



*"It is our duty to consider the consequences of our actions at all times."*

*Mahatma Gandhi*

## Environmental Report 2001 / Location Graz

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our company is  
dedicated to environ-  
mental protection...



The Steyr-Daimler-Puch Fahrzeugtechnik AG & Co KG Board  
(from left): Harald J. Wester, Wolfgang Sauerzapf,  
Wolf-Dietrich Schulz, Hubert Hödl



*We at Steyr-Daimler-Puch Fahrzeugtechnik AG & Co KG (SFT) feel that we have an obligation to protect the environment for our employees, neighbors and customers. Not only are we committed to complying with the applicable legal requirements, but also constantly improving our environmental services in relation to strategic development on what is a highly turbulent market. Systematic implementation of our environmental goals and regular checking of their efficacy are proof of our proactive environmental management.*

## **Environmental protection...**

*Against a background of new orders, frequent new recruits and the rapid structural changes involved, we are also faced with the challenge of maintaining our current levels. Naturally under such circumstances we are dedicated to reducing our company's environmental impact to an absolute minimum while taking economic aspects into consideration, and improving the overall situation.*

*Having achieved voluntary certification to international standard ISO 14001 and validation to European standard EMAS II, we undertake to identify our environmental impact on a regular basis, evaluate it and define the steps to be taken. Furthermore, we provide the necessary funds to implement the measures, thus preventing wherever possible and otherwise reducing pollution. Details are given in our Environmental Program.*

*This SFT Environmental Report represents the results of our efforts to date and provides an outlook for our company's future activities.*

*The Board*



r

# the company

Steyr-Daimler-Puch

*“Living happily and  
living close to nature  
is one.”*

*Lucius Annaeus Seneca*

# Fahrzeugtechnik AG & Co KG (SFT)

## 1.1

### Description of the Location

The EMS applies to the entire plant at Graz-Thondorf and all of the personnel. In the 2000 fiscal the company posted sales of € 927 million and an annual profit of € 52 million with just under 5,800 employees.



#### 1.1.1

##### Location

The plant is located in Graz-Thondorf on the southeastern boundary of the city, between Liebenauer Hauptstrasse and the A2 freeway.

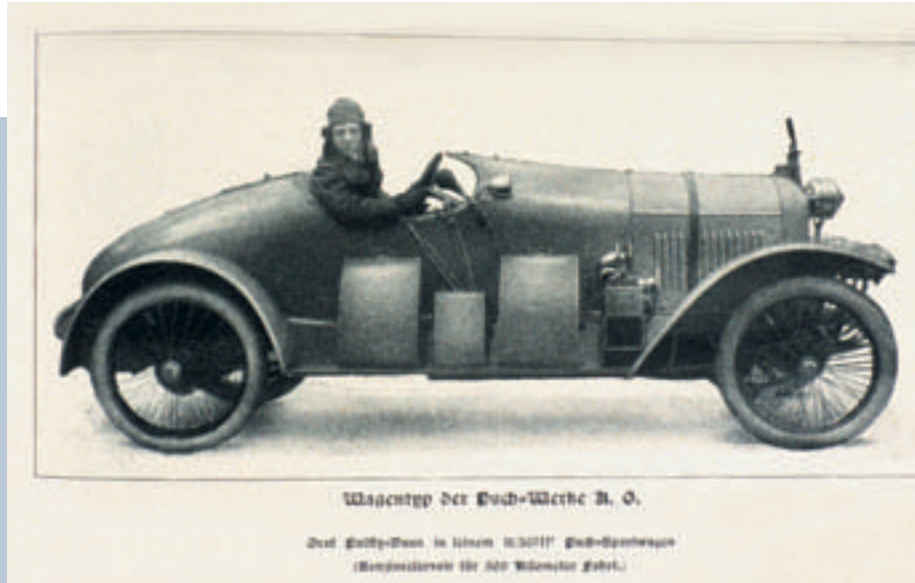


## History of SFT

**S**FT has over a hundred years' experience in automotive production. The first Puch vehicle was built in 1901, and industrial scale manufacture soon followed in 1906. Today the company is a partner to such renowned OEMs as DaimlerChrysler with its Mercedes-Benz and Jeep Grand Cherokee, and specialized in small and medium-volume production of vehicles and light commercial vehicles with custom specifications to meet special product and market demands (e.g. four-wheel drive, right-hand drive). In 1998 SFT was taken over by MAGNA, which is owned by Austro-Canadian Frank Stronach.

### CHRONICLE:

- 1899 Founding of "Österreichischen Daimler-Motoren-Gesellschaft Bierenz, Fischer & Cie." in Wiener Neustadt; founding of "Johann Puch Erste Steiermärkische Fahrrad-Fabriks-Aktiengesellschaft" in Graz.
- 1900 Completion of the first Daimler vehicle built in Austria.
- 1901 Puch built its first test vehicle; first three-wheel Puch motorcycle manufactured.
- 1903 Two-wheel motorcycles with single-cylinder engines went into production at Puch.
- 1905 The first four-wheel drive was built at Daimler.
- 1906 Puch started producing vehicles with 2-cylinder V-type engines.
- 1914 Johann Puch's company renamed "Puchwerke AG".
- 1916 Production of aircraft engines started at Steyr; decision taken to build a Steyr automobile factory.
- 1920 First Steyr vehicle ("Model II", 12/40 hp six cylinder, "Waffenauto").
- 1925 The "Steyr XII", a 30 hp six-cylinder, was manufactured on an assembly line.
- 1928 Merger of "Österreichische Daimler-Motoren AG" with "Puchwerke AG", renamed "Austro Daimler-Puchwerke AG".
- 1934 Merger of "Steyr-Werke AG" with "Austro Daimler-Puchwerke AG".
- 1941 to 1942 Graz-Thondorf plant built.
- 1945 Post-war reconstruction begun; bicycle production resumed.
- 1946 Start of motorcycle production.
- 1947 Tractor manufacture started.
- 1948 Production of diesel trucks.
- 1949 Assembly contract with FIAT.
- 1952 First Puch motor scooter.
- 1954 First Puch moped.
- 1957 The "Steyr-Puch 500", FIAT model, went into mass production.
- 1959 Mass production of the Puch "Haflinger".
- 1968 The "Maxi-Moped" went into mass production.
- 1974 Mass production of the Puch "Pinzgauer".



- 1979 Mass production of the Mercedes-Benz/Puch G-Class.
- 1984 Mass production of the four-wheel drive VW transporter in Graz.
- 1987 Restructuring of the Group.
- 1994 Production of the Jeep Grand Cherokee.
- 1997 Mass production of the Mercedes-Benz E-Class 4MATIC.
- 1998 Opening of the development center; paint shop went into operation.
- 1999 Mass production of the Mercedes-Benz M-Class.
- 1999 Mass production of the Jeep Grand Cherokee, WJ model.
- 1999 Lannach Plant went into production.
- 2000 Pinzgauer production relocated to the UK; development and production agreement with SAAB signed.
- 2001 Development and production agreement with BMW.

### 1.1.3

#### Site

The enclosed area of the Thondorf Plant covers 436,225 m<sup>2</sup> with a further 58,009 m<sup>2</sup> for parking

and 59,929 m<sup>2</sup> for the test track. This means that the entire location covers an area of 554,163 m<sup>2</sup>.

	Non-paved	Paved
Thondorf	81,349 m <sup>2</sup>	472,814 m <sup>2</sup>



“Steyr-Puch 500”, FIAT model (1957)





magna steyr - supplier with a unique range of services, and strategic value adding partner to the automotive industry.





Steyr-Daimler-Puch



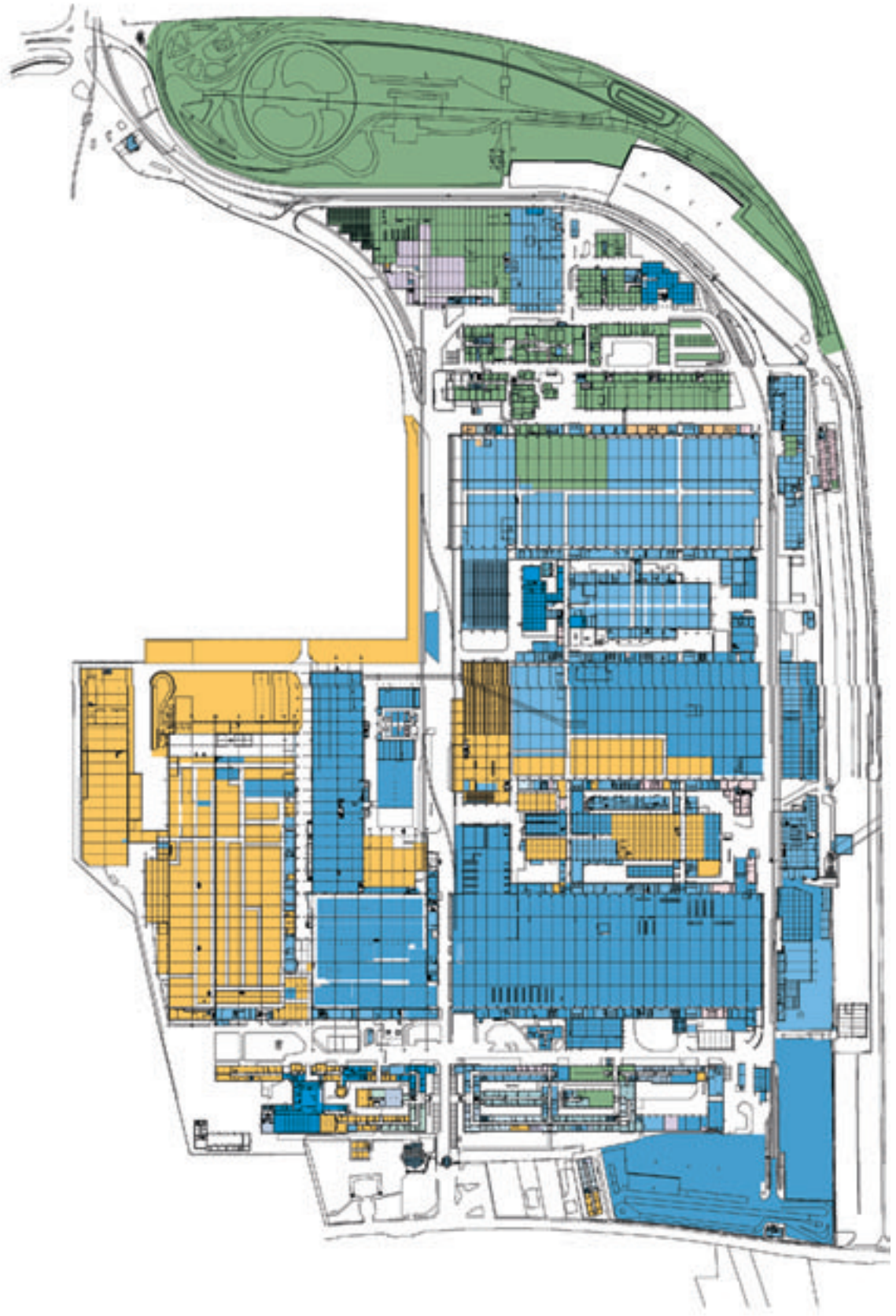


the company  
Fahrzeugtechnik AG & Co KG (SFT)

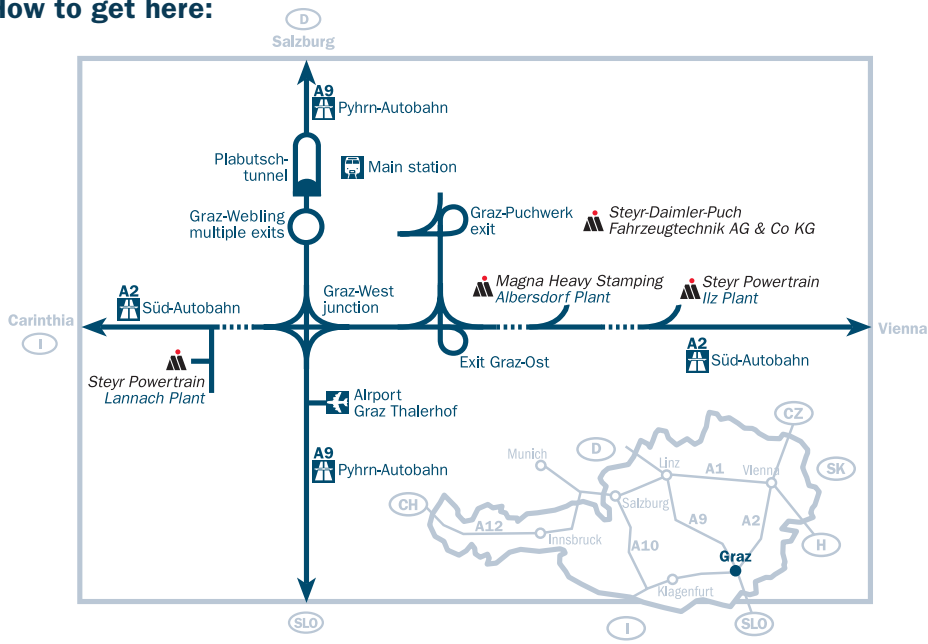


**Plant Overview**

- BMW
- Engineering
- Systems, Mod., Seq.
- Mercedes-Benz G-Class
- IT
- Jeep
- Powertrain
- Marketing
- Personnel
- Quality Engineering
- Saab
- Plant Engineering
- Plant Services
- Management



## How to get here:



## Development of the Business Units

**S**FT in Graz is a long-standing, financially successful and globally operating partner to the automotive industry with acclaimed complete vehicle competence in the development and production of vehicles. Based on the ÖNACE 1995 classification system, our main activities fall under Code 34.10-00 “Manufacture of vehicles and vehicle engines”.

When the entire MAGNA Group was restructured, MAGNA STEYR was formed and SFT reorganized in the

process. This reorientation is reflected in the new business units at the Graz location.

The SFT business units are now:

<b>MAGNA STEYR</b> <b>Steyr-Daimler-Puch Fahrzeugtechnik AG &amp; Co KG</b>	
<ul style="list-style-type: none"> <li>• Implementation of complete vehicle projects from conception to mass production</li> <li>• Strict application of efficient quality management</li> <li>• Proven expertise in production planning, especially in designing flexible manufacturing facilities</li> <li>• Skill in highly complex logistic processes and use of advanced information technology</li> </ul>	<ul style="list-style-type: none"> <li>• Advance development</li> <li>• Fundamental research</li> <li>• Styling and design concepts</li> <li>• Project management</li> <li>• Development of components, systems and modules, as well as complete vehicles</li> <li>• System integration</li> <li>• Calculation and simulation</li> <li>• Prototype construction</li> <li>• Test rig testing</li> <li>• Vehicle testing</li> <li>• Homologation</li> </ul>

The following diagram provides an overview of the business units of MAGNA STEYR:

				
Fahrzeugtechnik	Metalforming	Engineering	Powertrain	Structures*
Vehicle assembly	Complete BIW, outer panel parts	Complete vehicle development, all-wheel drive development	Powertrain/4WD, mass balancing systems, axle modules	Ladder-frame chassis, structural components and systems

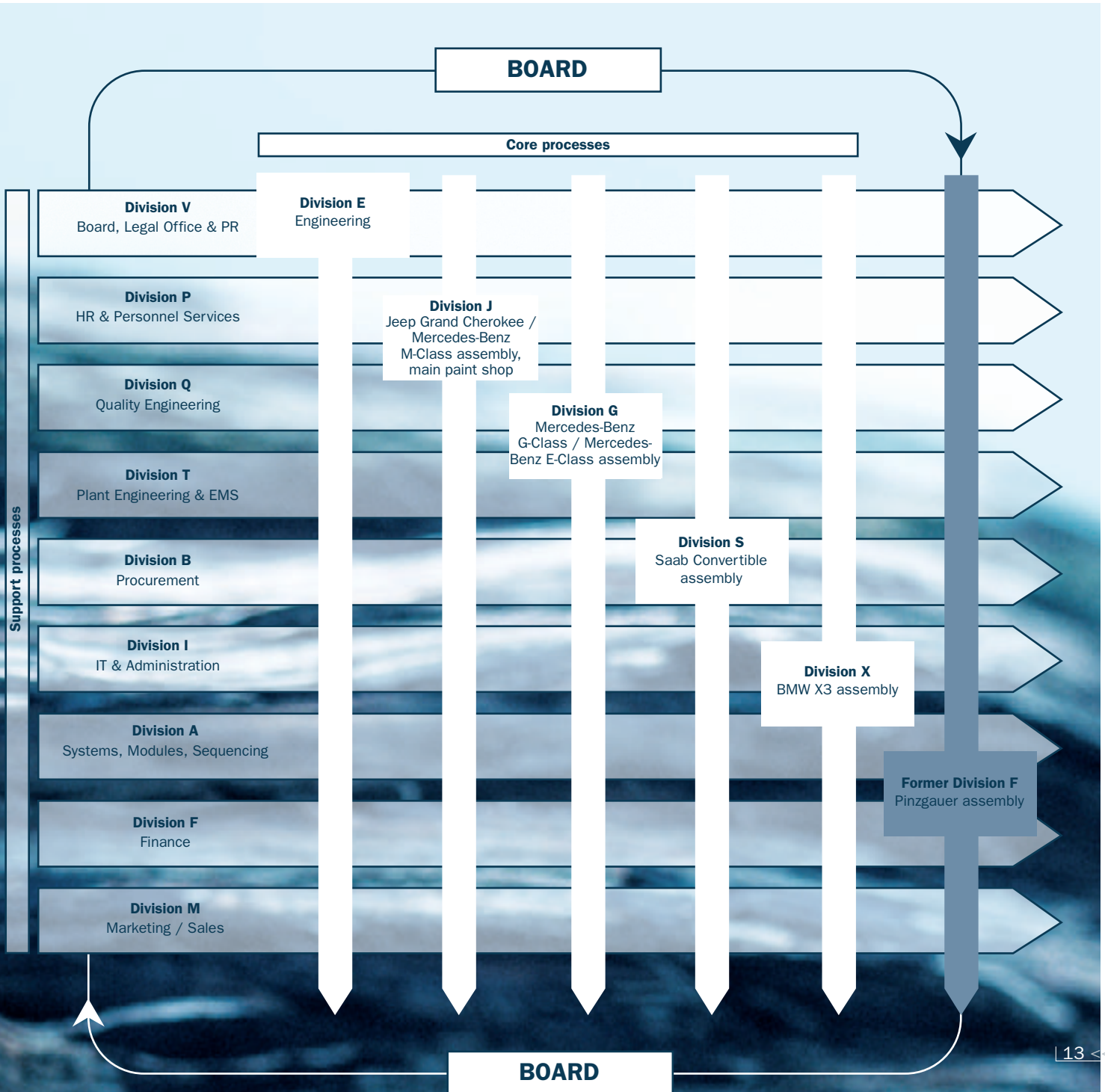
\* Strategic alliance

## Products and Services

The manufacture of our products can be broken down into specific activities that are displayed in the form of various processes. Here we differentiate between value adding and non value adding processes:

**Core processes:** These are the actual value adding processes in the company

**Support processes:** Additional services required to perform the core processes





### 1.3.1

#### Core processes

The core processes can be broken down further into:

- Development of complete vehicles and vehicle components (Division E)
- Vehicle assembly (Divisions J, G, S, X; former F)

#### 1.3.1.1

##### Division E: Development of Complete Vehicles and Vehicle Components

In addition to safety checks, field and test rig testing, the Engineering Division is also responsible for the overall development of vehicles and drive components, body-in-white and prototype assembly.

##### Engineering Division activities:

- Styling
- Advance development
- Engineering calculations
- Systems
- Complete vehicle development, including the following areas
- Powertrain
- Body & equipment
- Electrics/electronics
- Prototype assembly
- Aggregate testing
- Leakage testing
- Vehicle dynamics and test driving
- Vibration engineering
- Vehicle safety
- Special testing
- Component testing
- Miscellaneous facilities (storage, design, climatic chamber, starting tests, roller test bench)

#### 1.3.1.2

##### Division J: Vehicle Assembly – Jeep Grand Cherokee/Mercedes-Benz M-Class

##### Jeep Grand Cherokee

Chrysler's Jeep Grand Cherokee has been "Made in Austria" since 1994. All the diesel and right-hand-drive models for worldwide distribution are produced exclusively in Graz. The right-hand drive model was also developed by SFT.

##### Mercedes-Benz M-Class

The Mercedes-Benz M-Class has been produced in Graz since May 6, 1999 and is assembled on the same line as the Jeep Grand Cherokee. Assembling two different vehicles on one and the same line is unique worldwide.



Jeep Grand Cherokee

### 1.3.1.3

#### Division G: Vehicle Assembly – G-Class/E-Class

##### **Puch G/Mercedes-Benz G-Class**

The “G” has been built in Graz by SFT as a joint venture with Daimler-Benz since 1979. Daimler-Benz supplies all the aggregates. SFT is responsible for manufacturing the chassis and also for complete final assembly including painting. Materials handling and inventory management is also the responsibility of Division G. Steyr Powertrain AG & Co KG produces the transfer case used.

##### **Mercedes-Benz E-Class 4MATIC**

In conjunction with DaimlerChrysler, SFT developed a Chrysler model with permanent four-wheel drive (4MATIC) for the Mercedes-Benz E-Class.

- Manufacture of all 4WD components for body and chassis
- 4WD adaptation of the body-in-white
- Vehicle paintwork
- Vehicle assembly including logistics

### 1.3.1.4

#### Division S: Vehicle Assembly – SAAB

The production facilities for Division S are still under construction. Assembly is scheduled to start in 2003.

### 1.3.1.5

#### Division X: Vehicle Assembly – BMW

The production facilities for Division X are still under construction. Assembly is scheduled to start in 2003.

### 1.3.1.6

#### Former Division F: Vehicle Assembly – Puch Pinzgauer

Four-wheel and six-wheel drive models of the Puch Pinzgauer have been built since 1971. A special feature of its design is the central tube chassis with portal swing axles to increase ground clearance. On January 1, 2001 production was relocated in the UK and the former Division F closed down.



Mercedes-Benz G-Class



Mercedes-Benz E-Class



Pinzgauer



Mercedes-Benz M-Class

## 1.3.2

### Support processes

#### 1.3.2.1

##### Division V – Board, Legal Office and PR

This division consists of the following departments:

- Legal office
- Press office

#### 1.3.2.2

##### Division P – Personnel

The Personnel Division is responsible for the following:

- Wages, salaries, personnel management, recruitment, human resources development
- Representing the Board in all matters regarding personnel management policy
- Plant medical center
- Works council
- Apprentice workshop
- Staff catering

#### 1.3.2.3

##### Division Q – Quality Engineering

The Quality Engineering Division consists of the following areas:

- *Quality systems, methods, procedures:*  
Determination of suitable procedures for quality assurance
- *Quality techniques:*  
Quality promotion and planning, development and procurement
- *Vehicle quality assurance:*  
Product audits for manufacturers, process audits, customer care
- *Material engineering:*  
Chemistry laboratory, physics laboratory, welding engineering, plastics engineering, Engineering and projects

#### 1.3.2.4

##### Division T – Plant Engineering

###### **Waste yard**

The waste yard is SFT's collection and disposal center, which is operated by a staff of twelve. Their main duties are regularly collecting all the waste on the site, providing empty containers where required, sorting and disposing of it. The waste yard has a fleet of six towing vehicles, three trucks and five lift trucks.

###### **Tool manufacturing**

The tool manufacturing shop is divided into three departments:

- Prototype manufacturing
- Forming, device and plant construction
- Vehicle devices

###### **Special production**

The special production department's tasks include:

- Sheet metal prototype manufacturing
- Production of pilot lots and small lots

###### **Environmental management**

In addition to complying with waste legislation, the Environmental Management Department ensures that the environmental management system is implemented and maintained.

###### **Ideas management**

The Ideas Management Department gives all the employees at SFT the opportunity to contribute ideas and/or suggestions for improvements. The Department evaluates the suggestions and, if they are implemented successfully, rewards them with bonuses.

### **Wastewater treatment**

All effluent from the Thondorf Plant goes to the central wastewater treatment plant where it is neutralized and cleaned before being discharged into the public sewer system.

### **Plant safety – fire department**

The plant safety department is responsible for:

- Gate and reception
- Environmental protection
- Security
- Alarms
- Traffic
- Enquiries
- Telephone
- Locking up
- Emergency technical services and deployment
- Safety
- Fire prevention
- Industrial safety

### **1.3.2.5**

#### **Division B – Procurement**

This Division includes the following departments:

- Administrative support
- Project management
- Strategic purchasing
- Investment purchasing & non productive material

### **1.3.2.6**

#### **Division I – Information and Administration**

Duties:

- Strategic orientation of all IT activities
- Management of projects for introducing and integrating new customer processes
- Planning, consolidating and implementing standard processes
- Phasing in and operating standard applications
- Coordinating all procurement activities for hardware and software
- Further development and operation of tele-

communications devices, networks, terminals, computer centers

- Servers
- Coaching for MAGNA STEYR activities
- IT security

### **1.3.2.7**

#### **Division A – Systems/Modules/Sequencing**

This Division has the following departments:

- Shipping/customs
- Module/sequencing planning
- Logistics planning
- Controlling and commercial services

### **1.3.2.8**

#### **Division F – Finance**

This Division consists of the following departments:

- Accounting
- Financial investments management
- Central controlling
- International controlling

### **1.3.2.9**

#### **Division M – Marketing/Sales**

This Division comprises the following departments:

- Sales office
- Secretary pool
- Sales engineers
- Reporting
- Liaison offices
- ROW – rest of the world
  
- Marketing
- Market research
- Marketing communications
  
- Key account managers
- General Motors/FIAT
- Ford/PAG, VW-Group, Porsche
- DCX – DaimlerChrysler
- BMW-Group

2

# environmental management system

***“Nature  
doesn’t have to  
make an effort  
to be important.  
It already is.”***

*Robert Walser*

# (ems)

**The Environmental Policy is an overriding document which explains the main principles governing environmental activities at SFT. It contains the overall environmental goals and procedures for implementing them defined and approved by the Board.**

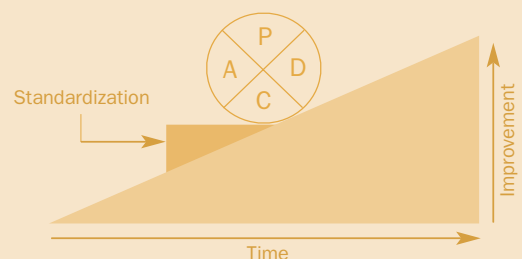
**Furthermore, the Environmental Policy forms the basis for our environmental programs to meet concrete targets for constantly improving our corporate environmental services.**

**O**ur Environmental Management System describes the measures in place to ensure that all actions in the company affecting the environment are planned, carried out, checked, monitored and documented properly, and corrected if required. It therefore defines and regulates:

- Responsibilities and procedures for all environmentally related actions
- Monitoring of the measures to comply with internal and external specifications
- Personnel training
- Information for the general public and customers
- Monitoring of the efficiency of the system in relation to the environmental goals approved by the Board.

An integral part of the EMS is a controlled process of constant improvement that can be applied at various levels, but always consists of the same basic procedure.

- What improvements can be made and precautions taken (Plan)
- How can they be implemented (Do)
- How can they be checked and how efficiently were they implemented (Check)
- To what extent has the situation been improved and are additional steps necessary (Act)



P....Plan	Plan the activities for improvement
D....Do	Carry them out
C....Check	Check the measures carried out
A....Act	Apply the new situation as a standard

## 2.1

### The SFT Environmental Policy

1 We at SFT are committed to complying with the applicable environmental legislation and regulations, and continuously improving environmental protection within the company. The Board therefore checks that the environmental goals are being met at regular intervals. Furthermore, we undertake to assess and monitor the environmental impact of our operations. Not only does this include emissions, noise and wastewater, but also the levels and types of energy sources, chemicals and supplies used, and waste disposal.

2 Every new activity, new process and new product is thus examined for its environmental impact and evaluated in light of our corporate environmental goals.

3 We take all the necessary steps to reduce any unavoidable burden on the environment to an absolute minimum by using the economically viable industrial resources that are available.

4 In addition, we draw up plans and procedures to prevent environmentally hazardous accidents as far as possible and in the event of a mishap to keep the impact under control. In this area we work in close cooperation with the authorities.

5 To ensure that our conservation efforts in the company are successful, we perform regular environmental audits. This enables us to check the effectiveness of our environmental policy and pollution control measures, and ascertain whether all the steps taken comply with our environmental policy. Should any discrepancies emerge, corrective action is taken according to set procedures.

6 We are dedicated to training all our employees at every level by running courses in the areas of environmental protection, waste management and recycling. As a result, they can meet both the legal and customer-related demands, and become more involved in implementing the system.

7 In our research & development work we endeavor to make all products recyclable and take this requirement into account during the product development process.

8 Our clients, the general public and relevant authorities are informed annually of the impact that our company has on the environment and of our environment-related services.

9 We involve our suppliers and service providers in our effort to improve environmental protection, and ensure that the contractors working on the premises comply with the same environment standards as we do.

10 Our company executives are fully aware of their responsibilities and do not simply demand all employees to be eco-conscious in everything they do, but undertake to set a good example themselves in the area of environmental protection.

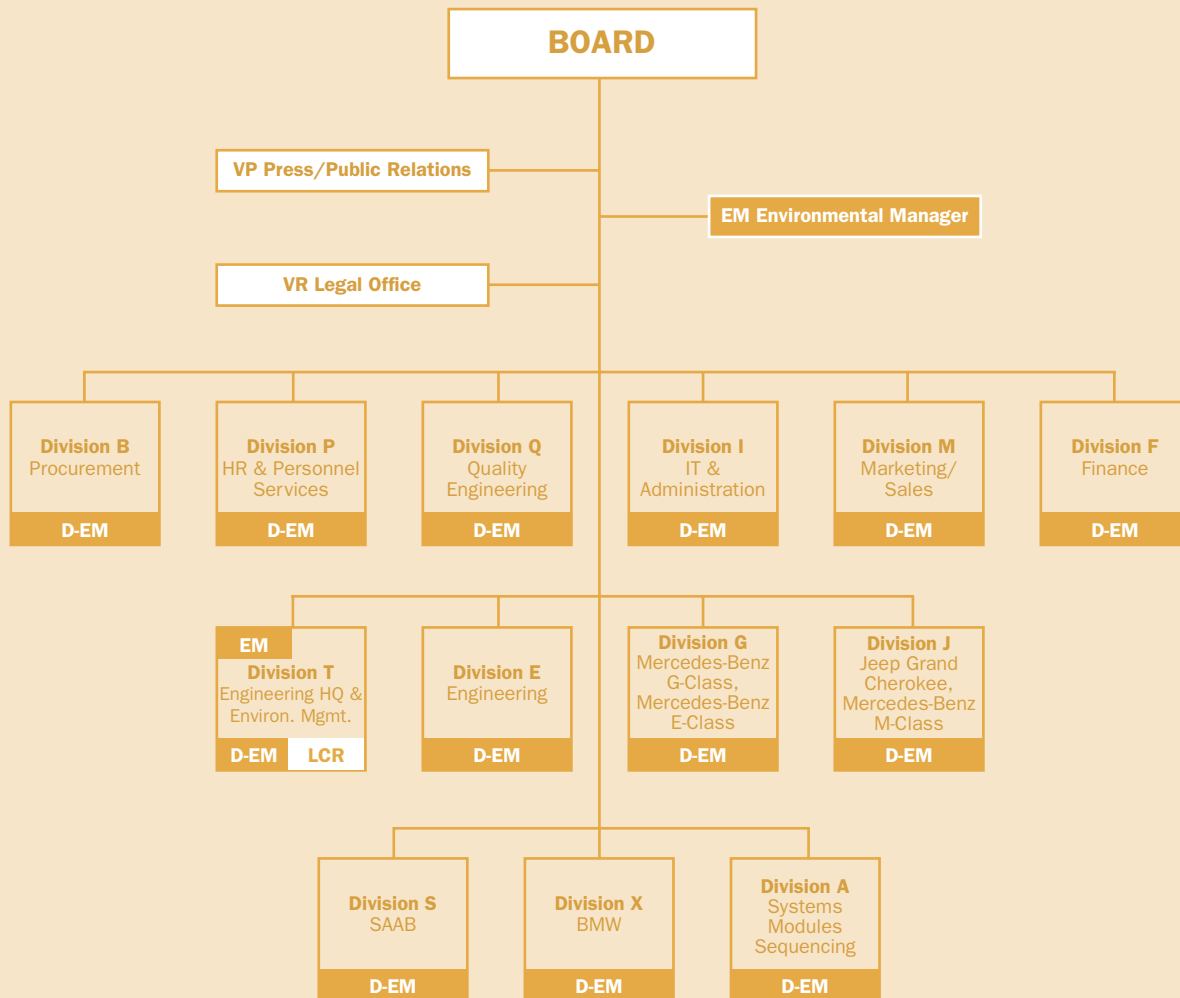
## Organization and Responsibility for Environmental Protection

The Board bears the ultimate responsibility for the corporate Environmental Management System. It therefore appointed a General Environmental Manager for implementing the EMS throughout the company. To provide support and liaise between the Environmental Manager and the employees, there are also Divisional Environmental Managers in each division. This ensures that information can be exchanged and constant improvement achieved.

Together with the Legal Compliance Representative (LCR) and deputies they form the environmental team,

which the Environmental Manager calls together at least once a quarter. At these environmental team meetings the progress made in implementing the environmental goals and any problems or incidents are discussed and decisions taken.

Additional support in implementing all the legal and other requirements is provided by the statutory company managers for example for waste, dangerous goods, wastewater and toxins.



The SFT environmental team:

EM .....Environmental Manager  
 D-EM.....Divisional Environmental Manager  
 LCR.....Legal Compliance Representative

## 2.3

### System Documentation

---

Our environmental management is documented in a computer-supported filing system, which primarily contains the environmental policy, environmental report, environmental management manual etc. It has individual folders holding all the data related to the environment and evaluations of the various divisions which are constantly updated. The relevant documents are available to all personnel on our environmental management intranet website. Regular updating of the folders means that the staff always have access to the latest version of the document required.

#### *Environment-related documents include:*

- Overriding documents:  
e.g. laws, directives, external guidelines, standards etc.
- System-related documents:  
e.g. environmental management manual, environmental data sheets, organigrams, corporate standards, environmental protection guidelines for outside contractors and contingency plans.

## 2.4

### Compliance with Environment-Related Legal and Administrative Requirements

---

The LCR is responsible for ensuring that we abide by the law at all times. All the applicable laws, directives and rulings are therefore procured and the environment-related requirements for the company defined. In addition, we also draw on other resources, such as a legal database and Hyperlex, the electronic interactive legal register.

## 2.5

### Effectiveness of Our EMS

---

All the divisions review the EMS annually by means of internal audits which are scheduled and documented in the audit plan. They involve checking that the environmental management system meets the provisions of standards ISO 14001 and EMAS V 761/2001. A quarterly status report is sent to the Board detailing the progress made in the environment program. In addition, the management also reviews the

environmental management system once a year. The EM is responsible for reporting to the management to an appropriate extent on the suitability, effectiveness and ongoing improvement of the EMS.

On the basis of this evaluation future improvement potential is determined and the environmental goals for the following year defined.

## 2.6

### Training, Awareness and Competence

All new employees attend a compulsory two-day basic course when they start work. Its aim is to give the new recruits a brief introduction to the company and an insight into the various divisions. In addition to explaining the areas of production, it also deals with fundamental issues, such as fire protection, industrial safety and environment-related concerns, discussing environmental management and waste management in particular. Special training courses focusing on the individual divisions are also held.

The divisional environmental manager is responsible for determining the current demand for training in environmental matters. He or she also gives the instructions to be followed in all environment-related activities at the workplace.

## 2.7

### Involvement of All Personnel

Giving people the opportunity to contribute ideas and suggestions for improvement plays a major role in our corporate philosophy. Our company suggestion scheme and idea management thus helps to enhance the environmental services and also gives our employees a feeling of involvement and identification with the company.



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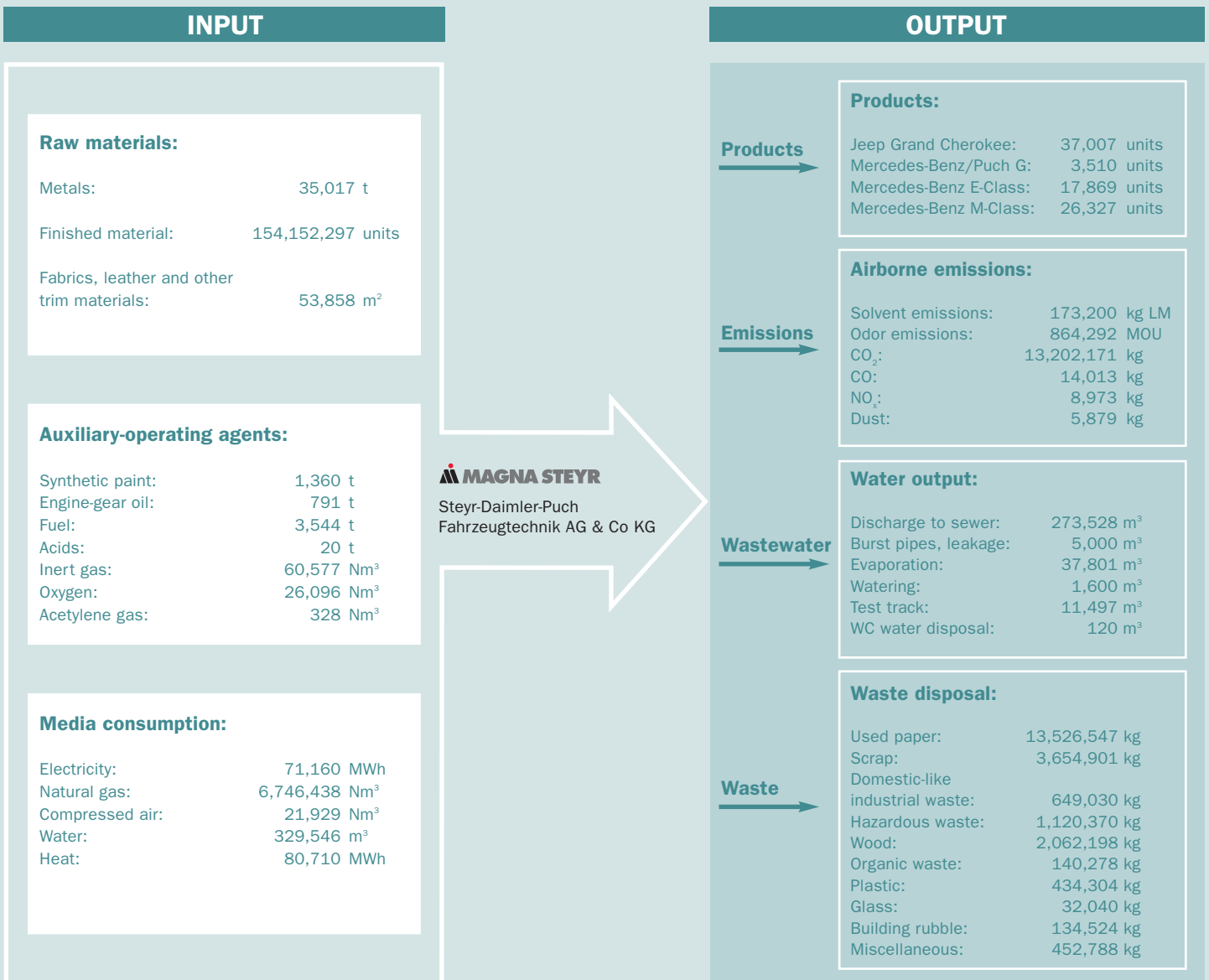
# facts & figures

***“If we reduce Nature  
to what we under-  
stand, we will not be  
capable of survival.”***

*Hans-Peter Dürr*

### 3.1

## Input/Output Balance for 2000



## 3.2

### Airborne Emissions

Of all the facilities at the Graz-Thondorf plant, the paint shop contributes most to airborne emissions, while the others tend to play a minor role in environmental impact. The last exhaust air readings for all the paint

shops at the site were taken in 1999 with the next scheduled for 2002. The figures quoted below for 2000 have therefore been extrapolated from 1999.

Solvent emissions		
	kg [solvent/year]	Odor [MOU/year]
Total emissions in 2000	173,200	864,292
Permit as per ruling for 160,000 cars without small-parts manufacturing	272,100	1,256,000

#### Exhaust air treatment

To reduce the emissions from the paint shop dryers, which are the major source of solvents in the plant, thermal afterburning systems have been installed. This process is used in all larger paint shops and involves burning the paint and solvent particulate present in the exhaust air from the dryers in a natural gas-fired burner. The hot pure gases then flow through an exhaust air heat exchanger and heat the charged dryer air.

The graph on the right shows the overall situation at the plant.



## 3.3

### Wastewater

A number of processes throughout the entire plant require various amounts of water. After it has been used, the water is fed to the central wastewater treatment plant where it is collected in several buffer tanks, cleaned and treated.

#### Wastewater composition:

Details of the wastewater composition are based on data from both the external institute's test reports and

the 2000 annual review of the wastewater treatment plant. In addition to the annual report on the wastewater treatment plant, monthly reports are also written.

The analyses comply with the standards specified in the "General Wastewater Emissions Directive". As can be seen from the comparison of the results with the limits stipulated in the water authorities' ruling, both the daily mixed samples and also the random samples all complied with the limits in the period under review.

The analysis results were taken from the test reports dated April 18, 2000 (measurements on March 21/22,

2000), Report No. 894/00 and April 21, 2001 (measurements on March 6/7, 2001) Report No. 700/01.

Daily mixed samples: partial flow, biology

Parameter	Result <sup>1</sup>	Result <sup>2</sup>	Limit value (as per ruling)	Unit
COD	659	470	2,000	mg/l
COD load	11,86	7,1	75	kg/d
Wastewater volume	18	18	-	m <sup>3</sup> /d

Daily mixed samples: overall wastewater

Parameter	Result <sup>1</sup>	Result <sup>2</sup>	Limit value (as per ruling)	Unit
Lead	<0.01	<0.01	0.4	mg/l
Chrome, total	<0.01	<0.01	0.5	mg/l
Nickel	0.23	0.15	0.5	mg/l
Nickel load	34	34	90	g/d
Zinc	0.04	0.38	1.1	mg/l
Zinc load	5.9	5.9	300	g/d
Ammonium nitrate	10.3	21.3	-	mg/l
Total P	1.22	0.3	-	mg/l
Sulfate	181	98	400	mg/l
AOX	0.25	0.2	1	mg/l
Hydrocarbons	<0.1	<0.1	15	mg/l
Wastewater volume	148	90	300	m <sup>3</sup> /d

Random samples: overall wastewater

Parameter	Individual measured value						Limit value (as per ruling)	Unit
	3/21/00 3pm	3/6/01 9am	3/22/00 8am	3/7/01 9am	3/22/00 9am	3/7/01 10am		
Temperature	21.4	22	18.7	21	22.0	22.3	35	mg/l
Settling substances	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	3	-
PH value	7.90	7.70	7.75	7.70	7.75	7.55	6.5-9.5	-
Chromate	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.1	mg/l
Sulfite	8.0	<1	8.0	<1	6.0	<1	10	mg/l

Random samples: chromate detoxification

Parameter	Result <sup>1</sup>	Result <sup>2</sup>	Limit value (as per ruling)	Unit
Chromate	<0.05	<0.05	0.1	mg/l

<sup>1</sup> Test report April 18, 2000

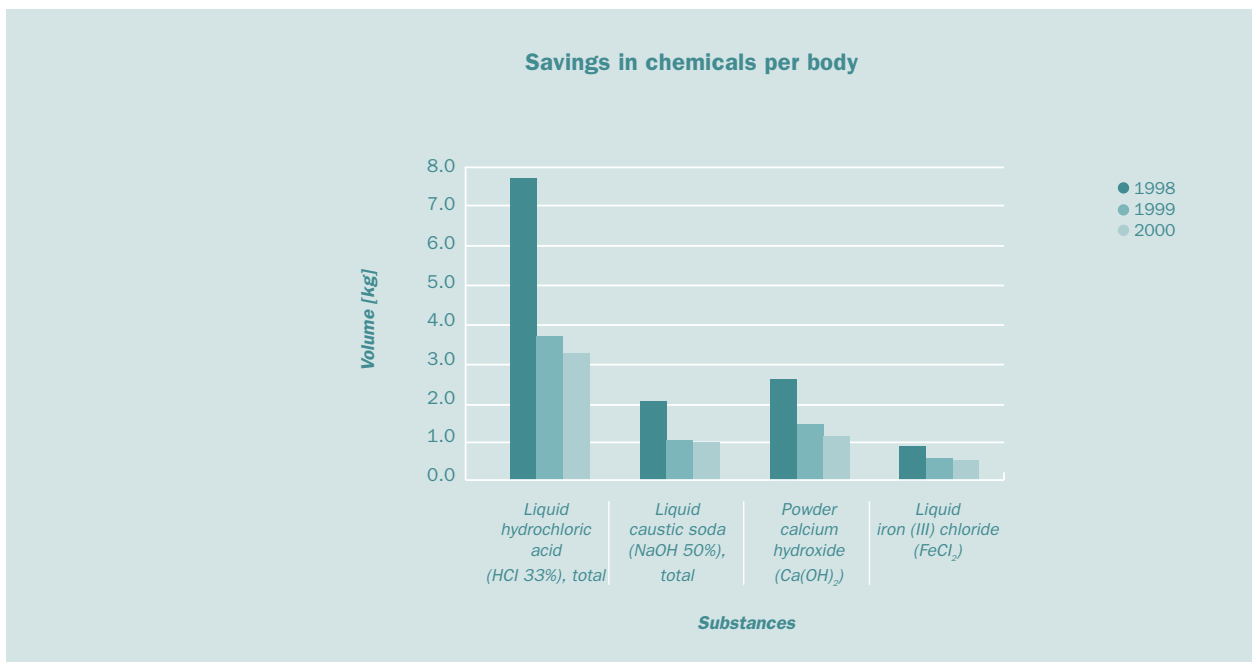
<sup>2</sup> Test report April 20, 2001

The following graph shows the overall picture:



#### Chemical consumption:

The consumption of chemicals in the wastewater treatment plant is recorded accurately and documented. Substantially better capacity utilization and improved plant management has enabled the consumption per body of the most important chemicals in terms of volume to be reduced dramatically.



3.4

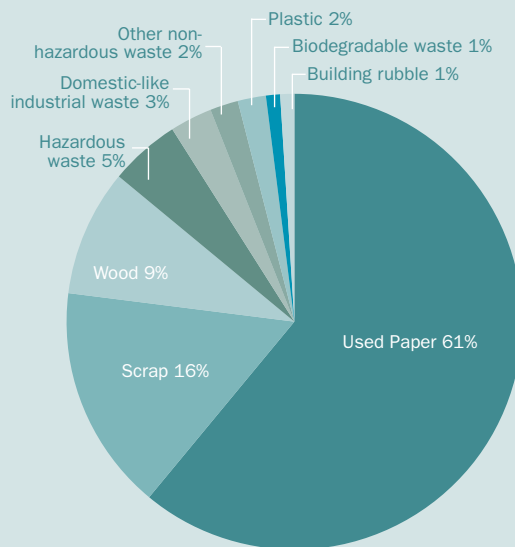
Recycling and Waste Disposal

3.4.1

Waste volumes

Waste category	Waste type	Volume in kg (2000)
Recyclable materials	Used Paper	13,526,547
	Scrap	3,654,901
	Wood	2,062,198
	Plastic	434,304
	Glass	32,040
	<b>TOTAL</b>	<b>19,709,990</b>
Landfill waste	Domestic-like industrial waste	649,030
	Other non-hazardous waste	452,788
	Building rubble	134,524
	<b>TOTAL</b>	<b>1,236,342</b>
Hazardous waste		1,120,370
Biodegradable waste		140,278
<b>Total waste</b>		<b>22,206,980</b>

Waste output in % (2000)



### Trends in waste volume per body (1996-2000)



Table of hazardous waste with codes

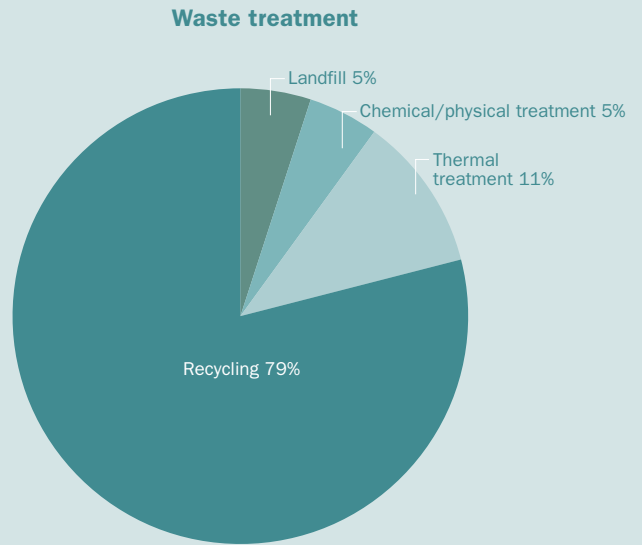
Code and description	Volume in kg	Code and description	Volume in kg
54703 Sludge from oil separator	203,980	52723 Developer baths	2,168
55404 Rags/polishing cloths containing solvent	135,203	55907 Cement and filling compounds	2,142
51310 Other metal hydroxides	134,250	55357 Cold cleaners	1,982
55374 Solvent/water mixtures, halogen-free	123,219	352017 Screens, monitors, TVs	1,818
54930 Grease/oil soiled supplies	92,288	55905 Glue and adhesive waste	1,751
54710 Grits and grinds containing oil	66,360	352050 Refrigerators without voucher (36 units)	1,568
54702 Oil separator contents, PCB/PCT-free	51,720	35339 Fluorescent tubes	1,450
52103 Acids, acidic mixtures	44,924	54120 Brake fluid	1,448
54102 Used oil	38,428	55509 Photocopier toner, hazardous office waste	1,198
55502 Paint and varnish cans, soiled	37,824	52725 Soda	1,010
35322 Lead storage batteries	28,941	352018 Oil-soiled underground cables	984
31637 Phosphatizing sludge	25,979	31223 Dust from H7 laser	652
555031 Paint sludge/liquids containing solvents	20,313	54108 Heating oil, fuels >55°C	632
352013 Electronic scrap	13,545	54402 Emulsion	421
57305 PVC waste, pasty	13,520	54201 Oil sludge	395
54701 Sand trap contents with oil/cold cleaner	13,160	52403 Ammoniac solution	329
31316 Ash and slag	11,353	55402 Sludge containing solvent, halogen-free	314
54408 Oil-water mixtures	9,694	55903 Resin residue	225
555034 Paint sludge containing solvent, pasty	9,059	97101 Infectious medical waste (14 containers)	210
55370 Solvent mixture, halogen-free	5,835	35338 Batteries, not sorted	206
55326 Petroleum benzene	4,479	54926 Used oil binding materials	192
59405 Cleaning agent and detergent waste	3,381	52404 Caustic solution, emulsion	185
31108 Furnace slag	3,260	57127 Plastic packaging with residue	180
54104 Fuels with flash point <55°C	2,977	352057 Refrigerators with € 7.25 voucher (1 unit)	38
59803 Aerosol cans	2,879	54122 Silicone fluid	25
35335 Zinc-carbon batteries	2,296		

## 3.4.2

### Waste Treatment

The following waste treatment options are used at SFT:

- 1. Recycling:** used materials are recycled.
- 2. Thermal treatment:** waste fractions are incinerated and the residue then disposed of (slag).
- 3. Chemical/physical treatment:** waste fractions are processed using organic and inorganic treatment technologies, then incinerated and finally disposed of in a landfill.
- 4. Landfill:** waste fractions are transported directly to the landfill.

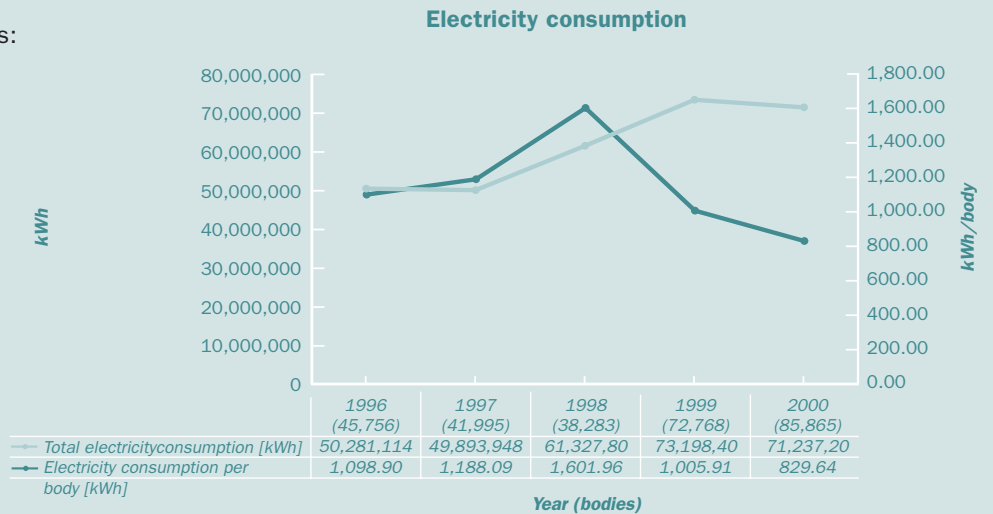


## 3.5

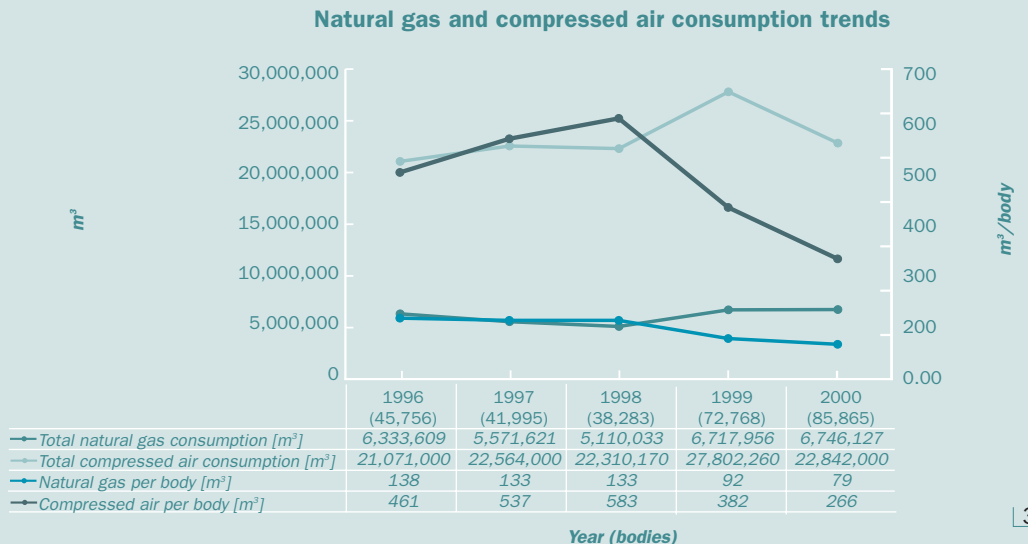
### Energy and Resource Consumption

Electricity consumption trends:

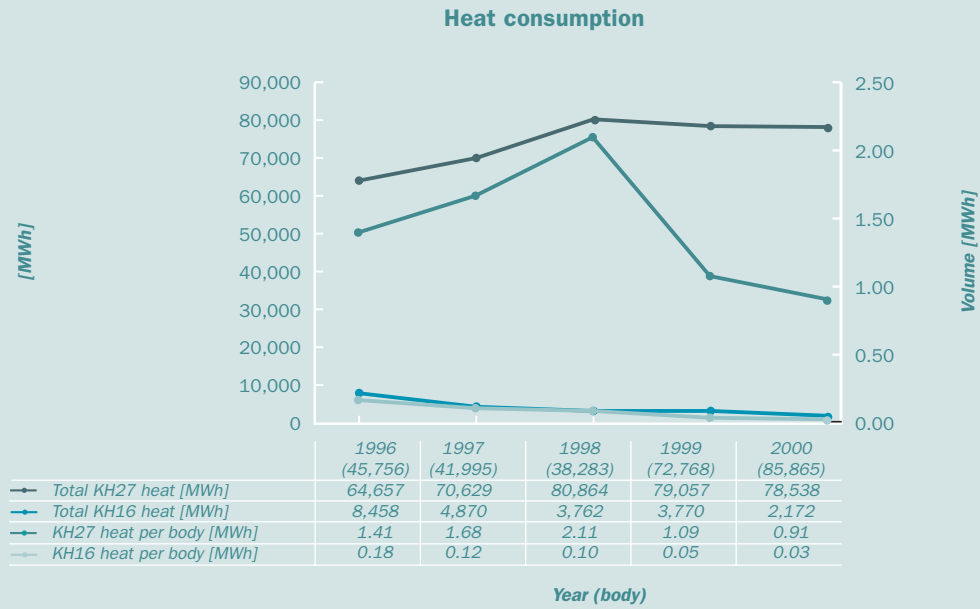
The following graphs illustrate the direct relationship between energy consumption and the number of vehicles produced. They also clearly show that the specific consumption per body is dropping in spite of rising total consumption. This is due to improved capacity utilization on the one hand and the economizing strategy in place on the other.



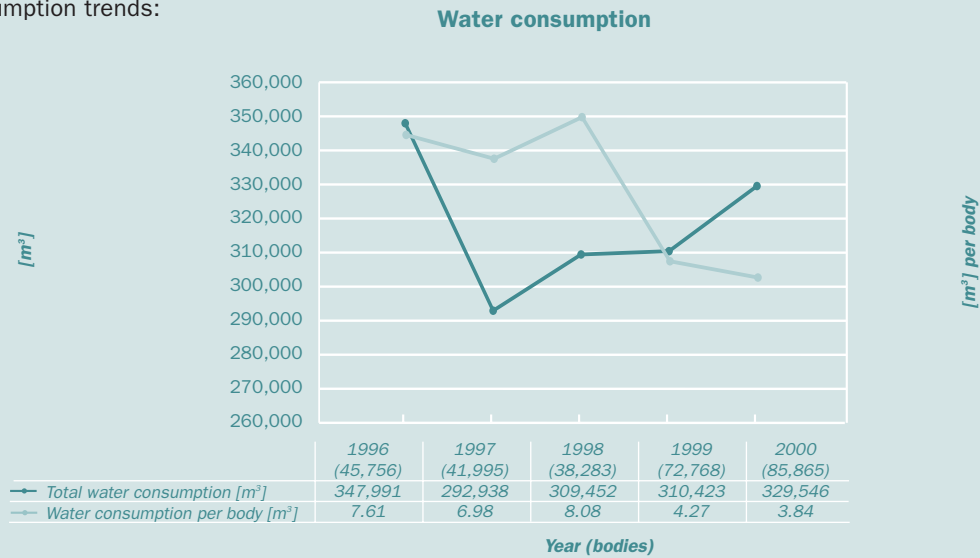
Natural gas and compressed air consumption:



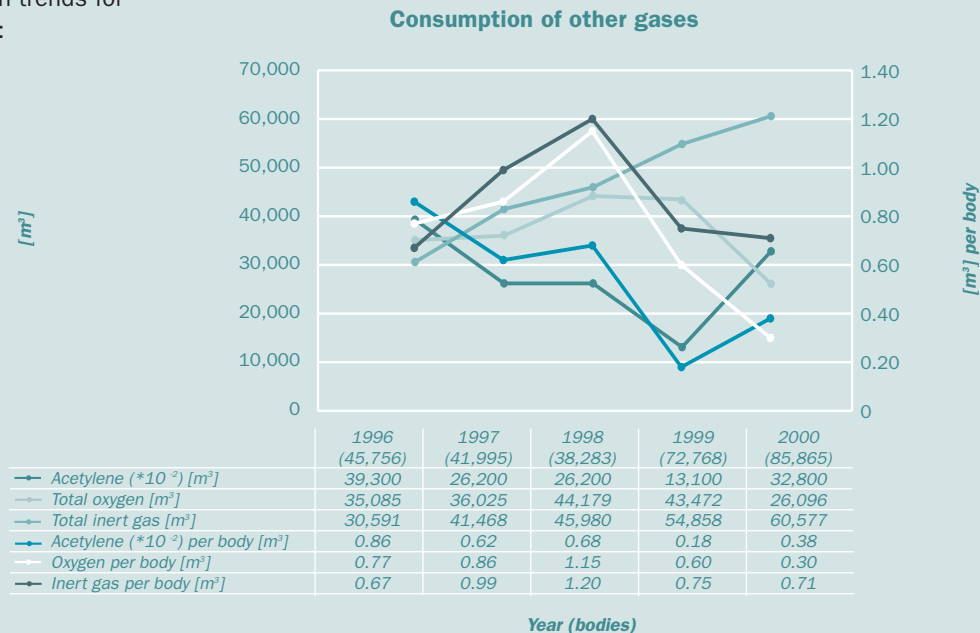
Heat consumption trends:



Water consumption trends:



Consumption trends for other gases:



## 3.6

### Local Phenomena

#### 3.6.1

##### Noise

###### Noise situation:

The main sources of noise in the community are road traffic on the A2 freeway and Liebenauer Hauptstrasse, and also operations at Eurostar and SFT. Assessment of the noise situation is based on the latest official noise reports.

###### Noise report:

Measurement point	Location	Description	Distance (in relation to Building 10)	Actual noise level Equivalent continuous noise level day/night [dB]	
				LA <sub>eq</sub> <sup>24</sup>	LA <sub>eq</sub> <sup>24</sup>
1	Liebenauer Hauptstrasse 289a, 3rd floor, south side	Residential building	170 m	54	48
2	Fuchsenfeldweg 18, 2nd floor south and east sides	Residential building	110 m	55	47
3	Fuchsenfeldweg	Therapy center	90 m	55	45
4	Ampfererweg	Market garden	160 m	53	43
5	Ampfererweg	Market garden	190 m	54	44

(1) Day time period (6 am – 10 pm), 8 loudest hours, 8 hour mean  $L_{A,eq}$

(2) Night time period (10 pm – 6 am), quietest half hour, half-hour mean  $L_{A,eq}$  in the period 1 – 4 am

The above figures were taken from the most recent noise report. They also comply with the approved limits for the total noise levels pursuant to the ruling for trade and industry of December 23, 1996 (Ref: 04-15.1/123-96/10).

###### In-house noise emissions:

The highest levels of in-house noise emissions occur in the area of the body-in-white. It involves various processing steps that can give rise to noise emissions of over 85 dB in places. A range of protective equipment is

available and measures are in place to ensure safety at work and protect employees as far as possible. In addition, our company physician regularly examines employees and tests their hearing in the plant's own audiometer booth.

### 3.6.2

## Transport

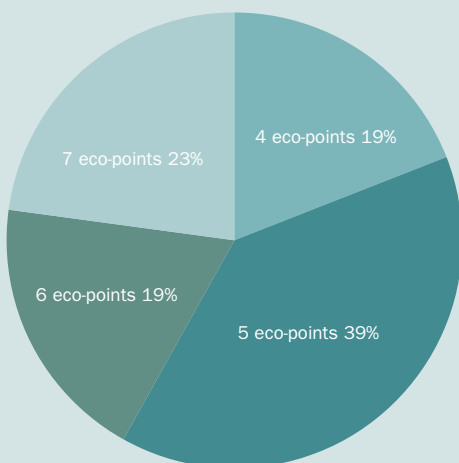
Transport and traffic constitutes the singular most significant indirect environmental impact caused by the company. We differentiate here between two types of transport: by rail and by truck. In the past, steps were also taken to make optimal use of truck capacities. When transporting very heavy materials, for example, the permissible maximum weight of the truck may be reached when it is only half full. If both very bulky and very heavy materials (e.g. down and bolts) had to be transported from regions lying close together, the loads were therefore combined where possible to maximize capacity utilization.

Current use of low-pollutant and low-noise trucks can be best illustrated by showing the eco-points. The number of eco-points per truck corresponds to the level of pollutants emitted. Consequently, the lower the number of eco-points, the lesser the environmental impact.

The pie chart below represents the distribution of eco-points for the trucks used in transport.

A company truck is used for transport on the premises and is not therefore of much consequence compared with the other incoming and outgoing traffic. Given the extremely large volumes involved, we have been committed to increasing rail shipments for years, which now account for around 50 per cent of our transport needs.

**Distribution of trucks in service by eco-points**



### 3.6.3

## Visual Impairment

According to the current "Zoning Plan 2.0 for the Provincial Capital of Graz" of 1992, the majority of our manufacturing facilities are located in "Industrial Area II". This means that this particular part of the premises is in a region where heavy industry is permitted. Only the part with administrative buildings North and South and some of the lots to the west of the premises are situated in "Industrial Area I". We have however applied to have these parts rezoned to "Industrial Area II".

The buildings are all relatively low and do not therefore have a detrimental effect on the surrounding area in aesthetic terms.

### 3.7

## Accident and Incident Prevention

### 3.7.1

#### Plant Safety – Fire Service

Our security carries out checks on all people and vehicles entering and leaving the premises to prevent trespassing. Access to the premises is through two entrances with the east porter's lodge being manned round the clock. The lodge also takes complaints outside normal working hours and immediately passes them onto the department responsible the following working day.

The voluntary company fire department is responsible for fire protection. It has 59 members, two of whom work as full-time firemen. In 2000 the company fire department was called out 772 times, of which 45 were fires, 204 industrial emergencies and 44 alarms.

During the year 16 four-hour drills and also four three-hour special drills were held. Furthermore, the plant security team organizes two drills every weekend. A total of 21 people are employed in the remaining areas of plant security. Thanks to our highly trained emergency team that is permanently on call, we are equipped to deal with unforeseeable events of any kinds.

### Fire protection plans:

The fire protection plan provides an overview of the fire fighting equipment in the company (i.e. location of the fire extinguishers, sprinkler systems, alarm systems, hydrants etc.).

### Alarm plans:

In the event of an emergency (e.g. fire, force majeure, environmental damage, breakdowns, threats, evacuation), an alarm sounds automatically in the control room (main porter's lodge). The control room is manned round the clock and the porter on duty then follows the alarm plan notifying the people responsible, depending on the type of emergency. The alarm plan is updated at regular intervals. Alarms are divided into three different levels.

Alarms	
<b>Alarm level 1:</b>	Notification of plant fire service, safety department, medical service, safety technician, fire protection officer, general administration and maintenance.
<b>Alarm level 2:</b>	As for alarm level 1, but in addition City of Graz fire department and district fire headquarters.
<b>Alarm level 3:</b>	As for alarm levels 1 and 2, but in addition fire section Graz South (Section 4), management, divisional and departmental managers, executives in the areas and departments affected or at risk.

### 3.7.2

#### Database for Hazardous Substances

Every substance that is to be used in the plant is analyzed and tested in the laboratory for various factors, such as health and environmental risk. Only once it has been approved by the laboratory can it be used. Material data safety sheets are available for the hazardous chemicals that are used and stored on the premises. They give details of the properties and instructions for handling such substances. To keep the material data safety sheets up to date and guarantee permanent access to them throughout the company, there is a database for hazardous substances. It ensures that in an emergency or whenever necessary, the department in question is sure to obtain all the required information. The database, which is updated by the Quality Engineering Division, can be accessed on the SFT intranet.

### 3.7.3

#### Environmental Data Sheets

Environmental data sheets are simplified instructions with notes on environmental and industrial safety. Employees thus receive the most important information on safety and the environment in an easily understandable form.

### 3.7.4

#### Dangerous Goods

Our dangerous goods representative ensures that dangerous goods are handled and processed with due care. We also arrange regular training courses for employees who are confronted with dangerous goods in their day-to-day working lives, thus preventing accidents.

4

# environmental services provided

***“There is something  
wonderful about everyone  
of Nature’s creatures.”***

*Aristoteles*

1998/1999 Environmental Program			
No.	Goal	Measures	Completed
1	Installation of a new state-of-the-art paint shop with special focus on eco-friendly facilities	Reducing residues containing oil, adopting measures to reduce wastewater, applying water-soluble fillers and primers, recycling heat from the top coat spray booth	OK
2	Improvement of legal compliance	Implementing a PC program to illustrate legal compliance better	ongoing <sup>1</sup>
3	Implementation of suggestion for improvement: replace disposable spray cans with refillable ones	Procuring samples, reviewing them in terms of economic viability	OK
4	Implementation of the new disposal concept in the area of upholstery	Putting in new sorting systems, training the employees	OK
5	Saving of around 95% hydrochloric acid and caustic soda for regeneration in the deionization plant	Installing a reverse osmosis plant upstream of the existing DI system	OK
6	Saving of gear oil and front axle differential oil	Procuring two pumps for emptying residual oil in the drums	OK
7	CKD dry rust proofing	Consulting Daimler Benz; determining the type of rust proofing	OK
8	Change from wooden to concrete railroad ties on the plant siding	In the course of the annual inspection replacing wooden ties with concrete ones	ongoing <sup>2</sup>
9	Prevention of soiling on the floor from leaks in media containers	Purchasing 38 collecting basins with grids for filling media in Assembly "G" and in the component assembly area	OK
10	Reduction of residual waste	Instructing employees accordingly, putting up various containers	OK
11	Dry rust proofing of supplied parts in Division K	Procuring suitable containers and materials	OK
12	Prevention of unnecessary water consumption not identifiable using conventional methods (e.g. leaking water pipes) and therefore reduction in water consumption by around 20%	Creating cost centers for water consumption (division related) by installing meters	OK
13	Reduction in energy consumption by 2 to 3% in relation to 1997 consumption	Introducing energy management	OK
14	Reduction of environmental impact due to vehicle interior cleaning	Changing to an eco-friendly cleaning agent instead of the industrial cleaner currently used (harmful, highly flammable)	OK
15	Reduction of risks when transporting environmentally sensitive media	Purchasing a special lift truck for transporting drums	OK
16	Introduction of re-usable containers for Divisions G and K	Starting project with logistics division K, reviewing in terms of economic viability	OK
17	Improvement in cost transparency with allocation of waste disposal costs to divisions	Installing meters on the disposal vehicles	OK
18	Increase in ecological awareness when carrying out environmentally sensitive activities	Drawing up a training plan; using data sheets in training.	OK
19	Replacement of the oil-soaked layers in the containers for transporting the pinion/ring gear	Providing re-usable intermediate layers made of plastic sheeting	OK
20	Training of employees in the area of waste disposal, wastewater treatment and handling dangerous substances	ADR training for lift truck drivers, in-house courses	OK

<sup>1</sup> Improving organization concerning legal compliance proved to be an ongoing process and has been included in the environmental program for the following years.

<sup>2</sup> Changing from wooden to concrete railroad ties is also an ongoing process and is being carried out continually.

## 2000 Environmental Program

No.	Goal	Measures	Completed
1	Reduction of residual waste by 5% compared with 1998	Instructing employees, putting up various containers	OK
2	Improvement in existing organization concerning legal compliance	Extending the existing PC program for achieving legal compliance	ongoing
3	Optimization of waste disposal in Building 1 TCF	Carrying out employee survey; determining further training requirements	OK
4	Implementation of regular housekeeping activities	Touring the premises weekly with reports as documentation	OK
5	Improvement of cost transparency by allocating the disposal costs to the divisions	Installing meters on the disposal vehicles	OK
6	Improvement in workplace ergonomics at TCF	Laying non-slip mats beside the line	OK
7	Reduction in heat loss in the area of high-frequency gates by optimizing lock function at TCF	Procuring a fast-operating gate in Building 1 West	OK
8	Optimization of waste disposal in Building 1; adaptation of waste containers at TCF	Purchasing suitable waste containers	OK
9	Reduction in environmental impact and waste costs in the paint shop	Changing from chrome-containing to chrome-free passivation	OK
10	Training of employees in how to handle hazardous chemicals in waste disposal and wastewater treatment	ADR training for lift truck drivers, in-house courses	OK
11	Reduction in energy consumption by 3% compared with 1998	Determining individual consumption by installing meters at the various devices (in line with energy management)	OK
12	Drawing up of a waste management concept (Division J – waste yard)	College placement with subsequent diploma thesis	OK
13	Reduction in welding smoke in the area of subassemblies and main framing	Improving and adapting the extractor system	OK
14	Reduction in environmental impact and disposal costs in the paint shop	Changing from lead-containing to lead-free CDP	OK
15	Support for divisional environmental managers from line employees – cascade system in Division J	Choosing environmental champions for each division	no <sup>3</sup>
16	Reduction in material and disposal costs in the area of coagulation	Optimizing coagulation in the paint shop	OK
17	Drawing up and integration of material data safety sheets in the environmental data sheets for Division J	Creating additional capacity by hiring vacation personnel	no <sup>4</sup>
18	Reduction in cooling water used in the 500 t press in special production	Connecting to the existing cooling system for the hardening shop in Building 7 (closed cooling circuit)	OK
19	Reduction in disposable packaging used in Division G	Labeling the waste disposal areas with layout in Assembly	OK
20	Move into new prototype shop	Helping with installation work	OK
21	Minimization of the flushing and paint waste at the paint shop	Sorting colors before the top coat line and fitting all the manual sprays with a separate gun	OK
22	Reduction in leaks etc. by improving service and maintenance (Division J)	Devising a D-TPM concept	OK
23	Optimization of energy and material use in the paint shop	Material stream analysis and auditing, CIP	OK
24	Introduction of eco-friendly systems by constantly optimizing processes	Securing process approval from customers	OK
25	Increasing ecological awareness among employees when handling hazardous chemicals	Personnel training	OK
26	Increasing awareness among employees	In-house inspection by walking round the departments; constant discussion with the waste managers; seminars and training courses	OK
27	Ongoing training of employees	In-house seminars/courses; constant discussion with the waste managers in the departments	OK
28	Inspection of the premises	Inspecting the departments	OK

2001 Environmental Program				
No.	Goal	Measures	Date Carried Out	Completed
1	Reduction in adhesive residue (BIW)	Optimizing adhesive application by installing pressure regulators and heated pipes	March 01	OK
2	Reduction in total emission figures, amount of hazardous chemicals and energy costs at the plant	Outsourcing small parts painting	April 01	OK
3	Training of employees in the area of waste disposal, wastewater treatment and handling hazardous chemicals	ADR training for lift truck drivers; in-house courses	May 01	OK
4	Improvement in existing organization concerning legal compliance	Implementing a PC program for achieving legal compliance	July 01	OK
5	Prolonging of the life of lift truck batteries	Using uniform central battery charging stations with automatic filling for GPM	Aug. 01	not yet <sup>5</sup>
6	Improvement in waste disposal in Division G, Assembly	Improving labeling of the waste disposal areas in Assembly	Oct. 01	not yet <sup>6</sup>
7	Improvement of cost transparency by allocating the disposal costs to the divisions	Installing meters on the disposal vehicles	Dec. 01	not yet <sup>7</sup>
8	Training of designers	External and in-house seminars	Dec. 01	OK
9	Improvement in availability of material data safety sheets	Posting in the areas where required; including the environmental data sheets in the Quality Engineering Division's hazardous chemicals database and improving accessibility for all employees	Dec. 01	OK
10	Recycling of rejects	Selling rejects to the DaimlerChrysler used parts center	Dec. 01	OK
11	Reduction in energy consumption by 3%	Determining individual consumption by installing meters at the various devices (in line with energy management)	Dec. 01	not yet <sup>8</sup>
12	Reduction in use of means of transport	Increasing truck capacity utilization	Dec. 01	OK
13	Optimization of energy and material use in the paint shop	Material stream analysis and auditing, CIP	ongoing	OK <sup>9</sup>
14	Reduction in disposable packaging use in Division G	Container planning, Division G	ongoing	OK
15	Reduction in rust proofing oil use	CKD dry rust proofing	ongoing	no <sup>10</sup>
16	Increasing ecological awareness among employees when handling hazardous chemicals	Personnel training	ongoing	OK
17	Increasing awareness among employees	In-house inspection by walking round the departments; constant discussion with the waste managers; seminars and training courses	ongoing	OK
18	Ongoing training of employees	In-house seminars and courses; constant discussion with the waste managers in the departments	ongoing	OK
19	Increasing environmental awareness	Inspecting the departments	ongoing	OK

<sup>3</sup> The "support for divisional environmental managers from line employees – cascade system in Division J" environmental goal has not yet been met because in-house coordination has not been completed

<sup>4</sup> The "drawing up and integration of material data safety sheets in the environmental data sheets for Division J" environmental goal was not achieved because of the possibility of uniform implementation throughout SFT

<sup>5</sup> Not yet completed because of changes in assembly for the Mercedes-Benz E-Class 4MATIC model in December 2001

<sup>6</sup> Not yet completed because of changes in assembly for the Mercedes-Benz E-Class 4MATIC model in December 2001

<sup>7</sup> Still being implemented due to software compatibility problems

<sup>8</sup> Evaluation not yet available

<sup>9</sup> Constant optimization due to monthly monitoring and the measures implemented as a result

<sup>10</sup> Rejected by customer

# our environmental impact

**W**hen examining environmental impact, we differentiate between direct and indirect effects. The direct ecological aspects are obviously easier to evaluate, and are assessed and compared at SFT using the environmental scarcity method (environmental impact points model). It involves gauging the environmental impact of a product, process or company by calculating the eco-factors which are a measure of the environmental relevance of one gram of a substance and are multiplied by the actual amount used. This method is easy to use and can be adapted and developed as required. In addition, the environmental impact points for all the ecological aspects can be added and therefore compared.

The method also enables national, regional and local factors to be included in the assessment, and the environmental impact on the various media to be compared directly.

Indirect environmental impact may be directly related to the company's activities, but only becomes apparent after some time or at a distance. It cannot therefore be completely controlled, thus representing a much greater challenge. Only measures with greater scope than the premises, such as external audits, environmental regulations or contract provisions enable the indirect environmental impact to be kept in check to any great extent.

*"It is not the flowers  
and trees, but just the  
garden that belongs  
to us."*

*Chinese saying*

## 5.1

### Indirect Ecological Aspects

---

Our company's indirect environmental impact can basically be broken down into the following areas:

#### 5.1.1

##### **Eco-friendly Product Development**

As a competent partner to the automotive industry, we are committed to sustainable waste management and therefore ensuring eco-friendly disposal when developing our products. Not only do we focus on avoiding substances that pose health risks, but also produce vehicles today that will have a recycling quota of 85 per cent by weight in 2015. This requirement is firmly rooted in our product development process and is constantly gaining importance on the international market. It enables us not just to meet legal requirements, but also to respond to socio-political interests and demands.

The program also has a supplier page accessed via the internet where documents that were previously printed out and sent by mail are now available. Another prime advantage is that it substantially simplifies and improves change management. In addition, the documents available on the supplier page are always the latest version.

Furthermore, regular reviews of our environmentally relevant suppliers results in evaluation in clearly defined, specific and environmentally relevant terms.

#### 5.1.2

##### **Eco-friendly Procurement**

Procurement is playing an increasingly important role in the management system. Eco-friendly product procurement has primarily been achieved at SFT by including environmental requirements in the procurement manual that regulates the procurement process. Having implemented eProcurement, which integrates internet-based transaction and management information systems, we have also introduced a largely paperless and resource-saving process. A core element of it is the catalog-based electronic purchasing system for supporting procurement activities.

#### 5.1.3

##### **Recycling Waste**

As can be seen from our waste diagrams, cardboard accounts for a high percentage of the total volume accrued. We primarily use it for transport packaging, then make sure that it is sorted, compressed and sent back to the paper industry for recycling. It may involve extra labor, but it is a contribution towards saving natural resources.

Being a metal working and processing company, we see it as our duty to ensure that waste metal is recycled where possible or at least disposed of properly. To complete the cycle, all our metal scrap is reused in metallurgical processes to make other metal products.

## 5.1.4

### Contractors' Environmental Performance

Our contractors' environmental performance represents another challenge in the interests of eco-friendly products. Quality standards have been required for years and compliance checked by means of supplier audits. Similar developments are also to be found in the area of the environment. Supplier auditing regarding their environmental responsibility and concomitant eco-friendly product manufacture is a new and equally interesting task that SFT has now embarked on. By checking compliance with environmental legislation and regulations, we ensure that our contractors already operate to the same environmental standards as we do or will observe them in future.

## 5.1.5

### Low-Pollution Transport

Given that many of our products are destined for export markets, long-haul transport is of great concern to us. Being directly connected to the Austrian railroad network ourselves, we already ship various products by rail and will continue to increase the percentage in future. Our forwarding agents naturally still play a major role in shipping and here we are committed to promoting the use of low-pollution vehicles.

## 5.1.6

### Employee Traffic

In view of the size of our company and the number of skilled employees required, our personnel now comes from further and further afield. Having negotiated with both municipal and private bus companies, we have succeeded in bundling employee traffic. The number of large buses in operation has thus increased over the past three years from two initially to eight with 50 seats each. In addition, up to 26 mini-buses are also in use. To enable our night shift employees to take the last bus home from the plant, the Graz transport authorities agreed to extend the public service to inside the premises. As the plant is constantly expanding and also to reduce in-house traffic, we operate a company bus for transporting passengers round the premises every 20 minutes. These measures have made a substantial contribution towards reducing exhaust emissions.

## 5.2

### Direct Ecological Aspects

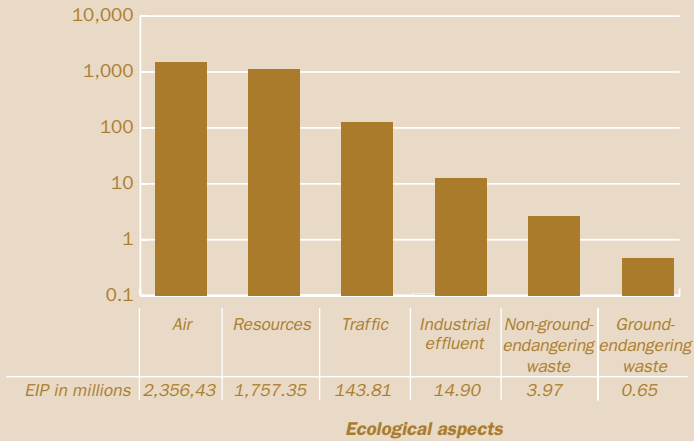
SFT's environmental impact has been examined in detail in relation to the aspects of air, resources, industrial effluent, traffic and soil. The data obtained is an important basis for determining corporate environmental protection.

- In the case of the air, the solvents used in the paint shop are the major source of emissions. To reduce these emissions, thermal afterburning systems are used.
- For the resources aspect, the consumption of electricity, natural gas, compressed air, heat, water and gases was evaluated.
- When examining traffic, emissions being the main cause of the company's indirect environmental impact, we base evaluations on the eco-points for the trucks used to transport our incoming materials and products, and the kilometers traveled.
- What is relevant to industrial effluent is the heavy metal content and organic substances in the process water used in the plant. This process water is collected and cleaned at our central wastewater treatment plant.
- For the ground aspect the amounts and types of non-hazardous and hazardous waste occurring in the company are the measurable criteria. When determining the EIP, it is important to know whether the relevant waste is processed, incinerated or disposed of on a landfill.

Details of the various ecological aspects are to be found in section three: "Facts & Figures".

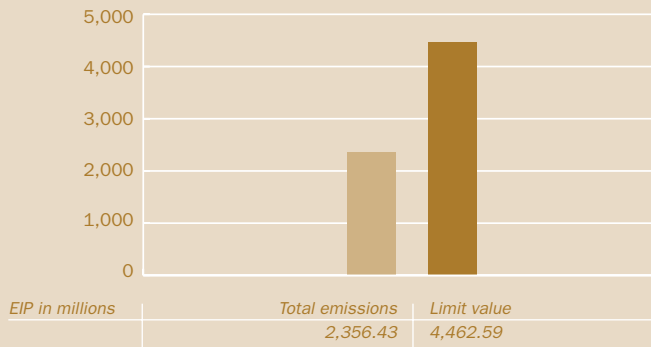
After calculating the number of environmental impact points, it transpired that air and resources represent the most important ecological aspects (see graph).

### Significance of ecological aspects



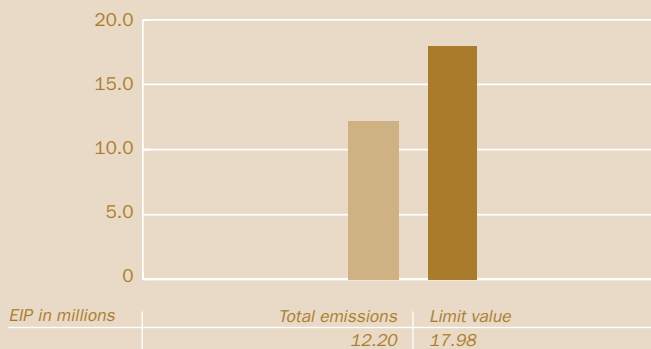
This graph shows the results of evaluation of our company's environmental impact in logarithmic form, thus enabling the most important ecological aspects to be identified (those with the largest number of environmental impact points).

### Environmental impact from airborne emissions



This graph shows the environmental impact from our airborne emissions in relation to the statutory limits. Although airborne emissions constitute our company's most important ecological aspect (highest environmental points), there is no immediate need for action, as can be seen from the graph, because the figures are well below the prescribed limits.

### Environmental impact from wastewater



This graph shows the environmental impact from our wastewater in relation to the statutory limits. Again there is no immediate need for action, as can be seen from the graph, because the wastewater figures are well below the prescribed limits.

Action does however have to be taken in the case of the following environmental aspects.

- Resources
- Traffic
- Soil (waste)

Details of the resultant environmental goals are given in our environmental program for the year 2002.

Evaluation using environmental impact points naturally becomes more meaningful when several years can be compared. It can therefore also be used as the basis for environment-related decisions in future.

# 6

## 2002 environmental program

***“If you respect Nature,  
it will not harm you.”***

*Henry Miller*

2002 Environmental Program	
Goal	Measure
<b>Reduction in waste volume</b>	
Reduction in residual waste by around 5% in Division J	Economizing on gloves and cleaning cloths by holding a workshop in the Jeep BIW division
	Economizing on abrasive disks by holding a workshop in the Jeep BIW division and by evaluating suppliers
Increase the service life of railroad ties	Renovating the railroad siding and systematically replacing the wooden ties with longer life and less polluting concrete ones (“Rail Investment 2002”)
Prolong the life of lift truck batteries by around 20% in Division G	Standardizing the batteries used in corporate vehicles; installing a battery charging station, introduction to handling and maintaining the batteries with specialists
Reduction in waste volumes from rejects by about 8%	Selling such parts to the Daimler-Chrysler used parts center (for subsequent re-use)
Reduction in cap consumption on electrode holders by about 50%	Rolling instead of milling (no material abrasion). Trials are currently being carried out on a tester and a concept for implementation in BIW will then be developed.
Increase in the share of reusable packaging (quantity not yet assessable)	Optimizing supply processes
<b>Reduction in emissions</b>	
Reduction in hydrocarbon emissions in complete vehicle projects	Continuous process optimization
<b>Reduction in emissions</b>	
Prevention of oil leaks when transporting gearboxes	Draining the gearbox
Preventive maintenance	Renovating the manholes & pump shafts in the tanks in Hall 1
<b>Reduction in emissions</b>	
Reduction in pollutant emissions (transport); increase in rail shipments for new projects by about 100%	Cutting road transport
More effective truck capacity utilization by about 15%	Calculating container dimensions more accurately and increasing capacity utilization on truck routes
Improved freight space utilization by reducing the space for empties by a third	Changing over from rigid to folding containers

Completion Date	Responsible
Jan. 02	JR
Feb. 02	JR
Jan. 02	AZ
Feb. 02	GPM
Dec. 02	GPM
June 02	JRI
Aug. 02	AZT
<b>(air)</b>	
ongoing	QWL
<b>(soil)</b>	
Jan. 02	AZV
Aug. 02	JMI
<b>(transport)</b>	
Jan. 02	AZ
Jan. 02	AZT
2002 (continuous changeover)	AZL

2002 Environmental Program			
Goal	Measure	Completion Date	Responsible
<b>Reduction in resource consumption (compressed air)</b>			
Energy savings of around 200 MWh/year in compressed air production	Changing the compressed air supply from high to low pressure (removing the high-pressure compressor; procuring a low-pressure compressor; converting the high-pressure machines)	Dec. 02	TAE
Energy savings of around 114.4 MWh/year	Replacing compressed air with blower air in the washing station in Hall 2	Dec. 02	TAE
<b>Reduction in indirect waste volume</b>			
Avoidance of banned substances	Involving employees in implementing the EU used vehicle directive taking banned substances into consideration by planning and using conforming materials and systems only	Feb. 02	E, B, J, Q
<b>Improvement in working conditions</b>			
Reduction in exposure to pollution for employees	Installing a recirculated air system for pedestal mounting	Jan. 02	JPM
	Improving working conditions for welding by installing a welding smoke extractor (Assembly Maintenance Hall 1; not a permanent welding workstation)	May 02	JMI
Risk minimization for accidents involving chemicals	Updating the contingency plan to improve procedure for accidents involving chemicals	Jan. 02	QWL
<b>Improvement in environmental awareness among employees</b>			
Improvement in new employees' knowledge of the environmental management system	Extending basic training for new recruits in Division J (approx. 350 employees annually) to cover environmental issues	March 02	J
Sensitization of employees to waste management	Training courses, seminars and regular talks with the waste manager	ongoing	E
Comprehension for meeting future recycling requirements	In-house training and seminar program for product design taking recycling into consideration to increase awareness among	ongoing	E
Improvement in existing employees' knowledge of the environmental management system	employees; also walking round the departments noting ideas and suggestions for improvements	ongoing	E
Increase in environmental awareness when handling hazardous materials and chemicals	Targeted personnel training in all divisions	ongoing	QWL
<b>Compliance with the environmental and safety regulations at SFT by outside companies and suppliers</b>			
Improvement in the situation regarding outside companies	Drawing up an extended environmental target profile for outside companies and suppliers	Feb. 02	B, Q, TU

# 7 environmental auditors & certificate

## Gültigkeitserklärung

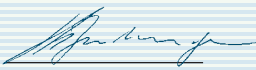
Die **UTR Consulting Group GmbH** hat als unabhängige Umweltgutachterorganisation nach dem **Umweltmanagementgesetz (UMG) BGBl. 96/2001**

die Umweltpolitik, die Umweltprüfung, das Umweltmanagementsystem, das Umweltbetriebsprüfungsverfahren und die Umwelterklärung für die


**Steyr-Daimler-Puch Fahrzeugtechnik AG & Co KG**

am Standort **A-8041 Graz, Liebenauer Hauptstraße 317**

gemäß den Anforderungen der **EMAS II Verordnung 761/2001** überprüft und bestätigt die Gültigkeit der Umwelterklärung 2001.



Dipl.Kfm. Ing. Helmut Buchinger  
Leitender Umweltgutachter



Mag. Renate Schmid  
Umweltgutachterin

**Die Gültigkeit ist befristet bis November 2004.**

Die UTR Consulting Group GmbH, Prinz Eugen Straße 70, A-1040 Wien, ist akkreditierte Umweltgutachterorganisation nach dem UMG BGBl. 96/2001 und unter der Nummer A-V-010 beim Umweltbundesamt registriert.



Wien, am 15.3.2002

## Gültigkeitserklärung

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hat als unabhängiger Gutachter die Umweltpolitik, die Umweltprüfung, das Umweltmanagementsystem, das Umweltbetriebsprüfungsverfahren und die Umwelterklärung der

**Magna Steyr Fahrzeugtechnik Steyr Daimler Puch AG & Co KG**

am Standort

**Liebenauer Hauptstraße 317  
A-8041 Graz**

gemäß den Anforderungen der

**EMAS II Verordnung 761/2001**

überprüft.

Die Umwelterklärung 2001 wird für gültig erklärt.

Wien, 23.1.2002



Dipl.Kfm. Ing. Helmut Buchinger  
Leitender Umweltgutachter



Mag. Renate Schmid  
Umweltgutachterin

This environmental report is updated every year.  
The next complete environmental report is scheduled for November 2004.



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## abbreviations

<i>ADR</i>	European agreement governing regulations concerning international transport of dangerous goods by road
<i>AOX</i>	Absorbable Organic Halogens
<i>BIW</i>	Body In White
<i>CDP</i>	Cathodic Dip Painting
<i>CIP</i>	Continuous Improvement Process
<i>CKD</i>	Completely Knocked Down
<i>COD</i>	Chemical Oxygen Demand
<i>D-EM</i>	Divisional Environmental Manager
<i>DI</i>	Deionization
<i>EIP</i>	Environmental Impact Points
<i>EM</i>	Environmental Manager
<i>EMAS</i>	Environmental Management Auditing Scheme
<i>EMS</i>	Environmental Management System
<i>ISO</i>	International Standardization Organization
<i>IT</i>	Information Technology
<i>LCR</i>	Legal Compliance Representative
<i>MOU</i>	Mega Odor Units
<i>SFT</i>	Steyr-Daimler-Puch Fahrzeugtechnik AG & Co KG
<i>SPT</i>	Steyr Powertrain AG & Co KG
<i>TPM</i>	Total Productive Maintenance



## contacts 9

If you have any questions, please contact:

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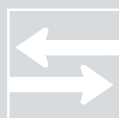
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more  
ideas



more  
drive



more  
commitment

more value • more car

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