

Cleantech *for* Baltics



BALTICS

building a cleantech innovation powerhouse

annual report 2023

Initiated by:



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Cleantech for Baltics



Research and writing of this report was done by **Cleantech for Baltics**

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Cleantech for Baltics is a unique pan-Baltic think-tank for accelerating cleantech innovation and funding in sustainable technologies.

The three main objectives of Cleantech for Baltics are to:

- Develop the established Cleantech for Baltics Coalition into a strong community of investors, startups, scaleups and support organizations across the three Baltic states. This will be achieved through the identification of the needs of coalition members and the implementation of activities that meet those needs.
- Act as the unified voice of the cleantech sector, inform and engage with policymakers, and raise the profile of cleantech in the regional public debate. This will be achieved through engagement with local and EU policy development, the publication of quarterly reports, and dedicated communication and networking activities.
- Promote regional collaboration and raise the profile of Baltic cleantech at the EU level. This will be achieved through participation in regional events with relevant audiences and the development of joint policy positions and open letters.

introduction

With reference to the Baltic Cleantech Annual Report 2021 and Baltic Cleantech Insights 2022, this report is the third in a series of annual sector reports drawing together the key metrics and developments of the Baltic cleantech ecosystem, as well as giving an overview of public policy and support measures dedicated to cleantech companies on a pan-Baltic and country level.

The report also presents some of the key findings from the Cleantech for Baltics Survey, which was conducted in Autumn 2023. In total, around 70 companies from all three Baltic states participated. Based on the survey, desk research and discussions with Cleantech for Baltics Coalition members, the report includes a special section on the **expectations of Baltic cleantech actors for 2024 and beyond** regarding policy and support measures. In addition, the report presents rising cleantech stars in its **“Baltic cleantechs to watch”** section and new **cleantech funding opportunities**.



executive summary

The Baltic cleantech sector continued to grow in 2023 with investments reaching 396M€ after a little slowdown in 2022 (40% YoY growth). This trend is supported by the increasing role of environmental and climate policy objectives in the political agendas facilitated by new strategies and regulations bringing along concrete technology and sector-specific national green transition roadmaps and support measures.

While the total Baltic cleantech sector investments are flying under the radar on a global level, in a per capita comparison we are leading the global annual cleantech investments with 64€ (per capita) ahead of North America at 33€ and the EU27 average at 25€.

A small but growing number of Baltic cleantech scaleups are raising funds beyond 40M€ and the number of new cleantech startups is consistently increasing. In 2023, both private and public resources were being pooled into early-stage cleantech funds, which will be rolled out over 2024 to 2026. Therefore, in the coming years we can expect a growing number of early-stage cleantech companies to raise pre-seed, seed and series A rounds.

Availability of cleantech growth financing is still a major barrier in scaling cleantech production. A stronger involvement of governments is needed for de-risking the CAPEX-intensive innovative cleantech industry.

With the war in Ukraine still going on, the Baltics are increasingly focusing on energy security, renewables, resource efficiency, security of supply chain and sustainable reindustrialization.

Cleantech solutions have great potential to contribute to Baltic resilience, security and reindustrialization efforts, so we can expect a growing public support for de-risking large scale cleantech projects.

In conclusion, 2023 was the year of switching focus from big objectives to implementation and preparing grounds for accelerated growth in the Baltic cleantech sector. In 2024, we need to continue building a supportive regulatory environment in order to scale cleantech production.

- Kadi Ristkok, CEO of Cleantech for Baltics



1 Insights from 2023

1.1. Financial indicators

In 2023, Baltic cleantech companies exceeded the €2 billion investment mark (2017–2023), closing off another successful year with a total of 396M€ investments received in 2023.

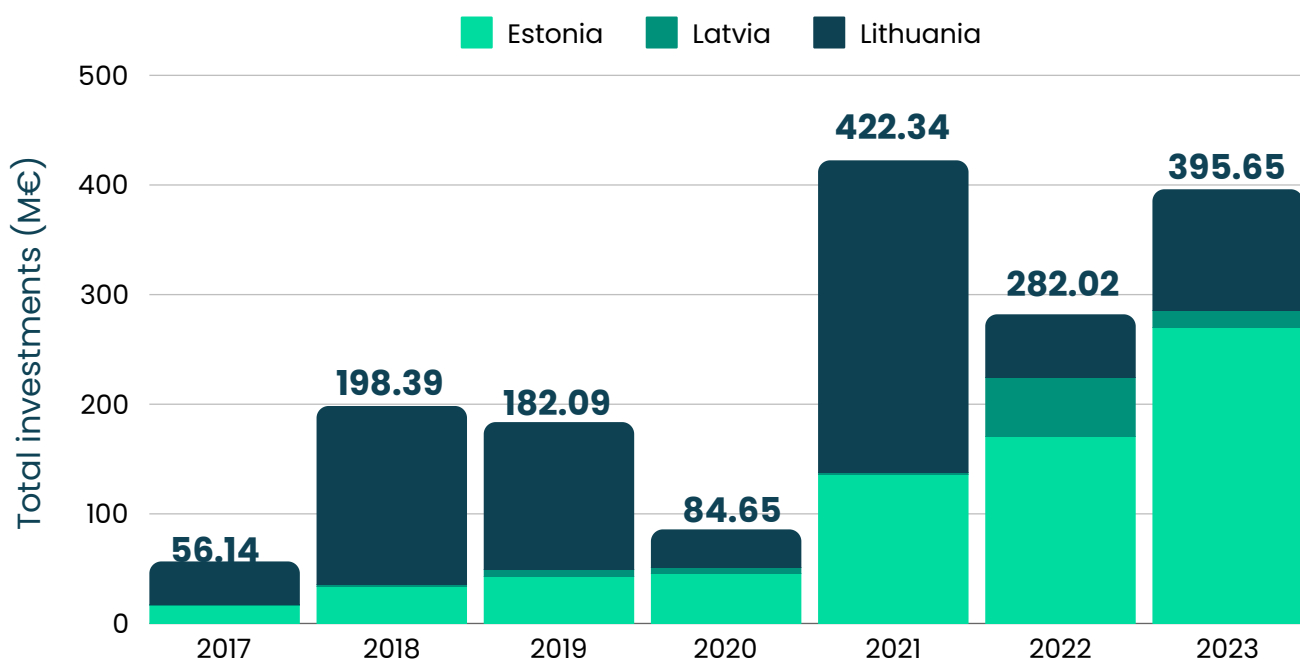
Altogether, investments in the Baltic cleantech sector amounted to 395.65M€ in 2023, representing a 40.3% growth compared to 2022. An increase was seen in all three Baltic countries. By the end of 2023, cleantech investments reached 270M€ in Estonia, 110M€ in Lithuania and 16M€ in Latvia.

Over €2 billion invested in Baltic cleantech companies between 2017–2023.

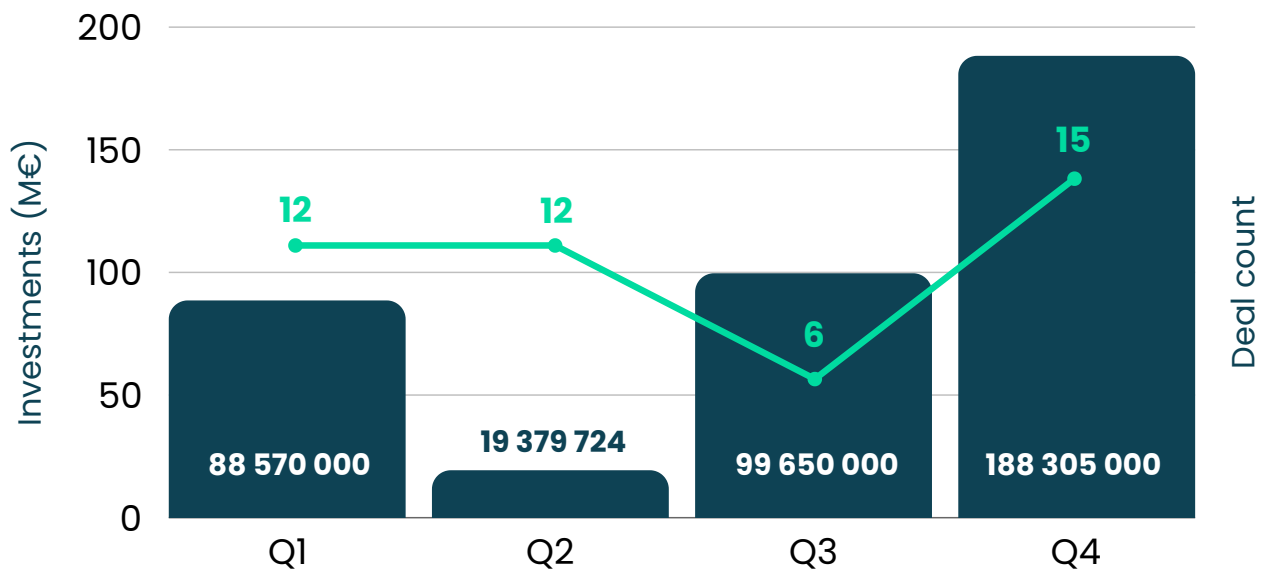
Investment levels in Latvia were comparatively lower than in Estonia and Lithuania, primarily because of two key factors: the absence of large-scale deals, which reduces the overall investment volume, and the suspension of public support measures in 2023, which resumed only in 2024, likely affecting private sector investment.

In the EU, a total of €11.1 billion was invested, matching the annual level of the two past years. While cleantech investments have plateaued at the European level, Baltic investments are on the rise after a slowdown in 2022. At the global level, cleantech investment levels in 2023 decreased in North America and continued growing in the APAC region.

INVESTMENTS IN THE BALTIC CLEANTECH SECTOR, 2017–23 (M€)



CLEANTECH INVESTMENTS AND DEAL COUNT IN THE BALTICS, 2023 (M€)



With total annual investments of 395.65M€ and 45 deals, the average deal amount in 2023 was approximately 9M€.

Notable investment rounds in 2023 from each Baltic country were:

- Estonian **Skeleton Technologies** with 108M€ in Q4
- Lithuanian **PVCCase** with 92M€ in Q3
- Latvian **Naco Technologies** with 9.2M€ in Q1

Average deal amount in the Baltics in 2023 was **9M€**.

Lithuania

With 9 deals made in Lithuania, most deals were in the Transportation & Logistics sub-sector. The average deal amount was 12.2M€.

Estonia

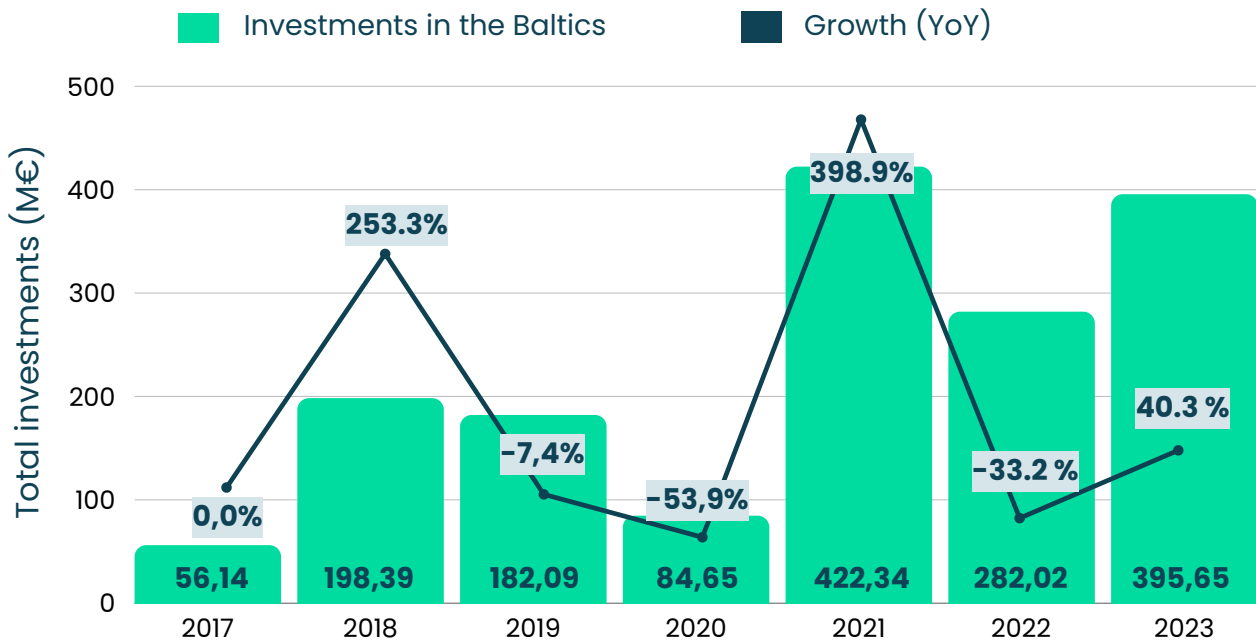
The deal count in Estonia was 27, with the most deals in the Energy & Power sub-sector. The average investment per deal was 10.4M€.

Latvia

In Latvia, the average investment per deal was 1.78M€, with the biggest share of investments made in the Agtech & Food sub-sector.

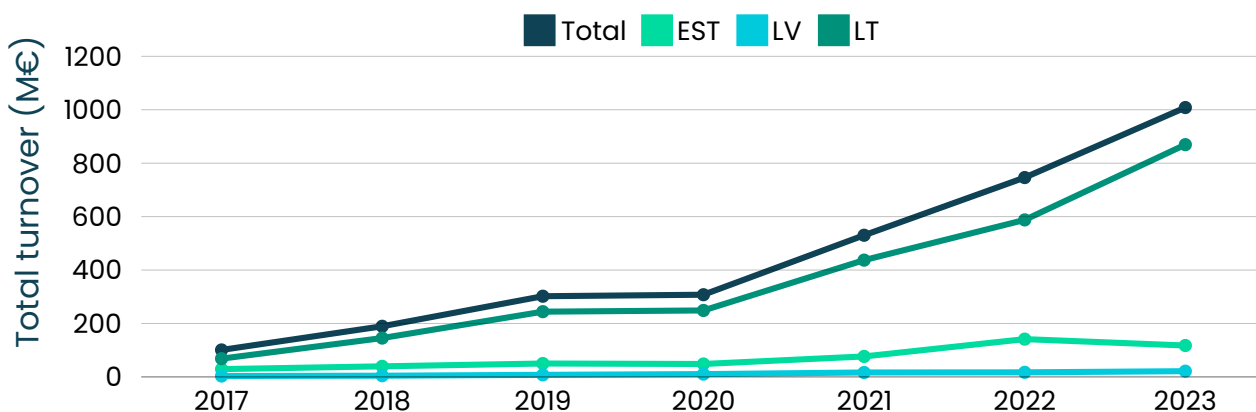


CLEANTECH INVESTMENT TRENDS IN THE BALTICS, 2017-23 (M€)



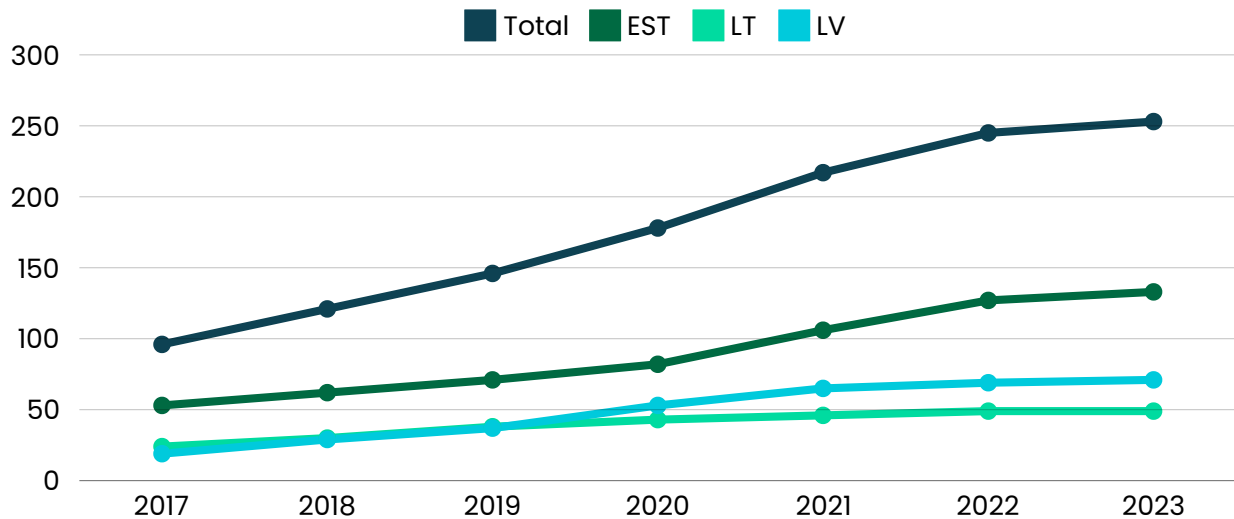
After a peak in 2021, with a 398.9% increase, driven by post-pandemic recovery efforts, investments dropped sharply by 33.2% in 2022. However, 2023 saw a strong recovery with a 40.3% increase, indicating renewed confidence in the cleantech sector.

CLEANTECH SECTOR TOTAL TURNOVER IN THE BALTICS, 2017-23 (M€)



When looking at the turnover trend over the years, Lithuania is standing out clearly with high growth rates since 2020. While Latvia and Estonia have shown slower growth, Lithuania has almost tripled the generated turnover compared to 2020.

TOTAL NUMBER OF CLEANTECH COMPANIES IN THE BALTICS, 2017-23

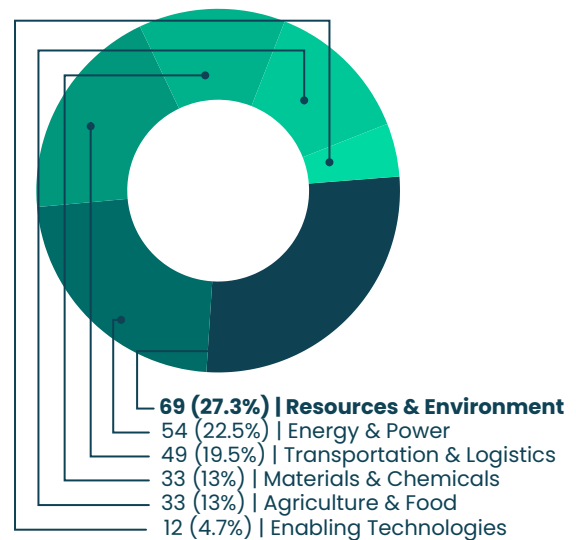


The number of cleantech companies in the Baltics increased to 253 in 2023. The biggest share of companies being in the Resources & Environment and Energy & Power sub-sectors.

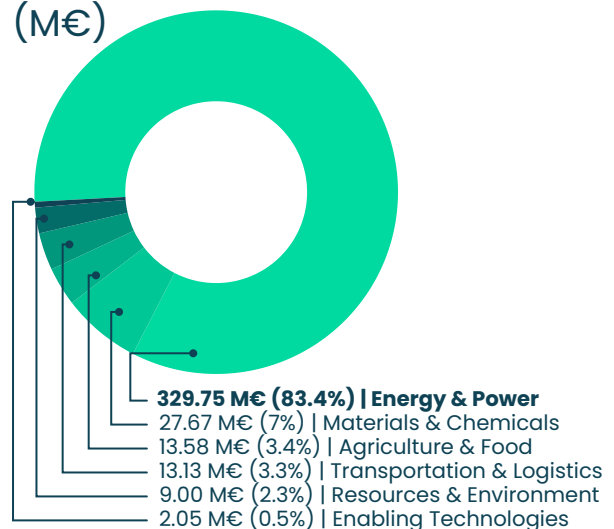
The Energy & Power sub-sector has received the most investments, covering 83% (329.75M€) of all investments in 2023. Compared to 2022, there has been a big rise in investments led by Energy & Power (+41.3%), while the Transportation & Logistics sub-sector has suffered the biggest decrease (-36.1%).

The war in Ukraine has catalyzed the Baltic energy transition and the Baltic countries are fully ready to synchronize with the continental European electricity grid in February 2025. As the regional demand for new energy sector technologies is heating up, a similar investment trend can be expected in the upcoming year.

% OF COMPANIES IN CLEANTECH SUB-SECTORS



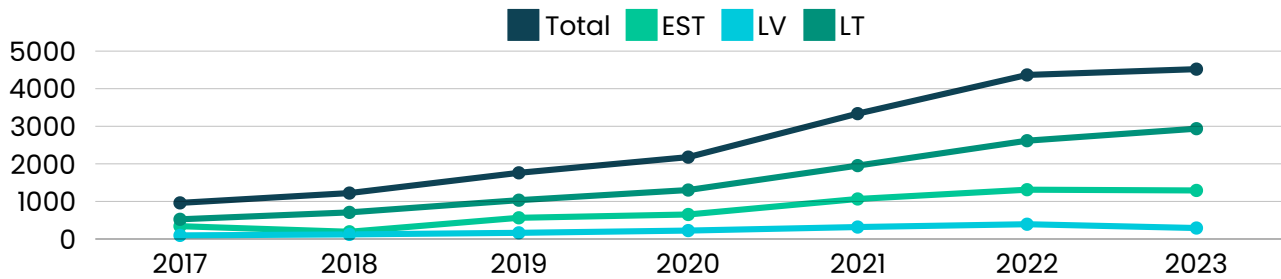
AMOUNT INVESTED IN CLEANTECH SUB-SECTORS (M€)




1.2. Non-financial indicators

The number of cleantech sector employees in the Baltics is increasing slowly but steadily. Lithuania has the highest number, showing a consistency with the cleantech turnover growth rates. In Estonia, the number of employees stagnated in 2023 while Latvia saw a slight decline.

NUMBER OF EMPLOYEES IN THE BALTIC CLEANTECH SECTOR (2017-23)



As presented by the European Innovation Scoreboard (EIS), the Baltic innovation landscape is well established and supportive of cleantech sector development.

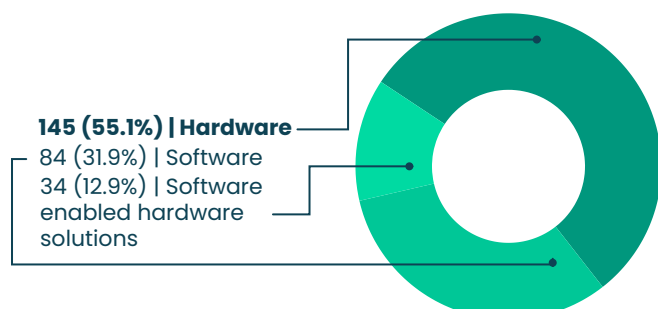
 Lithuania is classified as a "Moderate Innovator," with a performance index of 83.6% of the EU average. The country excels in job-to-job mobility of human resources in science and technology (HRST). However, it faces challenges with low business sector R&D expenditure and limited government support for business R&D.

 Estonia is classified as a "Strong Innovator," with a performance index of 104.8% of the EU average. Although the country has experienced a slight decline compared to the previous year, it has maintained an overall positive trend since 2017. Estonia's strengths lie in lifelong learning and international cooperation while challenges in high-tech exports and resource productivity.

 Latvia, classified as an "Emerging Innovator," has a performance index of 53.6% of the EU average. The country has shown significant improvements in public-private co-publications and international scientific collaboration since 2017, but struggles with a decline in environment-related technologies and venture capital expenditures.

Following a similar trend to the previous years, around half of all Baltic cleantech companies provide hardware solutions, 31.9% software and 12.9% software enabled hardware solutions.

CLEANTECH COMPANIES BY PRODUCT TYPE



1.3. Challenges and opportunities

In 2023 autumn, Cleantech for Baltics conducted an online survey among Baltic cleantech companies and organizations to collect and analyze company characteristics and perceptions of the sector, its ecosystem and wider policy and support environment.

Based on the answers of 63 companies, investors and cleantech support organizations, the following challenges and opportunities can be summarized.

The most frequent challenges included:

- access to capital and funding;
- adoption of clean technologies and public awareness;
- regulatory and policy constraints.

The next most popular answer was related to employees and the lack of highly motivated, experienced and skilled talent.

Other mentioned challenges were:

- availability of prototyping infrastructure;
- time-consuming and risky product development and validation;
- technological hardware nuances;
- high operating costs;
- (international) partnerships and collaboration;
- supply chain and manufacturing challenges;
- high payroll taxes and economic recession.

It is interesting to note that the most frequent opportunities also included:

- advancements in global and local regulative environment;
- growing demand for clean technologies and increasing environmental awareness;
- collaboration projects and funding opportunities in the EU (e.g. Horizon Europe).

Besides these three, other most mentioned opportunities were:

- fast and interdisciplinary technological development in the cleantech domain;
- industrial symbiosis;
- collaboration with academia, other startups and investors;
- improved situation in supply chains;
- strong ecosystem;
- matchmaking and networking support from ecosystem organizations.



1.4. Public policies, strategies and support measures

PUBLIC POLICIES AND STRATEGIES

Pan-Baltic perspective

The public sector support for cleantech sector development has been steadily increasing since the launch of the EU Green Deal in 2019.

Whereas between 2019–2022, the Baltic policymakers focused more on environmental and climate target setting, 2023 saw a switch to the implementation of the green transition. It is generally recognized that the cleantech sector is a fundamental pillar in building green competitive economies but concrete actions for building a supportive regulatory and policy environment are only just starting to kick in. In 2024 and the coming years, the policy focus on green economic competitiveness and industrialization of clean technologies is expected to increase.

Based on the Cleantech for Baltics Survey, cleantech companies acknowledge the green and net-zero oriented policy support provided by the EU Green Deal as the overarching policy framework enabling the green sector to lead the next generation growth paradigm in Europe.

Based on the survey, the most relevant support measures were sustainable business incentives, direct local and EU grants and subsidies (e.g. on biofuels, electric cars, green energy, expansion of wind energy investment and EIT Urban Mobility grants). Survey respondents also mentioned support programs by the Investment and Development Agency of Latvia (LIAA), Accelerate Estonia and Tallinn Science Park Tehnopol.

In general, we see an increasing number of public projects and initiatives focused on hydrogen, defense, deeptech and energy efficiency.

From the **Interreg Baltic Sea Region** projects that started in 2023, the ones more focused on cleantech are: APRIORA, BAB, BALTIPLAST, BATS, BIOBOOSTERS, BSR DEEPTech LAUNCH, BSR HYAIRPORT, CCC, CCI4CHANGE, CEFORESTRY, CHANGE(K)NOW, CIRCULAR FOODSHIFT, CITY BLUES, CITYAM, CLIMATE-4-CAST, COMMITCLIMATE, EASY ENERGY, EMPEREST, ENERGY EQUILIBRIUM, FOODLOOPS, GREENINDUSTRIALAREAS, HYTRUCK, RENOWAVE, STARTSUN, SUMPS FOR BSR, SUSTOOL, TETRAS.

From the **Interreg Central Baltic Program**, the following projects started in 2023: Baltic Impact Accelerator, TransFarm, Sustainable Flow, BALTIC2HAND.

See an overview of available Baltic cleantech support measures [HERE](#).

Lithuania

Ministry of the Environment's Roadmap for Lithuania's transition to a circular economy by 2035

The government has approved the guidelines prepared by the Ministry of Environment for Lithuania's transition to a circular economy by 2035, which will help establish more sustainable resource practices, conserve the environment, reduce waste generation and turn generated waste into valuable resources by incorporating it into a new production process.

"Circularity allows for more environmentally friendly production, re-use resources, generate less waste and consume less energy. It also increases competitiveness and creates new job opportunities," said Minister of Environment Simonas Gentvilas.

The guidelines include measures already planned in existing strategic documents, and envisions new ones, to ensure Lithuania's transition from a linear "take-make-dispose" model to a climate-neutral, resource-efficient and waste-reducing closed-loop economy.

Presentation of the national hydrogen development vision

"Lithuania has ambitious plans for the future - we aim for energy independence and will take advantage of the opportunities provided by new industrial branches to become energy exporters."

"Hydrogen will play a significant role in this journey," said Minister of Energy D. Kreivys. According to him, there is still considerable doubt and criticism surrounding the prospects of hydrogen today, but at the same time, new projects are starting all over Europe, and almost all insights into our energy future somehow involve hydrogen.

By 2050, Lithuania should produce enough hydrogen to meet its own needs, exporting surplus energy products to other countries.

Lithuania could consume 24 TWh of hydrogen, with installed electrolyzer capacity reaching 8.5 GW. They could consume 36 TWh of electricity - three times more than today's total demand.

Other policies

- The Ministry of Finance has prepared the Lithuanian Green Finance Action Plan for 2023-2026.
- Lithuanian Parliament has legalized new regulation for solar and wind parks, freeing hands to choose "net billing".
- The concept of the development plan for offshore wind farm infrastructure and the strategic environmental impact assessment report have been presented.
- Energy Vision until 2050 presented: Lithuania seen as the hub for the development of the new generation industry and a climate-neutral state.

■ Estonia

The main policies from last year related to the cleantech sector include the Green Transition Action Plan, the Waste Reform and the Hydrogen Roadmap.

The Green Transition Action Plan brings together almost 300 different actions in fields ranging from energy to circular economy. It aims to reduce negative environmental impact, foster entrepreneurship that preserves the natural environment and develop the modern living environment. The action plan was drafted by the Government Office in dialogue with ministries and stakeholders, guided by the recommendations of an expert group.



The Waste Reform aims to exponentially increase the use of waste as raw materials and, as a prerequisite, to make the collection of waste by type easy and financially beneficial for people. At the end of 2023, the Minister of Climate presented draft plans for the development of the Waste Act and the Packaging Act. According to the plans and as approved by the National Waste Plan 2023–2028, the Waste Reform regulations should enter into force in 2025.

The Hydrogen Roadmap is a vision document that supports the attainment of strategic targets and objectives set in other development plans and programs. It maps out the state of play in Estonia and outlines directions within which the introduction of hydrogen technologies should be assessed. The roadmap focuses on the pilot phase of the Estonian hydrogen sector from 2021 to 2030.

The Act on Amendments to the Building Code and Other Acts (acceleration of the deployment of renewable energy) aims to establish the superficies licence for offshore wind farms as a new type of licence. So far, electricity producers have had to apply separately for a superficies licence, an environmental permit for special use of water and a building permit. The amendment consolidates the requirements for these permit-granting procedures into one, shortening the permitting processes.

Intention to develop a Climate Law with the aim to set clear climate goals and a vision for a clean economy. The Act is expected to support long-term decision-making, investments and new services and jobs in a clean economy. The central message of the law is that the economy must fit within the limits of nature and a smaller climate footprint is a competitive advantage. The Climate Act is planned to enter into force in January, 2025.

Latvia

Establishment of the Climate and Energy Ministry in 2023

As of January 1, 2023, the Ministry of Climate and Energy has been established through the reorganization of the Ministry of Economics and the Ministry of Environmental Protection and Regional Development. Going forward, responsibilities related to energy policy and climate policy have been transferred to the Ministry of Climate and Energy.

Submission of the National Energy and Climate Plan to the European Commission

Latvia submitted its National Energy and Climate Plan (NEKP) draft to the European Commission. The plan serves as a roadmap for achieving climate and energy goals by 2030 across all sectors of the economy, including energy, transport, agriculture, forestry, waste management, industrial processes and product use.

The NEKP draft includes a range of measures to ensure the strengthening of energy security, the expansion of renewable energy production, as well as improvements in energy efficiency and emission reductions. For instance, in the transportation sector, the plan aims to increase the share of electric and hybrid vehicles in the overall transport sector, provide a competitive and environmentally friendly European railway network and implement a range of other measures.

Launch of the RIS3 Smart Specialization steering groups

Based on the National Industrial Policy Guidelines 2021–2027 (NIP2027), Latvia has identified five knowledge-intensive areas where it possesses resources and expertise, forming the concept of Latvia's Smart Specialization Strategy (RIS3). RIS3 stands for Research and Innovation Strategy for Smart Specialization.



In 2023, Latvia launched all RIS3 steering groups for defining goals, action plans and developing proposals to promote research and innovation, human capital and internationalization.

The RIS3 smart specialization consist of the following areas and respective steering groups:

- biomedicine, medical technologies, pharmaceuticals;
- information and communication technologies;
- photonics, smart materials, technologies and engineering systems;
- knowledge-intensive bioeconomy;
- smart energy and mobility.

PUBLIC SUPPORT MEASURES

40M€ will be invested in solar energy expansion in the private sector

The funding is provided for the installation of solar power plants in Lithuania's residential buildings. 40M€ will come from the funds envisaged in the European Union's investment program for 2021-2027.

Funding program of 100M€ for circularity

The Minister of Environment approved the description of the "Promotion of Waste Recycling and Secondary Raw Material Use" measure of the 2022-2030 development program. The measure outlines the directions for investing EU and state budget funds.

Expansion of green hydrogen production

Up to 50M€ from the Modernization Fund is earmarked for this activity. It is expected that these investments will allow for the creation of 65 MW of green hydrogen production capacity, with annual hydrogen production volumes exceeding 8,000 tons.

More than 30M€ allocated for biogas production and purification of biomethane gas

Applications for support under this measure may be submitted by legal entities registered in the Register of Legal Entities of the Republic of Lithuania.

This includes very small, small, medium or large enterprises, as well as entities engaged in agricultural activities.

32M€ support for Lithuanian households to get remote solar parks

Individuals will be able to acquire electricity generation capacities of any power, but the grant will only be awarded for power plants up to 10 kW, including previous grants received for installing solar power plants and purchasing from distant parks, announced the Ministry of Energy.

Over 19M€ allocated for the installation of private charging stations for electric vehicles

As part of a joint project initiated by the Lithuanian Energy Agency (LEA), the second stage of invitations for legal entities to submit applications to compensate for a portion of the expenses incurred in installing private electric vehicle charging stations was announced. Overall, the joint project aims to install around 53 thousand private electric vehicle charging stations by 2026.



■ Estonia

Investments in the cleantech sector from the Recovery and Resilience Facility (RRF)

100M€ from RRF was allocated to the **SmartCap Green Fund** to increase the supply of venture capital to new clean technologies by investing either directly or via other venture capital funds procured by SmartCap.

SmartCap made its first direct investments from the Green Fund by investing in Vok Bikes and eAgronom. Vok Bikes, an electric cargo bike developer, received 3,8M€, and eAgronom, an agriculture sector company, 5M€.

New green VC funds procured and partially funded by SmartCap:

2C Ventures invests in cleantech companies in the Baltic and Nordic region, with a stronger focus on Estonia. The fund supports companies developing innovative technologies in renewable energy, waste reduction, water management, circular economy and other clean technology areas.

Sunly Future Ventures (SFV) invests in cleantech startups to drive sustainable and resilient economic growth. Their focus is on early-stage investments, typically starting at €500k, supporting innovators in renewable energy, energy efficiency and sustainable mobility.

Other relevant support measures from the RRF in terms of budget are:

- 53M€ for the application of resource efficient clean technologies
- 50M€ for the application of hydrogen technologies
- 20M€ for the security of supply investments
- 20M€ for increasing the use of biogas and biomethane (NextGenerationEU)
- 8M€ for development services for cleantech startups



From the **Just Transition Fund**, support is given for district heating in Ida-Virumaa to make the transition to renewable fuels, knowledge-intensive activities of Ida-Viru county entrepreneurs and directly to small and medium-sized enterprises in Ida-Viru.

From the **EUCF**, support is given for infrastructure development for the separate collection of waste, reducing waste and packaging and circular production and consumption models based on circular economy.

From **ERDF** and **EUF** to support the consumption of biomethane in the transport sector and waste recycling.

Latvia

ALTUM announces procurement for the selection of venture capital fund managers for startup and growth stage companies

The fund managers selected in the procurement will make investments for a total amount of public funding of 37.2M€ – 12.4 million euros in startup stage companies and 24.8 million euros in growth stage companies. Additionally, each fund will also have to invest private capital at least 40% of the total fund capital.

ALTUM announces a procurement for the selection of three venture capital fund managers for startups in the amount of 55.8M€

Selected fund managers will invest private funding in promising and export-oriented companies over the next five years, both in Latvia and other EU countries. The selected funds will invest in pre-seed and seed stage startups, with a total amount of public funding of 55.8M€ allocated: 18.6M€ per fund.

LIAA, in collaboration with ALTUM, launches a program to support large investment projects

The program plans to invest 70M€ in state support. This includes a loan with a capital discount, meaning that, upon meeting certain criteria, the principal amount of the loan can be reduced by up to 30% of eligible costs, but not exceeding 10M€.

37.5M€ allocated for company digitalization

LIAA is allocating 37.5M€ to support company digitalization activities. The support is part of Latvia's Recovery and Resilience Mechanism and each company can receive up to €100k to improve sustainability and productivity by process digitalization.



LIAA launches small and medium-sized enterprise (SME) Innovative Business Development Program

The program, implemented with support from the European Regional Development Fund (ERDF) and the state budget, aims to enhance the competitiveness, sustainable growth, innovation, export potential and job creation of SMEs in Latvia, particularly in medium-high and high-tech sectors. It provides both financial and non-financial incentives.

The program includes export support (~24M€), business incubation (~33M€), promoting innovation (~4M€).

1.5. Main cleantech events in the Baltics



sSTARTUp Day 2023 15-17 March in Tartu, Estonia

sSTARTUp Day is a startup-minded business festival, which takes place each year in Tartu, Estonia. In 2023, Cleantech Estonia hosted a seminar “The ultimate guide to Cleantech” with Erki Ani, the former Cleantech for Baltics CEO, and Omar Mark Hernandez from Cleantech Group as speakers.

LOGIN 2023 11-12 May in Vilnius, Lithuania

LOGIN, the largest innovation and progress festival in the Baltics, returned for the 17th time. Over 150 speakers and 3,000 professionals gathered to share experiences, accumulate new ideas and celebrate digital culture together.



Latitude59 2023 24-26 May in Tallinn, Estonia

In May, Estonia’s flagship startup and tech event **Latitude59** brought together more than 3,000 investors, founders and startups from 65+ of countries, while also featuring an impressive lineup of speakers, field experts and panelists.

Deep Tech Deep Dive: Cleantech x Health tech 24 May in Tallinn, Estonia

Cleantech Estonia, together with Tallinn University of Technology (TalTech), organized a cleantech and healthtech community side event at Latitude59. The event brought together many prominent representatives from both sectors and was visited by over 200 guests. It featured a speech from Kristen Michal, the former Minister of Climate of Estonia, and a panel discussion.

Startup Fair 2023 7 September in Vilnius, Lithuania

The 11th edition of the international startup event "**Startup Fair. Adapt 2023**" in Vilnius concluded after attracting record-breaking attendance. In 2023, nearly 2,000 startups, technology experts, enthusiasts and investors from various parts of the world attended.

Investor Camp 2023

6 September in Vilnius, Lithuania

Investor Camp, organized by Startup Lithuania, LT VCA and LITBAN, provided a space for business angels and venture capitalists to learn, discuss, connect, build lasting networks and get to know the booming startups ecosystem in Lithuania.

Impact Day 2023

5-6 October in Tallinn, Estonia

Impact Day is Estonia's biggest sustainability event. In 2023, they had 1,441 participants present at the venue and 1,248 attending online or/and pre-events. The two-day event's agenda was filled with insightful panel discussions, keynote speakers and opportunities for networking.

GreeNEXPO 2023

12-14 October in Tallinn, Estonia

The first dedicated greentech exhibition in Estonia showcased the latest green technology innovations from around the world and brought together entrepreneurs and policymakers. Cleantech Estonia set up a booth at the venue to introduce the Estonian cleantech sector to international visitors.



Greentech Forum Vilnius 2023

7 November in Vilnius, Lithuania

Greentech Forum Vilnius celebrated its 17th edition, emerging as a pivotal event in the energy, transportation and green economy sectors. Cleantech for Baltics took the stage as an event partner.

Cleantech Forum Europe 2023

14-16 November in Tallinn, Estonia

The prominent **Cleantech Forum Europe** took place in Tallinn in 2023. The forum connects the latest generation of startups with investors and corporates looking for new partners.

Cleantech Afterwork 2023

16 November in Tallinn, Estonia

Cleantech Estonia hosted its 2023 **End of the Year Cleantech Community Meetup in Tallinn** during Tallinn Green Week. The event was attended by more than 160 people for an evening of networking.

COP28 in Dubai

30 November–12 December

In 2023, Estonia had its first **COP28** pavillion, which featured the country's leading cleantech companies. The conference saw a record number of participants and the first global stocktake concluded during that time in Dubai.



TechFusion Startup Awards 2024

11 January in Vilnius, Lithuania

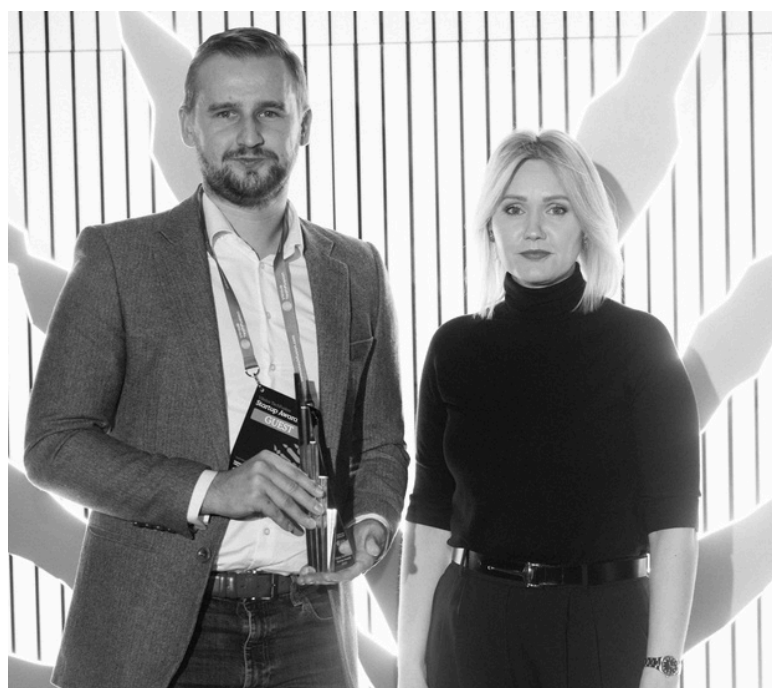
For the first time in the history of the **Lithuanian startup awards**, there was a nomination dedicated to cleantech called "Tech for Good". This award highlights the flagships in cleantech – startups dedicated to both innovation and environmental preservation. The award celebrates those who harness technology to create a positive environmental impact, promote sustainability and push the boundaries of clean innovation. In light of the crucial target to achieve zero emissions by 2050, the "Tech for Good" award serves as a testament to technology's potential to steer Lithuania towards a cleaner, more sustainable future. The winner of the nomination – PV Case.

Sustainable Perspective 2023

23–25 November in Vilnius, Lithuania

Over the years, **Sustainable Perspective** has grown into one of the largest sustainability-themed events in Lithuania.

2023 event included the topic of sustainable packaging solutions and design, presentations of existing sustainable alternatives to the public, examples of best practices, various sustainability workshops and discussions organized by event participants.



2 2024 Developments

2.1. Public policy & support measures

EU ELECTIONS & NEW POLITICAL AGENDA

The European Parliament is tilting towards the right after the 2024 EP elections, and the Baltic results confirm the same pattern. Although the parliament may favour a less active climate policy, von der Leyen still confirms a strong focus on the implementation of the Green Deal.

On the 18th of July, the European Parliament elected Ursula von der Leyen (EPP) as President of the European Commission for the second term. Within the re-election, von der Leyen presented the political guidelines for the next Commission 2024-2029. New guidelines highlight the important role of clean technologies in achieving environmental and climate ambitions and bringing down energy costs for companies and households. It mentions a new Clean Industrial Deal to support industries transitioning to cleaner technologies. This includes the Industrial Decarbonization Accelerator Act which aims to channel investment into energy-intensive sectors and speed up planning and permitting processes. Attention is brought to energy security, efforts will be made to reduce energy prices by moving away from fossil fuels, increasing the need for clean energy.

Lithuania

Lithuania has 11 members in the European Parliament. Six of them are re-elected MEPs, and five are newly elected. Cleantech for Baltics especially welcomes Manifesto-supporting MEP Dainius Žalimas, who will be working in the Renew Europe group.

The Christian Democratic Party has the highest number of seats in the European Parliament - 3. The Social Democratic Party is next, with two seats.

The distribution of seats in the Parliament's political groups is as follows: the EPP - 3 seats, Renew Europe, S&D and ECR - 2 seats each, the Greens and the ESN - 1 seat each.

Estonia

Estonia has seven seats in the parliament, Isamaa and SDE were awarded two mandates and Reform, Center, and EKRE one each. After the elections, Estonia has 2 seats S&D, 2 in Renew, 2 in EPP and one seat in ECR.

Compared to the EU elections five years ago, Isamaa (EPP) gained one mandate and Reform (Renew Europe) lost one.

The former Estonian Prime Minister Kaja Kallas is expected to be appointed as the Vice President of the Commission and the high representative of the EU.

Latvia

Latvia is represented in the European Parliament by nine seats, with five out of nine Members of Parliament being re-elected. New Unity and National Alliance secured two seats each, while other parties obtained one seat each. After the elections, Latvia has three seats in the European Conservatives and Reformists Group (ECR), two seats in the European People's Party (EPP), and one seat each in Renew Europe, the Group of the Greens/European Free Alliance, the Group of the Progressive Alliance of Socialists and Democrats, and the Patriots for Europe Group.

From New Unity, Valdis Dombrovskis was elected with the most votes to represent Latvia in the parliament. However, since V. Dombrovskis was re-appointed Commissioner, Inese Vaidere will take his place in parliament instead.

SECTORAL POLICY EXPECTATIONS

2023 Baltic Cleantech Survey respondents expressed the need for more effective attention and action from politicians. Especially in Latvia, where many of the support programs for 2022-2027 have not started yet due to political disagreements.

Other mentioned topics were: the largest gap between announced and actual investments in clean hydrogen; support for infrastructure build-out; EV charging rules (i.e., municipalities have to give EV charging opportunities for citizens per each 200 m); use of CO2 quota sales revenues; training and more frequent and fact-based information on climate change (e.g., to help organizations understand the threats posed by animal by-products); more specialized Cleantech innovation grants; EISMEA "emergency" support to Ukrainian startups that are still not been unlocked after 2 years of war; access to external consultation and the EC; reduction of social security taxes; public funding for testing and experiments to start up a company; tax reduction to building energy efficiency and renewable energy installations (e.g., VAT reduction of -22% from 2024); funding for remote sensing Green hardWare solutions; private universities concern for ministries making contracts only with public universities and refuse private universities (e.g., one case in Estonia).



2.2. Events and programs in 2024

Energy future of the Baltic States *16-17 May in Vilnius, Lithuania*

The Baltic Assembly, together with the Baltic Council of Ministers, is organizing a conference **“Energy future of the Baltic States: addressing regional challenges together”**. The event will gather policymakers, experts, and stakeholders from the Baltic region, focusing on enhancing energy security and accelerating the clean energy transition.

Science & Business Forum: CleanTech Innovations *30 May in Vilnius, Lithuania*

“Science & Business Forum: CleanTech Innovations” is here to calm your hunger for cleantech news, innovations and unheard research discoveries. A day full of scientific, entrepreneurial, and insightful talks and news about CleanTech.

This event is an excellent opportunity for researchers, industry professionals and innovators to discover new opportunities for collaboration in research, R&D, testing and more.



LOGIN 2024 *30-31 May in Vilnius, Lithuania*

If you believe that your desk is not the only place where innovation happens - you're invited to join **LOGIN in 2024**. Hear insights from innovators, top experts in their field and world-leading progress-makers that will inspire you not only in your professional life but also in your personal life. There is something for everyone in the agenda.

Digigreen 2024 *13 June in Vilnius, Lithuania*

DigiGreen 2024 - a conference and networking event dedicated to exploring the intersection of green and digital solutions.

At DigiGreen 2024, innovation takes center stage. Engage with industry pioneers, sharing their insights into the latest smart technologies and best practices. Learn from startup success stories, gaining valuable perspectives on the innovation landscape. Benefit from expert advice on optimizing efficiency and strategic focus.

Baltic VCA Summit

5-6 September in Vilnius, Lithuania

The **Baltic VCA Summit** has for over a decade been the largest meeting place of key Baltic Private Equity and Venture Capital industry players. The two day event brings together all regional LPs and GPs to discuss key challenges, opportunities and outlook for the upcoming period.

Tech Tour European Hydrogen Valleys 2024

5-6 September in Riga, Latvia

The **European Hydrogen Valleys 2024** program is designed to foster meaningful connections, strategic partnerships, and (co-)investments within the hydrogen sectors. The program culminates in a live event that will bring together the most promising emerging companies, meticulously selected by a Selection Panel, alongside investors, corporate partners and industry experts.

Investor Camp

2 October in Vilnius, Lithuania

Investor Camp 2024 in Vilnius, organized by Startup Lithuania, LT VCA and LITBAN, provides a space for business angels and venture capitalists to learn, discuss, connect, build lasting networks and get to know the booming startups ecosystem in Lithuania. This side-event brings together key players in the investment landscape, fostering collaboration and shared insights.

Startup Fair 2024

3 October in Vilnius, Lithuania

“Startup Fair. Pulse 2024,” the largest startup event in the Baltics, organized by Startup Lithuania, features more than 60 distinguished speakers and a thrilling Pitch Battle with 44 participants.



Impact Day

October 10-12, Tallinn, Estonia

Impact Day is Estonia’s biggest sustainability event. You’ll find like-minded people, fresh ideas and knowledge on how to go even further with your words and actions. The main topic of 2024 is “Less Is More”. During Impact Day, the most successful Baltic and Nordic impacters in their given field will step on the stage. From 75+ sessions you can find keynotes, various practical workshops, panels and pitching competitions.

Greentech Forum Vilnius
7 November in Vilnius, Lithuania

Greentech Forum Vilnius remains committed to creating high-quality content and serving as a platform for decision-makers, business representatives, and academics to contribute to the realisation of sustainable, safe, competitive, and efficient energy and transportation systems in Lithuania, the region, and the European Union through meaningful discussions.

GreenEst Summit
13 November in Tallinn, Estonia

GreenEST Summit has established itself as a leading platform for promoting sustainability and driving innovation in the green technology sector in Estonia. In 2024, it will take place on 13 November.

Tallinn Digital Summit
19-20 November in Tallinn, Estonia

Tallinn Digital Summit, the annual event hosted by the Estonian Prime Minister, will gather leaders from the world's most digitally innovative countries, international organisations, academia and the private sector, all of whom play a crucial role in addressing the challenges and shaping the future of digital innovation. Building upon the foundation laid by previous summits, 2024 will focus on "Securing the Digital Tomorrow" in the wake of geopolitical and technological shifts to foster a secure, prosperous and sustainable digital environment.

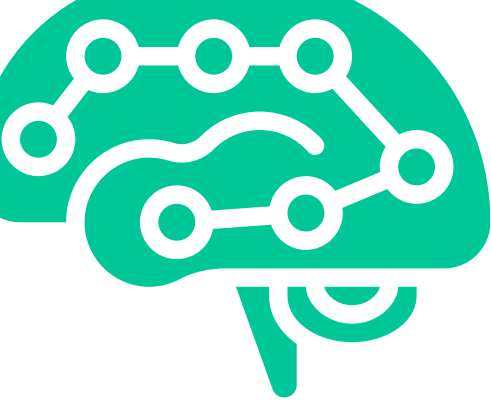


FINEST SCALEUP (March`24-Sept`26)
Establishing deep tech innovation ecosystem in the Baltic Sea Region

The event brings together leading research and innovation actors to establish the Baltic Sea Region countries – Estonia, Latvia, Lithuania, Finland and Poland – as a cross-border, inclusive and gender equal deep tech innovation ecosystem with the main goal to support companies, startups and entrepreneurs to showcase innovative technologies, attract investment and reach global markets.

FINEX (Sept`24-Aug`26)
Stimulating and Connecting Experimentation Practices and Spaces for deep tech and cleantech

The FINEX project builds on world class experimentation practices to support the quick deployment and uptake of Cleantech solutions and the development of supporting regulatory frameworks.



2.3. Baltic cleantechs to watch

Our team has put together a list of nine companies whose developments we recommend following in 2024.

The companies were selected based on their achievements in 2023 – all have raised more than 1 million but less than 100 million investments, demonstrated a fast growth rate, and proved themselves in the Baltic cleantech ecosystem.

Lithuania

Divaks is a Lithuanian company dedicated to producing and developing insect-based ingredients for the food and pet food industries. Founded in 2020, Divaks are committed to offering highly nutritious, functional, and sustainable protein alternatives. Divaks is planning to invest almost €70 mln. into new factory in few years.

Inbalance grid is a developer of energy-efficient smart electric vehicle charging software, an award-winning hardware design house, and an EV charging network operator. Inbalance grid started their expansion to 7 different countries and are investing €12 mln. to it in 2024.

HeavyFinance is a climate technology company providing sustainable finance and investment solutions for agriculture. HeavyFinance is growing rapidly; last year, they doubled their income and opened an investment fund worth €50 million for farmers at the beginning of 2024.

Estonia

RAIKU Packaging produces 100% natural, compostable, highly protective and aesthetically beautiful packaging material to substitute single-use plastic. In 2023 RAIKU received a €8.8M deal from EIC Accelerator (European Innovation Council) to really bring down Europe's packaging carbon footprint.

Roofit.Solar's award-winning fully integrated solar roofs combine the traditional Nordic metal roof design with progressive solar technology. The company raised €6.45M in a financing round led by BayWar.e. Energy Ventures and EdgeCap Partners to boost their production capacity and expand distribution, meeting the rising demand for rooftop solar across Europe and beyond

UP Catalyst focuses on turning the harmful greenhouse gas CO₂ into valuable carbon nanomaterials and graphite. All together the company raised €5.5M in 2023, €1.5M from EAS to produce high-purity carbon from CO₂ for battery applications and €4M to reduce Europe's reliance on Chinese carbon materials.

Latvia

Catalyco produces high purity, high surface area zinc oxides in a sustainable manner, repurposing industrial waste. By using our superior zinc oxides, customers can reduce their resource consumption, lower manufacturing costs, and minimize the environmental impact of their products and operations. Recently, Catalyco secured seed round investment from EIT InnoEnergy to expand its manufacturing capabilities.

TerraWaste has developed an innovative technology hloop which is based on the process of hydrothermal liquefaction (HTL) - which basically means - pressure cooking. This process allows converting household (organic and inorganic) and industrial waste into useful products, like synthetic crude oil, biochar, or synthetic gas, under the influence of high pressure and temperature. TerraWaste is a TechStars '22 startup and is currently raising a seed-round of 5 million EUR.

Wingo Deposit has developed a state-of-the-art e-cigarette collecting facility. This facility addresses the environmental impact of e-cigarettes by ensuring the proper disposal and recycling of their components. Wingo Deposit conducted successful tests, showcasing the effectiveness and feasibility of the technology, which can be scaled to other use-cases as well. Wingo Deposit is seeking 1.2 million EUR to develop infrastructure, aiming to expand their operations.

More about the companies:



RAIKU[®]

Roofit.Solar

 **Divaks**

 **Inbalance grid**

 **heavyfinance**

 **CATALYST**

 **Catalyco**[®]

Terra**N**aste

wingo

2.4. Ecosystem co-operation opportunities and expectations

SERVICE NEEDS OF BALTIC CLEANTECH COMPANIES

Based on the 2023 Baltic Cleantech Survey, the following services are seen as relevant by the respondents (ranking of 51 respondents, starting with the most useful):

1. Sectoral insights: reports, briefings, etc.
2. Event Invitations
3. Events organized by Cleantech for Baltics
4. Policy Advocacy
5. Speaking Opportunities

Ranking of 21 respondents to a more diverse list of activities (overlaps with the previous respondents, starting with the most useful):

1. Matchmaking with investors
2. Access to foreign partners
3. Incubation and/or acceleration programs
4. Access to networking events and conferences
5. Mentoring
6. Information about funding opportunities
7. Speaking invitations
8. Policy Advocacy
9. Sectoral insights: reports, briefings, newsletter etc.
10. Nominations in competitions
11. Äripäev Cleantech podcast
12. Cleantech Demo Centre
13. Social media content

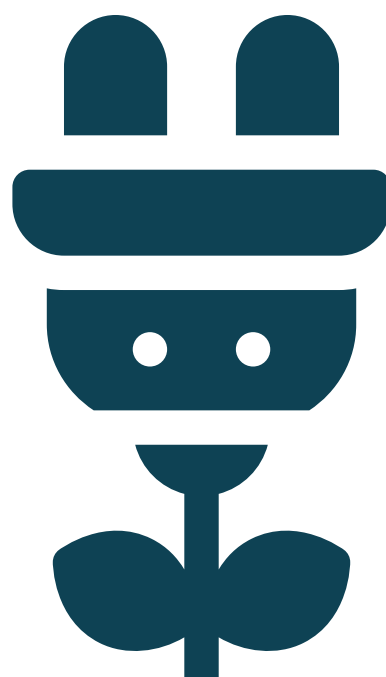
ACTIVITIES OF CLEANTECH FOR BALTICS

Cleantech for Baltics already provides several services marked as relevant in the survey: sectoral insights, event invitations and networking opportunities and policy advocacy.

To strengthen cooperation within the Baltic cleantech sector and unite its ecosystem players, the Cleantech for Baltics Coalition was launched in Tallinn on 23 May 2023.

The key objective of the coalition is to tackle the Baltic cleantech challenges together – to increase investment opportunities and influence policy development – to create the best environment for the growth of Baltic cleantech startups and scaleups.

[More information about the coalition and its members.](#)



ECOSYSTEM EXPECTATIONS FOR CLEANTECH FOR BALTICS

In terms of support activities needed, the respondents of the survey highlighted the following:

- Support enabling Baltic regions faster transition to sustainable public transport systems.
- In-depth assistance with navigating regulations, research, awareness raising and policy advocacy towards supportive policy (e.g., in the EV rental sector that is heavily influenced by regulatory environments, for example to advocate for policies that support EV adoption or infrastructure development; for changing regulation in construction sector, e.g., regarding energy efficiency of buildings and ecological and sustainable materials that are efficient, however, according to the existing regulations and accepted measurements they are not competitive to traditional materials used in construction today).
- Assistance and support to collaborate and participate in international organizations (e.g., IEA).
- Intros to investors, financial subsidies and grants (e.g., to fund environmental projects, educational initiatives, and technology development focused on sustainability).
- Access to event spaces offering venues for educational and community-building events, workshops, or conferences related to environmental issues.
- Networking and partnership opportunities facilitating connections with other organizations, businesses, and government entities for collaborative projects and awareness raising for increasing ambition and enabling the change, also interest in communication and partnerships with neighboring countries (e.g., for technological advancements specific to EVs, like battery technology, software for fleet management, or UX enhancements; also strong R&D and sales partners in water management, industrial ventilation, food industry sector).
- Subsidies for events and traveling costs.
- Quality content, fact-based data and information on the sector (incl. events, articles, podcasts, nominations) because the industry is facing a lot of myths and sometimes even propaganda from fossil fuels. E.g., monthly or weekly media observation report (links to the articles related with clean tech), Market Analysis.
- Support in building or accessing necessary infrastructure (e.g., for EV rentals, like charging stations, maintenance facilities, and technology platforms).
- Finding talented workers for cleantech startups.
- Free regular masterclasses on different topics (e.g., business development, environmental impact calculation, trainings about B2B model); organization of business missions and co-financing of going to them.

About Cleantech for Baltics

The objective of Cleantech for Baltics is to establish a coalition as a strong community of start-ups, scale-ups and investors across the Baltic states that can act as the unified voice of the cleantech sector, inform and engage with policymakers and raise the profile of the topic in the regional public debate. The coalition will also promote regional collaboration and raise the profile of Baltic cleantech at the EU level. It is an initiative by Cleantech Estonia, Greentech Cluster Latvia and Sunrise Valley Science and Tech Park.

About Cleantech for Europe

Launched in 2021, Cleantech for Europe represents the trailblazers developing, deploying and investing in clean technologies across the EU. Our mission is to make cleantech a strategic priority in the EU by bridging the gap between cleantech and policy leaders. The initiative equips policymakers with insights about cleantech and builds coalitions to chart a new path for the continent.

About Breakthrough Energy

Established in 2015 by Bill Gates and a coalition of private investors concerned about the impacts of accelerating climate change, Breakthrough Energy supports the innovations that will lead the world to net-zero emissions. Breakthrough Energy is a network of entities and initiatives, including investment funds, nonprofit and philanthropic programs, and policy efforts linked by a common commitment to scale the technologies we need to achieve a path to net zero emissions by 2050.

About Cleantech Group

The company was established in 2002 and is headquartered in San Francisco with offices in North America, Europe, and Asia. Industries are undergoing definitive transitions toward a more digitized, de-carbonized and resource-efficient industrial future. At every stage from initial strategy to final deals, our services bring corporate change makers, investors, governments and stakeholders from across the ecosystem, the support they need to thrive in this fast-arriving and uncertain future.

Cleantech
for **Baltics**

