

# The CASS Registered Functional Safety Assessor Scheme Manual



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**Notes:**

Revision numbers less than 1 indicate draft or preliminary versions; formal release begins at 1.0

Use of the revision format "X.Y" is to support major (X) and minor (Y) revision changes

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**LIABILITY DISCLAIMER**

The CASS Scheme Association accepts no liability for any loss or harm caused as a result of reliance on any assessment related document that bears the CASS Mark

The CASS Scheme Association recommends that assessors consider getting their own liability insurance appropriate to their personal circumstances and the types of assessments they undertake

Registration is based on a peer review of the assessor's knowledge and experience in their claimed scope, as defined in this manual. It is not a personnel competence certification scheme in accordance with international standards such as ISO/IEC 17024. The suitability of an assessor for a particular scope of work depends on many factors and is the responsibility of others to determine.

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## Terms and abbreviations

The following abbreviations are used in this document

CASS	Conformity Assessment of Safety-related Systems
CMS	Competence management system
CPD	Continuing professional development
FS	Functional safety
FSA	Functional safety assessment
FSM	Functional safety management
InstMC	Institute of Measurement & Control
RFSA	Registered functional safety assessor (CASS)
RFSE	Registered functional safety engineer (with the InstMC)
SIL	Safety Integrity Level (1 to 4)
T6A	The 61508 Association (a cross-industry users' group, see <a href="http://www.61508.org">www.61508.org</a> )
TCSA	The CASS Scheme Association (formally The CASS Scheme Ltd)

## 1 Introduction

### 1.1 Scope of this document

This document provides a description of the CASS Registered Assessor Scheme. It contains the information required by those applying for registration as a CASS assessor (the "Candidate"), those supporting the Candidate's application (the "Proposer" and "Referee"), and those tasked with performing the review of the Candidate's evidence and the associated administrative tasks of the scheme (the "Review Panel" and "Administrator").

Documents in the CASS Registered Assessor Scheme are listed in Appendix 1 and are referred to in this document as [REF 1], [REF 2], etc.

### 1.2 Overview of CASS

CASS (conformity assessment of safety-related systems) is a unique functional safety assessment methodology that is:

- A set of conformity assessment checklists against IEC 61508, IEC 61511, etc
- Designed to produce traceable, transparent and auditable results
- Based on input from a broad sector-base of industry
- Ready to use by competent assessors
- Managed by The CASS Scheme Association (a cross-industry membership organisation)
- Not-for-profit, in the public domain and free of charge to users

The methodology can be used by anyone and for a variety of purposes. For example, by internal auditors, companies benchmarking their functional safety procedures, consultants tasked to identify compliance shortfalls ("gap analyses"), independent assessment providers, certification bodies, etc. There are several conformity assessment checklists covering requirements from different sector standards, such as FSM, systems and subsystems, software, overall safety engineering lifecycle, etc. Additional checklists are being added to the range as required.

Further details of the CASS methodology, who owns it and how it is administered is available from The 61508 Association website [www.61508.org/cass](http://www.61508.org/cass).

### 1.3 The need for an assessor registration scheme

When conformity assessments are performed as a *formal* activity (e.g., used as the technical basis to underpin what the standards call a 'Functional Safety Assessment'), the assessors are required to possess the necessary competence in the subject matter of their assessments. Competence is defined in IEC 61508 as having the appropriate training, technical knowledge, experience and qualifications, relevant to the duties the individual must perform. Furthermore, the technical assessments should be conducted within a framework that includes considerations for scoping, planning, independence, information management, etc. (See IEC 61508-1 clauses 8.2.1 to 8.2.18).

The CASS Registered Assessor scheme is designed for those who regularly perform functional safety conformity assessments using the CASS methodology. It is intended to provide an accessible and relatively non-bureaucratic process for experienced functional safety assessors who wish to be registered.

## 2 Scheme overview

The CASS Registered Assessor Scheme is summarised as follows:

- Candidates provide evidence of their defined scope of functional safety assessor competence (against the scheme criteria) which has been attested by one of the Candidates supporters
- The scheme appoints an independent and impartial review panel to assess the Candidate's documentary evidence of competence and statements from supporters; if successful, the Candidate is accepted for registration
- The CASS Scheme Association maintains a published register of functional safety assessors who have met the registration requirements
- Registered Functional Safety Assessors (RFSAs) are provided with the CASS Mark (including their personal ID) which they are permitted to use on their reports and derived documents that they have authored or verified
- Use of the CASS Mark signifies that the RFSA takes personal responsibility for the conformity assessment aspects, that he/she is working within their published scope of competence, and that the CASS methodology has been used fully and correctly
- RFSAs are required to adhere to specified conditions (rules) when using the CASS Mark
- RFSA registration is renewed every 3<sup>rd</sup> anniversary of the date of initial registration
- The CASS Scheme Association does not validate any documents that bear the CASS Mark and accepts no liability for any loss or harm caused as a result of reliance on any assessment related document that bears the CASS Mark
- Registration is optional – the existing use of CASS is unchanged (e.g., certification bodies that use CASS but have their own competence management systems)
- The scheme is published by The CASS Scheme Association and administered by a steering group within The 61508 Association (T6A)

Note that the assessor registration scheme is not a competence management system (CMS) that each organisation involved with safety-related systems should include within their overall functional safety management system. The decision regarding the suitability and assignment of an assessor for a particular assessment task will depend on many factors and is the responsibility of those who appoint the assessor to that task.

Refer to the Liability disclaimer statements on page 2.

### 3 The parties involved

#### 3.1 The Candidate (general expectations)

It is expected that the Candidate is already an experienced practitioner in their field of functional safety. Furthermore, the Candidate will be expected to possess the necessary skills required to undertake assessments within their scope of functional safety. The Candidate must document on the application form his/her basis of suitability in meeting the criteria of the scheme (see rationale in Appendix 2). The statements, descriptions and supporting evidence must satisfy each of the "5 Layers" of the rationale which will be attested by their Proposer.

The Candidate's *Scope* of functional safety for which they are claiming suitability as an assessor needs to include the standards, and any relevant inclusions or exclusions such as safety lifecycle phases, activities, applications or technologies. Some guidance is given in the application form in regard to each of these considerations. The intention here is to provide sufficient freedom for the Candidate to define their specific profile of expertise. Evidence for this claim of assessor scope will be attested by the Proposer for consideration by the Review Panel.

As a guide, it is likely that a typical Candidate, *within their scope*:

- Will be currently working in a role that has assigned functional safety responsibilities and accountabilities
- Will be a recognised expert in their organization, group or team
- Will have notable proven experience of conducting functional safety assessments

Previous experience of using the CASS methodology for assessments is highly desirable, although not essential. Either way, the Candidate will need to be familiar with how the methodology works, both the conformity assessment templates and the overall framework requirements. (See *Guide to using the CASS methodology* on [www.61508.org/downloads](http://www.61508.org/downloads)).

The application process requires that the Candidate provides two supporters (Referee and Proposer) to perform the roles and responsibilities described in sections 3.2 and 3.3 below.

#### 3.2 The Candidate's Referee

The Referee must be someone who personally knows the Candidate and can vouch for their professional integrity, commitment and capability in regard to:

- Performing independent FS assessments within the scope being claimed
- The Candidate's engagement and expertise in FS over the period indicated
- Recommending the suitability of the Candidate for registration

The Referee should preferably be working in a senior professional capacity, preferably with management responsibility that includes some aspect(s) of functional safety. The Referee must understand the critical role that an assessor performs in achieving functional safety.

The Referee must agree with the Candidate's statements and their agreement will be confirmed when requested by the Review Panel.

### 3.3 The Candidate's Proposer

The Proposer must be someone who has critically reviewed the Candidate's statements on the application form and the items of evidence referenced on the form against the requirements of registration (see Layers 1 to 5 in Appendix 2), in particular, the Candidate's:

- Knowledge (and preferably experience) of the CASS methodology (see Appendix 2, Layer 5)
- Experience in performing functional safety assessments within the scope claimed (see Appendix 2, Layer 4)
- Evidence of FS practice, training, knowledge and experience (see Appendix 2, Layers 1 to 3)

Based on the Proposer's critical review of the evidence, the Proposer must be able to recommend the suitability of the Candidate for registration.

The Proposer must be working in a professional capacity in the field of functional safety to a sufficient technical level to understand the supporting evidence being reviewed.

The Proposer must be in a position or relationship that enables them to be impartial when reviewing the Candidate's evidence (e.g., must not be a subordinate of the Candidate).

The Proposer must complete, sign and date the declaration on the CASS RFSA\_10 Proposer's comments form [REF 10].

### 3.4 The Review Panel

To ensure the scheme is represented by a cross section of industry and the registration process is impartial, the 61508 Association (T6A) will be responsible for administering the process under a designated CASS Steering Committee. When contacted by the T6A Coordinator with details of a new Candidate, the Steering Committee will assign at least two people to act as the Review Panel for the Candidate.

Requirements for selection of persons for the Review Panel are as follows:

- They shall be independent from the Candidate such that they can perform the evaluation with impartiality
- At least one person shall be a member of the CASS Steering Committee
- At least one person shall be competent in the Candidate's claimed scope of competence (in some cases it may be necessary for this person to be co-opted by the SC from outside the T6A)

The Review Panel's responsibilities are to:

- Make contact with the Candidate and address any queries with regard to the application and checking process, etc.
- Check the Candidate's application form (and photo ID) for completeness and all necessary contact information for the Candidate, Proposer and Referee



- Conduct any necessary checks of the credentials of the Candidate's appointed Proposer and Referee as they see fit
- Evaluate the Candidate's statements and supporting documentation for suitability and completeness
- Check the statements and references to the Candidate's evidence are attested by the Proposer
- Request confirmation of support from the Candidate's Referee (by requesting an email from the Referee with the Candidate's application form attached)
- If necessary, arrange and carry out a brief interview with the Candidate to discuss their work experience or any details (this may be waived if the Panel is satisfied that the Candidate's case is sufficiently clear and compelling)
- Agree with the Candidate any necessary changes to the claimed 'Scope of Assessment' on their application form to ensure this is fully supportable by the information provided or referenced in the application form, and any supporting documents
- Make a decision with regard to registration, using the RFSA\_03 Review panel evaluation form to perform and record their evaluation
- Forward the completed RFSA\_03 Review panel evaluation form and all documentation from the Candidate to the Administrator to complete the process
- When requested by the Administrator, re-evaluate the continued suitability of an assessor when the assessor's 3-year (rolling) anniversary is approaching by using RFSA\_13 Review panel renewal evaluation form

### 3.5 The Administrator

The Administrator's role is to complete the final administrative tasks. The Administrator may either be appointed by the CASS Steering Committee, or the role can be performed by one of the Review Panel, as convenient. The Administrator undertakes the tasks detailed on the CASS RFSA\_11 Administrator's form, which are summarized as:

- Based on the completed RFSA\_03 Review panel evaluation form, inform the Candidate of the Review Panel's decision
- If the Review Panel's decision is negative, archive the Candidate's and Review Panel's files (final step on the Administrator's form)
- If the Review Panel's decision is positive, liaise with the Candidate regarding the initial registration fee (currently £150), update the master register and arrange for it to be uploaded on the appropriate webpage, send the certificate of registration, assessor's maintenance log and CASS Mark (with unique personalized ID) to the Candidate, and archive the Candidate's documents in a folder that bears the Candidate's name and date of initial registration.

Note that there are more detailed step by step instructions for the Administrator in the CASS RFSA\_11 Administrator's form.

## 4 The registration process

In summary, the initial registration process involves three main stages:

1. The initial application stage by the Candidate (preparation, support from the Referee and Proposer, and submitting all information)
2. The evaluation stage of the Candidate's documentation by the Review Panel, a brief interview (if necessary) and the decision
3. The registration stage by the Administrator (update of the register, preparing and sending confirmation documents to the successful Candidate, handling fees, and archiving records)

The process is shown (in more detail) in the table below.

The scheme documents (forms, templates, guidance) are listed in Appendix 1 and referenced by the [REF] number.

	THE REGISTRATION PROCESS	SCHEME DOCUMENT
<b>1</b>	<b>STAGE 1: THE APPLICATION</b>	
1.1	<p>The Candidate makes an enquiry to the T6A Coordinator (using contact details on the website);</p> <p>The T6A Coordinator acknowledges receipt of the enquiry, ensures the Candidate has downloaded the application form [REF 2] and sends a pro-forma invoice for the initial application fee (refer to website for current rates);</p> <p>The T6A Coordinator sends the Candidate's contact details to the CASS Steering Committee responsible for providing the Review Panel for this application.</p>	[REF 2]
1.2	The Review Panel are assigned, and contact details and provisional scope are recorded on the Review Panel Evaluation Form [REF 3]. It is recommended that one person takes the lead in liaison and administrative matters, but evaluations and decisions are made jointly.	[REF 3]
1.3	The Panel correspond with the Candidate to exchange the relevant documents (completed application form, supplementary supporting documents attested as required, Proposer's comments form and confirmation of the Referee's support).	[REF 2] [REF 10]
	<b>STAGE 2: EVALUATING THE CANDIDATE'S DOCUMENTS</b>	
2.1	The Review Panel checks the application form, photo ID and all supporting information to ensure all are completed properly and duly attested by the Candidate's Proposer. The Panel completes the checks on [REF 3] and notes any queries for the interview. One important area to check is that the attested evidence is coherent with the 'Scope of Assessment' being claimed on [REF 2] which will eventually be entered on the Register.	[REF 2] [REF 3]
2.2	If necessary, a short interview is arranged between the Panel and Candidate to conduct any necessary enquiries. This could be done by telephone/video call. (The interview could be waived if the Candidate's evidence is comprehensive and compelling enough). All the remaining check points on [REF 3] may be completed during the interview if not already done beforehand.	[REF 3]
2.3	The Panel concludes with a decision and sends all the forms to the Administrator.	[REF 3]
<b>3</b>	<b>STAGE 3: REGISTRATION AND FINALISING</b>	
3.1	The Administrator follows the checks on [REF 11], informs the Candidate of the outcome (copying the T6A Coordinator), archives the Candidate's documentation in a folder, adds the person's name to the Register (excel workbook), extracts a PDF version of the 'public register' worksheet of the workbook and sends it to the T6A Coordinator for uploading to the T6A web page.	[REF 7] [REF 11]
3.2	<p>The Administrator sends to the successful Candidate:</p> <ul style="list-style-type: none"> <li>• A Certificate of Registration (hard copy)</li> <li>• An accompanying covering letter (hard copy)</li> <li>• The electronic file of CASS Mark with assessor's ID (by email)</li> <li>• A template of the assessment activity log (by email)</li> </ul> <p>A receipt for payment of the fee (by email) is sent by TCSA Treasurer</p>	[REF 5] [REF 4] [REF 6] [REF 8] [REF 12b]

## 5 Conditions of use of the CASS Mark

Once registered, assessors are issued with a CASS Mark (with their personal ID) to use on assessment reports and other documents containing functional safety information/statements that have been substantiated by the relevant report. The Mark shall only be used under the following conditions in order to ensure integrity of the CASS methodology and the CASS Registered Assessor Scheme. The scheme administrators reserve the right to remove a person's name from the register if it is found these conditions are not adhered to:

1. The appropriate CASS templates used in the assessment report are used in accordance with the latest 'Guide to using the CASS Methodology' ([www.61508.org/cass](http://www.61508.org/cass))
2. The Assessor shall either be the primary author of the assessment report, or the verifier (checker) of the report
3. The Assessor shall only use the CASS Mark in relation to assessments that are within his/her scope of competence, which shall be defined in the public Register of Assessors
4. The Assessor shall cease to use the CASS Mark after the expiration date of the registration certificate or if it no longer shows a 'VALID' status on the Public Register (see [www.61508.org/cass](http://www.61508.org/cass)), when notified by the scheme administrators
5. When the Assessor's CASS Mark is used on an assessment report, the following note shall appear on the same page as the CASS Mark:

*The CASS methodology has been used in this report which has been authored or verified by a CASS-Registered Assessor*

6. When the Assessor's CASS Mark is used on a substantiated document (e.g., safety manuals, abridged reports, datasheets, declarations, certificates, etc.) the following note shall appear on the same page as the CASS Mark:

*Functional safety information in this document is based on an assessment using the CASS methodology and its correct use in this document has been verified by a CASS-registered assessor*

7. A substantiated document shall contain a reference to the associated assessment report for traceability purposes
8. When the Assessor's CASS Mark is used on a substantiated document, it shall only refer to the conformity assessment related information that is substantiated by the report (identified in some way, e.g., by footnote, style of font, etc.) and shall not be used in such way as to endorse any sales statements
9. The Assessor's CASS Mark shall appear in a prominent place in the document (e.g., front cover or introductory pages)
10. The assessor shall maintain their log of all primary assessment reports that used the CASS Mark and make it available for review at the registration renewal time

These rules are stated on the second page of the Certificate of Registration [REF 5].

See Appendix 3 for a graphic of the Assessor's CASS Mark and the associated mandatory notes.

## 6 Complaints and appeals

### 6.1 From the Candidate

If the Candidate is not satisfied with the conduct or outcome of the process and wishes to make a complaint or appeal, he/she may contact the T6A Coordinator (their initial contact at the application stage). The T6A Coordinator and the T6A Chair will investigate the issue(s) and liaise with the T6A CASS Steering Committee responsible for assigning the Candidate's Review Panel. The final decision will be made collectively by all the above T6A persons involved and conveyed to the Candidate by the T6A Coordinator.

### 6.2 From the Assessor (at renewal)

If at one of the registration renewals, the Assessor is not satisfied with the outcome and wishes to make a complaint or appeal, he/she should contact the T6A Coordinator in the first instance and the investigation and decision making will follow the process in 6.1 above.

### 6.3 From a third party

If a third party has any concerns or wishes to make a complaint regarding any aspect of a registered Assessor's work or conduct, they should contact the T6A Coordinator in the first instance and the investigation and decision making will follow the process in 6.1 above. See also the section below entitled Feedback and improvement if this is more appropriate.

## 7 Renewal of registration

The objective of the renewal process is to check that over the previous 3 years:

- The assessor continues to be informed and involved generally in functional safety (independently of any assessment projects) to keep up their knowledge within their scope and peripheral to it
- The assessor has performed (at least some) assessments using the CASS Scheme methodology, *within their scope*, such that it would have been appropriate to use their personal CASS ID mark
- The assessor has not used their personal CASS ID mark inappropriately, i.e., as a quality mark to imply assurance of work outside their scope, or when they have not used the CASS Scheme methodology
- The other rules of the scheme have been adhered to (as stated on page 2 of the assessor certificate)

The assessor's activity log [REF 8] should be made available to the review panel to support the second bullet point above (entries on the log can be compared with the assessor's scope)

The review panel should be able to identify if a change in assessor scope is required and in which case request any further supporting evidence for their review before granting the change (may not be needed if the change is a reduction rather than an extension of scope)

When the 3<sup>rd</sup> anniversary of an Assessor's registration is approaching, the T6A CASS Steering Committee or Administrator will:

- Contact the Assessor and request the assessor's activity log [REF 8]
- Appoint two independent persons from within the committee to review the assessment activity over the last three years using the review panel renewal evaluation form [REF 13]. (If there is doubt about the suitability of the entries on the assessor's activity log the reviewers may request that the Assessor provides further evidence and/or an independent reference for the work undertaken)
- Check the contact details and employer history pages on the log are still current or have been updated as necessary
- Complete the final administrative checks on [REF 13], which include the handling of scope changes and correspondence with the assessor, and file the completed form in the Candidate's folder (see section below)
- Make arrangements to update the public Register and re-issue the certificate to the assessor (with new expiry date, and any changes to scope)

A small administration fee is levied for renewal (currently £75). If there are changes (extensions) to scope that require evaluation of new supporting evidence, the full fee is levied (as applicable for initial registration). If a reduction in scope is agreed, this is normally covered within the standard renewal fee.

Registration renewals will continue every three years until such time as registration is cancelled or withdrawn (see section below).

## 8 Cancellation or withdrawal of registration

An Assessor's name will be removed from the Register under one of the following situations:

- On request by written notification from the Assessor to the T6A Coordinator (who will notify the CASS Steering Committee accordingly)
- If the Assessor fails to provide sufficient evidence of ongoing practice on their competence log at a Renewal of Registration (see section 7 above)
- If the CASS Steering Committee decide to do so following their investigation initiated by a complaint (see section 6 above)
- If it has come to the attention of the CASS Steering Committee that the Conditions of use of the CASS Mark (see section 5) have not been complied with

## 9 Retention of documents

The CASS Steering Committee will keep records for each Candidate in a folder bearing their name. The contents of the folder will be:

- The application form
- All documentary evidence submitted to support the application (e.g., certificates of education, training, project/experience log)

- The completed Review Panel Evaluation Form with final decision
- Copy of the certificate of registration (including past copies if applicable)
- Copy of the assessor's CASS ID (graphic, embedded as a picture in MS-WORD file)
- The assessor's activity log (in the case of registration renewal)
- Deleted once the Assessor is no longer registered

## 10 Feedback and improvement

The CASS Scheme Association welcomes feedback from the administrators of the scheme (the T6A CASS Steering Committee) in order to make improvements and revise documents as necessary. Likewise, feedback from Candidates, their supporters, registered Assessors and third parties are also welcomed.

## Appendix 1: The scheme documents

<u>Reference</u>	<u>Document name (filename)</u>
[REF 1]	CASS RFSA_01 Registered FS Assessor scheme manual <i>Comments: this document; PDF downloadable from T6A website</i>
[REF 2]	CASS RFSA_02 Application form <i>Comments: WORD downloadable from T6A website</i>
[REF 3]	CASS RFSA_03 Review panel evaluation form <i>Comments: Guidance and record for the Review Panel; WORD for internal use only</i>
[REF 4]	CASS RFSA_04 Confirmation letter – template <i>Comments: Confirmation letter to accompany certificate (template); Hard copy sent to successful Candidate</i>
[REF 5]	CASS RFSA_05 Certificate of Registration – template <i>Comments: Also contains Rules for RFSA's on the second page; Hard copy sent to successful Candidate</i>
[REF 6]	CASS RFSA_06 CASS mark – template <i>Comments: CASS Mark with placeholder for the assessor's ID; MS-WORD version sent to successful Candidate</i>
[REF 7]	CASS RFSA_07 Register of Assessors <i>Comments: RFSA Public Register; PDF version published on T6A website</i>
[REF 8]	CASS RFSA_08 Assessor's Activity Log – template <i>Comments: RFSA assessment log (template); Excel version sent to successful Candidate</i>
[REF 9]	CASS RFSA_09 Overview presentation <i>Comments: for information; PDF downloadable from T6A website</i>
[REF 10]	CASS RFSA_10 Proposers comments form <i>Comments: WORD downloadable from T6A website</i>
[REF 11]	CASS RFSA_11 Administrator's form <i>Comments: WORD for administration use only</i>
[REF 12]	CASS RFSA_12a Registration fee invoice; CASS RFSA_12b Registration fee receipt <i>Comments: Both WORD documents, sent to successful Candidate as appropriate</i>
[REF 13]	CASS RFSA_13 Review panel renewal evaluation form <i>Comments: Guidance and record for the Review Panel; WORD for internal use only</i>

See also the general *Guide to using the CASS methodology* and the companion conformity assessment templates on the T6A website (downloads page).



## Appendix 2: Rationale for assessor registration

### A.2.1 The layered approach

The rationale can be illustrated as a structure in five distinct layers, from basic foundations of technical knowledge and principles up to a specific area of scope in performing assessments, as shown in the diagram below. This is reflected in the information elicited by the application form [REF 2]. The evidence for each layer should be reviewed and attested by the Candidate's Proposer.



The rationale is explained from Level 1 upwards in the table in section A.2.2.

Note that some layers can be readily demonstrable by meeting existing recognised training and registrations. For example:

- The exida and TÜV training programmes (at 'FS Engineer' or 'FS Professional' level) could be seen as meeting levels 1 and 2 where these have an entry requirement of basic academic qualifications and deliver at least 3 days of structured training followed by examinations. See comments below about CPD.
- As above, but at the 'FS Expert' level. This could be seen as meeting levels 1, 2 and 3 as this additionally requires assignments and evidence of practitioner experience gained over several years. See comments below about CPD.
- Other registrations such as the UK Institute of Measurement & Control Registered Functional Safety Engineer is based on evidence of having structured training, professional qualifications and a peer review of extended experience gained from job or project roles and responsibilities. This could be seen to meet the requirements of levels 1, 2 and 3. See comments below about CPD.

### Continuing professional development

Note that the Candidate is expected to show evidence of their continuing professional development (CPD). If the original knowledge element received from training was gained more than 3 years ago, or if the relevant standards have been revised since that time, the knowledge should be regularly updated with some suitable refresher training, self-learning or otherwise justified as being up to date.

## A.2.2 Competence rationale

LAYER	OBJECTIVE(S)	MINIMUM CRITERIA	RATIONALE
<b><u>LAYER 5</u></b> <b>Knowledge / experience of the CASS methodology</b>	To ensure the Candidate: <ul style="list-style-type: none"> <li>Has a thorough knowledge and understanding of how to use the CASS methodology</li> </ul>	Can demonstrate either: <ul style="list-style-type: none"> <li>Experience gained from doing <u>at least 2 CASS assessments</u> that have been independently verified, or</li> <li>A detailed understanding of the CASS methodology to the Review Panel during interview</li> </ul>	In order to use the CASS methodology as intended, the Candidate needs to demonstrate knowledge (and preferably experience of using) the CASS methodology in their assessment work
<b><u>LAYER 4</u></b> <b>FS assessor experience in a specified scope</b>	To ensure the Candidate: <ul style="list-style-type: none"> <li>Has gained experience in conducting assessments in the Candidate's specified scope</li> </ul>	<u>At least 3 assessments</u> within the Candidate's claimed scope that have been independently verified by another competent FS assessor	On top of FS practitioner experience, the Candidate should have experience of performing assessments. This often requires knowledge of the "bigger picture" whilst able to focus on detail, together with the necessary skills to seek out and evaluate objective evidence, make judgements, conclusions and recommendations
<b><u>LAYER 3</u></b> <b>FS practice in a specified scope</b>	To ensure the Candidate: <ul style="list-style-type: none"> <li>Is a recognised practitioner in the Candidate's specified scope, and</li> <li>Has gained a sufficient awareness of FS considerations outside their scope of practice where mutual dependencies or influences may exist</li> </ul>	<u>Performing FS work over at least the last 3 years</u> which: <ul style="list-style-type: none"> <li>Has been a significant part of the job role</li> <li>Is related to the Candidate's specified scope</li> <li>Has required knowledge across other areas peripheral to the Candidate's direct scope (e.g., a variety of lifecycle</li> </ul>	As head knowledge is insufficient in itself, the Candidate should be a seasoned FS practitioner through day to day work responsibilities, which has been consolidated over a period of time (i.e., they are recognised as a competent practitioner in their scope of functional safety). Additional evidence might be involvement in activities such as industry

LAYER	OBJECTIVE(S)	MINIMUM CRITERIA	RATIONALE
		phases, technologies, applications, supply chain products and services)	associations, standards committees, giving training, authoring papers or journal articles.
<b><u>LAYER 2</u></b> <b>Structured FS training and self-learning</b>	<p>To ensure the Candidate:</p> <ul style="list-style-type: none"> <li>Has received formal training and demonstrated their general knowledge in FS principles, and</li> <li>Has undertaken (and continues to undertake) appropriate self-learning (CPD) activities to maintain and build on the formal training in subjects or applications that support the scope of assessor competence being claimed</li> </ul>	<p><u>Received at least 3-days of formal FS training with examination</u>, plus evidence of self-learning and CPD in the Candidate's specified scope</p>	<p>On top of basic academic/professional qualifications, the Candidate will need to have received formal functional safety training with evidence of having retained the knowledge (e.g., passing a test).</p>
<b><u>LAYER 1</u></b> <b>Basic academic and professional qualifications</b>	<p>To ensure the Candidate:</p> <ul style="list-style-type: none"> <li>Has gained a minimum level of academic qualifications in a relevant engineering or technical discipline, and</li> <li>Has demonstrated their commitment, responsibility and practice in a professional capacity</li> </ul>	<p>Possession of relevant academic qualifications such as <u>HND, BSc, MSc</u>, etc.</p> <p>Professional registration such as IEng or CEng is an example of demonstrating professional practice and commitment (or alternatively a strong CV)</p>	<p>It is expected that functional safety assessors will already possess academic qualifications and have demonstrated the application of these in their day to day responsibilities in a recognised professional capacity.</p>

## Appendix 3: The CASS Mark and associated notes

The CASS Mark will be issued to a RFSA for use on assessment reports and any documents containing information that is substantiated by the assessment report. The Mark is shown below together with the mandatory notes that must appear on the same page as the mark. (The ID in the graphic below is shown for illustration only; YY = year of initial registration; XXX = serial number for that year):



When the CASS Mark is used on an *assessment report*, the following mandatory note shall appear on the same page as the CASS Mark:

**The CASS methodology has been used in this report which has  
been authored or verified by a CASS-Registered Assessor**

When the CASS Mark is used on a *substantiated document*, (e.g., safety manual, abridged report, datasheet, declaration, certificate, etc) the following mandatory note shall appear on the same page as the CASS Mark:

**Functional safety information in this document is based on an  
assessment using the CASS methodology and its correct use in this  
document has been verified by a CASS-registered assessor**