Fostering innovation with European AeroSpace standards

March 2024
About us

ASD-STAN is an industrial non-profit association (AISBL) dedicated to establishing, developing, publishing, and maintaining standards on behalf of the European aerospace industry.

As an associated body to CEN (European Committee for Standardization) we stand as the primary source for European aerospace Norms (EN)

To enhance the competitiveness of European companies, we established an agreement with CEN to shorten the process of European standardization. ASD-STAN publishes projected-EN standards (ASD-STAN prEN) which are technically identical to the final European Norm (EN).

Our core values of openness, transparency, consensus, and balance drive the essence of our Working Groups. By convening experts from across Europe and the industry, we ensure the integrity of our standards. Original Equipment Manufacturers (OEMs) and Type Certificate (TC) holders lead our Working Groups, safeguarding the standards' safety and relevance.
ASD-STAN members

Our members include national industrial associations, national standardization bodies, major aerospace companies and public institutions:

- **GIFAS** – French Aeronautical and Space Industries Group
- **DIN** – German Institute for Standardization (NSB)
- **ADS** – UK Aerospace, Defence, Security & Space Industries association
- **TEDAE** – Spanish association of Defense, Aeronautics, Security and Space Technology Companies
- **AIAD** – Federation of Italian Companies for Aerospace, Defence and Security
- **SOFF** – Swedish Security and Defense Industry Association
- **ASD** - AeroSpace and Defence Industries Association of Europe
- **AIRBUS**
- **EASA** - European Aviation Safety Agency

More information about the involvement in the Aerospace Standardization and its benefits can be found on our web-page “Benefits of Standardisation” and on our corporate leaflet
Governance

Governing Bodies:

- **ASD-STAN General Assembly:**
  1. Represents the collective voice of members.
  2. Key platform for strategic decisions and policy formulation.

- **Board of Directors:**
  1. Steering body responsible for overseeing organizational governance.
  2. Guides and ensures alignment with the association's mission and goals.

- **Technical Authority:**
  1. Drives standardization activities and initiatives.
  2. Upholds the technical integrity and excellence of ASD-STAN's contributions.

- **Secretariat/Executive Team:**
  1. Main Secretariat located in Brussels.
  2. Responsible for day-to-day management, operational efficiency, and execution of strategic directives.
What we do

➤ Developing standards related to the design, production and maintenance of aircraft systems, equipment and standard parts

➤ Orchestrating Standardization Projects Across 8 Domains and 38 Working Groups

➤ Collaborating Closely with National Standardization Bodies (BNAE, DIN, BSI);

➤ Contributing to the promotion of European standards at international level

➤ Cooperating with EDA (EDSTAR - European System to reference standards for defence use) on the application of civil standards for military purposes
8 domains of activity

Domain Structure

- Domain D01 Program Management and System Engineering
- Domain D02 Electrical
- Domain D03 Mechanical
- Domain D04 Material (Metallic & Non-Metallic)
- Domain D05 Autonomous Flying
- Domain D06 Quality and Safety Management
- Domain D07 Digital Projects
- Domain D12 Cabin

Link to the table of the Technical organization with the WG allocation
## Description of ASD-STAN Domains

<table>
<thead>
<tr>
<th>Domain</th>
<th>Description</th>
</tr>
</thead>
</table>
| **Domain D01 "Program Management and System Engineering"**  
DTC: Gilles Beuzelin, Framatome  
Domain secretary: Marina Epis (BNAE) | The D01 Domain addresses the processes contributing to the delivery of a given system and its associated enabling systems required for production and logistical support to aerospace programmes. The objective of the D01 domain is to optimise the development of programme management and systems engineering best practices. |
| **Domain D02 "Electrical"**  
DTC: vacant  
Domain Secretary: Mohamed Bhaouih (BNAE, France) | The ASD-STAN Domain D02 "Electrical" covers the European standardization activities in the field of electrical parts, components and systems for aerospace applications. The Domain develops and maintains European Standards (ENs) for electrical cables, stripping tools, connectors, contacts, accessories and crimping tools, protection system (circuit breakers, etc.), optical components and much more for the aerospace industry. |
| **Domain D03 "Mechanical"**  
DTC: Dean Rogers, Airbus UK  
Domain Secretary: Dorothée Kretschmar (DIN, Germany) | The ASD-STAN Domain D03 "Mechanical" covers the European standardization activities in the field of parts and technical requirements for aerospace mechanical systems, (e.g. bearings, rods, bushes, vibration isolators), fasteners (e.g. bolts, nuts, screws, washers, high-locks, quick fasteners, rivets), and fluid systems (e.g. couplings & fittings, clamps, flexible hoses, tubes). |
| **Domain D04 Material**  
DTC: Robert Jarczyk, Airbus Germany  
Domain Secretary: Cristopher Wild (DIN, Germany) | ASD-STAN Domain D04 covers the European standardization activities in the field of materials for aerospace applications. Its work covers metallic materials (aluminium, steel, titanium, superalloys), non-metallic materials (elastomers, composites, sealants) as well as processes (surface treatments, welding and brazing, additive manufacturing). |
## Description of ASD-STAN Domains

<table>
<thead>
<tr>
<th>Domain D05 Autonomous Flying</th>
<th>The activity of the domain D05 is limited to D05/WG08 UAS. The UAS Working Group represents interests for the European standardization activities in the field of unmanned aircraft systems (UAS) including, but not limited to, classification, design, manufacture, operation (including maintenance) and safety management of UAS operations. Main standards: UAS product requirements, CE marking and operating rules for the Open and low risk Specific category (harmonized standards to support European legislation on drones).</th>
</tr>
</thead>
<tbody>
<tr>
<td>DTC: Fredrik Nordström, Airbus Germany</td>
<td>Domain Secretary: Josef Saurer (DIN, Germany)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Domain D06 &quot;Quality and Safety Management&quot;</th>
<th>The ASD-STAN D06 Domain “Quality and Safety Management” covers both aspects of Quality and Safety, the latter mainly meant as Certification. The D06 addresses the development and maintenance of all Quality and Safety related documents in the area of Organisation and product assurance. It defines their respective objectives, policies, requirements, and implementation standards to achieve the defined “Quality” and “Safety” objectives throughout the complete life cycle of the products.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DTC: Fabrizio Dido, Safran Landing Systems</td>
<td>Domain secretary: Marina Epis (BNAE, France)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Domain D07 Digital Projects</th>
<th>The Domain D07 “Digital Projects” represents interests for the European standardization activities in the field of Information and Data related technologies for aerospace applications. Examples are Archiving, Cybersecurity, Blockchain technologies or health monitoring. Main deliverables: LOTAR standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>DTC: Bernd Feldvoss, Airbus, Germany</td>
<td>Domain secretary: Marie-Noëlle Touzeau (BNAE, France)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Domain D12 Cabin</th>
<th>The Domain D12 covers standardization projects related to aircraft cabin systems. Active Working Groups are: D12/WG01 “Seats and Inflight Entertainment”; D12/WG02 “Ditching Equipment; D12/WG03 “Cabin monuments and supply systems”</th>
</tr>
</thead>
<tbody>
<tr>
<td>DTC: Ralf Schliwa, Germany</td>
<td>Domain secretary: Achim Schaubue (DIN, Germany)</td>
</tr>
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</table>
Our Main Projects/Standards:

**EN 4179 - Non-Destructive Testing Personnel Qualification:**
Ensures the qualification and approval of personnel in non-destructive testing.

**EN 9100 Series - Aerospace Quality Management:**
Derives from the International Aerospace Quality Group (IAQG).

**EN 4709 Series - UAS Product Requirements and Operating Rules:**
Addresses CE marking and operating rules for Open & Specific drone categories.

**EN 2282 & EN 2283 - Aircraft Electrical Supplies and Wiring Testing:**
- Defines characteristics of aircraft electrical supplies.
- Outlines testing procedures for aircraft wiring.

**EN 3155 Series - Electrical Contacts:**
Standards for electrical contacts in aerospace applications.

**EN 3773 & EN 3774 Series - Circuit Breakers:**
Sets standards for aerospace circuit breakers.

**EN 2591 Series - Elements of Electrical and Optical Connection:**
Test methods for aerospace electrical and optical connections.

**EN 6049 & EN 6059 Series - Electrical Cables Installation:**
Focuses on the protection sleeve in the design and installation of electrical cables.

**EN 3197 - Aircraft Electrical and Optical Interconnection Systems Design:**
Standards for design and installation of aircraft electrical and optical interconnection systems.

**EN 3745 Series - Aerospace Fibres and Cables, Optical:**
Specifies requirements for optical fibres and cables in aircraft use.

**DOA - Design Organization Approval Standards:**
Preparation for EASA recognition as AMC (Alternative Means of Compliance).

**LOTAR Series - Long Term Archiving and Retrieval of Digital Technical Product Data:**
Addresses archiving and retrieval of digital technical product data (9300 series).
Initiating a New Standard:

Anyone is welcome to propose a subject for standardization to ASD-STAN. Refer to our Standardization Process Manual for detailed instructions. The ASD-STAN Standardization Process is defined in detail in our

ASD-STAN publication process ensures compliance with the requirements for transparency established under the Regulation (EU) 1025/2012, the principles of the WTO Agreement on Technical Barriers to Trade ‘Code of Good Practice for the Preparation, Adoption, and Application of Standards’ and the relevant provisions of CEN-CENELEC Internal Regulations.

<table>
<thead>
<tr>
<th>Process Step</th>
<th>Stage Code</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Work Proposal (NWP) issue</td>
<td>00.00</td>
<td></td>
</tr>
<tr>
<td>NWP Assessment</td>
<td>00.20</td>
<td>Max 2 weeks</td>
</tr>
<tr>
<td>Vote on NWP</td>
<td>10.00</td>
<td>1 month</td>
</tr>
<tr>
<td>Review of target dates</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final Assessment, prEN number allocation Launch Project</td>
<td>20.00</td>
<td>Max 1 week</td>
</tr>
<tr>
<td>Establishing Committee Draft (CTD) by the Working Group</td>
<td>20.99</td>
<td>0 to 6 months</td>
</tr>
<tr>
<td>Check conformance to the CEN drafting rules</td>
<td></td>
<td>*Depending on the maturity of the NWP draft document. Extension needs approval of the TAC.</td>
</tr>
<tr>
<td>Editing Stage 1</td>
<td>21.90</td>
<td>1 to 2 months</td>
</tr>
<tr>
<td>Submission to CEN-CENELEC Management Center (CCMC) for CEN-CENELEC Enquiry</td>
<td></td>
<td>5 weeks</td>
</tr>
<tr>
<td>National Domain Ballot (NDB) / CEN-CENELEC Enquiry</td>
<td>30.00</td>
<td>3 months</td>
</tr>
<tr>
<td>NBD / CEN-CENELEC Enquiry Results</td>
<td>30.70</td>
<td></td>
</tr>
<tr>
<td>Disposition of comments Template and preparation of Consensus Draft (CD)</td>
<td>30.70</td>
<td>Max 2 months</td>
</tr>
<tr>
<td>Check conformance to the CEN drafting rules</td>
<td></td>
<td>*Depending on the maturity of the NWP draft document. Extension needs approval of the TAC.</td>
</tr>
<tr>
<td>Editing Stage 2</td>
<td>30.90</td>
<td>2 to 4 weeks</td>
</tr>
<tr>
<td>Final check and approval for publication</td>
<td>30.99</td>
<td>Max 2 weeks</td>
</tr>
<tr>
<td>ASD-STAN prEN Published</td>
<td>40.00</td>
<td>1 week</td>
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</table>

*Duration of the process is between minimum 8 and maximum 17 months.*
Deliverables

At ASD-STAN, we develop and publish two types of deliverables: ASD-STAN prEN and ASD-STAN TR.

**ASD-STAN projected European Norm (prEN) and European Standard (EN):**

ASD-STAN prEN is projected as the European Norm and is a precursor to the official CEN EN. Developed within a streamlined standardization process, all ASD-STAN prENs are subsequently transformed and published as EN standard without technical changes by CEN and its members. Our core values of openness, transparency, consensus, and balance are embedded in our Working Groups. Ensuring safety, experts from across Europe and the industry, including Original Equipment Manufacturers (OEMs) and Type Certificate (TC) holders, lead our Working Groups. For more information on the status of an ASD-STAN standard, visit our FAQ section.

**ASD-STAN Technical Report (TR):**

ASD-STAN TR is an informative document shedding light on the technical content of standardization work. It is published when:
- The subject is still under technical development, requiring wider exposure at its current status.
- Informative data of a different kind cannot be published as a European Standard (EN).

ASD-STAN TR does not undergo transformation into CEN TR and is part of the 5-year periodic review.
For further details on our process, visit the Standardisation Process page.
ASD-STAN prEN Process

Development & publication time is 8 to 17 months.
ASD-STAN Transforming Process

ASD-STAN prEN STANDARD > Transforming 1 > CCMC prep. > Formal vote > Transforming 2/3 > CCMC prep. > EN PUBLISHED

Disposition of comments

Development & publication time is at least 14 months.

No technical change is accepted during ASD-STAN prEN transformation into EN.
ASD-STAN Technical Report (TR) Process

Development & publication time is minimum 6 months.
The ratification of an EN entails several significant outcomes:

- **Publicly Accessible Standard:**
The resulting standard becomes publicly accessible, owned, maintained, and distributed by National Standardization Bodies (NSB). This ensures widespread availability and adherence to standardized practices.

- **Elimination of Competing National Standards:**
Within a six-month timeframe, competing National Standards are eliminated, contributing to the harmonization and streamlining of industry practices. This reduction in variability enhances consistency and efficiency across sectors.

- **Seamless Incorporation into European Legislation:**
The standardized EN may seamlessly integrate into European legislation, elevating its significance and applicability. This integration bolsters the regulatory framework and ensures alignment with overarching European legislative requirements.

- **Empowerment of ASD-CERT:**
The production of ENs empowers ASD-CERT to provide cost-effective industry qualification services. By adhering to standardized practices, industry players benefit from a streamlined and efficient qualification process facilitated by ASD-CERT.
Statistics of the ongoing standardization work

*Note: 2024 figures cover period of January-February
External Cooperation

Collaboration with European and International organizations and other SDOs:

- **CEN**: cooperation is dated back to 1986. ASD-STAN is an associated body of CEN and Technical Body for Aerospace.

- **ISO**: ASD-STAN established several liaisons within ISO and via the Vienna Agreement can upgrade its standards until ISO level-ISO EN..... Example of standards: EN 3748 became ISO 23748:2016; EN 3274 published as ISO 22436:2018

- **EDA**: Cooperation on the aerospace sector defence standards-more than 500 standards in the EDSTAR system are originating from ASD-STAN. ASD-STAN takes part is EDA Joint Maintenance Committee for Standardization.

- **ASD-CERT**: Qualification of aerospace parts according to the EN standards originating from ASD-STAN

- **EUROCAE**: MoU on the coordination work for the UAS standards; MoC on the development of the compatible standard on drone’s geo-awareness topic

- **SAE**: MoU for cooperation on the development of hydraulic systems standards; coordination work on HVDC topic

- **ASTM**: MoU on the development of the compatible standard on drone’s Direct Remote Identification

- **AIA**: development of common quality system standards (NAS410 and EN4179) for the certification and qualification of non-destructive test (NDT)
Cooperation with CEN & Work Programme

- In 1986 ASD-STAN recognized by CEN as an “Associated Body” and “Main Provider of European Aerospace Standards”
- Cooperation agreement to shorten the European standardization process
- ASD-STAN is the CEN Technical Body (TC) for “Aerospace”
- About 2605+ currently published European Standards originate from ASD-STAN (16% of the total CEN/CENELEC publications of ENs)
- Currently 272 ASD-STAN prENs are in progress towards becoming ENs.
- Yearly production (2018): ca. 107 ASD-STAN prENs and 125 ENs
  (2019): ca. 42 ASD-STAN prENs and 170 ENs
  (2020): ca. 43 ASD-STAN prENs and 43 ENs
  (2021): ca. 39 ASD-STAN prENs and 21 ENs
  (2022): ca. 39 ASD-STAN prENs and 72 ENs
  (2023): ca. 80 ASD-STAN prENs and 64 ENs

Work Programme 2024 and beyond
## Liaison Representation in ISO

<table>
<thead>
<tr>
<th>ISO/TC 20</th>
<th>Aircraft and space vehicles</th>
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<tr>
<td>ISO/TC 20/SC 1</td>
<td>Aerospace electrical requirements</td>
</tr>
<tr>
<td>ISO/TC 20/SC 4</td>
<td>Aerospace fastener systems</td>
</tr>
<tr>
<td>ISO/TC 20/SC 10</td>
<td>Aerospace fluid systems and components</td>
</tr>
<tr>
<td>ISO/TC 20/SC 14</td>
<td>Space systems and operations</td>
</tr>
<tr>
<td>ISO/TC 20/SC 16</td>
<td>Unmanned aircraft systems</td>
</tr>
<tr>
<td>ISO/TC 20/SC 17</td>
<td>Airport infrastructure</td>
</tr>
<tr>
<td>ISO/TC 20/SC 18</td>
<td>Materials</td>
</tr>
<tr>
<td>ISO/TC 79</td>
<td>Light metals and their alloys</td>
</tr>
<tr>
<td>ISO/TC 155</td>
<td>Nickel and nickel alloys</td>
</tr>
<tr>
<td>ISO/TC 184</td>
<td>Automation systems and integration</td>
</tr>
<tr>
<td>ISO/TC 184/SC 1</td>
<td>Physical device control</td>
</tr>
<tr>
<td>ISO/TC 184/SC 4</td>
<td>Industrial data</td>
</tr>
<tr>
<td>ISO/TC 184/SC 5</td>
<td>Interoperability, integration, and architectures for enterprise systems and automation applications</td>
</tr>
</tbody>
</table>

*Vienna Agreement between ISO and CEN allows common development of ISO EN publications by ASD-STAN involvement*
ASD-STAN and ASD-CERT Cooperation

ASD-STAN works in close cooperation with ASD-CERT to extend certification and qualification activities with re-integrating ASD-CERT auditors’ feedback into the revision of standards. To support the revisions needed ASD-CERT experts are directly participating in ASD-STAN working groups.

Since ASD-STAN prEN publication’s technical content is identical to the ones of the CEN EN publication, ASD-STAN prEN publications can be used for any training and qualification activity.
Our Vision

• Elevating Industry Impact: Streamlining the European Standard Publication Process for Swift Accessibility;

• Tailoring a Dynamic Work Programme to Align with the Demands of the European Aerospace Sector;

• Proactively Preventing Overlaps and Duplications with Other Standards Development Organizations (SDOs).
Thank you for your attention!