SmartUp Accelerator Model

WORK PACKAGE 5

Interreg Baltic Sea Region
EUROPEAN UNION
EUROPEAN REGIONAL DEVELOPMENT FUND

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/

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Contents

1. Background

The aim of this report is to create a continuous (long term/self-sustaining) model for increasing consumer cleantech innovation ecosystems capacity in the Baltic Sea Region[1], an area expected to become a front-runner in sustainable innovation and entrepreneurship. The Smartup Accelerator model would serve as a guide to innovation in the BSR for intermediaries, such as municipalities, incubators and sectoral agencies. Indeed, despite the market potential in the Baltic Sea Region, a sufficient critical mass of small and medium-sized enterprises (SMEs) and smartups—startups which utilise consumer cleantech technologies—related to consumer cleantech has not been yet achieved, hindering the evolution of the whole consumer cleantech ecosystem. The model is therefore considered a platform to foster transnational cooperation, or knowledge sharing and exchange of good practices, and transnational partnerships. The goal is to build a framework capable of operation beyond the project lifetime—one that shall also be financially sustainable. Together with several contributing partners, The European Institute for Innovation (reg. assoc.) and Innovatum AB are the activities leader(s). The scope of the model is justified by the increasing role that innovative consumer cleantech solutions play in achieving societal sustainability.

[1] Within the context of the Smartup Accelerator project and model, the countries of the Baltic Sea Region (BSR) assessed for consumer cleantech includes only those countries within the Smartup Accelerator consortium: Sweden, Finland, Poland, Germany, Latvia, Russia and Estonia.

2. Relations, interactions and interlinkages

2.1 Simplified model of relations, interactions and interlinkages with existing processes and important actors in the BSR related to consumer cleantech

One output of the Smartup Accelerator project is to identify and outline relations, interactions and interlinkages with existing innovation processes and programmes in the Baltic Sea Region (BSR) related to consumer cleantech. Although the consumer cleantech ecosystem is still underdeveloped and lacks clear innovation pathways specific to consumer cleantech, the Smartup Accelerator project was able to provide the necessary information to create a simplified model of these relations, interactions and interlinkages with existing processes and important actors in the BSR related to consumer cleantech. This BSR CCT[2] model can be found below:

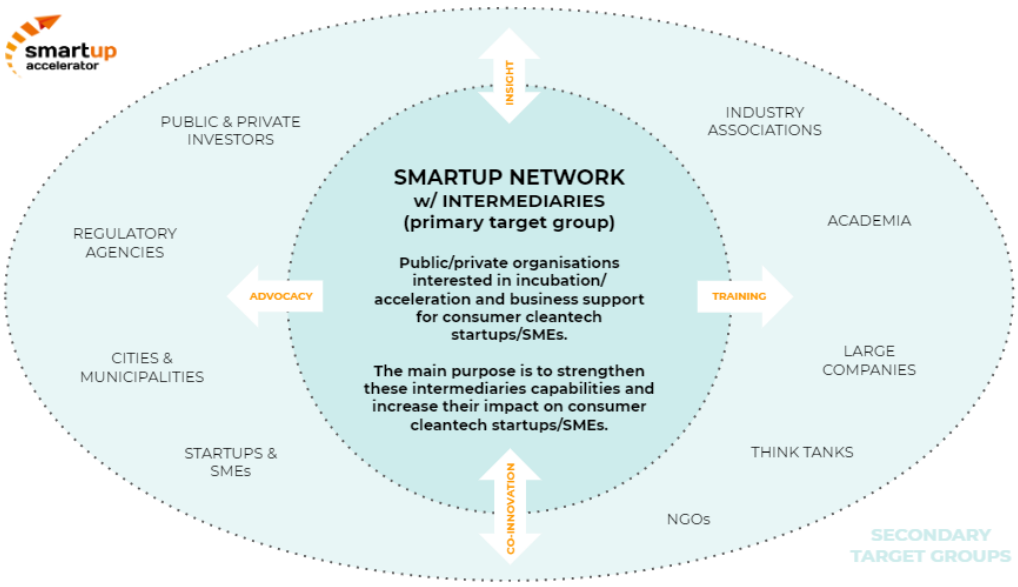

Image 2.1 – The BSR CCT Model, which aims to identify relevant relations, interactions and interlinkages with existing innovation processes and programmes in the Baltic Sea Region (BSR) related to consumer cleantech.

2.2 Elaborating on the model

An output from the second year of the Smartup Accelerator project is to utilise knowledge and experience gained from year 1 of the project to fine-tune the identification of relevant

[2] BSR CC: Baltic Sea Region Consumer Cleantech

relations, interactions and interlinkages with existing innovation processes and programmes in the BSR related to consumer cleantech. Therefore, several programmes within the BSR and throughout Europe have been identified in the following section (section 2.2.1).

2.2.1 European and BSR support programmes

The **Executive Agency for Small and Medium-sized Enterprises (EASME)** has been established by the European Commission to manage on its behalf several EU programmes:

COSME aims to make it easier SMEs to access finance in all phases of their lifecycle – creation, expansion, or business transfer – and supports businesses to be competitive by encouraging them to adopt new business models and innovative practices. COSME is part of the EU Framework Programme for Research and Innovation (**Horizon 2020)**, and is the legacy of the **Intelligent Energy – Europe** programme and the **Eco-innovation** initiative.

The Enhanced European Innovation Council pilot supports innovators, entrepreneurs, small companies and scientists with bright ideas and the ambition to scale-up internationally. It brings together the aspects of **Horizon 2020** programme that provide funding, advice and networking opportunities for those at cutting edge of innovation.

InvestHorizon is a programme financed by the **European Commission**, in association with **Eureka**, to facilitate funding for selected deep-tech companies boosting their investment readiness and investor relations. The programme is run by a consortium coordinated by **Tech Tour**. It has the ambition to support 100 European SMEs to raise €500 million for innovation and growth.

The InnovFin – EU Finance for Innovators programme was launched in 2014 by the European Commission and the **EIB Group**, with the purpose to offer a new generation of financial instruments and advisory services to help innovative firms access finance more easily across Europe and beyond.

InnoEnergy PowerUp Competition is a competition for energy, cleantech, mobility, cybersecurity and smart city start-ups with financial awards up to €50,000 and an opportunity of €150,000 investment. PowerUp! is open to startups from 24 countries: Bulgaria, Albania, Croatia, Armenia, Bosnia and Herzegovina, The Czechia, Estonia, The former Yugoslav Republic of Macedonia, Greece, Georgia, Hungary, Malta, Moldova, Montenegro, Latvia, Serbia, Lithuania, Turkey, Ukraine, Poland, Cyprus, Slovakia, Slovenia and Romania.

2.2.2 Accelerator programmes active in the EU and BSR

Smartup Accelerator has also identified other relevant accelerator programmes in the BSR as a result of the Smartup Accelerator BSR Ecosystem Scanning Report[3]. The goal of study is to identify, analyse and describe all relevant actors in the BSR consumer cleantech innovation field. These programmes are listed below:

EU Climate-KIC Accelerator Programme/Climate LaunchPad is an EU acceleration programme focused on climate impact by cleantech commercialisation. In three stages, the 18-month programme offers resources, tools and the coaching for cleantech startups.

[3] Activity 2.1 report

StartUp Europe Club: Created by the EU Commission, it is the place to find information, opportunities and resources on nearly every aspect of the startup world. The Startup Europe Club offers information and support on topics ranging from funding and scaling up, to investment opportunities and networking.

Startup Europe's Accelerator Assembly is an industry-led network, linked to StartUp Europe Club, which connects accelerators, entrepreneurs and policy makers, in order to strengthen the support offered to web startups across Europe.

Startup Lighthouse is committed to developing cross-border connections within and beyond Europe. The project lights the way for startups within Europe by organising eight ''Deep Dive Weeks'' in four ecosystems (one being the BSR) meeting over 1,600 different ecosystem players in specific themes and culminating with a Lighthouse Award each year. Startup Lighthouse is a **Startup Europe** initiative.

Startup Wise Guys accelerator offers coaching from practitioners in a three-month on-site mentors-driven programme taking place in either Tallinn (Estonia), Riga (Latvia) or Vilnius (Lithuania). The CCE accelerator is primarily sales and scaling focused with a fundraising component helping teams be in a position to raise the next funding round within 6 months. The accelerator has invested in more than 145 early stage startups with founders from more than 40 countries.

Nordic Angel Programme (NAP) is an international cross-border training and investing programme for business angels. The service is free-of-charge for approved investors. NAP facilitates cross-border angel syndicates and shares angel investments' best practices. Led by experienced local angels, NAP offers a unique opportunity to invest as a group in promising growth companies linked by leading startup events in Denmark, Estonia, Finland, and Norway.

Overkill Ventures is a Nordic-based angel fund.

Accelerace (elected as The Best Accelerator in the Nordics) was founded in 2008 in Denmark with an experienced team of serial entrepreneurs, VCs and corporate innovators.

Inspired by the MIT Venture Mentoring Service, **NOME**'s vision is to develop and implement a best-in-class mentoring initiative that will propel startups in the Nordics to impactful global institutions building the region into a world leading life science hub. The NOME initiative is an independent organisation funded by Novo Nordisk Foundation and is managed by Accelerace in conjunction with its country specific partners.

The **Nordic Startup Awards** aim to inspire, stimulate and recognise entrepreneurship throughout the Nordic region, whilst connecting a community of startup enthusiasts, serial entrepreneurs and mentors from diverse and complementing backgrounds. Since 2012, the awards focus on the entire startup ecosystem – from the investors and journalists to the founders and the developer heroes. Candidates: **Katapult, Sting – Stockholm Innovation and Growth, Kiuas Accelerator, and Startup Reykjavik.**

Maria 01 Finland is a community campus for the startup ecosystem. They are a not-for-profit combination of a selective tech-club, a community house and a tribe of people building the products and services of the future. Maria 01 Finland advertises the opportunity to work alongside venture capitalists, corporations and other startup organisations.

StartUp Lab Norway is a tech incubator based in Oslo and Bergen that offers access to workshops, mentors, investors, data science labs (AI/IoT etc), hardware lab, free legal advice and accounting services and office and meeting room facilities.

3. Regional, national and transnational networks

3.1 Describe any regional, national and transnational networks vital for commitment and cooperation

It is of primary importance to identify, analyse and describe the current networks of intermediaries at regional, national and transnational level in the BSR related to consumer cleantech innovation. Understanding the structure, the functioning and the needs of such networks becomes essential in setting up the stage for an international framework of cooperation. This allows for a strategic long-term mechanism of knowledge sharing and of mutual learning, which is self-sustaining and constantly evolving in the future. Following the summary of regional, national and transnational networks vital for commitment and cooperation outlined below, the next section (section 3.2) will identify key regional, national and transnational networks vital for commitment and cooperation by partner country.

In the BSR, networks of intermediaries (incubators, accelerators, competitions, VC funds, etc.) can be developed within countries and offer different type of support to startups. In general, intermediaries are well informed about similar organisations in neighbouring countries, as they often share their experiences in international forums, conferences, etc. Managers of intermediaries visit other similar institutions, but only in few cases do startups get involved in exchange programmes and workshops (i.e. EstLat Accelerate; FieldTest Norway).

However, depending on many factors, some networks are more effective than others. In this sense, there is a growing competition amongst intermediaries and support programmes in terms of service provided, access to skilled workforce and communication channels, which can cause confusion. Although, this competitive trend could have positive implications: it could foster the provision of a more tailored service to startups.

Project-based financing might also hinder the effectiveness of certain networks in terms of cooperation. Indeed, cooperation is initiated within projects (i.e. Interreg), with intermediaries being project-based financed. This means having specific goals, deadlines, budget and other administrative restrictions (e.g. public procurement), which do not allow to join resources (e.g. to organise joint events, to share marketing costs, to share costs for the experts or services). However, when projects are constructed in such a way that allows participants to reach a specific goal without having to constantly change the project strategy, partnership, budget, co-financing and so on, then project-based financing can be a productive way of receiving funding and, at the same time, encouraging interregional or international cooperation and knowledge transfer of good practices. Ultimately, engaging in interregional or international projects can significantly broaden the networks of the project partners/beneficiaries, increasing their reach and influence.

Among all the countries in the BSR, Germany represents a (nearly) perfect ecosystem for startups with the presence of public financing, VC funds, international accelerators (e.g. Techstars) and network organisers (EIT, Climate KIC). These relevant actors are widespread across the whole country. In Germany, as well as in Latvia and Sweden, the interests of startups are represented by industrial associations.

A wide redistribution of actors across the country is also detectable in Sweden and Finland. In other countries of the BSR, the main intermediaries are instead concentrated in one or several cities. One example is Latvia. While the Latvian capital Riga shows a high concentration of actors and resources, the country has a very fragmented ecosystem for startups in general, which could hinder the effectiveness of public financing. Good preconditions for the development of smartups are also found in the cities of Tallinn and Tartu, in Estonia. Poland, while scoring nearly last in terms of EU Eco Innovation Index[4], possesses a large potential for improvement seen the consistent amount of intermediaries and resources widespread around largest cities (Warsaw, Wroclaw, Krakow, Lodz).

3.2 Agreements and conditions for cooperation and integration with regional, national and transnational innovation networks

Within the Smartup Accelerator project, a goal of the partners is to establish connections with regional, national and transnational innovation networks in order to connect SMEs and smartups in the cleantech sector to relevant actors. A future task of the partnership is to secure more official agreements and conditions, in writing, that will outline how such relevant regional, national and transnational innovation networks can collaborate with SMEs and smartups to expand on the Smartup Accelerator model and build the foundations for a lasting consumer cleantech ecosystem. This is elaborated upon in the conclusion section of this report.

Below is a list of regional, national and transnational innovation networks identified by partner country. They have been listed due to one or several interlinkages to consumer cleantech through one or several of their own focus areas.[5]

Finland

In **Finland**, the **Helsinki Business Hub** is the international trade and investment promotion agency for the Finnish capital region. It helps foreign companies to set up their businesses and grow and develop in the city of Helsinki, which offers key business opportunities in the sectors of, among other, smart and cleantech solutions (i.e. smart mobility and buildings). **Cleantech Finland** is a Finnish national hub to develop the country's environmentally conscious businesses. This network aims to bring together experts from Finland's clean technology industry and research to support clean technology companies internationally. **Green Net Finland** is a cleantech cluster that brings together the expertise and resources of Finnish cleantech companies, scientific and educational institutions and public authorities. **Smart & Clean** is a foundation that aims to transform the Helsinki Metropolitan Area into the world's best testbed for smart and clean solutions within 2021. In terms of funding initiatives, the **Finnish Business Angels Network** (FiBAN) is a non-profit association of private investors on a mission to inspire investments in smartups. **Finnvera** is a State-owned investment institution offering to smartups financial solutions for early-stage

[4] From the European Commission's Eco Innovation Index (2018): https://ec.europa.eu/environment/ecoap/indicators/index_en.

[5] It should be noted that there is variation in the relevant organisations described by country in section 3.2. The Swedish organisations, for example, are both regional and national ones, whilst the Latvian organisations are mostly national. Such variation in regional, national and transnational innovation networks is based on differences in partner country/region sizes, demographics and cultures, as well as the nature of the partner organisations themselves.

acquisitions, investments and working capital needs. **Innovestor Group** is an early-stage venture capital investor, which operates across the Nordic countries.

Latvia

In **Latvia, Magnetic Latvia Startup** (also known as StartupLatvia) is a programme of the Investment and Development Agency of Latvia (LIAA) supporting startups that identify Latvia as their homebase. **CONNECT Latvia** is a non-profit association with the objective to develop innovative companies in Latvia. By organizing networking activities, it helps business ideas by preparing them for real life entrepreneurship. **Cleantech Latvia** is a cluster offering multiple complementary competencies from companies, research organisations, municipalities and public sector for smart, sustainable and environment friendly business idea. **Green-Tech Cluster** is a cross-sectoral cooperation platform which helps the development of green and smart technologies in Latvia and in Baltic Sea Region. **ALTUM** is a State-owned investment institution which supports enterprises at different stages of their development. It also provides smartups with consultation and training.

Poland

In **Poland**, the **MIT Enterprise Forum CEE** is an organisation active on the Polish market that offers preparation of corporations to implement innovation by means of cooperating with startups. **South Poland Cleantech Cluster** is a collaborative 'quadruple helix' cluster established by industry, research institutions, public/semi-state players and NGOs in the region of Southern Poland. It catalyses innovation by promoting matchmaking events and entrepreneurship, and by stimulating access to risk capital for early-stage enterprises. **Cluster Life Science Krakow** is a cooperative network of institutions and companies that aims to develop the innovation ecosystem in the area of biotechnology and the life sciences. **ValueTech Seed** is an early stage venture capital fund focused on innovation in energy and industrial manufacturing. It seeks partnerships with smartups in the area of Industry 4.0, renewables, clean-tech, energy storage, smart grid and smart home.

Germany

In **Germany,** the **Bundesverband Deutsche Startups** is a membership corporation of the German startups industry. It promotes innovative entrepreneurship and networking within the smartups ecosystem. The **Cleantech Initiative Ostdeutschland** shares know-how in a mutually supportive framework. Through networking between business and science, it aims to strengthen the cleantech innovation ecosystem in East Germany. The **Digital Hub Initiative** connects companies with the startups community. The **Allianz für die Region** is a regional alliance of partners from business, science and public authorities. It has developed platforms to promote innovative mobility solutions, with the possibility to test them in practical experiments. **German Partnership for Sustainable Mobility** contributes to the international dialogue on smart transportation and on sustainable development worldwide. **Social Impact** is a non-profit organisation designing and implementing startups and providing consulting and laboratories for co-working, networking and

events. **Berliner Volksbank Ventures** supports smartups in the implementation of their growth strategies. **B10** is a venture capital investor focusing on seed and pre seed startups.

Sweden

In **Sweden, GU Ventures** is a state-owned institution that supports smartups in developing innovation ideas by providing adequate funding. **Connect Sverige** is a private non-profit initiative active in the Swedish innovation ecosystem. Through collaboration between companies, universities and public authorities, it offers smartups the opportunity to develop and test innovative products, receive professional advice and obtain funding. **The Hub** is a platform tailored to the needs of the startups community across the Nordic countries, offering visibility, networking and assistance. **Coompanion** promotes community development through facilitating the cooperation and partnership between young enterprises. **Blue Science Park, Dalarna Science Park and Green Innovation Park** are innovation environments that strengthen smartups through collaboration with industry, science and municipalities. **MobilityXlab** offers to startups the opportunity to accelerate through strategic partnerships with global players in the field of smart mobility.

Russia

In **Russia, GoTech Arena** is a forum that brings together investors and companies which develop and implement new technologies. **Unified Entrepreneurship Center** is an organisation that provides assistance to early stage businesses. **Association "Clean City"** offers support for entrepreneurs. **Cleantech Cluster for Urban Environment** and **Cluster Development Centre** have the mission to develop and apply clean technologies in the city of St. Petersburg. **St. Petersburg Technopark** and **Technopark Polytechnic** are instruments for testing and promoting new technologies. The **Ingria Business Incubator** is a subdivision of the St. Petersburg Technopark. **Business Angels Organisation Union** provides funding assistance and support for entrepreneurship.

Estonia

Estonian intermediaries / important actors should be explored to include in the final model.

4. Components and processes

4.1 Components and processes outlined in acceleration phase

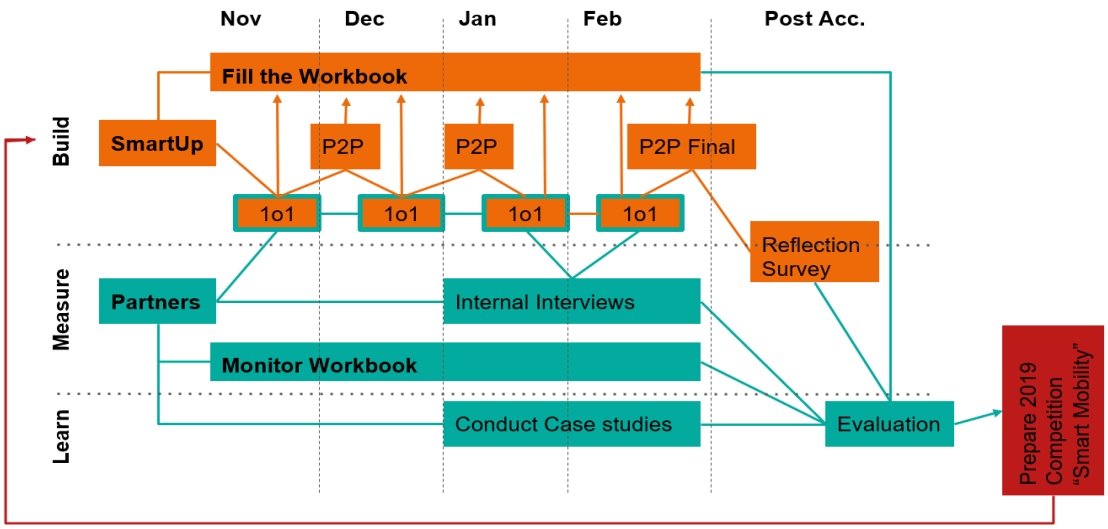

Image 4.1 – The mapping of the Smartup Accelerator acceleration phase process.

The Smartup Accelerator project aims to develop an ecosystem for consumer cleantech in the BSR by identifying and bringing together important industry actors and smartups, as well as by connecting likeminded cleantech smartups themselves. This is done so through matchmaking events, national seminars, the Smartup Accelerator competition and the project's acceleration phase—which involves active participation between the market coaches, intermediaries and smartups from each participating BSR country.

Matchmaking events

Within the Smartup Accelerator project, 14 matchmaking and connection events are arranged; e.g. two in each participating country. Matchmaking events are targeted towards both intermediaries mapped during ecosystem scanning and communicated with through activity A2.1 and A3.1 as well as through the activities related to the annual competitions. Matchmaking is focused on connecting intermediaries and potential start-ups with specific actions to elaborate on cross-border cooperation. The methodology is to connect start-ups in cleantech with intermediaries with relevant skills, experiences and focus areas.

Each matchmaking event is tailored to each country's situation, opportunities and needs. They are arranged back-to-back with other pre-existing and thematically appropriate events if possible to guarantee maximal interest and effectiveness. During these events different topics are discussed and important information and knowledge dispersed with the help of facilitation and tailored networking processes. All partners have been involved in arranging such events before and have the in-house resources and skills needed. Outstanding network creation tools have already been identified and many of them have already been tested successfully; for example in EU BSR meta cluster formation projects. Since the consumer cleantech has its specific characteristics and

business logic, these specific factors will be taken into account when planning the network building tools, event facilitation and programme.

National Seminars

National seminars are events organised within the Smartup Accelerator project to bring together relevant intermediaries and innovation actors related to consumer cleantech in the BSR to exchange ideas and transfer knowledge. National seminars, the need for which was identified following the acceleration phase 1, are arranged three times per participating country (in total there will be 21 national seminars). After hosting two national seminars in each of the partner countries, the project consortium has gained some valuable insight into engaging relevant consumer cleantech stakeholders. As the national seminars have brought together relevant consumer cleantech actors and key players from a variety of fields, these findings are explored in section 5.2 of this report on key target groups and stakeholders and their involvement in the development of the model.

The purpose of the national seminars is to: raise awareness about consumer cleantech; attract and stimulate actors to enhance consumer cleantech prospects and solutions; encourage participants to participate in the emerging transnational cooperation. The coupling of these national seminars with other events can be more effective to achieve their scope.

Bootcamps

The pilot smartups serve as examples and validation of actions for the Smartup Accelerator training material (deliverable 4.1)[6], proof of concepts and testbeds (deliverable 3.5) as well as the study on the increased capacity of intermediaries (deliverable 4.4) and are vital for the successful implementation of the Smartup Accelerator model (WP 5). Thus, the full involvement and commitment of pilot smartups is important for success. Therefore, since smartup involvement is very beneficial for the project, the project has chosen to have a contract-based commitment based on the services provided.

Prior to and during the bootcamps, the consumer cleantech smartups are prompted with the task of identifying the target international market(s) they aim to enter. The questions of which international market (both first and second choice), and then the prompt to elaborate on this in detail, are asked of the selected smartups in the weeks leading up to the bootcamp. During the bootcamp, ample time is given to the smartups to have 1-on-1 conversations with the market experts of their chosen markets. On the final day of the bootcamp, the smartup participants complete an intensive market entry roadmap. The roadmap addresses important points to consider when entering an international market, such as potential key partners, value propositions, customer relationships, key activities and the timing of these activities, key resources required, customer segments, available channels and cost structures to consider. Finally, the choice of a target international market to enter is not set in stone – there is room to pivot after carefully exploring the option to enter a given target market, which the Smartup Accelerator consortium realises and adjusts to accordingly.

The bootcamps are tailor-made according to the companies and their impacts on the consumer cleantech ecosystem, and they cover a wide variation of themes. The themes can be special formats such as innovation process acceleration, go-to market-strategies enhancement or structured processes for foresight and signal session, business canvas constructing (combined with multicultural cooperation skills), transnational innovation strategy marshalling, disruptive ideas,

[6] The trainings outlined in deliverable 4.1 are to be held only in December 2019 and then again in 2020 as the Smartup Accelerator consortium first requires experience with smartups in order to be able to train this to intermediaries.

innovative business model development, market validation, design thinking, lean startup strategies, innovation and creativity or innovation talent-building and creation. Sessions can be guerilla clubs, Peloton models, 'raising the bar' sessions, brainstorming or growth hacking and so on. Also of interest for the target groups could be how to orchestrate entrepreneurial innovation processes.

4.2 Components and processes outlined in acceleration phase and lessons learnt

Following the acceleration phase year 1, components and processes have been assessed, analysed and tested to better understand which can be considered relevant. This analysis is based on information retrieved from follow-up[7] with the smartups and any analysis on the outcome of the bootcamps (year 1 & 2) and acceleration phase 1.

Findings from the acceleration phase 1 include the need for mentors and coaches from Smartup Accelerator partner countries to be more flexible and quickly identify the smartups' needs. Partners should pay particular attention to the added value of each smartup and how this aligns with the potential partner. In addition, valuable insights came from narrowing the marketing effort to a single geographical market. Additional insights from the acceleration phase 1 are outlined in the conclusion of this report.

Relevant chosen processes from the acceleration phase could be analysed based on the case studies from the testbed phases of year 1. Specifically, insights can be drawn from a case study following year 1 of the successes and challenges of Fourdeg, a Finish startup that successfully broke the Polish market and attributed their success partly to the support provided through the Smartup Accelerator project. Both Fourdeg and the Polish Smartup Accelerator partner, Foundation for Technology Entrepreneurship (FPT), agreed that FPT provided the most beneficial support through offering access to their extensive network, connecting Fourdeg with intermediaries[8] that led to direct meetings in Poland; ultimately, these contacts led to vital discussions of conducting a pilot product with some of the large companies within FPT's network.

Also a source of evaluation of the success of the year 1 acceleration phase to be factored into the Smartup Accelerator model, is the feedback from smartups during the midterm and final peer-to-peer evaluation conferences. In the midterm peer-to-peer conference, participating smartups joined a virtual conference to discuss their current struggles, achievements, misassumptions and any questions for the community whilst entering their international markets. Some important country-specific insights were developed here, such as: there can be significant language barriers to be aware of when entering the Russian market; Google ads have proven to be useless in the German market, compared to being featured in relevant articles/press (i.e. EE News); entering the German market, especially compared to the Lithuanian market, can be very tricky due to tech-related market regulations (i.e. certifications & requirements); there is a relatively low level of public awareness related to environmental issues in Russia, which can inhibit the development of a consumer cleantech ecosystem; etc.[9] The final peer-to-peer conference held a few months

[7] Feedback from the smartups has been collected through various questionnaires and interviews immediately following and/or during the process of the bootcamps and acceleration phase 1.

[8] In the case of Fourdeg entering the Polish market, these intermediaries were mostly large companies and investment funds, such as Fortum, Technology Park, South Poland Cleantech Cluster, Climate KIC Poland, etc. PGA New Energy also supported Fourdeg in offering their proxy T-online within this large company.

[9] Insights drawn from the Midterm Peer-to-Peer Conference in January 2018.

later, at the end of the accelerator phase year 1, resulted in more generalised input relevant to entering a foreign consumer cleantech market: be flexible and fully understand partner/customer needs before entering a foreign market; smartups should seriously evaluate their added value and how this aligns with a potential partner in the foreign target market; complete a very specific market analysis before entering a foreign market; reach out to the consortium for country-specific funding advice or leads; etc.[10]

Funding

In year 1, the selected Smartup Accelerator startups also received financial support of €10,000[11], but not in year 2. This is because in year 2, the Smartup Accelerator consortium decided to have more of a focus on addressing established experts in consumer cleantech and also thought that the model should be able to stand on its own. Smartups who chose to join the accelerator in year 2 would do so to use the consortium's networks—the lack of funding controls for the possibility that smartups are only driven by the €10,000 reimbursement offered in year 1. It is too early on in the second acceleration phase to evaluate any differences in the success of the smartups between the two years, although these findings will be included in the final Smartup Accelerator model.

[10] Insights drawn from feedback received from smartups during the Final Peer-to-Peer Conference in March 2018.

[11] Smartups received €10,000 in year 1 as a reimbursement for their work with the Smartup Accelerator, allowing the Smartup Accelerator consortium to learn in the process. This method of funding in line with the procurement process within Interreg BSR projects.

5. Key target groups and stakeholders

5.1 Basic description of key target groups and stakeholders for consumer cleantech in the BSR

The key target groups and stakeholders are those supporting organisations and intermediaries operating in relation to consumer cleantech innovation in the BSR, whose role is important in the commitment and cooperation when creating a functioning consumer cleantech ecosystem. Logistically speaking, not all key intermediaries will be a part of lasting Smartup Accelerator model or network. Still, the Smartup Accelerator consortium can draw learnings from interacting with them and thus learn more about what to include in the model for the organisations that are included in the final model. In order to develop a functioning consumer cleantech ecosystem, a variety of organisations should indeed be a part of the model itself[12].

Key target groups and stakeholders can be distinguished in several categories: Government & regulatory agencies; mature businesses (big companies, corporations); regional development, cities & municipalities; NGOs, non-profits, industry associations, foundations; innovation bureaus, accelerators/incubators, science parks; universities, research institutes, think tanks; investors & organisations; etc. The public sector, such as **governments and regulatory agencies**, must adhere to the objective of promoting consumer cleantech innovation by adopting adequate regulatory framework and by setting reasonable national goals. The public sector's commitment can increase the attention of the public opinion within the field of consumer cleantech. At decentralised levels, **regions, cities and municipalities** must comply with national policy/agendas; thus, they have the task of implementing in practice national sectoral regulation. Also, local institutions can have more informal relationships with smartups, which is a chance to better support their innovation products.

[12] To clarify, it can be interpreted that the organisations listed previously in the document (such as Mobilityxlab or The Hub, etc. in Sweden) are also the ones that should definitely be a part of the model. Engagement of key stakeholders outside of those included in this report is helpful in creating a functioning consumer cleantech ecosystem, but these organisations cannot be exactly factored into the Smartup Accelerator model when they have not been previously engaged by the Smartup Accelerator partnership.

Associations and NGOs operating within fields related to consumer cleantech are responsible for promoting this innovation process in the BSR. Through their communication channels, they can spread knowledge on the positive implications of consumer cleantech solutions for societal sustainability. Besides this, they are also responsible for the organisation of concrete initiatives to support smartups. Pure **innovation actors**, such as innovation bureaus, accelerators/incubators, science parks, etc., possess valuable technological and market knowledge—and are aware of best practices—which can benefit the development process of smartups. Beyond that, their relationships with similar organisations can foster network building. The **academic sector**, such as universities, research institutes and think tanks, can signal the support of the scientific world for consumer cleantech innovation by communicating and disseminating the latest findings on this topic. Finally, and perhaps most importantly, **funding institutions** (VC, ad-hoc programmes, etc.) and private investors are expected to provide the required investments for green and smart technologies. Funding intuitions of SMEs and smartups in consumer cleantech are connected to the promotion of benefits, future value of cleantech and the role of BSR as a front-runner in consumer cleantech.

5.2 Key target groups and stakeholders and their involvement in the development of the model

Key target groups and stakeholders must be involved during the development of this model in order to receive their feedback and insights, which were essential for a continuous learning process and for the fine-tuning of the work. Two rounds of interviews with consumer cleantech target groups and stakeholders have served as a foundation shaping the model, in terms of acquiring more country-specific insights into the consumer cleantech ecosystem.[13] Such insights include, for example, the general focus of the Allianz für die Region—a large German intermediary network standing behind innovation trends in Lower Saxony—on promoting digitalisation within the region, but with no specific focus consumer cleantech.[14] As the Latvian Mobile Telephone (LMT)[15] provided more optimistic information on the clean mobility sector in Latvia, it can be concluded that the consumer cleantech ecosystem in this realm is also generally underdeveloped, visible by the low number of distinguished actors or key players: ''There is no actual statistic to LMT's knowledge about the precise size of the [clean mobility] market right now. Most companies who are working in this field could be divided like this: startups, technology companies (LMT and Accenture) and some logistic companies—for example, Kreiss''.[16] The interviews with key target groups and stakeholders provided a basis for some general conceptions regarding the consumer cleantech ecosystem in each country—or really, the lack thereof—to be integrated into the final model.

[13] Interviews were held with intermediaries and/or other key target stakeholders from each partner country.

[14] Allianz für die Region (Allianz for the Region) is a private-public partnership of traditional commercial enterprises, innovative start-ups and service-conscious service providers in Southeast Lower Saxony, an important industrial and research region with the cities of Braunschweig, Wolfsburg, Salzgitter and the districts of Gifhorn, Goslar, Helmstedt, Wolfenbüttel and Peine.

[15] One of the largest companies involved in clean mobility in Latvia.

[16] Interview with Rudolfs Strelis, Innovation Lead and Arturs Lindenbergs, Innovation Lead at Latvian Mobile Telephone (LMT), 2019.

Further, it was a common takeaway for all smartups during the year 1 midterm and final peer-to-peer conferences (deliverable 3.5) to quickly establish a connection with relevant intermediaries in their desired international market, via telcos or face-to-face meetings whenever possible, to get a better understanding of the foreign market and ideally find a local partner in the new country. Success cases from the testbed phases were also evaluated for concrete feedback of the Smartup Accelerator to add to the model, including the case study of Fourdeg in 2018. As outlined in section 4.2 of this report, both Fourdeg and the Polish Smartup Accelerator partner, FPT, agreed that FPT provided the most beneficial support through offering their network, connecting Fourdeg with intermediaries[17] that led to direct meetings in Poland; ultimately, these contacts led to the opening of discussions of conducting a pilot product with some of the large companies within FPT's network.

Following the first and second years of hosting national seminars in each partner country, partners have identified that those who have made co-arrangements with other stakeholder events have found this to be most fruitful. Correspondingly, many of the partners that have not made such co-arrangements have identified this to be a potentially good strategy for the second round of seminars—which most partners indeed carried out in the following year. Being represented at an already existing or jointly organised event is an opportunity to reach as many relevant cleantech stakeholders as possible. This can be in the form of hosting a stand at an event and speaking with by-passers, or perhaps running discussions and speaking on-stage or in panels. According to partner reflections of the national seminars, audience members at such co-events are more likely to be already engaged, or at least very interested in, consumer cleantech[18]. What is more, the participants' roles in supporting the creation of synergies would be identified by the audience themselves, as they often remarked on the complex process of implementing new technologies. Another reason for piggybacking off of pre-existing stakeholder events is the challenge to ensure a variety of consumer cleantech-related organisations to attend the event. In Sweden, for example, intermediaries are spread all over the country, and there is some concentration in the area around Stockholm. Parties that are active within the field of cleantech have shown interest in attending cleantech-related events—but the long distances required to travel to individual events causes their attendance to be a lot less likely[19].

According to the experience of the Smartup Accelerator consortium, the quality of the smartups' product is of primary importance. It must be authentic, mutually beneficial and in line with the ongoing daily activities of the Smartup Accelerator consortium. Once this is established, a network of existing contacts is essential to get it started, in order to plan initial meetings and interviews. The importance of connections with relevant intermediaries that might be interested in the implementation of pilot projects or have connections to other organisations interested in such pilot projects should be highlighted. Beyond this network, engagement and teamwork are two important elements to sustain the whole process. The professionalism of the team and its

[17] Mostly large companies and investment funds, such as Fortum, Technology Park, South Poland Cleantech Cluster, Climate KIC Poland, PGA New Energy, etc.

[18] From reflections on the St. Petersburg Cleantech Cluster for Urban Environment event co-organised with the internal Russian Smartup Accelerator partner: ''WP 2.2 A publication of communication and stimulation actions results''.

[19] From the Smartup Accelerator Swedish partner feedback within ''WP 2.2 A publication of communication and stimulation actions results''.

work culture are important aspects to consider in the decision-making. In this regard, peer-to-peer meetings are often meaningful to deliver this message.

The major challenge identified during the Smartup Accelerator testbed phase was timeframe. The responsiveness of potential partners is relatively low; however, the goal is to organise meetings as soon as possible. Therefore, it is critical to spot the right person in the right organisation, who could be really interested in the product, in order to avoid wasting precious time in "courtesy" meetings. For a smartup's product to succeed, it pays off to be persistent, in any sense. Determination and engagement towards set goals (for example, internationalisation) is a critical factor of success within smartups.

The consulting and development process of smartups is ideally supported by external intermediaries, both institutional actors—a Client Relation Management (CRM) activity is helpful for their identification—and private companies (the smartup itself can identify the market opportunities easier than others). Accelerator programmes can benefit from the cooperation with external organisations because the overall ecosystem expands, fostering the exchange of ideas and offering more visibility in the market. It is desirable to plan the inclusion of such external actors in advance, after a careful consideration of their business mission and vision.

Considering the point of internationalisation, during both the **bootcamp** and **acceleration** phases, it is important to invite experts from the targeted national market who have answers to any doubt or concern. This process of knowledge sharing can mitigate wrong business assumptions, while spotting market peculiarities and cultural differences. When approaching an accelerator programme, it is important for startups to clearly formulate their needs, which might change throughout the **acceleration** phase, and objectives (e.g. is the smartup looking to implement a pilot project? At which company?). In this regard, clear communication, transparency and planning are all important to support the work of the accelerator and thus to receive a high-quality service.

From the perspective of the accelerator, in terms of best practices, it is recommended to be in touch with the smartup team on a regular basis and be persistent with potential partners. When supporting the work of a smartups, tried and true processes, models and tools can help. Examples are market intelligence, project management, CRM evaluation and proper sales channels. The programme should adopt a technology-driven mind set and be cooperative, open and flexible with respect to the needs of all the parties involved.

According to smartups participating in the Smartup Accelerator project, the most important support expected from the accelerator programme is in terms of networking with potential partners in the target foreign market. The largest benefits to be received from this programme are a realistic view of the target market and practical sales channels. Indeed, among the best instruments to be adopted during the acceleration programme it is market comparison. Also, since the smartup is often not yet physically present in this market, the accelerator programme must be fully committed with the goals of the smartup. One of the best practices to achieve this is to have a large amount of discussion in the beginning of the process. The role of intermediaries (associations and platforms) in the target foreign country is also considered important for smartups in order to open doors with local businesses.

6. Supporting tools and structures integration

6.1 Supporting tools and structures integration from WP 2, 3 and 4

Smartup Accelerator provides tailor-made acceleration services that are based on selection process, pre-bootcamp phase and bootcamp activities that support business development and internationalisation. The process completed in year 1 (and the beginning of year 2) is outlined in this section.

In order to have a comprehensive view of the participating smartups, during the **application phase** smartups were asked to indicate their nature, objectives (if in line with consumer cleantech innovation), targeted markets, challenges, needs, description of the team and previous accelerator experiences. The Smartup Accelerator partners required being assigned a pre-defined specific role in the activities and were expected to deliver country-specific market study summaries by the time the application period ended.

Selected smartups from each partner country were chosen by the partners of the same country as the smartups by the means of a thorough **scoring card**. This scoring card walked the partners through each step of the evaluation, covering market potential (weighed at 35% of final score), environmental benefits (25% of final score) and new market readiness (40% of final score). The smartups' final scores were cross-referenced by having at least two individuals from each partner country score a given smartup, with the smartup's final score being an average of the multiple scores. The consortium then discussed the potential smartups from each country as a group, explaining in details why each winning smartup was ultimately selected over their peers.

After the selection process, a **pre-bootcamp phase** and **market assessment** allowed the participating smartups to meet each other and carefully consider their first and second choice target international markets, building enthusiasm and inspiration. This stage included introduction to the work and preparation for the bootcamp, such as identifying the needs for PoC arrangement and preparing SWOT analyses on their teams' product entering new market.

The **bootcamp phase** (Gothenborg 2018) included five modules: i) identification of the targeted consumer cleantech market; ii) understanding of the market dynamics through interviews and reports (for example, consumers behaviour and proper communication); iii) sharing of experience for market validation and adoption of measures for collecting feedback about the market; iv) growth hacking, i.e. identification of critical factors/activities for a successful internationalization process; v) development of a concrete roadmap (marketing strategy and pitching) for market entry and planning of post-bootcamp activities (ideally the following 6 months).

The objective of the whole 2018 training was to stimulate the creation of a network in the BSR consumer cleantech capable to understand the recurring innovation processes, to cooperate in a multicultural environment and to understand how cooperative structures are integrated, taking into the account the competences of each actor. Trainers and facilitators were chosen amongst field experts with previous successful experiences in transnational innovation processes so to offer a tailored service.

6.2 How supporting tools and structures from WP 2, 3 and 4 has been integrated and further needs for action

The participating Smartups have particularly appreciated the overall organisation of the 2018 bootcamp and some specific tools, such as market validation and roadmap to market entry. Also, the possibility to establish partnerships in consortium has been much appreciated. However, surveys have highlighted some critical points during the bootcamp: i) smartups needs were not always clearly understood by the accelerator; ii) the boost received by smartups was less than expected; iii) both smartups and consortium considered the workbook as an ineffective instrument. Some useful proposals were well received. According to smartups, it would be ideal to rely less on fixed programmes or activities like the workbook, while focusing more on tailored support. According to the consortium, instead, there is the need to push for a greater involvement of large businesses to receive practical market experience. Also, the questions and concerns of smartups should be received by the consortium in advance to allow adequate preparation and to avoid wasting useful time during the bootcamp and acceleration phases.

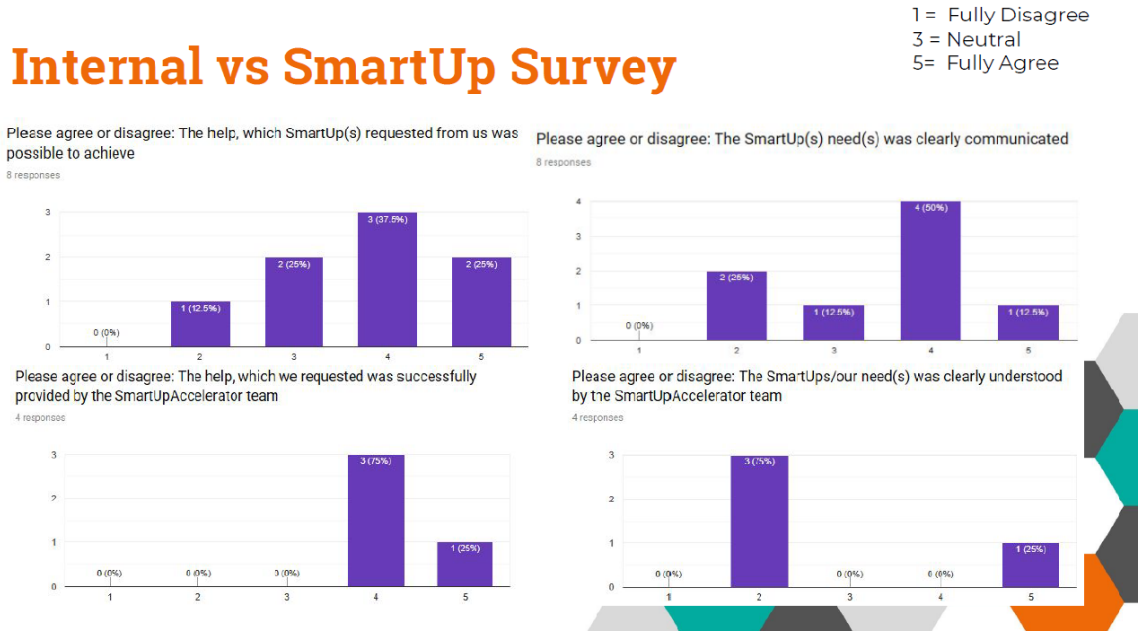

Image 6.2 – Survey results from the Smartup Accelerator testbed phase 1.

The evaluation of feedback from the 2018 bootcamp was a great learning experience to decide how the 2019 bootcamp would be structured and which tools will be adopted, eventually improving its overall quality. The value of this learning process is to assure a continuous quality improvement process, which is self-sustaining after the project period. The concept of the 2019 bootcamp was thus to foster a larger degree of cooperation amongst innovation actors. The idea is to shift from building capacity of smartups to building the whole ecosystem capacity; i.e. improved matchmaking between smartups, large companies and innovation actors. Beyond usual a business development model, there was a training on how to build joint roadmaps, for example. Each partner was responsible for inviting relevant innovation actors to foster networking and to

execute these joint roadmaps after the bootcamp phase. This approach allowed the smartups to gain valuable business development insights on the BSR consumer cleantech market from international experts. On the other hand, for innovation actors the event was a chance to learn about open innovation and emerging sustainable mobility solutions. This new bootcamp approach is in line with the "excubator" trend: large companies are starting to outsource entrepreneurship projects in environments that are considered more open and more agile.

The 2019 Smartup Accelerator Bootcamp was held in Riga, Latvia in September 2019 and was well received by participants. The goals of the bootcamp and subsequent accelerator phase are currently proving to be successful in sensing new knowledge faster, finding best models for different types of funding, attracting new consumers and investors to consumer cleantech in the BSR, and finally, providing a manual for all innovation actors in the BSR concerning relationships with existing innovation programmes and conditions for cooperation within an innovation network.

The 2019 bootcamp adopted improvements from that of the previous year. The matchmaking process was more focused and direct since the project's marketing strategy and communication at the national level (using social media) was more successful in attracting applicants. Also, the 2019 bootcamp included more female participation, plus external stakeholders were involved in the selection process (Shift from Supply based towards demand based), and the matchmaking scoring card system was improved. During the pre-bootcamp phase and in response to the year 1 survey feedback, the workbook was revised, so the smartups were prompted, in a more straightforward way[20], with the task to carefully consider their international target market. In the post-bootcamp period, complementary consulting from further intermediaries will be further promoted. Also, for evaluating the success of the programme, assumptions about what smartups should achieve once graduated will be developed.

Finally, it is possible to draw some guidelines concerning the **organisation of matchmaking events**. It is recommendable to respect the cultural traditions of the host country (for example, in terms of time of the day or vacation periods). When choosing the date of the event, this should not compete with complementary activities. Alternatively, the event could be coupled with similar activities. The preparation phase is crucial and underestimated. Planning in advance allows for a better marketing and promotion of the event and it awakes interest. Examples are sending out press releases or connecting with micro-influencers connected to the topic of consumer cleantech solutions (micro-influencers are creators on social media platforms who typically have between 1,000 and 100,000 followers.) This is considered useful since this topic of consumer cleantech is relatively new and cutting edge. Inviting many speakers is not as important as inviting the most relevant speakers. Targeting the invitations of speakers and participants in relation to the subject of the project. The schedule of the event should include enough time for participants to network and discuss. The sharing of information and knowledge is of particular interest when working on such a relatively new topic.

[20] The bootcamp workbook, which includes pre-bootcamp tasks such as filling out basic company information as well as information related to targeting the international market of choice, was presented as a Google document to the smartups during year 1. Now, the smartups (monitored by the project partners) utilise Trello – a more interactive and straightforward platform and task manager.

Further analysis of the components and processes outlined in the acceleration phase and lessons learnt can be found in section 4.1 and 4.2 of this report.

7. Analysis of platform development and cooperation structures

7.1 Analysis of platform development and cooperation structures – Improving the model

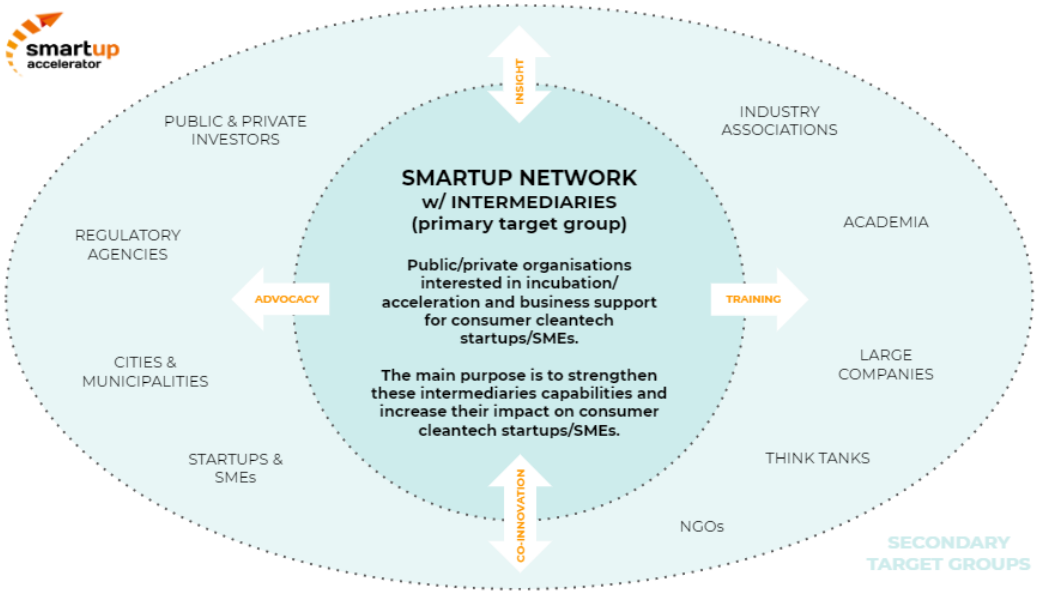

Image 7.1 – Improving upon the BSR CCT Model from year 1.

An important question to address as the Smartup Accelerator project progresses is how the original Smartup Network BSR CCT model can be improved to become more relevant for future smartups and intermediaries related to cleantech in the BSR. More importantly, a main concern for the model that shall be further explored in the conclusion is how this model can successfully continue once the funding is removed. This question can be answered by having a platform that is supported by intermediaries. Who are these driving forces going to be? Experience and knowledge gained via the Smartup Accelerator project aim to properly analyse this important question after the completion of the second acceleration phase.

7.2 Enhanced analysis of platform development and cooperation structures

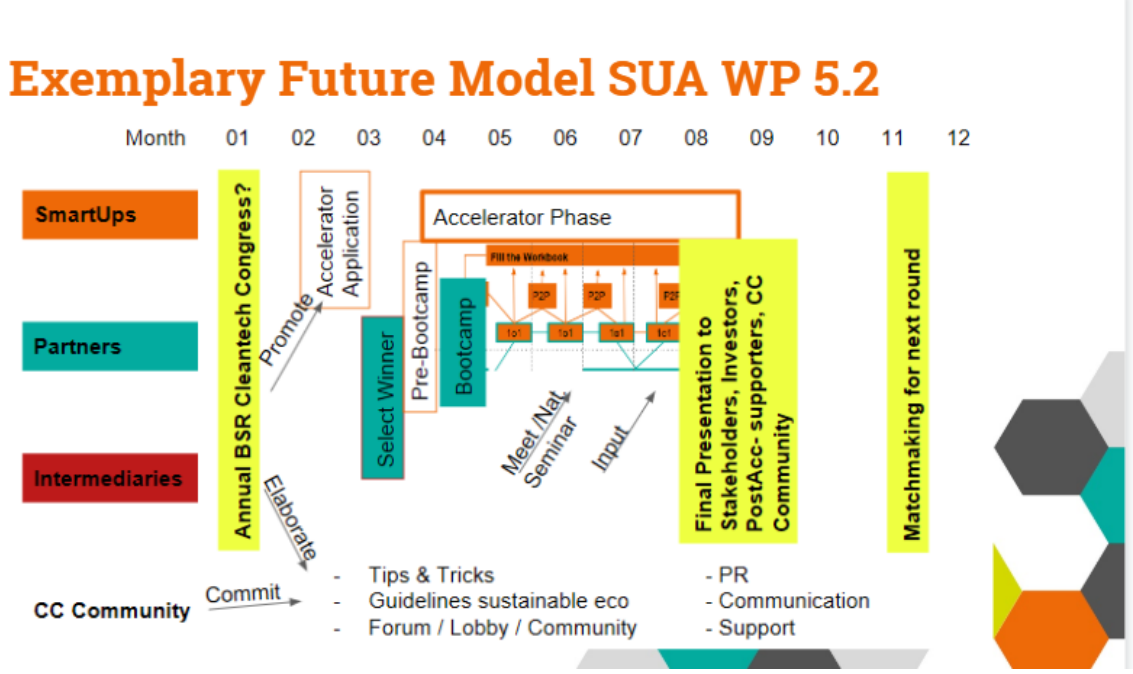

Image 7.2 – The revised Smartup Network Model, including the project's acceleration phase.

The improved Smartup Accelerator model outlined not only the interlinkages and relationships between existing programmes in the BSR related to consumer cleantech, but it also aims to incorporate our findings from the project's first acceleration phase. The improved model aims to serve as guidance for intermediaries, as well as identify components and processes and key target groups. This being said, another aspect of the model that must be considered when improving it further is the model's longevity – i.e. how will the model survive beyond the Smartup Accelerator project? The improved model still requires fine-tuning to ensure the question of longevity is addressed.

8.Conclusion: Establish a functioning model for the long term

In conclusion, outlined here is the initial plan and strategy for the launch of the continuous model for an effective consumer cleantech accelerator in the BSR. The long-term Smartup Accelerator shall address organisational issues, securing financial capabilities as well as benefits and value of being actively participating and exploiting the model. Also factored into the model would be supporting tools and processes.

The Smartup Accelerator final model will combine, describe and analyse the three years path of creating the model and explain how the model will fulfil its targets. According to our proposed work plan output, the model will be published in a virtual form for everybody's use and act as a manual also for other transnational ecosystems around the BSR if needed. It will combine all the results from all work packages activities, outputs and results and being able to look back it sees also the longer-term strategic developments and results that have been occurring during the consumer cleantech branch development. The model shall reveal the latest trends in the BSR transnational innovation ecosystem evolving and describes the latest tools and methods available. The model also will provide a description and contact information about all the relevant innovation ecosystem members and describes all the relevant other support and network organisations, innovation nodes, contact networks, important events and information of financing sources and instruments.

Such a long-term model shall include the following:

- Development of an interactive, ease of use platform
- BSR Network of targeted intermediaries / agencies
- Public / Private Funding opportunities
- Interlinkages with existing programmes in the BSR

A functioning model will serve as guidance for intermediaries, identify components and processes & identify key target groups. Ideally, such a model would be an interactive, lasting online platform for transnational exchange & knowledge. The Smartup Accelerator platform will bring ecosystems together electronically & identifies funding opportunities and key agencies on a regional, national & international level.

In the long term, the model should be in continuous operation and shall cover the following:

- Relations and interactions and interlinkages with existing innovation processes and programmes in the BSR related to consumer cleantech
- Established agreements and conditions for cooperation and integration with regional, national and transnational innovation networks
- Components and processes included and well described
- Target groups and stakeholders already involved and committed to the model
- Supporting tools and structures from the project and included to be exploited
- Organisational description and financial capabilities for the model
- The value proposition: key benefits and value of participating and exploiting the model and included supporting tools and processes
- Transnational exchange and interaction procedures and structure
- IPR and risk mitigation plan and procedures
- Long term communication strategy and plan

In addition, the output description of the Smartup Accelerator model also suggests the project will assess how the cleantech community is using materials that the project has provided or is providing and how partner organisations have improved their approach to acceleration. Following the second acceleration phase, there will be some additional information on the success of the

cleantech smartups with and without funding provided by the project, for example. Important information and findings such as these will be assessed after the second acceleration phase and factored into the final version of the model.

Absolutely vital to the Smartup Accelerator model's longeviety is its support from relevant BSR intermediaries who desire to become sector-leading and ensure the platform is kept relevant and, most importantly, interactive. Thus, the next steps in developing the Smartup Accelerator model is to identify intermediaries willing to manage this currently theoretical platform, which would benefit them directly as it would match relevant smartups in consumer cleantech to their own networks, thus expanding the consumer cleantech ecosystem in the Baltic Sea Region.

Finally, the Smartup Accelerator consortium will follow up with the implementation of this consumer cleantech in the BSR platform by assessing how the community is using materials that we provide and how partner organisations have improved their approach to acceleration.