# **Environmental** protection

**Report of T-HT Group 2005** 

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### Introduction

In the last year of 2005, which this Report refers to, there have been large moves in T-HT Group in the field of activities directed to environmental protection. By the beginning of the year the Team for Environmental Protection and Sustainable Development established by the end of 2004 with the former Network Strategy Department in the Corporate Unit of the Chief Services Officer started operating with the main task to coordinate all activities related to environmental protection in the Group. The result of this Team's work is the adopted Environmental Protection Policy of T-HT Group and the first T-HT Group Environmental Protection Report for 2004. Also, on the Team's proposal, T-HT joined the Charter on Sustainable **Development of the European Telecommunications** Network Operators' Association (ETNO) whose member it is since its establishment. This act confirmed once more T-HT's dedication to principles of sustainable development and within it to environmental protection in particular, which we publicly committed ourselves to ten years ago by joining the Charter on Environmental Protection of the same international association of that time. T-HT is a leading telecommunications operator in the Republic of Croatian which is the only one offering the widest spectrum of telecommunications services. Taking care of its customers and highly appreciating their opinion on the quality of services it provides, trying to constantly improve it, T-HT simultaneously takes care also on social and natural environment which it operates in. T-HT according to its activity does not belong to those business subjects having large impact on natural environment, particularly if compared to some other production branches and industries, but still with its daily activities it consumes certain natural resources and produces emissions and waste making ultimately a negative impact to the environment. Adopted Environmental Protection Policy of T-HT Group is therefore directed just to reduction of such negative impact of our activities and its bringing it down to the least possible extent. Indicators of the impact to the environment presented in this year's Report show that in certain areas we have improved our performance in relation to the previous Report (e.g. water consumption, total quantity of produced waste), whereas in some other areas, like energy consumption, particularly electricity, it deteriorated to a certain extent. However, if we take into consideration

indicators of eco-efficiency, showing the total negative impact of our business activities per production unit i.e. per realized value added unit, a positive trend in terms of production can be observed, which is a direct consequence of success realized on the market by the offer of ADSL broadband access and in relation hereto of the increase in traffic i.e. the quantity of transmitted bits. It is positive a fact that the increase in electric energy consumption has not exceeded thereby this traffic growth. In the last year of 2005 there were significant events in the area of environmental protection also in the affiliated company T-Mobile. As the only part of T-HT Group having the established and certified Environmental Management System according to the ISO 14001 standard (as early as since 2002), there was a repeated certification of this system successfully implemented in T-Mobile according to the new issue of the ISO 14001:2004 standard, and there was received a prestigious international certificate for environment from the largest international association of certification firms of IQNet (International Quality Network). In the course of the year there was cancelled the analogue NMT system of mobile telephony, and all of its dismantled parts were ecologically disposed. On this occasion there were also old mobile phones collected from customers that were also ecologically disposed. Furthermore, together with the company Mobis Electronic, an authorized representative of the company Nokia, there was performed an action of substituting old GSM mobile phones of all kinds (together with batteries, chargers and additional equipment) with new Nokia phones, on which occasion there was collected over 50,000 of those phones also ecologically disposed. One can say that this exclusive offer by T-Mobile, Nokia and Mobis Electronic represents the first and unique cooperation in the field of mobile communications in Croatia. Apart from realizing a special offer, the purpose of the action is to instigate ecological consciousness with mobile phone users. By the end of the year T-Mobile published also the results of the survey on the impact of non-ionizing electromagnetic radiation prepared by experts of the Faculty of Electrical Engineering and Computing from Zagreb. In this year's Report we tried for the first time to identify costs of business operation of T-HT Group that are in a certain relation to environment, and to allocate them in proportion to total material costs. This was done in

order to point to the fact that apart from ecological wins, activities regarding environmental protection, and particularly those regarding optimization, rationalization or reduction of consumption of natural resources can have also a positive impact on economic performance of the firm. Although according to our calculation identified costs make only a little bit over 4% of total material costs, their absolute amount is so high that their reduction would provide a valuable contribution to the total cost reduction of business operation which is a constant strategic goal of the Company. As a part of DT Group, T-HT is obligated to comply with the policy and strategy of DT Group and to coordinate herewith their own too. In this respect, in 2005 we achieved and intensified cooperation with colleagues from DT Group Headquarters in the field of environmental protection and sustainable development. Our Environmental Protection Policy has been coordinated with a renewed Environmental Protection Policy and

Climate Protection Principles of DT Group, in line with which we targeted our mid-term goals until 2007. We held joint meetings, attended workshops and forums, as well as the traditional Sustainable Development Day, and prepared and sent regular and temporary reports on our achievements in environmental protection.

Throughout the year we worked on informing the employees of T-HT on our activities in environmental protection. Apart from being informed via annual Environmental Protection Report, which is our obligation from the Environmental Protection Policy, employees were informed also via all internal media of T-HT. Corporate Communications Department opened permanent "Ecology" sections on the intranet and Internet portals of T-HT publishing articles on events in the Company and other interesting articles in the field of environmental protection, and there were also published all adopted documents.

### **Policy and Strategy**



### **Environmental Protection Policy and Goals**

The Environmental Protection Policy is a statement of the organization on its intentions and principles in relation to its total performance, which provides a frame for work and definition of goals and tasks with respect to environmental protection. The Policy is defined by the highest management body (Management Board of the Company) and it is a declaration of the Management Board about its commitment to the environmental protection goals. The policy defined in such a manner shall be made public within and outside the organization. The Environmental Protection Policy shall be related to all existing business operations, products and services of the organization and shall commit the organization to the process of constant improvement. Moreover, it shall contain an obligation of pollution prevention and compliance with all the applicable laws. There must be a clear relation between the Environmental Protection Policy and goals and tasks. If the organization is a part of a wider group (as in this case T-HT is a part of the DT Group), and this Group has its own Environmental Protection Policy, the relation to the Group Policy shall

be clearly defined.

### Environmental Protection Policy of T-HT Group

At its 18th session in 2005 held on June 7 the Management Board of T-HT adopted the Environmental Protection Policy of T-HT Group valid for the entire Group. By then T-HT had no unified Environmental Protection Policy applied to the whole Group. The HT d.d. Management Board adopted the Environmental Management Policy in 2002, but it was applied only to HT Mobile. The Policy served as a basis for the introduction and certification of the Environmental Management System according to the ISO 14001 standard in the activity of mobile communications. Afterwards, this policy has not been renewed by the Management Board of HT or its applicability expanded to the entire T-HT Group. After the spin off of HT Mobile (today T Mobile Hrvatska) into a separate company, its Management Board adopted a revised Environmental Management Policy of T Mobile for the needs of renewing the certificate of its Environmental Management System. Environmental Protection Policy of T-HT Group is in line with a new environmental protection policy and frame environmental protection goals of DT Group and it represents the basis for setting general

and special goals in environmental protection for the entire T-HT Group, as well as the program for their realization. Relying on the environmental protection policy of DT Group and its basic principles of climate protection, the environmental protection policy of T-HT Group helps among other things avoid risks of losing reputation and credibility of T-HT Group. It provides for the orientation within the Group and makes the basis for future measures in environmental protection and particularly in climate protection. It creates confidence among our internal and external interested parties (non-governmental organizations, political bodies, local community etc.) in sincerity of commitment of T-HT Group to environmental and climate protection. Although the environmental protection policy in general does not include any risk for T-HT, reputation and credibility of the Group may be endangered if activities in this field were not implemented as proclaimed by accepted policy. Environmental Protection Policy of T-HT Group includes all environmental aspects of the Group: waste, soil, energy, raw material, water and waste water, air and emissions into the air, electromagnetic fields and noise. Since climate protection is of great importance (environmental aspects of the air and the emission of greenhouse gases), a special attention was dedicated to these issues by applying climate protection principles of DT Group in an appropriate manner. It needs to be pointed out, too, that the acceptance of environmental protection policy was one of our obligations assumed by T-HT upon joining the ETNO Charter on Environmental Protection as early as in 1996. The text of adopted Environmental Protection Policy of T-HT Group reads as follows:

"As a market leader in Croatia in providing a full spectrum of telecommunications services and integral portfolio of products, the goal of T-Hrvatski Telekom is to create value for its customers, shareholders and partners taking constant care about protection and preservation of natural environment and at the same time cultivating social responsibility towards its employees and society as a whole. T-HT as a member of DT Group accepts high standards of corporate responsibility expressed through Sustainable Development Strategy of the Group based on a vision of a *"better future" reified through the principles of T-SPIRIT.* We show thereby our commitment to responsible management of natural resources, environmental preservation and sustainable social and economic growth in the environment where we operate. Acting like a responsible business subject operating under conditions of free market and competition, T-HT expresses its commitment to environmental protection as an additional proof of its social

responsibility incorporating topics of environmental protection into its key business processes. T-HT accepts the fact thereby that with its daily activities it inevitably influences the environment in different ways. Bearing full responsibility for possible negative effect of its activities to the environment, T-HT will undertake everything in its power to reduce such impact to a minimum wherever and whenever reasonably possible. Also, T-HT will seek to introduce technologies, solutions and services that will help reduce the impact on environment and that can have a beneficial effect thereon. By this environmental protection policy T-HT, in referencing to the environmental protection policy of DT Group, provides the frame which the environmental protection program is based on. This enables us to set general and individual goals and to measure and monitor progress seeking to constantly improve environmental protection in T-HT Group. Environmental protection policy in T-HT Group includes the following:

Protection of environment and natural resources takes a high position among priorities of T-HT.

■ T-HT manages environmental protection pursuant to the principles of best practice among European telecommunications operators and valid international standards for efficient implementation of goals of environmental protection policy, with a final aim to introduce the environmental management system according to the HRN EN ISO 14001 standard in those parts of T-HT Group where it has not yet been introduced.

■ In the environmental protection T-HT operates pursuant to Croatian laws and other regulations, and we look on set requirements as on a necessary minimum, trying to achieve much better results.

■ *T*-*HT* permanently works on improving its operation regarding environmental protection.

Procurement policy in T-HT implements goals of environmental protection that also reflects, wherever applicable, to our relations with business partners - suppliers and sub-contractors.

■ T-HT continuously seeks to reduce the impact of all of its recognized significant environmental aspects to the environment, and in particular to reduce the production of waste resulting from our regular activities and to dispose it properly, as well as to prevent and to reduce harmful emissions into the air, water and soil.

■ Within its possibilities T-HT joins general efforts to protect climate and ozone layer by incorporating basic climate protection principles of DT Group into its environmental protection programs to the extent suitable to our business activities.

We try to design products and services of T-HT in such a

way that applied solutions save energy and natural resources.

■ *T*-*HT* actively includes all of its employees into efforts on environmental protection in their working environment and it trains them for it in an appropriate way.

■ *T*-*HT* informs the public and all interested parties about its efforts and achievements in preserving the environ-

ment at least once a year via annual report on environmental protection, instigating hereby a constructive dialogue. This policy applies to the entire T-HT Group so that, consequently, all the employees of T-HT are responsible for its implementation. Environmental Protection Policy of T-HT Group is available to the public."

### **Environmental Protection Goals**

Based on adopted Policy and frame goals of environmental protection of DT Group valid for all companies majority owned by DT, general goals of T-HT in environmental protection were targeted for the period 2005 - 2008 with measures for their implementation. The following table presents the realization of targeted goals during 2005.

2005 - 2008 Goals	Measures	Realized in 2005
<i>Energy consumption</i> To introduce measures for more rational and efficient energy consumption, to reduce fuel consumption of vehicles	<ul> <li>To introduce energy and facilities management system in facilities owned by T-HT.</li> <li>To promote measures of energy efficiency and management in technical and office facilities</li> <li>To renew the existing fleet</li> </ul>	<ul> <li>Energy and facilities management system intro- duced in T-HT Data Centre</li> <li>Workshop held on energy efficiency and man- agement and energy revision of technical and office facilities</li> <li>100 new vehicles procured for ADSL field groups.</li> </ul>
Paper consumption To reduce paper consumption for print-outs /copying, to reduce consumption for telephone books, to expand consumption of recycled paper to print promotion material	- To print the Environmental Protection Report 2004 of T-HT Group on ecological paper	- The Report was printed on ecological paper
Waste management To introduce entirely the waste management procedure and processes; to reduce total quan- tity of produced waste; to increase the quantity of collected old batteries, telephone devices and telephone books from customers; to dou- ble collected old paper and used printer car- tridges for recycling; to increase the quantity of other collected useful waste to be given to authorized companies for recycling.	<ul> <li>To introduce waste management procedure</li> <li>To introduce separate waste collection.</li> <li>To dispose abandoned fuel containers in ecologically proper way.</li> </ul>	<ul> <li>Workshop held on introducing the waste management procedure</li> <li>Separate waste paper and PET bottles collection introduced in some major office facilities</li> <li>2 abandoned containers were ecologically disposed as well as the fuel found therein.</li> </ul>
<i>Procurement</i> To prepare instructions and introduce environ- mental requirements into procurement process	<ul> <li>To revise the Procurement Regulations of T-HT to include environmental requirements against suppliers.</li> <li>To introduce provisions on takeover of used goods into contracts with suppliers</li> </ul>	- Provisions on takeover of used goods included in procurement contract on vehicle maintenance material (tyres, accumulators etc.)
<i>Air pollution</i> To reduce air pollution by switching to natural gas and central heating instead of heating oil wherever possible and economically justified.	<ul> <li>To keep switching heating boilers from heating oil to gas.</li> <li>To procure bio-diesel powered spare aggre- gates.</li> </ul>	<ul> <li>Project documentation for switching to gas heat- ing prepared for 4 locations</li> <li>Procurement of several bio-diesel powered spare aggregates agreed.</li> </ul>
<i>Communication and building awareness</i> To publish the annual environmental protection report; to inform about achievements and interest- ing facts from the area of environmental protection on the intranet portal; to include promotion of envi- ronmental benefits from products of T-HT into mar- keting campaigns; to work on building awareness of all employees of the need to protect the environ- ment.	<ul> <li>To publish Environmental Protection Report 2004 of T-HT Group</li> <li>To establish a separate section on ecology on the intranet and public Internet portal of T-HT.</li> <li>To build awareness and inform about achieve- ments in environmental protection via internal media.</li> </ul>	<ul> <li>Environmental Protection Report 2004 of T-HT Group published</li> <li>Ecological sections opened on portals of T-HT</li> <li>13 articles on ecology published on portals and in internal printed media; Environmental Protection Policy and Environmental Protection Report put to the intranet and public Internet por- tal of T-HT.</li> </ul>

T-Mobile Hrvatska set its own goals in 2005 within its Environmental Management System the realization of which is presented in the table below:

2005 Goals	Measures	Realized
Dismantling and environmental disposal of analogue NMT network equipment and user terminals	<ul> <li>To cancel analogue network on 31 March 2005</li> <li>About 180 tons of various material shall be ecologically disposed (except for user terminals): <ul> <li>metal 89,659 kg</li> <li>electronic and electric waste 76,650 kg</li> <li>cables 14,850 kg</li> <li>other 1,000 kg</li> </ul> </li> <li>To ecologically dispose all analogue user terminals collected via points of sale; to give a gift and a letter of thanks to everyone who returns back an old mobile phone.</li> <li>To dispose old equipment and terminals in an ecologically acceptable way.</li> <li>To ecologically dispose old aerial equip-</li> </ul>	<ul> <li>100%</li> <li>98,790 kg waste in total were ecologically disposed</li> <li>metal 54,740 kg</li> <li>electronic and electric waste 33,675 kg</li> <li>cables 9,046.5 kg</li> <li>other 1,328.5 kg</li> <li>2,144 analogue user terminals collected and ecologically disposed; users received gifts and letters of thanks.</li> <li>All the old equipment and terminals disposed in an ecologically acceptable way.</li> <li>Apart from analogue NMT network equip-</li> </ul>
non-functional electronic equipment	<ul> <li>To ecologically dispose old aerial equip- ment</li> <li>To donate obsolete IT equipment</li> <li>To ecologically dispose non-functional office IT equipment</li> </ul>	<ul> <li>Apart from analogue NMT network equipment, 16,175 kg of old aerial equipment in total was ecologically disposed: <ul> <li>metal waste 3,443 kg</li> <li>electronic waste 12,732 kg</li> </ul> </li> <li>Obsolete IT equipment donated. <ul> <li>3,796 kg of defective IT equipment in total was ecologically disposed</li> </ul> </li> </ul>
Program for monitoring of environmental protection costs	- To improve monitoring of costs (they are being monitored for 3 years now)	- Monitoring of costs further improved
Market research related to EM radiation and building environmental awareness of cus- tomers	- To perform market research	- Market research performed in January 2005
External (recertification) audit of Environmental Management System accord- ing to the ISO 14001 standard	- To perform external recertification audit of Environmental Management System accord- ing to the ISO 14001 standard	- Recertification audit successfully perfor- med on 29 September 2005; ISO 14001:2004 certificate awarded for next 3 years
Constant improvement of internal informing about environmental protection (workshops, internal trainings, internal web page)		<ul> <li>In 2005 there were 160 employees educated on environmental management system and electromagnetic fields</li> <li>Internal web page was constantly refreshed.</li> </ul>
Improvement of data transparency (electric energy consumption, water consumption etc.)		- There were changes made in procedures of data monitoring

### International Cooperation

### European Telecommunications Network Operators' Association (ETNO)

T-HT has been a member of ETNO, European Telecommunications Network Operators' Association, since 1993 and a signatory of the ETNO Environmental Protection Charter from 1996 (more data about ETNO Association, ETNO Charter and Environmental Protection Report can be found on www.etno.be). As the member of ETNO, in December 2004 T-HT participated in the First European Conference on Telecommunications and Sustainable Development in Budapest, where ETNO promoted a new Sustainable Development Charter that replaced and supplemented the Environmental Protection Charter. Furthermore, the representative of T-HT was invited to join the ETNO Sustainable Development Working Group, which he accepted with pleasure. Since the beginning of 2005 the representative of T-HT participates actively in the work of this ETNO Working Group. At its 18th session in 2005 held on 7 July the Management Board of T-HT passed a decision on T-HT's joining the Sustainable Development Charter of European Telecommunications Network Operators' Association. As it was already mentioned, this Charter was designed with the intention to replace the existing Environmental Protection Charter and it obligates signatories to implement principles of sustainability on a widest possible basis through their business relations and activities. The Sustainable Development Charter invites signatories to revise overall company policies with an aim to implement and integrate principles of sustainable development policy into their business strategies and practices in the broadest possible way. Nowadays, the companies are required to dedicate greater attention to business ethics, relations with employees, human rights, investments in local community and environmental management. The way business activities are performed is crucial for building firm relations with interested parties, and without sustainability there is no future. This is particularly important for Croatian companies on the cusp of joining full membership in the European Union. Sustainability is a strategic matter powered by business logic, because every company is under strong pressure of creating a permanently growing value for shareholders, and the improvement of performance on environmental and social level represents a huge business opportunity to achieve precisely this.

In this respect, orientation towards sustainable development means: • to assume responsibility and to behave in a responsible manner

- to create value for interested parties
- to transform risks into opportunities

■ through today's activities to contribute to building future quality of life of the entire society. Until the moment we joined the Sustainable Development Charter there were 17 European telecommunications companies that have already signed it, among which also DT as well as members of DT Group: Matav and Slovak Telekom. T-HT - Hrvatske telekomunikacije confirmed by its joining the Charter its orientation towards common goals of corporate social responsibility expressed through Sustainable Development Strategy of DT Group and principles of T-SPIRIT, which reflects through our involvement and participation in numerous social initiatives and activities, environmental protection and sustainable business practice.

The ETNO Sustainable Development Charter is given in the text to follow:

### Sustainable Development Charterof the European Telecommunications Network Operators' Association *Our vision*

Sustainable development is a global strategic goal, seeking to achieve economic growth by promoting fair and righteous society simultaneously preserving natural environment and the world's limited, non-recoverable sources for future generations. We are convinced that we can play an important role in achieving this goal. Corporate social responsibility also needs to be comprehended in the context of sustainable development:

■ Corporate social responsibility is a contribution of business subjects to achieving sustainable development, through proactive management of the company's impacts to environment, society and economy. This Charter incorporates our commitment to sustainable development through:

■ Sustainable provision of products and services with important benefits to environment, society and economy

Determined effort to integrate our business activities with responsibility towards environment, and social and economic responsibility - reducing, wherever possible, any negative impact that might be made by such activities.

### Our approach

As much as our employees, customers, shareholders and governments, we believe, too, that the world demands today all the more attention to be dedicated to business principles and ethics, relations with employees, human rights, environmental management, investment in local communities and general working conditions, both within the company and in relation to its external suppliers. Joined together, these activities make a basis for Corporate Social Responsibility - CSR).

Commitment to corporate social responsibility demands regular judging of one's own performance. Therefore, our reports provide for all interested parties the way to judge the efficiency of our programs for performance improvement. Moreover, the breadth and range of telecommunications in contemporary society impose to us, as responsible corporate citizens, social obligation to prove this commitment, to show how we manage our business tasks. Joint economic power of all of our companies represents a significant share in European trade, which provides a unique opportunity for ETNO members to actively cooperate with policy creators and governments thus influencing the changes. Indeed, our activities in the field of corporate social responsibility can provide a significant contribution to sustainable development.

### Our pledge

We, as signatories of the Charter, either individually or jointly, commit ourselves to constant improvement and mutual share of experiences in best proceeding through action in the following areas:

### AWARENESS BUILDING

To acknowledge all relevant impacts to environment, as well as social and economic impacts of our products and services, whether positive or negative. In particular, we shall incorporate aspects of corporate social responsibility into company programs of communicating and training. *REGULATORY COMPLIANCE* 

To achieve full compliance with all relevant regulatory requirements and, where possible, to exceed these requirements.

### RESEARCH AND DEVELOPMENT

To support research and development of new telecommunications products and services that can make a contribution to sustainable development.

### PROCUREMENT

To implement efficient management of resources, energy consumption, waste, radiation reduction, processes inclined to environment and product needs; to eliminate the use of dangerous material; to take care of human rights and working conditions.

### ACCOUNTABILITY

To place material data, examples from practice and information on performance in the fields of environmental protection, as well as on social and economic level at disposal of all interested parties, since accountability and transparency are crucial elements of corporate social responsibility. To maintain partnership relations with interested parties, involving them into permanent dialogue so that their wishes and needs could reflect in our business activities.

### COOPERATION

To cooperate in a constructive manner with governments, customers, industrial partners, civil society and international organizations when researching, developing and promoting benefits created by information and communication technologies for sustainable development. MANAGEMENT SYSTEMS

To offer a statement on principles of business operation, environmental protection policy, to appoint a member of the management board with certain responsibilities for corporate social responsibility and a manager (managers) with responsibility assigned for program coordination of permanent sustainability improvement. Finally, to implement management systems supporting the development of corresponding well structured programs for environmental protection, of working conditions, health and safety at work and of social responsibility

### EMPLOYEE RELATIONS

To create working environments promoting a balance between work and privacy, professional development, diversity and health and security; to maintain highly motivated and productive labour force.



### DT Group

As a member of DT Group T-HT is obligated to implement the Group policies and strategies referring to all of its members and, thus, also the Group Sustainability Development Strategy which is based on the vision of a "better future" reified through the principles of T-SPIRIT. Based on this strategy DT has adopted a new Environmental Protection Policy by the beginning of 2005 with basic goals of climate protection. In order to learn more about the components and importance of this policy, in June 2005 a workshop was held in Zagreb, at which the representatives from the DT HQ in charge of sustainable development and corporate citizenship (CSC) presented to the representatives of T-HT the most important features and goals and what was expected from T-HT with regard to the implementation and realization of the said goals. In July 2005 a representative of T-HT attended in DT HQ in Bonn a regular and traditional Sustainable Development Day, an event attended, apart from DT employees from Germany and representatives of companies owned by DT, also by representatives of various interested parties (non-governmental organization, environmental associations, international organizations involved in sustainable development issues, financial institutions etc.). The aim of this gathering is to promote an open dialogue on important topics of sustainable development. In the course of 2005 T-HT attended through its representative as a guest two workshops on sustainable development and environmental protection of T-Com in Germany in order to be made acquainted with work and initiatives implemented in organizational units of German T-Com in charge of environmental protection and sustainable development activities. Also, in December 2005 we attended the annual Forum on Sustainable Development of DT in Darmstadt. Employees of T-Mobile Hrvatska take an active part in a working group for health and electromagnetic fields and in a working group for eco-management, within T-Mobile International. In March 2005 T-Mobile Hrvatska accepted 10 guidelines on electromagnetic fields. Guidelines have been defined for the entire T-Mobile group, in order to achieve a joint strategy concerning this issue.

### Communication

In line with adopted Environmental Protection Policy of T-HT Group, which made T-HT obligate, among other things, to inform the public and all interested parties about its efforts and achievements in environmental preservation at least through an annual environmental protection report, thus encouraging a constructive dialogue, the first such report referring to 2004 was published in September 2005. Although the annual environmental protection report is the main form of reporting to employees, shareholders and wider community which the Company uses to communicate its achievements in the field of environmental protection during the passed one-year period, the activities in the field of environmental protection, as well as those under corporate social responsibility, were briefly reported on in the annual Business Report (refer to T-HT Group Business Report 2005). During the year, information about environmental protection activities was transferred through internal web portals of T-HT and T-Mobile, and through official T-HT and T-Mobile web pages. The internal web portal of T-HT and the official Internet web page of T-HT contain a special column called "Ecology" where in the course of 2005 there were published several articles and contributions with current topics from the field of environmental protection. The same column published also the Environmental Protection Policy of T-HT Group and the Sustainable Development Charter of ETNO joined by T-HT. The internal portal of T-Mobile contains a special portal entirely dedicated to the Environmental Management System according to ISO 14001 standard, available to internal customers in T-Mobile. The official web portal of T-Mobile regularly updates the column called "Environmental Protection", providing information on the ISO 14001 certificate, environmental protection in practice, electromagnetic radiation, surveys on electromagnetic radiation and on 10 guidelines on electromagnetic fields. It is also possible to ask questions related to environmental protection via e-mail address: zelena.pitanja@t-mobile.hr and a free phone 098 1543 (a call from T-Mobile HR network is free of charge). Certain interesting information about environmental protection was also transferred through internal T-HT printed magazines, whilst the participation of T-HT in different donor and sponsorship activities through external printed and electronic media. T-Mobile Hrvatska prepared for the needs of acquiring new locations a professional brochure called "All about Aerials and Telecommunications Equipment". The purpose of this specific brochure is to provide more details on the way of mobile networks operation, on setting and visual appearance of an aerial and on the impact of EM fields to health. The brochure called "Both Technology and Ecology" was also updated, and it is intended for wider public describing environmental protection in T-Mobile and particularly dealing with the issues of electromagnetic fields. In order to encourage employees to behave towards natural resources in a more rational manner and to preserve their own

health, there were posters designed with brief pieces of

advice and instructions, distributed to workplaces.

### **T-HT Group Profile**



### **Basic Data**

HT - Hrvatske telekomunikacije d.d. is a joint stock company established on 28 December 1998 in the Republic of Croatia in line with the provisions of the Law on Separation of Hrvatska pošta i telekomunikacije to Hrvatska pošta and Hrvatske telekomunikacije. In that way, the business operations of the former company Hrvatska pošta i telekomunikacije ("HPT s p.o.") were separated and transferred to two new joint stock companies: Hrvatske telekomunikacije d.d. and Hrvatska pošta d.d., which started their business on 01 January 1999. In October 1999 there was executed the first phase of HT d.d. privatization by selling 35% of shares to the company Deutsche Telekom AG, whereas in the second privatization phase, in October 2001, by buying additional 16% of shares Deutsche Telekom AG became a majority owner of HT d.d.

During 2002, HT-mobilne komunikacije d.o.o. was founded as a separate company and an affiliated company fully owned by Hrvatske telekomunikacije d.d. Its main line of business is the provisioning of mobile communications services. During 2004 the T-HT Group implemented a rebranding process and introduced a new corporate identity as of 01 October 2004, which had made the T-HT Group a part of the global "T" family of Deutsche Telekom. The change of the corporate identity was followed by the forming of trademarks of two separate Group segments, T-Com and T-Mobile. Since 2000 the strategic and partnership connection between the T-HT Group and Deutsche Telekom resulted in a stronger development of T-HT. T-HT became a modern telecommunications group that wanted to use all the advantages of the global trademarks in order to further improve its business and strengthen its competitive edge. Today, Hrvatske telekomunikacije d.d. is majority owned by Deutsche Telekom with 51% of shares. The Government of the Republic of Croatia owns 42% of HT d.d. shares, whereas the Croatian War Veterans' Fund owns 7% of HT d.d. shares.

The strategy of T-HT is still based on service quality, customer satisfaction and further development of broadband access and value-added services related to the broadband access. Low indebtness rate, developed technological infrastructure that enables further development of services, and own human and expert potential are the guarantee of further growth and increase of potentials in T-HT. Today T-HT is with right considered one of the strongest economic entities in the state and, as such, it is one of the key drivers of economic growth in Croatia.

### **Business Operations**

Basic operations of the company HT - Hrvatske telekomunikacije d.d. and its affiliated company T-Mobile Hrvatska d.o.o., i.e. of T-HT Group consist of providing telecommunications services and designing and constructing communications network on the area of the Republic of Croatia. The T-HT Group in Croatia provides all telecommunications services - fixed telephony, mobile telephony, data transmission, Internet and international communications. Apart from providing services of fixed telephone lines (access and traffic via fixed telephone lines - POTS and ISDN, and additional services, data transmission services (line leasing, ATM, X25 and Frame relay), and it operates with GSM and UMTS mobile telephone networks.

### Organization

The organization of T-HT Group (Company) is based on a division to corporate and business functions. Thus, business segments are integrated by corporate units into a complete corporation that, using all the advantages of synergy, has an integral appearance on the market as an only provider of all telecommunications services in Croatia. Simultaneously, the function of business units provides also for the orientation to individual products and services and in this way to strengthening their position on the competition market. T-HT Group includes the following four corporate units, with an aim to integrate business operations and management of the entire Company: Chief Executive Officer Corporate Unit, Financial Corporate Unit, Group Services Corporate Unit and Human Resources Corporate Unit. These functions provide for mutual coordination of all business segments of the Company so that it can operate as one entity. Moreover, all the mentioned corporate units emphasize the assurance of value of the entire Company or the encouragement of new values for the Company. T-HT has two business units:

Business Unit for Fixed and Broadband Business (T-Com) organized as a legal person within HT-Hrvatske telekomunikacije d.d. In line with the new organization structure, fixed network services, broadband, internet and data services, which were under T-Com's frame brand for a year, became formally a part of an integral and functionally organized Business Unit within the Company, ready to react fast to customers' requests and expectations. T-Com is managed by Executive Board that consists of Chief Executive Officer T-Com (also a member of the Management Board and Chief Operating Officer Fixed and Broadband T-Com) and five members responsible for sales, finance, marketing, network and human resources. All the current regional activities of the Company within a new organization are a part of T-Com. Regional activities are organized through Regional Sales/Regional Management Department, Regional Network Department and Regional Financial Department. Business segments of T-Com are organized in management units of T-Com, managed by a responsible member of Executive Board T-Com.

Business Unit for Mobile Business (T-Mobile) is a separate legal person organized as a limited liability company hundred-percent owned by T-HT. T-Mobile as a business unit is managed by the MB of T-Mobile. Based on his function, member of the Management Board and Chief Operating Officer for mobile communications of the Company is president of the MB and Chief Executive Officer of T-Mobile. Beside the president, Management Board of T-Mobile has five members more, responsible for finance, technical issues, marketing, sales and services and for human resources. Business segments of T-Mobile are organized in management units of T-Mobile, managed by responsible members of MB of T-Mobile.

# T-HT GroupCorporate UnitsBusiness UnitsChief Executive Officer<br/>Corporate UnitBusiness Unit for Fixed and<br/>Broadband Business - T-ComFinancial Corporate UnitBusiness Unit for Mobile<br/>Business - T-MobileGroup Services<br/>Corporate UnitHuman Resources<br/>Corporate Unit

# Environmental Protection Organization and Responsibilities

In this report period the environmental protection tasks were organized for the first time on the level of T-HT Group in the way that the Regulations on Changes and Amendments to the Regulations on Organization of HT d.d. from 3 February 2005 entrusted the Network Strategy Department in the Corporate Services Unit with activities of coordinating and organizing environmental protection in T-HT. The very same Changes and Amendments to the mentioned Regulations provided for responsibility for environmental protection to be assigned to Chief Services Officer, and for operating activities in this field to Network Directors in Regions. As early as prior to these Changes, the Regulations on Organization regulated that the waste management tasks shall be performed by the Warehouse and Transportation Department (later on by the Procurement and Logistics Department), where a special group for waste management was formed for that purpose. With the new Regulations on Organization of HT-Hrvatske telekomunikacije d.d. on 17 August 2005 the tasks related to coordination and organization of environmental protection were assigned to the Quality Assurance and Support Department in the sub-unit for network of Business Unit for Fixed and Broadband Business (T-Com). The same Regulations provide that waste management tasks remain within responsibility of the Central Procurement and Logistics Department within Corporate Financial Unit.

### T-Mobile

The organization of environmental protection activities in Business Unit for Mobile Business (T-Mobile) in 2005 has not been changed in relation to the previous situation. Within the introduced Environmental Management System T-Mobile defined the structure of and responsibilities for environmental protection activities in its business. The responsibility starts from the Management Board of T-Mobile, whereby the Management Board appointed one of its Members to the position of the Management Board representative for environmental protection. The environmental manager shall be responsible to report to the Management Board on the operation of the Environmental Management System, so that the Management Board could appraise and improve the System pursuant to the mentioned report. The Management Board shall ensure the resources necessary for the implementation and monitoring of the Environmental Management System, which shall include employees,

technologies and financial sources. The Management Board shall also establish the general objectives of environmental management.

The directors of departments shall be responsible for the implementation and maintenance of the Environmental Management System, for implementation of the general and individual objectives, for implementation of work control, for supervision of processes related to significant environmental aspects, for employees training process, for cost monitoring regarding environmental protection and for a whole range of additional procedures which are described in more detail in the Manual and associated procedures.

The Management Board appointed the working group for construction, maintenance, documentation and improvement of the Environmental Management System. The Management Board also appointed an environmental manager. The environmental manager is also the working group leader and coordinates the activities of the working group members. The environmental manager is also in charge of reporting to the Member of the Management Board for environmental protection on the status of the System.

### Human Resources

T-HT recognizes the importance of human resources and basic role of each employee's contribution in facing challenges of extremely changeable conditions on the Croatian market. Since we are aware that employees of the Company are the basis to realize strategic goals and maintain a superior position on the market, T-HT emphasizes the need for a quality development and growth of human resources, which is defined in the vision of human resources, too: "Creation of high efficiency culture where every employee is aware of general corporate goals, his/her role, relevant expectations in terms of performance and where he/she gets rewarded for his/her contribution to the mentioned expectations." In the course of 2005, the process of optimizing the number of workers has been continued, whereby T-HT fully assumed its social responsibility taking into consideration all provisions prescribed by the Collective Agreement and Labour Act. Regarding the structure of professional qualification of employees who left the Company and additional selective employment of highly specialized employees, the percentage of highly educated employees has been increased from 20% to 22% in the total number of employees. On 31 December 2005 the T-HT Group had 7,738 employees, which is 13% less than the number of

employees on the same date 2004. In June 2005 a new Collective Agreement was signed with two strongest unions in T-HT providing employees among other things also with the following:

- System of severance payments determined on the basis of age criteria, with full social awareness of and care about employees

- Establishment of closed up pension fund aiming to build a culture of long-term saving and investment into the future

- Regular medical check-ups for all employees in order to increase living quality and to provide for prevention of diseases.

The main task of education is to improve competences of employees and managers in order to realize corporate strategy. Therefore, T-HT strongly supports systematic development of its employees with the conviction that only timely investment in that field will enable it to face challenges on the market. During the year intensive courses were attended by over 3,000 employees in the field of professional and general expertise: postgraduate and undergraduate studies, trainings for development of professional skills and knowledge, especially in the field of new technologies, IT courses, English courses, programmes for communication skills, courses on general finances for non-financial experts etc. T-HT provides support and encourages systematic flow of credible, reasonable, timely and relevant information. That is why the development of structured internal communication became an important goal of T-HT. In 2005 there was made a survey via the Internet on satisfaction of employees at the level of the entire DT participated by T-HT, too. This valuable tool is used to collect constructive information on the areas in the Company that maybe need to be improved. Feedback from employees on key issues in the Company is a firm basis to undertake necessary steps and to instigate corporate culture. In order to achieve and maintain a high level of ecological awareness among its employees, T-Mobile constantly conducts internal trainings. Each new employee is trained on how to implement environmental protection, whilst all other employees participate in periodical additional trainings. In 2005, 150 employees were trained on the environmental management system and electromagnetic fields effect.

### Sponsorships

Within its several years long eco-project "Let's Support the Colours of the Adria" (2003 - 2007), with the main

stress on stopping negative trends of relation towards environment and sustainable development, the organization "Dupinov san" has thought out and implements actions called BLUE (preservation of the sea and the submarine world), GREEN (renewal and preservation of coastal environment) and WHITE (renewal and preservation of traditional shipbuilding). T-HT, as an environmentally responsible company, is a several years long partner - sponsor of this organization and its activities. The organization "Dupinov san" organizes the implementation of the national donation campaign "Let's Plant Life", of the GREEN project including T-Com as a sponsor. The aim of this national donation campaign is oriented towards strengthening social awareness and collection of cash donations for renewal of forest reserves and planting of olives on previously selected locations of the Adriatic region, like Vis, Korčula, Lastovo and Hvar, then Tara, Vodnjan, Višnjan on the area of Istria and Štedrica on Dubrovnik area. In cooperation with the Ministry of Agriculture, Croatian Forests and local communities it is planned to plant about 8,000 olive seedlings and over 6,000 pine and cypress seedlings in the course of 2005 and 2006. The intention of the visual-art competition "By Bike Through the Island" organized by T-Mobile was to motivate pupils of primary schools to consider cycling through visual-art expression as sports that makes a positive impact on physical fitness, and thereby on health itself. T-Mobile has intentionally initiated the programme on islands because it wanted to be involved in revitalization of communities that are more isolated geographically and from traffic. An additional aim of the programme was to present cycling to children and youngsters as the environmentally most rewarding means of transportation. Therefore, T-Mobile systematically introduced children within this programme also with the importance of one's own safety in traffic, i.e. with the obligation of wearing a helmet, using additional security tools and obeying traffic rules. Within the programme of encouraging cycling as a healthy way of living, T-Mobile and the Spirit organization organized on each one of the mentioned islands an exciting series of four bicycle races T-Mobile Mountain Bike Challenge 2005. On the occasion of presenting the project Mr. Lordan Kondić, a representative of marketing communications of T-Mobile, said: "Cycling is a very popular physical activity in the world. Apart from its positive impact on physical fitness, and thereby on health itself, cycling is a funny and environmentally most acceptable means of transportation.

By recognizing these values as a part of its own way of thinking, T-Mobile decided to initiate a programme of bringing cycling closer first to the children and youngsters. We also wish in cooperation with the Spirit organization through the races of T-Mobile Mountain Bike Challenge 2005 to encourage as many people as possible to be active in cycling."

### Main Network Indicators

The main indicators of the status of the fixed telecommunications network capacity owned by T-HT at the end of 2005 as well as of the traffic realized in the said network in the same year are shown in the following table:

	2005	2004
Total number of lines in the fixed network (in 000)	1,675.0	1,676.5
POTS (including FGSM)	1,541.6	1,549.2
ISDN	133.4	127.3
ADSL	108.4	24.3
Number of channels (including FGSM)	1,893.3	1,887.6
Network digitalization (%)	100.0	100.0
Fixed line penetration (%)	40.0	37.8
Total traffic (in 000 minutes)	5,657,793	5,912,363
National calls	4,670,187	4,854,452
Calls to national mobile networks	672,761	730,556
Calls to value added services	67,042	62,837
Calls to international fixed networks	174,850	185,662
Calls to international mobile networks	39,765	41,773
Other traffic	33,188	37,083

The table below shows the capacities of and the realized traffic in the T-HT Internet network in 2005:

	2005	2004
Dial-up users (in 000)	600.2	562.8
Fixed line Internet access subscribers (in 000)	0.5	0.6
VPN points (in 000)	0.5	0.1
ADSL users (in 000 )	108.4	24.3
Dial-up Internet access penetration (%)	27.0	25.9
Total number of on-line minutes	2,063,088	2,642,664
for dial-up users (in 000 minutes)		

Number of subscribers in T-Mobile networks in 2005, market share and realized traffic and revenue per subscriber are shown in the following table:

.5 1,533.8
.1 1.233.6
.4 293.4
.0 6.9
.1 53.7
.4 64.4
.2 112.8
.0 157.5
)

Note: All data from T-HT Annual Report 2005

### Main Finacial Indicators

Revenue per business segments (in mil. HRK)	2005	2004
Fixed network revenue	4,034	4,148
Carrier operations revenue	570	514
Data services revenue	282	247
Internet services revenue	297	300
Mobile network revenue	3,432	2,909
Total revenue	8,615	8,118
Other revenue	203	231
Total core-business revenue	8,818	8,349
Total core-business expenditures	6,558	6,238
Staff expenditures	1,638	1,676
EBITDA	3,776	3,522
Added value (EBITDA + staff expenditures)	5,404	5,198
Core-business profit (EBIT) (in mil. HRK)	2,260	2,111
Profit from regular activities before taxation	2,431	2,406
Profit of the financial year (in mil. HRK)	1,929	1,924

Comment: Financial data from the T-HT Annual Report 2005

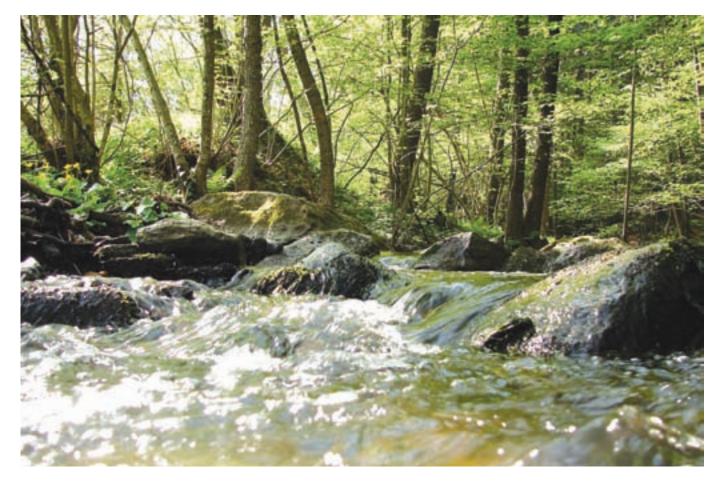
As to 31 December inclusive, the total consolidated revenue from core business of the T-HT Group in 2005 amounts to HRK 8,818 million. Consolidated profit from core business was HRK 2,260 million and the profit of the financial year 2005 reached HRK 1,929 million. Consolidated revenue in 2005 reached HRK 8,615 million, which was an increase of 6.1% in relation to 2004. Revenues increased only in those parts of market where, apart of T-HT, also competition was active. Group revenue increased mostly thanks to the segment of mobile communications and, to a lesser degree, thanks to data and carrier services. Those business segments covered 49.7% of the total Company revenue. The increase of revenue in the said segments compensated for the decrease of revenue in the fixed network (-2.7%) and Internet services (-1%).

EBITDA: Earnings Before Interest, Taxes, Depreciation and Amortisation

(Added value): EBITDA + staff costs

Note of the Corporate Reporting Department: EBITDA and staff costs do not necessarily have to match the reports sent to DT within the scope of regular reporting to DT (deviations of approx.  $\pm 2\%$  allowed) due to the differences in reporting standards and structures.

### **Legislative Framework**



The awareness about the need for environmental protection in Croatia slowly turns into a clear, comprehensive and long-term concept, especially due to the processes related to the joining of EU, where environmental protection is one of the key topics. The current environmental protection system in Croatia is based on the Constitution of the Republic of Croatia, which guarantees environmental protection (Article 3). Declaration on Environmental Protection in Croatia contains guidelines for strong commitment to the development of a legal system in line with the international agreements and standards of the European and world community, which will fully ensure permanent, systematic and efficient environmental protection. The Declaration served as the basis for passing the Environmental Protection Act that establishes the basic principles of the Croatian legal system for environmental protection and systematically and fully regulates environmental protection. Environmental Protection Act provides the regulation of certain issues through the implementing provisions, e.g.: Regulations on Environmental Impact Assessment, Regulation on Environmental Emission Inventory, Environmental Protection Emergency

Plan, etc. Croatia has adopted integral acts on the protection of environment, air, waste and water management and on chemical substances:

■ Nature Protection Act regulates individual protected parts of nature, the manner of management, protection and control,

• Air Protection Act regulates the measures, organization and implementation of air protection and air quality improvement in a coherent and comprehensive manner,

• Waste Act regulates the rights and obligations of physical and legal persons with respect to waste management,

■ (Land) Water Act regulates the legal status of water and water resources, the manner and conditions of water management

■ Chemical Act regulates the procedure of reporting new substances, their sorting out, packing and labelling chemicals dangerous for the health of people and environment exchange of data on chemicals, the manner of assessing possible risks to people and environment, bans and restrictions of putting them into service and using them and conditions of production, service and utilization of dangerous chemicals.

Pursuant to the stated acts, a number of implementing regulations have been passed which incriminate a whole range of offences and provide larger fines for offences committed in the field of environmental protection. Furthermore, the new Environmental Protection Act is being drafted with for the purpose of further harmonization with *acquis communautaire* (Stabilization and Association Agreement).

# Acts and Regulations of the Republic of Croatia Important for T-HT

In the implementation of environmental protection activities T-HT is obliged to comply with all the relevant acts of the Republic of Croatia as well as other regulations related to that area. In this respect, the following acts and regulations passed at the state level are of special significance for T-HT:

- Environmental Protection Act (O.G. 82/94 and 128/99),
- Regulations on Environmental Impact Assessment (Official Gazette 56/00 and 136/04),
- Regulation on Environmental Emission Inventory (Official Gazette 36/96),
- Environmental Protection Emergency Plan (O.G. 82/99),
- Air Protection Act (Official Gazette 178/04),
- Regulation on Limit Values of Pollutant Emissions into the Air (O.G. 133/05),
- Regulation on Limit Values of Pollutant Emissions from Stationary Sources into the Air (O.G. 98/05)
- Regulation on Substances Depleting the Ozone Layer (Official Gazette 120/05),
- Accounting Level for Substances Depleting the Ozone Layer (Official Gazette 30/01),
- Ordinance on the Ozone in the Air (O.G. 133/05),
- Ordinance on Critical Levels of Pollutant Substances in the Air (Official Gazette 133/05),
- Ordinance on Bio-Fuel Quality (O.G. 141/05),
- Water Act (Official Gazette 107/05)
- Waste Act (Official Gazette 178/04 and 153/05)
- Regulation on Requirements for Handling Waste (Official Gazette 123/97 and 112/01),
- Ordinance on Requirements for Handling Hazardous Waste (Official Gazette 32/98),
- Ordinance on Waste Categories, Types and Classification with Waste Catalogues and the List of Hazardous Waste (Official Gazette 50/05),
- Regulation on Packaging and Packaging Waste Handling (Official Gazette 97/05 and 115/05),
- Act on the Environmental Protection and Energy

Efficiency Fund (Official Gazette 107/03)

- Ordinances on Unit Charges, Corrective Coefficients and Detailed Criteria and Benchmarks for Determina tion of the Charge for Emission into the Environment
- Act on Non-Ionizing Radiation Protection (O.G. 105/99),

 Regulation on Limit Power of Electromagnetic Fields for Radio Equipment and Telecommunications Terminal Equipment (Official Gazette 183/04),

■ Regulation on Protection against Electromagnetic Fields (Official Gazette 204/03)

- Act on Noise Protection (Official Gazette 20/03),
- Regulation on Maximum Permissible Levels of Noise in the Environment Where People Work and Live (O.G. 145/04) and
- Chemical Act (Official Gazette 150/05).

Apart from the above stated, there is a whole set of ancillary provisions (regulations and ordinances) which in more detail define the implementation of statutory acts and different regulations adopted at a county or city /municipality level, which will soon gain on importance.

### Environmental Protection and Energy Efficiency Fund - Ecological Fees

The Environmental Protection and Energy Efficiency Fund was founded with the purpose to finance preparation, implementation and development of programs, projects and similar activities in the field of preservation, sustainable use, protection and improvement of the environment, as well as in the field of energy efficiency and use of renewable energy sources. The Fund is established as an off-budget Fund and is a legal person with public authorities determined by law (Environmental Protection and Energy Efficiency Fund Act, Official Gazette 107/03). Its public authorities concern passing of administrative acts related to the payment of fees and special fees, keeping the register of parties subject to payment of charge, regulating conditions which have to be fulfilled by the Fund beneficiaries as well as conditions for the allocation of funds. The Environmental Protection and Energy Efficiency Fund Act regulate the following:

- environmental polluter fee,
- environmental user fee,
- fee for burdening the environment with waste and
- special environmental fee for motor vehicles.

The stated fees and the special fee shall be paid for the calendar year and under conditions and in the manner as provided by the Environmental Protection and Energy Efficiency Fund Act and regulations and ordinances passed pursuant hereto.

### **Environmental Management**



### Environmental Management System (EMS) According to ISO 14001

The set of ISO 14000ff standards includes approximately 15 standards intended for organizations to establish and apply an Environmental Management System and determines criteria for its certification. The new, second edition of the international standard ISO 14001:2004 for environmental management systems was published on 15 November 2004. This replaced the former, first edition of the ISO 14001:1996 standard. The purpose of amendments to the standard was to increase understanding of the standard requirements and to provide for full compatibility with the ISO 9001:2000 standard for quality management systems and to prevent observed weak points of environmental management system during application and certification pursuant to the 1996 edition. ISO 14001:2004 specifies requirements for the Environmental Management System, which provide a frame for environmental impact control of organizational activities, production and services and for a continuous reduction of environmental impact. ISO 14004:2004 provides instructions on elements of the Environmental Management System, its application and main issues. The Environmental Management System defined by the international standard is based on an attempt of the MB to:

- comply with regulations,
- constantly improve,
- prevent pollution.

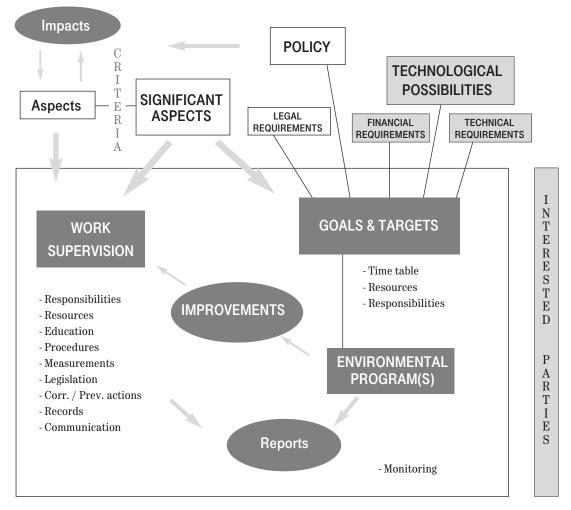
ISO 14001 enables organizations to develop freely towards a number of goals related to improvements, which are also in the function of the existing economic and technical possibilities of the organization. Its application provides for a systematic identification of environmental issues in the organization, as well as their management and supervision and constant alignment with applicable statutory requirements related to environmental protection. The standard stimulates the organization to gradually improve its relation to the environment. The standard also determines 17 groups of requirements which the organization needs to implement in order to prove that it has been established in an environmental-friendly manner. These requirements, listed below, represent also the main standard chapters:

- 1. Environmental management policy,
- 2. Environmental aspects,
- 3. Statutory and other requirements,
- 4. General and individual objectives and programmes,

- 5. Resources, roles, responsibilities and authorizations
- 6. Training, awareness and competence
- 7. Communication
- 8. Documentation
- 9. Document management
- 10. Operation supervision
- 11. Emergency preparedness and response

- 12. Monitoring and measurement
- 13. Compliance assessment,
- 14. Non-compliance, corrective and preventive actions,
- 15. Records management,
- 16. Internal judgement,
- 17. Management Board review.

### ISO 14001



Source: Economy and Sustainability No.4/December 2005

Compliance with the stated requirements asks for an objective proof used to assess whether the Environmental Management System functions properly and in line with the standard. The ISO 14001 standard can serve for internal purposes to ensure to the organization and its management certain security (verification of compliance with statutory provisions), savings (reduced consumption), or for external purposes as support to a publicly declared policy regarding work on environmental protection and improvement of the Company's image. ISO 14001 is a standard, based on which the organization can require an audit of its Environmental Management System by an independent certification body, which can then guarantee compliance of the system with the requirements of the standard by issuing an "ISO 14001 certificate". Certification is not required by the standard, but many organizations opted for it since an independent verification brings higher credibility. "Business entities directed towards the future development must be committed to sustainable development as a strategic goal. It means to apply a good environmental management practice, without polluting and destroying the environment, to reduce waste and efficiently use resources, by observing the concerns of buyers, shareholders, employees, local community, legislator and the society as a whole in relation to the environment. ISO 14001:2004 and ISO 14004:2004 provide a map for reaching that strategic goal." (Daniel Gagnier, President of ISO/TC 207)

## Environmental Management System in T-Mobile

In September 2002 T-Mobile Hrvatska introduced, in line with the HRN EN ISO 14001:1996 standard, an Environmental Management System that identified and defined goals related to environmental protection to be achieved and the manner in which to achieve them. In the same year the system was certified by Cro Cert, authorized certification company. The ISO 14001 certificate shows that T-Mobile Hrvatska is actively involved in environmental protection, but it is also a proof that T-Mobile is systemically and dedicatedly committed to ecological issues. T-Mobile continuously adjusts every part of its business to the latest European and world ecological standards. In April 2005 T-Mobile Hrvatska acquired the right also to the prestigious certificate for environment of the greatest international association of certification houses of IQNet (International Quality Network). In September 2005 the certification company Cro Cert successfully implemented a recertification judgement (audit) in the company, the conclusion of which was that T-Mobile Hrvatska deserved to bear the ISO 14001 certificate in the next 3 years, too. The Environmental Management System Policy of T-Mobile includes defining of significant aspects and impact on the environment in the area of the mobile communications, constant analysis of the environmental aspects, permanent harmonization with the valid acts and subordinate legislation, undertaking of measures to reduce possible harmful impacts on the environment, and constant improvement and prevention of harmful impacts on the environment. To achieve these goals T-Mobile trains the management and the workers permanently with the purpose of their skills and environmental

protection consciousness, implements the new ecologically acceptable technologies and processes, undertakes preventive measures in order to improve environmental protection results, keeps the highest degree of control over the aspects in project-designing and construction, permanently improves and develops the Environmental Management System, conducts evaluation procedures, adjustments and repair activities, reduces waste production and monitors the achievement of goals, as well as harmonizes its operations with the guidelines on sustainability in the use of resources, direction of investments and technical development for the purpose of their mutual alignment and to meet the needs and expectations of the current and future service users.

The entire ISO 14001 documentation was updated in May 2005 and coordinated with the new edition of the ISO 14001 standard and changes in business processes and organization within T-Mobile Hrvatska d.o.o.



On 31 March 2005 the analogue mobile network of the first generation - NMT was put out of operation. On this occasion there was undertaken a whole series of actions that comprise the field of environmental protection. T-Mobile gave an occasional present and a letter of thanks to every customer who returned his/her NMT mobile telephone back to one of points of sale of T-Mobile or to T-Centres thus enabling the telephones to be recycled avoiding the least possible pollution of the environment. In this action there were collected 2,144 NMT mobile

telephones in total, which were disposed in July 2005 in an environmentally acceptable manner. Disposal of the other NMT equipment has begun: equipment and switching instruments of NMT systems, BS equipment and instruments (base stations) on 281 locations in regions of the Republic of Croatia RH and the other equipment (consisting of various spare parts in the warehouse and of documentation). Former locations of NMT aerials will be used to construct a new 3G system, which represents minimization of necessary interventions in the environment. In the action of substituting old mobile telephones with the new ones called "NOKIA IS REALLY SIMPA" organized by T-Mobile Hrvatska and the Croatian representative of Nokia Mobis Electronic there were collected over 50,000 of old mobile telephones, their chargers and batteries that are going to be ecologically disposed in line with the highest standards of environmental preservation. It can be said that this exclusive offer of T-Mobile, Nokia and Mobis Electronic represents the first and unique cooperation in the field of mobile communications in Croatia. Apart from giving a special offer, the purpose of the action was to instigate environmental awareness of mobile telephone users. Employees of T-Mobile Hrvatska take an active part in a working group for health and electromagnetic fields and in a working group for eco-management, within T-Mobile International. In March 2005 there were accepted 10 guidelines on electromagnetic fields. The guidelines are defined for the entire T-Mobile group, in order to achieve joint strategy in this issue. The bases of the guidelines are transparency, providing information, counselling and active participation in communication with citizens on the subject matter of the impact of electromagnetic fields. Within T-Mobile Hrvatska d.o.o. there were performed necessary preliminary activities and coordination with the requirements of

the guidelines. The guidelines are also publicly published on the official web pages. The ISO 14001 certificate obliges T-Mobile to perform the so-called audit of the other party, i.e. the control of contracting companies. During 2005 internal auditors have performed the control in several contracting companies (Doron net, Sava promet, Unijameteor eko, Mobis electronic). Special attention was dedicated to companies that deal with waste disposal, mainly due to the NMT network's putting out of operation and large quantities of waste that were supposed to be disposed in line with environmental standards. In April 2005 OSKAR - The Development and Quality Centre conducted additional training of internal auditors. Auditing authorizations expired for one part of internal auditors, and since a new version of the ISO 14001 and 14004 standards was issued in December 2004, all auditors needed to be acquainted with changes. For the needs of acquiring new locations there was prepared a professional brochure called "All about Aerials and Telecommunications Equipment". The intention of this specific brochure is to provide details on the mode of mobile networks operation, on setting up and on visual appearance of an aerial and on the impact of EM fields to health. The brochure "Both Technology and Ecology" was also updated, and intended for the broader public. In order to encourage employees to behave in a more rational manner towards natural resources and to preserve their own health, there were posters designed with brief pieces of advice and instructions. The contents of the official web pages related to the environmental protection and the impact of EM radiation are being regularly updated. Customers' complaints are being monitored, texts and programs in public media. Internally, information is provided via the intranet web pages, containing the whole array of data and documents related to this subject matter.



### **Environmental Impact Indicator**



Environmental impact indicators, as a supplement to traditional financial indicators, are becoming more and more important for modern management, regardless of the field of activities. These instruments are used for planning, control, comparison and reporting on environmental protection activities, and they contain information that can be applied usefully in various tasks, such as setting of general and special goals and monitoring of their realization. They may be used for checking the efficiency of use of natural resources, comparison of processes and their outcome within and across business departments, provision of evidence of compliance with legal requirements of state authorities, and, finally for supplying information to employees, external interested parties such as banks and insurance companies, investors, non-governmental organizations and the general public. Indicators that are being recorded and presented need to be directly linked to environmental aspects of a specific organization, and they quantify the scope of a specific aspect's impact on the environment. According to the international ISO 14001 standard, "environmental aspect" stands for elements of the organization's activities, products and services that may have an impact on the environment. Following the

cause-effect relation between environmental aspects and their impact on the environment, "impact" is understood to be every change in the environment, either detrimental or beneficial, which is fully or partially caused by the organization's activities, products and services. Taking into account the activities of T-HT as a telecommunications operator, the experience of other European telecommunications operators associated in the ETNO, as well as the experience of DT AG as our majority shareholder and strategic partner, the environmental aspects of T-HT may be divided in the following way:

- Use and pollution of ground (including facilities),
- Use of raw material (paper, cable, telephone masts),
- Use of electricity,

■ Use of energy for the heating and air-conditioning of premises,

- Use of fossil fuels for transport,
- Consumption of water,
- Emissions into the air,
- Production of waste,
- Production of noise,
- Use of the landscape,
- Generation of electromagnetic radiation.

For all listed environmental aspect groups, indicators are given below which describe their impact on the environment as a result of the daily regular activities performed at T-HT. For some of the aspects, the impact is presented in form of a description, as there are no exact numerical indicators for their quantification.

### Cumulative Indicators on Environmental Impacts within the T-HT Group

The table below provides a cumulative presentation of all indicators of environmental impacts within the T-HT Group for the year 2005, divided into the previously stated environmental aspects. The data were collected within the T-HT Group by the following business units: T-Mobile Hrvatska, Procurement and Logistics Department, Real Estate Management and Internal Services Department as well as the respective regional sections from all four Regions (North, West, South and East).

Indicator	Units	2005	2004			
Water						
Water Consumption	m³	179,030	241,000			
Energy						
Total consumption (w/o vehicles)	TJ	519.9	458.7			
Energy, electric power						
Electric power consumption	TJ	366.9	332.4			
Energy, heating						
Heating energy consumption	TJ	153.0	126.3			
Paper						
Paper total	t	449.4	437.2			
Vehicles						
Number of vehicles		1,709	1,689			
Fuel consumption	I	2,786,087	2,556,429			
Mileage	mil. km	36.0	34.4			
Fuel consumption per 100 km	l⁄100 km	7.7	7.4			
Quantity of waste (excluding hous	Quantity of waste (excluding household waste)					
Total quantity of waste	t	3,331.8	3,753.1			

### Consumption of Resources

T-HT is not a production company, but a telecommunications service provider, therefore, in its business processes, it does not use raw material in the traditional sense, but it does use energy, paper, water, facilities, electronics, cables etc. in all of its business activities (construction, maintenance and extension of the fixed and mobile telecommunications network and IT systems and provision of services).

The use of the ground for facilities, parking lots and warehouses produces various impacts on the environment which also need to be carefully considered.

### Energy

The largest impact on the environment produced by the Company is the consumption of energy required for its business processes. The types of energy used are: electricity for the operation of telecommunications and IT equipment, heating or air-conditioning energy for business premises and fuel for vehicles and diesel-electric power generators etc. The energy distribution (excluding fuel for vehicles) shows that the T-HT Group is consuming mainly electric power (71.5% of the total energy consumption which is amounted to 513.3 TJ in 2005), while with the other types of energy the share of environmentally acceptable ones (gas, central heating) is on the increase in relation to heating oil, the share of which is decreasing. The energy consumption structure depends on the extension of telecommunications capacities, construction of new networks/ introduction of new services (e.g. UMTS in the mobile, ADSL in the fixed network), on climatic conditions (duration of the winter / summer period) and on the type and efficiency of energy consumption, so that the increase in consumption by itself does not mean inefficient consumption. The technological update of the telecommunications network and the increase of the service selection lead us to expect that the total electric energy consumption will be rising, but it is possible to use the energy in a more efficient way. The variety and individual features of the national area in terms of energy shows different usages of energy types by regions, from which there follow specific activities for the improvement of energy efficiency. Therefore, it is necessary to define various projects for a more efficient use of energy, as well as revitalize/continue current projects and encourage the observance of general instructions on energy saving. More efficient use of energy also leads to the decrease of the emission of various waste gases into the environment (carbon dioxide, sulphur oxide and nitric oxide), and thereby also the compensation fees for these emissions. Within the Data Centre Infrastructure Project of HT there is a building management system installed in Utrine taking care about surveillance, maintenance and management of the entire contents within physical arrangement and insurances of the building, and electric power supply, air-conditioning and central heating using a sophisticated surveillance system - Building Management System (BMS). The System that was put into operation in 2005 includes subsystems for physical and technical protection of the Data Centre building and subsystems for electric power supply surveillance and KGH (klima, grijanje, hlađenje /air-conditioning, heating, cooling) systems.

### **Electric Power**

The production capacities from which the Croatian consumers (including the T-HT Group) are supplied with electric power consist of hydroelectric power plants (46.6% of produced power), thermo-electric power plants (36%) and nuclear power plants (17.4%). Each of these forms of production of electric power has its own specific way of impacting the environment, particularly the nuclear power plant, although it is located in the territory of the Republic of Slovenia, because it produced nuclear waste which poses a huge problem with regard to its disposal. For the T-HT Group, consumption of electric power as the major source of energy is of particular interest. In the course of the year 2005 a total of 101.9 GWh were consumed for the operation of the telecommunications and IT equipment, air-conditioning, heating and lighting. Electric power is mainly used for the operation of the telecommunications network systems, IT equipment and for air-conditioning/ ventilation systems, although the consumption for lighting of office premises and for other non-production purposes is not negligible either. During the year 2005 NMT systems of mobile network in T-Mobile were put out of operation, which resulted in a certain saving in the consumption of electric power needed for their power supply, but capacities (83 new locations of GSM base stations) have been expanded and new locations of UMTS base stations have been put into operation, which requires in the end higher consumption of electric power. Within the T-HT Group, currently only T-Mobile is using some form of energy from its own renewable sources: solar energy is used for the power supply of base stations on island.

### **Heating Fuels**

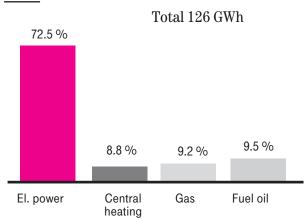
The combustion of heating fuels, especially fuel oil, results in gases that contribute to the greenhouse effect. From the aspect of waste gases ( $CO_2$ ,  $SO_2$  and  $NO_2$ ) emission into the air, fuel oil is contributing most to pollution, and there is also a substantial risk in transport and storage, considering the possibility of oil spillage resulting in pollution of the ground and watercourses.

The heating fuels used by the T-HT Group are: highly combustible fuel oil and gas, or central heating for the district is used. The T-HT Group does not use coal for heating, as this is the heaviest polluter of all energy sources.

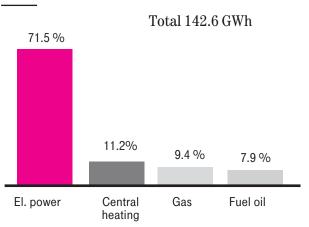
Energy source / heating type		2005	2004
Fuel oil	MWh	11,282	11,756
Gas	MWh	13,465	12,060
Central heating	MWh	15,905	11,262
Total		40,653	35,078

Note: conversion ratio 1GWh = 3.6TJ

### 2004







The enclosed charts show that in 2005 the share in consumption of particular types of energy sources was changed in favour of environmentally acceptable ones. The increase in total consumption was mainly caused by a more severe winter and a prolonged heating period.

### **Vehicle Fuels**

Using its motor vehicles from its car fleet, T-HT is contributing to the greenhouse effect, to the emission of air polluting waste gas and to the overall risk for the environment related to transport activities and the use of fuel and lubricating oils.

		2005	2004
Total fuel consumption	I	2,970,813	2,701,151
Gasoline	I	491,213	525,154
Diesel - vehicles	I	2,294,874	2,031,278
Diesel - power generators	- I	184,726	144,725
Number of vehicles	pcs	1,709	1,689
Gasoline engine	pcs	383	412
Diesel engine	pcs	1,326	1,277
Passenger cars	pcs	1,033	949
Freight vehicles	pcs	676	740
Total company car mileage - in km		35,973,585	34,449,567
Gasoline engine	km	6,927,702	7,434,777
Diesel engine	km	29,045,883	27,014,790
Fuel consumption per 100 km	l⁄100 km	7.7	7.4

The T-HT Group procured in 2005 100 new vehicles for the needs of ADSL field groups which contributed to a partial renewal of its car fleet. Besides, it was also agreed to procure several mobile diesel-electric power generators powered by bio-diesel. An increase in mileage can be observed in relation to the previous year and in relation hereto an increase in total fuel consumption as a consequence of more intense activities referring to the instalment of ADSL equipment with subscribers and more areas under responsibility of field groups for fault repair in the network.

### Paper

The production of paper, especially high-quality white paper, requires high quantities of energy, water and wood, which has a major impact on the environment. Old paper recycling generates savings in production, and the woodland, which is very important for the preservation of the Earth's atmosphere, is also spared. Each ton of recycled paper saves 17 trees, 25,000 litres of water for its processing, 600 cm<sup>3</sup> of space and as much as energy as it would suffice in the area of moderate climate to heat an average house during half of the year.

Paper	Units	2005	2004
A4 (print/photocopy)	millions sheets	47.3	43.1
A4 (print/photocopy)	t	241.5	218.1
Telephone Directories	t	207.9	219.1
Paper total		449.4	437.2
A4 (print/photocopy)	thousand sheets per employee	5.7	4.8
A4 (print/photocopy)	kg per employee	29.1	24.1

The improvement of office business processes, e.g. the application of an electronic document flow system and mass usage of e-mail in internal and external communication, has markedly reduced paper consumption. Paper consumption per employee, expressed in the number of sheets of print/photocopy paper can be additionally reduced by using two-side copying. But this requires corresponding printers providing such type of printing. Two-side printing of bills for telecommunications services reduces the quantity of paper necessary for this purpose approximately by half. However, the introduction of itemized billing has significantly influenced the increase in total consumption.

Telephone Directories, taking up huge quantities of paper, are printed every two years (business and residential). Accordingly, and depending on the Regions where they are printed, the quantity of paper required for their printing varies from year to year. The publication of the Telephone Directories on the Internet, and the release on CD-ROM, are a useful alternative in paper resource saving.

### Water

Water represents one of the most important natural resources of the Republic of Croatia. By quantity of available healthy drinking water, Croatia is one of the richest countries in Europe. Therefore, water pollution, especially by waste water, is a huge environmental issue.

The T-HT Group is using water mainly for sanitary purposes, and as drinking water, and none of its business processes is a threat of water pollution. Waste waters from our facilities are drained off into the local sewage systems, and in places where there is a risk of oil spillage into the sewage, separators are installed to prevent this (e.g. HoTo Business Tower).

The T-HT Group water consumption in 2005 amounted to a total of approx. 179 thousand  $m^3$  of water.

### Landscape and Ground, Real Estate

Impact on the environment: the appearance of the landscape, special conditions and occupation of the ground by real estate with impact on the ecosystem (bio variety) and natural balance of watercourses.

Local communities are particularly sensitive to disruptions of the landscape appearance by the erection of mobile networks base stations. For instance, when erecting base stations and antennas on Adriatic islands, all interventions are harmonized with the natural and architectural features of the region, and some of the antennas and base stations use solar energy only. Furthermore, it has been made a practice before that in particularly valuable landscapes, e.g. in national parks and nature parks, the antenna masts of the base stations are used jointly with the other operator, in order to keep the disruption of the landscape appearance to a minimum.

In the fixed network telephone, overhead access networks also deteriorate the appearance of the local landscape. By removing the overhead networks that are obsolete and were devastated during the war, and by construction of underground access networks, T-HT is exerting a positive impact on the improvement of the appearance of the local landscape.

In its regular operation, T-HT is using facilities, the number and total space of which has changed in time. The Company is using its own facilities, leased facilities, but also facilities that do not fall in either of these categories. Roughly, we are speaking about an area of 380 thousand  $m^2$  of net developed space used for offices, sales points, accommodation of equipment, warehouses, garages and the like. Of this, 180 thousand  $m^2$  of space is Company-owned. The Company is also using open spaces for warehouses and parking lots of approx. 240 thousand  $m^2$ .

### **Emissions and Waste**

### Waste Gas Emission

Waste gas as a result of T-HT operations, which are emitted into the air are: carbon dioxide  $(CO_2)$  which contributes to the generation of the greenhouse effect, sulfur dioxide (SO<sub>2</sub>) which contributes to the generation of winter smog and acid rain, and nitric oxides (NO and  $NO_2$ ) which contribute to the generation of summer smog and acid rains. The main sources of waste gas in T-HT are the car pool and the boiler rooms (stationary sources) used for heating of working premises, and to a lesser extent also stationary and mobile diesel-electric power generators. A part of the air emissions of the T-HT car pool, related to  $CO_2$  emission, has been calculated on the basis of fuel consumption and factors for the individual fuel types (1 l Diesel =  $2.62 \text{ kg CO}_2$ , 1 l Gasoline =  $2.32 \text{ kg CO}_2$ ; Source: The 2004 Human Reusources and Sustainability Report, DTAG).

Emission	Units	2005	2004
CO <sub>2</sub>	t	7,152	6,540
CO <sub>2</sub> per km	g/km	198.8	190

A mild increase in  $CO_2$  emission can be noted, which is

the result of the renewal of the car pool and of the increase in total fuel consumption with the increase of mileage.

On occasion of registration of its cars, T-HT is paying a special environmental fee for motor-driven vehicles which is, as prescribed by law, payable to the Environmental Protection and Energy Efficiency Fund.

Pursuant to legal regulations, the emission of pollutants into the air from stationary sources is being measured in regular time intervals at each outlet of the stationary emission source. Measurements are performed by authorized organizations, and reports are regularly sent to the County Offices for Environmental Protection that are keeping the environmental emission inventory prescribed by law. The inventory data are the basis for payment of fees for emissions into the air by stationary sources. For the time being, the Environmental Protection and Energy Efficiency Fund is charging fees for  $SO_2$  and  $NO_2$ emissions.

The following emission quantities of waste gases from stationary sources with this obligation have been reported for 2005:

Emission	Units	2005
SO <sub>2</sub>	t	0.0115
NO <sub>2</sub>	t	5.6338
CO <sub>2</sub>	t	6,585.1092

### Waste

As according to the Waste Act (Official Gazette 178/04), waste is any substance or object defined by waste categories prescribed by implementing regulation of this Act, which an owner rejects, intends or has to reject. In general, waste puts a significant pressure on the environment, impacting the quality of air, water and ground to an extent that depends on the method of disposal and/or recycling. The largest quantity of waste at T-HT is generated in processes of improvement, renewal and reconstruction of parts of the telecommunications network and its regular maintenance, also when individual network platforms or technological units are put out of operation, when the dismantling of equipment generates specific quantities of superfluous equipment or other material. A part of such equipment can be reused within T-HT (for original use or for spare parts) or sold, while part of the obsolete, unnecessary or destroyed telecommunications equipment and other material assets is declared waste (mainly electric or electronic waste) which needs to be handled in the appropriate way, for prevention of detrimental effects on the environment. Pursuant to the Waste Act this waste is classified in a

group of separate waste categories, since some of its parts or components may contain substances which qualify it as toxic waste that needs to be handled accordingly, pursuant to the Act. Waste management from the point of view of environmental protection is a process which has a significant impact on the environment; therefore this topic is given special attention within the T-HT Group. The hierarchy of waste management is being observed, so that the primary target is to reduce generation of waste and reduction of its toxic properties. If this is impossible, part of the waste is being reused as raw material (recycling), so that only such waste that cannot reasonably be used will be disposed in a non-detrimental manner, in line with legal regulations, and delivered to companies that are registered for such waste disposal. The Central Procurement and Logistics Department has updated the existing Waste Disposal Procedure. During the year 2005 the analogue NMT network of the first generation mobile communications system was put out of operation, and T-Mobile carried out a campaign of ecologically friendly disposal of old NMT handsets returned by the customers and the other NMT network equipment. In cooperation with the company Mobis electronic, an authorized representative of the company Nokia, T-Mobile carried out an action of substituting old mobile telephones together with batteries and chargers with the new ones, on the occasion of which there were over 50,000 mobile telephones of various generations collected from customers and environmentally disposed. In the Company, paper, glass, PET and cardboard containers are separated and collected, and then delivered for recycling or ecologically friendly disposal. T-Mobile also disposes in an ecologically friendly way all electronic waste generated in internal use - old mobile handsets, battery chargers and batteries of mobile handsets, IT equipment (old computers, monitors), as well as all used toners (taken over by an authorized company which exchanges them for office supplies).

Waste quantity	Unit	2005	2004
Collected paper	t	79.54	320.9
Copper cable	t	1,153.29	2,093.1
Metal waste	t	634.08	n.a.
Industrial waste	t	263.47	1,108.2
Rechargeable batt. and batteries (hazardous wa	ste) t	7.8	85.1
Electronic parts (non-hazardous technical wast	e) t	237.09	15.2
Motor oils (hazardous waste)	t	0.09	15.6
PET	t	1.76	n.a.
Other waste	t	951.69	81.3
Fluorescent pipes (hazardous waste)	pcs.	643	n.a
Toners (printer, telefax machine,)	pcs.	1,824	279
Mobile handsets (NMT)	pcs.	2,144	2,620
Total quantity of waste (w/o municipal waste)		3,331.82	3,753.1

### Noise

Noise does not have a palpable effect on the environment, but due to its nature it does disturb living beings (humans and animals) that are exposed to it. Sources of noise in the regular operation of T-HT can be motor vehicles and pieces of machinery within the T-HT car pool, diesel-electric power generators and air-conditioning systems. In the course of 2005 no complaints were registered from citizens regarding noise caused by T-HT activities, and regular noise measuring within the activities of protection at work did not register any exceeding of permitted level of noise prescribed by the Law and the Regulations.

### Non-Ionizing Electromagnetic Radiation

Similar to noise, electromagnetic emissions are not palpable. According to present knowledge, non-ionizing electromagnetic radiation poses neither a hazard for humans nor does it represent an ecologic issue, although a certain level of concern is present in the public. The current legal restrictions are based on the heat effect and take the principle of precaution into account. Within the T-HT Group, T-Mobile Hrvatska has a license for operation of a GSM system and provision of mobile communications services, and during 2005 a third generation network (UMTS) started operating and providing services in line with a granted concession. In Croatia, the Regulation on Protection against Electromagnetic Fields, passed by the Ministry of Health, is in force (Official Gazette 204/2003). All telecommunications equipment is subject to the provisions of the Regulations on Maximum Permittable Electromagnetic Fields for Radio Equipment and Telecommunications Terminal Equipment (Official Gazette 183/2004). The international standard for limits of exposure to time-varying electric, magnetic and electromagnetic fields (up to 300 GHz) has been issued by the International Commission of Non-Ionizing Radiation Protection (ICNIRP). These safety limits have been accepted by the UN World Health Organization for the whole world, and as such they are applied by T-Mobile Croatia. However, compared to these standards, the Croatian Regulations are stricter by 2.5 times. The base stations of the T-Mobile GSM network have been developed, tested and put into operation in line with the international standards and requirements. T-Mobile gets certificates from its suppliers, proving that the base stations comply to the ICNIRP safety requirements - and to a series of standards for product safety, electromagnetic compatibility and general technical regulations. Furthermore, all base stations are certified to be compatible with a series of European and worldwide

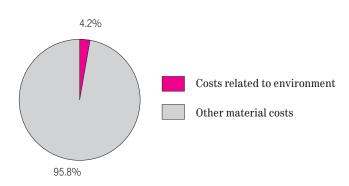
standards (EN 60950, EN 60215, EN 50358, EN 301 489-1 V1.4.1, EN 301 489-08 V1.1.1 and V1.2.1, EN 301 502); the respective Certificates are issued by the Croatian Telecommunications Agency. All former studies on biomedical effects of electromagnetic radiation in mobile communications systems show that there are no health hazards for humans. T-Mobile, being a responsible telecommunications company, supports and encourages comprehensive and detailed scientific research and monitors the investigations of a whole series of organizations, independent groups, expert teams and scientists on the impact of electromagnetic radiation. On request of T-Mobile Hrvatska, the Faculty of Electric Engineering and Computing in Zagreb prepared in December 2005 the Study of Significance of Used Sources regarding the emission levels of electromagnetic fields. The aim of this Study was to determine if mobile communications GSM and UMTS systems of the company T-Mobile Hrvatska d.o.o. meet the valid regulations on protection against electromagnetic fields. For that purpose mobile communications GSM and UMTS systems were studied, i.e. electromagnetic field levels emitted by base stations of those two systems. The Study is based on the results of measurements that have been done near base stations of T-Mobile Hrvatska by companies authorized by the Ministry of Health and Social Care of the Republic of Croatia for protection against electromagnetic fields: Doron Net d.o.o. and Končar -Institut za elektrotehniku d.d. Measuring sample comprised 93 base stations, which makes 7.17% of the total number of base stations of GSM systems. For the UMTS system measurements have been done on 18 base stations (11.92% of the total number of base stations of this system). The electromagnetic field level has been measured on 661 measuring points in total, 556 of which near base stations of GSM systems and 105 near base stations of UMTS systems. For the needs of measuring a representative sample has been selected, but in areas of increased sensitivity (emergency, hospital, school, university, and kindergarten), all the existing locations in these categories were measured, i.e. 100% of the category. The detailed analysis of measurement results shows the final conclusion that all base stations of GSM and UMTS systems owned by T-Mobile Hrvatska d.o.o. from the measurement sample meet all regulations on protection against electromagnetic fields in force in the Republic of Croatia. Indeed, measured levels of electric field and power density in most measuring points are substantially lower than limit levels. In 99.28% of measurement points for GSM system and 100% of measurement points for UMTS system the measured level of power density is even below 10% of the corresponding limit level. It has been established that all collocated based stations of GSM and UMTS systems meet the condition for simultaneous operation of several sources of electromagnetic field on different frequencies. By total meeting limit levels of reference degrees valid in Croatia, with measured levels that are even below a 10% value of the limit level in over 99% of cases, base stations of GSM and UMTS systems owned by T-Mobile Hrvatska d.o.o. meet all legal regulations on protection of humans against electromagnetic fields in force in the Croatia. This provides for a better level of protection of humans against exposure to electromagnetic fields than it is in Europe, and tested measurement points near the related base stations are safe for people.

### Costs and Income Related to Environment

### Costs

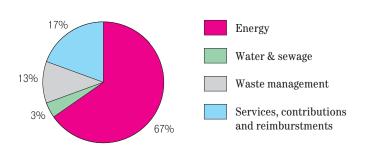
Costs, as a part of total material costs of the Company, are related also to the majority of tangible environmental aspects, such as electric energy consumption and various energy sources both for heating and for the operation of motor vehicles and other machines, water consumption and drainage, waste disposal and the like. These costs have not been presented separately so far, although in the book-keeping of the Company they are recorded as separate cost categories (e.g. electric energy) or only as separate items within certain broader cost categories. There is a double importance of separate recording and monitoring of these kinds of costs: on one side, through consumption optimization and reduction of individual types of resources there is achieved an environmental goal of reducing negative impact to the environment, whereas on the other side there is a favourable influence on financial situation of the company through optimization and reduction of business costs. Without separate and careful monitoring of costs in relation to the environment it is not possible to have insight in a positive impact of environmental activities within the company to its total economic performance. In order to get an insight into the amount of related costs, they need to be identified first, to determine their total amount and to put them in relation to the total material costs of the company. Costs that are in any way referring to the environment can be found in three cost categories, and in 2005 they amounted to approx. 116 million HRK in total, which represents about 4.2% in relation to the total material costs of the company.

### Share in total material costs - Year 2005



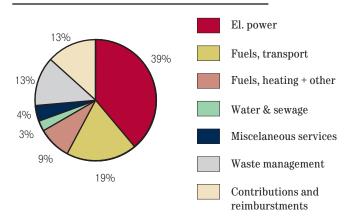
Costs in relation to the environment can be divided into 5 main categories: energy costs, water and drainage costs, waste disposal costs, costs of various services related to the environment and costs of contributions and compensations. The share of some of these main categories in the total costs related to the environment is presented in the following chart.

### Main cost categories related to environment - Year 2005



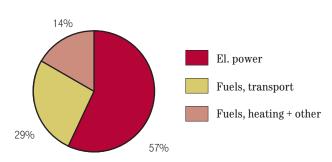
The chart shows that in the total costs there prevail energy costs with about 67% and it is strikingly obvious where the biggest potential lies when it is a matter of cost optimization and consumption reduction. A more detailed presentation shows the share of components of some of the presented main categories in the total costs, showing that electric energy costs represent the largest individual cost of the company in the part of costs related to the environment.

### Total costs related to environment - Year 2005



The share of electric energy costs in the total energy costs is presented in the following chart.

### Energy costs, Year 2005



The chart shows that over one half (57%) of energy costs accounts exactly for electric energy, which is normal if we take into consideration that the main "product" of the company are information-telecommunications services for the "production" of which electric energy is the main raw material. But this is exactly where there lies the biggest possibility to achieve by consumption optimization the above-mentioned both environmental and economic effects.

### Income

Apart from the costs, there is also certain income realized in 2005 in relation to environmental protection. This refers to the sale of separately collected waste with the remaining valuable characteristics as secondary raw material for authorized collectors of such waste. In 2005, this way of selling metal waste provided for the income of approx. 8.2 million HRK. This shows that separate collection of valuable waste does not contribute only to the observance of legal obligation pursuant to the Waste Act but also to a particular cash profit for the company.

### Positive Impact of ICT Services to Environment

Apart from negative impact to environment as a consequence of regular activities of telecommunications operators, as much as it may be small in comparison with some other industries, there is also a significant potential of positive influence. Telecommunications operators operate in the field of information-communications technologies (ICT) on which they base their services offering to a wide range of customers. Many studies show that ICT and the services based thereon may have a positive impact to sustainable development and in particular to environmental protection.

In order to use the opportunities offered by ICT services it is necessary to change the way of thinking about that problem. It is necessary to focus on desired services and not on products existing today that we use to provide for these services. So for example, knowing that today's cars produce large quantities of  $CO_2$  by using fossil fuels and thus significantly influencing climate changes, there are great efforts being made to find solutions for environmentally more acceptable fuels and more efficient cars, particularly in big cities? Maybe a high-quality system of public transportation supported by advanced ICT services would be a better solution to this problem. Sometimes going to the office may be only a habit, while work can be done in pretty much the same quality and on time also at home where a person can be connected to the company network via his/her broadband connection. As early as today, we have various advanced solutions from the ICT area at our disposal, which may represent a solution for certain problems of today, climate changes being one of the biggest ones but not the only one. These solutions can roughly be classified in three categories. The first one includes solutions making work more efficient, reducing costs, reducing the need to travel and thereby the emission of CO<sub>2</sub>. The second category consists of solutions providing for services similar to the present ones but with improved quality and in non-material form. Thus, instead of depending on something physical, these services depend on the existing digital network. The third category opens the door to more complex solutions that may have various positive impacts. They do not only replace the old services in a more efficient way, but they create new types of systems creating again a new added value. As an example, we shall take here two applications from the first category that enable the need to travel for business purposes to be reduced. Examples to be mentioned are the actual examples from practice of some European telecommunications operators and they are transferred from the ETNO study on the impact of ICT to climate changes. The possibility to reduce the need for business trips is probably the most obvious way in which ICT can contribute to environmental profit, including the reduction of CO<sub>2</sub> emission. A frequently necessary service is not to physically relocate a person from one place to another, but to create a possibility for people to meet for a certain specific reason. Naturally, people need to meet also personally from time to time, but often, especially in case of routine meetings, physical gathering can be replaced by a virtual one. In other words, nobody is pleading for replacement of all physical meetings by virtual ones, but for a system to provide for a real need and to achieve higher efficiency and quality. Such system will help to substantially reduce the number of physical trips. Many companies from various industrial branches are already using virtual meetings, but this application is

not primarily caused by their care for environment or it probably ever will be. The fact is that, although virtual meetings reduce the impact to environment, the main reasons for companies to use them lie in cost reduction, efficiency increase, increase in quality of work and in reduction of many risks related to trips.

### Videoconference

Videoconference is an interactive tool integrating audio, video, computer and communications technologies in order to enable people on different locations to directly cooperate electronically in real time, sharing all kinds of information including data, documents, sounds and images. Basically, videoconference eliminates an obstacle of distance between us. For years, even for decades, the possibilities of videoconference have been discussed about. However, we have today at our disposal transmission scope and technology for safe transmission at prices that enable commercial breakthrough of this service. Lately, we are faced also with an important trend in some companies that replace business trip sections with sections for the organization of meetings to provide for meetings in the company to be held in the most efficient way. This could encourage virtual meetings to be accepted more as a replacement for physical meetings. Since environmental aspects of a videoconference are almost never the main reason to decide on its application, it is important to provide for other factors influencing this decision to be clearly supported. This refers to distribution of information on possible economic saving, efficiency increase, advantages and possibilities of standardized new generation communications equipment etc.

In one research it was found out that the impact to the environment of an international conference is dominated by the way of how its participants travel. Among these modes of travelling, trips by plane on huge distances make the main factor of impact. Therefore, the only way to significantly reduce the impact to the environment is to bring such trips to a minimum. Solutions for a videoconference that exist and are used today show that if 5 -30% of business trips in Europe were replaced by a videoconference, it would cause savings of 5.59 - 33.53 million tons of  $CO_2$  emission. According to German experience, beside 20% reduction of business trips in EU by using a videoconference, until 2010 it would possible to save about 22 million tons of  $CO_2$ , if the right incentives were used. In the real world, both physical and virtual meetings shall find their role, but it is necessary to consider the impact to efficiency, costs and environment that can be provided for by new business models and solutions. There is one interesting possibility of decentralized conferences that are being held on several locations mutually connected by live corresponding telecommunications links and instruments. This could result in significant reduction of the need to travel by plane.

### Audio Conference

Conference call is a call between three or more participants communicating simultaneously. Basically, this is a very cost-efficient way to reduce business trip costs and emissions related hereto. Although most people first think of a videoconference, when it is being discussed about the possibilities of ICT to reduce the need to travel, one should not forget an audio conference either. Many times, it is a simple and operable system of an audio conference that can save us from travelling. The boundary between an audio and videoconference is more and more disappearing. By using new applications, all participants in an audio conference connected via the web can simultaneously observe the same document on their displays. Based on the already realized existing solutions of an audio conference that are being used, where it was calculated how many business trips are being replaced, it can be seen that 30 million realized audio conference calls would save 661,500 tons of  $CO_2$ , and 130 million such calls even 2,886,500 tons. These amounts are based on a research made in Great Britain among the British Telecom employees.

It needs to be mentioned here that T-HT also offers its customers the audio conference service (Conference 22) that should certainly be promoted more intensely also by presenting experiences of foreign, especially European operators that offer such services, emphasizing all of its advantages and possibilities in terms of both economy and environment.

### Eco-Efficiency of the T-HT Group

In order to get an impartial insight into the environmental behaviour of a company with respect to the quality of its performance, the environmental damage caused by the operations of the company must be put in relation to the added value it has produced in this process. In principle, the definition of the company's eco-efficiency is a ratio between two elements: the detrimental environmental effect caused by its operation and the added value generated by the company, whereby eco-efficiency is higher to the extent to which the generated added value is proportionally higher than the damage inflicted on the environment, or to the extent to which the damage is proportionally lower than the generated added value.

A higher figure of this indicator indicates a better performance of the company, or, respectively, a more positive impact on the environment. For the calculation of eco-efficiency indicators, the value of the telecom operator's production and its impact on the environment needs to be assessed. In the T-HT Group, and in a similar way in other telecommunications operators, the best indication of the production value would be by means of the billed and collected telecommunications traffic, while the impact on the environment can best be seen through total energy consumption. Telecommunications traffic consists of all bits of information transferred through the net and charged to the customers (non-collected traffic receivables are not considered a part of the production value). Traffic is measured in time units (billed minutes) and multiplied with the frequency bandwidth or with the directly collected traffic volume [bit] receivables. Minutes billed to customers are converted into equivalent bits by application of conversion factors: 64 kbits/s for PSTN, or 13.6 kbits/s for GSM. ADSL traffic is billed by the realized traffic volume (Mbit/month). Considering the various tariff models and the complexity of the bill, the average number of minutes per customer in the mobile network is used in the calculation. For the measurement of environmental impact with telecommunications operators, the total consumed energy, expressed in Joule (J), is applied. Therefore, the indicator of the telecommunications operator's eco-efficiency is calculated as financial added value (EBITDA + staff costs) per total energy consumption [HRK/MJ] or as the total number of bits (production value) per consumed energy [bit/J].

In the year 2005, the T-HT Group realized 10.4 HRK per MJ of consumed energy (total energy excluding vehicle energy), and the traffic volume was 95.9 bits per J of consumed energy. This means that, although the financial eco-efficiency has slightly decreased in relation to the previous year, the traffic eco-efficiency has shown an increase.

The cause of this increase is the increase of total traffic expressed in equivalent Gbits due to increasing volume of ADSL services. The T-HT Group will strive for further improvement of its eco-efficiency, by means of increased added value and transfer of higher traffic volume in relation to the quantity of consumed energy.

	Units	2005	2004
Billed traffic minutes in mobile and fixed networks	mil. min.	9,898	11,234
Total traffic	eq. mil. Gbit	49.8	38.1
Traffic eco-efficiency	bit / J	95.9	83.0
Added value	mil. HRK	5,404	5,117
Financial eco-efficiency	HRK / MJ	10.4	11.2

EBITDA: Earnings Before Interest, Taxes, Depreciation and Amortisation Added value: EBITDA + staff costs

Note of the Corporate Reporting Department: EBITDA and staff costs do not necessarily have to match the reports sent to DT within the scope of regular reporting to DT (deviations of approx. ±2% allowed) due to the differences in reporting standards and structures.



### Sources:

Specific data and information taken over from:

T- HT Group - Annual report 2005, http://www.t.ht.hr T-HT Intranet Portal publication T-Mobile HR portal / Environmental Protection, http://www.t-mobile.hr T-Mobile Intranet Portal publications DT - The 2005 Human Resources and Sustainability Report

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