Laska

Impact Report

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Main Partner

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Laska Impact Report

Country : Turkey
Sector : Manufacturing

Business Model

1.5 billion tires are scrapped worldwide annually, with this number increasing 1% each year.[1] Over time, tires deteriorate, throwing off small pieces of synthetic plastic into streams that eventually find their way to the oceans. The single usage of scrap tires leads to both ecological and health hazards.[2]

To process idle tires, cement factories rely on the heat generated by burning these scrap tires even though a single tone releases up to 450 kgs of poisonous gas into the atmosphere. Although most scrap tires are burnt, a significant amount sits idly in open yards. In addition to the fact that they occupy large usable areas, these tire masses are suitable habitats for disease-carrying bacteria and insects such as mosquitos. A single scrap tire, for example, can host tens of thousands of mosquitoes.[3] Scrapped tires have been linked to an increased incidence of diseases.

Founded in 2019, Laska is a hi-tech company that upcycles end-of-life tires and reintroduces them to the economy as high added-value raw materials through an innovative business model

[1] https://link.springer.com/article/10.1007/s40518-014-0019-0
[2] https://www.nationalgeographic.com/environment/article/tires-unseen-plastic-polluter
[3] https://www.researchgate.net/publication/23182077_Tires_as_Habitats_for_Mosquitoes_A_Review_of_Studies_Within_the_Eastern_United_States

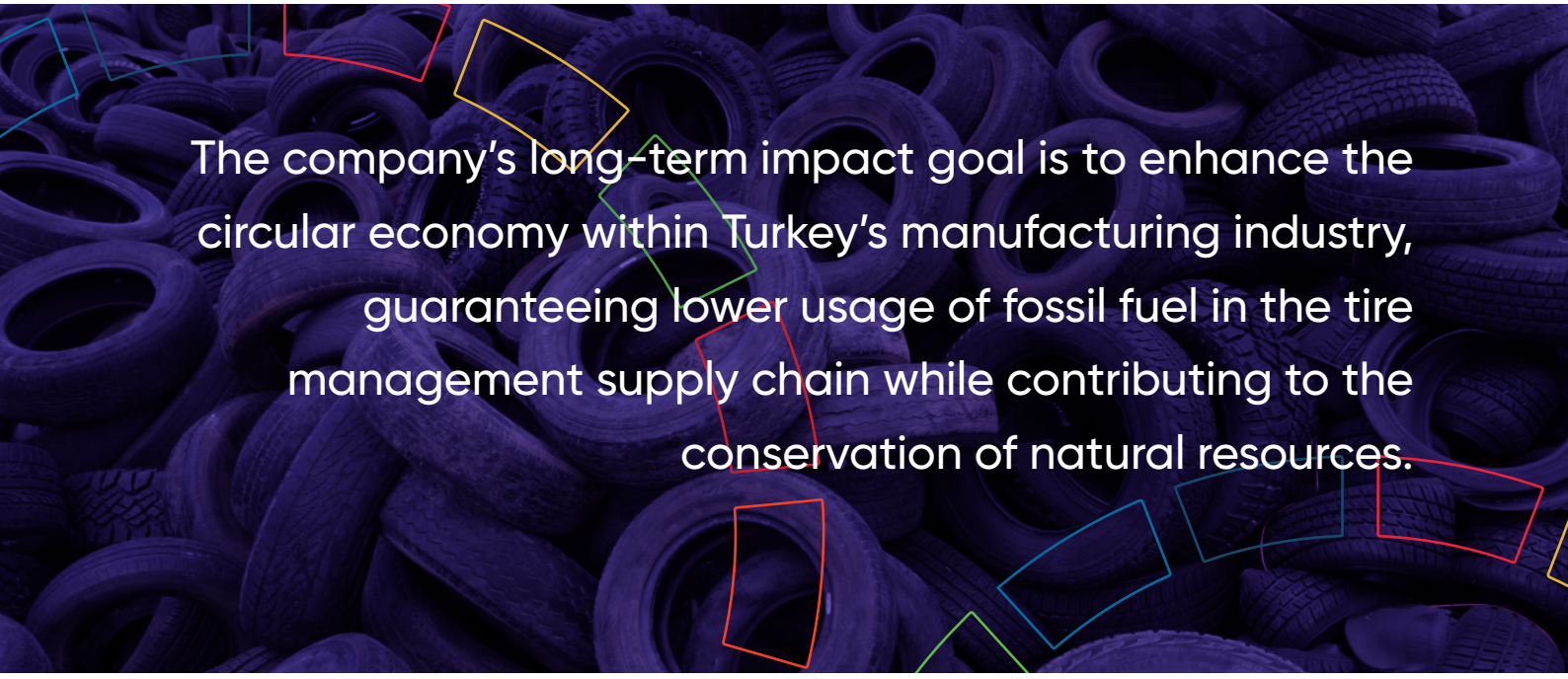
that is environmentally friendly and sustainable. Laska reutilizes scrap tires to develop two main products: carbon black and renewable fuel. This reclaimed carbon black produced from scrap tires is a more affordable and eco-friendly alternative to conventional carbon black which is obtained from fossil fuels. Renewable fuel is a quality fuel that can be widely used in the chemical industry and has the potential to replace fossil fuel in all essential industries.

Laska has a business-to-business model whereby it upcycles end-of-life tires, processes and enriches them, and wholesales them to different industries, contributing to a more circular economy within the manufacturing industry.

A: Planning for Impact

Through its operations, Laska is mitigating the harm generated by the single usage of scrap that poses both environmental and health threats to local communities. These scrap tires are upcycled by Laska's technology into two valuable resources within the industry: fuel and carbon black. These products contribute to a reduction of fossil fuel usage and contribute to a circular economy within the industry by increasing the availability of valuable raw materials. The upcycle of scrap tires also contributes to the prevention of potential diseases carried by mosquitoes by eliminating the environments that propel their proliferation.

In the mid-term, Laska is contributing to a reduction of both CO2 emissions released into the atmosphere and harmful pollutants into natural sources. By limiting the habitats suitable for mosquitos, Laska becomes an active agent in reducing the incidence of diseases in the communities it operates.



Impact Value Chain

PROBLEMS & OPPORTUNITIES	INPUTS/ACTIVITIES	OUTPUTS	OUTCOMES	IMPACT
High carbon emissions caused by burning and storage of waste tires	Upcycling tires thata would otherwise be burnt or disposed off in nature into value-added industrial products	Reducing use of fossil fuels	Availability of alternative renewable fuel that can replace fossil fuels	Greater efficiency and productivity in tire management
Fossil fuel use	Producing fuel and carbon black from tires that would otherwise be wasted	Availability of value-added raw materials in the economy	Increased production from value-added products created from tire waste	Renewable fuel supply
Spread of diseases and viruses from mosquitoes in polluted water		Reducing contamination in natural resources from tire pollutants	Reduction of carbon emissions	Maximum resource recovery leading to a circular economy
Potential to generate economic output from upcycling waste in the tire industry		Preventing spread of diseases caused by mosquitoes	Reduction of harmful pollutants in natural sources	Support to local governments in waste tire management
Costly and dirty production of carbon black			Less incidence of diseases caused by mosquitoes	Clean supply chain for carbon black production
				Conservation of natural resources such as water, land and air

B: Framing Impact

Indicator	Target for 2022	Target for 2023	Stakeholders	Data Collection Method	Data Source	Linked SDG Targets
Number of people that die from mosquito-borne diseases every year in the world	0	800,000	Communities	Secondary	Published reports	3.3
Carbon emissions from carbon black production in tires	0	8,750	Communities Planet	Secondary	Published reports	13.1
Average annual cost savings in carbon black production	0	420,000	Customers	Secondary	Market research	12.4 12.5 12.6
Amount of fossil fuels prevented from being used	0	7,000	Customers	Secondary	Published Reports	12.4 12.5 12.6
Amount of waste tires upcycled	0	11,000	Suppliers Customers	Administrative	Company records	12.4 12.5 12.6
Amount of alternative fuel produced with tire waste	0	4,500	Customers	Administrative	Company Records	12.4 12.5 12.6
Amount of contaminating runoff oil that occurs in uncontrolled tire fires	200.000	0	Communities Planet	Secondary	Published Reports	12.4 12.5 12.6
Rate of reduction of CO2 emissions with recovered carbon black	0	79,84	Communities Planet	Secondary	Reports	12.4 13.1 12.5 12.6
Amount of heat energy that can be produced by renewable fuel	0	55,000	Customers Communities Planet	Administrative	Company Records	7.2
Amount of electrical energy that can be produced by renewable fuel	0	25,000	Customers Communities Planet	Administrative	Company records	7.2
Amount of toxic gas caused by tire burning that has been prevented	4,860	0	Communities Planet	Secondary	Published Reports	12.4
Natural area covered by waste tires that has been saved by the company's efforts	13	0	Suppliers Communities Planet	Secondary	Published Reports	15.1

C: Measuring Impact

Laska has started collecting data from laboratory studies conducted from 2017 to 2018. These studies are followed by product testing with customers and a comparison is made between the laboratory results and customers' demands to assess the effectiveness of Laska's products. In 2020 through a collaboration with Fiat, Laska received feedback providing proof of concept. The company's current production capacity is 3500 tons annually. Analysing data from secondary sources suggests that by reducing 2.5 tons of carbon dioxide emissions per 1 ton of carbon black, Laska's contribution could amount to 1 million trees every year.

Lessons Learned

The impact measurement study led to the conclusion that measuring the environmental impact of upcycling tires that would otherwise be burnt or disposed of in nature into value-added industrial products is a crucial process for Laska to scale its impact. Through the impact measurement process, Laska was able to identify methods of measuring its impact for its long-term impact goal which is to ensure the lower usage of fossil fuel in the tire management supply chain while contributing to the conservation of natural resources.

Way Forward

To bring more rigor in its measurement, Laska is studying various approaches that can help the company better understand its contributions. Laska intends to use a data-driven approach, gathering evidence of impact and adjusting business processes accordingly to scale its operations and impact to triple its current production capacity over the next five years.

> ***"Depletion of natural resources and global warming pose a serious threat to our planet. Impact management has become a resourceful guide for us by helping us understand better how we can improve our contribution to mitigate the climate crisis through our business."***

Onur GÜDÜ
Founder

6 CLEAN WATER AND SANITATION

6.3
By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally

6.4
By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity

6.6
By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes

6.a
By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies

6.b
Support and strengthen the participation of local communities in improving water and sanitation management

7 AFFORDABLE AND CLEAN ENERGY

7.1
By 2030, ensure universal access to affordable, reliable and modern energy services

7.2
By 2030, increase substantially the share of renewable energy in the global energy mix

7.a
By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology

7.b
By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, small island developing States, and land-locked developing countries, in accordance with their respective programmes of support

8 DECENT WORK AND ECONOMIC GROWTH

8.2
Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labour-intensive sectors

8.3
Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services

8.4
Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-year framework of programmes on sustainable consumption and production, with developed countries taking the lead

8.5
By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value

8.7
Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms

8.8
Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

9.4
By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities

9.b
Support domestic technology development, research and innovation in developing countries, including by ensuring a conducive policy environment for, inter alia, industrial diversification and value addition to commodities

11 SUSTAINABLE CITIES AND COMMUNITIES

11.4
Strengthen efforts to protect and safeguard the world's cultural and natural heritage

11.5
By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations

11.6
By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management

11.7
By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

12.2
By 2030, achieve the sustainable management and efficient use of natural resources

12.4
By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment

12.5
By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse

12.6
Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle

12.a
Support developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production

12.c
Rationalize inefficient fossil-fuel subsidies that encourage wasteful consumption by removing market distortions, in accordance with national circumstances, including by restructuring taxation and phasing out those harmful subsidies, where they exist, to reflect their environmental impacts, taking fully into account the specific needs and conditions of developing countries and minimizing the possible adverse impacts on their development in a manner that protects the poor and the affected communities

13 CLIMATE ACTION

13.1
Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries

13.3
Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning

13.b
Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities

* Acknowledging that the United Nations Framework Convention on Climate Change is the primary international,
intergovernmental forum for negotiating the global response to climate change.

14 LIFE BELOW WATER

14.1
By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution

14.5
By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information

15 LIFE ON LAND

15.1
By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements

15.2
By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally

15.3
By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world

15.4
By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development

15.5
Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species

15.9
By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts

For more information

laska

laska.com.tr

imece

imece.com