



SUSTAINABILITY REPORT

2016



EGYÜTT. VELED



1.

CLIMATE- AND ENVIRONMENTAL PROTECTION

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As a leading provider of info-communications services in the region, Magyar Telekom's commitment to sustainable development with a focus on preserving the environment lies in the centre of its mission. In our new Sustainability Strategy 2016-2020 we set the ambitious goal to reduce the level of our carbon dioxide emission below 100 000 tons.

2016 marked the second year in which Magyar Telekom Group (together with its foreign subsidiaries, Makedonski Telekom and Crnogorski Telekom) set the objective of carbon-neutral operation – and reached it. Our electricity consumption was covered by renewable energy and we offset 50 000 CER units. Our performance exceeded our expectations, therefore 7409 tons ✓ of CO₂ will be included in the offset of our 2017 emissions.

In celebration of going carbon neutral for the second year in a row, our colleagues planted more than 500 trees on the first Telekom Volunteer Day and planted the same amount of virtual trees in the hello holnap! pagony (www.hellopagony.hu)



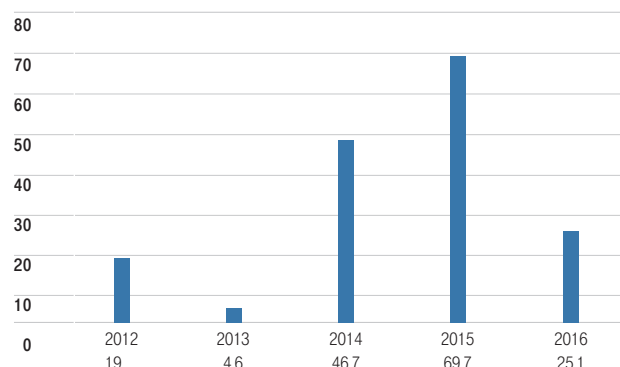
In 2016 we continued our carbon offset project. We spent half of the income of our company car policy regulated bonus-malus system to carbon offset. Our aim was to become carbon neutral again in 2016 too. We have reached our goal by using 100% renewable energy for our electricity and we offset the rest of our emissions, by purchasing and retiring CER (Certified Emission Reduction) units. The reduction came from a Chinese project, we offset 50 000 tons of CO₂. In 2016 Magyar Telekom Plc. has purchased 201 GWh of renewable energy that is equal with 100% of the total amount of electricity used by the Company.

Magyar Telekom's new sustainability strategy for the period 2016-2020 points to the focus of climate protection and the reduction of CO₂-emissions. Our highlighted environmental and operational ecoefficiency goals are:

- Reducing our CO₂ emissions (target set below 100 000 tons of CO₂ by 2020)
- Energy consumption: saving energy (reduce consumption), increase of energy efficiency levels, using green energy,
- Increase the energy efficiency of our buildings
- Decrease our fleet consumption, promotion travel replacement solutions, and dematerialization solutions,
- Introduction of sustainable and climate friendly products and services
- Waste management: reduction of waste (increased recycling-rate)
- Measure the climate footprint of our customers and suppliers

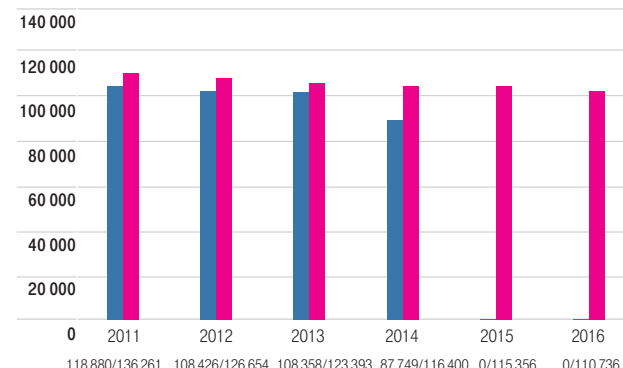
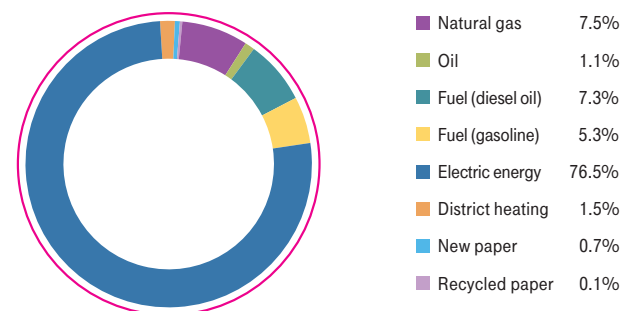
The company pays increased attention on supplying its network with energy-efficient equipment. All of our products and services must comply with the requirements of environmental sustainability. We aim to provide our customers with solutions they can benefit from, allowing them to use less energy and protect the environment. For more information, please refer to chapter **2. Responsible Service, section 2.2 ICT for Sustainability.**

Based on the Business Continuity Management System (BCM) we have identified the critical climate risks (floods, heat waves) that might affect our operations and we have prepared action plans for possible risk management. According to our annual assessment the rate of climate damage in the network did not reach the level of intervention (HUF 50 million damage/month). In 2016 we have identified 364 ✓ climate related cases (storm damage). In 2016 during the heatwave we allowed our colleagues to work remotely in order to reduce the energy consumption of our offices, and we increased the core temperature of our datacenters and base stations.

STORM DAMAGE (HUF M) ✓**1.1 CLIMATE PROTECTION AND ENERGY EFFICIENCY**

To present the quantitative greenhouse gas emissions of Magyar Telekom Group's activities we use a CO₂e (carbon dioxide equivalent) as an indicator. (We do not measure greenhouse gases separately and we do not have biogenic CO₂-emissions.)

The details of Magyar Telekom Group's CO₂-emissions are given in the following table. The CO₂-conversion factors were determined on the basis of the 2007 recommendations of the International Energy Agency Data Services (electricity), the UNEP guidelines (heating oil, fuel, natural gas), DEFRA's coefficients and by the data provided by a prominent Hungarian paper factory. We present our real emissions with and with out carbon offset.

AGGREGATED CO₂ IMPACT MAGYAR TELEKOM (t CO₂) ✓**SHARE OF CO₂ BY SOURCE ✓****MAGYAR TELEKOM GROUP'S TOTAL CO₂-EMISSIONS ✓**

CO ₂ IMPACT [t CO ₂]	2011	2012	2013	2014	2015	2016
Direct energy consumption						
Natural gas	16 051	10 922	11 400	9 824	8 910	8 266
Oil	2 604	3 001	2 600	2 004	1 629	1 206
Fuel (diesel oil)	8 853	8 315	8 217	8 317	8 364	8 109
Fuel (gasoline)	6 669	6 359	6 436	6 631	6 590	5 866
Fuel (total)	15 522	14 673	14 653	14 949	14 954	13 975
CO ₂ emission of direct energy consumption	34 177	28 596	28 653	26 777	25 493	23 447
Indirect energy consumption						
Electric energy	98 517	94 483	91 361	86 655	87 010	84 725
Green energy	17 381	18 228	11 516	11 516	63 337	68 145
Electric energy (adjusted with renewable energy consumption)	81 136	76 255	79 845	75 139	23 673	16 580
District heating	2 367	1 957	2 156	1 863	1 918	1 690
CO ₂ emission of indirect energy consumption (adjusted with renewable energy consumption)	83 503	78 212	82 001	77 001	25 591	18 270
Total energy consumption						
CO ₂ emission of energy consumption (adjusted with renewable energy consumption)	117 680	106 808	110 654	103 778	51 084	41 717
CO₂ emission of paper consumption						
New paper	1 038	1 455	1 078	961	813	755
Recycled paper	162	162	146	144	122	119
CO ₂ emission of total paper consumption	1 200	1 618	1 223	1 106	935	874
Cumulated CO₂ emission						
CO ₂ emission of indirect energy consumption (adjusted with renewable energy consumption)	117 680	106 808	110 654	103 778	51 084	41 717
CO ₂ emission of total paper consumption	1 200	1 618	1 223	1 106	935	874
CO ₂ emission eliminated by the Carbon offset project			-3 520	-17 135	-52 189	-50 000
Cumulated CO ₂ emission (adjusted with renewable energy consumption and carbon offset)	118 880	108 426	108 358	87 749	0	0

Comments:* With carbon offset we managed to induce CO₂-emission above the actual emissions, as a result of which 7409 tons of CO₂ will be used as part of our emission's offset in 2017.

Magyar Telekom takes all necessary measures to treat the risk from operation of the fluorinegreenhouse gas containing equipment. Based on the inspections carried out in accordance with the regulations there was no leakage in 2016. 49% of the replacement of R22 greenhouse gases within Magyar Telekom Plc. has been done so far. Most of the remaining air conditioners operating with regulated greenhouse gases will be subject to dismantling in 2017 due to energy reduction operations or selling property. Magyar Telekom Plc. is meeting the deadline for replacement disclosed in the related legislation.

1.1.1 CLIMATE PROTECTION RESULTS

Taking the purchase of green energy and carbon offset into account, total carbon dioxide emissions was offset by the Magyar Telekom Group. Our Scope 1 emission decreased by 8% due to the significant decrease of the fuel consumption, while the Scope 2 emission decreased by 3% due to network modernisation.

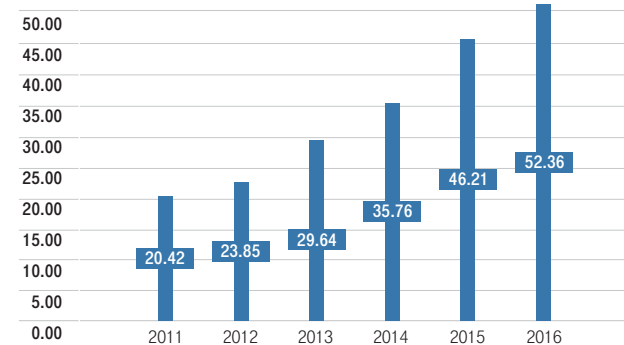
At **Makedonski Telekom** recent optimizations provide a better utilization of working space with increased usage ratio which also leads to decrease of the electricity consumption and improvement in the energy efficiency.

1.1.2 ENERGY EFFICIENCY

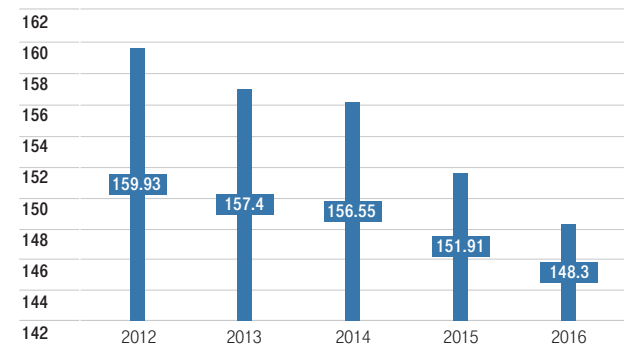
In order to measure our energy efficiency, in our 4th Sustainability Strategy we continue to use a Gbit/kWh indicator. Our goal is to reach the 100 Gbit/kWh, in 2016 it was 52.4 Gbit/kWh ✓.

We apply three kinds of energy intensity indicators in order to show the changes in three factors that amount to the largest proportion of our CO₂-emissions: the electricity consumption of the network, fuel consumption of the fleet and the ratio of the revenue and the energy consumption. The effectiveness of the energy consumption of Magyar Telekom Plc.'s operation is characterized by the Gbit/kWh (transmitted bits/electricity consumption) energy efficiency indicator. The indicator shows that as the quantity of transmitted information grows the energy consumption proportionally reduces (i.e. we transfer more information with less energy). The fuel consumption efficiency is characterized by car pool average CO₂-emissions in g/km. For the revenue related energy consumption indicator we use the GJ/HUF M. We would like to increase the first and reduce the second and the third indicator.

BITS TRANSMITTED / ENERGY CONSUMPTION (GBIT/KWH) MAGYAR TELEKOM PLC. ✓



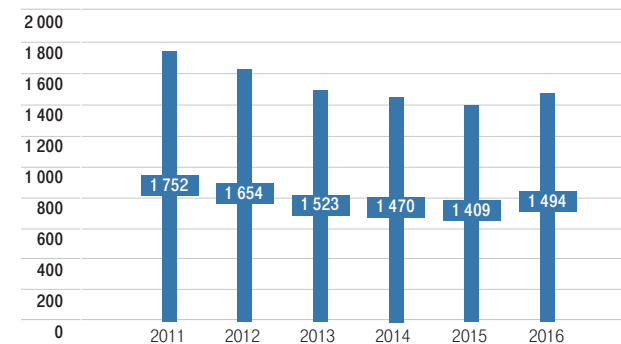
THE AVERAGE CO₂ EMISSIONS OF THE FLEET (gCO₂/KM) MAGYAR TELEKOM PLC. ✓



Average carbon dioxide emissions from vehicles have further decreased from 151.91g to 148.3g CO₂/km ✓, due to the introduced restriction in our bonus-malus system. We limited the emissions of the employee benefit cars and maximized their power. We introduced new financial incentives to make the hybrid and electric cars more favourable.

The revenue related energy consumption was 1494 GJ/HUF M, (GJ/KWh).

REVENUE RELATED ENERGY CONSUMPTION GJ/HUF M MAGYAR TELEKOM GROUP



1.1.3 EQUIPMENT IN CUSTOMERS' PREMISES

Our customers generate significant energy consumption by operating our CPEs, but that consumption is essential for using our services. We identified three major areas where the energy consumption is significant: the use of mobile phones, TV services, internet services. In 2016 we conducted a precise calculation on the number and performance of CPEs (set-top-boxes, modems, terminals). We have no information about the exact kinds of mobile phones, that our customers use, therefore our calculation is based on an average smartphone's energy consumption (1 kWh/year). Taking the number of subscriptions in 2016 into account, the energy consumption of our CPE's was 55 GWh, which is equivalent to 52 510 tons of CO₂ emission. It has increased by 5.5% compared to the estimated data of 2015, due to the increased number of customers.

EQUIPMENT IN CUSTOMERS' PREMISES

	PIECE	PERFORMANCE KWH	
CPE	2 595 463	149 700 824	
mobile subscription	5 331 986	5 331 986	
sum		155 032 810	kWh
		52 510	t CO ₂

Previously the Magyar Telekom-related emissions of our suppliers have not been monitored. In 2015 the monitoring of our suppliers' Magyar Telekom-related emissions have already been included in the sustainable supply chain management process within their sustainability evaluation on energy use and emissions. So far, only 4 of our suppliers provided their energy consumption data. Their emission was 1394 tons of CO₂ that covered 1.67% of all procurments. Thus as a non reliable estimation the Telekom-related emission of our suppliers was 83 473 tons of CO₂ in 2016. A more precise calculation could be carried out on a larger set of sample elements in 2017.

1.2 RESOURCES MANAGEMENT

1.2.1 ELECTRICITY CONSUMPTION

Magyar Telekom Group In 2016 Magyar Telekom Group continued with its efforts to energy-efficient operations. As a result our electricity consumption continued to decline by a further 3% ✓ compared to 2015. We continue to improve our energy efficiency in accordance with our Sustainability Strategy and in compliance with the ISO 50001 standard.

At Magyar Telekom the aggregate of several smaller transformations and development projects may jointly help us to further reduce our energy consumption:

- Our attested building ventilation technology has been upgraded in 2016: we implemented the so-called wardrobe type equipment thus reducing the operation time of air-conditioners and saving electric energy. Currently the main objective is to fine-tune the existing solutions but new solutions are also implemented as a result of the global PSTN (Public Switched Telephone Network) replacement project. With this we take a huge step forward in the field of air conditioner replacement together with the implementation of lower performance power supply equipment.
- We have replaced our power supply equipment in several huge machine rooms; we continued the merge of fixed line and mobile power supply operation at specific sites. As smart cooling technology evolves, it brings new results in more sustainable cooling strategies.
- The increase of machine room temperatures is managed as a global project concerning operation spaces of all sizes, from minor containers up to the large exchange centres. The use of temperature resistant accumulators and accumulator coating is a preparatory phase of the project.

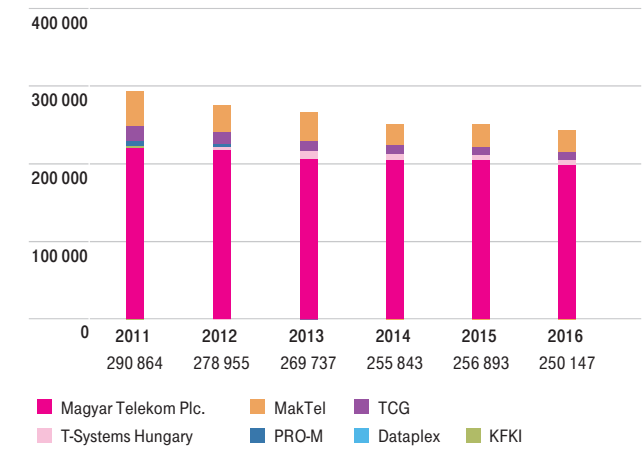
The PSTN replacement project was carried out within the CTIO governance area. Launched on April 15, 2015, the three years long network modernization project, had the target for 2016 to cut-over 321 thousand telephone lines onto IP-based (MSAN) exchanges. The switch to modern, lowconsumption devices

will result in 300 000 000 kWh energy saving within 10 years – this volume is equal to the quantity of the annual electricity consumption of 100 000 households – thus 100 000 tons of CO₂ emission reduction could be achieved. By the end of 2016 the mass customer migration has been completed.

In the last year of the data storage modernization program we have achieved further significant electricity savings, continuing to reduce our harmful impact on the environment. In 2016 we have replaced 25 pieces of high operational cost data storages, representing 1.6 Petabyte capacities. The operation has already resulted in a saving of HUF 12M in the implementation year. We have carried out the replacement of the entire storage infrastructure with devices incorporating current, high level technologic innovations. Their upgraded performance and reliability will contribute to the quality of our IT system-services to a large extent. The modernization program proved to be successful in terms of meeting our sustainability targets as well. We have reached the objective of reducing the energy consumption of data storage by 30%.

The scope of our energy saving target is global: at the core of our each and every development, there is the inherent aim to reduce our energy consumption. This is how we ensure a clear trend of consumption-decrease in the long term.

ELECTRICITY CONSUMPTION (MWH) MAGYAR TELEKOM GROUP ✓

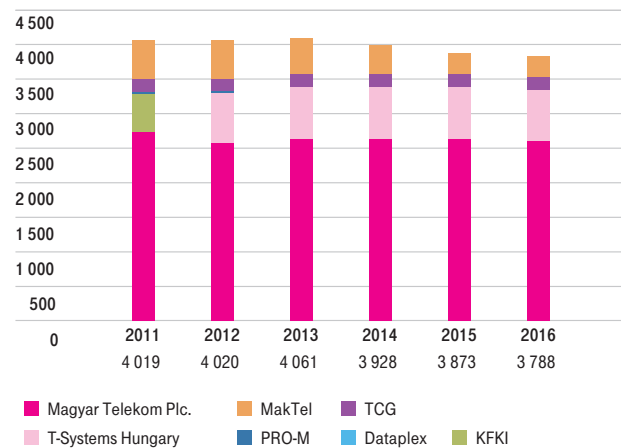


1.2.2 FLEET MANAGEMENT, FUEL CONSUMPTION

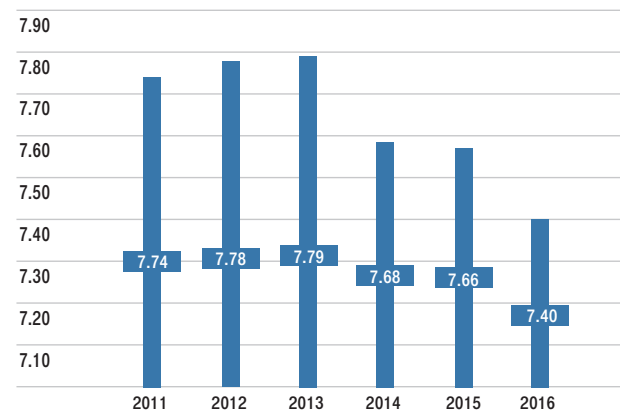
The number of vehicles in the fleet on a Group level continued to drop, while the types of usage and distribution of fuel has not changed. The number of hybrid cars decreased slightly, the number of electric cars has increased to 5.

NUMBER OF VEHICLES BY FUEL AND USAGE TYPE AT MAGYAR TELEKOM GROUP ✓	2013	2014	2015	2016
Fuel type	4 061	3 928	3 873	3 788
Diesel	2 369	2 261	2 244	2 181
Gasoline	1 600	1 572	1 541	1 490
Hybrid	89	92	82	112
Electric	3	3	3	5
Benefit cars	1 636	1 428	1 423	1 359
Service cars	2 425	2 500	2 450	2 429

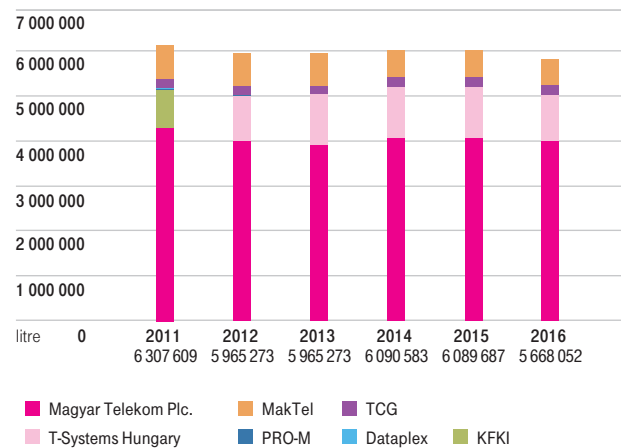
TOTAL NUMBER OF VEHICLES MAGYAR TELEKOM GROUP ✓



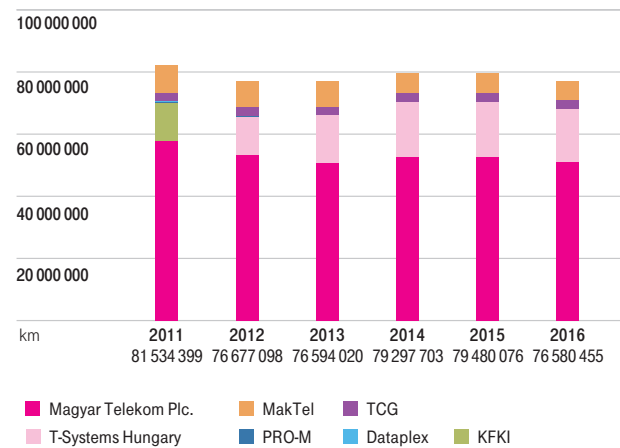
AVERAGE FUEL CONSUMPTION, (l/100km) ✓



FUEL CONSUMPTION (LITRE) MAGYAR TELEKOM GROUP ✓



MILEAGE OF VEHICLES (KM) MAGYAR TELEKOM GROUP ✓



The fuel consumption (-7% ✓), average fuel consumption of vehicles (-3% ✓), the mileage (-4% ✓) has decreased at group level as compared to the previous year.

The electric cars' consumption increased from 2.36 MWh to 3.38 MWh ✓. (Personal use is more significant due to the lack of refill-station capacity of the national network.)



An electric car of the fleet

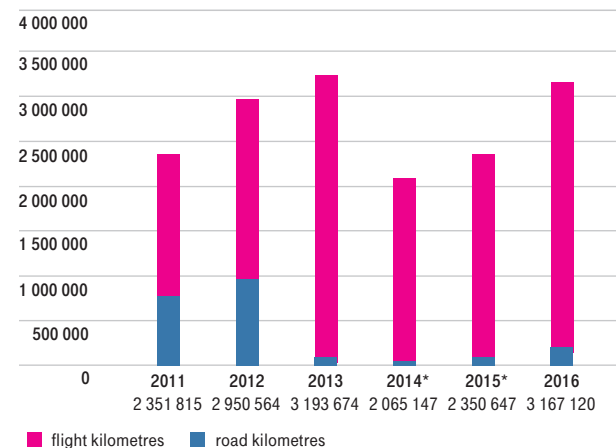
Travel replacement solutions

Mileage, as the measure of business trips has significantly increased (2015: 6 190 403 km 2016: 8 361 494 km) due to two large volume European projects, that required personal participation. Share of business travels was the following: 90% by plane, 9% by car, 1% by train.

TelePresence video conferences

The proportion of travel replacement has increased by a significant 34.7% ✓ compared to year 2015. Video conference and TelePresence systems are now available in Magyar Telekom headquarter, T-Systems Hungary's Budafoki str. headquarter and in regional offices. In 2016 more than 2 899 940 ✓ flight and 267 180 ✓ road kilometers of travel have been saved, thereby reducing our CO₂ emission with 298 tons ✓.

TRAVELS REPLACED BY VIDEO-CONFERENCES (KM) MAGYAR TELEKOM GROUP ✓



*Due to the introduction of an unified calculation methodology our 2014 and 2015 data have been modified compared to previous reports.

Teleworking

Magyar Telekom has been supporting telework for years as it is beneficial for the employer and the employee alike. In 2017 we started monitoring the commuting habits of our employees (based on a small sample, but for a large office building in a good location in terms of public transport): approximately 1/3 of the employees choose to come to work by car, driving a daily average of 40 kilometres and 2/3 choose community services commuting a daily average of 30 kilometres. In 2016 there were 87 276 telework days registered, saving 3 million kms of travel and 15 years of traveltime. Considering this result, teleworking has a significant role in replacing travel. For additional information on teleworking see **Chapter 5.1 Human rights and equal opportunities.**

TeleBike

In the spring of 2016, we re-launched TeleBike, Magyar Telekom's employee bike rental system with extended working hours. In 2016, TeleBike offered 53 bikes, and six new electric bikes. Employees can commute between the offices of the company and six T-Systems Hungary sites that are located within the city limits of Budapest. Some key figures: 5965 rents, 10 683 kms, saving 2 035 kg of CO₂ emission in 2016.

Bicycle courier service

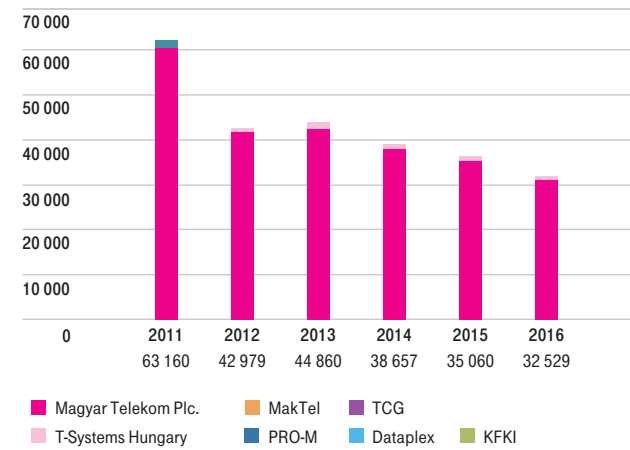
Since 2012 Magyar Telekom has been sending some of its consignments using bicycle courier service. In 2016 we used bike carriers 554 times and saved 2833 km ✓ of car travel.

1.2.3 FOSSIL FUEL CONSUMPTION

The Group also continued to decrease its natural gas consumption (by -7% ✓), thanks to initiatives that have been introduced during the strategy period, as described in our previous reports. https://www.telekom.hu/about_us/society_and_environment/sustainability_reports

At **Makedonski Telekom** the use of fuel oil has significantly decreased along the optimization/modification of HVAC systems, meaning that the systems for heating based on heating oil were being closed down and replaced with inverter split system units and panel board for heating.

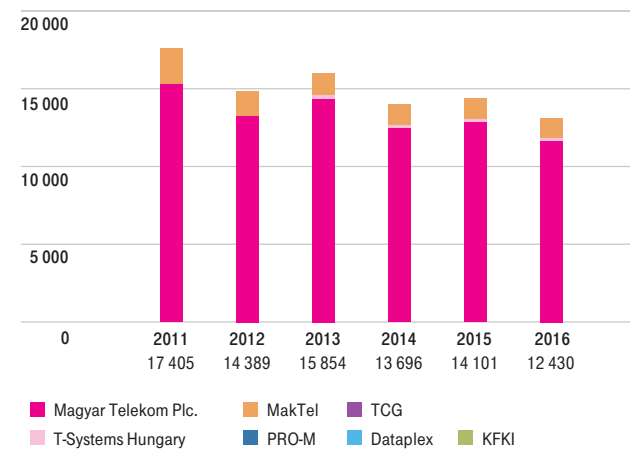
GAS CONSUMPTION (MWH) MAGYAR TELEKOM GROUP ✓



1.2.4 DISTRICT HEATING

At Group level, the district consumption continued to decrease (by -12% ✓) compared to the previous years.

DISTRICT HEATING CONSUMPTION (MWH) MAGYAR TELEKOM GROUP ✓

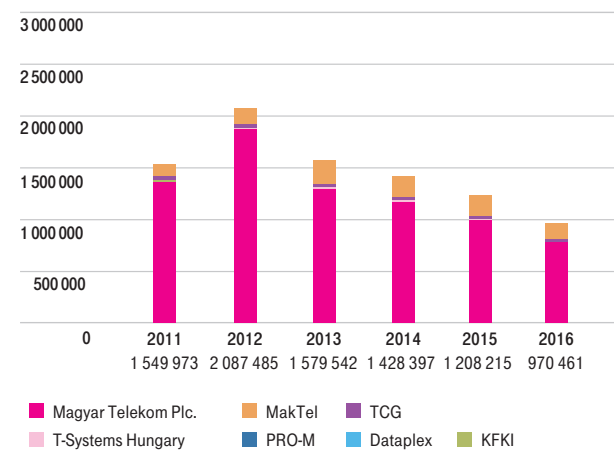


1.2.5 PAPER CONSUMPTION

Magyar Telekom Group's paper consumption continued to decline with more than 20% maintaining the trend of previous years. The usage rate of recycled paper has not changed.

In the past two years Magyar Telekom has introduced e-signature and e-Terms of Service in its stores thus renewing personal customer service operations. This innovative solution may considerably reduce the amount of printed documents, the working time and costs of printing, filing and storing. This will also improve the operational efficiency and reduce the environmental impact as well. Telekom's aim is to set up a full range electronic customer service in the future where legally binding documents with electronically recorded signatures will replace all paper-based contracts. The introduction of e-signature through tablets marks the first step of this process, as a result of which we were able to reduce the number of printed pages by -62% ✓.

TOTAL PAPER CONSUMPTION (KG) MAGYAR TELEKOM GROUP ✓



We report on paper consumption primarily not to reflect on its use, but rather to provide as accurate data on our CO₂-emissions as possible. In accordance with Deutsche Telekom's expectations we aim to provide a more accurate calculation of the carbon dioxide emissions coming from the use of our products and services.

In Hungary, despite of the increase in our public relations related marketing activities in recently connected areas, our paper consumption has further decreased due to the use of non paper-based marketing and PR tools. For more information on network development **consult chapter 2. Responsible services.**

E-billing

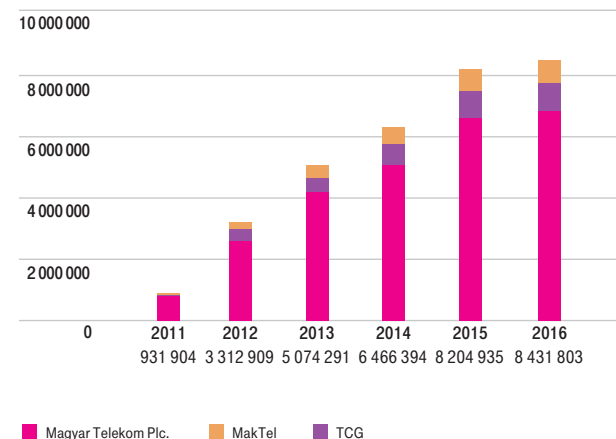
Thanks to the campaigns our Hungarian branches have achieved outstanding growth: in Hungary the number of users is over half a million. Electronic invoicing constitutes more than 21% of all residential billings, 7% of SMB, 3.4% of enterprise billings.

PAPER CONSUMPTION OF THE GROUP [KG] ✓

	2011	2012	2013	2014	2015	2016
Total paper consumption [kg] ⁽⁴⁾	1 549 973	2 087 485	1 579 542	1 428 397	1 208 215	970 461
Packaging paper [kg]	0	73 913	128 114	175 479	97 371	14 551
Office paper [kg]	519 908	566 138	544 134	481 009	459 653	84 897
Bills [kg]	583 506	617 089	653 966	662 409	799 757*	823 798
PR and marketing material [kg]	446 559	830 345	253 328	109 500	335 231	47 215
Recycled paper [kg]*	215 384	216 499	194 056	192 456	162 789	158 669

*The indicated data was estimated 315 959 kg in the 2015 Sustainability Report.

ELECTRONIC BILLS MAGYAR TELEKOM GROUP ✓



The decrease in group-wide office paper use is attributable to the continued improvement and automatization of processes, the spread of paperless office solutions, the consolidation of the printer pool and the maintenance of our achievements in this area.

The amount of paper used for packaging has significantly decreased, but it is this area that we can influence the least because it greatly depends on the projects and the sales portfolio. The clickshop.hu no longer in our portfolio, so the related packaging-paper usage was eliminated. Over the past two years the amount of printed promotion material was reduced to a minimum.

1.2.6 BIODIVERSITY

Magyar Telekom Plc.'s developments are generally not obliged to prepare impact assessment studies (EIA). In 2016 there were six investments that concerned protected areas and/or Natura 2000 areas. In each case our investments were subject to impact assessments. Along our operations no damage occurred on the natural habitat and biodiversity of the concerned territories. We continue to pay increased attention to the protection of our shared natural heritage, by planning all of our developments in compliance with the relevant rules and regulations.

Land use, landscape impact

It is important to the Group to implement its projects with only the absolutely necessary proportion of land use, thereby preserving the original biodiversity of the natural environment. Along our property investments we also make sure that our buildings fit in the original landscape.

The composition of the mobile network represents a slight change at group level: the number of base stations grew by 29% (2013: 5173, 2014: 5462, 2015: 6102 and 2016: 7894 on Group level). The number of towers shared with other operators increased significantly by 4.5% (2016: 1827 pieces).

In March, 2015 Magyar Telekom and Telenor Hungary have agreed on joining their forces to develop their 800MHz 4G mobile networks in all parts of Hungary except Budapest. In accordance with the agreement and in line with the common rollout plan Telenor will design and operate the network in areas west from the Danube whereas Telekom will do the same in the eastern part of the country. The joint construction effort will help us to provide the highest quality mobile technology to our customers in the countryside in a quick and cost-effective way, with less use of the land.



Our colleagues planted 500 trees at the Telekom Volunteer Day

We contribute to local communities by creating community gardens and taking uncultivated land in use, thereby increasing the diversity of the area: in 2014 Magyar Telekom Plc. started the development of three community gardens, the first of which was opened near the company's site on Csárda Street, where the local gardeners started their work on 28 plots. In 2015 we opened two more community gardens near the company's site in Soroksári Street and Ceglédi Street. The community garden in Soroksári Street is the largest in Budapest, where garden owners can work on almost 100 plots. We continued our cooperation in 2016.

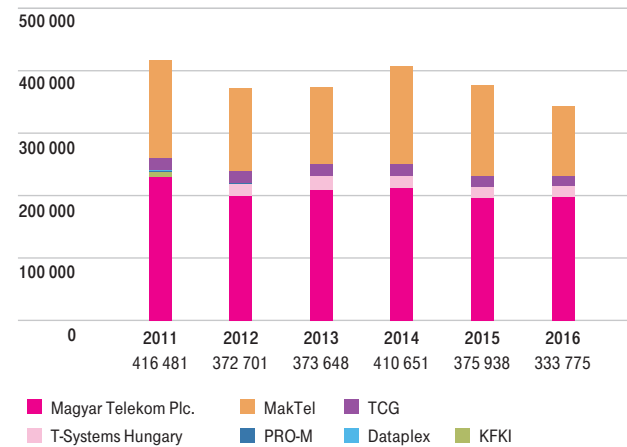
Noise and vibration protection

In Magyar Telekom Group sites we have to pay increased attention to the following potential noise sources: outdoor air-conditioning equipment and emergency diesel generators. Last year 3 complaints have been issued about the noise level of Magyar Telekom. Two of them were closed to the satisfaction of the complainant while the solution of the last case is extended to 2017.

Water consumption

The water consumption at Magyar Telekom Group is exclusively for social purposes. Group-level water consumption decreased by more than 11%, in part due to the water-saving solutions (perlators) introduced in the previous year, and in part due to decreasing space and headcount. As for Magyar Telekom Plc.'s water consumption experienced a minor increase of 5%. Magyar Telekom Plc. sites that do not have connection to public sewer system pays environmental charges to the local council. The amount of the environmental charge in 2016 was HUF 152 800 paid after 235 m³-s of water used.

WATER CONSUMPTION (M³) MAGYAR TELEKOM GROUP ✓



1.3 EMISSIONS

1.3.1 WASTE

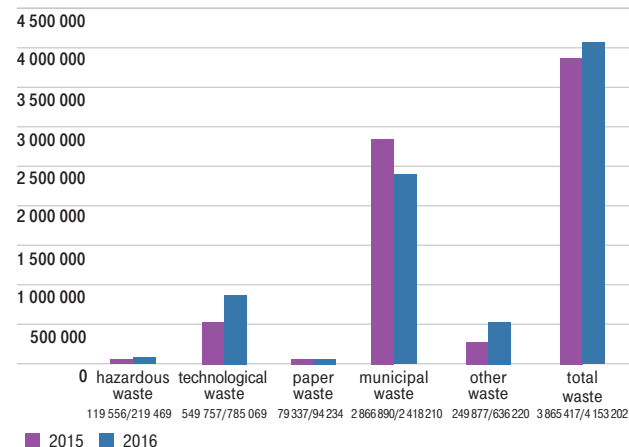
The quantity and quality of waste generated greatly depends on the current telecommunication projects and developments: on Group level in 2016, compared to 2015, the total amount of waste increased by 8%. Due to the finished projects the Group level recycling rate has doubled to 27.1%.

Within Magyar Telekom Group the largest proportion of generated waste (close to 57.91% ✓) – is still the municipal waste. Second by volume is technological waste (18.9% ✓); the proportion of hazardous waste is 5.3% ✓; paper waste is 2.3% ✓

In order to reduce the harmful effects of waste on the environment:

- We make sure that unused equipment gets reused either within the company, or by trading them to employees or external partners, or by renting, leasing or transferring them without compensation (donation).
- We collect waste selectively in more sites
- We improve their effectiveness through the revision of our existing contracts, the regular revision of collection points and through communication
- We continue to operate in accordance with the DT group level policy, released in 2015, for the regulation of management cables.

WASTE BY TYPE (KG) MAGYAR TELEKOM GROUP ✓



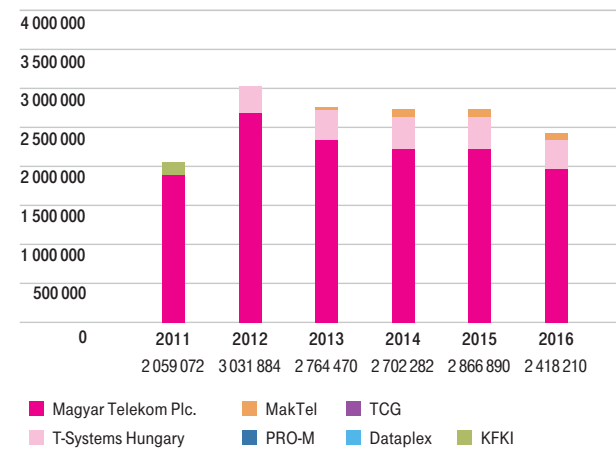
* In 2017 we sold Crnogorski Telekom, due to reorganization, their waste data are estimated.

QUANTITY OF WASTE BY TYPE AND RECYCLING RATE AT MAGYAR TELEKOM GROUP, 2010–2016 ✓

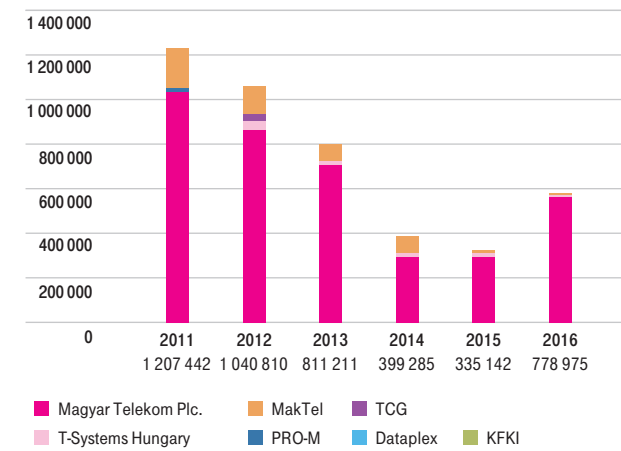
	2011	2012	2013	2014	2015	2016
Hazardous waste [kg]	149 852	290 929	148 923	104 058	119 556	219 469
Recycled hazardous waste [kg]	99 264	135 088	95 794	56 303	85 194	164 327
Technological waste [kg]	1 206 442	1 233 708	1 079 417	628 656	549 757*	785 069
Recycled technological waste [kg]	1 207 442	1 040 810	811 211	399 285	335 142	778 975
Paper waste [kg]	251 780	292 832	149 894	134 828	79 337	94 234
Recycled paper waste [kg]	251 780	269 443	143 874	125 248	78 637	94 234
Municipal waste [kg]	2 059 072	3 031 884	2 764 470	2 702 282	2 866 890	2 418 210
Recycled municipal waste [kg]	-	7 000	2 916	1 140	-	13 317
Other waste [kg]	149 960	343 274	241 550	356 145	249 877	636 220
Recycled other waste [kg]	23 000	35 000	24 768	28 394	29 334	77 103
Total waste [kg]	3 817 106	5 192 627	4 384 254	3 925 969	3 865 417*	4 153 202
Recycled waste total [kg]	1 581 486	1 487 341	1 078 563	610 370	528 307	1 127 956
Recycling rate (%)	41%	29%	25%	16%	14%	27%

* there was a typing mistake in the Technological waste and Recycled technological waste data received from Crnogorski Telekom in 2015, that we have corrected in the current report.

MUNICIPAL WASTE (KG) MAGYAR TELEKOM GROUP ✓



RECYCLED TECHNOLOGICAL WASTE (KG) MAGYAR TELEKOM GROUP ✓



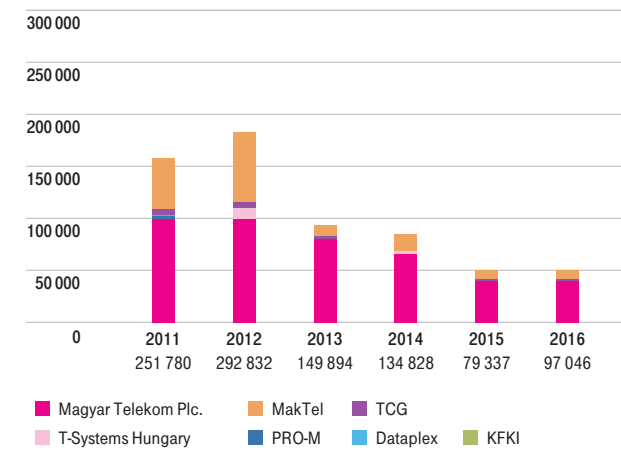
Hazardous waste

The amount of hazardous waste increased by 84% ✓ at Group level, including a significant increase of the amount of technological hazardous waste by almost 88%, due to network upgrade and maintenance (e.g. batteries, replacement of network elements). Non technological waste decreased by -54% on group level and by -60% at Magyar Telekom Plc. The reason for the decrease of the later is the fact that the hazardous waste generated from building maintenance or power supply equipment maintenance is being handled and removed by the subcontractor responsible for maintenance.

Paper waste

The quantity of paper waste increased at Group level by 22% ✓, partly due to the expiration of the Macedonian law enforcement of paper-based contracting. As a result Macedoski Telekom managed to discard some of its archives.

PAPER WASTE (KG) MAGYAR TELEKOM GROUP ✓



Other waste

The quantitative increase of other waste at Magyar Telekom Plc. is in part due to building renovations.

At Magyar Telekom Plc. the recycling rate is nearly 27% ✓. In the case of municipal waste, local public services must be used, so only estimated data is available; the waste is disposed into licensed landfill sites. The company does not transfer waste directly to incineration or composting. 15% ✓ of our waste falls into the 'other waste' category, in the case of which the handler performs prehandling operations. A selection process is part of this process, where the reusable parts of waste are being extracted, and waste is being prepared for final use or disposal.

1.3.2 PRODUCER'S AND DISTRIBUTOR'S RESPONSIBILITY

In cooperation with equipment manufacturers Magyar Telekom is committed to environment friendly equipment manufacturing and recycling processes. For more details on our procurement requirements, please see chapter **3. Suppliers**. Sustainable products are elaborated in detail in chapter **2. Responsible Service**.

The major aim of the company is to carry out its operations with the least possible impact to the environment; we pay special attention to the revision, repair and re-use of the equipment in our network. The re-use rate of CPE devices is 59%.

Hungarian companies are obliged to comply with producer's responsibilities as follows:

- In the case of electronic equipment subject to product fee regulations most companies choose the payment of the product fee payment and the use of the national collection system. Magyar Telekom Plc. paid the mandatory product fee for electric and electronic equipment in 2016. The national collection rate requirement was 45% in the IT sector (the national system does not report company-level data.)
- In the case of batteries, in accordance with the provisions of law, Magyar Telekom Plc. partly transferred the obligation to intermediary organizations. Each year, our contracted partner, ReLem Limited liability Non Profit Corporation fulfils its obligation above the law enforced level. The amount reported by ReLem and legally admitted by Magyar Telekom Plc to the General Environmental Inspectorate was 1037.5 kg in the category of 'portable chargers and batteries'. Magyar Telekom Plc. marketed 10 kg of batteries subject to product fee.
- In compliance with the provisions of law Magyar Telekom Plc. offers special collection points for customers to dispose their used chargers and batteries (in Magyar Telekom stores and buildings). The thus recollected amount in 2016 was 919 kg.

In accordance with the legislations in force we inform our customers on our websites about the various waste disposal options for used equipment and batteries. In spite of ensuring the opportunity to exchange returned waste and thus receive a discount from the price of new devices the volume of such waste showed a decreasing trend.

All of our commercially available products are certified with energy efficiency certificates according to the requirements of the European Union and in compliance with the environmental standards set by Hungarian law. Manufacturer's statements with detailed information about the life-cycle, reuse, the recycling of the product, the used materials and the repairability features are available in all of our stores. All of our procured network equipment should meet our high energy efficiency standards.

1.3.3 EMISSIONS TO AIR

Magyar Telekom pays an air pollution fee in accordance with the national legislations. The amount of pollutants emitted by Magyar Telekom Plc., and the respective fee paid in 2016 was: 649 000 HUF (NOx: 5197.33 kg, COx: 459.71 kg). The decrease of emission is due to reduced hours of operation.

1.4 ENVIRONMENTAL OBJECTIVES, COSTS AND COMPLIANCE

KPI BY 2020	
CO₂ emission	<100 000 tCO₂
fixed network	min -44% by 2008
mobile network	max +35% by 2008
data center	max +3% by 2008
buildings	min -16% by 2008
Energy efficiency	100 Gbit/kWh
Fleet	
fuel consumption	min -34% by 2008
average emission	<100 gCO ₂ /km
share of hybrid and electric carsw	min 30%
CPE's emission	general decrease
Waste reduction	min -10%
Paper usage in the shops	min -90%

Magyar Telekom Group's CO₂ emission decreased from 115 356 tons of CO₂ to 110 736 tons of CO₂. Our energy efficiency indicator followed the increasing trend to 52.36 Gbit/kWh ✓. Our fleet average emissions are experiencing a stable decrease, while the share of the hybrid and electric cars in the fleet has increased to 9.5% by the end of 2016. The results of the freshly introduced incentive measures will first be monitored in 2017. Thanks to the new paperfree solutions in the stores the amount of printed paper has dropped by 62%.

The management of our stakeholders' environmental complaints is the responsibility of the Group Environment Protection Manager. Complaints and messages could be directed to: sustainability@telekom.hu (Our Hungarian e-mails addresses are fenntarthatosag@telekom.hu and kornyezetvedelem@telekom.hu). We are dedicated to respond to all proposals, complaints and enquiries as soon as practicable.

In 2016 Magyar Telekom Plc. received – and successfully closed the case of – four complaints regarding waste management. In four cases, related to electromagnetic fields we have conducted radiation biology tests upon citizens' requests and found that the measured rate stays under the limit stated in the relevant law No.63/2004. (VII.26.) ESzCsM on the healthy limits of electric, magnetic and electromagnetic fields between 0 Hz and 300 GHz relevant to citizens' health. There was no penalty declared upon these cases as the emission levels were beyond limit. As common sensitivity toward electromagnetic fields is high we continue to conduct the related complaint management cases with utmost care to deliver reassuring solutions for our stakeholders.

We have received 5 citizen notifications about damage claim in the subject of electromagnetic fields. One of the cases was closed due to lack of legal relevance, one of the cases was answered by our Law Department. In relation to one of the cases we have terminated our concerned investment until the satisfactory closure of the case. The resolution of two cases is still in process. See our noise-protection related cases in the **Noise and vibration protection** section of this chapter.

In 2015 market surveillance examined if the set-top-boxes marketed by Magyar Telekom Plc. comply with the relevant electricity consumption regulations. The controlling process ended in 2016 with a positive result.

T-Systems Hungary Plc. did not receive any environmental complaints in 2016 that required investigation.

ENVIRONMENTAL PROTECTION COSTS IN 2016 (HUF) MAGYAR TELEKOM GROUP ✓

