



30 YEARS OF RESEARCH

“Surround yourself with networks. You don't have to do everything alone.”

Ilkka Väänänen

PROMOTING HEALTH AND SAFETY

Safety of emergency medical care is our common concern

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RENEWING THE FUTURE

Virtual health and well-being technology is here

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DIGNIFIED LIFESPAN

Strengthening young people's confidence in the future

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A partner for renewal on the growth journey

The changing world challenges organisations to boldly renew themselves. At LAB, we help companies, regions and municipalities identify growth opportunities in human capital, well-being and new material solutions. With us, development does not remain an idea, but turns into effective actions.

Growth is rarely generated by ready-made answers. It is created through a shared understanding, the ability to balance between stability and change, as well as the courage to try something new. Taking care of the competence, work ability and job satisfaction of the staff lays the foundation for sustainable renewal and competitiveness.

In this magazine, we present our clients and partners who have seized the opportunity and embarked on a journey of innovation with us. Could the next success story be your organisation? LAB walks beside you even when the road is unfamiliar.

Minna Lignell
dean



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Avoiding violence wisely – everyday reality in emergency care

Paramedics work where help is needed: in homes, on the streets, at accident sites and in rapidly changing situations. At the same time, the safety challenges of the work have increased. Workplace violence (WPV) situations are no longer an exceptional phenomenon, but part of the daily life of emergency medical services (EMS) staff.

The joint EMS Safety project of LAB and Tampere University of Applied Sciences responds to this challenge through collaboration between research, education and working life. The objective of the project is to build a uniform training package that supports the capabilities of paramedics to anticipate, encounter and deal with threatening and violent situations.

“The aim is to produce a training package that can be utilised both in educational institutions and in working life. This creates a foundation for organisations to build their own occupational safety work on,” says Principal Lecturer **Anu Venesoja**.

The training is built on research and practical experiences

The concrete output of the project will be theoretical and exercise materials that can be utilised nationwide, on the LAB MOOC

platform. In addition to LAB and TAMK, the partners include the wellbeing services counties, a national network of threat and violence instructors, as well as a large number of emergency care professionals, students and trainers.

Project Manager **Kaisa Seppänen** emphasises that the strength of the project lies in its research-based-knowledge approach. “We do not develop education based on guesswork or intuition, but based on factual information and target group experiences. Both current and future EMS professionals, i.e. students, are involved,” Seppänen sums up.

The project has collected information on experiences of WPV situations in EMS. The material has helped in identifying key themes for education. These themes include anticipation, healthy preparedness, interaction skills, de-escalating tense situations



Anu Venesoja and their colleagues produce training materials based on research-based knowledge and practical experiences in the EMS Safety project.

and understanding legislation.

“Your own interaction can either provoke the situation or help de-escalate it. This is why it is also important to practise human encounters,” says Venesoja.

Safe work also means better care

Safety competence has a direct impact on patient safety and the quality of service. When a professional is able to act safely even in a threatening situation, it benefits both the employee and the patient.

“It has a strong impact on the treatment the patient receives, regardless of the initial situation,” Seppänen says.

LAB’s role as a developer and educator of the sector is strongly visible in the project. Students have participated in testing the materials and provided feedback on both the theoretical modules and practical exercises. Legislative content, in par-

ticular, has been considered beneficial as it gives professionals the confidence to handle difficult situations.

Home safe, now and in the future

However, the safety of emergency medical services cannot be solved with a single training programme. Venesoja points out that some of the operating models are always organisation-specific and must be reviewed at workplaces. Nevertheless, a common framework is important. “Everyone has the right to get home from work safe and sound,” summarises Venesoja.

According to Seppänen, it is encouraging to see that safety is perceived as a common concern. “Students, professionals, authorities and organisations consider this important. It is precisely through cooperation that we can influence the matter.” ■

Three decades at the forefront of research

Senior Researcher Ilkka Väänänen has been following the growth of RDI activities at universities of applied sciences for three decades. The long career has taken Väänänen from teaching to research, international networks and strategic RDI management. Over the years, the scale of research has changed from small-scale experiments to international multi-million projects, but one thing has remained: the desire to find solutions that are significant in people's daily lives.

When **Ilkka Väänänen** started at Lahti University of Applied Sciences in 1996, RDI, research, development and innovation activities, were very different from today.

"In the early stages of my career, the activities were much smaller in scale. The projects were often small, implemented by individual teachers, and they were carried out alongside other work. It was not until the beginning of the 2000s, when the Universities of Applied Sciences Act was amended, that research and development activities became a clear part of the basic operations," Väänänen recalls and continues: "Students were already involved in the projects at the time, but the objectives were often local and practical."

From rocking chairs to international projects

One of the most memorable research topics of Väänänen's career was related to rocking. In cooperation with Eimi Kaluste, a rocking chair manufacturer from Padasjoki, they examined whether rocking could strengthen the abdominal muscles and thus support the functional capacity of older people. Among those involved were

war veterans who were provided with a rocking chair at home and advised to use it daily.

The study attracted a lot of interest in the media and later led to further studies on balance, prevention of falls and the workload of office work. "It was probably the most unusual, but at the same time one of my most visible studies. The topic received a lot of media coverage, and it was even discussed in the English listening comprehension exam for matriculation examinations", Väänänen laughs.

The study was a good example of practical development typical of universities of applied sciences: an everyday phenomenon was under research to potentially impact on people's well-being.

From RDI activities to part of international network

In three decades, the research environment of universities of applied sciences has undergone fundamental changes. According to Väänänen, internationalisation, working life connections, learning and regional development have been involved since the beginning, but their scale has increased significantly.



Ilkka Väänänen has a total of 30 years of experience in LAB and its predecessor, Lahti University of Applied Sciences.



"If we talked about projects worth tens of thousands of marks at the time, I was now involved in the EUR 11 million Horizon project, which had about 40 partners from all over Europe. In other words, today, the impacts extend through the regions throughout Finland and international networks."

Internationality became part of Väänänen's work early on. A study on the injuries of footballers in FC Lahti led him to present the results in Italy. Since then, co-operation networks have expanded significantly.

Currently, Väänänen is one of the chairs of the steering committee of WHO's HEPA Europe, European network for the promotion of health-enhancing physical activity. "In the end, networks are people. They create new ideas, research projects and opportunities to build international consortia."

Physical inactivity remains a big issue

Although research methods, technology and funding have changed, one theme has remained in Väänänen's work throughout their career: human functional capacity.

Today, a LAB research group, led by Väänänen, focuses on physical activity, work ability and functional capacity, as well as nature- and physical activity-based innovations. Väänänen still sees physical inactivity as the greatest challenge in the future.

"We already know a lot about the effects of physical activity. The big question is how to motivate people to make permanent health-promoting choices. The best training programme is the one that gets implemented," Väänänen points out.

According to Väänänen, the solutions should not be based on blaming but on enabling. "There's no one right solution. The most important thing is for everyone to find their own way to exercise and feel well."



Research requires patience, the ability to accept feedback and the willingness to continuously learn new things.

Väänänen's piece of advice to Junior Researcher Marjamäki (left)

Enjoy the journey

When Väänänen looks back on their career, people and cooperation become more important than individual achievements. "I have been able to do meaningful work and do it with enthusiastic, motivated people."

For young researchers, Väänänen gives a simple piece of advice: "Enjoy the journey. Research requires patience, the ability to accept feedback and the willingness to continuously learn new things. It is worth spending time defining the right questions and building good networks around you. You don't have to and shouldn't do everything alone."

Even after three decades, Väänänen continues to approach the future with the same curiosity as at the beginning of their career. "I am well, and I feel content with how things are. Sometimes it is good to just stop and enjoy what has been achieved together." ■

Curiosity led to research

Junior Researcher Sannakaisa Marjamäki became a researcher because she wanted to deepen her understanding of working life. Marjamäki is now building her own research path at LAB – powered by curiosity, networks and continuous learning.

When **Sannakaisa Marjamäki** started at LAB, in 2022, as a simulation instructor, research and development work was only part of her job description. However, as a professional in EMS and head nurse she quickly found herself in need of new challenges.

"I thought that if a colleague of mine was able to do a doctoral dissertation, I could do it too."

The idea led to doctoral studies in industrial engineering and management at LUT University and, at the same time, to the position of a junior researcher at LAB from March 2026. Marjamäki's study examines what is the meaning of talent in nurse managers' roles in the Finnish healthcare context: talent management and its contribution to organizational performance.

"The head nurse has a huge impact on the functioning of the entire work community. I want to understand what makes a good manager, and how the organisation can support their success."

Marjamäki is part of the Diverse and Inclusive Working Life research group and has

also received support from more experienced researchers at the beginning of their career. Senior Researcher **Ilkka Väänänen**, in particular, has been an informal mentor for Marjamäki.

"Ilkka has a vast experience and extensive networks. Ilkka has taught me that a researcher does not have to do everything alone. It is worth building networks and maintaining contact with people, as this also creates future research projects."

Marjamäki is particularly motivated by the practical significance of research. According to her, a study is not ready when the article is published, but only when the information becomes understandable and benefits society.

"The societal impact of research is created by bringing the research results out off the academic bubble and into people's daily lives."

According to Marjamäki, a researcher's work is continuous learning. "In this line of work, you are never truly finished. That's what makes it so inspiring." ■



The best thing about being a researcher is that you are never truly finished.

Sannakaisa Marjamäki,
junior researcher

The metaverse is a tool for everyday operations in the welfare sector

Images: Hannu Kaikonen, Teemu Rasi

For many, the word metaverse can evoke images of futuristic technology or a distant future. However, in the welfare sector, its opportunities are already visible as concrete solutions: in learning, induction and service development. LAB and Merivaara piloted how technology could genuinely make daily life easier.

The WellbeingVerse Services project examines how virtual environments and new technologies can be utilised in everyday operations in the welfare sector. According to **Anna Nummela**, project manager at the Faculty of Health Care and Social Services, the reality is considerably more mundane and practical.

“In this project, metaverse does not mean a ‘wow’ experience, but a combination of different technologies, such as virtual reality, artificial intelligence, digital twins and wearable technology,” Nummela says.

LAB is implementing the project together with Savonia University of Applied Sciences, LUT University and the University of Eastern Finland. A total of five pilot companies are involved. LAB’s partner and pilot company is Merivaara.

From complex user manuals to immersive learning

Merivaara, a manufacturer of operating room and hospital equipment and fixtures, is piloting a virtual operating room environment, in which different work situations can be practised and new operating models can be tested safely. The company quickly saw the potential of technology in solving practical challenges.

“We were wondering if the deployment of equipment could be facilitated. The idea of gamification seemed interesting: could the user guidance of a complex medical device be made more pleasant and, at the same time, independent of time and place,” explains Merivaara’s Chief Operating Officer **Jyrki Nieminen**.

The aim is for the user to be able to learn about the device virtually, before it

” Induction and learning are areas where virtual environments are already seen to be of great benefit. The aim is to find situations in which technology genuinely supports the work.

Anna Nummela, project manager

is deployed, anywhere in the world. “A client in Australia could practice using the device on their own time when it suits them best. It is a very different experience from reading a 100-page manual.”

Support for planning from the virtual hospital environment

The possibilities of technology are not limited to learning. The project has also built a virtual hospital environment where different functions and services can be tested.

“Induction and learning are areas where virtual environments are already seen to be of great benefit. The aim is not to replace all traditional teaching but to find situations in which technology genuinely supports learning and working,” Nummela sums up.

At Merivaara, benefits can also be seen in operating room design. “The heavy equipment in the operating rooms is often permanently attached to the structures. In a virtual environment, users can plan the space and experiment with different solutions even before anything is built or drilled into place permanently,” says Nieminen.

Human-centric technology

Both Nummela and Nieminen emphasise that technology is not intended to replace people. User experience plays a key role in the project. Solutions are developed together with students, teachers and professionals in the welfare sector.

“The key is to find situations in which the solutions genuinely support people. It is not enough to acquire technology. We also need an understanding of what it should be used for and how it will actually benefit users and organisations,” Nummela points out.

According to Nieminen, projects often also create something unexpected. “Collaboration with a university of applied sciences often provides perspectives and ideas that you would not necessarily think of in your own engineering office.”

Now is the time to experiment and develop

The opportunities offered by virtual technologies are already visible internationally, especially in teaching, simulations and therapy work. Nummela visited an industry conference in Iceland at the beginning of 2026, and according to them, in Finland, the development is well underway.

Now is the time to experiment and develop. The metaverse is not a ready-made solution, but a group of technologies which can offer genuinely impactful applications for the welfare sector. However, I would like to remind you that our goal at LAB is not to build the future just with great technological leaps, but to find new ways of making daily life easier together with the companies,” Nummela concludes. ■



In their work, Tiia Rask (left) and Vappu Myllärinen focus on strengthening young people's confidence in the future.

Young people's confidence in the future is not built alone

Young people's concerns about their livelihoods, employment and their own future are increasingly visible in daily life. The LAB University of Applied Sciences' projects develop new operating models that strengthen young people's participation, financial competence and belief in their own opportunities. The work is carried out together with municipalities, One-Stop Guidance Centers (Ohjaamo) and other organisations working with young people.

The HOPE and RAPU projects of LAB Faculty of Health Care and Social Services have both identified the same phenomenon: many young people have a more uncertain outlook on the future.

According to Project Manager **Vappu Myllärinen** of the RAPU project, young people reflect on employment, livelihoods and whether studying ultimately matters. "Young people are worried about their own coping. At the same time, however, they want to learn, plan their future and

find ways to manage their finances," says Myllärinen.

Project Manager **Tiia Rask** of the HOPE project, also sees that uncertainty about working life and educational paths is reflected in the daily life of many young people. "Young people have a huge amount of competence, skills and potential. They often need adults alongside them to help them identify their own strengths and see opportunities in the future."

From development work and networks to practical solutions

The RAPU project strengthens the financial competence of young people in workshops, on such issues as budgeting, saving, financial risks and entrepreneurship. In addition, the project produces plain language materials that can also be utilised after the project.

The HOPE project, on the other hand, organises Diggaan! group activities for young people outside of education, training or working life. The aim of the activities is to strengthen inclusion, community spirit and self-efficacy.

Although the projects work on different themes, they are linked by the same objective: strengthening young people's well-being and confidence in the future by concrete means. The development work carried out in the projects extends beyond individual groups. The aim is to create operating models and materials that can also be utilised elsewhere in Finland.

The One-Stop Guidance Centers (Ohjaamo) are key partners in the work. These multidisciplinary services for young people, which have been operating since the beginning of the 2010s and have later been defined as statutory, reach a huge number of young people each year. In 2025, approximately 215,000 visits by young people were recorded at the One-Stop Guidance Centers (Ohjaamo) nationwide.

A common message from three cities

The same phenomena are reflected in the situation of young people throughout Finland, but small successes can also be seen in the everyday operations of One-Stop Guidance Centers.

According to Imatra One-Stop Guidance Center Coordinator **Jaana Gröhn**, the greatest concerns among young people are currently related to livelihoods and finances. At the same time, Gröhn points out that hope is often made up of small steps forward. "Going forward can mean

a small step. If a young person feels brave enough to participate in group activities or take one new step in their daily life, it can be a significant turning point."

Coordinator **Minna Tarkiainen** from Lappeenranta One-Stop Guidance Centre highlights the pressures related to working life and education, as well as the need to be genuinely seen and heard. "Above all, young people need adults who stop and listen. Sometimes even the fact that you can voice your concerns can make the situation significantly easier," says Tarkiainen.

The coordinators of the One-Stop Guidance Centers emphasise that supporting young people can only be achieved through cooperation.

"None of the operators can solve these issues alone. We do our job, but there are many operators around us, such as LAB, who have the opportunity to influence the situation of young people. Supporting young people requires networks, sharing competence and shared operating models. Cooperation creates hope for both young people and professionals working with them," says **Ritva-Liisa Järnström**, coordinator of Lahti One-Stop Guidance Center.

Even small successes matter

Not all progress is shown in big figures. Sometimes the most significant success is that a young person dares to participate in a group activity, apply for a study place or take the first step towards working life.

"There's always someone who finds employment. Someone who gets a place to study. Someone who moves forward," Järnström summarises.

Strengthening young people's confidence in the future is not the task of one organisation. It consists of encounters, cooperation and the fact that young people are surrounded by people who believe in their potential. ■



Read more
about One-
Stop Guidance
Centres

When practice meets research, new insights are created

What happens when you combine the industrial working environment, expertise in well-being, measurement technology and research data? The collaboration between Halton Marine and LAB University of Applied Sciences showed that the best solutions are not achieved in isolation, but through the convergence of expertise from different fields.

Continuous renewal is part of everyday operations of international Halton Marine, which operates in Lahti. Work quality, safety and production methods are continuously monitored and promoted in the company that manufactures ventilation and air management solutions for demanding environments, such as the maritime industry.

"This kind of business, far from our international customers, would not be possible without continuous development. For us, the well-being and safety of employees and the fact that decisions are based on research-based knowledge and technology are key issues," says **Juha-na Häkkänen**, director of Halton Marine's Lahti department.

When the company launched a production line renewal project, it was important to find out how the ways of working could be improved. "We didn't just want to move old production to a new location as such, but to consider how it could be made better from the perspectives of employee well-being, workflow, ergonomics and safety," Häkkänen explains.

Data reveals what the eye cannot see

In cooperation with the experts of the Faculty of Health Care and Social Services, the physical workload was examined and measured in the company's workshop, where ventilation system parts are manufactured.

"Ergonomics is often perceived as the correct working postures or ergonomically designed workstations. In reality, the physical workload may arise from much smaller things: repeated movements, working methods or postures that may easily go unnoticed in everyday work," reminds **Asko Kilpeläinen**, senior lecturer at LAB Faculty of Health Care and Social Services and expert in motion analysis.

Measurements can reveal things that might not be noticed through observation alone. "Data does not replace experience, but it provides concrete information to support decision-making," says Kilpeläinen.



In cooperation with LAB, the physical workload was examined and measured in the Halton Marine workshop, where ventilation system parts are manufactured.



Unexpected findings changed the perspective

“Halton wanted to understand the physical workload of the work stages and identify the points where the work is most demanding. At the same time, solutions were sought for reducing the workload of employees as part of the planning of the new production environment,” Kilpeläinen explains.

The measurements combined motion analysis, muscle activity measurements, observation and employee experiences. **Sanna Spets**, an expert in work ergonomics at LAB, and **Kari Kauranen**, who specialises in measuring muscle activity, also took part in the work.

The measurements revealed workload factors which would not have been possible to detect with the naked eye. Muscle activity was measured in eight upper-limb muscles relevant to the work tasks across several stages of the work process, while motion analysis was used to assess the employees’ movements.

One surprising observation was related to load factors in the neck and shoulder region. The employees’ attention was often focused on the load on their hands and upper limbs, but the motion analysis also revealed prolonged forward-head postures, which may increase mechanical loading in the neck and shoulder region.

“We assumed that certain work stages would be the most physically demanding, but the measurement results showed that certain repeated stages were considerably more challenging than we had thought,” Häkkänen explains.

Workplace well-being can be improved through small changes

Not all development measures require large investments. Based on the measurements, quick solutions for improving well-being at work were also identified. The heights of work surfaces can be better optimised for different work stages, job rotation can be increased and work aids can be utilised more efficiently.



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LAB strikes a perfect balance between a practical approach and research-based academic expertise.

Juhana Häkkänen,
Halton Marine

“Individual characteristics, such as height or arm proportion, have a surprising impact on how physically demanding the work is. We cannot influence everything, but we can make the work smoother and safer with various solutions,” Häkkänen says.

Another important observation was related to individual working methods. “All three employees participating in the measurement process did the same work stage differently. It reinforced the idea that ergonomics is not only a feature of the workstation but also influenced by individual working methods and solutions,” says Kilpeläinen.

Multidisciplinary collaboration brings new solutions

According to Häkkänen, the greatest value of the project was ultimately not an individual measurement result, but the way in which different types of expertise and the industrial operating environment came together.

“LAB strikes a perfect balance between

a practical approach and research-based academic expertise. Experts want to come to real production environments, roll up their sleeves and understand practical everyday operations of companies. At the same time, they contribute the theoretical background and a research-based information perspective. The combination brings genuinely new understanding.”

According to Häkkänen, significant insights are created especially when different perspectives meet. “We cannot find all solutions alone. Bringing together various competences builds an understanding that creates added value for our operations,” Häkkänen says.

In addition to the LAB team, **Leevi Lahtela**, a student at LUT University, has been involved in designing the new production line.

“The measurements identified areas for improvement that are relatively easy to implement, but which may have a major impact on the well-being and coping of employees. That is exactly the purpose of this work,” Kilpeläinen concludes. ■



Good ergonomics is built on the combination of work station layout, working postures and body control.



The LAB WellTech team produces versatile coaching services.

By preparing, we strengthen readiness and hope

Text: Edla Murrosranta, Netta Lehtinen and Tanja Keskitalo

LAB Preparedness & Hope coaching helps organisations improve their readiness to face disruptions and exceptional circumstances. The contents support crisis resilience, functional capacity and mental resilience, as well as help maintain hope and a shared direction in challenging times.

Organisations that proactively develop their expertise and preparedness, improve their security of supply and operational reliability, while building sustainable capability in a changing operating environment. At the same time, they enhance the staff's sense of security and ability to act also in the midst of uncertainty.

"Being prepared is the best way to create security and build confidence in the future. Our coaching is a sensible investment for the company even if there is never a crisis," says **Netta Lehtinen**, account manager for continuing education.

The starting point for the Preparedness & Hope coaching is the idea that crisis resilience is not built on mere plans, instruc-

tions or technical solutions. An equally important aspect is the ability of people to work together, make decisions in changing situations and maintain their functional capacity under pressure.

Resilience for individuals and work communities

Through proactive measures, the organisation builds resilience, i.e. the ability to adapt to changes, recover from disruptions and continue its operations even in exceptional circumstances. At the same time, the sense of community, trust and the feeling that the future can be influenced are strengthened.

The coaching examines both the organisation's structural readiness and the staff's mental crisis resilience. Key themes include management in uncertainty, co-operation in the work community, communication, psychological safety, as well as competence in maintaining one's own and shared functional capacity.

Hope creates functional capacity

Preparedness goes beyond threat identification and risk management. It is also about building the future. When people understand their role and feel that they can influence situations, this creates trust, a sense of community and hope.

"We always tailor the Preparedness & Hope coaching according to the client's needs regardless of the sector," Lehtinen points out.

LAB coaching programmes are suitable for companies, the public sector and third sector operators who wish to enhance their functional capacity, management and staff coping in an uncertain world.

"The greatest risk lies in inaction. Preparedness is not only about preparing for threats, but also about building opportunities and ensuring the well-being of staff," Lehtinen concludes. ■

LAB Preparedness & Hope content:

Crisis management

- Strengthening management confidence, agility of decision-making and communication skills in challenging situations, such as emergency conditions. The participants learn to create hope in the work community, make clear decisions and maintain the functional capacity of the staff in all circumstances.

A crisis-resilient company

- The coaching deepens competence in preparing an emergency response and business continuity plan. The aim is that in the future, the company's emergency response plan will also serve as a business continuity plan to ensure the continuity of business operations and the safety of staff, also in crisis situations.

Mental resources and hope in the work community

- The coaching teaches ways to strengthen the staff's mental recovery, optimism and confidence in the future. The participants learn to recognise their own resources, develop their mental resilience and maintain the team's optimism also in challenging situations.

Clinical nursing skills in emergency conditions

- Deepening clinical skills in emergency conditions and crisis situations. In addition, participants develop their capacity to act under pressure, make quick decisions and maintain patient and work safety in all circumstances.

A product developed in LAB can solve a major challenge in medication safety

Images: Netta Lehtinen

The success of medication is not always dependent on the treatment itself, but on its practical implementation. When medicines are delivered in dose pouches, daily life becomes easier and medication safety improves. At the same time, new practical challenges may arise, one surprisingly significant of which relates to detaching the dose pouch. MedicalFox and LAB University of Applied Sciences set out to solve this problem together.

The family company MedicalFox is responsible for the sales, marketing and product development of the DoseControl Smart Dose Medication Reminder. The company sees dose dispensing as a growing part of future medical treatment.

“We see that traditional pill organisers are gradually taking a back seat as dose dispensing becomes increasingly common. We want to better understand the needs and challenges of our users, in order to develop solutions to the right problems,” says **Petri Wessman** from MedicalFox.

User experiences revealed a real pain point

Collaboration with LAB Faculty of Health Care and Social Services began with the company's desire to develop the DoseControl solution further. In the first phase, the aim was not yet to design a new product but to increase understanding of the daily life of dose dispenser users.

LAB experts carried out workshops in which home care professionals, family members of home care clients and the users themselves were consulted. The discussions were used to identify practi-



Petri Wessman (left) from MedicalFox appreciates the fact that cooperation with LAB has been straightforward and practical. Hannu Kaikonen (right) from LAB is responsible for the design of the prototype.

cal challenges related to dose dispensing and to pinpoint the most significant ones.

“Improving client understanding was an important part of the work. To support the business client's decision-making, we wanted to provide information on the types of issues users actually encounter and the aspects that are emphasised in their daily lives,” says **Hannu Kaikonen**, an expert at LAB University of Applied Sciences.

The workshops revealed one clear problem: Difficulty detaching the dose pouch from the pouch roll. If the pouch tears at the wrong place, the medicines may spread on the table or the floor. This problem is particularly pronounced for us-

ers with impaired hand dexterity due to illness or ageing, for example.

From problem to product development

The results of the workshops helped to direct product development in a new way. The company had already found a suitable solution for storing pouch rolls on the international market. The task of LAB was to design an attachment for it, which allows the pouch to be removed in a controlled manner.

“Together, we found the biggest pain point and started creating a solution for it. Now the aim is to design a mechanism that helps the user to easily and safely re-



move the right dose pouch,” says Kaikonen, who is responsible for the design of the prototype.

Currently, the development work is progressing in the design phase of digital models and prototypes. The aim is to build a solution that facilitates the use of medicines without complex technology or expensive automation.

A higher education institution is an important development partner for a small company

The collaboration began when Wessman and Sami Makkula, account manager at LAB, met at a fair, and it was enabled by EU rural funding. Since then, it has become a long-term partnership, which is envisioned to continue in future development projects as well.

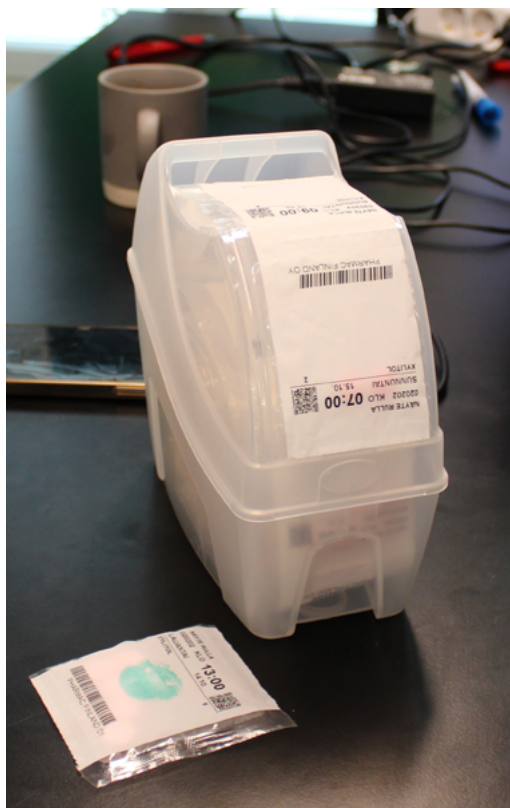
“It’s always worth asking and exploring opportunities. It is often surprising how much help and expertise is available when you dare to make the first move,” Wessman says.

According to Wessman, the expertise of higher education institutions, the practical needs of companies and development funding together constitute an effective way to promote new products.

The LAB WellTech team also sees the value of collaboration in turning user experiences into concrete solutions.

“For us, the most important thing is that we can genuinely help companies of different sizes to move forward and support the creation of products that have an impact on people’s daily lives,” Kaikonen summarises.

According to Wessman, cooperation with LAB has been exceptionally straightforward and practical. “Although we are a small company, we have been treated equally and our needs have been genuinely heard. LAB has good people, and I really appreciate it,” Wessman says. ■



Dose pouch storage case for which LAB together with MedicalFox develops a cut-off mechanism.

”

LAB has good people, and I really appreciate it.

Petri Wessman,
MedicalFox

From idea to collaboration

Over the past 20 years, Sami Makkula has been involved in countless LAB development projects. A designer background, interest in new technologies and the ability to see opportunities have made Makkula an expert who combines people, ideas and expertise into new solutions.

Many think that the work of an account manager is sales. According to **Sami Makkula**, however, the most important thing is to listen to the company and find the right expertise for its needs.

“Companies contact us when they need help in, for example, product development, research or competence development. My job is to put together the right team of experts. The best solutions are often created, when the right people meet,” says Makkula.

Makkula’s background is in design, but during his career, interest was increasingly shifted to the development of services and user experience. “I noticed that there is much more to improve in the world than, for example, the external design of products. I became interested in how to create better services for people and solve wider societal challenges.”

Over the past 20 years, Makkula has seen that the best development projects come from long-term collaboration.

“In the first project, people get to know each other. In the second and third, we can go deeper into the development of new things. That is when collaboration becomes truly impactful.”

Makkula encourages SMEs, in particular, to contact the higher education institution.

“Our experts are united by a genuine desire to examine, develop and solve company challenges. We are not looking for reasons why something is not working. Instead, we are thinking about how to solve it. RDI cooperation is not as slow or difficult as is generally thought. Often the company has a challenge, but not yet an idea of how to reach a solution. I encourage companies to come and talk with us.”

In his work, Makkula is motivated by continuous development. “No day is the same. New ideas, people and opportunities come along all the time. It keeps the work interesting year after year,” Makkula concludes. ■

” **I encourage companies to come and talk with us.**

Sami Makkula,
account manager





Edla Murrosranta helps clients find training programmes for different stages of their careers.

Competence is crucial in the changing health and social services sector

Text: Edla Murrosranta and Tanja Keskitalo

Changes in working life are visible in everyday operations in all areas of healthcare. At the same time, continuous learning has become an increasingly important part of professionals' work and well-being at work, as well as attraction and retention of employees.

The renewal of service structures, shortage of staff and the increasing complexity of nursing challenge the health and social services sector. The continuing education in clinical nursing at LAB University of Applied Sciences has been created to respond to these needs. The training combines working life orientation, research-based knowledge and practical competence development.

"The aim of the continuing education is to provide nursing professionals with concrete tools for the changing working life.

We want the expertise gained from the training to be directly visible in everyday work, patient safety and the development of work communities," says Account Manager **Edla Murrosranta**.

Competence development also supports well-being at work

The significance of continuing education is not limited to acquiring new knowledge. It also supports professional confidence, career development and coping at work. There is a continuous need to deep-

en and update competence in the changing and increasingly demanding operating environments of the health and social services sector.

"Our training is planned in close cooperation with working life so that the content genuinely meets the needs of the field," Murrosranta explains. LAB offers both short, targeted training and more extensive continuing education, which can be completed flexibly alongside work online, in contact teaching or as blended learning implementations.

"We want to enable studying in different life situations. Flexibility is important because many participants combine studying with demanding expert work," says Murrosranta.

One of the most extensive clinical nursing education offerings in Finland

LAB University of Applied Sciences has one of the most extensive continuing education offerings in clinical nursing in Finland. The offering is structured by the LAB product family, which compiles the trainings into a clear path for competence development.

"The product family of our trainings consists of three programmes: LAB Advanced Specialist (Erikoistunut osaaja), LAB Expert (Osaaja) and LAB Clinics (Klinikat). The aim of these is to offer options suitable for various career stages and competence needs – from strengthening practical manual skills to in-depth clinical expertise", Murrosranta explains.

An entity based on the needs of working life

LAB's continuing education emphasises working life cooperation, expert trainers and peer support. In student feedback, praise is particularly given to the practical nature of the training and the oppor-

tunity to network with other professionals in the field.

"Competence development is no longer an individual phase during a career, but a continuous part of professionalism. At the same time, it is also an investment in high-quality care, patient safety and well-being at work," Murrosranta concludes. ■

LAB Advanced Specialist 30 credits

- Continuing education based on research-based knowledge that deepens expertise in demanding specialisations in nursing, while supporting the development of the participant into an advanced specialist. The following nursing modules: gastroenterology, cardiology, kidney patient, anaesthesia and urotherapy.

LAB Expert 10–15 credits

- The opportunity to focus into a limited area of expertise when the aim is to develop expertise or to redirect the career. The training supports goal-oriented competence and helps to build a role as an expert on a specific theme. Upcoming themes include, for example, competence in nursing in crisis and disaster situations or ophthalmic nursing.

LAB Clinics

- Quick and hands-on learning environments that provide targeted training on key clinical skills. The programmes enable effective practice in, for example, wound care, clinical examination of the patient or suturing of a traumatic wound.

Highlights

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Successes, events, new openings, cooperation and continuous learning. On this page, we compiled topical highlights of the activities – people, successes and future opportunities.

Images: Netta Lehtinen, Teemu Rasi and Luca Eskelinen

The Matchwork project jointly carried out by LAB University of Applied Sciences, the City of Lappeenranta and Saimaa Vocational College Sampo has received the 2026 South Karelia's Future Act of the Year honourable mention. The recognition was granted to the new employment operating model developed in the project, which is based on systemic thinking.

In Matchwork, working and coaching implemented during working hours run side by side. The model improves the expertise of employees, the steering capabilities of work communities and cooperation between different actors with the aim of sustainable employment.

According to the foresight network that awarded the recognition, Matchwork is building a more humane and future-proof working life in which well-being, learning and inclusion go hand in hand. ■



Come and learn more about continuous learning at the autumn events. You can find us either at our own stand or at the continuous learning stand shared with LUT University, at these events.

Emergency Medicine Congress 2026 18–19 November Sibelius Hall, Lahti. ■

*List has been updated 1.10.2026.
More events coming later.*



LAB WellTech is a partner for organisations in operational development. A multidisciplinary team of experts helps companies and public actors enhance well-being, renew services and develop new solutions.

The services are divided into four entities:

- Work community training supports the competence, well-being at work and preparedness of organisations in changing situations.
- Product development support helps companies take health and well-being technology solutions from concept to market, together with users and experts.
- Accessibility services develop physical and digital environments to be more equal.
- Performance measurement services produce data to support, for example, work ergonomics, mobility and workload development.

The strength of LAB WellTech is multidisciplinary. The client can receive support from research, students, laboratory and simulation environments, as well as a multidisciplinary network of experts. ■



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In the spring, **Marko Kaira**, head nurse at HUS Cancer Center, was selected as the first Alumni of the Year in the history of LAB University of Applied Sciences. The recognition was granted for his exemplary teamwork, encouraging approach and long term contribution to the development of nursing.

Five years after graduation, Kaira remains a proud representative of the LAB identity. In the interview, Kaira shares professional insights from daily hospital life and the key takeaways from their studies. ■





**We Enable
Responsible
Growth**

We help companies renew and grow

Companies are the backbone of our economy.

Their success fosters well-being for society as a whole. At the LAB University of Applied Sciences, we help SMEs identify opportunities for growth and develop sustainable innovations that enhance competitiveness and open new possibilities.

We believe that growth generates new jobs, and we train future experts for them. This creates a positive cycle, where collaboration and competence strengthen each other, boosting vitality and well-being.

Let's create that positive cycle together!

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