



SUSTAINABILITY REPORT

2017



EGYÜTT. VELED



2.

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2.1 CLOSING THE DIGITAL DIVIDE

Digital divide is the phenomenon when different groups of society have differing opportunities to access information technology (due to geographical location, social situatedness or other reasons).

Access to information and communication technologies is crucial for economic development in today's world. The transformation of social relations and communication makes it important for us to be familiar with new technologies and the opportunities offered by them.

With its digitally enabled sustainability program Magyar Telekom aims to overcome the digital divide and enable communities to access benefits of communication technologies and access to information.

DIGITAL WELFARE PROGRAMME

Today, the positive role of infocommunication on economic growth, employment growth, quality of life, growth of business efficiency and equal opportunities is now indisputable. That is why it is the most important that everybody can access the opportunities and benefits of the digital world. In 2017 - within the framework of the Digital Welfare Programme of Hungary - Magyar Telekom launched the fixed and mobile Digital Welfare Programme package, which provides a quality service for Internet users who have not been paid for wired internet due to financial reasons.

Supporting people living with disabilities

Magyar Telekom set an objective to offer comprehensive services for people with disabilities. Working closely with support organizations, we created the hello holnap! fleet tariff packages that are available to people living with physical impairments, visual impairments, intellectual disabilities and autism.

For further details on the tariff packages, please visit [this website](#) (HU only)

hello holnap! tariff packages

We recognized that access to and use of telecommunication services make disabled people's lives easier as everyday electronic services become available to more and more people and their homes are more livable and accessible. In 2014 Magyar Telekom was the first to offer specific, comprehensive services to people with disabilities in Hungary. In order to use hello holnap! tariff packages one only has to be a registered member of one of the support organizations (AOSZ, ÉFOÉSZ, MEOSZ, MVGYO-SZ). The services are offered on a lower price, than our other residential tariff packages – in the form of prepaid and postpaid packages.



In 2015 we initiated discussions with the involved organizations to re-design the hello holnap! tariff packages allowing them to become even cheaper and more suitable for our customers. In 2016 as a result of the renewing process hello holnap! gave access to more services, and allowed a person to buy 2 subscriptions, providing easy access to a helper or a family member as well. In 2017, we examined how we could extend the discount system to our fixed line services.



Supporting isolated, disadvantaged groups and small settlements



The purpose of Magyar Telekom's Digital Bridge for Small Settlements Program (Digitális Híd Kistelepüléseken) is to increase awareness of the opportunities offered by information and communication technologies. It aims to enable disadvantage groups and regions to bridge their digital gap, which over time could deepen into a serious divide.

The local participants of the program gain an understanding of the multiple ways their lives could be made easier through making use of the advantages of getting along in the online world. Another important task of the Digital Bridge activities is to develop, maintain and foster relationships with participants.

In 2017 we held 7 Digital Bridge events. Along the program, during the summer school holiday we have organized 4 Digital Daycare events. In addition to the events of daycare service, we have provided an interactive education program to increase the digital literacy of the attendants.

The Digital Bridge for Small Settlements program allowed the volunteer team of Magyar Telekom to visit disadvantaged settlements of less than 3000 residents to offer efficient and customized IT education.

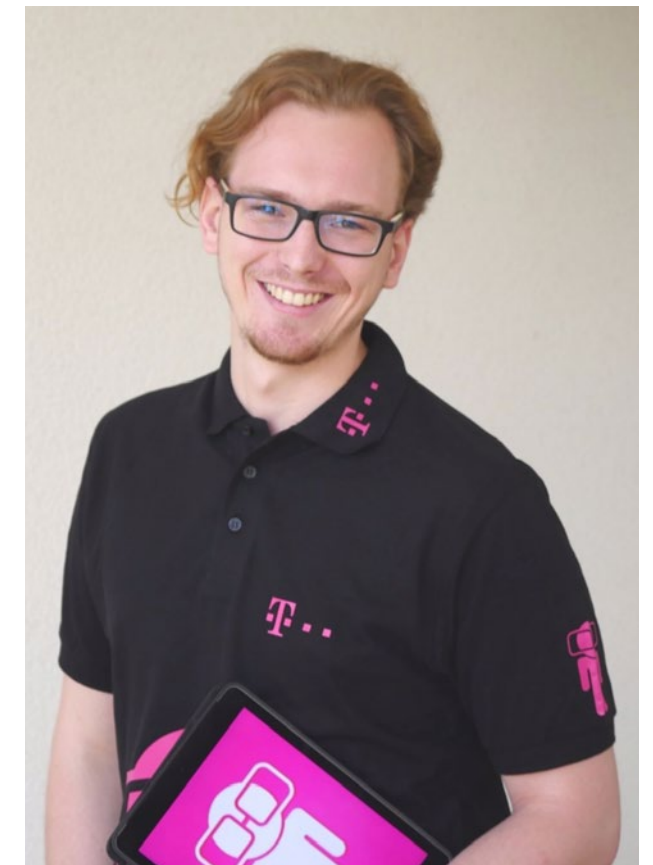
For videos, pictures and further information about the Digital Bridge program visit [this website](#) or the program's [Facebook page](#).

Telekom forum

Telekom Forum is an online social platform where our existing and potential customers can chat, find information about our services, and about the use of internet, smart devices and smart devices, and also information about access to various online contents. The page is public and worth to visit for all who wish to gain first-hand information about Telekom products from the most reliable experts: the users themselves. The page is moderated and supported by Magyar Telekom experts.

Mobile Experts

Our Mobile Experts (Mobiltudósok) are to be found in Telekom shops offering help and support to visiting customers in the use of our devices and services. They provide information on how the internet can improve the customers' lives (administration, banking, online shopping). Our experts can also be found online: they share their knowledge about the latest technical improvements, products and interesting facts. They are blogging via Mobiltudós blog, and they are also present on [Telekom's Facebook page](#).



Become an IT expert! – Career-guidance program

We have designed the Become an IT expert! (**Legyél Te is informatikus!**) for high-schoolers and their parents, providing them an easy, hands-on introduction to the world of IT, and to the range of career opportunities that are there for everyone who chooses this path as their profession. Teenagers who need to make choices about their higher education and their parents who support their children in finding a career both profit from the benefits of this program. We aim to discuss the opportunities and the future of this sector by erasing all the blocks, stereotypes, providing answers to concerns and supporting the career-planning process of individuals. Since starts in 2016 we reached approx. 25 000 students with the Program, for the detailed results and our plans for the future, please visit chapter 6.1 Social investments of this report.



Teachtoday

We launched the **Teachtoday site** Hungarian version at the end of 2017. Teachtoday is an initiative for the promotion of safe and competent media use from Deutsche Telekom.

SERVICE AVAILABILITIES

Annual availability (%)	2013	2014	2015	2016	2017
Cable television analogue/digital	99.94/99.88 ✓	99.94/99.90 ✓	99.93/99.84 ✓	99.97/99.89 ✓	99.97/99.90 ✓
SatTV	99.94 ✓	99.948 ✓	99.924 ✓	99.92 ✓	99.90 ✓
IPTV	99.86 ✓	99.83 ✓	99.898 ✓	99.85 ✓	99.82 ✓
Fixed line internet (ADSL/GPON/CableNet)	99.89/99.96/99.87 ✓	99.89/99.90/99.86 ✓	99.90/99.97/99.92 ✓	99.88/99.96/99.90 ✓	99.89/99.96/99.90 ✓
Mobile internet (2G/3G/4G)	99.40/99.57/99.67	99.66/99.74/99.67 ✓	99.66/99.74/99.67 ✓	99.56/99.79/99.35 ✓	99.902 ✓
Telephone/VoIP/VoCa	99.93/99.90/99.87	99.94/99.88/99.90 ✓	99.94/99.92/99.91 ✓	99.94/99.90/99.91 ✓	99.94/99.93/99.92 ✓
Mobile telephone (2G/3G/4G)	99.91/99.88/99.84	99.907/99.883/99.849 ✓	99.907/99.883/99.870 ✓	99.907/99.901/99.844 ✓	99.91 ✓

Hello Biznisz

The **Hello Biznisz** program was launched to guide SOHO/SMBs in the maze of management, workforce management, marketing, sales or finance. We help our SOHO/SMB partners to answer their questions with practical know-hows and information, both in written and video forms too.

Service availability

Magyar Telekom Plc. guarantees its customers rights in connection with service availability and troubleshooting on the basis of the **General Contract Terms and Conditions (GTC)** available at the customer service points and also in the Internet. In this it declares to fulfill the published quality targets during providing services on the entire service territory, to check this via measurements and to publish the measurement methods. Here, the Company also defines the quality targets for the services provided, meeting of which is continuously measured and made available to everyone on an annual basis. The trouble management for customers is handled along a defined process - in accordance with their rights set out in the GTC, inter alia - after having detected the problem and having filed the trouble at the company.

Magyar Telekom, by permanently developing technical solutions, security systems and backup tools, seeks to ensure continuity of the availability of the services, with setting the enhancement of customer experience as an objective.

We take the lead in mobile network quality In 2017 we were again awarded with 'P3 Best in Test' certificate whereby the independent tester, P3's measurements showed that the best Hungarian mobile network is that of Magyar Telekom. In 2017 we achieved 928 points out of the maximum 1000 which is a significant improvement to the results two years ago.

In the international comparison our mobile network was the fifth best while within DT Group the second best following the Swiss Sunrise and Swisscom, as well as T-Mobile Netherlands and the Austrian A1.

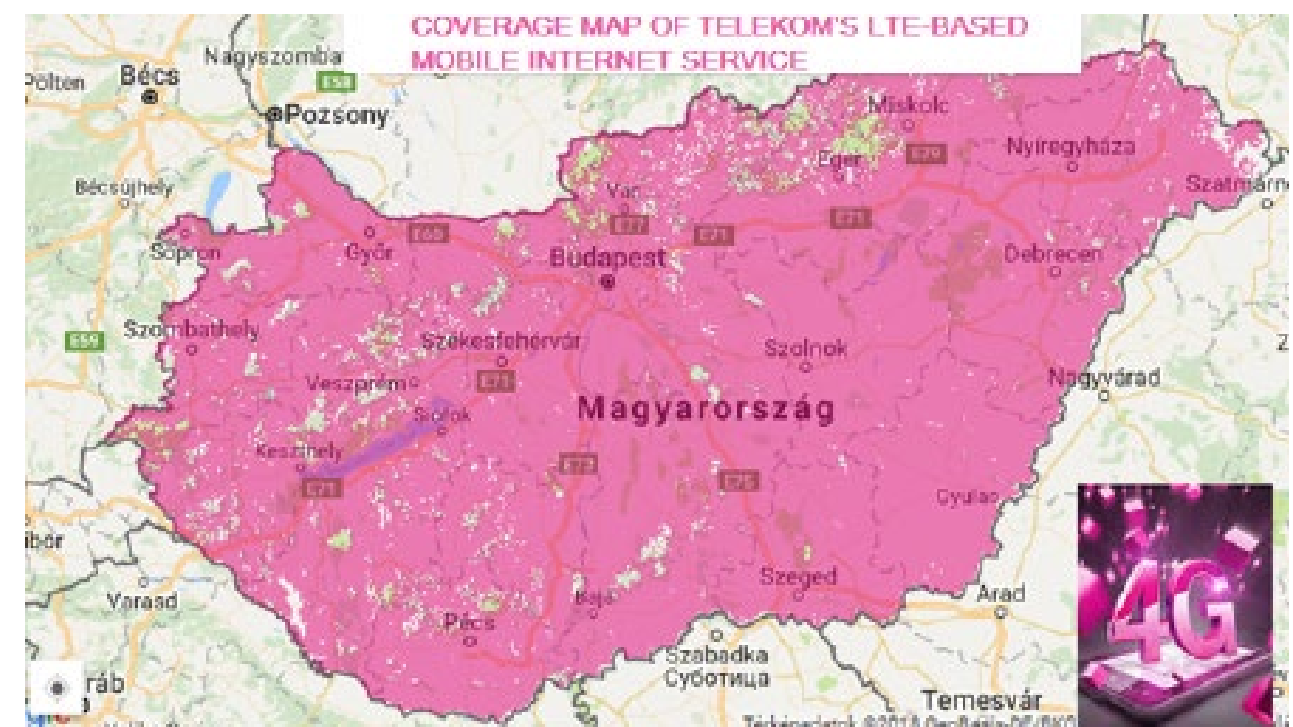


In 2017 we managed to increase further our 4G coverage countrywide in the residential customer segment.

NEW BRAND AND A FIXED LINE OFFER IS INTRODUCED IN THE HUNGARIAN MARKET: FLIP

In May 2017 Magyar Telekom launched a new fixed line brand and offer. Flip was developed for customers requiring simple but good quality basic service without extra comfort services, at an extremely favorable price level, without obligations and commitment for a compulsory loyalty period. The Flip offer – named Flip Otthon – altogether includes 130 digital TV channels, 100 Mbit/s download speeds, a WiFi router and free of charge voice communication between Flip telephone numbers. Upon the launch, Flip became available in more than half a million households, in numerous locations within Hungary.

„The Hungarian telecommunication market enters a new, more mature phase characterized by versatile and ever more definite customer requirements. We realize that there is a customers segment which specifically requires the basic services. We can address the needs of these clients more efficiently and accurately with a new brand, featuring simplicity and freedom, without any obligations. Having recognized this, we launch our new brand Flip” – said Christopher Mattheisen, chief executive officer of Magyar Telekom at the event introducing Flip.



Initiatives at **Makedonski Telekom** to eliminate the digital divide:

- As many as 98% of households are covered with fixed access network. In rural areas where we do not have coverage, Voice services were provided with FGSM or Satellite based solutions, like ASTRA.
- Starting from 2017, new customer requests for BB access in rural areas are provided with FMS solution based on LTE using 800 MHz band.
- With 418 locations where xDSL equipment is installed, MKT provides broadband access in the whole territory of Macedonia. Increased BB access speed for households in already covered in low speed areas with VDSL Vectoring equipment. We continue the deployment of the hybrid access solution (xDSL+LTE) for BB speed demands in low speed areas.
- MKT fiber optic network (as of EoY 2017) provides more than 28.6 % of coverage of households enabling access speeds >40Mbps and we will continue with its further rollout.
- Mobile BB access to our customers is provided using 4G network with 99.5% coverage of population. LTE Advanced using Carrier Aggregation is enabled on 54% of total number of sites while MIMO is implemented on several locations, both technologies together enabling maximum download speeds of 500 Mbps.

2.2 ICT FOR SUSTAINABILITY

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

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.

Our revenue from sustainable products and services grows year by year. By 2017, the revenue from these products has reached a 33.3% ratio.

List of the most important products and service groups with sustainability impact in 2017:

- Technology for health
- 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.

Magyar Telekom also conducts the sustainability assessment of its products and services. The assessment reveals whether the product or service in question has any favorable environmental or social impact, whether it contributes to long-term economic development. The sustainability impact of products/services is measured in 3 dimensions, in 15 topics and through 42 questions. According to related internal 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, education, 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).

2.3 INNOVATION FOR SUSTAINABILITY

Research and development

Tender Project

In 2017, the research and development activities of Magyar Telekom were comprised of maintaining the R&D tender project funded and awarded by the National Research, Development, and Innovation Fund.

Own Risk based Research and Development

During 2017, we have continued the development of several project related products and services that were based on the R&D activities of 2016, such as the TV application that can be used on the TVGO mobile and web platforms and is related to the topic of TV/Entertainment.

In addition to the above, we have also launched new key R&D projects in 2017 in the fields of IoT TV/Entertainment and Big Data. Amongst others, we have examined voice and gesture based remote IPTV control, the feasibility of a cloud based TV service, and also created the prototype of the TVGO application in a general Windows 10 development environment. Within the scope of the intelligent parking project, we examined the business opportunities provided by new mobile solutions, such as NB-IoT. In addition, we have done research on artificial intelligence (AI) and machine learning (ML) supported face recognition and related services. Within the same topic of AI/ML, we have created a chatbot that may later provide aid in the work done by customer service staff by leveraging the opportunities offered by online interfaces. Regarding the topic of Big Data, we have investigated the opportunities of forecasting traffic events using mobile data.

R&D cooperation

In addition to innovative domestic SMEs, the research and development tasks are performed by the internal researchers as well as the product and services development staff of Magyar Telekom. In addition, the Company leverages the synergistic effect of an internal and external knowledge base, and strives for partnership with well-known innovation centers and institutes of higher education. Our main partners are renowned

ICT AT MAKEDONSKI TELEKOM

We see our focus in promoting ICT solutions particularly in smart city segment. That is our way how we can help cities to become smarter and more sustainable. Therefore, we expanded our smart city portfolio with new services and solutions like smart parking, smart waste, smart benches, up to smart lights and electric vehicle chargers. We have built quality pilot solutions based on Deutsche Telekom experience for smart lighting, smart parking and waste management.

We are extremely proud that we managed to transfer this innovative and eco-friendly spirit to our employees by starting another green initiative – smart-bike system. The eco-friendly and innovative smart-bike solution is now implemented within our company, offering our employees a fast transportation method which includes usage of applications that controls locker of bike and tracks the bike. This way, we promote culture of sustainability and decreasing CO₂ emissions.

Hungarian universities and research institutes, such as the Budapest University of Technology and Economics, the Eötvös Loránd University, the Budapest Corvinus University, the Óbuda University, and the Hungarian Academy of Sciences.

Within the framework of cooperation launched during the past year, we have continued our work with the Technische Universität Berlin, the Department of Data Science and Data Technology operating at the Faculty of Informatics at the Eötvös Loránd University, the research and development department of Magyar Telekom and Deutsche Telekom, and the Telekom Innovation Laboratories (T-Labs) in Berlin.

As the partner of European Institute of Innovation & Technology (EIT) Digital, Magyar Telekom promotes and supports even closer cooperation between higher education institutions and their industrial partners. Within this framework, the Budapest University of Technology and Economics and the Eötvös Loránd University provides professional support to students within the EIT Digital post gradual training system.

In-house incubation programme – Mission Telekom

Mission Telekom is an in-house idea incubation programme for employees. During the process, we are looking for ideas and project propositions in support of Telekom's strategic focuses.

Our goal was to bring the best tenders into practice, selected by a professional jury, with the active cooperation of the project initiators and professional/technical mentors in the year 2017.



After several selection rounds, out of 150 applications the top five ideas were chosen for team-implementation on a prototype level. A key selection criteria was the inherent sustainable value of the project proposal.

The development of the Mission Telekom concept has started at the end of 2016. The year-long program was launched for the first time in February 2017 and it has ended in January 2018. At the project closing team presentation event, the finalists had the opportunity to show the results of their eleven months work to the Magyar Telekom Management Board (MC).

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 three functions including research and development (prototyping, testing, service design, UX/UI design), education (next generation programs) and industry collaboration.

KiBu has taken up a strong intermediary role between several agencies, scenes and individuals. We connect corporate demands with creative supplies, theoretic bias of academic education with tools of the maker culture, talented young people with professional support, global innovation with situated, everyday use. KiBu has long been working within an international network of media labs and bears established contacts with the local universities integrating technical knowledge with creative skills.

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. The prototypes are publicized at Demo Day, our biannual showcase event.

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. So far we received 900 requests and accepted 9 teams to our incubation program. 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 every six months we give the opportunity to 4-5 teams to develop their ideas to the phase of building a prototype, under KiBu's professional mentoring. Several hundreds of applications were submitted to the special idea-development program, out of which 20 teams were successfully admitted and could present themselves on the closing Demo Day. 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.

The KIBU lift program, available for individual applicants, was launched in 2016 as a spin-off of the Talent Program. The lab offers a fully-fledged technological innovation team and a workshop for the teams or individuals who receive the education grant then the idea-owners have six months to transform the idea into a prototype or a proof of concept.

These investments and business opportunities can help Magyar Telekom Group to develop innovative products and partnerships. The ideas in the laboratories inspire our colleagues who work in the business development area thereby provide a better insight into the environment where our products are designed.

2.4 PROTECTION OF OUR CHILDREN IN THE DIGITAL AGE

Magyar Telekom is committed to assist children's, parents' and teachers' safe use of internet and aims to provide them with all the support along the way. The Company's child protection website contributes to this effort with controlled content, advise, education and events organized for children and their parents alike to be prepared for risks of the digital world.

Teachtoday - Telekom for the conscious use of the internet

As a responsible large enterprise it is among our tasks to help and promote the safe use of the internet. We use our best efforts to ensure that all age groups leverage the opportunities offered by the digital world in a smart and conscious way and we also work on the elimination of the digital divide between certain areas of Hungary. In November, 2017, similarly to other members of the company group, Magyar Telekom also joined Deutsche Telekom's "Teachtoday" initiative to disseminate online education content with the objective to reach a broad audience.

On the **Teachtoday** website the relevant content is aligned to situations that we experience in our everyday lives; explaining how the young generations use the internet while taking into account potential differences in needs and living conditions. The platform offers practical tips and solutions to parents and children alike on topics like data protection, big data, social networks, use of mobile phones or popular applications. The topics are colorfully varied and the website offers case studies, interviews, tips, infographics, magazines and games, too. The site even offers media competence tests for two different age groups.

For parents

Sometimes it is hard for parents to understand the online world of children. On the Teachtoday platform parents may find useful information on the advantages and disadvantages of applications, for example they may learn why young people love Musical.ly so much. The website offers tips for meaningful conversations with children on data security or cyberbullying. It gives advice and support if we do not know at what age should we give mobile phones to our children and with the help of a draft mobile usage agreement it helps to encourage children to observe certain basic rules.



For teachers

Teachtoday helps the work of teachers with ready-made modules that can be immediately incorporated into the digital curriculum as well as best practices and examples. For example,

teachers can set up a Media Adventure Park together with the students or may acquire new skills and knowledge with the use of the Be a meteorologist! project.

For children

While browsing the Teachtoday website children may playfully acquire the skill of conscious use of devices. They may read about useful applications in the App Tips or may find ideas on how to make great videos through infographics.

The downloadbale English language Scroller magazine is written for small children as another fun source of information about the digital world.



Child friendly customer service

Magyar Telekom recognized the increased importance of responsible corporate citizenship in the area of child protection and does its best to live up to the relevant expectations. The child lock service on TV programs, the free downloadable content control software are good examples of these efforts.

There is a high demand for the protection of young generations either through parents or through teachers. In parallel to the rapid digitization of our world the number of exposures have also increased and there is an increased level of risk affecting minors through various communication channels. Therefore it is crucially important to equip our customer service staff with competence and expertise in child protection issues.

Our objective is to ensure that our customer service can adequately respond to children and adults alike on any security related question regarding the use of the internet, mobile phones or any other Telekom service.

Blocking certain electronic data on the internet

The coercive measure of blocking certain electronic data on the internet was introduced by the new Penal Code (Act C of 2012 on the Penal Code). The most important rules of this measure are contained in Section 158/B-D of Act XIX. of 1998 (Act on Criminal Procedures - "ACP") – amended by **Act LXXVIII. of 2013**. The ACP distinguishes between two kinds of measures:

the removal of electronic data where the primary target group is hosting service providers and the temporary and final blocking of access to electronic data which is mainly applicable to telecommunications service providers.

The blocking or filtering of websites containing content that is subject to public prosecution is implemented in conformity with the ACP measures: the court may order to make electronic data temporarily inaccessible by way of temporarily blocking access thereto. When elaborating the new Penal Code the original objective of the above measure was to be able to take immediate action in serious cases (child pornography, crime against the state or act of terrorism) so that the authorities do not have to wait until a final court decision.

The amendment of **Act LXXVI of 2015** has significantly extended the scope of criminal offenses where court resolutions can rule on the temporary blocking of content. Such crimes are as follows:

- trafficking of drugs,
- incitement to the use of narcotics,
- furthering the manufacture of drugs,
- drug precursor abuse,
- new psychoactive substance abuse,
- child pornography,
- criminal act against the state,
- act of terrorism
- or financing terrorism

or, if the electronic data is connected to the above criminal acts.

The technical implementation of temporary blocking is the responsibility and obligation of the National Media and Info-Communications Authority (NMHH) and the internet service providers.

In 2013, upon the implementation of the above coercive measure, a similar legislative measure was introduced by the National Tax and Customs Administration of Hungary (NAV) by promulgating.

Paragraph 36/G of **Act XXXIV. of 1991** according to which the tax authority without the involvement of a court - is entitled to render any data provided through an electronic communications operator temporarily inaccessible if the access thereto or the publication thereof is related to prohibited gambling.

The temporary blocking of content pursuant to the Tax Authority's resolution may last for 365 days.

From January 1, 2015, in accordance with Act XCV of 2005 on the use of pharmaceutical products applied to humans and the amendment of other regulations of the pharmaceutical market, the National Institute of Pharmacy and Nutrition (OGYÉI) is also granted the right to temporarily block electronic data on non-authorized medicinal products, i.e. may request the hosting service provider of the website to remove the website in question.

The link between the potential sanctions of courts and the Tax Authority is so strong that the entity responsible for the enforcement of the measures is the National Media and Info-Communications Authority in both cases.

Since 2014, in accordance with 159/B (3) of **Act C of 2003 on Electronic Communications**, the National Media and Info-Communications Authority has been managing a central database on rulings to block access to electronic information (hereinafter referred to as "KEHTA"), and processes the data entries to that end. This database contains all court and Tax Authority rulings that order the blocking of websites. All electronic communications operators must join the KEHTA thereby all operators are obliged to block prohibited websites. Thus, in line with the provisions of law, Magyar Telekom has also been blocking the given web pages.

Magyar Telekom, as a company listed in the stock exchange, complies with all requirements of the Hungarian law and actively participates in the industry's self-regulation and the respective efforts of the NGOs.

All content provisioning related activities within **Makedonski Telekom** are in full compliance with all areas of all relevant regulations and legal framework, with increased focus on General Data Protection regulation and copyright laws, but also all other relevant regulation related to the content service providing. It is strictly regulated that the content and content related services shall not be in contrary to the public moral and the public order (meaning that indecent, vulgar, intimidating, threatening or other illegal content is forbidden) as well as that the content shall not be aimed at incitement or call for military aggression against the state order or stirring up ethnic, racial, gender or religious hatred and intolerance, terrorism related activities or violation of the rights and freedoms of other persons.

2.5 DATA PROTECTION

Among the 2017 sustainability objectives, Magyar Telekom pays special attention to the protection of personal data. Magyar Telekom ensures the highest standard of data-security and technical and organizational measures regarding personal data management/processing.



Prior to developing new products and during provision of services, Magyar Telekom considers the protection of its customers' and business partners' personal data as top priority. Magyar Telekom processes personal data in accordance with the applicable Hungarian legislation, the guidelines of the National Authority for Data Protection and Freedom of Information and the European Union directives regarding personal data protection. A new general data protection regulation (GDPR) was enacted in the European Union in 2016 that is directly applicable in the Member States from May 25, 2018. Magyar Telekom pays particular attention to prepare itself for the application of the new general data protection regulation. Magyar Telekom ensures the highest standard of data-security and technical and organizational measures regarding personal data management/processing. Magyar Telekom adopted the data privacy principles of Deutsche Telekom Group (Binding Corporate Rules Privacy).

Magyar Telekom regularly issues trainings prepared for employees and subcontractors to introduce the up-to-date regulations and internal processes regarding the protection of personal data.

In case of contracting with data processors, Magyar Telekom requests from its contractors and subcontractors to process personal data according to the highest standard of data security and technical and organizational measures.

Magyar Telekom provides multiple channels for its customers to request information and to send complaints regarding their personal data management. We treat our customers' personal data related complaints and inquiries as matters of key importance and provide factual responses within the relevant deadline.

For further information, please visit **this** website.

In 2017, **T-Systems Hungary Ltd.** was operating a certified data and information protection system (ISO/IEC 27001).

- The objective of the data and information protection system is to ensure secrecy, unharmed operation and uninterrupted availability of our data and information.
- The data and information protection system manages the data files managed and produced by T-Systems Hungary, the company's business data, the data of its partners and employees, offices, commercial and developed software, buildings, offices, equipment and IT systems.
- The maintenance of the system is ensured through the application of new and continuously developing information and communication technology.
- We respond to information security exposures in a way that residual risks may not adversely impact our work and the company's operation.

Makedonski Telekom as a member of the Deutsche Telekom Group, pays great attention to the personal data protection in all of its business processes, by implementing the standards stipulated with the personal data protection regulations in the Republic of Macedonia and the standards existing within the Group. The principles for personal data protection elaborated in the Binding Corporate Rules Privacy of Deutsche Telekom are implemented in the companies belonging to the Group, and in MKT inclusive.

The Binding Corporate Rules Privacy, adopted by MKT with a CEO Directive on May 2015 conforms to the requirements by the Macedonian Law for Protection of Personal Data. On October 2016, a CEO Directive was supplemented with the Appendix which regulates more thoroughly the control of personal data protection level by the DPO's Team.

The main activities of the DPO during 2017 were as follows:

- Supporting the projects with privacy relevance related to new products, services and IT system. It is very important to ensure the early involvement of the DPO in the projects;
- Active participation in defining the rights and obligations regulated by the Commissioned Data Processing Agreements;

- Conducting of the data protection trainings (face to face) for the employees in Point of Sales (the trainings will be recorded in employee's personal files)
- Giving the opinions whether the data which are treated as a confidential communications according to Law on Electronic Communications, could be provided to the state authorities upon their request and interpretation of the relevant legal provisions that refer to the lawful interception

During the reporting period the following data protection audits/inspections were performed at MKT:

- Data Protection Audits conducted by DPO, based on Annual Plan for 2017
- Regular inspection by Directorate for Personal Data Protection (the conducting of this inspection started in 2016 and continued in 2017)
- Certain extraordinary inspections by Directorate for Personal Data Protection based on customers complaints (it should be emphasized that no penalty was imposed)
- Online Group Data Privacy Audit and Self Assessment

The main focus for 2018 is starting of the implementation of the new General Data Protection Regulation (GDPR).

Republic of Macedonia as a candidate country for EU membership has an obligation to transpose the GDPR into national legislation. The new Law on Personal Data Protection is already drafted (GDPR is transposed in the draft Law) and it is expected the procedure for its adoption to start. MKT will establish the Project Team for implementation of GDPR.

2.6 SAFE USE OF MOBILE PHONES, ELECTROMAGNETIC FIELDS

In order to provide high-quality services to the Hungarian and Macedonian mobile telephone subscribers through the mobile telecom network, UMTS licenses were distributed among operators in Hungary in December, 2004 and for operators in Macedonia in June, 2009. Besides, in December, 2011 Magyar Telekom acquired the right to launch the LTE service and the commercial rollout started in 2012. By the end of 2017 the frequency right acquired in the 800 MHz band allowed that almost 100% of Hungarian citizens can use Magyar Telekom's LTE service.

However, the rollout of the LTE related networks may heighten the interest of the communities in the issue of electromagnetic fields, which will increase the importance of the company's strategy in addressing the issue.

The electromagnetic exposure limits in Hungary have been determined in line with the guidelines set by ICNIRP (International Commission on Non-Ionizing Radiation Protection), which are based on the practice applied in most European countries and on Recommendation 1999/EC/519 of the European Commission. As a result of the relevant Hungarian decree adopted in August, 2004 (63/2004./VII. 26. - ESzCsM) on the basis of ICNIRP guidelines, the regulations in Hungary are compliant with the EU regulation on electromagnetic fields.

In the framework of the company's over-all education program, new employees are informed about issues concerning electromagnetic fields as part of their mandatory orientation training.

Within Deutsche Telekom Group, issues related to electromagnetic fields are regulated as part of DT's EMF objectives, the so-called 'EMF Policy Recommendations', with special emphasis on transparency, information provision, support of and involvement in research. Magyar Telekom applies the relevant Deutsche Telekom recommendation as mandatory regulation since 2004, while Makedonski Telekom since March, 2011.

To support preventive action both Magyar Telekom and Makedonski Telekom set up dedicated EMF workgroups, which meet quarterly and monitor EMF-related national and international developments and respond to the EMF-related queries of the authorities, residents or employees. Further information about Deutsche Telekom EMF Policy Recommendations' adopted by Magyar Telekom is available in English on the [website of Deutsche Telekom](#).

In the framework of this policy, Magyar Telekom and its subsidiaries address the complaints and inquiries in an efficient manner.

The EMF policy was also endorsed by Makedonski Telekom. The policy sets forth the basic principles applicable to the responsible use of mobile communications technologies. In this document we assume commitment for greater transparency, for the provision of information and for involvement in the relevant processes.

Mobile network, network development

According to the Company's common practice station antennas are installed in a way that employees normally cannot stay in front of them, they cannot and do not have to work in the relevant zone, and passage ways do not cross the areas in question.

If, in particular cases, people must pass or work in front of the antennas – this usually happens related to external contractors' work, e.g. when renovating a building, safety distance data are made clear and available. If necessary, site measuring can be conducted, or in justified cases the antennas can be temporarily relocated or the performance of the transmitter can be reduced.

If a Magyar Telekom employee performing work in the vicinity of an antenna detects unidentified signal source, he will use his RADMAN personal radiation detector to determine the boundaries of safe zone and prevent health risk.

Compliance with the value limits defined by law for Magyar Telekom mobile network is audited and certified by independent measurement bodies.

The company acts in accordance with the relevant laws and consults, cooperates with the relevant stakeholders in each and every case when building new base stations. If needed, citizens' forums are held with the participation of all concerned parties to reach an agreement.

Communication

Despite the fact that the radiation of Magyar Telekom's handsets and mobile base stations is well below the ICNIRP emission limits, the Company considers it important to provide information on handsets and base stations, both to employees and customers.

We coordinate these matters several times a year with the National Media and Info-Communications Authority's experts and supply measurement data for their purposes.

In addition to internal communication, in 2017 Magyar Telekom continued to respond openly to inquiries about the safe use of mobile phones.

The SAR values of the devices are included in the user manuals in the mobile set packaging and are available in Telekom shops as well.

Research

Exposure of the world's population to non-ionizing electromagnetic radiation and electromagnetic fields has considerably increased in recent years. Since a civilized society cannot avoid the use of equipment emitting non-ionizing electromagnetic radiation, like mobile telecommunication equipment, satellite and terrestrial television/radio broadcasts,

flight navigation, meteorological satellites, radio astronomy, space exploration, the exposure of the environment and the population is expected to increase further in the future. World Health Organization (WHO) and several other international organizations, as well as research groups monitor the impact of technological development on human health.

The assumed health effects of mobile telecommunication have been studied and analyzed for more than twenty-five years. So far scientific researches have not confirmed any negative health impact of mobile telecommunication on the human body.

The largest research project of this type, the INTERPHONE project of WHO-IARC (International Agency for Research on Cancer) conducted with the participation of 13 countries, was closed in 2011. After closing the INTERPHONE project on May 31, 2011, WHO-IARC classified electro-magnetic fields into the 2B potential carcinogenic category. According to the Chairman of the WHO-IARC workgroup "the evidence, while still accumulating, is strong enough to support a conclusion and the 2B classification. The conclusion means that there could be some risk, therefore we need to keep a close watch for a link between cell phones and cancer risk". At present the following agents are classified to 2B category: coffee, petrol, the exhaust of petrol-fueled engines, nickel and alloys, talcum powder, network frequency magnetic field and mobile phone use as well.

Through its GSM Association membership, Magyar Telekom has directly contributed to the progress of independent research into the health impacts of mobile networks.

Every national affiliate of Deutsche Telekom is committed to supporting independent research aimed at extending the company's knowledge on the impacts of electromagnetic fields. This makes Deutsche Telekom Group one of the biggest supporters of research on this subject.

As a result of the three Hungarian mobile operators' cooperation a new website – **EMF portal** – was created in 2006 and continued its operation throughout 2016 where questions can be asked regarding EMF issues, news are available about the topic and readers can access the findings of the EMF measurements purchased by the operators from external organizations.