

## THE LIVING LAB – IN THE CENTER OF SUSTAINABLE ENVIRONMENTAL COOPERATION



*In Russia, the topic of ecology began to be actively discussed relatively recently, for a long time nature was considered only an inexhaustible source of resources. The pollution of air, water, soil was a vivid signal that "it is impossible to be healthy in a sick environment." According to scientists, every year about eight million tons of plastic enters the world's oceans. Researchers warn that unrecycled trash poses the same threat to the Earth as climate change.*

*By Irina Kuznetsova, BIS project team, Russia*

Today, many companies are moving to an environmentally friendly business: from a united plan for the office paper disposal to intelligent construction technologies, the search for joint forms of environmental cooperation, symbiosis.

In 2019, Tyreman group, engineering company from St. Petersburg, Russia, turned to the idea of industrial symbiosis. Previously, this format of business cooperation was successfully used only in the foreign environment. However, the focus on sustainable development, the active introduction of environmental activities within the company led to the fact that Tyreman group was the first in Russia

to try to develop the concept of industrial symbiosis among local enterprises.

Shortly before that, the company joined the Saint-Petersburg Cleantech Cluster for urban environment, which implements the concept of sustainable development in the Baltic region. It is worth noting that in the first place it was one of the Cluster ideas to create a Living Lab as a center for sustainable environmental cooperation on the basis of the one of the Cluster members warehouses and, as a result, the development of the Industrial Symbiosis project among the enterprises of the Baltic region. Tyreman group decided to act as an active integrator in Living Lab development and to search for real symbiotic chains with practical testing of ideas. To implement the idea, partners joined the #R082 project - the Baltic Industrial Symbiosis (BIS) project of the Interreg Baltic Sea Region Program 2014-2020.

The Living Lab in St. Petersburg has become a platform for matchmaking businesses, on the basis of which you can not only accumulate secondary materials for processing, conduct resource research, but also organize conferences, attract

new enterprises to the territory, willing to implement the idea of industrial symbiosis, help them with finding a partner to create a symbiotic chain.

The main feature of the Living Lab in St. Petersburg is a practical approach. For the Tyreman group, it was important not only to study the concept of symbiosis from a theoretical point of view, but also to implement it with the achievement of a specific result - the showcase product.



Practical approach

To better understand the further development strategy, representatives of the Tyreman group actively studied the experience of foreign partners. As part of an experience exchange among industrial symbiosis practitioners, they visited the Industrial Symbiosis Center in Kalundborg, Denmark, a recognized leader in this field. They studied the methodology of the primary and secondary resources audit of production companies, including through the open pre-screening of the Kalundborg Utility - Kalundborg Municipal Enterprise. Representatives of the Tyreman group also practiced with project partners in Norway, Sweden, Poland and Finland.

According to the project ideologist from Tyreman group - marketing director Evdokia Lomagina, modern business should pay more attention to solving the environmental consequences of its activities, *"Industrial symbiosis is not only an opportunity to establish a harmonious business environment, healthy competition and communication, but, most importantly, a solution to an important environmental issue: the waste of one enterprise becomes a resource for another and vice versa. This concept has been successfully applied in Europe for a long time, I want to believe that we will*

*be able to effectively adopt the format of environmental cooperation."*

The priority of the project was to find companies that already adhered to the concept of sustainable development. So, within the framework of the BIS project, partnership agreements were concluded with fifteen business structures of St. Petersburg and the Leningrad Region, including: Bushe, BIOCAD, 99recycle, Smart Environment, ITMO University and others. More information about the participating companies can be found on the site [tyreman.ru/bis](http://tyreman.ru/bis)

As the research part of the project, company resources were audited according to the Danish methodology and the flow of incoming raw materials and outgoing secondary resources of participating production companies was determined.

The next logical step was to create new opportunities for companies by matchmaking them with each other. As part of this activity, 7 events were held where companies discussed technical issues of further cooperation. It should be noted that most of the meetings took place within the Living Lab. Various studies were carried out afterwards, both on the territory of the Living Lab and on third-party sites. This was necessary for companies in order to understand how secondary resources are suitable for their further use.



Peer-to-peer, May 2021

Within the framework of the Industrial Symbiosis project, an educational function is also actively developing, where businesses talk about environmental initiatives already implemented, exchange ideas, and find options for joint integrations. The Living Lab also became a key platform for such events.

In May 2021, Peer-to-peer learning was held on the basis of the laboratory: an event in which enterprises participating in the Baltic Industrial Symbiosis project exchanged experience and discussed possible ways to develop the project.

The Industrial Symbiosis concept and the project became interesting for business representatives from other regions of Russia, as well as state structures. In 2020, the Saint-Petersburg Cleantech Cluster for urban environment and the Tyreman

group idea to create an ecosystem of industrial symbiosis throughout the Russian Federation entered the Top 8 in green economics according to the Strategic Initiatives Agency.

Tyreman Group and its employees actively adhere to the philosophy of reasonable consumption, conduct research and help partners in the search for mutually beneficial integrations and efficient use of resources.

