# Detailed Requirements for the AMC e-portfolio

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#### 1. Introduction

The Australian Medical Council (AMC) has been appointed by the Australian Health Ministers' Advisory Council (now the Health Chief Executives Forum) to develop e-portfolio specifications to support the implementation of a two-year capability and performance framework.

The prevocational e-portfolio is a key component of the revised Framework. It is intended to provide greater individual accountability for learning and support the assessment processes. It will also facilitate a longitudinal approach to prevocational training, providing a mechanism to support development across the two years and streamline administration of the program.

#### 1.1. Project scope

The e-portfolio is intended to support the revised two-year framework, providing a mechanism to capture prevocational training and assessment, support the longitudinal nature of the program and streamline administration processes.

#### The e-portfolio:

- Defines and provides access to requirements for training and assessments
- Facilitates achievement or demonstration of achievement of training requirements (e.g. outcome statements)
- Facilitates and documents the assessment and feedback processes
- Facilitates a longitudinal approach to PGY1/PGY2
- Includes capacity to collect and document learning experiences
- Facilitates and supports remediation processes
- Collects and collates information/data required for sign off at the end of PGY1/PGY2
- Enables reporting of this data to external bodies (Medical Board of Australia for PGY1, AMC for PGY2)
- Streamlines the administration of the program (including assessment and term allocations)
- Enables facility/individuals to monitor progress and follow up
- Ensures consistent implementation of the framework
- Supports training and provides resources for supervisors
- Enables data collection and tracking for program evaluation
- Is able to extract data from other external systems (in addition to exporting)
   e.g. AHPRA numbers
- Enables data to be collected that facilitates quality improvement processes (e.g. ensuring all term assessments have been completed, all terms have been mapped to term parameters)

#### 1.2. Related documents

The e-portfolio is designed to support the implementation of the revised prevocational framework. The following documents provide essential background information for the system that this system must support.

ID	Document	Source
1	High Level e-portfolio specification document	https://www.amc.org.au/wp-content/uploads/2021/08/ATTACH MENT-D-e-portfolio-specifications-to-support-the-revised-tw o-year-prevocational-framework-draft-for-consultation.pdf
2	National Prevocational Framework - Training and assessment	https://www.amc.org.au/wp-content/uploads/2021/08/ATTACHNENT-A-Training-and-Assessment-%E2%80%93-Training-and-assessment-requirements-for-prevocational-PGY1-PGY2-training-programs-%E2%80%93-draft-for-consultation.pdf
3	National Prevocational Framework - Training Environment	https://www.amc.org.au/wp-content/uploads/2021/08/ATTACHNENT-B-Training-Environment-%E2%80%93-National-standards-and-guidelines-for-prevocational-PGY1-PGY2-training-programs-%E2%80%93-draft-for-consultation.pdf

#### 1.3. Assumptions

- 1. The e-portfolio will be used nationally. (<u>High Level e-Portfolio Specification</u>, page 2).
- 2. The e-portfolio would need to both exist as a stand-alone system as well as have the capability to be implemented and integrated alongside existing systems used by PMCs and HHSs.
- 3. The configuration requires enough flexibility to account for jurisdictional differences in accreditation processes. The **e-portfolio is not intended to manage the accreditation process**, however the <u>Learning Record</u> may contain data useful to the accreditation process. (High Level e-Portfolio Specification, page 7 and 14)
- 4. PMCs have access to data that will determine the MEUs in their jurisdiction, indicate that the relevant term descriptions entered by MEU's are accredited and generate reports relevant to accreditation survey teams. (<u>High Level e-Portfolio Specification</u>, page 7 and 14).
- 5. All PMCs and HHSs have access to tools that can generate CSV files (such as Microsoft Excel).
- 6. The configuration of the system needs to allow for changes in the prevocational framework at a later date.
- 7. The vendor would likely implement a managed, cloud based SaaS or PaaS solution.
- 8. The costs of running the system would likely relate to numbers and types of users, and/or types of system transactions. The requirements have been written assuming that an MEU would be allocated a number of licences or "seats" that would be

- calculated on the number of accredited placements. The assessment portal and role of Guest Assessor have been written to allow "non users" to interact with the e-Portfolio.
- 9. User numbers have been extrapolated from the Medical Deans of Australia and New Zealand student statistics report for 2021. The maximum active user number has assumed a 1:1 Term supervisor to prevocational trainee ratio. While this is not the case in reality, it does represent the absolute maximum number of active users.
- 10. Term placements are generally 10 weeks in length, with the peak workload occurring in Week 1, 5 and 10 of the term (completion of training plans, mid term and end of term assessments). The peak demand on the system has assumed these deadlines would occur in all states simultaneously in order to estimate the high end of peak use. While this is not the case in reality, it does represent the upper limit of the possible peak load.

#### 1.4. Priority Definitions

Term	Definition	
Mandatory	An absolute requirement that the solution must be deemed fit for purpose. Essential clinical safety requirements as well as mission critical and legal requirements belong in this category.	
	The keywords 'must', 'must not', 'shall' and 'shall not' will be used to express this type of requirement.	
Highly Desirable	An important requirement that the solution should meet in order to realise the benefits sought. While a solution could be implemented without meeting this type of requirement, it would likely result in inefficient workarounds having to remain and preclude future enhancement opportunities.	
	The keywords 'should' and 'should not' will be used to express Highly Desirable and Desirable requirements.	
Desirable	A requirement that expresses non-essential, good-to-have features that may eliminate/alleviate workarounds and/or enable future enhancements.	
	The keywords 'should' and 'should not' will be used to express Highly Desirable and Desirable requirements.	
Optional	A truly optional requirement that has a low impact on the operation of the framework.	
	Optional requirements can be implemented in later stages. The keywords 'could', and 'could not' will be used to express optional requirements.	

# 2. System Overview

#### 2.1. Overall system architecture and components

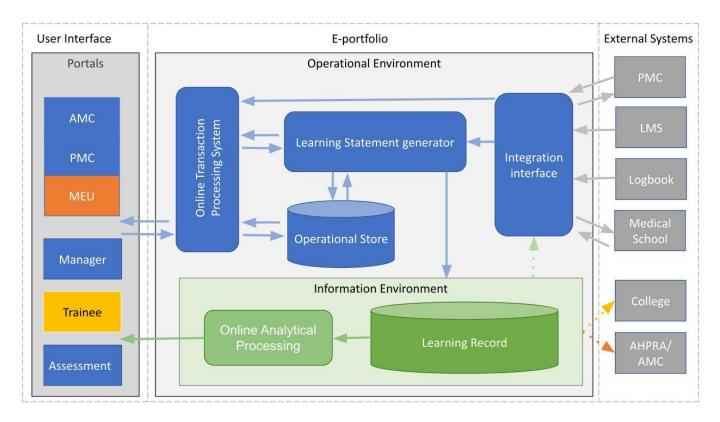


Figure 1. System Architecture

The e-portfolio system is divided into operational and information environments. This allows for the optimisation of the system, dividing the transactions of the system (such as completing assessment forms or the recording of an entry in the logbook) from the analysis of the data in the information environment (dashboards, visualisations and reports).

The operational environment interacts with actors through the serving of web pages and forms for data entry (including where relevant, the ability to attach and upload supporting documents), updating its database with each transaction and manages the storage and retrieval of uploaded documents. Key user actions (which are further defined in the functional requirements) result in the generation of a learning statement(s). These learning statements are generated using information in the operational environment and then sent to be stored in the learning record.

A learning statement is information about a user's learning experience. It has at least four parameters - an actor, verb, object and context. A learning statement is a description of a learning experience that can be stored in the portfolio. For example, Dr Stephen Lambert

(actor) completed (verb) a Basic Life Support Module (object) during his General Medicine Term at Mackay Base Hospital (context). Multiple statements, over time, create a user's portfolio of learning.

A learning statement is thus a type of semantic data model, recording a trainee's action against a learning outcome, containing associated metadata describing the context of that action. This statement is generated from data in the transactional database and stored in the learning record. A learning statement could adopt an existing standard in learning analytics (e.g. the Experience API or xAPI) or take the form of a customised semantic data model developed in consultation with stakeholders.

The Learning Record contains immutable records of learning (learning statements) that are subject orientated and time variant. The analytical processing system allows for the execution of complex analytical and ad hoc queries rapidly, without negatively affecting the operational environment, enabling users to generate reports from the learning data in a simple way.

The analytical processing system allows and provides for a number of aggregations that will allow users to run queries with fast, consistent results. This system allows users to segment multi-dimensional data into slices or filter the data by specific values. Users can "slice and dice" the data, allowing users to find trends, spot patterns, and explore the data without having to know the details of traditional data analysis.

The e-portfolio system allows for defined users (actors) to interact with the system through relevant user portals, from where they can access resources developed for the prevocational framework, notifications, forms, reports and data visualisations in one area.

An integration interface allows for external systems to potentially interact with the e-portfolio. Examples include (and are not limited to):

- PMC controlled systems for managing term descriptions and accreditation being able to manage term descriptions within the e-portfolio.
- HHS learning management systems recording attendance at education sessions in the e-portfolio, against outcomes in the e-portfolio.
- Trainees using external logbooks are able to import their logs into the e-portfolio.

The e-portfolio is a learner controlled record of learning against the <u>outcome statements</u>. These requirements are confined to that scope and as such the e-portfolio does not have specific requirements to manage:

- accreditation (although term descriptions entered into the system will need to be approved),
- scheduling or rostering (although MEUs will assign terms to learners to derive their learning plan) or

• content or learning management (although supervisors and trainees can input informal learning, cases, procedures, attendance and completion of online courses against the outcome statements).

The integration interface will be critical to ensure that the e-portfolio has the ability to integrate relevant learning data from existing systems.

Component	Description
User portals	The user portal provides the user access to the e-portfolio system via user-friendly forms and dashboards on multiple systems (desktops, tablets, and mobile devices). They provide input and receive information about configurations, progress, assessment and reviews.
	The user portal allows for the visualisation of standard queries from the Learning Record store (for example, a learner's progress) and allows the generation of reports and visualisations of learning data.
Operational Environm	ent
Online transaction processing system	Receives and processes all the data received from users on a day-to-day basis and prepares the data for storage including the generation of learning statements.
Operational Store	The operational database will ensure that the data maintains consistent throughout software and hardware crashes, as well as any failed transactions
Learning Statement generator	The Learning Statement Generator is triggered by specific user steps and uses data stored in the relational database to generate a learning statement that updates the Learning Record store.
Integration interface	The integration interface accepts and processes external system calls, authenticates the call and validates the data sent via an external system or via a bulk data upload through the user portal.
Information Environme	ent
Learning Record	The Learning Record is a non volatile, subject orientated, time-variant store of learning statements. The Learning Record must be a NoSQL database that is used by the analytical processing system to provide dashboards and summarised data in a format that allows for easy interpretation and action.
Online analytical processing system	This system extracts data from the Learning Record store to provide dashboards, charts and summary information. This information alerts the users to required actions to address the analysis of learning.

## 2.2. Data requirements

ID	Requirement	Priority	Notes
2.2.1	The system must utilise an ACID compliant operational database. The operational database is used to ensure the integrity of configuring and creating learning statements.	Mandatory	
2.2.2	The operational database design should contain denormalised data to reduce data redundancy and eliminate anomalies when inserting, updating and deleting data elements.	Highly Desirable	A high level entity relational diagram can be found in the appendix for reference.
2.2.3	The Learning Record must use a Nosql datastore.	Mandatory	
2.2.4	The Learning Statement Generator must create a record (also referred in this document as a learning statement) for storage in the Learning Record, using a data model that will ultimately allow for end users to explore and query data themselves.	Mandatory	
2.2.5	If an existing learning analytics specification is used as the data model for the learning statement in requirement 2.2.4, it must conform to the published specification.	Mandatory	
	For example: If the Learning Record uses xAPI, it should conform to the Experience API (xAPI) Specification Version 2.0		
2.2.6	The data model adopted for the learning statements must be reviewed and endorsed by the relevant Australian Medical Council body providing governance over the implementation of the prevocational framework.	Mandatory	
2.2.7	The system shall maintain a log of all significant events and activities. The log shall include information such as the date and time of the event, the type of event, the user who initiated the event, and any relevant details or error messages.	Mandatory	
2.2.8	The system logs in 2.2.7 should be retained as per the data retention record developed in 4.1 (page 40).	Mandatory	
2.2.9	The system shall store the log entries in a secure, centralised location that is accessible only to authorised personnel.	Mandatory	
2.2.10	The system shall allow the authorised system administrator to view, search, and filter the log entries.	Mandatory	
2.2.11	The system shall allow the authorised system administrator to export the log entries in a standard format (e.g., CSV) for further analysis or reporting.	Mandatory	
2.2.12	The system shall use best practice principles for user identification, including the use of unique identifiers that are persistent, privacy-preserving, and globally unique.	Mandatory	

ı	D	Requirement	Priority	Notes
2	2.2.13	Users should be identified by their Services Australia's Health Professional Identifier-Individual (HPI-I), where available. The system should support the validation and use of HPI-I as a reliable and standardised identifier for healthcare professionals in Australia.	Desirable	

# 2.3. Overall Functional and architecture requirements

## Administrators Portal

ID	Requirement	Priority	Notes
2.3.1	The administrators portal must be accessed through an administrators portal URL via a login page.	Mandatory	
2.3.2	The portal's front page must display a dashboard pertinent to the user logging in.  The dashboard must allow an administrator to view:  1. User activity in their jurisdiction  2. Notifications of outstanding actions or tasks  3. Metrics for their relevant cohort	Mandatory	Cohorts in the AMC view would break data down by states, PMC by HHS/MEU and MEU by terms
2.3.3	The portal must allow access to dashboards, reports, notifications, alerts, features and forms depending on the user's role and permissions and filtered by jurisdiction and location.	Mandatory	See Requirements 2.3.25- 2.3.37 and 2.3.38-2.3.40
2.3.4	An administrator's portal must allow the functionality for AMC, PMC, and MEU administrators to perform the steps described in Section 3 Functional Requirements.	Mandatory	See User Steps #1 to #37
2.3.5	The portal must allow access to online help, search and tooltips to support use of the system.  This help must include access to relevant system training and prevocational framework documentation.	Mandatory	
2.3.6	The menu bar should have an icon and forms that allow for a user to change their personal details, password and authentication methods.	Mandatory	

#### Trainee Portal

ID	Requirement	Priority	Notes
2.3.7	The trainee portal must be accessed through a trainee's portal URL via a login page.	Mandatory	

ID	Requirement	Priority	Notes
2.3.8	The portal's front page must display a dashboard pertinent to the user logging in.		
	The dashboard must allow the trainee to see their:		
	<ol> <li>Progress against the outcomes statements</li> <li>Completed terms, including length of term, specialty and clinical exposure, whether the term was a service term, and whether the trainee was allocated to a dedicated team in the term</li> <li>Completed EPAs</li> <li>Completed mid and end of term assessment(s)</li> <li>Custom learning objectives that they or their supervisor have identified, mapped to an outcome statement(s).</li> </ol>		
2.3.9	The portal must allow access to dashboards, reports, notifications, alerts, features and forms relevant to the trainee role and permissions.	Mandatory	See Requirements 2.3.25- 2.3.37 and 2.3.38-2.3.40
2.3.10	The trainee portal must allow the functionality for trainees to perform the steps described in Section 3 Functional Requirements.	Mandatory	See User Steps #1 to #37
2.3.11	The portal must allow access to online help, search and tooltips to support use of the system.	Mandatory	
	This help must include access to relevant system training and prevocational framework documentation. The help should provide access to the prevocational framework documents (or parts relevant to the trainee), information regarding the EPAs, outcomes statements, training environment and information to help the trainee understand their requirements.		
2.3.12	The menu bar should have an icon and forms that allow for a user to change their personal details, password and authentication methods.	Mandatory	

#### Assessment Portal

ID	Requirement	Priority	Notes
2.3.13	The assessment portal must only be accessed via a unique invitation hyperlink.	Mandatory	This URL could be a physical link such as a QR code, or a hyperlink sent by text message or email.
2.3.14	The assessment portal must allow the Guest Assessor or Assessment Review Panel member to complete all their details as set out in requirements #25, #26, #33-35.	Mandatory	

ID	Requirement	Priority	Notes
2.3.15	The assessment portal must allow Guest Assessors access to the EPA forms or the mid term assessment for the trainee requesting assessment only.	Mandatory	
2.3.16	The assessment portal page must display dashboard information and menus depending on the role assigned, and filtered to the jurisdiction and location of the assessor.  The dashboard must allow a Guest Assessor to view:  1. The completed EPAs and/or mid term assessments, of the trainee being assessed, for that term only.  The dashboard must allow an assessment review panel member to view:  1. Groups of trainees divided into 3 groups -  a. Routine,  b. Routine with discussion and  c. Complex.  2. Collated training time, completion of outcomes, term requirements, completed EPA, assessments and CPD requirements for individual trainees.	Mandatory	Context to this requirement can be found in <u>Training and Assessment Requirements</u> , pages 39-41
2.3.17	The assessment portal must allow the Assessment Review Panel member access to forms that record their decisions as outlined in requirement #35.	Mandatory	
2.3.18	The portal must allow access to online help, search and tooltips to support use of the system.  This help must include access to relevant system training and prevocational framework documentation. The help should provide access to the prevocational framework documents (or parts relevant to the assessor), information regarding the EPAs, outcomes statements, training environment and information to help the assessor understand their requirements.	Mandatory	

## Management Portal

ID	Requirement	Priority	Notes
2.3.19	The management portal must be accessed through a management portal URL via a login page.	Mandatory	
2.3.20	The portal's front page must display a dashboard pertinent to the user logging in.	Mandatory	
	The dashboard must allow the manager to view:		
	<ol> <li>Outstanding tasks or notifications</li> <li>Term metrics</li> <li>Collated outcome statement metrics</li> </ol>		

ID	Requirement	Priority	Notes
	Metrics that flag trainees and terms at risk of not completing required assessments and EPAs		
2.3.21	The portal must allow access to dashboards, reports, notifications, alerts, features and forms relevant to the supervisor or manager role and permissions.	Mandatory	See Requirements 2.3.25- 2.3.37 and 2.3.38-2.3.40
2.3.22	The manager portal must allow the functionality for supervisors or managers to perform the steps described in Section 3 Functional Requirements.	Mandatory	See User Steps #1 to #37
2.3.23	The portal must allow access to online help, search and tooltips to support use of the system.  This help must include access to relevant system training and prevocational framework documentation.	Mandatory	
	The help should provide access to the prevocational framework documents (or parts relevant to the section being navigated), information regarding the EPAs, outcomes statements, training environment and information to help the supervisors and managers understand their requirements.		
2.3.24	The menu bar should have an icon and forms that allow for a user to change their personal details, password and authentication methods.	Mandatory	

# Dashboards and reports

ID	Requirement	Priority	Notes
2.3.25	The system must allow reports, dashboards or parts of dashboards to be exported in the following formats:	Mandatory	
	Microsoft word document Microsoft excel document (including a CSV file) PDF JPG		
2.3.26	The AMC user must have the ability to set up queries, reports and dashboards of de-identified aggregate information from the Learning Record.	Mandatory	
2.3.27	The PMC user must have the ability to set up queries, reports and dashboards of de-identified aggregate information and date range, from the Learning Record, filtered to their jurisdiction.	Mandatory	
2.3.28	The MEU users receive operational reports and have the ability to produce ad hoc reports or dashboards for analysis, filtered within their organisation.	Mandatory	

ID	Requirement	Priority	Notes
2.3.29	The MEU users must be able to generate <u>certificates of completion</u> for application for general registration with the Medical Board of Australia.	Mandatory	
2.3.30	PGY1/PGY2 doctors must be able to generate standardised reports for future employers.	Mandatory	
	For example: A <u>transcript of learning</u> containing a list of completed terms, a list of learning undertaken and other evidence uploaded to the e-portfolio (for example, mandatory training).		
2.3.31	PGY1/PGY2 doctors must be able generate standardised, individualised reports for use in entry to specialist colleges	Mandatory	
	For example: A <u>transcript of learning</u> containing completed term descriptions and logbook entries.		
2.3.32	The system could allow a dashboard comments feature.	Optional	
	For example: Term Supervisors can add comments and feedback to dashboards. This function can be enabled or disabled based on user permissions.		
2.3.33	The system must be able to aggregate data from all data stores holding learning statements	Mandatory	
2.3.34	The system should provide the ability to embed reports and visualisations (through a Report API or widget) into other tools, systems, and content.	Desirable	
2.3.35	The system should allow designated users to add custom fields to the user persona which could assist in allowing custom reports to be run.	Desirable	
2.3.36	The system should allow users to refine some dashboards and reports to show information based on date ranges and/or other specific information.	Desirable	
	For example: A trainee can set date ranges to show how they have improved in the past 5 weeks.		
2.3.37	The system should display the version number on each dashboard and report.	Mandatory	

## Notifications and Alerts

ID	Requirement	Priority	Notes
2.3.38	The AMC, PMC and MEU system administrators must have the ability to set up rule based notifications, based on their permissions and filtered by their organisation, in addition to	Mandatory	

ID	Requirement	Priority	Notes
	specific notifications found in the system functional specifications.		
	Examples of notifications a system administrator may wish to set up include:		
	<ul> <li>A notification to Director Clinical Training if a clinical unit consistently has a low score for an outcome statement over a 12 month period.</li> <li>A notification to Director Clinical Training when a trainee obtains a consistent low score over time with respect to a specific outcome.</li> <li>Notifications to term supervisors who have not completed assessments.</li> <li>Set up automatic reminders if a trainee is not assessed by a certain time period.</li> </ul>		
2.3.39	The system must be able to send notifications and alerts via email, SMS or push to the browser or system notifications.	Mandatory	
2.3.40	The system must allow for configuration, by the MEU System Administrator, as to which MEU users are to receive the notifications specified in the system functional requirements.	Mandatory	

# Form Support Tools

ID	Requirement	Priority	Notes
2.3.41	The system must allow for the AMC System Administrator to add, delete and/or modify certain forms.	Mandatory	
	For Example: Forms used for the EPA and Term assessments.		
2.3.42	The forms in requirement 2.3.41 must be customised without dependence on the vendor.	Mandatory	
2.3.43	All created forms must adjust themselves dynamically on mobile as well as laptop devices.	Mandatory	
2.3.44	Forms should provide seamless completion of the form regardless of connectivity.  If interrupted, the user can return to where they left off and they will not need to add in information they have previously added.	Highly Desirable	
2.3.45	Forms must provide field validation with field formatting in AU format.	Mandatory	

#### 2.4. Ongoing configuration requirements

ID	Requirement	Priority	Notes
2.4.1	The system should allow for the AMC System Administrator to add, delete and/or modify learning outcome statements.	Mandatory	
2.4.2	The system should allow for the AMC System Administrator to add, delete and/or modify additional learning frameworks and their associated learning outcome statements.	Desirable	
2.4.3	The system must allow the AMC System Administrator to modify workflows, tasks and processes.	Mandatory	

# 3. System Functional Requirements

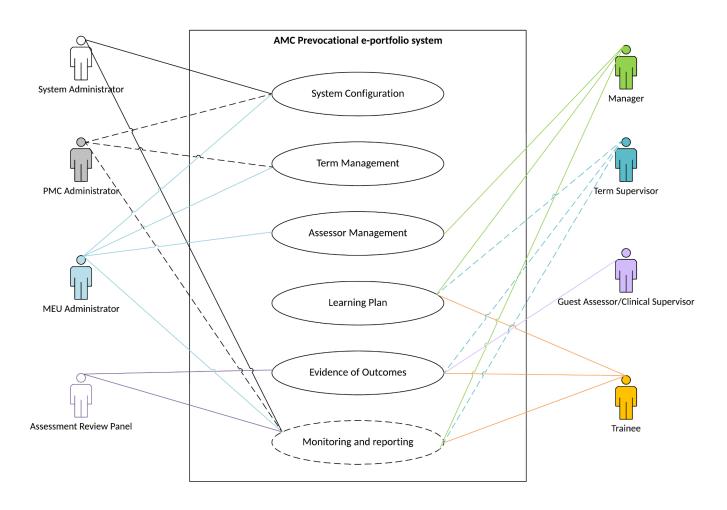


Figure 2. e-Portfolio Use Case

The goal of the e-portfolio is to enable the trainee to record evidence of meeting the learning outcomes of the Prevocational Framework. The e-portfolio allows the entry of that evidence by allowing the trainee to enter evidence (e.g. through the logbook), upload evidence (e.g. a file as evidence of completing learning) or through the completion of an assessment form by the term supervisor or Guest Assessor.

The e-portfolio allows for the configuration of term descriptions which pre-populate learning plans. Learning plans are used in monitoring and evaluation of progress against the learning outcomes and viewing evidence mapped to the relevant outcome. The learning plan is required to validate an allocation of terms against parameters articulated in the framework relating to clinical experience, service term provision and length of time allocated to a team.

The business process diagram is attached as **Appendix 1 Supporting Diagrams - e-Portfolio Workflow**. The actors are further expanded on, together with their roles and permissions, in the non-functional requirements, under 4.5 Security and Permissions.

#### 3.1. User Steps

#1 AMC system configuration: Roles and Permissions

ID	Requirement	Priority	Notes
#1.1	The system must enable the AMC System Administrator to create, modify and delete permissions on the system level.	Mandatory	
#1.2	The system must store/update permissions.	Mandatory	
#1.3	The system must enable the AMC System Administrator to create, modify and delete roles on the system level.	Mandatory	
#1.4	The system must store/update roles.	Mandatory	
#1.5	The system must enable the AMC System Administrator to allocate or reallocate permissions to roles on the system level.	Mandatory	
#1.6	The system must store/update the assignment between permissions and roles.	Mandatory	
#1.7	The system must enable the AMC System Administrator to create, modify and delete Actors on the system level.	Mandatory	
#1.8	The system must store/update Actors.	Mandatory	
#1.9	The system must enable the AMC System Administrator to allocate or reallocate Actors to roles on the system level.	Mandatory	

ID	Requirement	Priority	Notes
#1.10	The system must store/update the assignment of the Actor to the role.	Mandatory	

## #2 AMC system configuration: Supervisor Criteria

ID	Requirement	Priority	Notes
#2.1	The system must enable the AMC System Administrator to record, modify and delete supervisor criteria for the Supervisor and Assessor roles.  Criteria could include a specialist qualification, type of registration, length of registration and/or completion of training or a set of competencies.	Mandatory	This could include but not limited to a range of field types including string, integer, boolean.
#2.2	The system must store/update the Supervisor and Assessor criteria.	Mandatory	
#2.3	The system must enable the AMC System Administrator to attach the Supervisor Resources to the criteria on a system level.	Mandatory	If particular training is required, that training is linked to the criteria in 2.1
#2.4	The system must store/update the Supervisor Resources.	Mandatory	

# #3 Create new AMC User

ID	Requirement	Priority	Notes
#3.1	The system must enable the AMC System Administrator to add or delete an AMC User.	Mandatory	
#3.2	The system must store/update the user details.	Mandatory	
#3.3	The system must enable the AMC System Administrator to bulk upload AMC users.	Mandatory	CSV file
#3.4	The system must validate CSV file data and return an error if invalid data is found.	Mandatory	
#3.5	The system must store/update each user's details.	Mandatory	Minimum - First Name, Last Name, Phone, Email

# #4 AMC system configuration: Create AMC user persona

ID	Requirement	Priority	Notes
#4.1	The system must enable the AMC System Administrator to create, modify and delete the persona attributes for an AMC User.	Mandatory	
#4.2	The system must store/update the persona attributes.	Mandatory	
#4.3	The system must automatically allocate or reallocate roles and permissions to the AMC user from the configuration set in Step 1 based on the persona attributes.	Mandatory	
#4.4	The system must automatically notify the new user of their username and password.	Mandatory	

## #5 Create new PMC System Administrator

ID	Requirement	Priority	Notes
#5.1	The system must enable the AMC System Administrator to add or delete a PMC System Administrator.	Mandatory	
#5.2	The system must store/update the user details.	Mandatory	Minimum - First Name, Last Name, Phone, Email
#5.3	The system must enable the AMC System Administrator to create, modify and delete the persona attributes for a PMC User.	Mandatory	
#5.4	The system must store/update the persona attributes.	Mandatory	
#5.5	The system must automatically allocate or reallocate roles and permissions to the PMC user from the configuration set in Step 1 based on the persona attributes.	Mandatory	
#5.6	The system must automatically notify the new user of their username and password.	Mandatory	

#### #6 Create new PMC User

ID	Requirement	Priority	Notes
#6.1	The system must enable the PMC System Administrator to add or delete a PMC User.	Mandatory	

ID	Requirement	Priority	Notes
#6.2	The system must store/update the user details.	Mandatory	Minimum - First Name, Last Name, Phone, Email
#6.3	The system must enable the PMC System Administrator to bulk upload PMC users.	Mandatory	CSV File
#6.4	The system must validate CSV file data and return an error if invalid data is found.	Mandatory	
#6.5	The system must store/update each user's details.	Mandatory	

# #7 PMC system configuration: Create PMC user persona

ID	Requirement	Priority	Notes
#7.1	The system must enable the PMC System Administrator to create, modify and delete the persona attributes for a PMC User.	Mandatory	
#7.2	The system must store/update the persona attributes.	Mandatory	
#7.3	The system must automatically allocate or reallocate roles and permissions to the PMC user from the configuration set in Step #1.	Mandatory	
#7.4	The system must automatically notify the new user of their username and password.	Mandatory	

## #8 Create new MEU System Administrator

ID	Requirement	Priority	Notes
#8.1	The system must enable the PMC System Administrator to add or delete an MEU System Administrator.	Mandatory	
#8.2	The system must store/update the user details.	Mandatory	Minimum - First Name, Last Name, Phone, Email
#8.3	The system must enable the PMC System Administrator to create, modify and delete the persona attributes for an MEU System Administrator.	Mandatory	
#8.4	The system must store/update the person attributes.	Mandatory	

ID	Requirement	Priority	Notes
#8.5	The system must automatically allocate or reallocate roles and permissions to the MEU user from the configuration set in Step #1 based on the persona attributes	Mandatory	
#8.6	The system must automatically notify the new user of their username and password.	Mandatory	

#### #9 Create new MEU User

ID	Requirement	Priority	Notes
#9.1	The system must enable the MEU System Administrator to add or delete an MEU User.	Mandatory	
#9.2	The system must store/update the user details.  If the User is clinical, then the AHPRA number is required.	Mandatory	First Name, Last Name, Phone, Email address.
#9.3	The system must enable the MEU System Administrator to bulk upload MEU users.	Mandatory	
#9.4	The system must validate CSV file data and return an error if invalid data is found.	Mandatory	
#9.5	The system must store/update each user's details.	Mandatory	

# #10 MEU system configuration: Create MEU user persona

ID	Requirement	Priority	Notes
#10.1	The system must enable the MEU System Administrator to create, modify and delete the persona attributes for an MEU User.	Mandatory	
#10.2	The system must store/update the persona attributes.	Mandatory	
#10.3	If more than one persona is connected to the user, the system must enable the user to choose between personas.	Mandatory	
#10.4	If more than one persona is connected to the user, the system must enable the MEU Administrator to set the default persona.	Mandatory	
#10.5	The system must automatically allocate or reallocate roles and permissions to the MEU user from the configuration set in Step #1 based on the persona attributes.	Mandatory	See requirement 2.3.40
#10.6	The system must automatically notify the new user of their username and password.	Mandatory	

ID	Requirement	Priority	Notes
#10.7	The system must store a new Term Supervisor for review in Step #11.	Mandatory	
#10.8	The system must default the Term Supervisor role to de-activated, to be activated in Step #11.	Mandatory	

## #11 Approve Term supervisor

ID	Requirement	Priority	Notes
#11.1	The system must automatically notify new Term Supervisors of their username, password and requirement for supervision.	Mandatory	
	The notification should request evidence of the supervisor criteria configured in Step #2.		
#11.2	The system must enable the MEU Administrator to manually generate a link and send an email to the Term Supervisor requesting supervisor criteria information.	Mandatory	
#11.3	The system must enable the Term Supervisor to provide the criteria configured in Step #2 and access any attached resources from Step #2.	Mandatory	
#11.4	The system must store information provided by the Term Supervisor or the MEU administrator.	Mandatory	
#11.5	The system must automatically notify the DCT of a new Term Supervisor request once the criteria have been completed.	Mandatory	
#11.6	The system must enable the DCT to view, approve and decline a Term Supervisor, based on the criteria set in Step #2.	Mandatory	
#11.7	The system must store/update the approval/decline of a Term Supervisor	Mandatory	
#11.8	The system must generate a learning statement for the Term Supervisor to be stored in the Learning Record.	Mandatory	

## #12 Create/modify a term description

ID	Requirement	Priority	Notes
#12.1	The system must enable the MEU administrator to create, modify or de-activate a term description.  The Term description must include the following:  1. Name	Mandatory	Context for this requirement can be found in the National Prevocational Framework -

ID	Requirement	Priority	Notes
	<ol> <li>A short description that should include specialty, length of term and role description</li> <li>Supervision model and Term Supervisor(s)</li> <li>The ability to select learning outcomes from the framework with a short description on how that outcome is achieved in the term, including links to EPAs that should be completed.</li> <li>Clinical exposure (Acute, Perioperative, Chronic, Undifferentiated care)</li> <li>If this is a service term</li> <li>If trainee will be allocated to a team in this term</li> </ol>		Training Environment, pages 31 -38
#12.2	The system must store/update the term description, generating a unique id for each approved modification.	Mandatory	
#12.3	The system must enable the MEU administrator to pre-populate term information by uploading a CSV file.	Mandatory	
#12.4	The system must validate CSV data and return an error if invalid date is found.	Mandatory	
#12.5	The system must store/update the pre-populated term description uploaded using a CSV file.	Mandatory	

## #13 Assign the Term Supervisor to a term description

ID	Requirement	Priority	Notes
#13.1	The system must generate a drop down list of approved Term Supervisor for allocation to a term description.	Mandatory	
#13.2	The system must provide flexibility to allocate multiple Term Supervisors to a term.	Mandatory	(Maximum of 5)
#13.3	The system must enable the MEU Administrator to allocate a Term Supervisor to a Term description.	Mandatory	
#13.4	The system must store/update the information that a Term Supervisor is associated with a Term description.	Mandatory	
#13.5	The system must automatically notify the PMC administrator of new or modified term descriptions for confirmation of accreditation status.	Mandatory	The approval process would occur outside the e-portfolio.

# #14 Confirm accreditation status of the term description

ID	Requirement	Priority	Notes
#14.1	The system must enable the PMC Administrator to confirm the accreditation status of a term description.	Mandatory	
	Term accreditation status must include the following states:     1. Accredited     2. Not accredited     3. Inactive		
#14.2	The system must store and/or update the accreditation status of the term description.	Mandatory	
#14.3	The system must enable the PMC Administrator to search or filter term descriptions within their jurisdiction.	Mandatory	
#14.4	The system must automatically notify the designated MEU users of a change in accreditation status of a term description.	Mandatory	See requirement 2.3.40

## #15 Assign learning plan to trainee

ID	Requirement	Priority	Notes
#15.1	The system must enable the MEU administrator to generate or modify a learning plan by allocating term descriptions that have an "accredited" status, from a drop down list, for a specified date period.	Mandatory	
#15.2	The system must preconfigure and populate the learning plan based on data contained within the term description.	Mandatory	
#15.3	The system must generate an alert if the learning plan is not compliant with <a href="Framework parameters">Framework parameters</a> .  For example: An alert pops up if there is excessive service time or non team time.	Mandatory	National Prevocational Framework - Training Environment, pages 31 -38
#15.4	The system must enable the MEU administrator to assign the learning plan to a trainee.	Mandatory	
#15.5	The system must store the learning plan.	Mandatory	
#15.6	The system must generate a learning statement(s) recording the trainee's assigned learning plan.	Mandatory	
#15.7	The system must notify the trainee of their learning plan.	Mandatory	

ID	Requirement	Priority	Notes
#15.8	The system must notify the Term Supervisor of the incoming cohort.	Mandatory	2 weeks prior to the start date

## #16 Term supervisor reviews incoming cohort

ID	Requirement	Priority	Notes
#16.1	The system must enable the Term Supervisor to view the progress of each prevocational trainee starting in their term.	Mandatory	
#16.2	The system must enable the Term Supervisor to select a trainee and drill down into their learning plan, and data attached to domains and outcome statements.	Mandatory	
#16.3	The system must enable the Term Supervisor to view the evidence of outcomes generated within a specified time period.	Mandatory	

## #17 Trainee reviews or modifies learning plan

ID	Requirement	Priority	Notes
#17.1	The system must enable the trainee to view their learning plan.	Mandatory	
#17.2	The system must enable the trainee to view terms allocated and the date ranges of their allocation.	Mandatory	
#17.3	The system must enable the trainee to drill down into their training plan by domain and then by learning outcome.	Mandatory	
#17.4	The system must enable the trainee to add custom goals and self reflections to the learning plan.	Mandatory	

## #18 Term supervisor reviews or modifies a learning plan

ID	Requirement	Priority	Notes
#18.1	The system must enable the Term Supervisor to review or modify an individual learning plan by adding custom objectives to learning outcomes.	Mandatory	
#18.2	The system must store the modified learning plan.	Mandatory	

## #19 Term supervisor approves learning plan

ID	Requirement	Priority	Notes
#19.1	The system must enable the Term Supervisor to approve the learning plan.	Mandatory	
#19.2	The system must store the approved learning plan.	Mandatory	
#19.3	The system must automatically approve and store a learning plan if a Term Supervisor does not approve the learning plan by a certain date.	Mandatory	For example, 1 week after the start of a term.
#19.4	The system must automatically notify the designated MEU users, supervisor and trainee of the approval of their learning plan.	Mandatory	See requirement 2.3.40

## #20 Trainee signs learning plan

ID	Requirement	Priority	Notes
#20.1	The system must enable the trainee to record their agreement with the learning plan.	Mandatory	
#20.2	The system must record approval of a learning plan by the trainee.	Mandatory	
#20.3	The system must notify the designated MEU users of approval of the learning plan by the trainee.	Mandatory	Notification should go to the MEO
#20.3	The system must automatically record agreement and store a learning plan if the trainee does not agree to the learning plan by a certain date.	Mandatory	For example, 1 week after term supervisor approval.
#20.4	The system must generate a learning statement(s) recording the approved and agreed to learning plan outcomes.	Mandatory	
#20.5	The system must generate a learning statement(s) once the learning plan is completed at the completion of a term.	Mandatory	

## #21 MEU Monitor learning plans

ID	Requirement	Priority	Notes
#21.1	The system must automatically notify the designated MEU users of learning plans that are not approved or signed by a deadline.	Mandatory	Deadline set by date range in learning plan

ID	Requirement	Priority	Notes
#21.2	The system must enable the designated MEU users to review learning plans that are not approved or signed.	Mandatory	

## #22 Complete EPA Self Assessment

ID	Requirement	Priority	Notes
#22.1	The system must enable the trainee to complete an <u>EPA</u> <u>self-assessment</u> .	Mandatory	
#22.2	The system must store the self assessment against associated learning outcomes, and the relevant EPA assessment data as completed by a Guest Assessor, Term Supervisor or Director of Clinical Training.	Mandatory	
#22.3	The system must generate a learning statement(s) recording the trainees assessment against outcomes.	Mandatory	

## #23 Upload evidence of learning outcomes

ID	Requirement	Priority	Notes
#23.1	The system must enable the trainee to upload evidence of learning outcomes.	Mandatory	
#23.2	The system must store uploaded evidence.	Mandatory	
#23.3	The system must generate a learning statement recording achievement of outcome and reference evidence submitted.	Mandatory	

## #24 Complete logbook

ID	Requirement	Priority	Notes
#24.1	The system must enable the trainee to log external learning or training courses, cases, activities and procedures in the logbook and map the log entry to relevant learning outcomes.	Mandatory	Examples of external learning could include completion of BLS, BloodSafe modules and Cultural Safety workshops
#24.2	The system must store log entries.	Mandatory	

ID	Requirement	Priority	Notes
#24.3	The system must generate a learning statement recording log entries against learning outcomes.	Mandatory	

## #25 Initiate and complete an assessment

ID	Requirement	Priority	Notes
#25.1	The system must enable the Trainee, Term Supervisor, DCT or EDMS to initiate an assessment by selecting the relevant assessment form and nominating a Guest Assessor.	Mandatory	
#25.2	The system must initiate the guest assessment verification Step #26, if the nominated Guest Assessor is a non-user of the e-portfolio.	Mandatory	
#25.3	The system must enable the Guest Assessor to provide relevant user data, if not yet provided in Step #25.1 and #25.2.	Mandatory	First Name, Last Name, Email or Phone , AHPRA number
#25.4	The system must send a unique link to open the assessment portal for the trainee being assessed.	Mandatory	
#25.5	The system must store the user data provided by the Guest Assessor.	Mandatory	
#25.6	The system must enable the Guest Assessor to complete an EPA or mid term assessment form.	Mandatory	
#25.7	The system must store assessment data provided by the Guest Assessor.	Mandatory	
#25.8	The system must automatically notify the MEU Administrator when a new Guest Assessor has provided the requested user data and assessment data.	Mandatory	

#### #26 Guest Assessor Verification

ID	Requirement	Priority	Notes
#26.1	The system must enable the MEU Administrator to record the outcome of the manual verification of a new Guest Assessor.	Mandatory	
#26.2	The system may enable the MEU Administrator to add Guest Assessor additional persona attributes.	Optional	Such as location, or supervisor training.

ID	Requirement	Priority	Notes
#26.3	The system must store/update the Guest Assessor user details and persona attributes (if any).	Mandatory	
#26.4	The system must store the outcome of the verification of the Guest Assessor.	Mandatory	
#26.5	The system must enable the MEU Administrator to link the Guest Assessor to a previously verified Guest Assessor.	Mandatory	For example, a change in email by a previous assessor
#26.6	The system must store/update the already existing Guest Assessor user details and persona attributes (if any).	Mandatory	
#26.7	The system must enable the MEU Administrator to fill in the APHRA number for a clinical Guest Assessor (if not provided already #25.3).	Mandatory	
#26.8	The system must store the APHRA number of a clinical Guest Assessor.	Mandatory	
#26.9	The system must automatically allocate/reallocate roles and role-related permissions to the Guest Assessor as configured in Step 1.	Mandatory	

# #27 Complete EPA assessment

ID	Requirement	Priority	Notes
#27.1	The system must enable the Term Supervisor, DCT or Guest Assessor to complete an EPA <u>assessment</u> .	Mandatory	
#27.2	The system must store the EPA assessment	Mandatory	
#27.3	The system must generate a learning statement(s) recording the outcome of the EPA, context and learning outcomes.	Mandatory	
#27.4	The system must provide tooltips on the assessment form to assist trainees and supervisors in understanding and completing the form.	Mandatory	
#27.5	The system must enable notifications to the designated MEU User if the completion of EPAs are not tracking as expected.	Mandatory	For example, if falling behind 1 EPA per 5 weeks
#27.6	The system must link EPA self assessments and assessed EPAs regardless of which was initiated first.	Mandatory	
	For example: If a trainee starts by completing a self assessment, it should be able to be linked to an assessed EPA that is completed later. If an assessed EPA is completed first,		

ID	Requirement	Priority	Notes
	the trainee must be able to then link their self assessment later.		

## #28 Complete term self assessment

ID	Requirement	Priority	Notes
#28.1	The system must enable the trainee to complete a term self-assessment.	Mandatory	
#28.2	The system must store the self assessment.	Mandatory	
#28.3	The system must generate a learning statement(s) recording the self assessment against learning outcomes.	Mandatory	

## #29 Complete mid-term assessment

ID	Requirement	Priority	Notes
#29.1	The system must enable the Term Supervisor or a Guest Assessor to complete the <u>mid-term assessment</u> .	Mandatory	
	The system must enable the Term Supervisor or Guest Assessor to view a self assessment if that has been completed.		
#29.2	The system must store the mid term assessment	Mandatory	
#29.3	The system must generate a learning statement(s) recording the assessment against the outcomes.	Mandatory	
#29.4	The system must automatically notify designated MEU users of mid-term assessments that are not completed by a deadline.	Mandatory	Determined by the dates set in the learning plan
#29.5	The system must notify the designated MEU users of a borderline or unsatisfactory assessment.	Mandatory	See requirement 2.3.40
#29.6	The system must enable the Term Supervisor to initiate an IPAP.	Mandatory	
#29.7	The system must store that an IPAP has been initiated.	Mandatory	
#29.8	The system must notify the designated MEU users of an initiated IPAP.	Mandatory	See requirement 2.3.40
#29.9	The system <u>must not generate</u> learning statements that record the initiation of an IPAP, however should generate the learning statements in #29.3.	Mandatory	

## #30 Complete end of term assessment

ID	Requirement	Priority	Notes
#30.1	The system must enable the Term Supervisor to complete the end of term assessment.	Mandatory	
	The system must enable the Term Supervisor to view a self assessment if that has been completed.		
#30.2	The system must store the end of term assessment	Mandatory	
#30.3	The system must notify designated MEU users of completed end-of term assessments.	Mandatory	See requirement 2.3.40
#30.4	The system must generate a learning statement(s) of the assessment against the outcome statements.	Mandatory	
#30.5	The system must automatically notify designated MEU users of end-term assessments that are not completed by a deadline.	Mandatory	Determined by the dates set in the learning plan
#30.6	The system must notify the designated MEU users of a borderline or unsatisfactory assessment.	Mandatory	See requirement 2.3.40
#30.7	The system must enable the Term Supervisor to initiate or complete an IPAP.	Mandatory	
#30.8	The system must store that an IPAP has been initiated or completed.	Mandatory	
#30.9	The system must notify the designated MEU users of an initiated or completed IPAP.	Mandatory	See requirement 2.3.40
#30.10	The system <u>must not generate</u> learning statements that record the initiation of an IPAP, however should generate learning statements in #30.4.	Mandatory	

#### #31 Monitor assessments

ID	Requirement	Priority	Notes
#31.1	The system must enable the Term Supervisor, DCT or EDMS to review outstanding assessments.	Mandatory	
#31.2	The system must enable the Term Supervisor/DCT & EDMS to initiate or complete an IPAP at any time outside of an assessment.	Mandatory	

ID	Requirement	Priority	Notes
#31.3	The system must store that an IPAP has been initiated or completed.	Mandatory	
#31.4	The system must notify the designated MEU users of an initiated or completed IPAP.	Mandatory	See requirement 2.3.40
#31.5	The system <u>must not generate</u> learning statements that record the initiation of an IPAP.	Mandatory	

# #32 Finalise learning plan milestone

ID	Requirement	Priority	Notes
#32.1	The system must enable the Term Supervisor or DCT/EDMS to record decisions and finalise milestones of the learning plan.	Mandatory	
#32.2	The system must generate a learning statement completing the term.	Mandatory	
#32.3	The system must store recorded decisions of the Term Supervisor or DCT/EDMS.	Mandatory	

#### #33 MEU sets up an Assessment Review Panel

ID	Requirement	Priority	Notes
#33.1	The system must enable the MEU Administrator to initiate an Assessment Review Panel.	Mandatory	
#33.2	The system must enable the MEU Administrator to filter, search and assign existing users to the Assessment Review Panel.  This could include the DCT, EDMS, Term Supervisors, and previously verified Guest Assessors (which includes clinical supervisors).	Mandatory	
#33.3	The system must enable the MEU Administrator to create new Assessment Review Panel members.	Mandatory	
#33.4	The system must store the Assessment Review Panel and the member details.	Mandatory	

## #34 MEU sends invitation to Assessment Review Panel member

ID	Requirement	Priority	Notes
#34.1	The system must automatically send invitations to Assessment Review Panel members.	Mandatory	
#34.2	The system must enable the MEU Administrator to send invitations manually to Assessment Review Panel members.	Mandatory	
#34.1	The system must enable the Assessment Review Panel member to accept Assessment Review Panel nomination.	Mandatory	
#34.2	The system must store Assessment Review Panel member status and user details upon acceptance.	Mandatory	
#34.3	The system must automatically allocate/reallocate roles and role-related permissions to the Assessment Review Panel as configured in Step #1, and based on the user's Persona attributes.	Mandatory	
#34.4	The system must generate a unique link which gives the panel member access to the Assessment Portal view in Requirement 2.3.13. This link should expire after the time period in #34.5.	Mandatory	
#34.5	The system must allow the MEU administrator to set a time period that the link is valid for.	Mandatory	

# #35 Global Panel finalises learning plan milestone

ID	Requirement	Priority	Notes
#35.1	The system must enable the Assessment Review Panel to record decision making and finalise their review.  The decision recorded will be selected from a predefined set of outcome decisions and a non mandatory free text field for comments the panel member may want to include.	Mandatory	The decision outcomes are yet to be defined.
#35.2	The system must enable the Assessment Review Panel to carry out off-line approval (including a file upload).	Mandatory	
#35.3	The system must store a copy of the off-line approval.	Mandatory	
#35.4	The system must generate a learning statement recording the panel's finalisation of the assigned learning plan.	Mandatory	
#35.5	The system must notify Trainees when the Assessment Review Panel finalisation of the assigned learning plan.	Mandatory	

#### #36 Trainee exports a transcript of learning

ID	Requirement	Priority	Notes
#36.1	The system must enable the trainee to export a transcript of learning.	Mandatory	
#36.2	The system could generate a link to the trainee's record.	Desirable	

#### #37 MEU administrator generates a certificate of completion

ID	Requirement	Priority	Notes
#37.1	The system must enable the MEU Administrator to generate a Certificate of Completion.	Mandatory	
#37.2	The system may automatically send a Certificate of Completion to Trainees once generated.	Optional	
#37.3	The system must enable the MEU Administrator to send notifications of completion to organisations configured by the AMC System Administrator.	Mandatory	Currently, PGY1 completion is to be sent to AHPRA

#### 3.2. Integration/migration requirements

It is expected that during the initial implementation phase, PMCs and MEUs will need to migrate data from existing systems, with an assumption that this training data exists in spreadsheets and related documents. The e-portfolio must accept bulk uploads from CSV files to enable migration to the system.

The e-portfolio should enable pre-configured spreadsheet templates to be downloaded, allowing PMCs and MEUs to populate the system through the upload of completed files and thus allowing for integration with current systems for managing prevocational training. The system's integration interface should validate the incoming data and return specific error messages for invalid data.

PMCs and MEUs may have an existing system for managing prevocational training that may have the ability to interface with outside systems. The integration interface should have published specifications for sending and receiving data through publicly accessible APIs. The system must perform data validation and return errors for invalid data.

The system design assumes the lowest common denominator for integration with the e-Portfolio system is through spreadsheets.

ID	Requirement	Priority	Notes
3.2.1	All public facing API calls must be authenticated to ensure security of the system.	Mandatory	
3.2.2	A set of valid data models for sending learning statements to the portfolio should be documented to enable system integrators to interact with the e-portfolio system.	Mandatory	
3.2.3	A test (sandbox) and staging (training) environment must be available for system integrators to test the interfacing with the system.	Mandatory	
3.2.4	Where appropriate, the integration interface that accepts API calls must log the incoming learning statements, validate the data, and update the operational database where appropriate.	Mandatory	
3.2.5	The system should allow for charts, graphs, and tables to be included into other systems.	Desirable	
	For example, allow widgets and/or iframes to allow embedding of visualisations into Microsoft Teams, Staff Intranets, and other systems in use for the management of prevocational training.		
3.2.6	CSV files are the primary method for uploading bulk data sets such as Contacts, Users, Term Descriptions and offline assessments.	Mandatory	
	The Integration Interface must validate and authenticate uploads to the system.		
3.2.7	The system must be able to deliver spreadsheet templates to prevalidate and format uploads to the system.	Mandatory	
3.2.8	Existing specifications for integration between learning systems should be used in the integration interface where appropriate.	Desirable	
	For example: The Experience API (xAPI) could be used to send learning statements from external learning management systems or logbooks.		
3.2.9	Authentication against State Health identity providers could allow Single Sign On (SSO) with existing State Health IT credentials.	Optional	
3.2.10	The e-portfolio system should integrate with Services Australia's Health Professional Identifier-Individual (HPI-I) and Health Professional Identifier-Organisation (HPI-O) systems to allow for secure and reliable user identification.	Desirable	

# 4. Non-functional and service requirements

### 4.1. Policy and regulation requirements

ID	Requirement	Priority	Notes
4.1.1	The system must comply with both the Australian Government Information Security Manual (ISM) and the Protective Security Policy Framework (PSPF) and implement appropriate controls to protect the confidentiality, integrity, and availability of information and information systems.	Mandatory	
4.1.2	The system must maintain documentation that demonstrates compliance with the ISM, including security plans, policies, procedures, and guidelines.	Mandatory	
4.1.3	The vendor must have a privacy policy that is compliant with the Australian Privacy Principles.	Mandatory	
4.1.4	The vendor's privacy policy must detail the processes around managing data security during maintenance of the system, particularly when using third parties.	Mandatory	
4.1.5	The agreement between the vendor and the AMC should guarantee that the AMC acts as the legal custodian of the data stored in the e-portfolio, with ownership rights and intellectual property remaining with the relevant state or territory jurisdiction.	Mandatory	
4.1.6	The system must reside on infrastructure located in Australia, ensuring the collection, processing and storage of data occurs within Australia.	Mandatory	
4.1.7	The system must be designed and developed in compliance with the W3C Web Content Accessibility Guidelines (WCAG) 2.1 Level AA standard.	Mandatory	

The Australian Government Information Security Manual (ISM) provides a comprehensive framework for managing information security risks, while the Protective Security Policy Framework (PSPF) provides a broader framework for managing protective security risks. Compliance with both frameworks can ensure that e-portfolio meets the minimum security requirements established by the Australian government and reduces the risk of security breaches and data loss.

The AMC e-portfolio is a database containing and aggregating user learning data. Aggregation of data is covered under Australian copyright law and can be protected by database right. The e-portfolio database could thus be both owned and protected as the intellectual property of the AMC.

While the specifications of the portfolio gives the AMC user permissions to see the de-identified aggregate of the database, the AMC does have in its possession and control, the full record containing assessment scores and comments for pre-vocational trainees.

A framework or policy that outlines the management of the data, including specifying how the e-portfolio would be "learner controlled", would provide further detail as to the non-functional and service requirements. This framework or policy should cover:

- 1. A privacy policy
- 2. e-Portfolio (or website) terms and conditions of use
- 3. Cookies policy
- 4. Data protection policy
- 5. Data breach procedure and risk assessment
- 6. Freedom of information policy
- 7. Data records retention policy
- 8. A policy or procedure for user account management including assigning or revoking access and/or administrator privileges.
- 9. Downtime procedure and communication plan

A non-exhaustive list of potential scenarios below could guide a policy to define a "learner-controlled" e-portfolio:

- 1. Requests from individuals and institutions to access the database for research purposes (outside of a granted user's permissions or outside of the terms and conditions of use of the e-portfolio).
- 2. Requests from outside agencies, including commonwealth and state agencies to access the database or a particular dataset.
- 3. Individual trainee requests for access to their own data, including requests to delete data records.
- 4. The procedure to follow, and the responsibilities of users of the system, to manage records of assessments containing details detrimental to the learner. This may include invalid assessments, assessment comments that meet criteria for bullying, harassment and/or are sexist or racist in nature, or comments in the EPA or term assessments that record comments that may require further investigation should they meet the criteria for mandatory reporting.

### 4.2. User numbers and Performance requirements

Based on the Medical Deans of Australia and New Zealand student statistics report for 2021, it is anticipated that there will be approximately 3600 medical students graduating each year. An estimated 3910 individuals will commence prevocational training 2025 when the e-portfolio is expected to be fully implemented. This figure also includes about

550 international medical graduates who, after obtaining their AMC certificates, will enter into prevocational training.

As such, it is projected that during the implementation phase, the system will be required to accommodate a peak load of around 8500 prevocational trainees. Presuming a 1:1 trainee to supervisor ratio, maximum system usage is expected to occur during specific periods:

- 1. the initial weeks of January when Medical Education Units (MEUs) establish new users and delegate learning plans;
- 2. the first, fifth, and tenth weeks of each term when trainees and supervisors modify learning plans, undertake mid-term assessments, and complete end-of-term assessments respectively.

These assumptions have been made with the understanding that the system's peak load will be primarily influenced by the number of users performing assessments and subsequently generating learning statements. It should, however, be noted that other factors like unexpected usage spikes, system maintenance, and varying user behaviour might also significantly impact the system load.

ID	Requirement	Priority	Notes
4.2.1	The system must have scalable architecture that allows for the expansion of users over time.	Mandatory	
4.2.2	The system could scale horizontally, automatically, depending on utilisation criteria set by the AMC and the vendor at the time of live deployment of the system.	Highly Desirable	
4.2.3	The system must be able to handle large numbers of concurrent users as per the assumptions provided.	Mandatory	
	(Estimated peak load would be around 400-1000 assessments being completed per day, concentrated in the afternoon every fifth week.		
	Please note that the peak number of users does not necessarily equate to number of assessments completed per day.)		
4.2.4	The system must be able to operate 24 hours a day, 7 days a week and must have 99.9% uptime.	Mandatory	
4.2.5	There must be a downtime procedure and communication plan that minimises the impact of downtime on users of the system. There must be agreement as to the best times for scheduled downtime stipulated in the procedure.	Mandatory	
4.2.6	The system must have robust mechanisms for coping with machine failure such that no loss of data occurs. If the system was unavailable for any reason, it should provide a mechanism	Mandatory	

ID	Requirement	Priority	Notes
	to cache or store learning statements to be resent at a later time.		
4.2.7	The system should perform with minimal latency under a variety of use case scenarios and load conditions. Average page load times should be no more than 3 seconds.  Load/processing Indicators should be implemented after 5 seconds.	Desirable	

# 4.3. System configuration

ID	Requirement	Priority	Notes
4.3.1	The system must be configured to adequately meet the performance requirements 4.2.1-4.2.7.	Mandatory	

# 4.4. System administration

ID	Requirement	Priority	Notes
4.4.1	The system must set up daily and weekly backups and provide procedural documentation in accordance with requirement 4.1.1.	Mandatory	
4.4.2	The system must be restored from backups and provide procedural information.	Mandatory	
4.4.3	The vendor must have a disaster recovery plan and provide the means to test the plan.	Mandatory	
4.4.4	The vendor must ensure a high availability environment in conjunction with requirements 4.2.1-4.2.7.	Mandatory	
4.4.5	The vendor should demonstrate a Continuous Integration and Continuous Deployment strategy.	Highly Desirable	

## 4.5. Security roles and permissions

ID	Requirement	Priority	Notes
4.5.1	The system must implement security controls that align with the requirements outlined in both the Australian Government ISM and PSPF, including but not limited to the following controls:  a. Access control b. Cryptography c. Network security d. Incident management e. Personnel security f. Physical security g. Security risk management h. System maintenance i. System development and acquisition j. Business continuity and disaster recovery	Mandatory	
4.5.2	The system must perform regular risk assessments to identify and manage information security risks and protective security risks in accordance with the ISM and PSPF.	Mandatory	
4.5.3	Users must be able to interact with the system based on their permissions.  For example:  • Trainees can only view their own data  • Supervisors can only view collated data for trainees in their group or cohort only  • The Director of Clinical Training can view all trainees in their organisation only.	Mandatory	
4.5.4	The system allows encryption of sensitive data (i.e. passwords) and session activity.	Mandatory	
4.5.5	Multifactor authentication must be used in the operational component of the system	Mandatory	
4.5.6	System administrators must be able to customise roles and permissions within their system.  For example:  MEU System Administrators should be able to create custom roles with slightly different permissions within the Manager role. An example would be workforce unit actors with the Manager role who may not require the write permission for the assessment tables whereas the DCT or EDMS would require that role.	Mandatory	
4.5.7	System administrators must be able to assign a user to multiple roles if required.  For example: A user could be both the DCT as well as a Term Supervisor.	Mandatory	

#### Permissions and Roles

A permission is a specific authorisation given to users that enables them to access specific resources (e.g data files) or a specific location or organisation. User permissions also designate type of access; for example, data can only be viewed or the data can be updated.

This is expressed in the table below as R=Read or W=Write. There are some system administration permissions highlighted in grey which indicate that there are permissions to configure the entity in addition to viewed/updated.

Roles are a collection of permissions. Roles must be able to be modified by local system administrators to meet local needs as part of their user management function.

An actor is an individual user of the system. For example, within an MEU, the EDMS, DCT and MEO actors who can be assigned the Manager role. The MEU administrator could modify the manager role so that the DCT can read and write the EPA Assessment table (default), however the MEO can only read the EPA Assessment table.

A user can hold multiple roles within the system. For example, a user could be both the DCT and a Term Supervisor for a rotation.

Persona attributes can be used to further limit the access to data within the system through filters by location or organisation. For example, the AMC administrator, PMC administrator and MEU administrator all potentially have read access to the mid term assessment table. However, access to this data is filtered by their organisation persona attribute so that:

- 1. The AMC Administrator can view all collated de-identified mid term assessment data to a state level.
- 2. The PMC Administrator can view all collated de-identified mid term assessment data to a health service level.
- 3. The MEU Administrator can view all collated de-identified mid term assessment data to term level.

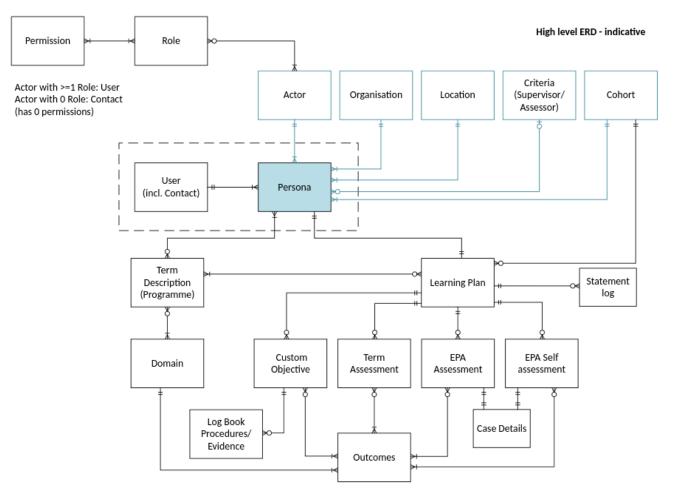


Figure 7. High level entity relationship diagram

## Key to Roles

Tx = Trainee

Sys = System Administrator

SAdx = Local System Administrator

Adx = Administrator

Mx = Management

Sx= Term Supervisor

Ax= Guest Assessor

ARP = Assessment Review Panel

Permission Role								
Entity (refer to ERD)	Tx	Sys	SAdx	Adx	Мх	Sx	Ax	ARP
Permission		R/W						
System Logs		R						
Role		R/W						
Actor		R/W						
User*		R/W	R/W	R	R	R		
Persona**		R/W	R/W	R	R	R		
Term Description				R/W	R	R		
Domain		R/W	R	R	R	R		
Outcome		R/W	R	R	R	R		
Learning Plan	R			R/W	R/W	R/W		R/W
Custom Objective	R/W			R	R	R/W		R
Logbook/Procedure/Evidence	R/W			R	R	R/W		R
Mid-term assessment	R			R	R/W	R/W	R/W	R
End-of-Term Assessment	R			R	R/W	R/W		R
EPA Assessment	R			R	R/W	R/W	R/W	R
EPA Self Assessment	R/W			R	R	R		R
Generate Reports	R			R	R	R		R
Download Reports	R			R	R	R		R

<sup>\*</sup>User contains First Name, Last Name, Email, Phone Number and AHPRA number

<sup>\*\*</sup>Persona contains Actor, Organisation, Location, Supervisor Criterion, Cohort

### Actors and Roles

Actor				Role				
	Tx	Sys	SAdx	Adx	Mx	Sx	Ax	ARP*
AMC System Administrator		Х						
AMC Administrator				Х				
PMC System Administrator			Х					
PMC Administrator				Х				
MEU System Administrator			Х					
MEU Administrator				Х				
Executive Director Medical Services					Х			X
Workforce Unit					Х			
Medical Education Officer					Х			
Director of Clinical Training					Х			Х
Term Supervisor						Х		Х
Clinical Supervisor (primary)							Х	Х
Clinical Supervisor (day to day)							Х	Х
Clinical Assessor							Х	Х
Assessment Review Panel member								Х
Trainee PGY 1	Х							
Trainee PGY 2	Х							
Trainee PGY 3+	Х							
Medical Student	Х							
Contact	permi	tact is ai ssions. T Iividual p	This allo	ws the s	system t	o hold c		

<sup>\*</sup>Dark Grey -This actor is assigned an additional role only if invited to the Assessment Review Panel.

## 4.6 Technical requirements

The following assumptions have been made regarding the technical requirements:

• The vendor's solution will be cloud based SaaS or PaaS.

ID	Requirement	Priority	Notes
4.6.1	The vendor should provide Help Desk services which align with ITIL best practices.	Highly Desirable	
4.6.2	The vendor must provide Help Desk services close to 7 days a week.	Mandatory	
4.6.3	The vendor should have a low average turn-around time for Help Desk support.	Mandatory	
4.6.4	The vendor should have a long term support plan (minimum 5 years).	Highly Desirable	
4.6.5	The system must provide documentation such as user guides, user manuals, tutorials and help files.	Mandatory	
4.6.6	The vendor must offer extensive training options such as (but not limited to) eLearning, video tutorials, and webinars.	Mandatory	
4.6.7	The vendor could offer onsite face to face training that focuses on a "train the trainer" model.	Desirable	
4.6.8	The system must cost minimally extra for separate test (Sandbox) and staging (Training) instances of the product.	Mandatory	
4.6.9	The vendor should provide technical consulting services options for customisations, implementation, configuration and detail systems design.	Highly Desirable	
4.6.10	The vendor must be ISO 27001 certified.	Mandatory	

# 5. Usability requirements

ID	Requirement	Priority	Notes
5.1.1	The system must be intuitive to the end user, easy to use with a simple layout.	Mandatory	See Section 6.1
	End users must include the stakeholders listed in Section 6.1.		
5.1.2	The system must offer troubleshooting and error messages that are clear and specific.	Mandatory	
5.1.3	The system should support a range of Analytic Processes.	Desirable	
	For example:		
	<ul> <li>Passive reporting (canned reporting and dashboards)</li> <li>Proactive reporting (KPI reporting and dashboards)</li> <li>Siloed analytics (domain specific relationship analysis)</li> </ul>		
5.1.4	The system must work on the most common standard internet browsers in the most common operating system environments.	Mandatory	
	Browsers must include Chrome, Firefox, Safari and Microsoft Edge.		
	Operating Systems must include Windows, Apple Mac OS, Google Android and Apple iOS		
5.1.5	The system must be able to browse and track learning statement data.	Mandatory	
5.1.6	The system must provide the capability of configuring or customising reports and dashboards.	Mandatory	
5.1.7	The system must allow the presentation of aggregated data in various ways including but not limited to graphs, tables, etc.	Mandatory	
5.1.8	The system must allow for viewing data using a "drill down" approach, whereby users can access successive levels of the data hierarchy using zoom in and out interface functions.	Mandatory	
5.1.9	The system must be able to highlight thresholds in dashboards and reports that are not meeting predefined criteria.	Mandatory	
	For example:  • Highlight certain clinical units that have received a certain low evaluation score in certain areas.  • Highlight assessment gaps for trainees.		
5.1.10	All reports and dashboards must be fit for devices including: mobile devices, desktops and tablets.	Mandatory	
	For example:  • Includes all Android and iPhone mobile devices		

ID	Requirement	Priority	Notes
5.1.11	The system must allow for EPA, mid and end term assessment, and Assessment Review Panel forms to be completed offline to allow for situations where there is low or intermittent internet connectivity.	Mandatory	Requirement 3.2.6, 3.2.7 and 4.2.6

# 6. System Acceptance Criteria

Acceptance of the system can be divided into three phases of testing:

- 1. Initial user testing
- 2. System testing
- 3. Final user testing

A fourth phase, post implementation has been listed in this section for evaluation of the system through stakeholder feedback, 12 months post implementation.

The functional and non-functional requirements are used for compiling test sheets for testing. Changes to requirements can be managed during implementation.

### 6.1 Initial User Testing

In coordination with the vendor the initial test should be conducted on completion of the User Interface and when most of the functional requirements are completed (e-Portfolio system is 80% - 90% complete). The initial user testing should cycle until all functional requirements are complete. The number of cycles can be agreed upon by the Vendor and AMC. This test should focus on:

- Usability issues
- Functional gaps
- Identification of "show stopper" bugs

The Vendor and AMC stakeholders should be involved in the initial testing. AMC representatives could include:

- AMC working group
- AMC administration
- PMC administration
- MEU administration and MEU management
- Trainees
- Supervisors
- Guest Assessors (for example a pharmacist or a registrar)
- Global Assessment Panel (for example a nursing director)

- Representative from the project
- Technical Expert Representatives

The test sequence from a tester's point of view should be to:

- 1. Review the Functional Requirements to gain the context of the testing
- 2. Log defects on both functional requirements and the user interface.
- 3. Retest defects once fixed.

The Initial Test can be deemed complete once:

- All "show stopper" bugs are fixed.
- All test cycles are complete.
- On presentation of Test Summary Report.
- Test is formally signed off.

ID	Requirement	Priority	Notes
6.1.1	The vendor must provide a method of recording issues that arise from testing.	Mandatory	
6.1.2	The record must provide for a description and a scale of importance from minor to "showstopper".	Mandatory	
6.1.3	The vendor must provide a log of all issues to the AMC	Mandatory	
6.1.4	The vendor must issue a certificate of completion on completion of all major gaps and "showstopper" issues for acceptance from the AMC.	Mandatory	
6.1.5	User steps #1-#37 and usability requirements 5.1.1-5.1.11 must be tested in initial testing.	Mandatory	
6.1.6	Requirements 4.5.1 - 4.5.5 must be tested in early cycles to ensure that there is no unauthorised access to data from the Learning Record.	Mandatory	
6.1.7	The initial user testing should cycle until all functional requirements are complete.	Highly Desirable	
6.1.8	The final cycle must test all functional, security and usability requirements.	Mandatory	

### 6.2 System Testing

In coordination with the vendor, the system test should be conducted on completion of most of the functional requirements (E-Portfolio system is 80% - 90% complete). This test should be a provisional production environment or replicate the production environment.

The vendor could use automated testing tools to provide a Summary Report and a log of resolved issues. The purpose of this test is to:

- Ensure System Performance and Scalability.
- Ensure Business Continuity, Backup and Recovery are effective.

The vendor and AMC technical representatives should be involved in this test.

The Systems Test can be deemed complete once:

- The system can demonstrate that it can scale to peak usage.
- Demonstrate that Backup and Restore Procedures work.
- The Disaster recovery plan is approved.
- Test is formally signed off.

ID	Requirement	Priority	Notes
6.2.1	The vendor must demonstrate the system can provide an acceptable performance with the number of users outlined in requirements 4.2.3	Mandatory	
6.2.2	The vendor must test and log system and technical requirements 4.2.1-4.2.7	Mandatory	
6.2.3	The vendor must test and demonstrate peak load on the system to ensure high availability at peak.	Mandatory	
6.2.4	The vendor must demonstrate a reasonable performance in low connectivity situations.	Mandatory	
	For example: Regional areas with reduced mobile or Wifi connectivity.		
6.2.5	The vendor is required to perform a security penetration test and obtain a corresponding certificate as proof.	Mandatory	
6.2.6	The vendor must test backup, restore and disaster recovery procedures.	Mandatory	
6.2.7	The vendor must test and demonstrate business continuity.	Mandatory	

### 6.3 Final User Testing

The final user testing validates user acceptance in a real environment. User satisfaction is measured over an extended period of time. End users are asked to provide feedback on design, functionality and usability using real people in a real environment, on the real system).

It is recommended that a small group of controlled users, comprising select PMCs and MEUs are selected for the final test. Final user testing relies on surveys and perceptions. A small team of AMC representatives and the vendor manages the process.

The final user testing should begin once:

- All the components are fully completed.
- Documentation and training is ready for end users.
- The final cycle of the initial testing is completed and accepted.
- A method of collecting, logging and rectification is agreed upon.

ID	Requirement		Notes
6.3.1	The system must adhere to functional requirements including changes made in earlier testing cycles.	Mandatory	
6.3.2	The system must adhere to overall system and technical specifications.	Mandatory	
6.3.3	The vendor must monitor and report peak loading on the system to ensure high availability during peak periods.	Mandatory	
6.3.4	The final test should cycle for 12 weeks.	Highly Desirable	
6.3.5	A survey of how the system meets the overall goals could be conducted with the users in the final test.	Desirable	
6.3.6	The checklist composed for initial testing could be used and sent to the selected end users of the system in the final user testing.	Desirable	
6.3.7	The vendor may identify validators to monitor the progress at frequent intervals and then allow them to communicate with the participants if required.	Optional	
6.3.8	A final report must be compiled and accepted.	Mandatory	

### 6.4 Post implementation roadmap

The AMC may optionally elect to contract with the successful supplier to also provide ongoing support for the solution. It is proposed that any such support arrangement would include an evaluation of the system twelve months post implementation of the e-portfolio. The AMC and the vendor will conduct an evaluation of feedback by stakeholders using the system. This feedback may contain suggested enhancements of the system, changes to the functions of the system, and may include an expansion of the functionality of the e-portfolio.

ID	Requirement	Priority	Notes
6.4.1	A roadmap for the future development of the e-portfolio must be developed by the vendor, in collaboration with the AMC, to respond to post implementation stakeholder feedback:  • Errors and bugs • Enhancements • Expansion of functionality	Mandatory	
6.4.2	The system shall undergo regular security audits and assessments to evaluate its compliance with both the ISM and PSPF and identify areas for improvement.	Mandatory	

# 7. Appendix

### 7.1. Glossary of terms and acronyms

Acronym	Definition	Description
PGY	Post graduate year	Usually designated with a number indicating the number of years since graduating (e.g. PGY 1)
AMC	Australian Medical Council	An independent national standards body defining the standards of education, training and assessment of the medical profession.
AHPRA	Australian Health Practitioners Regulation Agency	A national agency consisting of 15 boards with the goal of protecting the public through the regulation of registered health practitioners.
МВА	Medical Board of Australia	One of the 15 national boards that make up AHPRA regulating the practice of medicine.
PMC	Postgraduate Medical Council	State based bodies accredited by the AMC and also referred to as prevocational accreditation authorities

Acronym	Definition	Description
HHS	Hospital and Health Service	Geographic areas that each state is divided into for the purposes of public hospital service provision.
		It may include one or more hospitals.
		These may be referred to as Local Health Districts or Health Networks depending on jurisdiction.
MEU	Medical Education Unit	The unit within a hospital or health network responsible for the accredited prevocational training program. Variations on name can occur between health services and states.
		A professional officer working within the MEU.
	Officer	This role is distinct from the administrative staff in the MEU.
EDMS	Executive Director of Medical Services	The hospital executive whose portfolio includes responsibility for the MEU.
		Variations on title and responsibilities can occur between health services and states.
DCT	Director of Clinical	The lead clinician in the MEU.
	Training	Variations in title and acronym vary between jurisdictions (e.g. NSW where the acronym used is DPET)
EPA	Entrustable Professional Activity	A concept in outcomes based medical education for assessing performance in the workplace. Refer to the <u>Training and Assessment Requirements</u> for more information including a description on page 13 and the relevant forms on page 52.

Term	Definition	Reference
Learning Statement	A data model, generated by user interaction with the e-Portfolio, against an outcome statement, stored against the trainee's learning record, with associated metadata describing the context	
Learning Record	The database that stores a trainee's progress through a collection of Learning Statements generated through interaction with the portfolio.	
Learning Plan	The learning plan in the e-portfolio is derived from terms that are allocated to a trainee, and derived from the term description which is mapped to the outcome statements.	
Transcript of learning	A transcript of learning is a trainee controlled report, derived from the Learning Record. It is a list of completed terms, logs, activities, assessments, goals and/or outcomes that a trainee could export and submit as part of an application to a college or for a job.	

	_	
Certificate of completion	A certificate of completion is controlled by the Assessment Review Panel and can refer to certifying completion at the end of PGY 1 as a requirement for General Registration, or PGY 2 as a prerequisite for entry into vocational training.  The generation of a certificate of completion by the e-Portfolio operationalises the process described in the Training and Assessment Requirements 39-41.	Training and Assessment Requirements Page 39-41
Outcome statements	The prevocational outcome statements state the broad and significant capabilities that prevocational doctors should achieve by the end of their two-year prevocational programs. The high-level statements are applicable at completion of postgraduate year 1 (PGY1) and postgraduate year two (PGY2), though the level of expectation, responsibility, supervision, and entrustability of the outcomes will be different between the two years.	Training and Assessment Requirements Page 5
Assessment Portal	The assessment portal allows for functionality where non active users (users who do not necessarily have a username or password or infrequent users of the system) are able to interact with the e-Portfolio for the completion of EPAs, mid term assessments or Assessment Review Panel assessments.  The assessment portal allows access to limited functionality and data, defined in the permissions and roles, to enable input of data into the e-portfolio in a secure manner, while allowing MEU oversight of the data input through a verification process that can be automated once manually verified.	
Guest Assessor	A guest assessor is an AHPRA registered clinician, who is not an active user of the e-portfolio, who is authorised to complete an EPA or mid term assessment.  Examples include:  a registrar who could complete a mid term assessment,  a pharmacist who could complete EPA 3 or  An ICU nurse on a medical emergency team who could complete EPA2.  The guest assessor function allows functionality where that user could provide a one-off assessment, or regular assessments within a term.	

Assessment Review
Panel Member

The Assessment Review Panel may include both active users of the e-portfolio as well as stakeholders in the training program who are not active users.

### Examples include:

- A nursing director with education expertise
- A consumer with education expertise
- A representative with HR expertise.

The assessment portal allows functionality where that non active user could provide a one-off panel assessment, or regular assessments annually.

## 7.2. Appendix 1: e-Portfolio Workflow

A workflow to accompany the description of the users steps (Section 3.1, page 19) in System Functional Requirements is included as an appendix.