CITY OF ESPOO – THE KIND OF INNOVATION THE WORLD NEEDS

IMPACT

When Otaniemi flaps its wings

Global problems are on the agenda of the world's densest hub of systematic innovation. The City of Espoo, Aalto University and VTT are building a sustainable future in Otaniemi, where everyone's contribution matters. **p.2**

Radical cooperation

is the first step in solving challenges that shake both Finland and the world.
p.3

Labour immigration

brings international experts to Finland, but what makes them stay?
p.7

Psychological safety

is essential for future-oriented innovations.
p.8

ESPOO
ESBO

Otaniemi campus stands on seven hills

The Otaniemi campus area is a jewel of Finnish architecture. The development history of the campus can be considered to have started in 1949, when the Finnish government organised a competition for the design of the research and education buildings in Otaniemi. The competition was won by Alvar Aalto. Education had already existed in the area—ever since 1862, when Anna Sinebrychoff founded a school in Otaniemi for poor children.

"Aalto himself has explained how both Rome and Otaniemi have been built on seven hills. He was inspired by the architecture of ancient Greece, which is apparent in the atrium yards, auditorium and landscape relationship in Otaniemi. Aalto compared the hill of the main building of TKK (Helsinki University of Technology) to the Acropolis of Athens," says Antti Ahlava, Architect and Full Professor of Emergent Design Methodologies at Aalto University.

The construction of the new campus area relied heavily on the landscape. Alvar Aalto designed the university's main building, library, student housing and assembly building, among others. The buildings designed by Aalto's office represented the highest standard of campus architecture of its time. The former main building of TKK and the current Undergraduate Centre of Aalto University is the most imposing building on the campus designed by the office. The highlight of the monumental building is the auditorium section, which includes an outdoor theatre.

"The common areas of the building are highlighted by inventive lighting and detailing solutions: sets of human-scale stairs, skylights, organically shaped false ceilings and pillars coated with ceramic rods. Humane design is visible in door handles for people of different heights. The influence of ancient Greece and Rome can also be seen in the interior design with its bronze, braiding and marble," says Ahlava.

After its renovation, the Department of Architecture has become one of the most accessible buildings in Finland. The starting point for the building's staircase was Michelangelo's design for the staircase of the Laurentian Library in Vatican. Aalto created his own, cubic version of it. The influence of the 1940s romanticism shines through the vegetation-covered surfaces both inside and outside. Now in 2023, the Aalto University campus is a quickly expanding centre of cooperation and innovations. The development is driven by the implementation of the university's strategy.

"In the future, different campus functions and user groups will be mixed even more, and we want the area to be active also outside office hours. From the construction perspective, the most important thing is to preserve the cultural-historical values of the area and, at the same time, to increase biodiversity," Ahlava says.


MIKKO RASKINEN

Culture at the heart of our national economy

LET'S START WITH THE BASICS: Finland's economic growth and the sustainability of the society centre around the creation and commercialisation of innovations that the world needs. Even the most ingenious new material or application is not valuable if it later causes more trouble than benefits, for example, in material cycles. The world needs innovations that solve problems vital to humanity: energy, climate change, biodiversity loss, depletion of natural resources, food production, sustainable urbanisation and the effects of ageing on health care and the economy, among others. The problems of sustainable growth can only be solved systemically. In other words, issues need to be examined from many angles and the relationships between different phenomena need to be studied.

CURRENTLY, THE WHOLE WESTERN WORLD is talking about the need to create radical cooperation between different sciences, arts and other fields. The entire community surrounding Otaniemi is based on such activities. When we talk about the Otaniemi community, we are not referring to geography but to a way of thinking and acting—to a culture of creating meaningful and impactful innovations that is radically interdisciplinary, collaborative and trust-based. The cooperation between the City of Espoo, Aalto University and VTT have made us realise that the promise of this culture of shared goals and values to the Finnish economy and the world is not just big but enormous.

THE CULTURE IS CONDENSED IN OTANIEMI, where hundreds of leading companies and start-ups, research institutes, students and experts from the fields of science, art, technology and business discuss and create truly revolutionary solutions that promote sustainable development. On one hand, this is because Finland is a small country; on the other hand, it is because of decades of development work since the days of Alvar Aalto, whose name and ideas are echoed in the name of the university in the area. The expanded Otaniemi area may be the densest area of systemic innovation in the world, and its people may have the greatest positive impact on the world's future on average.

T**HIS IS A STORY THAT WE ARE PROUD** to share with the world. However, Otaniemi is not a new Silicon Valley, but an innovation community based on trust and shared values, well-being and low hierarchy that solves global challenges. But we must also do better. Our shared success story requires that we are not only the world's most impressive but also the world's most attractive place to work at all levels of expertise. Decision-makers will not solve these challenges alone. We set a challenge for ourselves, residents, companies, research institutes, educational institutions and universities alike.

WHEN THERE ARE NO READY-MADE SOLUTIONS available, they need to be developed—and developed together.

Jukka Mäkelä
Mayor, City of Espoo

Antti Vasara
President & CEO, VTT

Ilkka Niemelä
President, Aalto University

CREATORS | **Writers:** Maria Paldanius, Sini Levisalo | **Photographers:** Joona Raevuori, Unto Rautio, Henri Sallinen, Mikko Raskinen, Jetro Stavén, Leena Ylä-Lyly, Juho Huttunen, Juliana Harkki | **Front cover concept and photo:** Miltton

INSPIRING DRIVE AND RADICAL COOPERATION

What kind of innovation cooperation is carried out in the Otaniemi-Keilaniemi area? Why is interdisciplinary research and development so important? How is the area's welfare culture built?

Many organisations have chosen Espoo and Otaniemi as their place of business. It is home to VTT's largest office in Finland, one of Europe's leading research institutes. VTT is a visionary research, development and innovation partner owned by the Finnish state whose task is to promote the utilisation and commercialisation of research and technology in business and society. VTT tackles global scientific and technological challenges. This results in sustainable growth, new jobs, well-being and, most importantly, hope for the world and hope for a better future.

The spine of Otaniemi is formed by the Aalto University campus. It is a cluster of unique cooperation and innovative research that provides a wide range of facilities for studying, living and leisure alike. Traditionally, university campuses have been divided into different buildings based on the school of study, but Aalto University has chosen a different approach: the campus facilities have been placed according to the research focus, supporting multidisciplinary cooperation. The proximity of the departments makes it possible to test new functional solutions and share creative spaces with a low threshold. The six schools of Aalto University are located on the campus: School of Engineering, School of Business, School of Chemical Engineering, School of Science, School of Electrical Engineering as well as School of Arts, Design and Architecture.

The Otaniemi campus also includes various services, most of which can be found in the A Bloc and A Blanc shopping centres. A Bloc, which is connected to the Aalto University metro station, is Finland's most innovative shopping centre and the "living room" of the campus. A Blanc, located on the edge of the Alvarinaukio square, is in turn a meeting place that offers local services to support everyday life, such as restaurants, shops and offices. The aim for the future is to bring local companies, start-ups, technology parks and the university campus even closer together to support the creation of new knowledge and innovations.

HENRI SALLINEN

IF YOU WANT to come up with creative solutions to the complex problems of our time, you need interdisciplinary research and development cooperation. Thanks to the centralisation and expansion of Aalto University, the Otaniemi campus area is without a doubt one of Finland's most important centres for sustainable innovation."

Tea Auramo,
Strategist, Fluff Stuff

IN FINLAND, top experts with an immigrant background are taking the lead in different sectors, from public services to business life. It's important that Finnish society adapts to the new wave of immigration. Diversity, inclusion and equality in leading roles strengthen Finland's position also internationally."

Himadri Majumdar,
CEO, SemiQon

JOONA RAEVUORI

NESTE

FOR NESTE, sustainability, innovations and cooperation are very important. Our location in Otaniemi close to our partners and experts of the future is a natural choice for us."

Minna Aila,
Executive Vice President of Sustainability and Corporate Affairs, Neste

VTT

OTANIEMI is a highly international and versatile innovation, research and expertise cluster that creates new innovations and solutions for the future. It offers jobs and well-being for experts of various fields. We invest in psychological safety and are building an operating culture that encourages cooperation and leaves room for creativity."

Kirsi Nuotto,
Senior Vice President of Human Resources, VTT

THE DISCUSSION at Aalto centres around the operational environmental footprint and sustainability impact. Aalto University creates sustainability impact when research, education and innovations are transferred for the benefit of society. The aim is to maximise the sustainability impact while minimizing the environmental footprint."

Janne Laine,
Vice President for Innovation, Aalto University

MIKKO RASKINEN

ESPOON KAUPUNKI

THE BEST THINGS about the innovation community in Otaniemi and Espoo as a whole are its unexpectedness and creative inventiveness, which arise from deep expertise, radical cooperation between different actors, mutual trust and a common will to solve even major global problems. The drive in Otaniemi is inspiring and internationally unique."

Mervi Heinaro,
Deputy Mayor for Economic Development, Sports and Culture, Espoo – Esbo – City of Espoo

INNOVATION in the Otaniemi-Keilaniemi area is based on radical cross-disciplinary cooperation. The area houses 25 research centres, 400 research and development units, 5,000 researchers and 16,000 experts in ICT and information-intensive fields. Aalto University and VTT form a core that brings together start-ups, leading companies, researchers, students and citizens to create innovations for a better life."

Erja Turunen,
Executive Vice President, VTT

VTT

UNTO RAUTIO

Innovations that the world needs

Complex systemic problems are being solved in Otaniemi, Espoo. Many organisations focus on sustainable development solutions, but what are systemic innovations—and why Otaniemi?

Helsinki University of Technology, nowadays part of Aalto University, moved from the centre of Helsinki to Otaniemi decades ago. The area offered plenty of space for a growing campus, and it was close to the capital. Today, Otaniemi is largely built around Aalto University. **Susanna Ahola**, Coordinator at Aalto University's Bioinnovation Centre, has nothing but good things to say about the area.

"Otaniemi is a modern campus area and a strong centre of expertise with research institutes, schools, services and a start-up cluster. It offers plenty of opportunities for hobbies, education, cooperation and work, so you could spend your whole life here," says Ahola, who has lived and studied in Otaniemi.

The work at Aalto University's Bioinnovation Centre relies on multidisciplinary cooperation in bioeconomy and circular economy. The research projects combine materials science, design, economics, chemistry, artificial intelligence and electronics, for example. The University of Art and Design Helsinki, the Helsinki School of Economics and the Helsinki University of Technology merged into Aalto University more than ten years ago, which contributed to the creation of the centre.

"Resolving difficult systemic problems requires cooperation between different sectors and internal motivation to build a sustainable future. Start-ups are a good example of this: innovations developed in Otaniemi end up on the market as products and solutions for the benefit of the society as a whole," Ahola sums up.

More sustainable clothing industry

Sustainability is a hot topic in textile products and materials. New innovations that pave the way for a more sustainable future have been developed at Aalto University and in Otaniemi for a long time. An example is the Ioncell® technology, which can be used to manufacture high-quality textile fibres from, for example, cellulose-based textile waste.

"Our goal is to replace cotton, viscose and polyester with Ioncell® textile fibre, which is more sustainable. This way, we contribute to solving global sustainability challenges in the textile and clothing industry," says **Antti Rönkkö**, CEO of Ioncell Oy.

Ioncell Oy's operations have centred around Otaniemi, which is natural, as the Ioncell® technology originates from Aalto University. The operating environment known for its boldness and multidisciplinarity has contributed to the development of the technology. For Rönkkö, the Otaniemi campus is special thanks to its interdisciplinary nature, entrepreneurial approach and energetic atmosphere.

"I can genuinely say that Aalto University and Otaniemi provide a very energising and innovative environment that you enjoy coming to. Otaniemi has also birthed two other VTT and Aalto-based start-ups in our field. It is unique as there aren't that many actors globally," he says.

Beyond the obvious

Why is VTT's largest office in Finland located in Otaniemi? According to **Erja Turunen**, Executive Vice President at VTT, Otaniemi is an ideal operating environment as it combines key features of research and the beyond the obvious thinking, such as ambitious operations and the desire to solve global challenges, create well-being and collaborate across disciplines.

"Researchers, companies and other actors are in continuous interaction, and the boundaries between different actors are low. The operating environment of both Otaniemi and VTT emphasise the beyond the obvious thinking, so we challenge ourselves and our customers to think further," Turunen explains.

VTT has invested in world-class expertise and research infrastructure, which enables experimental activities to be carried out also as part of customers' activities. Deep technology is used to solve global challenges related to climate change, for example, while investing in sufficient resources and guaranteeing growth for customers and investors. One example is the "competence hub" of microelectronics and quantum technologies, in which VTT, Aalto and companies jointly develop state-of-the-art technology in a cleanroom environment.

"Systemic innovations require a broad knowledge base in different fields of science and a low threshold for cooperation. It also requires a climate of trust in which we dare to share information, take risks and, on the other hand, make mistakes together. We have it all in Otaniemi," Turunen sums up.

A wide diversity of experts lays a strong foundation for innovations, and VTT employs as many as 55 nationalities.

"Of course, it can be difficult to find the right people and know what is going on and what kind of cooperation would be possible when there are so many actors. But we have succeeded in creating cooperation and ecosystem models to facilitate it." Turunen says.

MIKKO RASKINEN

AALTO UNIVERSITY'S *Bioinnovation Centre strengthens Finland's position as a pioneer in bioeconomy. Otaniemi has a relaxed, creative and technology-oriented atmosphere. We are situated in a beautiful location by the sea and along excellent traffic connections.*

Susanna Ahola,
Aalto University's Bioinnovation Centre

JUHO HUTTUNEN

IONCELL® *is a technology that turns textile waste, pulp or even old newspapers into sustainable textile fibres in an environmentally friendly manner and without harmful chemicals. The process converts cellulose into fibres that can be made into durable textiles.*

Antti Rönkkö,
CEO of Ioncell Oy

UNTO RAUTIO

OTANIEMI *has a wide diversity of experts, which creates a strong foundation for new innovations. In addition to diversity, Otaniemi invests in psychological safety, as do we at VTT. This is one of the factors that distinguishes top teams from the rest.*

Erja Turunen,
Executive Vice President at VTT

Radical cooperation is a global competitive advantage

The Otaniemi campus is like the world in miniature: it is a multidisciplinary innovation ecosystem with the goal of a more sustainable future. As the Aalto Ventures Programme (AVP) points out, although it is impossible to predict the future, anyone can change the world with the right attitude.

Aalto University is a meeting place for science, art, business and technology where interdisciplinary research is guided by the idea of radical cooperation. The barriers between different actors are low and the hierarchy almost non-existent, which is typical of Finnish society. In the everyday life at the university, this is reflected in a strong sense of working together, which is a significant competitive advantage and an asset also internationally.

"Aalto's strength is its close-knit community, which is reflected, for example, in the concentration of public and commercial actors in a small area as part of the same innovation ecosystem. There are 1,500 companies in the Otaniemi-Keilaniemi area, such as VTT and GTK, and a leading university in education, research and innovation is at the heart of the area," says **Janne Laine**, Vice President for Innovation at Aalto University.

"Objectives are achieved together. No organisation can succeed alone.

UNTO RAUTIO

For Aalto, this means active dialogue and communication, a lively calendar of events and listening to the needs of companies concerning not only research and innovation but also recruitment. An example of such cooperation is the Smart Otaniemi project, which has involved extensive cooperation between 70 local actors in the Otaniemi area with the aim of creating new energy solutions. For example, Aalto and Fortum have jointly promoted the introduction of new sustainable energy solutions on the campus. The goal of the City of Espoo, Aalto University, VTT and the other actors is to make Espoo carbon neutral by 2030.

"Otaniemi is also a globally significant area in promoting sustainable development. Achieving the goals requires radical cooperation, however, and no organisation can succeed alone," emphasises Tomi Erho, Head of Innovation Ecosystem Services at Aalto University.

Students in the Aalto Ventures Programme (AVP) also follow the path of radical cooperation. The aim of the programme is to develop inner entrepreneurship and an entrepreneurial mindset and harness them as part of building a better future. According to the AVP mindset, it is impossible to predict the future, but anyone can change the world with the right attitude. The same philosophy applies to all activities of the university. Aalto has a uniform "Nordic way of thinking" and a low-hierarchy environment typical of the Nordic countries.

"Here, all actors are well connected. We are developing common operating models that will make the area's expertise and infrastructure even more efficient in strengthening Finland's innovation capabilities," Laine and Erho sum up.

Fiskars Group Campus found its home in Keilaniemi

The Fiskars Group Campus is a centre of pioneering design in Keilaniemi. The planning has focused on accessibility, sustainability and the well-being of employees.

The Fiskars Group, which runs its headquarters in Keilaniemi, produces pioneering design to make the everyday extraordinary. The power of cutting-edge design is visible throughout the company, from ideas to production and business development.

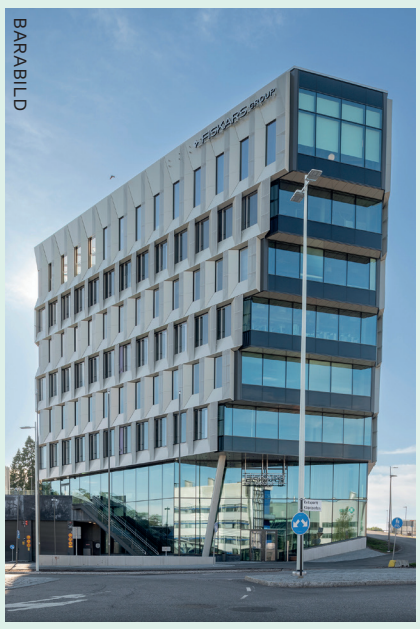
"For consumers, our work results in innovations, sustainable growth, practical and beautiful products as well as in a challenge to the disposable culture," says Kati Kaskeala, Vice President at the Fiskars Group.

Sustainability is at the core of the Fiskars Group's growth strategy, and thus, in the centre of planning the new headquarters that opened in spring 2022. The Fiskars Group Campus is an energy-efficient building that only uses renewable energy, and part of its electricity is generated by solar panels. The interior design utilises repairable, reusable and recyclable materials, and many of the furniture have travelled with the company for years. New items are also frequently bought second-hand. The building has received a BREEAM Excellent certificate, which is the second highest level of Europe's best-known environmental certificate.

"Sustainability and employee well-being have played a key role in the planning. The top floor of the building is intended to help you recover from the work and replenish energy. In addition to the magnificent views, there is a huge rooftop terrace, gym, massage room, resting rooms as well as an office kitchen and cosy break rooms," Kaskeala sums up.

The story of the Fiskars Group began in the village of Fiskars in 1649. The current headquarters is located just a stone's throw from the company's birthplace in Keilaniemi. The location is ideal in many respects: it is a transport hub that is easily accessible by public transport and walkways as well as from the airport.

"We are also close to our key partners, such as Aalto University and the Espoo Museum of Modern Art EMMA, which has curated art for the Fiskars Group Campus. We have a long history in the field of art and design, and there is art on every floor of the headquarters," says Kaskeala.



BARABILD

Second place for Espoo in iCapital

The winners of the European Commission's European Capital of Innovation Awards 2022 were announced at the European Innovation Council Summit on 7 December 2022. Aix-Marseille-Provence won the first place, and Espoo was the runner-up with the best Finnish result ever, while Valencia placed third. Espoo has reached the finals before, both in 2019 and 2020. The award reflects the fact that Espoo's innovation culture is attracting interest across Europe. According to Mayor Jukka Mäkelä, the source of innovation is not the city itself but the people living there. Success in the competition is also a recognition of the unique cooperation between Aalto University, the City of Espoo and VTT as well as a channel for attracting international talents and companies. Espoo has a long history of significant innovation activities that accelerate sustainable growth. The milestones achieved are something to be proud of, but solving common challenges will continue to require future-oriented work.

MIKKO RASKINEN

The characteristics of cattail fluff, utilised in the prototype, are very similar to that of down.

START-UPS FOR WELL-BEING AND THE ENVIRONMENT

What does a forearm-mounted skin-stroking device and a winter coat filled with cattail fluff have in common? Both are innovations created in Aalto University's research projects that have developed into start-ups.

The Aalto University campus is a cradle of interdisciplinary research. Many research projects grow into start-ups, and a business incubator known as the Aalto Startup Center provides a base of operations for them. Established in 1997, the centre has been one of the pioneers in building and developing the start-up ecosystem in Finland. The activities are guided by the dynamic nature of the start-up culture: ideas are not endlessly "incubated" or refined but piloted and developed with an open mind. Over the years, the Aalto Startup Center has succeeded in creating sustainable companies that support the entire Finnish society.

One recent example is the hentoTouch project. Within its framework, a device has been developed that could potentially reduce the alcohol cravings of those suffering from alcohol addiction. The effect of the device is based on a pleasant touch that activates the skin's nerve pathways, which in turn activates the parasympathetic nervous system and causes the brain to release dopamine and oxytocin, among other things. Similar softness and tenderness are also offered by cattail fluff, which is similar to down feathers and found in Finnish nature. Fluff Stuff Oy uses it to develop ecological and vegan alternatives for polyesters and down to meet the demand of the textile and clothing industry.

JULIANA HARKKI

The device is designed to be worn on the skin in everyday life.

Ecological textile filling from cattail

Typha, or cattail, is an extensive plant genus, and the plants of the family thrive in wetlands. Ossinlampi pond, located in the Aalto University campus area in Otaniemi, is an example of such environment. Engineering student **Lukas Schuck** came up with the idea of collecting fluff from cattails by the pond into jute bags. He then hauled the bags into the clubhouse lounge, where students found them comfortable. Then it hit him: could cattail fluff be commercialised? The question was forwarded to Strategist **Tea Auramo**, Art Director **Amir Tahvonen** and Product Manager **Laura Rusanen** of the Aalto network.

"We use cattail fluff in prototypes for clothing and interior products, for example as pillow and coat filling. The idea is to introduce an ecologically sustainable and vegan alternative to polyester and down to meet the growing demand," Rusanen says.

The significance of the Otaniemi area for the project cannot be overstated. Erno Launo, who started as CEO of Fluff Stuff Oy in March, praises the Aalto Startup Center, which paves the way for both the commercialisation and networking of innovations. In his eyes, the strengths of the area include multidisciplinary education, constantly developing infrastructure and long traditions as an educational institution and one of Finland's leading innovation centres. What about the areas of improvement?

"One clear challenge is the complexity of decision-making related to regional development—and, with some reservations, the rigidity of decision-making. This is understandable, of course. The campus brings together different fields of science, which means that many actors must be involved in decision-making and their interest need to be reconciled," Launo ponders.

From the perspective of innovative start-ups such as Fluff Stuff that promote sustainable development, Otaniemi is an unrivalled operating environment. The area is becoming more and more popular also for living, which is evident in the many concrete changes in the area, such as the development of transport connections and the growth of Keilaniemi.

"Otaniemi is a unique ecosystem that encourages bold thinking. It's a meeting place for research, innovation activities, start-ups, companies and funders alike."

Mechanical contact to manage illnesses

Could mechanical contact reduce the alcohol cravings of those suffering from alcohol addiction? Could neural fibres that encode a gentle, stroking touch on the surface of the skin be used in the treatment of illnesses and stress management? This is being studied in the hentoTouch project funded by Aalto University and Business Finland, which originated from the Aalto University's Biodesign Finland project.

"The aim is to develop and bring to the market a wearable device that would make the potential health benefits of touch available even without social contact. This is a pilot study, and we are currently looking for participants," says **Juliana Harkki**, who is responsible for the medical side of the project.

> *Many different actors must be involved in decision-making and their interests must be reconciled.*

It is also a multidisciplinary study, which is typical of both the Otaniemi innovation hub and Aalto University. Part of the group focuses on the therapeutic aspect of the topic, while others consider technological solutions. Leading experts in technology, neuroscience, economics and textiles have been consulted in the project.

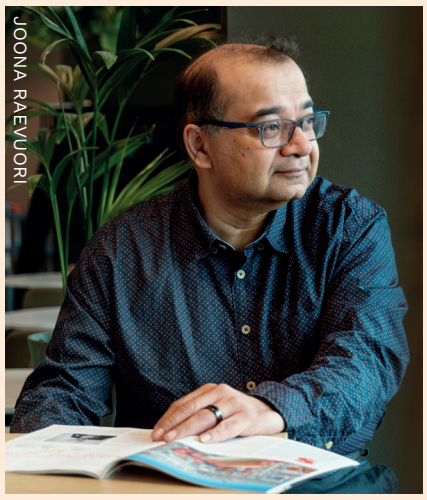
"We also have an excellent framework for brain imaging and behaviour research," Harkki adds.

She highlights the physical proximity of the departments as one of the strengths of Otaniemi: different fields of science work side by side on one campus. However, using the facilities and equipment of different departments has proven to be a slight challenge and not always possible. For this reason, Harkki ended up doing parts of her research in research cooperation at the University of Helsinki's Biomedicum.

"The proximity of the departments a significant strength and advantage, nonetheless. It lowers the threshold for joint interdisciplinary projects and creates a climate of shared goal."

There is a need for international experts

Labour immigration brings experts in different fields to Finland from all over the world. Espoo wants to promote the attraction of experts and support their settling in and integration into the Finnish society. Three highly educated immigrants are here to talk about their experiences.


JOONA RAEVUORI

A balanced life is worth more than money

SAMI KAZI, Research Scientist at VTT Technical Research Centre of Finland, feels he has been lucky. In 1999, he went on a researcher exchange in Otaniemi as part of his postgraduate studies at the Asian Institute of Technology in Thailand, and only a year later, he was recruited. He is still on that path.

"I know that finding work in Finland is much harder for many immigrants. It's often due to the lack of Finnish language skills and networks," says Kazi, who lives in Otaniemi with his family.

Kazi, born in Pakistan and educated in Saudi Arabia, Turkey and Thailand, has lived most of his life in Finland. He considers Finland a safe country and tips his hat to Espoo, which has invested in promoting labour immigration in recent years. But there is still much work to be done.

"High taxation and certain cultural differences, such as the honesty and directness of Finns and the lack of hierarchy, may pose challenges. If you want people to stay, you need to invest in integration," Kazi sums up.

Kazi has gained the nicknames "Finland fan" and "Market man" among his wife and colleagues, and he finds both fitting. Kazi brims with pride for his current home country, where he has lived happily for 23 years.

"Living in Finland has taught me that having a balanced and good life is more important than money. Here, it is possible."

Finnish can be studied alongside work

THE FIRST WINTER in 2019 was the most difficult one. It was dark, cold and slushy. American student **Betsy Akins** was grateful to her thesis supervisor, who told her about the Three Key C's that would help: candy, coffee and candles. Aqua jogging and sauna have since brought additional relief to the winter season.

"The cons of living in Finland are the cold, slush and the difficulty of Finnish. The pros are summers, sauna and wonderful people. I'm happy that I decided to settle in Finland for good. Finns appreciate the work-life balance, nature, quietness as well as each other. And the cinnamon rolls are heavenly!" Akins says with a laugh.

Studying Finnish has felt like studying a mysterious code. Akins feels that the language is one of the biggest stumbling blocks for many. Many immigrants are highly educated and motivated, but finding a job often fails due to the lack of Finnish language skills. The City of Espoo has been lucky to find Akins to supplement the team at Espoo Talent Hub.

"I really appreciate my employer who has succeeded in creating a linguistically flexible and diverse working environment. Here, I can fully invest in my work and learn the language on the side," she says.

Akins grew up in the periphery of Ohio in a family of six children. She has always had relatives in Finland, and she made her first visit to the country as a child. Summer nights at the cottage, white Christmases and forest walks left an impression on her. After graduating as a Bachelor of Clinical Psychology and German Language and Literature, Akins moved to Austria for work. In August 2019, the journey continued to Finland and to the Master's Programme in Design at Aalto University.

"Finland is the safest place I've ever lived in. Here, people care about me as a person. Of course, I'm also aware of my privileged position: I look like a Finn and only stand out of the crowd when I start speaking Finnish. For people from many other countries, settling in can be more difficult."


DINA LEE PHOTOGRAPHY


JOONA RAEVUORI

CEO has three reasons to stay in Finland

EFFORTS SHOULD be made to make Finland an even more attractive target for international talents. Labour immigration brings skilled professionals from all over the world to Finland, enriching the society. This is the mindset of the CEO of SemiQon, **Himadri Majumdar** from India. He and his family have lived in Finland since 2004, when he started as a researcher at Åbo Akademi University.

"A positive and accepting atmosphere requires the efforts of not only the Finns but also us immigrants. It's a two-way street. I hope that everyone will do their part for integration," he summarises.

Majumdar's career path led to Otaniemi in 2012 as VTT's Senior Researcher. His wife holds a similar position at VTT. The family has three key reasons for staying in Finland: inspiring work in an international environment that matches their education, good social security and health care system and an internationally competitive education system that their daughters have been able to enjoy.

HOW TO PARTICIPATE IN THE ACTIVITIES OF ESPOO TALENT HUB?

ESPOO TALENT HUB *helps international experts build a career and life in Espoo by organising various career development services and events.*

- **Community breakfast on the second Tuesday morning of each month**
- **TalentMatch Recruitment Events**
- **Career development services:**
  - → Career Club
  - → EntryPoint mentoring programme
  - → Competence Centre for Highly Educated Immigrants

More information:

HIGH-QUALITY INNOVATIONS REQUIRE PSYCHOLOGICAL SAFETY

In Otaniemi and at VTT, positive impact is at the core of the working life transformation. A good example of this is VTT's New Work programme, where the future working life is built through various experiments. One of the most significant of these was the personnel's emotional agency training. What did the experiment achieve?

Working life is undergoing a radical transformation. While many used to work for the same employer and possibly in the same exact position for their entire career, start-ups are now taking over the labour market, and established actors are reforming their operations at an increasing pace.

It has been estimated that up to 15 percent of existing jobs will go through changes or disappear completely with digitalisation and new business models. Coronavirus has also played its part. In the midst of the changes, VTT invests, for example, in anticipating the future.

"We help our customer companies understand the future of their business environment and utilise foresight methods in many of our research projects. Positive impact is created together with customer companies. When customers create sustainable business and sustainable growth, big impacts can be achieved," says **Pauli Komonen**, Senior Scientist in VTT's Strategic Foresight team.

15%

of existing jobs can change or disappear completely.

NOORA TYPPÖ

Emotional skills for working life

VTT has found good practices through various experiments to support the new wave of hybrid work. One of these is the New Work programme, through which VTT ensures that innovative expert teams are able to work efficiently even in a changing environment. According to Komonen, who has worked at VTT for three and a half years, an experiment-based programme shows that VTT is serious and employee-oriented about the change in working life.

"One of the most extensive experiments was the emotional agency training for forepersons. It helped them understand their own and each other's emotions and how they impact work and working life. The experiment is now open for all VTTers," Komonen says.

The emotional agency training has helped employees recognise work-related emotions and provided them with tools to improve communication around emotions in the work community. The training combined online work and pair work, which made it possible to squeeze it into already busy schedules. As a result, psychological safety and the sense of belonging have improved, and management indices have spiked.

"This is important because solving complex challenges requires cooperation and genuine encounters—not just planned ones," Komonen says.

Shared values and ambition

According to Komonen, the centre of Otaniemi has grown into an active communal area with its cafés, restaurants and other everyday services. He enjoys the international atmosphere of the campus area and the good transport connections, which make it easy to invite customers and partners to visit you, whether by public transport or by car. One major improvement has been the Espoo metro.

"The Otaniemi-Keilaniemi area has a broad knowledge base in different fields and disciplines. The actors in the area are highly ambitious and have similar values, with sustainability and diversity at the core. The area has some of Europe's most innovative schools, research institutes and companies," he praises.

VTT's operations are impact-driven and guided by sustainable growth, which is examined from environmental, ethical and economic perspectives. In addition, competence development and the well-being of employees, which is seen as an important source of creativity, have been placed at the centre of the strategy. When tackling the world's greatest challenges, people must be happy.

"We believe and trust that these guidelines will help us solve the challenges of climate change or resource scarcity, for example, using deep technology solutions," Komonen sums up.

The world is unlikely to ever be ready, but science and technology can be used to turn global challenges into sustainable growth for companies and society—while creating hope for the future.

Europe's appeal is growing among Silicon Valley actors

EU COMMISSIONER Mariya Gabriel invited Mayor of Espoo Jukka Mäkelä, President of Aalto University Ilkka Niemelä and Jan Goetz, CEO of IQM, a quantum computer company, to visit the European Innovation Day on 22 March. In San Francisco's Silicon Valley, the leaders met investors, experts and business leaders and participated in an event of the Commissioner's delegation where the opportunities offered by Europe were marketed to local researchers, experts and entrepreneurs.

Europe was presented to the local actors as a leading area of deep technology expertise. Innovation cooperation in Espoo also attracted interest when the Mayor presented the opportunities offered by Finland and Espoo for promoting sustainable development.

The delegation contributes to the European Innovation Agenda, the main objective of which is to make Europe a leader in the global innovation field. Mäkelä's visit to the United States to strengthen Espoo's profile as one of the leading European capitals of innovation was part of this work.