

Communication and stimulation action results of the SmartUp Accelerator project

OUTPUT 2.2

Jenny Schmitz Jakobsson, Innovatum Science Park





SmartUp Accelerator is a collaboration project between seven countries around the Baltic Sea with the focus on building consumer cleantech ecosystems, activating its innovation actors and improving their skills to identify brilliant ideas and foster teams committed to creating new businesses. These startups and SMEs are aiming to reduce the environmental burden of consumption. https://www.smartupaccelerator.eu/





Contents

Co	ntents	2
1. cle	BSR capacities, stakeholders, drivers and barriers for cons	
	1.1 Consumer cleantech stakeholders in relation to the innovation support system	
	ESTONIA	5
	FINLAND	7
	GERMANY	10
	LATVIA	12
	POLAND	14
	RUSSIA	16
	SWEDEN	18
1	1.2 Best case BSR scenarios from the perspective of smartups	21
1	1.3 European and BSR Programs and Networks	22
	1.3.1. WORKING INTERNATIONALLY AROUND THE BALTICS	23
1	1.4 Enhancing the innovation capacity towards consumer cleantech	24
2.	Stimulation action plan	25
2	2.1. Stimulation actions, objectives and target groups	25
3.	Communication and stimulation action results	27
3	3.1 Stimulation action results	27
	NATIONAL SEMINARS	27
	TRAINING EVENTS	32
	MATCHMAKING EVENTS	35
	SMARTUP INTERACTION	36
4.	Analysis	37

Introduction

Globalization comes with great challenges and opportunities. These are often mirrored in the challenges of individual countries or down to organizational levels. New technologies are developing at an ever-accelerating pace and the level of advancement will set corresponding needs on innovation support. Consumer cleantech is one of the fields demonstrating excellent growth potential. However, it lacks the critical mass needed to conquer global markets with its much-needed sustainable solutions.

While there are many organizations and networks supporting SMEs and accelerating startups around the Baltic Sea region (BSR), there is room for improvement in the consumer cleantech ecosystem. What is more, BSR transnational ecosystems and their activities are crucial as the national markets are small and the organizational landscape is fragmented. The global market for cleantech continues to grow, and joint preparation in the BSR innovation ecosystem can support the region in becoming a global front-runner in consumer cleantech.

The SmartUp Accelerator project set out to create a continuous model for a functioning BSR consumer cleantech innovation ecosystem. The model shall help the BSR become and stay ahead in sustainable innovation and entrepreneurship through improvements in its innovation ecosystem. To achieve this and start to jointly manage these complex topics, the project and model supports increased commitment, elements of interaction and trust building processes over time.

Summary

This report describes the starting point for consumer cleantech in seven BSR countries and the EU, which allowed for identification of the stimulation needs of the developing BSR consumer cleantech ecosystem. It describes the SmartUp Accelerator partner countries' innovation support mechanisms, relevant organizations and their resources and capacities, including descriptions from the members of the ecosystem themselves. The report also summarizes ideal scenarios for internationalization from the view of smartups, to allow for BSR stakeholders to identify potential gaps and opportunities in relation to the consumer cleantech field.

The identified gaps were addressed during stimulation activities in the project. This to increase the capacity of the BSE consumer cleantech ecosystem. The results of interacting with consumer cleantech stakeholders and learnings that can be utilized within the model framework and beyond is described.

BSR capacities, stakeholders, drivers and barriers for consumer cleantech

1.1 Consumer cleantech stakeholders in relation to the innovation support system

This section describes the capacity level of intermediaries, i.e. their tools, methods and processes relevant to consumer cleantech. The stakeholders have been included in this report based on them being mentioned by local smartups and experts, which may indicate their relevance to consumer cleantech startups and/or SMEs. This section further describes the consumer cleantech ecosystems in Estonia, Latvia, Finland, Sweden, Russia, Germany and Poland using testimonials and interview materials from local stakeholders, such as smartups, incubators, public organizations, corporations and others.¹

ESTONIA

Estonian support schemes for cleantech are very similar to those available for other fields. Sustainability-oriented companies also tend to have access to the same support organizations as that of other types of companies, as these often target startups and SMEs broadly. A few organizations were mentioned by local smartups as having been particularly relevant to their business development-These have offered mentoring, networks, grants and more. They include:

Enterprise Estonia

Tallinn Science Park

Tehnopol

A national foundation working to:

- Develop Estonian enterprises and boost export capacity
- Increase tourism revenue
- Bring high value-added foreign investments to Estonia
 The largest science park in the Baltics offering an incubation program with:
- 6 practical and exclusive training days with expert
- Thousands of Euros worth of expert advice from mentors from Estonia and other parts of Europe
- An equity option agreement with no monthly fee
- Open office and meeting rooms in Tehnopol
- A united community and wide network of contacts
- Out-of-program workshops and events

Tehnopol additionally has a smart city focus and offers a Greentech community.

¹ Desk research which complements the interview material can be found in output 4.3, market studies covering smart homes, smart mobility, and smart consumption respectively. Output 4.3 provides a more comprehensive overview of the BSR consumer cleantech markets.

Elevator Startups

6-month program for startups especially in creative fields such as ads. media. entertainment etc. with:

- 100K€ worth of workshops
- 30 hours of 1:1 mentoring
- Space for startups in their hub
- 0 % Equity
- Pre-seed investment

Ajujaht

Prototron

Techstars Tallinn

A competition open to business ideas from all kinds of fields, where winners access a prize fund offering the opportunity to secure seed capital. Mentors provide first-class expertise and workshops give the necessary know-how on how to create a startup. Finally, winners access both valuable networks and increase their visibility. Supporting prototype development for a wide variety of companies — a program where winners access incubation at Tehnopol's startup incubator, get up to 35 000 Euros worth of equity free funding, R&D mentoring and legal

Techstars supports new ventures, provides resources for entrepreneurs and connects its global community. Techstars offers community events and startup programs. Startup weekends/weeks are events where entrepreneurs can learn about idea pitching, developing business teams and products, access mentorship and more. Techstars also connects corporations to promising startups.

Mektory, as part of the Tallinn University of Technology

Mektory supports businesses in several ways, such as by connecting scientists and students with entrepreneurs, or by supporting student start-up companies during their pre-incubation period by holding workshops and competitions. Innovations from a variety of fields are welcome

On the topic of the Estonian support system for consumer cleantech, local experts especially highlight initiatives such as awareness raising events (eg. Cleantech Breeze), hackathons/idea days (such as Climathon) and pre-incubation programs (such as Climate Launchpad and Prototron). They also describe that organizations working with startups support get feedback and guidance in their work to support coherence and strengthening of the general Estonian ecosystem. This is done not only through the mentioned events, but also by creating unified marketing and branding strategies. Also, investors as a group is subject to education and awareness-raising efforts.

Estonia is further described to distinguish itself in an international perspective through the means of which support organizations work to attract foreign investors to Estonia. The Estonian so-called **Startup Visa** supports non-EU startups in growing their business in Estonia, and the **e-Residency** gives access to an online business environment. From an international perspective, Estonia also has strengths in for example the field of digitization.

Estonian smartups that are looking to go abroad can also find opportunities to be trained in fields where they currently lack specific knowledge, addressing gaps that otherwise hinder them from reaching international business goals. Meanwhile, both local and international smartups may be hindered by a lack of awareness and readiness from the consumer-end to use sustainable products and services. This is one of the biggest obstacles in the Estonian business environment and lowering this barrier is an important task of Estonian stakeholders.

Like Estonian experts, **local smartups** mention law and regulations as potentially challenging to consumer cleantech solutions. The products and services of smartups are not always in keeping with definitions on the market, which can be challenging for setting up and running a business. While several smartups describe streamlining regulations with new innovations more efficiently as something worth addressing for development in the business environment, several smartups find the overall system to be quite supportive despite there not being guidelines designed specifically to their needs. Further suggested challenges by smartups is deficiencies in the existing infrastructure, while others will find access to financing to be a greater problem.

FURTHER CHALLENGES AND OPPORTUNITIES IN ESTONIA INCLUDE:

- Legal regulations for consumer cleantech innovations currently come with questions that relate to ethics or liability, for example.
- Market-opening and diversifying regulations as well as increased support of public and private projects would be valuable to support new opportunities on the Estonian market.
- New business models are being developed and disruptive technologies will challenge current systems.
- The public sector plays a key role in innovation in the areas that are managed on a national level in terms of regulation and funding.
- There is a need for more interdisciplinary work, public and private investments, joining of forces and inclusion of the public through awareness-raising activities to tackle challenges relating to sustainability.
- The business support system is more developed in larger Estonian cities than in smaller towns.

FINLAND

Regarding the Finnish support system, it has been suggested that municipalities hold a key role in offering support to for example smart mobility startups. Public organizations such as NewCo Helsinki is funded by the City of Helsinki, and supports startups and SMEs in the consumer cleantech realm. NewCo for example creates guidebooks and video materials that are available online. They also connect businesses with each other to expand their network, which helps to find clients and peer support. Businesses can also get advice directly through NewCo or get access to support from other coaches through them. Another important task for the ecosystem as mentioned by local experts is the continuous work of trust creation, for which events is an important tool. Privately funded organizations such as the OP Lab (through the OP Financial Group) seeks new opportunities in working with startups who use technological solutions to improving life. This means working in a wide variety of fields, but mobility could be one such example – thus affecting the consumer cleantech field. Offers include a 4-month Partnership Program, and grants of up to 50,000€ in the Co-creation Phases. The projects are of collaborative nature and aim towards creating joint pilots and commercial agreements, and startups further get access to expertise, customers and other values in the process.

An additional number of Finnish stakeholders relevant to the consumer cleantech field include:

Avanto Ventures	Venture building and market validation, strategy and business design, support in matchmaking and finding investments. The organization also has some focus on investor trends and foresight and provides market insight.
Finnvera	Supports financing for the start, growth, and internationalization of enterprises and for protection against export risks. They also offer a range of services relating to the financing of export activities.
Loudspring	Investment company with sustainability focus and several consumer cleantech companies in their portfolio.
Nordic Innovation Accelerator	Nordic accelerator has its main offices in Norway but is mentioned by Finnish smartups and do cooperate with organizations in Finland and Sweden, among others. They promote entrepreneurship, innovation and competitiveness especially in sustainability. Priorities from 2018-2021: Nordic Smart Mobility and Connectivity Nordic Sustainable Business Transformation Health, Demography and Quality of Life
	They also work with initiatives such as Nordic Female Entre- preneurs and impact investments, and they have developed a toolbox for SMEs for supporting them in creating interna- tional partnerships.
ELY Centres	The Finnish Centers for Economic Development, Transport and the Environment offers development services and possibilities for funding opportunities for companies and their projects. The centers have many various focus areas, including consumer goods and greentech.
Business Finland	Business Finland supports local startups wishing to expand to a new market with funding through innovation vouchers, or with means for specific purposes such as developing a team or business strategy. Together with the Public Funding Agency in Finland, their platform Dealflow Finland offers an opportunity to become visible to global investors. Business Finland further offers support in market validation and internationalization.
KasvuOpen	Business program for growth companies where coaches are volunteers, consisting of angel investors, experts in sales and marketing, strategists and entrepreneurs. The organization also arranges events and seminars.
ITS Finland	ITS Finland (Intelligent Transport Systems and Services) is a forum for a broad variety of stakeholders that supports safe, smooth and sustainable solutions in the field of transportation. ITS Finland is a part of an international network with similar focus, the Network of National ITS Associations.

Eespo Innovation Garden

Eespo Innovation Garden is an innovation hub that gathers prominent stakeholders such as Aalto University, VTT Technical Research Centre of Finland, headquarters of corporations like Fortum and the co-working space Startup Sauna. Their Cleantech Garden offers testbed opportunities for bioand circular solutions, the Launchpad offers networking opportunities between startups and investors/corporations, and they offer events, office space and more.

On the topic of internationalization and transnational work, topics mentioned during interviews include that there is room for improvement when it comes to quality of support services and access to the community for foreign professionals. Meanwhile, there are examples of good support as well, such as that Helsinki based companies looking to go abroad can apply for grants from the City of Helsinki, covering 70 % of travel costs up to 2500 Euros. The already mentioned organization Newco provides services for businesses moving to Helsinki, including soft landing services for foreign startups, and they have a specific goal of helping individual workers, job seekers, entrepreneurs and their families to a smooth integration process. Their 'Soft Landing' service package helps businesses with several practicalities for making a market entry in Finland. Correspondingly, they also offer Helsinki based startups support in exploring new markets through their Startup Exchange program. Generally, cleantech is a field where Finland performs well and exploring and supporting the new directions in which cleantech may be spreading is looked upon in a positive manner by the interviewed experts.

GENERAL CHALLENGES AND OPPORTUNITIES IN FINLAND INCLUDE THAT:

- Public authorities work proactively in developing innovation fields, such as smart mobility. Efforts often include relevant stakeholders such as startups and supports provision of test areas. In the case of smart mobility, there is an aspiration to stimulate and build a comprehensive Finnish ecosystem for the field.
- The mobility field is heavily regulated by international standards and regulations are shared in the EU. Additional national legislation may be implemented in EU member countries, but it has been the goal of the Finnish government to lessen strict norms that may inhibit new players from entering the market.
- Open data requirements make Finland a forerunner in future developmentoriented transportation legislation. On a more general note it can be said that Finland is a forerunner in utilization of digital services.
- There is an atmosphere of trust between new companies, institutions and the
 public that is helpful when bringing new innovations to the public. There are
 also highly educated talents available to companies, and the public is highly
 connected and attuned to using digital services.

Local **smartups** testify that the Finnish support system is generally very well developed. Some experience also that events such as **Slush**, or the hub **Startup Sauna** contributes to the general knowledge about startups and strengthens the position for startups in relation to larger corporations. However, there are challenges when it comes to bureaucracy in the business

environment. This, along with the variety of needs for contacts and partnerships for smartups increases the demand for knowledge about available networks and the opportunities at hand, which can otherwise be hard to navigate. This is a perception that is also present among local experts, although some also stress that much can be achieved by smartups themselves by taking a proactive approach.

GERMANY

German industries as well as the support system is undergoing change as the business environment is developing. German organizations are currently supporting new technologies in consumer cleantech-related fields such as mobility. One example is through the development of innovation platforms, which are sometimes affiliated with large corporations. Local experts describe these efforts as strategies to allow for organizations to develop new ideas while supporting the general development of the ecosystem. Collaboration between startups or entrepreneurs and larger com-

"20 years ago, a startup would not tackle the big players directly. Due to the speed of business and solution development nowadays, this is now possible."

German intermediary, Interview 2019.

panies is described as important to strengthen the ecosystem and find solutions to meet the needs of a developing business environment.

German experts identify the need for further actions to be taken to support the development of new solutions in consumer cleantech. Suggestions include potential benefits in thoroughly exploring technical challenges, matters of infrastructure, safety and more. Correspondingly, it is noted by experts that market and opportunities for cleantech is growing continuously – and as such is also that of incubators, accelerators and other interest groups.

A highly important aspect to take into consideration for the consumer cleantech ecosystem is suggested to be long-term development of trust through continuous interaction, as well as access to corporate partnerships and well-developed networks. One of the experts describes consumer cleantech as a potentially very important field for the future. At the same time, it is stressed that creating a business in the tension field of profitability and sustainability can be a huge challenge. Indeed, several of the local **smartups** note that legislation is one of the areas where they most commonly need support, along with creating partnerships and expanding their network. Smartups also testify that the local competition is very strong. The topic of trust creation is also important in relation to consumers. For example, data security is an important topic in Germany – as is climate change and the need for sustainable solutions. Consumers enjoy fun, convenient and secure solutions but can be skeptical for reasons of privacy or incompatibility between devices. Also, the general knowledge on smart solutions is still abstract to your average consumer.

GENERAL CHALLENGES AND OPPORTUNITIES IN GERMANY INCLUDE:

- Large private companies hold strong positions as new innovations and business models in traditional industries are developed. Now, startups are challenging large and established players.
- Already existing long-term relations between actors on the market can pose a challenge to startups. At the same time, it is becoming increasingly popular for large companies to work together with entrepreneurs and innovators to solve problems and develop their offers.
- Competition and expectations are high, which means that there is a high benchmark for market entry products and services. This makes for example customer knowledge and the ability of companies to communicate added value very important
- Local experts predict an increasing flow of smart solutions, however consumer cleantech is not an established term.
- New innovations and business models for sustainability are actively supported by the German government and public media.

Consumer cleantech stakeholders in Germany include:

Plug and Play	Plug and Play is an innovation platform with many partners in fields such as mobility, smart cities, new materials, energy, and sustainability. They also offer acceleration programs in these fields. Plug and Play offers startups access to events, mentorship, opportunities to go international, an in-house team of VCs
Factory Berlin	and more. A community for innovation and collaboration, which offers matchmaking, a creator's lab, roundtables and has a list of partners linked to the organization.
Social Impact	Coworking, coaching, workshops net- working and events for social impact companies.
InQventures	An incubator focusing for example on IoT and mobility ideas/startups at an early stage of development. It is linked to the Adesso Group, and provides access to the market, funding and know-how.
Cleantech Initative Ostdeutsch- land	Cleantech Initiative Ostdeutschland provides information services, workshops, projects within the different fields of cleantech. They are active in innovation, investments, and internationalization.
EXIST	EXIST is a program for university-based startups, and it is hosted by the German Federal Ministry for Economic Affairs and

Bundesverband Deutsche Startups e.V.

Energy. The program has three schemes, whereof one example is the business startup-grant which supports new startup projects.

A community for startups, corporations, and investors in fields such as food/food tech, energy and sharing economy.

LATVIA

In Latvia, business support is available both around smaller towns as well as in Riga. Local **smartups** make use of international opportunities such as the Climate Launchpad, but are also interested in the business incubators of universities. The smartups primarily stress the need for support in finding grants, funding and getting in touch with the right investors. Well-developed networks are also valuable – but most Latvian smartups claim to have developed much of their networks through their own efforts.

Local smartups testify that programs in Latvia do not always match their needs, but smartups find stakeholders in support ecosystem to be generally helpful. In addition, Latvian smartups and experts testify that the consumer cleantech scene is not big in Latvia. However, there are expectations for the ecosystem and startup scene to develop. With the overall development of new smartups, interest from investors and governments is likely to grow. Local smartups are hoping for more clear strategies linked to for example smart mobility, and they wish to be a part of discussions for the future development of the field.

In Latvia, foreign founders can get a **Startup Visa**, which serves as a permit to live and work in Latvia for non-EU citizens. Another support measure is that Latvian regulation gives tax reductions for startup employees. The Latvian support system is developing and local **smartups** experience that the ease of doing business as developing with easier access to funding as well as opportunities for internationalization.

On the topic of internationalization, local experts claim to be rather well-connected outside their own country. However, it is described as important that smartups can find relevant support locally as well. Climate KICs presence on the market is an example that this support is indeed possible to access. Meanwhile, experts stress that looking to the practices and systems of other countries is relevant for enhancing the local opportunities for companies.

The Investment and Development Agency of Latvia (LIAA) is one of the most prominent Latvian stakeholders for business support. The LIAA offers financial support to startups that want to visit international gatherings such as investor meetings or conferences, as well as trade missions. The LIAA's Innovation Voucher program is another example, supporting the development of prototypes and design, and certification/patent rights. They are also the host of industry specific programs, such as one for the field of deep tech. Additional stakeholders include:

Latvian Business Angel Network	An association of Latvian investors that or-
	ganizes investment sessions and consulta-
	tions/mentoring for startups.
Altum	A state-owned development finance insti-
	tution that supports business ideas and

Riga Technical University – Design **Factory**

startups with loans, programs for VC or social entrepreneurship and export support. The Design Factory offers a prototyping lab, port. The Design Factory further hosts the EIT Climate-KIC, theLAB which is a workshop to test ideas using tech, and a pre-incubator called ideaLab.

Buildit accelerator

startups, where four topics are covered in four intense weeks of work over four

Commercialization Reactor

mercialization. They offer support with set-ting up at an early stage (events, pre-accel-eration), acceleration of the company (up to 50k Euro investment, coworking and dethe acceleration program and that are science/engineering based).

The City Development Department

ent programs for entrepreneurs.

- 1. Take-off (Atspēriens)
- velopment, legal support and more.
 2. Riga Courage Grant (Rīgas drosmes
- For developing the product, marketing, selling strategy at early stage
- -Funding of up to 100 % of the costs up to
- 3. Riga-Cambridge venture camp
- The camp takes place in Riga/ Cambridge and is for individuals/teas with a business

FURTHER CHALLENGES AND OPPORTUNITIES IN LATVIA INCLUDE:

- Latvia is strong in and exploring deep tech, smart mobility and 5G technologies
- Projects such as "Smart City Playground" which involves academia, industry, the government, and others supports the development of the general ecosystem and thus new solutions. Efforts include those of improving regulation, political aspects and creating test sites.
- Big companies from cross-cutting sectors such as Latvian Mobile Telephone show interest in some potential consumer cleantech fields due to often incorporated aspects of digitization. However, there are generally not many companies that work in fields such as smart mobility.
- As mentioned for most BSR countries, new solutions in a field come first, and laws are updated second. Tax regulation for example does not favor sharing economy solutions, and much of the relevant infrastructure for consumer cleantech solutions is missing.
- Deep tech is highly prioritized in Latvia, and the *Investment and Development Agency of Latvia* offers programs specifically for this, scout new solutions and companies can be granted funding for commercialization by the government. Meanwhile, local smartups describe that government initiatives relating for example to smart mobility could be more clearly described and communicated, although things are developing for the better.

POLAND

Polish experts testify that local players, both public and private, are increasingly intrigued by new opportunities. They look to other markets and new methods to find inspiration for developing local organizations and strategies. While there are more means for development in the larger cities, some areas in Poland still rely heavily on EU funds and may be less able to take initiative for transformation.

On a national level, Poland has set goals to reduce emissions and make use of the development of electric vehicles and solutions in the mobility field. The process of making necessary adjustments to support this development legally is in progress, but still challenges remain in interpretations and practice. There may also still be challenges that relate to infrastructure or high costs of developing new solutions. Local experts describe that for smartups, this means that they face these obstacles while simultaneously facing the challenge of being a small player. Cooperation with larger corporations can thus be of help, and there are several Polish stakeholders working to pair startups with corporations. Smartups confirm that both the lacking infrastructure as well as challenging regulations and procedures for business development is currently hindering their establishment and growth, and that partnerships are indeed helpful for managing this, and also to access general business support, investments, and to develop networks.

Trends such as the public's awareness on environmental topics, public health issues relating to pollution, as well as financial subsidies for installing solar panels have an impact on the Polish market and local effort to support sustainable consumption. Meanwhile, the country relies heavily on the coal industry and the key players in this field are influential. Also, the general lack of knowledge of digital skills in the population is a barrier to digital solutions. At the same

time, trends indicate that people are increasingly looking to add smart solutions to their homes and daily lives.

FURTHER GENERAL CHALLENGES AND OPPORTUNITIES IN POLAND INCLUDE:

- Larger corporations are driven by public and private demand to invest in environmentally friendly alternatives, such as environmentally certified buildings.
 This spurs the trends towards sustainability, thus changing the business environment for smartups.
- The ecosystem in Poland is one of the most startup-friendly, even by global measures.
- Polish smartups are generally interested in support with legal and financial aspects of running their business. For acceleration of their company, access to decision-makers in large companies is especially valuable.
- The number of Polish graduates from fields of science, technology, engineering and mathematics exceeds the EU average.
- Many players in the Polish business support system are well connected to big corporations.

Relevant stakeholders on the Polish market include for example:

Startup Spark	Startup Spark hosts an acceleration program in affiliation with corporations like Ericsson and PwC. The program supports entrepreneurs with funding, mentorship, and support from the corporations that are interested to support implementation/development of a product/service.
South Poland Cleantech Cluster	The Cluster supports the development of cleantech in southern Poland through participation in policy development, promotion of sustainable alternatives and it supports innovation and cooperation for businesses. The organization facilitates test sites with universities and public/private organizations, supports easier access to venture capital and matchmaking activities.
Polish Agency for Enterprise Devel-	The Agency supports access to funding

Polish Agency for Enterprise Development (PARP)

The Agency supports access to funding for startups which can grant them access to mentoring, training courses, analysis of contacts and company valuation, research infrastructure and more.

Companies can be funded with up to 250 000 zloty, covering up to 100% of the eligible costs of an accelerator. Further initiatives supported by PARP is for example the Poland Prize, which is a programme that supports foreign startups looking to enter the Polish market. Benefits include grants, legal and mentoring

Polish Development Fund Group (PFR)

services, soft landing et cetera.

There are also initiatives for Polish companies to go international, and much more.

PFR Ventures, also part of the PFR, together with the National Centre for Research and Development provides financial support for the creation of VCs. The PFR also supports internationalization, and mentorship and innovation youchers.

Space3ac

A program for solutions that relate to space, which may include for example smart city solutions. Through their program, they connect startups and corporations

Foodtech.acc

An accelerator focusing on solutions linked to food, packaging, alternative proteins etc. Through the program, participant s access mentors/potential clients, trainings, funding and networks.

RUSSIA

In Russia, government subsidies are an important part of the support system for startups and SMEs, and financing is also one of the areas described as one of those with the most importance and often what local smartups look for. Locally, there are examples of initiatives to meet these expectations for sustainability companies, such as the international project "Green Energy Investment Platform" of which the Cleantech Cluster in St Petersburg is one partner. In general, access to financing is identified by local experts as one of the main challenges in the ecosystem. Despite this, experts also state that there are local funding opportunities specifically for cleantech.

Networking and support in creating partnerships is identified as key by both smartups and experts to support new market entries for smartups. Additionally, a stakeholder's access to investors and the right consumer base would attract the attention of smartups. For the general business environment, high value is also attributed to peer-to-peer learning, as is the importance of trust-creation and mutual understanding between stakeholders.

The general opinion among Russian experts is that the development for e.g. smart mobility is going in the direction of increased funding and innovation efforts, though some obstacles remain. People are increasingly aware of negative impact of transportation and mobility, which positively impacts regulations and sparks city and government initiatives to support smart mobility. At the same time, getting projects approved is very demanding, infrastructure can be lacking, and the general approach of decision makers tends to be reactive rather than proactive. Meanwhile, there are interests in maintaining financial development, creating jobs, for Russia to be a technical frontrunner, and for strengthening national security – aspirations which all have the potential to spur investments.

FURTHER GENERAL CHALLENGES AND OPPORTUNITIES IN RUSSIA INCLUDE:

- Large domestic companies tend to set industry standards in different segments.
- A drive to decrease operational costs in fields such as logistics, creating new
 jobs, benchmarking locally and internationally, and ensuring the health and
 safety of inhabitants are a few of several aspects which spur the development
 of new policies and strategies towards cleantech and other fields of sustainability.
- Getting access to funding is described as a labor-intensive process for smartups.
- Investment trends are especially positive in some fields, such as for electric vehicles.
- Entrepreneurial events are popular among Russian smartups.
- Local smartups state that it is often of relevance to look into legal topics and regulations when doing business in Russia, and many of them further identify room for improvement in various regulative areas, while others state they have had no or little need for legal support.
- Initiation and participation in local projects by larger organizations have proven to have the capacity to bring great results for smartups. When relevant, smartups and their solutions are incorporated in projects which has spurred development and implementation of clean technologies.
- St Petersburg universities such as ITMO, St Petersburg university, St. Petersburg Polytechnic University, St. Petersburg University of Economics, Higher School of Economics all have business incubators.

Saint-Petersburg Cleantech Cluster for Urban Environment The St Petersburg Cleantech Cluster for urban environment is one prominent initiative for cleantech in Russia. The Cluster organizes and implements programs and projects (cluster projects) based on uniting information, financial, technological and other resources of the members, as well as raising external funding.

Technopark of Saint Petersburg

Business development support on different stages; start, scale and growth. The park focuses especially on small and medium-sized enterprises, cluster projects and hightech industry companies. Services include tailoring and development of technological infrastructure and business services for companies, both independently and within the framework of cluster projects. The Technopark hosts several subdivisions. These are: Ingria Business Incubator, Prototype Development Centre, St. Petersburg Cluster Development Centre and the Regional Engineering Centers for radio-electronics, synthesis of pharmaceutical ingredients, information security and IT technologies.

The St. Petersburg Cluster Development Center The Development Center is a part of the St Petersburg Technopark. It aims to create conditions for effective cooperation of enterprises of the industrial sector,

	coordination of activity of enterprises with institutions of science, government authorities, investors and research centers. For participants of the cluster, the following is offered: • attracting investment • consultancy services • feasibility studies and business plans • marketing research, media information campaigns • participation in exhibitions • educational programmes (training, internships, seminars) • conferences, round tables, webinars
Business incubator "Ingria"	Ingria is also a part of the St Petersburg Technopark, the incubator supports small, innovative companies in areas such as investment, technology, consulting and education and provides infrastructure and business services. Ingria is further the host of many events and collaborates with a variety of stakeholders in the ecosystem.
Fund of development of the industry of Saint Pe- tersburg	Through the fund, it is possible to get co-financing of projects specifically aimed towards the development of new high-tech products
Center of import substitu- tion and localization of Saint-Petersburg	The center focuses on attracting investment and stimulating localization of new industries, development of innovations and modernization of production.
Skolokovo	A regional operator of a fund favorable conditions for in- novation processes where scientists, designers, engineers and businessmen work with the introduction of new tech- nologies together with participants of educational pro- jects.
St. Petersburg Founda- tion for SME Develop- ment	A non-governmental business support institution and business consultancy firm that specializes in project management, training programmes, marketing services, business planning and partner search.
Russian Venture Com- pany	A state fund supporting the development of the venture capital market. The fund supports products in technology that are of special importance in the global market. They are tied also to GenerationS, which is the organization of several acceleration programs

SWEDEN

Swedish smartups describe the Swedish innovation ecosystem as solid, where asking around on specific topics can be fruitful. Sweden is also a country with many various business support

organizations (the industry organization SISP lists many of them on their website). Some organizations relevant to local smartups are as mentioned:

Swedish Energy Agency	The Swedish Energy Agency supports companies with capital and networks in Sweden, including access to customers, partners, and investors. The Agency supports innovations in the energy field both in Sweden and internationally. They collaborate with expert organizations to be able to connect innovators to actors in the ecosystem according to
ALMI	their needs to support market entry, for example. In addition, they work with events and projects. A government owned and publicly funded organization with 16 regional subsidiaries all over Sweden,
	which support companies of various sizes with funding and other matters of business development. This is a support system strengthening innovation in Sweden by supporting understanding of for instance intangible assets, competition etc.
Business Sweden	Business Sweden supports both the diffusion and import of innovations to and from Sweden. They offer support in reviewing new market potential and opportunities. They have offices all over the world.
Vinnova	Vinnova, or Sweden's Innovation Agency, is a public organization financed by the government. It supports both private and public organizations as well as academia. Vinnova is a financier of R&D of innovation and an expert agency within the field of innovation in relation to the government. Sweden's Innovation Agency fund activities relating to mobility, ICT and innovation management, manufacturing and materials, smart cities etc. They are a project initiator and support organization working with Agenda 2030 as baseline for shaping their efforts.
GU Ventures	An incubator linked to the University of Gothenburg, supporting solutions with specific university connections. The incubator provides support in business development, fund raising & financing in early stages, recruiting & HR, accounting & corporate law etc.
Chalmers University of Technology	A university mentioned in interviews with smartups for its technical infrastructure and being a great source for recruitment.
Chalmers Ventures	Offers pre-acceleration, acceleration and post-acceleration support, as well as early-stage support StartUp Camp (workshops, pitch training and individual coaching) and TechTransfer (Finance of pa-
#greenUps	tent applications, Expert business advice, Active partner support in commercialization). A cluster of cleantech and greentech startups and SME's in western Sweden, offering for example events focusing on finding new customers and investors. The network is financed by the Swedish Energy Agency and hosted by three innovation actors

in Gothenburg; Johanneberg Science Park, GU Ven-Connect Feedback on investment proposals, connecting to potential investment opportunities and finding the right competencies. A collaboration platform covering many aspects **Drive Sweden** that relate to the future of mobility. Drive Sweden has partners within cross-cutting industries and are additionally the hosts of many mobility projects and events. The platform is hosted by Lindhomen Science Park, which is a hub especially for the future of mobility. Offers networks in a wide range of areas such as Stockholm Chamber marketing, sales and modern leadership. **Commerce**

The Swedish ecosystem is described by one expert as setting good prerequisites for experimentation. What is more, Sweden stands out when it comes to international rankings in fields such as digitization and sustainability. Local **smartups** testify that they experience demand for their products and services, and that consumers are interested in sustainable alternatives. Nevertheless, there can be a barrier to new things and people may still react negatively to changes in the city landscape, for example. Joining market forces is mentioned by several smartups as some-

thing that could support the introduction and a wider spread of new solutions and consumer behaviors. Large local corporations are correspondingly looking to cooperate with startups and SMEs, as collaborating with smaller and innovative companies allows for renewal of their own offers.

"From our experience, overall demand for green mobility in Sweden is extremely large. But there is also a fear of new things and I think that is the greatest barrier."

- Swedish smartup, interview 2019

FURTHER CHALLENGES AND OPPORTUNITIES IN SWEDEN INCLUDE:

- Large companies are active in exploring new opportunities linked to their already existing field of work, and many also show interest in the work of startups and entrepreneurs.
- Uncertainty regarding rapid development in the environment is spurring work with risk management and cross-cutting factors.
- Investments and business initiatives focus largely on the three largest cities in Sweden.
- Many consumers attribute importance to the sharing economy on a general level. While some barriers do remain, partially due to lack of experiencing sharing economy, trends may turn quickly. Consumers also tend to be prone to look for possibilities to make changes in their everyday lives. From an international perspective, levels of trust are generally high.
- Regulations between cities tend to be more coherent in various Swedish regions than in some other countries that show greater variations.

1.2 Best case BSR scenarios from the perspective of smartups

Smartups from Russia, Sweden, Finland, Estonia, Latvia, Poland and Germany have all indicated several aspects that would support the expansion of their businesses, especially outside their country of origin. For many of the companies, characteristics of a market that would influence a decision on pursuing a new market entry. Examples of such aspects includes the level of sustainability awareness in the business environment, on the market in general and among local consumers. Several smartups correspondingly noted that this is a challenge on their local markets as well, and that this can be especially challenging when working with consumer cleantech solutions.

The general readiness in the ecosystem to support and address new business fields as they emerge is thus of importance to the development of consumer cleantech. In addition, smartups

also describe that there is room for development also when it comes to increasing coherence and collaboration across borders. Correspondingly, market readiness and market fit is a field where smartups also look to gain more understanding themselves and a topic for business support and sparring with mentors.

In general, the smartups describe that they would find support aiming to find and collect data about markets or customers based on their solution especially valuable. This, along with variations in priorities, indicated needs for targeted business support rather than general programs based on solution type, such as sharing or platform solutions. Some smartups indicate an interest, however, for a *community* based on solution type.

A common denominator for many of the companies is that they are looking to create strategic partnerships with others. This to be able to join forces in new fields, which could help them gain visibility, legitimacy, and credibility with their innovative solution - especially on a foreign market. A general interest to expand one's network is also common for many of the BSR smartups, and they tend to look for mentors with access to consumer cleantech stakeholders and practical experience from working with smartups. The smartups also look for the support system to be a door opener to new contacts, as opposed to being pointed in the right direction.

"Network is the most important thing for us to be supported in. Ultimately, we must be the experts in our field. And we can find the necessary knowledge elsewhere." – Swedish smartup, interview 2019

"[I'd expect from an accelerator to] give access to network but also enable or facilitate a strong credibility for our business. Also give us market insights that could be difficult to get without knowing the culture or speaking the language.

– Swedish smartup, interview 2019

It can be noted that several companies indicate that they hold 100 % of the market shares in their country, or that they find the estimation irrelevant or hard to make because their product or service is very different from other solutions on the market. Strategic alliances are still highly interesting to these smartups, but the prospect partners can come from a variety of sectors and be of various sorts. This includes corporations, other smartups, business networks, scientists, industry decision makers, educators, and universities. Stakeholders of interests are sometimes relevant to consumer cleantech in a broader sense. The stakeholders are often active in more narrow fields, such as smart mobility, smart housing or smart consumption, down to waste management, circular solutions, kitchen appliances or electromobility. By meeting with players with similar prerequisites and interests, new collaborations can be created, and problems and solutions discussed.

The sustainability focus of companies will also have some of them looking for opportunities to spread solutions by exporting *concepts* and *business models* rather than products, as it avoids shipping and promotes local production. The often small markets around the Baltics is one aspect that still motivates many companies to enter new markets in some way.

As for most startups and SMEs, financing can be a challenge and the smartups pose no exception. Initial support with — and knowledge about - costs that relate to marketing, increasing insight on legal issues are mentioned as examples of relevant support for new market entries, as well as a need for (paid) proof-of-concept activities and piloting. Naturally, there is also a desire to be supported in finding the right investors, matchmaking, get EU-funding, start fundraising and relevant events.

"A thought through sustainability concept of globalization processes [would motivate me to look for support outside my home country]."

- German smartup, interview 2019

1.3 European and BSR Programs and Networks

This section covers a mapping of relevant networks in the EU and BSR, and comments on BSR stakeholders' level of skills in working internationally in relation to these networks.

The European Innovation Partnership on Smart Cities and Communities (EIP-SCC)

A so-called undertaking which is supported by the European Commission bringing together cities, industries, SMEs, investors, researchers, and other smart city actors. The platform opens to finding information, projects, potential partners and more within the smart city theme.

Climate-KIC (Knowledge and Innovation Community)

Europe's largest green tech accelerator for early stage startups. CKIC mentioned by several smartups as being a great asset through networks, business development, for accessing funding, trainings and marketing purposes. Out of the SMA partner countries, Sweden, Finland, Germany and Poland are Climate-KIC countries, Estonia and Latvia are Regional Innovation Scheme countries. Russia is not covered.

Green Net Finland

A Finnish network with over 40 local members in the cleantech field, that also supports international companies that are looking for information about Finland and can support the creation of partnerships.

Baltic Cleantech Alliance

Co-founded by Green Net Finland, geographical focus area is Finland and Latvia and the Alliance supports Central Baltic SMEs in reaching critical mass, they support knowledge sharing and networking for stakeholders interested in sustainable consumption and production, and much more.

The Cleantech Cluster of St. Petersburg

A Russian cleantech cluster with members and links to Finland and Norway, for example. Green Net Finland is one example of the international members that is also has representation in the board. The cluster takes part in projects and programs within a wide range of sustainability areas, such as smart cities and sustainable energy.

South Baltic Cleantech Network

The network consists of SMEs and cooperation partners in fields such as green mobility, was, housebuilding and renewables. They support the stakeholders with knowledge, matchmaking,

cooperation etc., and have representatives in Lithuania, Sweden, Finland and Germany.

UITP (Union Internationale des Transports Publics)

An association focusing on sustainable urban mobility covering a vast number of countries, who work with advocacy, network and more.

EIT Food

EIT Food is a pan-European organization focusing on food innovation, focusing on engaging the public, supporting entrepreneurs and more. The association has activities in all SmartUp Accelerator partner countries except Russia.

EIT InnoEnergy

EIT InnoEnergy supports innovators that want to turn an idea into a ready product or service, and startups with business support needs or that wish to scale internationally.

Startup Europe Club

A European Commission initiative for a variety of stakeholders interested in the European startup scene. The community is a forum for startups to find funding opportunities or events such as The Startup Europe Summit. In the Baltics, Startup Europe Club has ambassadors in Estonia, Germany, Finland and Poland (countries represented in Smartup Accelerator), as well as Norway and Denmark. **Startup Lighthouse** is another example of a Startup Europe initiative that supports startups in finding new talents, investors or gathering leads abroad. Example of interesting fields include smart cities and mobility.

Accelerace

The #1 accelerator in Demark and the Nordics, focusing on for example foodtech, cleantech and IOT and attributing importance to the sustainable development goals. At the core is an experienced team of entrepreneurs, VCs and corporate innovators. The program has several corporate partners, does not take equity and mainly supports late stage startups.

IKEA & Rainmaking / Ikea Bootcamp

A pilot programme in collaboration between IKEA and Rainmaking, that support startups with solutions that are sustainable, affordable and accessible. IKEA does not take equity but may want to become a customer or invest in the companies.

1.3.1. WORKING INTERNATIONALLY AROUND THE BALTICS

The international programs and networks listed under 'European and BSR Programs and Networks' are mostly not clearly linked to the organizations that have been mentioned by smartups as especially relevant to consumer cleantech on their markets. Meanwhile, it should be noted that most of the smartups were at the point of conducting the interviews not at a stage where they had already started pursuing a new market entry.

Several of the smartups interviewed through SmartUp Accelerator have however taken part in Climate KIC with good results. Climate KIC is the most frequently mentioned example of a community and program that successfully supports smartups around the Baltics. Most other mentioned initiatives by support organizations to support internationalization in each of the seven partner countries target mainly *local* SMEs. Existing support organizations that specialize in internationalization further tend to target a broader variety of companies (that is, they do not

specifically target consumer cleantech companies, mobility companies, cleantech companies, smart city companies etc.) on their journey to make new market entries.

Testimonials from the Smartup Accelerator partner countries indicate that there are both strengths and weaknesses in working internationally around the Baltics. The Estonian Startup Visa and e-Residency, and support measures such as that for soft landing provided by Finnish Newco can offer opportunities beyond borders. Stakeholders in Latvia and Poland for example also testify to an increased interest of what is done in the business environment abroad, which can inspire to benchmark and act locally. Business Sweden with its local and international offices both companies that want to export and those looking to enter Sweden.

Naturally, for the relatively new field of consumer cleantech, coherent initiatives have thus far been lacking for the Baltic Sea region. There are initiatives for the development of smart cities and cleantech on an international level, but generally the ways in which the countries work to support consumer cleantech or the internationalization of local smartups, with or without the support of European networks, is not comprehensive.

1.4 Enhancing the innovation capacity towards consumer cleantech

The previous sections indicated that Baltic Sea region collaboration on consumer cleantech could bridge a gap in the business ecosystem. A platform for the relevant stakeholders is one of the main outcomes of the Smartup Accelerator project, and the procedures and strategies of the platform should be shaped best on best practices, processes and tools identified as useful to smartups throughout the project.

The needs and desires of BSR smartups have initially been described in section 1.2. In sum, smartups interviewed in the project have described that they look for support in accessing collected knowledge on how to enter a specific market, ranging from more general information on trends, consumer behavior and more to legal specifics or insight on how to get product or service certification, as well as knowledge on the cost of expansion. They also point towards a desire for more coherence across borders, and it is suggested that collaboration can be an important tool for this

As for methods to be used with smartups, they look for knowledge and mentorship when it comes to costs linked with expansion, and access to the right investors, matchmaking, insight on how to get EU-funding, start fundraising and identifying relevant events. Most companies are interested in establishing strategic partnerships and to jointly drive the change in societies to make use of new solutions and products. They look for this knowledge and network to come especially from mentors with experience in the field.

There are varieties in the priorities of companies and their needs for business support, which is why business support for the companies should be shaped based on the target market and the solution at hand. Key in the process towards making the BSR a front-runner in the consumer cleantech field will be shaping tools and activities in the project according to these needs, raising general awareness, and continuous and review of the developed procedures, as well as adapting this to according to the characteristics of the seven BSR project partner countries.

2. Stimulation action plan

The SmartUp Accelerator project has set out to create a continuous model for a BSR wide consumer cleantech innovation ecosystem. The project was further set up to support the Baltic Sea Region in becoming and staying a front-runner in sustainable innovation and entrepreneurship through improvements in its innovation ecosystem. Working together to resolve such complex problems would require commitment, elements of interaction and trust building processes over time. A stimulation plan thus framed the actions - mainly events - to be taken during the project to build the necessary relations for supporting the project's overarching goals. SmartUp Accelerator stimulates its' potential partners with the sense of community and trust building on the individual level and ecosystem management and leadership on organizational level.

2.1. Stimulation actions, objectives and target groups

National seminars

WP	2 (A 2.2)
Responsible Partners	Activity Leader: Innovatum AB WP lead: Demos Helsinki WP co-lead: Innovatum AB
Target Groups	Intermediaries, governmental bodies and agencies and others
Time of imple- mentation:	Period 3 to 6
Description:	National seminars will be arranged three times per participating country to attract and stimulate innovation ecosystem actors such as intermediaries, governmental bodies, agencies, and others towards consumer cleantech prospects and solutions. The national seminars should encourage and prepare the participants mindsets to the emerging transnational cooperation. It is anticipated that enterprises will get non-financial support in relation to the national seminars.

Training events

WP	4 (A 4.1)
Responsible Partner(s)	Activity Leader: Demos Helsinki WP lead: Demos Helsinki WP co-lead: European Institute for Innovation
Target Group	Intermediaries

Time of Implementation:

Period 2 to 6

Description:

As a result of this activity, a trained BSR consumer cleantech network of skillful intermediaries can *understand* different structures in innovation processes and *cooperate* in different multicultural environments for support activities for smartups. It understands that transnational cooperation structures are integrated and that interdependent networks, where decisions on centralization or decentralization of tasks are based on specialized competencies of the network participants. The participants will be the initial framework for the model, which results to a BSR wide network of high level trained and connected intermediaries.

The intermediaries are all individually committed and able to marshal consumer clean-tech networks, orchestrate their global commercial success and continuous network development. They will gather a better understanding of how to pool scattered resources better to address common problems more efficiently. The material and training programmes will be tailored according to the needs of the target groups. Trainers and facilitators will be best of their field with a multitude of relevant experience and proof of orchestrating transnational innovation processes successfully.

Matchmaking events

WP	3 (A 3.2)
Responsible Partner(s)	Activity Leader: Alexanderson institute WP lead: Johanneberg Science Park WP co-lead: Tallinn Science Park Tehnopol
Target Group(s)	The events will target intermediaries mapped and communicated with through activity A2.1, A3.1 and A3.4
Time of Imple- mentation:	Period 2, Period 5 or 6
Description:	14 matchmaking and connection events will be arranged, two in each participating country. Matchmaking will be focused on connecting intermediaries and potential startups with specific actions to elaborate on cross-border cooperation, based on the skills, experiences and focus areas of intermediaries. This shall enhance the BSR SmartUp Accelerator establishment. Finally, the events will also be an opportunity for discussions and sharing of knowledge.
	Every event is tailored to each country's situation, opportunities and needs. They will be arranged back to back with other events if possible, to guarantee maximal interest and effectiveness.
	- The main objective of the first round of events is to <i>gain interest towards consumer cleantech and building network and relations</i> . Outputs, results and findings from WP2 and WP3.1 will be presented.
	- The main objective of the second round of events is to facilitate interaction between

potential smartups and intermediaries as well as gain interest of the training materials, market studies, pilot smartups cases and the launch of the model. (5.3)

Further means of stimulating SmartUp Accelerator target groups can be identified through additional activities that will take place during the project's lifetime. These are less clear-cut as stimulation actions than the aforementioned events but nonetheless include:

Interviews conducted through activities relating to A2.1, A3.1, A4.3. will support the establishment of contact with target groups, offering them also some insight into the consumer cleantech field. This, in turn, provides an opportunity for future relations and stimulation through newsletters, reports, events and more. The progress and development of the project will be described, along with challenges and opportunities as described by interviewees.

Smartup interactions further leads to stimulation of the target groups, whereof intermediaries working with business support in various ways will be prioritized. Intermediaries may be stimulated in conjunction to the spreading of information through national competitions, mentor participation during international bootcamps or testbed facilitation (3.3, 3.4, 3.5)

Partners responsible for stimulation actions through their roles as WP-leaders or activity leaders will have the responsibility of management, gathering results and/or compiling reports of stimulation actions. As such, any patterns, new potential or strategic modifications in working with the consumer cleantech ecosystem should be identified primarily by these partners.

The progress of the aforementioned stimulation activities will be continuously discussed during partner meetings and among members of the steering committee, which consists of one representative from each partner organization. Stimulation actions may also come to be covered during advisory board meetings. The Steering Committee is to have 3 meetings with the advisory board, which gathers representatives relevant to consumer cleantech and our transnational and cross-sector objectives.

3. Communication and stimulation action results

3.1 Stimulation action results

NATIONAL SEMINARS

Summarv

The first national seminars in each country were held between November 11th, 2018 - April 25th, 2019. The second national seminars in each country have been held between April 10th and

December 5th, 2019. The final round of national seminars was merged into a single event - a webinar spanning all seven countries and beyond on June 5th, 2020. Formats have varied and consisted of hosting events covering SmartUp Accelerator activities and topics exclusively, joining, or co-arranging events based on shared interests with other organizations or events or hosting a debate which was later summarized in a news article. In the second round of national seminars, there were more collaborative elements and arrangements than in the first year. The third and final event was arranged to take place online using Zoom and Facebook to broadcast online discussions. The events offered a variety of formats for spreading messages, such as stage time or hosting stands at external events enabling both broad communication and 1-on-1 discussions.

Highlights

Raising issues linked to consumer cleantech in the no. 1 business magazine in Poland ("Puls Biznesu") was a highlight supported by the Foundation for Technology Entrepreneurship (PL). Another example is that University of Latvia involved a Lithuanian expert to join one national seminar, which was especially positive given that the action included perspectives from a target area of the project where there were no project partners. A final example is that the Finnish seminar was arranged at a point in time when the testbed phase (A 3.5.) of the project was active, allowing for a German smartup company that was targeting the Finnish market to join the event and gain benefit from it.

Highlights in the second round of seminars included international speakers at events, such as Lawrence Leuschner with German TIER Mobility at the Finnish seminar. In Sweden, SmartUp Accelerator was selected to present the project during a national event for intermediaries. Here, the project posed as an example on how to support the development of smart cities from a transnational perspective, including views on cooperation methods. The project also gained visibility at large conferences in both Russia and Poland, and there was coverage from media during the Polish event.

The selected format for the third round of seminars deviated from the original plans to have one final seminar simultaneously in each of the seven partner countries. In the lights of the covid-19 pandemic in the spring of 2020, it was decided that the event should take place online instead and was thus held as a webinar. This allowed however for sticking with an original idea to synchronize the seven final events.

Many people from the Baltics and beyond tuned in to listen to the key-notes during the webinar. The event had three inspiring speakers: Francesca Grossi with *The Collaborating Centre on Sustainable Consumption and Production* (CSCP), Claudia Fusco, Head of Unit responsible for Environmental Knowledge, Eco-Innovation, Small and Medium-size Enterprises and Green Cities in the Directorate-General for the Environment of the *European Commission* and Tobias Degsell, thought leader and frequently hired speaker on the topics of collaboration.

Transnational value and possibilities

The transnational value of the national seminars came from presenting of the SmartUp Accelerator project, the values of collaboration it promotes and the concrete business and learning opportunities it brings. Transnational value also come from the inclusion of international experts and other stakeholders such as smartups, who can contribute both with concrete cases and suggestions for international collaboration as well as highlight a variety of perspectives on the importance and value of such activities. Having local smartups join and discuss their identified

hurdles and opportunities as was done during Swedish, German and Polish seminars was a clear example of the roles local actors can take in business support and innovation for smartups – and its importance.

Stressing the importance of international efforts for consumer cleantech could be achieved without the presence of foreign stakeholders at events as well. One main example is that the SmartUp Accelerator project was selected to represent an initiative to support the development of smart cities from a transnational perspective at an event in Sweden,

The international possibilities of the project have been communicated in all countries, and in some events more international initiatives were mentioned, which made SmartUp Accelerator part of a bigger picture. In Russia, one event was arranged as a part of a larger conference which gathered people from not only Russia but 7 other countries. Similarly, one German event had attending parties from another cross-border project.

The transnational value of the future Smartup Accelerator platform and collaborations was a focal point during the final awareness-raising event. This was to some extent due to it being shaped to suit stakeholders from all over the Baltics and beyond. In the selection of keynote speakers for the event, it was considered important that there should be speakers of different nationalities covering different perspectives on the selected event topics. It was also possible for viewers to leave comments or questions to the speakers.

Who benefited from this activity and how?

The national seminars have benefited intermediaries, private companies, startups/SMEs, authorities, NGOs and other stakeholders around the Baltic Sea region and beyond. The main benefit is an increased understanding of consumer cleantech, relevant ecosystem actors and the business potential for consumer cleantech around the BSR. The events have also posed an opportunity for participants to reflect on their own roles in the ecosystem. In some instances, smartups have shared their story during events, offering a good communication channel for them and an opportunity for the audience to hear about the needs of smartups directly or even initiate discussions with them.

The consortium members have also benefited from the national seminars, as it has been an opportunity to pick up on how messages have been perceived - especially if there have been elements of discussions and feedback during, before or after the events. It can also be stated that the project has been selected to join external events most likely due to its relevance, and as such there has been benefits to those arranging the external events where SmartUp Accelerator has joined.

Finally, the national seminars have been beneficial to BSR stakeholders that were considering joining the Smartup Accelerator network. It supported them in getting an overview of the relevance of consumer cleantech as a business and development opportunity for them, to learn about the needs and barriers in the field and the importance of collaboration for its successful development.

How the seminars have stimulated sense of community and trust building on the individual level and ecosystem management and leadership on organizational level

Opportunities for the audience to discuss the presented topics has given a forum for trust building through feedback and broadening of the presented views. Activities such as workshops additionally offered a chance to work together, and coffee breaks or similar have been an opportunity to network.

The ecosystem management includes the chosen strategies, participants and coordination. The seminars supported this development through the discussions held, as these gave insights that the consortium members carry with them through the project lifetime and shaping of the ecosystem. The understanding of the consumer cleantech field is continuously shaped as the consortium works with the topic and input from target groups is received. The leadership of the potential ecosystem is defined through the same mechanisms and may also come to change as the SmartUp Accelerator Model takes its form. By allowing for influence from stakeholders outside the consortium, new ideas were included which ultimately increased the relevance of the network and its functions, which may also be important for building trust.

Some events where the project has appeared took place where the attending parties were part of an already established association or cluster. This means that there is already some sense of community there, thus lowering barriers for creating trust and new collaboration. For example, it was experienced by the Russian partners that participants identified several areas relating to consumer cleantech where they could take joint action. This was the case in Latvia as well, even though participants did not have the common denominator of being part of the same network or similar. This proves that not only under circumstances where one is a part of an established group is it possible to feel a sense of community and identify common goals.

The 2020 webinar had one speaker that talked specifically about the critical points for successful collaborations and supported the participators with some specifics to avoid the most common pitfalls. Especially important to the success of collaboration were for example aspects such as trust and diversity. Also, messages about new opportunities and European strategies during this event could stimulate ideas on a management for the affected stakeholders.

Gathering people from all partner countries for one single event such as the webinar also stimulated a sense of community - it was a forum for all kinds of organizations to (e)meet within the framework of the SmartUp Accelerator project, no matter their geographical location. During all events, parties who are interested in the model are invited to stay in touch.

How did we attract and stimulate actors to enhance consumer cleantech prospects and solutions

In some sense, co-arranging events has meant ecosystem actors have been stimulated towards consumer cleantech. Ultimately, the cooperation actors have identified the relevance of their organization or work in relation to consumer cleantech and the project, and thus accepted ideas for hosting events together or allowing SmartUp Accelerator to be a part of their agenda. Making these arrangements is also highly effective in that the target audience of this organization has the potential to be very relevant for SmartUp Accelerator as well.

New connections have been established throughout the project when there has been interest in keeping in touch regarding the development of the SmartUp Accelerator Model. The new connections and identified fields for joint efforts among event participants also contributes to enhancing prospects locally and internationally. As mentioned, some seminars were attended by stakeholders who discussed potential joint efforts, or local or foreign smartups who were able to make business connections during the event. The events have also supported the SmartUp competitions by gathering new leads for potential startup projects to apply, or for smartup finalists to gather leads on their new market.

How have participants been encouraged to participate in the emerging transnational cooperation

Consumer cleantech has previously not been known as a concept to most actors in the SmartUp Accelerator target groups. However, the great mix of stakeholders gathered during the events show how multifaceted the field is. Correspondingly, this demonstrates a wide range of opportunities both for smartups and larger entities of various character, who may identify potential points of collaboration between themselves and others of different sizes or focal areas in the consumer cleantech sector. Parties interested in the SmartUp Accelerator model have consistently been encouraged to stay in touch and the consortium has also had them in mind for events or activities. The gathering of leads for the SmartUp Accelerator Model prospects has been continuous, and following the development on social media, the website or through personal contact was always encouraged. When found especially relevant, there has been followups by the partnership to potential members of the emerging network.

Methods and reflections on this do not widely differ over the rounds of seminars. Finding the right forum for the discussions has however proven to increase the chances meeting a higher number of relevant organizations. The webinar is one example of an event where the emerging transnational cooperation was the central theme.

Learnings for future events

During the planning, execution and follow-up, certain learnings for future events have been identified.

For Sweden, one very important challenge is the large spread of intermediaries all over the country. Parties that are active within the field of cleantech have shown interest in the event and concept as such, but the long distances make their attendance during physical events less likely. Joining the meeting of the industry association Swedish Incubators and Science Parks for the second round of seminars in Sweden allowed for reaching many more people from all over the country who were the exact target group. A challenge is on the other hand knowing exactly who from the organizations were at the SmartUp Accelerator session, aside from those with whom it was possible to speak to personally. With the goal to raise awareness about consumer cleantech in mind, this type of format does still serve its purpose. Generally, planning for events to take place through collaboration with other organizations has proven to be a good strategy to reach more stakeholders, and it allows for being linked to already established brands and related topics. To the new topic consumer cleantech, this has been an important way to reach target groups through otherwise challenging noise.

Additional examples of co-arrangements included the Congress of Urban Technology in Poland, and Last Mile in Finland. Naturally, the events have not focused solely on SmartUp Accelerator. On the other hand, joining suitable events has put consumer cleantech and the project in a context, showing that this cross-cutting field is not separated from existing industries but rather a mix of them and emerging technologies and mind-sets.

In Latvia, there were no co-arrangements made as no suitable events were identified. For their and other independently held seminars, some partners experienced the following challenges and needs:

- No-shows and intense programs
- Managing clashing with other events targeting similar topics and target groups.
- Finding a way to make use of other project activities and arranging them to support the activity goals in a mutual way

 Including workshops or other opportunities for the attendees to interact to support building personal connections and trust, as well as keeping the energy up.

The main downside of hosting a webinar is that it is not possible to speak face-to-face with participants. Meanwhile, it is possible to meet or reach out personally on other occasions. The webinar served as a good complement to the previous offline interactions with the target groups. An important aspect is however to draw learnings from general strategies for hosting good online events, for example how to include music to create the right atmosphere, elements of interaction, or to include buffer time to make sure there will be time for Q&As.

The upside of hosting the seminar online was that it widened the opportunities for whom it was possible to ask to join the event as a speaker. Having online speakers is something that has not been done aside from during the events that went online due to the Covid-19 pandemic in 2020. In the future, it may be possible to mix physical meetings with online speakers, or to find other fruitful combinations to support the most important values and goals of each event and the tools used. Through Zoom, the online seminar reached 91 external participants from 14 different countries (Czech Republic, Germany, Estonia, Finland, Great Britain, Italy, Korea, Kazakhstan, Latvia, Poland, Russia, Sweden, Turkey, US). A final learning for the webinar, was that additionally streaming the event on social media was a very good initiative. The idea was raised in discussions with the partnership, which also speaks to the benefit of arranging feedback actions prior to events. The webinar reached at least 300 people on Facebook in June 2020. By the end of August, the number had doubled, and the video on Facebook had reached almost 600 people. This amounts to around 700 views. The numbers are approximate.

TRAINING EVENTS

The following section has been selected from output 4.1, "Smartup Accelerator training proaramme."²

Overall, there was a lot of interest toward training events. The response towards the first round of trainings in each country was enthusiastic both by number of participants and the participation of those who attended the trainings.

There was particular interest towards the ecosystem aspect: many people were at the same time frustrated by a lack of connections to different intermediaries and excited about the prospect of connecting with and learning from other actors through the Smartup Accelerator project. The fact that the trainings featured an international speaker was purposeful in that regard because it helped create a sense of transnational connections and opportunity for international networking.

• The other aspect that sparked interest was the foresight and futures studies approach taken in the training events. People were familiar with megatrends and had used them in strategic planning, but the connection between foresight methods and cleantech business was both novel and useful for participants.

² Output 4.1 was written by Christopher Rowley with Demos Helsinki. The full version of the document can be found on the Smartup Accelerator website.

- The participants seemed to value the active side of the trainings, namely the group
 work exercise done during each of the training. Doing a horizon scanning exercise in
 groups gave participants an opportunity to discuss and work together, while applying
 the theories they had learned into a practical context.
- What the participants would have hoped more for was even more practical examples about how foresight and business development go together. Therefore, it was planned for including elements of hearing from practitioners in the second round of trainings.

Instead of organizing separate training events in each of the countries for the second round of events, a decision was made to hold an online international training event across the BSR due the covid-19 crisis. The event was held September 2, 2020 using the Zoom platform.

The event brought together over 50 representatives from business incubators, tech parks and science parks, investors, and support institutions working with cleantech topics from Estonia, Finland, Poland, Russia and Sweden. The event had over 80 registrants and also included people from Germany, Latvia and Kenya. For online events, the gap between registrants and actual attendees is expected to be greater than in real-life events.

The training session had three parts:

- 1. Two keynote speeches by Maija Itkonen, Head of Innovation at Gold&Green and Katariina Helaniemi works on Strategic Impact Research at Illusian Group and with extensive international experience with supporting impact driven startups. Itkonen reflected on her journey and the role of helpers from the founder's perspective. She shared key moments and experiences from the journey from founding to launch, especially the difficulties in getting funding for scaling production, which would have required a significant loan for a factory. Helaniemi on the other hand highlighted key learnings from her experience supporting impact driven startups. She shared three important points. First, she encouraged supporting organizations to identify and own their areas of strengths. Second, she highlighted that investors only fund things that they understand. Supporting organizations can play a role in educating investors around the sustainability topics and innovations that are sought to be funded. Third, Hielenimi emphasized that impact is not enough for startups; developing solid business models is what will make or break a startup. Supporting organizations should encourage and support impact driven startups to develop and solidify business models. The two presentations prompted a rich Q&A discussion with the participants afterwards.
- In addition to the presentations, participants participated in an international networking roulette, where they were randomly paired with other attendees to meet and greet, and share their insights from the session so far. This was repeated twice, so each participant could meet as many participants as possible.
- There was opportunity for smaller group discussions, which were grouped according
 to location to enable more focused and locally relevant discussions for participants.
 The breakout discussions were facilitated and focused on questions related to sharing

learnings and experiences, learning about support tools, future cooperation possibilities as well as what actions are needed to propel the consumer cleantech in the country. The learnings from the event varied significantly in local groups. For example, the Finland group highlighted that researchers and startups should be brought together in more systemic ways, and that the structural racism and discrimination that is present is something to be addressed head on. In Estonia, issues around the nature of current environmental regulation was highlighted as a major hindrance. In Poland, the issue of supporting startups beyond funding through mentorship and networking was raised. Overall, in the closing session the participants highlighted that strengthening the cooperation between actors would reduce duplication of work and would overall create a more efficient and effective supporting cleantech ecosystem

Areas of further development

- The online format that brought together different players across the BSR presented some difficulties, as the different countries have significantly varying starting points and types of challenges they face. However, it has also created opportunities to weave and strengthen international cooperation between BSR countries. The three-part format, that created opportunities for making international connections but at the same time enabled locally specific discussions worked well in balancing the challenge and the opportunities of this specific format. In the future, the discussions and facilitation format of the local breakout sessions could be further developed to concretize the discussions to maximize the benefits of this portion of the event.
- After the event all participants were sent a feedback form to reflect on their experience.10% of the participants (from Sweden, Russia and Estonia) have responded, which is unfortunately often a typical response rate for online feedback forms. Participants have emphasized the value of the event in giving them further inspiration in their work, and especially learning concrete lessons from the peers in their country. Fewer respondents emphasized their ability to build an international network, which suggests that this aspect of the online event could be further emphasized and elaborated. For example, the international networking roulette could have taken up slightly more time.
- The number of participants dropped after the keynote speakers and Q&A portion of the event, since afterwards more active participation was required. This is typical with online events, however, in the future the interactive nature of the event could be more emphasized in the promotion and advertising of the event. This could mitigate the drop-off and set the right expectations for the participants about the nature of the event. For some, meeting others in this way online may simply not be comfortable or appropriate. In in-person events, participants could freely choose or not to choose to engage in networking activities, but the online format forces participants to either engage or drop out of the event. Perhaps this could be further mitigated by making it an optional part of the event and enabling participants to "sit out" some parts as they see fit without dropping out entirely.

MATCHMAKING EVENTS

The following section has been selected from output 3.2, "Smart(Up) Match-making – How to improve your skills as organizer of matchmaking events." 3

Summary

All seven partner countries covered the general topic of consumer cleantech in their first match-making event. The events took place in the early stages of the project, and had smartups, partners, intermediaries, researchers and others attend. The set-up with venue, time of day, and planning for the events to take place back-to-back with other project activities varied across the Baltic Sea based on possibilities and preferences. The second round of matchmaking events was arranged in four countries before the lockdown in 2020 due to the covid-19 pandemic. The set-up was thereafter pivoted to go online, to be able to still arrange matchmaking events but in a safe and innovative way. A digital matchmaking event was planned and had representation from all seven partner countries. Focus in the second round of seminars was to facilitate interaction between smartups and other stakeholders. Common for both rounds of events was raising awareness on upcoming events and activities in the project, such as our developed studies and the future launch of the SmartUp Accelerator model.

Success factors

Some events have managed to have participants from the wide range of fields relevant to consumer cleantech. In Sweden for example, another benefit that the attending parties were familiar with one another, which supported the atmosphere in a positive way.

The matchmaking events were a forum for startups and the expert community to start discussions, some of which continued after panel discussions, pitching sessions or arranged meetings online during the final online matchmaking event. What is more, the selected speakers were good choices and often accessible in the partners already established networks. In addition, the events offered an opportunity to present the project, the learnings thus far and the consumer cleantech topic, which was key in round one of the events.

Further success factors included the selected forums for the events. These included the already well-known "Science Café" in Latvia, and a venue to match the cause such as in Germany where the event took place on a solar powered boat.

Learnings for future events

Learnings both for the online and the offline event was the insight that there was a need for a longer buffer time or fewer speakers. This supports for activities to be able to take place on time and ensures there is time for discussions among participants. For online events, elements of introducing oneself and including commentary on a current topic allows for everyone to speak and creates a nice atmosphere, but these activities must be prepared with consideration of the number of participants.

Some partners found that it was challenging to get people to attend the event, especially in the first round of matchmaking events. In addition, some found it would have been fruitful with higher attendance from some specific target groups. In Finland, for example, higher attendance

³ Output 3.2. was written by Eva Hjälmered and Ida Thomsson with the Alexanderson Institute. The document can be found on the Smartup Accelerator website.

from smartups would have allowed for a wider spread on the word of the upcoming competition for consumer cleantech companies. To some extent, some low attendance figures could be attributed to that other events took place during the same time and that the topics of the project were very new at this point. Already at the early stages of the project, it was noted that making use of established brands and topics could support spreading knowledge on consumer cleantech. Also, personalized invitations and earlier interaction with the stakeholders was identified a good strategy for easing these barriers for future events. Helpful tools for developing the processes of the matchmaking events include observations and analysis by all partners and feedback through online forms. One final learning of special relevance to the online event was that sharing materials in advance, such as pitch decks for smartups, could be one strategy for making the actual meetings more efficient.

Connecting intermediaries and smartups

The second round of matchmaking event was due to facilitate interaction between smartups and intermediaries, and to increase interest towards the outputs and activities of the project. On May 26th, 2020, the activity leader arranged an online matchmaking focusing on the smartups that were involved in the testbed phased of the project at the time. The smartups formulated a request based on their needs relating to their acceleration process towards a new market entry around the BSR. Based on this request, the smartups were set up with intermediaries and experts on the target markets based on their skills, experiences and focus areas. The online event thus supported cross-border cooperation in a very concrete way.

SMARTUP INTERACTION

Learnings from the interaction with smartups at an early stage in the project supported shaping the support measures for new market entries in the three competition, bootcamp and testbed phases of the project. The three acceleration rounds contributed with information for further identifying best practices, processes, and tools for supporting smartups in the BSR. Outputs 3.3, 3.4 and 3.5 describe the three stages of interaction with BSR smartups and key takeaways in detail. Selected learnings will be mentioned here to support the understanding of the project's stimulation efforts and results.

While looking into new markets, smartups seek for a wide range of information that is relevant to their innovations. In addition, there is interest for insights that could help smartups investigate details themselves, i.e. smartups look for knowledge on what information is available and relevant to their solution on that market – and where they can find it. Examples range from current projects (public and private), financing, access to data, consumer behaviors or what regions or cities to focus on. Experiences from the SmartUp Accelerator project have shown that guidance in these areas are important. Not only are the results from the competitions, bootcamps and testbeds a testament to this, but the process has also shown that participants carry with them ideas on strategies based on their previous experiences on their local or other markets which increases the need for sparring. New markets might have prerequisites that will call for looking at different approaches than first expected by the smartup. Therefore, partners have supported the understanding of cultural differences and local structures for business and politics during the three rounds of acceleration.

Of importance is also that many companies have wanted to pursue markets where the level of sustainability awareness is high, and where there are relevant industries or actors. However,

this can also correspond with competition on these markets being fierce. In addition, the solution or product might not be the best fit for that specific market. This strengthens the perception of a need for a comprehensive ecosystem for consumer cleantech, where knowledge and communication about the local markets supports mapping the barriers and opportunities around the BSR for smartups.

4. Analysis

The efforts in the SmartUp Accelerator project have allowed for new insights about the consumer cleantech field through working with smartups and other consumer cleantech stakeholders. This has shaped the messaging during the stimulation actions in the project. The main example is that there are sector-specific prerequisites within the fields of consumer cleantech and impact investment. This can be attributed the characteristics of consumer cleantech, as solutions tend to emerge where different fields intersect. As markets change and new innovations develop, stakeholders other than the smartups themselves may benefit from joining market forces or creating ways of working with innovators to address new needs. Taking a proactive approach in the emerging consumer cleantech field can be a way to support and shape the development, and to get connected with peers from a variety of backgrounds and with various perspectives.

The synergies of the project activities have supported spillover effects that have supported reaching an increasing number of stakeholders over the project lifetime. Collaboration and communication with other projects and organizations have also stimulated the Baltic Sea region towards new partnerships and investments in actual cases, as well as establishment of a new network for future engagement in consumer cleantech. By the end of the project in September 2020, around 50 BSR stakeholders from the seven partner countries and beyond had indicated their interest to join the network. The broad interest for investing time and efforts in the network further validate the potential for transnational work in the consumer cleantech field, which will carry on beyond the end of the project. What is more, the input and analysis on success factors and challenges for the respective stimulation actions of the project are to support interaction and stimulation activities for the SmartUp Accelerator network.