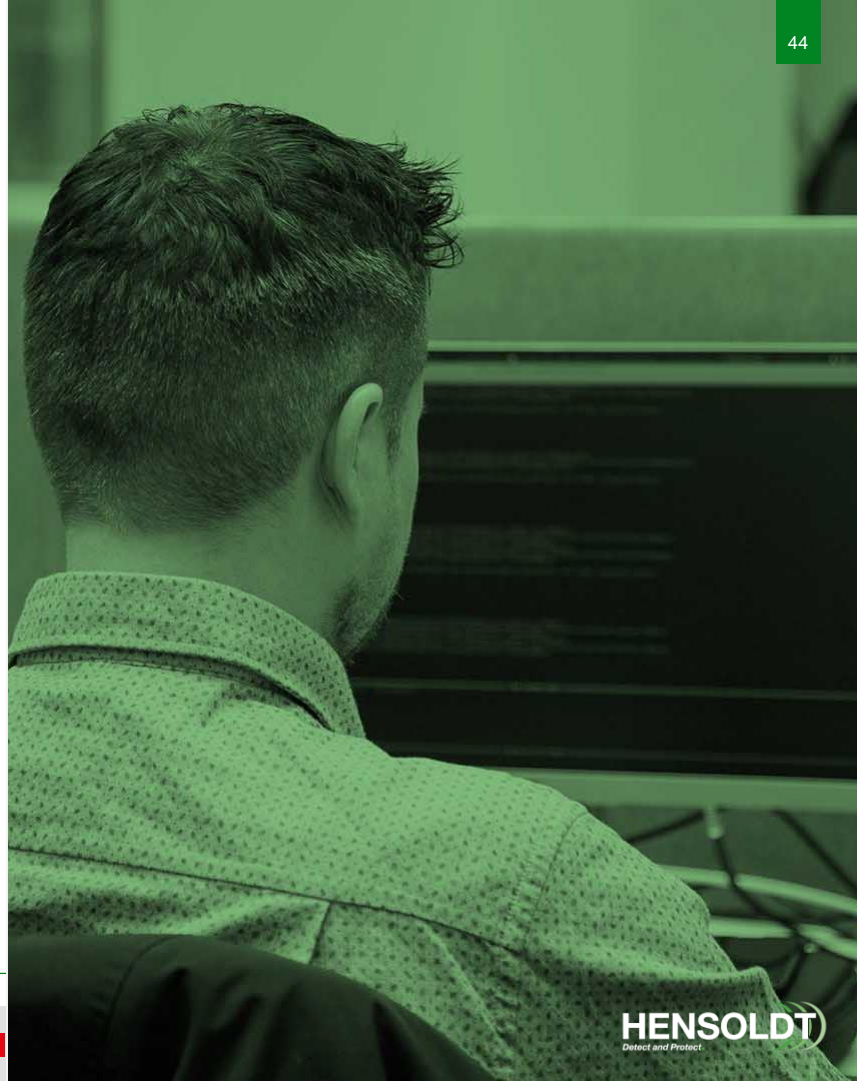
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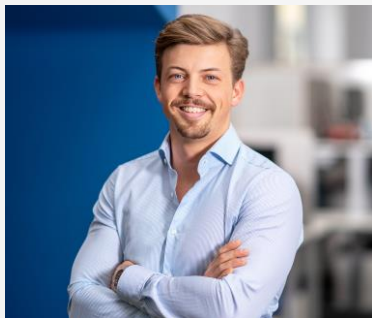


Why a new Cyber approach?

Secure IT instead of IT Security

- Unique development from scratch of an integrated system consisting of secure hardware and software
- Security as an integral part of the initial design
- Holistic solution Made in Germany
- Formal verification
- Transparency through usage of Open Source
- Secured hardware through usage of logic encryption
- Reasonable cost and easy portability
- SDK (Software Development Kit)





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European Space Agency



ESA Webinar

Space for Urban Air Mobility

Joshua Serrão

Manager Digital Safety, Chief Technology Office
City of Amsterdam





About the City of Amsterdam

- Amsterdam, capital of the Netherlands. These days the city has a population of just over 869.709 inhabitants and is the largest city in the country (august 2020).
- Amsterdam is located in the province 'Noord-Holland', situated in the west. It is one of the most popular destinations in Europe, receiving more than 4.5 million tourists annually.*
- Amsterdam has a great history. It is very unique for its large and untouched historic city center and a high-rise financial district.

* pre-corona of course 😊

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European Space Agency



Objectives CTO office at the City of Amsterdam

- The Chief Technology Office of the Municipality of Amsterdam collaborates with all departments from the municipality to make innovation happen in the city.
- We work on themes, such as: e-health, circular economy, smart mobility, sharing economy, cooperation with start-ups and innovative procurement.
- As the CTO office anticipates on emerging technologies the application of drones for mobility, among other applications is expected to be a strategic policy driver for the upcoming years.



Our challenges

City is growing



Pressure on mobility is increasing



City has less grip on mobility choices



Data (sharing) platforms are taking over the city



Tech giants have a dominant dataposition



Commercial interest is primary, Public interest is secondary





Our history on UAM



2017

2018

2019

2020



First applications for drone flights. First encounter with the term UAM and Vassilis (ever)

Launch Amsterdam Drone Week

Signing of EIP-SCC Demonstrator City



Collaborations with internal stakeholders

Smart Mobility Program



Launch initiative Amsterdam Drone Lab @ ADW2020

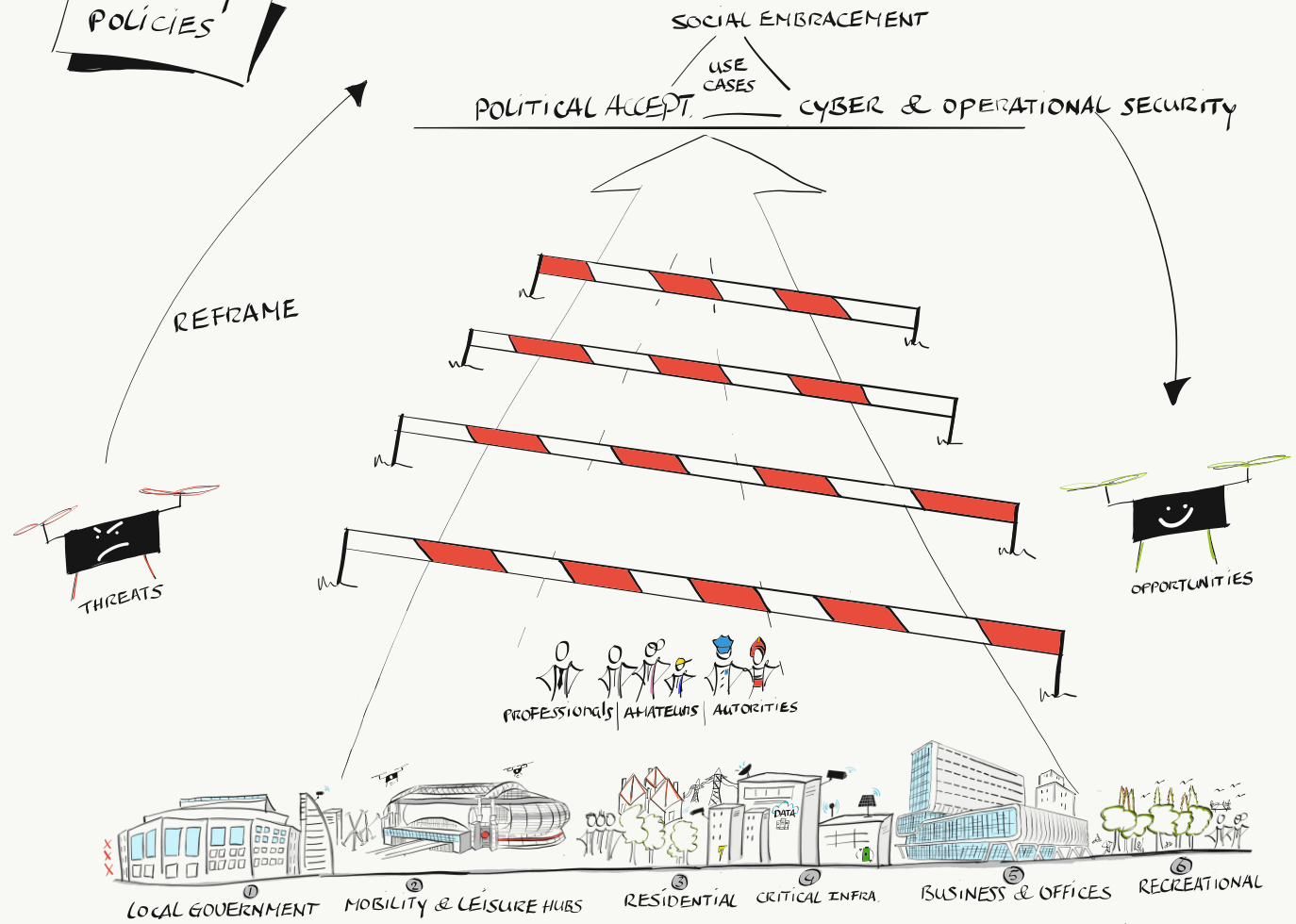
Drone Detection System





SMART CITY POLICIES

"MIND SHIFT IS ESSENTIAL"



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AMSTERDAM
DRONE 2020
WEEK hybrid





AMSTERDAM
DRONE 2020
 WEEK hybrid



ADW 2020 IN NUMBERS

Amsterdam Drone Week is the global platform for sharing knowledge on current air solutions, potential innovations and vital regulations. All key players, knowledge institutes and authorities, gather to co-create and co-operate to build the UAM ecosystem.

PROGRAMME

48
 Sessions

2.160+
 Minutes of high quality content

10
 Average session viewed per visitor

MATCHMAKING

1.367
 Chat messages

DELEGATES

959
 Delegates

76%
 Decision makers

100+
 Speakers



DEMOGRAPHICS

48 countries
 Top 5 foreign countries



SESSION ANALYTICS CITY OF AMSTERDAM DURING ADW HYBRID 2020

Launch Amsterdam Drone Lab: Moving Forward | 1 December, 12:00 - 12:45 CET | ADW MAINSTAGE

89 **215** **28,03 min**
 Interested Attendees Actual stream views Average viewing time session

AI in the Sky | 1 December, 14:00 - 14:45 CET | ADW BREAK OUT

115 **69** **28,26 min**
 Interested Attendees Actual stream views Average viewing time session

UAM as part of an integrated Smart Mobility approach? | 2 Dec, 11:00 - 11:45 CET | ADW MAINSTAGE

108 **159** **26,57 min**
 Interested Attendees Actual stream views Average viewing time session

Drone agenda: Samen werken aan actieplan (deel 2) | 2 December, 12:00 - 12:45 CET | ADW BREAK OUT

118 **85** **27,51 min**
 Interested Attendees Actual stream views Average viewing time session



THEMES ADW 2020



Urban Air
Mobility

01 City Policy,
Public embracement,
Smart Transportation,
Sustainability

Unified Traffic
Management **05**

Integrated
Skies



Rules &
Regulations

02 U-Space opinion

Disruptive thinking
Vertical applications **04**

Technology
& Solutions

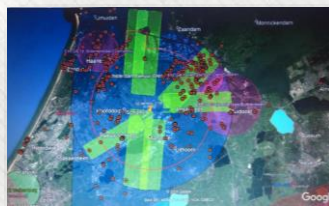
Safety and
Security

03 Counter drones
Cyber Security



Amsterdam x Drones

- Whitepaper VNG on **impact EU-regulations** on cities
- Smart Mobility, looking at **multi-modality** transportation
- Internal customers for example assetmanagement for **inspections of public** (iconic and historic) **buildings**
- Pilot with Department of Waterways and Public Works on **Safety On The Water (SAiL2020)**
- **Drone Detection** on lower city airspace
- **AI Object Detection** Kit on drones
- Exploration together with Mainport Schiphol on drone technology and UAM
- Launch initiative **Amsterdam Drone Lab** (first fieldlab in urban environment)
- **Dutch Drone Delta** consortium



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From testing with drone technology to UAM solutions

Now

Next

After

Later



VLOS operations by certified organizations at drone lab

Automated (B)VLOS operations at drone lab



Establishment of BVLOS corridor (outer-city, above water)



Establishment of BVLOS corridor (inner-city, for example to other vertiports such as RAI Amsterdam)



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The sky is the limit.



The sky is (not) the limit.



How to apply:
Funding and Tender Information



ESA TENDER INFORMATION

Funded participation to ESA Space Solutions is open to any company and/or organisation, be it as group of users, public body or non-governmental organisation, residing in the following Member States:

Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Italy, Luxembourg, the Netherlands, Norway, Poland, Portugal, Romania, Spain, Sweden and Switzerland.





HOW TO APPLY

1. Register (minimum 'light registration') by completing online questionnaire on ESA-STAR Registration (esastar-emr.sso.esa.int)
2. Download the official tender documentation (Invitation to Tender), which will be available as soon as the ITT is open via EMITS (emits.esa.int). ITT number is **AO 10645**
3. Create 'Bidder Restricted Area' in ESA-STAR
4. Write your Proposal using the template provided in the Tender documentation and obtain Letter of Authorization from your National Delegation (business.esa.int/national-delegations)
5. Submit your proposal via 'Bidder Restricted Area' in ESA-STAR Tendering (esastar.sso.esa.int)

More info can be found here:

esa.int/About_Us/Business_with_ESA/How_to_do/esa-star_Registration_Process



BASIC PRINCIPLES - ESA-STAR

Registration (minimum 'light registration') on [ESA-STAR Registration](https://esastar-emr.sso.esa.int) (<https://esastar-emr.sso.esa.int>)

Please note that esa-star allows two levels of entity registration: "Light" and "Full". This allows new users wishing to do business with ESA to carry out their registration in two steps. A "Light" registration will grant access to all esa-star services up to and including proposal submission. The award of ESA contracts requires "Full" registration.



The screenshot shows the ESA-STAR registration website. At the top left is the ESA logo and the text "esa-star registration". Below this is a navigation bar with the date "16 Apr 2020" and links for "ESA Home Page", "EMITS", "ESA Industry Portal", "Contact Us", and "Help". A left-hand menu contains "Home", "New Registration", "Maintain Entity Information", and "ESA Entities Directory". The main content area is titled "NEW REGISTRATION" and contains a question mark icon followed by the text "Please select one of the two options:*". Below this are two radio button options:

- ? A. I am an Entity that has the capacity as "legal entity"**
- ? B. I am a Business Unit acting on behalf of a "legal entity", without being entitled to commit on contracts on my own**

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BASIC PRINCIPLES - EMITS

Tender documentation: on emits.esa.int

- Published under “Open Invitations
- Look for ITT number AO TBC








The screenshot shows the EMITS website interface. At the top left is the ESA logo and the text "emits". To the right is a navigation bar with links: ENTITIES, LOGIN, ESA Home Page, Industry Information, Entity Registration, Service Desk, and Help. Below the navigation bar, the user is identified as "User: Guest". On the left side, there is a menu with the following items: News, COVID-19 measures and instructions, Procurement Review Board Announcements, Open Invitations to Tender, Intended Invitations to Tender, Reference Documentation, ECOS Resources, and How to do Business with ESA. The main content area on the right features the "emits" logo and a prominent blue button with the text "→ INVITATIONS TO TENDER PUBLISHED". Below this button, it states "Hosted by ESA" and "Rel. 7.9.0.0".

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BASIC PRINCIPLES - EMITS

Registration on esa-star is required to access [tender documents in Emits](#)



-  [Letter of Invitation, 105055 Bytes](#)
-  [Statement of Work, 1053145 Bytes](#)
-  [Contract Conditions, 359891 Bytes](#)
-  [Tender conditions, 450220 Bytes](#)
-  [Clarification-e 1, 42650 Bytes](#)

Transfer selected documents as

[Current Expression of Interest](#)

- For more information, please visit :

business.esa.int



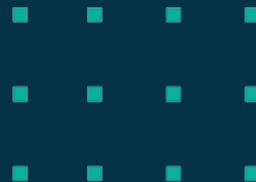
THANK YOU!

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OPEN QUESTION & ANSWER SESSION

