



**MEMORANDUM OF UNDERSTANDING**

between

**THE EUROPEAN COMMITTEE FOR STANDARDIZATION**

**THE EUROPEAN COMMITTEE FOR ELECTROTECHNICAL STANDARDIZATION**

**AND**

**THE EUROPEAN COOPERATION FOR SPACE STANDARDIZATION**

**The European Committee for Standardization** (hereinafter referred to as CEN), international non-profit organization established under Belgian law, with seat located in 17 Avenue Marnix, B-1000 Brussels – Belgium,

**The European Committee for Electrotechnical Standardization** (hereinafter referred to as CENELEC), international non-profit organization established under Belgian law, with seat located in 17 Avenue Marnix, B-1000 Brussels – Belgium,

both represented by Ms. Elena Santiago Cid, Director General, duly entitled to sign

and

**The Members of the European Cooperation for Space Standardization** as listed in the Annex 1 to the present Memorandum of Understanding (hereinafter collectively referred to as ECSS), 2200 AG Noordwijk, The Netherlands,

represented by Mr. Antonio Fabrizi, ECSS Steering Board Chairman, duly entitled and empowered to sign by the Members of the European Cooperation for Space Standardization as listed in Annex 1,

hereinafter referred to individually as “the Party” or collectively as “the Parties”,

**conclude the following**

#### **MEMORANDUM OF UNDERSTANDING:**

##### **Article 1. Definitions and Abbreviations**

**Adopted Standard:** a standard adopted either by both ECSS and CEN-CENELEC as EN or only by ECSS as ECSS standard

**CEN-CENELEC:** CEN and/or CENELEC

**CEN-CLC/TC 5:** Technical Committee that covers all standardization activities in CEN and CENELEC related to space, including dual use aspects, systems of systems, as well as upstream and downstream applications

**Downstream Standards:** Standards relating to exchange, processing and utilization of space mission data in support of end user applications

**Draft Standard:** a draft text of a standard

**ECSS:** the European Cooperation for Space Standardisation and all of its members collectively

**EN:** European Standard

**Expert:** representative appointed by a Party to participate in the joint development procedure of a standard

**Leading Party:** entity carrying out and implementing the project of new standards development

**MoU:** The present Memorandum of Understanding

**Proposed Standard:** a comprehensive proposal of a new standard

**Upstream Standards:** standards relating to the design, development, testing, launching and operation of space and on-ground associated systems and products

The terms and abbreviations as defined above are to be used exclusively for the purposes of this MoU and activities carried out within its scope.

## **Article 2. Scope**

2.1 This MoU defines the terms, conditions and procedures of cooperation among the Parties in the development, publication and review of Upstream Standards in the following main aspects:

- project management requirements;
- product and quality assurance, safety and dependability requirements;
- requirements for space systems concerning their design, development, manufacturing, verification and testing, launching, operation and safe disposal at the end of their useful life;
- technical requirements for equipments, mechanisms, assemblies, sub-systems and for the application of materials, electrical, electronic or electromagnetic components and software in space missions;
- interface requirements between and among space and ground based systems and elements and for information and data exchange between entities involved in the design, development, launching, operations of space systems;
- communication interface requirements for exchange of data between elements of a space system, including users.

2.2 This MoU additionally defines the terms, conditions and procedures relating to the development, publication and review of Downstream Standards within the cooperation among the Parties.

2.3 This MoU contains the entire understanding of the Parties with respect to the scope thereof and with respect to the terms and conditions herein and supersedes all prior agreements or understandings.

2.4 The Parties shall always seek to achieve consensus on the way forward in order to ensure a consistent set of standards of CEN, CENELEC and ECSS.

2.5 The cooperation of the Parties may be carried out in the following forms:

- joint development of ENs following the procedure set out under Article 3 and;
- granting the ECSS Standards the status of EN by CEN-CENELEC following the procedure set out in Article 4.

## **Article 3. Joint development procedure of ENs**

### **3.1 UPSTREAM STANDARDS**

3.1.1 The development of a new Upstream Standard shall be led by ECSS. CEN-CENELEC shall indicate whether it is interested in developing the Proposed Standard jointly with ECSS, in which case ECSS shall involve CEN-CENELEC as indicated in the following steps:

3.1.1.1 The proposal by CEN, CENELEC or ECSS to develop a new Upstream Standard shall be announced to all Parties. The Parties shall decide whether or not to develop such standard under a joint development procedure.

3.1.1.2 If the Parties agree to initiate a joint development procedure of a new Standard, ECSS as the Leading Party will draw up a project schedule pursuant to its usual rules and procedures, to which all Parties shall adhere.

3.1.1.3 If stakeholders other than ECSS suggest the development of a new Upstream Standard to CEN-CENELEC and in case ECSS is not interested in taking the lead, CEN-CENELEC shall consult closely with ECSS to investigate the options on how to proceed. In case of persisting disagreement between the Parties, the matter shall be addressed to the Joint Steering Committee.

3.1.1.4 The Parties shall appoint a number of Experts they consider as appropriate to participate in the development of a new Standard and take decisions on the technical content of such Standard and related documents by consensus.

3.1.1.5 A Draft Standard shall be submitted by ECSS in parallel to ECSS and to CEN-CENELEC for review. All comments provided by the Parties shall be considered by ECSS in accordance with its internal rules following due consultations with the Experts appointed by the other Parties. The Parties shall strive for consensus on the Draft Standard before proposing it for adoption pursuant to Article 3.1.1.6 below.

3.1.1.6 The Proposed Standard shall be submitted in parallel to the relevant instances of ECSS and CEN-CENELEC for adoption.

3.1.1.7 The Adopted Standard will be published in accordance with Article 11.

## 3.2 DOWNSTREAM STANDARDS

3.2.1 Upon the initiative to elaborate on a new Downstream Standard, CEN-CENELEC shall become the Leading Party, unless otherwise agreed between the Parties.. In the case CEN-CENELEC becomes the Leading Party, the CEN-CENELEC processes will apply as adapted in 3.2.2 and 3.2.3 below.

3.2.2 CEN-CENELEC shall provide ECSS the opportunity to examine any Proposed Downstream Standard and shall ensure a close consultation with ECSS.

3.2.3 All relevant decisions shall be taken by CEN/CLC/TC 5.

3.2.4 In order to ensure close implication of ECSS, CEN-CENELEC shall offer the Chairmanship of CEN-CLC/TC 5 to ECSS.

## 3.3 TERMINATION OF THE JOINT DEVELOPMENT PROCEDURE

3.3.1 Each Party may terminate its participation in the joint development procedure at any time. The Party shall notify the other Parties of its decision and shall give its reasons. Such decision shall take effect one month after the date of receipt of such notification by the last of the other Parties and shall have the following effects:

3.3.1.1 Should CEN-CENELEC decide to terminate its participation in any joint development procedure, ECSS may continue the procedure and retains any and all copyrights to the Draft Standard and any related documents.

3.3.1.2 Should ECSS decide to terminate its participation in any joint development procedure, CEN-CENELEC and ECSS, in close cooperation, will decide on the way forward. If an agreement cannot be reached, the issue shall be addressed to the Joint Steering Committee.

3.3.1.3 Should the Parties agree that CEN-CENELEC continue the procedure, CEN-CENELEC retains any and all copyrights to the Draft Standard and any related documents.

### 3.4 ADOPTION AND PUBLICATION OF STANDARDS BY CEN-CENELEC AND ECSS

3.4.1 The Parties aim at a simultaneous adoption procedure of Proposed Standards. The following cases and consequences are anticipated:

3.4.1.1 Should both ECSS and CEN-CENELEC adopt the Proposed Standard, the Adopted Standard will be published by ECSS as ECSS Standard and by CEN-CENELEC as EN.

3.4.1.2 Should ECSS wish to adopt a Proposed Standard that CEN-CENELEC does not support, the Parties shall consult. If the matter cannot be resolved in a timely manner, ECSS may adopt the Proposed Standard and publish it as ECSS Standard only.

3.4.1.3 Should CEN-CENELEC wish to adopt a Proposed Standard that ECSS does not support, the Parties shall consult. If the matter cannot be resolved in a timely manner, CEN-CENELEC may in the case of a Downstream Standard, adopt the Proposed Standard and publish it as an EN only. In the case of an Upstream Standard, CEN-CENELEC ensures a close consultation with ECSS to investigate the options on how to proceed. In case of persisting disagreement, the matter shall be addressed to the Joint Steering Committee.

3.4.1.4 Should none of the Parties approve the Proposed Standard, the Parties shall consult and may decide to:

- a. revise the Proposed Standard and to submit it to a new adoption procedure;
- b. revise the Proposed Standard and submit it to a public review before admitting it to a new adoption;
- c. finalize it for publication as a different type of a document;
- d. suspend the work.

### 3.5 REVIEW

3.5.1 Standards developed in accordance with this MoU shall be subjected to a periodic review. In order to avoid possible discrepancies, the review shall be conducted by the Leading Party, responsible for the development of the Standard.

3.5.2 The review cycle shall be planned by the Leading Party at least every 5 years. However, the other Parties may initiate a review if and when they consider it necessary.

## **Article 4. Granting the ECSS standards the status of EN**

4.1 The ECSS Standards already in existence or under development at the time this MoU enters into force shall be submitted to the CEN-CENELEC Unique Acceptance Procedure, UAP, with a view of adopting them as ENs. Comments arising from this procedure shall be submitted to ECSS for further consideration.

4.2 Upon the initiative of CEN-CENELEC, the same adoption procedure may be applied to the ECSS Standards developed solely by ECSS after the entry into force of this MoU.

### **Article 5. *Information exchange and promotion of Standards at international level***

5.1 Regarding the Upstream Standards, the Parties shall provide each other with timely information on the status of their respective activities.

5.2 Regarding the Downstream Standards, each Party shall provide up-to-date information on its work programmes to the other Parties at least twice per year.

5.3 Based on CEN-CLC/TC 5 identification of specific standards, the Parties shall actively promote them at ISO or IEC level.

5.4 No standards shall be offered by CEN-CENELEC to ISO or IEC, unless identified by CEN/CLC/ TC 5 for this purpose.

5.5 Adoption of ISO or IEC as an EN standard shall be subject to agreement between the relevant Parties . In case an agreement cannot be reached, the issue will be addressed to the Joint Steering Committee.

### **Article 6. *Use of language and translations***

6.1 Standards adopted under this MoU shall be published by ECSS in English and by CEN-CENELEC in the official CEN-CENELEC languages English, French and German with English being the reference language. CEN-CENELEC shall provide the missing official language versions within two months. ECSS is not requested to endorse and maintain such translations.

6.2 When submitting Standards and other related documents to be adopted by CEN-CENELEC, ECSS shall provide the translation of their title in French and German.

6.3 ECSS acknowledges that the ENs shall be adopted as national Standards by all CEN and CENELEC Members in their countries and, for that purpose, the ENs developed under this MoU may be translated into the respective national language versions by the respective CEN-CENELEC Members. ECSS is not requested to endorse such translations.

6.4 In case of translation into other languages, and without prejudice to Article 11 and Article 12 of this MoU, the Parties shall encourage their respective national members to coordinate and agree on the copyright and distribution conditions in order to produce only one translated document applicable.

6.5 In case any difficulties of interpretation of translated an Adopted Standard arise, the English version shall serve as a reference.

### **Article 7. *Enquiry for joint developments***

ECSS acknowledges the fact that CEN-CENELEC members are obliged to conduct a public Enquiry stage to gather comments on draft ENs from all stakeholders. Furthermore, a comments resolution process

has to be conducted to agree on a national position. To fulfil those requirements, a Public Enquiry period of 5 months (including the two-month period of translation) is granted.

### **Article 8. *Formatting rules***

8.1 The ECSS Standards existing on the date of the entry into force of this MoU shall be accepted and taken over by CEN-CENELEC in the ECSS template format. Nonetheless CEN shall replace the cover page, add headers and edit the foreword of the resulting EN.

8.2 Future Upstream Standards shall be developed using the ECSS template while future Downstream Standards shall be developed using the CEN template. In the former case, CEN shall replace the cover page, add headers and edit the foreword of the resulting EN when the Standard is adopted.

8.3 ECSS will recognize and accept for review only those ENs which reflect the original text of the finalized Standard without any modification.

8.4 Within the foreword of any EN developed under this MoU a reference to the original ECSS Draft or Adopted Standard shall be included.

### **Article 9. *Normative reference***

When providing references for Standards developed under this MoU, ECSS shall consider use of available ECSS, CEN, CENELEC, ETSI, ISO or IEC documents in priority. Other publicly available documents may also be referred to.

### **Article 10. *Numbering of ENs derived from ECSS standards***

Standards developed under the present MoU shall be published by CEN or CENELEC under the EN 16500 series of references. CEN-CENELEC shall establish and maintain a cross-reference table between ECSS Standards and ENs.

### **Article 11. *Copyright and intellectual property rights***

11.1 The copyright to ENs, developed pursuant to this MoU, including any versions translated by CEN and CENELEC Members in any other language, and any other CEN-CENELEC publications shall remain the exclusive property of CEN and its Members and/or CENELEC and its Members as the case may be. This copyright shall allow CEN-CENELEC to publish and distribute the ENs as developed or reviewed in accordance with this MoU.

11.2 The copyright to the ECSS Standards developed pursuant to this MoU, including any version translated into any other language, remains the exclusive property of ECSS.

## **Article 12. *Distribution and exploitation rights***

12.1 ECSS acknowledges that ENs and any other CEN-CENELEC publications developed pursuant to this MoU shall be distributed by CEN-CENELEC and their members according to their established policies, rules and practices.

12.2 CEN and CENELEC acknowledge that ECSS Standards and other related documents developed pursuant to this MoU shall be made available and distributed by ECSS and its members according to their policies, rules and practices.

## **Article 13. *Funding***

13.1 Except for the case specified under 13.2 below, this cooperation is carried out without any exchange of funds. In particular, the Parties shall bear the costs of their respective activities as defined by this MoU, including travel and subsistence of their own personnel.

13.2 In the case ECSS joins the development of a Downstream Standard upon request by one of the other Parties, ECSS will benefit from the funding granted to CEN-CENELEC by third parties for that purpose, in accordance with the established CEN-CENELEC policy.

## **Article 14. *Liability – Warranties***

14.1 Neither ECSS nor CEN and CENELEC do provide any warranty whatsoever, whether expressed, implied, or statutory, including, but not limited to, any warranty of merchantability or fitness for a particular purpose or any warranty that the contents of the Draft Standard or Adopted Standard based on ECSS documents are error free.

14.2 In no respect shall ECSS incur any liability for any damages, including, but not limited to, direct, indirect, incidental, special, or consequential damages of any kind or any damages whatsoever including, without limitation, those resulting from loss of profit, loss of contracts, loss of goodwill, data, information, income, expected savings or business relationships, whether or not advised of the possibility of such damage arising out of, resulting from, or in any other way related to the use of any ECSS Standards, other related documents, website or information they may contain, whether or not based upon warranty, contract, tort, or otherwise; whether or not injury was sustained by persons or property or otherwise; and whether or not loss was sustained from, or arose out of, the results of, the item, or any service that may be provided by ECSS.

14.3 CEN and CENELEC defer any liability for any damages, including, but not limited to, direct, indirect, incidental, special, or consequential damages of any kind or any damages whatsoever including, without limitation, those resulting from loss of profit, loss of contracts, loss of goodwill, data, information, income, expected savings or business relationships, whether or not advised of the possibility of such damage arising out of, resulting from, or in any other way related to the use of any of its deliverables endorsing an ECSS specification.

## **Article 15. *Points of contact and coordination of the cooperation***

15.1 Contact persons for implementation of this MoU are:



- ECSS : The chairman of ECSS's Joint Technical Committee (JTC) formally nominated by ECSS;
- CEN-CENELEC: CEN-CENELEC Director of Standards

Any change of contact person shall be formally notified to the other Parties.

15.2 The contact persons shall organize at least once a year a meeting of all Parties in order to exchange information on respective activities and to review the state of implementation of the present MoU.

15.3 The Parties agree to establish a Joint Steering Committee to follow the implementation of this MoU, to address any persisting disagreement between the Parties and find suitable consensual solutions. The composition of the Joint Steering Committee shall include the ECSS Steering Board Chairman, the CEN Vice-President Technical, the CENELEC Vice-President Technical and the CEN-CENELEC/ TC 5 Chairman, who may together agree on inviting other suitable Experts.

#### **Article 16. *Settlement of dispute***

The Parties shall consult when events occur or matters arise that may occasion a question of interpretation or implementation of the terms of this MoU. Any dispute ensuing from the fact that such consultations were not conclusive may, at the request of either Party, be submitted to arbitration according to the Rules of Arbitration of the International Chamber of Commerce. The arbitral tribunal shall sit in Paris, France and the language of the arbitration shall be English.

#### **Article 17. *Entry into force, term and termination***

17.1 This MoU shall enter into force upon the last signature by the Parties.

17.2 This MoU may be amended at any time by written agreement among the Parties.

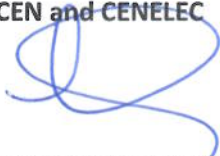
17.3 This MoU shall remain in force for a period of four years from the date of its entry into force. It shall be automatically extended for subsequent periods of four years.

17.4 Each Party may withdraw from this MoU at any time by providing a six-months-notice in writing. In such a case, the remaining Parties shall consult on the continuation of this MoU.

Signed in three original copies

Paris, 30 May 2013

For CEN and CENELEC



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**Elena Santiago Cid**  
**Director General**

Avenue Marnix 17  
1000 Brussels  
Belgium

For ECSS



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**Antonio Fabrizi**  
**ECSS Steering Board Chairman**

10 rue Mario Nikis  
75015 Paris  
France

Annex 1: List of Members of the European Cooperation for Space Standardization



Annex 1

**List of Members of the European Cooperation for Space Standardization**

Agenzia Spaziale Italiana (**ASI**) represented by Mr. **Benedetto PROCACCI**

Centre National d'Etudes Spatiales (**CNES**) represented by Ms **Isabelle RONGIER**

Deutsches Zentrum für Luft- und Raumfahrt (**DLR**) represented by Mr. **Gerd GRUPPE**

European Space Agency (**ESA**) represented by Mr. **Jean Jacques DORDAIN**

ASD- Eurospace represented by Mr. **Jean Jacques TORTORA**

Netherlands Space Office (**NSO**) represented by Mr. **Ger NIEUWPOORT**

Norwegian Space Centre (**NSC**) represented by Mr. **Bo ANDERSEN**

UK Space Agency (**UKSA**) represented by Mr. **David PARKER**