



International Network for
Health Workforce Education



Viešoji įstaiga

Kauno mokslo ir
technologijų parkas



Co-funded by the
Erasmus+ Programme
of the European Union

Digi4Health

A Digital VET Toolkit for Promoting the 4th Industrial Revolution in the European Health Sector

Erasmus+ Project No. 2019-1-MT01-KA202-051203 funded by EUPA Malta

Summary of the project

Source: <https://kainotomia.com.gr/en/portfolio/digi4health/>

As outlined in the 2018 EC document "Enabling the digital transformation of health and care in the Digital Single Market", digital solutions for healthcare can increase the well-being of millions of citizens and radically change the way healthcare is delivered to patients. Emerging technologies such as 4G/5G mobile, AI, IOT, big data, block chain, robots, drones, 3D Printing, Virtual & Augmented Reality are some means by which healthcare professionals will be increasingly supported in their work, all aimed towards enhancing inter-professional cooperation and ultimately personalized patient care. As a result of these technologies, we are starting to see the impact of the 4th industrial revolution on healthcare, known as Health4.0. Thus, healthcare trainers of disciplines such as physiotherapy and podiatry need to be urgently assisted to catch up with the range of digital technology advancements taking place due to Health4.0. At the same time, as working adults, healthcare personnel have a difficulty to find the time to attend continuous professional development (CPD) courses. Nevertheless, these adult workers need to be supported learning about digital technologies infiltrating the health sector. For this reason, VET trainers as well as healthcare mentors need a Toolkit with an open repository of relevant training resources to aid them in helping healthcare personnel catch up with HEALTH4.0 technologies even in work-based settings.



The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Summary of the Intellectual Outputs (I.O.)

Output O1 will be an original and innovative Curriculum generated by all Digi4HEALTH partners under the guidance of the curriculum design experts within the consortium coming mainly from UPB-CAMIS and Kainotomia together with healthcare stakeholders INHWE. As the 4th industrial revolution will impact different health sector stakeholders, the curriculum will be designed to cater for issues related to both patients and healthcare workers. Thus, the curriculum is expected to cover a spectrum of Health 4.0 topics to allow a range of healthcare personnel such as general practitioners, podiatrists, physiotherapists, occupational therapists, and nurses to understand better what HEALTH4.0 is all about and how its underlying technologies can be exploited in their daily work when dealing with patients. The curriculum is intended to target explicitly VET learners and healthcare workers. Part of the work related to curriculum design is to also explore and consider the type of content (e.g., notes, case-studies, PowerPoint presentations, fact sheets etc.) that should be offered for different topics to maximize effective knowledge transfer. This will be again explored with focus group participants.

Output O2 will be an original set of twelve descriptive case-studies (in PDF format) outlining how different Health4.0 technologies can be used by a range of healthcare personnel. Each Health4.0 technology case-study will thus outline how this specific technology (e.g., CAD/CAM) can be exploited in three (3) different health sectors (e.g., podiatrists, physiotherapists, dentists). The case-studies will be designed with a mix of text and images and/or icons and make use of keywords, so that both VET Learners/health mentors and healthcare workers can search for and retrieve the right case study when required. Where appropriate, the case-study will also include images and/or links to external sources (e.g., online video clips publicly available). In addition, three from twelve of the case studies to be developed will make use of Augmented Reality (AR) or Virtual Reality technology for enhancing the content contained within the case-study to make a better impact on health sector learners.

Output O3 will be original VET training material and resources covering a spectrum of Health 4.0 topics to allow a range of healthcare personnel such as general practitioners, podiatrists, physiotherapists, and nurses to learn on Health4.0. This training material will be used by VET trainers and healthcare mentors to update the skills of these personnel with knowledge of challenges and opportunities brought about with digitization of the healthcare sector. The training material will be generated in a modular way to have both generic study units (e.g., Background to CAD/CAM Technology as well as healthcare discipline specific training material (Application of CAD/CAM in the Dental Sector). The training resources will consist of a set of PowerPoint presentations for use by the trainers as well as twelve A4 fact sheets (in PDF format) providing concise information on the different technologies eventually defined as relevant for HEALTH4.0 in the curriculum (O1). These fact sheets are intended for use by the learners (healthcare professionals) to help tease their



interest in the topic with the aim of motivating them to delve deeper into the topic by later covering more detailed material provided in the PowerPoint presentations.

Output O4 will be an original e-Learning Platform aimed at allowing a range of healthcare personnel such as general practitioners, podiatrists, physiotherapists, and nurses to follow the training material developed in O3 on Health4.0 and its technologies. The LMS platform will be implemented in such a way as to enable it to effectively run from different operating systems including iOS, Android, and Windows. This will ensure that a wider base of health sector personnel/learners can access the content both from home and at work. In addition, the LMS will be implemented in such a way that these different healthcare personnel will be able to access Health4.0 topics relevant to their profession. For this purpose, the LMS structure will be modular and have both generic content (e.g., Background to Rapid Prototyping) as well as healthcare discipline specific topics (e.g., RP as used by Podiatrists for foot orthotics).

As O5 will be an open type of VET educational resources, it is expected to have a major impact on European VET trainers and healthcare mentors beyond the digi4HEALTH consortium too, as this Toolkit will give them open access to a range of digital resources they can use and even customize for their own training needs. As the project partner INHWE has a range of members both from Europe and beyond, O5 will be exposed to a spectrum of VET Trainers, mentors, and learners in the healthcare sector. As a consequence of O5, a large number of European VET trainers and healthcare mentors will be able to exploit the digi4HEALTH toolkit from which many European learners and thus healthcare personnel will benefit.

The Partnership:

MECB, Malta

UPB-CAMIS, Romania

KAUNAS STP, Lithuania

INHWE, Cyprus

KAINOTOMIA, Greece

KVELOCE I+D+i, Spain



The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.