ASD-STAN

Standardization

Fostering innovation with European AeroSpace standards

April 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.

ASD-STAN Board & General Assembly

admin & strategic direction

reporting

Executive

Technical Authority

What we do
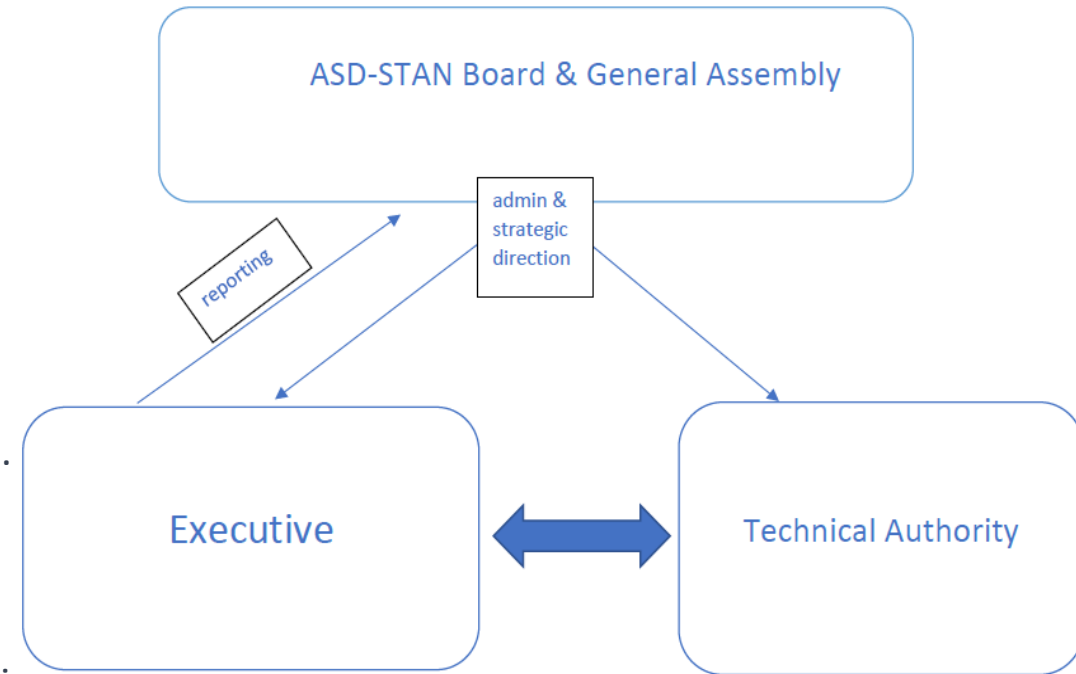
- Developing standards related to the design, production and maintenance of aircraft systems, equipment and standard parts

- 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

ASD-STAN
Standardization

Link to the table of the Technical organization with the WG allocation

Homepage / Domain Structure

Domain Structure

See Technical organization

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

Description of ASD-STAN Domains

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

Domain D05 Autonomous Flying DTC: Fredrik Nordström, Airbus Germany Domain Secretary: Josef Saurer (DIN, Germany)	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).
Domain D06 "Quality and Safety Management" DTC: Fabrizio Dido, Safran Landing Systems Domain secretary: Marina Epis (BNAE, France)	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.
Domain D07 Digital Projects DTC: Bernd Feldvoss, Airbus, Germany Domain secretary: Marie-Noëlle Touzeau (BNAE, France)	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
Domain D12 Cabin DTC: Ralf Schliwa, Germany Domain secretary: Achim Schaube (DIN, Germany)	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"

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).

ASD-STAN Standardization Process

Standards Development

Understanding Standards

What is a Standard?

A standard is a voluntary technical document designed to facilitate the interoperability of economic operators in a value chain. Developed through consensus and intended for general and recurrent use, it outlines requirements for activities, specific items, materials, components, systems, or services. This definition aligns with EN 45020:2006 Standardization and related activities. General vocabulary.

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

**Standardisation Process Manual (SPM)-Version 13 (19 February 2024)**

STANDARDIZATION PROCESS MANUAL

Standardization Process

Project stages and timeline for the standardization process

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

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

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.

Deliverables

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

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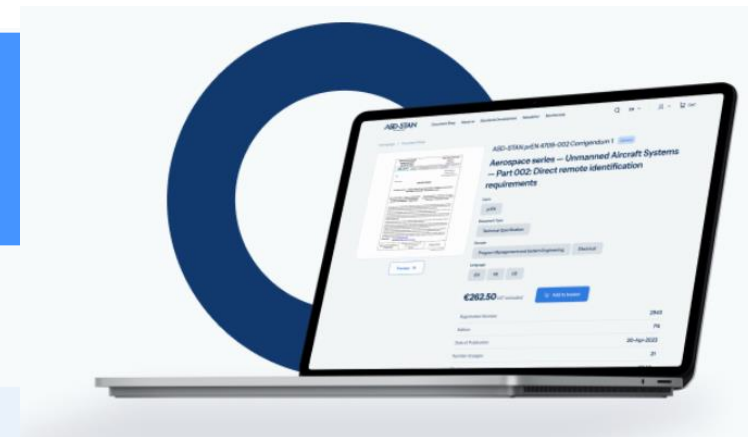
prEN **EN**

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.


TR

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.
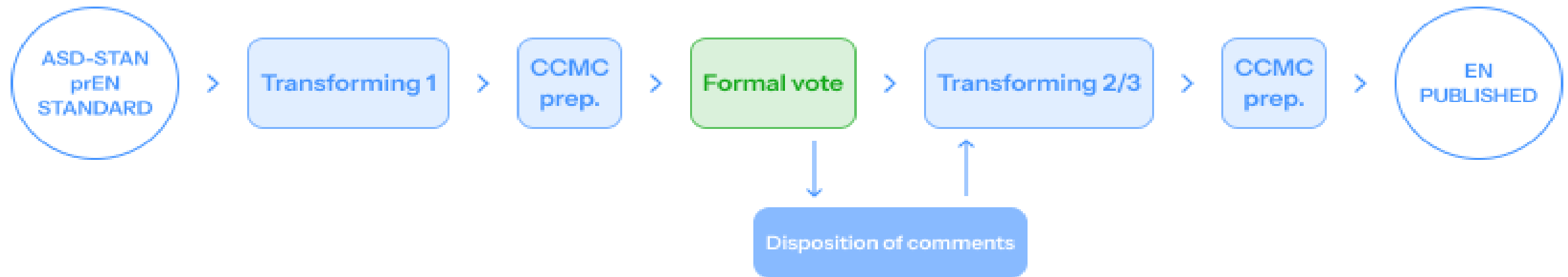For further details on our process, visit the Standardisation Process page.

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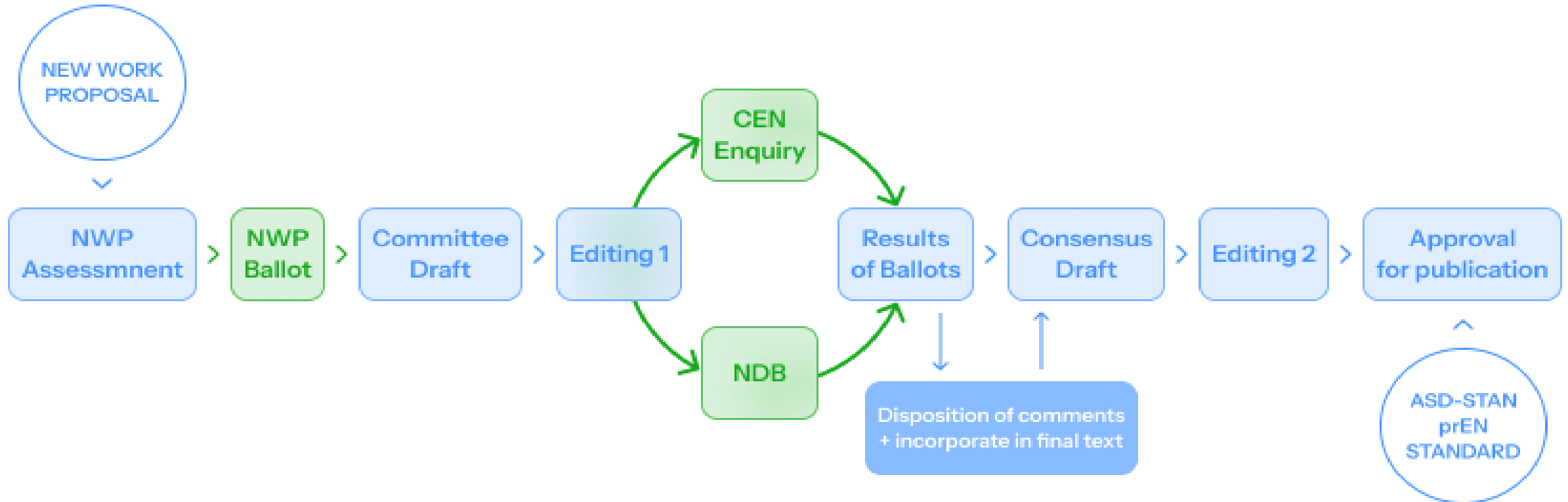
Development & publication time is 8 to 17 months.

ASD–STAN Transforming Process

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

Disposition of comments
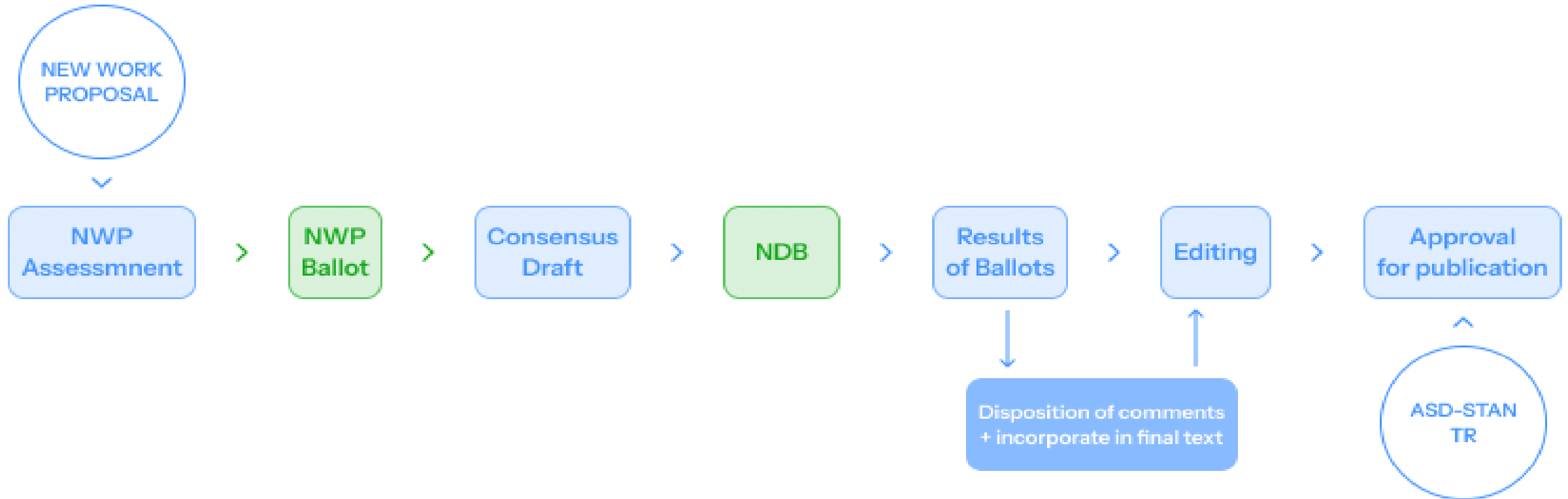
Development & publication time is at least 14 months.

No technical change is accepted during ASD–STAN prEN transformation into EN.

ASD-STAN Technical Report (TR) Process

NEW WORK PROPOSAL

NWP Assessmnent → NWP Ballot → Consensus Draft → NDB → Results of Ballots → Editing → Approval for publication

Disposition of comments + incorporate in final text

ASD-STAN TR

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.

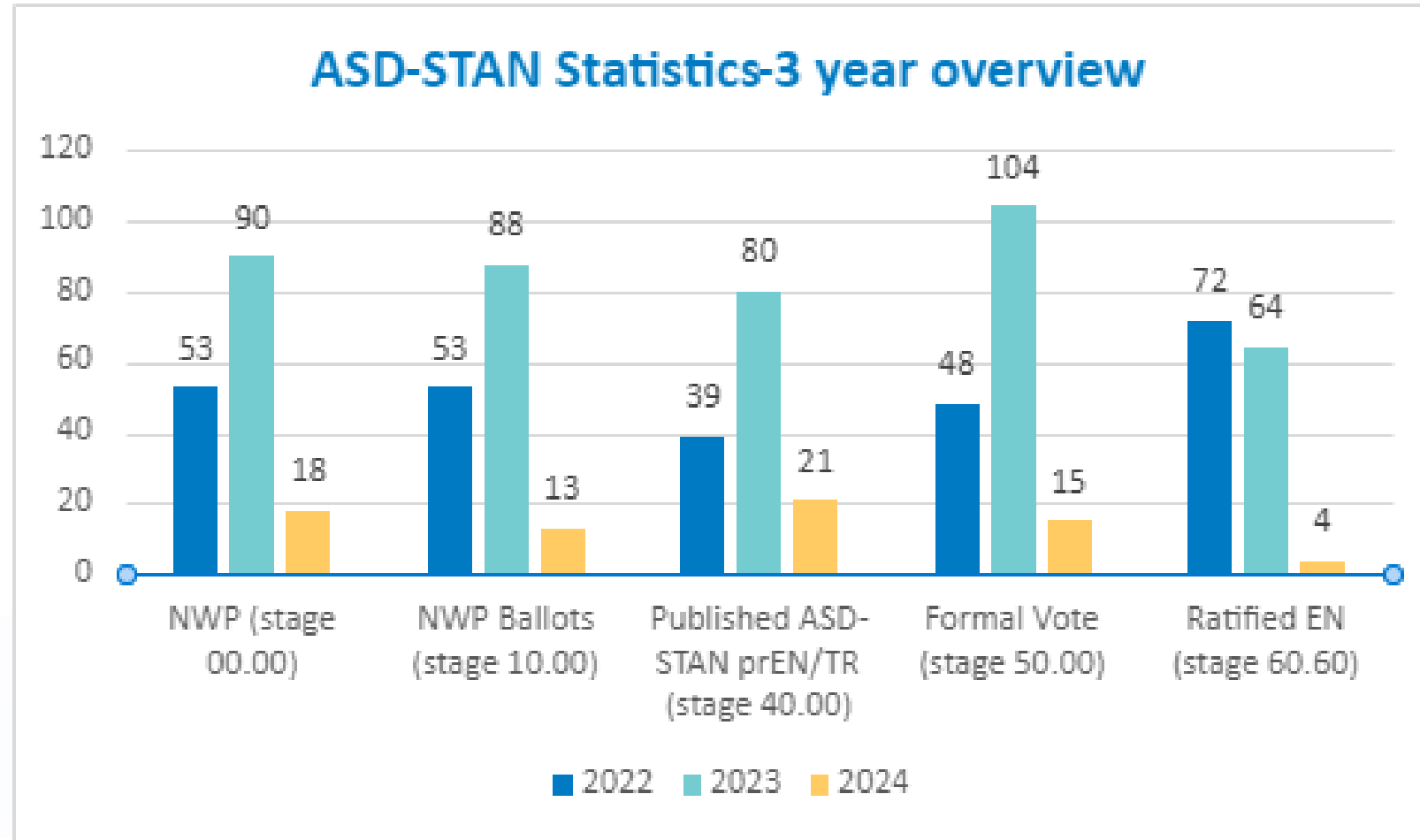- **Elimination of Competing National Standards:**

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

ASD-STAN Statistics-3 year overview

	NWP (stage 00.00)	NWP Ballots (stage 10.00)	Published ASD-STAN prEN/TR (stage 40.00)	Formal Vote (stage 50.00)	Ratified EN (stage 60.60)
2022	53	53	39	48	72
2023	90	88	80	104	64
2024	18	13	21	15	4

Note: 2024 figures cover period of January-March

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)
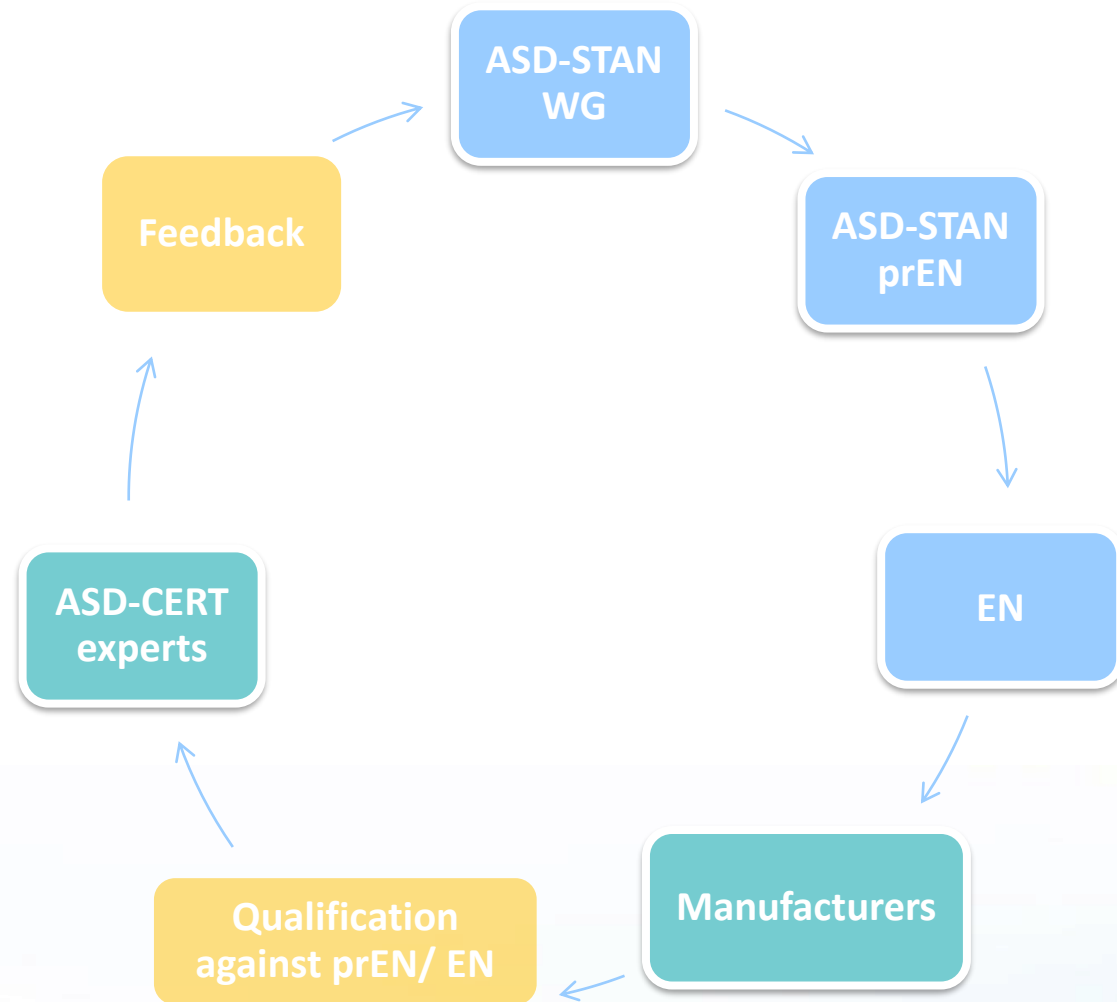
Cooperation with CEN & Work Programme

- **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 277 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

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

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

ASD-STAN and ASD-CERT Cooperation


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ASD-STAN WG → ASD-STAN prEN → EN → Manufacturers → Qualification against prEN/ EN → ASD-CERT experts → Feedback → ASD-STAN WG
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Qualification

Given that the technical content of ASD-STAN prEN publications mirrors that of the corresponding CEN EN publications, ASD-STAN prEN publications are suitable for all training and qualification activities.

ASD-STAN collaborates closely with ASD-CERT to enhance certification and qualification endeavors by incorporating feedback from ASD-CERT auditors into the standard revision process. ASD-CERT experts are actively involved in ASD-STAN working groups to provide the necessary support for required revisions.

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!