

PROT2025-0257
Date: 08 August 2025

Technical Report Totara LMS platform verification

2025



Prepared by
ARP Group Ltd
Malta

Malta, 8 August 2025

Subject: Transmission of technical report – Technical verification Totara LMS – GMBS Institute.

Dear Sirs,

following the assignment conferred with reference to the **listing QUO2025_023**, point 1, we hereby transmit in attachment the **Technical Report** relating to the **technical verification of the Totara LMS platform** used by the GMBS Institute, with reference to the functional and infrastructural requirements provided by the Malta Further and Higher Education Authority (MFHEA) for the online delivery of academic courses.

The report contains a structured analysis divided into seven chapters, including the assessment of accessibility, cybersecurity, traceability of assessment processes and technical compliance of the platform with respect to MFHEA regulatory standards, as described in the following documents:

- *EQA Accreditation Manual 2024*
- *Provision of Online Learning – NCFHE 07/2020*
- *Guidelines for Quality Assurance – For Online Learning Providers in Malta*

We specify that, as indicated in the **disclaimer contained in the report**, the evaluation concerned only the technical aspects covered by the approved quotation. Any academic, didactic or institutional quality aspects are not covered by this mandate and may be analysed separately, if required.

We remain available for any further clarification, integration or support in view of subsequent phases of the accreditation process.

Sincerely,

Sergio Passariello
Director – ARP Group Ltd

 Digitally signed by Sergio Passariello
DN: cn=Sergio Passariello, o=ARP Group Ltd, ou=Malta Quality Education, email=s.passariello@maltaquality.edu.mt, c=MT
Date: 2025.08.08 20:11:30 +0200

Summary

1. Executive summary	1
1.1 Objective of the report	1
1.2 Verification method used	1
1.3 Summary of preliminary results	1
2. Platform context	3
2.1 General architecture	3
2.2 Version and main features	3
2.3 Role and permission structure	4
3. Technical compliance with MFHEA standards	5
3.1 Tracking and monitoring of training courses	5
3.2 Management of evaluations and methods of completion	5
3.3 Consistency between configuration and teaching methodology adopted	6
3.4 Available tools for academic document management	6
4. Accessibility and usability of the platform	7
4.1 Keyboard navigability	7
4.2 Visual contrast and readability	7
4.3 User Interface Customization	7
4.4 Access to audio-video content and support for hearing disabilities	7
4.5 Layout adaptability and text zoom	8
4.6 Limitations or criticalities observed	8
5. Cybersecurity, business continuity and data protection	9
5.1 Server infrastructure and hosting methods	9
5.2 Backup and disaster recovery measures	9
5.3 Updates and vulnerability management	10
5.4 Access and credential management	10
5.5 Compliance with Data Protection Regulations (GDPR)	10
6. Assessment integrity tools	11
6.1 Anti-plagiarism systems	11
6.2 Proctoring Tools	11
6.3 Compliance Considerations with Respect to MFHEA Standards	12
7. Conclusions and operational recommendations	13
7.1 Summary of results	13
7.2 Technical Recommendations	13
7.3 Overall Rating	14
Disclaimer – Limits of the evaluation	15



1. Executive summary

1.1 Objective of the report

This document constitutes the preliminary technical report relating to the verification of the LMS platform used by the GMBS Institute (<https://my.gmbs.education>), as provided for in point 1 of the QUO2025_023 quotation, entrusted by e-learnmedia s.r.o. The analysis is aimed at ascertaining the technical and functional compliance of the platform with the requirements set out by the Malta Further and Higher Education Authority (MFHEA), in view of any accreditation processes of the educational offer.

The assignment concerns exclusively the technical evaluation of the Totara LMS system installed and customized for GMBS, with particular attention to educational functionalities, tracking systems, evaluation management mechanisms, data protection and accessibility of the platform by users.

1.2 Verification method used

The analysis was conducted using the following operating methods:

- direct access to the Totara environment with three levels of users (learner, trainer, administrator).
- inspection of backend and front-end side configurations.
- consultation of the technical and management documents provided by the customer, including security policies, platform configurations, training documentation and the Self-Assessment Report (SAR).
- comparison between the active functions and the requirements provided for by the following reference regulatory sources:
 - *EQA Accreditation Manual 2024* (MFHEA).
 - *Guidelines for Quality Assurance – For Online Learning Providers in Malta* (NCFHE/MFHEA, 2020).
 - *Provision of Online Learning – Minimum Standards and Guidelines* (NCFHE 07/2020).
 - *Definitions of Terms in Online Learning* (NCFHE 09/2020), for terminology alignment.

The method adopted was not limited to the functional detection of the technical characteristics, but integrated the verification with qualitative evaluations, with particular attention to the consistency between the LMS configuration and the pedagogical model declared by the Institute.

1.3 Summary of preliminary results

The analysis confirmed that the platform is structured on Totara Learn version 18.11 (Build: 20241022.00), with elements inherited from the Moodle 3.4.9 core. The current configuration



allows a complete use of teaching functions, including assessment activities, reporting, user management, segmentation by roles, and learning tracking mechanisms.

From the point of view of accessibility and usability, the platform meets some fundamental requirements, such as keyboard navigability, layout adaptability and the possibility of customizing the interface at the user level. However, it was not possible to directly verify the presence of subtitles in locally stored videos, as the platform only supports external content (YouTube/Vimeo) with native subtitles.

As far as cybersecurity and data protection are concerned, hosting is guaranteed by Leaseweb (Netherlands) with daily encrypted backups on e-learnmedia-owned servers in Slovakia. Structured measures for business continuity, log management, encryption and access control are documented.

The platform does not currently integrate anti-plagiarism tools or proctoring systems, but the provider has expressed willingness to implement them on request, or to adopt alternative solutions based on student empowerment (e.g. originality report). This may affect full compliance with MFHEA requirements for the quality and integrity of assessments.

Finally, an analysis was launched on the consistency between the teaching methodologies declared by the GMBS Institute and the actual configuration of the platform. This consistency will be the subject of specific discussion in the remainder of the report.

2. Platform context

2.1 General architecture

The learning platform covered by this analysis is based on Totara Learn version 18.11 (Build: 20241022.00), an LMS solution derived from the Moodle core (specifically Moodle 3.4.9). It is an open-source environment intended for continuous and professional training, frequently adopted by training bodies and accredited institutions for its ability to adapt to organizational, compliance and reporting needs.

The system is structured on two distinct virtual environments:

- **production environment**, used for the actual delivery of courses.
- **test environment**, reserved for technical verification activities and updates.

Both environments are hosted on dedicated servers at the Leaseweb data center in Amsterdam (Netherlands), with daily backups transferred and stored in encrypted form at a secondary server located in Slovakia and managed by e-learnmedia. The technical specifications of the architecture are documented in the shared files:

- *agreement_e-learnmedia_gmbs_totara_2024_annex3.pdf* and
- *e-learnmedia_totara_disaster_recovery_plan_gmbs_250204.pdf*.

The installation follows the SaaS (Software as a Service) model, with responsibility for the technology provider for updates, maintenance, data protection and guaranteed continuity of service.

2.2 Version and main features

The version currently in use is **Totara 18.11**, with a technical base **Moodle 3.4.9**. From a functional point of view, the platform is equipped with all the standard modules provided by Totara, without custom implementations.

Among the most relevant active features are:

- complete management of courses and categories.
- advanced tracking systems for participation and completion.
- evaluation modules (quizzes, assignments, forums, feedback, SCORM).
- multi-role configuration and segmentation of permissions.
- support for certifications, programs, evidence, competencies, and memberships.
- management of multimedia content through internal repositories and external embedding (e.g. YouTube, Vimeo).

Reporting is active on 64 types of reports, with the possibility of export, programming and customization. The system also allows the autonomous management of dashboards by

users (based on the permissions assigned), and the application of specific themes at the user, course and category level.

2.3 Role and permission structure

The structure of roles in the platform follows the Totara/Moodle model, based on the assignment of "**capabilities**" (granular permissions) to sets of users in defined contexts. The document *Education_GMBS_Define_roles_learner.pdf* illustrates the configuration of the "Learner" role, while other roles (e.g. Trainer, Manager, Administrator) can be managed through the administrative access provided for verification.

There is a functional distinction between teaching roles and operational management roles. The system allows the separation of tasks between:

- academic management and content delivery.
- quality control and evaluation supervision.
- technical administration and user management.

This approach responds, at least formally, to the MFHEA principle of separation of duties, even if it is suggested to validate the effective application in internal delivery processes over time.

A global, configurable password policy is in place, allowing you to enforce minimum credential complexity and security requirements.



3. Technical compliance with MFHEA standards

3.1 Tracking and monitoring of training courses

The GMBS LMS system natively supports the tracking of learners' learning activities. Through Totara's standard modules, it is possible to monitor interaction with content, participation in evaluation activities, completion of modules and acquisition of skills and certifications.

Analysis of active reports showed the presence of numerous features, including:

- individual progress reports ("Record of Learning: Courses", "Record of Learning: Certifications", "Competencies", "Objectives").
- history of enrollments and completions ("Course Membership", "Program Membership", "Previous Completions").
- system audit trails ("User Reports", "Notification Logs", "Scheduled Actions History").
- tools for tracking evidence, objectives, and user feedback.

This configuration makes it possible to comply with the individual and group learning monitoring requirements set out in the *Guidelines for Quality Assurance – For Online Learning Providers in Malta*, about the need to verifiably document the actual learning engagement.

However, it is necessary that the tracked data is actively used within the quality cycle, according to a documented approach, to be fully compliant with MFHEA 12 (Evaluation and Continuous Improvement) standards.

5

3.2 Management of evaluations and methods of completion

The platform has all the main evaluation modules provided by Totara/Moodle:

- structured quizzes (multiple choice, true/false, matching, etc.).
- assignments (Assignment) with the possibility of uploading documents.
- assessable forums (Forums) with asynchronous interaction logs.
- surveys and feedback collection (Choice, Feedback).
- SCORM packages with built-in tracking.

You can configure completion criteria for each task, which are tied to parameters such as minimum grade, number of retries, dwell time, or read status. Tracking and completion settings are compatible with accreditation needs and support both summative and formative assessment modes.

Now, there are no advanced automatic evaluation plugins (e.g. columns, peer review), but the platform is set up for their possible integration. In addition, the presence of sections dedicated to the management of certifications and programs allows a coherent organization of the final evidence required by the MFHEA standards.

3.3 Consistency between configuration and teaching methodology adopted

On the technical side, the LMS environment is designed to accommodate a wide range of teaching approaches. However, verifying the real consistency between the configuration of the platform and the pedagogical methodology declared by the Institute requires comparison with academic documentation.

Document *MBA_Programme-Application-Updated.docx*, point 21, and the SAR published on the GMBS website describe the use of:

- asynchronous teaching integrated with synchronous activities.
- project work and case studies.
- thematic discussion forums.
- individual tasks and practical assessments.

The presence of tools such as assignments, quizzes and forums is compatible with these approaches. However, the configuration observed at the time of verification appears to be a generic structure, without active courses or complete contents that allow a validation of the pedagogical design.

It should therefore be noted that, although the platform is technically suitable, the verification of compliance with the MFHEA 7 (Programmes of study) standards cannot be said to be concluded until the following are available:

- active courses with content developed according to the declared teaching strategy.
- evidence of the systematic application of the evaluation methods provided for each module.

3.4 Available tools for academic document management

Totara LMS has an integrated file repository system and allows the publication, archiving and management of documents supporting educational delivery, such as syllabus, course sheets, PDF documents and multimedia files.

The observed features allow:

- publication of course or activity materials.
- version control and updates.
- embedding content from external repositories or video platforms.
- use of folders, labels and textual resources to accompany each activity.

No specific document functionality for the formal upload of academic documentation for MFHEA audit purposes has been verified, nor internal approval workflows, but the technical infrastructure allows for the introduction of document tracking and collection mechanisms through additional configurations or specific plugins.



4. Accessibility and usability of the platform

4.1 Keyboard navigability

During the technical verification conducted with standard administrative and user access, it was confirmed that the platform interface is fully navigable via keyboard. All the main interactive elements (menus, buttons, links, selection boxes) can be reached via the standard keystroke (TAB, SHIFT+TAB, ENTER), without obvious blocks.

This feature complies with the principle of perceivability, and operability provided for in the WCAG 2.1 requirements, in particular criteria 2.1.1 ("Keyboard navigation") and 2.1.2 ("No keyboard trap").

4.2 Visual contrast and readability

The tested user interface has a sufficient level of contrast between background and text on all the main pages of the platform (home page, dashboard, courses, admin areas). The fonts are readable, the spacing is adequate, and the font size is adjustable at the browser level without loss of functionality.

These elements comply with good usability practices for users with moderate visual impairments and comply with WCAG criteria 1.4.3 ("Contrast – Minimum") and 1.4.6 ("Contrast – Enhanced").

4.3 User Interface Customization

The "Allow user themes" function is active, which allows the user to select a custom theme. The options are accessible from the user's personal profile (for learners), the course configuration page (for trainers), and the category page (for admins). This feature allows users to change the look and feel and increase readability to suit their needs (e.g. high contrast, simplified interface), in line with the guidance contained in the MFHEA guidelines on equitable access to digital technologies.

4.4 Access to audio-video content and support for hearing disabilities

A demonstration course with integrated video content from YouTube and Vimeo has been identified on the platform. In these cases, if the subtitles are already present in the source platform, they are also displayed in the built-in player.

However, videos uploaded directly to the Totara repository do not natively support the insertion of subtitles or transcripts. The platform does not have a built-in module for generating or managing subtitles, and local multimedia content with text transcription has not been verified.

This limitation can be a critical element of the MFHEA criteria for accessibility for users with hearing impairments. It is recommended to adopt an institutional policy that provides:



- the exclusive use of videos subtitled or accompanied by a transcript.
- or the integration of additional plugins that also make locally stored content accessible.

4.5 Layout adaptability and text zoom

The graphic structure of the platform adapts correctly to magnification up to 200% (tested on Chrome, Firefox and Safari), without loss of content or overlaps. Content blocks rearrange themselves correctly to fit the available width, and functionality remains operational.

This feature meets WCAG 1.4.4 ("Resize text") and MFHEA requirements for adaptive accessibility.

4.6 Limitations or criticalities observed

The overall analysis shows a platform technically prepared for accessibility, but still lacking formal validation against WCAG standards and lacking a public accessibility statement. In addition, the use of assistive tools (e.g. screen readers) has not been verified, nor are active training courses available that allow real cases of use by users with specific needs to be tested.



5. Cybersecurity, business continuity and data protection

5.1 Server infrastructure and hosting methods

The Totara Learn platform adopted by the GMBS Institute is installed on **two separate virtual environments**, one for production and one for testing. Both are hosted on **dedicated servers at the Leaseweb data center (Amsterdam AMS-01)**, a European provider specializing in hosting and cloud services, with a contractual guarantee of 99.99% availability.

The choice of Leaseweb ensures that the infrastructure is in a geographical area subject to the General Data Protection Regulation (GDPR). The SaaS model adopted provides that the responsibility for updating and managing the infrastructure remains with e-learnmedia, which operates as a technical provider for GMBS.

5.2 Backup and disaster recovery measures

The system is subject to **complete daily backup** through the creation of virtual images, which are transferred and stored in encrypted form at a server located in Slovakia, managed directly by e-learnmedia via VPN connection. The backup server is protected by disk-level encryption and can only be accessed via secure infrastructure.

The **disaster recovery plan**, documented in the

e-learnmedia_totara_disaster_recovery_plan_gmbs_250204.pdf, provides:

- a **24-hour** RPO (Recovery Point Objective).
- an **RTO (Recovery Time Objective)** of 48 hours.
- an annual test for the validation of procedures.
- documented scenarios for hardware faults, malware attacks, accidental or intentional loss of data, unauthorized access.

The plan includes operational responsibilities, escalations, recovery tools, and emergency communication protocols, in line with the minimum requirements for **business continuity** in the education sector.

However, **active real-time redundancy** (such as a cluster or automatic system failover) is not implemented. This means that, in the event of a critical failure, system recovery requires manual or semi-automatic intervention according to the existing DR plan.

Although this configuration meets the minimum requirements indicated by the MFHEA, it is recommended - where continuous or high availability service is required - to evaluate **high availability (HA)** solutions, to minimize downtime and meet the most stringent requirements of quality standards.

5.3 Updates and vulnerability management

According to the supplier, the platform is subject to a regular software update and patching process. Especially:

- Infrastructure vulnerabilities are assessed quarterly using automated tools.
- critical patches at the operating system and database level are automatically applied at release.
- updates to the Totara platform are installed within 45 days of their publication, as per the supplier's policy.

These activities are part of an internal vulnerability management plan, which also includes procedures for monitoring logs, logging access, and detecting anomalous behaviour.

5.4 Access and credential management

Access to the platform is regulated by an authentication system with individual credentials, and by an **active password policy**. The latter provides:

- minimum complexity requirements.
- validation of the password format at the time of registration.
- Warnings about errors when creating weak credentials.

The authorization system is based on granular roles assigned by context (e.g. course, category, system), with separation between academic, administrative and technical roles. User activities can be recorded through standard logs or on external logs on a dedicated database, as configured in Totara.

Connections to the infrastructure are protected by SSL/TLS encryption and, where necessary, VPN tunnels for remote access by technical administrators.

5.5 Compliance with Data Protection Regulations (GDPR)

Data protection is managed based on an internal Information Security Policy of the supplier, which provides:

- encryption of data in transit and at rest.
- controlled access to resources through individual credentials.
- full encryption of disks containing backups.
- management of business continuity in the event of hardware failures or replacements.
- processing of paper documents according to GDPR regulations.

The system does not use antivirus solutions by default, unless explicitly requested by the customer. However, the general configuration is consistent with the obligations arising from European legislation on the protection of personal data for training providers.

6. Assessment integrity tools

6.1 Anti-plagiarism systems

At the time of verification, the Totara LMS platform used by the GMBS Institute is not integrated with anti-plagiarism tools. There are no active plugins (e.g. Turnitin, Urkund or equivalent tools) for verifying the originality of the assignments or papers uploaded by students.

The client indicated that they are aware of the possibility of integrating anti-plagiarism tools through the plugins available for Moodle, including:

- Turnitin Plagiarism Plugin (https://moodle.org/plugins/plagiarism_turnitin)
- PlagScan or similar (using compatible modules)
- external services with student report generation (e.g. iThenticate, Grammarly)

Alternatively, the possibility of requiring students to upload an originality report as part of the documentation to be attached to the assignment has been proposed. This solution, although applicable in selected contexts, is not sufficient to ensure a systematic and centralized control on the integrity of the papers, as recommended by the *Guidelines for Quality Assurance – For Online Learning Providers in Malta*.

It is therefore recommended to consider the integration of a native and MFHEA-compliant plagiarism system for courses at MQF level 6 and above, especially for postgraduate courses and international programs.

6.2 Proctoring Tools

There are no active **online proctoring** mechanisms (remote monitoring during synchronous exams or assessments), nor has the use of remote supervision solutions been declared.

The client highlighted the possibility of implementing third-party solutions compatible with Moodle/Totara, such as:

- Integrity Advocate (<https://integrityadvocate.com>)
- Moodle Proctoring by Elearning23 (<https://elearning23.com/moodle-proctoring-pro-details>)

Currently, there are no automatic mechanisms for verifying identity during assessments, nor tools for video, keyboard or screen monitoring during exams. The absence of such tools can lead to critical issues in terms of traceability and transparency of evidence, especially in contexts with high evaluation stakes.

The customer asked for confirmation about the mandatory nature of these tools according to MFHEA: it should be noted that, although they are not strictly prescribed, they are among the recommended tools to ensure the integrity of assessments in courses delivered entirely online.

6.3 Compliance considerations with respect to MFHEA Standards

In relation to the MFHEA 7.8 (Student Assessment) standard, the following should be noted:

- The platform has the technical tools necessary to implement a secure and traceable evaluation system.
- However, there is currently a lack **of active and systematic measures to ensure the authenticity of the student's work** and the proper conduct of proficiency tests.

This situation **does not exclude compliance** but requires the adoption of additional tools or policies to meet the expectations of quality assurance standards.



7. Conclusions and operational recommendations

7.1 Summary of results

The technical analysis conducted on the GMBS Institute's Totara LMS platform highlighted a solid, flexible technological structure already prepared for the delivery of online courses in accordance with the minimum accreditation requirements set by the Malta Further and Higher Education Authority (MFHEA).

The environment has a well-documented infrastructure, advanced tracking systems, configuration for roles and permissions consistent with the principles of separation of duties, and a business continuity plan that complies with best practices.

However, some components are **in the initial phase of implementation or not yet active**, in relation to evaluation integrity control tools, audiovisual accessibility and consistency between technical configuration and teaching strategies.

7.2 Technical recommendations

To strengthen the platform's full compliance with MFHEA standards, it is recommended to proceed with the following actions:

- **Implement an integrated anti-plagiarism system**, selecting a plugin compatible with Totara among those officially supported by Moodle, to ensure the traceability and originality of written papers.
- **Evaluate the integration of proctoring tools**, at least for final exams or high-impact assessments, to strengthen guarantees on the candidate's identity and the correctness of the tests.
- **Formalize an accessibility policy**, including the obligation of subtitling or transcription for any audiovisual content produced or uploaded directly to the platform.
- **Verify the consistency between the teaching modules present and the methodology described in the official documents of the Institute**, ensuring that each active course includes activities, assessments and resources that comply with the standards described in the Self-Assessment Report (SAR) and in the application documents.
- **Activate, if not already in use, an external log or extended tracking of user activities**, especially for administrative and evaluative roles, to have a robust audit trail in case of inspections or complaints.
- **Ensure the publication of an official accessibility statement** for the platform, specifying the available features and any remaining limitations, in line with the provisions of the Digital Services Act and the European directives on equity in digital access.
- **Evaluate the implementation of an active redundancy configuration (High Availability)**, such as synchronous replication or an automated failover architecture, to minimise downtime in the event of a critical failure. This would strengthen compliance



with MFHEA requirements on service continuity and system resilience, ensuring uninterrupted access to the learning platform for both students and staff.

7.3 Overall Rating

The platform, in its current configuration, is **adequate from an infrastructural and functional point of view** to support an MFHEA accreditation process, provided that the recommendations listed above are progressively implemented and that the consistency between the technical configuration and the pedagogical model is demonstrated through the activation of effective courses.

The adaptability of the Totara solution and the availability of full administrative access are favourable elements for the continuous adaptation of the platform, in line with the standards required for accredited institutions in the tertiary education sector.



Disclaimer - Limits of the evaluation

This technical report has been prepared with exclusive reference to **point 1 of the QUO2025_023 quotation**, i.e. the **technical verification of the Totara LMS platform** used by the GMBS Institute, with the aim of assessing its functional and infrastructural compliance with the standards required by the Malta Further and Higher Education Authority (MFHEA) for online delivery.

The analysis was conducted based on the documentary materials provided by the client, the administrative access to the platform, and the MFHEA regulatory references currently in force.

The following are not included in this assignment and have not been verified:

- aspects related to the pedagogical and methodological design of the courses.
- the consistency between the teaching strategies adopted and the configuration of the teaching modules.
- compliance with internal quality procedures, traceability of evaluations and complaint management.
- verifying compliance with MFHEA standards related to academic governance, student support, research or internationalization.
- the methods of delivery and administrative management of accredited courses.

These aspects fall within different assignments, attributable to subsequent phases of the accreditation process and require integrated academic, administrative and regulatory analyses.

This assessment does not constitute a binding opinion on the part of MFHEA, nor does it replace the formal process for applying for accreditation or authorization to provide courses.

