



ECSS organization and processes

ECSS Secretariat ESA-ESTEC Requirements & Standards Division Noordwijk, The Netherlands



Foreword

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Change log

ECSS-D-00A	First issue	
16 November 2010	Approved by ECSS Technical Authority at TA#30 (16 November 2010)	
ECSS-D-00B	Second issue	
	o 10 "System maintenance processes"	
	 11 "Control of ECSS representation in SDOs and other external bodies" including complete review and update of the ECSS processes including the flow diagrams. Introduction of "Fast Track" process 	





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1 Scope

This document defines the processes to be followed throughout the lifecycle of ECSS documents, including the activities to be performed by the various actors.

ECSS documents as here defined include ECSS Standards, Handbooks, Technical memoranda, ECSS adoption notices, ECSS Work Plan (WP) and documents from other SDOs of interest to ECSS for potential adoption.

This document is used by all those involved in the development and maintenance of ECSS documents to correctly and efficiently discharge their duties.



2 References

ECSS-P-00	ECSS – Standardization policy
ECSS-S-ST-00-01	ECSS System – Glossary of terms
ECSS-D-00-01	ECSS - Drafting rules and template for ECSS Standards
ECSS-D-00-02	ECSS - Drafting rules and template for ECSS Handbooks
ECSS-D-00-11	Criteria for acceptance for Public Review and Criteria
	for Handbook release for publication



3 Terms, definitions and abbreviated terms

3.1 Terms from other standards

- a. For the purpose of this document the terms defined in ECSS-S-ST-00-01 apply.
 - 1. standard
 - 2. handbook
 - 3. technical memorandum
- b. For the purpose of this document the terms defined in ECSS-P-00 in particular for the following terms apply:
 - 1. standards development organization (SDO)

3.2 Terms specific to this document

3.2.1 birds of a feather (BOF)

<CONTEXT: CCSDS> group that performs start-up studies and gestates technical proposals to the point where establishment of a Working Group may be decided

NOTE Adopted from CCSDS.

3.2.2 development activity

activity performed to develop a standardization document or a set of interrelated documents

3.2.3 document review record (DRR)

discrepancy formally declared during the review of an ECSS document

NOTE For documents other than ECSS, discrepancies are also recorded and usually referred to as review item discrepancy (RID)"

3.2.4 draft for approval (DFA)

draft document released by the WG convenor to the ES in preparation for TA document approval to publication process

NOTE The DFA is the DIR with the DRR dispositions implemented.



3.2.5 draft for review (DFR)

draft document released by the WG convenor to the ES for registration and review process

3.2.6 draft in approval (DIA)

draft document provided by the ES to the TA for approval for publication

NOTE The DIA is the DFA, after corrections by the ES for conformity to drafting rules.

3.2.7 draft in review (DIR)

draft document put in review by the ES

NOTE The DIR is normally the DFR, after corrections by the ES for conformity to drafting rules.

3.2.8 ECSS user

organization or person using ECSS published documents in pursuit of their business

3.2.9 Fast Track

variation of existing ECSS process which intends to shorten development activity taking into account already developed documents to save cost and schedule

- NOTE Fast Track has influence on the following processes:
 - WP establishment (6.2)
 - ECSS member document conversion to ECSS (6.3)
 - Drafting process (7.1)
 - Public Review (7.3)
 - TM processing (7.5)
 - Change Request (9.1)

3.2.10 ISO/TC20

ISO technical committee in charge of aerospace standardization

NOTE Within ISO/TC20, there are two subcommittees dedicated to Space standardization, SC13 "Space data and information transfer systems" (interfacing with CCSDS), and SC14 "Space systems and operations" (interfacing with ECSS).

3.2.11 mirror working group (MWG)

working group responsible for coordinating an ECSS position with respect to a document being developed by another SDO



3.2.12 new work item proposal (NWIP)

proposal for a new document including the necessary working group composition, associated resources and development schedule

NOTE NWIP content follows an agreed ECSS template, given in Annex C.

3.2.13 originator

proposer of an input to start a new activity for a new or updated document

3.2.14 parallel assessment

simultaneous document review of the technical content by the TAAR and of the compliance to the drafting rules by the ES

3.2.15 point of contact (PoC)

nominated interface with another standards development organization (SDO) to facilitate exchange of information and technical communication

NOTE ECSS PoCs are identified within the TA in accordance with their internal TA working arrangements (see clause 4.3.5).

3.2.16 public review (PR)

review of DIR ECSS standards and selected handbooks by the ECSS members

3.2.17 TA area responsible (TAAR)

TA Representative responsible for the coordination of a specific discipline

NOTE TAARs are identified within the TA in accordance with their internal TA working arrangements (see clause 4.3.5).

3.2.18 representative

individual nominated to represent and have voting rights in a governing body

3.2.19 WG convenor

WG member nominated by the TA to lead and coordinate the WG activities and to formally interface for WG aspects with the TA, the TAARs, the ES and the DiFPs

3.3 Abbreviated terms and symbols

For the purpose of this document, the abbreviated terms from ECSS-S-ST-00-01 and the following apply:

Abbreviation	Meaning
a.s.i.	as specified in
AH	adopted handbook
AI	action item
AS	adopted standard



Abbreviation	Meaning
BOF	<ccsds> birds of a feather</ccsds>
CCSDS	Consultative Committee for Space Data Systems
CEARM	consolidated EARM
CEN	European Committee for Standardization
CR	change request
DIA	draft in approval
DFA	draft for approval
DFR	draft for review
DiFP	discipline focal point
DIR	draft in review
DoFP	document focal point
DOORS	dynamic object oriented requirements system
DRD	document requirements definition
DRR	document review record
EARM	ECSS applicable requirements matrix
EAT	ECSS applicability table
ECSS	European Cooperation for Space Standardization
EN	European norm
ES	ECSS Executive Secretariat
ESCC	European Space Components Coordination
I/F	interface
ISO	International Organization for Standardization
ITT	invitation to tender
КО	kick off (meeting)
LL	lessons learned
MoM	minutes of meeting
MoU	memoranda of understanding
MWG	mirror working group
NoE	network of experts
NP	<iso> new project</iso>
NWI	<escc> new work item</escc>
NWIP	new work item proposal
PoC	point of contact
PR	public review
PSWG	<escc> Policy and Standards Working Group</escc>
RID	review item discrepancy
SB	(ECSS) Steering Board
SCSB	<escc> Space Components Steering Board</escc>



Abbreviation	Meaning	
SDO	standards development organization	
ST	Standard	
STWG	<eurospace> Standardisation Working Group</eurospace>	
ТА	(ECSS) Technical Authority	
TA Rep	Technical Authority representative	
TAAR	Technical Authority area responsible	
TM	technical memorandum	
TF	task force	
WG	working group	
WG conv	working group convenor	
WP	work plan	
w.r.t.	with respect to	



4 Organization, roles and responsibilities

4.1 Overview

The ECSS activities are organized through a number of bodies as defined through ECSS policy (ECSS-P-00), for which an organization chart is shown in Figure 4-1. Their main functions are as follows:

• Steering Board (SB)

The ECSS SB defines the ECSS objectives, policy and strategy, approves the WP, and reviews achievements. Its composition, roles and responsibilities are defined in clause 4.2.

• Technical Authority (TA)

The ECSS TA implements the objectives, policy and strategy defined by the SB and sets up, implements and monitors the WP. Its composition, roles and responsibilities are defined in clause 4.3.

• Executive Secretariat (ES)

The ECSS ES:

- supports the TA in setting up the WP, and in monitoring its implementation;
- provides administrative support to SB and TA;
- supports Working Groups (WG) and enforces drafting rules for writing ECSS documents;
- exercises the custodian and configuration control functions of the ECSS documentation;
- facilitates the promotion of ECSS and interface with other SDOs.

The ECSS ES composition, roles and responsibilities are defined in clause 4.4.

• TA Area Responsible (TAAR)

The ECSS TA Area Responsibles are TA members, assigned by the ECSS TA. Each one is responsible of the coordination of all activities related to a discipline of the ECSS document system. The tasks and responsibilities are defined in clause 4.5.

• Task Force (TF)

Convened as necessary by the TA, each ECSS TF is responsible for completing a task assigned by the TA or by the SB. Its composition, roles and responsibilities are defined in clause 4.6.



•

Working Group (WG)

Convened as necessary by the TA, each ECSS WG is in charge of producing/updating an ECSS document. Its composition, roles and responsibilities are defined in clauses 4.7

• Mirror Working Group (MWG)

Convened as necessary by the TA, ECSS MWG is in charge supporting ECSS representative in SDO projects/WG. Its composition, roles and responsibilities are defined in clauses 4.8.

• Network of experts (NoE)

The above bodies are supported under TA request from a technical point of view by experts organized as follows:

- Discipline Focal Points (DiFPs), to ensure consistency of documents within a discipline.
- Document Focal Points (DoFPs) who are experts on the subject of the document (assigned following publication of a document).
- ECSS PoC with an SDO who are facilitating technical communication between ECSS and other SDOs, e.g. CCSDS, CEN and ISO.

The composition, roles and responsibilities of the experts within the NoE are defined in clause 4.9.

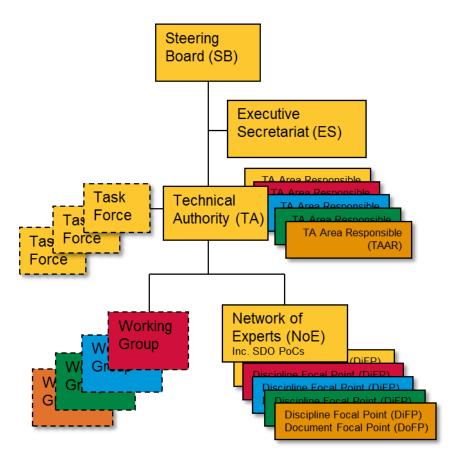


Figure 4-1: Organizational structure of the ECSS Bodies



4.2 ECSS Steering Board (SB)

4.2.1 Mission

The SB is mandated by the ECSS Full members , as defined in ECSS-P-00 clause 6.1.2 to define the objectives, policy and strategy for the ECSS system and for providing overall leadership of the ECSS bodies.

The SB decides whether ECSS is to cooperate with other SDOs, which type of cooperation, and endorses the cooperation agreement prepared by the TA.

4.2.2 Responsibilities and tasks

The SB is responsible for:

- a. establishing the ECSS mission and objectives;
- b. establishing the policy and strategy for developing, promoting and maintaining a set of documents in line with ECSS objectives and user feedback;
- c. establishing and maintaining a strategy in line with the ECSS mission statement and including near and long-term goals and priorities together with the means planned to achieve these with available resources;
- d. ensuring funding and making resources available through ECSS member organizations;
- e. appointing chairpersons for the SB and TA;
- f. resolving disputes raised during the definition, development and implementation of the standards, which could not be resolved by the TA or the ES;
- g. dealing with policy issues raised by participating organizations;
- h. proposing and approving the addition of new participating organizations;
- i. establishing the policy and strategy for interfacing with external SDOs and ratifying agreements;
- j. approving yearly resources and budgets associated with the WP;
- k. approving the WP, and reviewing achievements against the WP;
- 1. approving the ECSS organization, processes and procedures.



4.2.3 Composition

4.2.3.1 General

The Steering Board is composed of ECSS Full members, Associates and Observers, as stated in ECSS-P-00 clause 6.1 whose voting rights are as follows:

- Full members voting
- Associates non-voting
- Observers non-voting

Participation is as follows:

- a. A SB chairperson as a non-voting participant.
- b. SB voting-representatives made of one representative for each Full member except Eurospace which has four representatives.
- c. The TA chairperson as a non-voting participant.
- d. The ES as secretary to the SB and non-voting participants.
- e. The Chair of the EUROSPACE Standardization Working Group (STWG), or appointed deputy, as an advisor to the EUROSPACE SB members.
- f. One representative of each Associate and Observer, as non-voting participant.

Each ECSS Full member may invite one advisor (non-voting participants).

In addition, each SB Full member and the TA chairperson may invite non-voting experts on a temporary basis for a specific point of the meeting agenda.

Each ECSS Full member, if not available for a meeting, may nominate a substitute to discharge his/her roles and responsibilities.

The SB may invite other SDOs as non-voting participants.

4.2.3.2 Chairperson

Candidates for the chairperson are proposed by and from the ECSS Full members. The chairperson is elected by the SB representatives for a three-year period and there is no restriction on the re–election of a current or previous chairperson.

The SB chairperson is responsible for the management of all activities of the SB. The SB chairperson:

- a. acts in a purely neutral and impartial capacity, divesting her/himself of a national or organizational point of view;
- b. does not serve concurrently as both a representative of an ECSS Full member and SB chairperson;
- c. conducts SB meetings with a view to reaching agreement;
- d. ensures at meetings that all points of view expressed are adequately summed up so that they are understood by all present;
- e. ensures that all SB outcomes, decisions and actions are clearly formulated and minuted;



- f. ensures that all relevant policies, rules, procedures and decisions are respected;
- g. represents the SB in external organizations (including SDOs).

In case of unforeseen unavailability of the SB chairperson, the SB nominates a substitute SB chairperson for the session.

4.2.4 Decision process

The general principles for SB decision making are laid down in ECSS-P-00 clause 6.3.

In the case of a Full member not being represented at a SB meeting, a representative may be nominated in writing to the SB chairperson prior to the meeting to cast votes on his/her behalf. At the beginning of each SB meeting, the SB chairperson establishes if there are more than half of the available votes represented at the meeting. If not, the quorum is not achieved and the meeting can continue, but without any decision making authority.

4.3 ECSS Technical Authority (TA)

4.3.1 Mission

The activity of the TA is guided and monitored by the SB.

The TA is the technical approval authority for the initiation and release of new ECSS documents, and for all changes to existing ECSS documents.

It sets up and implements the WP with the support of the ES. Furthermore prior to implementation, TA proposes the WP to SB for endorsement.

The TA recommends the SB on cooperation with another SDO and implements SB decisions on this cooperation.

4.3.2 Responsibilities and tasks

The TA is responsible for:

- a. providing reports to SB with the contribution of ES;
- b. approving requested New Work Item Proposals (NWIP), assigning priority for changes to existing documents or creation of new documents in accordance with the set of criteria defined by the SB and for updating the WP accordingly;
- c. setting up and implementing the WP with the support of the ES and proposing the WP to the SB for approval;
- d. implementing the activities according to the endorsed WP;
- e. deciding on going for a "Fast Track" process on CR implementation or not
- f. setting up each WG and nominating the WG convenor and members;



- g. maintaining the list of experts to be called or needed in WGs depending on the activity to be performed and monitoring their activities within the WG;
- h. authorizing start of the Public Review for ECSS documents when necessary;
- i. approving the disposition of the Public Review comments and the ECSS document accordingly updated;
- j. supporting the ES for ensuring quality and coherence of each ECSS document content within and amongst the different branches and their conformance with the ECSS documents drafting rules;
- k. authorizing ECSS documents publication;
- 1. endorsing documents produced by other SDOs to be adopted by the ECSS system;
- m. establishing procedures to run the ECSS system;
- n. following interest expressed by any ECSS member organization or by any other organization (including SDOs) for a co-operative agreement:
 - 1. assessing the impact of formal cooperation, and submitting recommendations to the SB, including the proposed methodology and process for implementation, if considered appropriate;
 - 2. if endorsed by the SB, setting up a cooperation agreement and liaison with the other parties as necessary.

4.3.3 Composition

4.3.3.1 General

The TA is composed of ECSS Full members, Associates and Observers, as stated in ECSS-P-00 clause 6.1, whose voting rights are as follows:

- ECSS Full members voting
- ECSS Associates non-voting
- ECSS Observers non-voting

Participation is as follows:

- a. A TA chairperson as a non-voting participant;
- b. TA voting-representatives made of one representative for each ECSS Full member organization except Eurospace which has four representatives.
- a. The ES as secretary to the TA and non-voting participants.
- c. One representative of each Associate and Observer, as non-voting participants.

Each TA Full member may invite one advisor (non-voting participants).

In addition, each TA Full member may invite non-voting experts for a specific point of the meeting agenda.

In view of the operational role of the TA, participants are expected to devote a significant proportion of their working time.



4.3.3.2 Chairperson

The chairperson, proposed by one of the Full members, is appointed by the SB. The chairperson is appointed for a three-year period and there is no restriction on the re–election of a current or previous chairperson.

The TA chairperson is responsible for the management of all activities of the TA and:

- a. acts in a purely neutral and impartial capacity, divesting her/himself of a national or organizational point of view;
- b. has no voting rights in the TA;
- c. conducts TA meetings with a view to reaching agreement;
- d. ensures at meetings that all points of view expressed are adequately summed up so that they are understood by all present and that TA conclusions/decisions are reached;
- e. ensures that all TA decisions and actions are clearly formulated and minuted;
- f. ensures that all relevant policies, rules, procedures and decisions are respected;
- g. coordinates the representation of ECSS into external organizations (including SDOs), and interfaces with them in the framework of TA activities;
- h. appoints a deputy from among the TA Full members representatives to act on his/her behalf (the deputy acting without losing his/her voting rights) when judged adequate or when he/she is unable to discharge his/her TA duties.

4.3.4 Decision process

The general principles for TA decision making are laid down in ECSS-P-00 clause 6.3.

The minimum quorum to perform a vote is as follows:

- In absence of consensus, a decision in a TA meeting is made by a vote of full members, with simple majority subject that a quorum of 50 % of the voting rights is reached.
- For an electronic vote, the ES requests the vote of all voting members. In this case, the majority specified above is calculated assuming full quorum of the voting members. If once the voting period is over, the number of votes is not enough to make a decision (i.e. less than 50 % of the voting rights expressed), the voting period is enlarged by no more than the normal voting period. In this last case the ES informs the voting members and requests again the missing votes. If at the end of this second voting period the number of votes is still not enough to reach a decision, the votes not cast are counted as abstentions.

In the case where a member is unable to attend a meeting, he/she nominates a substitute by writing to the TA chairperson and ES prior to the meeting and



states whether the substitute is authorised to cast votes on his/her behalf or formally communicates in advance his/her vote electronically.

Any negative vote should be supported by a rationale.

4.3.5 TA internal organization

The TA is responsible for establishing the necessary working arrangements for optimum use of ECSS resources.

In order to meet the objective of optimum use of these resources, the TA sets up the following internal support functions:

• TAARs:

Representatives supporting TA ECSS Full members on issues related to the ECSS disciplines.

• ECSS PoC with an SDO:

In order to coordinate with other SDOs, the TA chairperson is the PoC and can delegate among the TA Representatives, the ES, or an individual from the Network of Experts.

4.4 ECSS Executive Secretariat (ES)

4.4.1 Mission

The mission of the ES is composed of four items:

- a. Programme function in support to TA to:
 - 1. build the WP to be endorsed by the SB (e.g. programmatic, resources);
 - monitor and support the implementation of the WP, including finalization and notification of the publication of ECSS documents/events;
 - 3. ensure implementation and perform monitoring of the ECSS processes (including those to gather feedback from users and LL).
- b. Custodian and configuration control of ECSS documentation;
- c. Ensures the promotion of ECSS and exchanges with other SDOs;
- d. Provides administrative support to SB and TA.

4.4.2 Responsibilities and tasks

The ES is responsible for:

- a. supporting the TA in setting up the WP, with identification of needed resources;
- b. regularly updating, on the basis of the inputs received from TA and WGs, the status report on the WP;
- c. collecting user feedback and LL;



- d. providing regular status reports in support to the TA and SB meetings;
- e. in line with TA and SB instructions, preparing and implementing the activities concerning ECSS promotion, and, providing support to the PoC in their interface with other SDOs;
- f. providing support to the TA to organize its activities;
- g. establishing and maintaining configuration control of the ECSS documents and their records;
- h. managing the flow of information amongst the ECSS bodies;
- i. supporting WGs in drafting documents in accordance with ECSS rules/procedures;
- j. publishing, storing and distributing ECSS published documents;
- k. supporting the preparation and running of the meetings of the TA and the SB;
- 1. establishing and maintaining the list of ECSS members and bodies, with members data, contact details and roles;
- m. maintaining procedures to run the operations of the ECSS system in support of the TA and the SB;
- n. maintaining the lists of ECSS members of WGs, of NoE and of other ECSS bodies;
- o. maintaining the ECSS website and associated tools;
- p. supporting CEN/TC5 secretary for managing the transfer and joint development of ECSS in EN standards;
- q. publishing a list of SDO documents of "ECSS interest";
- r. publishing a list of ECSS/SDOs PoCs.
- s. Organizing training to promote ECSS standards.

4.4.3 Composition

The ECSS ES is provided by ESA.

NOTE This was agreed by ECSS in the ECSS TOR Issue 1 (25 March 1993), and committed by ESA in the ESA Council "Resolution on the European Cooperation for Space standardisation (ECSS)" [ESA/C/CXIII/Res.1 (adopted 23 June 1994)].



4.5 TA Area Responsible (TAAR)

4.5.1 Mission

For each ECSS discipline, two TA Representatives, nominated by the TA, are in charge to support the TA when making decisions on issues related to that discipline. These individuals are referred to as the TAAR for that specific discipline.

Among these two TAARs, one of them is appointed to take a leading role in this discipline, and the other one to support, on request, the leading TAAR, in performing these tasks.

4.5.1.1 Appointment and reporting line

The TA appoints the TAARs for each discipline. A TAAR is a TA participant either from a Full member or an Associate.

The TAAR has a technical supporting function only and as such does not report to the TA, however fulfils the functions detailed below as part of the nominal document development, review and publication process.

The assignment of TAARs is reported on the ECSS website.

4.5.2 Responsibilities and tasks

In executing the function of the TAAR, the assigned responsible:

- a. works with the DiFP in support of the TA regarding the document development, review and publication process;
- b. works with the DoFP in support of the TA regarding the document maintenance process (e.g. raise CR's to relevant ECSS documentation, where needed);
- c. develops or provides endorsement of NWIPs (checking for completeness and justification, including proposed WG composition, associated resources and development schedule);
- d. provides inputs for the new WP on proposed document updates and document development status;
- e. supports WGs, MWGs and ECSS PoCs in SDOs in their document development function by resolving (technical) disagreements and drafting issues (drafting rules issues are resolved in conjunction with ES);
 - NOTE TAAR can only propose solutions to be evaluated by the WG. If consensus regarding a technical solution is not reached within the WG, then this topic is presented to the TA for decision.
- f. performs the parallel assessment to ensure that the draft standards meet the predetermined criteria allowing the release of the DFR to proceed to PR (i.e. the transition between a DFR and DIR);



- g. assures that the DIR is in line with agreed resolutions of any technical issues identified during the production or parallel assessment of the DFR;
- h. supports the WG in the disposition of DRRs and update of the DIR (i.e. the transition between the DIR and the DFA);
- i. assesses draft TMs and provide the TA with a recommendation on the preferred way to proceed. For the case where the document is agreed to be further developed as a standard, the TAAR raises a NWIP for TA consideration;
- j. provides the TA with recommendations for proposal for ECSS adoption of SDO standards through the review of documents from other SDOs, with the adoption proposal and with referring to the list of SDO documents of ECSS interest. Where adoption approval is provided, raises adoption notices (as adopted standard or adopted handbook) and where necessary raises CR's to relevant ECSS documentation;
- k. provides advice to the TA on the disposition of CR's.

4.6 Task Force (TF)

4.6.1 Mission

The mission of a TF is to carry out the SB and the TA assigned tasks, as defined in the corresponding Terms of Reference (ToR). The results and recommendations at the end of the TF mandate, when reporting to the TA must have a level of clarity and of content sufficient to initiate the recommended activity. The recommended activity is to be detailed and includes resource estimate and associated planning (i.e. an activity roadmap).

Examples of TF assignments are:

- to identify the need for the development (or not) of ECSS documents,
- to participate in various transverse improvement activities within ECSS such as ECSS discipline development, ECSS maintenance, implementation of new methods and tools.

4.6.2 Appointment and reporting line

The TF convenor is appointed by the SB or by the TA, being either from an ECSS Full member or an Associate.

A TF is established on a case by case basis, reports to and is overseen by the TA. The TF convenor has the responsibility to report the TF status to the TA and to support the TA chairperson in generating and delivering TF reports to the SB.



4.6.3 Responsibilities and tasks

A TF convenor is responsible for making the most effective use of the expertise of the TF members to achieve the best quality response to the TA on the topic assigned.

In executing its responsibilities, the TF:

- a. agrees or provides feedback to the TA on the ToR and the proposed milestones and planning;
- b. organizes its internal work and working practices to maximize the effectiveness of the allocated resources;
 - NOTE For example, number and location of the meetings to minimize costs through targeted use of face to face meetings and audio-videoconference, and organization of the different functions of the members within the TF (e.g. distribution of work among the members).
- e. prepares minutes of meetings (submitting these to ES via the ECSS website) and provides status reports for each TA meeting;
- f. prepares a final report at the completion of its activities detailing the results and lessons learned. This report could include one or more the following:
 - 1. proposed NWIP for the identified needed documents;
 - 2. ECSS Standards or requirements gap analysis;
 - 3. ECSS guidelines gap analysis;
 - 4. recommendation for the appropriate branch and level of document development;
- g. submits feedback to the TA for consideration and incorporation into the WP process as appropriate.

4.6.4 Composition

A TF is composed of the following members, all appointed by the TA:

- A Convenor that is from a member of an ECSS Full member, typically a TA participant,
- TF core members, containing at least one TA participant,
- Ad-hoc Experts (who are called to participate on a case-by-case basis).

As a consequence of appointments being made by the SB or by the TA, any proposed change to the TF membership is not effective until approved by the TA (appointment and change in TF convenor is reported to the SB).

The TF convenor, core members and experts need to act on behalf of their organizations. This means that they make clear and pursue within the TF the points of view and positions of the organization that they represent.

4.6.5 Decision making process

The general principles for TF decision making are the same as for WGs, defined in ECSS-P-00 clause 6.3.



4.7 Working Group (WG)

4.7.1 Mission

The mission of a WG is to carry out the work necessary to draft or update an ECSS document against an agreed planning and schedule in line with its NWIP.

A WG is established on an as-needed basis, for a limited duration mandate, approved and managed by the TA.

4.7.2 Responsibilities and tasks

The WG is responsible for making the most effective use of the expertise of its members to achieve the best quality document. In executing its responsibilities, the WG:

- a. agrees the NWIP and the proposed WG work schedule in line with the WP;
- b. organizes its internal work and working practices to maximize the effectiveness of the allocated resources.
 - NOTE For example, number and location of the meetings to minimize costs through targeted use of face to face meetings and audio-videoconference, and organization of the different functions of the members within the WG (e.g. appointment of a book captain, distribution of work among the members).
- c. prepares regular progress reports with respect to the agreed work schedule;
- d. provides deliverables and intermediate version(s) of the document as in the agreed work schedule;
- e. prepares, in consultation with the ES, and submits the draft standard or the draft handbook/technical memorandum to be processed in the TA;
- f. reviews and dispositions the comments to the document raised during its review process and updates the document to incorporate agreed changes;
- g. when updating a published document, provides traceability between the new and previous versions;
- h. reports any identified consequences of the standard on already published documents;
- i. submits the revised document with the report of comments' disposition for publication process;
- j. prepares and provides a final report at the completion of its activities detailing the results, the level of consensus reached by the WG core members and lessons learned;
- k. provides the TA with a proposal for a DoFP [name(s)/organization], at conclusion of the WG activity (i.e. when the document is published).



4.7.3 Composition

The WG is composed of the following members, all appointed by the TA:

- Convenor,
- WG core members,
- Ad-hoc Experts.

As a consequence of appointments being made by the TA, any proposed change to the WG membership is not effective until approved by the TA.

The WG convenor and core members act on behalf of their organizations. This means that they make clear and pursue within the WG the points of view and positions of the organization that they represent, such that both the extent of comments during PR and the risk of rejection of the document at the time of publication are minimized.

4.7.4 Decision making process

The general principles for WG decision making are defined in ECSS-P-00 clause 6.3.

4.8 Mirror Working Group (MWG)

4.8.1 Overview

When working in liaison with another SDO on "of ECSS interest documents or project", to ensure appropriate involvement of ECSS experts in the development and review of the SDO document, a so-called MWG is created by the TA. The role of the MWG is to support the ECSS representative in the SDO project/ WG through simultaneous review enabling the provision of contributions to the SDO document and analysis of the various committee drafts. Members of the MWG are formally nominated following the same procedure as for regular ECSS WG. They do not necessarily participate directly to the SDO project/ SDO WG.

4.8.2 Composition

The MWG is composed of the following members, all appointed by the TA:

- a Convenor
- MWG core members
- Ad-hoc Experts

A MWG is nominated by the TA, including the appointment of a convenor. Any proposed change to the MWG membership is not effective until approved by the TA.

The ECSS representative participating to the SDO project/WG is de facto a member of this MWG and debriefs ECSS MWG of all meetings, activities, decisions of the SDO project/WG.

The MWG convenor organizes MWG meetings as needed to consolidate, harmonize contributions, positions and review comments.



4.8.3 Outputs

ECSS representative in SDO project/ SDO WG provides:

- a. the material necessary for the MWG to perform its assigned task (such as SDO WP, document development status, provision of document/project under review);
- b. SDO project/ SDO WG (and, if applicable, ECSS MWG) progress reports modelled on WG report form, on a regular basis to the TA;
- c. if needed, specific briefing to ECSS TA together with any supporting technical notes and recommendations.

4.9 ECSS Network of Experts (NoE)

4.9.1 Introduction

The NoE includes the functions of DiFP, DoFP and SDO PoCs, who are nominated by the TA for a specific task given below.

It also includes entities external to ECSS mandated by the TA, which can contribute to development and maintenance of ECSS documents.

For example:

- ESCC PSWG: ESCC Policy Standard Working Group
- MPTB: Material and Processes Technical Board
- SAVOIR: Space avionics open interface architecture

4.9.2 Discipline Focal Point (DiFP)

4.9.2.1 Mission

The DiFP supports the TA in managing the documents within each discipline from a technical point of view, ensuring consistency of all documents in this discipline.

4.9.2.2 Responsibilities and Tasks

The DiFP assists the TA under request, primarily through the TAAR, in the following activities:

- a. ensuring quality of WG drafts;
- b. ensuring consistency and coherency between documents in the same discipline and between interfacing disciplines;
- c. supporting the preparation of documents for Public Review and assisting with the acceptance of the resulting DRRs and the resolution of any open points;



- d. reviewing feedback to determine whether documents should be amended, rewritten or withdrawn;
- e. assisting the TA on technical matters, when requested;
- f. providing annual input to the WP preparation.

4.9.3 Document Focal Point (DoFP)

4.9.3.1 Mission

The DoFP is the first point of contact supporting the TA and ES on technical matters relevant to the document (e.g. interpretation, feedback).

During document development, the WG convenor acts as DoFP. Before ending its activities, the WG proposes to the TA a DoFP for the time after publication of the document. The DoFP is preferably to be the convenor or a member of the WG.

When appointed by the TA, his/her role is endorsed by his/her organization.

4.9.3.2 Responsibilities and tasks

The DoFP assists the TA, primarily through the TAAR, in the following activities:

- a. providing feedback on specific issues as raised by users relating to the implementation of a document;
- b. analysing requests to modify, update or withdraw documents and assisting with the final recommendation;
- c. assisting the review of published documents.

4.9.4 ECSS Point of Contact (PoC) in SDOs

4.9.4.1 ECSS PoC for ISO

4.9.4.1.1 Context

ECSS and ISO/TC20/SC14 "Space systems and operations" cooperate in the field of standardization for "space systems development and operation" through a formal liaison, as described in ECSS-P-00 clause 5.2.3. The objective of this liaison is, as stated in ISO/TC20/SC14 N131E Resolution 76, to "avoid duplication, improve harmonization, and to achieve the benefit of reciprocal (mutual) expertise" between ISO and ECSS standards, and therefore to facilitate cross-adoption of standards between the two organizations and maximize complementarities between the two standardization systems.

ECSS has set up an ECSS-ISO coordination process (see clause 11.3). As a result of this process, ECSS TA establishes and maintains a list of ISO/TC20/SC14 projects "of ECSS interest" and a list of ECSS/ISO PoC. The selection of ISO new project documents (ISO-NP) "of ECSS interest" is done according to precise criteria defined in 11.3. For each ISO new project "of ECSS interest", it is necessary that ECSS positions are harmonized within an ECSS MWG. The ECSS MWG convenor acts as the ECSS PoC for that ISO new project.



The tasks and responsibilities of an ECSS PoC in an ISO new project "of ECSS interest" are specified in clause 4.9.4.1.

4.9.4.1.2 Appointment and reporting line

For each ISO NWI analysed by ECSS TA, a decision is to be taken to decide if this project is or not supported by ECSS as "of ECSS interest". In that latter case, and in accordance with ISO/TC20/SC14 N131E Resolution 76, ECSS participants to the ISO project can be proposed. An ECSS PoC is designated by the ECSS TA, and reports directly back to the TA at each TA meeting (as a generic agenda item). In some cases, the ECSS PoC could also be proposed by ECSS as the ISO project leader.

4.9.4.1.3 Mission

The mission of an ECSS PoC in an ISO project is to participate, as ISO project leader or ECSS expert, in a joint activity development as described in 4.9.4.1.4 to defend the ECSS interests and to report back to the TA in respect of the:

- 1. technical content of the document(s),
- 2. consistency with the ECSS system,
- 3. consistency with ECSS MWG position, and
- 4. suitability of the document(s) for ECSS purposes.
 - NOTE For the purpose of the different ECSS type of documents, see ECSS-P-00 clause 5.2.2.

4.9.4.1.4 Responsibilities and tasks

The tasks and responsibilities of the ECSS PoC in an ISO project are the following:

- a. At ECSS level, poll and coordinate positions of ECSS experts, in particular for any subject impacting compatibility, coherence, complementarity with ECSS standards. When ECSS consensus can be found, forward ECSS position to ISO Project leader with appropriate rationale and justification.
- b. During reviews, tentatively coordinate comments among ECSS experts to avoid diverging proposals. This concerns both comments collected in the ISO ballot process itself and in a simultaneous ECSS review process.
- c. Escalate conflicting positions to ECSS TA in case it cannot be resolved at ISO project level. If necessary, participate to TA meeting to clarify issues and discuss any technical subject where TA arbitration is needed.
- d. If needed, request ECSS TA to issue formal liaison statement to ISO/TC20/SC14 to reinforce ECSS position with respect to ISO project.
- e. Report ISO project progress, using the WG report template of Annex C, on a regular basis to the designated ISO PoC within the TA (see clause 4.3.5).

4.9.4.2 ECSS PoC in CCSDS

4.9.4.2.1 Context

In accordance with the ECSS and CCSDS agreement, CCSDS recognises the right of ECSS to send comments to the CCSDS documents in review. These comments are coordinated via the ES.

ECSS TA maintains a list of CCSDS "of ECSS interest" documents and only documents from this list are subject of review by ECSS.

In order to allow all ECSS Full Members (in particular EUROSPACE) to participate in the review of CCSDS development activity, an ECSS-CCSDS MWG is established. The MWG participants and chairmanship is decided by the TA.

4.9.4.2.2 Appointment and reporting line

For CCSDS, the ECSS PoC is appointed by the TA and reports to the TA at each TA meeting (as a generic agenda item). The ECSS PoC is selected from the list of members of the CCSDS Engineering Steering Group (CESG).

4.9.4.2.3 Mission

The mission of the ECSS PoC in CESG is:

- a. to participate to the CESG meetings and to report back on the status of CCSDS "of ECSS interest" documents and on new proposals for CCSDS document development.
- b. to defend the ECSS interests and to report back to the MWG and the TA in respect of:
 - 1. the technical content of the document(s),
 - 2. consistency with the ECSS system,
 - 3. consistency with ECSS/CCSDS MWG position, and
 - 4. suitability of the document(s) for ECSS purposes.
 - NOTE For the purpose of the different ECSS type of documents, see ECSS-P-00 clause 5.2.2.
- c. to participate to the ECSS/CCSDS MWG.

4.9.4.2.4 Responsibilities and tasks

The tasks and responsibilities of the ECSS PoC in CESG are the following:

- a. analyse the CCSDS proposal(s) for document development,
- b. report to the MWG and the TA on the proposal and status of CCSDS "of ECSS interest" documents and on new proposals for document development.



4.9.4.3 ECSS PoC in CEN/CENELEC

4.9.4.3.1 Context

In May 2013, a memorandum of understanding (MoU) between CEN/CENELEC and ECSS was signed covering mainly the transfer of existing ECSS standards into European norms (EN) and the joint development of new standards.

In line with the MoU, the CEN Space technical committee (CEN/CLC/TC5) chair is the official ECSS PoC, proposed by the ECSS SB (and then further appointed by the CEN/CLC/TC5 members). The detailed work on coordination to support the CEN/CLC/TC5 chair is performed by the TA chairperson, the ES and the EUROSPACE STWG chair.

4.9.4.4 Appointment and reporting line

As this task is defined by the ECSS SB, the CEN/CLC/TC5 chair reports the achieved status to the SB. The TA chairperson and the ES ensures that the TA is properly informed and reports the position established by the TA.

4.9.4.4.1 Mission

The mission of the ECSS PoC is to ensure the correct implementation of the MoU.

4.9.4.4.2 Responsibilities and tasks of ES

The tasks and responsibilities of the ECSS ES are the following:

- a. prepare ECSS standards for EN publication;
- b. support the publication of ECSS standards as EN and report to the TA;
- c. report to CEN/CENELEC on new ECSS developments (i.e. approved NWIPs);
- d. report to the TA of the relevant (new) European norms document developments.



5 Introduction to the process descriptions

Each process defined in clauses 6 to 11 is presented in three parts:

- Process characteristics:
 - defining the purpose, key activities, inputs, outputs and configuration controlled documents of the process.
- Process flow diagram:
 defining the logical flow of tasks, their assignment to function areas and the information/documentation exchanged.
- Process flow description:

defining details of the flow diagram, i.e. detailed description of the tasks including notes, work steps and assignment of responsibilities to tasks.

The symbols which are used in the process flow diagrams are shown in Figure 5-1.

Figure 5-2 presents all processes defined in the ECSS system. A process (numbered i) can be subdivided into sub processes (numbered ii or iii). Detailed process descriptions are provided in clauses 6 to 11 at sub process level. The number assigned to each process in Figure 5-2 corresponds to the number of the clause where the process is described.

Figure 5-3 shows the relationship among the different processes, including the interfaces between them as used in clauses 6 to 11.



Diagram element representation	Meaning
i Process name	 Process, where "i" is: the generic process identification code, and the number of the clause where the process is specified
Process flow and associated input(s) Task identifier E = Executing function area V = Involved function area I = Informed function area	Task including assigned responsibility
Process flow and associated input(s) Task identifier E = Executing function area V = Involved function area I = Informed function area	Task containing work steps NOTE: Each task is contains the information about the actors: E = Executing V = Involved I = Informed
Process flow Binary condition Flow path 1 NOTE: Each XOR fork needs before a task, a part of which is the evaluation of the binary condition	XOR fork: One and only one of the two flow paths is followed, depending on a binary condition
Process flow Flow path 1	AND fork: Both flow paths are followed in parallel



Diagram element representation	Meaning
Documentation name	Any kind of information (document, letter, memo, e-mail) between two tasks if the tasks are performed in different Function Areas.
I/O name	Documented input to or output of the process
Database name	Information stored in a database (e.g. templates, documents)
I/F-x → Pn1 Pn2	Process interface: Connector between processes, uniquely identified as I/F-x (where x is a natural number), and Pn1, Pn2,, are the processes where the connection is coming from
→ I/F-x Pn1 Pn2	Process interface: Connector between processes, uniquely identified as I/F-x (where x is a natural number), and Pn1, Pn2,, are the processes where the connection is pointing to
Connector	Connector between tasks within a process
	Incoming tasks to complete before the next task can start
	Process-and-information flow
→	For clarity, if the flow is in a positive direction (i.e. from left to right), a solid arrow is used. If the flow is in a negative direction to repeat as previous process (i.e. from right to left), then a dashed line is used.
	Information-only flow

Figure 5-1: Symbols used in the process flow diagrams



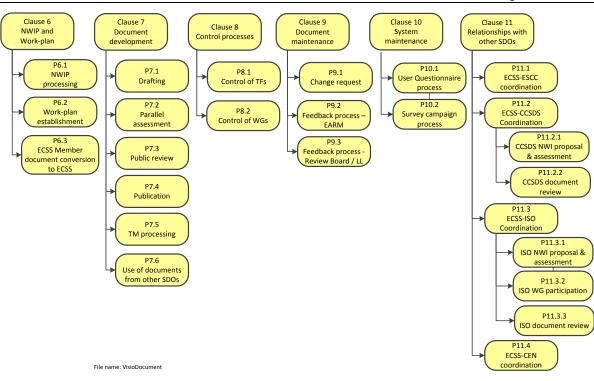


Figure 5-2: ECSS Processes



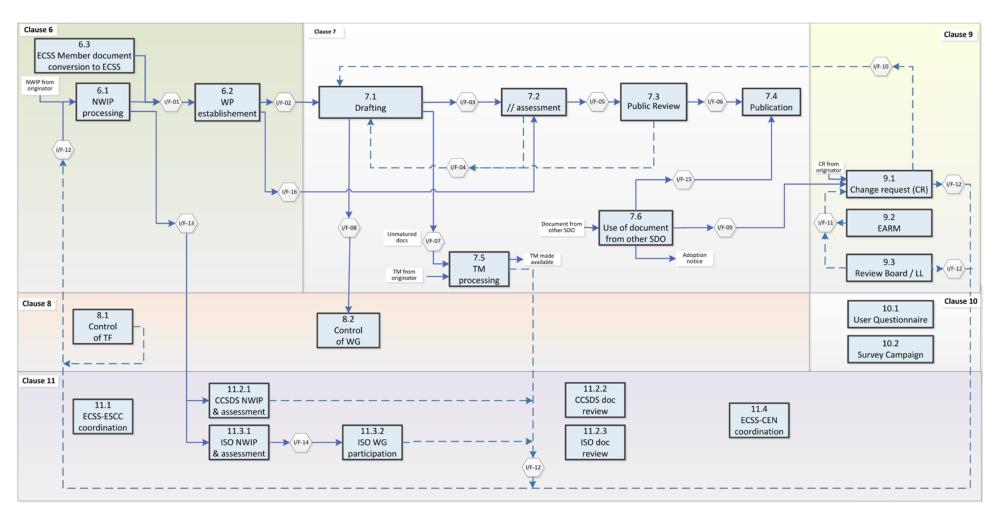


Figure 5-3: ECSS processes and interfaces



6 NWIP and WP processes

6.1 New work item proposal (NWIP) processing

6.1.1 **Process characteristics**

6.1.1.1 Purpose

The purpose of the NWIP process is to ensure that proposals for new documents or document updates are fully supported by the ECSS members and that, if approved, commitment is given to participation in the document development through membership of the associated WG.

Figure 5-3 shows the processes that are dependent on the completion of clause 6.1.

6.1.1.2 Key activities

- Checking of the NWIP for completeness and justification (meeting the Go/No-Go and Priority criteria see Annex B).
- Proposing WG composition, milestones and date by which the document is required and subsequent endorsement by the TAAR.
- Assessing whether the document should be developed by another SDO.
- TA members reaching consensus to approve or not the NWIP and propose members for the WG.

6.1.1.3 Inputs

Completed NWIP: (using NWIP form, see Annex C) submission can be from the NWIP originator through his/her TA Representative that needs to endorse it. NWIPs are also submitted as the result of other activities such as CR processing or other SDO projects (e.g. ISO).

6.1.1.4 Outputs

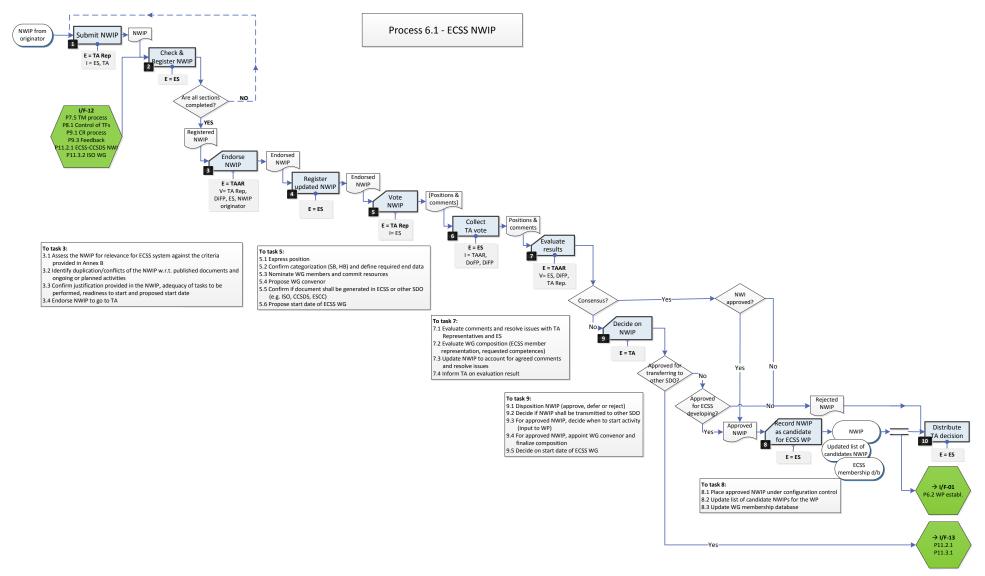
- a. Approved NWIP
- b. Updated list of candidate NWIP for WP
- c. Updated WG member list

6.1.1.5 Configuration controlled documents of this process

- a. NWIP
- b. (Updated) WG member list



6.1.2 Process Flow Diagram - New work item proposal (NWIP) processing





6.1.3 Process Flow Description –New work item proposal (NWIP) processing

#	Task / Description	Next	Function area	Timing/ Triggering	Inputs	Outputs
1	Submit NWIP Submit NWIP received from Originator of own organization using ECSS NWIP form provided on ECSS website	NEXT: 2	E = TA Rep I = ES, TA	T1	NWIP from originator	NWIP endorsed by the TA Representative
2	Check and register NWIP Two cases are possible: 2.a. If all sections of the NWIP are completed, send to TAAR 2.b. Otherwise, send back to the TA Rep	NEXT: 3 NEXT: 1	E = ES	T2=T1+2W	NWIP from TA Rep or I/F-12 from processes: 7.5 TM processing, 8.1 Control of TFs, 9.1 Feedback-CR, 9.3 Feedback – Inq board/FF, 11.2.1 CCSDS NWI, 11.3.2 ISO project participation	Registered NWIP
3	 Endorse NWIP Ensure suitability of the NWIP against the criteria provided in Annex B. If the TAAR identifies issues when performing the tasks listed below, it is their task to resolve this issues with the TA Rep having submitted the NWIP (and NWIP originator, ES and DiFP, as appropriate), prior to endorsing the NWIP: 3.1 Assess the NWIP for relevance for ECSS system 3.2 Identify duplication/conflicts of the NWIP w.r.t. ongoing or planned activities 3.3 Confirm justification provided in the NWIP, adequacy of tasks to be performed, readiness to start and propose start date 3.4 Endorse NWIP to go to TA 	NEXT: 4	E = TAAR V = TA Rep, DiFP, ES, NWIP originator	T3=T2+3W	Registered original NWIP	Endorsed NWIP
4	Register updated NWIP Register updated NWIP and transmit NWIP with request for comments and proposals for WG convenor & nomination of WG members	NEXT: 5	E = ES	T4=T3+1W	Endorsed NWIP	Registered Endorsed NWIP



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#	Task / Description	Next	Function area	Timing/ Triggering	Inputs	Outputs
5	Vote NWIP5.1Express position5.2Confirm categorization (ST, HB) and define required end data5.3Nominate WG members and commit resources5.4Propose WG convenor5.5Confirm if document is to be generated in ECSS or other SDO (e.g. ISO, CCSDS, ESCC)5.6Propose start date of ECSS WG	NEXT: 6	E = TA Rep I = ES	T5=T4+4W	Registered endorsed NWIP	Individual TA member positions & comments
6	Collect TA vote Collect and record TA Vote and distribute result to TAAR, Including comments, confirmation of start date, convenor and WG nominations.	NEXT: 7	E = ES I = TAAR, DoFP, DiFP,	T6=T5+1W	Individual TA member positions & comments	TA position & comments
7	Evaluate results 7.1 Evaluate comments and resolve issues with TA Representatives and ES 7.2 Evaluate WG composition (ECSS member representation, requested competences) 7.3 Update NWIP to account for agreed comments and resolved issues 7.4 Inform TA on evaluation result After evaluation of the NWIP by the TAAR, three cases are possible: 7.a. NO consensus is reached: the NWIP is escalated to the TA for decision. 7.b Consensus is reached that the NWIP is rejected: 7.c Consensus is reached that the NWIP is accepted (with or without amendments)	NEXT: 9 NEXT: 10 NEXT: 8	E = TAAR V = ES, DiFP, TA Rep	T7=T6+1W	TA position and comments	7.a: Request to TA for decision 7.b: Rejected NWIP 7.c: Approved NWIP
8	Record NWIP as candidate for ECSS WPNEXT: 10 & I/F-01 (Process 6.28.1 Place approved NWIP under configuration control8.2 Update list of candidate NWIPs for the WP8.3 Update WG member list9.3 Update WG member list	WP establ.)	E = ES	T8=T7+2W	Approved NWIP	 Approved NWIP→ updated candidate NWIP list→ WG member list→



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#	Task / Description Next	Function area	Timing/ Triggering	Inputs	Outputs
9	Decide on NWIP (where no consensus was reached from NWIP Vote) 9.1 Disposition NWIP (approve, transfer, defer or reject) 9.2 9.2 For approved NWIP decide when to start activity (input to WP) 9.3 For approved NWIP, TA members request CRs from their respective organizations 9.4 9.4 For approved NWIP appoint WG convenor and finalize WG composition Three cases are possible: 9.a The NWIP is approved (with or without amendments) for ECSS development NEXT: 8 9.b The NWIP is not approved for ECSS development (i.e. rejected, but may be considered for transferring to another SDO). NEXT: I/F-13 (Process 11.2.1 CCSDS or 11.3.1 ISO) 9.c The NWIP is placed on the subsequent year's "list of candidate NWIP for WP" NEXT: 10		T9= TA meeting	Request to TA for decision	 9.a Approved NWIP 9.b NWIP for transferring 9.c Rejected NWIP
10	Distribute decision END 10.1 If NWIP is approved distribute voting result with approved NWIP and nominated WG members/convenor to TA, originator and WG convenor. Image: Convenor to TA, originator and WG convenor. 10.2 The WG list is approved if there is no objection from any TA Representative within 2 weeks after distribution. Image: Convenor to TA, originator and WG convenor.	E = ES	T10=T8+2W or T10=T9+2W	Rejected NWIP	END→



6.2 Work Plan (WP) establishment

6.2.1 **Process characteristics**

6.2.1.1 Purpose

The purpose of this process is to create and approve the ECSS annual WP, update it when necessary and report progress status to the SB.

6.2.1.2 Key activities

- Create the initial WP for TA approval and SB endorsement (referred to as baseline WP when approved)
- Apply criteria for Go / No-Go decision and Priority
- Agree WP at TA level
- Endorse WP at SB level
- Update the WP from agreed NWIP and other inputs (referred to as actual WP when approved)

6.2.1.3 Establish WP report input

Guidance from the SB on the items is to be considered for the WP and members requirements.

Reports from the TAARs are inputs to the updating/status reporting.

List of candidate NWIP for WP.

6.2.1.4 Outputs

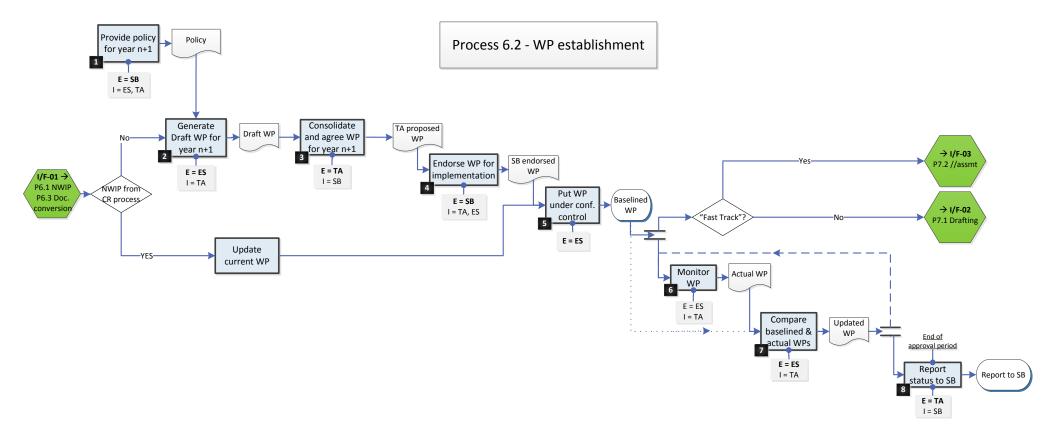
- a. Periodic reports to TA.
- b. Report status to the SB.
- c. The process terminates at the end of the work plan period.

6.2.1.5 Configuration controlled documents of this process

- a. Baseline WP
- b. Actual WP
- c. SB reports



6.2.2 Process Flow Diagram - Work Plan (WP) establishment



6.2.3 Process Flow Description - Work Plan (WP) establishment

#	Task / Description	Next	Function area	Timing/ Triggering	Inputs	Outputs
1	Provide guidance for year n+1	NEXT: 2	E = SB I = ES, TA	T1=During year n	\rightarrow	SB guidelines
2	Generate draft WP for year n+1 Inputs for this activity are: (1) ongoing activities from current WP, (2) activity from current WP, (3) approved NWI and pending NWIPs.	NEXT: 3	E = ES I = TA	T2 <t3< td=""><td> → NWIP I/F-01 from processes: 6.1 NWIP, 6.3 ECSS member doc conv. </td><td>Draft WP</td></t3<>	 → NWIP I/F-01 from processes: 6.1 NWIP, 6.3 ECSS member doc conv. 	Draft WP
3	Assemble and agree WP for year n+1	NEXT: 4	E = TA I = SB	T3 = Last TA meeting of year n	Work packages + Draft WP	TA proposed WP
4	Endorse WP for implementation	NEXT: 5	E = SB I = TA, ES	T4= SB meeting of end of year n or 1Q of n+1	TA proposed WP	SB endorsed WP
5	Publish & put WP under configuration control NE	EXT: 6 & I/F-02 (Process 7.1 Drafting)	E = ES	T5=T4+4W	SB endorsed WP or if NWIP from CR process → NWIP I/F-01 from processes: 6.1 NWIP, 6.3 ECSS member doc conv.	Baseline WP →
6	Monitor WP	NEXT: 7	E = ES I = TA	T6=During year n+1	Baseline WP or Updated WP	Actual WP
7	Compare baseline and actual WPs	NEXT: 68	E = ES I = TA	T7=During year n+1	Baseline WP & Actual WP	Updated WP
8	Report status to SB	END	E = TA I = SB	T8=End of approval period	Updated WP	Report to SB \rightarrow



6.3 ECSS member document conversion to ECSS

6.3.1 **Process characteristics**

6.3.1.1 Purpose

The purpose of this process is to convert a document proposed by an ECSS member (internal document of this member) into an ECSS document.

6.3.1.2 Key activities

- An ECSS member submits a document to the ES for consideration by the TA.
- The ES records the document and distributes it to the TA.
- Each TA Representative, to build a position about:
 - adequacy of this document for ECSS
 - completeness of the document (is there a need for additional chapters?)
 - if the document is considered adequate, can the "Fast Track" approach be followed?
- TA to consolidate member position to achieve consensus
- If approved, TAAR to create NWIP, taking into account decision on completeness and "Fast Track".

6.3.1.3 Inputs

ECSS Member document

6.3.1.4 Outputs

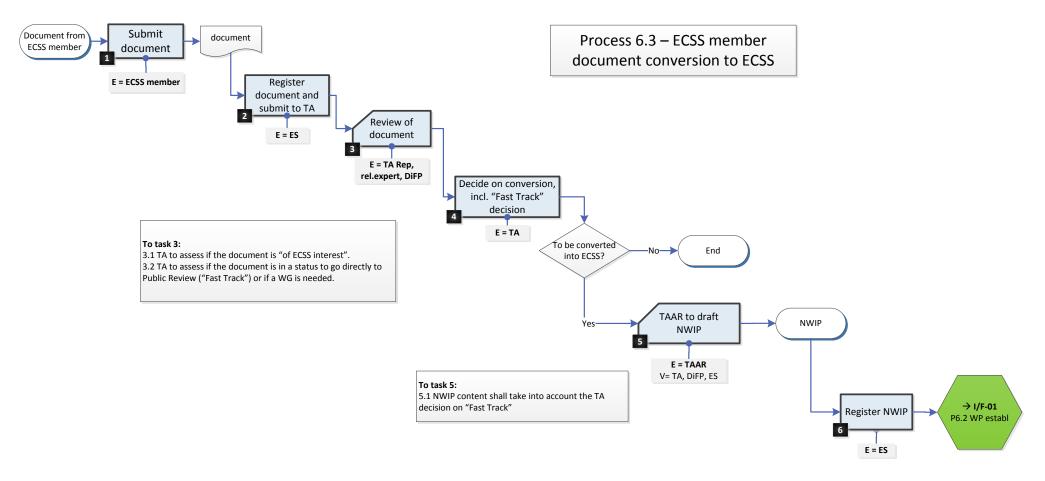
- a. TA decision record
- b. If relevant, NWIP

6.3.1.5 Configuration controlled documents of this process

- a. NWIP list
- b. Actual WP



6.3.2 Process Flow Diagram - ECSS member document conversion to ECSS





6.3.3 Process Flow Description - ECSS member document conversion to ECSS

#	Task / Description Nex	Function area	Timing/ Triggering	Inputs	Outputs
1	Submit document Document from ECSS member proposed by its TA member for conversion to ECSS	E = ECSS member	T1	Proposed document	
2	Register document and submit to TA	E = ES	T2=T1+1W	Proposed document + Justification from proposer	Registered proposed document
3	 Review document from ECSS member 3.1 TA to assess if the document is "of ECSS interest" 3.2 TA to assess if the document is in a status to go directly to Public Review "Fast Track") or if a WG is needed 	E = TA Rep V = rel. expert, DiFP	T3=T2+4W	Registered document	
4	Decide on conversion, including "Fast Track" decision Two cases are: 4.a The document is "of ECSS interest" A.b The document is not "of ECSS interest" END		T4 = TA meeting	Request to TA for decision	TA decision to convert document including decision on "Fast Track"
5	TAAR to draft NWIP 5.1 NWIP content shall take into account the TA decision on "Fast Track"	E = TAAR V =TA,DiFP,ES	T5= T4 + as instructed	TA instruction	NWIP
6.	Register NWIP 6.1 ES to register NWIP and provide to TA NEXT: I/F-01 (Process 6.1 NWIF)	E = ES	T6=T5+2 W	Proposed NWIP from TAAR	Registered NWIP for TA approval



7 Development processes

7.1 Drafting process

7.1.1 Process characteristics

7.1.1.1 Purpose

To develop an ECSS document in accordance with the NWIP agreed between the TA and the WG, and in accordance with the ECSS Drafting rules (see Annex C).

7.1.1.2 Key activities

- The KO meeting, which is called by the WG convenor and supported by the ES, takes place in line with the relevant milestones in the WP.
- Agreement of the NWIP constitutes the agreement between the TA and the WG. Any changes to the NWIP proposed by the WG are to be agreed by the TA. If no agreement can be reached, the NWIP may be cancelled.
- The drafting period is as agreed in the NWIP and reported in the WP; the final draft is derived by consensus of all WG members and it is recommended that working drafts are made visible to member organizations and to the ES for adherence to the ECSS Drafting Rules, to facilitate the public review stage. Any disagreements are resolved through the TAAR.

7.1.1.3 Inputs

Approved NWIP, endorsed WG composition incl. WG convenor and WP.

If coming from the CR process "Fast Track" approach: CR dispositions including proposed implementation

7.1.1.4 Outputs

DFR for Parallel Assessment

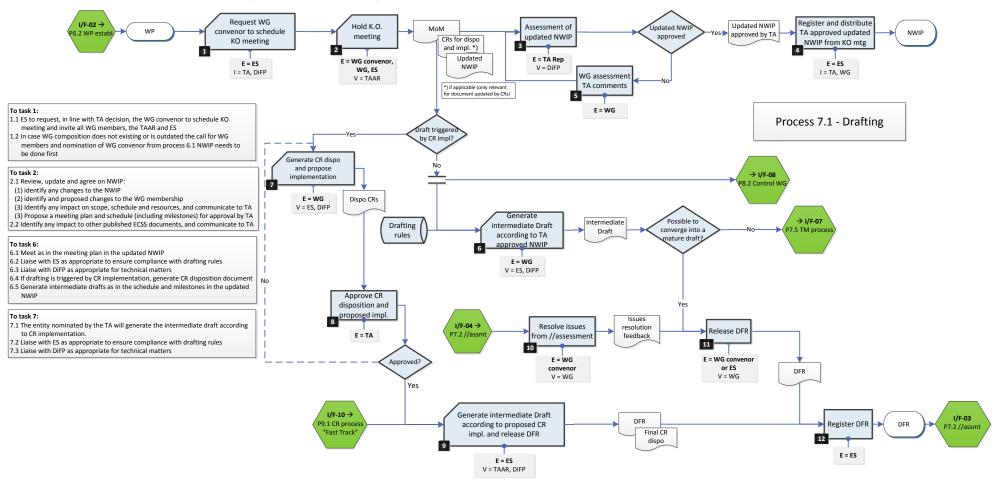
Final CR dispositions including implementation (if coming from CR process)

7.1.1.5 Configuration controlled documents of this process

- Agreed NWIP
- DFR



7.1.2 Process flow diagram - Drafting process





7.1.3 Process Flow Description - Drafting process

#	Task / Description	Next	Function area	Timing/ Triggering	Inputs	Outputs
1	 ES to request WG convenor to schedule K.O. meeting 1.1 ES to request, in line with TA decision, the WG convenor to schedule KO meeting and invite all WG members, the TAAR and ES 1.2 In case WG composition does not existing or is outdated the call for WG members and nomination of WG convenor from process 6.1 NWIP needs to done first 	NEXT: 2	E = ES I = TA, DiFP	TA instruction	→WP, I/F-02 from process: 6.2 WP establ. Registered Endorsed NWIP WG member list	
2	 Schedule and hold K.O. meeting NEXT: I/F-08 (Process 8. 2.1 Contact the WG members & ES to convene a date for the K.O. meeting 2.2 Liaise with ES for a presentation on ECSS and drafting rules 2.3 Agree with WG during K.O. meeting on NWIP by: Identifying any changes or update of NWIP or WG membership by revision tracking, and agree them with the TA Identifying any impact on scope, schedule and resources, and communicate to TA Proposing a meeting plan and schedule (including milestones) and get it agreed by the TA 2.4 Identify any impact to other published ECSS documents, and communicate to TA 2.5 Provide ES with MoM and agreed updated NWIP for TA approval 	NEXT: 3 2 Control WG)	E = WG convenor, WG, ES V = TAAR	T1=date of K.O. mtg.	Registered Endorsed NWIP WG member list	K.O. MoM Updated NWIP from Kick-off meeting
3	Assessment of updated NWIP from K.O. meeting 3.a TA approves updated NWIP from K.O. meeting 3.b TA comments to updated NWIP for WG assessment and update	NEXT: 4 NEXT: 5	E = TA Rep V = DiFP	T2=T1+2w	Updated NWIP from Kick-off meeting	TA assessment of updated NWIP
4	 Register TA approved updated NWIP 4.1 Prepare final version of updated NWIP incl. update of change log 4.2 Distribute final version of updated NWIP approved by TA to WG with copy to TA 	NEXT: 6	E = ES I = TA, WG	T3=T2+1w		Updated NWIP approved by TA
5	WG assessment of TA comments to updated NWIP from K.O. meeting	NEXT: 3	E = WG	T4=T3+2w	TA comments to updated NWIP	Updated NWIP for TA approval (->step3)



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#	Task / Description Next	Function area	Timing/ Triggering	Inputs	Outputs
6	Generate intermediate Draft i.a.w. updated NWIP 6.1 Meet as in the meeting plan in the updated NWIP 6.2 Liaise with the ES as appropriate to ensure compliance with drafting rules 6.3 Liaise with DiFP as appropriate for technical matters 6.4 If drafting is triggered by CR implementation, generate CR disposition document 6.5 Generate intermediate drafts as in the schedule and milestones in the updated NWIP 6.a Normally, the WG converges progressively to either: - an agreed DFR - or CR implementation NEXT: I/F-11 (Process 9.1 CR impl.) 6.b Exceptionally, it can happen that the subject is not mature for standardization, and therefore it is impossible to converge to a common WG draft		T5 = a.s.i. updated NWIP	Drafting rules ^(see NOTE) Previous MoM Updated NWIP Updated WG list	Intermediate drafts (leading to DFR), or, Intermediate drafts (leading to CR implementation) Subsequent MoM
7	Generate CR dispositions and propose implementationNEXT: 87.1 Disposition all CRs and propose implementation77.2 Liaise with TAAR, DiFP for technical matters77.3 Liaise with ES for editorial matters77.4 Enter all CR dispositions and proposed implementation in CR database77.5 Provide CR dispositions and proposed implementation to TA	E = WG V = ES, DiFP	T6=T1+a.s.i. NWIP	Updated NWIP approved by TA CRs	CR dispositions with proposed implementation
8	Approve CR disposition and proposed implementation Two cases are possible: 8.a Approved by TA 8.b TA comments to CR dispositions NEXT: 7		T7=T6+2w	CR dispositions with proposed implementation	TA decision (either approval or comments)
9	Generate intermediate Draft according to proposed CR implementation and release DFRNEXT: 129.1 Implement dispositioned CRs and generate intermediate Draft9.2 In case of problems with proposed CR implementation liaise with WG convenor or instructed entity and TAAR9.3 In case needed, update the CR disposition as agreed with WG and TAAR9.4 Update CR database stating actual implementation9.5 Release DFR and Final CR disposition and CR implementation report stating issues encountered during CR implementation	E = ES V = WG convenor or instr. entity, TAAR, DiFP	T8=T7+2w	 → CR process from I/F-10 (Process 9.1 CR) TA approved CR dispositions 	Updated draft with impl. CRs In case needed updated CR disposition CR implementation report



#	Task / Description	Next	Function area	Timing/ Triggering	Inputs	Outputs
10	 Resolve issues from parallel assessment i.a.w. TAAR instructions 10.1 Resolve issues identified in parallel assessment 10.2 Update WG draft and provide feedback to parallel assessment 10.3 Provide updated draft and resolution of issues from assessment 	NEXT: 11	E=WG convenor V = WG	T9= typically 1w	→ // assessment from I/F-04 (Process 7.2 // assmt)	Updated draft incl. // assessment comments
11	Produce and release DFR	NEXT: 12	E = WG convenor or ES V = WG	T10 =T9+a.s.i. updated NWIP or evaluation assessment	Final draft	DFR
12	Register DFR	NEXT: I/F-03 (Process 7.2 // assmt)	E = ES	T11 = T9 or T10+1W	DFR	Registered DFR \rightarrow
NO	TE Drafting rules are covered by ECSS-D-00-01 for standards, or ECSS-D-	00-02 for HBs				



7.2 Parallel assessment

7.2.1 Process characteristics

7.2.1.1 Purpose

This process ensures that the draft standards or handbooks (DFR) meet the predetermined criteria for Public Review (see Annex C) in relation to format and structure, technical content, adherence to drafting rules and other issues such as clarity, understanding and consistency with the ECSS system.

For handbooks this process also defines recommendations to the TA for the type of review to be performed (Public Review or TA Review).

7.2.1.2 Key activities

- TAAR and ES to evaluate the WG draft and resolve any issues, if necessary with the WG convenor
- ES to provide a draft suitable for PR with support of the WG convenor
- Once approved for public review, the WG convenor sets a date for the WG to meet and disposition any DRRs

7.2.1.3 Inputs

The inputs are:

- the Draft for Review (DFR),
- ECSS-D-00-01 "Drafting rules and template for ECSS Standards",
- ECSS-D-00-02 "Drafting rules and template for ECSS Handbooks",
- ECSS-D-00-11 "Criteria for acceptance for Public Review and Criteria for Handbook release for publication".

7.2.1.4 Outputs

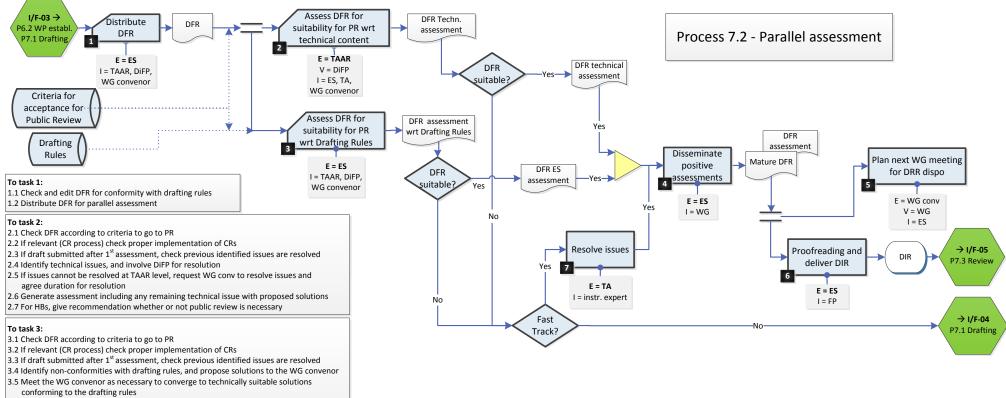
Successful outcome for draft standards or handbook is to transfer from the development process to the PR process with a WG draft document called Draft In Review (DIR). An alternate outcome is for the document to be sent back to the drafting process to resolve the blocking issues raised during the assessment. The WG considers feedback for action/resolution.

7.2.1.5 Configuration controlled documents of this process

DIR



7.2.2 Process Flow Diagram - Parallel assessment



3.6 Generate assessment including any remaining issue w.r.t. drafting rules, including proposed solutions



7.2.3 Process Flow Description - Parallel assessment

#	Task / Description Nex	t Function area	Timing/ Triggering	Inputs	Outputs
1	Distribute DFRNEXT: 2 &1.1 Check and edit DFR for conformity with drafting rules1.2 Distribute DFR for parallel assessment	B E = ES I = TAAR, DiFP, WG conv	T1=I/F-03/Task8 (Resolution of issues from // assessmt.)	DFR, I/F-03 from process 7.1 Drafting	Distributed DFR
2	Assess DFR for suitability for review w.r.t. technical content 2.1 Check WG draft according to criteria to go to PR (see NOTE 1) 2.2 If draft submitted after first assessment, check that previously identified issues are resolved 2.3 Identify technical issues and involve DiFP for resolution 2.4 If issues cannot be resolved at TAAR level, request WG convenor to resolve issues and agree duration for resolution 2.5 Generate assessment including any remaining technical issues with proposed solution 2.6 For HBs, give recommendation whether or not public review is necessary Two cases are possible 2.a 2.a If the DFR is suitable from a technical point of view 2.b Otherwise If no TAAR answered to the ES request for Parallel Assessment within the deadline or provide request for extension, to maintain development schedule the ES informs the TA members and proceeds with Public Review or TA review after checking the adherence to the Drafting rules and related corrections of the draft by the ES which are mandatory for the release for the next step)	T2=T1+2W	DFR	DFR technical assessment, or I/F-04 (Process 7.1 Drafting)
3	 Assess DFR for suitability for review w.r.t. drafting rules (see NOTE 2) 3.1 Check WG draft according to criteria to go to PR (see NOTE 1) 3.2 If draft submitted after first assessment, check that previously identified issues are resolved 3.3 Identify non-conformity with drafting rules, and propose solutions to the WG convenor 3.4 Meet the WG convenor as necessary, to converge to technically suitable solutions conforming to drafting rules 3.5 Generate assessment including any remaining issue w.r.t drafting rules, including proposed solutions. Two cases are possible: 3.a If the draft is suitable from a drafting rule point of view 3.b Otherwise (when positive report from TAAR has been received) 		T3=T1+2W	DFR Drafting rules (see NOTE ²⁾	DFR ES assessment, or I/F-04 (Process 7.1 Drafting)



#	Task / Description	Next	Function area	Timing/ Triggering	Inputs	Outputs
4	Disseminate positive assessments NEXT:	5&6	E = ES I = WG	T4 = max(T2&T3)	DFR tech. assessment DFR ES assessment	DFR assessments Mature DFR
5	Plan next WG meeting for DRR disposition NEXT:	END	E = WG conv V = WG I = ES	T5 = T4+2W	DFR assessments Mature DFR	WG agreement on planned date
6	Proofreading and deliver DIR NEXT: I/F-05 (Process 7.3 Re	iew)	E = ES	T6=T4+2W	DFR assessments Mature DFR	DIR, I/F-05 (Process 7.3 Review)
7	TA decision how to resolve issues of "Fast Track" document 7.1 TA to propose resolution of issues and instruct person how to update DFR NE 7.2 In case TA cannot find resolution TA to decide what to do with the "Fast Track" document NEXT: According to TA decide to TA	KT: 6 sion	E =TA I = instr. expert	T7 = T2&T3 + TA instructions	DFR assessments Identified issues	TA decision how to resolve issue TA instructions how to update DFR
	TE 1: Criteria to go to Public Review are covered by ECSS-D-00-11 TE 2: Drafting rules are covered by ECSS-D-00-01 for standards, or ECSS-D-00-02 for handbooks					



7.3 Public review (PR)

7.3.1 Process characteristics

7.3.1.1 Purpose

The purpose of this process is to ensure that all developed ECSS standards and selected handbooks are reviewed by the ECSS partners who have an opportunity to provide comments. These comments are dispositioned by the WG and once agreed by a consensus of all members the final document is accepted for publication with a commitment to apply in business agreements where applicable.

7.3.1.2 Key activities

- The ES collects all DRRs from all members received during PR and give them to the WG for disposition
- The WG disposition all DRRs:
 - all DRRs from ECSS members have to be disposed,
 - disposition of the DRRs from non-ECSS members are at the discretion of the WG.

This should be done with the minimum of meetings and it is a recommended practice to pre disposition the DRRs as far as possible leaving the contentious ones for full WG discussion.

Each DRR disposition is justified by a rationale (with an explanation in the case of "modified" or "reject"). When the WG determines that the DRR is valid but not to be implemented for this issue, the WG can then transform the DRR into a CR and the normal CR process is applied.

Resolution of any disagreements are done by discussion between the WG convenor and the TAAR and, if necessary, with the TA.

• The TA members review and agree the DRR dispositions. In case of disagreement, the TA supported by the WG convenor will solve the issue.

7.3.1.3 Inputs

Inputs are the document for review from the parallel assessment process.

The date of the WG meeting to disposition DRRs is also an input.

7.3.1.4 Outputs

The single successful exit is to the approval for publication process with the draft for approval (DFA).



7.3.1.5 Configuration controlled documents of this process

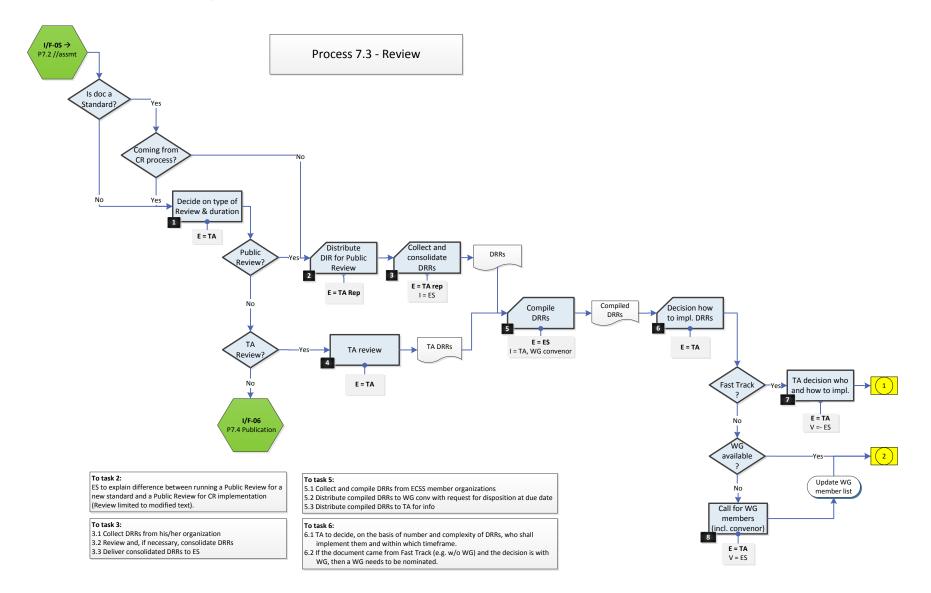
Draft document (WG draft; draft for public review, draft following DRR disposition; draft for approval (DFA))

DRRs and related WG dispositions

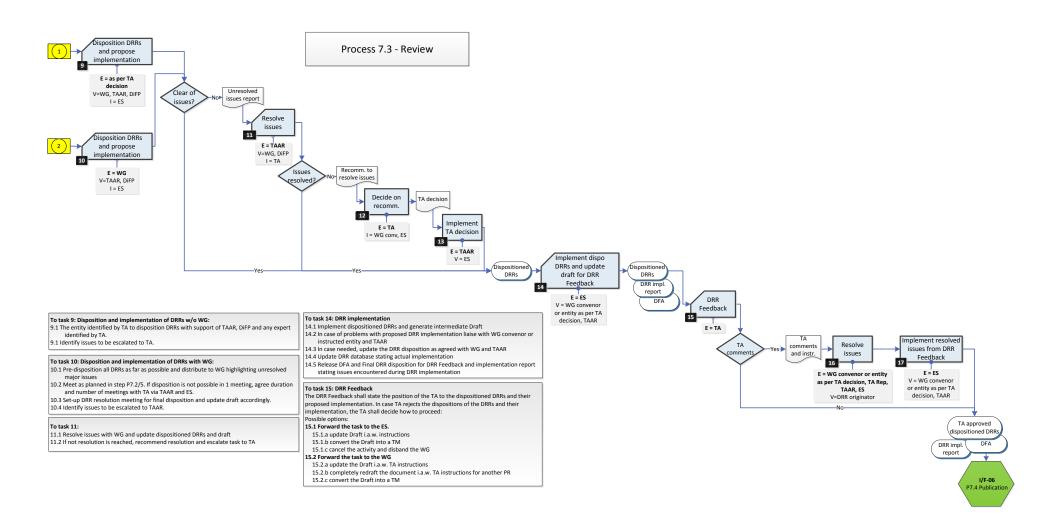
Updated DRR dispositions following TA DRR Feedback



7.3.2 Process Flow Diagram - Public review







7.3.3 Process Flow Description - Public review

#	Task / Description	Next	Function area	Timing/ Triggering	Inputs	Outputs
1	If the document is a ST not coming from CR process: If the document is a HB, or is a ST coming from CR process: Decide on type of review & duration The following decisions can be taken: 1.a The document is to go to Public Review, for a duration [D] 1.b The document is to go to TA review 1.c No need to perform any review NEXT: I/F (NEXT: 2 NEXT: 2 NEXT: 4)6 (Process 7.4 Publication)	E = TA	T1	DIR, I/F-05 (// assessment)	TA decision on type of review and duration (¤), or I/F-06 (Process 7.4 Publication)
2	Distribute DIR for Public Review within his/her organization	NEXT: 3	E = TA Rep	T2	DIR TA decision on review	Distributed DIR
3	 Collect and consolidate DRRs from his/her organization 3.1 Collect DRRs from his/her organization 3.2 Review and, if necessary, consolidate DRRs 3.3 Deliver consolidated DRRs to ES 	NEXT: 5	E = TA Rep I = ES	T3=T2+D	-	Organization consolidated DRRs
4	TA review	NEXT: 5	E = TA	T4=T1+D		
5	 Compile DRRs from ECSS member organizations 5.1 Collect and compile all DRRs from ECSS member and non-member organization 5.2 Distribute compiled DRRs to WG convenor with request for disposition at due d 5.3 Distribute compiled DRRs to TA for information 		E = ES I = TA, WG conv	T5=T3+2W or T4+2W	Organization consolidated DRRs	Compiled DRRs

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]	
#	Task / Description	Next	Function area	Timing/ Triggering	Inputs	Outputs	
6	 Decision how to implement DRRs 6.1 TA to decide, on the basis of number and complexity of DRRs, who shall implement them. 6.2 If the document came from Fast Track (e.g. w/o WG) and the decision is with WG, then a WG needs to be nominated. The following cases are possible: 6.a Fast Track implementation decided by TA 6.b Normal track to be followed with available WG 6.c Normal track to be followed with WG to be called 	NEXT: 7 NEXT: 10 NEXT: 8	E = TA	Τ6	Compiled DRRs	TA decision on type of DRR implementation	
7	TA decision who and how to implement DRRs	NEXT: 9	E = TA V= ES	T7=T6	TA decision on type of impl. DRRs without WG	TA decision on the actor and method to implement the DRRs	
8	Call for WG members (incl. convenor)	NEXT: 9	E = TA V= ES	T8=T6+2W	TA decision on impl. DRRs by WG	Update of WG member list	
9	 Disposition DRRs and propose implementation: 9.1 The entity identified by TA to disposition DRRs with support of TAAR and any expert identifier TA, in a duration θ₁ set by TA. 9.2 Identify issues to be escalated to TA. Two cases are possible: 9.a All issues are resolved: 9.b Otherwise: 	ed by NEXT: 14 NEXT: 11	E = as per TA decision V = WG, TAAR, DiFP I = ES	T9=T7+θ1	Compiled DRRs	9.a: DFA & WG dispo DRRs 9.b: Issues report	
10	 WG to disposition DRRs and propose implementation: 10.1 WG convenor to pre-disposition all DRRs as far as possible and distribute to WG highlighting unresolved major issues 10.2 Meet as planned in step 7. If disposition is not possible in 1 meeting, agree duration θ₂ and numor of meetings with TA via TAAR and ES. 10.3 Set-up DRR resolution meeting for final disposition and update draft accordingly 10.4 Identify issues to be escalated to TAAR Two cases are possible: 10.a All issues are resolved: 10.b Otherwise: 	nber NEXT: 14 NEXT: 11	E = WG V = TAAR, DiFP I = ES	T10=T8+02	Compiled DRRs	10.a: DFA & WG dispo DRRs 10.b: Issues report	



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#	Task / Description	Next	Function area	Timing/ Triggering	Inputs	Outputs
11		NEXT: 14 NEXT: 12	E = TAAR V = WG, DiFP I = TA	T11	Unresolved issues report	10.a: DFA & WG dispo DRRs 10.b: Solution recomm.
12	Decide on recommendation	NEXT: 13	E = TA I = WG con, ES	T11	Unresolved issues report & solution recommendations	TA decision
13	Implement TA decision	NEXT: 14	E = TAAR V = ES	T12	TA decision	WG dispo DRRs
14	 Implement dispositioned DRRs and create DFA for DRR Feedback 14.1 Implement dispositioned DRRs and generate intermediate Draft 14.2 In case of problems with proposed DRR implementation liaise with WG convenor or instructed entity and TAAR 14.3 In case needed, update the DRR disposition as agreed with WG and TAAR 14.4 Update DRR database stating actual implementation 14.5 Release DFA and Final DRR disposition for DRR Feedback and implementation report stating issue countered during DRR implementation 	NEXT: 15	E = ES V = WG convenor or entity as per TA decision, TAAR	T13= (T9 T10 T12) +2W	WG dispo DRRs	Dispositoned DRRs, DRR implementation report, DFA
15	DRR Feedback by TA Two cases are possible:	NEXT: 16 blication)	E = TA I = actor impl. DRRs	T14	Dispositioned DRRs, DRR implementation report, DFA	Result of DRR Feedback
16	Implement TA comments from DRR Feedback NEXT : I/F 06 (Process 7.4 Pu	blication)	E = ES V = WG convenor or entity as per TA decision, TAAR	T15	DFA + TA comments from DRR Feedback	TA approved dispositioned DRRs, DFA for TA Vote for publication



7.4 Publication

7.4.1 **Process characteristics**

7.4.1.1 Purpose

The purpose of this process is to formally make the document available to all ECSS users.

7.4.1.2 Key activities

- TA approval on the document for publication.
- In case of a negative vote from an ECSS member, it is stated what actions need to be taken to make it a positive vote.
- The TA seeks to obtain agreement and if successful the necessary changes are implemented with the WG convenor support and the document published.
- Otherwise the problem is referred to the SB for decision.
- Once publication is agreed the WG convenor is requested to propose a DoFP to the TA for approval.
- The WG work is acknowledged and the WG disbanded.

7.4.1.3 Inputs

Inputs are the DFA document either from the PR process or the change request process.

7.4.1.4 Outputs

The successful exit is to the published document.

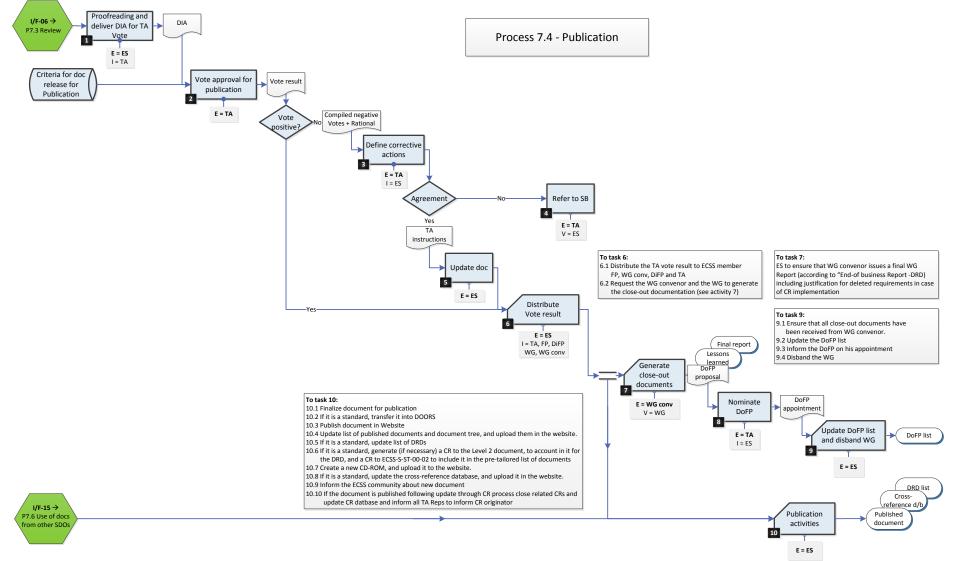
There is also an unsuccessful exit in the case that the TA vote is not positive and the issues cannot be resolved. In this case it is referred to the SB for decision.

7.4.1.5 Configuration controlled documents of this process

TA approved document for publication.



7.4.2 Process Flow Diagram - Publication



7.4.3 Process Flow Description - Publication

#	Task / Description	Next	Function area	Timing/ Triggering	Inputs	Outputs
1	Proofreading DFA, prepare and deliver DIA for TA vote	NEXT: 2	E = ES I = TA	T1= P7.3/T9+2W	DFA, I/F-06 from Process: 7.3 Review	DIA
2	 Vote approval for publication against the criteria for document release for publication (see NC 2.a If the vote is positive: 2.b If the vote is negative: 	DTE) NEXT: 6 NEXT: 3	E = TA	T2=T1+4W	DIA	2.a TA vote result 2.b Compile negative votes + rational
3	Define corrective actions 3.a If TA agreement in corrective actions is reached: 3.b Otherwise:	NEXT: 5 NEXT: 4	E = TA I = ES	T3	Compiled negative votes + rational	3.a Corrective actions 3.b Disagreement record
4	Refer to SB, via ES	END	E = TA V = ES	T4	Disagreement record	Request to SB
5	Update document in accordance with TA instructions	NEXT:6	E = ES	T5=T3 + 3W	TA instructions	Updated document
6	 Distribute TA vote result 6.1 Distribute the TA vote result to the TA, TA member FP, WG convenor, and DiFP 6.2 Request the WG convenor and the WG to generate the close-out documentation (see step 7) 	NEXT: 8 & 10	E = ES I = WG conv, WG, TA, FP, DiFP	T6=(T2 T5)+2 W	TA vote result & agreed draft doc.	Distributed TA vote result
7	Generate close-out documentation ES to ensure that WG convenor issues a final WG Report (according to "End-of business Report -DRD) including justification for deleted requirements in case of CR implementation	NEXT: 8	E = WG conv V = WG	T7=T6+2W	Request from ES	 DoFP proposal LL report Final report
8	Nominate DoFP	NEXT 9	E = TA I = ES	Т8	DoFP proposal from WG	DoFP appointment
9	 Update DoFP list and disband WG 9.1 Ensure that all close-out documentation (see step 7) has been received from WG convenor 9.2 Update DoFP list 9.3 Inform DoFP on his/her appointment 9.4 Disband the WG 	END	E = ES	T9=T8 + 1W	DoFP appointment	1. Updated DoFP list 2. WG disbanded



#	Task / Description	Next	Function area	Timing/ Triggering	Inputs	Outputs
10	 Publication activities 10.1 Finalize document for publication 10.2 If it is a standard (or Adopted Standard), create a new ECSS DOORS module 10.3 Publish document in Website 10.4 Update list of published documents and document tree, and upload them in the website. 10.5 If it is a standard, update list of DRDs 10.6 If it is a standard (or Adopted Standard), generate (if necessary) a CR to the Level 2 document, to account in it for the DRD, and a CR to ECSS-S-ST-00-02 to include it in the pre-tailored list of documents 10.7 Create a new CD-ROM file (virtual), and upload it to the ECSS website. 10.8 If it is a standard (or Adopted Standard), update the cross-reference database, and upload it website. 10.9 Inform the ECSS community about new document 10.10 If the document is published following update through CR process close related CRs and update CR database and inform all TA Reps to inform CR originator 		E = ES	T10=T6+4W	TA vote result DIA or I/F-15 from process 7.6 Docs from other SDOs	 Published doc. DOORs module Updated list of docs. Updated list of DRDs CRs to Level 2 doc, and to S-ST-00-02 Updated (virtual) CD-ROM X-ref, D/B



7.5 TM processing

7.5.1 Process characteristics

7.5.1.1 Purpose

To make available to ECSS users information coming from Drafting process which is not suitable for endorsement as an ECSS standard or handbook.

7.5.1.2 Key activities

- A document which is complete is proposed to ECSS for consideration as a TM.
- It is assessed by the relevant TAAR and a recommendation is made as follows:
 - o reject
 - consider as suitable for transferring to a standard or handbook
 - not suitable for a standard or handbook yet but may be in the future (i.e. put on hold)
 - not standard or handbook material but contains useful information and therefore to be made available as a TM
- The TA makes a decision based on the recommendation
 - suitable to be transformed into a standard or handbook and therefore a NWIP is to be raised (by TAAR)
 - o to be made available as a TM with a specific disclaimer.
 - o rejected
- In all cases the originator is informed.

7.5.1.3 Inputs

Draft document proposed for TA consideration.

7.5.1.4 Outputs

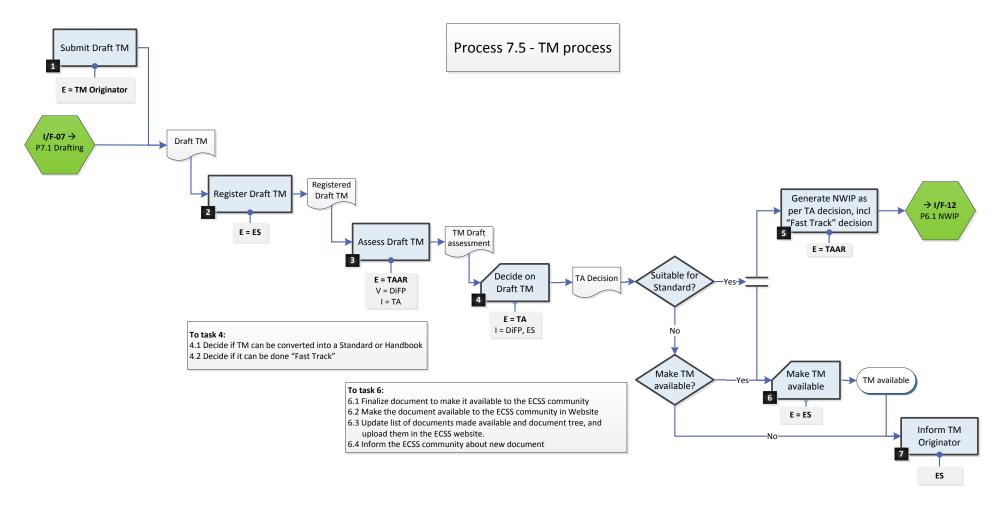
- a. NWIP is generated, or
- b. TM is made available.

7.5.1.5 Configuration controlled documents of this process

- a. NWIP
- b. TM made available



7.5.2 Process Flow Diagram - TM processing



7.5.3 Process Flow Description - TM processing

#	Task / Description	Next	Function area	Timing/ Triggering	Inputs	Outputs
1	Submit draft TM	NEXT: 2	E= TM originator	T1	\rightarrow	Draft TM
2	Register draft TM	NEXT: 3	E = ES	T2	Draft TM, coming from originator or from non- mature drafting, I/F-07 form process 7.1	Registered draft TM
					Drafting	
3	Assess draft TM	NEXT: 4	E = TAAR V = DiFP	T3=T2+4W	Registered draft TM	TM draft assessment
			I = TA			
	Decide on draft TM					
4	 4.1 Decide if TM can be converted into a Standard or Handbook 4.1a If document is suitable for a standard or handbook (then publish as TM, a a NWIP for a standard or handbook, incl. decision about "Fast Track": 4.1b Otherwise: 4.1b1 If the TA decided to make the TM available to the ECSS community: 4.b2 Otherwise 	NEXT: 5	E = TA I = DiFP, ES	T4=T3+2W	TM draft assessment	TA decision
	4.2 Decide if it can be one "Fast Track"	NEAL 7				
5	Generate NWIP NEX	T: I/F-12 (Process 6.1 NWIP)	E = TAAR	T5=T4+4W	TA decision	NWIP



#	Task / Description	Next	Function area	Timing/ Triggering	Inputs	Outputs
	Make TM available	NEXT: 7				
	6.1 Finalize the document to make it available to the ECSS community					
6	6.2 Make the document available in the ECSS website		E = ES	T6=T4+4W	TA decision	TM available
0	6.3 Update the list of documents made available, and document tree, and upload them in the ECSS website			10 11 10	TT accision	in available
	6.4 Inform the ECSS community about the new document					
7	Inform TM originator	END	E = ES	T7=(T4 T6)+2W	TA decision	Informative note to TM originator



7.6 Use of documents from other SDOs in the ECSS system

7.6.1 **Process characteristics**

7.6.1.1 Purpose

The purpose of this process is to decide how documents from other SDOs are included in the ECSS system.

7.6.1.2 Key activities

Check if the SDO document is listed as being "of ECSS interest" or referred to in an ECSS document. If neither case applies nor is considered to be of any interest to be included in the ECSS system, the process terminates.

If the SDO document is "of ECSS interest" and if it is considered acceptable to use in its entirety as published, the TA is informed and the document is added to the relevant "List of SDO "of ECSS interest" documents".

The relevant TAAR assesses whether the SDO document has any impact to any of the respective ECSS documents, which would require a CR to be raised to modify the impacted ECSS documents accordingly.

If the SDO document is considered relevant to ECSS, and however is not acceptable to be used as published, a decision is made whether to adopt, through an adoption notice being raised (which specifies the limit of the scope of application for ECSS).

NOTE Outside of this process it may be determined to propose a modification of the SDO document to suit it for ECSS use, in which case a CR is raised to the SDO document by the respective ECSS PoC for that SDO.

7.6.1.3 Inputs

The input is the proposal for use of an SDO document along with the SDO document itself.

7.6.1.4 Outputs

Outputs are 1 of the 3 options:

- a. Modification of the List of SDO documents "of ECSS interest"
- b. Adoption Notice
- c. Proposal for a CR for the SDO document

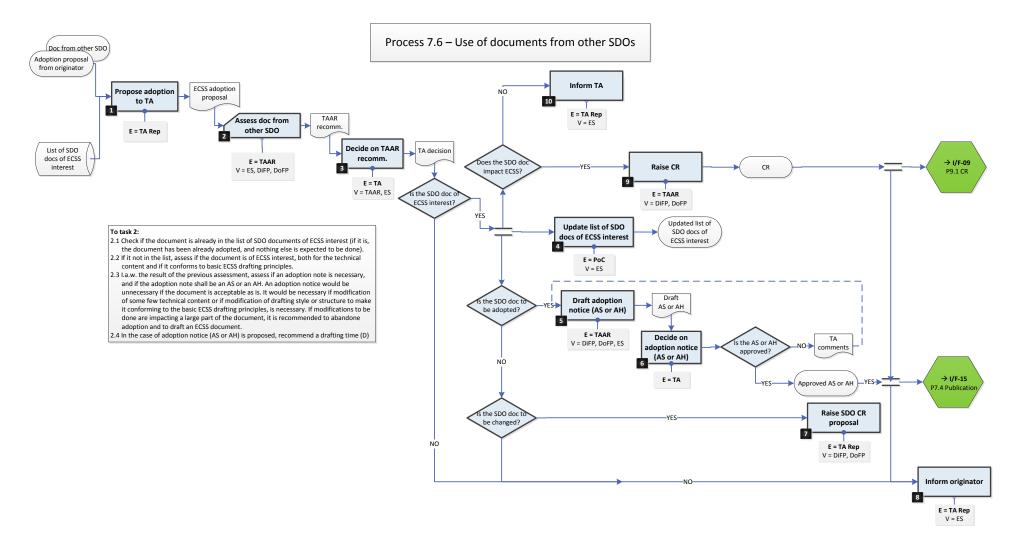


7.6.1.5 Configuration controlled documents of this process

- a. CR(s) to ECSS document(s)
- b. Proposal for CR(s) to SDO document
- c. List of documents "of ECSS interest"
- d. Adoption Notice of an SDO document (adopted as a standard (AS), or as a handbook (AH))



7.6.2 Process Flow Diagram - Use of documents from other SDOs in the ECSS system



7.6.3 Process Flow Description - Use of documents from other SDOs in the ECSS system

#	Task / Description	Next	Function area	Timing/ Triggering	Inputs	Outputs
1	Propose adoption to TA The proposal to TA is done by the TA Rep of the adoption proposal originator organization	NEXT: 2	E = TA Rep	T1	 Doc from other SDO Adoption proposal from originator List of SDO docs of ECSS interest 	Proposal of ECSS adoption
	Assess document from other SDO	NEXT: 3				
	2.1 Check if the document is already in the list of SDO documents "of ECSS interest" (if it is, the document is already adopted, and nothing is expected to be done).		E = TAAR			
	2.2 Assess is the document is "of ECSS interest", both technical content and conformity to basic ECSS rules for drafting (See Note)				P 1 (2000	
2	2.3 I.a.w. the previous assessment, assess if an adoption note is necessary, and if the adoption note is to be an AS or an AH. An adoption note would be unnecessary, if the document is acceptable as it is. It would be necessary if modification of some few technical contents is needed, or if modification of drafting style to make it conforming to ECSS basic drafting rules. If modifications to be done are impacting a large part of the document, it is recommended to abandon adoption and to draft an ECSS document.		V = ES, DiFP, DoFP	T2=T3-2W	Proposal of ECSS adoption	TAAR recommendation
	2.4 In the case of adoption notice (AS or AH) is proposed, recommended drafting time (D)					
3	 Decide on TAAR recommendation 3.a If the TA considers the document "of ECSS interest", 3.a1 and adopt it via an adoption notice (AS or AH): 3.a.2 and use the document as is by referring it from ECSS standards 3.b If the TA does not consider the document "of ECSS interest", 	NEXT: 4 & 5 NEXT: 4 & 7 NEXT: 8	E = TA V = TAAR, ES	T3=TA meeting	TAAR recommendation	TA decision
4	Update list of SDO documents of ECSS interest	END	E = PoC V = ES	T4=T3+2W	TA decision	Updated list of SDO docs of ECSS interest
5	Draft AS or AH	NEXT: 6	E = TAAR V = DiFP, DoFP, ES	T5=T4+D	TA decision Non-ECSS doc	Draft AS or AH



#	Task / Description	Next	Function area	Timing/ Triggering	Inputs	Outputs
6	Decide on AS or AH 6.a If the TA approve the AS or AH: 6.b Otherwise:	NEXT: 8 & I/F-15 (Process 7.4 Publication) NEXT: 5	E = TA	T6=T5 + 4W	Draft TS or TH	6.a Approved AS or AH6.b: TA comments for correction
7	Raise SDO CR proposal	END	E = TA Rep V = DiFP, DoFP	T7=T3+2W	TA decision	CR proposal
8	Inform the originator	END	E = TA Rep V = ES	T8=(T3 T6 T7)+ 2W	TA decision, or Approved AS/AH, or CR	Informative notice to originator
9	Raise CR to the document which calls the non-ECSS document	NEXT: I/F-09 (Process 9.1 CR)	E = TAAR V = DiFP, DoFP	T7=T3+2W	TA decision	CR proposal
10	Record TA decision outcome	END	E = ES V = TA	T8=T3+2W	TA decision,	Information recording in ECSS MyTeams website



8 Control processes

8.1 Control of TFs

8.1.1 Process characteristics

8.1.1.1 Purpose

The purpose of this process is to ensure that the TF is supported by the TA and the SB and that adequate feedback are provided, assessed and acted upon.

8.1.1.2 Key activities

- The TA or the SB identifies a topic requiring the formation of a TF (identified in MoM and /or as an AI).
- The TA assigns a TF convenor (typically a TA member) and the TF convenor is requested to propose a ToR which outlines the identified topic and the associated task(s) to be completed by the TF.
- The ToR is presented to the TA for approval, and when agreed upon, TA members nominate members.
- ES places the ToR in a dedicated TF folder on the ECSS website.
- The TF is convened and works in compliance with the agreed ToR to complete the assigned task.
- The TF convenor submits a status report for each TA meeting, two weeks before the relevant meeting, in the dedicated TA meeting folder on the ECSS website.
- The report is assessed at the TA meeting to determine if there are any issues/problems that need to be solved either by the TA or to be promoted to the SB. Corrective action is proposed where possible and agreed with the TF convenor for implementation.
- If the TA concludes that the trend of the TF is such that it is unlikely to discharge its commitments in accordance with the ToR then a proposal to the SB for TF disbandment may be recommended.
- The TA chairperson, with the support of the TF convenor, generates a report for the SB two weeks before the SB meeting and includes TA agreed items for decision together with any TF recommendations.
- ES places the report in the dedicated SB meeting folder on the ECSS website.



- Following the SB meeting the TF-related decisions are fed back to the TF convenor, by the TA chairperson, and, where necessary, the ToR is updated and presented to the TA for approval.
- On conclusion of their task, the TF convenor provides to the TA a summary report of the activities completed and the list of recommendations on how to proceed.
- The TA reviews and provides feedback to this report and recommends forwarding to the SB, with a recommendation for TF closure on the basis of task completion.
- The SB receives the summary report and provides the endorsement for the TA recommendation of disbanding the TF.

8.1.1.3 Inputs

- ECSS TF ToR Template.
- MoM or AI detailing task to be assigned to TF.

8.1.1.4 Outputs

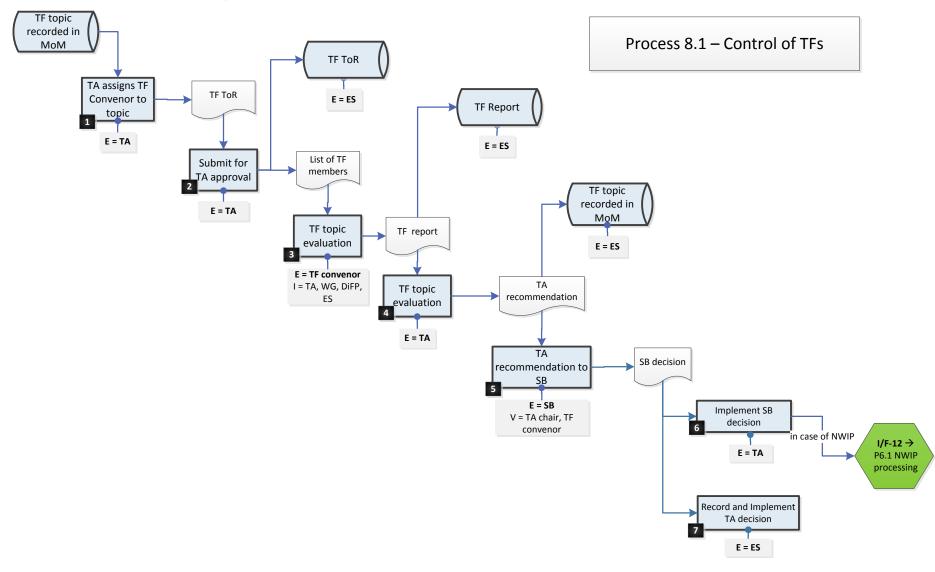
ECSS TF summary report (final).

8.1.1.5 Configuration controlled documents of this process

- a. ECSS TF Terms of Reference Template.
- b. Dedicated ECSS TF Terms of Reference.
- c. ECSS TF summary report (intermediate and final).



8.1.2 Process Flow Diagram – Control of TFs





8.1.3 **Process Flow Description – Control of TFs**

#	Task / Description	Next	Function area	Timing/ Triggering	Inputs	Outputs
1	TA assigns TF convenor to topic	NEXT: 2	E = TA	T1	TF topic in MoM	TF ToR
2	Submit for TA approval	NEXT: 3	E = TA	T2	TF ToR	List of TF members
3	TF topic evaluation	NEXT: 4	E = TF conv. I = TA, WG, DiFP, ES	Т3	TF ToR + List of Members	TF Report
4	TA assess TF report	NEXT: 5	E = TA	T4	TF Report	TA recommendation
5	TA recommendation to SB	NEXT: 6 & 7	E = SB V = TA chair, TF conv	T5=T4+D1	TA recommendations	SB decision
6	Implement SB decision	End (no further action), I/F-12 (Process 6.1) for NWIP processing	E = TA	T6	SB decision	Decision implemented
7	Record and implement SB decision	End	E = ES	Τ7	SB decision	Decision recorded and implemented



8.2 Control of WGs

8.2.1 Process characteristics

8.2.1.1 Purpose

The purpose of this process is to ensure that the WG is supported by the TAAR and the TA and that adequate progress reports are provided, analysed and acted upon.

8.2.1.2 Key activities

ES notifies the WG of the need to provide a report in advance on an up-coming TA meeting.

The WG convenor submits a report using the WG Report template (see Annex C) to the ES, two weeks before the relevant TA meeting, who make this available to the TA.

The TA determines if there are any issues/problems that need to be resolved. Corrective action is proposed where possible and provided to the WG convenor for implementation, with agreed actions and decisions together with recommendations being captured in the TA MoM.

If the TA concludes that the trend of the WG is such that it is unlikely to fully discharge its commitments in accordance with the NWIP then disbandment may be recommended to the SB.

Following the TA meeting the decisions are implemented by the WG convenor, monitored by the TA and the WP status is updated, as needed.

8.2.1.3 Inputs

a progress reporting template is provided.

8.2.1.4 Outputs

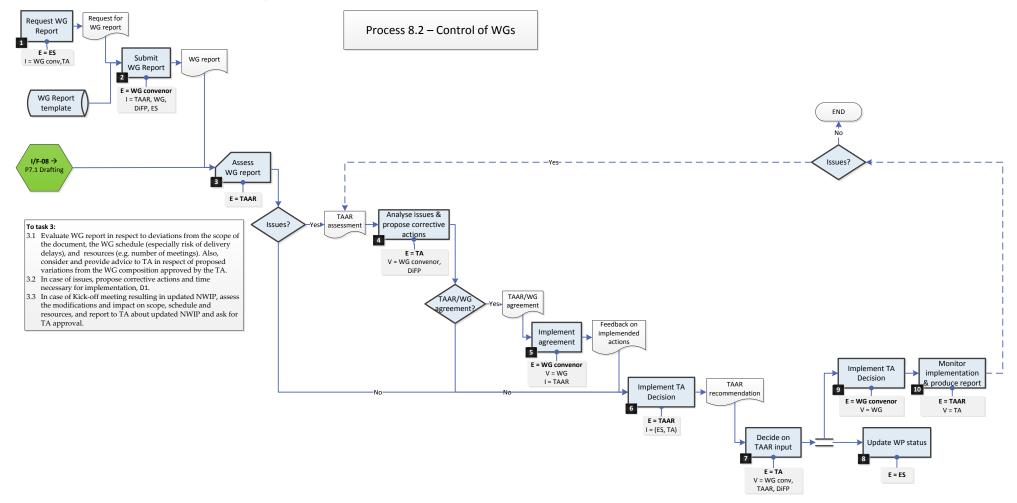
- a. WG Reports.
- b. The process ends once the document is published.

8.2.1.5 Configuration controlled documents of this process

- a. WG report template.
- b. Dedicated WG report(s).



8.2.2 Process Flow Diagram – Control of WGs



8.2.3 Process Flow Description – Control of WGs

#	Task / Description Nex	Function area	Timing/ Triggering	Inputs	Outputs
1	Request WG report NEXT: 2	E = ES V = WG conv, TA	T1=T4-4W	-	WG report request
2	Submit WG reportNEXT: 3The WG report template provided to the WG by ES is used.	E = WG conv I = TAAR, WG, DiFP, ES	T2=T1+1W	WG report request WG report template	WG report
3	Assess WG report 3.1 Evaluate WG report in respect to deviations from the scope of the document, the WG schedule (especially risk of delivery delays), and resources (e.g. number of meetings). Also, consider and provide advice to TA in respect of proposed variations from the WG composition approved by the TA. 3.2 In case of issues, proposed corrective actions and time necessary for implementation, D1. 3.3 In case of Kick-off meeting resulting in updated NWIP, assess the modifications and impact on scope, schedule and resources, and report to TA about updated NWIP and ask for TA approval. Two cases are possible: 3.a If activity as planned in the NWIP and WG schedule (i.e. no issues) NEXT: 6 3.b Otherwise: NEXT: 6		T3=T2+2W	WG report, I/F-08 from process: 7.1 Drafting	WG report assessment
4	Analyse issues and propose corrective actions NEXT: 5 4.a If the TAAR and WG agree with the issues and corrective action NEXT: 5 4.b Otherwise NEXT: 6	v vvG conv,	T4= TA meeting	WG report assessment	Corrective actions
5	Implement agreement NEXT: 6	E = WG conv V = WG I = TAAR	T5=T4+D1	WG report assess. Corrective actions	Feedback on implemented action
6	Generate TAAR recommendation NEXT: 7	E = TAAR I = (ES,TA)	T6=(T5 T3)+4W	WG report assess. Corrective actions Feedback	TAAR recommendation
7	Decide on TAAR input NEXT: 8 & 9	E = TA V = WG conv, TAAR, DiFP	Τ7	TAAR recommendation	Implementation decision
8	Update WP status END	E = ES	T8=T7+2W	Implementation decision	Updated WP



#	Task / Description	Next	Function area	Timing/ Triggering	Inputs	Outputs
9	Implement TA decision	NEXT: 10	E = WG conv V = WG	T9=T7+D2	Implementation decision	Decision implemented
10	Monitor implementation and generate report 8.a Decision implemented as decided by TA (no issues): 8.b Otherwise (Issues)	END NEXT: 4	E = TAAR I = TA	T10=T9	Decision implemented	TAAR report



9 Document maintenance processes

9.1 Feedback process - Change request

9.1.1 **Process characteristics**

9.1.1.1 Purpose

The purpose of this process is to assess proposed changes to published ECSS documents and recommend a course of action, ensuring synchronization with other requests/activities to the same or related documents. Proposed changes derived from Review Board and Lesson Learned (Return on Experience) data coming from the project/programme review are also submitted as CR's to ECSS documentation.

9.1.1.2 Key activities

Each TA member organization, in its own organization, collects the Review Board and Lessons Learned (Return on Experience) data coming from the project/programme review and as necessary transforms those inputs into CRs.

Note: CR raised against ECSS S, D or P addresses the following aspects:

- 1. Are ECSS standards used, if not why?
- 2. To which extent ECSS standards are applied?
- 3. To which extent ECSS standards are tailored?
- 4. Are specific requirements frequently modified or made non applicable?
- 5. Are additional requirements systematically made applicable?
- 6. Does implemented requirements achieved the desired results?
- 7. How are standards made applicable by customers?
- 8. How is the applicability transferred across the various contractual levels?
- 9. How does contractor react to the way ECSS are made applicable by the customer?
- 10. How are the ECSS standards requirements verified?

TAAR analyses the CR together with similar CRs from the Change Request Log and recommends to accept or reject the CR. If accepted the TAAR assigns the degree of urgency for the implementation of the CR.



TA decides if a WG is necessary and if so the TAAR raises a NWIP.

Whenever distributing a NWIP for an update of an ECSS document, ES informs TA members that they should collect in their respective organization any identified need of CR to that document to avoid receiving them as DRR during the PR.

If a WG is not considered necessary the document is revised and a check is then made to ensure that it can be published independently, otherwise it is deferred until other associated documents are also ready. In the latter case all documents are published simultaneously.

At all relevant stages, the CR log is updated by the ES.

9.1.1.3 Inputs

Change request (CR) from any ECSS user, using the online ECSS CR form (see Annex C).

Change Requests from Agencies must come from the respective Agency representative in the TA. All CRs not received from the Agency representative in the TA are forwarded by the Secretariat to the respective Agency representative for endorsement and official submission to ECSS for registration as CR.

CRs from industry are directly logged by the ES and forwarded to TAAR for disposition according to the procedure.

9.1.1.4 Outputs

There are three possible exits:

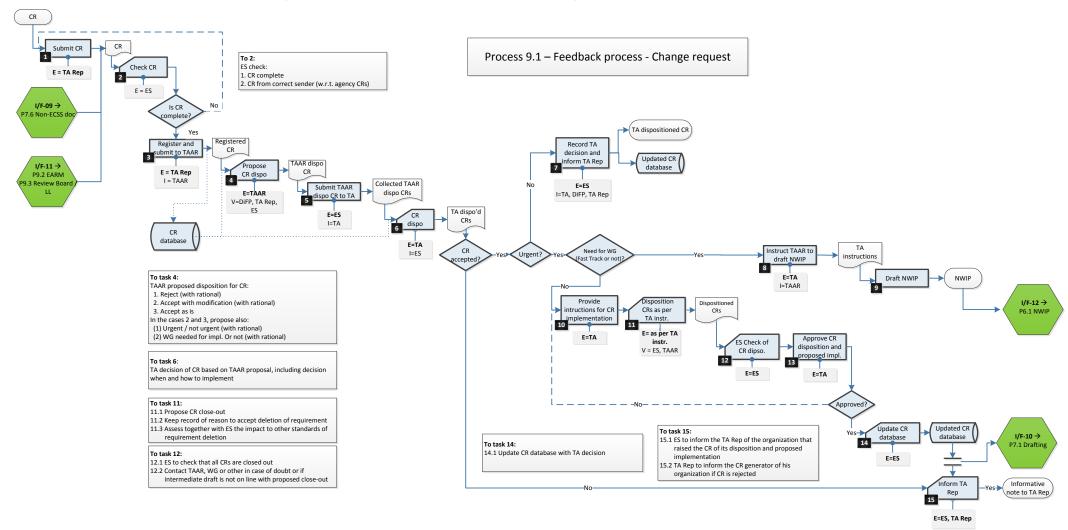
- a. For a CR which is accepted and can be incorporated into a single document without WG (other CRs, related documents which need updating), exit is to the Drafting process.
- b. For CRs for which a WG is needed, a NWIP is raised and exit is to the NWIP process.
- c. If the CR is rejected the process is terminated after update of the CR log.

9.1.1.5 Configuration controlled documents of this process

- a. NWIP
- b. Updated CR Log/ dispositioned CRs
- c. Updated document



9.1.2 **Process Flow Diagram - Feedback process - Change request**





9.1.3	Process Flow Description - Feedback process - Change request
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#	Task / Description	Next	Function area	Timing/ Triggering	Inputs	Outputs
1	Submit Change Request The TA Rep to submit to the TA the CRs from originators from his/her ECSS member organization, once consolidated	NEXT: 2	E = TA Rep	T1	CR from originator	ECSS member organization consolidated CRs
2	Check Change Request 2.1. Check that CR complete 2.2. Check that CR comes from correct sender 2.a If all CR are correct 2.b Otherwise:	NEXT: 3 NEXT: 1	E = ES	T2 < T3	ECSS member organization consolidated CRs, or CR from I/F-09 from process 7.6 Docs from other SDOs	Acceptable ECSS member organization consolidated CRs
3	Register Change Requests and submit to TAAR Registering includes introduction of the CR into the CR database	NEXT: 4	E = TA Rep I = TAAR	T3=T1 + 2W	Acceptable ECSS member organization consolidated CRs	Registered CRs
4	Propose disposition to all registered CRs in his/her areaTAAR proposed disposition for CR:1. CR rejected (with rational)2. CR accepted with modification (with rational)3. CR accepted as isIn the cases 2 and 3, propose also:(1) CR is Urgent / not urgent (with rational)(2) WG needed for implementation of CR or not (with rational)	NEXT: 5	E = TAAR V = DiFP, ES, TA Rep	T4=T6-3W	Registered CRs in the CR database	TAAR dispo CRs
5	Submit TAAR dispositioned CR to TA	NEXT: 6	E = ES I = TA	T5=T6-1W	TAAR dispo CRs	Communication to TA
6	Disposition CR based on TAAR proposal Several disposition cases are possible: 6.a CR rejected 6.b CR accepted, or accepted with mods, and not urgent (with or without a WG necessary): 6.c CR accepted, or accepted with modification, urgent, and a WG is necessary 6.d CR accepted, or accepted with modifications, urgent, and WG is not necessary 6.d CR accepted, or accepted with modifications, urgent, and WG is not necessary The TA disposition includes when and how to implement CR	NEXT: 15 NEXT: 7 NEXT: 8 NEXT: 10	E = TA I = ES	T6 = TA meeting	1. TAAR dispo CR in the CR database 2. Communication to TA	TA dispositioned CRs



#	Task / Description Next	Function area	Timing/ Triggering	Inputs	Outputs
7	Record TA decision and inform TA Rep presenting the CRENDIn the case of non-urgent, nothing else is necessary to be done, since once in the CRdatabase, the CRs are captured when launching the activity in the future (e.g. when drafting the NWIP).	E = ES I = TA, DiFP, TA Rep	T7=T6+2W	TA CR dispositioned	Informative note
8	Instruct the TAAR to draft NWIP immediately NEXT: 9	E = TA I = TAAR	T8=T6= TA meeting	TA decision	TA instruction
9	Draft NWIP as instructed by TA NEXT: I/F-12 (Process 6.1 NWIP)	E = TAAR	T9= as instructed	TA instruction	NWIP
10	Provide instructions for CR implementation NEXT: 11	E = TA I = TAAR/ES	T10=T6= TA meeting	TA decision	TA instruction
11	Disposition CRNEXT: 1211.1 Disposition all CR in CR database and propose implementation11.2 In case of problems liaise with TAAR or DiFP	E = as per TA decision V = TAAR, DiFF	T11= as instructed	TA instruction, I/F- 11	CR dispositions in d/b
12	 ES Check of CR disposition 12.1 Check if all CR were dispositioned in CR database 12.2 In case of issues liaise with entity having performed the CR dispositioning and request action to complete CR dispo. 12.3 When all CRs were dispositioned provide result to TA for approval 	E = ES V = as per TA decision	T12= 1w	CR dispositions in d/b	Dispositioned CRs for TA approval
13	Approve CR disposition and proposed implementation 13.a If approved: NEXT: 14 13.b Otherwise: NEXT: 10	E = TA	T13	Dispositioned CR Updated document	TA decision
14	Update CR database with TA decisionNEXT: & I/F-10 (Process 7.1 Drafting)14.1 Update CR database with TA decision	E=ES	T14 = 1w	TA decision on CR implementation approval	 Updated CR D/B Updated document
15	Inform the TA RepEND15.1 ES to inform the TA Rep of the organization that raised the CR of its disposition and proposed implementationEND15.2 TA Rep to inform the CR generator of his organization if CR is rejectedEND	E = ES	T15= 1w	TA decision or Actual implementation	Informative note to TA Rep



9.2 Feedback process - EARM

9.2.1 **Process characteristics**

9.2.1.1 Purpose

The purpose of this process is to use the EARM data coming from the Project/Programme ITT as a source of feedback. They potentially contain information about rejected requirements, added requirements and modified requirements. The EARM may also provide data on which standards are not used.

9.2.1.2 Key activities

- Each TA member organization collects the EARM from within its own organization.
- Each TA member consolidates the EARMs and sends the data to the ES.
- The ES then add the EARMs to a folder on ECSS team website and perform a pre-processing in accordance with the consolidated project calendar list.
- The pre-processing consists in identifying and flagging the following:
 - to which extent ECSS standards are applied?
 - to which extent ECSS standards are tailored?
 - are specific requirements frequently modified or made non applicable?
 - are additional requirements systematically made applicable?
- The outcome, as well as the full set of data, is made available through a dedicated ECSS Feedback webpage accessible by TA members and TAARs.
- TA members and TAARs then draw a conclusion on the basis of the following criteria and make recommendation to TA for evolutions.
 - 1. Are ECSS standards used, if not why?
 - 2. To which extent ECSS standards are applied?
 - 3. To which extent ECSS standards are tailored?
 - 4. Are specific requirements frequently modified or made non applicable?
 - 5. Are additional requirements systematically made applicable?
 - 6. Does implemented requirements achieved the desired results?
 - 7. How are standards made applicable by customers?
 - 8. How is the applicability transferred across the various contractual levels?
 - 9. How does contractor react to the way ECSS are made applicable by the customer?
 - 10. How are the ECSS standards requirements verified?

9.2.1.3 Inputs

The neutral format for the EARM (see Annex C).

The completed EARM come from the respective TA Representative. All EARM not received from the TA representative are forwarded by the ES to the respective TA Representative for endorsement and official submission to ECSS for inclusion as Feedback data.

EARM from industry is directly logged by the ES as Feedback data and forwarded to TA and TAARs for review according to the procedure.

9.2.1.4 Outputs

The assessment outcomes from the TA and the TAAR, and either,

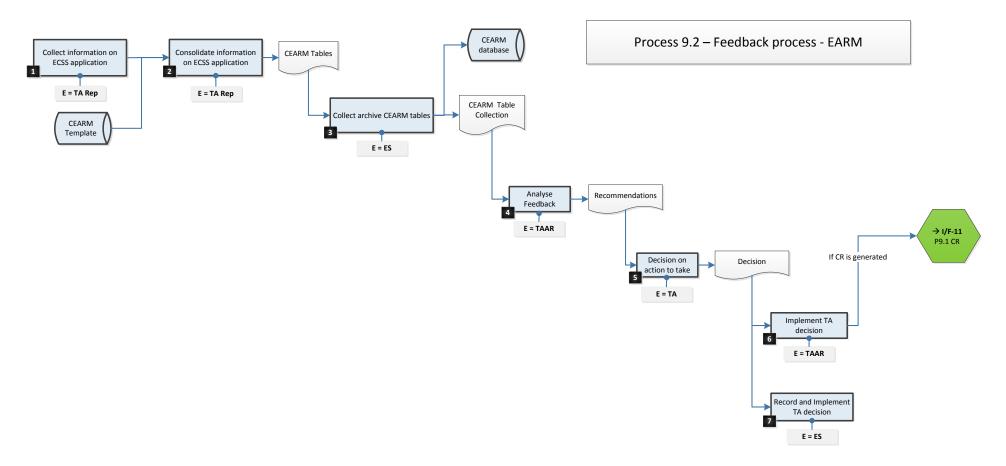
- for an EARM which is accepted (i.e. valid submission), the data is added to the Feedback folder on the ECSS website, or
- for an EARM which is not accepted (i.e. an invalid submission), the data is returned to the submitter by the ES with the TA and TAAR comments.

9.2.1.5 Configuration controlled documents of this process

- a. EARM
- b. TA and TAAR assessment outcomes
- c. Updated Feedback folder



9.2.2 Process Flow Diagram - Feedback process - EARM





9.2.3 Process Flow Description - Feedback process - EARM

#	Task / Description	Next	Function area	Timing/ Triggering	Inputs	Outputs
1	Collect information on ECSS application	NEXT: 2	E = TA Rep	T1	-	Feedback from projects
2	Consolidate information on ECSS application	NEXT: 3	E = TA Rep	T2	Feedback from projects Templates	CEARM Tables
3	Collect archive CEARM tables	NEXT: 4	E = ES	Т3	CEARM Tables	Collection of CEARM Tables
4	Analyse Feedback	NEXT: 5	E = TAAR	T4	Collection of CEARM Tables	Recommendations
5	Decision on Action to take	NEXT: 6 and 7	E = TA	T5	Recommendations	Decision
6	Implement TA decision	END	E = TAAR	T6	Decision	TA decision implemented
7	Record and implement TA decision	END	E = ES	Τ7	Decision	TA decision recorded and implemented



9.3 Feedback process – from Inquiry Board/LL

9.3.1 **Process characteristics**

9.3.1.1 Purpose

Each TA Representative acquires, archives and analyses the inputs coming from Inquiry board and Lesson learned system of their organisation dealing with ECSS requirements.

From the analyses, they decide on what are the recommendations to be made to the TA for improving the ECSS system.

9.3.1.2 Key activities

- Each TA member organization collects inputs from Inquiry Board and lesson learned system (e.g. need to remove, update or add requirement) within its own organization.
- They archive the necessary information to support recommendations that will be drawn out of the analysis of the finding.
- Present the recommendations to TA with all relevant supporting material
- The TA and if relevant the ECSS SB analyses the recommendations and decides on follow up actions.
- The ES records the action and decision and implements the decisions.

9.3.1.3 Inputs

In each organisation, the results of inquiry board and the output of the Lesson Learned System.

For the TA, the set of recommendations, supported by relevant material presented by a TA Representative.

9.3.1.4 Outputs

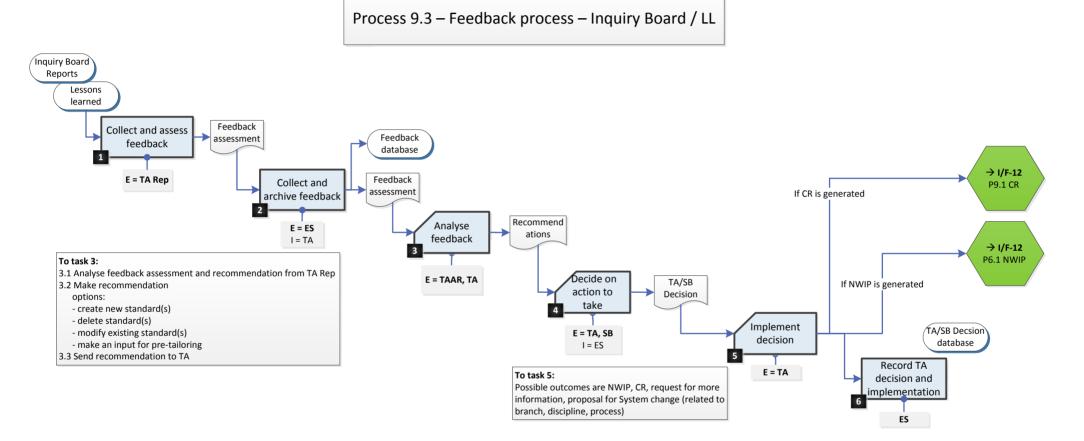
The assessment outcomes from the TA and, if relevant ECSS SB resulting in decision and Actions.

9.3.1.5 Configuration controlled documents of this process

- a. Updated decision folder
- b. Updated Action item folder
- c. Updated Feedback folder



9.3.2 Process Flow Diagram - Feedback process – from Inquiry Board/LL





9.3.3 Process Flow Description - Feedback process – from Inquiry Board/LL

#	Task / Description	Next	Function area	Timing/ Triggering	Inputs	Outputs
1	Consolidate information from Inquiry boards and LL on ECSS application	NEXT: 3	E = TA Rep	T1	Feedback from projects Templates	CEARM Tables
2	Collect archive CEARM tables	NEXT: 4	E = ES	T2	CEARM Tables	Collection of CEARM Tables
3	Analyse Feedback	NEXT: 5	E = TAAR	Т3	Collection of CEARM Tables	Recommendations
4	Decision on Action to take	NEXT: 6 and 7	E = TA	T4	Recommendations	Decision
5	Implement TA decision	END	E = TAAR	T5	Decision	TA decision implemented
6	Record and implement TA decision	END	E = ES	T6	Decision	TA decision recorded and implemented



10 System maintenance processes

10.1 Feedback process - Questionnaire

10.1.1 Process characteristics

10.1.1.1 Purpose

Through the use of a questionnaire (or survey) ECSS gathers constructive feedback from projects or programmes (i.e. the users of ECSS - an organization or an individual who is not acting as a representative of an organization). The aim of this type of data collection is to be able to reach specific ECSS users, and acquire specific, e.g. feedback not only related to requirements but also regarding the ECSS system and tools available (such as the ECSS).

The benefit of the questionnaire is that it can address topics that are not obtained through the other identified sources of ECSS feedback (i.e. EARM, CR, LL system and Inquiry board).

10.1.1.2 Key activities

- A TA member makes available an ECSS "survey / questionnaire" to the TA, along with the details of the proposed target audience with supporting rationale;
- The questionnaire is reviewed by the TA and ES, and is updated by the ES upon TA request and definition;
- Each TA member's organization involved controls the relevant list of people that have access to it and also coordinates/consolidates the answers to be sent to the ES;
- The ES consolidates the responses from various parties, through a "preprocessing" that may make use of statistical tools, for data that allows this
- The ES places the provided outcome, as well as the full set of data, in a dedicated folder in the TA section of the ECSS MyTeams website.

TA members then draw a conclusion on the basis of the feedback data and make recommendation to TA for evolutions.

10.1.1.3 Inputs

Survey / questionnaire (or other data gathering template, such as an interview script) from TA member.



10.1.1.4 Outputs

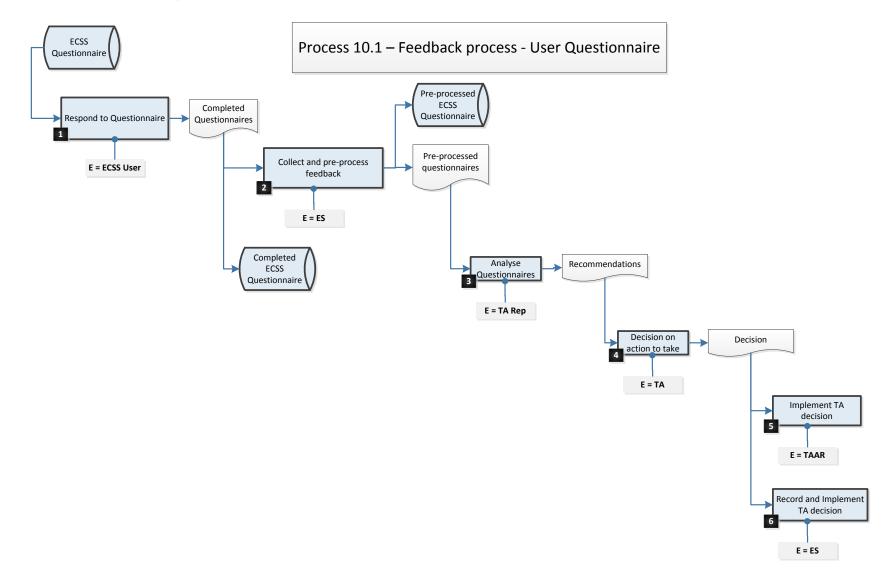
- a. TA approved survey / questionnaire (or other data gathering template, such as an interview script)
- b. Target audience listing
- c. The ES pre-processing output of survey data
- d. The questionnaire, as well as the full set of rationalised data, in a dedicated folder in the ECSS Feedback webpage
- e. The assessment outcome (recommendations) from the TA and the TAAR

10.1.1.5 Configuration controlled documents of this process

- a. Survey / Questionnaire
- b. Completed survey data / Questionnaire
- c. Rationalised data
- d. TA and the TAAR assessment outcomes (recommendations)



10.1.2 Process Flow Diagram - Feedback process - Questionnaire





10.1.3 Process Flow Description - Feedback process - Questionnaire

#	Task / Description	Next	Function area	Timing/ Triggering	Inputs	Outputs
1	Respond to questionnaire	NEXT: 2	E = ECSS User	T1	ECSS questionnaire	Completed questionnaire
2	Collect and pre-process Feedback	NEXT: 3	E = ES	T2	Completed questionnaire	Pre-processed questionnaire
3	Analyse questionnaire	NEXT: 4	E = TA Rep	Т3	Pre-processed questionnaire	Recommendations
4	Decision on Action to take	NEXT: 5 and 6	E = TA	T4	Recommendations	Decision
5	Implement TA decision	END	E = TAAR	T5	Decision	TA decision implemented
6	Record and implement TA decision	END	E = ES	Т6	Decision	TA decision recorded and implemented



11 Control of ECSS representation in SDOs and other external bodies

11.1 ECSS-ESCC coordination

This process is applicable to the ECSS-Q-60 discipline for those standards which are developed by ESCC. It is identical to the process of development of a standard except that actors are different and some process steps added. It is defined in the step by step process agreed between the Space Components Steering Board and the ECSS SB, with updated ECSS responsibilities. See Annex A.

For this process a detailed process flow diagram and process description have not been established.



11.2 Processes for ECSS-CCSDS coordination

11.2.1 CCSDS NWI assessment

11.2.1.1 Process characteristics

11.2.1.1.1 Purpose

The purpose of this process is to:

- propose to CCSDS New Work Items (NWI) which ECSS believes are better developed in the CCSDS system.
- evaluate CCSDS NWI with regard to documents "of ECSS "interest" list.
- ensure that items of ECSS interest are either tracked through the CCSDS process or raised as ECSS NWIP if CCSDS do not have any interest.

11.2.1.1.2 Key activities

From the ECSS NWIP, generate the necessary documents to propose to CCSDS as NWIs.

On receipt of CCSDS NWI, if not originated from ECSS, the TA decides after evaluation by the ECSS-CCSDS MWG if ECSS has an interest in the development and if so informs CCSDS.

In the event of a negative outcome of the ECSS proposal for a CCSDS NWI, the TA determines whether or not to generate an ECSS NWIP.

11.2.1.1.3 Inputs

An ECSS NWIP which is assessed as being developed through the CCSDS process.

A CCSDS NWI

11.2.1.1.4 Outputs

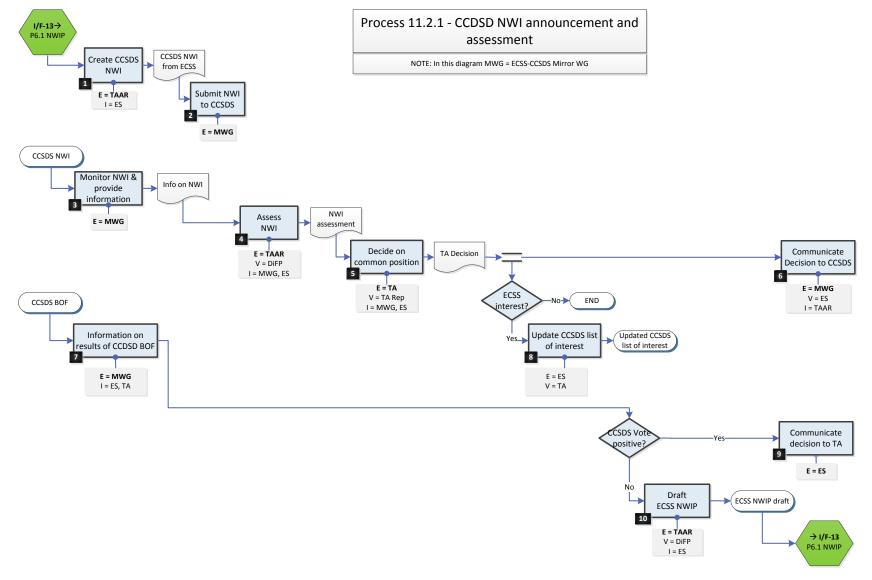
- a. CCSDS NWI (derived from an ECSS NWIP)
- b. ECSS NWIP (if CCSDS decision is not to proceed with a NWI proposed by ECSS)

11.2.1.1.5 Configuration controlled documents of this process

- a. CCSDS NWI generated by ECSS
- b. ECSS NWIP
- c. List of CCSDS documents of "ECSS "interest"



11.2.1.2 Process Flow Diagram - CCSDS NWI assessment





11.2.1.3 Process Flow Description - CCSDS NWI assessment

#	Task / Description	Next	Function area	Timing/ Triggering	Inputs	Outputs
1	Create CCSDS NWI	NEXT: 2	E = TAAR I = ES	T1=P6.1/T9+4W	NWIP TA decision	CCSDS NWIP from ECSS
2	Submit NWIP to CCSDS	END	E = MWG	T2=T1+2W	CCSDS NWIP from ECSS	CCSDS NWIP sent to CCSDS
3	Monitor NWIP/NWI and provide information	NEXT: 4	E = MWG	T3=new CCSDS NWIP/NWI	CCSDS NWIP/NWI	Info on CCSDS NWIP/NWI
4	Assess NWIP/NWI	NEXT: 5	E = TAAR V = DiFP I = MWG, ES	T4=T5-2W	Info on CCSDS NWIP/NWI	NWIP/NWI assessment
5	Decide common position 5.a The TA decides that the CCSDS NWIP/NWI is of ECSS interest 5.b: Otherwise:	NEXT: 6&8 NEXT: 6	E = TA V = TA Rep I = MWG, ES	T5=TA meeting	NWIP/NWI assessment	TA decision
6	Communicate decision to CCSDS	END	E = MWG V = ES I = TAAR	T6=T5+2W	TA decision	Communication to CCSDS
7	Inform on results of CCSDS BOF	NEXT: 10	E = MWG I = ES, TA	New CCSDS BOF	CCSDS BOF	Info on CCSDS BOF
8	Update CCSDS list of ECSS interest 8.a If CCSDS vote the NWIP/NWI positively 8.b Otherwise:	NEXT: 9 NEXT: 10	E = ES V = TA	T8=(T6 T7)+ 2W	TA decision or CCSDS BOF	Updated list of CCSDS docs of ECSS interest
9	Incorporate NWIP in ECSS WP	END	E = ES	T9=T8+2W	 List of CCSDS docs of ECSS interest CCSDS vote 	Updated WP
10	Draft ECSS NWIP	NEXT: I/F-13 (Process 6.1 NWIP)	E = TAAR V = DiFP I = ES	T10=T8+4W	 List of CCSDS docs of ECSS interest CCSDS vote 	ECSS NWIP draft



11.2.2 CCSDS document review

11.2.2.1 Process characteristics

11.2.2.1.1 Purpose

To review from an ECSS point of view CCSDS documents "of ECSS "interest" and provide comments.

11.2.2.1.2 Key activities

In accordance with the ECSS-CCSDS MoU, the CCSDS secretariat informs the ES of any documents in review and accepts comments from ES. In line with this the following are the key activities:

If the received document from the CCSDS Secretariat is on the list of CCSDS documents "of ECSS "interest", a review package including the document, the deadline and any relevant information is forwarded by the ES to the ECSS-CCSDS MWG and to TA Representatives (or delegated persons) of those member organizations who are not also members of CCSDS (e.g. EUROSPACE), for comment.

The ES reviews the document against the CCSDS drafting rules and generates review comments as necessary.

The ES compiles its own comments together with the received comments from the MWG and those member organizations who are not also members of CCSDS and sends the consolidated review comments to CCSDS Secretariat for disposition.

11.2.2.1.3 Inputs

CCSDS document review package and CCSDS drafting rules

11.2.2.1.4 Outputs

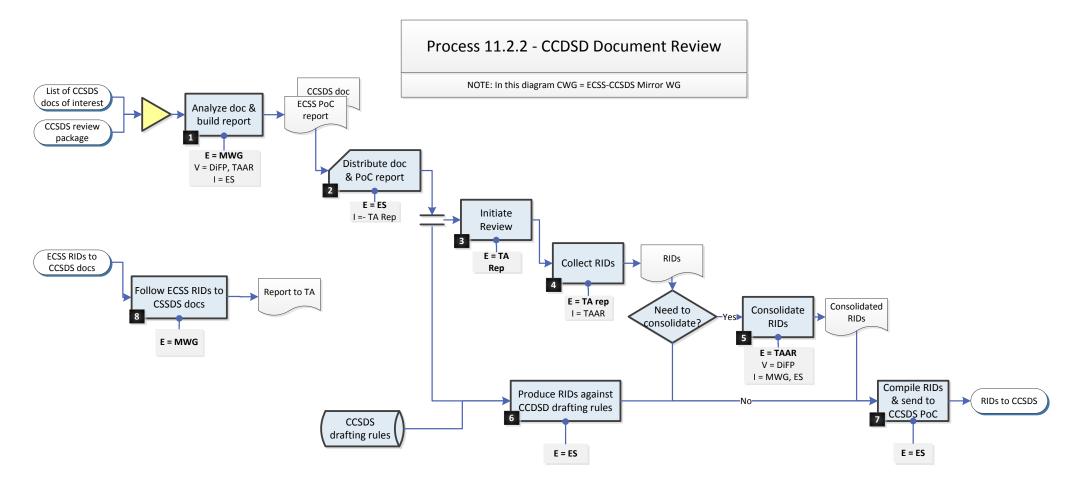
ECSS consolidated comments

11.2.2.1.5 Configuration controlled documents of this process

Consolidated comments



11.2.2.2 Process Flow Diagram - CCSDS document review





11.2.2.3 Process Flow Description - CCSDS document review

#	Task / Description	Next	Function area	Timing/ Triggering	Inputs	Outputs
1	Analyze document (including need for ECSS consolidation)	NEXT: 2	E = MWG V = DiFP, TAAR I = ES	T1=When all inputs are available	 List of CCSDS docs of ECSS interest CCSDS review package 	1. CCSDS doc available to ECSS
2	 Distribute doc 2.1 The ES to distribute the document together with the request to produce comments, to: 2.1.1 If there is a need for consolidation, to all TA Reps. 2.1.2 Otherwise, only to the ECSS-CCSDS MWG and the ECSS member organizations which are not member of CCSDS. 	NEXT: 3 & 6	E = ES I = TA Rep	T2=T1+1W	1. CCSDS doc available to ECSS	Doc distributed
3	Initiate review	NEXT: 4	E = TA Rep	T3=T2	Doc distributed	Not verifiable by ECSS
4	Collect comments 2.a If the PoC report recommends consolidation (see step 1): 2.b Otherwise:	NEXT: 5 NEXT: 7	E = TA Rep + MWG	T4=CCSDS deadline – 2W	Individual comments from MWG or his/her organization.	2.a Compiled RIDs from MWG or his/her organization.
5	Consolidate comments	NEXT: 7	E = TAAR V = DiFP I = MWG, ES	T5=CCSDS deadline -1W	Compiled comments from ECSS organization.	Consolidated RIDs
6	Produce review comments in line with CCSDS drafting rules (see NOTE)	NEXT: 7	E = ES	T6=CCSDS deadline-1W	 Doc distributed CCSDS drafting rules 	RIDs against CCSDS drafting rules
7	Compile comments & send to CCSDS PoC	END	E = ES	T7≤CCSDS deadline	(TA Rep TAAR) + ES comments	RIDs to CCSDS
8	Follow comments to CCSDS docs	END	E = MWG	Т8	ECSS comments to CCSDS docs	Report to TA



11.3 Processes for ECSS-ISO coordination

11.3.1 ISO NWI assessment

11.3.1.1 Process characteristics

11.3.1.1.1 Purpose

The purpose of this process is to:

- monitor proposals for ISO new work items and decide upon the level of ECSS involvement, if documents are "of ECSS interest"
- propose ISO new work items derived from an ECSS NWIP

11.3.1.1.2 Key activities

If the new work item input to ISO is derived from the ECSS NWIP process, an ISO NP is raised by the relevant TAAR and sent to ISO secretary (with notification to the ECSS /ISO PoC)

An ISO NP is evaluated by the TAAR and a recommendation regarding ECSS involvement is made to the TA

The TA decides upon which way to proceed in consideration of the ISO NWI:

- fully cooperate with ISO NP development, create a MWG and become involved in the ISO project, or
- proceed with independent ECSS action through a NWIP or CR;
- provide to ISO a recommendation to stop or amend the ISO NP activity because it conflicts with ECSS documents or principles;
- take no action.

Where considered relevant at TA level, a European coordination is done through national delegations.

11.3.1.1.3 Inputs

ISO NP or an ECSS NWIP

11.3.1.1.4 Outputs

NP is submitted to ISO.

If the decision is to be fully involved in the ISO development (and this is always the case for an ECSS generated ISO NP), exit is to the ISO project process.

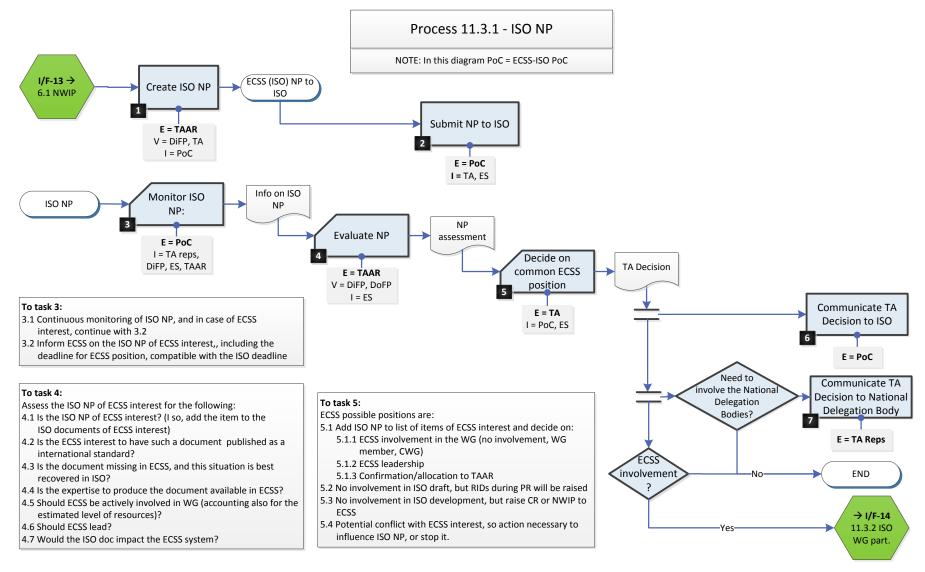
If it is decided that it is not a "of ECSS interest document" developed in ISO, inform the National Delegation Bodies about this.

11.3.1.1.5 Configuration controlled documents of this process

ISO NP derived from ECSS



11.3.1.2 Process Flow Diagram - ISO NWI assessment





11.3.1.3 Process Flow Description - ISO NWI assessment

#	Task / Description	Next	Function area	Timing/ Triggering	Inputs	Outputs
1	Create ISO NP from ECSS	NEXT: 2	E = TAAR V = DiFP, TA I = PoC	T1=T(P6.1/9)+4W	TA decision (see P6.1/9)	ECSS derived ISO NP
2	Submit NP to ISO	END	E = PoC I = TA, ES	T2=T1+2W	ECSS derived NP to ISO	Submission letter
3	 Monitor ISO NP 3.1 Continuous monitoring of ISO NP, and in case of ECSS interest, continue with 3.2 3.2 Inform ECSS on the ISO NP "of ECSS interest", including the deadline for ECSS position, compatible with the ISO deadline 	NEXT: 4	E = PoC I = TA Reps, ES, DiFP, TAAR	T3=ISO NP delivered by ISO	ISO NP	Info on ISO NP
4	 Evaluate NWIP/NWI Assess the ISO NP of ECSS interest for the following: 4.1 Is the ISO NP "of ECSS interest" for adoption or use in space projects? (If so, add the item to the list of ISO documents "of ECSS interest") 4.2 Is the ECSS interest to have such a document published as an international standard? 4.3 Is the document missing in ECSS, and this situation is best covered in ISO? 4.4 Is the expertise to produce the document available in ECSS? 4.5 Should ECSS be actively involved in ISO project (accounting also for the estimated level of resources)? 4.6 Should ECSS lead? 4.7 Would the ISO doc impact the ECSS system? 	NEXT: 5	E = TAAR V = DiFP, DoFP I = ES	T4=T5-2W	Info on ISO NP	ISO NP assessment



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#	Task / Description	Next	Function area	Timing/ Triggering	Inputs	Outputs
5	 5.b If ECSS needs to be involved, but not the ECSS member organizations National Delegation bodies: NEX 5.d If ECSS needs to be involved, and also the ECSS member organizations National) NEXT: 6 NEXT: 6 & 7 (T: 6 & I/F-13 , 7 and I/F-14	E = TA I = PoC, ES	T5=TA meeting	ISO NP assessment	TA decision
6	Communicate TA decision to ISO	END	E = PoC	T6=T5+2W	TA decision	Communication letter
7	Communicate TA decision to National Delegation body	END	E = TA Reps	T7=T5 (asap)	TA decision	Communication letter



11.3.2 ISO project participation

11.3.2.1 Process characteristics

11.3.2.1.1 Purpose

The purpose of this process is to decide the ECSS representation in the ISO project

11.3.2.1.2 Key activities

For ISO projects which are "of ECSS interest", the TA decides on the participation from ECSS based on the proposals from TA members and creates a MWG whose convenor is the ISO project PoC.

11.3.2.1.3 Inputs

Decision from the ISO NP and assessment process to participate to the ISO project or the results of an ISO ballot on a NP.

11.3.2.1.4 Outputs

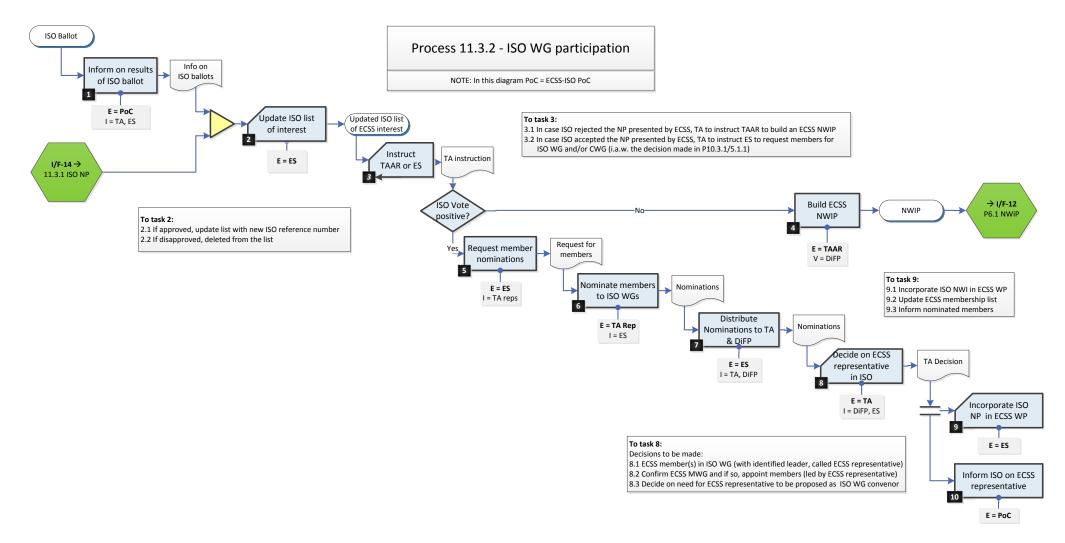
The process terminates when the participant(s) to the ISO project are agreed by the TA and the ISO PoC informed. In the case where a decision to participate has been made but the ISO NP is not accepted by ISO/TC20/SC14, exit is to the ECSS NWIP process.

11.3.2.1.5 Configuration controlled documents of this process

- ISO items of ECSS interest (part of WP)
- ISO NP
- ECSS WP
- ECSS list of WG members (including MWG and ECSS representative in ISO)



11.3.2.2 Process Flow Diagram - ISO project participation





11.3.2.3 Process Flow Description - ISO project participation

#	Task / Description	Next	Function area	Timing/ Triggering	Inputs	Outputs
1	Inform on results of ISO ballot	NEXT: 2	E = PoC I = TA, ES	T1=ISO ballot	ISO ballot	Info on ISO ballot
2	Update ISO list "of ECSS interest" 2.1 If approved, update list with new ISO reference number 2.2 If disapproved, deleted from the list	NEXT: 3	E = ES	T2=(T1&I/F- 14/Task5) + 2W	Info on ISO ballots & TA decision (see I/F-14/T5 Process 11.3.1 ISO NWI)	Updated ISO list of ECSS interest
3	 Instruct TAAR or ES 3.1 In case ISO rejected the NP presented by ECSS, TA to instruct TAAR to build an ECSS NWIP, and then: 3.2 In case ISO accepted the NP presented by ECSS, TA to instruct ES to request members for ISO project and MWG, and then: 	NEXT: 4 NEXT: 5	E = TA I = TAAR ES	T3=TA meeting	Comm on ISO vote	TA instruction
4	Build ECSS NWIP NEXT: I/F-12 (Proces	ss 6.1 NWIP)	E = TAAR V = DiFP	T4=as instructed by TA	TA instruction	NWIP
5	Request member nomination to ISO project (and if so decided, to MWG) Decision to nominate members to ISO projects, and MWG (see clause 4.8 and clause 4.9.4)	NEXT: 6	E = ES I = TA Reps	T5=as instructed by TA	TA instruction	Request for members
6	Nominate members to ISO projects (and if necessary to MWG, see step #5)	NEXT: 7	E = TA Rep I = ES	T6=as instructed by TA	Request for members	Member nominations
7	Distribute nominations to TA & DiFP	NEXT: 8	E = ES I = TA, DiFP	T7=T6+2W	Member nominations	Distribution of member nominations
8	Decide on ECSS PoC in ISONDecisions to be made:8.1 ECSS member(s) in ISO project (with identified leader, called ECSS representative)8.2 Confirm ECSS MWG and if so, appoint members (led by ECSS representative)8.3 Decide on need for ECSS representative to be proposed as ISO project convenor)	NEXT: 9 & 10	E = TA I = DiFP, ES	Т8	Member nominations	TA decision
9	Monitor NPs 9.1 Incorporate ISO NP in ECSS WP 9.2 Update ECSS membership list 9.3 Inform nominated members	END	E = ECSS rep in ISO	Т9	TA decision	Info on NP evolution
10	Inform ISO on ECSS PoC	END	E = PoC	T10=T8+4W	TA decision	Comm note to ISO



11.3.3 ISO document review

11.3.3.1 Process characteristics

11.3.3.1.1 Purpose

The purpose of this process is to identify ISO documents which are received for review and are already noted as documents "of ECSS "interest" and then conduct the review

11.3.3.1.2 Key activities

The ES checks if the ISO documents which are received for review are documents on the list "of ECSS interest documents".

If so, the TA nominates a MWG whose convenor is the ECSS PoC in the ISO project to analyse the document and provide a report containing potential comments to the TA after review.

The nominated TAAR consolidates the comments which are then sent by ES to ISO for disposition.

The ECSS MWG convenor monitors the disposition and reports to the MWG and TA on any resulting issues.

11.3.3.1.3 Inputs

ISO enquiry.

11.3.3.1.4 Outputs

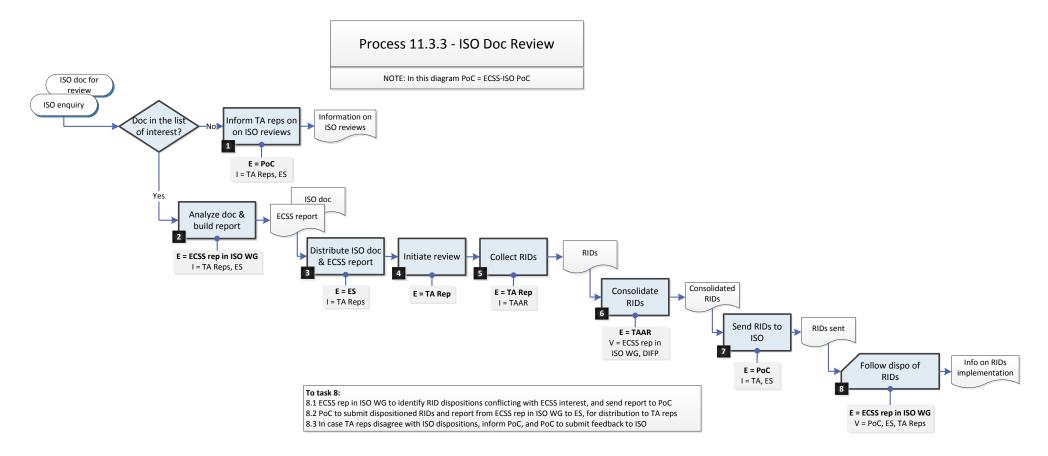
The process terminates when received comments are sent to ISO for disposition according to their process.

11.3.3.1.5 Configuration controlled documents of this process

Consolidated comments



11.3.3.2 Process Flow Diagram - ISO document review





11.3.3.3 Process Flow Description - ISO document review

#	Task / Description	Next	Function area	Timing/ Triggering	Inputs	Outputs
1	Inform TA Representatives on ISO documents reviews Create MWG to analyse the document and produce comments	END	E = PoC I = TA Rep, ES	T1=ISO enquiry for review	 ISO doc not in the list "of ECSS interest" ISO doc for review ISO enquiry 	Information of ISO reviews
2	Analyze ISO document and produce comments	NEXT: 3	E = ECSS MWG in ISO project I = TA Reps, ES	T2=ISO enquiry for review	 ISO doc in the list of ECSS interest ISO doc for review ISO enquiry 	ECSS report
3	Distribute ISO document and ECSS MWG comments	NEXT: 4	E = ES I = TA Rep	T3=T2 + 2W	ISO doc & ECSS report	ISO doc & ECSS report, distributed
4	Initiate review	NEXT: 5	E = TA Rep	T4=T3	ISO doc & ECSS report	Not under ECSS control
5	Collect comments	NEXT: 6	E = TA Rep I = TAAR	T5=ISO deadline -2W	Individual comments	Collected RIDs from his/her organization.
6	Consolidate comments	NEXT: 7	E = TAAR V = ECSS rep in ISO project, DiFP	T6=ISO deadline -1W	Collected comments from TA Reps	Consolidated comments
7	Send comments to ISO	NEXT: 8	E = PoC I = TA, ES	T7 <iso deadline</iso 	Consolidated comments	Consolidated comments sent to ISO
8	 Follow disposition of comments 8.1 ECSS PoC in the ISO project to identify comment dispositions conflicting with ECSS interest and send report to MWG. 8.2 MWG to submit dispositioned comments and report from ECSS PoC in the ISO project to ES for distribution to TA Reps. 8.3 In case TA MWG disagree with ISO disposition, inform TA via ES, and ES to submit feedback to ISO 	END	E = ECSS rep in ISO project V = PoC	Τ8	Consolidated ECSS review comments sent to ISO	Info on review comment implementation



11.4 ECSS-CEN coordination

11.4.1 Transfer of Published ECSS document to CEN

11.4.1.1 Process characteristics

ECSS to CEN process characteristics are defined in the ECSS – CEN MoU May 2013 (see Annex C).



Annex A ESCC-ECSS Step-by-Step process

#	Task definition	ECSS Responsibility	ESCC Responsibility	Comments
0	FEASIBILITY PHASE			
0.1	Need of new/revised standard is proposed by User to PSWG (both through ESCC or ECSS)	Executive Secretariat (if received by ECSS)	PSWG (if received through ESCC bodies)	When PSWG is mentioned the person in charge of the Interface is the PSWG Chairman who is also the Q-60 DiFP
	DOWC evolute request and in second for exercitance to start Esseibility Disease			ECSS NWIP Step1
0.2	PSWG evaluate request and in case of acceptance to start Feasibility Phase, information on starting of activities are sent to TA		PSWG	PSWG informs SCSB in parallel
	Note: Feasibility Phase is an optional and open phase with also implicit authorization of "unbalanced or bi-lateral activities" to identify and solve potential problems and to clearly define the perimeter of the document. This Phase has also the task to correctly evaluate the maturity of the document proposed content in order to finally confirm the typology of the document (i.e. STD, HBK and TM). When this phase is needed, PSWG provides an estimation of the Feasibility Phase duration. In any case the Feasibility Phase is an ESCC phase and until it is completed, there is no mention of the relevant standard in the ECSS WP		PSWG manages this Phase	Recommend. 2.1 - The interest of Feasibility Phase is to consolidate the content of the document and to limit any shift in the future ECSS official WG schedule. It is also an opportunity to identify difficulties and properly trying to resolve them in a flexible scenario.



#	Task definition	ECSS Responsibility	ESCC Responsibility	Comments
0.3	In parallel to ESCC activities, TA verifies the need to activate additional documents (outside EEE Components domain) to support the standard under Feasibility Phase or to provide inputs to PSWG to be taken into account in the development of the relevant phase. Draft ToR and Draft NWIP are an output from the Feasibility Phase.	TAAR	PSWG dispositions ECSS inputs or comments	During this Feasibility Phase regular reporting on the activities is to be provided to TAAR/DiFP and SCSB
1	NWI (and relevant ToR) PRESENTATION			
1.1	 NWIP (including initial ToR) submitted to Executive Secretariat and to TA by PSWG with special attention to : a. Identification of User/Project needs and commitment to use the document. b. Justification of the NWIP c. Intended commitment of proposed organizations to identify and allocate their resources d. Endorsement by TA/PSWG representative of the organization of the Originator, depending on the body (ECSS/ESCC) which generated the request e. Proposed WG members (identified by PSWG during Feasibility Phase) with full endorsement by TA (which could propose additional members in case of need of experts in disciplines different from EEE Components) f. Identification of other SDO's documents on the same subject to be taken into account g. ToR also outlines which subjects or activities are considered out of the scope of this document 	c. TA in case of experts nominated to cover Non-EEE Component subjects d. TA Rep of proposer e. TA Rep of proposer f. TA Rep of proposer	a. PSWG b. PSWG c. PSWG d. PSWG e. PSWG f. PSWG g. PSWG	Recommend 2.2 - ToR template is updated to stimulate the identification of out-of-scope subject/ items in order to prevent future blockage of WG activities f. ECSS through TAAR helps PSWG in the identification of existing International Standards (including ECSS) potentially dealing with specific subjects = ECSS NWIP Step 1
2	NWIP (and ToR) REGISTRATION/FINALIZATION			
2.1	NWIP (and relevant ToR) registered by the Executive Secretariat	Executive Secretariat		Recomm. 2.4 - NWIP and ToR are separately kept under configuration control = ECSS NWIP Step 2
2.2	NWIP finalized to be ready for submission to TA. Agreement of the DiFP received. Version 1 of ToR finalized and available.		PSWG for submission DiFP for agreement	



#	Task definition	ECSS Responsibility	ESCC Responsibility	Comments
2.3	NWIP (and relevant ToR) transmission to TA with draft request for call for additional participants and for a convenor (if not already identified in the PSWG proposal).		PSWG	
2.4	Definition by each ECSS member organization of its proposals for WG participation (if deemed necessary because of additional discipline involvement) and commitment of resources.	TA Representatives		= ECSS NWIP Step 5
3	NWIP (and relevant ToR) APPROVAL			
3.1	 a. Decision to accept, defer or reject the NWIP, including ToR. b. Categorization confirmation (standard, HB, Technical Memorandum) and prioritization c. Insertion into WP d. WG convenor appointment e. Finalization of WG composition. f. Identification of additional activities to be finalized in parallel (additional Non-EEE Component standard needed) 	 a. TA b. TAAR c. Executive Secretariat d. TA e. TA f. TA 		 d. Appointed convenor could be either Q-60 DiFP, PSWG Chairman or other PSWG member = ECSS NWIP Step (a) 12, (b) 5.2, (c) 10, (d,e) 12.4
3.2	NWIP with associated Version 1 ToR put in formal configuration control	Executive Secretariat		= ECSS NWIP Step 12
3.3	Notify originator formally of TA decision	Executive Secretariat		Notification is sent to Originating body (i.e. ESCC or ECSS) = ECSS NWIP Step 15
4	WG ACTIVITIES			
4.1	Kick-off of activity to concur with whole WG on TA approved ToR, with Executive Secretariat		PSWG	Executive Secretariat is invited to explain drafting rules and other reporting practices
4.2	Drafting, in front of initial ToR, is going on up to Table of Content definition, then Final ToR is prepared and submitted to TA with description of content of each Para.		PSWG	
4.3	Intermediate Drafts include DRD's as annex to the document		PSWG	



#	Task definition	ECSS Responsibility	ESCC Responsibility	Comments
4.4	WG members to provide intermediate drafts to their own organization for feedback, (including users' and Executive Secretariat): they should provide as much as possible the position of their Organization and not only their technical opinion – Intermediate draft is also sent to TA for comment (not mandatory but encouraged)	It is not an ECSS requirement to send intermediate drafts to the TA and no comments are provided	PSWG	Recomm. 2.5 – Executive Secretariat task is to verify drafting rules implementation since early phases. Recomm. 2.7 – WG members have the task to provide as much as possible the position of their Organization. Objective of TA review is to consolidate the document content acceptability without waiting until the final draft
4.5	Any blocking point that arises is to be submitted for disposition first to PSWG and secondly to SCSB (in case of difficulties at PSWG level); resolution should be given in the timeframe foreseen in the ECSS drafting phase (it has to be noticed that we cannot rely on resolution by PSWG/SCSB meetings only). Information on blocking point is also provided to TA (through TAAR)		PSWG and, if not resolved, SCSB	According to the escalation principle, the PSWG is the first responsible party to resolve problems, the next step is to go to the SCSB
4.6	WG members to collect comments on intermediate drafts in their organization, and give feedback to WG		PSWG	
4.7	WG activities are regularly scheduled and specific reporting to TA/SCSB done		PSWG	
4.8	Draft finalization		PSWG	
4.9	Draft release from WG to Executive Secretariat for Public Review with identification of changes w.r.t. previous published version, if applicable.	This is identified by ECSS as the WG draft	PSWG	
4.10	Registration of Draft in configuration control	Executive Secretariat		



#	Task definition	ECSS Responsibility	ESCC Responsibility	Comments
4.11	Identification and Organization of next WG meeting (for DRR dispositions and Final Draft delivery)		PSWG	
4.12	Forward Final Draft to Executive Secretariat for Public Review		PSWG	This is identical to step 4.9 for ECSS (may be deleted)
5	PARALLEL ASSESSMENT			
5.1	Draft distributed to: • TA members for info • TAAR • DiFP(s) • Convenors of identified related WGs	Executive Secretariat See ECSS process		= ECSS Par.Ass. Step 2
5.2	Draft distributed to SCSB members for comments (timing is the same as per TA parallel assessment i.e. 4 weeks)	TAAR	PSWG	TA provides a consolidated Input to PSWG of TA members comments PSWG collects SCSB comments and transfer to TA = ECSS Par.Ass. Step 2
5.3	 Assessment of draft for suitability for Public review by Executive Secretariat (compliance to drafting rules) DiFP Convenors of identified related WGs TAAR 	TAAR		This assessment includes discussion on SCSB members provided comments = ECSS Par.Ass. Step 3
6	COMPILATION OF ASSESSMENT & PROPOSAL FOR PUBLIC REVIEW			
6.1	Compilation of evaluation assessment Note: if draft not accepted for PR, returned with instruction to PSWG/WG convenor	TAAR and Executive Secretariat		= ECSS Par.Ass. Step 3
6.2	If no negative assessment, then TAAR initiates Public Review (point 6.6)	TAAR		= ECSS Par.Ass. Step 4 (YES)



#	Task definition	ECSS Responsibility	ESCC Responsibility	Comments
6.3	Delivery of assessment to TA for decision			This step is no longer applicable
6.4	Endorsement /rejection of proposal to TA to go in PR In case of rejection, discussion of TA with WG convenor before decision to return to either step 4.2 or 5	TAAR		
6.5	Decision to go ahead or to hold for coordination with other documents			This step is no longer applicable
6.6	Delivery of Draft for public Review to TA members for dissemination and to PSWG for validation	Executive Secretariat		= ECSS Par.Ass. Step 6
7	PUBLIC REVIEW			
7.1	Dissemination by each TA Representative (or an identified delegated person) of the Draft for Public Review according to their own procedure and mailing list.	ECSS member FP		Recomm. 3.f – During Public Review DRR's consolidation, TA memb. survey DRR's from their organization in order to avoid re-opening of discussion already held at WG level. If some of these DRR's are issued, they are to be dispositioned (rejected) with same rationale used in the WG discussion. = ECSS PR1 step 2
7.2	Collection by each TA member of DRR 's received, filtering and, if necessary, discussion with originators Endorsement and delivery of final DRR package to Secretariat	ECSS member FP		Discussion with originators of DRR should take into account previous negotiation and consensus = ECSS PR1 step 3
7.3	Collection and assessment by ES of the complete set of DRR's.	Executive Secretariat		= ECSS PR1 step 4



#	Task definition	ECSS Responsibility	ESCC Responsibility	Comments
	Delivery to the PSWG/WG convenor for disposition and Draft Document update			
7.4	Disposition of all DRR's.		PSWG/WG	
7.5	Dispositioned DRR's and associated draft is provided to Executive Secretariat for feedback to DRR's Originators		PSWG	
7.6	Feedback to DRRs owners of dispositioned DRR's and associated draft (with identification of changes w.r.t the first draft delivered) is done to TAAR and the DiFP.	Executive Secretariat		= ECSS PR1 step 11
7.7	Provide feedback to Executive Secretariat, the TAAR and the DiFP for dispositions which are not accepted. Feedback is to include further justification/explanation as necessary and a proposed compromise position if possible	ECSS member FP		= ECSS PR1 step 10
7.8	Assess the dispositioning of DRRs and feedback from DRRs owners. If no negative assessment, go to § 7.10.	TAAR		= ECSS PR2 step 4
7.9	Solve outstanding issues form DRRs owners, involving different parties. If situation is blocked, prepare a recommendation for the TA on action to take regarding the Draft Standard	TAAR		= ECSS PR2 step 4
7.10	to update the DRR disposition log report to reflect the TAAR and TA decision	TAAR		This is the DRR dispositions themselves = ECSS PR2 step 6,8
7.11	Finalize draft standard.		PSWG & SCSB	As per SCSB#18 (28/02/2008) modification but only as agreed with ECSS in steps 7.6 to 7.10 above
7.12	Registration of updated standard	Executive Secretariat		This is the Publication process (part of ECSS Pub step 2)
8	PUBLICATION			This uses the ECSS Publication process 1.6



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#	Task definition	ECSS Responsibility	ESCC Responsibility	Comments
8.1	Delivery to TA of Updated draft ready for publication together with the final dispositioned DRR log report as updated	Executive Secretariat		See comment above = ECSS Pub step 2
8.2	Agreement on status "ready for publication"	ТА		See comment above = ECSS Pub step 3,
8.3	SCSB receives a copy of the document "ready for Publication" for information	Executive Secretariat		See comment above = ECSS Pub step 18, 14



Annex B NWIP Go / No-Go & Priority Criteria

The following selection criteria are used by the TA when assessing New Work Item Proposals;

- GO/NO-GO criteria (for Standards):
 - DC1 Activity recognized as standardization with sufficient maturity effectiveness (not needing waiting for R&T or preliminary projects trade-off).
 - DC2 Standard giving satisfaction w.r.t ECSS purpose is not available.
 - NOTE If criteria DC1 is met, and a non-ECSS standard suitable for ECSS purposes exists, the level of suitability is assessed to determine if the identified non-ECSS standard is usable "as is" (and then no further action is necessary), or if some adaptation is needed, in which case a NWIP for an Adoption Notice can be raised.
- Priority GO criteria (for Standards and Handbooks, Standards having priority on Handbooks):
 - SC1 NWIP of high need for space projects use
 - SC2 NWIP of high benefit for the competitiveness of European Space Industry
 - SC3 NWIP CR implementation considered Urgent by TA (correction of wrong or insufficient requirements with identified consequences at project level, lack of specification in a discipline or document)
- After SC1 to SC3 ranking, the TA assesses the impact of potential resources problems, and consider them for potential ranking update or NO-GO decision:
 - TA1 Check credibility of NWIP or CR implementation proposed planning with regard to the foreseen availability of expert resources, the expected amount of work, and the available budget (cost of missions)



Annex C Links to relevant information and forms

The following relevant information and forms referred to in ECSS-D-00 are available from the ECSS Website (<u>http://www.ecss.nl</u>).

- ECSS Drafting Rules and Drafting Template
- ECSS NWIP form
- ECSS CR form
- Criteria for acceptance for Public Review
- Criteria for handbook release for publication
- WG Report Template
- the neutral format EARM
- ECSS user questionnaire
- SDO Drafting Rules
- ECSS-CCSDS MoU (upon request only)
- SDO MoU and Agreements (upon request only)
- Resolutions ISO-ECSS
- CEN-ECSS MoU (upon request only)