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life in ESTONIA



Emerging offshore wind tech innovation and manufacturing hub

e-Residency empowering digital nation globally

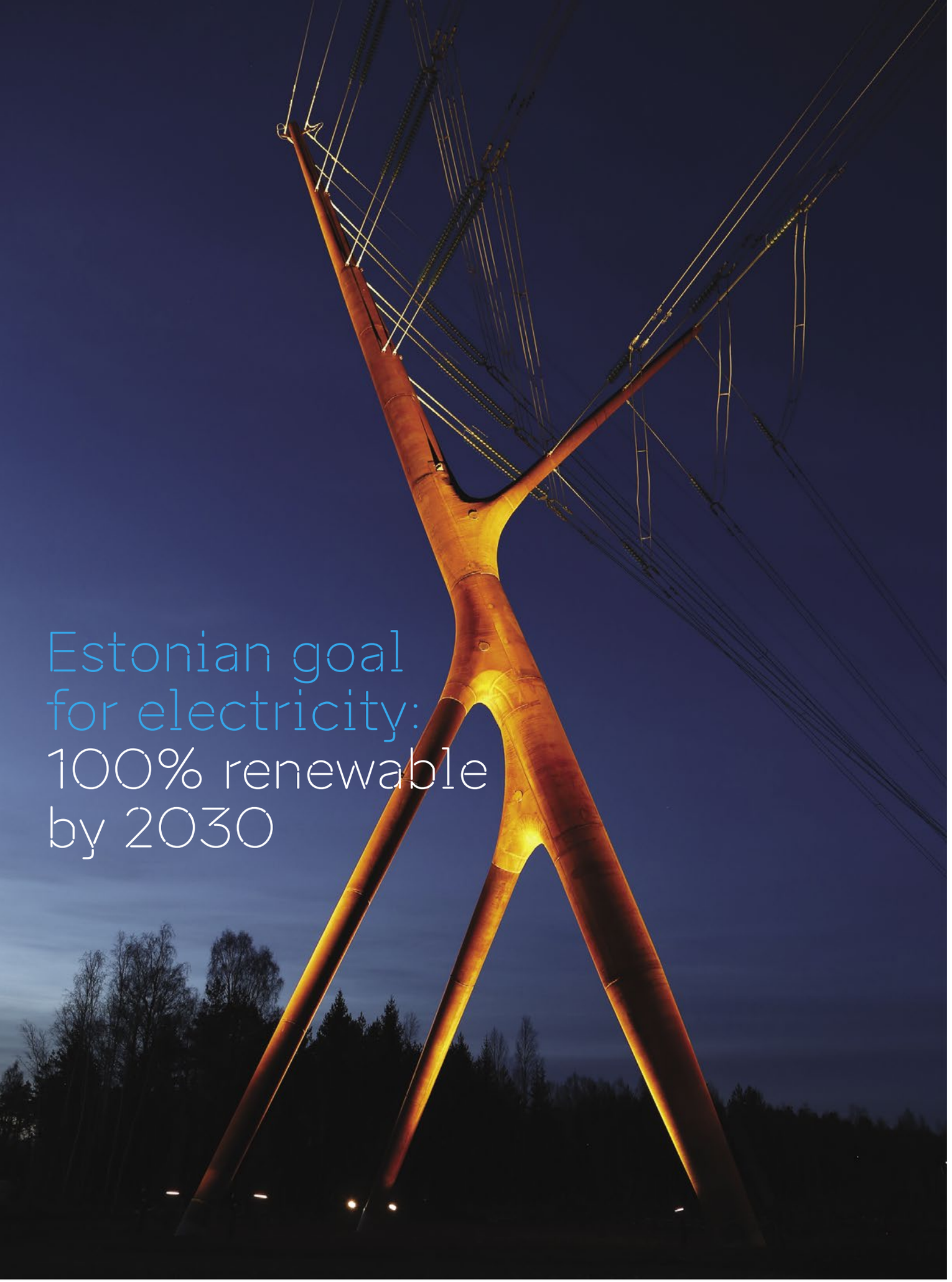
Renewable energy? Naturally

Tallinn – European Green Capital 2023

A new Michelin star is born

Merike Estna: Paintings as personal universes

Kaja Kallas: We are stronger together



Estonian goal for electricity: 100% renewable by 2030

Photo by Aln Köster

Cover
Kaja Kallas, Prime Minister of Estonia
Photo by **Atko Januson**

Renewable Energy 100!

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War and energy crises are not holding back the future of renewable energy. On the contrary — Europe has understood that local energy production from renewable sources offers us energy security, affordability and a small ecological footprint. Although the long-term goals have not changed for Europe, we have to keep in mind that the increased production of fossil energy is a temporary measure that will enable us to compensate for Russian gas in Europe this winter. Future energy is undoubtedly green and Estonia has chosen to be the frontrunner both in developing GreenTech and becoming the top green energy producer in the world. Our goal is set on the year 2030 with the keyword "Renewable Energy 100". This means we aim to produce the same amount of renewable electricity in Estonia in 2030 as our total annual consumption. We will reach that goal by building new (offshore) windfarms, by speeding up bureaucracy for entrepreneurs, by strengthening the mainland grid for dispersed production, by investing in new radar systems so that we won't have to compromise between national defence and energy security, and by financially supporting locals who accept new windmills and solar parks.

Setting ambitious goals is the only way forward. We believe in talking honestly about our obstacles standing in the way of achieving these goals. And even if we have enough renewable energy, then energy savings, shifting peak consumption and developing smart demand response systems are essential in any case. We cannot waste energy, be it fossil or renewable.

Estonia's research, development, innovation and entrepreneurship (RDIE) strategy also points out that support is especially needed in the industrial sector, including their upward mobility in value chains, taking into account the sustainable development goals.

We are determined to keep developing a competitive and smart business and consumer environment throughout Europe and show the way for other countries. Leading the digital and green transition as well as encouraging enterprises to focus on innovation and digital technologies is crucial to keeping our world worth living in for our grandchildren. And today's geopolitical situation shows even more explicitly how important it is to decarbonise our energy systems and generate energy locally.

Riina Sikkut
Minister of Economic Affairs
and Infrastructure

Photo by Andres Raudjalg



EAS
Enterprise Estonia

Estonian Investment Agency supports companies investing and expanding in Estonia. World-class human capital, unique digital capabilities and a competitive business environment make Estonia a smart, agile location for businesses with global ambitions.

investinestonia.com

The production of the magazine has been inspired by green technology

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e-Residency — empowering a global digital nation

Since 2014, Estonia has offered e-Residency — a government-issued digital identity and status that provides access to Estonia's transparent business environment. By now, it has supported the creation of nearly 23,000 new companies. e-Residency is still just getting started though. According to Lauri Haav, managing director of e-Residency, they expect to surpass 100,000 e-residents by the beginning of 2023.

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"You cannot be bullied if you have strong friends"

Kaja Kallas became Estonian Prime Minister in January of 2021 during one of the biggest crises in world history with the Covid pandemic at its peak alongside rising security issues from the East. Now, as Europe is facing its most acute energy crisis since WW2, Estonia has been setting an example by surpassing its targets for using renewable energy sources — wind, solar, hydrogen, biofuel etc — by 2030.

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Estonia is preparing for a hydrogen economy

Everybody knows about Silicon Valley, but in Estonia, the world's first nationwide Hydrogen Valley (HVE) was established this year. There are currently more than thirty companies in Estonia that already have ideas or activities related to hydrogen and the HVE brings them together so that they complement each other and solve each other's problems.

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Estonia's emerging offshore wind tech innovation and manufacturing hub

Estonia is fast-tracking offshore wind farm projects with the aim of becoming the largest producer of wind energy per capita in the world. The goal is set to become one of the top offshore wind tech innovation and manufacturing hubs in Europe. Local maritime areas, onshore infrastructure, innovation ecosystem and engineering talent are ready to add value to the global energy transition.

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Enics values quality and the welfare of its workforce

Enics, one of the world's leading solution providers for industrial electronics, is shipping its produce to more than 50 countries. Among other things, the company ranks high in the production of controllers for offshore wind park turbines.

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Incap: From electric scooters to wind turbines to cameras on the Moon

Incap is an experienced manufacturer of electronic equipment for almost all industries. All this knowledge allows them to easily manufacture electronics for wind farms as well as products tied to the infrastructure of wind farms like inverters, energy storage systems, sensors and monitoring equipment.

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BLRT Grupp — 110-year-old company leading the way in construction of renewables

The BLRT Grupp understands the significance of the Green Deal like nobody else. At the end of last year, the BLRT Grupp announced a deal between its subsidiary Marketex Offshore Constructions and globally acknowledged marine contractor Van Oord, where Marketex fabricates structural steel components for a Dutch wind farm.







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Solarstone offers solar panel–equipped carports and Solar Frame Buildings

The one good thing that has come from high energy prices worldwide is people's interest in solar panels, which in hindsight, could bring costs down and reduce global warming simultaneously. Building-integrated solar panel producer Solarstone has seen massive growth in interest from potential customers in the last year.

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Solariders — shortage of engineers sorted

Although the main task of the students who join the Solaride Academy is to build a solar car, the real purpose of the undertaking is to get young people fascinated in engineering. "We are solariders and we give a damn," runs the motto of a new and highly practical talent programme where students can find and test their passion for engineering.

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Work in Estonia Spouse Program helps talented families settle

According to a survey, 21% of employers indicate that the main reason foreign workers leave Estonia is their partner's inability to find a suitable means of applying themselves here. To that end, Work in Estonia established the Spouse Program as part of Estonia's effort to attract international talent. To date, about 200 people have graduated from Work in Estonia's Spouse Program since 2019, including 59 last year.

50

PORTFOLIO. Merike Estna transforms paintings into personal universes

What is a painting? Is it colours on canvas? On paper? In a book? If you use light, shades and colours on a curtain, carpet, ceramic tile or a dressing gown, do those items become paintings? Merike Estna is one of the most well-known Estonian painters who deals with such questions in her work.

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Tallinn — European Green Capital 2023. A city on a sustainable course

In 2023, Tallinn will be the European Green Capital and gets to showcase its systemic approach to green governance and ambition to become a truly green global city.

68

Estonia's best kept secret is finally out — in the Michelin Guide 2022

The most prestigious restaurant guide in the world — Michelin Guide — has included Estonia as the first of the Baltic countries in its latest edition. 180 Degrees by Matthias Diether and NOA Chef's Hall earned their first Michelin Star. The selection includes 31 well-known fine dining establishments in the capital but also some hidden gems in the countryside.

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Events calendar: Highlights from October to March









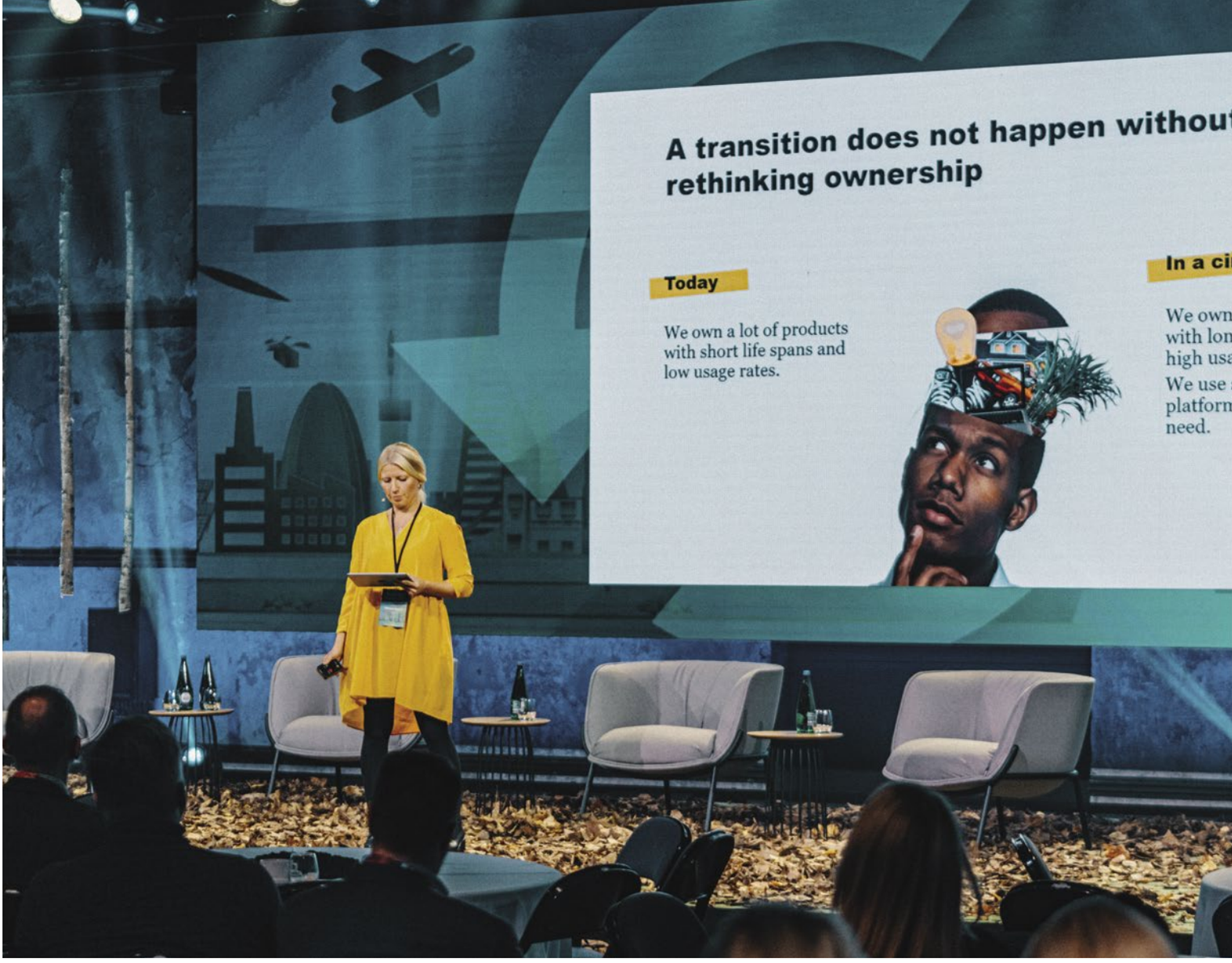


GreenEST Summit is coming again

Photos by Randel Pomber

From the 26th– 27th of October, the European green community will gather at the Kultuurikatel in Tallinn – it's time for the annual GreenEST Summit. With five events, the conference has become the largest green technology and sustainable innovation event in the Baltics, bringing together local and international public and private sector experts, green technology startups and large corporations, as well as investors.





More than 30 speakers from all over Europe will perform in front of the audience for two days. One of the most prominent speakers is undoubtedly **Yesika Aguilera**, co-founder of the technology company **Tespack**, who has received a lot of international recognition. She was twice selected as one of Forbes's 30 Under 30 Europe, and among other things, was named the technology ambassador of the Vatican State. Tespack, which develops smart technology solutions, cooperates with the UN and government agencies of several countries. The company has won more than 30 international awards. Tespack uses many solar energy solutions, and their latest invention also focuses on solar cells. It is a system that can fit in a backpack, which, in addition to solar energy sources, includes computer technology and audio and video equipment. By setting up the entire solution, you can create a classroom in every corner of the world — even the most remote, where there is no electricity supply — and provide high-quality education to children with the help of technology. Yesika Aguilera and her team are dedicated to improving people's lives using innovative yet energy-efficient and sustainable technology.

Due to the war in Ukraine, energy production from renewable sources is more important than ever. In her presentation, Aguilera will focus on the future of energy storage, including energy security and cost.

Among other topics, the GreenEST Summit will focus on **mobility and equal accessibility**, the **circular economy**, including material recycling and waste recycling, **AI and robotics** in the urban resource planning, and the **Green Turn in the industry**. The summit will also touch upon the climate goals of the European Union, which challenge traditional business models, but at the same time, open up opportunities for innovation and new solutions.

Alongside its top-level speakers, the conference provides an opportunity to learn about new innovative products and services and find new business partners, like-minded people, and career challenges. All those interested are invited to the **demo area**, where participants can initiate new customer relationships and cooperation agreements with partners and investors.

Year after year interest in the GreenEST Summit has increased and it is worth going to the conference's website where you can find information about the speakers and the overall program.

GreenEST Summit 2022 is supported by TalTech, Tehnopol Science and Business Campus, Estonian Environmental Investment Centre, Pakri Business and Science Park, RASK Law Office, Nordic Council of Ministers Representation in Estonia, Ministry of Foreign Affairs, Ministry of Economic Affairs and Communications, Estonian Business and Innovation Agency, and Invest Estonia.

www.greenestsummit.org



Photos by Kristi Sits

A new era of diverse, impact-driven tech entrepreneurship finally approaching

After years of talking about how our enterprises and society need to become more inclusive, more diverse, and focus more on impact rather than profit, are the winds finally changing? If the content of the three-day business festival **sTARTUp Day 2022** is any indication of what is happening in a country where the president is a scientist and in a city where Smart City is a way of thinking, then the short answer is "Yes".



The new era is emerging in Estonia. Naturally, the obligatory 'cool' innovations were present: autonomous cars (AuveTech, Clevon), novel food-tech solutions like oils from wood sawdust (Äio) and numerous ICT solutions. However, there were also some novel takeaways from this year's event:

- **Rise in the proactive contribution of government institutions to the startup ecosystem**.
  Ranging from data-driven IP protection services, to a startup visa program, to technology intelligence, to cooperation with major research facilities such as CERN, the public sector has a lot to offer. According to intel, the calendars of many government workers were booked for months after the festival.
- **Spotlight on diversity & deep tech.**
  From space-tech to mobility, rarely have we seen so many deep tech startups: on stages, in demo booths, giving workshops, pitching their ideas. This is best illustrated by a simple example. With a record number of 380 applicants from 47 countries, the sTARTUp Pitching competition awarded two syndicate investments from the Estonian Business Angel Network in the amounts of €200K and €150K, respectively, to the female-led deep tech startups LightCode Photonics and Nanordica Medical.
- **Rise of the zebras** which are impact-driven (startup) companies that aim for sustainable growth and value coexistence.

Words and pictures can only convey so much, better come and live the experience at sTARTUp Day 2023! We truly hope to meet you in Tartu, Estonia, next spring, from **March 15th to 17th**.



Photo by Laura Nestor

e-Residency – empowering a global digital nation

By Justin Petrone

e-Residency is a ground-breaking Estonian program with the mission of establishing and nurturing a multicultural, international community. Digital entrepreneurs and startups now have a platform to grow their businesses everywhere, while tapping the best e-services and most competitive tax system on offer.



Photo by Laura Nestor

About Lauri Haav

Lauri Haav took on the role of managing director of e-Residency in January 2021, with the aim of empowering startup founders and freelancers alike by providing them with the ability to join Estonia's digital society and run their businesses from anywhere in the world. Lauri has more than two decades of private sector experience under his belt. He held senior positions at **Monese**, a fintech company, for several years, and was at **MarkIT.eu** for 13 years. Haav also cofounded MarkIT.eu, which supports an online marketplace for procuring IT hardware and accessories.

Since its roll out in 2014, e-Residency has supported the creation of nearly 23,000 new companies. This means that for the last three years, about one fifth of new companies created in Estonia are e-resident companies. One third of startups are similarly created by e-residents.

If asked to describe your country, where would you start? Would you rattle off a list of historical events, landmarks, celebrities, and natural wonders? Probably. But ask an Estonian to describe their country, and they might just start listing tech companies. Skype, Playtech, Wise, Pipedrive, Bolt? They all got started here. For more than three decades, Estonia has been bent on creating an economy around research and technological innovation. Being an entrepreneur has become a point of pride, and something that anyone (really anyone) can do. Indeed, Estonia has the most startups, unicorns, and highest business density per capita in Europe.

e-Residency is, in a way, just another innovative Estonian startup. Its vision was to create an environment for entrepreneurs that could give them the tools needed to manage their businesses, regardless of their location. By bringing all of those entrepreneurs under the roof of e-Residency, it would also pull in tax revenue and boost the number of Estonian firms.

But how does it work? According to **Lauri Haav**, managing director of e-Residency, the Estonian government first issues a digital identity to any would-be e-resident, providing them with access to its ecosystem of e-services. "Using this state-issued digital identity, e-residents can sign documents with a digital signature, file their taxes within minutes using Estonia's e-tax system, and create and administer companies online," says Haav.

The offering has given Estonia a "good opportunity to punch above its weight and realise its vision of the state as a service," Haav maintains.

'For the last three years about one fifth of new companies created in Estonia are e-resident companies. And one third of startups are similarly created by e-residents'

"We're no longer a startup, we're a scaleup that's creating startups," remarks Haav. He describes the success of e-Residency as a combination of "having people with great ideas and a country that understands the value of entrepreneurship."

Diverse at heart

At the moment about 100,000 people from 176 countries (there are less than 200 countries in the world) have joined e-Residency, a number roughly equivalent to the size of Tartu, Estonia's second largest city.

"Our core idea is to create a borderless digital society for global citizens," says Haav. "We give entrepreneurs all the tools they need to launch a global business online and to take their EU-based company anywhere in the world," he adds.

For some, this opportunity is a lifeline. "We have amazingly talented and ambitious founders that didn't have the opportunity to grow their business and follow their dreams because they were born in the wrong country," Haav notes. "Sadly, a passport carries a lot of weight when you're dealing with international money transfers," he adds. "But how can you grow globally if you can't get paid?"

By becoming an e-resident, one gains access to a safe, convenient, and flexible digital ecosystem. Estonia has also reached an unprecedented level of transparency in governance. "Being an EU, NATO, and OECD member provides stability for your company," says Haav.

The e-Residency community spans continents and so does its devoted program team of two dozen employees. Although an Estonian endeavour at heart, e-Residency's promise of a borderless digital future has enticed talents from around the world. Professionals from Brazil, the US, Germany, and Australia, all help to run e-Residency. Some of them started out as e-residents themselves. The same gateway effect can be seen from the business side, where a booming number of new e-resident-founded companies now offer services to fellow e-residents.

"Having a diverse team is vital for us," says Haav. "Our customer base is always going to be diverse and it's hard to understand their needs if your team is homogeneous."

No more red tape

Although Estonia was the first to introduce e-Residency in 2014, other countries have devised similar programs. For example, the United Arab Emirates, Lithuania, Portugal, and Ukraine have launched similar efforts. "It's definitely validating," acknowledges Haav. "As they say — imitation is the sincerest form of flattery."

About e-Residency

Since 2014, e-Residency has empowered startup founders and freelancers alike by providing them with a secure means of digital identification and the ability to register a truly location-independent business in an EU member state and the world's most digital society. Anyone from Germany to Ukraine, or Brazil to Spain can apply. Each entrepreneur who has an e-resident digital ID can access Estonia's e-services, sign documents digitally, and launch and run their business completely online. Today, almost 100,000 people from 176 countries are e-residents.



A new world record

Dominik Panosch, an Austrian entrepreneur and e-resident of Estonia, set a new record for setting up a company at London Tech Week in June. Panosch set up his new business from scratch in 15 minutes and 33 seconds, besting a record previously held by the Estonian government for setting up a business online in 18 minutes and 3 seconds. The event was attended by Lauri Haav, e-Residency's managing director, **Bolt** co-founder **Martin Villig**, and **Wise** co-founder **Taavet Hinrikus**. e-Residency has made expanding one's business into the EU "quicker, safer, and more convenient than ever before," Panosch said. "In an uncertain world, e-Residency is a no-brainer for entrepreneurs looking to start up or scale up quickly."





Dominik Panosch

‘We’re no longer a startup, we’re a scaleup that’s creating startups’

While competition exists, Estonia’s strengths continue to lie in its e-services: the ability to sign documents using a digital signature, do your taxes in a matter of minutes, and create a company online. “Access itself is not enough,” Haav stresses. “If your services are either too complicated or expensive to use, then it won’t work,” he says. “There’s nothing founders hate more than bureaucracy and in Estonia, 99% of public services are accessible online,” he adds. “That’s hard to beat.”

To show how easy things can be, Haav flew to London Tech Week in June to demonstrate how quickly a business could be set up using e-Residency. It took Austrian e-resident **Dominik Panosh** just 15 minutes and 33 seconds to set up his new Estonian company at the conference. The previous record was also held by Estonia.

“Yes, we’re competing with ourselves,” says Haav. “But it’s not so much about the record. Rather, it shows the simplicity of running things in Estonia,” he says. “People who’ve lived here their entire lives don’t see how simple our systems are,” Haav adds. “Sometimes, it takes a foreigner’s perspective to really appreciate them.”

Ahead of its time

The COVID-19 pandemic taught the world something that experts had been arguing for years — hybrid working models increase productivity. Though companies were at first reluctant to make a shift to support remote work, the pandemic experience made it clear that it helped foster a better work-life balance. “Remote work was bound to happen,” says Haav. “The world has become a village and everything is connected and available,” he says. “This isn’t just for employees,” Haav pointed out. “Companies can now reach a wider talent pool when they go fully remote.”

The numbers of freelancers, digital nomads, and remote workers continues to grow too. As such, e-Residency has become a necessary platform that provides the tools to establish and conduct a business from anywhere. e-Residency has also been heavily vetted, Haav notes.

“We have been doing this since 2014, so all the necessary infrastructure is fully-functional,” says Haav. “And, of course, it’s not just the infrastructure,” he says. “According to the International Tax Competitiveness Index, Estonia has the world’s best tax system with no corporate income tax on retained earnings, no capital tax, and no property transfer taxes.”

A focus on growth

e-Residency is still just getting started. According to Haav, the next three years will focus on growth. There will be investments in the user experience and new services. “Like all startups, we keep on evolving and working on our services,” says Haav. “The key is to make the program even more accessible for entrepreneurs who want to establish businesses in the Estonian ecosystem.”

One planned innovation will be around reducing the amount of time it takes to become an e-resident. Because an e-residency card is a high-security document, meaning it requires biometric data and face-to-face identification, it can take time and extra steps to complete the process. “When the process takes too long, people lose their motivation,” says Haav. “We need to focus on shortening the customer’s journey.”

Haav foresees a spike in new e-residents too. “We expect to surpass 100,000 e-residents by the beginning of 2023,” says Haav. “But more importantly, we want to get more active users, whose daily business is run through Estonia,” he adds. “I personally also hope to see a unicorn startup solely started by an e-resident.”



Photo by Atko Januson

"You cannot be bullied if you have strong friends"

By Ede Schank Tamkivi



Photo by NATO

Kaja Kallas became Estonian Prime Minister of the so-called "Sunrise Government" in January of 2021, in the middle of one of the biggest crises in world history. The first year of the Covid pandemic was at its peak, security situation in the region was worsening, and the results of climate change were becoming everyday issues. Meanwhile, as in many other countries, Estonian politics had ceased debating decisive solutions and begun a reality TV level of "playing the (wo)man, not the ball".

Despite or because of all this, Kaja Kallas has become one of the strongest voices in the world in support of Ukraine, standing up to Russian aggression. It has not remained unnoticed as recently she has received many renowned awards like the Grotius Prize by the influential British think-tank Policy Exchange for her role in defending the international rule of law and opposing Russian aggression, the Hayek Prize for defending democratic values and exercising liberal economic policy by the Friedrich August von Hayek Foundation in Germany, and the European Prize for Political Culture by the Hans Ringier Foundation in Switzerland. The Time magazine has included her in its Time100 Next list's Leaders section that recognises a hundred rising stars from across industries and around the world.

She has an incredibly busy schedule running the government, meeting her constituents in various corners of Estonia, meeting other EU leaders in Brussels and around Europe. But she squeezed in an interview for "Life in Estonia" magazine at Stenbock House, where the Prime Minister and Government Office work daily, before dashing off to yet another meeting.

What do you consider to be your strongest assets as a crisis manager?

From the time I was an attorney at law, I realised I work better under a lot of pressure. Crisis is my mode. This is how I'm able to concentrate and focus. But indeed, it has been hard. We've had one crisis after another.

We kept the nice annual tradition of having lunch with the former prime ministers here, in this very room, in August. Last year, when I had been prime minister for only eight months, relatively new to the job, we had presidential elections and Covid and many other issues, and I remember that around this table, the former prime ministers were discussing that "we always have problems with presidential elections but we always manage and we always get a good president, and so will you." That gave me such a boost that this has all been done before and we'll manage. But this year they came and said that none of us have really had such a difficult time as you have.

We are indeed in the most severe security crisis of the 31 years we've been independent. And we are going into the winter facing an energy crisis. All of these crises come from the outside factors — the inflation, the energy crisis — are also stemming from the war that is going on in Ukraine, and other global factors. There are not many tools that any specific government can use to tackle these issues. What makes this situation really difficult is seeing that people are struggling and understanding that you can't really eradicate that pain. But my government offers solutions to mitigate the impact.

Having served as a Member of the European Parliament you must have a strong network on the EU level that might help you in your current job with those outside factors?

My network from the European Parliament is definitely very helpful, especially in the security crisis. Because of that network I've been much more attentively listened to in the countries of our allies. It is important that our voice is heard because this war is opening the wounds that we have in our history. We can speak from our own experience. We know Russia's way of thinking and acting better than some other EU countries who might be luckier with their neighbours.

As you already mentioned, the war in Ukraine is much closer to us in so many ways as compared to many other EU countries. Estonia has been the number one supporter per capita of Ukrainian refugees as well as a donor to the Ukrainian government. How else can we lead the way for the rest of Europe and make other countries understand the atrocities of war and the outcomes it might have?

The experience we have had in our history makes us speak from a different point of view as compared to the countries that do not have that history. It has become very clear how the end of World War 2 distinguished two very different paths for Eastern and Western European countries. While peace may be the ultimate goal at the end of war, the Western countries tend to be oblivious to our history. We did have "peace" but while they were building up their countries and prosperity and well-being of their people, we were suffering from occupation with mass deportations, all kinds of repressions and atrocities for our people. This is exactly what we see in Ukraine today: giving away the territories does not mean that the human suffering will end. That is why our experience is relevant and it is important that other countries listen to us.

Secondly, we are not naive regarding Russia. We know how they operate, and we have listened to what they are saying very closely for 30 years now. We are not seeing how they operate through a "democratic lens" because Russia is not operating the way Western democracies do.

Thirdly, in the cases of Georgia, Donbas and Crimea, we — and by "we" I mean the EU and the rest of the free world — acted in accordance to what the big EU countries said: let's have a peace treaty and this will all be over. But Russia only understands weakness and strength, and a peace treaty means showing weakness for them: yielding territories and nothing happening to Russia and Russians. Therefore every next step will be bolder on the Russian side.

What we have been saying all along is that the only way to stop this war is to push back the aggression. Russia has to retreat into its own borders. It has to convey a message for the sake of the rules-based order, otherwise if an aggression pays off somewhere, it serves as an invitation to use it elsewhere. That's why nobody can feel safe if this pays off. That's why we have to keep up this topic, help Ukraine to defend itself and go on with the legal proceedings of prosecuting war crimes and crimes of aggression so that the conclusion will not be drawn that after the end of war one could gain more territory.

We have been telling this to the rest of Europe for the past 30 years, but can you say, talking to your former and current colleagues from other EU member states over the past 6 months, are they now less blinded by Russian realpolitik? The President of European Parliament Roberta Metsola recently admitted that the EU has ignored Estonian warnings about Russia.

The EU is a union of 27 democracies whose decisions stem from public opinion and there's strong support for Ukraine's fight for independence. As someone said: "If the facts change, I change my mind." I saw genuine shock among my colleagues when the full-scale war started. My colleagues did not believe that this could happen, yet it did.

We have been pointing out Putin's plan all along. Those sharing the border with the aggressor have a different experience and perspective. After all, we do know our neighbour better than those with better neighbours. While building up our democracy we were listening to our international friends and advisers. And maybe now is the time to listen to us.

Photo by Atko Januson



Kaja Kallas was born in Tallinn on June 18th, 1977. She is married and a mother with 3 children.

She graduated from the University of Tartu in 1999 with a degree in law and undertook her post-graduate studies at the Estonian Business School in 2007.

She joined the Estonian Reform Party in 2011 and has led the party since April 14th, 2018.



Photo by Francois Lenoir

Kaja Kallas with her Finnish colleague, Prime MInister Sanna Marin

You have been very bold and blunt in your interviews with foreign media. Don't you think that this can convert into a problem regarding our own security — both cyber and physical?

Putin and Russia want to threaten us, and everyone else as well. His actions are in accordance with the classic definition of terrorism — they are terrorising us by sowing different fears by keeping public on their toes, killing civilians so nobody can feel safe, using the nuclear threat and hunger. Using all these threats to force us to take decisions (that could benefit them).

The only thing that works with the bully is showing strength, saying, "You can threaten us, but we are not frightened", because they are expecting you to show weakness and it does make you weaker.

The atrocities that our grandparents suffered in our history are very similar to what we see unfolding in Ukraine right now. We owe this to our grandparents that we do everything in our power to stop it happening elsewhere so no one will have to go through such human suffering (again).

Worst case scenario for Estonia: if the bully makes its threats come true, how well prepared is e-Estonia to operate in the cloud in case of emergency?

The bully might want to bully you but cannot do it if you have strong friends. That's why we have been following the principle from the 1990s that we will never be alone again. We have (strong) friends everywhere, we are in NATO and the EU, and we are stronger together.

But we are also working hard on cyber defence. Before the conventional war started in Ukraine, everyone was afraid that there would be cyber conflicts. And we do see cyber warfare going on, including hybrid conflicts and information war. Estonia has invested a lot in cyber security, we are very resilient in that regard.

The Covid crisis also proved that the investments we had made into e-schooling paid off — we had not prepared it for this particular crisis but rather just to make life easier, yet it became very handy as we already had everything online and the teachers and the students could easily move online. Although, as we saw, this cannot not fully replace the social aspects of physical schooling, comparing us to many other countries, our students did not experience a gap in their education as everything continued online. Therefore all these different parts of e-governance are making us more resilient in the crisis that we might face.

This fall we are opening new schools for Ukrainian students in Estonia and almost every other school has some Ukrainian students. There are more than 5,000 kids in Estonian schools from the 50,000 refugees. How well have we managed to integrate the Ukrainian war refugees so far?

Indeed, we did open the School of Freedom for 600 Ukrainian children and there are Ukrainian children in other schools as well. So far the integration has worked much better than we could have anticipated. Yet another example of our e-governance, how fast we have managed to administer the processing of the applications for the temporary protection. Over 20% of the adult refugees have now found jobs and 40% of the children attend Estonian schools.

Estonians have been very welcoming and warm regarding helping Ukrainians, not just welcoming them to our homes but helping in every other possible way. Of course, people are worried regarding all sorts of new worries, like the high inflation, but we don't see a change in public opinion. Asking if Estonia should help Ukraine, a vast majority, over 80% of people, still says "Yes" and that's not just the Estonian speaking population but the population overall.

Europe is facing its most acute energy crisis since WW2. Prices have doubled since last year and big countries have found it hard to disconnect from Russian gas pipes. Estonia has been setting an example by surpassing its targets for using renewable energy sources — wind, solar, hydrogen, biofuel etc — by 2030 (from 40% to 100%). Is that enough to overcome the energy challenges for this coming season and how else can we lead the way for the rest of EU where renewable energy sources still make up less than 40% of gross electricity consumption?

Again, now the rest of Europe understands what we have been saying all along: being dependant on Russia makes you weaker. Now everybody wants to get rid of Russian energy. But the question is how to substitute it. We just had the Baltic Sea Security Summit in Copenhagen where all the leaders of the Baltic Sea countries agreed to increase the number of offshore wind parks by sevenfold because there is a lot of (unused) potential. What we need is an electrical grid that connects all of those offshore wind parks to produce all the electricity that the countries need and make us independent of Russian energy and using renewables, according to the Climate Code. This is something that we have to do long term.

But short term we are headed for a difficult winter and we have to figure out how can we help the households to overcome this coming winter. There are two opportunities — either we increase the production or decrease the demand of energy. This is something we can all do.

Much of electricity consumption in Estonia is used by business- and public service sector. So, the Minister of Public Administration has been assigned with an order to come up with a plan for how the government institutions can use less energy because if we decrease the consumption we can also meet the prices at a lower level. We've already seen that if the (energy market) price were really high, even a small fraction of users who unplugged their home appliance machines made a difference (in overall consumption). So, there is a lot of power in aggregating consumption.

This is again a place where Estonia could lead the way for the rest of Europe since 100% of Estonian households have smart meters (electronic devices that record consumption of electric energy), that are not only smart for energy producers but also for the users so you can also see when the price and consumption is high so you can adjust your own consumption. So if you have innovative aggregators, for example Gridio — service providers that help you switch the consumption off when necessary — you can actually help households to decrease their consumption of electricity and by that help the grid and the prices as well.

Meeting with Chancellor of Germany Olaf Scholz

Photo by Bundesregierung / Steffgen Kugler

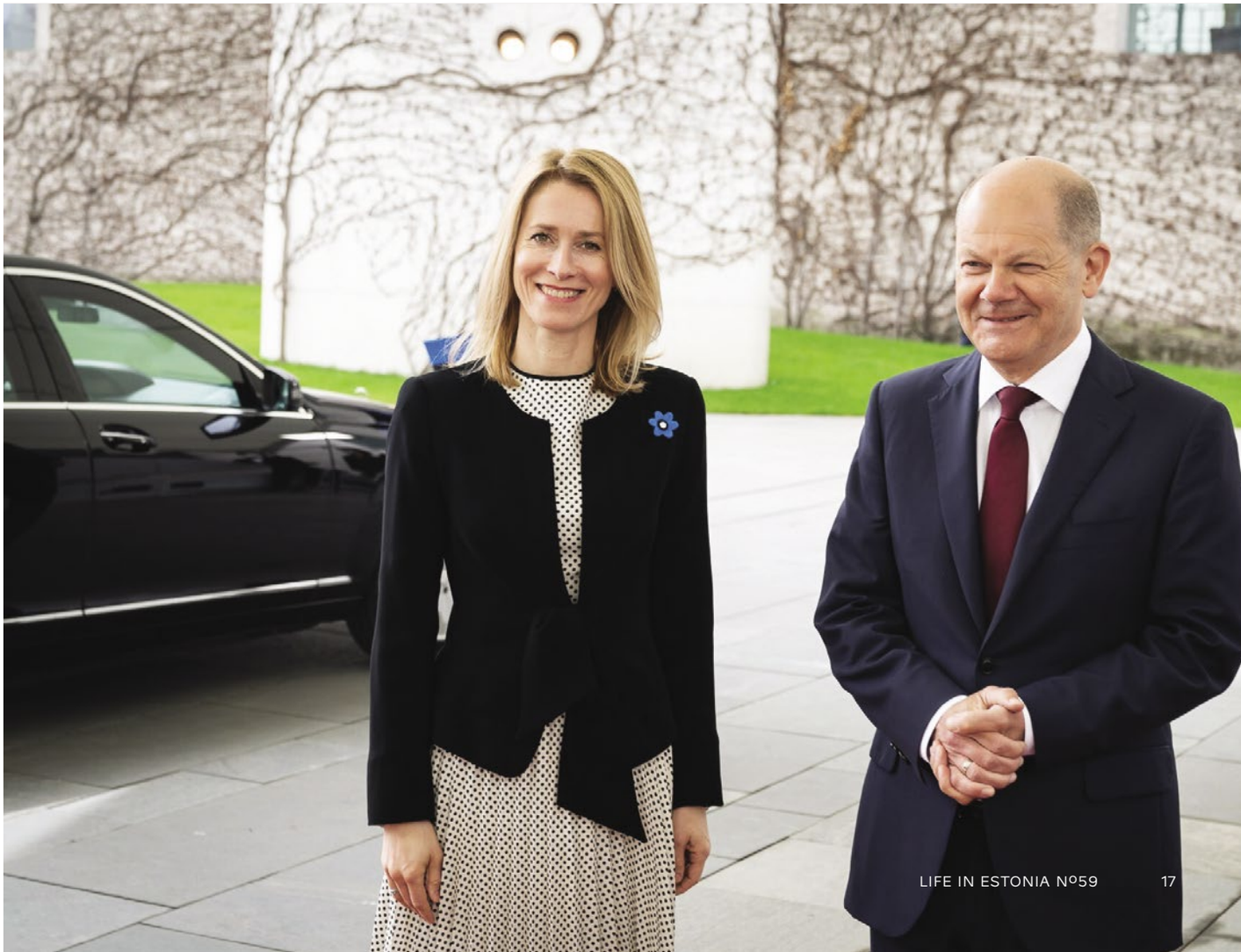




Photo by Tim Hammond / No10 Downing Street

6th of June, 2022. Kaja Kallas at Number 10 Downing Street in London, United Kingdom

Is our large pool of e-residents, which equals the number of residents of Estonia's second largest city, Tartu, rather a security threat or a strategic asset in this situation?

Our e-residents are usually the biggest fans of Estonia and they have established a lot of companies here. Of course, we also have to keep a close eye to ensure that the companies established here are not used for tax evasion or money laundering.

The e-Residency program is a perfect example of how we can grow without physically expanding our borders because there are geographical limitations to it, so it has been a success story as it is totally unique in the world and we have many new friends due to that. We have to continue with this, keeping in mind all the risks that the new world order has brought about.

e-Residency was introduced almost 10 years ago. What is the next big thing that will come out of Estonia that will make us look bigger in the eyes of the rest of the world?

The next big thing will be AI. We are already using artificial intelligence in our operations and services, but we see there is a huge potential to make our services more convenient for the people. But at the same time, we are a rule-of-law country and every individual's privacy is a very important matter for us. Estonia is again ahead of other countries in the sense that each citizen is in charge of their own data — who can you give access to your data in our systems? AI will make our systems run more smoothly. When you have certain life events, like the birth of a child, you should not have to go through this whole process of applying for all sorts of services provided by the state. But thanks to AI, we already have access to all sorts of databases, the applications are all pre-filled and you just need to click a few boxes to gain access to services.

There will be general elections in Estonia half a year from now. What is the positive message you'll try to convey to your electorate and what do you see as the main topic of these elections that might also set an example for the rest of EU and the world?

These are going to be really hard elections since we have a very hard winter coming and the elections will come right after the winter. The populists always have very simple solutions for complex problems as they resonate with the people. So it will be hard to explain the complex choices with all those outside factors. Of course, we do need a positive narrative to get through these difficult times all together. I've realised that during such difficult times people do not want big changes, so we do not need to propose big reforms right now as people need more stability to get adjusted to the constant outside interruptions.



Photo by Roman Suvorov

Estonia is preparing for a hydrogen economy

By Sven Paulus

There is probably no one who hasn't heard of Silicon Valley in California, where tech and startup companies operate. In Estonia, however, the world's first nationwide hydrogen valley was established this year, which works on the same principle, but is based on the hydrogen economy instead.



Photo by Jaanus Tamm

Raimond Tamm, Deputy Mayor of Tartu, on his hydrogen powered bike which is unique in Estonia

"**Hydrogen Valley Estonia** (HVE) is a region where hydrogen production, consumption, distribution and its use, for example in industry, are all together. If someone were to cut all your wires elsewhere, you would still be a green island in the middle and you would be able to survive," **Marek Alliksoo**, spokesperson for the Estonian Hydrogen Valley ecosystem and board member at the Estonian Hydrogen Association, introduces. HVE is a nationwide and comprehensive development, the goal of which is to accelerate the green transition and energy independence under the motto "Zero to Green". Over the next six years, hydrogen production units will be developed in at least six counties.

According to Alliksoo, there are currently more than thirty companies in Estonia that already have ideas or activities related to hydrogen. However, the HVE brings companies together so that they complement each other and solve each other's problems, because quite a few of them have similar problems. All projects cover the hydrogen value chain throughout Estonia, from the production of renewable energy to the use of hydrogen. Most of them are currently in the concept and feasibility study phase. "You need all those participants who work together, know each other's thoughts better and thereby create synergy," notes Alliksoo.

This year has had a sobering effect, especially on Europe. Russia's war in Ukraine shows how important it is to disconnect oneself from the resources provided by a hostile country. Alliksoo indicates that offshore wind farms with a total capacity of 7 gigawatts should be coming online from 2028 onwards in Estonia, which is striving towards a green revolution. These, in turn, should cover twice the country's energy needs by 2030, and this would enable the export of hydrogen in addition to local use.

Therefore, in the next ten years, when large scale offshore windfarms are built, Estonia will produce significantly more electricity than it can consume. It has been proposed that building a hydrogen infrastructure for large-scale energy transmission could be up to 20 times cheaper than building an infrastructure of electric cables. **Sven Parkel**, representative of the **Estonian Hydrogen Cluster** believes that the entire Baltic region and also Finland have great wind energy potential. Thus, the surplus energy produced in this region will be directed to Central Europe in the future, where there is a shortage.

The challenges of hydrogen

At the moment, the transition to an ideal hydrogen society is hindered by lack of experience and understanding, and some knowledge has to be purchased from abroad. The transition to green hydrogen therefore poses a challenge to education and science, because specialists who are familiar with the subject are already needed. For example, the Institute of Chemistry of the University of Tartu has been giving a free online lecture "Fundamentals of hydrogen technology and renewable energy" for the second year, and it has attracted a lot of interest.

"Time pressure is also an important factor, because if we don't get things going this year, the costs of doing nothing will start to rise," warns Alliksoo. There is also a lack of political guarantee, because the Estonian government has not yet made any long-term strategic decisions regarding hydrogen, but from the perspective of entrepreneurs, legal certainty is very much needed. At the same time, Estonia has a number of trump cards in its pocket that help speed up the transition to hydrogen energy. Alliksoo points to digital administration, which eliminates excessive bureaucracy and saves time. It can take two years to initiate a hydrogen-related venture in Germany, while in Estonia, agility, quick action and courage to experiment set the tone.

HVE has already been joined by the maritime-shipping and aviation sectors, which has a lot of equipment running on fossil fuel that could be converted to hydrogen. There are examples from other sectors as well: in 2021 the international railway company **AS Operai**l and the hydrogen solutions company **OÜ Stargate Rail** signed an agreement to convert diesel locomotives into hydrogen locomotives. Converting one locomotive to hydrogen saves 370 tons of CO2 emissions per year, which is equal to the average annual emissions of 80 passenger cars.

PowerUP Energy Technologies, on the other hand, produces portable electric generators based on hydrogen fuel cells, which, unlike diesel generators, emit no carbon dioxide, make no noise and are maintenance-free. This year the company plans to close a funding round of up to four million euros, which would allow them to quickly increase production volumes. In addition, **Auve Tech** (with its self-driving hydrogen bus) and **Elcogen** (which develops fuel cells), are recognised players in the field of hydrogen in Estonia.



Portable electric generators based on hydrogen fuel cells produced by PowerUP Energy Technologies

HydrogenOne supports Elcogen with investment

Dr JJ Traynor, Managing Partner at HydrogenOne Capital, why did HydrogenOne recently invest 24 million euros in Elcogen? What are the goals of this investment?

As an investment fund focused on clean hydrogen, we have identified fuel cells and electrolysers as critical components in the clean hydrogen value chain and see substantial demand as the clean hydrogen sector continues to grow at a rapid pace. With our investment, we are supporting Elcogen in expanding their fuel cell and electrolyser manufacturing facilities in Estonia over the next two years and accelerating the energy transition to a low-carbon future.

What are the main trump cards of Elcogen, why is it an outstanding company?

Elcogen is among the world's most advanced solid oxide specialists, at lower operating temperatures and superior economics. The company was founded in 2001 by Enn Õunpuu who saw the potential for fuel cells to become a dominant energy technology of the future. With over 30 years of experience founding and leading multiple companies, his aim was to develop the world's best solid oxide cell technology from the ground up.

During their long history of operations, Elcogen have developed a reversible ceramic technology that can convert hydrogen into emission-free electricity and vice versa. Despite clean hydrogen being an emerging sector, Elcogen's unique patented technology is in strong demand today, with an established base of over 60 industrial customers worldwide.

How do you see the hydrogen-related landscape in Estonia and do you have any other investment plans here?

We are encouraged with the recent hydrogen developments in Estonia, and the country's focus on advancing clean energy technologies and exiting its oil shale electricity and production in the next two decades. We strongly believe that with the right support, clean hydrogen will play a crucial role in substituting energy derived from fossil fuels with a climate neutral alternative.

We are also encouraged to see that Estonia joined the European Clean Hydrogen Alliance targeting an electrolyser capacity of 40GW and hydrogen production of 10 million tons by 2030. And more recently, with the launch of the world's first national hydrogen valley and hub for new hydrogen innovations. It is an excellent initiative, particularly considering energy security and decarbonisation challenges and should be a great catalyst for the emergence of new hydrogen technologies and companies, such as Elcogen. We look forward to closely following the progress and continuing to evaluate further investment opportunities in Estonia, as appropriate.



Photo by Raigo Pajula

Enn Õunpuu

Small is beautiful

According to customers and research partner feedback, Elcogen provides the world's best energy conversion processors for all the manufacturers of end user-systems. Their products have two major advantages: they operate at lower temperatures and are significantly more efficient than competitor products. Elcogen's CEO **Enn Õunpuu** says that Estonia's main advantage in hydrogen technology is its size. "If we talk about fuel cell and hydrogen technologies, and more specifically about the high-temperature fuel cell technology that Elcogen offers, then Estonia's trump card is the strong level of science in this field," said Õunpuu.

Electrochemistry, which is the basis of fuel cell technology, has already been studied at the highest level in Estonia for more than 140 years. One of the founders of modern electrochemistry, Nobel prize winner Wilhelm Ostwald, graduated from the University of Tartu. It is also important that 21 years ago, when Õunpuu founded Elcogen, a significant role was played by business partners and Estonian investors who were crazy enough to support the idea. "Today, Estonia is at the top of Europe and the world in the field of startups and unicorns per capita. This shows that the business environment in Estonia is very good, innovative ideas are valued. Estonians want to make the world a better place," said Õunpuu.

One way to change the world for the better is to strive for climate neutrality. This is exactly the goal that the city of **Tartu**, which also participates in the HVE initiative, has set for itself by 2030. According to Deputy Mayor **Raimond Tamm**, hydrogen, as a very clean fuel, has a definite role in the entire movement towards nature-friendliness, especially in terms of transport. Thus, the city wants to test a smaller number of hydrogen-powered buses in the coming years and, if suitable, put them into use at the end of the decade. Another goal is to build a hydrogen filling station in Tartu, where private vehicles could be refuelled in addition to pilot buses.

So far, it can be seen that a start has been made in the field of hydrogen and the initiatives are gaining momentum. But what steps still need to be taken? Sven Parkel from the Hydrogen Cluster says that the current high price of electricity must first be brought down and more must be invested into the capacity of renewable energy: "On a smaller scale, we are talking about solar farms, on a larger scale we are talking about offshore wind farms, where large-scale green electricity would be produced to make green hydrogen." In addition, issues related to infrastructure must be resolved and regulations must be dealt with but looking at the enthusiasm of the companies and organisations involved in HVE, one would like to believe that Estonia will reach the set goals even faster than planned so far.

Estonia's emerging offshore wind tech innovation and manufacturing hub

By Ronald Liive



Photo by Eesti Energia



Photo by Riigikantselei

Estonia is fast-tracking offshore wind farm projects with the aim of becoming the largest producer of wind energy per capita in the world.

Estonia has been a strong maritime country for centuries. Until now, the benefits of the large sea area have been mainly realised through the fishing industry and transport corridors, now the country is focusing on the next step forward: wind farms. Estonia has become a front-runner country alongside established key players like the Netherlands, Denmark and the United Kingdom.

The country aims to be a place where new technological solutions for offshore wind farms are developed, tested and manufactured. For this purpose, a unique laboratory on the sea will be created near Estonia's largest island, Saaremaa. This offshore wind technologies innovation area can be used by companies from all around the world to test floating wind turbines, subsea stations and robots, service and maintenance drones, autonomous ships and other experimental R&D solutions.

But it doesn't stop there. Recently, a would-be tender was announced that has already attracted interest from 30 companies planning to build offshore wind farms, and the government adopted a decision that by 2030, 100% of the electricity consumed in Estonia must come from renewable resources. To simplify the development process, Prime Minister **Kaja Kallas** has stated that Estonia is adopting an integrated planning permit for offshore wind farms.

To meet all of the goals, the government is simplifying permit granting processes and shortening deadlines — projects of societal importance should be completed within three years. Integrated planning permits give the developers an opportunity to launch their project more quickly. Estonia has a grand goal of becoming the largest producer of wind energy per capita in the world.

The state wants offshore wind farms to be built as quickly as possible

Minister of Economic Affairs and Infrastructure **Riina Sikkut** says that the aim of making electricity consumed in Estonia 100% renewable by 2030 sends a clear message on behalf of the government to encourage investments in offshore windfarms on the shores of Estonia. Potential foreign investors have noted Estonia's preferable wind conditions and efficient business environment.

Offshore wind technologies are one of the critical focus areas in **the development strategy "Estonia 2035"**, which has been passed by the parliament and is updated by the government as the market conditions develop. To meet the newly set renewable electricity target for 2030, the state is taking a number of steps to achieve this goal. Firstly, there are tenders for renewable energy generation, a wind farm levy helps to break any possible obstacles, the grid's readiness is being improved and the government's goal is for cross-border projects to be finished in three years.

Photo by Krõõt Tarkmeel



Raido Lember

‘All companies, researchers and engineers that are seeking to walk the walk and transform our energy industry technologies are welcomed to Estonia’

“Estonia’s vision is to cooperate with the countries in the Baltic region to create an energy network that would enable offshore wind farms to interconnect and thereby strengthen the connections between states,” minister Sikkut affirmed.

At the end of August, PM Kaja Kallas with colleagues from Latvia, Lithuania, Poland, Sweden, Germany, Finland and Denmark agreed to increase the current wind energy capacity of the Baltic Sea sevenfold by 2030.

Interest towards offshore wind farms has been notable in Estonia over the years. Minister Sikkut put a tender in place for these areas, some of which are overlapping. Tenders will be announced for these overlapping areas to ensure the best developer is picked.

“The state wants for these offshore wind farms to be built as quickly as possible. We are currently looking for every opportunity to speed up the procedural processes,” she added.

Unique testbed in the natural marine environment

Sikkut mentions that surveys have shown how local populations living in and around wind farms are positively tuned towards them. In order to achieve the objective set by the government and accelerate the transition to renewable energy, the parliament adopted a so-called Wind Farm Fee Act or wind farm levy earlier this year.

It sets forth financial compensation for locals and local governments that will also reduce any potential Not In My Back Yard (NIMBY) concerns. Business Development Manager at Estonian Investment Agency, **Raido Lember** also notes that Estonia has been through all NIMBY negotiations and the necessary agreements for operators are already in place.

To meet the state’s desired goal of becoming the largest producer of wind energy in the world per capita, Lember points out that offshore wind technology is one of the critical areas upon which Estonian research, innovation, and the business ecosystem will be focused for the next 13 years, based on the central strategy “TAIE 2035”.

A natural marine testbed is being established on the north coast of Saaremaa to develop new offshore wind farm technology.

An area of one hundred square kilometres can be used for any R&D related projects for floating or foundation-based wind farms by many companies at once. We are strategically planning a very innovative and large manufacturing base and innovation platform for new generation offshore wind technology solutions. All companies, researchers and engineers that are seeking to walk the walk and transform our energy industry technologies are welcomed to Estonia.

Foreign investors have used Estonia as a testbed and a development environment for decades. To name a few, Lember mentions **Neo Performance Materials**, which has Europe’s only significant rare earth elements laboratory and processing plant, and **Enics** that has produced turbine controllers for over a decade.

“With local universities, centres of excellence for energy systems and collaborative cleantech ecosystem, this value chain has solid ground in Estonia. Estonia’s strong vision to solve the global environmental challenges has made the country strategically opt to become one of the top GreenTech development regions in the world,” he added.



Port of Tallinn has started to build a new quay

In cooperation with the **University of Tartu**, Europe's leading ultracapacitor energy storage company **Skeleton Technologies** has developed a wind turbine pitch control system based on their world class ultracapacitors, which are already used in the real world. Now the same team is developing something called **Stargate Hydrogen**. Simply put, their industrial scale hydrolysis is capable of taking the energy produced by wind farms and converting it to green hydrogen that can be transported all over the world.

The Port of Tallinn has also taken notice of the state's grandiose offshore wind farm tender. But they are not sitting around and waiting for the paperwork to be finished. The biggest port authority in Estonia and an active player in the Baltic Sea region is already in the process of building a new quay in the **Paldiski South Harbour** to service wind farms. The new 310-metre quay with a 10-hectare area will cost around 53 million euros.

According to the chief commercial officer (CCO) **Margus Vihman**, preparations for the construction of the quay are on track for the quay and hinterland area to be completed in summer 2025. The quay is not only meant for service vessels, but as the project is co-financed by the European Commission through the military mobility project EstMilMob, the same quay will have a dual-purpose use as the main Seaport of Embarkation/Debarkation for the EU and NATO troops.

Vihman sees that given the port's geographic location, the new quay will create preconditions for the Port of Tallinn to become an important partner in the construction and subsequent maintenance of offshore wind farms in the Baltic Sea region.

"The new quay will ensure the capacity of the port to receive high-draft special-purpose vessels for the construction of offshore wind farms and the transport of wind turbine components. The large rear area beyond the quay allows various preparations for the manufacture and storage of generators and wind turbine blades before being loaded on a ship. In addition, the new quay can be used to service ro-ro vessels if required," he described.

The Port of Tallinn has already signed a Memorandum of Understanding with three European wind farm builders to establish a construction and maintenance port for offshore wind farms of the neighbouring region (North-West of Estonia) in the Paldiski South Harbour. The wind farms to be built in the area plan to start production in 2028, preceded by a 3-year construction period of the wind farms.

After the offshore wind farms have been erected they need a service port to help maintain them. The aforementioned port could be one of them, but for farms located around the two biggest islands Saaremaa and Hiiumaa the deep harbour of Saaremaa is also suitable.

Projects in the works

Terje Talv, CEO of the **Estonian Wind Energy Association (EWPA),** helps to unite the needs and wishes of the companies active in the field under one roof with the mission to advance and develop the renewable energy sector at large. Talv sees that all association members are thinking about energy storage solutions and many of them are keen on green hydrogen.

To support companies in making investment decisions to increase renewable energy generation capacity, the state has been doing tenders for renewable energy generation, which gives a sense of security for the investors. Talv welcomes this but the EWPA is advocating for electricity minimum price to be set for renewables nevertheless. She believes this represents even more benefit for companies operating the farms, the investors as well as the consumer.

The state has started superficies licence procedures for three offshore wind farms being developed by **Saare Wind Energy**, **Enefit Green** and **Utilitas Wind**. These farms are set to open in 2028. These three projects have been the pioneers for offshore wind farms in Estonia. They have paved the way through the paperwork and regulatory process so that newly developed farms can start more smoothly.

Saare Wind Energy, founded in 2014, has been planning a major wind farm with 100 turbines with a capacity of up to 1,400 MW on the western coast of the country's large western island of Saaremaa, with an estimated cost of several billion euros.

In October of 2020, the world's leading marine and offshore services contractor company **Van Oord** acquired a 30% stake in Saare Wind Energy, which will help expedite the development of the project.

Additionally, to connect to the Estonian electricity grid, the Dutch company sees the project as an additional opportunity to interconnect across the Baltic Sea with Sweden and Latvia. The Estonian Investment Agency supported the initiative for this collaboration. According to board member **Kuido Kartau**, interest towards Saare Wind Energy came from Van Oord. "It's great that we came together with Van Oord. They are one of four or five companies in the world that actually build offshore wind farms. In addition to building for other operators, they have decided to invest from an early stage in certain high-potential projects," Kartau described.

By the end of this year, Kartau sees the Environmental Impact Assessments being finished and construction starting by 2026, but recent government decisions could speed the process substantially.



Paldiski South Harbour



Photo by Jake Farra

Rene Tammist

Saare Wind Energy has preferred local Saaremaa businesses as their partners from day one. If there aren't relevant local businesses on the island they will expand the search to the whole of Estonia, then if needed, the rest of Europe. Saaremaa is, however, the home for electronics manufacturing **Incap** and state-of-the-art shipyard **Baltic Workboats**.

Every offshore wind farm needs routine maintenance that will be serviced by a local harbour also known as an operational maintenance base. **Roomassaare harbour**, just a stone's throw away from the capital of Saaremaa and the Kuressaare airport, has been Saare Wind Energy's partner in this capacity.

Roomassaare harbour's director **Renno Tammleht** notes that the port is already hosting and servicing research and other preparation vessels for offshore wind farms. As they are the closest port with infrastructure such as shipbuilders, repairs, airport, hospital, hotels, and restaurants, they are currently expanding their quay sizes and industrial areas to further grow their capacity to support the future wind farms. They are open to negotiate a variety of support functions for wind farms in the region.

"We are interested in offering services to various customers as a support port for offshore wind farms. To meet the customer's needs, we are open to expanding our harbour, deepening the water area and building a new quay," he described.

Utilitas Wind is developing a grand plan for a farm consisting of a maximum of 160 windmills in the Gulf of Riga; their environmental impact assessment program was just recently sent to the regulatory authorities for publication. In parallel with his environmental studies, Member of the Board, **Rene Tammist** has initiated development-related activities such as pre-design, wind measurement, etc. He hopes the authorities will also move at a fast pace.

Utilitas is focusing on the installation of wind turbines. On a larger scale, Utilitas sees substantial potential to add storage devices to the energy system and is actively evaluating opportunities for development in this segment.

Utilitas is part of the Stargate Hydrogen project through company ownership. To facilitate the production of green hydrogen by offshore wind farms, Utilitas Group is already planning to build a green hydrogen production unit and supply infrastructure, which will be implemented by the end of 2024.

The head of Utilitas Group **Priit Koit** noted that it's a great pleasure for the group to build the first hydrogen production, storage & fuelling infrastructure and introduce the first hydrogen vehicles at a large scale in Estonia.

Estonia has set a clear goal — to be amongst the top offshore wind tech innovation and manufacturing hubs in Europe. The local maritime areas, onshore infrastructure, innovation ecosystem and engineering talent are ready to add value amid the global energy transition.

Photos by Enics



Enics values quality and the welfare of its workforce

By Sven Paulus





Situated in the picturesque Southern Estonian town Elva, Enics is the largest employer of the region, shipping its produce to more than 50 countries. The company ranks high in the production of controllers for offshore wind park turbines. "Life in Estonia" spoke with Kaur Andresson, Vice President of the company.

Enics is one of the world's leading solution providers of industrial electronics. How did you achieve this and what do you consider to be your unique selling points?

It was a strategic decision for us to focus on industrial electronics instead of, for example, telecommunication equipment or appliances for the automobile industry. We have developed all of the processes, services, tools and skills to correspond to the needs of this market. This market is characterised by very high quality requirements, high supply chain security, the long lifecycle of products, the skill and willingness to produce small batches. Our customers value this kind of specialisation. A clear strategic vision and the experiences accumulated over twenty years in the field are what distinguish us from many competitors.

You are the largest industrial employer in Southern Estonia. Please describe the long journey and growth of the company.

We began producing electronics in 1992 under the name Finesat. The main market back then was Finland and our products were meant for the telecommunications market. In 2001, the owners changed and the company started to grow rapidly. New owners enabled more investments and the expansion of production. Today, nearly 900 people work in our Elva factory. Some years back, we focused on finding new customers. Today, the focus is on increasing sales to existing customers. For various reasons, in the next few years, a lot of production will move back from China and other Asian countries to Europe, closer to home markets. We see that we can profit from this trend.

Your field of activity is quite broad: what kind of appliances do you produce?

We ship thousands of different products to over fifty countries with a volume totalling over 5 million units each year. The main market segment is appliances linked to energy production and usage. We also produce quite a lot for the railway industry and electronics for buildings. The logo of Enics is not visible, but everybody in Estonia is using products where the electronics is made in Elva.

Among other things, your product portfolio includes wind turbine controllers. What is your market share and why is Enics among the top players in this field?

Wind energy is one part of our energy segment. This line of production came to us via an existing client as part of a product portfolio. Wind generators require electronics produced to the highest quality level. Conditions on the open sea can be extreme, in case of a faulty product it may be complicated to exchange the electronic components and it is very expensive to keep the wind turbine idle. At the same time, the annual production volume is not too big. But those products are something we have in our focus and we have the skills to produce high quality components. Our clients are the global market leaders in this area.

How do you invest in your employees?

Primarily through continuous training. We value people who have the skills to work in different stages of production. It allows us to be flexible in planning. Considering our employee numbers, we are definitely the

largest trainer in the field of electronics in Southern Estonia. Throughout the years, our people have worked in different Enics factories in Switzerland, Slovakia, Sweden, Finland and China. This is a valuable experience for the staff as well as the company. Employees have the opportunity to apply for jobs in the entire Enics Group. This has allowed them to gain new knowledge and expand their career prospects. Our customers and suppliers are leading companies in their field globally. Cooperating with them enables people to learn and make valuable contacts. From employee satisfaction surveys we know that people also appreciate good everyday conditions including an affordable diner in the factory. This is also an investment in our staff.

What is the share of foreign specialists in your Elva factory?

Employees from different countries have found their way to us. Proportionally, the largest number come from Latvia and Ukraine but also from Hungary, Portugal, Finland and China. The situation in the labour market calls for flexible solutions. Production is based mostly on automated lines. For example, the number of computers in production is twice as large as the number of employees. Ten years ago, you could start working after a week-long introduction programme. Today, learning to use some of the equipment requires three months of daily training, which we offer on location. It is very important for us to engage people from abroad on flexible conditions. This does not mean bringing in a cheap labour force. Often we need people with very specific capacities we do not have.

Speaking of innovation, what are Estonia's main strengths?

Estonian people are open to innovation — we are willing to try out new things. This has created an environment that helps to find partners who think along. In other words, the entire ecosystem matters — the desire to accomplish something, wider support from partners and people`s willingness to try new things. Naturally, a high education level that enables us to put ideas into practice is also very important.

Why should foreign investors invest in Estonia?

We have a stable and transparent business environment and access to European, and first and foremost, Northern European markets. It can be complicated to find the right people sometimes but I really like the Estonian "can-do" attitude.

To what extent has the war in Ukraine influenced your activity, including the availability of resources?

There has been no direct impact — the problems with component availability started already before. Like many other companies in Estonia, we employ people from Ukraine. We have tried to support them. More impact comes from increased energy costs and the impact it has on costs. In addition, the strengthening of the US dollar in relation to Euro has an impact for us — it is painful in the short-term but in the longer term it will improve the competitiveness of the euro region.

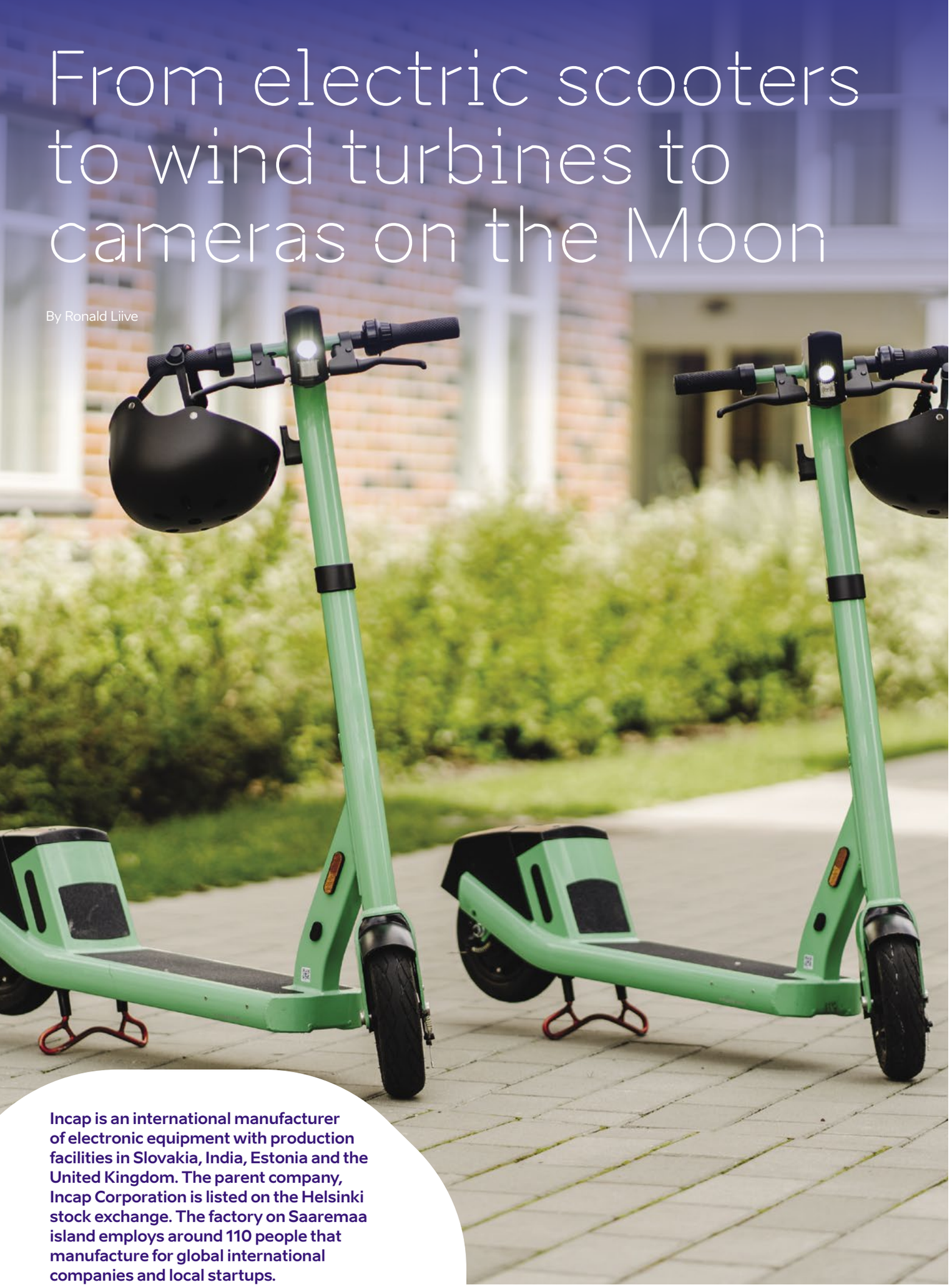
Enics and GPV merged recently — what are your expectations from this collaboration?

The merger still requires approval from certain bodies of different countries. Hopefully, this part of the process will soon come to an end and subsequently the company will be the second largest company in its field in Europe.



From electric scooters to wind turbines to cameras on the Moon

By Ronald Liive



Photos by Incap

Incap is an international manufacturer of electronic equipment with production facilities in Slovakia, India, Estonia and the United Kingdom. The parent company, Incap Corporation is listed on the Helsinki stock exchange. The factory on Saaremaa island employs around 110 people that manufacture for global international companies and local startups.



Greg Grace, Managing Director of Incap Electronics Estonia, and Otto Richard Pukk, president and CEO of Incap Corporation Oyj

If you've ridden a **Bolt** scooter or bike in a European city, chances are you have your own first-hand experience with Incap's products without you even knowing it, as Bolt is one of their customers. If all goes to plan, soon a small part of Saaremaa will land on the Moon thanks to **NASA's Artemis Lunar** program. **Incap Estonia** will provide **Maxar Technologies** two stereo cameras with the necessary electronic boards.

One stop shop for electronics manufacturing

Incap Estonia offers both large companies and smaller startups electronic equipment solutions using state-of-the-art technology. Managing Director of Incap Electronics Estonia, **Greg Grace** points out that Incap is offering manufacturing electronics for almost all industries, from prototypes and pre-series as well as controlled production ramp-ups, which are elementary parts of operations. According to him, final assembly and box-build/product integration services complement their service offering.

"All projects are different but our experience in industrial electronics in Estonia as well as from our other international units helps us approach any projects on the table," Grace noted.

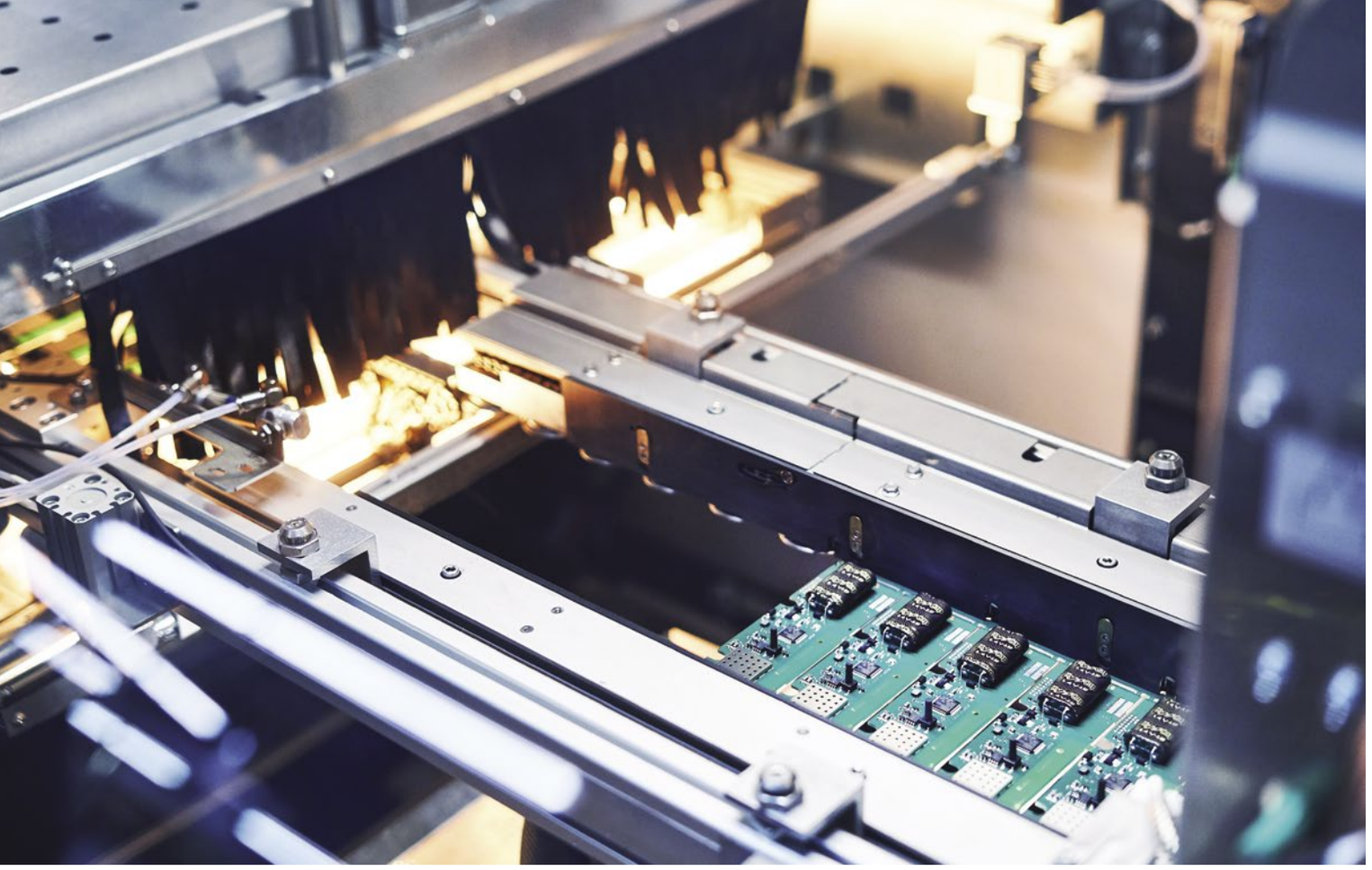
Saaremaa island is accessible by sea and air transport from the mainland. To make passenger and goods transport to the island greener, Incap Estonia produced battery racks for **Corvus Energy** that modified a diesel ship into Estonia's first hybrid ship. Grace also mentioned that Incap Estonia has manufactured products for Corvus Energy that are used for sustainable offshore wind operations. Corvus has the world's largest installed base of maritime energy storage systems. "All these experiences and knowledge of industrial electronics allow us to easily manufacture electronics for wind farms as well as products tied to the infrastructure of wind farms like inverters, energy storage systems, sensors and monitoring equipment," he added.

Swedish company **Sigicom**, which is very strong on Construction Site Monitoring (CSM) during the commissioning of structures both on and offshore, including the construction phase of the wind turbine itself, uses products that contain electronics manufactured by Incap. Sigicom is the dominant equipment producer for CSM in the Nordics and its main product is the C22.

"Furthermore, Sigicom has developed monitoring equipment specialised for optimising operation during the operation phase of the wind farm. The SHM01 is designed for the offshore wind sector in Denmark and follows the requirements for data needed to make the best input to proper twin models in Finite Element Modelling (FEM)," said Grace.

All of Sigicom's monitoring systems are based on customer requests and are modified as possibilities or requirements change. All of the abovementioned equipment, as well as some unnamed solutions, are assembled by Incap.





Thanks to Incap a tiny part of Estonia will be flown to the Moon

Grace says proudly that all Incap customers are developing high-tech products and many are pioneers in their market. Potential customers know Incap's capabilities but the Managing Director assures that they always have room for growth.

"If the customer allows us to introduce their projects, we use this opportunity to introduce our know-how to local companies as well as universities, which drives innovation in Estonia. We are proud to say that lots of innovation in our region and the world comes from Estonia."

Grace sees that offshore wind farms near Saaremaa and elsewhere in Estonia are a great opportunity for local universities to increase electronics engineering programs to train more engineers and technicians and to grow and attract more talent locally.

The camera produced for Maxar Technologies is all Estonian made; developed by Estonian companies **Crystalspace** and **Krakul**. It will play a key role in NASA's program as the cameras will act as a pair to monitor the operations of a robotic arm that will collect regolith samples from the Moon.

Incap is not limiting themselves to projects for financial gains. They are also happy to work with young talent such as student-led project **Solar-ide**, which built a solar powered car with the help of over 300 students from high schools and universities. The aim of it for Incap is to support great young talents and perhaps attract new employees.

Incap even hosts tours for kindergarten and elementary school students so they can see what the electronics industry looks like from the inside.

Interestingly enough, their parent company is run by a Swedish born Estonian, **Otto Richard Pukk**, and their factory in Saaremaa is run by US-born Greg Grace.

Fast, flexible and agile

Mentioning Incap's benefits over competitors, Grace brings out synergy with other units and the know-how of different experts at their factories around the world.

"Also, our strength lies in Incap's decentralised business model, which allows us to approach each project with a personalised and fast solution. If you are looking for a flexible, agile and efficient production partner then contact Incap Estonia. That is our orientation and promise to the marketplace."

Over the years, Incap Estonia has learned that alongside the core market demand of on-time delivery, quality and cost efficiency, their customers expect their partners to be able to adjust to continual change. "That is how we develop and run our operations. A fast, flexible, and agile partner."

This means that the teams, as well as the machinery, are always set up for the specific project at hand. Before final product manufacturing starts, a setup period and staff training needs to be completed. The length of training depends on the project details.

The average time from a first prototype to production is around two weeks, but again, this greatly depends on the complexity of the project and logistics.

Photos by BLRT Grupp



BLRT Grupp – 110-year-old company leading the way in construction of renewables

By Ann-Marii Nergi

The BLRT Grupp understands the significance of the Green Deal like nobody else.



The BLRT Grupp corporate family celebrates its 110th anniversary in 2022. Recent years have been quite eventful for the holding: BLRT Grupp has completed multi-million investment projects in shipbuilding, ship repair, metal and metal products trading, high-end equipment and complex structures manufacturing and fabrication, and industrial and medical gases.

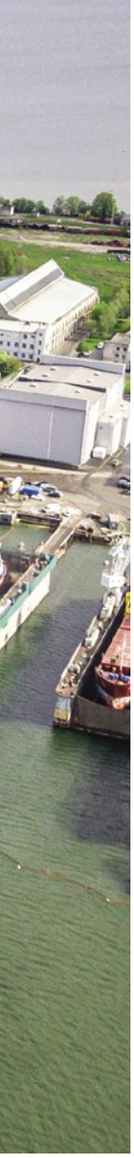
The companies within the corporate family have come a long way in terms of industrial innovations. "Our long-time background puts us in an excellent position to understand the significance of the Green Deal like nobody else does," says **Roman Vinartshuk**, Advisor to the Management Board of **BLRT Grupp**.

Therefore, one of the key focus areas of the holding is the manufacture of high-end equipment and complex structures for oil-and-gas and offshore wind power industries. That is the domain of **Marketex Offshore Constructions**, BLRT Grupp's subsidiary operating in Estonia. Over the years, the company has taken on many challenging and unique projects. Generally, large-scale orders entail audits conducted by customer representatives. The audits would cover all fields of the operation, including financial aspects, the overall situation prevailing in the country and the city, the corporate culture, occupational safety and quality management systems. Each job and each order are awarded against fierce competition.

At the end of last year, BLRT Grupp announced a deal between its Marketex Offshore Constructions and globally acknowledged marine contractor **Van Oord**, where Marketex Offshore Constructions fabricates structural steel components for a large-scale, 759 MW Dutch wind farm. That is yet another substantial milestone for BLRT Grupp: becoming a trusted supplier for large-scale projects in the North and Baltic Seas and earning its credentials in major sustainability projects. "The monopile gripper construction project implemented at the end of 2021 is a fine example demonstrating that the fabrication and manufacture of steel structures and equipment for wind farms are not just extra hours in the welding shop and employment creation. It was a challenging project that required electrical and hydraulic installation and supporting engineering services in addition to the steel structure fabrication. Marketex Offshore Constructions brought other BLRT Grupp companies and contractors on board for the project," explains **Nadezhda Vassiljeva**, a member of the Marketex Offshore Constructions Board.

In addition to this project currently underway, Marketex Offshore Constructions' portfolio includes some Dutch partners from earlier times — like a unique monopile gripper for Seaway 7 for the offshore installation of monopiles up to 3000 tonnes. Vassiljeva says that the Dutch go-getter mentality (*'doorzetter mentaliteit'*) is much appreciated in doing business in the Baltic region, "Also, their well-recognised experience in offshore projects and innovative technical solutions support successful business development. Hopefully, there are many exciting new projects in the offing."

Environmental impact reduction has always been a top priority for BLRT Grupp and an offshore wind project can be found in its portfolio from as early as 2007. The number of implemented offshore wind power projects has been growing, validating the diversification strategy the company has adopted. But aside from the new Dutch project with Van Oord, the company has constructed foundations for offshore wind turbines commissioned by the German company **Bard**, as well as manufactured and supplied 21 anchors (foundations) for a wind farm located in Aberdeen Bay in Scotland.



Wind farm construction projects keep Estonian companies busy and enhance performance and overall engineering standards. Moreover, all such projects require high personnel skills (welding and painting) and occupational safety levels. "As an **Estonian Wind Power Association** member, we closely follow market trends," says Vassiljeva. "We are sure to see many new wind power projects developing in the Baltic Sea region in the nearest future. Green Energy is currently a hot topic. Considering the Green Energy scale and rate of development, the growth will require a robust supply chain in the Baltics and the North Sea region. Marketex Offshore Constructions and BLRT Grupp welcome the opportunity to work with new and existing customers."

The company not only builds green energy facilities but goes greener itself step-by-step. Many process technologies and procedures have already been either upgraded or replaced in BLRT Grupp. "For instance, we have entirely switched to LED-based lighting, including external illumination. Also, the implementation of ERP programs contributes to more efficient use of resources and consequently has a positive impact on the environment. Like electronic document management, we have reduced the use of printing paper within the holding by 80%. On top of that, the coronavirus pandemic has contributed to the logistic flow optimisation and the accelerated development of online sales of rolled steel products following the establishment of online shops in four countries," explains says Roman Vinartshuk.

BLRT Grupp owns the largest ship repair centres in the Baltic region

The large Panamax, post-Panamax and Aframax repair docks installed at the yard in Klaipėda were instrumental in strengthening the positions of the BLRT repair yards, becoming one of the largest ship repair centres in the Baltic Sea region and Nordic countries. In addition, **Marketex Marine**, the company that builds feed barges used worldwide, from Japan and Chile and from Norway to Greece, has relocated to new production facilities. Among the achievements, the holding has constructed cutting-edge welding-and-assembly and machining shops with a high production potential and a paint booth for oil-and-gas and wind power equipment. Furthermore, **Elme Metall**, BLRT Grupp's subsidiary providing rolled steel machining and marketing services, has been continually investing in state-of-the-art equipment and new warehouse facilities in the Klaipėda Free Economic Zone and has now cemented its leading position in the market.

The holding turnover exceeded 538M euros in 2021. The result was secured by a joint effort put forward by each of the more than 50 BLRT Grupp companies operating in seven countries: Estonia, Latvia, Lithuania, Finland, Ukraine, Norway, and Poland.



Solarstone offers solar panel-equipped carports and Solar Frame Buildings

By Ronald Liive









Photos by Solarstone

The one good thing that has come from high energy prices worldwide is people's interest in solar panels, which in hindsight, could bring costs down and reduce global warming simultaneously. Building-integrated solar panel producer **Solarstone** has seen massive growth in interest from potential customers in the last year.

Up to now, the company has been focusing on their 2-in-1 in-roof solar panels, but in the last couple of months, they have decided to expand their portfolio to meet the needs of even more customers. Their latest products are solar carports and Solar Frame Building, the latter being essentially a portal frame building like a warehouse with solar panels on the roof and facade.



A carport with Solarstone's Click-on panels

By the customers for the customers

Solarstone uses **Tier 1 photovoltaics (PV**) produced by leading companies in the field, which are fitted with a patented Click-on framing system. The aluminium frame renders regular solar panels into a 2-in-1 weatherproof roofing material. Thanks to that, there is no need to buy roofing materials and solar panels separately because they are already integrated into one product. They also offer a solution for existing tiled roofs that interlock with any concrete or clay tile.

According to **Maiko Kiis**, the marketing manager at Solarstone, they've expanded the product portfolio to also cater to the needs of enterprises and apartment buildings. A **carport** with Solarstone's Click-on panels is a solution for either home or business clients. It's a good solution for homeowners who do not want to change their roofing materials or whose houses are in shady areas.

The same product can be used by enterprises such as large shopping malls that want to offer their clients either electric car charging or want to reduce their electricity bills. So just like with Click-on, Solarstone is being true to its core by providing yet another dual-use product — simply put, the carport is like any other solar panel ground station. Still, it's higher to have room for cars, bikes, storage etc.

"The carports can be connected, meaning we can fill whole parking lots with them. The customer can choose if they want some accessories to be added to the carport, for example, Solarstone's EV charger that can be integrated into the carport, or to connect it with a house which stores the energy produced in a battery," Kiis described.

European Union legislation says that every new and significantly reconstructed building with at least 10 parking spots needs to have an electric car charging capability. Solarstone's solution will free two birds with one key.

The idea for the carport was not something that Solarstone came up with entirely independently. According to Kiis, they saw demand on the market as more and more potential clients were looking for this kind of solution.

At the time of writing, the price for the carport in Estonia is around 12,000 euros + installation. The cost will vary for every country as the installation process can differ. Solarstone guarantees that it will produce at least 80% of its initial output in 25 years. A single carport has a power output of 6 kWp, so a bit less than an average household solar park.

Expanding into Germany and US

Compared to a Click-on produced for a homeowner's roof, the carport is faster for Solarstone to make as the dimensions and other essential parameters are more or less standardised. Thanks to that, the carport has become quite popular with customers because it can be delivered and installed much faster.

Initially, this product was only offered for the Estonian market, but now they are ready to sell it to customers in Scandinavia and the Nordics at large and also to German-speaking countries. Solarstone also seeks to expand to the US market, but some local market-specific matters must be solved first.

Due to high client growth, Solarstone's factory in Viljandi will need to be expanded soon. In the 1,200 sqm factory, Solarstone can produce 20,000 tile interlocking solar modules per year with today's setup. This results in approximately 715 designed solar roofs and 25,000 Click-on kits, which adds up to another 1000 economic solar roofs.

Solarstone's growth and success have mainly been through its home market, but more significant growth is expected through an expansion to other markets.

Another new product in their portfolio is **Solar Frame Building**, which can place solar panels both on the facade and the roof. Kiis sees potential clients for these could be industrial companies or even horse stables.

The marketing manager does not want to disclose what other potential new products are in the pipeline but instead focuses on the fact that Solarstone continually enhances its products to make them more perfect.

Solarstone aims for customers to receive their orders within three months. The wait can vary based on where the customer is from, the local power grid (whether the solar park can be integrated with the energy grid), the local construction partner, supply chains and many other factors.



The Car

At the end of 2021, despite the COVID-19 crisis, the first solar car constructed in the Baltics was built by Estonian students and tested in its first-ever race in Morocco Solar Challenge 2021.

During the second season (2022-2023) of Solaride, the next-generation car will be designed and built and tested at the Bridgestone World Solar Challenge in Australia in October 2023.

Solaride solar car uses 5 times less energy than a normal car on the road.

The solar car is designed to drive from the north coast of Australia to the south coast with two charges covering a distance of 3,000 km.

Before the final design, the solar car went through 15 different revisions.

It took 6 months and 10,000 working hours to build a car. About 25 young engineers and a number of other team members, from marketers to logistics, contributed to the physical constructionof the car.



Solariders – shortage of engineers sorted

By Ann-Marii Nergi



Photos by Solaride

"We are solariders and we give a damn," runs the motto of a new and highly practical talent programme where students can find and test their passion for engineering.

Albeit the main task of the students who have joined the Solaride Academy is to build a solar car for an international competition, assembling the car is a means to an end, not a goal in itself. Let's admit — it is very important to have your solar car beat the other teams in competition in Australia or Morocco, but the real purpose of the undertaking is to get young people fascinated in engineering. Interested enough to have students choose engineering, including industrial engineering, as their future career.







"There is a lack of engineers in Estonian industrial enterprises and no-one will come and sort out this problem for us," says **Kristel Leif**, co-founder and CEO of the non-profit organisation **Solaride**. Now in its second season, the organisation offers students invaluable experiences on top of learning, but when you are already a member of the team, you also have to take it seriously. It requires a significant amount of time and dedication, which turns out to be too much for some. "Building a solar car is a tool for us to awaken the interest of young people in engineering. In addition, it provides them with a real and practical experience, working in a team and playing different roles. It is not a case study — when you join Solaride, you take responsibility for your role. In addition to engineering work, you need to raise a project budget in the sum of 1.5 million euro, manage an organisation and communicate its aims. The main learning format here is interdisciplinary learning, in other words, learning by doing. This is supported by a mentoring programme wherein leaders in their fields train and supervise our students," describes Leif. As is characteristic of modern organisations, self-development is an area which also receives attention as more and more employers are not only recruiting people for their practical skills, but also their social capital. It is for good reason that **Martin Villig**, co-founder of Bolt and one of the supporters of Solaride, has said that Solaride Academy inspires young people: "This project will enlighten the next engineers, inventors, entrepreneurs — the next changemakers."

As mentioned above, the creation of such a non-profit requires a proper budget, regardless of the fact that most people work in the programme on a voluntary basis. It is not cheap to participate in the solar car competition taking place in Australia in 2023. Kristel Leif is proud of the fact that Estonian universities and the private sector understand the importance of the Solaride initiative. The project is supported by top Estonian universities, public organisations (e.g. ministries and the City of Tartu) and companies. Leif recounts an episode from last spring that really drove home the sense that they are doing the right thing. "We organised the car testing event at Tallinn Airport and invited **President of Estonia**



Fixing the shortage of engineers

The number of higher education graduates in technology and production and processing is significantly smaller than the requirement of the processing industry for new workers. But Estonia knows that the larger the share of specialists in the industry, the richer the country or the higher the national GDP will be. This is logical because in richer countries there are stages of added value production. It is a long-term goal of Estonia to catch up with countries that have a higher living standard. It is difficult to achieve this without a sufficient number of engineers. According to a study from 2021, approximately 25,000 managers, engineers and specialists work in the Estonian industry. In the next decade we have to train about 8,700 new specialists. From those, 66% will replace the retiring workforce and a third will fill potential new jobs. We say potential jobs because, unless we have people with high-tech skills to fill those jobs, those jobs cannot be created.

The public and the private sector in Estonia are collaborating to find solutions to the labour force crisis — for example, there has been a proposal to establish an Academy of Engineering and it is considered pivotal to direct young people to engineering from an early age.





Alar Karis to join. At one point, we realised that the President's focus was on his mobile phone instead of on us and we thought we had not managed to get our otherwise science-savvy President interested. But when we looked into it, it turned out that during our event the Government of Estonia had collapsed and he was signing the decree on his phone. He stayed until the end of the event," she says, emphasising how the e-state works in Estonia and how important Solaride is, even for the Head of State.

In some sense, Solaride is a talent programme: many entrepreneurs spot the talents they might recruit in the future while mentoring. "All counterparts know — once you complete the Solaride programme, you are ready to enter the labour market and accept all kinds of challenges." Leif says that after a couple of years of activity and focus on car-building, it is planned to launch the Solaride Academy in full in 2024.





Photos by Atko Januson

"I needed someone to get the spark out there"

Work in Estonia Spouse Program helps talented families settle

By Maris Hellrand



Melanie Güllich

"Due to my participation in the spouses program here, I got such a boost that within four weeks I had two different job offers on the table, which I never expected because I didn't see myself here in the work environment at all, not speaking Estonian," says **Melanie Güllich**, an experienced expat from Southern Germany. For her, settling in Estonia has been the smoothest experience of seven different countries.

Güllich is one of the alumnae of the Spouse Program of Work in Estonia that was established in 2019 as part of Estonia's effort to attract international talent. Work in Estonia was founded in 2015 as a marketing programme for mostly IT talents. Since 2018, the International House of Estonia is offering services for settling in Estonia. **Anneli Aab**, director of **Work in Estonia** programme explains that they soon discovered that there is a need to assist the settling-in process as well, not just marketing to attract international talent: "We now try to help during the whole stay and even beyond, so that even after leaving Estonia the people would recommend the experience to others."

From the initial focus on IT, the programme has widened to other branches. According to Aab, there is a great need for engineering and STEM specialists in the industry as well. Currently, the number of highly educated specialists from non-EU countries who settle in Estonia is about 1200 annually. The aim now is to keep the people in Estonia and to keep them happy. One major challenge that was spotted early on was the situation of spouses — a family is more likely to stay for longer if both can find interesting work. "The cost of settling one person is about 10 000€ — including the costs for the individual, the company and the Estonian government," says Aab. "Therefore, it is worth it to put in an extra effort and help the spouses settle as well."

According to a survey conducted by Praxis think tank in 2019, 21 percent of employers indicated that the reason a foreign worker left Estonia was because their partner or spouse could not find a suitable means of applying themselves here. The spouses tend to be well-educated people who would like to continue their careers. Since 2019, Work in Estonia offers a special **Spouse Program** in cooperation with the employment agency and Move My Talent. "Demand for participation in the Spouse Program is high," Aab said. "When registration opens, the spots fill up quickly. To date, about 200 people have graduated from Work in Estonia's Spouse Program since 2019, including 59 last year.

Güllich arrived in spring 2020 due to her husband's new position as the vice president of a local company that produces wiring harnesses for the car industry. Her usual expat experience includes charity work and if the respective country allows — a job as an office manager. "I enjoy that kind of work immensely but I thought an office manager here needs to speak Estonian to be able to work with the handyman and do all the local things. So I was fairly lost in the beginning of searching for a job," admits Güllich.

She joined the Spouse Program nevertheless: "I think that's the story I'm going to tell for the rest of my life, because we all needed to bring an item that represents you on the first day." Güllich came along with a candle and with a match and said: that's me and that's what I need. "I needed someone to get the spark out there. And it happened within the first two or three sessions. I started understanding how the local market works and how the importance of LinkedIn is positioned and all these things. And from there on everything worked perfectly well very quickly."

She soon joined the German company **Kühne und Nagel** as office manager. "It was the most relaxed onboarding into a country that I ever had."

The tax income of last year's alumni of Work in Estonia's Spouse Program totalled more than €320,000 per year, thereby exceeding the costs of the program by nine times according to the Estonian Business and Innovation Agency.

Zeyad Khalaf from Cairo, Egypt, joined his wife and child in Estonia in January 2021. His wife had started an academic career in cyber security at **TalTech** while Zeyad was still working in construction management in Saudi Arabia. Khalaf knew that the **International House** was the place to go and get settled in Estonia. "I had small practical questions — like, how do you even start a letter or an e-mail to a person in Estonia, how you address someone," he describes the kind of issues he faced. Also, compiling a CV in a way that suits the business culture in Estonia was a challenge. He says he is quite introverted, so the social experience during the spouses' sessions was helpful to create a network, especially as it was at the height of the Covid-19 pandemic when he arrived.

Khalaf has now settled as project manager with **Ericsson Estonia** and is very passionate about his job at the diverse and inclusive global company. Khalaf and his family enjoy walks in nature and attending cultural events. Learning to ski is on the bucket list.

About 70% of participants have found jobs in their respective field or found a new career.



Zeyad Khalaf



Anneli Aab

"The talent rally in the world is intense — all countries want to attract the smart and talented people, especially in IT and engineering," says **Anneli Aab**, director of Work in Estonia. "Estonia's strongest trump in this race is its reputation as a digital state. For a young IT specialist this is also a unique opportunity to actually experience the digital state live but also a safe environment and good work-life-balance are part of the attraction."

Berk Erdem, project manager at Work in Estonia, says they encourage participants to try new careers a well: "Someone, who has worked as a nurse during Covid-pandemic actually wanted to learn coding. There are also people who like to create their own business." Among the participants there have been engineers, architects, teachers, etc. "Also, joining the NGO sector is a great option," adds Erdem, himself an expat from Turkey and now fluent in Estonian.

"With 6 group sessions and 2 individual consultations they introduce Estonian culture, the work environment and application process, expectations for the CV, how to start a business. One session is a speed meeting with mentors from different fields. We provide a toolkit, not the solutions to everyone's individual problems," explains Erdem. Apart from professional support, the programme also provides a social network, because as Aab explains quite often, the spouses feel excluded from local life.

Not a problem for Güllich, who enjoys the nature and seaside of Viimsi and plans to settle in Estonia for longer. Her 15-year-old daughter attends **Tallinn European School** and enjoys the freedom and independence of taking the bus or even a scooter as she pleases. "She can go and meet her friends, they meet up on the beach, they go to the cinema all by themselves, so it's a very safe environment," says Güllich. She also joined the International Women's Club of Tallinn and is active in charity work. A language course of Estonian is the next step.

Merike Estna transforms paintings into personal universes

By Kaarin Kivirähk

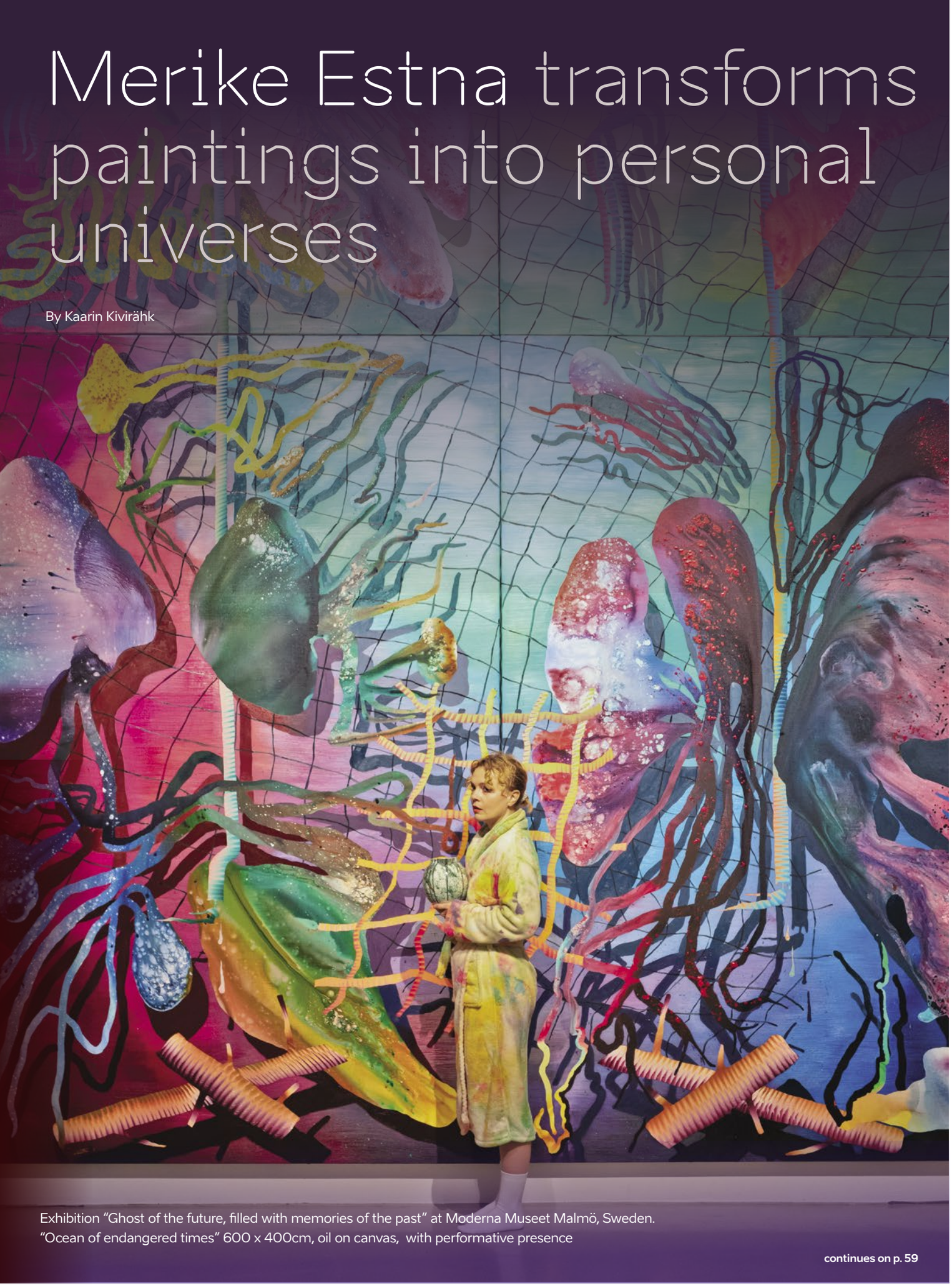


Photo by Helene Toresdotter / Moderna Museet

Exhibition "Ghost of the future, filled with memories of the past" at Moderna Museet Malmö, Sweden.
"Ocean of endangered times" 600 x 400cm, oil on canvas, with performative presence

continues on p. 59

Portfolio
Merike Estna

Photos by Stanislav Stepashko



The emptiness of the empty eyes, 2019
61 x 45cm, oil on canvas



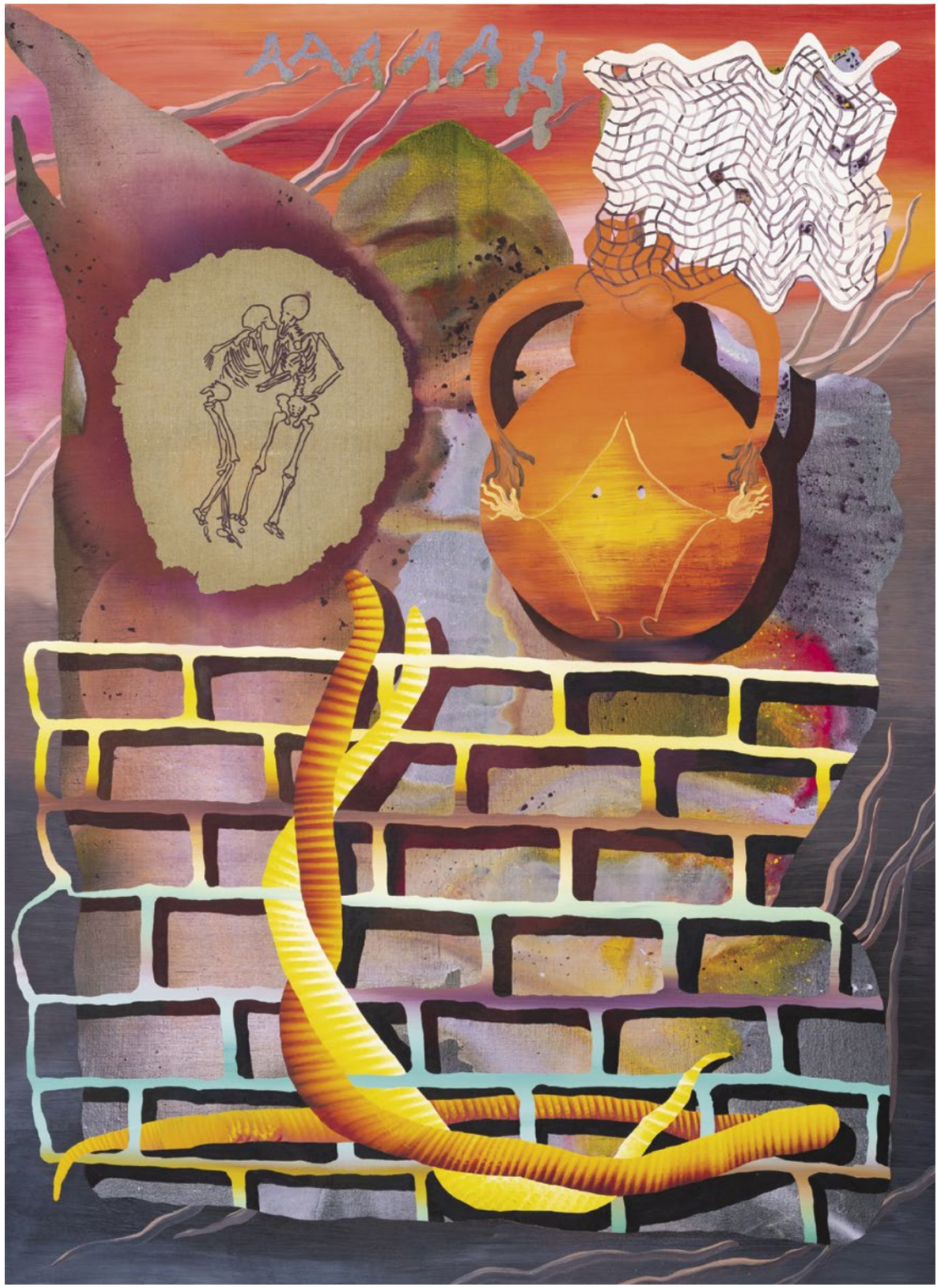
Nature Morte, 2022
50 x 40cm, oil and acrylic on canvas



Infinity of housework, 2019
61 x 45cm, acrylic on canvas



Irreversible, past and present, 2019
61 x 45cm, oil on canvas



The ghost, the past and the fence, 2021
220 x 160cm, acrylic and oil on canvas



Photo by Damian Griffiths

Peace?, 2005
300 x 200cm, oil on canvas

Courtesy of the artist and Bosse & Baum



Detail from Magama (To sleep) from the project Nightfall, 2020

Homage to the iconic Estonian female poet and writer Lydia Koidula (born as Lydia Emilie Florence Jannsen, 1843-1886)
220 x 150cm, acrylic on digital print and acrylic on plywood

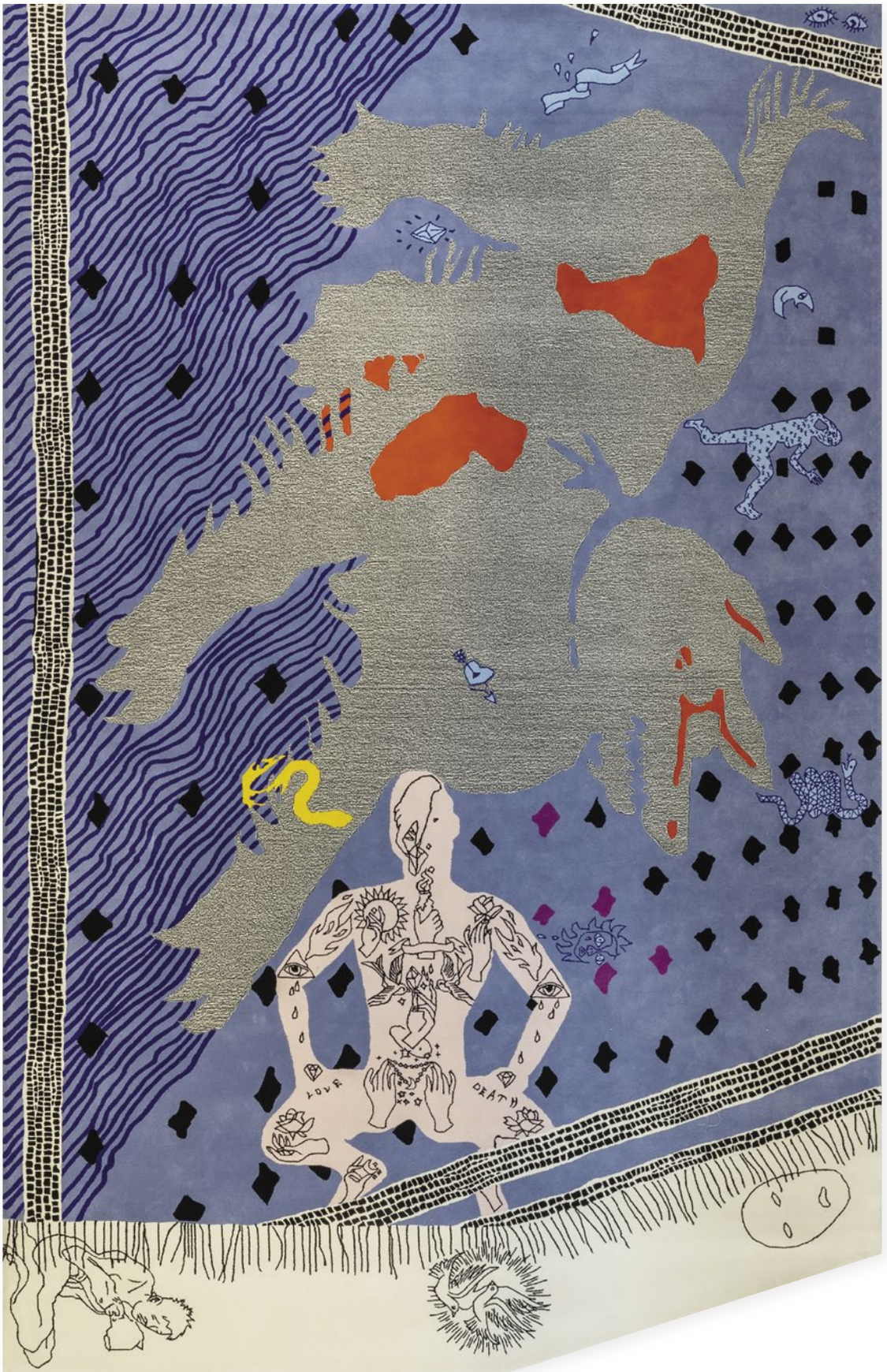


Photo by Anu Vahtra

The house of the tragic poet, 2021
364 x 577cm, hand-tufted wool

Photo by Anu Vahtra



Exhibition "Soil will not contain our love" at Kai Art Centre in Tallinn, 2022

What is a painting? Is it colours on canvas? On paper? In a book? If you use light, shades and colours on a curtain, carpet, ceramic tile or a dressing gown, do those items become paintings? Merike Estna is one of the most well-known Estonian painters who deals with such questions in her work.

Visitors to Merike's exhibitions are likely to decide that this is what Merike Estna's works are like, only to be stunned at the next exhibition that the artist has created something totally different. But whereas choices of colour, shapes and techniques may change like chameleons on her paintings, the idea of a painting as a moving, breathing, decaying, dynamic piece of art remains. "For me it is all in a logical flow," says Merike about her art when we meet before the opening of her mini-retrospective at the **Kai Art Centre** in Tallinn. I was commissioned to write this piece and have arrived at the exhibition which is about to open when half of the art works are still packed in boxes and wrapped up in bubblewrap. I am excited to see them come out of the containers as I know Merike is skilled at creating entire worlds out of paintings.

"Each exhibition explores a theme which captivates me at the time," she continues. "But I am still proceeding from my initial interest in painting. How to exhibit a painting, which colours and patterns to use? How to break up the status of a painting as a valuable object by keeping it alive and changing, not as something which dies the moment hung on an exhibition wall?" she asks. "Already back in 2014, when preparing for the exhibition at the **Kumu** Art Museum in Tallinn, the visual language of pattern- and colour combinations which are not typical of paintings in our cultural space began to interest me. Currently I spend a lot of time pondering about how much we take in visuals through screens. So I have also borrowed some working methods from the digital image processing, for example I paint several layers and then erase the top layer which creates an image similar to that in the Photoshop programme."



Photo by Anu Vahtra

Art history upside down

Characters in her works can also seemingly step out of the paintings. For example, at the 2018 exhibition "Soft scrub, hard body, liquid presence" in New York, she organised a cocktail picnic on her painting, offering a contemporary version of Édouard Manet`s famous painting "Luncheon on the Grass". At the 2018 Baltic Triennale at **Tallinn Art Hall Gallery** a man was walking around Estna's ceramic tile painting installation, who — like many female nudes portrayed over centuries of art history — was wearing nothing. Is a naked man on a painting more provocative than a naked woman? Those are just some examples of how Merike turns art history upside down in her works.

In the last year, Merike has shot out exhibitions and projects like cannonballs: the exhibition "The house of the tragic poet" at **Bosse & Baum Gallery** in London in the end of 2021, "Talk to me softly when the world is fading away" at **Karen Huber Gallery** in Mexico City and performance at the **Liste Arts Fair in Basel** in the summer of 2022, the exhibition "Soil will not contain our love" at Kai Art Centre in Tallinn in the autumn of 2022. She collects themes, hints and stories for her exhibitions from life all around her. The exhibition in London refers to the famous "tragic poet" house in Pompeii, the title for the Tallinn exhibition was borrowed from a random tattoo. "Tattoo culture fascinates me — how the body has become a canvas which conveys a certain visual," she explains her interesting choice. "I chose this title because I think it reflects the current situation more broadly. It is a morbid feeling to ask what remains of us or what comes next."



Photo by Stanislav Stepashko



Photo by Anu Vahtra

Photo by Helene Toresdotter



"Ghost of the future, filled with memories of the past" exhibition view, with performative presence. Moderna Museet Malmö, Sweden 2019

Love of Mexico

Just before the avalanche of exhibitions, Merike became a mom and now raises her little son together with her artist husband Jaime Lobato with whom she collaborated on the exhibition "Piiritus" at the **Temnikova & Kasela Gallery** in 2021. Jaime comes from Mexico and the culture and colours of Mexico have found their way into Merike's paintings not just because of love, but due to many trips and working collaborations. "The first time I visited Mexico was in 2016," she says. "Their culture is so warm and open, I was fascinated by all the smells, colours and people. Of course, Mexico is a huge country and there are many negative aspects of life, but also so much good. Ordinary people are very warm-hearted towards each other. I have travelled there many times because of work, but also because I just like it. My last exhibition 'Talk to me softly when the world is fading away' at Karen Huber Gallery was a sign of respect towards Mexican culture."

Despite the fact that Mexico is situated thousands of kilometres away from Estonia, I feel the two countries have something in common. Mexican culture also has a certain sense of morbidity which is characteristic of Estonian folklore. Albeit we don´t decorate our national costumes with skulls, apparitions, the dead dealing with the living, and spooky fairy-tale characters are very common. The folklore of different countries is also present on Merike Estna's paintings, for example at the exhibition "Ghost of the future, filled with memories of the past" which took place at the **Modern Art Museum of Malmö** in 2019, where she used references to the folkloristic beliefs of different countries, linking them to beliefs, expectations and fears of the contemporary era. On the monumental painting "Ocean of endangered times" she depicted the Medusa — ancient sea creatures, who like dreamy floaters, predict the ghost of the future.

In addition to her work as a painter, Estna is a teacher and trains young painters at the **Estonian Academy of Art**. She considers her work there as a dialogue between the student and the tutor. "I don't announce the truth, I can only share my own experiences," she says adding "I am interested in what the students are doing, their ways of perceiving the world. When I look at their work I sometimes feel I don't get it at all or that a certain piece is not good enough. In such cases, I try to consider at least five times whether the work or the approach is so unusual, coming from such a different or new background system, that I need to think about things very differently. In the arts it can easily happen that we get used to a certain visual language and no longer have the ability to see meanings or understand a different language."

This is how one should approach the works of Merike herself — if something seems strange or incomprehensible, it deserves a longer look whilst asking yourself the question of whether the piece challenges the current understanding of what the art of painting is? Because once you overcome the initial sense of bafflement, a powerful and beautiful world, previously unseen, will open up to you.

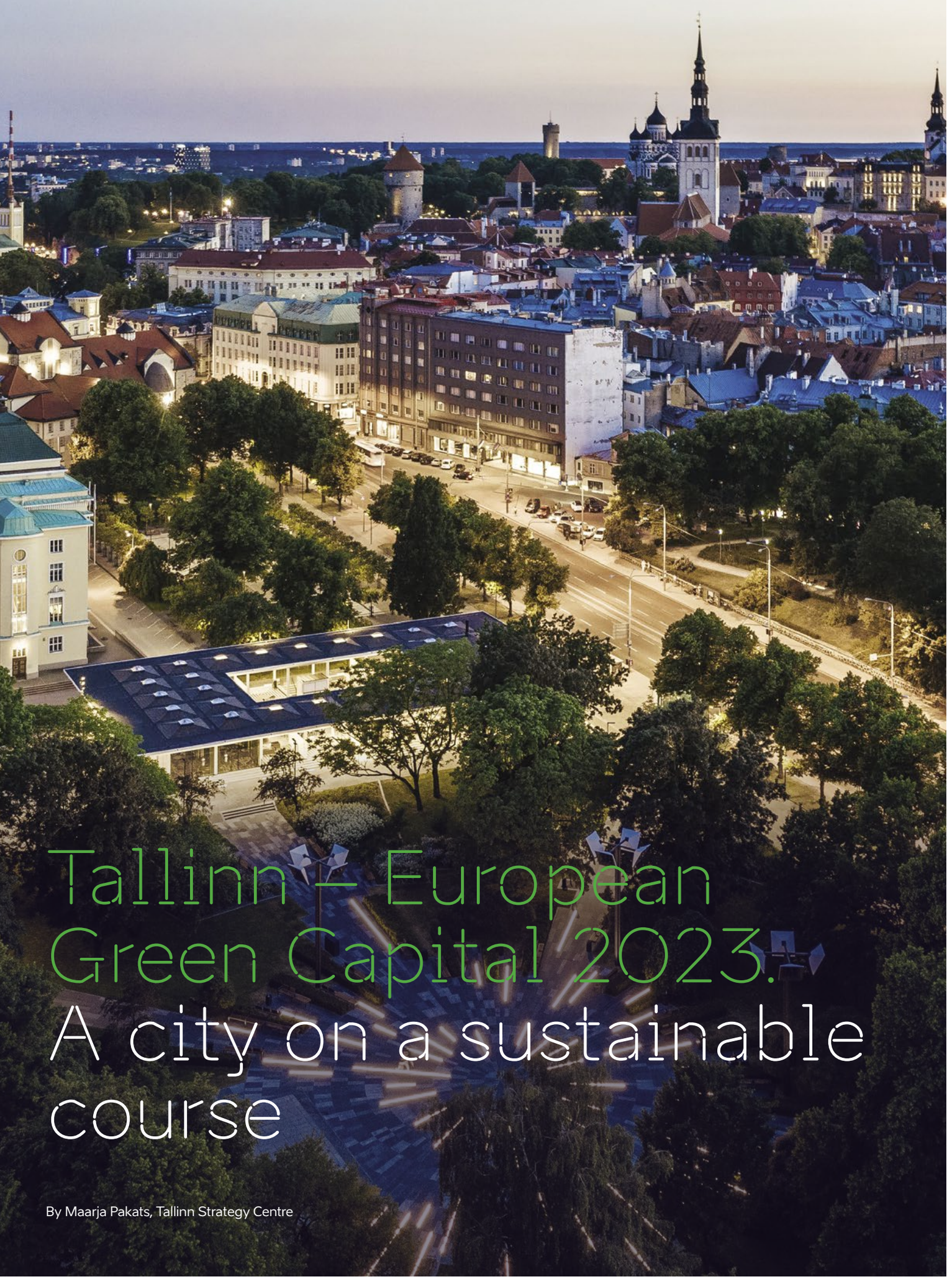


Photo by Kaupo Kalda

Tallinn – European Green Capital 2023: A city on a sustainable course

By Maarja Pakats, Tallinn Strategy Centre



Photo by Tallinn EGC

In 2023, Tallinn will be the European Green Capital. Tallinn will get to showcase its systemic approach to green governance and ambition to become a truly green global city.

During the Green Capital year, Tallinn wants to initiate change and new sustainable activities, accelerate sustainable processes, eco-innovation and green growth, engage citizens and organisations in becoming more sustainable and develop a city space that considers the needs of all citizens.

"We want every citizen of Tallinn to benefit from the European Green Capital title and the accompanying developments, because our goal is a greener city with a better environment and urban space," said **Mihhail Kõlvart**, the Mayor of Tallinn.

"There is still a lot to do to turn Tallinn into a truly sustainable and green city, but green transition is Tallinn's priority, and we strive towards integrating environmentally friendly actions to the whole management and development of our city. For us, a green capital means that Tallinn is inviting, comfortable and clean — a friendly global city of the future," Kõlvart added.

Eco-innovation — think globally, test in Tallinn

Tallinn is the birthplace or the home of most Estonian unicorns — **Bolt**, **Veriff**, **Pipedrive** to name a few. Even though Tallinn is not among the 50 biggest cities in Europe, it is one of the biggest startup hubs that thrives with the support from local government in creating a favourable business environment.

To bring more innovations to the city, Tallinn has moved towards a more systematic and practical partnership with universities and local companies who want to test new environmentally friendly technologies and concepts in the city.

Many innovative smart city projects and pilots are being launched during the European Green Capital year to test green innovation in the city. In the autumn Tallinn will also host a green expo, which showcases sustainable innovation from around the world.

"Tallinn's goal is to produce greater economic value and well-being while using fewer resources and creating less waste. Being an economic hub for the entire country, Tallinn solves its challenges technology-wise and offers its solutions to the international community. Think globally, test in Tallinn — is the moto to encourage companies to test their smart and eco-friendly products and services in city environment," Kõlvart said.

Biodiversity — habitat for rare species

As one of the best-preserved medieval cities in Europe and a **UNESCO World Heritage Site**, Tallinn is characterised by the diverse, mosaic nature of its landscapes and communities, which also serve as habitats for rare species such as ascending saxifrage (*Saxifraga adscendens*), fringed pink (*Dianthus superbus*) and alpine meadow-grass (*Poa alpina*). Over the past 30 years, around 140 species of protected birds and animals have been registered in Tallinn, which make up nearly three fourths of the protected species of the corresponding animal groups in Estonia.

Tallinn is rich in biodiversity. We have more than 2100 hectares of protected areas — nature reserves, protected parks and even and island. Tallinn is also one of the few capital cities that has its own bog, and it is probably the only city in which Scottish Highland cattle are employees of the city. This is just one of Tallinn's many projects for restoring and protecting the biodiversity of coastal meadows.



Photo by Kaupo Kalda

Tallinn's goals

(from Strategy 2035)

Sustainable mobility — The goal is to **reduce CO_2 emissions** by **40%** by 2035 (starting point is 2007), 70% of Tallinners will use public transportation by 2035 compared to other mobility. This also entails achieving **CO_2-neutral public transport** by 2035.

Circular economy — The goal is that more than **65% of waste will be recycled** by 2035.

New reuse and repair centres are being opened in different locations all over the city (starting 2022).

So far, three local protected areas have been established in Tallinn: **Pääsküla bog** (2013), **Merimetsa green area** (2017) and **Harku forest** (2021). There are also many protected sites in the city. Protected areas at the national and local level cover almost a fifth of the area of Tallinn. NATURA 2000 areas cover 7.2% of Tallinn's land area. Right now, Tallinn is planning to establish two new protected areas: **Astangu-Mäeküla** and **Kakumäe**.

But it's not only the protected areas that make Tallinn's nature unique. Tallinn is currently working on several interconnected green corridors, which create the possibility for insects, birds, and animals to move between different green areas. To make sure the biodiversity doesn't decrease while the population of the city increases.

A perfect example of sustainable co-existence of biodiversity and urbanisation is the **Pollinator Highway** — a vibrant 13.5 km-long linear park that will connect 6 of Tallinn's 8 districts. The guiding principle of the Pollinator Highway — which runs along an old railway corridor and powerlines — is to preserve and enhance biodiversity while offering various outdoor activities and possibilities for using sustainable transport. The first part of this linear park will be completed during the Green Capital year.

Photo by Artjom Kutuzov



What is EGC?

The idea of a European Green Capital (EGC) was born in Tallinn. In 2006, 15 cities signed a memorandum for the title of European Green Capital in Tallinn. In 2008, the European Commission took it under its wing.

Since 2010, one green capital has been selected each year. Last year, the title was held by Lahti in Finland, our neighbouring country, and this year by Grenoble. Next year is Tallinn's turn.

The green capital is expected to meet high environmental standards and ambitious future goals of becoming more sustainable and environmentally friendly.



Pollinator Highway

Lively green spaces in cities improve our well-being and keep our spirits alert. It is especially rewarding when one can grow the greenery themselves. So, it's no wonder that the number of community gardens and educational gardens (in schools and kindergartens) in Tallinn grows every year — new parks and neighbourhoods already come with embedded communal food growing possibilities. In 2022, Tallinn had 28 community gardens and 71 educational gardens that the city supports financially.

„Our community gardens are places for integration, as they are places where people of different nationalities and different age groups meet. They contribute to climate adaptation, and they improve people's health, especially for older people because they have been very keen when it comes to using community gardens," said **Krista Kampus**, Executive Director of Tallinn European Green Capital 2023.

"The ultimate goal is that all Tallinn citizens live up to 300m from a green area as well as to preserve the already rich and diverse nature in Tallinn."

Tallinn's Green Capital program's focus themes

Tallinn — European Green Capital 2023 has many co-projects that help us promote and support environmentally friendly events, solutions, and community activities among different stakeholders.

Inclusive city: An inclusive city creates a better urban environment together with local communities, discusses, asks for opinions and ideas, and considers the needs of the community.

Smart city: Together with entrepreneurs, residents, researchers and students, smart city is looking for new innovative solutions to make the urban environment better, cleaner, more humane and environmentally friendly.

Sustainable city: A sustainable city, in cooperation with the urban population, will create a greener and more humane urban space, based on the UN Sustainable Development Goals.

Learning city: A learning city develops and adapts to changes in the world and helps its inhabitants to better understand why it is necessary to preserve the living environment and how they can contribute to the protection of the environment.



Photo by Artjom Kutuzov



Photo by Maret Põldveer-Turay







Photo by Rasmus Jurkatam

Sustainable city — a better future for all

One of the main themes of European Green Capital 2023 is green governance — the successful implementation of a green transition requires a governance model that supports it.

"We have re-organised the whole city structure and organisation to better coordinate sustainability work and work better with the UN Sustainable Development Goals (SDGs)," Kampus said. "Tallinn is prioritizing green investments: environmentally friendly buses and trams, solar panels for municipal buildings, sustainable mobility, implementation of nature-based solutions, etc."

Sustainability and the green transformation are becoming central principles of leadership globally, not only in cities. Tallinn applies environmentally friendly ways of thinking to all our development plans and strategies to make our city a better living environment and to integrate green policies horizontally into the management.

Our development strategy **"Tallinn 2035"** and climate action plan **"Climate-neutral Tallinn 2030"** aim towards carbon neutrality by the middle of the century. Strategy Tallinn 2035 has six strategic goals: friendly urban space, creative global city, healthy mobility, green transformation, kind community, home that includes the street.

Tallinn wants to achieve climate-neutral and free public transport by 2035. To reach that goal we are investing in new tram lines, in hydrogen and electrical buses in the next couple of years and rethinking city planning to include more bicycle lanes. Tallinn plans to build approximately 40 kilometres of new cycle paths and increase the safety of existing cycle paths and roads in Tallinn.

Tallinn also leads the Global Goals for Cities network of 19 European cities, which aims to implement the SDGs at the local level, focusing among other things on clean water, climate change, sustainable cities and energy sustainability, economic growth, poverty eradication and gender equality.

Mayor Kõlvart: "Today's cities have to deal with major challenges — whether it's climate change, the Covid-19 pandemic or an ageing population. To deal with them, we need to come out of the silos and work together. It's time for a broader debate in Europe on the governance of sustainable urban development."

Estonia's best kept secret is finally out – in the Michelin Guide 2022

The most prestigious restaurant guide in the world – Michelin Guide – has included Estonia as the first of the Baltic countries in its latest edition. The selection includes 31 well-known fine dining establishments in the capital but also some hidden gems in the countryside.

By Maris Hellrand



Photos by Lauri Laan

The Michelin Star is like a PhD for a chef – a sign that you have succeeded at the highest level. Two stars indicate a brilliant restaurant, worth a detour. Three stars are awarded to less than 1 percent of restaurants listed in the guide to point out an exceptional restaurant, worth a special journey.

Reaching the pages of the prominent guide has been a long journey for Estonia itself and its finest kitchens. The development of Estonian fine dining in the past 10 years has been mind-blowing but a well-kept secret. In fact, foreign travellers have often pointed out that the level of fine dining was their biggest surprise of the trip.

And traveling was the original reason that the Michelin brothers Ándre and Édouard started the Michelin Guide in France in 1900 — to compel the limited number of drivers (of only 2200 cars in the whole country) at the time, to use up their Michelin tires faster and buy more. The tire company grew and so did the restaurant guide that soon launched country-editions throughout Europe. The 3-star system was introduced 90 years ago. The ratings are awarded by Michelin inspectors, who are surrounded by a similar secrecy like the world's best spy agencies. While dining at the restaurants, inspectors look for the quality of the ingredients, the mastery of cooking, the ability to combine tastes, the individuality of the chef, and the consistency of high culinary standards — both throughout the menu and over time

Estonia is the newest addition to the Michelin Guide collection after Dubai. The Michelin Guide has reached nearly 40 destinations on four continents. Across the globe, the Michelin Guide recommends more than 15,000 restaurants, of which about a fifth are star-rated restaurants.

"Estonia is one of the countries in which our inspectors have taken a keen interest in recent years. After months of traveling from Tallinn to Tartu and Mäeküla to Kloogaranna, they discovered a lively culinary scene full of quality establishments and diverse kitchens," said **Gwendal Poullenec**, director of the Michelin Guide.

Michelin Guide Estonia distinguished a total of 31 restaurants. Two restaurants — 180 Degrees by Matthias Diether and NOA Chef's Hall — earned their first Michelin Star.


Lore Bistroo


Härg

The "Bibs"

Five restaurants were found worthy of the Bib Gourmand designation for their price/quality ratio. "Bibs" are awarded for simple yet skilful cooking for under €40.

Härg — This busy, buzzy, all-day brasserie comes with stone walls, exposed ducting and striking copper chandeliers. Well-priced modern dishes come with a focus on the chargrill, with steaks taking centre stage; the "Dirty Steak", a ribeye, is cooked directly on the charcoal. The courtyard is a popular spot.

Maakri 21, Tallinn

Lore Bistroo — This modern bistro sits in a cavernous warehouse overlooking the harbour at Port Noblessner. Steel girders, hoists and concrete pillars provide the backdrop and an open kitchen adds to the buzz. Assured dishes are designed for sharing and are inspired by the owners' travels.

Peetri 12, Tallinn

NOA — In this restaurant, which offers a magnificent view of the city and the sea, exceptionally fresh fish takes centre stage. The cosy room is furnished with natural materials and the full-length windows flood it with light. Seasonal modern menus provide plenty of choice.

Ranna tee 3, Tallinn

Fellin — Expect a warm welcome at this café-cum-bistro set within a red brick building on the edge of the Old Town of Viljandi. It has something of a bohemian air, courtesy of a tiled bar, a mix of artwork and a laid-back vibe. Carefully prepared, traditional European dishes burst with freshness and flavour.

Kauba 11, Viljandi

Mantel ja Korsten — This clapboard house, whose name means 'mantle and chimney', has a real picture-postcard look. A green-tiled fireplace and mantel take centre stage in a room furnished with bright, bold designs. Mediterranean-inspired dishes are accompanied by well-chosen wines with an organic and biodynamic bias.

Jaan Poska 19 a, Tallinn

Michelin Green Star distinguished restaurants

Two restaurants received the Michelin Green Star which highlights role-model establishments actively committed to sustainable gastronomy.

Põhjaka Manor — Daily changing, hyper-seasonal menus lead the way at this early 19th century manor house surrounded by beautiful woodland. Unfussy, rustic dishes arrive in generous portions and the kitchen garden plays a key role. The three dining rooms have a fittingly appealing vintage-cum-shabby-chic style.

Mäeküla, Paide

Fotografiska — Above the Fotografiska photo gallery sits a restaurant with picture-perfect views across the Old Town. A concept of "Sustainable Pleasure" leads the way, with a "leaf to root, nose to tail" ethos and a zero-waste approach. Assured Nordic dishes showcase organic, sustainably farmed ingredients.

Telliskivi 60a/8, Tallinn



Põhjaka Manor





Fotografiska

Chef Peeter Pihel was formerly the sous chef at Faviken under Magnus Nilsson

Photos by Lauri Laan



Robert Põld



Janno Lepik

From top sommelier to jumping headfirst into the world of interior design

Robert Põld is currently Estonia's first and only sommelier featured in Michelin Guides. Surprisingly, shortly before Michelin made this year's nominations public, Põld left his career as a sommelier behind and took on a whole new challenge, moving into a completely different field — the world of interior design. "After working in the restaurant sphere for several years, I saw that it was not my limit and I wanted to somehow shake myself up," he explains the need for this big change.

Põld started working in **OCCO**, an up-and-coming DesignTech startup with a mission to digitalise the industry and make great design accessible for everyone. In this new position, Põld will help to renew restaurant interiors across Estonia and Europe as International HoReCa Sales Manager. His goal is to conquer the European restaurant landscape — to be the number one choice for restaurants to call when they are designing a new place or want to remodel an old one. From there, the plan is to move into the global market.

Põld points out that he was drawn by OCCO's innovative approach and willingness to break boundaries. "I had no idea that working in a startup would give me so much adrenaline and the will to give my best every day," Põld says. "It's a whole new world for me, but I realized that by leaving the restaurant world, I actually came back to it full circle."

Special Awards

The Michelin Young Chef Award — **Janno Lepik**, chef of the Bib Gourmand restaurant Lore Bistroo. A true talent on the Tallinn gastronomic scene, Janno Lepik first came to prominence at Leib restaurant (now Lee restaurant) before opening Lore Bistroo. This chef focuses on local producers as he prepares classic recipes and flavours from the Estonian culinary repertoire.

The Michelin Service Award — the **team at Lahepere Villa** restaurant in Kloogaranna, orchestrated by the friendly owner **Helen Vihtol**. Here, hidden in a wooded area near the beach, everything is done to offer guests an exceptional level of comfort and hospitality. The first thing that catches the eye is the crackling fire in the garden next to the fleece-covered chairs. From the terrace built by her husband, Helen Vihtol graciously welcomes each guest, while her daughter helps with the service, her son with the washing up, and her husband with the maintenance of the exterior and the fire. Chef **Silver Saa** is also involved, passionately explaining each dish on the menu, which changes every two weeks.

The Michelin Sommelier Award — **Robert Põld**, the attentive and passionate sommelier at the Michelin-starred NOA Chef's Hall (at the time of rating). The food and wine pairings were cleverly designed and the friendliness, sense of humour and simplicity of this great professional help to put the guests at ease.



Lahepere Villa, Chef Silver Saa and Helen Vihtol

Other restaurants included in the 2022 Michelin Guide

In addition to the restaurants awarded a Michelin Star or Bib Gourmand, the other restaurants in the Michelin Guide Estonia selection celebrate a wide variety of culinary styles spread throughout the country.

38 — This pop-up turned permanent is sister to Mere 38 in Võsu. It exudes a cool, fashionable vibe, courtesy of a modern interior with striking murals which contrast with its historic exterior and quaint Old Town setting. Well-judged, creative dishes have subtle Asian influences and are attractively presented.

Olevimägi 9, Tallinn



Cru — Decorated in bright colours, Cru is spread over three basement floors of a small hotel in the centre of the city. The menu is a rollcall of seasonal produce sourced from the local area and cooked with knowledge and care. The smoked Baltic herring are memorable, as are the classic puddings.

Viru 8, Tallinn

Fii — It might not be your usual go-to location, but it's worth making your way to the edge of the city for a meal in this modern hotel restaurant. It's light and airy, with a sleek, pared-back style, and offers a concise, well-priced menu. Global dishes are colourful and eye-catching and come with modern twists.

Ringtee 75, Tartu

Gianni — Pop into the café for coffee and cake, or dine in a more cossetted environment in the modern restaurant. The charming team are eager to please and will even skilfully fillet your fish at the table for you. The comprehensive menu offers all the Italian dishes you know and love; the saltimbocca is a highlight.

Jõe 4a, Tallinn

Hõlm — The restaurant is named "Hõlm" and the hotel within which it sits, "Lydia" — after Lydia Grünmann Hõlm, on whose recipes the dishes here are based. Full-length windows flood the elegant dining room with light and the attractively presented dishes exhibit appealing combinations of both texture and flavour.

Ülikooli 14, Tartu



Horisont — Arrive early for an aperitif in the bar, which affords stunning panoramic views towards the harbour from the 30th floor of the smart Swissôtel Tallinn hotel. There's a formal feel to the room, with modern European menus to match; to see the full talents of the kitchen, go for the tasting menu.

Swissôtel, Tornimäe 3, Tallinn

Joyce — A modern shopping centre in the heart of the city plays host to this large, split-level brasserie with bold décor, a popular cocktail bar and a buzzy vibe. Attractively presented dishes mix local and Baltic influences: the kitchen adds creative twists and flavours pack a punch.

Riia 2, Tartu



Lahepere Villa — Built by the owner himself, this homely restaurant sits in a wooded spot behind the beach. Inside are chunky wood tables and cushion-strewn sofas; outside, a blazing firepit, fleece-covered chairs and a "Big Green Egg". The fortnightly set menu is inspired by the area and warm service is from a family team.

Liivaranna tee 3, Kloogaranna

Lee — A 'lee' is the ancient communal fireplace around which families would sit together to prepare a meal — and this powder blue restaurant with ornate columns and a charming courtyard setting certainly has a historic feel. In contrast, dishes are adventurous and modern, showcasing local produce with a Japanese twist.

Uus 31, Tallinn

Mere 38 — Set in a quiet village, this green-painted wooden house boasts both a fashionable New England style restaurant and smart apartments. It has a cosy dining room with fleece-covered chairs, as well as a lovely summer terrace. Dishes are largely Mediterranean influenced and are vibrant and full of flavour.

Mere 38, Võsu

Mon Repos — This former imperial summer residence overlooking Kadriorg Park comes with a charming interior which blends original stained glass and panelled ceilings with sleek, modern furnishings. Colourfully presented dishes have Mediterranean leanings, and flavours and textures are well thought-through.

Narva mnt. 92, Tallinn

Moon — 'Moon' refers to the poppy seed... and it's hard not to eat too much of the delicious poppy seed bread here! Split into three rooms, this intimate bistro comes with bright décor, a lovely teacup chandelier and a menu comprising both classic and modern Russian dishes. The sweet team will greet you like a regular.

Võrgu 3, Tallinn



Paju Villa — The suburb of Nõmme is home to this elegant *art nouveau* villa named after Karoline Paju, who built the house in 1931. Dining takes place over two floors, with several small, interconnecting rooms creating a stylish, intimate space. Classic dishes are given a modern twist; the passionfruit tiramisu is a must.

Vabaduse pst 88, Tallinn

Pull — Within the rejuvenated, pre-war industrial area of the Rotermann Factories sits an impressive 19-century grain elevator and, inside that, this fittingly rustic restaurant with exposed stone walls and concrete pillars. Generously proportioned Estonian dishes focus on meats and charcoal-grilled steaks.

Rotermanni 2, Tallinn

Puri — Part of the marina development northwest of the city centre is this striking modernist building with an equally impressive split-level interior boasting floor-to-ceiling windows and contemporary blonde wood furnishings. Modern European dishes are carefully thought-through and attractively presented.

Lesta 16, Haven Kakumäe Marina, Tallinn



R14 — The impressive 19th century stone-built powerplant of the Rotermann factories is now a wine-shop-cum-wine-bar with a rustic, laid-back vibe, wherein a glass-walled wine cellar takes centre stage. Good value, unfussy Mediterranean dishes lean towards Italy; come on a Sunday if you're a fan of brunch.

Rotermanni 14, Tallinn

Rado — It might be located in the delightfully historic Old Town but Rado is contrastingly smart and modern. It has a buzzy vibe on the ground floor and a more intimate feel in the basement. The chatty team will guide you through the menu of seasonal modern dishes; don't miss the venison carpaccio.

Vene 7, Tallinn



Ruhe — A 'ruhe' is a traditional fishing boat hollowed out of a tree trunk; you'll find one on the terrace of this cavernous wooden restaurant which looks out to sea. Unfussy dishes are seafood-led, with both produce and influences coming from nearby as well as around the globe. There are bedrooms available upstairs.

Sadama tee 10, Neeme

SMAK — There's a friendly vibe to this 19th century warehouse where exposed stone walls are hung with contemporary art and a spiral staircase leads up to the mezzanine level. Smak means 'taste' in Swedish and the modern dishes certainly provide plenty of bold flavours — some European, some Asian, and some an adventurous mix.

Lootsi 10-3, Tallinn



Tchaikovsky — Set within a hotel in the heart of the Old Town, this glass-roofed, restaurant has something of a celebratory feel, courtesy of a beautiful chandelier and battleship-grey walls hung with gilt-framed pictures. Cooking has a classical French base with Russian influences and modern overtones.

Vene 9, Tallinn

Tuljak — Set in an elevated spot, with distant views of the Gulf of Finland, this airy restaurant with floor-to-ceiling windows is a wonderful example of modernist architecture. Dishes have a Baltic heart, with a few Asian and Mediterranean touches; expect plenty of originality and some intriguing flavours.

Pirita tee 26e, Tallinn

Wicca — Angelica Udeküll is not only a TV chef but a torchbearer for Estonian food. Her elegant restaurant at the LaSpa hotel sits in a beautifully tranquil spot overlooking the pine trees and the sea — and is the perfect location to showcase her ethical cooking. Dishes are creative, with some Nordic touches.

Puhkekodu tee 4, Laulasmaa

Dive for the deep taste

By Maris Hellrand

Matthias Diether (47), founder and executive chef of 180 Degrees says, the Michelin star has made him feel much more at home in Estonia: "I am humbled that I have done something to make Estonians proud."

180 Degrees by Matthias Diether

Staapli 4, Port Noblessner, Tallinn

Four-course "Flavours of 180 Degrees"
Six-course "Matthias' Inspiration" tasting menu"

Guide Michelin: "Ambitious, showy dishes are experienced German chef Matthias Diether's hallmark, and his modern creations show an array of both flavour and texture contrasts, as well as paying great attention to detail. Service is warm and engaging and helps to create a relaxed atmosphere."

Photos by Lauri Laan



Matthias Diether: "Nature is the star on the plate, we — the chefs, are just helpers with the task to make it shine even brighter."

180 Degrees gently embraces you. Guests are guided to an elegant lounge area upon arrival to enjoy a drink and snack before diving in for the deep taste that awaits in the dining hall. The lounge, with its live fire and mild greeting, serves a dual purpose — for the guest, it's a buffer zone between the busy day that still bustles outside on Noblessner square and the blast for the taste buds in the next room. For the kitchen team, it's a clever way to time-manage the service table by table. The snacks served in the lounge give a pre-taste of things to come and reflect the philosophy and quality of the menu. Chef Matthias Diether aims to create an around-the-world journey with each menu and the "snacks" are a perfect warm-up for the trip. Currently, starting with an Asian burst of Kimchi ice-cream on octopus, paying respect to Ukraine with a unique version of Borsch and a miniature mushroom pelmeni, greeting the Mediterranean with a tomato-parmesan marshmallow and finally calling it home with a chocolate praline filled with ... red cabbage — the trip of tastes is building up anticipation.

Matthias Diether came to Estonia in 2016 to take a break from the metropolitan hamster-wheel of Berlin fine dining for a quiet summer in Pädaste manor on Muhu island. There he met Anna-Liisa and was hooked to Estonia. 2 years later, Diether opened 180 Degrees in Tallinn's seaside Noblessner quarter. It was the very first dining establishment in what has now become the bustling scene of the bold and the beautiful in the Estonian capital. Muhu and Anna-Liisa taught him about the wild herbs of Estonia — mushrooms, berries, winter vegetables — all things Diether adores about the local produce. The foundation of Diether's quest for the "deep taste" was set in childhood in his mother's kitchen in Southern Germany, always smelling and tasting "*schwäbisch deftig*".

A spectacle for many senses

The dining hall of 180 Degrees is just that — open to three sides of the building towards Noblessner square and the marina. The U-shaped open kitchen is the centre piece and a seat at the kitchen counter "chef's table" is a strong recommendation for a complete experience. Observing the preparation before guests arrive and during the service brings to mind strong parallels to an operating theatre — everything meticulously cleaned, tiny instruments, the movements and procedures smooth and practiced in every detail. The team reads each other's body language so well that apart from an occasional "yes, chef" there is not much talk to go with the choreography. The atmosphere is very calm while the first tables are being served, but as a spectator, one is soon doomed to lose count of which course is being assembled for which table. Somehow, they know. The calm spirit remains but the movements are picking up pace.

Diether creates a new menu for the restaurant every 3 months on average. "I start with calls to all my suppliers to make sure what are the top ingredients of the season that they can deliver during three months with absolute certainty. I can't allow a margin of risk of an ingredient suddenly running out."

The core and the heart of Diether's cuisine are top quality exclusive ingredients. Before the diners arrive, we spot him weighing Kaluga caviar into serving portions. The rare aged caviar from sturgeon grown in high mountain lakes costs 3-4€ per gram and is available only in about six restaurants in Europe. Also, the *Mimolette* cheese of the second course is a 180-Degrees-exclusive.



A tree of taste and texture

Diether describes the creation of each course in the 6-course menu like a tree: "The trunk is the main seasonal ingredient, everything else is attached to it like branches and leaves to create the perfect 'umami' that includes all the compulsory tastes, textures and sensations: salty, sweet, sour, smooth, soft, crispy, crunchy." Each ingredient only appears in one course and the complete menu reflects a journey around the world with subtle nods to different geographical areas.

Each new menu is the brainchild of chef Diether but he is discussing and fine-tuning it with the team, most of all the sous-chef Slava Miroshnitshenko (36), a native of Tallinn, and pastry chef Maryam from Iran. Working on the new menu is a challenge for the whole team — to streamline the preparation, assembly and service. But it's also the most creative part of the work keeping everyone alert and inspired, which creates a sense of ownership and pride.

Sous-chef Slava jokes that they soon need an annex to store all the beautiful dishes, as Diether tends to buy a new set every few months to best suit the new menu ideas. Choosing the right plates for the dishes is another passion for Diether. Slava has been with 180 Degrees for three years now after spending twelve in London and Melbourne. He assembles the first course of Alaskan king crab, dehydrated watermelon and elderflower like a skilled surgeon with small pincers and jokes with the guests while adding the final wow of smoking watermelon snow. Each of the five chefs gets a chance to present a course or two to guests with the final touches alongside a detailed and friendly introduction. While dining at the counter, one has the added bonus of an occasional nice chat.

Pastry chef Maryam is curious about the guests' reaction to the Mimolette cheese cake — not a desert but a rather strong cheesy experience enhanced by several types of onion and a gooseberry. Maryam has been with 180 Degrees for 3 years and is sprinkling a hint from her native Iran on several dishes like fairy dust.

The performance of great skill and smooth choreography makes you happy

The 18-strong team, most still under 30 years old, comes from 15 different countries. For chef Diether, this means that he has to be a "psychologist, mother and father" at the same time. There's the adrenaline rush that connects them, the hard work, but also fun and immense pride. Jeremy, the maître d'hôtel joined 180 Degrees only a few months ago having met Diether some years ago during his internship in Pädaste. Jeremy is ambitious for the second star. He praises the next course as he "really feels himself in this dish" that embodies the essence of his native Normandy — wild seabass with vongole clams in saffron - a deep sea taste, enhanced by a base of ratatouille, a crispy slice of dried artichoke and dust of lobster roe. Marina, a young chef from Austria, fries the fish and takes care of meat preparation. She enjoys the responsibility and the chance to be part of this high-level cuisine at the beginning of her career.

Maryam insists on trying her desert — according to Slava, her best so far. The pre-desert of Estonian strawberry *espuma* and Champagne ice-cream is a super intense combo of the tastes. Slava jokes that the "amount of champagne she uses will drive us bankrupt." But hey, it's worth it. The grand finale includes black lime from Iran, blackberries and silver moss from Estonian forests, presented like a gorgeous blossoming tree.

Chef Diether's 30 years of experience in fine dining now end up on plate after plate. The first Michelin star is for exactly that: what's on the plate. Diether says they really had no idea when the Michelin judges visited the restaurant and the announcement was a surprise celebrated with free champagne to all guests on that evening. The Michelin star has already made a difference. "Estonia is suddenly on the itinerary of foodies who travel to the Nordics to experience the countries on their tongues," says chef Diether.

But, "with the honour comes the responsibility. For the guests, for the team, for Estonia."

NOA Chef's Hall – the crown jewel of chef Siigur's empire

By Maris Hellrand



Michelin Guide on NOA Chef's Hall

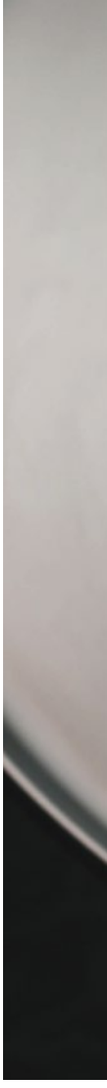
"Set within the same striking modern building as restaurant NOA is the stylish NOA Chef's Hall, where you start your evening with an aperitif in the romantic lounge overlooking Tallinn Bay and the Gulf of Finland — if you're lucky, you'll catch a stunning sunset.

The on-view kitchen is the heart of the restaurant and the open fire is used to great effect. Luxury ingredients are to the fore and are sourced from around the world, depending on what's best — be it scallops from Norway or lobster from Canada — but locally foraged and preserved produce also plays its part. The creative 7 course menu keeps you engaged from start to finish, with complex, highly original dishes packed full of complementary flavours and layers of texture. There's some theatre at play too, with dishes delivered to the tables by the chefs, who describe them in detail."

Ranna tee 3, Tallinn



Photo by Lauri Laan



A memorable adventure

Siigur sees himself as a chef first and foremost but the roles go hand in hand: "There are different models among the world's top chefs. Some have many houses under their name. Here, at NCH the head chef **Roman Sidorov** is 100% dedicated to this kitchen only." The menu at NCH is still Siigur's creation. He doesn't replace the whole menu regularly, instead the changes occur course-by-course as the seasons for the ingredients change. And top-quality luxury ingredients do take the centre stage.

Siigur says, the first and last experiences are the most memorable for the guests, thus he pays careful attention to the *amuse-gueule*'s at the greeting, served on a specially designed "tree with golden leaves as mini plates" in a lounge area before the guests enter the elegant dining hall. "The start and finish are those that people remember most, therefore these have to be diverse and demonstrate a large variety of tastes and techniques."

Siigur's patriotism is limited only by the availability of materials and the sacrifice of quality: "Where we have no local option, we go abroad, but for example our scallops are being caught by an Estonian fisherman in Norway — the best scallops in the world, that grow in deep cold waters. Another star of the menu is Estonian-bred quail." As a strong local reference, the house-baked bread is an important part of the NCH experience. When creating the menus Siigur can tap into his 30 years of experience in different kitchens, knowledge of food chemistry and sometimes coincidences.

Siigur and Siimann are enthusiastic foodie travellers themselves and collect inspiration from around the world. Perhaps the longing for the wide world is what has led them to choose the location for NOA, which was designed by KAMP Architects and completed in 2014, situated right at the seaside looking at Tallinn Old town across the bay. NOA has several layers of meaning — in Estonian it's a genitive form of 'nuga' i.e. knife, but through the location on the seaside it has a reference to Noah's arch. NOA Chef's Hall and NOA, both housed in different wings of the same building, can be seen as two brothers: NOA is the local fisherman; NCH is the adventurous traveller of world seas. The setting is such an important ingredient for Siigur: "The best fish soup is always the one that I cook right on the beach after fishing. NCH has the same magic." Coastal location is something that defines all Siigur's restaurants (Paju Villa being the only one not at water's edge). Siimann says, they would never open a restaurant in a shopping centre or a tourist street. All restaurants start with a unique building, either custom-built or of historic value.

Tõnis Siigur (47) first started dreaming of a Michelin star 12 years ago: "This would be a game-changer for Estonian fine dining in terms of international recognition." The arrival of the prestigious guide and the bestowal of the star were both a surprise and long-awaited relief after the tough 2 years of Covid-19 restrictions.

Tõnis Siigur first entered a restaurant kitchen at the age of 14 and has dedicated his life to fine dining. His professional journey started around the time Estonia re-established its independence 31 years ago. He witnessed the head-spinning transition from post-soviet food rationing to a thriving market economy. Curiosity, adrenaline and hunger to grow fast were ever-present back then and characterise the generation of winners to this day. Some 25 years ago, Siigur became the first head chef at the Schlössle hotel, the first internationally managed boutique hotel that brought international kitchen trends to Estonia.

Today, Siigur is not just an executive chef but also a joint manager of a group of 8 restaurants with business partner **Martti Siimann**. The star-awarded **NOA Chef's Hall (NCH)** is the flagship experimental hub of the group, which includes 3 more houses celebrated by the Michelin Guide — **NOA**, **Tuljak** and **Paju Villa**.



Photo by Helemai Alamaa



Flagship leads the fleet

Siigur is actively involved in all kitchens of the group's 8 restaurants, among them the Bib Gourmand awarded NOA, which shares the building with NOA Chef's Hall and Michelin-listed Tuljak, also at Tallinn's seaside and Paju Villa, housed in the wooded suburb of Tallinn, Nõmme. The flagship NCH also serves as an experimental hub for the rest of the group and variations of some dishes created at NCH, like the famous "fire leek" have become classics in some of the other restaurants.

"Effects with dry ice, dust and whatnot are a thing of fashion that come and go," Siigur admits. He does experiment with fashionable techniques as well but aims rather to be a creator of trends himself: "Today, we do a lot of assembly and serving right at the table. Bringing the kitchen really close to the guest is a new approach now." The on-view kitchen is the beating heart of the place. The Michelin Guide recommends a guest to "sit at the counter if you like to be close enough to the action to feel the heat from the fire — which is used to great effect and also provides some superb culinary theatre."

"The guest has to leave with the feeling that he has eaten at the best place of the world and has been served by the best people, this is the right feeling. We want to achieve this in a casual simple manner." Siigur says the main ingredient is the dedication of the small team, not necessarily their experience in other star-awarded restaurants. "There are many people who can cook well, but the magic is in the combination of food quality, technique, service, atmosphere, smells, light — to create the best three hours of a lifetime for the guest."

The Michelin star — a blessing after tough times

The impact of the Michelin star has been immediately felt in business, says "head of family" Martti Siimann: "In March and April there were days when we didn't open NOA Chef's Hall at all for lack of bookings. Since the Michelin star, the house has been constantly fully booked. When we walk around at events, I feel like a body guard of a celebrity, people are keen to approach Tõnis and congratulate on the achievement." The team also hopes that the international impact will deepen over the coming years. "The award was announced at a fragile time — Russia's war against Ukraine had cast a shadow over Estonia as a destination too close to the war zone for many oversees travellers, who cancelled their trips. "We were lucky that local guests filled the bookings right to the end of summer," says Siimann. Foreign guests slowly returned over the summer.

Plans of the group to expand to Finland were put on hold by the Covid pandemic and NCH was rebuilt to actually reduce the number of guests per evening to a maximum of 25. At the same time, Siimann and Siigur admit that their drive to expand is unstoppable and new adventures await.

At NOA Chef's Hall, attention is mainly focussed on holding the level of achievement — nobody wants to lose the star once awarded. Siigur is confident: "We need to work hard, but over time the staff becomes more and more professional and everything is possible."

Events calendar: Highlights from October to March
Life in Estonia recommends

Photo by Allan Mehik



Saaremaa Three-Day Race
14th — 16th of October @ Kuressaare

In the course of three days, contestants run a marathon of 42.195 km. The races on the first and last day will take place in Kuressaare where the tracks are located in the midst of the junipers of Roomassaare as well as the historical buildings in the city centre. The race on the second day takes place on the Sõrve Peninsula.

www.saaremaajooks.ee
saaremaajooks

Photo by Sandra Urvak



Mardilaat / St. Martin's Day Fair
3rd — 6th of November @ Tallinn

Mardilaat is the festival of Estonian handicrafts! During the St. Martin's Day Fair, master craftsmen present and sell their best handicrafts, there are master's workshops for handicraft afficionados and amateurs, as well as workshops for children. Estonian food is offered and you can listen to folk music. The fair is an excellent event for those who live by the motto "it is better if you make it yourself"!

www.mardilaat.ee
mardilaat



Pärnu Restaurant Week
5th — 13th of November @ Pärnu

Pärnu Restaurant Week, organised for the first time in 2015, has become one of the most important ones in Pärnu over the years bringing together thousands of visitors. During the course of the week, the restaurants offer special menus. In addition, this year's event will have many new surprises to visitors. This is a great opportunity to get acquainted with cooking trends, enjoy the local food culture as well as quality entertainment and represent Pärnu as an exciting culinary destination. See you in Pärnu!

visitparnu.com/en/parnu-restaurant-week
parnurestoranidenadal



The Andy Warhol Foundation for the Visual Arts, Inc, Grace Jones, 1984 unique Polaroid print

Andy Warhol "Photo Factory"
24th of September 2022 — 26th of February 2023 @ Fotografiska, Tallinn

The "Photo Factory" exhibition consists of over 100 images, some of which have never been shown to the public before. The exhibition is a tribute to Warhol's iconic New York studio "Factory" and offers a particularly intimate look into the visual diary of the artist's life and work.

www.fotografiska.com/tallinn/en
fotografiskatallinn

Photo by Liis Reiman



Black Nights Film Festival (PÖFF) 11th — 27th of November @ Tallinn

Tallinn Black Nights Film Festival aka PÖFF is an annual film festival held since 1997 in Tallinn, the capital city of Estonia. PÖFF is the only A-category film festival in Northern Europe, sharing that status with some of the leading festivals in the world such as Berlin, Cannes, Venice, Locarno and San Sebastian. With over 500 films, short films and animations, around 1400 attending film professionals and journalists plus the attendance of more than 90,000 viewers, PÖFF is the largest annual cultural event in Estonia

www.poff.ee
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Photo by Sergei Zjuganov



Tallinn Christmas Market 25th November 2022 — 8th of January 2023 @Tallinn

Tallinn Christmas Market with a touch of a fairy tale will be held at the Town Hall Square of Tallinn. The star of the market is the Christmas tree, which is the most important Christmas tree in Estonia and which has been set up in Town Hall Square since 1441, making it the first Christmas tree ever to be put on display in Europe. The Christmas land is decorated with trees, Christmas decorations and lights. Local merchants offer Estonian Christmas cuisine, from black pudding and sour cabbage to gingerbread and hot Christmas drinks, as well as various handicrafts.

www.christmasmarket.ee
jouluturg

Photo by Ain Liiva



Neptunas Estonian Night Run 17th of December @ Narva

Before the Christmas season and before New Year's Eve, you can participate in both the 5 km and the 10 km run in Narva. Fireworks, the city's Christmas decorations, and a light show — all of this will inspire health sports enthusiasts to go to Narva three days before the New Year. The Estonian Night Run is the most unique running event in the Baltics. Here, the most important thing is the experience of running, not winning. The aim of the series is to promote regular movement in the Viru County region and to provide motivating opportunities for it.

www.ööjooks.ee
nightrunestonia
eestioojooks

Photo by Visit Narva



Alutaguse Marathon 10th — 11th of February @ Alutaguse

Alutaguse Marathon is a 43km ski race in classic technique and the first Ski Classics Challenger in Estonia. Every year, approximately 800 skiers from around the world come to the beautiful surroundings of the Alutaguse National Park to take part in the marathon. It is a two-day event, and in addition to the 43km main race, there is also a 22km night ski event on the first day and a 22km classic technique race on the second day.

www.alutaguse.com
www.estoloppet.ee

Events calendar

Photo by Adam Illingworth



Tartu Marathon
19th of February @ Southern Estonia

Tartu Marathon gathers thousands of skiing enthusiasts every year from all corners of the world. First held in 1960, it is one of the oldest ski marathons in the world with its history of over 60 years. The marathon track runs in the picturesque scenery of Southern Estonia. The traditional 63 km marathon goes from Otepää to Elva, the shorter 31 km distance starts from Arula and finishes in Elva. Foreign skiers have said it is one of the most beautiful and interesting ski tracks in the world.

www.tartumaraton.ee
tartumaraton
tartumaraton

Photo by Mana Kaasik



sTARTUp Day
15th – 17th of March @ Tartu

sTARTUp Day is the most startup-minded business festival in the Baltics, bringing together 4000 attendees to celebrate entrepreneurship in the smart city of Tartu. The three-day festival combines an inspiring stage program, hands-on seminars, an exhibition area full of innovation, vibrant side events and excellent networking opportunities. The pitching battle showcases the region's 40 top emerging start-ups. Unique festival vibes, new connections and inspiration await you at the 7th edition of sTARTUp Day!

www.startupday.ee
startupdayfest
startupdayfest

Photo by Visit Estonia



KUMU Art Museum
Permanent exhibitions @ Tallinn

In addition to three permanent exhibitions (Landscapes of Identity: Estonian Art 1700-1945, Conflicts and Adaptations: Estonian Art of the Soviet Era (1940-1991), and The Future is in One Hour: Estonian Art in the 1990s, Kumu annually holds eight to ten major temporary exhibitions of both historical and contemporary art from Estonia and abroad. Kumu has also chosen a few topics to concentrate on in research and exhibition projects. Some of the main themes are Estonian art in the early 20th century, the avant-garde artists of the Soviet era, sound art, fashion, visual studies and female artists.

kumu.ekm.ee/en
kumu
kumukunstimuuseum
kumuartmuseum



Photo by Lauri Laan

Tallinn

European Green Capital 2023



European Capital of Culture 2024

Tartu