

MAGNA STEYR GRAZ

# 360°

## 2019 Perspectives

Performance Report with  
Integrated Environmental Statement

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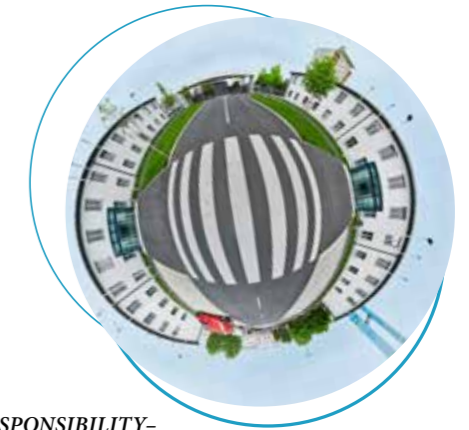
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## 360° PERSPECTIVES

Embedded in an environment which is continually being shaped anew by many people every day, Magna Steyr has always tried to find both the best possible and sustainable solutions for the demands of the automotive industry. Using a holistic approach, it becomes clear that many different interlocking processes are necessary to together realize defined objectives.

How can a company go easy on resources, avoid environmental pollution and at the same time take social responsibility? This year's Performance Report with Integrated Environmental Statement of the Magna Steyr Graz location deals with questions like this and shows that answers are not only multifaceted, but that various perspectives are necessary to best understand the processes and procedures involved.

A 360° perspective grants wide-ranging insights into the company. The four topics of Business

Performance, Environment, Social Responsibility and Compliance form the substantial areas of focus, and the people behind our achievements will also be brought into the limelight.

Whether workers' council, project managers or company representatives – in this report, employees from different areas of the company have their say and provide a view from different perspectives. Impressive 360° pictures also open up new perspectives on a photographic level. For often a new perspective is needed for new and innovative approaches.



*“WITH OUR CORPORATE POLICY, WE ARE CLEARLY COMMITTED TO CONTINUING ALONG THE SUCCESSFUL PATH WE HAVE CHOSEN AND TO DEVELOPING OURSELVES FURTHER ON AN ONGOING BASIS.”*

## SECURING THE FUTURE

Environmental and climate protection, along with social responsibility have always played a great role for Magna Steyr. With a large number of corresponding measures, we are always working on protecting our livable world for our employees and customers as well as for the public in the future.

For Magna Steyr in Graz, 2018 was a year of progress and reorientation. By the end of 2018 we had reached the special milestone of 3.5 million produced vehicles, the production of 6 different vehicle models has started successfully and with this we have renewed our entire vehicle portfolio. In addition, we have been able to establish ourselves as the first vehicle manufacturer that mass produces purely electric vehicles and produces a broad range of different powertrains, in some cases, on the same production line.

As a responsible company, our focus is not only on achieving good operating results, we are also very conscious of the subject Sustainability: Environmental and climate protection are very important to us. We take our responsibility towards our employees, our customers and the company very seriously and are constantly working on environmentally friendly solutions. This Performance Report is designed to underline the great importance of environmental protection in our company and give an overview of our activities in the areas of enterprise, social matters and compliance.

A central topic for environmental management last year was the environment-oriented alignment of the new paint shop in Maribor-Hoče, Slovenia, which started operations in March 2019. By integrating the plant into the integrated management system and compliance management, we have succeeded in fulfilling the strict regulatory requirements and the high demands we place on ourselves right from the beginning. We are proud of this, especially as the new plant is significantly important for our Graz location and numerous jobs have also been created by it.

For Magna Steyr, assuming responsibility for the future also means assuming responsibility for the employees. Creating healthy and safe workplaces plays a large role here and among other this is guaranteed by our occupational health center – for example with the creation of ergonomic concepts and industrial psychological evaluations. We are also progressive in respect of staff mobility: Together with the works council, we have succeeded in establishing our own bus line. The employees benefit from this service and also save mileage, which sustainably improves the CO<sub>2</sub> balance sheet. We have also been able to implement a further CO<sub>2</sub> saving potential as part of the cooperation with the new plant in Slovenia: Gas-powered LNG trucks ensure the eco-friendly transport of vehicle bodies between the sites.

Not least, the responsible management of resources is important to us. Energy consumption has to be kept as low as possible, especially in non-production time. To this end, a separate “energy team” organizes various activities, for example energy waste is investigated on “energy walks”, analyzed and improved as much as possible.

We would like to contribute to all these efforts by responsibly considering economic and environmental policy aspects and thereby ensure a livable tomorrow for the future.

**Günther Apfalter**  
President Magna Europe & Magna Steyr

# THE COMPANY

Magna International, with its four product areas, is a leading global automotive supplier with 347 production locations and 92 centers for product development, engineering and sales in 28 countries. Thanks to innovative processes and world class manufacturing, more than 168,000 employees around the world contribute to greater added value in the global automotive industry. No other company has such extensive knowledge of complete systems as Magna. This has made the company the most reliable partner in the automotive industry for decades. And for this reason, Magna technology is already found in two thirds of all vehicles currently in production. Magna is therefore ideally equipped to lead mobility into the future. The broad range of competencies are divided into the following key areas: Body exteriors & structures, power and vision, seating systems and complete vehicles.



## MAGNA INTERNATIONAL IS DIVIDED INTO 4 PRODUCT AREAS:

### Body exteriors & structures:



Exteriors



Body & chassis



Roof systems

### Power & vision:



Powertrain



Electronics



Mechatronics



Mirrors



Lighting

### Seating systems:



Seating

### Complete vehicles:



Vehicle engineering & manufacturing

## MAGNA STEYR GRAZ: A LOCATION WITH TRADITION

Magna Steyr is part of Magna International and a global company with over 12,400 employees at more than 30 locations on four continents. Over 100 years of experience in the automotive industry and the company's comprehensive range of services make Magna Steyr the worldwide leading, brand-independent engineering and manufacturing partner for OEMs.

The extensive services portfolio includes the areas of complete vehicle engineering and manufacturing.

The Magna Steyr plant in Graz plays a special role within Magna. Apart from its over 100-year-old history, the location is characterized by its large size and complete vehicle competence. The Graz location is the biggest Magna location within Magna International worldwide and it is also the only one where complete vehicles are

produced. At present around 9,300 people are employed in Graz. This makes Magna Steyr one of the biggest employers in the region.

As a result of the flexibility and the proximity to the engineering at the Engineering Center Austria, which is also located at the site, Magna Steyr can offer its customers particular added value. The company can already look back at more than 3.5 million vehicles, divided across 29 models.

# MAGNA STEYR GRAZ – VEHICLE HISTORY

From the historic Voiturette to the current model range, a total of more than 3.5 million vehicles have rolled off the production lines at Magna Steyr in Graz since 1906. This includes the Mercedes-Benz G-Class, which has been manufactured in Graz for 40 years, making it one of the world's longest produced models.

1906



**Voiturette**  
(1906)



**Puch 500/650/700c/126**  
(1957 – 1975)



**Alpenwagen**  
(1919)



**Haflinger**  
(1959 – 1974)



**VW Transporter T3 4x4**  
(1984 – 1992)



**VW Golf Country**  
(1990 – 1991)



**Pinzgauer**  
(1971 – 2000)



**Mercedes-Benz G-Class**  
(since 1979)



**Mercedes-Benz E-Class**  
(1996 – 2002)



**Chrysler Voyager**  
(2002 – 2007)



**Mercedes-Benz E-Class**  
(2003 – 2006)



**Saab 93 Cabrio**  
(2003 – 2009)



**Jeep Grand Cherokee  
ZG, WG, WJ**  
(1994 – 2004)



**Mercedes-Benz M-Class**  
(1999 – 2002)



**Aston Martin Rapide**  
(2010 – 2012)



**Jeep Commander**  
(2006 – 2010)



**BMW X3**  
(2003 – 2010)



**Jeep Grand Cherokee WH**  
(2005 – 2010)



**Mercedes-Benz SLS AMG**  
Aluminum body  
(2009 – 2014)



**MINI Paceman**  
(2012 – 2016)



**Peugeot RCZ**  
(2010 – 2015)



**Chrysler 300 C**  
(2005 – 2010)



**MINI Countryman**  
(2010 – 2016)



**Jaguar I-PACE**  
(since 2018)



**BMW 5 Series**  
(since 2017)



**BMW Z4**  
(since 2018)



**Toyota GR Supra**  
(since 2019)

2019



**Jaguar E-PACE**  
(since 2017)

# INTEGRATED MANAGEMENT SYSTEM



We define our mission as the fulfillment of the needs and expectations of our stakeholders (customers, employees, owners, suppliers and partners, society) by means of customer-oriented, efficient and ethically compliant, resource-friendly, sustainable and safe processes.



*“After successfully converting to the current revisions of the standards last year and the associated adjustments to our WCM&E network, the stations are now set up with contents, targets and KPIs. Alongside the Integrated Management System, the Magna Steyr Development System and our production system Mafact are the main programs for bundling our four lines and leading us to World Class Manufacturing & Engineering.”*

Erwin Fandl,  
Vice President Complete Vehicle Manufacturing

## OUR MISSION IS TO MEET REQUIREMENTS

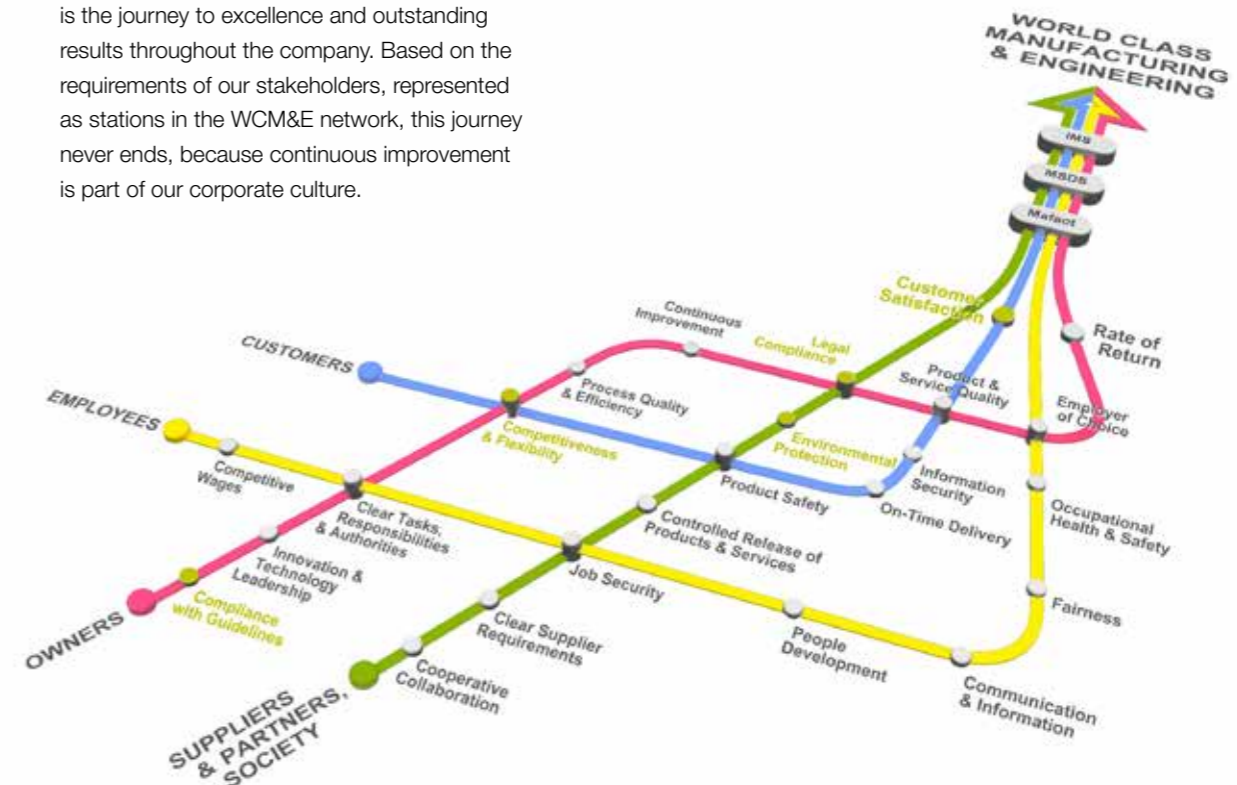
## OUR GUIDELINES FOR OUR DAILY ACTIONS ARE SHOWN IN OUR CORPORATE POLICY

Our corporate policy includes our quality policy, environmental policy, safety and health policy as well as our information security policy.



## WORLD CLASS MANUFACTURING & ENGINEERING

is the journey to excellence and outstanding results throughout the company. Based on the requirements of our stakeholders, represented as stations in the WCM&E network, this journey never ends, because continuous improvement is part of our corporate culture.



An instrument for management and control:

# THE INTERNAL ENVIRONMENTAL AUDIT

EMAS (Eco-Management and Audit Scheme) is the European environmental management system and a voluntary instrument which supports companies and organizations of every size and branch to continuously improve their environmental performance. The underlying regulation is the EU EMAS regulation. The EMAS certification has been an integrated component of the management system at the Graz plant since 1999. The basis of the environmental management is the control loop for continuous improvement. Whether what has been planned has actually been achieved is assessed every year in the "Check" section.

## What is the internal environmental audit?

The internal environmental audit comprises a review of the legal conformity, a review of the continuous improvement and the internal system audits. The internal system audits are organized and carried out within the framework of the integrated management system. The quality, environment, safety, and information security management systems are audited in an integrated approach.

The main contents of the spot checks in the audit are:

- Determining the significant environmental aspects
- Implementation of the environmental policy and environmental goals
- Analysis of opportunities and risks and the implemented measures
- Compliance with legal requirements, permits, and Magna environmental requirements

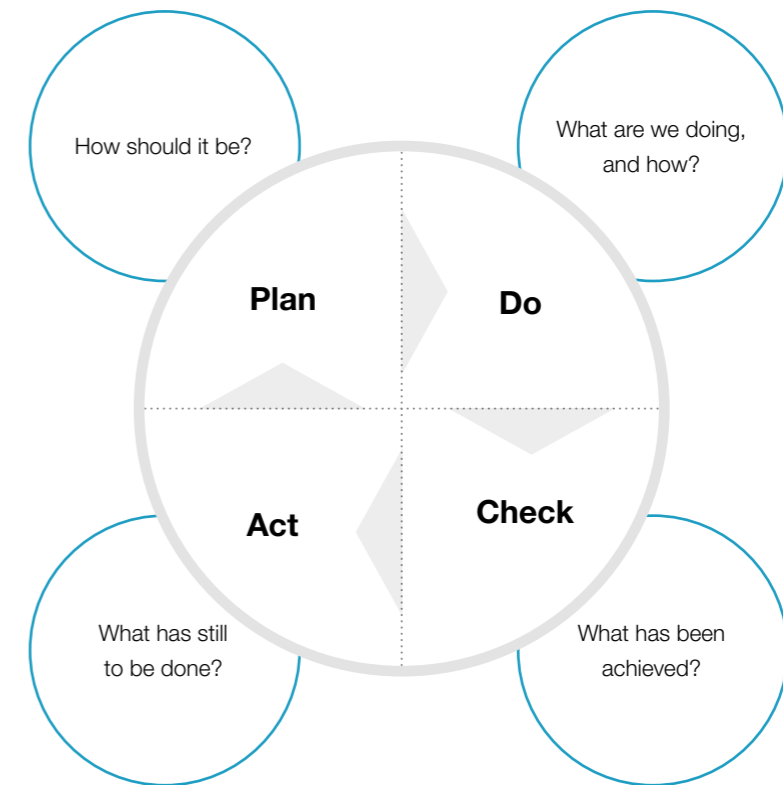
- Internal and external reviews within the framework of operational control
- Improvement measures in the event of environmentally relevant incidents

Based on the specified scope of the environmental management system, the program for the internal system audits is prepared for a three-year cycle.

The basis for this is formed by the relevant

- Business processes of the company
- Locations where the company is active
- Areas such as buildings and organizational units
- Binding obligations

All the activities in the company have to be audited in the three-year period. The internal environmental audit is performed annually



and the frequency of the review of the activities depends on the importance of the environmental impact or whether problems were identified in previous environmental audits.

## What has to be done afterwards?

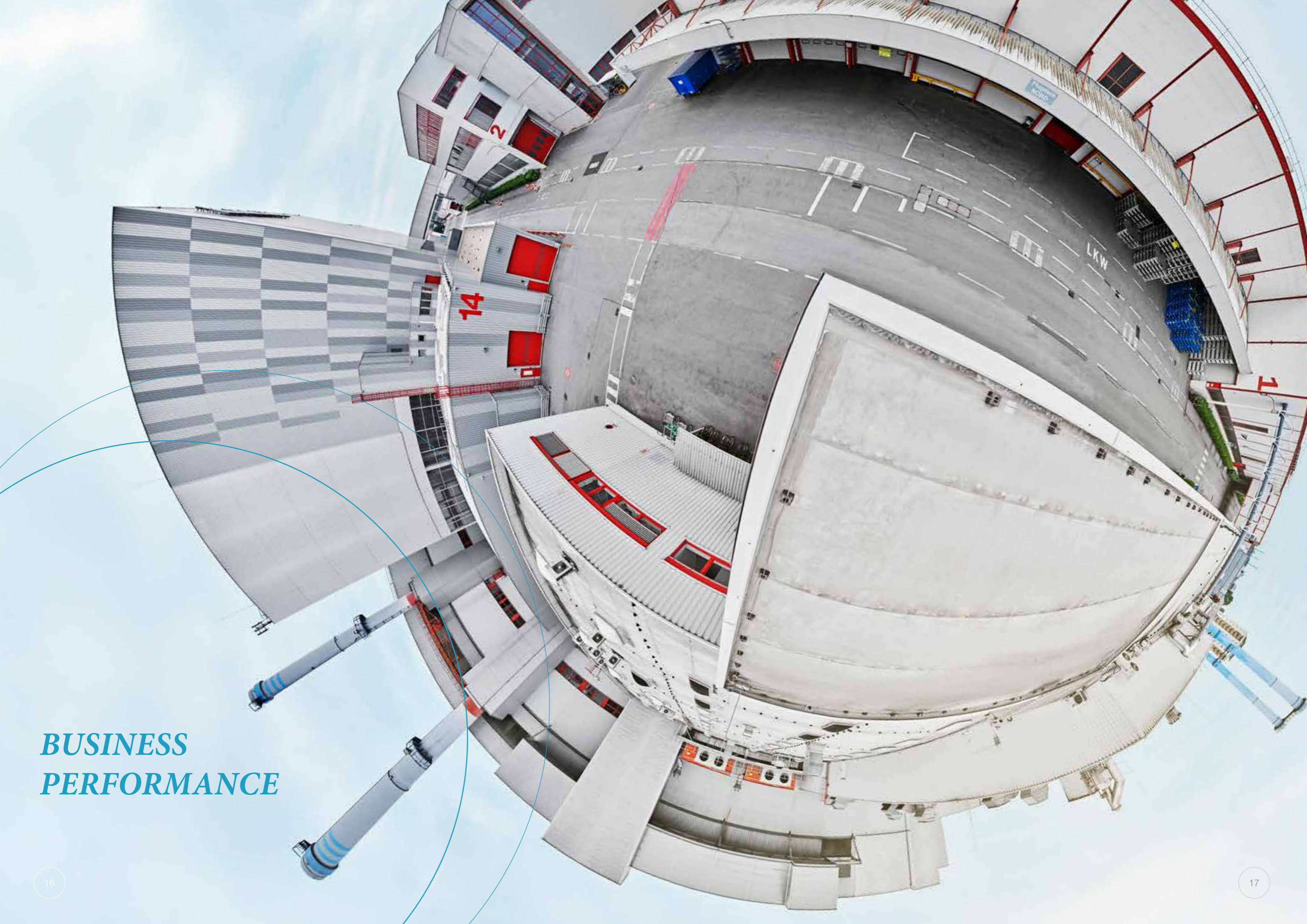
The result of the system audit is recorded in a database with individual audit reports and audit findings, which are deviations from the requirements or opportunities for improvement. Those findings are assigned to the responsible persons. The evaluation time for audit findings from internal audits is 60 calendar days. Failures to comply with this period will be escalated to the top management.

## The internal environmental audit report

The summary of the internal environmental audit over a calendar year is documented in a report, which is presented to the top management as part of the management review.

Samples of the result of the internal environmental audit are audited by the EMAS environmental verifier and represents a material basis for the awarding or the perpetuation of the EMAS certificate.





**BUSINESS  
PERFORMANCE**



Creativity & progress for the environment

# INNOVATIVE IDEAS FOR SUSTAINED MOBILITY SOLUTIONS

The environment plays a large role in the mobility of tomorrow and is also the focus of research and development. In Innovation Management at Magna Steyr we are looking at sustainability subjects and environmental protection, among other things innovative new solutions that help the environment are rewarded in the annual Innovation Award. Franz Mayr, Head of Innovation & Creativity Management, explains in an interview how and to what extent innovative ideas are helping to create the environmentally friendly mobility of the future.



*“A common strategy of all divisions working on environmental subjects at Magna Steyr gives us the chance to set sustained and forward-looking activities for the environment.”*

Franz Mayr,  
Head of Innovation & Creativity Management

**How important do you believe the aspect of “Environmental Impacts” is in Innovation Management?**

I think that previous actions with the environment have led to massive changes in our quality of life and will continue to do so. The environment therefore has to be strongly anchored in every area of the company and of the economy. Innovation Management mainly deals with future topics, promotes and supports – namely the innovations of the future – and thus is also committed to the impacts on the environment.

**To what extent is the subject “Environment” integrated into the Innovation-Development-Process of Magna Steyr?**

Project reporting in the Innovation-Development-Process ensures that the

environment is considered if necessary or if there are uncertain conditions and that this is also documented – for example when introducing new materials.

**Why is it important for Magna Steyr to look at this subject in the area of Innovation Management as well?**

As already mentioned, I see the growing and increasing need to massively promote the subjects of environmental aspects and sustainability from Innovation Management in particular and to establish them more strongly in the company.

**Magna Steyr presents the Innovation Award every year. Have some innovations, which reduce the environmental impacts in vehicle engineering and manufacturing, already been rewarded?**



# ACHIEVEMENTS AND AWARDS

At Magna Steyr, on one hand we look for new systems, processes and methods that support the development economically. And on the other hand, we are also looking for potential in production in order to manufacture more efficiently and economically. In its evaluation criteria, our Magna Steyr Innovation Award primarily aims at efficiency, however some winning projects show that environmental aspects also play a large role – from new connection technologies with less energy and material consumption to alternative, CO<sub>2</sub>-neutral drives.

## How do you assess the future importance of the environmental aspects for Innovation Management?

To bring environmental aspects more into the foreground, in Innovation Management we want to establish an Environment and Sustainability Award. By promoting our “Car-Remanufacturing” and “End of life – second use” projects, we are looking to the future with an eye on the environment.



## MAGNA STEYR WINS EMAS PRIZE 2018

### Award for innovative environmental management and best environmental statement

After 2006 and 2015, on September 25, 2018, Magna Steyr was awarded the EMAS (Eco-Management and Audit Scheme) prize by the Federal Ministry of Sustainability and Tourism for the third time.

With its current work on an enhanced environmental performance and its environmental statement, in which the performances are comprehensively represented, the company was able to be convincing across the line. Impressive insights

into the company's environmental work are granted under the title “360° Perspectives”. But the focus of every employee, whose work makes the honored environmental balance of Magna Steyr possible, makes the annually published report the award-winning highlight for the third time.



## 21<sup>ST</sup> ÖKOPROFIT® AWARD FOR MAGNA STEYR

### Graz site scores with resource-saving package of measures

Magna Steyr is concerned about the environment. Sustainable solutions have been worked on at the Graz location at various levels for many years. This commitment has been rewarded by the city of Graz for the 21st time with the ÖKOPROFIT® award for particularly

effective measures for saving resources and operational emission reductions.

ÖKOPROFIT® stands for “Ecological project for integrated environmental technology” and is the environmental program of the city of Graz.

In concrete terms, the Graz location has been able to assert itself with a large number of environmental goals that were realized in 2017 in the areas of infrastructure and transport logistics: Needs-based heat supply; reduction in operating times for extraction fans; conversion of the ventilation systems with heat recovery system; innovative solar system for hot water production and use of an electric truck in intra-logistics.





## EXCLUSIVE LIVE SHOW FOR JAGUAR I-PACE

### World premiere at Magna Steyr in Graz

The first fully electric vehicle from Jaguar Land Rover celebrated its unveiling on March 1, 2018 at Magna Steyr in Graz in the equally new body-in-white hall. A globally live-broadcast world premiere show presented the elegant Jaguar I-PACE to an international public. Customers and media representatives from

across Europe, along with the employee teams from both companies were on site to welcome the vehicle, which going forward will be produced at Magna Steyr. The exciting technical presentation of the electric car was followed by an entertaining live show with numerous exclusive insights into vehicle production at Magna Steyr.

## PRODUCTION START FOR THE MERCEDES-BENZ G-CLASS

### New version of the SUV legend from Graz

The Mercedes-Benz G-Class has been manufactured at the Magna Steyr plant in Graz for 40 years and excites off-road fans around the world. The new version of the icon was presented in Detroit in early 2018, production started in Graz on May 17 together with the customer Daimler.

The G-Class has remained true to its successful concept: The fast car is still impressive as one of the most powerful SUVs in the world, both with its excellent technology and its characteristic shape. These advantages were seen by the roughly 3,000 guests at the party celebrating the start of production: As well as live entertainment, the off-roader showed what it's got in test drives and a vehicle exhibition!



## KICK OFF FOR THE NEW BMW Z4

### Sports car manufactured in the Graz plant since November 2018

Magna Steyr and the BMW Group had a sporting reason for a party at the end of last year: In early November, mass production of the new BMW Z4 started in the Graz plant. The roadster is already the fifth vehicle from BMW to be manufactured at the plant. The new model follows a production line together with the BMW 5 Series both in body-in-white and assembly.

## TOP POSITION IN THE J.D. POWER INITIAL QUALITY STUDY

### Magna Steyr Graz is one of the best automotive productions in the world

In the annual J.D. Power Initial Quality Study, the Magna Steyr plant in Graz 2018 was once again able to achieve an excellent result: The BMW 5 Series production was rated the fifth-best plant in the Europe/Africa region and the second-best BMW plant worldwide, thus has pinnacle ranking among the best automotive productions in the internationally highly valued J.D. Power plant rankings. That the production of the BMW 5 Series was able to impress so much in its first production year is particularly pleasing.





## ENERGY GLOBE AUSTRIA AWARD 2018 FOR FCREEV

### Demonstrator vehicle from Magna Steyr wins in the category "Air"

Great success for Magna Steyr in the globally renowned environmental award: With its demonstrator vehicle FCREEV – "Fuel Cell Range Extended Electric Vehicle", the company was able to succeed against dozens of other projects and achieved first place in the Austrian

edition of the Energy Globe Austria Awards 2018 in the category "Air".

The FCREEV was impressive with its environmentally friendly solution in the area of mobility, in which conventional battery technology is combined with hydrogen-powered fuel cells to minimize pollution.



## EXCELLENCE IN LOGISTICS REWARDED WITH INBOUND NETWORK OPTIMIZATION AWARD

### Magna Steyr convinces with its analytical Supply Chain Management approach

As part of a wonderful gala in Bonn, the Automotive Logistics Awards Europe were held for the first time in 2018. At the premiere of this high-class event, Magna Steyr was able to win the Inbound Network Optimization Award, which represents recognition for significant improvements in procurement logistics processes.

The company received the award for its value-added analytical process in supply chain management. As a result of the company's automatic transport tracking system, all cargo movements can be traced and visualized online.

This ensures a precise delivery and, if necessary, the instigation of early emergency measures.



## VISIT BY THE EU TRANSPORT MINISTERS TO MAGNA STEYR IN GRAZ

### Excursion to the mobility of tomorrow

On October 29, 2018, a delegation of high-ranking EU representatives along with representatives from the Austrian Ministry for Transport, Innovation and Technology visited the Magna Steyr site in Graz and learned about the mobility subjects of the future. The excursion was part of an informal EU transport and environment council and was led by Norbert Hofer, former Austrian Minister for Transport, Innovation and Technology.

The focus of the tour through the Graz plant was on the exciting stations of Smart Mobility Solutions, Green Environment Solutions and Road Safety Solutions, where politicians from all over the world were shown intelligent transport solutions of tomorrow, alternative drive solutions and approaches and solutions for safe and autonomous driving.

## MAGNA STEYR ANNUAL CELEBRATION REWARDED

### EVA B2B Event Award in the category "Best employee event"

On December 2, 2017, probably the largest employee party of the year took place in the Graz Stadthalle: More than 7,000 guests accepted the invitation from Magna Steyr to celebrate the end of the year together. A 34-meter wide screen, a 100-member gospel choir, and the popular music cabaret duo

Pizzeria & Jaus provided a brilliant look back over the year. After the opening, the stage was free for additional live bands, the party buffet menu in a cinnamon and sugar décor, and the cabin bars. The motto "Cinnamon & Sugar" was well received by the employees – and by the jury of the Austrian EVA B2B-Event-Awards. The atmospheric annual celebration won first prize in the category "Best employee event".





# ENVIRONMENT

# FOCUS ON THE ENVIRONMENT

With our daily actions, every one of us generates environmental impacts, known as environmental aspects. A stable, functioning and competitive location should constantly reduce its use of raw materials and energy and the environmental impacts created in the company and keep them as low as possible.

Through a series of measures and investments within the framework of the 2018 environmental goals, a reduction in heat and power consumption of approx. 350 MWh was achieved. This energy saving corresponds to the annual heat and power consumption of approx. 34 single-family houses. Furthermore, 1,200 tons of CO<sub>2</sub> and 35 tons of waste was saved and numerous unquantifiable measures have been implemented (see environmental achievements 2018 in the annex).

The **direct environmental aspects** of Magna Steyr Graz, which will be reported in detail below, result from the following:

- The consumption of resources (raw materials, energy, area),
- The release of waste materials in solid, liquid and gaseous form.

The assessment of direct environmental aspects was made in accordance with the criteria quantity, environmental hazard, legal requirements and stakeholder requirements.

The **indirect environmental aspects** represent environmental impacts that Magna Steyr Graz can influence to a certain extent. They result from interaction with third parties (e.g. employees, suppliers, customers).

## INPUT/OUTPUT BALANCE

In 2018, a total of 160,886 vehicles were produced at the Graz location<sup>3</sup> (reference value for calculating the core indicators) and approx. 9,700 people were employed. The total property area (incl. rented spaces) is 908,800 m<sup>2</sup>.

INPUT	UNIT	2018
<b>Absolute indicators</b>		
Direct production material	t	307,198
Indirect production material	t	2,018
Water consumption <sup>1</sup>	m <sup>3</sup>	453,636
Energy consumption		
Power <sup>1</sup>	MWh	109,840
District heat <sup>1</sup>	MWh	74,459
Natural gas <sup>2</sup>	MWh	81,418

- 1) Incl. consumption of service providers and tenants working on site  
 2) Excl. consumption by the external heat supplier  
 3) Incl. SKD (Semi Knocked Down) and CKD (Completely Knocked Down) production and engineering prototypes  
 4) Mega odor units  
 5) Incl. emissions by the external heat supplier  
 6) Excl. amounts from construction activities and service providers and tenants active on site

OUTPUT	UNIT	2018
<b>Absolute indicators</b>		
Complete vehicles <sup>3</sup>	pcs.	160,886
Components from aerospace sector	t	9
Air emissions		
Odor emissions	MGE <sup>4</sup>	1,972,792
Solvent emissions	t	189.8
of which are organic carbon emissions	t	133.3
Carbon dioxide <sup>5</sup>	t	31,586
Carbon monoxide <sup>5</sup>	t	14.0
Nitrogen oxides <sup>5</sup>	t	29.6
Dust	t	7.5
Wastewater <sup>1</sup>		
Discharge into sewage system	m <sup>3</sup>	413,116
Pipe bursts, losses, evaporation and test-track irrigation	m <sup>3</sup>	40,520
Waste <sup>6</sup>		
Hazardous waste	t	2,223
Non-hazardous waste	t	9,945

## ENVIRONMENTAL ASPECTS OF MAGNA STEYR GRAZ

DIRECT ENVIRONMENTAL ASPECT	SHORT DESCRIPTION
Air emissions	Odor, volatile organic compounds (VOC) released by solvents, organic carbon emissions, carbon dioxide, carbon monoxide, nitrogen oxides, dust, greenhouse gases
Wastewater	Fecal wastewater, industrial wastewater, wastewater from oil separators, wastewater from grease separators, unpurified surface water, surface water from meteor water purification plants
Soil contamination	Contamination of unsealed surfaces during abnormal conditions
Water consumption	Municipal and well water
Material consumption	Direct and indirect production material
Energy consumption	Power, heat and natural gas
Noise	Internal traffic, facilities, personnel and visitors
Waste generation	Hazardous and non-hazardous waste
Land consumption	Built-up and fortified areas
INDIRECT ENVIRONMENTAL ASPECT	SHORT DESCRIPTION
Product development	Environmentally compatible product development for vehicles and components
Innovation development	Environmentally relevant innovations for mobility solutions
Production process development	Environmental performance improvements in production processes and plants
Procurement	Environmental requirements for suppliers and service providers
Packaging planning	Environmentally relevant requirements with regard to packaging
Transport	Environmentally relevant requirements regarding transport and transport planning
Staff mobility	Environmental impact caused by employees on their way to work and on business assignments (business trips)





Magna Steyr & its customers

# *TOGETHER WE ARE STRONG FOR THE ENVIRONMENT*

Sustainable thinking beyond the borders of Magna Steyr: It is not just the company that has committed itself to environmentally friendly production, but also its customers. Together with them, internal requirements for sustainable manufacturing are contractually agreed – in this way Magna Steyr and its customers together ensure the best possible environmental protection in all relevant areas.





EVA MACHEINER & HENNING SOMMER  
GERHARD GRATZER & WALTER GANTNER

In the manufacturing process of a product, environmental and sustainability-related obligations play an essential role in addition to the quality requirements. In this sense, Magna Steyr has already been committed to this for many years with a variety of measures for a more environmentally friendly vehicle production. But sustainability also plays an essential role for the company's customers. As Magna Steyr serves different customers, the particular requirements for environmental protection and sustainability also differ – there are, for example, customer-specific material requirements, the filling of sustainability questionnaires or the reporting of KPIs.

Magna Steyr meets these different requirements within the framework of specific activities: KPIs are reported, for example, by the responsible environmental division officer. This is contractually regulated and must be performed at specified intervals. Particular attention is paid here to the aspects of waste generation, energy and water consumption. The KPI reporting in a specially established input system serves as proof of compliance.

But there are specific customer requirements in the engineering department as well: Frequently, a separate sub-package about environmental protection and sustainability is included in the project query. This not

only may include statutory environmental requirements, but also customer requirements such as bans on materials, recycling capability or renewable raw materials. Whether the customer itself or Magna Steyr is responsible for the implementation and verification of the requirements is also specified. If the responsibility lies with Magna Steyr, the environmental product development is realized by the integration team for environment. Verification is performed by simulations and physical samples, for which the results are reported over the course of the project.

Another customer requirement is the answering of sustainability questionnaires via a platform provided by the customer. The valid environmental management certificates

have to be uploaded for this, for example, but detailed information about environmental management practices and social standards also have to be provided. To confirm the accuracy of the information, the uploading of verification documents is repeatedly requested. As part of the answers, Magna Steyr receives feedback from its customers about the questioned data and a conclusive confirmation through the final evaluation.

The high level of interest among customers in environmental protection and sustainability contributes significantly to the constant optimization of the environmental friendliness of the products and the operational environmental protection at the Magna Steyr site in Graz.

# MATERIAL CONSUMPTION

Material consumption includes the consumption of raw, auxiliary and operating materials as well as semi-finished products in industrial production. Magna Steyr Graz divides these input materials into direct and indirect production material.

The direct production materials include all materials that are built directly into the vehicle. For example, raw materials (metal sheeting,

leather, etc.), auxiliary materials (welding wire, adhesives, rivets, coatings, etc.) and semi-finished goods (engines, axles, gearboxes, wheels, windows, trim, etc.). All materials which are not built into the vehicle directly count as indirect production material. These include e.g. work equipment (gloves, cleaning cloths, etc.) and auxiliary materials (oils, greases, cleaning agents, various chemicals, etc.).



MATERIAL CONSUMPTION	UNIT	2018	2017	2016	2015
<b>Core indicator</b>					
Material efficiency <sup>1</sup>	kg per vehicle	1,922 <sup>2</sup>	1,835	1,627	1,467

<sup>1</sup> Input value: Consumption of direct and indirect production material  
<sup>2</sup> The increased value results from the higher proportion of heavy vehicles in the overall production volume.

## MATERIAL CONSUMPTION - ACHIEVEMENTS IN 2018

Reduction of material input for the ground sealing in Hall 82 (Business Unit H)

Optimized printing & copying

# ENERGY SAVING STARTS IN THE OFFICE

Protecting the environment when printing and copying – does that work? Yes, and to a large and considerable extent, as the Functional Department Information Management of Magna Steyr has proven: In the last few years, a comprehensive analysis of the material and energy consumption of multi-function devices (print, fax and scan) was performed at the Graz location. Every device was evaluated and a huge amount of saving potential was identified, which since then has been utilized as efficiently as possible. The best thing about this: Every employee can make a contribution!

# WATER CONSUMPTION

The device analysis and the innovative concepts based on it have caused a large number of savings over the last few years – above all through energy-saving multi-function devices and independent print services: With these, employees can print out and collect their print jobs at any multi-function printer, whereby the number of printers was reduced. Uncollected print orders are deleted after 24 hours and additional information campaigns also promote resource-saving printing.

By complying with environmental and energy standards such as the “Blue Angle”, the “Energy Star” or the “Austrian Environmental Seal”, other requirements regarding the reduction in energy consumption have also been implemented. When procuring the multi-function devices, the fulfillment of specific technical requirements regarding power consumption is another important factor.

In addition, environmental and health benefits have also been achieved by positioning the devices outside the working rooms. Strict requirements on the release of particles and a reduction in pollutants for the devices play an important role here.

The use of multi-function printers per se has led to great changes. But numerous other savings have also been realized in daily operations: Thus the management of energy options on the printer implements an appropriate energy

saving. Through the standardized setting of black-and-white printing, the use of toners is also reduced.

With regard to saving paper, multi-page representation on one side and the standard setting of “duplex printing” (printing on both sides) has been introduced. Approx. 400,000 pieces of paper are saved annually on the multi-function devices. The new “SecurePrint” mode (automatic deletion after 24 hours) allows a further reduction in paper consumption of 16 % per year on average.

Not least, the focus of the work was on applications for the material cycle: The cycle starts with the order, so consumables are monitored on all multi-function devices and are automatically ordered and checked again by an employee. Warnings for toner and consumables are optimized on all devices in order to avoid early replacement. A toner cartridge can only be replaced when it is completely empty. The recycling programs of the manufacturers have been optimized in order to guarantee the best possible recycling of consumables and thus to prevent environmental pollution through transport and disposal.

Our environment profits from all these targeted measures – and every employee has the possibility to make his contribution to more sustainability.

The water consumption describes the use of amounts of water by humans.

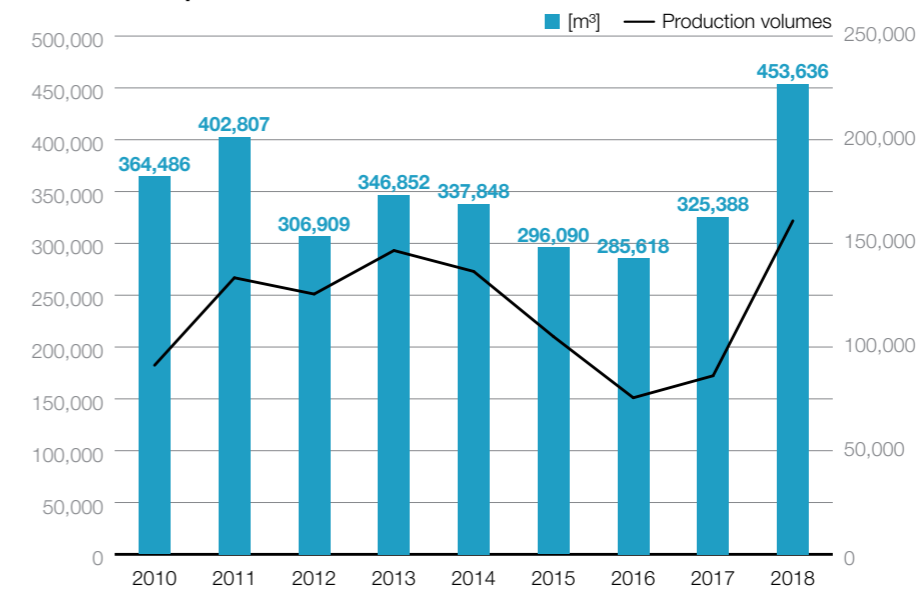
The water demand of the Graz location is covered primarily by abstraction from the company’s wells. Additional municipal water is

used for the drinking water supply. The water supply for the social areas consists of a blend of well water and municipal water. The drinking water quality is ensured through regular inspections.

WATER CONSUMPTION	UNIT	2018	2017	2016	2015
<b>Core indicator</b>					
Water <sup>1</sup>	m <sup>3</sup> per vehicle	2.82 <sup>2</sup>	3.77	3.78	2.82

1) Input value: Water consumption  
2) The lower value compared to 2017 is caused by the increased production volume.

Water consumption



Significant influence factors in water consumption are the use of sanitary water (employee-dependent) and process water (production-dependent). A linear relation between water consumption and production volume therefore does not necessarily exist.

# ENERGY CONSUMPTION

Energy consumption indicates the amount of energy required to meet the current energy demand of the ongoing operation.

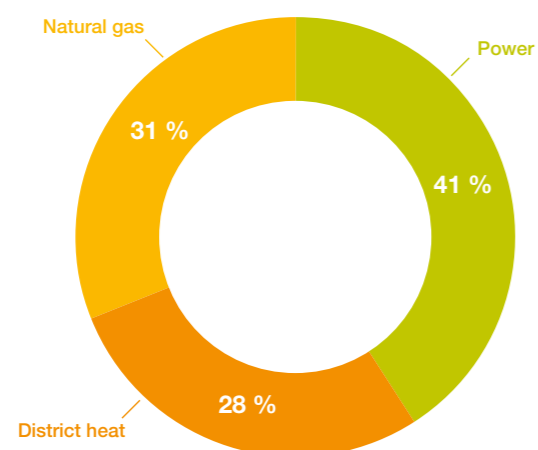
At Magna Steyr Graz, the energy sources used are power, district heat and natural gas. Power is supplied almost entirely by an external

supplier. The heat supply also comes from external suppliers and is provided via the boiler house on site. For transparent representation of energy consumption per business unit the detailed production-related metering structure is constantly being developed.

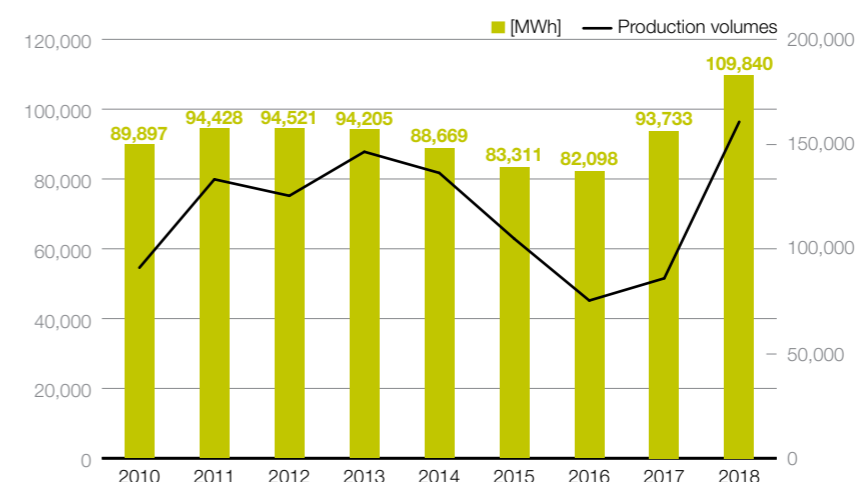
ENERGY CONSUMPTION	UNIT	2018	2017	2016	2015
<b>Core indicators</b>					
Energy efficiency <sup>1</sup>	MWh per vehicle	1.65 <sup>3</sup>	2.81	2.75	1.98
Energy efficiency of renewable energies <sup>2</sup>	MWh per vehicle	0.69 <sup>3</sup>	1.09	1.09	0.79

<sup>1</sup> Input value: Power, district heat and natural gas consumption  
<sup>2</sup> Input value: Power consumption (100 % power from renewable sources) and heat consumption from renewable energy sources  
<sup>3</sup> The lower value compared to 2017 is caused primarily by the increased production volume.

## Distribution of energy consumption in 2018

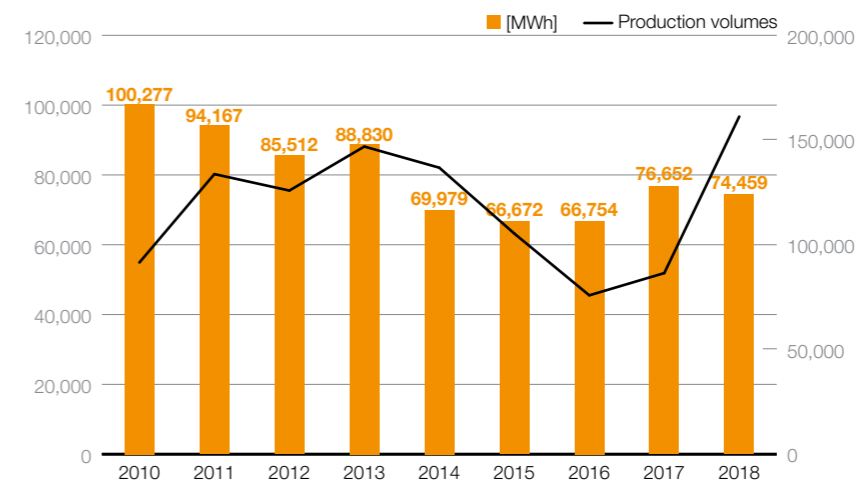


## Power consumption



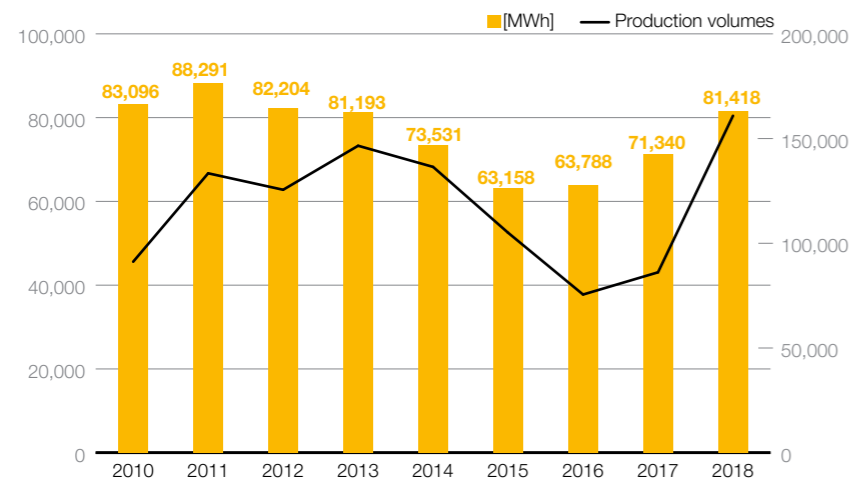
Power consumption is determined by the production volume, the degree of automation as well as by the number of employees.

## Heat consumption



Heat consumption is influenced by the size of the areas to be heated. Climatic conditions during the cold months also have an influence. The reduced heat consumption results from the energy efficiency measures implemented in the last few years.

### Natural gas consumption



The natural gas consumption volume is influenced by the process and by climatic conditions.



MANUEL OSWALD & RAINER EIBLER

Using energy more efficiently

# THE ENERGY TEAM SHOWS HOW TO DO IT

Who wants to do something for the environment, has to become active: For this reason, Magna Steyr has established an energy team at the Graz location as part of the central energy management, which should constantly improve the energy-related performance, including energy efficiency, energy use and energy consumption. In practice, the energy team looks for energy-saving potential, e.g. on “energy walks”, which among other things lead to a more efficient use of energy and a reduction in greenhouse gas emissions. A win-win situation for the company and the environment! Currently, the energy team is identifying unnecessary energy consumption in non-production time and is devoting itself to renewing the heat supply.

#### ENERGY CONSUMPTION - ACHIEVEMENTS IN 2018

- Reduction of heat energy consumption in Hall 2 by approx. 3 % (Facility Management)
- Reduction of heat energy consumption in Hall 10 by approx. 1 % (Facility Management)
- Reduction of electrical energy consumption in Hall 22 by approx. 3 % (Facility Management)
- Reduction of electrical energy consumption by means of a photovoltaic system in Hall 57 (Facility Management)
- Reduction of electrical energy consumption through the optimization of plant technology and hall lighting in Hall 82 (Business Unit H)
- Reduction of energy consumption for compressed air generation by avoiding losses in the compressed air infrastructure (Business Unit H)
- Reduction of energy consumption for compressed air generation by avoiding losses of process compressed air in Hall 82 (Business Unit H)
- Reduction of electrical energy consumption of the heat lamps in Hall 12 by approx. 48 % (Business Unit G)
- Reduction of electrical energy consumption of unneeded consumers (monitors, televisions, etc.) outside operating hours in Hall 12 (Business Unit G)
- Reduction of natural gas consumption in the top coat line 3 by approx. 17 % and decrease of odor emissions (Business Unit Painted Body)
- Reduction of electrical energy consumption for the supply air system in the cathodic dip painting by approx. 30 % (Business Unit Painted Body)
- Reduction of electrical energy consumption for the supply air system in Hall 8 (Business Unit Painted Body)
- Reduction of electrical energy consumption for the lighting of the production rooms at Aerospace Puchstrasse (Aerospace)



GERHARD GRATZER, CHRISTIAN OGRADNIG & MARKUS BINDER

In order to achieve the aims of the energy management, energy-consuming systems, activities, products and services have to be analyzed, assessed and optimized. Because of the different parameters, energy use for the process or for the infrastructure is separated. Requirements from legal provisions and the global Magna guidelines, as well as economic reasons, are also taken into account.

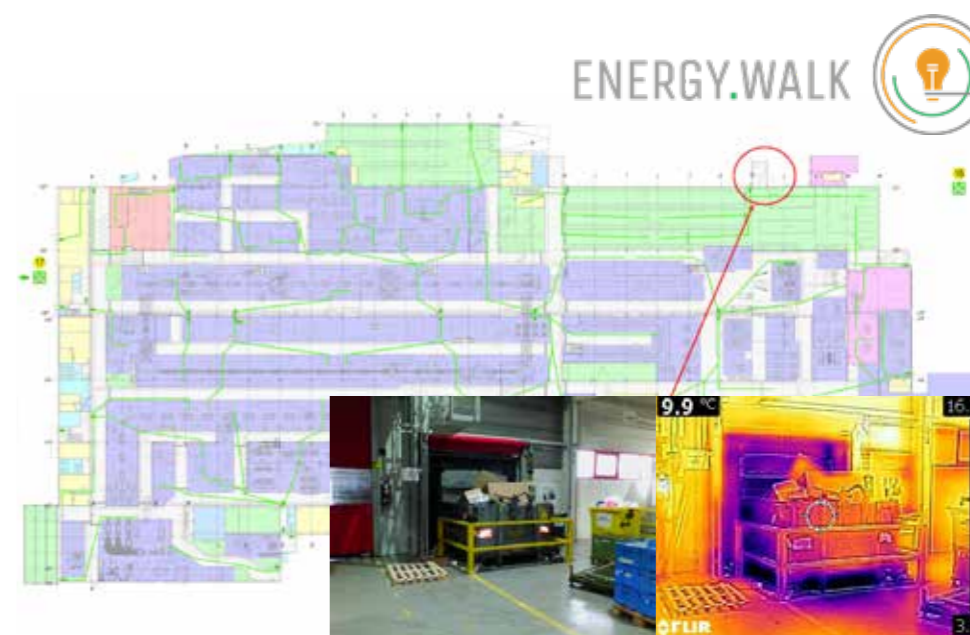
### THE ENERGY TEAM

In addition to the central energy management, the Magna Steyr energy team in Graz is responsible for the operational activities of the energy management – for example for projects such as the “energy walks” and for general awareness-raising. The energy team meets monthly and documents its results in an IT tracking system. Using the environmental and energy management system, environmental and energy programs can be created for the individual company divisions, which are agreed with the general manager and the environmental officers of the divisions.

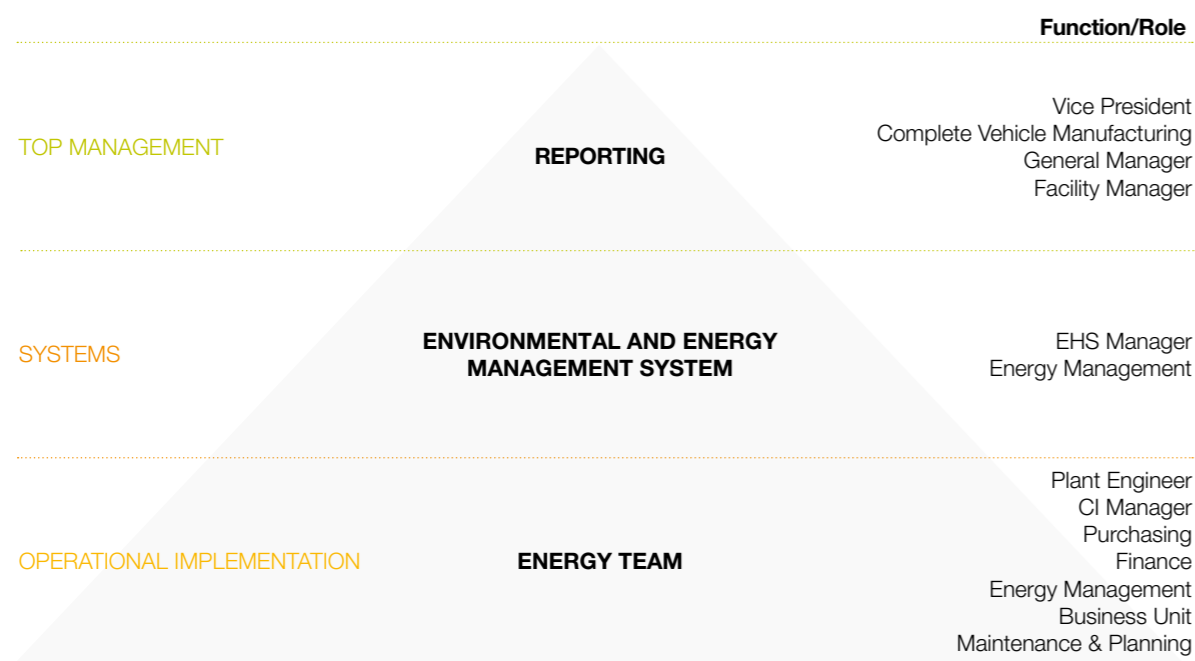
### ENERGY WALKS

Energy Walks are regular tours in the halls and office buildings with the aim of identifying and evaluating sources of unnecessary energy consumption, for example lights switched on, windows left open, or machines activated. They take place at least once a year for each

production area and are always carried out in non-production times so that the results are not falsified. After the walks, a report is prepared, in which the individual to-dos are assigned to a responsible person and recorded in the IT tracking system. An Energy Walk is complete when all the items have been worked off and confirmed.



Example of an energy-saving potential because of heat losses



# LAND CONSUMPTION

## ENERGY REDUCTION IN NON-PRODUCTION TIME

A focus of 2019 is to lower energy consumption in non-production time. The basis for this is provided by the energy monitoring program "Mepis", which makes the saving potential visible to begin with. In order to achieve reductions, an additional procedure called "Reporting energy waste in non-production time" has been established. "Energy wasters" are documented during every tour by the plant security and are reported to the person responsible for processing. When an item is marked as completed, it is assessed by the energy management and documented as a measure for attaining the goal.

## RENEWING THE HEAT SUPPLY

In order to secure the heat supply at the site, three gas boilers were modernized and two boilers replaced in cooperation with the plant engineering as part of a two-year plan. On one hand, modernization increases the efficiency, and on the other the hot water production is adjusted to the requirements and guarantees a needs-based, efficient operation.

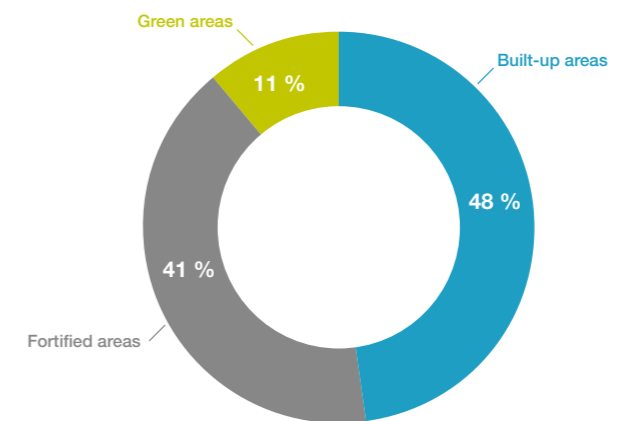
A significant challenge in space management is integrating the new vehicle and engineering projects through the best possible use of existing land and buildings at the site. If land and space capacities are not sufficient,

additional space has to be leased in surrounding areas and added to the reported land consumption. Areas are divided into built-up areas, fortified areas and green areas.

LAND CONSUMPTION	UNIT	2018	2017	2016	2015
<b>Core indicator</b>					
Land consumption <sup>1</sup>	m <sup>2</sup> per vehicle	5.03 <sup>2</sup>	8.73	9.43	6.42

<sup>1</sup> Input value: Built-up and fortified areas  
<sup>2</sup> The lower value compared to 2017 is caused by the increased production volume.

### Distribution of land consumption in 2018



The green areas make up roughly a tenth of the total area of the site.

# AIR EMISSIONS

Air emissions are air pollutants which can have an effect on the environment. The origin of air emissions can be caused both naturally and by people (anthropogenic).

Air emissions at the plant come mostly from the paint shop. The carbon dioxide and nitrogen oxide emissions come from the burning of gas for heating the supply air to the paint booths, from the drying ovens and for the heat supply for the plant.

AIR EMISSIONS	UNIT	2018	2017	2016	2015
<b>Core indicators</b>					
Solvent emissions <sup>1</sup>	kg per vehicle	1.15 <sup>5</sup>	1.31	1.30	1.10
Carbon dioxide <sup>2</sup>	kg per vehicle	196 <sup>5</sup>	359	364	251
Nitrogen oxides <sup>3</sup>	kg per vehicle	0.18 <sup>5</sup>	0.25	0.25	0.23
Dust <sup>4</sup>	kg per vehicle	0.05	0.05	0.05	0.05

1) Input value: Solvent emissions  
 2) Input value: Carbon dioxide emissions (incl. heat supply)  
 3) Input value: Nitrogen oxide emissions (incl. heat supply)  
 4) Input value: Dust emissions  
 5) The lower value compared to 2017 is caused by the increased production volume.

Sulfur dioxide emissions are irrelevant because only sulfur-free energy sources are used. The chlorofluorocarbon emissions, fluorinated hydrocarbon emissions and sulfur hexafluoride emissions are only used in closed systems (refrigeration plants and switchgears) and therefore not relevant either.

## AIR EMISSIONS – ACHIEVEMENTS IN 2018

Use of an electrically driven truck in logistics and thus an associated CO<sub>2</sub> saving (Supply Chain Management)

# NOISE

Noise describes sounds (sound) that may have a disturbing or stressful impact on people and the environment because of their volume and structure. Noise-relevant areas such as internal transport and operating plants are taken into account during the process of planning and approval by regulatory authorities.

The relevant areas and their sources of emissions are approved in the permit of the operating plant under commercial law. The local noise situation is largely determined by the A2, the highway feeder and the Liebenauer

Hauptstrasse. The noise emissions of the operating plant do not stand out in the local noise situation. The named transport carriers predominantly determine the noise level in the adjacent neighborhood.

Emission measuring points have been defined for checking compliance with the emission values. The approved values for the specific noise emissions differ between day and night. Compliance with the officially approved specific emissions was confirmed by an external expert in 2015.





# WASTEWATER

The individual wastewater collection points at the plant are divided into industrial, fecal, and surface water. All wastewater from the plant is discharged into the Graz-Gössendorf purification plant via the mixed wastewater system (indirect discharger).

The industrial wastewater, which mainly comes from the body pretreatment area, is

mostly contaminated with heavy metals (zinc, nickel, manganese) and organic contaminants (oils, greases, etc.). These are cleaned in the company's own wastewater purification plant before being discharged into the mixed wastewater system. Compliance with the limit values is periodically reviewed by independent, external experts.

## Prescribed wastewater limits by the authority and measured values in 2018

SUBSTANCES IN WASTEWATER AND WASTEWATER VOLUMES			
SUBSTANCE	UNIT	LIMIT	MEASURING RESULT <sup>1</sup>
Adsorbable organically bound halogens (AOX)	mg/l	1	0.14
Nickel	mg/l	0.4	0.04
Zinc	mg/l	1.1	0.01
Manganese	mg/l	0.9	0.18
Fluoride	mg/l	20	8.7
Sulfate	mg/l	400	95.1
Sulfite	mg/l	10	n.a. <sup>3</sup>
Hydrocarbons <sup>2</sup>	mg/l	15	0.05
Ammonia nitrogen	mg/l	200	11.9
Chemical oxygen demand	mg/l	15,000	51.7
Industrial wastewater per day	m <sup>3</sup>	967	244
Industrial wastewater per year	m <sup>3</sup>	235,000	72,578

1) Average values from external inspections  
 2) Measured as hydrocarbon index  
 3) Value not measurable because the content is below the detection limit

With the emissions in wastewater, the majority of values is significantly below the prescribed limits.

# WASTE GENERATION

The variety of waste fractions from the development and production of the various vehicles, which are manufactured at the site, makes waste management particularly important. The requirements for the proper collection and disposal are fulfilled in cooperation with Saubermacher Outsourcing GmbH.

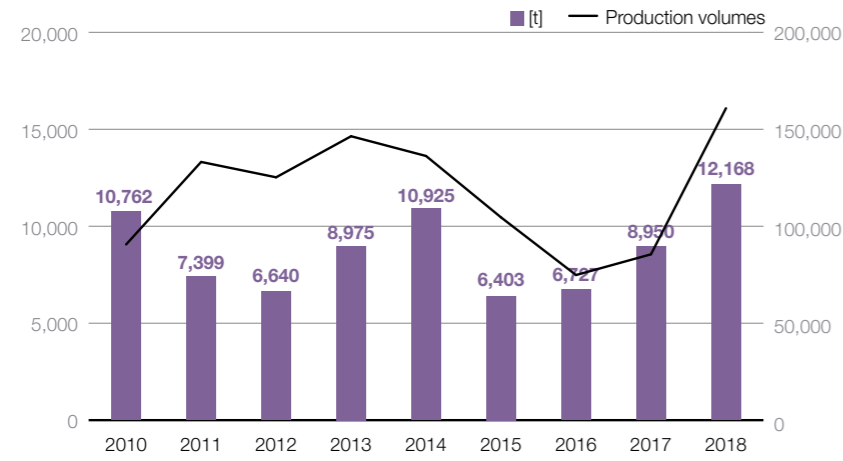
Currently approx. 45 people from the waste disposal service provider are working for the

waste management. There are multiple waste collection and waste separation stations at the Graz site. The waste collection containers are positioned at strategic points. The type of container is determined corresponding to the waste volume and the corresponding fractions. Around 50 large containers, compactors, a fleet with a waste-compact vehicle (multicar) and several forklifts and tow trucks are used for waste collection.

WASTE GENERATION	UNIT	2018	2017	2016	2015
<b>Core indicators</b>					
Hazardous waste for disposal <sup>1</sup>	kg per vehicle	7.69 <sup>5</sup>	10.8	12.8	9.7
Hazardous waste for recovery <sup>2</sup>	kg per vehicle	6.13 <sup>5</sup>	8.68	4.96	2.91
Non-hazardous waste for disposal <sup>3</sup>	kg per vehicle	0.01 <sup>5</sup>	0.07	0.04	0.09
Non-hazardous waste for recovery <sup>4</sup>	kg per vehicle	61.8 <sup>5</sup>	84.35	71.26	48.27

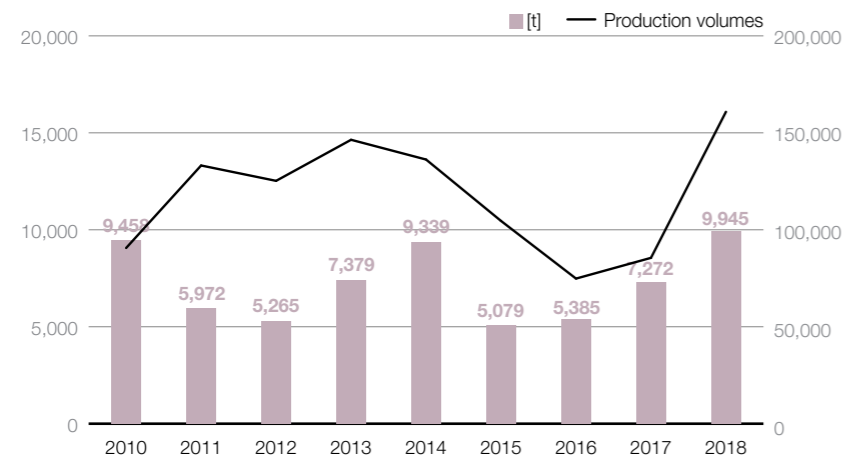
1) Input value: Volume of hazardous waste for disposal  
 2) Input value: Volume of hazardous waste for recycling  
 3) Input value: Volume of non-hazardous waste for disposal  
 4) Input value: Volume of non-hazardous waste for recycling  
 5) The lower value compared to 2017 is caused by the increased production volume and fewer production launches.

**Waste volumes – total**

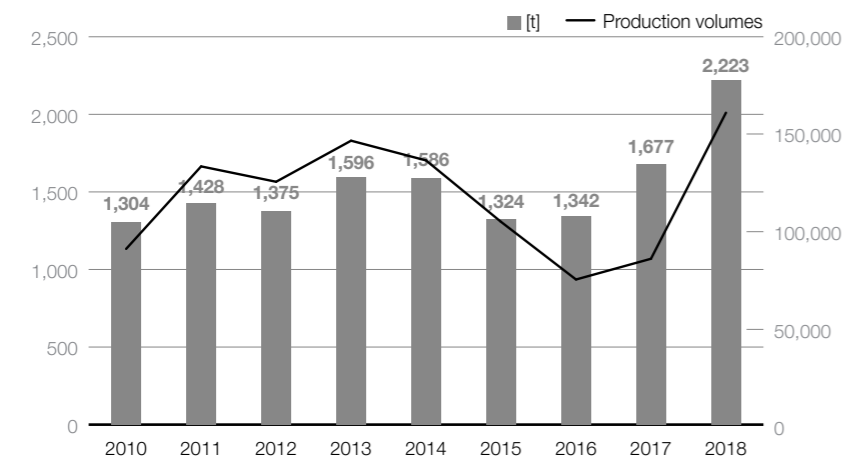


Waste volumes increased in 2018 due to higher volumes. The waste volumes from construction activities are not included in these statistics.

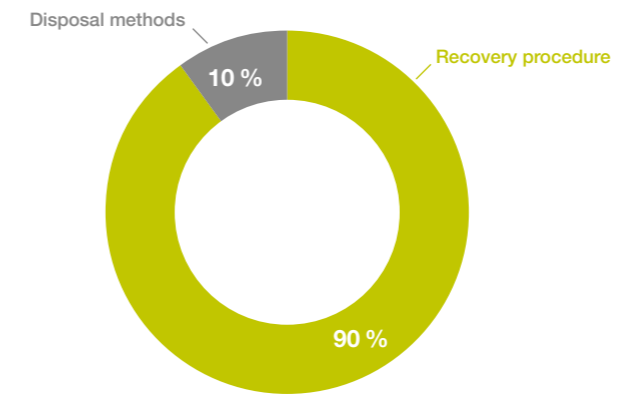
**Waste volumes – non-hazardous waste**



**Waste volumes – hazardous waste**



**Proportion of recovery and disposal methods 2018**



In 2018 the proportion of waste disposed in the recovery process was 90 %. The waste volumes from construction activities are not included in these statistics.

**WASTE GENERATION – ACHIEVEMENTS IN 2018**

- ..... Increase in waste separation discipline among employees and external companies (Facility Management)
- ..... Increase in waste separation discipline among employees in Business Unit H (Business Unit H)
- ..... Reduction of journeys with half-empty containers in the waste logistics of Business Unit H (Business Unit H)
- ..... Reduction of paint sludge by approx. 8 % and associated increase in recycling rate (Business Unit Painted Body)
- ..... Increase in waste separation discipline among employees in Aerospace Puchstrasse (Aerospace)
- ..... Reduction of waste disposal costs in Business Unit J (Business Unit J)

# PRODUCT DEVELOPMENT



HENNING SOMMER



Digital knowledge management in product development:

## KNOWLEDGE FOR THE VEHICLES OF TOMORROW

The success of a company increasingly depends on how efficiently knowledge is generated and transferred. In product development in particular, the know-how of experienced employees has to be managed such that it is understandable, comprehensible and applicable for new employees. In the digital age, innovative systems and media play an important role here. Magna Steyr shows how modern knowledge transfer can contribute to the strength of the competitive position with its own e-learning-initiative.

The e-learning-initiative was started in 2018 and aims to link the various requirements for successful knowledge management together. The first application case for this occurred in the Engineering Center Austria: The implementation of an e-learning course was defined as an environmental goal in order to train 500 engineers on the subject of Ecodesign. At Magna Steyr, Ecodesign is seen as an innovative method for environmentally friendly product development, which includes aspects that go beyond the prescribed extent in addition to the integration of mandatory statutory environmental requirements.

The required knowledge is taught in the Ecodesign-e-learning-course for designing future products more economically friendly – with a focus on the areas of emissions, prohibited substances, recycling and alternative material concepts. Additional (voluntary) subjects highlight aspects such as sustainability, eco-balance sheets and sustainability evaluations. These are applied alongside the development in order to highlight and implement improvement potential as early as possible in development phases.

The web-based training combines theoretically developed thematic blocks with interactively implemented self-reviews. Using these reviews,

the participants get the opportunity to test their newly learned knowledge straight away. After the about 15-minute course, they are able to define the term Ecodesign and to state the requirements in the field of the environmental compatibility of products.

Another aim when creating the course was to raise awareness of the team responsible for integrating environmental matters and to position the team as points of contact. In combination with the open-door policy at the plant, this supports the active exchange and knowledge transfer. For the developers, extra attention was placed on creating awareness of the fact that their decisions during the development phase have considerable impacts on every other phase of the product lifecycle and thus on the environmental compatibility of products.

Approximately half of the development engineers were able to use the new training in the first roll-out phase. In order to ensure that existing know-how is transmitted and that awareness for this is generated in future as well, every new employee of the Engineering Center Austria receives this online course. Based on this, a face-to-face training will be developed, which in small groups intensifies the contents and requirements of environmentally friendly product development.



# TRANSPORT

Sustainable car body transport with liquid gas

## *DRIVE SOLUTION FOR THE FUTURE PRESERVES THE ENVIRONMENT*

For Magna Steyr, sustainability is an important guideline – also in logistics. Therefore, since 2017 a purely electrically driven truck shuttle has been in use at the Graz plant. This concept for urban local transport was optimally enhanced in 2018 with another innovative solution, a liquid gas-driven truck for the car body transport. Project manager Manfred Mally, Logistics Services, answers the most exciting questions about the project and the trend topic of alternative drives.



MANFRED MALLY

**How did the project come about and what are its goals?**

The aim was to carry out the body transport from the paint shop in Graz to the new paint shop in Maribor-Hoče as economically and ecologically as possible. With this idea of sustainability, we considered both truck transport with electric and liquid gas (LNG) drives, which both represent a very good alternative to conventionally diesel driven trucks. However, as electrically driven trucks are hardly economically viable because of the current battery and charging technology and

the associated small ranges, we opted for a LNG truck.

**What is special about LNG and what is a LNG truck?**

LNG stands for "Liquefied Natural Gas", a refrigerated, approx. -162 °C cold and liquefied, clear, colorless, non-toxic natural gas that is used as fuel. The special feature of the LNG truck is the use of this gas for the drive. As a result it is possible to achieve ranges analogous to diesel trucks, but considerably greater ranges than conventional gas-driven trucks.

**What is the ecological advantage of using LNG?**

The ecological advantage results from the better emission values <sup>1</sup>, which are reduced by 98 % for sulfur-dioxide and particulates, 85 % for nitrogen oxide emissions and 20 % for CO<sub>2</sub> emissions when directly compared to a modern diesel engine. The use of the LNG trucks allows the use of trailers specially designed for this project, which have an increased load factor. As a result, one-third of the journeys is saved and additional CO<sub>2</sub> emissions are avoided.

**Are there special requirements for using LNG trucks?**

As there was only one single LNG filling station in Upper Austria at the time the decision was made, a suitable project partner had to be found in the Greater Graz area in order to erect

an LNG filling station. During the project phase, the existing fueling station at the highway exit near the airport was expanded to include a publicly accessible LNG filling station for trucks.

**Is the LNG truck a means of transport of the future?**

With the current state of technology, the LNG truck is the best choice among the alternative drives for long distances or high-frequency transport over lengths of more than 80 kilometers with high daily mileages. Magna Steyr already uses electrically driven trucks every day for urban local transport. In order to keep the carbon footprint as small as possible, we will continue to consider alternative vehicle drives in future.

1) According to various manufacturer information



*“The LNG truck makes a significant contribution to a body transport between Graz and Maribor-Hoče that is as environmentally friendly as possible.”*

David Adam  
Plant Director Paint Shop  
Maribor-Hoče Magna Steyr

# STAFF MOBILITY

Electric vehicles for business trips:

## MAGNA STEYR EMPLOYEES ACTIVELY SAVE CO<sub>2</sub>

Responsible behavior and active protection of the environment are permanent components of the company routine at Magna Steyr. This sustainable approach has now been taken fully into account again together with Energie Steiermark: Since March 2018, eight fully electric BMW i3 vehicles are available to around 300 logistics employees so they can complete their trips to external sites particularly ecologically. With this new fleet of electric vehicles, Magna Steyr is reducing the environmental impacts, thereby supporting the attainment of the company's environmental targets and offering employees more flexibility in their daily work.



**Official key handover in front of the Magna Steyr plant in Graz (from left to right):**

Dr. Wolfgang Zitz (former Vice President Complete Vehicle Manufacturing), Michael Druml † (Global Director Supply Chain Management Magna Steyr), Martin Graf (Director Energie Steiermark), Christian Purrer (Board Spokesman Energie Steiermark), Roman Pöltner (Director Facility Management Magna Steyr) and Peter Oswald (Director of the subsidiary Energie Steiermark Business GmbH)

One feature of the electric fleet is the user-friendly possibility to book the vehicles. All the bookings are made via the mobility manager, a calendar-based web application from Energie Steiermark. The vehicles are unlocked with the employee ID via a card reader on the windshield. The eight electric vehicles are parked at three stations on the site, making them reachable for every employee.

The official key handover took place on May 7, 2018 with the Board of Energie Steiermark.

Even in the launch phase of the project, the demand from other areas of the company was also covered in this project. The existing group of users of these vehicles can be expanded at any time depending on the capacity utilization.

After the successful development and implementation of a fully electrically driven truck shuttle for internal transport of bodies from Hall 71 to the plant, this project is another important milestone for sustainability.





## *SOCIAL ENGAGEMENT*



REINHARD HOFER & JOHANN NEUHOLD

A sympathetic ear for the needs of the employees

## SERVICES BY THE WORKERS' COUNCIL

For the Magna Steyr workers' council, it is very important that safe working conditions exist, which promote the health of the staff and which are accompanied by needs-based programs.

Apart from economic, personnel, social and cultural matters in the company, the Magna Steyr workers' council very actively and extensively cooperates in consultations, support and services for the employees.

For example, an extensive range of various services is provided to the staff, such as cheaper shopping opportunities, events, etc.

Among other things, these offers include various services from the regional health insurance fund, the tax authority, the magistrate, notaries, lawyers, pension insurance institutions, and banks. As a result, many procedures are simplified for the staff, leading to

time savings during working hours or their spare time.

Another service from the workers' council and the employee service is the management of the individual scheduled transport. Here, for example, the workers' council provides information and support for car-sharing opportunities or commuter buses.

“AS EMPLOYEE REPRESENTATIVES, WE ARE RIGHTFULLY PROUD TO BE ABLE TO SUPPORT OUR COWORKERS IN A COMPANY WITH A VERY HIGH AND ALSO CONSTANTLY LIVED SOCIAL RESPONSIBILITY.”

*Johann Neuhold, Chairman of the White-Collar Workers' Council & Reinhard Hofer, Chairman of the Blue-Collar Workers' Council*





Going to work together with the colleagues

# INDIVIDUAL SCHEDULED TRANSPORT FOR LESS STRESS, COSTS & CO<sub>2</sub>

The Magna Steyr team enjoys driving to work together: Thanks to the individual transport service that is supported by the company, it is possible for employees to travel directly to the Graz plant from regional bus stops. The journey by bus or minibus is not only simple and stress-free, it is also good for the environment. Every kilometer saved in this way compared to individual journeys means less CO<sub>2</sub> for our climate. Almost 2,000 tons CO<sub>2</sub> can be saved annually with this offer!

The Magna Steyr site in Graz has a large catchment area, the employees not only come from different regions of Styria, but also from Burgenland and Slovenia. Thanks to the Magna Steyr transport service, they all have the option of coming to work by bus – comfortably, punctually and flexibly: The departure and arrival times of the buses are adjusted to the respective shift times. For the minibuses, they are agreed individually among the traveling employees. The flexible working times of the various Business Units are also taken into account – for example with additional buses if there are deviations from the shift plan, so that affected employees can still use the service like normal.

The individual transport service offers numerous benefits to the employees. Firstly, new friendships are made as a result of traveling together, and secondly the commute is more stress-free. Separate parking spaces are provided for the vehicles so the tiresome search for a parking space is also avoided. Additionally, the participating employees save on car running costs. Ideally, there is even a saving in the respective families in respect of a second car, which also benefits their financial position as well as helping the environment. Passengers from more distant regions also profit from the ability to use the travel time sensibly or to relax on their way home.

The joint journey of multiple employees also influences the indirect environmental aspect of

staff mobility. Because of the buses, the number of single journeys can be reduced, which results in CO<sub>2</sub> savings.

Calculating the CO<sub>2</sub> emissions for an average distance of 50 kilometers per journey, with a capacity utilization of 80 % for the corresponding working days, the annual CO<sub>2</sub> saving for minibuses is approx. 1,100 tons compared to individual journeys. If we perform this calculation for the bigger buses taking into account the routes taken, the saving of CO<sub>2</sub> is about 800 tons per year.

The individual transport service offers employees the possibility to travel to work together in comfort, while saving money.

**“THANKS TO THE INDIVIDUAL TRANSPORT SERVICE, NOT EVERY EMPLOYEE HAS TO TRAVEL SEPARATELY. I USE IT BECAUSE I GET TO WORK CHEAPLY AND I AM ALSO DOING SOMETHING FOR THE ENVIRONMENT.”**

*Florian Putz,  
Employee in Business Unit G,  
Assembly of Mercedes Benz G Class*

Additionally, every single user participates in the reduction in CO<sub>2</sub> emissions. Consequently, the individual transport service links the employees' social and personal interests with measures for saving CO<sub>2</sub> emissions. A campaign by the company that only has winners!

# CELEBRATIONS & EVENTS 2018



## DONATIONS FOR CANCER HELP STYRIA



### Euro 10,000 check handed over at Charity Gala

Social responsibility is very important for Magna Steyr: Since 2000, the company has supported a special project or charitable organization in Styria every year with a considerable amount of money. In 2018, Euro 10,000 went to Österreichische Krebshilfe Steiermark (Austrian Cancer Help Styria), which accepted the donation check at an exciting Charity Show supporting breast and prostate cancer early detection in the Graz Minoritensaal.

## SUCCESSFUL START OF PRODUCTION FOR JAGUAR MODELS

### Business Unit invited to the summer party

After the Jaguar E-PACE started to roll off the line in fall 2017, another large milestone was reached in March 2018 with the vehicle launch of the Jaguar I-PACE. Two good reasons for Business Unit J/Jaguar Land Rover to

celebrate a summer party as a thank you for the great commitment of everyone involved. 1,500 employees and residents accepted the invitation and together with representatives of the Magna Steyr management and customers celebrated the successful start of production.



## NEW PARTICIPANT RECORD FOR THE MAGNA STEYR RUN

### For the 6<sup>th</sup> time the plant turned into a running paradise

On June 17, 2018 it was time again: The site and the halls at Magna Steyr Graz attracted all the employees from the Styrian Magna locations, and from the new Magna Steyr plant in Maribor-Hoče, Slovenia, with their family members, as well as from companies in the

region, to the 6<sup>th</sup> Magna Steyr Run. Almost 600 runners and Nordic walkers, including 100 children and young people, came to the start and together ensured a new participant record. The popular running event is one of the annual highlights for all movement fans, especially as the run also allows an exclusive look behind the scenes of the Graz vehicle manufacturer.

## JUBILEE CELEBRATION FOR LONG-SERVICE EMPLOYEES

### Magna Steyr rewards employees who have 25, 35 and 45 years of service

With their sometimes decades of experience and competence, the employees of Magna Steyr contribute to the success of the company. For this reason, the annual Magna Steyr jubilee celebration was held on September 27, 2018, to celebrate employees with 25, 35 and 45 years' experience. The event welcomed the attendees to a chronological and musical journey back to the years when the people celebrating their jubilees started their careers at Magna – namely 1973, 1983 and 1993. The

focus of the celebration was, of course, the people celebrating their jubilees themselves, with funny anecdotes from their professional lives.





COMPLIANCE



Evaluation of mental stress:

# *MAGNA STEYR ANALYZES & IMPROVES WORKING CONDITIONS*

Everyone is confronted with physical and mental challenges in their professional work. In some cases there is a risk of reaching individual limits and being exposed to stresses, which may affect performance, condition, health and safety. Early detection of these risks and the constant improvement in working conditions are important to Magna Steyr. For this purpose, the company uses a recognized scientific method for the particularly extensive evaluation of mental stresses at the workplace, including a follow-up measures plan.

Companies are subject to the statutory obligation to carry out workplace evaluations (determining, assessing risks, specifying actions, including documentation) and to check whether work-related mental stresses exist, which may lead to mistakes. If detrimental working conditions are identified, suitable measures must be taken in order to improve the working conditions selectively.

Magna Steyr takes the legally required evaluation of mental stresses at the workplace very seriously and uses this as a good opportunity for the further enhancement of the working conditions in direct cooperation with employees and managers. The company has chosen a recognized scientific method for this, which identifies and examines four dimensions of work-related mental stresses. Aspects of the working environment, the social and organizational climate, the requirements of the task, and the activities of the work processes and work organization flow into the evaluation.

Since 2015, around 8,000 employees at the Graz site have been asked about their workplaces within the framework of this extensive workplace evaluation of mental stresses, with support from external industrial psychologists from the company Research Team. Based on the results, corresponding measures were identified and implemented by the end of 2018. This structured and results-oriented procedure has been assessed positively by the external industrial psychologists: With regard to the planning and execution of the project and the implementation of the measures, Magna Steyr has received the best assessments.

The next steps are already being planned: The first evaluations of the mental stresses at the workplace will be performed in 2019 in Business Unit J and body construction JLR and thus will be completed for Magna Steyr Graz. Consequently, Magna Steyr can successfully finalize the optimization of the working conditions for the entire plant on the basis of the identified employee requirements.

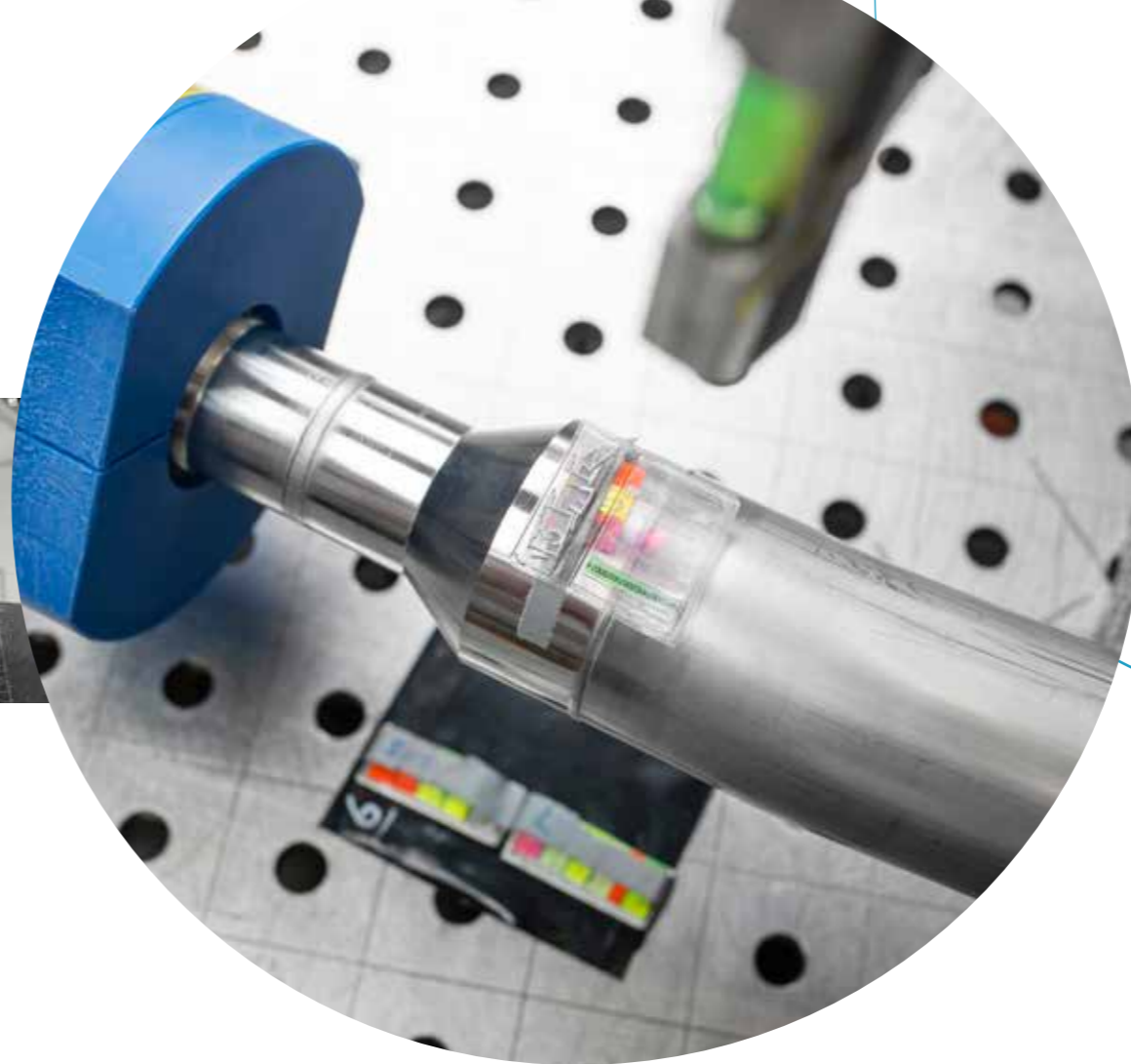


MICHAEL SAND, RADIATION PROTECTION REPRESENTATIVE

Health & safety of the employees

# *RADIATION PROTECTION REPRESENTATIVE ENSURES MAXIMUM SAFETY*

In order to ensure optimum production results in special pipes and fuel tanks, the Magna Steyr division Aerospace has been using x-ray radiation for 20 years to examine welding seams. Its use can result in risks for people and is subject to a large number of laws. For Magna Steyr, the health of its employees is the top priority, especially in such a sensitive area. The safety measures at these plants are correspondingly sophisticated. An internal radiation safety representative guarantees comprehensive protection for the employees.



In economic areas where metal and metal alloys are processed, it is now standard practice to subject strongly loaded components to so-called non-destructive testing after completion. These may be tests of the raw material, cast molds or even welded joints. At the Magna Steyr Aerospace site on Puchstrasse in Graz, highly stressed components are made for aerospace (used in launch vehicles and engines) as well as for the automotive area, whose welded seams are x-ray tested.

The systems needed for this increase the naturally occurring ionizing radiation, so their use is connected with risk factors. In most cases, the use of radiation sources (devices, radioactive materials or systems, which can

emit ionizing radiation or release radioactive substances) must be officially authorized. The requirements for this are anchored in laws and regulations – e.g. the Austrian Radiation Protection Act (Strahlenschutzgesetz – StrSchG) and the General Radiation Protection Regulation (Allgemeine Strahlenschutzverordnung – AllgStrSchV).

The regulations describe what must be considered during handling and use, what measures must be taken and what training the responsible persons have to pass. The main attention, however, is on avoiding additional burden for employees and protecting their health as much as possible.

When handling radiation sources, the Austrian Radiation Protection Act requires a radiation protection representative, who is engaged by the company accordingly. Prerequisite for the nomination of this representative is a successful participation in a recognized training and the registration at the relevant authority.

At Magna Steyr, the Aerospace division has such a representative in order to guarantee a safe and smooth testing process for the x-ray testing. His tasks include:

- Ensuring the correct operation of the systems and devices
- Management of the records of qualification certificates, radiation dose received, and

regular medical monitoring of the relevant employees

- Specifying the required technical and other measures used in radiation protection
- Repeating function tests of safety-relevant equipment
- Creating safety analyses, accident analyses, and emergency planning
- Immediate reporting of and response to significant incidents relating to radiation protection and if there are defects that impair it
- Advice in respect of safety-relevant subjects
- Labeling the radiation area
- Carrying out access checks
- The correct storage of radioactive substances

# *ANNEX*

# ENVIRONMENTAL ACHIEVEMENTS 2018

The following list of environmental achievements are allocated to the environmental aspects. Apart from the goals and measures, the degree of fulfillment is represented based on the target set, as well as the area responsible for the implementation.

NO.	OBJECTIVE	MEASURE	FULLFILL- MENT IN %	RESPONSIBLE AREA
<b>Material consumption</b>				
1	Reduction of material input for the ground sealing in Hall 82 (Business Unit H)	Testing the additional floor sealing of roads for possible reductions within the framework of the semi-annual floor cleaning. Comparative analysis of the route with or without additional sealing and derivation of rules for ground cleaning activities	100	Business Unit H
<b>Energy consumption</b>				
2	Reduction of heat energy consumption in Hall 2 by approx. 7 %	Interconnection of heat supply systems; NB: deviation of the assumed operating parameters from the realizable operating parameters	48	Facility Management
3	Reduction of heat energy consumption in Hall 10 by approx. 5 %	Renewal of the heat supply system; NB: deviation of the assumed operating parameters from the realizable operating parameters	23	Facility Management
4	Reduction of electrical energy consumption in Hall 22 by approx. 3 %	Use of ambient temperature for cooling ("free cooling")	99	Facility Management
5	Reduction of electrical energy consumption by means of a photovoltaic system in Hall 57	Installation of a photovoltaic system	100	Facility Management
6	Reduction of electrical energy consumption through the optimization of plant technology and hall lighting in Hall 82	Analysis of the plant technology with regard to an optimized standby mode and the lighting control for maintenance activities during non-production times; NB: further measures are planned for 2019 (continuation as environmental objective for 2019)	24	Business Unit H
7	Reduction of energy consumption for compressed air generation by avoiding losses in the compressed air infrastructure	Checking the compressed air infrastructure for leaks	100	Business Unit H
8	Reduction of energy consumption for compressed air generation by avoiding losses of process compressed air in Hall 82	Checking compressed air consumers for leaks; NB: in 2018, there were no process-related compressed air losses, the next external check for leaks is planned for 2019 (continuation as environmental objective for 2019)	50	Business Unit H

NO.	OBJECTIVE	MEASURE	FULLFILL- MENT IN %	RESPONSIBLE AREA
9	Reduction of the electrical energy consumption of the heat lamps in Hall 12 by approx. 48 %	Switching off of the heat lamps during non-production times by means of time switches	100	Business Unit G
10	Reduction of electrical energy consumption by unneeded consumers (monitors, televisions, etc.) outside operating hours in Hall 12	Costs-benefit analysis of the installation of a loop for the energy supply per line section	100	Business Unit G
11	Reduction of natural gas consumption in the top coat line 3 by approx. 2 % and decrease in odor emissions	Replacement of the adsorption material (zeolith) on the adsorption wheel	100	Business Unit Painted Body
12	Reduction of electrical energy consumption for the supply air system in the cathodic dip painting by approx. 20 %	Filter change and associated switch to higher-quality filters with lower resistance	152	Business Unit Painted Body
13	Reduction of electrical energy consumption for the supply air system in the underbody protection line by approx. 20 %	Filter change and associated switch to higher-quality filters with lower resistance; NB: as a result of the heavily reduced air quantity due to the further automation, the filters are not effective so a solution with the use of a frequency converter will be developed	0	Business Unit Painted Body
14	Reduction of electrical energy consumption for the lighting of the production rooms at Aerospace Puchstrasse	Conversion of lighting from neon tubes to LED technology	100	Aerospace
26	Reduction of the electrical energy consumption for the supply air system in Hall 8	Reduction of filter stages and installation of new filter media	305	Business Unit Painted Body
<b>Air emissions</b>				
15	Use of an electrically driven truck in logistics and thus an associated CO <sub>2</sub> saving	Use of an electrically powered truck instead of a diesel-powered truck	100	Supply Chain Management
<b>Waste generation</b>				
16	Increase in waste separation discipline among employees and external companies	Training of 20 employees in the plant planning and central maintenance with regard to proper waste separation	230	Facility Management
17	Increase in waste separation discipline among employees in Business Unit H	Training of all production employees with regard to proper waste separation	100	Business Unit H
18	Reduction of journeys with half-empty containers in the waste logistics of Business Unit H	Optimization of the route plan on the basis of the review (type and number) of the collection containers	100	Business Unit H
19	Reduction of paint sludge by approx. 5 % and associated increase in recycling ratio	Implementation of presses and press containers at the paint sludge collection stations to increase liquid discharge	160	Business Unit Painted Body



# ENVIRONMENTAL PROGRAM 2019

The environmental targets in the environmental program are allocated to the environmental aspects. Apart from the goals and measures, the planned implementation date is outlined, as well as the area responsible for the implementation.

NO.	OBJECTIVE	MEASURE	FULLFILLMENT IN %	RESPONSIBLE AREA
20	Increase in waste separation discipline among employees in Aerospace Puchstrasse	Training of 30 employees with regard to proper waste separation and resource conservation	90	Aerospace
27	Reduction in waste disposal costs in Business Unit J	Implementation of various measures for reducing waste and for optimizing the collection logistics; NB: further measures are planned for 2019 (continuation as environmental objective for 2019)	37	Business Unit J
<b>Transport</b>				
21	Optimization of the controls for the truck transport of empty containers and associated CO <sub>2</sub> saving due to the reduced fuel consumption by the transport service provider	Control of empty truck transports using the "iTrace" system and creation of accompanying transport documents directly at the loading point	380	Supply Chain Management
<b>Staff mobility</b>				
22	Implementation of a concept for electro-mobility for business trips to external sites associated with CO <sub>2</sub> savings	Provision of 8 electric vehicles of the BMW i3, including charging infrastructure on the site, in cooperation with Energie Steiermark; NB: continuation as environmental objective for 2019 for the concrete recording of CO <sub>2</sub> savings based on a stable, operative operation of the fleet of electrical vehicles in 2019	100	Facility Management
23	Analysis of the mobility behavior of the employees for the way to work ("modal split") as a basis for possible follow-up activities in order to promote environmentally friendly staff mobility	Creation of a survey for employees, analysis of the data gathered and evaluation of possible measures; NB: implementation is planned for 2019 (continuation as environmental objective for 2019)	0	Human Resources
24	Expansion of the individual bus transport service for employees associated with CO <sub>2</sub> savings, reduction of noise and congestion during shift changes as well as defusing the parking situation	Launch of three direct bus lines from the districts Deutschlandsberg, Leibnitz and Hartberg-Fürstenfeld to the Thondorf plant and back	100	Human Resources
<b>Product development</b>				
25	Development of an e-learning tool and increase in the competence among 500 employees of the Engineering Center Austria with regard to Ecodesign in environmentally friendly product development	Implementation of training using the e-learning tool on Ecodesign	60	Engineering Center Austria

The environmental achievements of 2017 are shown in the updated Performance Report with Integrated Environmental Statement 2018.

NO.	OBJECTIVE	MEASURE	IMPLEMENTATION DATE	RESPONSIBLE AREA
<b>Energy consumption</b>				
1	Reduction of energy consumption for compressed air generation in Hall 82	Switching off of the compressed air in non-production times	Sep. 2019	Business Unit H
2	Reduction of energy consumption for compressed air generation in Hall 82	Check of the compressed air infrastructure and compressed air consumers for leaks and definition of repair measures	Jun. 2019	Business Unit H
3	Reduction of electrical energy consumption of the heat lamps in Hall 82	Creation of a concept for use of alternative heat lamps on the production line and testing of an automatic switching-off in non-production times	Nov. 2019	Business Unit H
4	Reduction of electrical energy consumption through the optimization of line lighting in break times in Hall 82	Erection of a light control for switching the lights	Jun. 2019	Business Unit H
5	Reduction of electrical energy consumption in non-production time	Reduction of energy use through targeted measures taking into account the existing general conditions	Dec. 2019	Business Unit H
6	Reduction of energy consumption for compressed air generation by avoiding losses from leaks in Hall 12 by approx. 10 %	Implementation of the specified measures from the compressed air audit in January 2019	Jul. 2019	Business Unit G
7	Reduction of the electrical energy consumption for the lighting in the frame assembly area in Hall 12	Installation of a switch-off option for workplace lighting	Mar. 2019	Business Unit G
8	Reduction of electrical and heat energy consumption by optimizing loading and sealing of the carton press at the docks in Hall 12 by approx. 6 %	Preventing cooling of the relevant area in the winter months and thus reduced switch-on times for gate ventilators	Nov. 2019	Business Unit G
9	Reduction of electrical energy consumption in non-production time	Reduction of energy use through targeted measures taking into account the existing general conditions	Dec. 2019	Business Unit G
10	Reduction of electrical energy consumption in non-production time	Reduction of energy use through targeted measures taking into account the existing general conditions	Dec. 2019	Business Unit J

NO.	OBJECTIVE	MEASURE	IMPLEMENTATION DATE	RESPONSIBLE AREA
11	Reduction of natural gas consumption and heat energy consumption for the supply air system in Hall 8	Fulfillment of temperature reductions during the heating period and cooling during shutdown and optimization of temperature in paint mixing rooms	Dec. 2019	Business Unit Painted Body
12	Reduction of electrical energy consumption for the supply air system in Hall 8	Replacement of filters in the supply air system and optimization of the operating time	Dec. 2019	Business Unit Painted Body
13	Reduction of electrical energy consumption and improved air-conditioning in the Aerospace Puchstrasse production rooms	Optimization of the room ventilation by adapting the ventilation system and control system	Mar. 2019	Aerospace
14	Reduction of heat energy consumption in Hall 12 by approx. 12 %	Optimization of the heat supply systems	Sep. 2019	Facility Management
15	Reduction of heat energy consumption in Hall 12 by approx. 78 %	Optimization of the ventilation system in the office and sanitation area	Sep. 2019	Facility Management
16	Reduction of heat energy consumption by the heat supply systems at the Graz plant by approx. 0.2 %	Adjustment to the heat supply systems	Sep. 2019	Facility Management
17	Reduction of electrical energy consumption in non-production time	Reduction of energy use through targeted measures taking into account the existing general conditions	Dec. 2019	Facility Management
18	Reduction of heat energy consumption in non-production time	Reduction of energy use through targeted measures taking into account the existing general conditions	Dec. 2019	Facility Management
19	Conversion of a vehicle of the company's fire brigade to a vehicle with lower fuel consumption associated with CO <sub>2</sub> savings	Replacement of the fire brigade's vehicle	Jan. 2019	Facility Management
20	No more journeys by the company's fire brigade to the refueling station for breathing air associated with CO <sub>2</sub> savings	Acquisition of an internal filling system for breathing air (compressed air breathing apparatuses) and associated omission of approx. 45 journeys per year to the professional fire service of Graz	Dec. 2019	Facility Management
<b>Waste generation</b>				
21	Reduction of waste disposal costs for solvent-water mixtures through separate collection in defined areas	Collection of solvent-water mixtures as solvent mixtures through organizational measures	Jan. 2019	Business Unit Painted Body
22	Conversion of disposal procedure to recovery procedure for solvent-water mixtures and associated increase in recycling ratio	Clarification of the required general conditions for converting the procedure within the framework of the Zero Waste project	Mar. 2019	Facility Management
23	Reduction of waste volumes of circulation parts	Implementation of collection stations for additional circulation parts for return to suppliers when the production peak for the new product is reached	Nov. 2019	Business Unit H

NO.	OBJECTIVE	MEASURE	IMPLEMENTATION DATE	RESPONSIBLE AREA
24	Reduction of waste disposal costs through optimization of the disposal journeys in Business Unit H	Optimization and reduction of the number of waste containers when the production peak for the new product is reached	Sep. 2019	Business Unit H
25	Increase in waste separation discipline for employees in Business Unit H	Training of all production employees concerning proper waste separation	Sep. 2019	Business Unit H
26	Reduction of waste disposal costs in Business Unit J	Implementation of various measures for reducing waste and for optimizing the collection logistics	Jul. 2019	Business Unit J
27	Increase in waste separation discipline for employees in Business Unit J	Training of approx. 1,400 employees of Business Unit J concerning proper waste separation	Dec. 2019	Business Unit J
28	Reduction of waste disposal costs in Business Unit G	Implementation of various measures for reducing waste and for optimizing the collection logistics	Aug. 2019	Business Unit G
<b>Transport</b>				
29	Use of an electrically powered truck in the logistics and thus an associated CO <sub>2</sub> saving	Use of an electrically powered truck instead of a diesel-powered truck for the shuttle between Thondorf and Messendorf	Jan. 2019	Supply Chain Management
30	Use of a liquefied natural gas-powered (LNG) truck in the logistics and thus an associated CO <sub>2</sub> saving	Use of a liquefied gas-powered (LNG) truck for the body transport between Graz and Maribor-Hoče	Mar. 2019	Supply Chain Management
31	Increase in capacity for the body transport between Graz and Maribor-Hoče with associated CO <sub>2</sub> savings	Use of long trailers together with liquefied gas-powered (LNG) trucks and transport of six bodies per journey rather than four	Mar. 2019	Supply Chain Management
<b>Staff mobility</b>				
32	Analysis of the mobility behavior of the employees for the way to work ("modal split") as a basis for possible follow-up activities in order to promote environmentally friendly staff mobility	Creation of a survey for employees, analysis of the data gathered and evaluation of possible measures	Sep. 2019	Human Resources
33	Use of electro-mobility for business trips to external sites associated with CO <sub>2</sub> savings	Continuation of the use of 8 BMW i3 vehicles and concrete recording of CO <sub>2</sub> savings based on a stable, operative operation of the fleet of electrical vehicles in 2019 after successful implementation of the concept in 2018	Dec. 2019	Facility Management
<b>Product development</b>				
34	Creation of basic knowledge concerning environmentally friendly product development among new employees of the Engineering Center Austria	Inclusion of the Ecodesign training into the training plan as a mandatory course	Dec. 2019	Engineering Center Austria
35	Creation of the requirements for individual training as part of the environmentally friendly product development in addition to the existing e-learning course on Ecodesign	Development and introduction of face-to-face training on environmentally friendly product development and Ecodesign for Engineering Center Austria employees	Dec. 2019	Engineering Center Austria

# OCCUPATIONAL HEALTH AND SAFETY ACHIEVEMENTS 2018

The occupational health and safety achievements listed below have been divided according to the TOP principle. "T" stands for technical implementation, "O" for organizational implementation and "P" stands for a target based on the personal protective equipment of the employees. Apart from the goals and measures, the degree of implementation is outlined, as well as the area responsible for the implementation.

NO.	OBJECTIVE	MEASURE	FULFILL- MENT IN %	RESPONSIBLE AREA
<b>Technical</b>				
7	Equipment of all plants according to the Lockout-Tagout (LOTO) Standard	Comprehensive implementation of the LOTO standard together with the planning of the Center of Competence Complete Vehicle Manufacturing	100	Business Unit H
12	Separation of roads and footpaths using ground markings in Hall 8	Installation of floor markings and mechanical separations of sidewalks and roads	100	Facility Management
<b>Organizational</b>				
28	Redesign of the prototype building, taking into account ergonomic guidelines	Implementation of the ergonomics program	100	Aerospace
5	Awareness-raising for all employees in Business Unit G on occupational safety	Safety training for all employees during the start-up phase G-Class model maintenance	100	Business Unit G
6	Complete evaluation of all the workplaces in Business Unit G	Sensitization on topics pertaining to accidents at work in Business Unit and improvement of ergonomics, safety and environment	100	Business Unit G
8	Implementation of a management evaluation regarding physical workload and ergonomics	Implementation of a management evaluation with regard to physical workload and ergonomics, regular presentation of ergonomic measures by the Center of Competence Complete Vehicle Manufacturing	100	Business Unit H
9	Evaluation of mental stresses at the workplace in Business Unit H	Conduction of the evaluation of the workplaces by an external psychologist together with occupational medicine, human resources and production managers	100	Business Unit H
29	25 % reduction in accidents caused by cuts (year of comparison 2017, adjusted for performance-related injuries)	Training of employees in group discussions (cause analysis, process review, review of personal protective equipment)	100	Business Unit J
30	Training of 80 % of all employees in assembly, who work with hazardous materials, concerning the correct handling of them	Execution of the training (main focus: removal, use, disposal) in group discussions and control of personal protective equipment	100	Business Unit J

NO.	OBJECTIVE	MEASURE	FULFILL- MENT IN %	RESPONSIBLE AREA
2	Sensitization of employees to the topics of work accidents and improvements to ergonomics at the workplace	Conduction of EHS meetings, evaluations, group discussions and safety inspections	100	Business Unit Painted Body
3	Reduction of hand injuries by 20 % (compared to 2017)	Implementation of a special targeted campaign by AUVA (General Accident Insurance Commission) ("hands well, everything well") together with the safety specialist and occupational medicine	30	Business Unit Painted Body
4	Reduction of accidents due to "negligence" by 20 % (compared to 2017)	Conducting group discussions in production ("safe working starts in the mind") as an initiative to avoid accidents at work	99	Business Unit Painted Body
24	Evaluation of all office workplaces on the upper floor of Hall 2 regarding ergonomics	Implementation of the ergonomics program	100	Complete Vehicle Manufacturing Center
25	Sensitization of managers with regard to occupational safety	Inspection of areas with managers focusing on occupational safety (once per quarter)	100	Complete Vehicle Manufacturing Center
14	Sensitization of managers with regard to occupational safety	Training of three further safety trustees	100	Engineering Center Austria
15	Improvement of at least 15 workplaces with regard to ergonomics	Implementation of the ergonomics program	100	Engineering Center Austria
10	Documented instruction of warehouse employees based on the results of a workplace evaluation	Implementation of a holistic workplace evaluation as a basis for standard safety instructions	100	Facility Management
11	Implementation of time-independent safety instructions (currently once a day at fixed times)	Execution of an electronic security briefing using terminals for external company employees	100	Facility Management
26	Evaluation of office workplaces in at least three work areas	Implementation of the ergonomics program	100	Finance/Controlling
27	Evacuation exercise with focus on fire prevention	Conduction of the fire protection training for employees	100	Finance/Controlling
16	Raising awareness in the key areas of accident prevention, health at the workplace, fire protection and environmental protection	Conduction of an apprentices' safety day with the aim of reducing minor accidents for all apprenticeship years	100	Human Resources
17	Adherence to OSHA objectives (focus on apprentice workshops)	Conduction of safety instructions and sensitization in group discussions; on-site tours with occupational medicine, safety specialist and training masters	100	Human Resources
19	Installation of additional safety trustees and first responders	Increasing the number of first responders to 11 and the number of safety trustees to 2	100	Information Management

# OCCUPATIONAL HEALTH AND SAFETY PROGRAM 2019

NO.	OBJECTIVE	MEASURE	FULFILL- MENT IN %	RESPONSIBLE AREA
20	Advice for all employees in the course of the workplace evaluation and implementation of changes if required	Conducting workplace evaluations	100	Information Management
21	Complete evaluation of all workstations including inline workstations and ergonomics of office workstations	Workplace inspections and definition of measures with the company physician, safety specialist, works council and safety trustee	80	Quality Management
22	Completion of the EuP1 and EuP2 qualification for all employees who work with high-voltage battery technology	Training/qualification of the employees in high-voltage battery projects	100	Quality Management
23	Completion of the qualification of all employees who work with airbags, and associated reduction of risks of injury when handling airbags	Training of employees in the correct handling of airbags	100	Quality Management
18	Updating the Safety and Health Protection Database (SIGS) with regard to safety instructions for the materials management	Evaluation of all safety instructions with regard to completeness, content validity and allocation	15	Supply Chain Management
<b>Personal protective equipment</b>				
1	Providing employees from the body-in-white areas with new, standardized personal protection equipment	Fitting, measurement and output of the adapted work clothes in the body-in-white areas	100	Business Unit Painted Body
13	Improved cleanliness and order, as well as improved awareness for personal protection equipment	Weekly tours with a focus on workshops	100	Engineering Center Austria

The occupational health and safety objectives in the occupational health and safety program listed below have been divided according to the TOP principle. "T" stands for technical implementation, "O" for organizational implementation and "P" stands for a target based on the personal protective equipment of the employees. Apart from the goals and measures, the planned implementation date is outlined, as well as the area responsible for the implementation.

NO.	OBJECTIVE	MEASURE	IMPLEMENTATION DATE	RESPONSIBLE AREA
<b>Technical</b>				
1	Reduction of measured radon concentration in the air in a control room and in a radiation application room	Installation of ventilation or connection to the existing ventilation on the first floor	Oct. 2019	Aerospace
2	Reduction of noise emissions in a production room	Installation of noise insulation in the supply air duct for the pure production zone of the production room	Oct. 2019	Aerospace
3	Reduction of accident risk on roads	Illumination of the roads under platforms and pedestals with min. 150 LUX and sensible integration in the hall light controls (inside and outside production time)	Oct. 2019	Business Unit H
4	Reduction of risk of injury (tripping/bending) by removing floor damage	Repair of floor damage	Nov. 2019	Business Unit J
5	Reduction of accidents in the pre-trim area	Use of an optimized gridded floor	Nov. 2019	Business Unit J
6	Reduction of humidity and improved air-conditioning in Hall 39	Installation of hall ventilation	Nov. 2019	Business Unit J
7	Improved ergonomics and optimization of use of the space in the office of the Global Complete Vehicle Manufacturing Center	Implementation of a pilot project on ergonomics in the office and creation of innovative office planning methods	Oct. 2019	Complete Vehicle Manufacturing Center
8	Promotion of health at the workplace with a focus on reducing back problems	Renewal of office chairs and desks	Oct. 2019	Engineering Center Austria
9	Preventing fall injuries	Installation of anti-slip covers on defined stairways	Oct. 2019	Facility Management
10	Preventing head injuries	Installation of foam covers on the inlet openings of the double floor at the medium-voltage switchgear for Halls 1, 2 and 3	Oct. 2019	Facility Management
11	Preventing unannounced departure from the loading dock by trucks before loading/unloading is completed	Installation of electronic chocks in the dock area of Hall 10	Oct. 2019	Supply Chain Management
<b>Organizational</b>				
12	Reduction in accidents in material management	Training of all employees in material management using specific training content	Oct. 2019	Business Unit G
13	Improvement in physical work load and ergonomics by conducting an evaluation	Collection of feedback from employees using an ergonomics dummy, including implementation of defined measures	Oct. 2019	Business Unit H

<i>NO.</i>	<i>OBJECTIVE</i>	<i>MEASURE</i>	<i>IMPLEMEN- TATION DATE</i>	<i>RESPONSIBLE AREA</i>
14	Achieving the OSHA objectives in Business Unit J for 2019	Training of masters, zone managers, and all employees in EHS meetings, group discussions, and via infoboards; integration and implementation of occupational health and safety focus and roll-out of an action plan	Nov. 2019	Business Unit J
15	Education on skin protection for 60 employees who have contact with materials	Organization and implementation of two "skin protection days" in cooperation with AUVA	Nov. 2019	Business Unit J
16	Erection of a safety corner in Hall 1	Planning and erection of a safety corner, including transfer to the hall layout	Nov. 2019	Business Unit J
17	Education of employees on the subject of work accidents and improvements to ergonomics at the workplace	Implementation of EHS meetings, evaluations, group discussions, safety tours and campaigns on the subject of awareness-raising	Oct. 2019	Business Unit Painted Body
18	Reduction of accidents in the maintenance areas of Business Unit Painted Body by 20 %	Implementation of training courses concerning the right conduct when working in automatic and conveyor technology areas	Oct. 2019	Business Unit Painted Body
19	Reduction of accidents on the paint line by 30 %	Evaluation of all workplaces in the paint line by weekly fixed dates	Oct. 2019	Business Unit Painted Body
20	Promotion of awareness-raising in respect of personal protection equipment, as well as cleanliness and order	Implementation of 30 tours in engineering	Oct. 2019	Engineering Center Austria
21	Promotion of awareness-raising in respect of fire safety	Implementation of fire protection training with participation of all employees from Facility Management	Oct. 2019	Facility Management
22	Promotion of awareness-raising in respect of work safety	Presentation of a best-practice example as part of the monthly information event by maintenance	Oct. 2019	Facility Management
23	Completion of driving techniques courses by employees of the car service	Participation by employees in a driving techniques course and first-aid course	Oct. 2019	Facility Management
24	Improvement in first-aid knowledge	Implementation of a main campaign on first aid together with works medicine	Oct. 2019	Finance/Controlling

<i>NO.</i>	<i>OBJECTIVE</i>	<i>MEASURE</i>	<i>IMPLEMEN- TATION DATE</i>	<i>RESPONSIBLE AREA</i>
25	Improvement in ergonomics at the workplace at at least five workplaces	Implementation of workplace evaluations in Finance Engineering and replacement of five office chairs	Oct. 2019	Finance/Controlling
26	Achieving the OSHA objectives (focus on apprentice workshops) for 2019	Current implementation of safety instructions and education in group discussions; implementation of tours of the site with occupational medicine, safety specialist and training masters	Oct. 2019	Human Resources
27	Promotion of awareness-raising on the main subjects of accident prevention, health at work, fire safety, and work safety with a focus on reducing minor accidents in all apprenticeship years	Organization of an apprentice safety day	Oct. 2019	Human Resources
28	Optimization of the ergonomics of office workplaces for Functional Department Information Management employees	Advice and education of employees as part of the tours together with works medicine and safety specialist	Oct. 2019	Information Management
29	Multi-shift review of all departments of the Functional Department Quality Management with regard to the number of safety trustees and first-aiders	Training and replacement of safety trustees and first-aiders	Oct. 2019	Quality Management
30	Increase in the qualification of employees exposed to particular risks (for example high-volt battery technology and airbags)	Implementation of EuP1 and EuP2 training courses and airbag training	Oct. 2019	Quality Management
31	Continuation and completion of the evaluations of all workplaces of the Functional Department Quality Management with regard to work safety and ergonomics	Workplace inspections and definition of measures with the company physician, safety specialist, works council and safety trustees	Oct. 2019	Quality Management
<b>Personal protective equipment</b>				
32	Introduction of new workwear and associated reduction in costs	Complete renewal of workwear in all shell areas	Nov. 2019	Procurement

## Environmental verifier's declaration on verification and validation activities

The undersigned, Dipl.-Ing. Peter Kroiss, Head of the EMAS-environmental verification organization of TÜV AUSTRIA CERT GMBH, 1230 Vienna, Deutschstrasse 10, EMAS-environmental verifier with registration number AT-V-0008, accredited for the

### Group 29.10 "Manufacture of motor vehicles"

declares to have subjected the Magna Steyr Graz location to an environmental verification, as in the updated Environmental Statement of the organization

## Magna Steyr Fahrzeugtechnik AG & Co KG

8041 Graz, Liebenauer Hauptstraße 317

with the registration number AT-000159. All requirements of Regulation (EC) No 1221/2009 of the European Parliament and of the Council of November 25, 2009 on the voluntary participation of organizations in a Community Eco-Management and Audit Scheme (EMAS) in its version of Regulation (EU) 2017/1505 of August 28, 2017 have been fulfilled.

By signing this declaration, it is confirmed that:

- The verification and validation has been carried out in full compliance with the requirements of Regulation (EC) No 1221/2009 in its version of Regulation (EU) 2017/1505 of August 28, 2017.
- The outcome of the verification and validation confirms that there is no evidence of non-compliance with applicable legal requirements relating to the environment.
- The data and information of the updated environmental report of the organization Magna Steyr Graz reflect a reliable, credible and correct image of all the organizations activities, within the scope mentioned in the environmental report.

This document is not equivalent to EMAS registration. EMAS registration can only be granted by a competent body under Regulation (EC) No 1221/2009. This document shall not be used as a standalone piece of public communication.

Vienna, August 1, 2019

Dipl.-Ing. Peter Kroiß  
Senior environmental verifier



# IMPRINT

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In the interest of readability of texts either the male or female form was chosen as personal nouns. This in no way implies a disadvantage to the other sex. Women and men may feel equally addressed by the contents of the Magna Steyr Performance Report. Thanks for your understanding.

## IMPRINT

Publisher: Magna Steyr Fahrzeugtechnik AG & Co KG  
Liebenauer Hauptstrasse 317, 8041 Graz, Austria, Phone: +43 (0) 316 404 0  
office.magnasteyr@magna.com, magnasteyr.com  
Status: August 2019

Print: Gutenberg-Werbering Gesellschaft m.b.H., Linz, Austria

This report is printed on environmentally friendly,  
FSC (Forest Stewardship Council) certified paper.

Concept & Layout: SPS MARKETING GmbH Stuttgart



Read the Performance Report with integrated Environmental Statement 2019 and the previous versions online on our corporate website.  
Scan the QR code and get to know the background information on the four topics Business Performance, Environment, Social Responsibility and Compliance.



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