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REACTOR PROMOTES RECYCLING

How to make the circular economy beneficial for all stakeholders.

The industry is entering a new era as regulators and NGOs come forward with environmental initiatives that reshape the making and using of plastic goods, circular production changes the structure of polymer demand, and businesses increasingly focus on the sustainable use of natural resources to bolster their reputations. In light of this, the question arises whether Russian producers are ready to face these challenges.

ACCORDING TO THE STRATEGY TO DEVELOP PRE- AND POST-CONSUMER WASTE TREATMENT, DISPOSAL AND DECONTAMINATION CAPACITIES BY 2030, THE PROBLEM IS BEST SOLVED BY REUSE.

New business opportunities

“Recycling itself and the market availability of recycled products suggest a shift towards the circular economy focused on technological and social innovation,” says Ksenia Karetina, Head of SIBUR’s Analytical Centre. “Meanwhile, plastic materials integrate well with this framework as they have superior specific eco-friendly characteristics (production-related energy consumption and CO2 emissions) and help save resources by increasing energy efficiency and decreasing fuel consumption thanks to a lower weight. Also, extended shelf lives mean less waste. Many chemical companies show willingness to engage in recycling, which they reasonably view as commercially attractive.”

One of the recent examples is the Sochi Olympic Park's football pitch made of recycled plastic cups. A total of 50,000 cups, or 2.5 tonnes of plastic waste collected during the 2018 FIFA World Cup, were used to create this facility – a project run by AB InBev Efes. “The entire technological cycle for this RUB 10 m pitch was set up in Russia – fr om melting the cups into granules to creating special threads for the coating,” commented Konstantin Tamirov, Marketing Director of AB InBev Efes.

View over the football pitch made of recycled plastic cups in the Sochi Olympic Park.

All plastics under control

To Russian producers, however, plastic waste is still not much of an issue. Campaigns to raise awareness have started here only recently – as have the legislative changes: a strategy to develop pre- and post-consumer waste treatment, reuse and decontamination capacities through to 2030 was adopted as late as in 2018. Since the concept of reuse was the backbone of this initiative, many Russians expressed concern about the EU's decision to ban single-use plastic tableware and other disposable items by 2021.

According to experts, the ban will affect products that either already have alternatives or are hardly sortable or recyclable. Food packaging and plastic bags will not be blacklisted as Europe has no problems collecting and recycling this type of waste.

"Zero waste doesn't mean that we shouldn't use plastics – it means that we shouldn't throw them away. The discontinued use of plastics will be the likely option for small segments with low levels of consumption – such as the notorious disposable straws, which are very hard to collect. Conversely, the segments wh ere collecting and recycling is more reasonable will be prompted to follow this path. Zero waste is about the recycling and reuse rather than abandoning of plastics as a material," points out Dmitry Konov, Chairman of the Management Board at SIBUR.

European countries have a long track record of collecting and recycling waste. Photo: plastic recycling plant in Switzerland.

The key challenge is that less environmentally aware countries, including Russia, lack adequate technology for plastic waste reuse and recycling. Dmitry Konov says “it’s a matter of every consumer’s social responsibility. Plastic bottles are handy and made to protect water from contamination, not to be thrown away in a forest.”

Office of TerraCycle, a US recycling company.

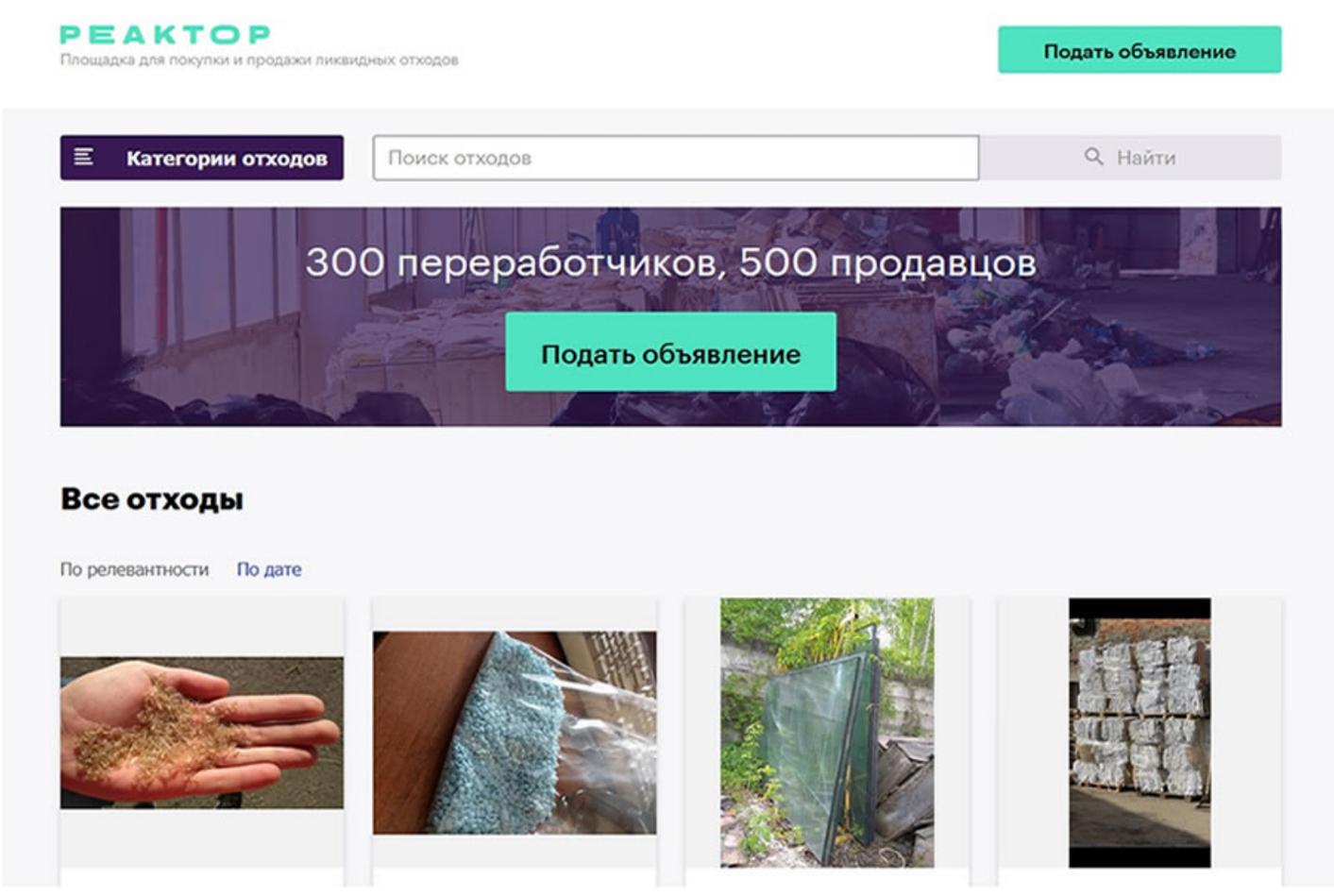
New reaction

REACTOR ACCEPTS REQUESTS FOR WASTE COLLECTION AND SALE OF RECYCLED MATERIALS, CONNECTING ALL PARTIES INVOLVED – WASTE GENERATING COMPANIES, LOGISTIC COMPANIES, RECYCLING OPERATORS, AND MANUFACTURERS.

To give a boost to recycled plastic volumes and promote environmental consciousness in Russia, SIBUR has launched Reactor https://re.actor/ (https://re.actor/) – an online platform linking waste generators and recyclers. The project is set to help alleviate the country's waste problem by using digital technology and offering transparent and mutually beneficial terms to all stakeholders.

To win the interest of the broader business community, its founders plan to make selling recyclables more attractive economically, promote social responsibility and develop marketing programmes. Algorithms will be created to optimise waste management in retail stores, structure the recyclables market and boost the economic appeal of recycling.

"A focus on eco-friendly polymers is an integral part of our business," comments Maxim Remchukov, Sustainable Development Director at SIBUR. "Following the emergence of regional operators who are obliged by the new legislation to ensure proper waste treatment and bury only the so-called non-recyclable tailings, we expect to see growth in the volumes of processed plastic waste available for recycling."



The main page of Reactor online platform.

Joining forces

Although in Russia recycling is gaining momentum, its circular economy is still nascent. By 2030 Europe plans to make all plastics fully recyclable, and the question arises as to whether Russian petrochemical companies can follow in its footsteps.

Loop is the first international platform selling consumer products in reusable containers. It was developed by a coalition of major FMCG brands and TerraCycle, a recycling leader.

INNOVATIONS ARE REQUIRED AT EVERY STAGE – PRODUCT DESIGN, CONSUMPTION, PLASTIC WASTE COLLECTION, SORTING AND RECYCLING.

According to Ksenia Karetina, a substantial increase in the global volumes of recycled plastics will require both infrastructure along with engineering solutions (yet to be created) and the demand from end consumers. While a supply and demand balance is yet to be achieved, it might help that most of the largest FMCG companies have undertaken to fully migrate to the use of recycled materials by 2030. Producers should take this into account when making long-term development plans.

Innovating throughout the cycle – from product design to consumption patterns to plastic waste collection, sorting and recycling – will be key to achieving significant progress.

Other important steps are amending the legislation, in particular improving the extended producer responsibility framework, and embracing chemical along with mechanical recycling. “Transition to the circular economy is a multi-level and mutually beneficial process whose success is dependent on cooperation between the government, the business community and the people. Reaping synergies from this initiative will be impossible without a coherent and favourable regulatory, tax and institutional framework,” concludes Ksenia Karetina.