

Aerospace series - Programme management -  
Expression of need - Guidance on and format for (Need)  
Technical Specification

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN 9208:2021 sisaldab Euroopa standardi EN 9208:2021 ingliskeelset teksti.	This Estonian standard EVS-EN 9208:2021 consists of the English text of the European standard EN 9208:2021.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 13.10.2021.	Date of Availability of the European standard is 13.10.2021.
Standard on kättesaadav Eesti Standardimis- ja Akrediteerimiskeskusest.	The standard is available from the Estonian Centre for Standardisation and Accreditation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile [standardiosakond@evs.ee](mailto:standardiosakond@evs.ee).

ICS 49.020

**Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardimis- ja Akrediteerimiskeskusele**

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardimis- ja Akrediteerimiskeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autoriõiguse kaitse kohta, võtke palun ühendust Eesti Standardimis- ja Akrediteerimiskeskusega: Koduleht [www.evs.ee](http://www.evs.ee); telefon 605 5050; e-post [info@evs.ee](mailto:info@evs.ee)

**The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation and Accreditation**

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation and Accreditation.

If you have any questions about standards copyright protection, please contact the Estonian Centre for Standardisation and Accreditation: Homepage [www.evs.ee](http://www.evs.ee); phone +372 605 5050; e-mail [info@evs.ee](mailto:info@evs.ee)

English Version

**Aerospace series - Programme management - Expression  
of need - Guidance on and format for (Need) Technical  
Specification**

Série aérospatiale - Management de programme -  
Expression du besoin - Guide pour l'élaboration de la  
spécification technique de besoin

Luft- und Raumfahrt - Programm-Management -  
Bedarfsbekundung - Anleitung und Format für die  
(Bedarfs-)Technische Lieferbedingung

This European Standard was approved by CEN on 23 August 2021.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

# Contents

Page

European foreword.....	4
1 Scope.....	5
2 Normative references.....	5
3 Terms and definitions .....	5
4 List of acronyms.....	8
5 Objectives of the (Need) Technical Specification (N)TS.....	9
5.1 Purpose of the customer's expression of need.....	9
5.2 Role and contractual nature of the (N)TS.....	10
6 Principles for drawing up a (N)TS.....	10
6.1 General.....	10
6.2 Responsibility for drawing up the (N)TS.....	10
6.3 (N)TS elaboration process.....	11
6.3.1 Preparatory stage .....	11
6.3.2 Description of the process .....	11
6.3.3 Position in programme phasing and scheduling.....	12
6.3.4 Principles for requirement breakdown and allocation according to the product breakdown structure.....	13
6.4 Rules on the expression of requirements.....	14
6.4.1 Requirement quality criteria.....	14
6.4.2 Format of the requirements.....	14
6.4.3 Concepts of flexibility for requirements.....	15
7 Content of the (N)TS.....	16
7.1 General remarks.....	16
7.2 Product concept.....	16
7.3 Scope .....	16
7.4 Context of use .....	16
7.4.1 Expected missions.....	16
7.4.2 Operational context and operational environment .....	16
7.4.3 Life profile.....	16
7.4.4 Operational scenarios .....	16
7.5 Documents and terminology (as subclause of the (N)TS) .....	17
7.6 Technical requirements.....	17
7.6.1 Functional requirements.....	17
7.6.2 Lifetime requirements .....	18
7.6.3 RAMS requirements .....	18
7.6.4 Product protection requirements.....	20
7.6.5 Human factors requirements.....	21
7.6.6 Requirements relating to logistic support and in-service operations of the product .....	22
7.6.7 Requirements on resistance to the environmental conditions.....	23
7.6.8 External interfaces requirements.....	23
7.6.9 Design constraints and imposed solutions.....	24
7.7 Requirements for result assurance .....	25
7.7.1 General.....	25
7.7.2 Requirements relating to Definition Justification and Qualification pronouncement.....	25

7.7.3	Requirements relating to the conditions of acceptance of specimens of the product.....	25
8	Updating of a (N)TS.....	26
Annex A (informative)	Relations between FPS and (N)TS.....	27
Annex B (informative)	Mapping with CMMI-Acquisition and CMMI-Development models .....	28
Annex C (informative)	Overview of the NATO Architecture Framework (NAF) .....	29
Annex D (informative)	Architecture views for human factors.....	32
Annex E (informative)	Contents suggested for a (N)TS.....	33
Annex F (informative)	Standards or guides for safety studies.....	34
Annex G (informative)	Detailed requirements relating to logistic support and in-service operations of the product.....	35
G.1	User support.....	35
G.1.1	Requirements relating to user technical documentation (UTD).....	35
G.1.2	Requirements relating to user training and learning .....	35
G.1.3	Requirements relating to user support (Helpdesk Service).....	35
G.2	Customer support.....	35
G.2.1	Requirements relating to asset management on behalf of the customer .....	35
G.2.2	Requirements relating to technical support or service provision.....	36
G.3	Operational services.....	36
G.3.1	Requirements relating to product deployment.....	36
G.3.2	Requirements relating to product operation.....	36
G.3.3	Requirements relating to operation incident treatment.....	36
G.3.4	Requirements relating to availability and service continuity follow-up .....	36
G.4	Analysis of logistic support, logistics and maintenance in operational condition .....	36
G.4.1	Requirements relating to logistic support analysis.....	36
G.4.2	Requirements relating to logistics .....	37
G.4.2.1	Requirements relating to the product supply chain.....	37
G.4.2.2	Requirements relating to packaging, handling, storage and transport (EMST).....	37
G.4.2.3	Requirements relating to spare, consumable and ingredient management .....	37
G.4.2.4	Requirements relating to support means (test means and platform tooling, except training platform) .....	37
G.4.3	Requirements relating to maintenance in operational condition .....	38
G.4.3.1	Requirements on in-use product observability and data collection.....	38
G.4.3.2	Requirements relating to product maintenance (repair, spare, change, etc.).....	38
G.4.3.3	Requirements relating to obsolescence management.....	38
Annex H (informative)	Standards and guides related to integrated logistic support (ILS) requirements .....	39
Bibliography	.....	40

## European foreword

This document (EN 9208:2021) has been prepared by the Aerospace and Defence Industries Association of Europe - Standardization (ASD-STAN).

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by April 2022, and conflicting national standards shall be withdrawn at the latest by April 2022.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

# 1 Scope

This document belongs to the documents going along with the EN 9200 relating to Project Management Specification.

The aims of this document are as follows:

- to specify/remind the concept of (Need) Technical Specification (N)TS;
- to define the principles and conditions for drawing up, approving, using and updating a (N)TS;
- to propose a template of (N)TS.

The template identifies topics and types of related requirements to be covered in a (N)TS without being completely exhaustive or mandatory. It is analysed like a check-list and tailored according to the type of the product of interest, the context of the bodies involved and the contractual details.

The principle of drawing up a (N)TS applies to both tangible and intangible products (e.g. services).

The customer/supplier relationship addressed by these principles may also apply within a single organization. The concepts of customer and supplier are discussed in this document without distinction between internal or external relationship.

This document implements and adapts to the context the EN 16271 standard, in order to meet the specific needs of the aeronautical field and more generally the needs of other fields.

This document is more explicit about certain aspects of the ISO/IEC/IEEE 29148 document dedicated to requirements engineering, such as the responsibility for drawing up a (N)TS on a contractual basis and also the process of drawing it up within a programme (stages and milestones). It also supplements the technical specification framework proposed by ISO/IEC/IEEE 29148, in particular with requirements relating to safety of operation and result assurance.

The relationships existing between Functional Performance Specification (FPS) and (N)TS for expression of needs are given in Annex A.

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 9200, *Aerospace series - Programme management - Guidelines for project management specification*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 9200 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

### 3.1

#### **environmental agent**

one of the physical, chemical, biological, etc. phenomena that may have direct or indirect, immediate or delayed, effect on living beings, human activities and systems or their operation

[SOURCE: NF X 50-144-1]