

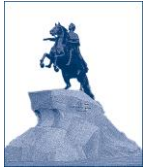
Saint-Petersburg
Cleantech Cluster
for urban environment



Санкт-Петербургский
Кластер Чистых технологий
для городской среды



St.Petersburg cleantech cluster for urban environment



Mission of the Cluster.
Making St. Petersburg environmentally friendly and safe for the residents of the city, combining clean technologies in all sectors of the economy and supply chains.

The main objective of the Cluster.
Developing and implementing effective and mutually beneficial joint projects and programs (cluster projects) based on the integration of the substantial, financial, technological and other resources of the participants, as well as attracting external funding.

Thematic focus areas of Cluster:

- Saving of Energy Resources,
- Energy Efficiency,
- Smart City / Smart Grid,
- Green Building / Ecohouse,
- Waste Management,
- City Transport,
- IT for Cleantech,
- Clean Industrial Processes in urban environment,
- Biofuel,
- Solar & Wind Energy.



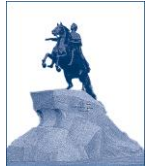
62 Cluster members

In cluster 44,5 thousand people

Products cluster in St. Petersburg in 2018 and 7,5 billion rubles



St.Petersburg cleantech cluster for urban environment



Global Cleantech Cluster Association (GCCA)



BALTIC CLEANTECH ALLIANCE



Карта кластеров России

Green Clusters of Russia



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Sustainable urban development and circular economy projects
23,12 million euro



7 projects

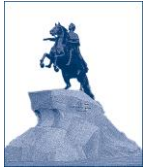


CBC 2014-2020
SOUTH-EAST FINLAND - RUSSIA

5 projects



St.Petersburg cleantech cluster for urban environment



INTERREG Baltic Sea Region Programme 2014-2020

Innovation Ecosystem to foster consumer cleantech markets in the Baltic Sea Region
(SMARTUP ACCELERATOR)

Baltic Smart City Areas for the 21st century (AREA 21)

Clean Shipping Project Platform (CSHIPP)

Co-producing and co-financing renewable community energy projects (CO2MMUNITY)

BSR electric - Fostering e-mobility solutions in urban areas in the Baltic Sea Region
(BSR ELECTRIC)

Baltic Industrial Symbiosis (BIS)

Using innovation procurement and capacity building to promote Circular Economy (CIRCULAR PP)
Memorandum of Understanding



St.Petersburg cleantech cluster for urban environment



INTERREG Baltic Sea Region Programme 2014-2020

1. Innovation
1.3 Non-tech innovation

SMARTUP ACCELERATOR

There is a growing interest in consumer clean technology, which is about reducing the environmental burden of consumption and is related to resource scarcity, rising energy and fuel costs, digitalisation and automation. The project helps exploit arising business opportunities in consumer clean technology for small and medium sized enterprises, start-ups and intermediaries in the Baltic Sea region by shaping models for networking, partnership and cultural cooperation.

Go to project website

October 2017 - September 2020

EUSBSR flagship
Priority area: Innovation

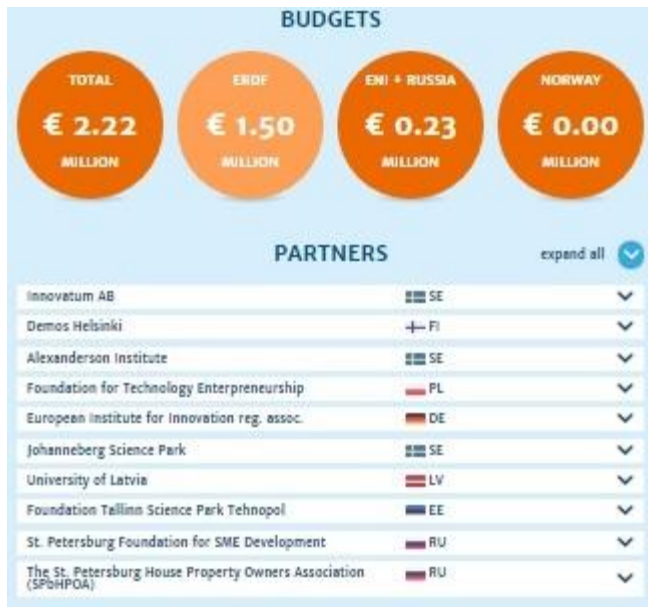
2. Natural resources
2.3 Energy efficiency

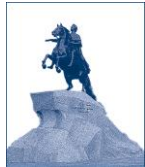
Go to project website

October 2017 - September 2020

AREA 21

The idea of the project is to bring together authorities, energy providers and citizens within their city districts to find and apply the best solutions for saving energy, thus decreasing CO2 emissions. To achieve this, the project enables local and regional authorities from cities around the Baltic Sea to run cooperative planning processes. Such processes help authorities to work together across different sectors, to understand citizens' motives and barriers, and to actively involve citizens in city neighbourhoods.





St.Petersburg cleantech cluster for urban environment

INTERREG Baltic Sea Region Programme 2014-2020

3. Transport
3.4 Clean shipping

CSHIPP

The Baltic Sea is one of the busiest and most environmentally vulnerable seas in the world. The platform CSHIPP closes the gap between research, business and policy making by establishing long-term knowledge exchange among these entities. This helps the maritime industry reduce its environmental footprint and increase competitiveness at the same time. CSHIPP is based on Interreg Baltic Sea Region projects EnviSoM, Baltic LINES, GoLING, E2H2PRODIGI, COMPLETE and H2R ELECTROH2 as well as WINDIS project FREEM and GreenMar.

October 2018 - September 2020

Project platform

2. Natural resources
2.3 Renewable energy

Go to project website

CO2MMUNITY

When citizens join forces to set up, finance and manage energy production based on renewables in their region, we call it renewable community energy. The project gives municipalities, regional energy planning agencies and citizens' associations across the Baltic Sea region the information they need to start and run community energy projects in their regions.

October 2017 - September 2020

BUDGETS

TOTAL € 1.08 MILLION	ERDF € 0.69 MILLION	ENI + RUSSIA € 0.09 MILLION	NORWAY € 0.04 MILLION
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PARTNERS

expand all

University of Turku	FI	▼
Centrum Balticum Foundation	FI	▼
Finnish Meteorological Institute	FI	▼
IVA, Swedish Environmental research Institute	SE	▼
Baltic Marine Environment Protection Commission - Helsinki Commission (HELCOM)	FI	▼
Norwegian Meteorological Institute	NO	▼
Chalmers University of Technology	SE	▼
Tallinn University of Technology	EE	▼
Helmholtz-Zentrum Geesthacht Centre for Materials and Coastal Research	DE	▼
ATI Küste GmbH - Association for Technology and Innovation	DE	▼
Maritime University of Szczecin	PL	▼
MDC (Maritime Development Center)	DK	▼
Aalborg University	DK	▼
The St. Petersburg House Property Owners Association	RU	▼

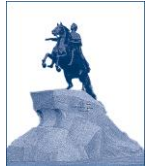
BUDGETS

TOTAL € 3.15 MILLION	ERDF € 2.45 MILLION	ENI + RUSSIA € 0.00 MILLION	NORWAY € 0.00 MILLION
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PARTNERS

expand all

Kiel University	DE	▼
SUCCEEDED by PP17 (01.01.2018) Green City Energy AG	DE	▼
Heinrich-Böll Foundation Schleswig-Holstein e.V.	DE	▼
Municipality of Middelfart	DK	▼
Tartu Regional Energy Agency	EE	▼
Aalto University Foundation sr	FI	▼
Green Net Finland	FI	▼
Regional Council of South Ostrobothnia	FI	▼
Thermopolis Ltd - Energy Agency of South Ostrobothnia	FI	▼
Riga Planning Region	LV	▼
Kaunas Regional Energy Agency	LT	▼
Lithuanian Energy Institute	LT	▼
Foundation for Sustainable Energy	DE	▼



St.Petersburg cleantech cluster for urban environment

INTERREG Baltic Sea Region Programme 2014-2020



3. Transport
3.5 Urban mobility

October 2017 - September 2020

BSR ELECTRIC

The project aims to enhance the use of electric vehicles in city transport systems such as public sector fleets, public transport and bike sharing in order to reduce CO2 emissions and pollution. The partnership of public authorities, business, academia and NGOs explores the potential of e-bikes.

[Read more](#)

TOTAL	ERDF	ENI + RUSSIA	NORWAY
€ 3.83	€ 2.79	€ 0.00	€ 0.13
MILLION	MILLION	MILLION	MILLION

PARTNERS [expand all](#)

- Hamburg University of Applied Sciences DE
- ATI Küste GmbH Association for technology and innovation DE
- Høje-Taastrup Municipality DK
- Lindholmen Science Park AB SE
- Zero Emission Resource Organisation (ZERO) NO
- Turku University of Applied Sciences FI
- Green Net Finland FI
- Helsinki Region Environmental Services Authority HSY FI
- Institute of Baltic Studies (IBS) EE
- Tartu City Government EE
- LTD Ardenis LV
- Riga City Council LV
- City of Gdansk PL
- Urban Transport Administration Gothenburg SE
- Free and Hanseatic City of Hamburg, Borough of Bergedorf DE

BIS

The project promotes industrial symbiosis, a concept for sustainable regional development, across the Baltic Sea region. Industrial symbiosis means to connect companies from different industries in order to use one company's waste, in the form of e.g. energy, ingredients or materials, as a resource for the next company. The project establishes peer-to-peer exchange for industrial symbiosis practitioners. It develops new business and finance models and sets

BUDGETS

TOTAL	ERDF	ENI + RUSSIA	NORWAY
€ 2.50	€ 1.33	€ 0.34	€ 0.18
MILLION	MILLION	MILLION	MILLION

PARTNERS [expand all](#)

- Symbiosis Center Denmark, Kalundborg Municipality DK
- Kalundborg Symbiosis DK
- Næstved Municipality DK
- The Paper Province economic association SE
- Digipolis FI
- Trendelag County Council NO
- Swedish Agency for Economy and Regional Growth SE
- Gdansk University of Technology PL
- Linköping University SE
- Roskilde University DK
- Tyremen Group LLC RU
- The St. Petersburg house property owners association RU
- St. Petersburg State Geological unitary Enterprise Specialised firm "Mineral" (SC Mineral) RU

1. Innovation
1.3 Non-tech innovation

[Go to project website](#)

October 2017 - September 2020

CIRCULAR PP

A traditional procurement model does not consider re-use or recycling of purchased goods or services. The project promotes a circular procurement model, which takes into account the lifecycle of products throughout the supply chain. The development of tools, exchange of best practices, training and building capacity among procurers, suppliers and policymakers for circular products stimulates the development of new business models.

BUDGETS

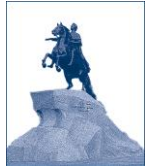
TOTAL	ERDF	ENI + RUSSIA	NORWAY
€ 2.45	€ 1.81	€ 0.09	€ 0.00
MILLION	MILLION	MILLION	MILLION

PARTNERS [expand all](#)

- City of Aalborg (AAL) DK
- City of Malmö (MAL) SE
- Aalborg University (AAU) DK
- Saint Petersburg campus of National Research University Higher School of Economics (HSE) RU
- Latvian Environmental Investment Fund (LEIF) LV
- Rzeszow Regional Development Agency (RRDA) PL
- Rijkswaterstaat – Ministry of Infrastructure and the Environment (RWS) NL
- Finnish Environment Institute (SYKE) FI
- Latvian Chamber of Commerce and Industry (LCCI) LV
- NorthDenmark EU-Office (EENA) DK



St.Petersburg cleantech cluster for urban environment



INTERREG Baltic Sea Region Programme 2014-2020

Cities in the Circular Economy - City of Tomorrow

Thus, upon identifying the crucial need to define strategies, goals and indicators for sustainability, four pioneering cities have now united to work on a circular economy project under the leadership of the city of Malmö (SE): Copenhagen (DK), Helsinki (FI), Sofia (BG) and Utrecht (NL). Beyond strengthening the connection between these cities, the goal of the project is to be able to provide input and feedback to cities' long term strategies by highlighting how processes can be made easier, smarter, cleaner and more resource efficient.

Memorandum of Understanding (Malmö - Malmö)
 between Climate KIC Consortium partners Copenhagen Municipality and the Noncommercial Partnership "The St. Petersburg House Property Owners Association", managing company of international consortium "Basic, Saint-Petersburg Cleantech Cluster for Urban Environment".
 Regarding collaboration in the frame of project "Cities in the Circular Economy - City of Tomorrow".
 The organizations signing this Memorandum hereby express their interest to establish mutually beneficial collaboration in the frame of project "Cities in the Circular Economy - City of Tomorrow", funded by Interreg EU Baltic Sea Region (2014-2020) Programme.
 Thus, upon identifying the crucial need to define strategies, goals and indicators for sustainability, four pioneering cities have now united to work on a circular economy project under the leadership of the city of Malmö (SE): Copenhagen (DK), Helsinki (FI), Sofia (BG) and Utrecht (NL).
 Beyond strengthening the connection between these cities, the goal of the project is to be able to provide input and

Memorandum of Understanding (Malmö - Malmö)
 между Консорциумом «Климат КИС» и некоммерческим партнерством «Базис - Меморандум».
 «Городское или коммунальное предприятие Санкт-Петербурга - кластер чистых технологий городской среды».
 Относительно сотрудничества проекта «Города в циркулярной экономике».
 Подписавшие данный Меморандум организации выражают заинтересованность и взаимовыгодное сотрудничество в рамках проекта «Города в циркулярной экономике» в рамках проекта «Города в циркулярной экономике», финансируемого Программой Региона Балтийского моря (2014-2020).
 При выявлении необходимости определения стратегий, целей и показателей устойчивости, четыре пионерных города: Копенгаген (Дания), Хельсинки (Финляндия), София (Болгария) и Утрехт (Нидерланды) объединились, чтобы работать в проекте в циркулярной экономике.
 Помимо укрепления связи между этими городами, целью проекта является возможность оказывать обратную связь и предоставлять

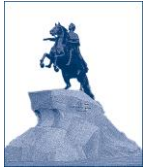
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feedback to cities' long term strategies by highlighting how processes can be made easier, smarter, cleaner and more resource efficient.
 The project will work to identify the effects, both positive and negative, of incorporating circularity into the city's planning instruments, as well as how these can be assessed. The outcomes are meant to help policymakers, investors, business, consumers and the civil society to find the most promising transition pathways.
 With this MoU of Interest, Climate KIC Consortium partners Copenhagen Municipality and Noncommercial Partnership "The St. Petersburg House Property Owners Association", managing company of international consortium "Saint-Petersburg Cleantech Cluster for Urban Environment" agree that they will build their interactions on the basis of equality, honest partnership and observance of each other's interests.
 The collaboration initiated with the signing of this letter is valid during the end of "Cities in the Circular Economy - City of Tomorrow".
 Name: Peter Normann Vangbo
 Function: Business Developer
 Organization: Climate KIC Consortium partners Copenhagen Municipality
 Address: Wagnersvej 19, 6pp. b. 1, 5th floor, Copenhagen

долгосрочной стратегии развития городов подчеркивая, что процессы управления проектом могут быть сделаны легче, умнее, чище и более эффективным использованием ресурсов.
 Проект будет работать, чтобы определить эффекты, как положительные, так и отрицательные, учета цикличности в инструментах планирования города, а также как они могут быть оценены. Результаты предназначены для того, чтобы помочь политикам, инвесторам, предпринимателям, потребителям и гражданскому обществу, чтобы найти наиболее перспективные переходные пути.
 Данный Меморандум, подписываемый Консорциумом «Климат КИС» - партнер муниципалитета города Копенгагена и НП «Базис - Меморандум» - управляющая компания международного консорциума «Санкт-Петербургского кластера чистых технологий для городской среды» соглашается, что будет выстраивать свои взаимоотношения на основе равенства, честного партнерства и принимая в учет интересы, друг друга.
 Сотрудничество, инициированное подписанием данного Меморандума действительно на срок продолжительности проекта «Города в циркулярной экономике» - города будущего.
 Имя: Петер Норманн Вангбо
 Должность: Бизнес-разработчик
 Организация: Консорциум «Климат КИС» - партнер муниципалитета города Копенгагена
 Адрес: Вагнерсvej 19, 6pp. b. 1, 5. sal, 2450 København SV, Denmark
 GSM: +45 41762849
 E-mail: peter.vangbo@climate-kic.org
 Date and place: 3 September 2018



St.Petersburg cleantech cluster for urban environment



CBC 2014-2020
SOUTH-EAST FINLAND - RUSSIA

SOUTH-EAST FINLAND-RUSSIA CBC 2014-2020

Finnish Russian PPP catalyzing new green business” (Cata3Pult)

Green energy regional markets development (GreenReMark)

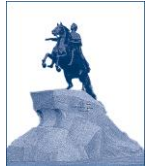
Energy-efficient systems based on renewable energy for Arctic conditions (EFREA)

Lightweight hybrid wooden composite materials for sustainable construction technology (SUSTECH)

A novel mobile water purification plant (One Drop)



St.Petersburg cleantech cluster for urban environment



INTERREG Baltic Sea Region Programme 2014-2020

CBC 2014-2020
SOUTH-EAST FINLAND - RUSSIA

GREEN ENERGY REGIONAL MARKETS DEVELOPMENT (KS1024)

ACRONYM
GreenNetBus

LEAD PARTNER
Peter the Great Saint-Petersburg Polytechnic University

TOTAL BUDGET
527 684 €

DURATION
01/12/2018 - 30/11/2020

CBC FUNDING
466 147 €

WEB SITE
http://www.spb.tau.ru

PARTNERS
Mitsubishi Development (Russia) Ltd (FIN) | Nova Energy Ltd (RUS) | South-Eastern Federal University of Applied Sciences (FIN)

PROJECT DESCRIPTION
GreenNetBus project aims at opening new attractive opportunities for the growth of the green economy, enlarging market conditions and strengthening the openness of the regional power grid for new consumers and producers.

MAIN ACTIVITIES
Main activities will focus on establishing expertise of relevant public authorities, utilities, suppliers and consumers of electricity and biomass to assess current strategies and develop investment management and methodology. Project will also develop Smart Grid principles for openness of energy systems and promote emerging regional markets in the green energy system.

PRIORITY 1 LIVELY, ACTIVE AND COMPETITIVE ECONOMY

ENERGY-EFFICIENT SYSTEMS BASED ON RENEWABLE ENERGY FOR ARCTIC CONDITIONS (KS1054)

ACRONYM
EFREA

LEAD PARTNER
LUT University

TOTAL BUDGET
1 350 000 €

DURATION
01/11/2018 - 31/10/2021

CBC FUNDING
1 080 000 €

WEB SITE
http://www.lut.fi

PARTNERS
Peter the Great St. Petersburg Polytechnic University (RUS) | Federal State Library Enterprise Central Research Institute of Structural Materials (RUS)

PROJECT DESCRIPTION
EFREA project aims to improve cross-border institutional framework with the increased level of knowledge, innovation potential and lifelong learning in renewable energy production in the Arctic. It develops guidelines, recommendations and educational materials on implementation of lightweight energy independent, robust, environmentally safe and cost-effective structures able to operate in the extreme temperatures.

MAIN ACTIVITIES
Main activities consist of the following work: state-of-the-art scientific and technical analysis and evaluation, structural design and material selection for the arctic conditions and development of fabrication and testing methods, undertake testing techniques, materials and non-oxidable materials and steel furnace operations. The project will also develop wind-energy structures and recommendations for the arctic environment and organize training programmes for students and engineering staff.

PRIORITY 2 INNOVATIVE, SKILLED AND WELL-EDUCATED AREA

LIGHTWEIGHT HYBRID WOODEN COMPOSITE MATERIALS FOR SUSTAINABLE CONSTRUCTION TECHNOLOGY (KS1253)

ACRONYM
SUSTECH

LEAD PARTNER
LUT University

TOTAL BUDGET
710 968 €

DURATION
01/12/2018 - 30/09/2021

CBC FUNDING
573 573 €

WEB SITE
http://www.lut.fi

PARTNERS
Peter the Great St. Petersburg Polytechnic University (RUS) | Scientific and Technological Centre of Applied Nanotechnologies Inc. (RUS)

PROJECT DESCRIPTION
SUSTECH project aims at developing and implementing innovative nanocomposite material for the organization of an easily accessible and well-maintained environment, in terms of cost-effective development of urban and rural areas.

MAIN ACTIVITIES
Main activities include refinement of current technology, testing and analyzing of construction and materials as well as manufacturing and installation of prototypes for full-scale testing in the chosen territories. Project will also develop relevant landscaping plans.

PRIORITY 2 INNOVATIVE, SKILLED AND WELL-EDUCATED AREA

A NOVEL MOBILE WATER PURIFICATION PLANT (KS1648)

ACRONYM
One Drop

LEAD PARTNER
LUT University

TOTAL BUDGET
1 184 140 €

DURATION
01/04/2019 - 31/03/2021

CBC FUNDING
947 312 €

WEB SITE
http://www.lut.fi

PARTNERS
Lappeenranta Free Zone Oy Ltd (FIN) | Saint Petersburg State University (RUS) | Peter the Great Saint Petersburg Polytechnic University (RUS) | OMEGA (RUS)

PROJECT DESCRIPTION
One Drop project objectives are studying, designing and developing a mobile water purification plant-based methodology for ecologically safe and economic solution on water treatment.

Cata3Pult – Finnish Russian PPP catalysing new green business

- Project time: 1.6.2019 – 31.5.2022
- Project partners:
 - City of Lappeenranta (Lead partner)
 - Green Net Finland
 - Metropolia University of Applied Sciences
 - Kosmos Ltd.
 - St. Petersburg Home Property Owners' Association
- Budget: 852 466 €
 - City of Lappeenranta 276 677 €
 - GNF 144 786 €
 - Metropolia 62 002 €
 - Kosmos 189 815 €
 - HPOA 179 185 €



Greenreality
LAPPEENRANTA



St.Petersburg cleantech cluster for urban environment



City project:

- Energy efficiency of a typical house
- Energy services for the urban environment
 - Effective light
 - Clean technologies in transport
- Industrial Park of clean technologies
 - Ekolend
- Educational project "smart city"

Noncommercial Partnership
«The St. Petersburg House Property Owners Association»
<http://spbgorod.nethouse.ru/>
E-mail: ppgorod@mail.ru
Specialized organization of the Cluster

International consortium
"Saint-Petersburg Cleantech Cluster for urban environment"
<http://spbcleantechcluster.nethouse.ru/>
E-mail: SpbCleantech@mail.ru