

A woman with long brown hair tied back, wearing a light blue t-shirt and grey shorts, is sitting on a mossy rock ledge. She is holding a smartphone up to take a picture of a vast, scenic landscape. The landscape features a large, calm lake in the foreground, a small town nestled in a valley in the middle ground, and towering, forested mountains in the background under a clear blue sky. The scene is bright and sunny.

SUSTAINABILITY REPORT 2019



EGYÜTT. VELED



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DIGITALLY ENABLED SUSTAINABILITY

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9 INDUSTRY, INNOVATION AND INFRASTRUCTURE ICT FOR SUSTAINABILITY



One of the key priorities of the sustainability strategy of Magyar Telekom is to increase the revenue from sustainable products.

10 REDUCED INEQUALITIES



In line with this objective, we incorporated the product sustainability assessment into the regulation of the sustainability coordination process; defined the process players as well as their tasks and their layers; then the sustainability assessment of our handset portfolio was also made part of the regulations so that this information is accessible to our customers. The process players were identified again in the new organization structure, building daily contacts with them for the implementation of the objectives.

12 RESPONSIBLE CONSUMPTION AND PRODUCTION



Our revenue from sustainable products and services increased year by year. By 2019, the revenue from these products has reached a 35.8% ratio.

List of the most important products and service groups with a sustainability impact in 2019:

- Climate-friendly and cost-effective business
- Sustainable digital solutions
- Equal chances in a digital world
- Sustainable products

The purpose of the sustainability assessment is to identify the sustainability impacts of our products and services and determine whether the given product or service has favorable environmental and social impacts, or whether it contributes to long-term economic growth.

The sustainability impact of products/services is measured in 3 dimensions, in 15 topics and through 42 questions. According to related regulation sustainability assessment covers all products and services of the company.

For years we have been using the same methodology for the sustainability assessment of our products and services, based on three pillars of sustainability:

- Social pillar: assessment of the contribution of the product/service to health, access to information, equal opportunities and personal growth.
- Economic pillar: assessment of the contribution of the product/service to sustainable consumption, competitiveness and actual needs (fair prices, regional responsibility).
- Environmental pillar: assessment of the contribution of the product/service to the preservation of resources, reduction of the environmental footprint and climate protection (environmentally compatible products and proceedings).

Green 1GB data option

We would like to offer the choice to our customers who consider it as important as we do to fight against climate change to pick a service that serves the purpose of protecting the climate. That is why we came up with the unique ExtraNet Green 1 GB option. By choosing the ExtraNet Green 1 GB data extension option, we guarantee that we generate the same amount of energy as the one required to transmit 1GB data using our solar power plants.

Pet tracker

At the end of 2019, we introduced a new pet finding tool and its associated tariff package. The device itself is a collar-mounted tracking device that can track our four-legged friends in an application. The amount of data needed to use the device is offered in a new package called Radar.



INNOVATION FOR SUSTAINABILITY

Innovation projects at T-Systems & KiBu

Canary (EHS smart watch)

This smart watch application was developed to create a safe environment for employees in warehouses. The solution reacts to the increasing shortage of labour that is a huge problem nowadays. The solution supports the integration of a new segment, employees with reduced capacity of work. Employees with hearing disabilities need to wear these smart watches during their work. In case of any emergency such as fire alarm, the watch notifies them with constant vibration. Only the employee can stop the notification via the smart watch.

After the stoppage the application sends an automatic message to a central email address with the employee's ID so that it is constantly trackable.

Forklift proximity detection

KiBu created a system that can detect the distance between forklifts, using the benefits of the indoor localization and real time tracking system and the Canary smart watch also developed by KiBu.

It is possible to determine the route and the speed of the vehicles by placing tags onto the forklifts. The watch notifies the worker when a forklift truck is coming, preventing the collision that sometimes could be mortal.

Pig monitoring

Pig monitoring system is a machine seeing artificial intelligence based system that can be installed to security cameras. We are in the testing phase under real technical conditions and working on the validation in association with Serket B.V and Nagisz Zrt.

With this technology we can track the number, behaviour and the health state of the animals and by detecting the anomalies, we can identify abnormalities. Monitoring can reduce the costs and increase the efficiency in an industry where there are huge operational risks and challenges. Information that we get from this solution are able to reduce the death rate, optimise the usage of antibiotics, reduce the high handling fees and we can avert illnesses so we can ensure the animal well-being requirements.

e-Scooter sharing

Public e-scooter sharing service offers a simple, fast, budget-priced and green way of travelling.

This service turns travel into an experience and also improves the viability of the cities.

Pack Track - Packlogistics solution

Pack Track is a smart indoor pack tracking solution, that automise the processes of pack logistics with digital tools. This system is a high accuracy live tracking system supported by web applications and manual tools connected to cloud.

Agronity smart hive

We started a long run mentorship program with one of the winning teams of IoT Hackathon that we organized in association with University of Szeged in April 2019. We support them in the implementation of their plan. The team is working on a smart hive, a monitoring system that helps in checking the hive and the bees all day from anywhere. The different sensors built in the hive are capable of monitoring the temperature, humidity, weight and the status (open/closed) of the hive. They use the NBloT network to transmit the data. The apiarist can constantly get information on the conditions of the hive, or in case of any anomaly, a warning notification appears.

Smarthand - smart hand prosthesis for children

Smarthand is a project of one of our talents in the KiBu Lift program in 2018, who became an employee of KiBu in 2019. In the project we can make a 3D printed arm-prosthesis do functional movements with the help of a Myo Armband and a model taught by artificial neural network.

The identified problem was that the available bionic arms in the market are very expensive, many patients, mainly children and pre-school students can't afford to buy them.

The challenge of this age group is that these prosthesis need to be changed from time to time because of the fast growth and biological change of children. The main goal of the project is to create cheap smart bionic arms.

Mission T – Inhouse incubation program

Mission T is one of the biggest intrapreneurship programs in Hungary for employees. Employees of Magyar Telekom can introduce their ideas, project suggestions that support the company's strategy.

First season in 2017 - 150 tenders from 100 colleagues. Second season in 2018 - 104 tenders from 72 colleagues. The second season was closed in January, 2019 with a Demo Day event.

IoT Challenge Program

The IoT Challenge Program was launched in order to educate the market and to generate new ideas in 2019 spring. We organized 3 full house meetups (in Budapest and in Szeged), where attendees had the opportunity to get acquainted with the IoT technology and they could make their first sensors based on IoT.

Within the program we organized a 24 hours hackathon in association with University of Szeged. Applicants needed to reflect on problems in agriculture or telemedicine by using NBloT technology.

KITCHEN BUDAPEST: INNOVATION, INCUBATION AND EDUCATION WITH MAGYAR TELEKOM'S SUPPORT

Kitchen Budapest (KiBu) is an experimental innovation and incubation laboratory that was established in 2007 with the support of Magyar Telekom. As one of the first media labs in Hungary, KiBu found its primary mission in investigating digital literacy and DIY techniques on the local scene. Ever since, KiBu has been actively present as an internationally recognized innovation lab with young researchers and developers forming its team. In 2017 KiBu has been transformed into T-Systems Hungary Open Innovation center. Through the activation and involvement of external innovation capacities its tasks include the support of the growth of the industry which is used to respond to T-Systems' business and technological challenges. KiBu incorporates two functions including research and development (prototyping, testing, service design, UX/UI design) and industry collaboration.

KiBu is a place where ideas come alive. Material instantiations of great ideas are the first steps in the making: via 24-hour hackathons, pressure cooking sessions we try and test methodologies, concepts, objects, services. KiBu has a well-equipped workshop area to enable wide-ranging projects to be manufactured, programmed or constructed from 3D printers to strong server parks to run high fidelity renders and machinery for AR/VR developments.

KiBu looks at its Startup Program launched in 2012 as an important milestone; it gives teams with budding ideas the opportunity to make their dreams come true. It is part of our mission to help ideas come into life. Since the launch of the Startup Program we

experienced that there is high demand among young Hungarians for a program that supports idea development from a very early stage. As a response to this demand, we set up the Talent Program in 2013 where in we gave the opportunity to youngsters to develop their ideas to the phase of building a prototype, under KiBu's professional mentoring.

The objective here was to elaborate product and service ideas that have a valid business potential or cultural vision that could successfully enter the Startup Program later on. A key quality of a good idea is that it provides a solid base for a business case or an innovative development.

These investments and business opportunities may help Magyar Telekom Group to develop innovative products and establish partnerships, while the ideas elaborated in the laboratory can inspire the colleagues working at the business development area, who can gain a better understanding of the environment our products target.

The partnerships have led to successful developments like the Tracker application, which helps indoor localization and vehicle tracking or the alert monitoring smart watch app. T-Systems, with the cooperation of KiBu, launched its Entrepreneur Residence Program in the second half of 2018 to influence the innovation ecosystem and to promote business-relevant innovation projects.

The purpose of the EIR Program is to involve business persons and researchers working in the industry, as mentors, in the innovation projects ran by KiBu, in the validation of their business rationale and in determining their development direction. At the end of 2019, we concluded our first EIR Program, as part of which, in response to a package logistics problem presented, KiBu developed the PackTrack package logistics solution, which was assessed a huge success by the customers.

You can read more at the <http://www.kibu.hu> website.

VOLUNTEERING

What volunteering means to us?

In its Sustainability Strategy 2016-2020, the Group's objective is to further increase the contribution to the society: the Group plans to contribute about 50 thousand dedicated volunteer hours by the end of 2020.

As a responsible large enterprise, employing several thousands of employees, Magyar Telekom encourages its workforce to step up their social responsibility efforts by way of offering and supporting 12 different types of volunteer programs. We find it important that our colleagues may choose from various volunteer activities that best fit their preferences.

Being a digital company, we consider it one of our primary goals to spread digital optimism, and to ensure that anybody is being able to seize the unlimited range of opportunities offered by the digital world, apply the knowledge one can build upon it and enjoy the community experience inherent in it.

At the same time, we know that many need support and guidance in that. Our goal is to make sure that they get that help from Telekom colleagues who navigate this field in full competence, and are happy to volunteer to share their experience with those who wish to learn.

Magyar Telekom has been a regular participant of Digital Theme Week. Drawing on the corporate knowledge base and the expertise and experience of the employees, the volunteers of Telekom and T-Systems held interactive presentations in 2019 to 2800 students of 27 schools in four topics: social media and personal brand, internet security, IT as a career and professions of the future. The success of the program is partly due to the fact that the students can discuss issues on their mind with professionals who have hands-on, practical experience in the matters at hand.

"Students nowadays live their lives in the digital space, know more about gadgets, apps and their use than we do. That is why I find it extremely important to help them to become conscious users and adopt safe practices. We must talk to them about the threat potentially posed by the internet, how reliable the information they are faced with is, whom they can turn to for help, if they get into trouble. I think we are also responsible for that as parents."

"I had two reasons to be part of the initiative. The first is that I find the topic itself and that it should reach as many students as possible very important. The second is that the program is good not only for the students, because the kids energize me: I can leave the daily chores, and do something entirely different. It is a great feeling that I am useful."

These and similar feedback from our colleagues justify that our common work for others has a very strong community building effect, it helps to break away from the everyday routine and unleashes positive energy that can be used both at work and outside the company.

There are other popular forms of internal volunteer activities that help the customer service staff, the shops' staff and our customers' convenience at the busiest peak times. In 2019 there were two occasions where colleagues working in various departments had the opportunity to experience the call center calls and the work in shops.

Our colleagues were enthusiastic to put in volunteer work at the corporate events, like the "Move, Telekom" sports day or the "It is good to give" cookie event, where they worked to help their colleagues and families to have fun.

In addition to the traditional activities, the Digital Education for Pensioners Program was launched as a new initiative, in the framework of which, our enthusiastic colleagues provide personal support regarding internet security, smart phone and internet use to members of the elder generation, who can ask their questions and get immediate answers and solutions from the volunteers.

In 2019 344 colleagues donated blood at least once during 22 organized blood donation events in Budapest and in the countryside.

As part of our above volunteer efforts of 2019, all together more than 479 ✓ Magyar Telekom volunteers contributed their workforce in 6158 hours ✓. With these programs we provided HUF 23 million ✓ worth of voluntary contribution to society.



Corporate volunteering at Makedonski Telekom

Makedonski Telekom, following its strategic purpose to become a company appreciated by the society, additionally upgraded the corporate volunteering concept lived in the company, now the concept is much more comprehensive, using all the possibilities of technology for good. It is expected the expansion of the concept focus to also expand the range of the realized good things with the assistance of the technology and the complete involvement by the employees.

1. Donate a book – download a book

“Donate a book – download a book” is one of the volunteering activities in which Makedonski Telekom employees were included. The title is not illogical; on the contrary, it contains the idea to become more modern and do twice as good things with the assistance of the technology. By donating books in hard copy from the libraries, employees have in their own homes, they had the opportunity to download more than 200 new electronic book titles from Macedonian and other international authors. Doing twice as good is the fact that by donating books they enrich the libraries in the rural areas; and by downloading the offered electronic versions of the books - they become even richer, doing good for themselves with the assistance of the technology. The process was simple; by donating a book the employee had the opportunity to download an electronic version of a book title by their own choice from the offered list via the corresponding application.

2. Donating clothes via electronic platform

The second volunteering activity led by Makedonski Telekom employees was of a more comprehensive social context. “Donating clothes via electronic platform” for “Button” social shop of the Red Cross of the City of Skopje. The call for donating clothes has always been of particular interest for Makedonski Telekom. This time, by using the technology they have at their disposal, they have brought to life and modernized the process of taking a socially responsible activity. Makedonski Telekom completely supports the creation of the shop website which makes it possible for the potential donor to take photos of the pieces of clothes he/she wants to donate, and even tell the story behind any particular piece of clothes which is of special emotional importance for the donor. The employees in Telekom were the first donors of clothes for “Button” shop, who were the company voice urging to take more comprehensive social activities and ensure self-sustainability of the social shop with the assistance of the technology.