



# CREATING TOMORROW

Leading in sustainability



# 2022

FUTURE REPORT

[maco.eu](http://maco.eu)

# Highlights

**10 %**

CO<sub>2</sub> savings thanks to reusable packaging

**19 %**

less waste per article produced

**6.5 %**

less packaging per revenue tonne

**32 %**

female apprentices

Almost **50 %**

of apprenticeship starters are female

**46 %**

Fewer workplace accidents compared to 2019

Transformation project rolled out in the company and thus

**2,600**

employees involved in corporate development

**Corona**

challenge accepted and successfully managed

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## Legal Notice

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**2,600**  
Employees worldwide

**15** sales offices  
throughout Europe

## MACO compact

MACO. An Austrian family-run business. An innovative hardware manufacturer. One of the world market leaders. And has always been committed to sustainability. We produce hardware components for windows, doors and floor-to-ceiling sliding elements – all in a responsible manner.

**40** markets  
supplied by MACO worldwide

**1947**  
Founded

**96 %**  
Export rate

**352.5** million  
consolidated revenue in 2021

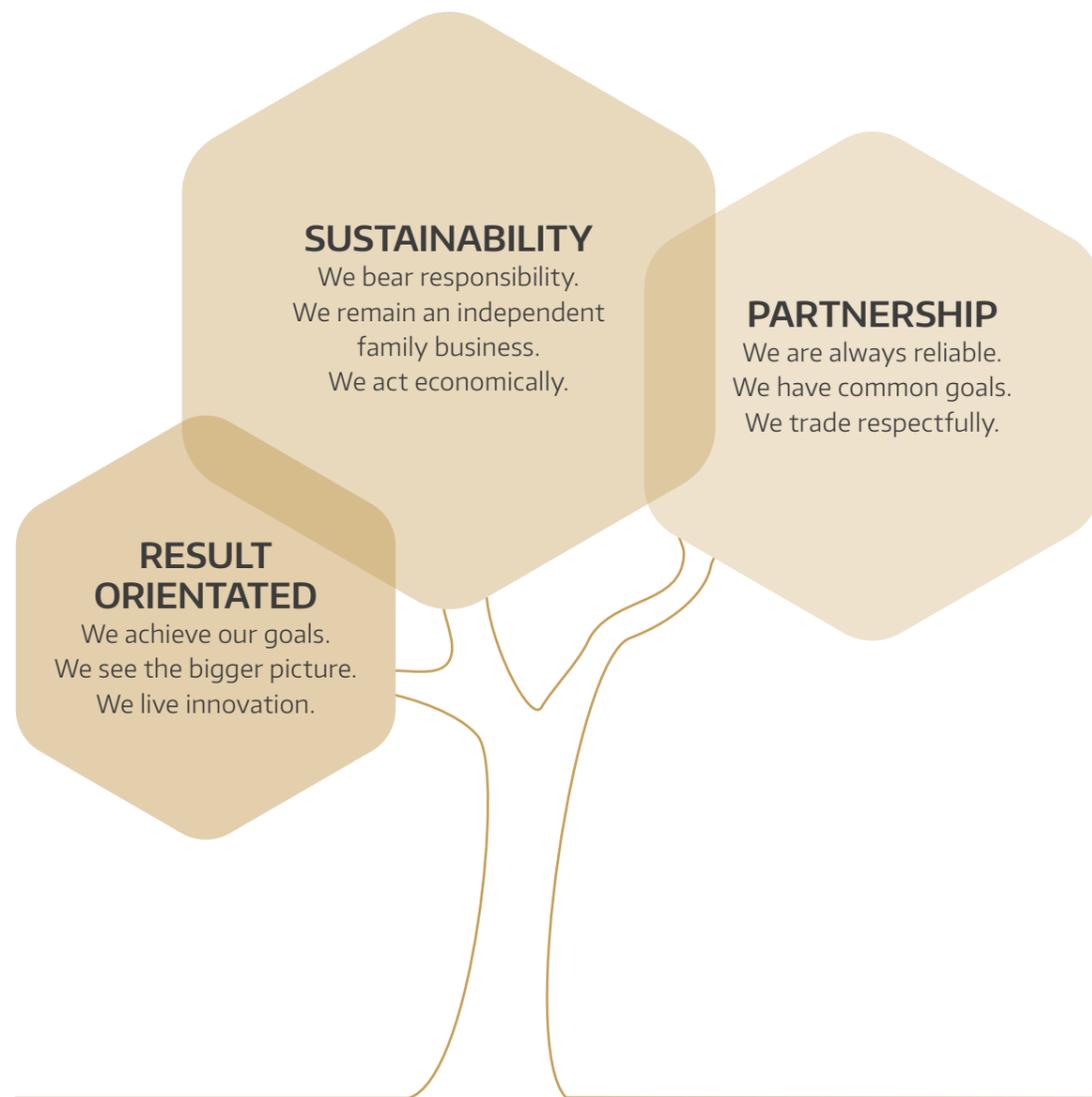
**2.1** Billion  
produced parts and half parts per year

**1,600**  
Employees in Austria

**6** Production plants  
in DE, AT, PL and RU

# Our positioning Our future

As an innovation and quality leader, we manufacture mechanical products that are part of a system solution, and to this end, we rely on digital networking and services. Our excellent employees guarantee the high customer orientation. We trade in harmony with economic, environmental and social aspects.



# Our values Our promises

Sustainable trading is an important part of our corporate policy and has a significant influence on MACO's strategic orientation, and has been so for many years. It is not for nothing that sustainability is one of our three core corporate values.



# Leading in Sustainability

## What makes us a pioneer

Our aim is to improve the quality of people's living. This is not only reflected in innovative products that simplify daily life as silent helpers on windows and doors that contribute to energy-efficient construction and living. This is also reflected in our way of doing business where economic, ecological and social aspects are taken equally into account in all our production processes and business processes. MACO Managing Directors Guido Felix and Michael Weigand give an insight into our understanding of the future and sustainability.



MACO Managing Directors Michael Weigand and Guido Felix

### 2021 was an extraordinary year. How did the pandemic affect MACO's sustainability activities?

**Felix:** As a family business, taking responsibility for future generations has been our motivation for 75 years. Especially during the COVID-19 pandemic,

this is reflected more than ever in our actions. MACO took short-term measures to maintain operations (more on page 55). The focus is always on protecting our employees and strengthening long-term supplier and customer partnerships. Even in this challenging time, MACO was able to develop sustainably.

**Weigand:** In addition to the fight against the virus, the current ecological challenges must not be forgotten. Climate change is a pressing problem. The economy, and thus every company, has a crucial role to play in the transformation to a more energy-efficient and low-CO<sub>2</sub> future. As an industry pioneer, we want to be part

of the solution with our active contribution to achieving climate and energy goals.

### MACO wants to significantly reduce its ecological footprint. What does that mean in concrete terms?

**Felix:** The goal is to reduce our emissions and energy consumption to the technological minimum. By 2025, we aim to reduce CO<sub>2</sub> by 20 percent in defined main product groups. For new developments, we even want to be CO<sub>2</sub> neutral. A technological change, such as the one we are currently implementing in our production plants, is contributing to this.

Where are there new technologies that can be used to produce more efficiently, conserve resources and lower emissions? We are also looking at the topics of water, energy and waste while working on projects relating to material health, resource efficiency and circular economy (more on page 12). With our comprehensive agenda for the future, we want to provide the impetus for sustainable development in the hardware industry.

### Climate protection is important, but is only one of several sustainability issues.

**Weigand:** Our social commitment

focuses on our most important resource – our employees. We are a safe employer for over 2,600 employees worldwide and have been investing for years in various projects, including equal opportunities, occupational safety, training and further education. The introduction of a digital learning platform, the establishment of a separate "Strategic Personnel Development" department and our recertification as a family-friendly employer are just a few highlights from recent years. A 50 percent decrease in workplace accidents compared to 2019 and the involvement of the entire company in an extensive transformation process are further positive examples of our lived social responsibility (more on page 36).

### Why is sustainability so important at MACO?

**Felix:** We see our transformation of the future as an opportunity, because only responsible action ensures long-term and sustainable entrepreneurial success. Sustainable management has been an integral part of MACO's corporate culture since the beginning and is increasingly integrated



» AS A PIONEER IN THE INDUSTRY, WE WANT TO BE PART OF THE SOLUTION WITH OUR ACTIVE CONTRIBUTION TO ACHIEVING THE CLIMATE AND ENERGY GOALS. «

MICHAEL WEIGAND  
MACO MANAGING DIRECTOR

into our core business. Our focus is on consistent implementation, continuously and with measurable results. In order to meet the increased requirements in terms of transparency, we are working on even clearer communication of our sustainability performance, and this future report is a building block for this.

**What do our customers get out of it?**

**Felix:** Industry, and in particular the construction sector is strongly affected by CO<sub>2</sub> emissions, is called upon to rethink and include sustainable aspects in its economic considerations. This also applies to our customers. With MACO, they have a strong partner at their side with a lot of experience in sustainability. Our environmental management is ISO 14001 certified and is regularly reviewed by external auditors, always with extremely positive feedback. We are a Climate Alliance company, have received several Klimaaktiv awards and are a member of the German Sustainable Building Council e.V.

**Weigand:** ... and thanks to Environmental Product Declarations (EPD), they also know where they stand with our products.

These contain information on the environmental impact of our hardware, considered over the entire product life cycle. An important piece of the puzzle if you want to evaluate entire buildings ecologically.

**How is sustainability organised at MACO?**

**Felix:** We regard sustainability as a fundamental responsibility that should be located in every business area and actively taken up in all business processes. The core team belongs to the "Health, Safety, Environment & Quality" (HSEQ) division and sees itself as a "Think Tank". Derived from the corporate strategy, it defines the most important thrusts and promotes sustainability and climate protection topics in project groups.



**Weigand:** Key staff from all disciplines are further opinion leaders with whom the projects are implemented and promoted. Overall, many individuals are involved, who launched numerous initiatives in the environmental and social field in the past year despite the pandemic. The future report shows a small excerpt of these.

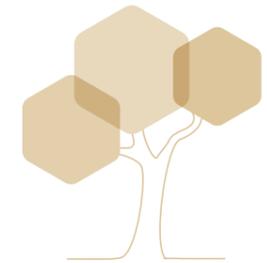
**Thank you very much for the interview!**

»» **BY 2025, WE ARE AIMING FOR A CO<sub>2</sub> REDUCTION OF 20 PERCENT IN DEFINED MAIN PRODUCT GROUPS. FOR NEW DEVELOPMENTS, WE EVEN WANT TO BE CO<sub>2</sub> NEUTRAL.** ««

GUIDO FELIX  
MACO MANAGING DIRECTOR

# Our way towards sustainability

Our objectives are based on the 17 Sustainable Development Goals (SDGs)<sup>1</sup> defined by the 193 member states of the United Nations as part of the "2030 Agenda for Sustainable Development". These are intended to ensure sustainable development on an economic, social and ecological level worldwide. Our implemented and planned measures contribute to the following 12 of the 17 SDGs.



<p><b>Health &amp; Well-being</b> Support a healthy life for people of all ages and promote their well-being</p> <p>3 GESUNDHEIT UND WOHLERGEHEN</p> <p>› Social P. 12 › Environment P. 46</p>	<p><b>Quality education</b> Support inclusive, equal and quality education and promote lifelong learning opportunities for all</p> <p>4 HOCHWERTIGE BILDUNG</p> <p>› Social P. 41</p>	<p><b>Gender equality</b> Achieving gender equality and empowering all women and girls</p> <p>5 GESCHLECHTER-GLEICHHEIT</p> <p>› Social P. 38</p>
<p><b>Clean water &amp; sanitation</b> Ensure availability and sustainable management of water and sanitation for all</p> <p>6 SAUBERES WASSER UND SANITÄR-ENRICHTUNGEN</p> <p>› Environment P. 29</p>	<p><b>Affordable &amp; clean energy</b> Ensure access to affordable, reliable, sustainable and modern energy for all</p> <p>7 BEZAHLBARE UND SAUBERE ENERGIE</p> <p>› Environment P. 16 - 19</p>	<p><b>Respectful work &amp; economic growth</b> Promote sustainable, inclusive and sustainable economic growth, full and productive employment and respectful work for all</p> <p>8 MENSCHENWÜRDIGE ARBEIT UND WIRTSCHAFTS-WACHSTUM</p> <p>› Social P. 26</p>
<p><b>Industry, Innovation &amp; Infrastructure</b> Build resilient infrastructure, promote inclusive and sustainable industrialisation, and support innovation</p> <p>9 INDUSTRIE, INNOVATION UND INFRASTRUKTUR</p> <p>› Environment P. 20 - 23 › Economics P. 52</p>	<p><b>Fewer inequalities</b> Reducing inequality within and between countries</p> <p>10 WENIGER UNGLEICHHEITEN</p> <p>› Social P. 36</p>	<p><b>Responsible consumption and production patterns</b> Ensure sustainable consumption and production patterns</p> <p>12 NACHHALTIGER KONSUM UND PRODUKTION</p> <p>› Environment P. 16</p>
<p><b>Climate protection measures</b> Take immediate action to combat climate change and its effects</p> <p>13 MASSNAHMEN ZUM KLIMASCHUTZ</p> <p>› Environment P. 12</p>	<p><b>Life in the country</b> Protect, restore and promote sustainable use of terrestrial ecosystems, manage forests sustainably, combat desertification, end and reverse land degradation and end biodiversity loss</p> <p>15 LEBEN AN LAND</p> <p>› Environment P. 12</p>	<p><b>Partnerships to achieve the goals</b> Strengthen the means of implementation and breathe new life into the Global Partnership for Sustainable Development</p> <p>17 PARTNERSCHAFTEN FÜR DIE ZIELE</p> <p>› Environment P. 14</p>

<sup>1</sup> <https://www.sdgwatch.at/de/ueber-sdgs/>



# THE CLIMATE CHANGE CHALLENGE

# OUR ECOLOGICAL COMMITMENT



The ecological footprint of the construction industry is huge, as it requires about 40 percent of all global raw materials and some of them are almost exhausted today. In addition, buildings are responsible for around 39 percent of global energy-related CO<sub>2</sub> emissions. The main reasons for this are not only the sometimes low energy efficiency of existing buildings, but also the energy-intensive manufacturing processes of many building materials.

As a construction supplier, MACO recognised early on that our economic activities and our products can make a major positive contribution to environmental protection. As early as 2010, MACO established the first department on the subject of the environment and since 2019 has been working intensively on topics such as decarbonisation, circular economy and material health. This has an impact on all business areas and along the entire value chain.

## 2021 Highlights

10 %

CO<sub>2</sub> savings thanks to reusable packaging

19 %

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6.5 %

less packaging per revenue tonne

# All signs point to change

## The courage to rethink things

Sustainability is and remains the dominant topic of our time. Only 2.9 percent of the earth is still intact. The construction industry is severely affected where around 40 percent of global CO<sub>2</sub> emissions and 35 percent of the energy used can be traced back to construction and living. The way we build, live and work must change comprehensively, sustainably and fundamentally. Sustainability Manager Petra Engeler-Walch gives an insight into what this means for MACO.



» WE ARE CONVINCED THAT SENSIBLE ECOLOGICAL BEHAVIOUR IS ECONOMICAL IN THE LONG TERM. THAT IS WHY WE IMPLEMENT MEASURES TO PROTECT THE ENVIRONMENT IN AS MANY AREAS OF OUR ACTIVITIES AS POSSIBLE. «

PETRA ENGELER-WALCH  
SUSTAINABILITY MANAGER

### How do you achieve sustainable construction?

Sustainable construction does not only mean conserving resources and building in an environmentally friendly way. There are many other factors to consider such as the lowest possible energy requirement of the building, the use of recyclable, durable building

materials, low transport costs, concepts for the reuse of buildings and much more.

**Construction products have a significant influence on the sustainability performance of a building. What demands do they have to meet today?**

For construction products using

our hardware, price and technical performance are no longer the only things that count. Their ecological assessment is also an important selection criteria on the part of builders and decision-makers. Our goal is to develop environmentally friendly and climate-neutral products that maximise the energy efficiency of buildings, are manufactured in an

environmentally friendly manner, have a long service life and are recyclable. Thanks to the environmental product declarations, these can then be compared with regard to their environmental friendliness.

### How does MACO implement its ecological commitment in concrete terms?

We consider the ecological impact of our products throughout their entire life cycle, from raw material extraction to transport routes, processing and disposal. Every

new development must be ecologically better than its predecessor. But also existing products and production processes are questioned and sustainably optimised. For example, we look at the materials used and ask where are there sustainable alternatives and can they be used sensibly and without loss of quality? One of the goals is to completely ban materials that are harmful to health and the environment by 2025. At the same time, we want to increase the longevity of our products, as they are to be installed in buildings over decades.

In addition, we ask ourselves how production processes can be made more energy-efficient and low-emission? Or how we can save waste and wastewater? We were able to initiate several such projects here in 2021. Also reducing and optimising packaging or making transport journeys more efficient has already significantly improved our ecological footprint. However, we are far from reaching our goal and have a lot of plans for the future.

**Thank you very much for the interview!**

## Circular thinking

We turn these screws to minimise our ecological footprint:



# Circular Purchasing

The topic of sustainability is firmly anchored in our purchasing strategy and goals. We consider the entire value chain and always include sustainability aspects in the selection of suppliers, products and services. According to the motto "Think global, act local", MACO prefers business partners from the local region. In addition, we cultivate a culture of fairness and sustainability which means that we maintain and develop our business relationships in the long term.

## Clean supply chain

Ensuring that applicable laws are fully complied with is a must when selecting new business partners. In addition, their commitment in the social or environmental sectors, along with energy or sustainability certifications are decisive. For example, we source our sensitive chemical water treatment products from a manufacturer that itself makes trend-setting environmental contributions and uses renewable raw materials (e.g. coconut shells) for the production of activated carbon. Our suppliers of aluminium profiles also use innovative environmental technologies and pay attention to a closed, loss-free production and material cycle.



## Green logistics

Wherever possible, we source raw materials regionally and on average, our suppliers are a maximum of 1,000 kilometres away. In addition, we pay attention to the use of the most climate-friendly means of transport possible. Need an example? We have 95% of the approximately 35,000 tons of steel and zinc for our Salzburg and Trieben plants delivered annually by rail instead of by truck. This saves about 350 tons of CO<sub>2</sub> per year.

## "Making new from old"

Raw material recycling is an essential part of modern waste prevention. That is why we are working with our recyclable materials partners on innovative recycling solutions and are already successfully applying them to the four most important raw materials for MACO.

Some of our handles are made of aluminium. The scrap and waste material is melted down again at the supplier's site and returned to our production process as a fully-fledged aluminium alloy. In this way, we can cover around 75 tonnes and thus around 40 percent of the aluminium required. This not only saves raw material, but also energy as secondary aluminium requires only five percent of the energy required compared to primary production.



Raw material recycling	Total	as % of total raw material requirements
Zinc	785 tons/year	9
Aluminium	75 tons/year	40
Steel	10 tons/year	30
PVC	75 tons/year	66

The use of secondary Zinc reduces the CO<sub>2</sub> footprint by up to

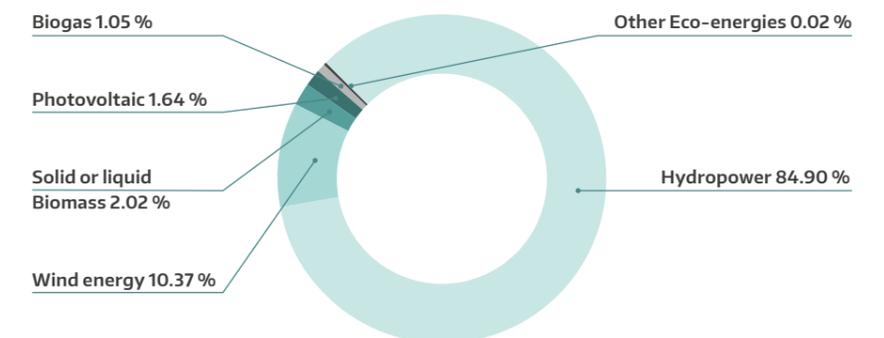
**97.5 %**

compared to extraction from ores.



## 100% green electricity

MACO purchases around 50 gigawatt hours of electricity annually, which corresponds to the needs of around 20,000 households. We only use certified electricity from renewable and CO<sub>2</sub> neutral energy sources such as hydropower or wind energy. 80 percent of this comes from Austria and 20 percent from Norway, and is produced without any radioactive waste!



# Energy Management



## Photovoltaic is coming

We are increasingly relying on renewable energy. For this reason, photovoltaic systems are successively used in all our plants. A total of 25 percent of the roof area (and thus almost 5,000 m<sup>2</sup>) of our Salzburg plant will be equipped with photovoltaic systems in the future, and one third of the planned photovoltaic panels will go into operation in 2022. This allows us to generate around 100,000 kWh of electricity per year for our administrative area. In the final expansion stage, the plant has a nominal output of 300,000 kWh per year, which corresponds to about three times the electricity requirement of our new Innovation Center. Our site in Helpsen will also receive a photovoltaic system in 2022 with an annual output of 240,000 kWh, where around 12 percent of the annual electricity consumption will be generated by the sun in the future.



## E-mobility expanded

Not only are we gradually converting our company fleet to electric cars, but we are also continuously expanding our network of charging stations. Sustainable business trips with electric cars between our Austrian plants are already standard. Charging points will also be set up at our German branches in Schöllnach and Helpsen in 2022. In Salzburg, the expansion of further E-charging stations is planned.



## Optimise employee mobility

In the extraordinary year 2021, many drives were cancelled alone due to Corona. However, this also led to a general rethinking at MACO in terms of home office regulation and business trips. Since spring 2021, all employees with a monitor workstation have been able to spend up to 40 percent of their working time in their home office. In addition, digital meetings are preferred and many trips between our plants are thus omitted. Large international sales meetings are also held online, saving thousands of flight kilometres. All these measures contribute to our reduced CO<sub>2</sub> balance.



## Using energy efficiently

If you want to save energy, you first have to know where how much energy is used. In order to keep a better eye on our energy consumption at all Austrian locations and to make it comparable, an energy management software is currently being worked on. This defines what and how is measured and merges the various measurement data. In the future, it will be possible to deduce from this where the highest energy saving potential lies and which machine must be converted and how, in order to work even more energy-efficiently.

## Use existing technologies more efficiently

Whether entire systems are replaced or tools are adapted, the goal of MACO's technology harmonisation in all core areas is the same - to increase the efficiency and thus the output of the production plants, and thus to ensure reliable delivery to our customers. This is achieved by reducing cycle times and increasing capacities. Here are **three examples** of how our technology harmonisation also has a positive impact on our ecological footprint:



# 01

### Efficient punching

Energy savings of 35 percent result from the conversion to multiple die-cutting, whereas previously one part was punched on one track per stroke - now two or more parts fall out of the system. Due to the significant reduction of process times in production, the energy requirement per piece is significantly reduced.

# 02

### From cold to hot

Up to 50 percent lower use of materials due to the omission of the sprue, which must then be separated and recycled by type. This is pursued in plastics technology with the progressive change from cold to hot channel systems. Another plus - truck journeys, and thus CO<sub>2</sub>, are also saved for the removal of the return material for recycling!

# 03

### New tool technology

The machine remains the same, but the die casting moulds have been and will be renewed and the tool technology switched to hot channels, eliminating the sprue. In this way, we not only save material, but also energy that was previously needed for melting the return material. The increased production output, which at the same time has a significantly higher number of units produced, also has an effect on a significantly lower overall energy requirement. Therefore, all our top lathes will be successively converted to hot channel technology.

## Tools in 3D printing

At MACO, we build over 95 percent of our tools ourselves, where previously some of the plant, spares or machine components were bought in. Instead of having them made of aluminium, for example, as before, a 3D printing process is now being used. The CO<sub>2</sub> load from 3D printing with reinforced plastic is much lower. The elimination of transport routes also contributes positively to our CO<sub>2</sub> imprint.

## Cobots help too

How do we make workplaces more ergonomic? By using Cobots since mid-2021, especially in final production<sup>1</sup>. These robots perform various movement sequences and support our employees in heavy or tiring activities. Next year, seven Cobots will be used in our production plants.

<sup>1</sup> The term Cobot comes from the combination of the English words "Collaboration" and "Robot". It refers to robots that have been designed for direct interaction and collaboration with humans.

## More sustainable thanks to new technologies

New technologies are developed not only to solve problems, but to make our lives better. We use innovations in production processes on our way to a more sustainable future by saving materials, energy or CO<sub>2</sub>.



### Sustainable investments

At MACO, investments and projects are weighted and prioritised according to the "Total Cost of Ownership". A wide variety of evaluation criteria are taken into account, which consider the entire phase of life, i.e. from creation to operation and recycling. Since 2021, sustainability aspects such as energy consumption, emissions or the use of raw materials have also been decisive.

## Pad printing

Pad printing technology is a process that has been used for many years to print customer logos on a wide variety of surfaces. In 2021, we invested in a new, electromechanically driven system. This convinces not only by its significantly improved print quality, but in contrast to the previous system also by its significantly lower energy consumption.

## Less paint & chemicals

Our new drum coating system is a real winner as the new application process achieves an even higher-quality surface finish despite its lower layer thickness. Shorter throughput times, a five percent reduction in paint consumption and a lower need for cleaning agents also contribute to efficiency and resource conservation.

## Optimise energy use

In the Injection Moulding Technology Department alone, we have invested in a total of twelve injection moulding machines with new, energy-efficient drive technology since 2019. Compared to older generation machines, these require up to 45 percent less total energy per operating hour. This also reduces CO<sub>2</sub> emissions per machine by up to five tons per year.

## Avoid rejects & mistakes

In such a complex and multi-layered production as MACO's, not everything always runs 100 percent smoothly. Errors and malfunctions on the machines, unreached tolerance limits or customer complaints offer starting points for optimisation processes. In order to avoid errors, increase quality and thus reduce rejects as much as possible, MACO is turning several screws.

# 01

### Counteracting errors in a targeted manner

For which articles are there frequent complaints or problems in the production chain? Can these be fixed in a normal problem-solving cycle? Or are they more far-reaching and complex and require, for example, tool or process improvements? If so, then an extensive optimisation process (Six Sigma) must be initiated. A newly introduced evaluation matrix evaluates and prioritises the various improvement projects according to statistical methods and clearly defined criteria (including ecological ones), and then decides which are Six Sigma worthy. The advantage is that the projects that have a major impact are implemented first. The quality of the products improves, production becomes more efficient and less error-prone, and process-related rejects are reduced.

# 02

### Predicting errors & quality

What if a machine can predict that settings need to be changed so that items produced in the future also meet the quality requirements? What if the machine reports back in good time, when maintenance windows are scheduled or installed tools are blunt and can therefore be replaced? With the help of artificial intelligence, current data from the production plants can be interpreted and predictions can be made that enable early action instead of short-term reaction. In this way, we avoid unnecessary downtimes, increase the longevity of the systems and tools as well as the quality, reduce rejects and use material and machines more efficiently.



**SCIENCE FICTION IN OUR PRODUCTION. WITH THE HELP OF ARTIFICIAL INTELLIGENCE, CURRENT DATA FROM THE PRODUCTION PLANTS CAN BE INTERPRETED AND PREDICTIONS MADE. THIS BENEFITS US IN MANY RESPECTS – ALSO ECOLOGICALLY.** <<

MANFRED STANGASSINGER,  
TEAMLEAD ADVANCED QUALITY ENGINEERING

# Material Management

The choice of materials and raw materials for products and production processes has a significant impact on our ecological footprint. In the sense of a circular economy, we are accelerating the use of recyclable materials that can either be returned to biological cycles or kept continuously in technical cycles as "technical nutrients". In this way, we keep the burden on the environment as low as possible, from the production to the disposal of our products. In 2021, several further projects were initiated.

## Reduce exotic materials

Steel of around 200 different qualities and dimensions is used to manufacture our products. Some of them, the so-called "exotic materials", are only needed in minimal quantities, but often have to be purchased expensively in high minimum lot sizes. Their low consumption led to problems with rust formation and quality due to the long storage.

In a broad-based project in 2021, it was evaluated together with the specialist departments which materials can be replaced by other, already existing ones. Ten materials were filtered out, which differ only slightly in dimensions or thickness. Harmonisation leads to fewer corrosion problems thanks to shorter storage times. As a result, less material is disposed of and at the same time newly purchased – the use of materials decreases, as does the number of truck transport trips. A win-win for all sides.



## Material database

What materials are in the product or are used for their production? And to what extent are the used substances harmful or even toxic to humans and the environment? In our new material database, which has been in the works since the beginning of 2021, these will be recorded in the future. Many substances, lubricants and raw materials will be included in it, and that's well over 4,000 different positions. In addition to technical aspects, the materials are also evaluated with regard to ecological key figures such as recyclability, material health or compliance (e.g. REACH conformity) and, according to the traffic light colours, categorised into green, yellow and red materials. Already during the design of new articles, the material database is then used as a decision-making aid - if a "green" material meets the required performance properties, then this is preferable. But also existing products can now be optimised in terms of their material composition and become "greener" – of course only where they can be replaced without loss of functionality or quality.

## CO<sub>2</sub> footprint at article level

What is the CO<sub>2</sub> balance of an article and how could this be reduced by the use of other materials? A project team is dealing with this question and evaluating, comparing and deriving recommendations for action. A first lighthouse project is the replacement of Zamak<sup>2</sup> with high-quality plastics in our Multi Matic lift-and-close parts (see P. 28).

<sup>2</sup> ZAMAK is the abbreviation for an alloy of Z-zinc, A-aluminum, MA-magnesium and K-copper.

## Sustainable products

The building sector plays a crucial role in achieving climate goals, as the construction and operation of buildings are responsible for almost 40 percent of global energy-related CO<sub>2</sub> emissions. And they account for more than a third of the world's final energy consumption. The use of products and materials that are as sustainable as possible is therefore of particular importance.

As a construction industry supplier, MACO can have a particular influence here. Along the entire product life cycle, we always include ecological and economical aspects in the development of our hardware and system solutions, from the selection of materials to the development process and product properties to recycling. This leads to innovative solutions away from the usual path.

### Rethinking products

Does hardware necessarily have to be made of Zamak, or are there not already sustainable material alternatives such as WPC or timber that offer advantages? We are conducting research in different directions, for example with a lighthouse project in the use of high-quality plastics for striker plates. In this way, we transfer a sustainable high-tech material from aircraft and wind turbine construction onto the window.

The ecological advantages are obvious - it does not corrode, has less abrasion and a long service life. The lower construction weight has a positive effect on transport, storage and processing. The plastic variant also creates benefits in production as here, the locking parts are manufactured using state-of-the-art injection moulding technology and are finished in one step. The surface treatment is also omitted and the energy consumption is much lower. At the same time, this reduces CO<sub>2</sub> emissions.

### Advantages of plastic in the numbers

approx. **40 %**

less energy required for injection moulding than for die casting

approx. **15 %**

less energy consumption due to the elimination of surface treatment



### Zinc different

What alternative surface treatments are available for Zamak items? Do they always have to be galvanized? If hardware parts in the rebate are hidden or not visibly installed in the window or door element, we will do without it here in the future – also for the sake of the environment. Of course, this has no effect on function and quality. With 135 articles, we have identified potential savings here and that's 214 million more ecologically produced parts per year!



**GRAIN MEAL PROVIDES THE SPECIAL SHINE ON OUR ARTICLES, AND IS ACTUALLY A WASTE PRODUCT, WHICH HEREBY GETS A NEW FUNCTION. THIS RARELY NEEDS TO BE REPLACED AND WE ONLY DISPOSE OF AROUND ONE CUBIC METRE A YEAR.**



PETRA ENGELER-WALCH  
SUSTAINABILITY MANAGER



### Reduced chemicals & energy

The environment benefits from the lower use of chemicals and zinc where the energy required for refining is also saved. Another ecological advantage is that during galvanizing, bubbles repeatedly formed on the surface which led to rejected goods that could no longer be remelted. These throwaway products are now eliminated. In order to meet aesthetic requirements, the articles are now ground with a waste product of a naturally renewable grain.

## "Greener" surface

"Evo" is our revolutionary surface technology, in which not only product properties, but also the production processes have been optimised. Ecological aspects were already taken into account during the development of the new process as they have an impact over the entire life cycle.

### Environmentally friendly waste-water treatment

Various chemicals are used in surface treatments. The chemically contaminated waste-water was previously purified before it was 100 percent discharged into the sewer and disposed of. In 2021, MACO invested in a vacuum distillation plant and the second plant will be put into operation at the beginning of 2022. In these, highly contaminated waste-water (cod, zinc, nickel, surfactants, etc.) are prepared where more than 97 percent can then be returned to the production cycle. This saves us valuable resources as not only do we need far less fresh water, but the consumption of chemicals has also been significantly reduced.

**97 %**  
of waste water  
can be reused

### Alternative energy instead of fossil fuels

The new surface finishing deliberately dispenses with high baking temperatures. Thus, a normal circulation furnace is sufficient for heating the baths, which recycles the waste heat from other machines. The previous gas-powered baking furnace was disposed of. The last bit of energy required will soon be generated by our photovoltaic system.

### Less sludge

Up to 1,200 tons of thin sludge are produced annually by the surface treatment of our hardware. This was previously mechanically de-watered by means of a chamber filter press, but still had a water content of 60 to 70 percent. The relatively high amount of waste thus consisted largely of water, but still caused a lot of CO<sub>2</sub> through removal and disposal. A new process, the condensation drying with a heat pump reduces the weight and volume of the sludge by up to 60 percent. This has saved half of the sludge being disposed of. The high efficiency and at the same time low energy consumption of this drying method are further advantages.

**50 %**  
less sludge must then  
be disposed of

# Packaging

As much packaging as necessary, as little as possible. Our goal is to prevent complaints due to transport damage, to reduce packaging waste and to promote the use of ecologically compatible materials. Questioning existing concepts is the first step. Developing alternative solutions is the next one. Would you like some examples? Of course!

## Reusable packaging

Instead of oversized, sometimes only half-packed cartons, we rely on common, 2.40 m long pallets with attached wooden frames for our door lock packaging. This frame can be expanded modularly, protects the goods better than cardboard and can be used several times. With a service life of three years, we save around ten percent CO<sub>2</sub> compared to the old packaging – for example by eliminating transport routes in the event of complaints or lower energy and raw material requirements.

Our customers benefit from lower amounts of waste and less processing effort, as complaints due to damaged goods during transport are reduced. Last but not least, it is more ergonomic for our employees, because the door locks are easier to lift in the low wooden frame than in the cardboard packaging. A win-win across the board.

**10 %**  
CO<sub>2</sub> savings

## Focus on the essentials

What if we didn't pack drive gears completely in cardboard boxes, but only wrap the exposed areas with cardboard? On the one hand, this increases occupational safety, as the risk of burns when handling the hot glue guns is eliminated. In addition, the lower demand for carton packaging of around 12 percent has a positive effect on the ecological footprint. That's why this project is currently being implemented.

**12 %**  
less cardboard

## Reduce carton packaging

So far, we have used many cardboard boxes with similar dimensions. These often differed only in a few millimetres of length, width, height or thickness, but due to low purchase quantities they caused high processing, transport and storage costs. According to the principle "less is more", we reduced and standardised our cardboard variety by 30 percent, and without reducing quality. A uniform process with regard to transport and packaging testing has been established for this purpose.

**30 %**  
fewer cardboard boxes



# Logistics

We ship our goods to 40 markets worldwide. Efficient transport routes and logistics pay off not only economically, but also ecologically. With a total of six logistics centres, we are close to our customers throughout Europe with short delivery distances. We also pay attention to our ecological footprint in the delivery of our raw materials.



50 percent

## Increase HGV utilisation

It's a simple equation - a fully loaded truck is more sustainable and economical than two half-loaded ones. Therefore, wherever possible, we use double-decker trucks for our goods deliveries. With a second floor in the middle of the loading area, the capacity utilisation is virtually doubled. This is already the standard for journeys between our European production plants.

55 loads

## Containers on rails

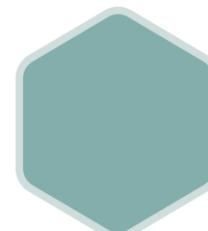
In Russia, we deliver inter-modal (containers by rail) from Kaluga to Novosibirsk. In 2021 alone, 55 loads were shifted from road to rail. This saves 165,145 kg of CO<sub>2</sub> on this more than 3,500 km long route.



150 vehicles

## Accident-free forklifts

Whether driverless or manned, our latest forklifts and industrial trucks communicate with each other. If they get too close to one another, they independently brake themselves. This is how we prevent collisions and accidents at work. Over the next few years, all forklifts will be successively converted to these safety pros – that's more than 150 vehicles throughout the group.



## Tetris while loading

In order to make the best possible use of the cargo space, we have been using 2.40 m long pallets in addition to our 2.50 m long pallets since 2021. These can be placed transversely in the load compartment and optimally combined with the 1.20 m long Euro pallets. Due to the form-fitting loading, we avoid empty spaces and the goods move less which prevents damage during transport. With a 13 percent higher transport capacity utilisation and the associated CO<sub>2</sub> reduction, this conversion also does something for the environment.

13 percent



# MAKING PEOPLE FIT FOR THE FUTURE

## OUR SOCIAL COMMITMENT



The knowledge and skills of our employees are the key to a sustainable future. Their participation is necessary in order to achieve our ambitious goals, especially with regard to sustainability, too. As experts in their field, they see best where we can improve. Because often simple observations lead to significant changes.

We design an environment that not only offers opportunities for development, but also prepares staff for future changes and involves our employees in the development of the company. We are investing more than ever in education and training, stepping up our efforts in the area of diversity and, above all, implementing measures for occupational health and safety.

### 2021 Highlights

**32 %**  
female apprentices

Almost **50 %**  
of apprenticeship starters are female

**46 %**  
fewer workplace accidents compared to 2019

# Diversity as a great strength Equal Opportunities

Our employees come from a wide variety of cultures and ethnicities, belong to different age groups and contribute an enormous range of perspectives and skills. This diversity of personnel is crucial in order to remain innovative and versatile. We therefore create a working environment in which all employees can develop their full potential.



## A living balance of work and family life

Maternal care, a second baby, a further education - there are a variety of reasons that require professional flexibility. In order to simplify the compatibility of work and family, MACO has created a versatile offering. This starts with the family-friendly shift model, extends to possibilities of temporary reduction in working hours and ends with home office options. For more than two years, there has been a comprehensive time-out management.

## Part-time Managers

Numerous couples share work and family on an equal footing. Nowadays, well-educated women in particular are no longer naturally behind in their jobs. The demand for part-time work models is greater and more significant than ever. Where possible, we meet this wish with sabbaticals or part-time management positions. This requires flexibility and willingness to compromise on both sides, but brings enormous advantages. We were able to increase the proportion of women in management positions, increase employee satisfaction and strengthen our attractiveness as an employer.

» FLEXIBILITY IS AN ENORMOUS COMPETITIVE ADVANTAGE. IN TIMES OF SCARCE LABOUR AND A SHORTAGE OF MANAGERS, SUCH AN OFFER IS THEREFORE AN IMPORTANT FACTOR IN STRENGTHENING THE EMPLOYER BRAND. «

CLAUDIA KOPP  
HEAD OF HR, MACO GROUP



## Family-friendly employer

Our commitment was rewarded with the Austrian full certificate "careerandfamily". Sandra Schinwald-Haberzettl (auditor "careerandfamily") has been accompanying MACO in its certification for three years: "MACO lives the compatibility of career and family very noticeably. The target agreement of 2018 was literally exceeded, both in terms of the number and quality of the measures. The re-certification process was very constructive and fruitful. I am convinced that the MACO Group will continue to expand its position as a family-friendly employer."



» FAMILY PLANNING OR CAREER? AT MACO, I DIDN'T HAVE TO CHOOSE. DESPITE MY MATERNITY LEAVE, I WAS ABLE TO RETURN TO MY MANAGEMENT POSITION PART-TIME AFTERWARDS. ORGANISATIONALLY, THIS MEANT REDEFINING MY AREA OF RESPONSIBILITY AND DELEGATING SOME ACTIVITIES, BUT I KEPT THE RESPONSIBILITY AND THE FUN AT WORK. «

SILKE LEMMERER  
TEAM LEADER SALES BACK OFFICE, MACO SALZBURG

» 21 YEARS AGO I JOINED MACO AS AN APPRENTICE. AFTER MY MASTERS, I TOOK OVER THE RESPONSIBILITY FOR A SUB-PROCESS OF THE SURFACE TECHNOLOGY – THEN CAME THE DESIRE TO HAVE CHILDREN. ALTHOUGH AFTER MY MATERNITY LEAVE I ONLY CAME BACK PART-TIME, I WAS OFFERED THE ROLE OF HEAD OF THE ENTIRE SURFACE TECHNOLOGY DEPARTMENT. THANKS TO FLEXIBLE WORKING HOURS AND HOME OFFICE, I CAN BE THERE FOR BOTH MY TEAM AND MY FAMILY. «

PETRA SCHREMPF  
HEAD OF PRODUCTION SURFACE TECHNOLOGY, MACO TRIEBEN



Part-time & maternity/ paternity		2019	2020	2021
Employees on maternity/paternity leave	Number	38	34	26
Male	Number	1	2	1
Female	Number	37	32	25
Family time	Number	8	5	6
Parental part-time	Number	50	52	44
Partial retirement	Number	37	35	30

## Equal opportunities for women & men

We deliberately refrain from a quota for women, but instead focus on equal opportunities in recruiting, in further training and in leadership development. As an industrial company and in a very male-dominated industry, we are proud of a 50 percent share of women in top management. With just under the same number of female and male apprenticeship starters in autumn 2021, it is clear that our efforts to inspire women for technical professions are taking effect.



## Code of Conduct – Fair Trade

MACO is an international company where our activities are becoming more and more diverse and far-reaching. With the Code of Conduct, MACO has created guidelines that stand for responsible action and fair cooperation. It sets high ethical standards that must be adhered to by employees and business partners. Whether it is about corruption, conflicts of interest, side jobs or behaviour on social media – the MACO Code of Conduct provides action orientation in a complex world. Developed in the company in 2020, it was rolled out in 2021, promoted and its compliance checked.



**THE CODE OF CONDUCT SERVES US AS A BINDING SET OF RULES FOR ETHICALLY SOUND AND LEGALLY CORRECT ACTION. ALL OF US WHO ACT ON BEHALF OF OR FOR MACO CARRY OUR IMAGE TO THE OUTSIDE WORLD AS AMBASSADORS AND SHAPE THE CORPORATE CULTURE WITH OUR DAILY WORK.** ‹‹

GUIDO FELIX  
MANAGING DIRECTOR



Want to take a look at the MACO Code of Conduct?

## Empowering people Education & Training

The success of MACO can be traced back to our employees. In other words, the better our MACO team, the more successful the company will be. Our large depth of manufacturing entails demanding and versatile work tasks. Training and further education are therefore fundamental pillars of our corporate culture - be it to re-qualify employees or to train apprentices in the state-of-the-art training workshop according to their own educational plan.



Training and Further Education		2019	2020	2021
Total (incl. vocational school)	Hours	52,557.35	32,595.19	29,942.14 <sup>3</sup>
Average per employee	Hours	142.05	129.86	95.97
Completed apprenticeships	Number	20	25	30

## Strategic personnel development

Whether professional training or personality development – our strategic personnel development makes it possible to reconcile the learning needs of our employees with the know-how needs of MACO. Here, training content is defined and the transfer of knowledge is designed and organised. Input for this is provided by employee surveys and annual employee appraisals.

## Wide range of trainings

We support our employees in their professional and personal development in a variety of ways – monetarily, through time off or by offering a colourful range of further training opportunities. In addition to professional training that is required for the exercise of one's profession (such as forklift driver's license, fire protection courses, training on the commissioning of specific machines, etc.), our training programmes also include learning content for personal employee development (personality training, language courses, etc.).

<sup>3</sup>Only those hours that fall within working hours are recorded. The hours that our employees spend on further training in our new E-learning platform are not shown here. In addition, due to the Corona pandemic, many training courses have been postponed to 2022. This explains the decline in training hours.

## Easy access to knowledge

Our new E-learning platform MACOversity has been online since October. This makes the training programmes at MACO more accessible, flexible and target-group-specific. Our employees are now increasingly learning digitally – when, where and how they want. According to the principle "from employees for employees", they find answers to problems they encounter in their daily work on the learning platform. The roll-out initially took place in Austria and the offer will be extended to the international subsidiaries and subsequently to our customers in 2022.

## Integral Organisational Developers

In order to be able to support the transformation process at MACO, we launched a training course for becoming an Integral Organisational Developer. 13 participants from different areas and locations, with and without a management function, were trained in a ten-day course to accompany transformation processes of individual organisational units. This covered team, structure and personality development, from sparring partner for executives to conflict moderation – all these competencies were strengthened.

## Raising awareness of environmental management

For the first time, an environmental management training for 22 selected managers started in 2021. The most important questions were what aspects of environmental management, what interests and needs are there? And how can these be processed in a structured and proactive manner in the company, taken into account and promoted in all areas? As multipliers, the participants carry what they have learned back into their areas. In this way, MACO actively builds up support and understanding for the sustainable transformation of the company.

## Promoting leadership skills

A good working atmosphere depends fundamentally on leadership behaviour. But no one is born a leader. Therefore, the development of our employees in management positions is one of our focal points: For example, we support **young managers** who have only briefly held their role with a structured development program. Financial topics, presentation training, project management or personality development are just some of these training contents.

The "**Coaching as a Leadership Competence**" course is aimed at the top management team and underlines our understanding of leadership culture. The 14 participants are taught basic coaching skills and qualities and the structural process of coaching discussions is trained.

Our **team spokespersons** are in an **indirect leadership** role and are subject to a special challenge. As technically responsible coordinators, they are often the first point of contact for colleagues, but have no disciplinary authority to issue orders. Within the framework of eleven two-part workshops to convey role clarity and the basic skills of healthy generation-appropriate leadership, concrete work and problematic leadership situations were put into focus.

# Apprenticeships

## Our specialists of tomorrow

We want the best specialists and thus we promote our young talents. They learn in our in-house training workshops on state-of-the-art machines and use the latest technologies. In 2021 alone, almost half a million Euros were invested in new vertical milling and turning-milling-machining centres.

Here, we know what we are doing - as a "state-awarded training company", we can proudly look back on more than 50 years of experience and over 550 successfully trained skilled workers.

### Green Jobs by MACO

In order to be prepared for the increasingly stricter requirements regarding sustainability and environmental protection, MACO advertised the Waste Management and Recycling Specialist apprenticeship for the first time in 2021, and thus implemented a completely new job profile. The first apprentice started in autumn 2021. In addition to proper waste disposal, the focus is also on waste-water management. The aim is to bring the valuable raw material water back into the economic cycle through recycling. Waste-water controls, analysis and the documentation and evaluation are essential tasks.



Picture: Kleine Zeitung  
Julia Ehweiner is the first to complete an apprenticeship as a Waste Management and Recycling Specialist at MACO. And is thus one of 200,000 people in Austria with a "Green Job".



### More and more "Girls go MACO"

As many career fairs and school events were cancelled in 2021 due to Corona, online channels came into focus to attract new apprentices to MACO. Here, we greatly expanded our presence, especially in social media and on regional career platforms. We convinced a particularly large number of girls to take an apprenticeship in industry or technology, where almost half of the MACO apprentices starting in autumn 2021 were young women. Currently, a total of 32 percent of our apprentices are female.

	2019	2020	2021
Total apprentices	104	100	82
Female	28	26	26
Proportion of women in %	26.9 %	26.0 %	31.7 %
Male	76	74	56

### Real life trainings

These programs, some of which are unique in the industry, make our apprenticeships special:

- › In-house course for "Apprenticeship with A-Levels"
- › Apprenticeships after A-Levels - shorter training periods provide an incentive for specialist training
- › Apprenticeship Academy - as an integral part of MACO's training, it focuses on personality. There are 6 modules, in which apprentices from all MACO locations meet, focus on the development of social and personal skills, along with methodical competence
- › Second-education apprenticeship - MACO offers, in addition to the statutory apprentice allowance, a voluntary wage compensation

# Health & Safety

The occupational health and safety of our employees is at the top of our list of priorities, and presented us with special challenges in the Corona year 2021. On the one hand, we continued to advance our prevention goals with health and safety campaigns. On the other, measures such as special safety concepts, test and vaccination routes to contain the pandemic were required.



Sick days	unit	2019	2020	2021	Change compared to 2020 in %
Total (incl. accidents)	Hours	120,582.00	102,440.80	118,348.02	15.53
Average per employee	Hours	114.08	113.57	117.29	3.28
Workplace accidents	Number	61	41	33	-19.51
Per 1 million working hours	Number/1 million h	22.10	16.60	13.80	-16.87

## Further decline in workplace accidents

The trend continues in 2021 where the number of occupational accidents fell by 20 percent even though production was running at full speed. Compared to 2019, there are more than 46 percent fewer accidents at work. The various initiatives to increase occupational safety are clearly having an effect.

**46 %**  
fewer workplace accidents compared to 2019

## Raising awareness

Where do dangers and risks lurk in the workplace? And how do I meet them? The Safety First Program, which was introduced in 2018, trains selected specialists from production and technical areas to become safety mentors and coordinators. Their task is to support and guide department colleagues and managers in improving and further developing occupational safety.

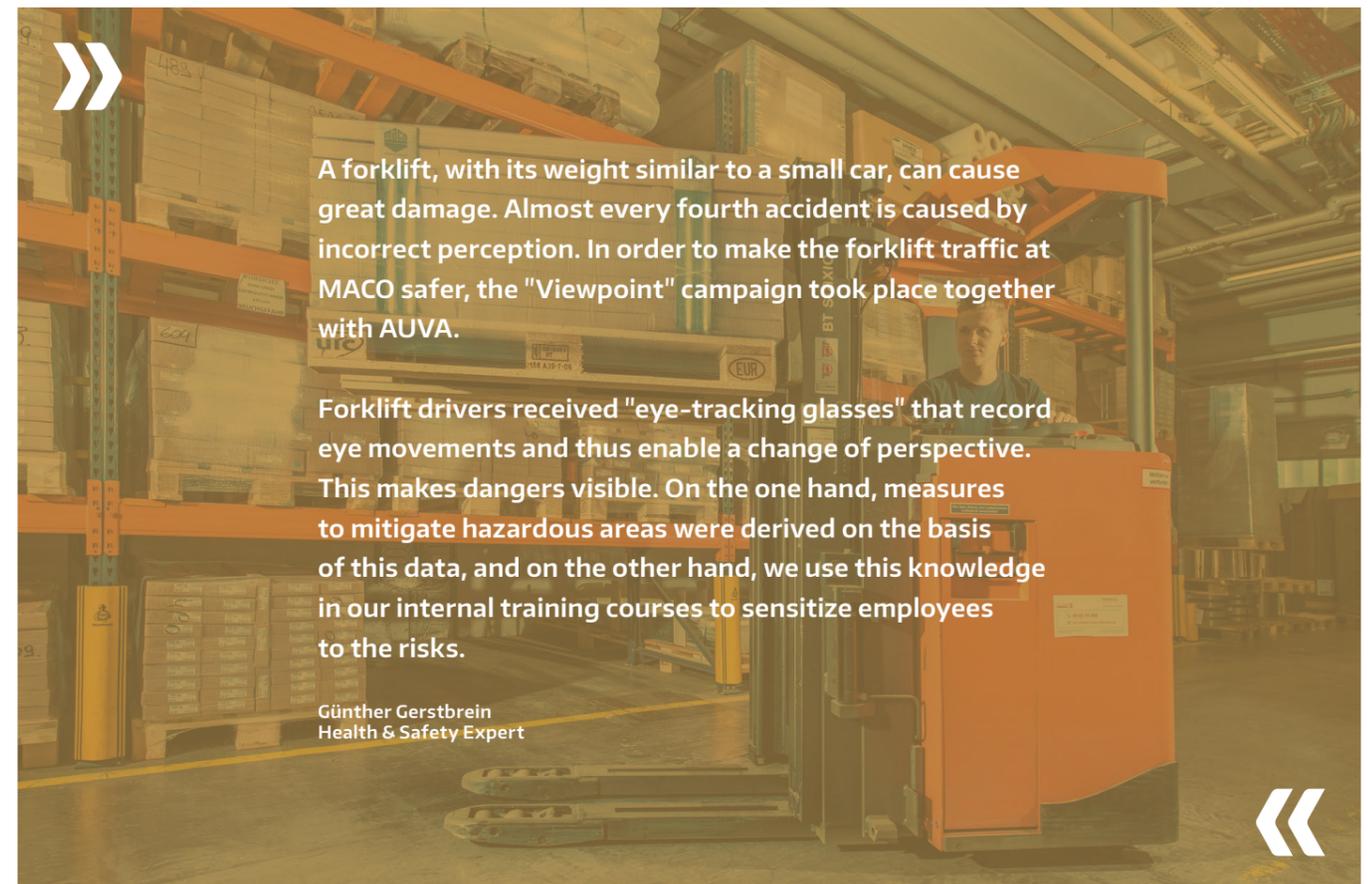
## Checks

Each production area and each department is inspected up to five times a month. The safety coordinator, team leader and fire protection officer take a close look at various aspects of occupational safety, record possible danger points and initiate measures.

Each department is inspected  
**5 times**  
per month in terms of occupational safety aspects.

## Building knowledge

Together with external partners such as AUVA, training courses tailored to MACO's needs were offered at the Austrian locations. Among others, these included for example, what dangers lurk when working in confined spaces and shafts? Where are there safety vulnerabilities in forklift traffic? What are the most common risks of injury during operation (burns with liquid metal or plastic, burns with chemicals, etc.)? And how do I provide first aid? Around 120 employees are taking advantage of the wide range of training courses on offer.



A forklift, with its weight similar to a small car, can cause great damage. Almost every fourth accident is caused by incorrect perception. In order to make the forklift traffic at MACO safer, the "Viewpoint" campaign took place together with AUVA.

Forklift drivers received "eye-tracking glasses" that record eye movements and thus enable a change of perspective. This makes dangers visible. On the one hand, measures to mitigate hazardous areas were derived on the basis of this data, and on the other hand, we use this knowledge in our internal training courses to sensitize employees to the risks.

Günther Gerstbrein  
Health & Safety Expert

## Medical Support

Only those who are physically and mentally healthy can perform well. That is why we employ our own occupational physicians at our Austrian locations, who provide vaccinations (flu, ticks, etc.), carry out maternity protection evaluations, regular noise tests or diagnoses and initial care in the event of illness. A major focus in 2021 was pandemic management where this included working on the Corona crisis team, providing vaccination advice to our employees and supporting the testing and vaccination route.

In addition, confidential occupational psychological advice is offered by external experts who help employees in challenging life situations.

## MACO Creating Health

The MACO health program is based on the three pillars of body, mind and movement. An ambitious health programme has already been developed together with the Sipcan Institute for 2022.



# 01

### Body

The basis is the Body & Nutrition Check carried out by the Sipcan Institute (2020 in Salzburg, 2021 in Trieben and Mauterndorf), in which a total of around 250 employees participated. Based on individual muscle and fat mass, fluid status and energy requirements, participants received helpful dietary and exercise recommendations.

# 02

### Spirit

Giving employees the knowledge for a healthy lifestyle is the starting point for various information campaigns. In 2021, for example, in short videoclips developed together with the Institut Medicin, we gave important health tips for all employees during the Corona period (ergonomic workplace in the home office, proper nutrition, short movement sequences, etc.).

# 03

### Movement

Sports programs initiated via MACO did not take place due to Corona, in the future these will be covered by in-house experts. Whether ski touring, learning yoga or cycling together – a platform is currently being developed through which like-minded people can come together and then exercise together in the fresh air.

# Communication & Information

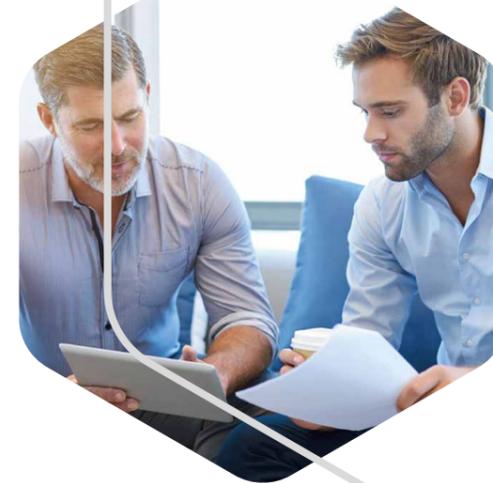
Communication is not a one-way street. With our various communication measures, tailored to the respective target group, we strive for transparency, open dialogue and regular exchange.



## 01

### Enter into dialogue

Whether residents, press, employees, customers or business partners – we use different communication channels and measures to enter into dialogue with the relevant target groups. This covers everything for example from customer and employee magazines, sales support and newsletters, websites, video messages and social media up to trade fairs, company tours and press releases. Appreciative communication on an equal footing is particularly important to us. We take feedback seriously and use it as impetus for internal developments and enhancements.



## 02

### Employee Surveys

For the third time in a row, we conducted a qualitative employee survey at the Austrian locations in 2021. In this way, we give all employees the opportunity to give feedback, develop processes further and initiate change. While only 25 percent took advantage of the opportunity in 2020, the response rate in 2021 was already just under 40 percent. The topics of motivation, responsibility, leadership behaviour, consistency, learning, feedback and values are queried. In this way, we also evaluate the extent to which the measures within the framework of the transformation project or in the area of work-life balance are effective. In order to exclude language barriers as an obstacle, the questionnaire was offered in several languages.

## 03

### Customer Surveys

What role does the recyclability and life cycle assessment of a product play? How important are ecological criteria in the material properties of our products? And what requirements do fabricators have for the surface and packaging of our articles, especially with regard to the environment? During the course of 2021, we collected data on how our customers feel about sustainability, quality and digitisation in a Europe-wide, qualitative customer survey. This telephone survey serves as a basis for future project planning and implementation.



# SUSTAINABLE GROWTH

# OUR ECONOMIC STABILITY



Change is the only constant. For MACO, too, the last 75 years of company history have been a constant change. MACO is aware that companies that react to these changes have a strong competitive advantage. Integrating market requirements, initiating change, rethinking and adapting our own structures, recognising risks at an early stage and using them as opportunities – this is how MACO will continue to ensure its viability in the future. Here, we present three topics that we dealt with heavily in 2021.

## 2021 Highlights

Transformation project rolled out in the company and thus

# 2,600

employees involved in corporate development

# Raising awareness

of cybercrime

# Corona

challenge accepted and successfully managed

## Raising awareness of cybercrime

Digitalisation has also become indispensable at MACO. Cybercrime is now one of the biggest threats to companies, along with natural disasters and terrorist attacks. MACO has therefore launched an awareness campaign on the topics of data misuse and cyber-attacks, where informative short videos show employees in an entertaining way where security gaps lurk. In addition, online security training and regular "phishing trainings" are carried out to sensitise employees to such attacks. After all, the user is the last instance that can avert damage, and thus ensure that the company remains operational.



## Developing the organisation

Market requirements have changed dramatically. MACO also needs to evolve in order to remain fit for the future. A broad-based transformation project has been supporting this path since the beginning of 2019. It defines specific fields of action that serve the implementation of strategies. The individual development steps are developed in internal workshops and driven forward by a team of specially trained employees.

In 2021, the transformation project was rolled out throughout the whole MACO Group. The focus was on determining the position of the individual departments and their outlook for the future - i.e. how do we achieve our strategic goals? The measures defined in the workshops are now being collected, processed and their implementation organised.

HUMAN RESOURCES  
EXCELLENCE  
AWARDS  
2021  
SHORTLIST

### We have been nominated!

The "HR Excellence Award" is one of the biggest human resources awards in the German-speaking world. With our transformation project, we have been nominated in the "Change Management" category. Together with the renowned competitors Deutsche Telekom and Zeit-Verlag, we landed in the top 3.

## Pandemic challenge

Corona kept us in suspense throughout 2021 and influenced our economies and work. The health of our employees and the maintenance of our production capability were the main drivers for the establishment of an extensive Corona management that is unparalleled in scope and professionalism.



### Corona Crisis Unit

Launched at the beginning of the pandemic, the Corona crisis team consists of members from the holding company, management, occupational physicians, division management, safety specialists and works councils, and they navigated the company through the exceptional situation in 2021. Regular risk assessments as well as employee communication and information on various channels (notices, newsletters, video messages) were just as much a part of the tasks as the establishment of safety concepts at the various locations and the implementation of test and vaccination lines.

### In-house test lines

At the beginning of February, the first in-house test lines were set up at MACO and continued throughout 2021. Initially carried out by the Samaritan Association, volunteer employees took over the test acceptance or monitored the self-test according to the dual-view principle. Around 18,200 rapid antigen tests were carried out on a total of over 410 test lines in Salzburg, Trieben and Mauterndorf and around 350 PCR samples were forwarded.



### Voluntary vaccinations

The vaccination area was set up within three days. Over a total of 15 days (in April, July and December), MACO administered around 840 doses of vaccine throughout Austria.

# Where the path leads us

## Our goals for 2025

We must start shaping the future now. Many projects are already being implemented, and we have a lot planned for the coming years.



### Energy efficiency

The consistent use of LED lighting systems, low-temperature processes in the field of surface technology and the reduction of energy base loads through optimised plant operation are intended to further improve this key figure in the future.



### Health & Environment

We want to completely eliminate hazardous substances of particular concern (SVHC) from our production. A next step is the reduction or substitution of CMR (Cancerogen Mutagen Reprotoxic) substances by 2025. Within the framework of the circular economy, a focus is also placed on the topic of material health and, associated with this, the agents being used.



### Workplace accidents

True to the motto "Every accident at work is one too many", we strive to ensure that no employee is injured at work anymore. Measures to this end include the further development of the safety-first concept and more inspection tours.



### Diversity

Not only in top management, but at all levels. Measures are training programmes, attention to equal opportunities in recruiting, promoting female skilled workers in in-house apprenticeships etc.



### Packaging & Paper

By 2025, we aim to reduce the CO<sub>2</sub> burden from our packaging process by 50 percent. Among others, measures include the conversion to degradable plastic and paperless work by saving on container accompanying notes, printed forms, etc.



### Material Health

By 2025, at least 50 percent of our raw materials should be healthy and recyclable materials. Here, we have several milestones:

- 2022:** Creation of material database, define certifiable product groups
- 2023:** Cradle-to-Cradle certificate for pilot products, non-C2C capable products are known
- 2025:** Selected product groups are C2C certified



### Material efficiency

We want to further reduce the waste per unit produced. For example, by consistent in-house recycling, selected projects for material substitution or by identifying and closing internal materials cycles.



### Supplier Code of Conduct

A code of conduct for suppliers and customers is being developed and rolled out in 2022. This is intended to ensure compliance with environmental and human rights due diligence obligations throughout the entire supply chain.



### CO<sub>2</sub> reduction

By 2025, we aim to reduce CO<sub>2</sub> by up to 20 percent in defined main product groups. For new product developments, we want to be CO<sub>2</sub> neutral.

# Key Figures

## At a glance

Topic	unit	2019	2020	2021	Change to 2020 in %
<b>Employees</b>					
<b>Employees total</b>	Number	1,670	1,603	1,558	-2.81
female	Number	595	552	541	-1.99
male	Number	1,075	1,051	1,017	-3.24
<b>Employees by age groups</b>					
< 30 years old	Number	459	439	420	-4.33
30 – 39 years old	Number	447	398	372	-6.53
40 – 49 years old	Number	394	395	402	1.77
> 50 years old	Number	370	371	364	-1.89
<b>Service Years</b>					
< 5 Years	Number	740	706	718	1.70
< 15 Years	Number	484	463	436	-5.83
> 15 Years	Number	446	434	404	-6.91
<b>Employees by employee category</b>					
Total apprentices	Number	104	100	82	-18.00
female	Number	28	26	26	-
male	Number	76	74	56	-24.30
Workers	Number	888	844	846	0.24
Employees	Number	588	567	530	-6.53
Team Leaders	Number	58	60	69	15.00
Department Heads	Number	24	24	23	-4.17
Total Division Heads	Number	6	6	6	-
female	Number	3	3	3	-
male	Number	3	3	3	-
Group Management	Number	2	2	2	-

Topic	unit	2019	2020	2021	Change to 2020 in %
<b>Part-time &amp; maternity/ paternity</b>					
Employees on maternity/paternity leave	Number	38	34	26	-23.53
male	Number	1	2	1	-50.00
female	Number	37	32	25	-21.88
Family time	Number	8	5	6	20.00
Parental part-time	Number	50	52	44	-15.38
Partial retirement	Number	37	35	30	-14.29
<b>Sick days<sup>4</sup></b>					
Total (incl. accidents)	Hours	120,582.00	102,440.80	118,348.02	15.53
Average per employee	Hours	114.08	113.57	117.29	3.28
Workplace accidents	Number	61	41	33	-19.51
Per 1 million working hours	Number/ 1 mio. hrs	22.10	16.60	13.80	-16.87
<b>Training and further Education</b>					
Total (incl. vocational school)	Hours <sup>5</sup>	52,557.35	32,595.19	29,942.14	-8.14
Average per employee	Hours	142.05	129.86	95.97	-26.10
Completed apprenticeships	Number	20	25	30	20.00
<b>Environment</b>					
<b>Material efficiency</b>					
Revenue tonne per tonne of material used	Percent	77.98	77.68	77.16	-0.67
Waste/revenue tonne	kg/t	383.32	391.4	315.66	-19.35
<b>Packaging efficiency</b>					
Packaging/revenue tonne	kg/t	31.6	32.13	30.04	-6.50
<b>Energy efficiency</b>					
Energy/revenue tonne	kWh/t	1,912.57	1,851.47	1,839.69	-0.64
of which electrical energy	kWh/t	1,398.86	1,359.48	1,378.89	1.43
of which thermal energy	kWh/t	513.71	491.99	460.8	-6.34

<sup>4</sup> figures without temporary staff.

<sup>5</sup> only hours that fall within working hours are recorded.

**Note:** A reporting year corresponds to one calendar year. The figures refer exclusively to the Austrian branches.



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