UNITED SYSTEMS EUROPE

An association with the objective to contribute to the creation and growth of a safe, harmonized, sustainable & socially acceptable European market for manually operated, automated & autonomous vehicle systems in the aerial, terrestrial, nautical and space domains

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PREAMBLE

Remotely controlled, automated and even autonomous systems are among the major technological and industrial developments of the 21st century. They have multiple fields of application and are used in the industrial, transport, energy, security and agricultural sectors The limit of their potential is still undefined.

However, the dispersion of the structures and initiatives of this new industry is still a major obstacle to its development. Several countries have created platforms for exchanges between the public authorities and this new system industry, but the implementation of the new European regulation concerning civilian drones in particular has revealed a strong need for consultation between the stakeholders in the field on a European scale. This consultation must also be accompanied by actions to promote and assist the development of the sectors concerned, both politically and societally.

In view of these considerations, the USE association proposes to unite energies to contribute to the objective of developing the European market for manually operated, automated and autonomous systems in the air, land, nautical and space fields.

BACKGROUND

The Madrid Declaration - January 2019

At the RPAS CivOps 2019 conference (23 & 24 January 2019), organised by Blyenburgh & Co, France in coordination with AESA (Spanish Civil Aviation Authority), the attendees issued the Madrid Declaration, which stated that:

- The European Commission and its agencies require to continue the work with the public/privates partnerships on several issues of importance, in order to reach an EU consensus, for the effective implementation of the European drone regulation;
- A significant number of issues still needs to be addressed to ensure a high & harmonized level of safety at EU level and to facilitate cross-border operations;
- Currently, the concept of U-Space has not been clearly defined and in this context a U-Space service provision regulation will be required;
- There are significant drone operator communities in most of the countries in the EU;
- Research & development investments are still required in various drone-related fields;
- Keeping the general public correctly informed & meeting societal expectations is of prime importance;
- They share a common view relative to internationally favourably positioning the European drone-related manufacturing, operating & service supply communities.

With the objective of contributing to EU harmonization, subject to the availability of resources, the conference attendees expressed their interest to endeavour to:

- Coordinate their national drone-related regulatory activities;
- Cooperate to define consensual positions on drone-related matters, by means of joint working groups, and by sharing documents of relevance;
- Explore coordinated contributions to the creation of an institutional framework for U-Space services;
- Share knowledge and exchange information on funded drone-related R&D & demonstrator programmes;
- Share their respective experiences on possible standard scenarios for the “Specific” operational category;
- Share knowledge & experience, and exchange information on nationally defined positions relative to drone-related safety, and if possible on security, data protection & privacy, and environmental matters, and to come to consensual positions relative to these matters;
- Share knowledge & experience, and exchange information on drone-related operational matters with the objective to be able to inform the press and the general public on the societal benefits, and demonstrate compliance with societal expectations.

Drone REGIM (February 2019 - January 2021)

In response to the Madrid Declaration, UVS International, an association registered in the Netherlands (2000), initiated the Drone Regulation Implementation (Drone REGIM) programme. The objective of this community action was to create a structure & work methodology permitting to federate European drone community members [with a focus on Small- & Medium-sized Enterprises (SMEs)] in multi-national working groups with the intent to produce consensually agreed guidance documents, contribute to existing standards efforts, and, in coordination with the NAARIC Group (*see below*), define consensually agreed recommendations on topics identified by the current drone community as being urgently required.

Drone REGIM brought together 128 persons from 98 companies & organisations in 24 countries.

Due to UVS International ceasing its activities in January 2021, Drone REGIM was also forced to cease its activities.

NAARIC (April 2019 - now)

The Madrid Declaration also motivated the National Aviation Authority of the Netherlands to initiate the creation of the National Aviation Authority Regulation Implementation (NAARIC) Group. The founding meeting took place at the BeNeLux General Secretariat in Brussels, Belgium on 30 April 2019 and was attended by the NAAs of Belgium, France, Germany, The Netherlands & Spain. The following National Aviation Authorities have since then also joined: Austria, Denmark, Estonia, Finland, Iceland, Italy, Latvia, Lithuania, Luxembourg, Norway, Poland, Romania, Sweden, United Kingdom.

The purpose of NAARIC is to coordinate the national approaches relative to certain aspects of the implementation of the EU drone regulation.

ACKNOWLEDGEMENTS

In January 2021, taking the aforementioned into consideration, Blyenburgh & Co, France launched the initiative to create the United Systems Europe (USE) foundation.

43 subject matters experts with complementary expertise from 8 countries (Austria, Belgium, France, Germany, Netherlands, Norway, Spain, Switzerland), acting in their personal names, participated in a “scoping group”, which has produced by means of many emails telephone discussions, and often weekly video meetings, the objectives of the foundation.

These persons are wholeheartedly thanked for finding the time to contribute with their valuable inputs and making it possible to formalize this initiative.

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VISION

The association aims to unite the European community of stakeholders in the field of non-military manually operated, automated and autonomous vehicle (MAA) systems deployed in the air, terrestrial, nautical and space environments, in a partnership, with a special focus on the companies (small, medium and large - including start-ups), non-corporate organisations and public bodies conducting professional operations [commercial and non-commercial (including corporate operations)].

The aim is to produce, in coordination with all relevant regulatory authorities and stakeholders, harmonized contributions to and proposals on various aspects that are relevant for creating and growing a sustainable and socially acceptable market for the safe operation of MAA systems for all possible current and future purposes at national, European and international level.

Furthermore, the association aims at connecting with existing and developing technological concepts to achieve the aforementioned.

In other words, the association strives to initially serve as a European Civil Drone Council.

BASIC GUIDELINES

The association strives to respect the following guidelines:

1. In view of the potential of technology and services cross-over between the application sectors, transversally address MAA systems deployed in the air, terrestrial, nautical and space environments;
2. An incremental approach will be taken to tackling these four participant application sectors, based on the relevant expertise being available in the foundation;
3. The initial activities will address MAA systems in the aerial sector;
4. Deploy its activities with and for Europe, but in contact & coordination with the rest of the world;
5. Create a sustainable organisational business structure;
6. Act in total transparency with all institutions and its members;
7. Create a forum for all players in the European MAA system ecosystem;
8. Promote sectorial and inter-sectorial dialogue & understanding;
9. Actively undertake steps to promote coordination and cooperation with all involved stakeholders;
10. Taking into account the applicable safety, security, privacy & environmental requirements, produce community-based deliverables that will promote the development of a safe & sustainable market;
11. Avoid duplication of effort with other initiatives;
12. Act as a sounding board for the European Commission & European Union agencies;
13. Contribute to creating a safe & sustainable market for beyond visual line of sight programmed & autonomous operations in all economic application sectors;
14. Highlight the societal and economic benefits of MAA systems;
15. Position & promote European R&D and concepts internationally.

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KEY WORDS & CONCEPTS
(in alphabetical order)

- Access to Information
- Aeronautical Information Services
- Air Traffic Management
- Automated Systems
- Autonomous Systems
- Best Practices
- Common Understanding
- Communication
- Cooperation
- Coordination
- Data Protection & Privacy
- Education/Training & Examination
- Environment
- Federate
- Harmonisation
- Infrastructure
- Knowledge Sharing
- Madrid Declaration
- Market Development
- No duplication of effort
- Operations
- Operators
- Public Awareness & Acceptance
- R&D
- Regulation & Implementation
- Remote Pilot Licences
- Safety
- Security
- Societal Benefits
- Stakeholders
- Standards
- Technology (Gaps)
- Test & Demo Sites
- Transparency
- Urban Air Mobility
- Unmanned Systems
- Unmanned System Sub-Systems
- Unmanned System Services
- Unmanned Systems Network
- Use Cases
- U-space
- Validation & Test Demonstrations

MAA Systems

Manually operated, automated and autonomous vehicle (MAA) systems are those deployed for non-military professional and research applications in the 4 following operational environments: aerial (*UAS, RPAS, drone*), terrestrial, nautical (surface & sub-surface), space.

Operations with MAA Systems

Non-military operations

Non-military operations fall into two categories:

- **Commercial**: Operations carried out by companies for paying customers.
- **Non-Commercial**: Operations carried out by companies or organisations without external financial compensation from customers.

Corporate Operations

Non-commercial operations include Corporate Operations, which should be understood as: Operations carried out by companies or organisations to meet their own internal requirements.

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GENERAL OBJECTIVES

The association strives to achieve this goal by, among other things:

1. Proactively contributing to facilitating relationships and interaction between the communities of operators of MAA systems and regulatory authorities;
2. Facilitating relationships and interaction between national, European and international interest groups;
3. Identifying existing knowledge and expertise;
4 Promoting European Union-wide harmonization of national approaches on topics of common interest;
5. Identifying and addressing regulatory issues that fall under the responsibility of the individual Member States of the European Union;
6. Contributing to the harmonization of national approaches taking into account relevant existing documents & best practices;
7. Contributing to accelerating the harmonization process in the European Union;
8. Identifying gaps in the European Union regulations and implementing rules and formulating proposals for possible solutions;
9. Contributing to adapting or creating new rules and regulations in the European Union (when and as needed);
10. Creating a forum for exchange between national civil drone councils (and equivalent organisations involved with terrestrial, nautical and space systems) and promoting the coordination of national initiatives;
11. Contributing to speeding up the implementation of solutions;
12. Guiding newcomers to the ecosystem of MAA systems;
13. Promoting awareness of MAA systems at different levels (including the general public);
14. Contributing to the societal acceptance of MAA systems;
15. Contributing to creating connections between aviation, ground transport, shipping and space sectors already involved in MAA systems and elements in these sectors that are not yet involved with MAA systems, and promoting the interaction between these sectors;
16. Giving the European MAA systems community a federated voice at European and international levels; and
17. Promoting of coordination between national initiatives, as well as any other lawful means that may contribute to the goal.

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WORKING PRINCIPLES

The association strives to adhere to the following working principles:

1. Act with and for European stakeholders, but in contact and coordination with non-European stakeholders.
2. Focus on collaboration between all stakeholders & transparency.
3. Simplify and increase access to relevant information for all stakeholders.
4. Promote awareness & acting educationally.
5. Pooling joint resources.
6. Bridging gaps in the community.
7. Strive to reach agreement among the Civil Drone Councils (and similar organizations) established in the European Union.
8. By means of written and oral contributions exercise influence on the development of a safe and sustainable market for unmanned systems (in terms of safety, security, privacy and environment).
9. Contribute to creating a sustainable market for the safe (programmed & autonomous) operations of tomorrow for MAA systems in the aviation, ground transport, shipping and aerospace sectors.
10. Promote European harmonization.
11. Take into account existing relevant regulations, rules, and best practices.
12. Not undertake any duplication of efforts deployed by other stakeholders [no conflicts with activities undertaken by existing European Union initiatives, such as, for example, by European Union organizations (such as: European Commission, European Union Agencies and Joint Undertakings, “European UAS Standards Coordination Group”), EUROCONTROL, standardization organizations, and consortia funded by the European Union].
13. Act as a sounding board for the European Commission and European Union agencies.
14. Promote economic development and job creation in the European Union.
15. Position and promote European concepts, products, services, research and developments.

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OBJECTIVES

Interaction, Promoting Understanding & Information Accessibility

The association strives to be a recognized forum where interaction between the stakeholders and members of the wider ecosystem of MAA system stakeholders can be established or improved.

The association also strives to:

1. Fulfil the role of mentor for new entrants in the MAA system ecosystem.
2. Promote mutual understanding and cooperation regarding MAA system operators between:
   - Major operators (industry) (>250 employees; turnover >€50 million)
   - Small and medium-sized businesses (SMEs) (11-250 employees; turnover <€50 million)
   - Micro companies (2-10 employees; turnover <€2 million), and sole proprietorships
   - Research institutions & knowledge institutes
3. Promote mutual understanding and cooperation regarding MAA systems manufacturers between:
   - Large producers (industry) (> 250 employees)
   - Small and medium-sized companies (SMEs) (11-250 employees; turnover <€50 million)
   - Micro companies (2-10 employees; turnover <€2 million), and sole proprietorships
   - Research institutions & knowledge institutes
4. To promote mutual understanding, information exchange, and where possible cooperation, between MAA stakeholders in the following application sectors:
   - Air • Terrestrial • Nautical • Spatial
5. Promote understanding and relationships between the MAA systems community and potential new stakeholder groups, such as for example:
   - Regional authorities (départements, municipalities, Länder, provinces, regions)
   - Freight & passenger transport companies, and other logistics companies
   - Designers & operators of airports, heliports and vertiports
6. Make sector-specific information, in the broadest sense, more readily available to the MAA systems community, especially for small and medium-sized businesses, micro-enterprises, and sole proprietorships.

Promotion & Development of Operations with MAA Systems

The following objectives will also be pursued by the association:

1. To promote the development, production and safe use of MAA systems of all sizes and in all classes (and related products and services) for professional applications.
2. To promote the future commercial and non-commercial safe use of MAA systems (including corporate operations, as well as police, customs, coastguard, firefighting and search & rescue operations).

3. To facilitate information exchange and cooperation in the field of MAA systems between industry (manufacturers & operators, service providers), national & regional governments (civil & military), national aviation authorities, air navigation service providers, aeronautical information service providers, ground transportation service providers, maritime service providers, space service providers, training organizations, research and development centres, universities, international organizations and all other relevant stakeholders.
4. To take measures to promote the establishment, acceptance and updating of European Union, national, regional and international regulations, standards and legislation regarding the use of non-military MAA systems. Regional can be at national and European Union level.
5. To promote the creation and updating of MAA systems related standards, certification and traffic management standards at national, regional and international level.
6. To promote the development and implementation of acceptable insurance standards in the field of MAA systems at national, regional and international levels.
7. To promote the development and introduction of commonly accepted classifications and terminology in the field of MAA systems at national, regional, European and international level.
8. To promote a level playing field relative to the deployment of MAA systems in the European Union.
9. To provide a means to build European and international consensus on topics of interest to the MAA systems community that are proposed by foundation participants.
10. To give the MAA systems community a voice at European and global level.
11. To provide a forum to identify and explore business opportunities and areas of interest at European and international level for the benefit of the MAA systems community.
12. To facilitate the coordination of national regulatory (implementation) efforts at European and global level, with the objective to promote operational harmonisation.
13. To initiate and coordinate national, European and international promotion efforts for MAA systems, including conferences, workshops, exhibitions and educational events, taking existing events into account as much as possible.
14. To incite & promote European & international cooperation.
15. To provide potential operators and users of data obtained by means of MAA systems a forum to present their design/technical and operational requirements to potential manufacturers.
16. To create a centralized MAA systems-related documents centre (regulatory & other reference documents).
17. To study and investigate possible solutions to any problem related to MAA systems, especially scientific, technical, operational, infrastructural, socio-economic, social, documentary, insurance and legal problems.

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APPLICATION SECTORS, DOMAINS, WORKING GROUPS & THEMES

Application Sectors

The association strives to be involved in the field of MAA systems (and the related technologies) for professional [commercial and non-commercial (including corporate)] and research purposes in the aviation, terrestrial, nautical, and space environments.

Domains of Importance

The domains of interest to the association in each of the four application sectors fall into the following categories:

1. Regulations and standards relevant to the professional (non-military) use of MAA systems [including, inter alia: police, customs, coast guard, firefighting, search & rescue, medical assistance, logistics, urban air mobility (UAM), Smart & Connected Cities];
2. Systems, products and services necessary to support the execution of safe operations with MAA systems;
3. All management and information services required to integrate MAA systems into the existing operational environment;
4. Support to European Union entities (European Commission, European Parliament, European Agencies, Joint Undertakings);
5. Creating and adapting existing infrastructure (including in the field of “Urban Air Mobility”) required to accommodate MAA systems.
6. Technical, Operational and Personnel Qualification Requirements.
7. Professional education/training & examination of operators of MAA systems with the aim of achieving a uniform set of training standards in Europe.
8. Create awareness among operators of MAA systems of the ecosystem in which they are located, on the applicable rules and terminology, existing best practices, and the relevant publications.
9. Simplifying access to the necessary regulatory documents and web sites where these documents can be found.
10. Create awareness of the societal and financial benefits of the use of MAA systems (including among the general public).
11. Research on the above themes to contribute to future developments & requirements (technical, regulatory, societal).

Working Groups

The association’s actions in the areas of interest in each application sector are carried out by working groups in, among others, the following categories:

1. Training & Qualification
2. Insurance & legal framing (including Data Protection & Privacy)
3. Operations
4. Regulations, Standards & Use
5. Support, Promotion & Awareness Creation
6. Technology
7. Security [including: C3, Cybersecurity/Resilience, & Counter-Unmanned Systems (in the aviation, terrestrial, nautical and space environments)]
8. Education

Themes

A. Aerial Operations Sector

In the field of MAA systems for the aviation sector, the following themes are considered important by the foundation:

Education, Training, Examination & Qualification

- Qualification of flight schools - Harmonization of the learning objectives, the measurement criteria and the examination process across Europe, with the aim of mutual recognition of pilot qualifications within Europe.
- Harmonization of terminology
- Stimulate the creation of operator training, qualification & related standards for the ‘‘specific’’ operational category (with the aim of achieving a pan-European recognition)
- Encourage the professional training of pilots in the ‘‘specific’’ operational category, as well as additional qualification, examination and related standards (with the aim of achieving pan-European recognition)
- Contribute to the harmonization of safety rules for test, demonstration & training sites in the European Union and, if desired, the creation of a European label for these sites.
- Development of the use of pilot training simulators & the related software
- Development of the possible use of virtual reality, extended reality, assisted reality, and mixed reality.

Operational Matters

- Advanced Air Mobility (AUM):
  - Transport – Automation of freight transport, including medical and emergency flights
  - Transport – Automation of the transport of persons
  - Urban Air Mobility (UAM)
  - Urban logistics
- Data protection and privacy
- The harmonization of the topics not covered by EU regulations (e.g. flight schools; pilot training & qualification & exams; test, demo & training sites)
- Flight operations (below & above 400 ft above ground level (AGL); in UAS Geographical Zones; over sparse and densely populated areas; in atypical airspace; over controlled territories (Controlled Ground Areas); over urban areas; in Controlled Traffic Regions (CTRs)
- UAS Geographical Zones (Geo-zones)
- U-space/unmanned traffic management (UTM)

Regulations, Standards & Usage

- Aviation Information Services
- Security Risk Analysis & Risk Mitigation Tools
- Play a cautionary role regarding the harmonization of national approaches to the implementation of the European Union Regulation.

  Note: Any legal or natural person covered by the European Union Regulation may bring to the attention of the European Aviation Safety Agency (EASA) any alleged differences in the application of the rules between Member States. Where such differences seriously impede the activities of those persons and/or organisations or otherwise create significant difficulties, EASA and the national competent authorities of the Member States concerned shall cooperate to address those differences and, if necessary, to eliminate them immediately. If those differences cannot be resolved, EASA will refer the matter to the European Commission.
- Predefined risk assessments (PDRA) for specific user groups of unmanned aircraft systems in the European Union.
- Standard scenarios for specific user groups of unmanned aircraft systems in the European Union.
- Notified Bodies.

Security

- Counter UAS Systems (in the aviation, terrestrial, nautical and space environments)
- Cybersecurity & cyber resilience (incl. safeguarding against fraudulent takeover of the command & control function by criminals and terrorists; the qualified takeover of the command & control function by authorities for security reasons; the protection of data collection, data storage, processing & transmission; protection against the use of unmanned aircraft systems as a hacking tool)

Support, Promotion & Awareness

Contribution to the general public's acceptance of MAA systems (including highlighting and promoting the societal benefits of unmanned systems).

Technical Matters

- Airports, heliports & vertiports and related infrastructure, standards & services
- Autonomy & Artificial Intelligence (AI)
- Geographical coverage and connectivity of mobile phone networks
- Frequency spectrum & communication (including connections via satellite)
- Detect & Avoid systems
- E-identification
- Solar cells, (hydrogen) fuel cells & energy storage
- Hybrid/electric drive
- Remote identification of the pilot
- Design of MAA systems with technical specifications corresponding to operator-defined requirements for specific operations (demand-centric development).

B. Terrestrial Operations Sector

The themes that are considered important by the association in the field of MAA systems in the terrestrial sector.

C. Nautical Operations Sector

The themes that are considered important by the association in the field of MAA systems in the sector of surface and sub-surface operations.

D. Space Operations Sector

The themes that are considered important by the association in the field of MAA systems in the space sector.

FACILITATING ACCESS TO INFORMATION

The association strives to facilitate access to information on its activities for the association members by:

1. Creating an online library making all relevant information easily accessible to all.
2. Monitoring the EU-funded research projects and maintaining a library of their results, or supply links to them.
3. Monitoring new EU-funded research projects and inform the association members of opportunities.
4. Monitoring research projects (not EU-funded) and inform the association members of opportunities.
5. Monitoring the web sites of relevant regulatory authorities and maintaining an online library of relevant documents.
6. Producing and posting newsletters & news flashes, and sending out automated notifications of new postings to the association members.

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COORDINATION

The association strives to coordinate its activities with, among others, the following organisations:

European Organisations

1. All relevant services of the European Commission
2. All relevant European Union Agencies and Joint Undertakings
3. European Commission's informal drone expert group
4. National accident investigation authorities & the European Network of Civil Aviation Safety Investigation Authorities (ENCASIA)
5. EUROCONTROL (Pan-European Civil-Military Organisation committed to supporting European aviation)
6. ECAC - European Civil Aviation Conference
7. NAARIC – National Aviation Authority Regulation Implementation (A group of national aviation authorities with the objective to coordinate the national implementations of EU regulation)
8. National Aviation Authorities (NAAs) of the Member States of the European Union
9. European Committee of the Regions (CoR)
10; The European Parliament

International Organisations

1. ICAO - International Civil Aviation Organization
2. IMO - International Maritime Organization
3. JARUS - Joint Authorities for Rulemaking on Unmanned Systems
4. OECD – Organization for Economic Cooperation and Development
5. United Nations (UN) Food & Agriculture Organization
6. United Nations (UN) Aviation
7. World Economic Forum

Interest Groups

1. Existing non-military organisations:
   - At European level (pan-European associations and federated technology clusters)
   - At national level (national associations, federations)
   - At international level
2. Military and dual-purpose organisations:
   - At European level
   - On national level
   - At International level

Standardization Organisations and Coordinating Groups

1. ESCG - European Standards Coordination Group (managed by EASA)
2. European standardization organisations (at European & national level)
3. Other standardisation organisations (at international level)

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DOCUMENTS, SERVICES & MUSEUM

Document Creation

The association aims to create, among others, the following documents:

1. Concept papers
2. Position papers
3. Recommendations
4. Reports
5. Reviews / Comments

Information Centre

With the objective of increasing awareness, simplifying and increasing access, especially for small & medium-sized companies and micro companies, the association aims to create an online repository of different types of documents in different languages (or to supply links to these documents), such as for example:

1. Regulatory Documents (European & Non-European)
2. Standard related documents
3. Results of study contracts funded by the European Union
4. Academic Documents
5. Research and Scientific Articles
6. Draft papers
7. Position documents
8. Recommendations

Services

The association also aims to provide the following services:

1. To create and maintain an online register of, among other things:
    - Unmanned aircraft system operators (commercial) in the ‘‘specific’’ & ‘‘certified’’ categories and that are registered with the relevant national aviation authority, or provide links to the relevant lists on the websites of the national aviation authorities.
    - Manufacturers / integrators (of systems, subsystems, software, critical components)
    - Service providers (including air navigation service providers (ANSPs), aeronautical information service providers, U-space service providers (USSP), urban air mobility service providers (UAM), common information service providers (CIS), communication service providers, conformity assessment bodies, flight schools, insurance, legal offices, Qualified Entities, Notified Bodies, or provide links to the appropriate lists on the relevant websites.
    - Technology clusters
    - Flight training schools
    - Test, demonstration and training locations
    - All European Union funded, as well as regionally and nationally funded, MAA systems research projects with links to their websites, and links to the relevant sections on the CORDIS website.
    - Research organisations with MAA-related activities.
    - Academic institutions with MAA-related curricula and/or research.

2. To create and conduct webinars
3. To create and conduct online courses
4. To organize and conduct surveys (including for European Commission and European Union agencies, and European Union funded consortia), as well as surveys outsourced to the foundation by third parties
5. Conducting studies (including studies commissioned by third parties)
6. Creating, administering and maintaining a website with links to all relevant organisations
7. To propose standards for harmonization of qualification / safety requirements for the following, with the aim of achieving pan-European acceptance and, if appropriate, granting approval labels:
   - Flight training schools
   - Remote Pilot Licenses
   - Test, demonstration and training locations

MAA Systems Museum

The association aims to initiate and coordinate the establishment of a European museum network for MAA systems (civil & military) with a central publicly accessible online knowledge centre where related documents and videos are available.

The association aims to promote the establishment of a museum for MAA systems in every country within the European Union. These national museums house their national military, civilian and nationally produced MAA systems. The national museums could be federated or otherwise interconnected. The national museums could enter their national documents and videos into the knowledge centre's central database, which is managed by an umbrella organisation.

Temporary exhibitions organised by a museum could be exchanged within the museum network.

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INFORMATION & SERVICE PROVISION

The association strives to make its documents and services available to, among others, the following organisations and interest groups:

1. Regulatory Authorities [at national & European (including NAARIC) & international (including ICAO and JARUS) level]
2. Standardization Organisations
3. European Commission (various directorate generals)
4. European Parliament
5. European Union Agencies and Joint Undertakings
6. Relevant international organisations
7. European & international interest groups
8. Regional Economic Development Organisations
9. Research organizations
10. Think Tanks and Market Research Organisations
11. The European and international drone community
12. The specialized and general press

CROSS-POLLINATION

The association strives to:

1. Foster understanding & relations between the various stakeholder groups in the ecosystem of each activity sector (aerial, terrestrial, nautical, and space).
2. In each activity sector, foster understanding & promote cooperation between:
   - Large corporate MAA System operators and:
     - SMEs + micro companies (and vice versa)
     - Research organisations (and vice versa)
   - Large producers of MAA Systems and:
     - SMEs + micro companies (and vice versa)
     - Research organisations (and vice versa)
3. In each activity sector, foster understanding & relations between the MAA System ecosystem and potential new entrants, potential end-customers and stakeholder groups, e.g.:
   - Regional authorities (départements, Länder, municipalities, provinces, regions)
   - Transport & logistic companies
   - Aerodrome, heliport & vertiport operators
4. Foster understanding & relations between the various participants in each activity sector.

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STRUCTURE & FUNCTIONS

Founding Supporters (FS)

FS are the national governmental institutions, European Union organisations and agencies, intergovernmental regional organisations, and international organisations, that have confirmed, without commitment to participate in it, that USE could contribute to the creation and growth of a safe, harmonized, sustainable and socially acceptable market for MAA systems in the aerial, terrestrial, nautical and space domains. They encourage the founding of USE.

Founding Team (FT)

The FT is a group consituted by representatives of organisations and persons in the aerial sector that have contributed to the constitution of USE.

Founding Committee (FC)

The FC consists of representatives of organisations in the Aerial Sector that have agreed to constitute USE and take on the AB, BoD, OC & GS positions on the Initial Management Team (IMT) for a period of one year, in order to register the association.

The positions of the FC members in IMT are automatically maintained in the Regular Management Team (RMT), unless indication to the contrary by the person concerned.

The FC will organize the first Assembly of Participants (AoP) within 12 months of the registration of USE. Additional members of the RMT will be elected at the first AoP.

Board of Directors (BoD)

The BoD manages the association in accordance with the directives of the Oversight Council (OC), taking into account the advice of the Advisory Board (AB), and in coordination with the General Secretary (GS).

The BoD:

- Represents the actively pursued activity sectors (air, terrestrial, nautical, space)
- Deals with political issues
- Defines Participant fees and establishes association's budget
- Is responsible for the approval of:
  - Technical Sub-Groups (TSG)
  - All deliverables
  - All documents to be presented at the Assembly of Participants
- Represents the association to the outside world.
- Proposes candidates for the OC and AB.

Candidates:	Association members
Appointed by:	Assembly of Participants (AoP) by means of an election
Amount of members:	Minimal 3 (from different EU member states)
Duration of mandate:	2 years (renewable)
Remuneration:	None

Oversight Council (OC)

The OC provides the BoD with advice in the fields of policy & management, and has an oversight function in these domains.

Candidates:	Selected by the BoD
Proposed by:	BoD
Confirmed by	AoP by absolute majority
Amount of members:	Minimal 3 & maximum 5
Duration of mandate:	2 years (renewable)
Remuneration:	None

Advisory Board (AB)

The AB supplies the BoD with non-binding expert advice concerning current and potential future activities.

Members are not association members.

Candidates:	Representatives of EC, EU agencies, national authorities, recognized impartial experts
Appointed by:	BoD
Amount of members:	Minimal 3 & maximum 5 for each participant sector
Duration of mandate:	2 years (renewable)
Remuneration:	None

General Secretary (GS)

The GS:

- Manages the Secretariat (SEC) and keeps the BoD appraised of the day-to-day activities (including the

financial situation).
- Coordinates with the Sector Committee & the BoD.
- Is responsible for the production & dissemination of all internal and external communications and for the organisation of the Assembly of Participants.
- May represent the association to the outside world.

Candidates:	Selected by the BoD
Appointed by:	BoD in coordination with the OC
Duration of mandate:	2 years (renewable)
Responsibility:	Management of the SEC.
Remunerated:	Yes (amount is decided by the BoD in coordination with the OC)

Secretariat (SEC)

In coordination with the GS, the SEC administrates the association (including cost & benefit register, and annual accounts), the web site, databases, blog, newsletter, collaborative online tools, social media, document library, and the preparation of all communications.

In accordance with the decisions of the BoD, relayed via the GS, the SEC processes participant applications and issues & sends out the relevant invoices.

In coordination with the GS, the SEC is responsible for the organisation of events.

Candidates:	Selected by the GS
Appointed by:	BoD in coordination with the GS.
Remunerated:	Yes (amount is decided by the GS in coordination with the BoD)

Sector Committee - Chairman & Vice-Chair(s)

The Sector Committee represents the positions of the Working Groups.

The Sector Committee coordinates closely with the GS.

Candidates:	Working Group Leaders
Elected by:	Working Group Leaders.
Quantity of members:	Minimal 3 - Maximum 8
Remuneration:	None

Working Group Leader & Rapporteur

They jointly manage a Working Group (WG), define the deliverables, and are responsible for the start-up and management of possible Technical Sub-Groups (TSGs), after approval from the BoD.

They are elected by the members of the relevant WG from among the participants in the WG.

Working Groups (WGs)

Membership is open to all association members.

WGs conduct the work to produce the deliverables described in the mandate that has been granted by the Sector Committee.

WGs meet on an ad-hoc basis.

All deliverables are submitted to the BoD for approval prior to publication.

Technical Sub-Groups (TSG)

Can be proposed by WG Leaders or Participants to deal with specific technical or operational matters.

TSGs meet on an ad-hoc basis.

They terminate when the defined deliverable has been supplied and approved by the BoD.

Deliverables

The deliverables fall into the following categories:
- Concept Papers
- Position Papers
- Recommendations
- Reports
- Reviews / Comments

Assembly of Participants (AoP)

Takes place at least once a year. In addition, an AoP can be called by the BoD, if considered necessary.

All Participants can attend.

The AoP elects the BoD.

Participants

See following pages.

Activity Sectors

The sectors concerning terrestrial, nautical, and spatial operations of MAA systems are organised along the same lines as the aerial sector.

UNITED SYSTEMS EUROPE

INITIAL MANAGEMENT TEAM - NOMINATED MEMBERS

Founding Committee (FC)	Advisory Board (AB)	Board of Directors (BoD)	Oversight Council (OC)	General Secretary (GS)	Secretariat (SEC)
Quantity Persons (Mini)	2 (*Aerial* ✪)	5 (*Aerial* ✪)	3 (*Aerial* ✪)	1 (*Aerial* ✪)	1
Quantity Persons (Max)	●	●	●	●	●
Mandate (duration)	1 year	1 year	1 year	1 year	1 year
Remuneration	●	●	●	■	■
Association member	●	■	■	♦	♦
Explanations ✪ = Activity Sector ■ = Yes ● = Not Applicable ♦ = Not Required					
The FC consists of representatives of organisations in the Aerial Sector that have agreed to constitute USE and take on the AB, BoD, OC & GS positions on the Ininital Management Team (IMT) for a period of one year, in order to register the foundation. The positions of the FC members in IMT are automatically maintained in the Regular Management Team (RMT), unless indication to the contrary by the person concerned. The FC will organize the first Assembly of Participants (AoP) within 12 months of the registration of USE. The RMT will be elected at the first AoP.					

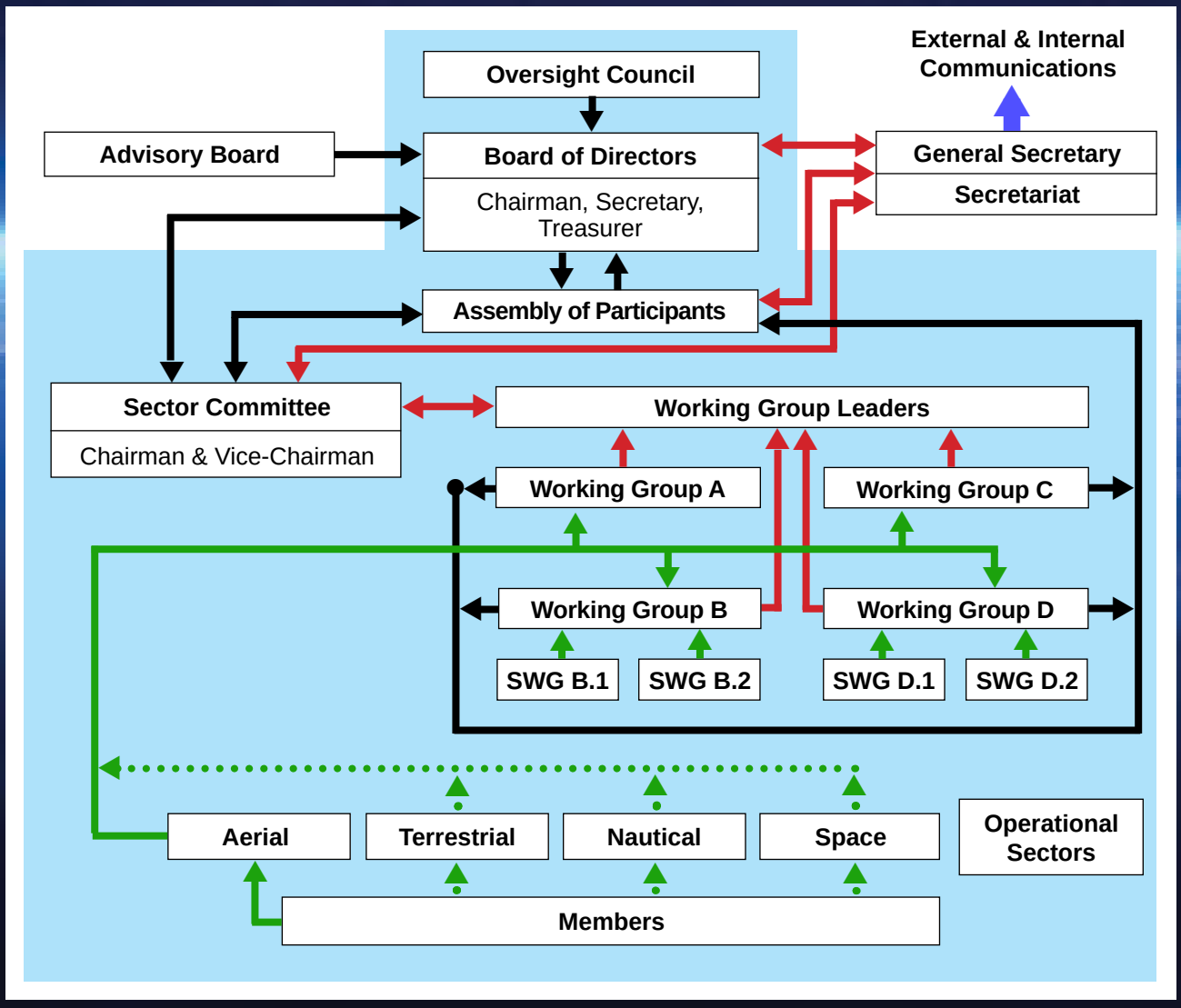
REGULAR MANAGEMENT TEAM - ELECTED MEMBERS

USE Management	Advisory Board (AB)	Board of Directors (BoD)	Oversight Council (OC)	General Secretary (GS)	Secretariat (SEC)
Quantity Persons (Mini)	3 (*for each* ✪)	3 (*for each* ✪)	3 (*for each* ✪)	1	1
Quantity Persons (Max)	5 (*for each* ✪)	●	5 (*for each* ✪)	♦	●
From different countries	■	■	■	♦	♦
Mandate (duration)	2 years	2 years	2 years	2 years	♦
Remuneration	●	●	●	■	■
Association member	●	■	■	♦	♦
Candidates must:					
- Be a EU resident	■	■	■	■	■
- Speak & write English +	■	■	■	■	■
1 additional language	■	■	■	■	■
- Master > 2 languages	♦	❖	❖	❖	❖
Explanations ✪ = Activity Sector ■ = Yes ● = Not Applicable ♦ = Not Required ❖ = Preferable					
Notes An organisation may not have a seat concurrently on the Board of Directors and the Oversight Council. USE recognizes 4 Activity Sectors: Aerial, Terrestrial, Nautical, Space					

Possible Participant Candidates	
Advisory Board *(on invitation of BoD)*	Regional Authorities *("Départements", "Länder", Municipalities, Provinces, Regions)*, Intergovernmental Regional Organisations *(BeNeLux)*, Governmental Entities (*Ministries, Agencies, state-owned organisations)*, European Commission, EU Agencies, International Organisations, Individual Independent Experts
Board of Directors & Oversight Council	Operators, Producers, Service Providers, Current & Future Customers, Technology Clusters, Industrial Clusters, National Interest Groups, European Interest Groups, International Interest Groups, Non-Governmental Organisations (NGOs), Universities, Research Organisations, Individual Independent Experts

UNITED SYSTEMS EUROPE

COMMUNICATION FLOW



Colour Code Explanation
Management Matters
Work Participation
Future Participation
Oversight / Organisation
Participants

Language
Unless otherwise imposed by the law, all communications will be in English.

UNITED SYSTEMS EUROPE

PARTICIPATION

6 Participant Categories

1. Industry Representatives:
   - Operators
   - Producers
   - Service providing companies & organisations
   - Current & future customers (of operators)
   - Technology & industrial clusters
   - National, European & international interest groups
2. Universities, research institutions & knowledge centres
3. Public entities responsible for economic and/or industrial development.
4. International organisations.
5. Consortia subsidized by the European Union.
6. Other Stakeholders.

1. INDUSTRIAL PARTIES:

Operators of MAA systems [commercial & non-commercial operations, including "corporate operations" of MAA systems (including for freight & passenger transport)] – Private and public.

"Corporate" operators can include companies managing e.a.:

- Airports
- Bridges
- Cable cars
- Canals
- Dams
- Dikes
- Electricity grids
- Agricultural terrain
- Forests
- Harbours
- Heliports
- Highways
- Landfills & garbage dumps
- Mining activities
- Offshore installations
- Pipeline networks
- Rail networks
- Rivers
- Tunnels
- Vertiports

Producers of:

- ***MAA systems*** in all classes & forms (for deployment in the aerial, terrestrial, nautical, and space environments, including the transport of cargo & persons).
- ***System elements*** (including: remote pilot stations, remote homing/docking/self-charging stations, (automatic) cargo loading and unloading systems, tethering systems, launch & recovery systems, and vertiports.
- ***Communication systems*** (including: Command, control & communication, telemetry systems, antennas, tracking systems & transponders.

- ***Sub-systems*** [including: imaging and non-imaging payloads, engines (including electric & hybrid), landing gears, autopilots, flight control systems, navigation systems, positioning systems, servos, Detect & Avoid systems, obstacle avoidance systems, E-identification systems, flight sensors, gyro-stabilized platforms, energy related products (including: solar cells, hydrogen cells, energy storage)].
- ***Software*** [including software related to ATM, UTM & U-space, and artificial intelligence (AI)].
- ***Critical components***.
- ***Training simulators & other training tools***.
- ***Counter unmanned systems*** *(air, terrestrial, nautical, space)*

Service providing companies and organisations [including air navigation service providers (ANSPs), aeronautical information service providers, U-space service providers (USSP), urban air mobility (UAM) service providers, providers of common information services (CIS), providers of communication services (including mobile telephone networks & satellite service providers), frequency specialists, “image & data processing companies, maintenance, repair & overhaul companies, data protection & privacy specialists, compliance agencies, flight schools, training centres, examination specialists, insurance companies/specialists, law firms/legal experts, qualified entities, notified bodies, test, demonstration and training sites, as well as providers of other services of interest to the unmanned systems community].

Current and future customers of commercial operators and/or data processing companies.

Technological and industrial clusters.

National, European & international interest groups:
- In the field of MAA systems (for deployment in the air, terrestrial, nautical, and space environment sectors).
- With activities of relevance to the sectors mentioned in the above point.

2. **UNIVERSITIES, RESEARCH INSTITUTIONS AND KNOWLEDGE CENTRES** (public & private).

3. **PUBLIC ENTITIES RESPONSIBLE FOR ECONOMIC AND/OR INDUSTRIAL DEVELOPMENT**.

4. **INTERNATIONAL ORGANISATIONS** [including EUROCONTROL, and recognized Non-Governmental Organisations (NGOs)].

5. **CONSORTIA SUBSIDIZED BY THE EUROPEAN UNION**.

6. **OTHER STAKEHOLDERS**.

UNITED SYSTEMS EUROPE

GEOGRAPHICAL COVERAGE

Participants can be **European** & **Non-European**

1. **Europe** is defined as follows:
   - **Member States of the European Union**:
     Belgium, Bulgaria, Cyprus, Denmark, Germany, Estonia, Finland, France, Greece, Hungary, Ireland, Italy, Croatia, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Austria, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Czech Republic, Sweden
   - **Outer Regions of Member States of the European Union**:
     France: French Guiana, Guadeloupe, Martinique; Mayotte; Reunion, Saint-Martin
     Portugal: Azores, Madeira
     Spain: Canary Islands
   - **Overseas Countries and territories of Member States of the European Union**:
     Denmark: Greenland
     France: French Polynesia, French Southern & Antarctic Lands, New Caledonia, St. Barthélemy, St. Pierre & Miquelon, Wallis & Futuna
     Netherlands: Aruba, Bonaire, Curaçao, Saba, Sint Eustatius, Sint Maarten
   - **European Microstates**:
     Andorra, Liechtenstein, Monaco, San Marino, Vatican City
   - **Countries & Territories Associated with European Union Grant Programmes**:
     Albania, Armenia, Bosnia and Herzegovina, Faroe Islands, Georgia, Iceland, Israel, Moldova, Montenegro, North Macedonia, Norway, Serbia, Tunisia, Turkey, Ukraine
     Canada (under evaluation by EU)
   - **Switzerland**
   - **United Kingdom**
2. **Non-European Participants** have their principal place of business and/or production in a countriy that does not fall under Europe (as defined above).

FINANCIAL MEANS

The assets of the association can consist of:

1. Annual membership fees, the amount of which is determined by the Board of Directors;
2. Income from association activities, such as the proceeds from projects, conferences and workshops, services rendered, publications, gifts, fees, and external funds;
3. Grants;
4. Donations;
5. Legacies and what is obtained by inheritance, as well as
6. Other benefits.

UNITED SYSTEMS EUROPE

ACTIVITY SECTORS & WORKING GROUPS

Participant Activity Sectors

Aerial	Terrestrial	Nautical	Space

Working Groups in Each Activity Sector

1 Training & Qualification
2 Insurance & Legal (including Data Protection & Privacy)
3 Operations
4 Regulations, Standards & Use
5 Support, Promotion & Awareness Creation
6 Technology
7 Security [including: C3, Cybersecurity/Resilience, & Counter-Unmanned Systems (air, terrestrial, nautical, space)]
8 Education

Note: Additional Working Groups (if required).

Working Groups & Technical Sub-Groups

The participants in a Working Group define the subjects of the desired Technical Sub-Groups.

The Working Group Leader and the Technical Sub-Group Leader jointly submit the proposal to constitute a Technical Sub-Group to the Sector Committee for approval.

The Sector Committee defines the mandate of the Working Groups and submits it to the Board of Directors for approval.

A participant can participate in a maximum of 3 Technical Sub-Groups at the same time.

Working Group & Technical Sub-Group Leaders

Each Working Group & Technical Sub-Group has a Leader.

The Working Group Leader is elected by the Working Group Participants.

The Working Group Leaders jointly form the Sector Committee.

The Technical Sub-Group Leader is elected by the Technical Sub-Group Participants.