



H-PASS

Deliverable 5.1

H-PASS Online learning environment



Co-funded by
The European Union



D5.1 H-PASS Online learning environment

International Network for Health Workforce Education (INHWE)

Date: 31/03/2026

Public document

Title	“H-PASS – Health Professionals’ and the “DigitAl team” Skills advancement
Acronym	H-PASS
GA Number	101101139
Type of instrument	Deliverable
Topic	Online learning environment
Date	31/03/2026
Duration	36 months
Webpage	https://hpass.healthworkforce.eu/

List of contributors

The list of contributors to this deliverable are presented in the following table:

Contributors	Organization
David Smith, Matteo Vezzosi, Kyriaki Anastasiou, Savvas Ioannou	INHWE
Zoltán Cserhádi, Fruzsina Kóder, Orsolya Becze, Orsolya Béres, Erika Sinka Iászlóné Adamik, Zoltán Ébényi, Pál Tóth, Zsuzsanna Antal, Csaba Bálint, Nóra Fazekas, Péter Gaál, Rita Kóródi, Orsolya Lőrincz, Imre Nyitrai, Nikolett Ágyija Kiss	OKFŐ
Alexandros Andreou, Elias Ioannou, Neofytos Xeimwna, John Theophanous, Dimitris Nitsios	SS3D
Ioannis Anastasiou, Maria Marketou, Ioanna Kontaraki, Konstantinos Fragkiadakis, Maria Pateraki	UOC
Lorena Martini, Mavi Puglia, Maurizio Ferrazza, Francesca Pomili, Antonia Cirillo, Carmelinda Susca, Alessia Sciamanna, Valeria Talone, Raffaella Poeta, Davide Stafetta	AGENAS
Dimitrios Ntourakis, Stavroula Bernitsa, Victoria Polydorou, Lawko Brwa Ahmed, Gabriela Tsalamandris, Violetta Raffay, Nikolaos Filippou, Stylianos Kakoullis, Andreas Yiallouris	EUC
Aurelija Blaževičienė, Alina Vaškelytė, Milda Naginevičiūtė	LSMU
Anett Karetka, Andrei Radu, Tünde Jurca	UO
Sebastian Nemeth, Laura Vicas, Diana Teaha, Claudia Costea, Florin Banica	CJFBH
Alessio Di Pofi	UCSC

Manuela Furlan, Piermario Di Grazia, Sara Maria Reggiani, Andrea Vandelli	SSSA
--	-------------

Version history

The list of contributors to this deliverable are presented in the following table:

Revision	Date	Editor	Comments
0.1	01/03/2026	David Smith	First draft – adapted from M21 report on LMS review
0.1	20/03/2026	Fruzsina Kóder, Zoltán Cserhádi	Reviewed document
0.1	27/03/2026	H-PASS Consortium	Reviewed document

Disclaimer

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the Health and Digital Executive Agency (HaDEA). Neither the European Union nor the granting authority can be held responsible for them.

Proprietary rights

This document contains information which is proprietary to the H-PASS consortium. Neither this document nor the information contained herein shall be used, duplicated or communicated by any means to any third party, in whole or parts, except with the prior written consent of the H-PASS consortium.

Table of contents

Table of contents

1. Introduction.....	7
2. Mapping Exercise	7
2.1 Methodology.....	7
2.2 Findings.....	7
2.3 Good Practices.....	8
2.4 Review of Learning Environments.....	8
3. Learning Management System.....	9
3.1. Selection of the LMS System	9
3.2. Initial Technical Testing	10
3.3. Functional Testing, Facilitator Training and User Management	10
3.4. Internal Piloting and Monitoring of the Prototype	11
3.5. Development of the English Pilot Training	12
3.6. Support for the National Pilots.....	12
3.7. Finalisation of the H-PASS Course	13
4. Conclusion	15

Table of abbreviations

Acronym	Description
GA	Grant Agreement
SC	Steering Committee
LMS	Learning Management System
VR	Virtual Reality
AR	Augmented Reality
WP	Work Package
HWFE	Health workforce education

Applicable and reference documents

The following documents contain requirements applicable to the generation of this document.

Reference	Document title
GA	Grant Agreement
CA	Consortium Agreement
Milestone 21	Collection of online platforms and tools used in HWFE

List of tables

Table 1. LMS systems used during the pilot

List of figures

Figure 1. English Prototype Training home screen

Figure 2. Interactive H5P material

1. Introduction

Deliverable D5.1 relates to the creation of an Online Learning Environment to host the H-PASS training tools and course. The deliverable itself can be found here:

<https://hpass.healthworkforce.eu/courses/h-pass-training-course/>

This report presents further detail as to the process followed by the H-PASS consortium in developing the H-PASS training programme on transversal and digital skills for the health workforce. To begin with, the report outlines the mapping exercise that was carried out in order to identify existing training programmes, platforms, and good practices in the field of digital health education. This exercise provided an important basis for understanding how transversal and digital skills are currently taught and what kinds of technologies, formats, and learning activities are commonly used. It also helped the consortium identify useful approaches that could be adapted for the H-PASS training programme.

Secondly, the report describes the technical and practical steps taken to create the H-PASS training course through the Learning Management System (LMS). It explains the review and selection of the LMS, the testing and development of the platform, the creation of interactive learning materials, and the piloting process through the English prototype pilot (centrally on the H-Pass website) and national pilots in 6 countries (using both the H-Pass website and local LMS systems). The report, along with the WP4 deliverables, outlines the transferability and adaptability of the training materials to multiple LMS systems. Thus, the report shows how the H-PASS training programme was developed through a gradual and collaborative process that combined research, technical development, and continuous improvement throughout.

2. Mapping Exercise

2.1 Methodology

Partners conducted an online search for different training programmes aimed at promoting digital and transversal skills of healthcare professionals (Task 5.1). This allowed the consortium to discover various training platforms and identify good practices that contributed to the overall high quality of the training programme. The search was conducted using the Erasmus+ platform and Google by typing “digital skills healthcare”, “digital skills healthcare training”, “digital skills healthcare training platform”, “digital skills healthcare course”, and “digital skills healthcare online course”.

2.2 Findings

We identified 31 training programmes and 32 different platforms. In this document, we outline key details relating to these platforms, as well as some of their technology/formats. In Annex 1, full details of the training programmes are provided, including more information on the available technology/formats. The most prevalent technology/formats were presentations and videos, followed by readings, assignments and quizzes, as outlined in the M21 milestone.

2.3 Good Practices

We have marked out several good practices that we used as a basis for creating our training programme. To begin with, many training programmes used videos to introduce the trainees to the programme or a specific topic. These videos are pre-recorded and can be accessed by the trainee whenever they wish, aiding asynchronous learning. Secondly, most of the programmes used assignments, online activities, or interactive quizzes. Some of them included tasks that required the joint work of the trainees, such as group activities and peer-reviewed projects. In addition, a virtual learning environment that enables users to interact with each other, to exchange experiences and to attend virtual lessons was distinguished as a particularly helpful feature.

Furthermore, many training programmes encouraged review of relevant academic literature, with trainees being invited to read academic papers and familiarise themselves with a virtual library. Moreover, evaluating relevant scenarios was pointed out as a good practice for the assessment of learning outcomes and considerations on potential practical applications of theory. In one such case, trainees were asked to evaluate medical apps and a plan for a hospital, seeking to pilot and implement a digital monitoring alert system. They were also invited to evaluate the training programme and its specific training sessions. In this context, trainees were asked to reflect on their learning and consider how to bring this knowledge to their professional practice. A helpful practice seems to be the inclusion of real-world/real-life examples and case studies.

Another good practice, which also includes a high level of innovation, is the use of simulation, 3D medical applications (Virtual Reality and Augmented Reality), as well as printed medical models. Training simulations included virtual patients, which in some cases are combined with 3D medical models and AI that plays the role of any patient, colleague, or casualty. Last but not least, we should emphasise the importance of training the trainers, with inclusion of guidelines for how to teach a topic, a trainer's manual, methodological guidelines or a curriculum being the primary approach adopted.

2.4 Review of Learning Environments

The consortium conducted a targeted scoping review of three learning environments specifically created for WordPress, the system used for development of the H-PASS website. This activity was carried out to ensure that any learning environment can be integrated with the website, which is hosted on the healthworkforce.eu domain, as well as the JA HEROES website, to ensure long-term sustainability. Previous projects (SEPEN, JAHWF) were also hosted on this domain and are now archived there and remain accessible.

Additionally, Moodle was considered as a potential LMS choice. Opting for Moodle could indeed carry many advantages: most of the partners had already been using it in their everyday workflows and were familiar with its system and functionalities; in fact, a partner from each country could host the training materials in this scenario. Moreover, this choice could facilitate the project's sustainability, because universities can host the course long after the end of the project. However, on assessment the consortium identified issues with the adoption of Moodle for every partner country (with some national systems not allowing for deviation from a government/institution approved LMS).

Key features of the three Wordpress-based LMS platforms are summarised below:

LearnDash: LearnDash is a leading LMS plugin for WordPress, standing out for its versatility and robust features. It provides a comprehensive set of tools for the creation and management of online courses and tracking of learner progress, while facilitating engaging learning experiences. LearnDash offers features such as course building, quizzes, assignments, certificate creation, gamification elements and advanced reporting. Its intuitive interface and extensive integrations have established it as a popular choice among educators, trainers, and organisations looking to deliver effective and interactive e-learning solutions.

LifterLMS: LifterLMS is another highly regarded LMS plugin that transforms WordPress websites into powerful learning platforms. It offers a range of features, including course creation, content dripping, quizzes, gamification, membership capabilities, and flexible pricing options. LifterLMS provides a user-friendly interface and an array of customisation options, allowing educators and course creators to tailor their learning environments to meet specific needs. With its emphasis on engagement and effective learning management, LifterLMS has gained popularity among both individual course creators and larger educational institutions.

WP Courseware: WP Courseware is a feature-rich LMS plugin that enables WordPress users to create online courses with ease. It offers drag-and-drop course creation, multimedia support, quizzes, progress tracking, drip content, and robust reporting capabilities. WP Courseware focuses on delivering a user-friendly experience for both instructors and learners, allowing educators to design interactive courses while maintaining control over their content and student engagement. Its integration with popular WordPress themes and plugins has rendered it a popular choice for creating professional and scalable e-learning environments.

These learning environments provide a solid foundation for building engaging online courses within the WordPress ecosystem, catering to the needs of various educators, trainers, and organisations seeking to deliver effective and dynamic e-learning experiences.

3. Learning Management System

3.1. Selection of the LMS System

The H-PASS consortium followed a gradual and practical process in creating its training programme. To begin with, the consortium selected and procured LearnDash for designing the H-PASS prototype training as the LMS to be used within a WordPress environment. With no single LMS platform (such as Moodle or Dashboard) being acceptable for all 6 local piloting sites, it was agreed that LearnDash was the easiest system to use for internal testing via the English Prototype. LearnDash also offered consortium partners a simple platform for converting the LMS information to the various local LMS options available within those countries.

This was an important first step, because it provided the technical foundation for building a structured online course. LearnDash was selected because it could support the delivery of modules, facilitate learners' management, and enable different kinds of interactive and

asynchronous learning activities. It also supports sustainability, as it can be hosted on the H-PASS website rather than on an institution's server.

3.2. Initial Technical Testing

The LMS was initially tested on the internal INHWE website in order to ascertain whether it could meet the basic technical requirements within WordPress. This first stage of testing was necessary to understand how the system functioned in practice and to identify any technical limitations before moving to the project website. It allowed the consortium to explore the basic features of the platform and confirm that it could support the type of training environment that the H-PASS educational programme required.

Subsequently, the LMS was migrated to the official H-PASS project website. At this stage, further technical testing revealed a number of issues, especially in relation to the WordPress theme. These issues affected the functionality of the LMS and meant that substantial bug-fixing and technical adjustments were needed. Addressing these problems was an important part of the development process, as it ensured that the platform could function reliably and provide a seamless experience for learners and facilitators.

Once these issues had been resolved, the consortium was able to build the structure of the training programme more comprehensively. In particular, the platform was configured to host the four training modules, and all relevant content developed under Work Package (WP) 4 was migrated into the LMS. This stage was particularly important because it transformed the platform from a technical framework into an actual learning environment containing the core educational materials of the H-PASS programme.

3.3. Functional Testing, Facilitator Training and User Management

Furthermore, the consortium tested the main functionalities required for course delivery and learner participation. This included processes such as assignment submission, student feedback and user management. These aspects are particularly important in an online training environment because they support communication between learners and facilitators and enable the monitoring of progress. In this way, the LMS was not only used as a repository of content but also as a tool for managing the overall learning process.

Another important aspect of the development of the programme was the training provided to internal facilitators for the Prototype phase of the testing. Facilitators needed to understand how to use the system effectively in order to support learners and manage the course during the prototype testing. For this reason, training sessions were organised so that facilitators could become familiar with the structure of the LMS, the different tools available, and the practical processes involved in course delivery.

In preparation for the English Prototype, more than 40 login accounts were created for the first group of students. This marked the beginning of the prototype phase of the training programme and ensured that learners could access the platform and participate in the initial testing of the course.

3.4. Internal Piloting and Monitoring of the Prototype

A particularly significant component of the technical work was the development of interactive learning materials using H5P. This required substantial effort as all interactive lectures had to be designed, produced and adapted for integration within the LMS environment. As part of this process, videos were created using Synthesia (synthesia.io). The decision to use and purchase Synthesia was deliberate and aligned with both the practical and strategic objectives of the project. Firstly, it enabled the project to apply artificial intelligence as a modern and innovative solution in the production of digital learning content. Secondly, it helped ensure greater consistency across training materials developed in different languages, supporting a more coherent learning experience for diverse student groups. Thirdly, it was used fully in line with the H-PASS project proposal which emphasizes responsiveness to technological advancement, innovation and change in educational practice. In addition to video production, interactive elements were embedded into the learning materials and PowerPoint presentations were converted into formats compatible with H5P. Overall, this process contributed significantly to making the training materials more dynamic, accessible and engaging while also supporting the programme's broader aim of delivering a high-quality interactive online learning experience.

The development of these materials continued throughout the prototype phase on a modular basis. This reflected good practice in digital education, where learners benefit from varied content formats and opportunities for active participation. It also reinforced the quality of the training programme by making the learning experience more flexible, interactive, and accessible.



English Prototype

Open to access this content

Figure 1. English Prototype Training home screen

During the prototype phase, the LMS was closely monitored and managed, in order to ensure that it functioned correctly while learners were actively using it. This monitoring was important for identifying technical issues, supporting users, and making improvements where necessary. As the prototype progressed and drew to a close, the LMS continued to be reviewed and adjusted. In this sense, the prototype served as an important testing ground that helped the consortium understand what worked well and what needed to be improved before wider implementation.

3.5. Development of the English Pilot Training

The English-language pilot represented the first full implementation of the H-PASS training programme within the LMS. It brought together the technical work already completed, including the platform set-up, module configuration, user creation, facilitator preparation, and interactive content development. All feedback from the prototype testing was factored into the finalisation of the pilot. The pilot enabled the consortium to test the programme in a real learning environment and to observe how learners engaged with the platform, its content, and its processes.

This phase provided important feedback on both the educational and technical aspects of the course. It confirmed the usefulness of the LMS structure while also allowing the consortium to identify points where further improvements were needed before expanding the programme to national level.

More than 40 participants took part in the English Prototype Training, which, together with the in-person Train-the-Trainer workshop in Cyprus, jointly delivered the project's Train-the-Trainer I session, consisting of the project partners and professionals connected to the partners in some way, such as colleagues, but not directly involved in the project.

3.6. Support for the National Pilots

Building on the English-language prototype, the consortium then proceeded to the development and implementation of the six national pilots. At this stage, technical and methodological support was provided to project partners to enable them either to adapt the central LearnDash system for their national context or to implement the programme through their own institutional learning management systems. This flexible approach was necessary because the participating organisations operated in different institutional, regulatory, and technical environments. In some cases, the use of an institutional platform was required for accreditation purposes; in others, existing systems were preferred because they were already familiar to staff and learners or because they allowed easier access to established student groups.

In the case of the Greek pilot, partners used LearnDash and received training as well as ongoing support in adapting the platform to create and run their national pilot. This proved particularly useful in reaching a dispersed student group across the country and in supporting multiple iterations of the course. In other countries, partners used their own established platforms, such as Blackboard, Moodle, or internal institutional systems, depending on local

needs and constraints. Used due to institutional familiarity and for online activities tracking capabilities.

Country	Language(s)	Platform	Basis for selection / considerations
Cyprus	English / Greek	Blackboard	Used due to institutional familiarity and for online activities tracking capabilities.
Greece	Greek	LearnDash	Used because it was well suited to reaching a student group dispersed across the country over three iterations of the course.
Italy	Italian	Blackboard	Selected due to accreditation requirements.
Romania	Romanian	Internal CJFBH system	Selected because a large number of students were already registered in the system and integration was simpler.
Hungary	Hungarian	Moodle	Selected due to institutional preparedness.
Lithuania	Lithuanian	Moodle	Selected due to institutional preparedness.

Table 1. LMS systems used during the pilot

This stage was especially important because it demonstrated that the technical LMS / training materials developed during the prototype phase were not limited to use within a single platform or national setting. The pilot implementation showed that the learning content, structure and interactive approach could be successfully transferred across different LMS environments. This adaptability was a major strength of the training programme as it supported both local relevance and long-term sustainability. Allowing partners to use institutional or national platforms brought several advantages: it facilitated compliance with accreditation or administrative requirements, reduced implementation barriers by building on familiar systems, enabled easier access to already enrolled learners and strengthened the likelihood that the programme could continue beyond the lifetime of the project. Additionally, the process demonstrated the value of close collaboration and continuous technical support across the consortium in ensuring consistent implementation of digital learning systems in diverse national contexts.

3.7. Finalisation of the H-PASS Course

Overall, the H-PASS training programme was developed through a step-by-step process that combined technical testing, LMS development, content migration, interactive resource

creation, user support, and continuous improvement. The consortium first created a prototype, then implemented an English pilot, followed by six national pilots, and finally refined the course into its final version. In this way, the programme was built not only through educational design, but also through substantial technical work to ensure that the LMS was functional, interactive, adaptable, and capable of supporting learners across different contexts.

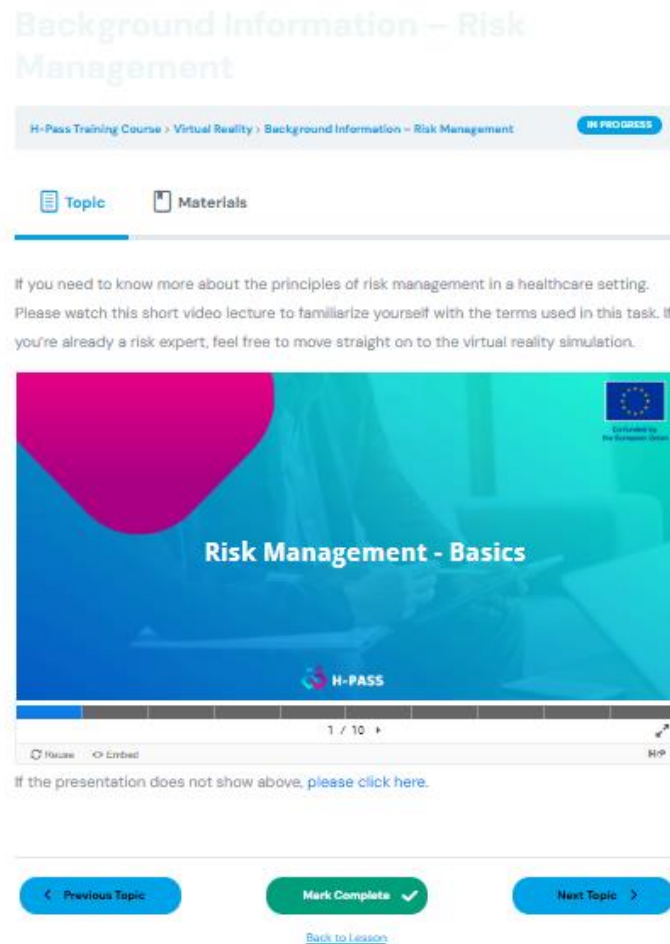


Figure 2. Interactive H5P material

The online training course is now free to access by anyone who wishes to use the course for their own learning or training purposes: <https://hpass.healthworkforce.eu/courses/h-pass-training-course/>

The H-PASS training course is a multidisciplinary programme designed to strengthen the digital and transversal competencies of healthcare professionals across Europe. The course aims to help health practitioners to respond to the rapid digital transformation of healthcare by equipping professionals with the knowledge and skills needed to effectively use digital technologies, collaborate within multidisciplinary teams and lead organisational change. By addressing skills gaps and mismatches in the healthcare workforce, the training contributes to building more resilient, efficient, and future-ready health systems across participating countries.

The programme follows a modular, blended-learning structure combining self-paced online learning with live sessions and interactive activities. Participants engage with four core modules covering: leading digital transformation in healthcare, communication and teamwork in the digital era, improving healthcare processes, and managing healthcare data. The course also integrates practical elements such as group work, case studies, and immersive learning approaches—including virtual-reality-based activities—to create an engaging and applied learning experience.

Targeted primarily at healthcare professionals, administrators, and team leaders, the course focuses on developing both digital literacy and transversal skills, including leadership, communication, data-driven decision-making, and change management. Through these competencies, participants learn how to adopt digital tools, improve care processes, and contribute to innovation within their organisations. Ultimately, the H-PASS training aims to empower healthcare teams to navigate technological change while fostering collaboration, adaptability, and continuous professional development in modern healthcare environments.

4. Conclusion

This report has shown that the H-PASS training programme was developed on the basis of both research and practical experience. To begin with, the mapping exercise helped the consortium identify a range of existing training programmes and platforms related to digital skills in healthcare. This made it possible to explore which types of technologies and formats are most commonly used in this field. It also enabled identification of a number of good practices that could be used as a basis for the H-PASS training programme, such as videos, readings, quizzes, assignments, case studies, reflection activities, and interactive learning tools.

Secondly, the report has shown that the development of the H-PASS course required not only educational planning, but also considerable technical work. The review of LMS options helped the consortium identify a suitable system for use within WordPress. LearnDash was then selected and tested, first internally and then on the project website. During this process, a number of technical issues were identified and resolved. The platform was then developed further so that it could host the four training modules, support learners and facilitators, and provide interactive learning materials.

Furthermore, the creation of the H-PASS programme followed a gradual process. The consortium first developed a prototype, then implemented the English pilot, followed by six national pilots, and finally produced the final version of the course. This step-by-step process was helpful, as it allowed the consortium to test the platform, monitor its use, improve the content, and support partners in adapting the course to their own contexts.

Overall, the H-PASS training programme shows the importance of combining good educational practices with a functional and flexible technical system. In this way, the project has created a course that is interactive, accessible, and adaptable to different national settings. This provides a strong foundation for the future use and sustainability of the H-PASS training programme.



Co-funded by
The European Union

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the Health and Digital Executive Agency (HaDEA). Neither the European Union nor the granting authority can be held responsible for them.