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Erasmus+ and the European Solidarity Corps Agency

Impact of Erasmus+ Cooperation Projects in Vocational Education and Training

Research report

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INTRODUCTION

Organisations in the field of education can apply for support for different types of activities in cooperation with institutions of the European Union and the Economic Area and other countries that have joined the Erasmus+ programme – both for learning mobility and for the implementation of important development activities in the organisation or field. Finally, the format of cooperation projects creates an opportunity. Cooperation projects fall within the second key action of the Erasmus+ programme (cooperation between organisations and institutions) and are expected at a strategic level to make a significant contribution to the implementation of the programme's priorities. In addition, cooperation projects are expected to have a positive and long-lasting impact on the participating organisations and policy systems, as well as on the organisations and individuals directly and indirectly involved in the projects. As expected, projects will be developed, and innovative solutions implemented at the organisational, local, regional, national or European level.

VET Institutions and other organisations operating in the field of education, which wish to contribute to the development of VET, or to a better combination of VET and the needs of the labour market, can apply for support for cooperation projects in the field of VET under the Erasmus+ programme. Collaborative projects can take the form of small-scale partnerships or cooperation partnerships. The two different types of projects involve development activities of different scopes, with the volume of financial support differing in both cases. Small-scale projects primarily aim to enable organisations with less experience to begin cooperating at the European level, and offer grants of EUR 30,000 or EUR 60,000. Cooperation partnerships are larger in scope and aim to improve the quality of the participating organisations' core activities and to develop and implement innovative solutions. The budget allocated to them can be EUR 120,000, EUR 250,000, or EUR 400,000, depending on the content of the project and the scope of the activities. An exception was made in 2021 due to the transition to a new programming period, resulting in the application of different funding rules to those set out above.

During the current programme period (2021–2025), Erasmus+ and the European Solidarity Corps Agency have funded a total of 38 cooperation projects in the field of VET, totalling more than EUR 6 million. Half of the funded projects are small-scale partnerships and the other half are cooperation partnerships. The coordinating bodies are comprised of 25 different organisations. These include seven VET Institutions, seven companies, five non-profit organisations, four higher education institutions, one foundation, and one national research and development centre. Seven institutions have received support for multiple projects, with the largest number of projects being supported by two organisations – one is a vocational education institution and the other is a training company.

METHODOLOGY

The main objective of the research was to determine how participation in Erasmus+ cooperation projects supports organisational development, staff development, and the improvement of the education and training process.

Based on the objective, two main research questions were set:

1. How does participating in Erasmus+ cooperation projects support the development of the organisation and its staff?
2. How does participating in Erasmus+ cooperation projects support the quality of the education and training process?

A qualitative approach was used in the research. Data were collected semi-structured interviews covering the following main topics, based on the purpose of the research and the research questions:

- Impact on the management and strategic development of the institution
- Innovation and the societal/wider impact of projects
- Impact on the professional development of staff
- Impact on the quality of education and training
- Added value of projects
- Factors contributing and hindering the impact
- Raising awareness and disseminating results

The research data were analysed using a deductive approach and analysis. First, meaning units were extracted verbatim from the interview texts and grouped into categories based on the research questions. Then, based on the content analysis, subtopics were formed. The initial analysis was carried out separately by two researchers. The jointly formed topics and their distribution were then discussed, and the final topics were reached.

Sample

This research sample included cooperation projects that had ended by 31 December 2025 at the latest. Only projects with a final report rating of at least 75 points out of 100 were included in the sample, as the aim of the research was to focus primarily on the most successful projects and to identify good project implementation practices. This selection made it possible to analyse projects that have been successfully implemented and can be considered examples of high-quality implementation.

The sample included 11 projects based on the criteria described above. Due to personnel changes in the organisation, it was not possible to include the implementers of two projects in the research, which is why a total of nine project teams were interviewed. These projects were implemented by seven different institutions – three VET Institutions, three companies offering continuing education, and one higher education institution.

When interpreting the research results, several limitations arising from the sampling principles and its size must be taken into consideration. Firstly, it was a targeted sample that included only projects with a final report rating of at least 75 points. As a result, seven projects with a lower rating were excluded from the analysis. Therefore, the results of the research primarily reflect the experiences of the most successful projects and do not allow for generalised conclusions to be drawn about problems, failures, or bottlenecks in a wider set of projects.

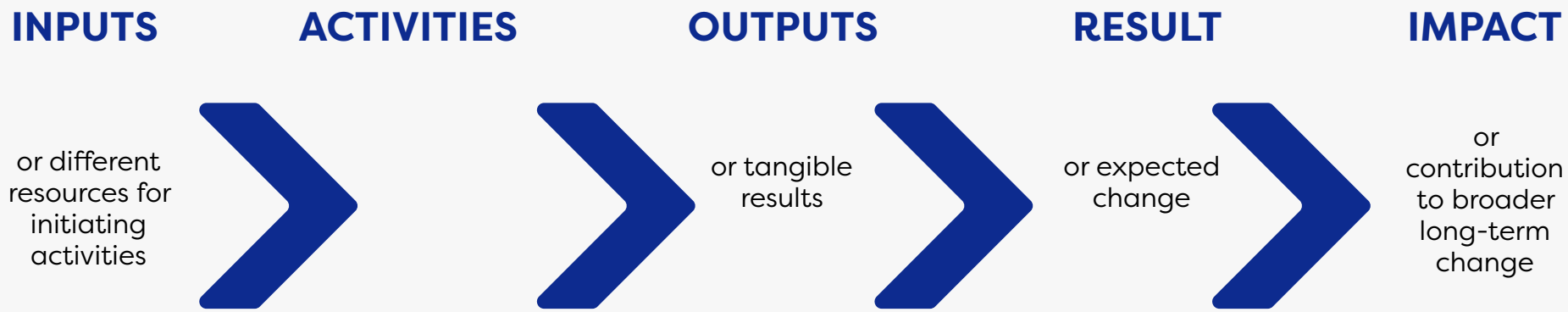
The research was conducted in accordance with the principles of research ethics and the requirements of Estonian research practice[1]. Anonymity was ensured for all participants, and it is not possible to link the responses to specific individuals or institutions based on the data collected. Participants were informed of the purpose of the research, how the data would be used, and their rights prior to participating in the research. Participation was voluntary, and participants could opt out of the research or choose not to answer questions at any time. The collected data was used only for research purposes and was stored in a secure digital environment that only researchers had access to. Once the research evaluation process was completed, the data was destroyed in a way that precludes its further use. In the design and conduct of the research, attention was paid to protecting the well-being of the participants and avoiding any potential psychological or social risks that could accompany participation.

[1]Estonian Research Council. (2017). Estonian Code of Conduct for Research Integrity Agreement: Estonian Code of Conduct_eng.pdf

BACKGROUND

The research sample included various cooperation projects carried out by different institutions, such as organisations offering professional in-service training for adults, VET Institutions, and universities. The cooperation projects carried out by the institutions were aimed at different fields of education, including both interdisciplinary projects and projects aimed more narrowly at the development of education in construction, services, health care, and other fields.

The impacts of these projects were assessed and analysed using the Theory of Change (ToC)[2]. The theory of change is a framework that explains how and why the desired change occurs as a result of a particular project, program, policy, or other intervention. It describes the logical chain from actions to the state of achieving results and impact, highlighting both the assumptions and contextual influences that make change possible.



[2] Stein, D., Valters, C. (2012). Understanding 'Theory of Change' in international development: a review of existing knowledge. JSRP1.SteinValtersPN

In the context of the research, the outputs developed through the project activities are considered as results. In the case of the projects covered by this research, they include, for example, practical green solutions – in the form of a novel natural storm water drainage facility, as well as curricular innovations and developments, new or further developed training courses, learning modules and new topics integrated into the training. In addition, the results also include the application of completely new technological solutions in the education and training process.

In the context of this research, 'impact' is defined as both the expected change within the institution and among stakeholders change (as defined in change theory), as well as broader long-term changes outside the institution that have been achieved through the project's activities and results. Therefore, impact is not a specific outcome or output developed by the project, but rather a change that has been achieved through the project's activities and outputs, both within the organisation and among its stakeholders, and as a contribution to broader long-term changes that may also be influenced by other factors.

MAIN RESULTS AND CONCLUSIONS OF THE RESEARCH

The research shows that the projects have significantly boosted institutional development, driving long-term, multi-level change.

At the institutional level, projects act as an engine for development, strengthening organisational capacity and helping to solve bottlenecks that could not have been addressed so quickly or extensively within the framework of other activities. The research shows that there was a significant shift in mindset towards more innovative and digital- based solutions in traditional fields of study or work. With the support of the projects, new digital technologies were introduced, (digital) infrastructure was modernised and learning processes were updated, thus increasing the digital capacity of institutions. The results of the projects were systematically integrated into curricula and training programmes, so that they did not remain in the background as separate activities, but became lasting solutions used by teachers, learners, and international partners alike. Cooperation networks expanded and international partnerships were strengthened. The reputation and visibility of institutions increased both in Estonia and abroad, enhancing their credibility among different target groups.

At the staff level, participation in projects had a particularly evident impact on professional development. This included the improvement of technical and professional skills, as well as the strengthening of self-confidence, the meaningfulness of work, and professional identity. Digital competencies were significantly developed, international communication and cooperation skills increased, problem-solving, reflection and intercultural communication competences improved, and the ability to take initiative rose. Staff competence increased in the field of project management, as well as pedagogical and technological skills. Participation in the projects increased the motivation and job satisfaction of the staff, as well as contributed to the growth of self-confidence. Practical experience played an important role, broadening the understanding of work processes, technologies, and professional standards. The projects were treated as an intensive professional development environment that highlighted both the current strengths and development needs of the staff and supported in-depth learning.

At the level of teaching and training, the projects led to extensive methodological and substantive innovation. Learning became more flexible, learner-centred, and more closely linked to working life. The introduction of digital solutions – including e-courses, video lectures, the Moodle environment, and various virtual tools – made it possible, for example, to plan learning in a way where theory is acquired in a digital environment and contact learning focuses on practical work, discussions and the consolidation of knowledge. Project learning and experiential learning became more commonplace, and teachers increasingly used collaborative teaching, integration of disciplines, and discussion-based learning. The autonomy

of learners increased, and their role changed from passive listeners to active participants in content creation and problem-solving. In several cases, the impact of the projects was described as a breakthrough in professional teaching, which helped to overcome previous methodological bottlenecks and bring the content of learning into better conformity with the actual demands of working life. With the support of the project, the learning environment was also updated – new digital technologies and devices were introduced, virtual learning environments were created, learning materials were enriched, and the growth of practical and experiential learning was supported.

From a broader perspective, the projects impacted the development of vocational education and the field of work. Awareness of innovative, evidence-based and sustainable solutions increased among the target groups, and the project fostered an understanding in several areas that the quality, safety and efficiency of work processes are more important than low-cost services. New solutions and learning materials helped create the preconditions for updating curricula and professional standards, strengthening the professionalism of specialties. The projects also impacted work roles: for example, in the field of healthcare, the responsibility and competence of assistants in the use of new equipment increased, which supports the renewal of work organisation and staff roles in the field. In some areas, the international visibility of Estonian VET increased, as project outcomes were recognised for their high-quality and innovativeness, and were widely adopted by international partners.

The results were disseminated through a series of diverse and combined channels, including digital environments, scientific articles, conferences, seminars, workshops, media coverage, and partner networks. Among these, word-of-mouth dissemination and direct human contact proved to be the most effective, as they made it possible to convey both practical examples and the real value of the project, and to present the developed results. While dissemination efforts were generally strong, participants also noted several challenges, such as the limited effectiveness of social media for specific topics, uneven contributions among partners, and the need for a more systematic strategic approach to dissemination.

The sustainability of project results was clearly perceived in the research. Institutions continue to actively use the materials and solutions developed after the end of the project, and have integrated them into their education and training curricula. Materials published in digital environments ensure their ongoing accessibility, regular use, and broader dissemination outside the organisation. Several new development activities and follow-up projects have been launched with the support of the projects, demonstrating that cooperation projects have a long-term, growing impact, rather than a one-off result. The partnerships formed during the projects have endured, leading to new opportunities for cooperation.

In conclusion, Erasmus+ cooperation projects have had a significant, multi-level impact that extends beyond individual activities and project periods. The projects have supported innovation and professional development, improved the quality of teaching and training, modernised specialties, and increased the attractiveness and credibility of vocational education, both nationally and internationally. The impact is long-lasting and gradually expanding, based on high-quality results, motivated teams, and strong partnerships.

RESULTS AND CONCLUSIONS OF THE RESEARCH

A. Impact at the level of the institution

All of the organisations that participated in the research pointed out that taking part in collaborative projects has had a significant impact on the development of the institutions that coordinated the projects, as well as on other institutions and the field in general. Although the positive impact is evident, it can be challenging to distinguish the impact of a particular project from that of the institution's other activities. Often, implemented projects complement an organisation's core activities and are driven by the institution's general development needs, meaning the project activities are closely intertwined with daily (development) activities. The achieved impact is therefore driven by both the project activities and the institution's everyday work. However, some institutions that participated in the research pointed out that, although the topics are also dealt with outside the project, the results and impact would not have been achieved without them.

> ***'I feel that we have wanted to solve things that would otherwise remain unsolved.' (I6)***

Projects act as a development engine within the organisations that implement them. Thus, their value lies not only in the direct results and impact of the projects themselves, but also in the broader development processes that they initiate and which continue within the institutions after the projects have ended.

Main perceived impacts at the institutional level

- Increase in the institution's capacity and innovativeness
- Implementation of new and innovative solutions
- Growth in the institution's digital capacity
- Achievement of the institution's overall development goals
- Increase in the institution's visibility and reputation at national and international levels
- Integration of project results into daily work
- Enhanced cooperation at the institution level and with national and international partners

The interviewees most often pointed out that implementing the projects contributed to the growth of the institution's overall capacity and innovation, boosted international and national cooperation and the emergence of, or participation in, partnership networks. The projects also led to new, innovative solutions being used in education or training.

Increase in the institution's capacity and innovativeness

Participation in projects strengthened the competence of the institution's staff in several areas, boosting the growth and development of the institution's capacity. For example, their project management and international cooperation skills, as well as pedagogical and professional competences were developed. Experience in project management and coordination increases the organisation's internal capacity to initiate and implement international projects in the future.

Several institutions also described growth in their innovation capacity, with one institution even highlighting a breakthrough in innovative thinking.

> ***'The traditional approach was replaced by the understanding that it is possible and necessary to apply modern, technology-based and economically justified solutions in classical fields as well. This shift in mindset was important for the development of the organisation, even if its impact was not felt uniformly across the school.' (I1)***

Growth of digital capabilities

Analysis of the interviews shows that the digital competencies of staff at almost institutions involved in the research were significantly improved by participating in the projects. The development of digital competencies among participating staff and the implementation of new (digital) technologies and digital tools had a positive impact on the growth of the overall digital capacity of the institutions. This development primarily manifested itself at three levels: the introduction of digital technologies and infrastructure; the modernisation of digital learning and working processes; and an increase in the overall strategic readiness and innovativeness of institutions. At the same time, it appears that the extent of the impact varied between different institutions, ranging from permanent changes to daily work process to the introduction of individual digital tools.

As a result of the projects, new digital technologies were introduced in the institutions. For example, a healthcare project introduced digital technology into the training of specialists, with this having become an integral part of the institution's daily operations. In some cases, the project also led to the renewal of direct digital infrastructure. For example, the decision was made to upgrade the technical equipment of the study rooms to support the introduction of modern digital solutions.

> ***'Well, for example, our management has now replaced all of those old interactive whiteboards with these large screens, which are more in line with these new technologies.' (I7)***

As a result of the projects, several institutions accelerated the use of artificial intelligence in the planning and implementation of education, trainings and project activities. In one case, the increase in the use of artificial intelligence in the implementation of differentiated and integrated learning implementation was also emphasised. Participation in the projects also significantly impacted the modernisation of the learning process through digitalisation. For example, innovative digital learning tools were introduced in a traditionally handicraft-oriented specialty, enabling learners to solve real work-related problems and simulate resource-intensive work processes in crop production. The focus was on introducing innovative teaching aids, which increased the school's visibility and added value to vocational education in the field.

More broadly, the use of digital learning materials increased in both teaching and various training programmes. In some cases, institutions moved more clearly towards a data-driven approach in developing learning materials and methodologies, using modern technologies to carry out evidence-based tests and analyses during the development process. The implementation of e-learning platforms and e-courses in teaching was also intensified, as was staff readiness to create additional e-learning resources.

> ***'This MOOC was definitely a novel thing that, like many of our colleagues has not been done. Well, it's becoming increasingly popular now, so to speak. The great thing about it is that you can basically learn whenever you have the time. I think this kind of use of a MOOC, is becoming more common.' (I3)***

Implementation of new and innovative solutions

The project brought several new solutions to the organisations in the form of its results. As the implemented projects are diverse and concern different fields of study, the new solutions and developments introduced are also varied. For example, the projects have supported the development of a novel nature-based stormwater drainage solution, updated and modernised curricula, and introduced new technologies in both education and training.

For example, a health care institution learnt to use a novel intraoral scanner with the help of the project, and trained all of its staff to use it in their work. The use of web-based programs and learning materials increased, and e-tests and digital feedback systems became more prevalent in training. Through the training offered by the training centre, other healthcare professionals can also learn how to use the device during their training. The novel tool is also used in the training of trainees from other countries, so the impact is by no means limited to one's own institution.

In the past, traditional education in the field of agriculture deliberately focused on modernisation and technological innovation. The specialty was developed in such a way that it would be competitive, meet the expectations of the labour market, and be innovative in its field.

With the support of the project and general developments, a leap forward has been made in vocational education in the service sector. The learning materials have been significantly updated, which would not have been possible to such an extent without the project. The visibility of the field has increased, both within the educational institution and more broadly. The project has also increased learners' interest in the field and supported the improvement of pedagogical staff.

'When we started the project, when we were writing, I basically had one teacher in the field, so to speak, and today there are three of them. The number of students in this field has increased. Well, I would even say it has increased by leaps and bounds. But the change has happened very quicky. I dare not think that it is now only thanks to this project. It would probably not be true, but it is a combination of things.' (I2)

Integrating project results into daily work

Almost all of the interviewees pointed out that the results developed within the framework of the projects were integrated into the institution's daily work – ensuring that they did not remain at the level of individual separate activities, but became part of the regular learning, training, or work processes. The outputs created in the projects (e.g. digital learning materials, practical instructions, physical demonstration objects, new ways of working or elements of the learning process) acquired a permanent value that institutions will continue to use even after the end of the project.

Several projects developed innovative learning materials, such as video-based materials, e-courses, guides, and field-specific digital learning tools, which are systematically applied in education and in-service training. The interviews revealed that these materials have been widely used in the daily work of both teachers and trainers.

Some projects created innovative online courses that were permanently integrated into the institution's curricula or training programmes. In the case of such courses, the interviewees emphasised that they are used not only by the members of the project team, but also by other staff, students and external partners, which significantly increases the sustainability of the project results.

> ***'That this MOOC is like included in subject courses and all students do it as part of a course in a subject.' (I3)***

Enhanced cooperation at the institution level and with national and international partners

The international partnership network was expanded as a result of international cooperation. Strengthening cooperation at the international level is one of the most frequently highlighted impacts. Cooperation with existing project partners was strengthened, and partner organisations or network members were added, including in fields of study where there was no international cooperation before. The implemented projects also brought about new forms of cooperation and increased the capacity of the institutions to operate internationally. For example, a health care institution that participated in the projects now cooperates with a foreign university, offering international students the opportunity to complete a professional internship at a clinic with modern equipment.

'At the moment, a very big benefit, like for our Latvian colleagues, is that they can cooperate with our organisation outside the project as well. For example, they have established such a cooperation that they have assistants from Latvia come and do their internship at our clinic because internships are a very big problem, that not all clinics want to offer students internships.' (I5)

Cooperation with national partners also increased with the support of the projects – for example, cooperation between educational institutions and private sector partners intensified, which creates a bridge for better linking the needs of education and the world of work. Cooperation with higher education institutions that play an important role in the field also intensified. In the case of some projects, the intensification of cooperation between the different structural units of the institution or between the team in general was also highlighted. Closer substantive cooperation creates an opportunity for new development activities and creates new formats and opportunities in learning activities, as well as contributes to increasing the impact of the project through expanding the scope of dissemination and follow-up activities.

'With this project, we also learned how to make sure that this project does not remain just a project. That we cooperated so much. First of all, we cooperated with the department of [name] at the university, so to speak, and then we actually cooperated with our partner [name], and actually with all the other partners as well.' (I3)

Increase in the visibility and reputation of the institution at national and international level

The reputation of the institutions and both national and international visibility in the field improved – several training organisations received orders from foreign countries and cooperation expanded beyond national borders. In some cases, the training offer was also extended domestically – e.g. to healthcare institutions. High-quality project results also added credibility to the institutions in the eyes of international parties.

'Well, to put it simply, we are now like a [training] centre and like clinics on a different level, on a completely different level.' (I5)

'So I think there has been personal growth as a company. Today, we are taken internationally, I dare say very seriously, that there is a very big role of Erasmus.' (I6)

The communication and marketing activities of the institution have also been strengthened with the support of the project results and experience, using the outputs successfully developed within the framework of the projects.

For smaller organisations, participation in international cooperation supports increasing their viability.

> ***'As any non-profit organisation is, which is based on enthusiasm. The implementation of the project gave me such a new breath and new vitality and a new way of being in the picture with my news and things, that it somehow brought us together more and gave more content to the organisation, and there were also more members.' (I4)***

Achievement of the institution's overall development goals

Several institutions point out that participation in the projects helped to meet the general development goals of the institution. For example, the staff of a health care institution points out that before initiating the project, they saw an important need to develop the digital competencies of the staff in their clinic and boost the implementation of digital technology. Projects based on the institution's development goals supported their achievement, helping to deliver the desired results. The professional development of staff was supported, and VET were modernised, which would not have been possible so quickly without the implementation of projects.

> ***'I have always said that the development of a school is actually about the development of the people in that school. That if these people do not develop, this school will not develop and without a doubt.' (I1)***

In one project, organisational development was perceived, first and foremost, as a change in the broader attitude of the entire educational institution. The understanding that modern technologies could and should be used in a traditionally handicraft-centred specialty was strengthened.

> ***'This project definitely helped to change this mindset at school. That [...] is not just handicrafts, [...] is not as our grandmothers did or as it has always been done. That [...] it is also possible to invent new things, and really not to use them for fun. But with a really deep thought, that it has an economic meaning, it has a teaching meaning. That in terms of shifting this way of thinking, of course, this project helped a lot.' (I1)***

Most of the interviewees stated that the impact of the implemented projects is long-term and does not manifest itself immediately. Thus, they see the potential to increase the impact in the future – for example, it was pointed out that awareness of innovative solutions in the field as a whole is low, which is why awareness is constantly being increased so that an increasing number of organisations would be able to implement innovative solutions in the future. It was also pointed out that even after the end of the project, the results will be actively disseminated, including at various international events, in order to bring the knowledge to a wider audience and thereby increase the impact of the project.

Looking back at the project implementation phase, all the interviewees stated that the implementation of the project has brought significantly more benefits than the resources invested in it. Although the teams have encountered various obstacles and complexities in the implementation of the projects, the results and benefits outweigh this.

The resources invested paid off many times over

B. Wider impact of projects

The project had an impact on the institution, and it was perceived that the projects have had a positive impact on a wider range of institutions, as well as indirectly contributing to the development of the field of VET. The results of the projects support sectoral development, a change in mindset and quality leaps. The projects have raised awareness of innovative, evidence-based, and sustainable solutions among target groups, including service providers, clients, and learners, and shaped the understanding that the quality, efficiency, and safety of services and work processes are more important than just low prices. The developed practical solutions and innovative learning materials have created preconditions for updating curricula and professional standards, thereby contributing to the development of competence-based vocational training that meets the needs of the labour market. The projects have also supported changes in work roles and professional identities, strengthening the role of mid-level specialists and increasing the raising the profile of the profession. Through the dissemination of results and international cooperation, Estonia‘s visibility and pioneering status have also increased in several areas, creating a basis for long-term positive changes in education, occupational health care, and the quality of services in general.

Thus, in the case of a project aimed at developing innovative environmental solutions, it is highlighted that the awareness of the target group about innovative green solutions has been increased through the practical demonstration object and that the awareness of customers will continue to be increased in the future, so that the solutions will be used more widely in the future. Preconditions have also been created for updating curricula and developing professional standards – so that specialists working in the field would be able to apply the knowledge in the future as well.

> ***'That in fact, [name of the institution] is also updating its professional standards, that it needs to be modernised, and that it is precisely these nature-based solutions, including stormwater solutions and everything else, that need to be written in.' (I4)***

In the field of service, the projects have raised awareness among the target group about the possibilities and importance of ergonomics-centred cleaning services. With support before and after the project, the target group's mindset will also change, shifting the focus from the price to the quality of the service.

> ***'I really believe that this is crucial knowledge because, in our field, we often want to offer something cheap to the customer, but at the same time we demand stupid things. The main thing is that someone washes with a bucket; never mind if it's dirty.' (I6)***

With an evidence-based approach, taking samples from surfaces, it was found that in many cases, after cleaning, the surfaces are dirtier than before. Here, it is important to increase the awareness of the target group, including the person ordering the service, about effective cleaning. Both during the implementation of the project, after it, and with the support of follow-up projects, they are actively engaged in shaping the way of thinking.

> ***'We take it as a whole, that we don't focus on how to provide a service now, what accessories are best to use, but like that, well, cleaning as a whole that it's very unique. This has really given our company a lot, as we are a training company. In addition, I could say that as a result, Estonia is still at the forefront of the world in terms of cleaning awareness, that while we used to feel that we have a lot to learn from others, now it's more that we understand that we just have so much awareness that others have so much to learn from us.' (I6)***

The implementation of the projects has also helped to increase the quality of vocational education in the field through the development of innovative learning materials.

> ***'I would like to believe that the teaching of cleaning services in Estonian vocational schools has become better thanks to these projects.' (I6)***

VET Institutions in Estonia, as well as in the partner country, Finland, have adopted the interactive learning materials developed as a result of the project – including educational videos, complex learning materials, and self-audit tests.

The development and dissemination of project results will aim to make an important contribution to reducing the number of occupational diseases among cleaners and thereby supporting a wider positive change in the field of occupational safety and health.

'We played with the numbers we could get our hands on. How much could we actually influence people's lives? Well, the French had statistics here later on how much a musculoskeletal system costs /.../ to the state, for example. Now the only thing is to be able to use them [materials], so that we will make enormous efforts even now, that the materials are still there.' (I6)

Thanks to the project, innovative tools are being used in the education and training of health care assistants, thereby giving them an increasingly important role in their work that includes using and maintaining modern technology. This is seen as a shift in the content of the job role of the position – in the future, assistants will perform the role of middle-level specialists with the support of modern training, supporting the work of doctors more than before.

'But if we say that in a broader sense, it is the idea that it an assistant is not what it used to be, the one who just gives the doctor some kind of instrument and hopes that the doctor can do it, the doctor checks the doctor does, and so on. It's a completely different role, and that's the idea, and that's what our high-level healthcare is, that we currently have a big role for mid-level specialists, and it is related to the fact that there are fewer doctors and a doctor is someone who can have several assistants and he or she divides these responsibilities between them so that they can help the doctors very effectively, but these assistants must still be competent. Therefore, if they do not have the competencies and skills, they cannot help the doctor.' (I5)

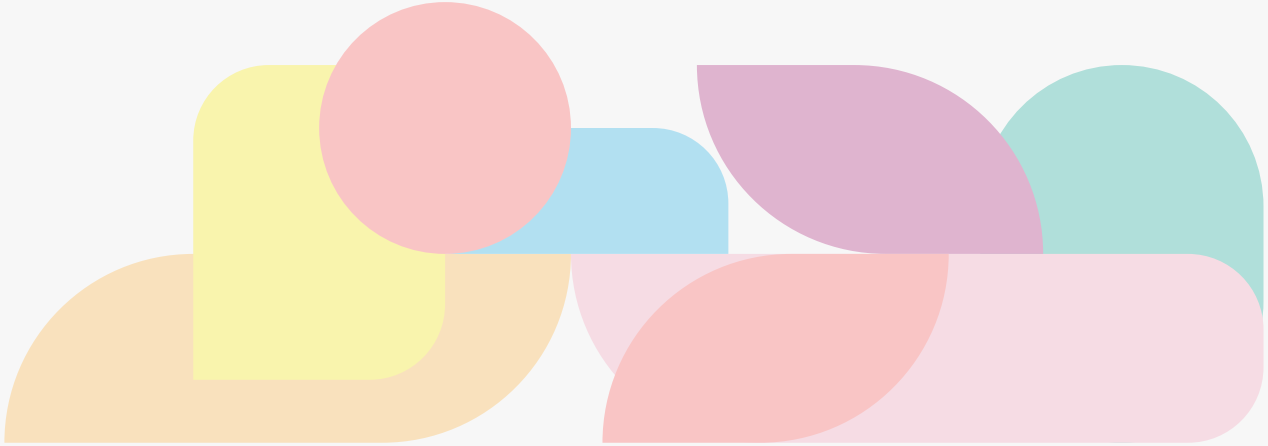
The cooperation project in the field of health care saw two Estonian higher education institutions develop closer ties, creating the basis for more systematic cooperation. The cooperation included development, learning, and dissemination activities, and increased mutual trust and the willingness to cooperate. The partner institutions actively contributed to disseminating the project's results. For example, the MOOC course and instructional materials developed within the framework of the project reached wider target groups, including practicing specialists, through professional networks. This increased the visibility and impact of the project beyond the direct project partners. The online course was integrated into learning at the partner university as well as in several foreign higher education institutions, and adapted and developed according to their needs.

'They [name of the partner institution] have now developed this [course] further, so to speak, within themselves.' (I3)

C. Impact on staff development

The analysis of the interviews shows that participation in cooperation projects supports the development of staff' professional competencies in a comprehensive and multi-level manner. Professional development takes place through practical experience, reflection, international comparison, and the adoption of new ways of thinking and roles, laying the foundation for both individual professional growth and the strengthening of organisational competence. Participation in Erasmus+ cooperation projects strengthened the key competences of lifelong learning for staff in a multifaceted and practical way. Linguistic and digital competences, skills for international cooperation and intercultural communication, learning skills and reflective thinking, as well as initiative and problem-solving skills developed.

Learning took place primarily through purposeful activities, practical exercises and international experiences, which helped to overcome hesitations and build self-confidence in international work. Digital skills expanded to include both technical skills and the conscious and purposeful use of digital environments, including artificial intelligence tools. Project work improved readiness to react to change and manage difficult situations, and developed teamwork and collaboration capabilities, which supported learning from multiple sources and helped plan sustainable joint activities. The analysis shows that participation in cooperation projects supports the development of staff' self-relevant competencies in a comprehensive way, increasing motivation, job satisfaction, self-confidence, and professional commitment. Project experience gives staff a new impulse, strengthens their understanding of the meaningfulness of their work, and creates a basis for continued development and active contribution to the organisation and the field at large.



Main perceived impacts at the staff level

Impact on the development of professional competences

- Development of pedagogical skills
- Development of project management skills
- Development of technical and technological skills
- Development of skills in the use of new devices
- Development of skills in the use of digital solutions
- Purposeful integration of digital solutions into work processes
- Comparison of international practices
- Development of evidence-based knowledge
- Acknowledging competence gaps

Impact on the development of key competences for lifelong learning

- Development of language competence
- Development of digital competence
- Development of skills in cooperation, including international cooperation Development of cultural competence
- Development of learning to learn skills
- Increased initiative
- Development of problem-solving skills Development of teamwork skills
- Development of attitude skills

Impact on the development of self-relevant competencies

- Increase in motivation
- Increase in the meaningfulness of work
- Increase in self-confidence
- Strengthening professional identity
- Increase in job satisfaction
- Increase in mental and emotional well-being
- Recognition of one's professional value
- Development of flexibility and adaptability
- The development of self-regulation

Development of professional competencies

Participation in cooperation projects supported the development of staff' professional competencies through diverse and essentially deep learning processes. The analysis shows that professional development was not limited to the acquisition of new knowledge or technical skills, but also included a change in perceptions of one's own field, innovation, work practices,

and professional role. Participation in the projects was described as a continuous learning process that was closely related to practical experimentation, reflection on international experiences, and the comparison of different practices. Several interviewees pointed out that participating in the projects led them to rethink their current ways of working and gave them the courage to move on from conventional solutions. For example, an evidence-based approach was adopted in the development of cleaning and cleaning methodologies, and teaching materials.

Intensive development of professional competencies took place simultaneously with the management of the project

'In fact, these two years of project management were not just project management, but it was also actually two years of intensive learning in the whole field.' (I1)

'It was nice to see that if a person is really already, I can't even imagine for how long... has been active in the field of cleaning and training, and when their eyes are opened a little bit, wait, well, I've been teaching this thing like this all along, but I haven't even thought about whether it will be cleaned or not. Well, it's nice to see that when that light comes on, it's in our own team as well as in the project partners.' (I6)

'And certainly also, well, actually the growth of professionalism and professional contacts and professional knowledge and skills in this project was certainly that there is no doubt here. That effect is definitely there.' (I2)

The development of professional and digital competences was also clearly manifested in projects related to the introduction of technological and digital solutions. In projects aimed at automation and the development of technological systems, knowledge of the operation and management of systems was acquired that experienced staff did not have before. The development of digital competences was not limited to learning how to use individual devices, but included a broader understanding of the purposeful implementation and integration of digital solutions into work processes. Staff described how the perception of the role of digital tools changed and technology became a conscious tool for increasing the quality and efficiency of work, not just an addition to existing practices.

'I would also add that these projects laid a strong foundation for the development of digital skills in general.' (I5)

'The other three teachers we had, had been in the field before and for a very long time, but they didn't really have the kind of

technology and such so-called automation competence. On the one hand, they were in the role of experts, but on the other hand, they were also in the role of learners. Where they actually got to know the whole system and today, well, when I watch them from the sidelines, they are actually much more confident, and well, they know about it.' (I1)

'I'm learning very actively when I'm trying to find new solutions and make these digital solutions work for my company, digital skills like that... All of our internship supervisors will also participate. That if we bring some new technology, they teach it, learn it and then teach it later.' (I5)

In several interviews, the development of professional competencies through very specific practical skills was highlighted. Examples mentioned included the design and implementation of nature-based stormwater solutions, including the design of flow-through rain beds, detailed planning of materials, and the combination of aesthetic and functional solutions. The acquisition of practical experience under the guidance of international experts was also emphasised, which helped to combine theoretical knowledge and practical implementation. It was also important to be aware of one's own competence gaps, for example, in knowledge of vegetation, dealing with domestic violence, automated management of protected areas or in other areas related to the project. This, in turn, triggered further in-depth learning and professional development.

'Well, I can say that I definitely benefited from it, that even though I have experience more like these large public objects. But what if there is a private object somewhere, because, well, I'm also developing, so I try to move forward... if there is an analogous example, then I have at least one experience of how we carried it out.' (I4)

'It took me back to the university. Now I'm back in doctoral studies, and from what I saw, I've actually been aware since well, since the beginning of time, that my weak point is vegetation and now I'm basically developing myself in that direction.' (I4) 'It certainly [participating in the project] influenced it.' (I4)

In the projects in the field of health care and technology, professional development manifested itself in the rapid and responsible introduction of new equipment and working methods. The interviews show that the skills acquired during the project for the safe use and maintenance of modern medical devices, such as intraoral scanners and 3D X-rays, were immediately applied in daily clinical work. The role of staff expands from passive use of equipment to maintenance, troubleshooting and guidance of colleagues, which increases responsibility and strengthens the organisation's internal competence in the implementation of new technologies.

'When they went to clinics, they knew what a scanner is, how to use it, and they already managed to do it. Yes, they are probably responsible for this maintenance as well as for the maintenance of new technologies,' (I5)

The development of professional competencies was also closely related to the development of pedagogical skills. The creation of learning materials, including e-courses and educational films, required delving into the content of professional studies, structuring it, and adapting it to different target groups and countries. Participation in the projects also increased the ability to use artificial intelligence and digital learning environments in teaching. The development of Moodle courses and open-access e-courses supported teachers' understanding of the digital environment as a comprehensive learning environment that includes communication, assessment and support for learners in addition to learning materials. The interviews show that during the project, the ability to consciously reflect on and develop one's pedagogical practice developed, which in turn increased professional self-awareness and confidence in acting as a trainer and expert.

> ***'Actually, the development of these materials within the framework of this project was mistaken, and such professional skills or competencies certainly increased.' (I2)***

> ***'But it actually means that our teachers had to get to know Moodle better. Creating a course in Moodle is still a whole bunch of stages and steps. And that's what the teachers had to go through themselves... One is that I do this course, but then I actually use it as a communication environment, as an assessment environment. So, well, the motivation and ability to teach in this environment has definitely grown from there.' (I2)***

> ***'That it also taught us a lot about the use of MOOCs. That well, it's not just that you make this MOOC and put it there, but actually he taught us, it could be that it actually goes, well, human resources go anyway, because well, someone has to answer the questions that come out of it, someone has to answer all these things, well, so to speak, when there is something, someone didn't get into the MOOC or whatever. Or some, well, these tasks didn't work as they should. That I still had to deal with it... that this MOOC is not just about putting in and that's it, but that it actually requires quite a lot of work... That kind of gave this digital wisdom.' (I3)***

> ***'But now that you're making these educational films with four different countries. And if they are now, we can look differently, understand and they should be .. They can be used everywhere, so it was quite an interesting challenge then. And then how much does someone contribute at the right moment to think about it now.' (I6)***

In addition, participation in cooperation projects supported the development of professional competencies in the field of management and project work. The staff gained experience in planning project activities, coordinating cooperation between partners, organising international meetings and events, and managing projects administratively, including following

schedules, budgets and rules. In retrospect, the project management process was said to have developed a deeper understanding of the importance of collaboration, timing, and flexibility, as well as highlighting the difficulty of anticipating all impacts and needs in the early stages of a project. In some cases, managing a collaborative project was a first-time learning experience for staff, but at the same time a very valuable learning experience, which increased the organisation's ability to initiate and implement international projects and expanded the professional responsibilities of staff.

> ***'Well, definitely every project that is managed, of course there is something to learn from it, well, a process or certain so-called methods on how to work better with people in this context, in achieving their goals.' (I2)***

> ***'Organisation and management skills have developed. That it has really given such interesting challenges. How to explain the logic of the project at all, how to make it clear to the project partners that what are our goals, how will we achieve them, in what time frame will we achieve them, what are someone's tasks. Also difficult decisions, that if the project partner cannot cope with their activities, whether we will continue or not, or how to make them like decisions.' (I6)***

Development of key competences for the lifelong learning of staff

Participation in Erasmus+ cooperation projects supported the development of key competences in lifelong learning for staff on a broad basis. The development included the strengthening of language and digital competences, the growth of skills in international cooperation and intercultural communication, the development of learning skills and reflective thinking, and an increase in initiative and problem-solving skills. The development of competencies took place primarily through purposeful activities and practical practice. For example, the need to use a foreign language in international communication and the creation of learning materials in English helped the participants to develop their working language skills and overcome initial hesitations, which in turn increased professional communication courage and readiness to act in an international context.

During the project, the key competences of the participants were developed

We learned how to find a common language with partners

'I'm sure I have a lot of language skills as well, so when I think about my many years again. Then both current and former colleagues, or you also think that it is purely language skills.' (I6)

The development of digital competences manifested itself at the level of technical skills as well as usage habits and awareness. The projects provided a wide range of practical skills, including the ability to create and manage e-learning courses, video editing, the use of WordPress plugins, the implementation of QR codes, and the generation of AI-based visuals. The acquisition of these skills allowed staff to use digital environments more consciously for learning, teaching, assessment, and other tasks. The interviews show that digital tools were organically integrated into daily work and their use supported both increased work efficiency and increased self-confidence.

'And in addition, I think we have gained all kinds of digital competencies. I don't know about the invention of some kind of plugins for Wordpress - use of this admin software. Well, all sorts of little things that I probably wouldn't do otherwise. Or really, editing films and creating scripts.' (I6)

As a result of participating in the projects, international cooperation skills and intercultural competence also developed significantly. The partners' visits and joint activities made it possible to see how the same topics are addressed in different countries and from different perspectives. This helped us to understand the importance of regular, informed communication, and to develop the capacity to adapt learning content to different cultural and legal conditions. At the same time, the professional network expanded and several contacts developed into permanent cooperation and the initiation of new projects, thereby strengthening the learning network of both organisations and individuals in the long term.

'I think they also learned a lot. First of all, the fact that the laws are very different in other countries. And that it can be very different, so to speak, the whole topic is still taken. That I think maybe that's what we just learned, that how actually it's very common to find a language. To find the things that are similar and then teach them.' (I3)

'But it may be like an understanding that it is precisely this cultural background. Well, we seem to be talking about the same thing, but at the same time, when we start to get more specific, it turns out that we are not really talking about the same thing. We talk about it from different angles, people just understand it differently.' (I6)

The development of learning skills and reflective thinking was visible in the acquisition of new technologies as well as in frequent self-analysis. The staff became aware of their development needs and planned further self-development, including deepening their academic knowledge. The role of the project was often described as a catalyst that formed the habit

of being constantly open to new opportunities and adapting activities for the purpose of learning. Such reflection also supported the growth of initiative. Several participants highlighted the generation of ideas and the readiness to test new solutions and apply what they have learned in new contexts.

The key skills of lifelong learning also included the development of problem-solving and crisis management capabilities, as well as coping with unexpected situations. The cyclical design of the project, the uncertainty of the initial period and learning through mistakes forced the staff to develop flexibility, self-regulation, and the ability to react to unexpected situations. Retuning activities and rethinking the content based on feedback became a common practice, which increased the ability of teachers and specialists to guide learners and adapt learning processes according to actual needs.

> ***'Is it still managing very stupid project situations. Well, all sorts of things have happened here, also all kinds of solutions to crisis situations.' (I6)***

Teamwork, cooperation and communication skills were strengthened both within the organisation and when communicating with partners. Working in teams with a changing composition, dividing tasks and ensuring continuity in the event of a change of staff required conscious cooperation and sharing of responsibility. Co-creation practices made it possible to combine different perspectives and competencies, which in turn facilitated learning from multiple sources and increased the ability to plan joint activities so that they would support learning outcomes and the sustainability of projects.

> ***'Teamwork became stronger. I noticed that, if anything, something went wrong during the projects, that teamwork played a very big role.' (I5)***

> ***'I get a very good feeling that emotionally, that this togetherness and I can discuss these problems with people from another country and communicate with them and also introduce Estonian culture here, for example, if they have such questions, we also talk about it a lot.' (I5)***

Development of self-relevant competencies

Participation in collaborative projects had a significant impact on staff' motivation, self- confidence, professional identity, job satisfaction, and mental well-being. The analysis of the interviews shows that participation in projects was perceived as an opportunity to contribute to meaningful activities that offered both mental satisfaction and emotional value. Staff described project activities as something that 'makes the eyes shine', emphasising that learning, development, and working towards a common goal had a strong motivating effect and increased job satisfaction.

The project made my eyes shine

'That it's nice to have the opportunity to do the things that make your eyes shine.' (I1)

'I'm sure it gives you confidence, courage and well, you can say at some point that and that's what (name) is, we've done it. That may be that the initial self-esteem may not have been so high. That it is such an increase in the confidence of the staff.' (I2)

'In that sense, you can exchange these professional experiences. You can now get here like with people who have experienced a lot, now you really have that motivation, enthusiasm, knowledge that well, otherwise you wouldn't be able to do it.' (I6)

Based on several interviews, participation in projects strengthened professional self-realisation and a sense of identity. For example, situations were described where an staff developed into a specialist with very specific and rare expertise as a result of project work, being one of the few experts in Estonia with the relevant competence. Such experiences confirmed to the staff their professional value and gave them a sense that they were taken seriously in the field, including in academic and international contexts. The increase in self-confidence was not only related to the acquisition of new skills, but also to the fact that they were able to apply and develop their knowledge and experience in practice.

'And in the end, I got to the point where I probably dare to say today that there are not very many people in Estonia who know or know. But now I would like to hope that I am one of them.' (I1)

'It is just that you can, it brings together people from different countries and that you get, well, a little more freshness. That I really have this to say with our team, that it's like everything is new and fundamental now, but there's not always some kind of little candy that somehow makes you look at some things in a different way, that it still kind of brings a little freshness.' (I6)

The projects also supported personal development and a focus on self-development. The interviews show that the changes were not perceived as sudden leaps, but as a natural and valuable part of long-term professional growth. Managing and implementing projects provided learning experiences in taking responsibility, managing processes, and collaborating even in vague or difficult situations. The accelerated development of new staff was highlighted in particular, where great responsibility and intensive project work created a strong learning experience and supported the development of self-confidence.

'Let's say, well, those who were involved in the project were quite happy that they used it. I understand that my colleagues were, were happy with this project, that they were happy that this project took place, that they could learn it, that they could contribute and could develop themselves.' (I7)

'I'm very happy that I was involved in this project and that I was able to start a new project again and now be, that for me it's a very creative self-realisation and very exciting and, well, with my heart and the necessary things.' (I4)

The increase in motivation and meaningfulness of work was evident throughout. Staff felt that their contribution to the projects was meaningful and socially relevant, especially in cases where the results of the project supported people or raised awareness in important thematic areas. The knowledge that the project will create real results already during implementation and that its impact will reach a wider target group strengthened commitment and intrinsic motivation. Positive feedback, a large number of participants, and a wide use of project results, confirmed to the staff their ability to develop and implement effective and high-quality solutions.

'I think it was more like that, to make our eyes shine, because we still worked quite a lot on it. And we really tried to find that resonance.' (I3)

'That it was like that gave us a lot of motivation. Well, you know that this project, first of all, something will come up during the project. But you know that you're contributing, so to speak, to the fact that maybe it's better now. I think that's a good motivator.' (I3)

The experience of recognition played an important role in the development of personal competencies. The positive reception and visibility of the project results had a motivating effect on the staff, increasing satisfaction and professional self-esteem. Being recognised and valued for one's work was perceived as an important confirmation that the time and energy invested were justified, which in turn increased the readiness to initiate new projects and share experiences with others.

'People were actually very positively surprised and very happy that we received such recognition. That we felt that, well, that our work has also been well viewed and well received.' (I3)

Self-confidence also increased when operating in an international context. The staff described how the initial uncertainty about international meetings, presentations, and cooperation was gradually replaced by a sense of security and readiness to actively contribute. Operating in an international environment, including the use of AI-based presentation tools, increased courage and reduced the need for separate motivation. At the same time, the sense of team cohesion strengthened, and project activities also had a unifying effect within the organisation.

We are more confident in an international environment

'This is the experience of international cooperation in this project. So let's not forget that every ... Being outside of your usual environment, it expands your knowledge and your senses, because you leave your sanctuary, this environment, somewhere else, that's where the stress arises and you, you look at things from a slightly different angle.' (I7)

Another important aspect was the increase in emotional well-being and mental resilience. The joint activities and change of environment that accompanied the projects provided an alternative to regular work and supported mental health. Participation in the projects also fostered flexibility, adaptability, and self-regulation, as staff had to cope with stressful situations, problems, and unexpected changes. Going through difficult situations and learning from them also strengthened my faith in my ability to manage complex processes in the future.

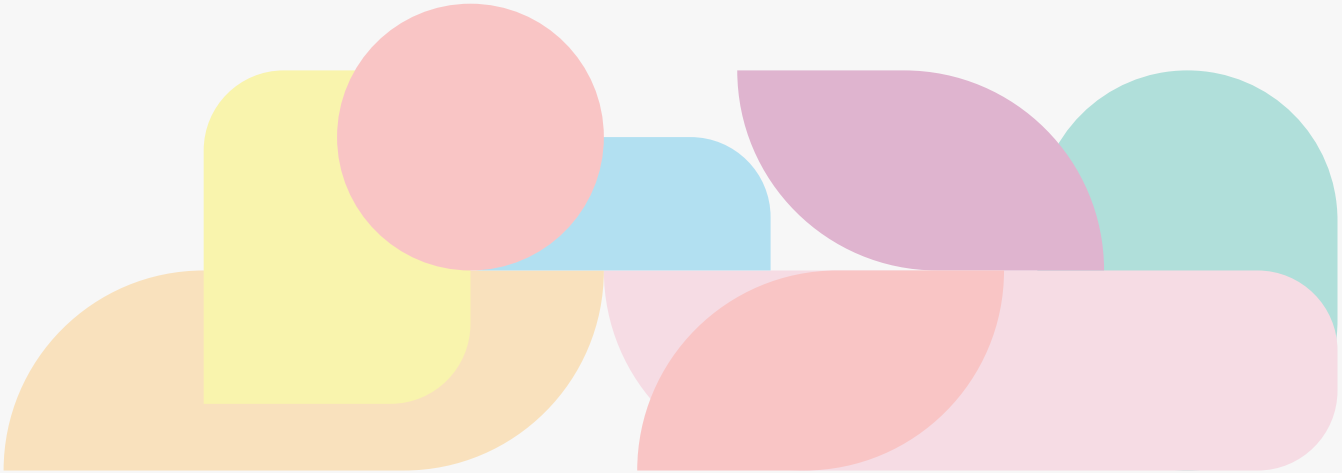
'This is a difficult period for people right now, that this mental health is a bit ruined right now and when we all meet, then on the topic that we learn together, discuss, talk, go out somewhere, that we still have such wells as events, that we are together, when the training is over..., that it gives us joy, it gives us emotion, That we can rejoice that our life is still good and we can be together and as a part of someone else. They said that these were such happy days in my life.' (I5)

'It's very, very creative work and very emotionally important for us. We have the opportunity to benefit more people here, like much, much more people, and I think just like Erasmus projects provide that opportunity.' (I5)

D. Impact on teaching and training

The interviews revealed that the collaborative projects brought about extensive and interrelated changes in teaching, learning, and training. Teaching became more up-to-date and flexible, as the content of learning was better aligned with the needs of working life and technological development, and the use of digital solutions, hybrid learning, and project - based approaches expanded. This, in turn, supported the development of a learner-centred and supervised teaching approach, increased the autonomy of learners, and strengthened the links between theory and practice. Learning became more active and collaborative, learners' commitment, self-direction, and the quality of learning outcomes improved, and the share of practical and experiential learning increased. At the same time, the learning environment and materials were updated both digitally and physically, the use of multilingual and reusable learning materials expanded, and access to modern technological equipment improved.

The projects of educational institutions also gave impetus to the renewal of teaching methods and assessment practices, the strengthening of cooperation between teachers, and the conscious application of artificial intelligence in the planning and differentiation of learning. In terms of curricula, cooperation projects supported the updating of content and the integration of new modules and e-courses, making them more relevant to the needs of working life. The capacity of institutions providing training providers also increased, as did their visibility and reliability, both nationally and internationally. All in all, the cooperation projects impacted teaching and training in several ways, laying the foundation for sustainable, high- quality development even after projects ended.



Main perceived impacts on education and training

Impact on learning and training

- Modernisation of education/training
- The development of collaborative teaching Development of the content of education/trainings
- Increased evidence-based approach to the content of learning/training and the creation of materials
- Increase in the use of AI tools in education and training
- Increase in flexibility
- Increase in learner engagement
- The evolution of the use of e-learning and hybrid learning Improvement of the organisation of education
- Strengthening the learner-centred approach Expanding the possibilities of training offer Increase in the visibility of training

Impact on teaching methodology

- Introduction of new and diverse teaching methodologies
- Expansion of project-based learning
- Expansion of experiential learning

Impact on the learning environment

- Renewal and diversification of learning materials and tools
- Introduction of new (digital) technological solutions

Impact on teaching and training

The project was a breakthrough for professional studies, with cooperation projects bringing extensive, systematic, and substantive changes to teaching and training. The interviews revealed that the projects prompted the updating of the content of learning and in many cases shifted the emphasis to work-based and technology-based solutions. This strengthened the coherence of learning with practice. In the case of one project, which focused on the school's main speciality and which responded to a clearly perceived gap in teaching, the participants even described it as a professional breakthrough. The learning content was updated and the teaching moved away from the traditional approach, replacing it with modern, technology-based solutions.

' [...] specialty and it was somewhat like that, well, a moment of upheaval. That we will not just continue to teach in the way we have always done. And now, of course, the impact of this project is much greater than just cooperation with [name of partner], because it started to directly affect the content of the learning as well as the methodology, the teaching in general. I still estimate this impact to be very high. So, considering that it concerned our main specialty - because we had a direct problem there. We saw that there is a big gap in teaching in this particular area. Then I feel that this project went to the right place.' (I1)

Methodically, the effect manifested itself in several ways. Intensive joint teaching by teachers from different backgrounds made it possible to combine in-depth knowledge and a pedagogical approach. This supported professional learning between teachers and offered learners a more holistic view of the subject. Collaborative teaching promoted mutual learning between teachers and gave learners a more diverse and holistic view of the topic at hand, making teaching more meaningful and flexible.

The project brought about a breakthrough within a specific field of study

'Actually, we did this with the other teacher who participated in the project. So, we actually did tandem learning, and it turned out well.'(I1)

'There was certainly a lot of co-teaching, and within those courses there were also certain modules that were delivered together with other teachers as integrated learning.' (I2)

The expansion of digital-based and blended learning as a result of the project was one of the clearest effects on teaching. The wider adoption of the e-learning environment, digital solutions, and hybrid learning moved theory to a greater extent into the digital environment, while face-to-face learning focused on practical work in an authentic work environment. This organisation of learning made teaching more flexible and gave teachers the opportunity to choose the methodology according to the level and needs of the learners. In the interviews, it was pointed out that the role of lectures decreased and teaching became more instructional and supportive, which fit well with the profile of adult learners and contributed to the increase in the number of learners in the field.

> ***'But definitely, yes, we have the fifth level in basic education, so to speak. And this means that these materials are definitely used, they are available in Moodle. And then it's an opportunity, so to speak, to combine this other type of course with on-site, well, practical activities, or lecture activities or seminars. It certainly gives a lot of flexibility to the teacher. So it has definitely made teaching more flexible, and I think it has definitely contributed to the increase in the number of our students in this field. Because it suits the learners, this is the approach.' (I2)***

Project-based and experiential learning directly linked theory to working life. The knowledge acquired in the e-courses was applied in practical work and workplace-based learning situations, which strengthened the professional readiness of the learners and increased the meaningfulness of the learning outcomes.

> ***'That it can't be, I can't say that now somehow under the influence of the project, but already in parallel, the teachers kind of came up with an idea that could be called project-based learning or project-based learning/..../And then they say so, actually say so, they are looking for learning assignments in the city/.../So to speak, real life experience and that's how they really go to different places/..../But as a methodology, it's also completely new. I don't know if it's used anywhere.' (I2)***

The interviews emphasised the development of learner-centred teaching that supports independent learning. Learners' autonomy increased as the hybrid structure supported self- management, allowing learners to choose their own pace and schedule. It also created online learning environments and communities, which increased engagement and course completion.

Learners' autonomy and self-management increased

'In terms of teaching. However, in this sense, at least in my own vision, it has given the learners more of the role of learners, this independence, to develop and grow self-leadership. That this side has definitely grown in my experience.' (I1)

According to one interview, it was a new approach for the school. The changes in teaching were due to the wider use of e-learning, which was related to the introduction of e-learning materials created as a result of the project. For example, both the Estonian and English versions of the open access e-course were introduced, the number of learners and the results of which exceeded expectations. The e-course became an important learning material that was used both in teaching learners and in training working specialists. Through the project, teachers received new ideas for teaching in a digital environment, designing assignments and implementing hybrid learning, and the project itself became a good example that was also used as a case in project management learning.

'I think maybe also that it actually showed that these so-called, video lectures are also very good for learning. Because, well, we were also told that the feedback also showed that they really liked the fact that they could somehow listen, that they didn't just have to read. That the fact that it was in the form of a video, they really liked it and they also liked the fact that you were right away, you had the video and then you could do your test right away. If this test was done, they had two opportunities to take each test. That then it was also like, well, maybe you didn't listen the first time and then you listened again and then, as it were, you still took the test. That it was also said that actually it was twice, taking the test was very good, it was like feedback from these students. And, we made a handbook. That if you don't can't take the MOOC course, then the handbook actually has all this information. Plus the videos that are actually up on YouTube, the videos of this MOOC.' (I3)

The introduction of artificial intelligence tools as a result of the project influenced the way learning was planned. Artificial intelligence began to be used in the preparation of lesson plans, the selection of methodologies, the temporal structuring of learning activities, and the analysis of learning situations. This enabled teachers to design their teaching more consciously, taking into account the goals, target group, specifics, and volume of learning. AI was also used to differentiate learning and tailor it to accommodate learners' different levels, experiences, and linguistic backgrounds. It was noted that this approach promoted integrated learning and increased learner engagement, including among those who speak other languages.

The increased use of AI led to greater learner activity and engagement

'That it's so interesting, well, that's how interesting this ordinary class came out, because, for example, he suggests that I take a break for 10 minutes, that you do this, that, because he prompts you to plan an hour, 90 minutes, the topics are, for

example, vegetables and a 10- minute interesting exercise break. And then he offers you these things, and for example, you can put that, I want it to be for a larger audience, these students, adults, and so on. And then he kind of offers you, then you can choose what you need.' (I7)

The interviews revealed that cooperation projects primarily strengthened learner-centred and active learning. Discussion-based and collaborative teaching methods began to be used more consciously in teaching, where learners were given greater responsibility for their learning and were guided to look for solutions together. Group work, discussions, and problem-solving tasks allowed learners to construct knowledge together and learn from each other, using the group's potential. This was treated as a clear distinction from previous practice, and the interviews revealed that this approach supported deeper engagement and more active learning among learners.

Active learning facilitated the construction of knowledge

'But the idea was that since these learning materials are just like in the Moodle environment, this is not always the place where we have to come together in the classroom, as it has traditionally been. That we rather designed it in such a way that they could get acquainted with these materials beforehand, so to speak, within the framework of e-learning, then go through the assignments there, and then we came to the classroom either on the same day or the next day. To keep this thing fresh and through such discussions and discussion methods, we rather consolidated this knowledge. That and we also asked for this feedback. What remained incomprehensible was whether something needed to be repeated. And then, rather than answering the questions that arose or the problems that arose there, but letting them go through the discussions and find the answers. Well, like we used the potential of the group, that it was.' (I1)

The deepening of the learner-centred approach made learning more flexible and autonomous. The use of hybrid learning and the e-course gave learners the opportunity to choose a time and pace that suited them, which supported the development of self-management. The interviews revealed that learners now perceived their role in the learning process as more active than before. Consequently, the teacher's role shifted from that of a transmitter of knowledge to that of a learning process guide. Such a change affected learning as a whole, as learners had to take greater responsibility for both planning learning and achieving results. Learning in a digital environment turned out to be suitable and motivating for the learners. The design of e-learning made it possible to acquire the learning material through video lectures, which were highly appreciated by the learners, as it was possible to listen to the material and then immediately consolidate the knowledge through tests. The possibility of taking the tests repeatedly supported the individualisation of learning

and self-control. The interviews revealed that the methodology used met the needs of the different target groups and ensured learning was smooth and consistent. Opportunities were created for learners to communicate, discuss and share experiences, which encouraged reflection and learning from each other. This encouraged reflection and learning from each other, reducing the sense of isolation that can accompany learning. The interviews revealed that this approach also helped a sense of community develop among learners in online learning, which in turn supported their commitment to and completion of the course.

'Actually, we also tried to do this in the MOOC so that the students would have communication with each other, so to speak. So that it's not just that everyone at their computer, so to speak, refers to putting something in front of them. We still had forums where we wrote things. We had forums where we could say so, then every week there was a question that everyone could answer. And also just that the first thing you came in as soon as you came in was that please go to the forum, write who you are, where you come from and why you are participating in this course, for example.' (I3)

It was also reflected in the improvement of learning outcomes, as the relevance and well- thought-out structure of the learning content supported the motivation of the learners. This refers to good learning design and the relevance of the learning content, which in turn is reflected in the commitment of the learners and the achievement of learning outcomes. This was directly related to the methodological choices resulting from the project.

The regular collection of feedback made learning activities more targeted and provided a basis for continuous improvement of the quality of teaching. The systematic feedback mechanisms implemented through the project helped to adapt the content and methods to the needs of the learners and increased engagement.

'And then the feedback. [person's name] also arranges that it would be related to the fact that all of our recent programs have been introduced. How can everyone there monitor all our activities and all of us who are people, who could give us feedback, that we collect, for example, their data. It is very important for us what our students think. Our alumni in this sense, after each training we send out the form. We have all such forms online. Sometimes we also make a video, like this is a short interview, but mainly that is in writing, that they send their opinion anonymously.' (I5)

In addition to digital and discussion-based learning, the projects strengthened the share of hands-on learning. The learning took place intensively in an authentic work environment, for example, in clinics, where the learners solved tasks related to working life. Such practical learning allowed the learners to link theoretical knowledge directly with practice and supported the development of professional skills and professional confidence. The interviews revealed that it was treated as an important learning experience that increased the meaningfulness and applicability of learning.

'Thanks to them, all the students also got a great internship, because not only theory but practice plays a big role, and these companies agreed to give internships. They brought it like technologies, its scanners, during our project and then so many students that you could like an internship and after completing the training, very many already started working in the clinic and using this technology.' (I5)

'That practice played a very big role, that right after the training, a lot of students are already working as if they were studying, as if on the side, and then they could put new knowledge to work immediately after the training.' (I5)

The interviews revealed that the impact of cooperation projects on the learning environment manifested itself as a comprehensive and multi-level renewal, including the updating of the content of learning materials, the development of digital environments and the improvement of physical learning conditions. New technological solutions and learning materials were introduced in the learning, including the virtual greenhouse created in the project, which was implemented in professional studies. The interviews show that this was not just a project-based experiment, but learning material that expanded the existing learning content. In the case of one project, for example, the introduction of a new technological solution provides new opportunities for visualising and interpreting complex crop production processes.

The project brought new technological solutions and study materials

The project led to a substantive and physical renewal of the learning environment

The substantive and physical renewal of the learning environment was extensive in several institutions and closely related to the increase in the share of practical and experiential learning. The interviews revealed that this was directly associated with the diversification of the learning environment and the expansion of training activities, suggesting the lasting impact of the projects even after their formal closure.

'Maybe a month ago or a little later, we opened a new class. There are all these different materials, so that you can look at them. I wonder if this tool somehow works better or worse on this surface material. That some things like that and then a whole army of brushes and other things, basic tools. So, well, these are the examples. There has actually been a very big, well, so qualitative and, I believe, quantitative change.' (I2)

The expansion and improvement of the quality of the e-learning environment Moodle played a central role in the development of the digital learning environment. The projects supported a more conscious implementation of Moodle in the presentation of learning materials as well as in the comprehensive management of the learning process. Making the digital environment more user-friendly and applying what we have learned from international partners increased teachers' motivation and readiness to use the digital environment more effectively. In the interviews, it was emphasised that Moodle was no longer just a repository for materials, but also a learning environment that supports learning, communication, and the involvement of learners.

Moodle is no longer just a repository for materials

'We promised that it would become a Moodle course, and so it did, of course it was/.../So it now allows, well, theory, which, well, for my sake, can really be read from that Moodl course to be very well integrated into practice and actually into the development of these so-called, cleaning-related skills. That this is one of the innovations that have been happening in parallel in our school.' (I2)

A significant impact was also manifested in the creation and implementation of specific and level-based learning materials. As a result of one project, evidence-based learning materials were developed, which created new and important knowledge in the field and are widely used in both training and vocational training, including in foreign countries. The learning materials developed in the project will be used consistently and their presence in a digital environment will create a basis for further adaptation to different target groups and forms of training. This increased the flexibility and reusability of the learning materials and supported the sustainable development of the learning environment even after the end of the project. The introduction of learning materials was considered a long-term impact, the full potential of which will gradually manifest itself in everyday learning.

'[The modules] are absolutely related to the fifth-level curriculum, and in a way, I have to honestly admit that, well, we started this project. So in a sense, at least in the beginning, we very clearly put in the things that our fifth level curriculum as written.' (I2)

'Well, I would say that after these projects, we started to develop topics that, like digital textbooks, digital learning materials play a big role and we mainly use them.' (I5)

The diversification of learning materials was also supported by the creation of multilingual and multi-channel materials, including learning and instructional materials in Estonian and English supporting the e-course, which were used both in the institution and in partner institutions. This approach also allowed access to the learning content for those learners who were not able to complete the e-course and supported the flexibility and continuity of learning. Such learning material increased accessibility and flexibility.

> ***'On the one hand, the MOOC was interestingly structured. But on the other hand, there was definitely the fact that this was the topic. It just kind of brought people to the computer.' (I3)***

The increase in the availability of technological tools also played an important role in enriching the learning environment. The projects made it possible to purchase or use expensive and specific equipment, such as X-rays, scanners, and digital anaesthesia equipment, which would otherwise be difficult for institutions to access. Cooperation with institutions and partners in the field made learning more practical and directly linked the learning environment to working life. In addition, digital learning materials, e-feedback forms, knowledge testing tools, and AI applications were introduced into the learning process, which expanded the functionality and possibilities of using the learning environment.

> ***'We also taught the participants how to use the possibilities of AI now, for example, there, well, in the work of an assistant, different tasks could be done by a doctor and, for example, how to take beautiful pictures and then videos, how to prepare, how to formalise them and use AI.' (I5)***

The creation of new digital materials and tools and the introduction of AI directly supported the improvement of the quality of learning materials. The interviews show that AI was used to create worksheets, assignments, visuals and video materials in less time, which allowed teachers to focus more on the quality of the content and the needs of the learners. AI-based solutions guided learners to think and understand, not just to reproduce information, and made learning more visually and methodologically diverse.

> ***'But we can put in the program what course we are dealing with, for example, what kind of students we are dealing with, what experiences they have. And then the lesson plan too, this AI can do it, considering the possible level of knowledge. Well, for example, I can say that I have, for example, a third of the group are not Estonian speakers, Russian speakers. How to make it so that there would be Estonian language learning, this is another integrated aspect, where we teach Estonian to those who do not speak Estonian. But there you just put them in a situation where they have to talk. And well, if it's an interesting lesson, you don't notice the difficulties.' (I7)***

The interviews revealed that the impact of cooperation projects manifested itself in methodological diversification and the substantive transformation of the learning process.

The project brought about the substantive transformation of the learning process

Within the framework of the projects, new methodological approaches were introduced, the most important of which was the combination of flipped classroom and project-based learning in elective modules. The learners familiarised themselves with the learning content independently in a digital environment, and the contact learning focused on discussions, making sense of what had been learned, consolidating knowledge, and solving problems. Compared to previous practice, the use of time became more efficient and the structure of learning activities clearly more learner-centred.

> ***'Broadly speaking, the fifth level of our learners is definitely working people, specialists in the field, possibly even and which must definitely be taken into account. And what was also the case with this project was that they don't come to the school lecture, but some part of it. In fact, they are able to acquire knowledge on their own, and this Moodl-based course certainly allows them to do so. And in the same way, the so-called practical activities are really done in school, this thing or somewhere else, right, this thing is done. Which is really needed with some kind of participatory innovative methods.' (I2)***

> ***'But mainly this new methodology gave us this powerful opportunity to do this, to carry out trainings without homework... this acquisition of knowledge in a playful form, so that it would not be boring, for example, and still organised in such a way that the questions and we still use such programs where we can immediately answer questions and discuss them, and in the process we could learn in an interesting way. ' (I5)***

The role of project-based learning was not methodologically new for teachers, but as a result of the project, it became more visible and consciously applied throughout the institution. Changes in learning content and teaching methods had a broader impact on learning and reinforced the understanding that project-based learning met a real need and helped to solve previously perceived methodological bottlenecks. It was emphasised that project-based learning acquired a clearer structure and its value in developing learners' activity and practical thinking became more visible.

Project-based learning helped to solve previously perceived methodological bottlenecks

'But in terms of school, the project-based learning became visible immediately.' (I1)

Methodological innovation was also expressed in the increase in the interactivity of learning activities. The projects encouraged the use of playful and active learning methods, which increased practical and collaborative activities in face-to-face learning. The interviews revealed that learning became more intensive and the active participation of learners increased, which in turn had a positive impact on the quality of learning and motivation to learn.

Interactivity of learning activities increased

'I would also say that these projects played a big role in making our learning more interactive, mainly interactive games almost every time The process contributes very significantly to the fact that, for example, when our students come, If you start your learning with others, then interactive games, for example, help a lot. That for example our training is very intensive and then I give a lot of I a lot of new information and then every interactive method then helps the students and then we don't like I would say that the main thing is that we don't give homework, that such a methodology that we give so much practice during the lesson, so many opportunities to ask your questions, that there is no point in people just doing their homework, because there are very, very many opportunities to communicate both theoretically and practically as well as with the lecturer during the lesson.' (I5)

'Projects have brought 'freshness' to the training process.' (I6)

An important development trend was the introduction of AI to enrich teaching methodology and make the learning process more efficient. The possibilities of AI were used to support learners' independent learning, for example, in foreign language learning, and as a tool for teachers in analysing learning situations and improving the structure of lessons. Teachers used AI to generate ideas and come up with different solution options, adapting them to the context of their learning. This expanded the methodological repertoire of teachers and increased flexibility in teaching techniques. The use of AI also influenced assessment practices and the design of the learning process. Teachers applied AI to analyse learners' work and identify AI- generated work, which steered teaching towards process-based assessment. More and more attention was paid to how the learner has solved the task, not just the end result of the performance. This, in turn, led to a more conscious design of tasks with a focus on activating thinking and reducing the possibilities of mechanical copying.

'For example, I'm talking about what we have, for example, how we organise these knowledge tests or some kind of games, for example, or so everything is done in such a way that it is still related to digital solutions.' (I5)

At the organisational level, the efficiency of the learning process improved. Some of the learning activities were transferred to a fully digital environment. The interviews revealed that this was treated as an aspect of improving the quality and organisation of the learning process, which freed up teachers' time for substantive work with learners.

The project also facilitated integration and the strengthening of cooperation between teachers. The developed cooperation practices enabled, for example, the integration of professional English into professional studies and the planning of joint lessons. Cooperation became a more common practice at school, and teachers turned to each other more often than before to find common teaching solutions. This, in turn, supported the integrity and coherence of the learning process.

'That the understanding that language and foreign language and cuisine don't seem to go together, it disappeared. Well, I have a very good cooperation with the biology teacher, for example, then we sometimes have interesting lessons where these, the same bacteria and this contamination, well, pretty good cooperation. That and this facilitated the fact that, well, people even within their field cooperate more in order to be interesting.' (I7)

In addition, the project triggered a more conscious reflection and modernisation of teaching practices. The interviews revealed that the project activities led to an analysis of lessons and a critical evaluation of previous approaches, as a result of which they moved towards more real- life teaching that was more inclusive of the learner. Several participants noted that without the project, there would not have been the same motivation or resource-based impetus to innovate teaching practices.

The project encouraged more thoughtful reflection on and modernization of teaching practices

'They, especially the older teachers, would not have done these analyses of their lessons, whether it is already modern or not, that it may already need to be updated, an update. Then maybe we need to change, or yes, the approach was changed. That perhaps it was noticed that it was too theory, theoretical or lifeless, theirs, theirs, their lessons then became done. And they were like these things.' (I7)

In conclusion, the interviews show that the collaborative projects had a systematic impact on teaching methods and the learning process, supporting methodological innovation, teacher cooperation, and the development of a learner-centred, flexible and high-quality learning process.

At the curriculum level, the projects accelerated the mapping of needs and the development of modules, which enabled the integration of digital solutions and new professional topics into the curricula. This helped to update curricula and apparently increase the compliance of graduates' competencies with the demands of working life.

'We have it as part of the curriculum and the fact that we still give these digital skills to our assistants. Before we also had this digital skills in the shadows, that's why there was so much equipment in the clinic and then we didn't have it in the curriculum. But then it so happened that we have very enriched the teaching methods and then the curricula, which is why it is already prescribed that acquisition, the basic working techniques, if, for example, the assistant works with a scanner.' (I5)

The interviews revealed that participation in cooperation projects clearly highlighted the need to update curricula and triggered changes related to curriculum development. For example, in the course of the project aimed at developing learning in the field of horticulture, an optional module was developed that directly corresponded to the technological developments in the field. The interviews reveal the understanding that in order to fully implement the learning materials and methodological innovations created within the framework of the project, it is not enough to add individual modules, but a systematic update of the entire curriculum is necessary. At the same time, it was emphasised that updating the curriculum is a long and complicated process, which is why the impact of the project is considered to be partly future-oriented and gradually manifested.

'But how has it affected learning in general? I would like to believe that this effect can be measured a little more in the long term. That well, as I also said, that a new curriculum with slightly different learning outcomes, which gives the opportunity to better apply the created materials, would be, well, much better. But creating a new curriculum is not quite so easy and easy. That now we will do and change only one thing. That it is still a long process. I would rather see this impact in the future.' (I1)

The interviews revealed that the use of the learning modules created as a result of the projects is planned both in formal education and in the creation of new continuing education curricula. The projects laid the foundation for broader and more flexible curriculum development. An important impact in curriculum development was the integration of the created e-course into curricula. The interviews reveal that the e-course created in the project was integrated into the curricula of both formal education and continuing education. An e-course was included in the curriculum as an elective subject, whereas it is planned to be used as a subject of basic education in the future. Such an approach refers to the systematic and conscious integration of digital solutions in the development of curricula.

'That this MOOC is like included in the subject courses and that all students do it as part of a course. They said that they would initially start as an elective. And then, when they get there, well, after a while, they are changed again, so to speak, in the syllabus. To put it that way, also into this part of the major.' (I3)

The development of curricula was also influenced by the projects at the content level. The interviews revealed that the development of digital competences and new subjects and topics, such as the use of intraoral scanners and 3D X-rays, were added to the curricula. Previously, these topics were not included in formal studies, they were acquired in the course of in-service training, but as a result of the project, they became a natural part of formal education. This change will support the better correspondence of curricula to the actual needs of working life and increase the professional readiness of graduates.

'Applied to our curriculum as a basic training we already have these subjects in the curriculum/.../ It's like the training's three-day training and in such a short period they can do so much practice.'(I5)

The supply and visibility of training courses for institutions increased. Participation in cooperation projects significantly increased the capacity of institutions to offer formal education as well as various in-service training courses and the visibility of trainings. The learning materials and e-courses created within the framework of the projects laid the foundations for the emergence of new and future-oriented forms of training, including the development of continuing education and micro-qualifications and degrees. This will broaden the opportunities for providing training and allow institutions to react more flexibly to the changing funding and participation conditions for adult education. In the interviews, it was emphasised that digital and modular learning materials provide an opportunity to design training courses according to different target groups and needs.

The supply and visibility of training increased

'Actually, we also thought that these materials, these six modules, could very well be created from it even now, I don't know if it was the courses of the adult education centre.' (I2)

'And well, really, the option is that we can offer some kind of things, so to speak. That we create kind of micro-credential course or courses.' (I2)

Based on several interviews, participation in the projects increased the practicality and visibility of the trainings by bringing concrete examples of solutions developed during the projects into the content of the trainings. This was considered an important added value, which strengthened the reliability of the trainings and their connection to real practice, and increased interest in the offered trainings more broadly.

'MOOC courses, in fact, in addition to students, also took it as real as staff. Well, those who have already worked in this field and then their feedback has shown a lot that, well, this is a very good way to learn.' (I3)

The projects also had an impact on the provision of training through changes in the competencies of the staff. The interviews show that the project strengthened the role of middle medical staff and increased their responsibility in the use of equipment and diagnostic processes. This, in turn, influenced the focus of the trainings on the development of higher-level competencies and thereby supported the alleviation of the labour shortage in healthcare. Such changes expanded the content and target groups of formal education and continuing education.

'We have a direction to give additional opportunities to staff, mid-level staff. This is very important because at the moment we are only relying on doctors, but in reality there are few doctors and then what an assistant can do is very important for us, even if we currently have such equipment in our clinics, then there must still be staff who can use it and who can do so, well, they have to be prepared beforehand. And then we have the idea that it would be good for our people, who later come to the clinics as assistants, to be able to do it at the level of doctors, or at least.' (I5)

At the international level, the cooperation projects led to greater openness and visibility of the training of institutions. These made it possible to offer training outside Estonia and participate in international professional discussions, which increased the awareness and credibility of institutions and the training they offer. The interviews revealed that it was perceived that international cooperation and participation in projects positioned the institutions as reliable partners and opened up new opportunities for offering training to international target groups.

'Opportunities for international activities, to offer training internationally, so that you are welcome to speak internationally.' (I6)

The projects also influenced the trainers' professional mindset and understanding of their role in the training process. The interviews show that the project experience provided the trainers with new knowledge and perspectives, for example, in assessing the effectiveness of activities or in communicating ergonomic principles in a clear and coherent way. This expanded the sense of responsibility of the trainers and supported the substantive development and increase of the quality of the trainings. The increase in the competence of trainers, in turn, was reflected in the content, structure, and reliability of the trainings offered.

E. Dissemination of results

The analysis shows that the results of the cooperation projects were disseminated in a variety of ways. This took place through several channels and predominantly in everyday professional communication, where informal and verbal direct contacts in professional and international networks played a central role. Formal channels such as articles, digital platforms, media coverage, conferences and training sessions were mainly used to increase visibility and credibility. Dissemination was often integrated into the daily work of the institutions, including internal communication, digital channels and engagement with other development initiatives, and was based on partnerships and international events. The partnership and the permanent availability of the materials created as a result of the project, including English and visual learning materials, also played an important role in dissemination, which allowed the implementation and dissemination of the project results even after the official end of the project.

In summary, the most effective dissemination methods were those that combined high-quality and practical compact materials, active involvement of partners and networks, and a target group-based and multi-channel approach.

At the same time, the interviews also brought up challenges. Word of mouth and network-based dissemination proved to be very effective in essence, but its impact was difficult to formally document and reflect in reporting. In addition, it became apparent that the systematic and coordinated dissemination activities between partners were not always uniform, which in some cases reduced the scope and visibility of the dissemination.

Dissemination of project results

Dissemination channels

Dissemination target groups

Materials to be disseminated

Dissemination activities and events in the institution, Estonia and other countries

The analysis of the interviews shows that dissemination was both a purposeful process and a process that often takes place in everyday professional communication. Dissemination activities included both internal activities and international conferences and media coverage, and dissemination activities combined formal and informal approaches.

Different and diverse dissemination channels were used to disseminate the results of the cooperation projects. The results of all projects were disseminated through digital channels, the most widely used social media channels, and newsletters. This helped the information to reach a wider target group and helped to keep the field constantly visible and in the public eye. Scientific publications and articles in specialist journals were used for dissemination, as were platforms such as EPALE. Publishing articles in scientific journals increased the project's academic visibility and confirmed the quality of its content.

'Newsletters actually work very well. Where can you explain a little more about this topic, that it has been a good place to disseminate the results.' (I6)

'We actually made an article as well, but it wasn't that way at the time, it wasn't in the original plan.' (I3)

'For example, in the last year, we've been writing articles here regularly [name of scientific journal] to share all of this, as well as at a higher level.' (I6)

'Because one of the requirements of project reports for projects is that it is provable, and the only things we could prove were articles that had actually been published.' (I1)

As with all projects, word-of-mouth communication took place at work-related meetings, seminars, development days and conferences, both in Estonia and internationally. It was considered a natural and continuous part of everyday professional communication.

Human contact works best in dissemination

Several interviews emphasised the strength of word-of-mouth dissemination and highlighted that personal experiences and practical examples shared by the participants often generated more interest and involvement than the formal exchange of information. It was emphasised that the actual dissemination work was largely informal and that its impact was greater than that of the formally reportable part.

'Human contact works best and you can explain to the person a bit that it is really more time-consuming. But I think it has a greater result, that the person actually gets the idea of what you are talking about with them, that they can find out what material you are talking about, what results you are talking about, but not for every random person, I don't know the teachers of vocational schools or that it is like you are targeting the target group you really want to address, that yes, that we saw that social media does not work so well for that. But it's more like a personal contact or really a presentation at a seminar, so that if you can talk a little more about this topic, then it will arouse people's interest.' (I6)

'But we have also moved around quite a lot and we have talked about this topic everywhere and there has been positive feedback from there. That even when I was in Estonia at some kind of vocational education seminars, conferences, development days, we were actually constantly communicating about these things with other schools and actually with the representatives of the ministry. That this is what I think is the crucial dissemination activity. What you can't really prove. But what I think has the biggest impact - to say that it is a word-of-mouth movement.' (I1)

Television appearances (ERR, *Aktuaalne kaamera*), repeated presentations to introduce solutions, as well as seminars of professional networks in foreign countries and a series of workshops organised by partners were highlighted as distribution channels.

'And the fact that we managed to get nationwide coverage for our activities there [in AK] was also a pretty great achievement.' (I4)

For example, in the case of some projects, it was emphasised that talking about the project became an important part of the institution's self-introduction at various events and meetings, and the project results were presented with confidence and pride, which indicates that dissemination was not only a mandatory activity, but also a process that supported the institution's identity and professional image.

„We walk our noses up and we're pretty proud of what we actually finished and we're not ashamed to brag about it either.' (I1)

The target groups of the dissemination were broad-based, starting from the staff of the organisations themselves, teachers of VET Institutions offering education in the field or other VET Institutions, and lecturers of higher education institutions, to specialists in the field, representatives of companies and ministries, as well as trade unions and politicians. In dissemination activities, conscious selection of the target group was considered important and it was emphasised that the selection of the right target group and a suitable format are critical for the success of distribution.

'To other students in their own educational institution. That's very good, then you all want to come here and participate. That's why this target group has been chosen correctly, that this project is aimed at them and maybe it can be here, so you have to choose the target group and to whom to present it, that there are such opportunities, that we have this meeting, meeting with the participants and in Germany, and we had a very useful and very, very good.' (I5)

The interviews revealed that the primary goal of the dissemination was to arouse interest in the results of the project, increase awareness and interest in the problem to be solved, and direct the target groups to look for additional information, participate in trainings or use the results of the project. Specific examples were given to prove that the materials and messages were understandable and relevant to the target groups.

Presentations and public presentations were made to disseminate the results of the project, workshops were conducted, panel discussions and demonstrations were carried out at the workplace. National dissemination events proved to be effective in sharing the results of one project, with the number of participants doubling as planned.

'The same [dissemination] events still are effective. It took on a life of its own – people from the field came together, exchanged experiences, and we organised a panel discussion where we invited leading voices in Estonia to discuss the value of cleanliness and maintenance. This played an even greater role.' (I6)

When organising dissemination events yourself, it is recommended that thought be given to what creates added value for the target group participating in them, in order to maximise the benefits and attractiveness of the event.

'[When organising dissemination events] think bigger, so don't do it just because I have to do a dissemination event for Erasmus, but think bigger - what you can do. Because if this person feels like a sissy, they leave as if energetically charged, because it was such an awesome event, then they are like carrying the thoughts of this project forward.' (I6)

The results of the project were presented at various dissemination events, including international dissemination events and conferences in Estonia and abroad, which indicates the importance of the project topic and the value of the results.

'Well, actually, our multiplier events also went very well, this event was especially big in Spain. Then in Cyprus, they held a separate conference in addition to our conference. They also decided to organise their own conference separately, so to speak, on the same topic.' (I3)

The dissemination of project results also took place through trainings. For example, the conduct of training in health care institutions showed that dissemination activities were related to the direct application of knowledge in practice. Training sessions and presentations introducing the project results were organised both during and after the end of the project, which indicates the continuity of dissemination activities.

> ***'Because for them, well, it was that at that moment [the name of the institution] was actually looking for something to do and then, I kind of suggested it. We also went to the hospital to train physiotherapists.' (I3)***

The importance of making the most of opportunities for dissemination activities was emphasised. For instance, a project team treated every presentation, event or contact as a potential dissemination opportunity, thereby raising awareness of the project's activities and results. Examples were also given of different motivational techniques used at the dissemination events, such as the raffling of a more valuable item, which increased the activity of the participants and the spread of content on social media.

> ***'We figured out all sorts of things here, how they would share this [project on social media]. Well, for example, I knitted carpets by hand. At that moment, [person's name] knitted rug went to us as a prize, raffle. They had to share a post about the project on their social media and of course at that moment we got a lot of shares because everyone wanted to get the rug.' (I6)***

The materials to be distributed, their complexity, availability, possibilities of use and sharing were at the heart of the impact. High-quality educational films and visual guides, e-courses, picture and written instructions for supervisors, scientific articles and practical instructional materials created as a result of the projects were distributed. Distribution is facilitated by the complex structure of the materials, such as a complete set of videos, picture instructions and written information for the foreman. The clarity and simplicity of the materials, as well as their practicality, which allows them to be used immediately and directly in the workplace, are the main reasons why they have found widespread use. The interviews revealed that the success is based on the clarity, practical applicability and science-based nature of the materials disseminated. The importance of conscious design choices, such as wordless videos and English versions, was also highlighted to reduce language and cultural barriers and ensure universal accessibility (for example, for illiterate audiences in South American countries and elsewhere). The importance of visual materials, such as follow-up films and videos, was emphasised, as they create a clearer picture of the quality and level of the project and help to understand 'how it all happens'.

It is important that the materials are comprehensive, easy to use, accessible and shareable

Visual materials attract more attention

'Well, the strongest and for me the strongest is the visual example that we can write as much as we want, for example. But when they see how these projects are carried out, that they see our films, that they understand that, like everything is happening at a high level.' (I5)

In the case of one project, it was pointed out that the materials produced during the project are later reused in the communication and marketing of the institution, as well as in other contexts, for example, videos function as permanent distribution material that can later be used in various ways.

The dissemination of the materials was supported by recognitions and success stories. For example, the nomination of the quality competition attributed to the e-course created as a result of the project significantly increased its visibility and credibility, and provided an additional opportunity to introduce the project more widely, both within and beyond the institution. The recognition acted as a supporting factor for dissemination activities, helping to extend the results of the project beyond the original target group.

„Our MOOC then also participated in such a competition of MOOCs /.../ HAKA then does this kind of prize distribution every year, so to speak, to the best MOOCs. Although we didn't get this award, we were able to talk about what we did and how we were. That maybe it's also like finding these opportunities.' (I3)

For example, the materials created as a result of one project were called *'... the world's best ergonomic materials' (I6).*

One of the project's success stories was a student who was chosen as the Learner of the Year after acquiring the knowledge through an e-course developed as part of the project. The competitions attracted media coverage and also drew attention to the e- course created as a result of the project.

Dissemination within the institutions

Dissemination within the institutions took place through formal channels (meetings, intranet, digital channels) as well as indirect, cumulative communication, such as project-related notifications and linking project activities with the institution's other initiatives. This approach helped to raise awareness, support the adoption of materials, and keep the topic in the public eye. The interviews indicated that confident public presentations contributed to the organisation's identity, which made dissemination not only part of reporting, but also of creating a professional image.

'We also informed the whole thing, so to speak, we went to the institute's meetings, so to speak, where we talked about our project.' (I3)

'And then and now, well, since we received this award for this project, it is actually expanding from there as well. Because, well, since it is, so to speak, well, award-winning, I still like to introduce it to the institute even more widely. So in that sense, it's very good that we got this award, that's why. That it actually helps us take it further.' (I3)

Dissemination to other institutions

Dissemination to other institutions took place mainly through learning materials, MOOCs and practical guides, as well as through network-based sharing. Communication between partners and colleagues passed on both specific examples and practical tips that allowed the transfer of best practices. The interviews show that it was this flexible, situational sharing that often worked most effectively, as it allowed the materials to be adapted to the needs of the recipient. One project carried out a deliberate outreach to policy-makers and decision-makers, which extended the dissemination activities beyond the field of education, while the other used a marketing campaign by the institution.

'These campaigns of the cleaning masters were like freshly emerged and well, well, it was nice to tie it together.' (I2)

'Well, we talked about it here as well, former president Kersti Kaljulaid also has such a fund. That there was a little bit there, and then we actually tried to talk about it in Tartu, so to speak, to the political authorities. That yes, that we have tried to do something like information work.' (I3)

Dissemination in other countries

Dissemination in other countries took place in the form of presentations at international conferences, workshops and partner networks. In several interviews, examples were given of presentations in different countries and dissemination events, mainly in Europe, but in some cases also outside Europe. The English-language and culturally neutral materials, as well as the non-verbal videos, allowed the results to be 'exported' and adapted in practice in the contexts of different countries.

'Since it is in English, all the material is available, in English, it is as if it can be passed on to other countries that do not speak it, well, we had Greek, Lithuanian and Estonian here.' (I7)

'But actually, as is always the case in life, a lot of information and dissemination work is done by word of mouth, and since

I was extremely involved in this matter for two years and also went to the seminar of the European Horticultural Teachers' Network in Austria and so on, I actually talked about it everywhere, and it is actually the same, the same dissemination activities.' (I1)

'Depending on whether it's a women's shelter or something like that, some information centres can be like in any country. What was that they, like a lot, actually passed on this MOOC to other universities and found them, so to speak, partners.' (I3)

Dissemination across networks and platforms supported the credibility of the projects' results and the reach of their dissemination. The role of the partners in the networks was key, as they presented e-courses and learning materials on their own channels and organised local dissemination events. Dissemination through networks was often based on trust and long-term professional communication, which facilitated the adoption and dissemination of practical solutions.

'Or, well, for example, we have taken this information to Europe, then we do not have trade unions in the cleaning sector in Estonia. But well, in Europe, it is, in their network, soto speak, it is used, or at least asked as given guidelines, how much it reaches the grassroots level, go for it, you have to make the extra efforts that we do here all the time, and then it is the same for the employers' organisation.' (I6)

'To be like that, look for those networks where you can share it, look for the same kind of crazy people it speaks to. They, then, start carrying it on, because, well, if something important has been created and if it's like a really good thing, isn't it?' (I6)

The cooperation and the active role of the project partners as disseminators of the results and the involvement of the participants in the dissemination activities were highlighted as important, which increased the scope and impact of the dissemination activities. Cooperation in dissemination meant actively using partnership to amplify the message. For example, the partners organised additional conferences, disseminated the results through different channels, and adapted the materials to their target groups.

Challenges in the dissemination of results

Some challenges and problems in disseminating the results of the project were also highlighted. Word of mouth and informal dissemination often proved to be the most impactful, but documenting and measuring its impact was difficult due to the 'tension' between it and reporting requirements.

'That this is what I think is the crucial dissemination activity. Which you can't really prove.' (I1)

Social media was used for dissemination in all projects, but it turned out that social media channels did not work as effectively as expected:

'Yes, indeed, as it is within Estonia, that distribution events have worked very well in order to be able to disseminate the results, that while we in the pandemic project relied very much on social media, that these things would live their lives there, it didn't really work, that people would have shared these materials there very much. But, well, because it is still such a specific topic, especially educational materials, that it is not like the field of social media.' (I6)

'We saw that social media didn't work so well for that. It's just that social media stays somewhere, well, it's overshadowed by all other things, that you still go there to look for entertainment.' (I6)

Despite the active dissemination, it was perceived that the results of the project did not always reach those with whom there was no direct contact. The expectation was expressed that more interest and feedback could have arisen from the outside, without direct initiative from the project team.

A limited overview of the extent and impact of dissemination emerged. Although the results of the project were shared and disseminated, there is no complete and aggregated overview of the extent of dissemination, especially with regard to learners from outside the institution or interested in the e-course and learning materials. This suggests that some of the dissemination has been diffuse and that it is difficult to accurately assess its impact.

In the case of one project, the inconsistency of partners in dissemination activities was brought up as a challenge, where some partners were active while others were more passive. This demonstrated the need for a clearer dissemination strategy, better coordination, and joint dissemination plans.

'It wasn't very well thought out and he didn't have this kind of strategic plan and the knowledge of it and its learnings.' (I4)

The lack of a strategic, target group–based, and coordinated dissemination plan reduces partners' contributions and fragments activities

The interviewees recommend the following to enhance dissemination activities and accelerate the uptake of project outputs:

- engage sector-specific “enthusiasts” and networks
- plan a multi-channel dissemination period, for example a focused campaign over six months
- monitor and consistently measure the visibility of dissemination activities
- link dissemination activities to initiatives by other organisations, such as communication campaigns or success stories
- pay attention to the visual quality and practical structure of materials
- use a comprehensive package of materials (video, visual guide, and written information)
- ensure universal access to materials, for example by using also language-free and text-free formats

F. Sustainability

All the institutions that participated in the research indicated that they would continue to use the results developed within the framework of the project in their work after the end of the project. All the interviewees also said that the activities and topics discussed would continue to be dealt with actively within the institutions, even after the project had ended. Thus, the cooperation projects have not been implemented separately, but are closely related to the needs and activities of the institutions.

Projects brought about permanent changes in institutions

For example, the interviewees pointed out that the topics addressed in the project have been integrated into the education and training curricula. The learning materials developed within the project will also be used in VET, including materials such as videos, self-test questions, and learning aids. These materials are also used by other institutions, depending on the project’s target group, including Estonian and foreign VET Institutions, as well as companies operating in the field.

The example of almost all projects revealed that the implementation of the project results, their accessibility, and their sustainability are supported by their publication in different digital environments. The created learning and instructional materials are available on various web environments and pages (e.g. Moodle, on the project interest group's website), which allows them to be used regularly in a specific institution and shared with external parties. The results can also be easily adapted to new target groups if necessary.

The results appear to have been developed with consideration for the specifics of different target groups and the international dimension, with attention paid to ensuring that the materials can be applied to the widest possible target group. For example, the fact that cleaners in developing countries may not speak the local language has been taken into consideration, resulting in the creation of educational videos without text. The content of the materials has also been adapted to the needs and context of the different partner countries. Thus, it seems that the projects have deliberately focused on the applicability and sustainability of the results.

The sustainable implementation of the results is also supported by their high quality. It has been suggested that people are more willing to introduce and share material with different parties that is of high quality and up to date. On the other hand, a high-quality result will also be applied to a greater extent in the institution that implemented the project as well as in other organisations. The quality of the results, as well as their evidence-based nature and reliability, are valued. It is considered that an evidence-based approach to the development of materials helps to achieve a high-quality result.

High-quality results are applied permanently

The activities started within the framework of the project will continue to be carried out in the institutions even after the end of the project, and several interviewees also pointed out that with the support of the projects, new development activities and international follow-up projects were started to implement follow-up activities and new ideas. This is how important innovations in the field are consistently implemented. The implemented projects have given the institutions a significant impetus to launch a continuous development process.

'These projects very much inspired new international projects, that every time we finish a project, some new idea comes up, that okay, next time we will do an even bigger project and that will bring even more benefits, that now it is like this, that slowly but new partners are added and then now the project is taking place, then the third project, where Lithuania was

added, but a university was added, that larger state structures are being added, that now we are like a continuing education centre, the projects were set up like a higher education institution and now a university has also been added.' (I5)

Regarding the sustainability, all interviewees emphasise the significant impact of developing permanent cooperation relationships with partner organisations or new cooperation relationships with new institutions through participating in projects, creating a foundation for ongoing international collaboration. In individual cases, the importance of involving key organisations in the field (e.g. research institutions and VET Institutions that were the target group of the project) is highlighted as an area for development to ensure sustainability in the implementation of the project results. It is positive that the gaps in cooperation have been acknowledged, and it has also been noted that more attention has already been paid to the structure and balance of the partnership in follow-up projects.

In several cases, the interviewees point out that the potential for using the results of the project will be fully manifested in the future, with their implementation influenced by various factors outside the project. For example, an existing curriculum that has been prepared before the project takes place does not yet fully include the broad-based use of new learning materials and solutions. In this way, the potential for wider use of the results is seen in the case of curriculum development. In one case, it is also pointed out that the target group's awareness of environmentally friendly solutions and their importance needs to be increased for the potential to implement new green solutions to be fully realised.

In some cases, concerns were raised about the sustainability of the project results. For example, there were concerns about implementing the curriculum developed as a result of the project in VET Institutions, and about maintaining a novel green solution. It was also pointed out that, in the case of some topics (e.g. the application of AI in learning), rapid and constant change is inevitable, which is why the developed materials need to be constantly updated.

'By the way, ChatGPT has already changed three times since this project. That we can say that there are big AI approaches, they will become obsolete quite quickly, because this technology is going very fast.' (I7)

G. Factors contributing to the impact of projects

The institutions highlight various factors that contribute to the project's impact. As the experiences of project implementation and project content differ, the highlighted impact factors also differ. However, almost all of the interview participants jointly identified the motivation of the project team and project participants as an important influencing factor. Having a motivated project leader and team is important, as it makes high performance more likely. It is also noted that the existence and implementation of suitable technical solutions and digital platforms will significantly support the achievement of impact. Digital environments make it possible to make the completed materials easily accessible (including internationally), thereby reaching a larger number of representatives of the target group.

A motivated team is the key to success

The majority of the interview participants also highlighted the existence of good cooperation ties and the strategic choice of partners as an important influencing factor. Previous cooperation experience and mutual knowledge simplify the implementation of the project and create a trusting cooperation environment. Partnership networks and organisations are also perceived as important multipliers in the dissemination of results, helping to reach a wider audience and achieve the desired impact.

To increase the project's impact, it is important to carry out targeted follow-up and dissemination activities for the relevant target group. The project's dissemination activities should involve key stakeholders who are active in the field and will implement the project or its results. Therefore, it is important to target dissemination activities at the appropriate target group.

In the case of educational institutions, it is clear that the organisational support, particularly from management, and the allocation of the necessary resources (both human and physical) are important for increasing impact. It also supports if the project is linked to other ongoing or completed projects.

External recognition of the project and its results is also considered important in increasing the impact. The recognition adds credibility to the results of the project and makes them visible to a wider range of interested parties. In one case, the project was recognised at the international level, which, according to the interviewees, helped to increase the credibility and visibility of the institution at the international level.

Recognition increases the credibility of results

It is easier to achieve an impact if the project's topic and the problem it addresses are relevant to society as a whole. This allows for a wider range of support and increases interest in the project and its results.

Some agencies emphasised that flexibility and trust were important in achieving impact. For example, the need to reorganise project activities to maximise their benefit was mentioned. In this case, the agency's flexibility in enabling changes to activities was emphasised.

The results developed within the framework of the projects are diverse, so different aspects were emphasised in relation to them. On the one hand, it was pointed out that in the case of learning and training materials, the use of a consciously evidence-based approach in their development has significantly helped to increase their impact. For example, various experiments with a scientific basis were carried out to generate new knowledge in the field. The resulting materials significantly complement existing ones, and their topicality and quality increase reliability in the eyes of external parties, supporting the desired impact. User-friendliness is also important for learning and training materials in order to reach a wider range of users.

> ***'Why are these materials the most used, that they are ready, and they are simple and logical.' (I6)***

In the second area, it is emphasised that a practical and tangible physical output – a novel green solution in this project – helps to achieve the impact of the project. This way, a sample solution is stored that can be referred to and used to increase the awareness of different parties.

> ***'In Estonia, the situation is such that this awareness of them needs to be raised and on a very different level, among very different target groups, and well, one of the bottlenecks is definitely the physical examples that I can talk about and show pictures from other parts of the world. But if we are talking about some kind of solution in Estonia that you can touch with your hands and see with your eyes, it is much better.' (I4)***

In an individual case, the institution had previous experience of both participating as a partner in a cooperation project and coordinating the project. It was pointed out that the coordinator has greater opportunities to influence the progress of the project and shape the results, which is why taking on the role of the coordinator creates a greater opportunity to achieve the desired impact.

H. Factors hindering the impact of projects

Due to the different project experiences of the interviewees and the diversity of the projects, the impact factors that they consider to hinder the achievement of the impact of the projects vary greatly. The main obstacle to achieving the desired impact is the partners' differing levels of experience and the lack of project management competence within the partner team. The impact is also reduced by the different motivations of the partners, linguistic and cultural specificities, and overly extensive partnerships, which make cooperation and time management difficult. For institutions with little experience, it proved difficult to navigate the voluminous and fragmented administrative information and funding rules. In addition, the achievement of the impact was hampered by poorly planned dissemination activities, the abundance of information on social media, and conflicting guidelines and budget cuts.

The quality of cooperation determines the impact of the project

Some institutions point out that the partners' previous experience or lack thereof in the implementation of projects also plays a role in achieving success. It has been found that it is easier and more efficient to implement the project with partners with previous experience. However, in the case of inexperienced partners, the organisation of the administrative activities of the project may require a disproportionate amount of time and attention in the beginning. It is important that project work is consistent across the institution. For example, a situation was described where a project coordinator left their job at a partner institution and their replacement lacked both project management competence and motivation to implement the project. This made project implementation more complex for the whole partnership and could have had an impact on the achievement of results.

In the case of partner institutions, it should be noted that the motivation and language skills of the teams involved from different institutions may differ. This could cause problems when implementing the project. Cultural differences are also identified as an obstacle. The size of the partnership can also be an obstacle to achieving an impact – if there are too many partners, it becomes more difficult to plan time effectively. It is also important to involve key organisations in the field in the partnership.

Institutions with little experience point out that, when implementing a project for the first time, a lot of necessary information is difficult to navigate. Those with no previous experience will need more time to familiarise themselves with the

project's administrative requirements and funding rules. The information is fragmented and the documents containing it are voluminous in number. Institutions whose projects dealt with new topics also point out that there were no role models or good examples in the field, which in turn placed a greater burden on the project implementer as a pioneer.

Institutions with little experience find it difficult to navigate information

When disseminating the project results, it was highlighted that social media channels sometimes did not work as expected, which reduced the visibility of the results. It was noted that social media is oversaturated with information and it is difficult to address a specific target group in these channels.

'There is so much information — an overwhelming amount — everywhere and all the time. I think people are experiencing fatigue from social media and all of it. I realise this every day: there is simply so much information that you just can't keep up with everything.' (I6)

In an individual case, it is also pointed out that due to the lack of previous experience, it was not possible to contribute as much as would have been necessary to the strategic planning of dissemination activities and coordination between partners. However, dissemination activities and their effectiveness are essential for achieving the impact of the project.

It also highlights factors relating to the agency's activities that made implementing the project and achieving its desired impact difficult. The agency's staff changed during the project's lifetime, resulting in varied recommendations and information. The implementation of dissemination activities was also hampered by conflicting signals – although they were assessed as sufficient in the project application, additional recommendations were made during the project. In an individual case, budget cuts are also highlighted as an inhibiting factor. According to the interviewees, the financial cuts included activities that were key to the project's results and expected impact. Various recommendations, cuts and conflicting information can hinder the successful implementation of the project and make it difficult to achieve the desired impact.

Factors beyond the control of the partnership that prevent the project from achieving its impact were also highlighted. For example, the target group's lack of awareness of the existence and importance of innovative green solutions. Such factors inhibit the achievement of potential impact in the current situation, but have a strong potential to increase the impact in the future through awareness-raising.

RECOMMENDATIONS TO APPLICANTS AND BENEFICIARIES

The following recommendations for applicants and beneficiaries of cooperation projects are based on the results of the research. They can help with better project planning and successful implementation.

Project team and partners

Choose your partners strategically. Prefer experienced and motivated partners so that cooperation runs smoothly and performance is everyone's common goal.

Keep the partnership at an optimal size so that project management and coordination of activities do not cause excessive difficulties.

Involve key stakeholders in the field in partnership to increase impact. Find out who are the key organisations or persons without whose contribution and involvement the results of the project may not be put into practice to the desired extent and involve them in the implementation of the project.

At the planning stage of the project, think carefully about which parties are important for ensuring the sustainability of the project results, and involve them in the implementation of the project. For example, consider which (external) online environments will be used for the presentation and dissemination of results, and who will be responsible for their accessibility and sustainability after the end of the project. In the case of physical objects, who will be responsible for maintaining them in the future?

Create a strong and motivated project team. The success of a project depends on the motivation, competence, and consistency of its leader and team. Include competent and motivated team members in the field.

Ensure the internal support and resources of the institution. The prerequisite for a successful project with a wider impact

is the availability of sufficient resources, including sufficient working time and staff as well as the necessary (work) equipment. Involve the management level of the institution in their planning to ensure support and the prerequisites for the availability of resources.

Project management

Maintain flexibility and clear communication throughout the project management process. Clear communication is essential for successful international cooperation projects, both within national partnerships and with foreign partners. The project lead authority plays a central role in coordinating partnership activities. Clear communication and expectations are the basis for a successful result. Vague instructions and lack of coordination in the implementation of activities should be avoided. Project implementation is a dynamic process, with adaptability and flexibility playing an important role in a multicultural and rapidly changing work environment**.** Be prepared to adjust the project's activities if necessary, so that they serve the desired purpose to the maximum. If you encounter any need for changes, be sure to notify the agency and coordinate them before implementation.

Manage risks consciously. Each project is unique and involves different risks that may hinder the achievement of the desired success. Consider potential obstacles – including partners' different experiences, cultural differences, information fragmentation, and budgetary risks. Based on the specifics of the project, map the risks that may exist and the possibilities for mitigating them.

Participate in projects as a lead partner. Taking on the role of coordinator may initially create fears of greater (financial) responsibility. At the same time, it provides a greater opportunity to implement the project based on the unique needs of one's institution, create a suitable project team and plan relevant activities. Several institutions with experience in the project world state that the projects in which they participated in the role of coordinator have produced the best and most meaningful results.

Project results

Create high-quality, practical and accessible results. The wider adoption of project outputs depends significantly on their quality. For example, the clarity, simplicity and practicality of learning materials make them easy to use for the target

group and increase their wider application. When developing learning aids and materials, pay attention to their user-friendliness. In some cases, for example, when developing novel nature-based solutions, it may be important to build tangible demonstration solutions to increase reliability and project impact.

Focus on the visual clarity and cultural breadth of learning materials. When creating learning materials, choose a format that is suitable for its user, whether that is video material, a picture guide, written material, or a combination of these. Since the material is intended for an international audience, consider cultural differences and the specifics of target groups in different countries, to ensure that the project's outcomes have a lasting and widespread impact on different practices.

Dissemination and visibility

Use existing digital platforms to disseminate results. Within the framework of the project, it may be necessary to create new websites to store the activities and results related to the project. At the same time, they may not be familiar and easy to find for the target group to whom the project outputs are directed. Identify the different possible existing websites and resource collections that you can use to disseminate the results. In the field of education, there is a wide variety of platforms, collections of digital materials and web portals in different countries, which the target group of the project is used to. Explore the possibilities of using them so that the results are easy to find and available internationally.

Plan coordinated dissemination activities, involving partners in every way. The scope of dissemination activities depends significantly on the extent of the parties involved. The dissemination of project outputs is central to achieving the impact of the project. All partners must be skilfully involved in the activities in order to reach as many people as possible. Therefore, when planning dissemination activities, pay particular attention to the coordination and direction of the activities of partner institutions.

Plan dissemination activities in a targeted manner and in advance. The dissemination of project results usually occurs at the end of the project's life cycle. In some cases, insufficient attention may be paid to planning and coordinating this activity within the international network. In order for the project to have a wider impact and reach a large number of representatives of the target group, it is important to develop a strategic dissemination action plan at an early stage. At the same time, think about who the important target groups in your project are and how to reach them most effectively. Often, in addition to other marketing channels, there is a lot of hope for success in social media. At the same time, the latter is oversaturated with information and it may be difficult to reach the right target group without significant financial

resources. When drawing up a distribution plan, think through different channels and mitigate risks by combining them. It may be useful to use professional networks and associations and the events organised within them to disseminate the results of the project. Think about which regular events your project's target audience is present at and use these meetings to disseminate the results of the project, if possible.

Pay attention to face-to-face dissemination activities. The effectiveness of different channels and distribution methods for reaching different target groups varies. Based on the results of the research, it appears that the word-of-mouth dissemination of information often works best through professional meetings, seminars, conferences, and dissemination events, as well as through informal sharing of personal experiences. While a more personal approach may be more time-consuming, sharing results with first-hand experience often proves to be more effective.

Make dissemination events attractive. To disseminate the project's results, events are usually organised specifically for this purpose. Wider dissemination of project outputs is a central part of these events. When planning a dissemination event, consider what would be of interest to the target group and how you can add value to increase their motivation to participate. It is also worth activating the participants, for example, by asking them to share the project's results on social media for the chance to win a prize.

If possible, strengthen visibility with recognitions and quality labels. Recognition of a project, whether at the national or international level, increases the credibility of the results and supports their dissemination. Take advantage of national and international competitions for recognition and quality labels, and thereby increase the visibility and reliability of your project, and the outputs developed within its framework.

Think about the possibilities of proving dissemination activities in advance. In addition to the completion and verification of the results of the project, it is also important to describe and certify the dissemination activities and their effectiveness in the project reporting. Reporting will be carried out as usual after the end of the project. At the same time, it includes information about the entire life cycle of the project, including dissemination activities, and it may be difficult to collect the necessary information afterwards. Therefore, familiarise yourself with the information and requirements regarding project reporting, including evidence, early on, to systematically document important activities throughout the life of the project, including unofficial ones.