Increasing transnational cooperation capacity

REPORT ON THE STUDY OF BALTIC SEA REGION CONSUMER CLEANTECH INNOVATION ECOSYSTEM

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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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Introduction

The study of Baltic Sea Region (BSR) intermediaries increased transnational cooperation capacity during the SmartUp Accelerator project aimed to explore and describe how intermediaries' capacity to foster transnational innovation processes will evolve due to the activities targeted to them and the experiences and knowledge born from the project's transnational ecosystem activities in general.

The scope of the study, its research aim and its processes have been described below and the report will end with conclusions and recommendations for the future. The study on BSR consumer cleantech innovation capacity will also be used for monitoring the progress and impact and will be disseminated to all interested intermediaries throughout the BSR. It is also a vital input to the establishment of the BSR Smartup Accelerator in WP5. The main target group is intermediaries within the Smartup Accelerator consortium. The results and findings will be used for monitoring the impacts of the actions taken throughout the project and recommend additional activities in communication and interaction with intermediaries to further enhance the innovation capacity in consumer cleantech as well as increased transnational cooperation. It will be publicly available and is open for updates and complementary information when needed. It has a transnational character by providing information and results of from the development process of a BSR wide intermediaries network, defining the initial starting point and methods and tools used to improve it. Because of its nature, it is a pivotal building block for the future Smartup Accelerator model and its SmartUp Accelerator Network. When carried out and completed regularly with relevant updates it will monitor and suggest actions and measures to increase BSR consumer cleantech innovation ecosystems cooperation skills and global competitiveness. It will enforce continuous and commercially successful long-

term strategic cooperation in between BSR countries and create a transnational intermediary cooperation development model that can be spread to other business areas too, thus having a positive economic input to regions and the BSR as a whole.

The study first analyzed the initial level of skills and frame conditions such as resources, mandate, environment and the influence and support from the regional and national innovation systems. The study also thrived to understand what transnational support functions intermediaries fulfil for different target groups. In order to measure the change of intermediaries' capacities, online surveys have been conducted in two rounds: 1) at the beginning of the project, 2) at the end of the project. Surveys were conducted with intermediaries in chosen target partner regions. The results of these surveys led to analyses of factors driving interests in intermediary support and support needs as well as an analysis of most useful transnational support functions that intermediaries use.

It is important to point out that even if this study focuses on intermediaries support actions in transnational activities, it is very difficult to draw the line in their 'everyday acceleration activities' versus 'transnational activities', since these necessary capabilities go hand in hand and often blur together. Therefore, it is important to also understand what kind of basic capabilities and resources the intermediary organisation possesses even if it is not in the central focus of the study. These basic skills create the platform where the transnational innovation process orchestration capabilities then will be built upon.

The results of the study within activity are also complementary to activities:

1. Identification and description of all relevant actors on the BSR consumer cleantech innovation actors field. Some summarised findings from previous work that might be supportive for the findings within this study are to be found below.

Identification and description of all relevant actors

   - In all countries are well developed networks of intermediaries. However, depending on various factors, some of these networks are more effective than others
   - In every country there is high number (more than 20) of intermediaries (incubators, accelerators, competitions, investors) who are offering different types of support for startups
   - Usually intermediaries are focused either to some industry segment (sport, health, agriculture), to development stage of startups (early stage, growth, scale up), to technological vertical or to foster economic development within geographical region

- In general intermediaries are well informed about similar organisations in other countries: they network and share their experience in international forums, conferences. Mainly cooperation is initiated and is happening within projects (e.g. Interreg). Usually managers of intermediaries are visiting other similar organisations and only in few cases startups get involved in exchange programs with the opportunity to visit companies, to participate workshops/bootcamps and to meet other startups
- Mostly all intermediaries (accelerators, incubators) are project-based financed and mainly from EU funds or other public funding.
- Key actors in innovation ecosystem usually are concentrated in one or several cities. The exception is Sweden and Germany where intermediaries are to be found around the country.

2. Framework of Ecosystem: looking at innovative processes and methods intermediaries are using that the SmartUp Accelerator could utilise.

Framework of Ecosystem: „Driver of the innovation ecosystem in any country is typically some sort of national innovation agency"

Main conclusion from the activity is that the driver of the innovation ecosystem in any country is typically some sort of national innovation agency that monitors, initiates and regulates different incentives. This is normally assigned by the government that allocates funding and resources to enable a dynamic and rigorous innovation ecosystem. The goal is to sustain a positive development of the country's innovativeness and growth, foster prosperity and address high employment levels. To foster and drive innovation, incubators were created, which are now common practice in all BSR countries, to varying degrees. An incubator is most often financed through the aforementioned innovation agency and serves as a support mechanism for early stage companies, i.e. startups. The incubators around the BSR region have their differences, but also many similarities. There are no tailored incubators for cleantech projects – there may be certain programmes on the national or international level, but no tailored incubators for cleantech nor consumer cleantech. The overall level of consumer cleantech is typically low, and the traditional mindset of cleantech having industry focus seem to still be valid, though some trends are pointing to a change.

Methodology

The organisations that took part in the studies were:

1. **Alexanderson Institute (Sweden)** - The Alexanderson Institute was established in 2008 and is located in the Halland region in the south-western part of Sweden. Their commitment is to provide competitive knowledge that the world around us can benefit from, helping to promote growth and development. To achieve this, they:

- Develop and implement projects and use networking to favour the development of trade and industry in the Halland region.
- Contribute to improve the competitiveness and the attractiveness of the region.
- Increase the focus on internationalization in the region.
- Strengthen the connections between research and development as well as between academia and industry.

2. **Demos Helsinki (Finland)** - Demos Helsinki is an independent think tank, working together with the public sector, private sector, and NGOs. They aim to impact the ongoing global transformations actively and try to build sustainable and fair post-industrial societies. Demos is specialised in consultancy services, entirely new ways of cooperation with organisations and people, and thinking the most wicked societal challenges of our time. Their vision is to be a platform for building sustainable and fair post-industrial societies where the world's brightest and most affirmative changemakers can unite. Demos Helsinki knows the world changes only when people and organisations come together.

3. **Atene KOM (Germany)** - atene KOM accompanies the public sector in project development in the areas of digitalisation, energy, mobility, health and education. Together with German and European partners, atene KOM works on funding projects particularly related to digitalisation, smart mobility concepts for local and regional transport or intelligent strategies and sustainable development. atene KOM has the main goal of supporting the adaptations of regions to respond to the fast pace of development, thus making them more competitive.

4. **Foundation for Technology Entrepreneurship (FTE) (Poland)** - The FTE is an NGO, founded in 2015. Its goal is to support entrepreneurship based on high technologies. Its mission is to educate, connect and support the development of high-tech startups in Poland and in the Central and Eastern Europe (CEE) Region. The FTE is an active participant of the Polish and European

ORGANIZATIONS THAT TOOK PART IN THE STUDIES

1. Alexanderson Institute (Sweden)
2. Demos Helsinki (Finland)
3. Atene KOM (Germany)
4. Foundation for Technology Entrepreneurship (Poland)
5. Innovatum AB (Sweden)
6. Johanneberg Science Park (Sweden)
7. Science Park Tehnopol (Estonia)
8. St. Petersbourg Foundation for SME Development (Russia)
9. University of Latvia (Latvia)

innovation arena and a partner for research institutions and universities, startups, VCs, investors, corporate partners and other entities with shared vision and goals. There are different areas of support:

- **Support in the development of high-tech startups** – the FTE runs acceleration programs, which help young innovative companies grow globally, both from Poland and from the whole CEE Region.
- **Education** – the FTE runs educational business programs for different members of the entrepreneurial innovative ecosystem
- **Networking** – the FTE organizes events and creates community of entrepreneurs, mentors, investors and mature companies interested in cooperation with startups, supporting entrepreneurs in their access to the global capital and global markets.

5. **Innovatum AB (Sweden)** - Innovatum was founded in 1997 and has built up advanced networks and knowledge over the years. Innovatum is a science park supports the strengthening of business and trade in Västra Götaland County, Sweden. Efforts include finding synergies and opportunities for innovation within and between different types of organizations in the region and among Innovatum's own departments. Innovatum Startup, Innovatum Project Arena and the Energy Agency of West Sweden are the departments under the Innovatum Science Park umbrella most relevant to consumer cleantech.

6. **Johanneberg Science Park (Sweden)** - Johanneberg Science Park is Sweden's leading collaborative arena for urban development. Johanneberg Science Park was founded in 2010 by the City of Gothenburg and Chalmers University of Technology. Their partner network consists of our founders together with AB Volvo, Bengt Dahlgren AB, Förvaltnings AB Framtiden, Göteborg Energi, HSB, Husqvarna AB, MölnDala Fastighets AB, Peab AB, Riksbyggen, Tyréns AB, Skanska, Wallenstam, White Architects, Akademiska Hus, Chalmersfastigheter, Västra Götalandsregionen, West Sweden Chemicals and Materials Cluster, and more than 200 small and medium-sized companies.

7. **Science Park Tehnopol (Estonia)** - Science Park Tehnopol is a research and business campus with a mission of helping startups and SMEs to grow more quickly. As the largest science park in the Baltics, they provide enterprises with both modern office spaces and top-notch counselling in developing your business and entering export markets. Tehnopol Startup Incubator helps technology-based startups to develop their business and get investments, using the best mentors from Estonia and Europe.

8. **St. Petersbourg Foundation for SME Development (Russia)** - St. Petersburg Foundation for SME Development is a non-for-profit, non-governmental business support institution as well as independent professional business consultancy established in 1995 with the assistance of the Government of St. Petersburg. The mission of the Foundation is initiation and implementation of significant initiatives and projects contributing to the economic growth and prosperity of St. Petersburg as well as the North-West Federal District of the

Russian Federation. The Foundation is a participant of the key international, federal and regional business and professional networks and associations, such as Enterprise Europe Network, Agency for Strategic Initiatives, St. Petersburg Chamber for Commerce and Industry, Public Council on SME Development under the Governor of St.Petersburg.

9. **University of Latvia (Latvia)** - with 14,000 students, 13 faculties, and 20 research institutes is one of the largest comprehensive research and educational institutions in the Baltic States. The new LU Campus for Life sciences is an attractive environment for research-based study process, innovations and start-up creation. In more than 150 modern research laboratories world-class research is conducted. Fields of expertise cover Environmental science, Microbiology, IT, Biotechnologies, Nanotechnologies, Mathematical modeling, Material sciences, Regional development and more.

The representatives of aforementioned organisations were answering the same questions in both rounds of surveys, indicating their level of experience for the categories (on a scale 1 to 5, where: 1 – none or very little experience, 5 – I am an advanced expert):

1. Consumer cleantech as an industry and its business logic
2. Market trends & drivers on consumer cleantech
3. Support mechanism for business development
4. Organising and carrying out accelerator programs for advanced (TRL 4-5) startups/SMEs
5. Innovation tools for startups and SMEs
6. Engagement with BSR wide innovation actors and intermediaries
7. Engagement with regional/national consumer related innovation actors
8. Engagement with consumer cleantech related startups and SMEs
9. Organising matchmaking events
10. Facilitating testbeds/validation/proof of concept phases
11. Applying several media channels for raising awareness
12. Any other feedback

The surveys were conducted with the Google Forms questionnaire tool, from which data was extracted into Excel sheets for analysis.

Results

Question 1	Organisation/Country	Round 1	Round 2
Consumer clean-tech as an industry and its business logic	Science Park Tehnopol/Estonia	2	4
	Demos Helsinki/Finland	4	4
	EiFI/Atena KOM/Germany	3	4
	University of Latvia/Latvia	2	4
	Foundation for Technology Entrepre-neurship/Poland	3	5
	St. Petersbourg Foundation for SMEs Development/Russia	2	4
	Alexanderson Institute/Sweden	2	4
	Innovatum AB/Sweden	2	4
	Johanneberg Science Park/Sweden	2	4
	Average	**2.4**	**4.1**

Question 2	Organisation	Round 1	Round 2
Market trends&drivers on consumer clean-tech	Science Park Tehnopol/Estonia	2	4
	Demos Helsinki/Finland	3	5
	EiFI/Atena KOM/Germany	3	4
	University of Latvia/Latvia	2	4
	Foundation for Technology Entrepre-neurship/Poland	2	5
	St. Petersbourg Foundation for SMEs Development/Russia	3	4
	Alexanderson Institute/Sweden	2	4
	Innovatum AB/Sweden	1	4
	Johanneberg Science Park/Sweden	2	3
	Average	**2.2**	**3.5**

Question 3	Organisation	Round 1	Round 2
Support mechanism for business development	Science Park Tehnopol/Estonia	2	5
	Demos Helsinki/Finland	3	4
	EiFI/Atena KOM/Germany	4	4
	University of Latvia/Latvia	4	4
	Foundation for Technology Entrepreneurship/Poland	3	4
	St. Petersbourg Foundation for SMEs Development/Russia	4	5
	Alexanderson Institute/Sweden	3	4
	Innovatum AB/Sweden	4	4
	Johanneberg Science Park/Sweden	3	5
	Average	**3.3**	**4.3**

Question 4	Organisation	Round 1	Round 2
Organising and carrying out accelerator programs for advanced (TRL 4-5) startups/SMEs	Science Park Tehnopol/Estonia	3	4
	Demos Helsinki/Finland	2	3
	EiFI/Atena KOM/Germany	2	3
	University of Latvia/Latvia	4	4
	Foundation for Technology Entrepreneurship/Poland	4	5
	St. Petersbourg Foundation for SMEs Development/Russia	3	4
	Alexanderson Institute/Sweden	2	3
	Innovatum AB/Sweden	1	4
	Johanneberg Science Park/Sweden	3	4
	Average	**2.6**	**3.7**

Question 5	Organisation	Round 1	Round 2
Innovation tools for startups and SMEs	Science Park Tehnopol/Estonia	2	4
	Demos Helsinki/Finland	3	3
	EiFI/Atena KOM/Germany	4	5
	University of Latvia/Latvia	4	4
	Foundation for Technology Entrepreneurship/Poland	4	5
	St. Petersbourg Foundation for SMEs Development/Russia	4	4
	Alexanderson Institute/Sweden	2	4
	Innovatum AB/Sweden	2	3
	Johanneberg Science Park/Sweden	3	4
	Average	**3.5**	**4.0**

Question 6	Organisation	Round 1	Round 2
Engagement with BSR wide innovation actors and intermediaries	Science Park Tehnopol/Estonia	1	4
	Demos Helsinki/Finland	2	4
	EiFI/Atena KOM/Germany	4	4
	University of Latvia/Latvia	2	3
	Foundation for Technology Entrepreneurship/Poland	3	4
	St. Petersbourg Foundation for SMEs Development/Russia	3	4
	Alexanderson Institute/Sweden	4	4
	Innovatum AB/Sweden	2	4
	Johanneberg Science Park/Sweden	1	4
	Average	**2.4**	**3.8**

Question 7	Organisation	Round 1	Round 2
Engagement with regional/national consumer cleantech related innovation actors	Science Park Tehnopol/Estonia	2	4
	Demos Helsinki/Finland	3	4
	EiFI/Atena KOM/Germany	4	4
	University of Latvia/Latvia	2	4
	Foundation for Technology Entrepreneurship/Poland	3	5
	St. Petersbourg Foundation for SMEs Development/Russia	4	4
	Alexanderson Institute/Sweden	2	4
	Innovatum AB/Sweden	2	4
	Johanneberg Science Park/Sweden	3	4
	Average	**2.7**	**3.6**

Question 8	Organisation	Round 1	Round 2
Engagement with consumer cleantech related startups and SMEs	Science Park Tehnopol/Estonia	2	4
	Demos Helsinki/Finland	4	4
	EiFI/Atena KOM/Germany	4	4
	University of Latvia/Latvia	2	3
	Foundation for Technology Entrepreneurship/Poland	3	5
	St. Petersbourg Foundation for SMEs Development/Russia	4	4
	Alexanderson Institute/Sweden	3	3
	Innovatum AB/Sweden	2	4
	Johanneberg Science Park/Sweden	3	5
	Average	**3.0**	**4.0**

Question 9	Organisation	Round 1	Round 2
Organising matchmaking events	Science Park Tehnopol/Estonia	2	5
	Demos Helsinki/Finland	4	5
	EiFI/Atena KOM/Germany	4	5
	University of Latvia/Latvia	2	4
	Foundation for Technology Entrepreneurship/Poland	4	5
	St. Petersbourg Foundation for SMEs Development/Russia	4	5
	Alexanderson Institute/Sweden	2	4
	Innovatum AB/Sweden	3	3
	Johanneberg Science Park/Sweden	2	4
	Average	**3.0**	**4.4**

Question 10	Organisation	Round 1	Round 2
Facilitating testbeds/validation/proof of concept phases	Science Park Tehnopol/Estonia	1	4
	Demos Helsinki/Finland	3	4
	EiFI/Atena KOM/Germany	4	5
	University of Latvia/Latvia	4	4
	Foundation for Technology Entrepreneurship/Poland	3	5
	St. Petersbourg Foundation for SMEs Development/Russia	3	4
	Alexanderson Institute/Sweden	2	2
	Innovatum AB/Sweden	2	4
	Johanneberg Science Park/Sweden	2	3
	Average	**2.6**	**3.8**

Question 11	Organisation	Round 1	Round 2
Applying several media channels for raising awareness	Science Park Tehnopol/Estonia	2	3
	Demos Helsinki/Finland	4	4
	EiFI/Atena KOM/Germany	4	4
	University of Latvia/Latvia	2	4
	Foundation for Technology Entrepreneurship/Poland	3	4
	St. Petersbourg Foundation for SMEs Development/Russia	4	4
	Alexanderson Institute/Sweden	4	4
	Innovatum AB/Sweden	3	3
	Johanneberg Science Park/Sweden	2	3
	Average	**3.1**	**3.6**

Conclusions and recommendations

Conclusions – opinions from project's Partners
• "This 3-year project has supported me immensely in gathering knowledge about the consumer cleantech sector. Knowledge, practice, training, coaching, networking" • "SmartUP Accelerator project events raised my awareness about consumer cleantech field and the need of 'green' business criteria in most type of entrepreneurship to survive in future world" • "The more you learn the more you realise how complex the field is and how there are many aspects that come into play for the market potential of consumer cleantech, especially if looking at this from the perspective of different smartups, specific solutions and markets" • "Due to the research on market studies, as well as international bootcamps and the whole acceleration process I've managed to gain a great amount of knowledge on market trends, its drivers and barriers" • "I gained a lot of knowledge about market trends and drivers through market studies in different countries" • "In the project I've learned many practical tools on how to support business development of international startups interested in international markets they targeted. I've also had the opportunity to practice these new skills both on national (support of startups on a target market), as international level (international bootcamps)" • "In the project we've dealt with different TRLs, nevertheless there were also startups with sales and capacities to scale up. Due to the fact that our organisation is also organising accelerator programs I've managed to gather already more than 3 years of experience in the field, and the SMA project has supported this experience even more" • "The project has given us the opportunity to invent, prepare, learn, and practice different tools of support, such as: matchmakings, trainings, mentoring, business development, bootcamps" • "The network has definitely expanded due to the project activities, which has been one of the most vital experiences. Hence - we have decided to co-create the SMA Network" • "The international competitions and bootcamps has proven to be the best possible way to access the startup market in the emerging consumer cleantech sector. It wouldn't be that effective otherwise" • "SmartUp Accelerator project is a great platform for motivating different companies to participate in local matchmaking events"

SmartUp Acceleartor has served as a proof of concept for increasing intermediaries' capacity to cooperate. The results of the study showed that the BSR intermediaries' cooperation capacity has either stayed at the same level (usually high – at the level of 4, on a scale 1-5) or positively changed. This improvement (increased cooperation capacity) is especially observable in the fields:

"The project has caused an increased transnational cooperation capacity of the intermediaries participating in the project, and the external intermediaries."

- Consumer cleantech as and industry and its business logic
- Market trends & drivers on consumer cleantech
- Innovation tools for startups and SMEs
- Engagement with BSR wide innovation actors and intermediaries
- Organising matchmaking events

What has not changed to such a great extent were the areas of:

- Applying several media channels for raising awareness
- Support mechanisms for business development
- Engagement with regional/national consumer related innovation actors

It is hence recommended that there could be some further activities that would improve the above listed areas of transnational cooperation.

The general conclusion is that the project has caused an increased transnational cooperation capacity of the intermediaries participating in the project and the external intermediaries – as each partner was involved in disseminating this new knowledge and experience among other consumer cleantech ecosystem actors in the BSR. What is also important is the fact that the outputs of the study were also supportive for the development of the self-sustaining SmartUp Model (SmartUp Accelerator Network) - serving as a validation for the SmartUp Accelerator process.

Further collaboration of participants in the SmartUp Accelerator Network will bring greater visibility to the consumer cleantech sector and greater opportunity for innovations in the BSR to be exploited, creating jobs, prosperity and social impacts.