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Context

Project details

| | |
|------------------------------------|--|
| Coordinator | Diana Schack Thoft |
| Coordinator OID | |
| Project code: | 2022-1-DK01-KA220-HED-000085531 |
| Project title: | Technology match to improve the health and quality of life of people experiencing pain - educating future healthcare professionals |
| Project Start Date | 01-10-2022 |
| Project End Date | 31-09-2025 |
| Grant awarded: | EUR 400,00,00 |
| Language used to fill in the form: | English |

Project Summary

Please provide an overall state of play of your project:

Summarise the information about your project in the form of short answers to the following questions.

Implementation: What activities have you implemented in your project so far?

In TECH2MATCH, we have successfully implemented all tasks related to WP1, WP2, and WP3. The concrete work packages and their tasks are described later in this document.

[Max 2000]

Results: At this stage, what are the concrete outputs and other results of your project?

We are very satisfied with the concrete outputs, as all qualitative and quantitative outcome indicators have been accomplished.

Outputs of WP1 are described later, but to summarize some of the results, we present a few here. We have made a “Project Management Plan,” a “Quality and Risk Management Plan,” and a “Communication and Dissemination Plan.” We have established and have had meetings with our advisory board. We have developed a common dissemination Excel sheet to document our dissemination activities and a TECH2MATCH homepage (www.tech2match.eu) to inform people about the project, disseminate results, and motivate interest in this area.

More outputs of WP1 can be found later in this document. The outputs of WP2 and WP3 indicators are also described in detail later in this document.

We experience a constructive cooperation with all partners. We have evaluated the partner's level of satisfaction with the project by distributing two intern surveys - one for WP2 and one for WP3 - to all consortium members. The results of the surveys showed a good level of satisfaction and no negative answers. Moreover, the survey results allow us to adjust and improve the project management.

[Max 2000]

Work Package n° 1 Project Management

How have you managed the project so far as coordinator (time management, financial management, overall coordination of the partners, reporting, communication...)? Has the distribution of tasks been adjusted since the application stage?

Time management: Each partner registers the number of hours spent using timesheets or internal individual time registration systems.

Financial management: Each partner was distributed a Lump sum of the grant amount. UCN has contributed with an economic consultant (EC) who controls the time spent and the financial management of TECH2MATCH. Each partner has pointed out a person who is economically responsible, and our EC cooperates with these persons.

Overall coordination of partners: Monthly Project Management Group (PMG) meetings ensure the progression of the project and close coordination with WP leads and WP tasks. The PMG is responsible for monitoring the project activities and is the core part of TECH2MATCH, overseeing and validating the work about outputs (standard and quality) and project coordination.

Transnational Meetings yearly (TM) further contribute to coordination, allowing face-to-face communication and coordination. Key online meetings (KOM) are held four times a year, allowing all members to be informed about the project's progression. Further, each WP lead and WP task lead plan task meetings to discuss specific WP issues, for example, how we all understand terms used. Before all meetings, we provide an agenda in Teams, and all partners contribute to the agenda by adding issues directly to the PowerPoint slides. This works very well, committing every partner in the consortium.

Reporting: After each meeting, “Minutes” with agreed tasks and actions and who is responsible for delivery of the activity are written and published in Teams. Recordings from each meeting are published in Teams to inform non-participating partners and to provide the opportunity to listen to the meeting again, which is used by those experiencing challenges with the English language.

Communication: The partners communicate via Teams or e-mail. The “Communication and Dissemination Plan” describes the communication strategy in detail. The communication in TECH2MATCH has been positively evaluated in our two internal surveys.

Adjustments: Because of the Summer holiday and not to delay the progression of WP3, SeAMK and UCN changed tasks in the Spring/Summer of 2023. UCN did WP3.1 and SeAMK WP3.2. During the work with WP2 and WP3, we discovered a need to develop a joint learning approach to increase the quality of the TECH2MATCH course. UCN outlined the learning approach, and all partners agreed, commented on the content. A new task 4.0 was incorporated in WP4, containing the learning approach. This led to UCLM taking over the lead of task 4.1 in WP4 with all partners contributing to it.

[Max 3000]

How have the project partners contributed to the project management work package?

The vision for TECH2MATCH was to ensure cooperation and that all contributed to the project. Therefore, all partners were assigned a WP lead, and the WP tasks were distributed among all partners in each WP. This strategy has been successful as all partners have contributed and taken on the responsibility for their tasks and contributed to others' tasks.

To ensure the progress of the project, UCN, who is the lead of WP1, produced drafts of the “Project Management Plan,” the “Quality and Risk Management Plan,” and the “Communication and Dissemination Plan.” All partners commented and approved these documents. The documents are revised every half year, and partners are invited to comment.

All partners have taken responsibility for the management of their tasks and have asked for support when needed. UCN has offered advice and discussed with the partners how to understand and interpret the tasks. The partners have evaluated in the intern surveys that this facilitating role has been experienced positively.

All partners have contributed to disseminating the TECH2MATCH project and its results. In Teams, a joint Excel document collects information about dissemination activities ranging from LinkedIn posts to abstracts submitted to relevant congresses/conferences.

At the PMG meetings, we have an obligatory agenda that we always discuss:

- Project progress achieved by documenting and reporting activities

- Activities started/in progress and finalized against targets and measures
- Quality and achievements carried out by each partner - QRM issues
- Budget applied (all partners are responsible for periodic reporting on the use of funding to PMG)
- Ensure financial management with timely and cost-effective delivery of the project and its outputs
- Agree on actions needed

This agenda ensures that all partners are invited to give input and contribute to project management. The partners use this possibility to contribute to project management, and the obligatory agenda ensures that important issues are addressed.

Each partner has found relevant members for our Advisory Board. Until now, we have had two meetings where the Advisory Board has contributed with advice, concrete support suggestions and other relevant suggestions to progress the project.

Each partner has been responsible for national stakeholder involvement. Each partner has planned, executed, and managed stakeholder focus groups, interviews, and surveys in their country. The agenda has been developed together with all partners contributing and then translated to each partner's language.

[Max 3000]

If relevant, please describe any difficulties you have encountered in managing the implementation of the project and how you and your partners handled them. How have you handled project risks (e.g., conflict resolution processes, unforeseen events, etc.)?

UCLM from Spain, SeAMK from Finland, and FHV from Austria have exchanged 2-3 persons in the consortium. This exchange has been discussed at PMG meetings, where all agreed to welcome and support the new members, acknowledging that it takes time to familiarize themselves with the project and the work conducted.

At the TM meetings, we focused on welcoming the new members face-to-face. From the positive results of the internal surveys about satisfaction with the project, we conclude that the new members have been integrated successfully.

The change in WP tasks in WP3 did not provide any difficulties in managing the implementation of the project.

[Max 3000]

Work package n°2 - Identify and analyze the technology skills and competencies within healthcare education.

Please give a brief description of the work package

In WP2, we analyzed and summarized the needed technological skills and competencies that future healthcare professionals will need.

Objective 1 was to analyze and summarize the needed technological skills and competencies for the future healthcare system. Skills and competencies include e.g. technological, ethical, clinical, and communicational skills. This objective contributed to the general aim of strengthening technological competencies and digital skills because this step revealed the current level of healthcare professionals' competencies and skills.

Objective 2 was to analyze and summarize the needed skills and competencies for healthcare professionals to develop real-life scenarios through interviews and investigate how skills and competencies were visible in HEIs' curriculums. This objective contributed to the general aim of improving skills because each participating institution and stakeholder groups were examined to reveal needed skills and competencies.

Objective 3 was to develop the framework for analyzing challenges and opportunities. It included writing national reports describing how needed skills and competencies could be developed considering the current gaps in healthcare education. This objective contributed to the general objective of cross-disciplinarity and sharing skills by including and comparing all participating institutions in the search for the starting level of the interdisciplinary TECH2MATCH course.

Objective 4 was to summarize the national reports into one concluding report that can be used to target real-life scenarios in the project.

The objectives of WP2 are the solid ground for developing WP3, WP4 and WP5.

[Max 3000]

Overview of work package activities

Work package n°2 – [Activity 1-2]

| Activity title | Leading organisation | Venue of the activity | Activity start date | Activity end date | Activity duration(days) | Grant amount allocated to the activity (EUR) |
|---|----------------------|-----------------------|---------------------|-------------------|-------------------------|--|
| Identify and analyze the technology skills and Competencies within healthcare education | SeAMK | Finland | 30/10/2022 | 28/06/2023 | | 54 100,00 |

| | | | | | | |
|---------------------------|-------|---------|------------|------------|-------|----------|
| Travel Meeting & Workshop | SeAMK | Denmark | 23/01/2023 | 24/01/2023 | 2 | 3 820,00 |
| | | | | | | |
| | | | | | Total | 57 920 |

Provide a description of the activities implemented so far. Are there any major differences between the planned activities and the implemented activities, including redistribution of partner's tasks. If so, please explain.

The planned activities and the implemented activities are the same.

Activities implemented:

1) Identify and analyze the technology skills and competencies within healthcare education.

Each country conducted a literature search and used the system Covidence to collect research articles related to healthcare professionals' skills needed to match and use technologies in healthcare. Each partner also investigated national policies. This literature search resulted in four national summary reports. The reports provided knowledge about which skills and competencies we need to develop suitable matches between technology and patients with pain. Each report also contains the results from stakeholder focus groups about required skills and competencies in each country. After that, a framework was created to analyze challenges, gaps, and possibilities. After following and working with this framework, each partner wrote a national summary report about current healthcare technology education at their HEIs. The partners investigated the curriculums and identified possibilities but also challenges and gaps that the TECH2MATCH course needs to fulfill to improve the teaching in the area.

The result of WP2 was a joint summary report describing the needed skills and competencies to match and use technologies for patients with pain in future healthcare. The report also summarizes the gaps and challenges that need to be addressed. We have attached the joint summary report of WP2. After finishing the summary report, the results have been summarized to a one-pager. The results from WP2 will be presented at international/national conferences by both FHV and UCLM this year.

2) Travel Meeting & Workshop.

A transnational meeting (TM) was successfully planned and accomplished in January 2023 at UCN in Denmark. All partners participated, and the meeting outcome was excellent, both in the progress of the project and according to the familiarity of the consortium members both socially and culturally. Online participation was recommended for consortium members who could not be present face-to-face.

The workshops with stakeholder groups have been accomplished in all partner countries.

[Max 3000]

If relevant, please describe any difficulties you have encountered in managing the implementation of the work package and how you and your partners handled them. How have you handled project risks (e.g., conflict resolution processes, unforeseen events, etc.)?

No difficulties in managing the implementation of WP2 arose. The partners helped each other to understand the activities. Some minor deviations according to the timeframe were made as they did not influence the project's progression.

Please elaborate on how you are ensuring the quality of the activities and results and provide information on the level of achievement of the selected qualitative and quantitative indicators at this stage.

Ensuring the quality of the activities and results:

Monthly planned PMG meetings helped us keep in touch with all partners. At the PMG meetings, the progress was very closely followed. Moreover, the responsible WP lead agreed to add points/issues to the obligatory agenda to ensure all details were discussed.

Individual contact with partners ensured progress and control, and offering support or help led to a high quality of the activities and the results.

Provide information on the level of achievement of the selected qualitative and quantitative indicators at this stage:

The selected indicators were all achieved. The results of the indicators are:

Indicator 1: Every country has reported at least ten research articles and one review of their programs' policy in a national report. A joint report has been created to summarize all partners' desk research on research and policies.

Indicator 2: Focus groups, one per country, have been organized. Stakeholder groups from the four countries have participated and written a national report about the findings from the focus groups.

Indicator 3: The writing of four national summary reports about needed skills and competencies for healthcare personnel has been described and integrated into a joint report. All partners have contributed with results from the desk research, the policy reports, and the focus groups.

Indicator 4: A framework for analyzing the challenges and possibilities for healthcare professionals has been developed.

Indicator 5: Four national summary reports about current healthcare technology education at HEIs containing information about current curricula gaps, challenges, and possibilities have been developed.

Indicator 6: A joint summary report has been developed describing the skills and competencies needed to match technologies and patients with pain in future healthcare and the gaps and challenges related to each country's curriculum.

Indicator 7: An intern survey has been developed and distributed to all consortium members to measure the partners' experience of WP2 and the TECH2MATCH project. This survey was executed after WP2 was finalized.

[Max 3000]

Work Package n° 3 - Define and design frameworks for blended learning, real-life scenarios, teaching lecturers, and creating an xMooc

Please give a brief description of the work package.

WP3 identified and reported existing models and cases in short reports, which contributed to the progression of creating the TECH2MATCH course. In WP3, all partners contributed to creating four frameworks for 1) blended learning, 2) real-life scenarios, 3) training the lecturers, and 4) the xMOOC. The preparation and description of these four frameworks are the basis for creating a TECH2MATCH course that strengthens lecturers' and students' digital competencies. Stakeholder groups were invited to participate in developing and discussing the frameworks in WP3.

[Max 3000]

Overview of work package activities

Work package n°3 – [Activity 1-2]

| Activity title | Leading organization | Venue of the activity | Activity start date | Activity end date | Activity Duration(days) | Grant amount allocated to the activity (EUR) |
|---|----------------------|-----------------------|---------------------|-------------------|-------------------------|--|
| Define and design frameworks for blended learning, real-life scenarios, teaching lecturers, and creating an xMooc | UCN | Denmark | 29/04/2023 | 31/12/2023 | | 71 075,00 |
| Travel Project meeting & Workshop | UCN | Finland | 13/11/2023 | 14/11/2023 | 2 | 3 820,00 |
| | | | | | | |
| | | | | | Total | [SUM] |

Provide a description of the activities implemented so far. Are there any major differences between the planned activities and the implemented activities, including redistribution of partner's tasks? If so, please explain.

The planned activities and the implemented activities are the same.

Activities implemented:

The final report of task 3.1 presents all information on existing models and cases of blended learning and real-life scenarios, which the partners have identified in their searches. Information on the search performed by each partner can be found in the respective national reports.

In task 3.2, a framework for blended learning and a framework for real-life scenarios were developed. These frameworks are pivotal for the development of the course TECH2MATCH in WP4. The frameworks were developed in cooperation with stakeholder groups from all four partners, and the information gathered in task 3.1

In task 3.3, a framework for teaching the lecturers and second was developed. The primary objective of this framework was to provide a structured approach for preparing lecturers to teach the TECH2MATCH course. The sections in the framework mirror the stages of the ADDIE model (Analysis, Design, Development, Implementation, Evaluation), particularly in terms of design (Training Design), development (Training Preparation), implementation (Training Delivery), and evaluation (Training Evaluation). The "Post-Training Activities" section aligned with "Continuing Professional Development" (CPD) principles, focusing on ongoing learning and support after formal training. Following this framework is sequential; to move on to the next phase, it is necessary to have completed the previous one. Four stakeholder meetings across the consortium discussed the "teaching the lecturers" framework.

In WP 3.3, a framework for the xMOOC (Massive Open Online Course) was developed. This framework outlined the general structure of the blended learning course as a base for creating the content later in WP4

The final summarizing report of the work carried out in WP3 described the progress of WP3, the results from all tasks, and the conclusions based on each indicator related to the WP. The report also defined how to apply WP3 in the upcoming WP4. The report also concluded the work in each of the respective tasks in WP3. The joint summary report for WP3 is attached.

2) Travel Meeting & Workshop.

The second transnational meeting was successfully planned and accomplished in November 2023 at SeAMK in Seinäjoki, Finland. All partners participated, and the meeting outcome was very good, both in the progress of the project and the definition of concepts. At the TM, the new consortium members were welcomed to become familiar with the project and the consortium. Online participation was recommended for consortium members who could not be present face-to-face. Two members participated online.

The workshops with stakeholder groups have been accomplished in all partner countries.

[Max 3000]

If relevant, please describe any difficulties you have encountered in managing the implementation of the work package and how you and your partners handled them. How have you handled project risks (e.g., conflict resolution processes, unforeseen events, etc.)?

We experienced no difficulties in managing the implementation of WP3. The partners helped each other to understand the activities and how to define the frameworks. Some minor deviations according to the timeframe were made but did not influence the project's progression.

Please elaborate on how you are ensuring the quality of the activities and results and provide information on the level of achievement of the selected qualitative and quantitative indicators at this stage.

The description of how we ensured the quality of the activities and results is very much like the description of the same issues in WP2:

Having planned monthly PMG meetings helped us keep in touch with all partners. The progress was closely followed at the PMG meetings because the responsible WP lead added information about their tasks to the PowerPoint agenda.

Individual contact with partners ensured progress and follow-up, offering support led to a high quality of the activities and the results.

Provide information on the level of achievement of the selected qualitative and quantitative indicators at this stage:

The selected indicators were all achieved. The results of the indicators are:

Indicator 1: We identified existing models, approaches, and cases, and the results have been reported in national reports and a final joint report. The report briefly describes 40 examples of “real-life scenarios” and “blended learning,” and the 8 most relevant examples have been described in-depth.

Indicator 2: The framework for blended learning has been developed and described, and all 4 stakeholder groups have participated in the development.

Indicator 3: The framework for real-life scenarios has been developed and described, and all 4 stakeholder groups have participated in the development.

Indicator 4: The framework for training the lecturers has been described, and all 4 stakeholder groups have participated in the development.

Indicator 5: The framework for the xMOOC has been described, and all 4 stakeholder groups have participated in the development.

Indicator 6: A summarizing report is available for all partners. In the report, the progress of WP3 has been described together with the results from task 3.1, 3.2 and 3.3

[Max 3000]

Work Package n° 4 Develop the blended learning, real-life scenarios and xMOOC

Please give a brief description of the work package

The overall objective of WP4 is to use the frameworks created in WP3 for developing and creating the blended learning, the real-life scenarios and the teaching material for the lecturers of the partner institutions as well as other parties such as professional nurses, midwives, or physiotherapists. The material is the foundation for the pilot and implementation in WP5.

With the blended approach, the real-life scenarios, training the lecturers' and the content of the xMOOC, the objectives are that the students will learn how to approach and evaluate technology and put it into context to match with PwP.

Work package n°4 – [Activity XYZ]

| Activity title | Leading organization | Venue of the activity | Activity start date | Activity end date | Activity duration(days) | Grant amount allocated to the activity (EUR) |
|----------------|----------------------|-----------------------|---------------------|-------------------|-------------------------|--|
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | Total | [SUM] |

Provide a description of the activities implemented so far. Are there any major differences between the planned activities and the implemented activities, including redistribution of partner's tasks ? If so, please explain.

[MANDATORY]

[Max 3000]

If relevant, please describe any difficulties you have encountered in managing the implementation of the work package and how you and your partners handled them. How have you handled project risks (e.g. conflict resolution processes, unforeseen events, etc.)?

[OPTIONAL]

Please elaborate on how you are ensuring the quality of the activities and results and provide information on the level of achievement of the selected qualitative and quantitative indicators at this stage.

[MANDATORY]

[Max 3000]

Work Package n° 5 (Name?)

Please give a brief description of the work package

[MANDATORY]

[Max 3000]

Overview of work package activities

Work package n°5 – [Activity XYZ]

| Activity title | Leading organisation | Venue of the activity | Activity start date | Activity end date | Activity duration(days) | Grant amount allocated to the activity (EUR) |
|----------------|----------------------|-----------------------|---------------------|-------------------|-------------------------|--|
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | Total | [SUM] |

Provide a description of the activities implemented so far. Are there any major differences between the planned activities and the implemented activities, including redistribution of partner's tasks ? If so, please explain.

[MANDATORY]

[Max 3000]

If relevant, please describe any difficulties you have encountered in managing the implementation of the work package and how you and your partners handled them. How have you handled project risks (e.g. conflict resolution processes, unforeseen events, etc.)?

[OPTIONAL]

Please elaborate on how you are ensuring the quality of the activities and results and provide information on the level of achievement of the selected qualitative and quantitative indicators at this stage.

[MANDATORY]

[Max 3000]

NOTE: You should ensure that the number of work packages in the report, correspond to the number of work packages in your project.

Should you have more than 5 work packages, simply copy and paste the questions asked previously in order to have the correct amount of work packages in this report. If you have fewer than 5 work packages, please delete the surplus.

Follow-up

Impact

If any, what has been the project's impact so far on the participants, participating organisations, target groups and other relevant stakeholders?

The participating partners have all actively participated during the progress of TECH2MATCH and therefore also experienced the impact of being a part of an Erasmus+ project. All partners have learned much about cooperation between countries and cultures when developing HEI education. They have all learned about research in this area and their national policies, but also about how their own institution currently works with teaching about technology because each partner investigated own curricula. This part of the project work has positively impacted the partners and their understanding of themselves and the European partnership.

Participating in this project has different impacts: in the consortium, we have learned how different understandings and perspectives can inspire each other and that it is important to openly discuss (pre)understandings. As lead, UCN has noticed how the distribution of responsibility has resulted in high involvement and ownership by all partners.

In each partner organization the involvement and impact of the organization is increasing. The progress in the project during the Spring will lead to close collaboration among partners and among organizations because we are going to work with the concrete content of the course, which will impact all HEIs involved. Later in 2024, the “teach the lecturers” course and the upstart of pilot testing will involve and impact all partner organizations.

The involvement of national stakeholder groups with patients with pain, relatives, lecturers, and students in the project has also led to knowledge sharing and an improved understanding of pain and how it is experienced and seen from different perspectives. This will impact the quality of the developed TECH2MATCH course.

[Max 3000]

If already applicable, what is the impact of the project at the local, regional, European and/or international levels?

We disseminate our WP results on both local, regional, European, and international levels by using LinkedIn, the TECH2MATCH homepage, oral and poster presentations at congresses/conferences, etc. See above and below.

[Max 3000]

Sharing and promoting the project results

How have you shared and promoted the project and its results to date? Please outline the types of tools and activities you have used and the main target groups involved?"

Currently, we have disseminated WP2 results at the [European Conference on Reflective Practice-based Learning 2023 \(ucn.dk\)](#) in 2023 with a poster presentation. This year the WP2 results are planned to be disseminated at the following conference in Finland [Nordic Conference on Digital Health and Wireless Solutions - 6G Flagship](#) and in Spain at [“Congress of the Spanish Pain Society SED v 20.0”](#). The main target groups are lecturers at HEI and researchers interested in digital health technology and learning approaches using reflective practice learning and digital blended learning related to pain.

Postings on LinkedIn to reach a broader public have been used to inform about project results from WP2 and to draw attention to the project. Christmas greetings on LinkedIn and other

information posts have also contributed to sharing knowledge and keeping attention to the TECH2MATCH project.

Creating the homepage www.tech2match.eu has been a way to share and also promote the project and its results. The homepage is updated every half year, and we are currently working on renewing and improving the first version of the homepage. The target is lecturers, HEI institutions, healthcare professionals working with technology and pain, and other technology-interested people.

When participating in TM we have posted and informed about the event at the partners institution - until now at UCN and SeAMK. During TM videos have been recorded to inform about the results and the project itself. At UCN, one video was posted, and at SeAMK both a video about the participating partners and a video about VR and Tech2Match were recorded and will be published at the homepage during February 2024.

[Max 3000]

Comments

Any additional comments or information concerning the project you would like to share

[OPTIONAL]

[Max 3000]

Checklist

Before submitting your report form to the National Agency, please make sure that:

- All necessary information on your project has been encoded in Beneficiary Module;
- The report form has been completed using one of the mandatory languages specified in the Grant Agreement;
- All the relevant documents are annexed:
- For periodic report – declaration on honour that at least 70% of the pre-financing has been spent

PROTECTION OF PERSONAL DATA

Please read our privacy statement to understand how we process and protect [your personal data](#).