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cross-border
cooperation



Cata3Pult
FINNISH RUSSIAN PPP
CATALYZING NEW GREEN BUSINESS

Concept "From traditional industrial zone to new demonstration zone for green solutions

in Kolpino St.Petersburg"

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House Property Owners Association



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Introduction

The work is conducted under the **Cata3Pult – Finnish Russian Public Private Partnership catalysing green business** – project. The Cata3Pult project is part of the South-East Finland – Russia CBC Programme, which is a joint funding instrument of the European Union, the Russian Federation and the Republic of Finland.

Cata3Pult - Finnish Russian Public Private Partnership catalysing green business

Budget	800 000 €
Duration	1.6.2019 – 31.5.2022
Partners	City of Lappeenranta (Lead Partner) Green Net Finland (GNF) Metropolia University of Applied Sciences Environmental office KOSMOS LLC Non-commercial Partnership/NP “St.Petersburg Home Property Owners Association” (HPOA).

Funding	South-East Finland – Russia CBC Programme City of Helsinki
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The main objective of the Cata3Pult project is to contribute to economic and environmental development, to enhance regional business competitiveness through cross-border Public-Private cooperation and to catalyse green solutions development in the Programme area by attracting businesses to invest, locate and operate in the Programme area.



Kolpino Demonstration Zone: general description

To avoid misunderstanding, start this chapter by clarifying used names. The demonstration zone's physical location in Leningrad region, Tosno district, "Telmana-Centre" (Figure 1). In Cata3Pult we talk about "Kolpino demonstration zone" (Kolpino is one of St. Petersburg districts). Why? Because in Cata3Pult we also focus on development of energy- and eco-efficiency of residential buildings, which are located in Kolpino. Physically, the Kolpino area starts almost "behind the doors/borders" of the "Telmana". We would like to develop things/solutions by holistic approach. That is why we use such generic name as "Kolpino" also for the zone in Leningrad region.

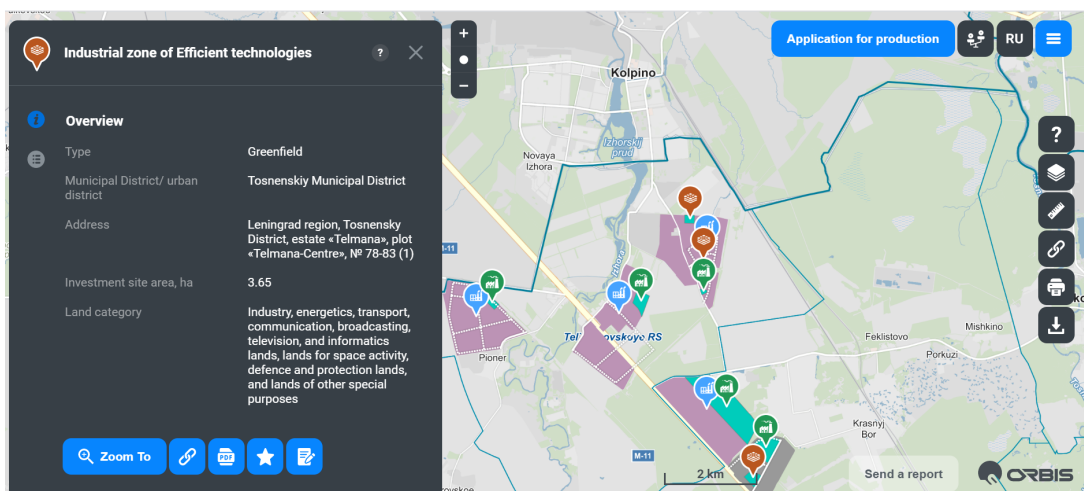
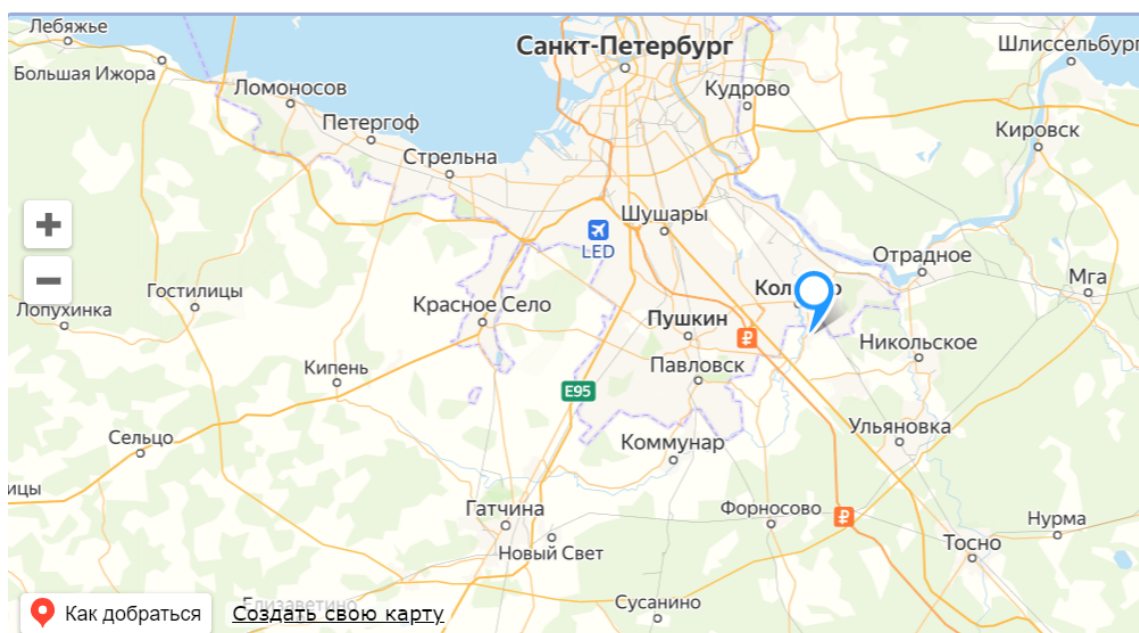


Figure 1. Screenshot from the portal of Leningrad region with location of the zone.

Land plot area: 3,65 hectares (gross); 1,05 hectares (vacant). Cadastral number of the land plot: 47:26:0220001:433 (in more details information available: <https://reestr.net/kadastrovaya-karta> ; copy-paste number) (in Figure 2 screenshots from Reestr)



Тельмана - кадастровый номер 47:26:0220001:433

Тип: **земельный участок**

Статус: **учтенный**

Кадастровый номер: **47:26:0220001:433**

Регион: **Ленинградская область**

Кадастровый район: **Тосненский кадастровый район**

Почтовый индекс: **187032**

Адрес полный: **з/у 78 , кв.83 , Ленинградская обл , Тосненский р-н , поселок Тельмана**

Адрес по документам: Ленинградская область, Тосненский район, массив "Тельмана", уч. "Тельмана-центр", № 78-83 (1)

Площадь: **36 572,00 м2 (квадратный метр)**

Форма собственности: **частная**

Разрешенное использование: **для размещения коммунальных, складских объектов**

По документу числится: **для размещения складов (в сфере сельскохозяйственной деятельности)**

Категория земель: **земли промышленности, энергетики, транспорта, связи, радиовещания, телевидения, информатики, земли для обеспечения космической деятельности, земли обороны, безопасности и земли иного специального назначения**

Дата постановки на учёт: **12.02.2013**

Figure 2. Screenshots about "Telmana" from <https://reestr.net/kadastr/47-26-0220001-433> (Accessed on 12.8.2021)

The zone is a so-called "brownfield" area, which means transformation of the existing industrial area, which is "Telmana" as part of INDUSTRIAL PARK M10. Management company of an industrial territory of efficient technologies "Telmana" is LLC "T-DEVELOPMENT" is a member of the international

consortium "St. Petersburg Cluster of Clean Technologies for the Urban Environment" (Further - SPb Cleantech Cluster). Management company of M10 INDUSTRIAL PARK is LLC "Agency territorial development "M10". Owner of the land plot of the zone is TYREMAN GROUP LLC, which is also the member enterprise of the SPb Cleantech Cluster.

History

Development of the concept of the zone is initiated by the managing organisation of "St. Petersburg Cluster of Clean Technologies for the Urban Environment" (Further - SPb Cleantech Cluster), which is NP "House Property Owners Association" (Further - HPOA). In addition to Cata3Pult project work, synergic work has been conducted in collaboration with the INTERREG BSR project "Baltic Industrial Symbioses" - in the Living Lab concept. Around this zone are a lot of agriculture and industrial actors and Kolpino residential area a couple hundred meters away.

HPOA/SPb Cleantech Cluster has been attracting new enterprises to the demonstration zone via various international events. Work, contacts and results of the BSR BIS project are utilized in Cata3Pult project conceptualization work. For example, mapped enterprises located around the zone, was useful knowledge for the Cata3Pult. The main goal in "Baltic Industrial Symbiosis" (BIS) is creation and development of eco-industrial parks, where waste from one industrial production of a resident of an industrial park becomes raw material for another resident of an industrial park.

Since the beginning of Cata3Pult project created the message on how to attract new enterprises to be located in the zone or to demonstrate their solutions there . On June 8, 2019, at the St. Petersburg International Economic Forum, the opening ceremony of the **interregional eco-industrial park of clean technologies** of the international consortium SPb Cleantech Cluster was held. The ceremony took place within the framework of the international forecast-session "Sustainable urban development and circular economy" in the exposition and business area of St. Petersburg.

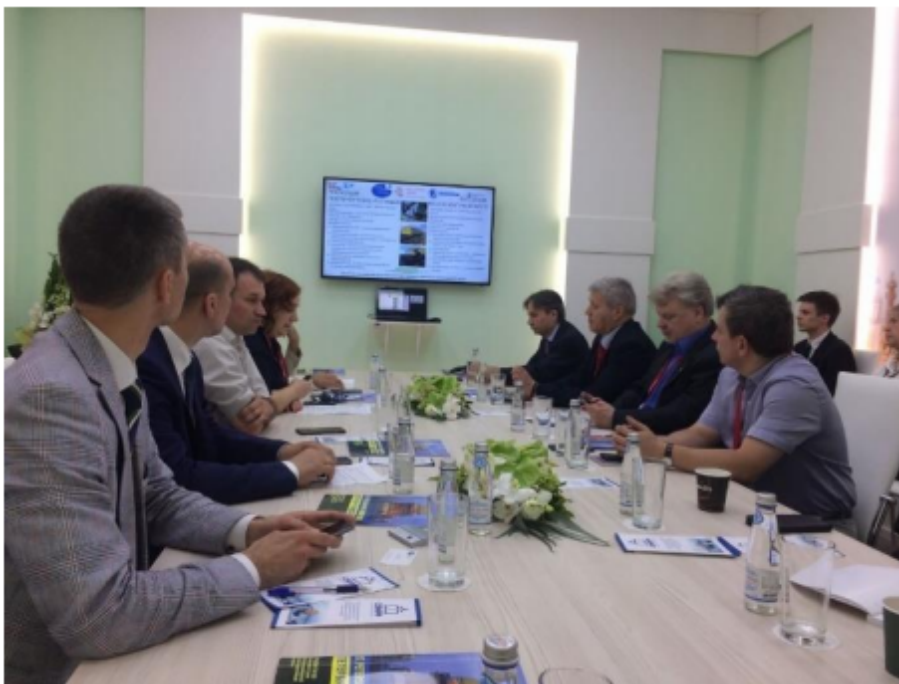
Furthermore, the zone has been positioned as the development of a **regional industrial park (technology park)**. Relevant experiences within other parts of the BSR region were taken into account.

The idea of **industrial symbioses** or **circular economy approach** is at the core of the development. Park/zone uses the best practices of projects in its

development in the field of sustainable development in the context of the transition to a circular economy of the participants.

To achieve more synergy on information and experiences exchange, SPb Cleantech Cluster/HPOA initiated in Autumn 2019 the **innovation platform “Cluster of Sustainable Development 2030”** for communication of the Program of cross-border cooperation “Interreg. Baltic Sea Region ”and the South-East Finland-Russia Cross-Border Cooperation Program. Today, the flagship project «Cluster of Sustainable Development 2030» brings together projects in the field of sustainable development and the circular economy. Cata3Pult project is one of the platform participants.

The development concept



Goal

Development of clustering and creation of companies' networks in various industries, supporting institutions and organizations based on industrial symbiosis as a demonstration zone for eco and energy efficiency.

Tasks

To create Russia's first interregional eco-industrial park of clean technologies considering the experience of the Nordic countries and the EU countries based on industrial symbiosis as a demonstration zone for eco and energy efficiency. Create public-private partnerships and attract investments to implement industrial symbiosis to obtain economic and environmental benefits through the exchange of resources that increase the efficiency of companies-residents of the eco-industrial park. At the same time, to promote their resilience to external influences, where the smart specialization of one company-resident of the park,

its secondary resource (waste) becomes the primary resource (raw material) for other companies-residents of the park.

Today, for the implementation of the concept, the following are determined:

Leading companies of the eco-industrial park: **TYREMAN GROUP LLC** and **T-Development LLC**.

Eco-industrial park residents:

- «TYREMAN GROUP» LLC <https://tyreman.ru/company>



The company has been improving the efficiency of tire operation since 2003 and is introducing its own tire saving technology, providing professional service and a system of training personnel of enterprises on the correct use of tires to achieve maximum efficiency in using the tire resource.

- «General Development Group» LLC <https://russiandelicacy.com/>



The company initiated the Northern Shrimp project and in March 2018 founded Northern Shrimp LLC. Today, the production facilities of the enterprise are located on an area of 4500 sq. m in the park. The enterprise created based on closed water supply units (RAS) and is a unique high-tech production of sea heat-loving shrimp *Litopenaeus Vannamei*, developed and implemented taking into account world experience.

- **Scientific and Production Company «NEO +»**
<http://neogard-store.ru/o-proizvoditele/>



Research and Production Company "NEO +" was founded in 2004 by a group of scientists and researchers from St. Petersburg State University and the State Polar Academy of St. Petersburg. The main activity of the company is the development and production of water repellents - protective water-repellent coatings of a new generation, as well as the introduction of these developments in the technology of modern construction. Despite its young age, construction companies and the state already recognize the company's developments.

- Smart SREDA (SME) <https://sreda.in/>



Eco-factories Smart SREDA is the production of outdoor furniture from environmental-friendly materials. Everything Smart SREDA produces is made from recycled used bags, packaging film and sand. Smart SREDA uses various polyethylene products in production. The goal of the eco-factories Smart SREDA is to make the planet healthy and clean through smart consumption and waste management.

- "General Development Group" LLC (the "North Shrimp" project) russiandelicacy.com



The company initiated the project and established “The North Shrim” LLC in 2018. Today the production facilities are allocated on the territory of 4500 square metres of the eco-industrial park. The production is based on recirculating aquaculture systems and represents by itself the unique hi-tech production of *Litopenaeus Vannamei* shrimps. Shrimp farming takes place in recirculating aquaculture systems with the use of natural meals, without any growth-promoting hormones, colouring agents, or antibiotics. The shrimp gains the necessary market weight biologically.

Potential residents of the eco-industrial park

"Enviro" (SME) LLC <https://enviro.su/>



Enviro is a Russian engineering company founded in 2012. It is working in the areas of environmental-friendly waste disposal, dust- and gas cleaning and green energy. The company's technologies and equipment make it possible to obtain heat and electricity from solid, liquid, pasty, gaseous waste and sludge, which are applicable in medical institutions, housing and communal services, industrial enterprises and water utilities, in the mining, oil and gas, petrochemical and pulp and paper industries, organizations involved in recycling waste.

Proposition from the owner

In this chapter is presented information, which is estimated to be useful for possible residents or interested to consider localisation to the zone or demonstrating their own solutions there.

Type of suggested right to the property buildings is renting (150 RUR/m²).

The total offered area is 10,540 m² (Figure 3).

Each block area - 2205 m². Number of floors - 2 (1: 1455 m².; 2 - 750 sq.

Number of buildings - 3.

Open storage area covered with asphalt crumb - 3925 m².

Warehouses are divided into cells, cell dimensions (w * dl * height) - 3 * 6 * 2.7

On the second floor, ceilings are up to 3.5 meters.

Walls - profiled sheet

Floors - reinforced concrete, with a hardened coating - for warehouse premises

Overhead sectional industrial doors 3.2x5.2m - 1 piece per body.

Power supply - 80 kW

Video surveillance, 24-hour security, checkpoint

Water sewerage

Excellent transport accessibility

The complex works around the clock, seven days a week. Territory of the complex asphalted.

Distance from the zone to infrastructure networks:

- district/centralized heating network - 2 km
- gasification line - 1 km
- the presence of electricity transformer substation onsite (600 MW)
- water supply and sewage - 1 km
- closest railway station - 2 km
- air/other port - 30 km
- St. Petersburg Ring Road - 20 km
- residential quarter - 0,8 km
- road with hard surface - 0,5 km
- road of regional significance - 4 km
- railway tracks - 5 km

Overall picture and surroundings could be seen from the investment portal of Leningrad region (Figure 4).

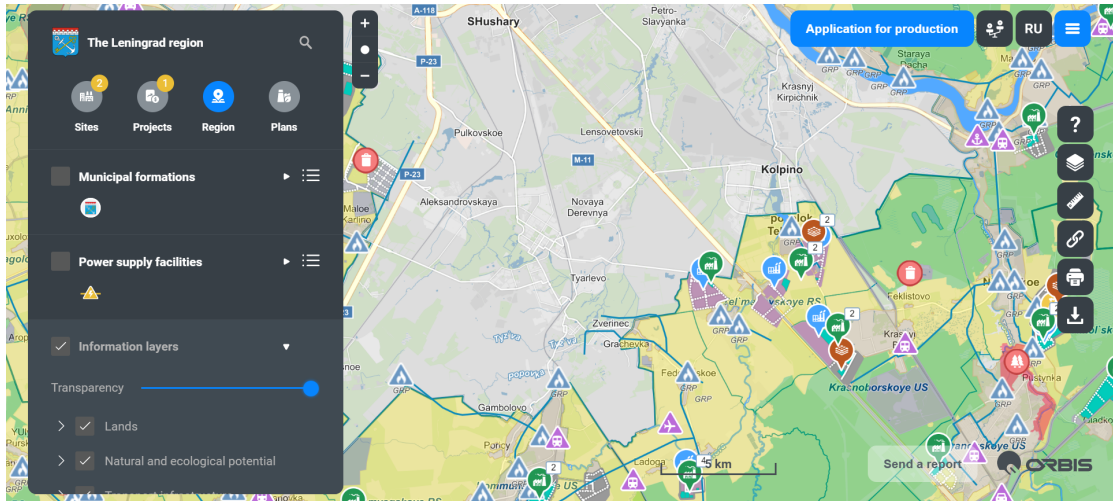


Figure 4. Screenshot from <https://map.lenobinvest.ru/gis/?lng=en#/map/info/30.429062,59.715302/11/1812,1811,1350,1343,1323,1366,1367,1369,1370,1371,1372,1373,1374,1744,1742,1392,1393,1336,1337,1338,1341,1340,1339,1356,1376,1377,1381,1816,1382,1819,1383,1384> (Accessed on 12.8.2021)



Figure 3. View of the zone and buildings.

Full up-to-date version of the concept is created in Russian, which could be found <https://s.siteapi.org/1f54221ba217f8f.ru/docs/q5r12z0gg740g0s8w0wg44cgo8kc4s> here:

Other industrial parks in Leningrad region

As a part of the concept development of the Kolpino zone or “Telmana” park reformation studied the situation around industrial parks in Leningrad region. It is useful to understand this in many terms - as for searching possible collaborators (for industrial symbiosis) and for knowledge of the overall industrial situation.

Integrated regional information system “Investment Development of the Leningrad Region” presents an interactive map demonstrating investment advantages and abilities of the Leningrad Region. The project is developed in order to increase investment attractiveness of the Leningrad Region and to make full and up-to-date information on complex development of the Leningrad Region available for international community, governmental bodies, organizations and citizens. (Figure 5)

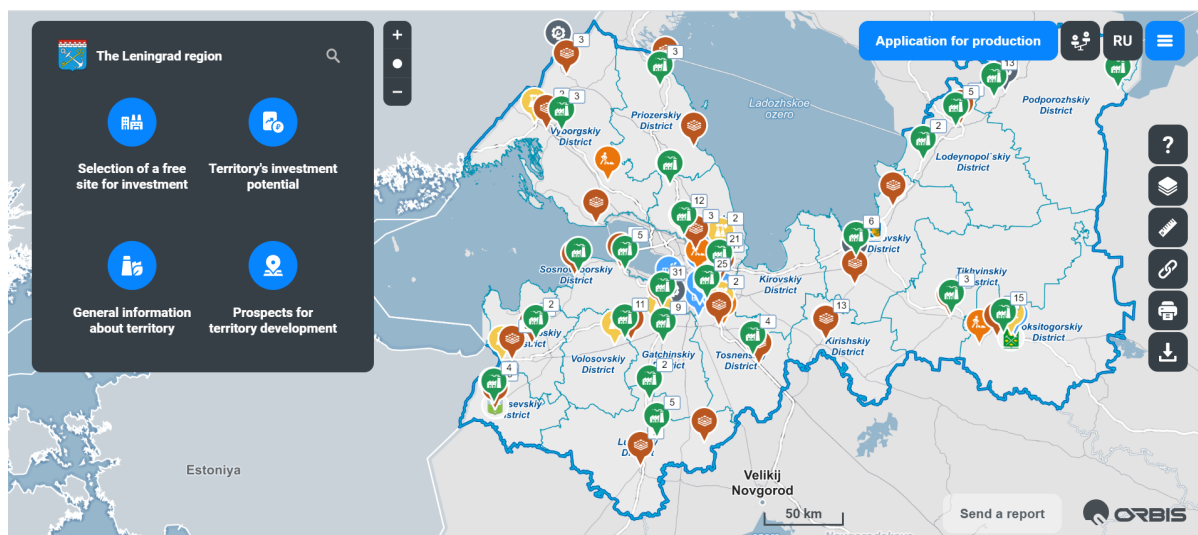


Figure 5. Screenshot <https://map.lenoblinvest.ru/en/>; Accessed on 12.8.2021).

To the moment of writing this report, there are 28 industrial parks registered in Leningrad region: 10 in operation, 14 in formation phase, 4 planned.

Development of non-industrial part of the concept

As already mentioned under the general description, energy-efficiency of housing buildings is also in the focus of Cata3Pult work. And as a part of the concept of Kolpino demonstration zone not only physical localisation of industrial enterprises, but also demonstration of solutions. Let's name this part of the concept as the "non-industrial".

Under development of this "non-industrial" part is calculation of carbon footprint of different housing buildings of St. Petersburg and comparative analysis of the carbon footprint of residential buildings in St. Petersburg and the Leningrad region, which is implemented by KOSMOS LLC. Results are presented and discussed on study visits to the zone and annual meeting of the SPb Cleantech Cluster on 15.2.2021. Receivers of those are experts from HPOA (which is also managing organisation of residential buildings in Kolpino - Housing Cooperative No. 4, Housing Construction and Operational Cooperative "Graphite - ZhSEC" and "On the Shore"). Before, in March 2020, in their own term, experts from KOSMOS LLC visited some Kolpino buildings. KOSMOS's work on carbon footprint calculations were also presented on other various events, f.e. EBC2020 and -2021 in SPb EXPOFORUM.

As a part of Cata3Pult work under the concept, was also organised B2B meeting between Entos Oy and TYREMAN GROUP LLC. Smart air ventilation system is proposed for demonstration in LIVING LAB, which development is conducted by TYREMAN GROUP (part of BIS INTERREG project).

Promotion of the zone

SPb Cleantech Cluster/HPOA continuously promoting the zone/park on various events/forums. Here is some examples of those:

- Online convent "Business without borders" on 12/02/2020. Online convent is organized within the frame of NTI:
<https://youtu.be/M3rA9JtTDUw?t=3245> (225 views, HTI 20.35 – 1.26K subscribers).
- Online round table discussion "Green Economy concept – possibilities for small and medium sized business entrepreneurial organizations on EcoNet markets" on 12/11/2020 organized within the frame of the XVIII Forum of small and medium sized business subjects.
- EcoNet market press-conference and roundtable discussion "Instruments of project initiatives realization for EcoNet NTI" (Interfax)

on 02/25/2021 (Video:

<https://www.youtube.com/watch?v=IYYIYoANF8c&feature=youtu.be>).

- St.Petersburg partneriat for a small and medium sized business and presented the activities in the frame of international cooperation on 03/17-18/2021. Program in Russian and additional information: <http://partneriat.info/>
- XXI Baltic Sea Day on 03/23/2021. Program in Russian and additional information: http://www.helcom.ru/baltic_sea_day/2021
- Science & Technology Council at Housing Committee on 04/28/21 <https://spbcleantechcluster.nethouse.ru/posts/aprelskoe-zasedanie-nauchno-tehnicheskogo-soveta-v-sfere-zhilis>
- “Circular economy: the myth or reality in Russia?” webinar by Agency of Strategic Initiatives (Green Thursday Talks by WORLD BANK & ASI) on 04/29/2021.
<https://spbcleantechcluster.nethouse.ru/posts/green-thursday-talks-by-world-bank--asi--zelenye-chetvergi-s-eks>
<https://leader-id.ru/events/195974>
- The round table discussion “Clusters for TechNet market” within the Conference “Clusters open their borders. Digital transformation” on 06/28/2021
<https://ao-tehnopark-sankt-peterb.timepad.ru/event/1679717/>