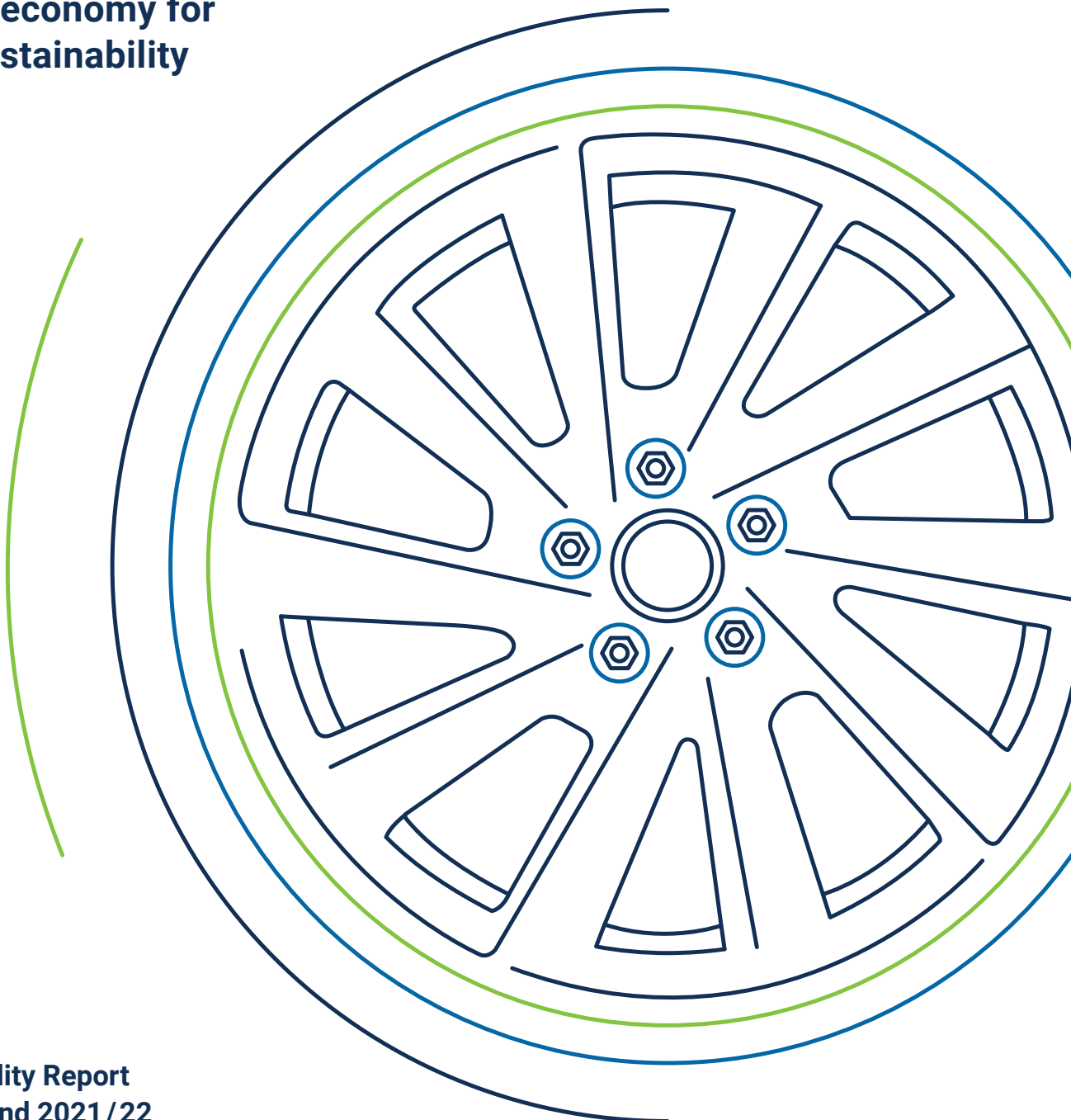

THE FUTURE IS CIRCULAR

Leveraging the
circular economy for
more sustainability



Sustainability at RONAL GROUP

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“We are on track to achieve the key goal of becoming completely CO₂-neutral by 2050.”



Oliver Brauner
CEO RONAL GROUP

Our business is energy and resource intensive. There is no way around this. However, some years ago we took on the responsibility of significantly reducing the use of energy and resources: specifically, cutting CO₂ emissions by 50% by the year 2030.

For some years now we have been on the path toward becoming a more sustainable company. We were also able to take some steps forward in the 2020/21 and 2021/22 reporting periods. Our “PLANBLUE” sustainability program is not about a quick fix. Sustainability has to prove itself, it has to change the company in the long term, and it has to take people with it. And we also have to convince our customers. The entire industry is now thinking and talking about sustainability, and visions are being adopted. As a supplier, we can certainly play our part in making this happen – through ambitious goals of our own, concrete measures and innovations.

PLANBLUE: this is our path toward becoming a sustainable company. We want to achieve our goals together – with our employees. We cannot do this without them. And this is also reflected in PLANBLUE's three fields of action: Our People, Our Business, Our World. I am very pleased, and also proud, to be able to present RONAL GROUP's first sustainability report to the public. This report will show where we are, what we are currently working on and what interim goals we have achieved. We are on track to achieve the key goal of becoming completely CO₂-neutral by 2050.

A handwritten signature in black ink, appearing to be 'Oliver Brauner', written in a cursive style.

Oliver Brauner,
CEO RONAL GROUP

SUSTAINABILITY IN FIGURES

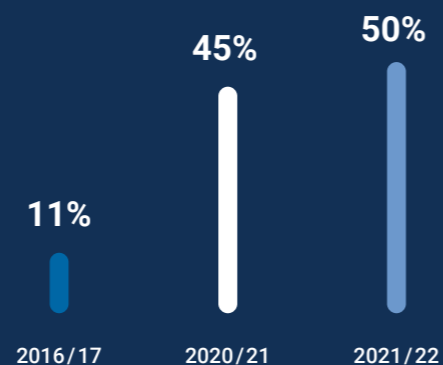


76 000

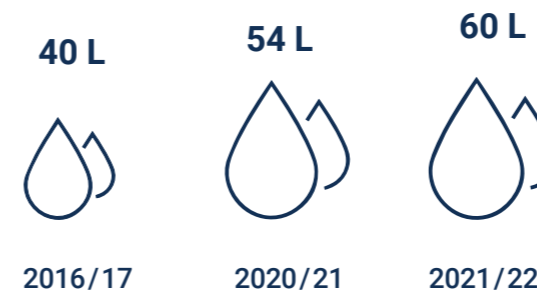
MWh of electricity generated – thanks to four solar energy systems and a combined heat and power plant; as much as 15 200 households in Switzerland consume on average per year.¹

¹EnergieSchweiz, Swiss Federal Office of Energy

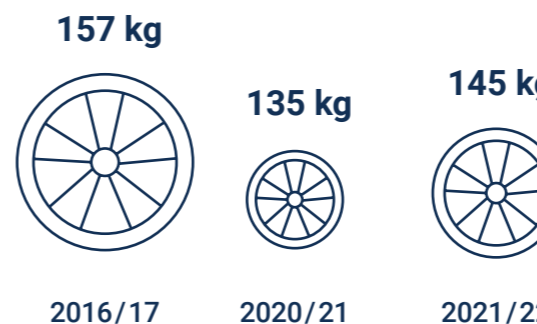
INCREASED PROPORTION OF GREEN ELECTRICITY



WATER CONSUMPTION PER WHEEL UP



CARBON FOOTPRINT OF OUR WHEELS



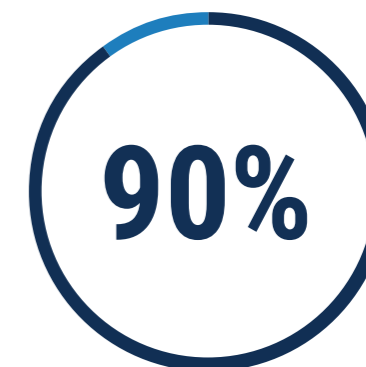
ENERGY CONSUMPTION FOR PRODUCTION OF ALUMINUM

63% of our primary aluminum is produced using renewable energy sources.

19

out of 22 sites have been ISO 45001 certified (standard Health & Safety Management System).

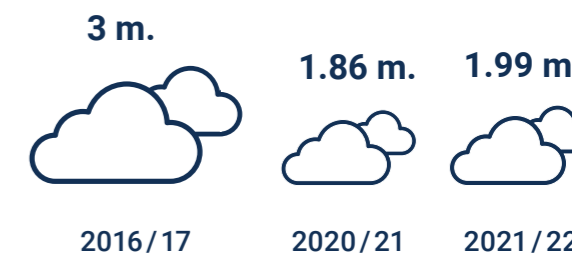
ALUMINUM CERTIFICATION



of aluminum suppliers are ASI certified (Aluminum Stewardship Initiative).

CO₂ EMISSIONS

CO₂ emissions for RONAL GROUP, including the upstream supply chain (Scopes 1, 2 & 3) in tons:



WHAT IS IMPORTANT AT RONAL GROUP?

From resource consumption to philanthropy: The materiality matrix shows which topics RONAL GROUP intends to address.

WHAT SHOULD BE TOP OF THE LIST

With the help of a materiality analysis, the RONAL GROUP defined three strategic fields of action in 2016 with the involvement of the key stakeholders: "Our People", "Our Business" and "Our World". Based on internal documentation, expert knowledge and applicable standards, a comprehensive list of topics was drawn up and prioritized using surveys and interviews. Targets, measures and key data were defined. Approval was given by the plant managers and Executive Board.

THE FOLLOWING NINE TOPICS WERE IDENTIFIED:

- Sustainable products
- Raw materials and material consumption
- Greenhouse gas emissions and climate change
- Energy consumption
- Employee development
- Health and safety at work
- Work-life balance
- Fair employer
- Anti-corruption and antitrust

NINE BECOMES THREE

The nine topics were further summarized based on the strategic fields of action. Sustainable and innovative products fall under "Our Business", climate and energy under "Our World", and employee development, health and safety at work under "Our People".

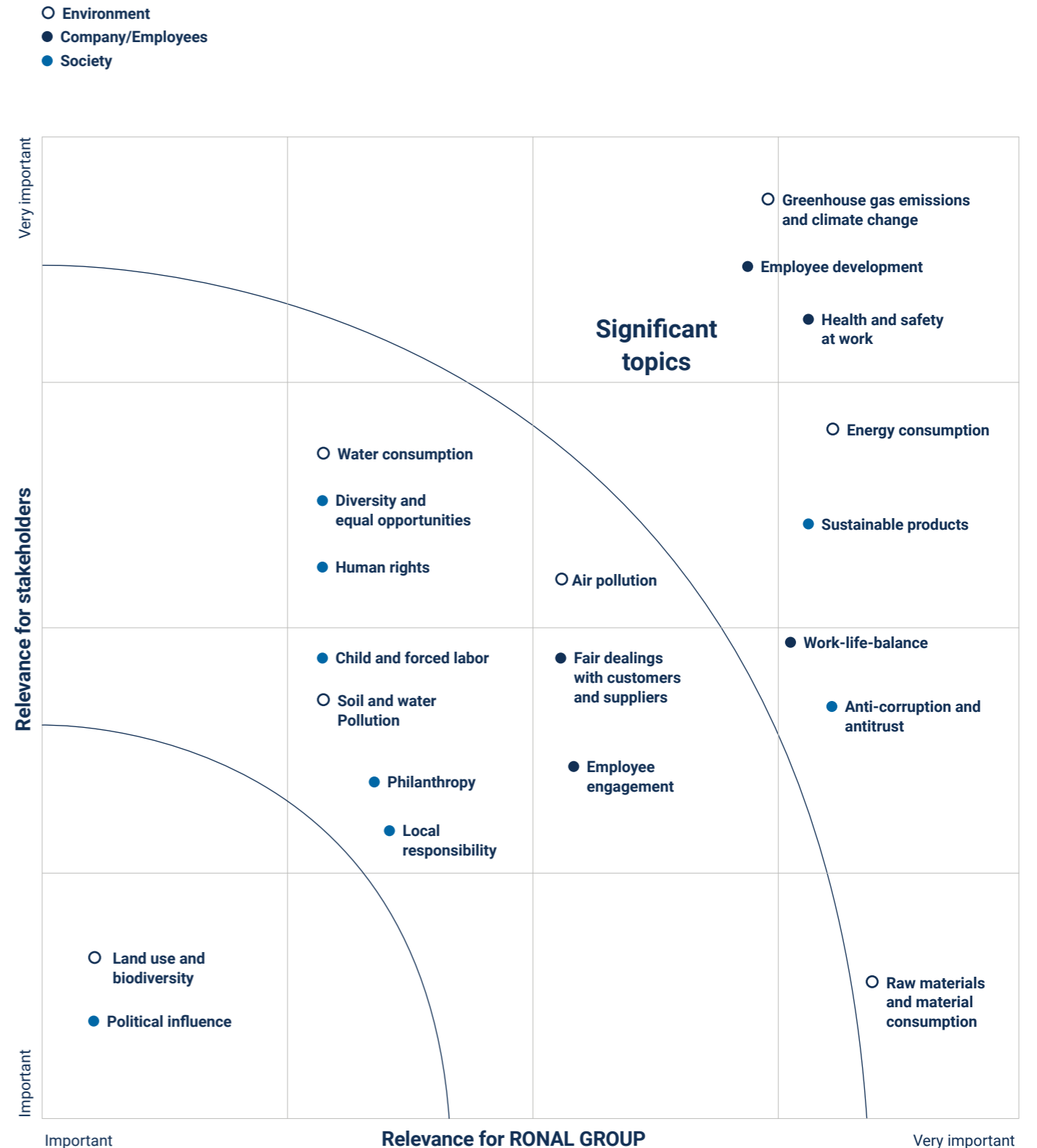
In 2022, RONAL GROUP again surveyed its key stakeholders. The results will be announced in the 2022/23 Sustainability Report.

HOT TOPICS FOR EMPLOYEES

- Ethical business behavior
- The company's financial security
- Employee satisfaction
- Data safety and data protection
- Cutting greenhouse gas emissions

EMERGING TOPICS

- Carbon footprint
- Recycling
- Environmental compliance
- Availability of raw materials



OUR GOALS

2025

The carbon footprint of all RONAL GROUP wheels is known and traceable.

2050

RONAL GROUP is CO₂-neutral.

2030

CO₂ emissions in production (Scope 1+2*) have been reduced by 50% (compared to 2016/17).

OUR FIELDS OF ACTION

OUR PEOPLE

By 2025, occupational accidents and related absences compared to 2016/17 are expected to fall by 40%. All employees are aware of their development opportunities. In the last two financial years, occupational accidents have decreased by 60% and lost hours by 20%.

Achieved by the end of 2021/22:

80%

OUR BUSINESS

By 2025, the carbon footprint of RONAL GROUP processes and wheels is predicted to be reduced by 25% compared to the 2016/17 baseline. In the last two financial years, the carbon footprint of the wheels has already fallen by 8%.

32%

OUR WORLD

By 2025, CO₂ emissions are predicted to be reduced by 25% compared to the base year, and halved by 2030. In the last two financial years, they decreased on average by 28% for scopes 1 and 2.

36%

* Explanation Scope 1-3 see page 47.

OUR PEOPLE: SECURITY AND PROSPECTS

RONAL GROUP is looking to develop the potential of all employees and improve occupational health and safety by 2025.

MORE CAREER PROSPECTS, FEWER OCCUPATIONAL ACCIDENTS

RONAL GROUP is looking to develop the potential of all employees. All employees should be aware of their career prospects. In addition, by 2025, the number of occupational accidents and the associated lost hours in the production plants are predicted to be reduced by 40% compared with 2016/17.

EMPLOYEE DEVELOPMENT AS A FACTOR IN SUCCESS

With around 6 500 employees at 22 sites on 3 continents, continuous growth and increasing customer requirements, the development of employees is a key success factor for the future of the RONAL GROUP. The aim is to give employees responsibility and to equip them with the necessary skills to do so. For this purpose, the RONAL GROUP learning platform "Employee Development Center" has been introduced at all sites. With 200 online training courses and 500 pieces of digital learning content, employees from 11 countries have access to training opportunities in 10 languages.

FROM ANTITRUST LAW TO SUSTAINABILITY

In financial years 2020/21 and 2021/22, the focus of training was on quality with the "Quality Awareness" training, in the area of compliance with courses on "Anti-Corruption", "Antitrust Law", "Data Protection" and "Code of Conduct" as well as in the area of "IT Security" on the subject of "Social Engineering" and a session on sustainability.

DEVELOPING WITH DIGITAL LEARNING MEDIA

The focus in employee development is on increased support for professional training and learning and development in the production division with the use of digital learning media. Within the framework of the Leadership & Management competencies, managers at all sites were able to take part in in-person training courses.

OCCUPATIONAL SAFETY AS A TOP PRIORITY

The continuous improvement of occupational safety and health protection is a top priority at RONAL GROUP. Various preventive measures are designed to avoid occupational accidents and health risks.

19 SITES ALREADY CERTIFIED

When it comes to occupational health and safety, the focus was on being certified in line with ISO 45001. The matrix certification includes all production sites as well as toolmaking and administrative sites, with the exception of the plant in Taiwan. A total of 19 sites have already been certified. The plant in Taiwan is to be certified within the next two financial years.

ZERO-ACCIDENT STRATEGY

In both financial years 2020/21 and 2021/22, there was a significant reduction in the number of occupational accidents compared to 2019/20. However, there has been an increase in hours lost. RONAL GROUP is striving to implement a zero-accident strategy for all plants. This is to be achieved through appropriate preventive measures such as training and development courses, and practical workshops for employees. Although the statistics include even the smallest of injuries, we are still targeting a goal of zero accidents.

Compared to the baseline year 2016/17, the number of workplace accidents has been slashed by 63% and the associated lost hours reduced by 20%. Measures to improve safety in individual activities and ergonomics in particular were implemented at the plants.

ACCIDENTS

	2016/17	2020/21	2021/22
Fatal accidents	0	0	1
Severe accidents at work	2	2	3
Serious accidents at work (241 to 720 hours lost)	29	22	13
Moderately serious accidents at work (121 to 240 hours lost)	46	32	32
Minor accidents at work (1 to 120 hours lost)	398	121	108
Total	475	177	157

OUTLOOK

- Awareness and sensitivity campaign in health and safety at work
- Information on rules of conduct, best practice examples, lessons learned via our intranet, posters & flyers, online training courses via EDC, information provided via production screens
- Other training courses on data safety, soft skills and Social Media@RONAL GROUP
- Continuation of the leadership program and focus on training and development in the production division

OUR BUSINESS: SUSTAINABLE AND INNOVATIVE PRODUCTS

By 2025, RONAL GROUP aims to reduce the carbon footprint of its processes and wheels by 25% compared to 2016/17.

INNOVATIVE ACROSS ALL ASPECTS

To improve the material and energy efficiency of its products, the RONAL GROUP is constantly optimizing processes and investing in the research and development of sustainable wheels. From product development through to material procurement, from production to recycling, measures are being pursued to evolve such innovative and sustainable products. To this end, the RONAL GROUP also maintains a close exchange with its suppliers when it comes to sustainable and CO₂-reduced or CO₂-neutral products.

MEASURES FOR 2020/21 AND 2021/22

- The reduction of aluminum consumption in melting and casting through the new casting technology RONAL Smart Casting
- 100% of aluminum purchased from ASI members and 90% from ASI-certified suppliers
- Increasing aluminum purchases with a reduced carbon footprint. Target: a carbon footprint below 8.0 kg CO₂ per kg primary aluminum
- Calculating the CO₂ footprint of the plants and Group

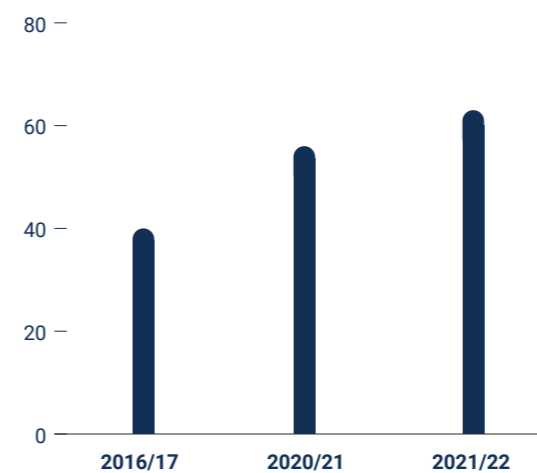
ASI-CERTIFIED ALUMINUM

In financial years 2020/21 and 2021/22, 100% of aluminum was sourced from suppliers who are members of the Aluminum Stewardship Initiative (ASI). 90% of it is already certified by ASI and 63% of the aluminum is produced using renewable energy. The carbon footprint of the primary aluminum purchased was 7.9 kg CO₂ per kilogram both in 2020/21 and in 2021/22.

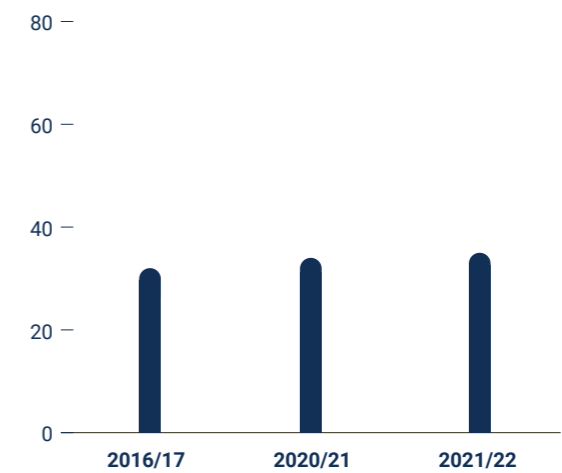
REDUCED CARBON FOOTPRINT

RONAL GROUP's carbon footprint has decreased by 36% over the last two financial years compared to the baseline year. A RONAL GROUP wheel had an average carbon footprint of 135 kg CO₂ in 2020/21 and of 145 kg in 2021/22 for all wheels produced: a reduction of 12 kg on average per wheel compared to the base year. Thanks to the RONAL-Re project, the RONAL GROUP is also actively contributing to the circular economy and the goals of the European Union's Green Deal.

PROPORTION OF PURCHASED ALUMINUM USING ENERGY FROM RENEWABLE SOURCES¹ (IN %)



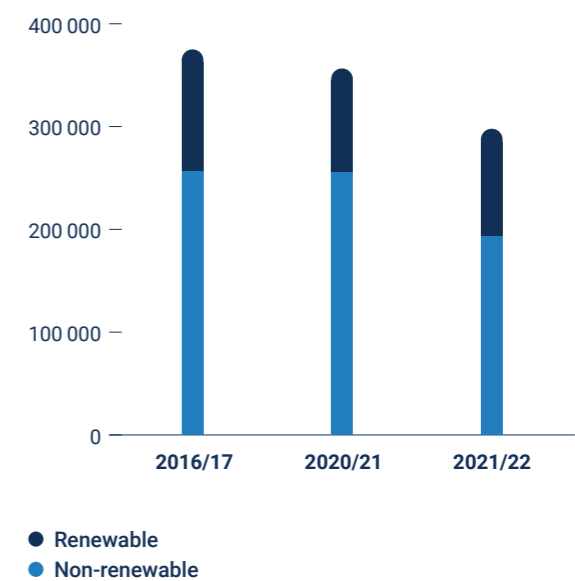
PROPORTION OF SECONDARY RAW MATERIALS IN TOTAL MATERIAL USE² (IN %)



OUTLOOK 2022 TO 2023

- As an ASI Industrial Member, the RONAL GROUP will carry out ASI certification in line with the Performance Standard for its headquarters and a production plant.
- The carbon footprint of each new wheel project is to be calculated on an individual basis and communicated clearly.
- By 2023, the proportion of secondary material in the wheel is expected to increase to 51%, of which 7% will be post-consumer material (aluminum at the end of its life).
- The target for 2025/26 is to have 20% of a wheel made of post-consumer material.

MATERIAL CONSUMPTION³ (IN t)



^{1,2,3} For absolute figures, see Key Data, page 68.

OUR WORLD: ENERGY AND CLIMATE

The goal of the “Our World” field of action is clear: By 2025, CO₂ emissions are to be reduced by 25% compared with 2016/17. They are to be halved by 2030.

BETTER DATA COLLECTION SYSTEM

At the beginning of 2022, a new system to record energy and media data was installed at the production plant in Landau as part of a pilot project (the Bosch Energy Platform). It not only enables real-time analysis, but also offers significantly more options for data acquisition and evaluation compared to existing systems. The rollout within RONAL GROUP is in preparation and provides the basis for determining the “CO₂ footprint of any wheel project” – a strategic goal of RONAL GROUP.

ENERGY REPORT FOR TRANSPARENT COMPARISONS

The new system offers the additional advantage of enabling the energy report, developed in spring 2020, to be generated completely digitally. This compares energy and production figures to unambiguously determine efficiency at both the plant and process level. The improved basis for managing data enables influencing factors to be better understood and controlled in the future.

AN ELECTRIFIED FLEET

As part of the measures implemented in 2020/21 and 2021/22, further progress was made with the electrification of the vehicle fleet. Today, 12 of 32 business vehicles at the Härkingen site in Switzerland are already fully electric or hybrid.

NATURAL GAS WITH CO₂-COMPENSATION

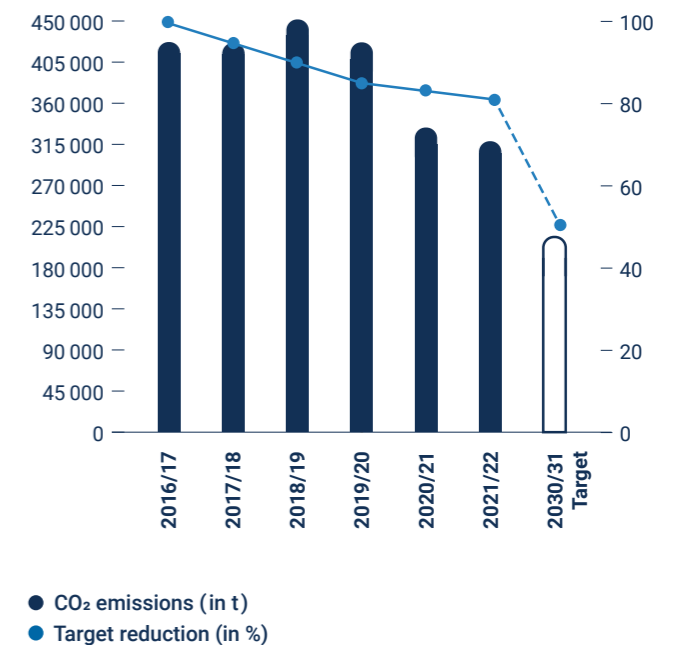
Converting to biogas in gas-operated plants such as melting and baking furnaces or in heat treatment is currently difficult. Biogas is simply not available in sufficient quantities and is many times more expensive than natural gas. For this reason, since December 2020, the German site has been purchasing natural gas where CO₂ emissions are offset by the supplier through climate projects. The level of compensation is verified by TÜV Süd (German Technical Inspection Association).

PHOTOVOLTAIC SYSTEMS FOR TOOLMAKING SITES

The completed tool shop in Härkingen, Switzerland was equipped with a photovoltaic system of over 500 kWp. Together with the existing installation in the administration building, this will generate almost 600 MWh of electricity per year in future. The electricity purchased from the grid can therefore be reduced by 40%.

RONAL GROUP’s second toolmaking site (ALRON in Portugal) has also used its available building and space and equipped it with PV modules as much as possible. With 430 kWp on the roof of the building and another 160 kWp via carports, around 700 MWh of electricity can be generated per year. The amount of electricity purchased from the grid can also be reduced by about one third in Portugal. Added together, PV systems of just under 1.3 MWp have been installed.

CO₂ EMISSIONS (IN t) AND REDUCTION TARGET CO₂ (IN %) SCOPE 1 AND 2⁴



The targeted reductions in Scope 1 and 2 were achieved. Targets were exceeded by 27% and 29% in 2020/21 and 2021/22 respectively. On the one hand, reductions were due to the effects of the pandemic and the associated drop in production. Secondly, we have significantly increased the share of green electricity and in Germany CO₂-compensated gas was used. The base year includes the reduction owing to the use of green electricity in Germany and Spain.

⁴ Absolute figures see Key Data page 69.

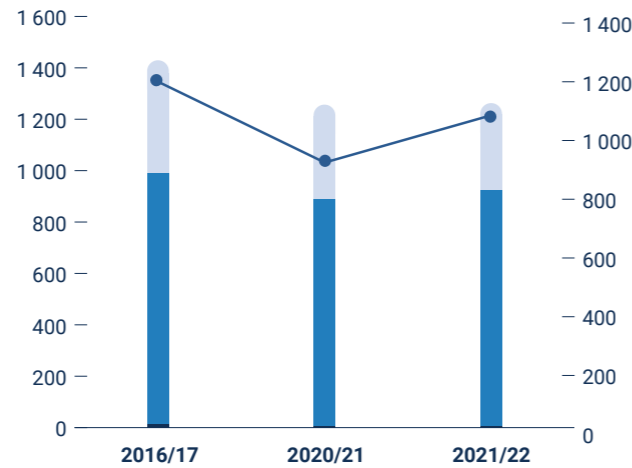
TARGETS ACHIEVED IN THE LAST FEW YEARS

In the last two financial years, RONAL GROUP was able to meet the statutory targets set for reducing CO₂ emissions. In financial year 2020/21, CO₂ emissions were down 27% on the 2016/17 baseline, and 29% in 2021/22.

FROM AIR TO WATER IN SMART CASTING

With the “Smart Casting” program, a bigger step toward sustainable production has been taken. The main change in the process is the switch from air to water as the cooling medium and the accompanying reduction in requirements for electricity and water. The rollout has been outlined and will take place within the next months/years.

ENERGY CONSUMPTION⁵ (IN GWh)



- Electricity (GWh) Scope 2
- Natural gas (GWh) Scope 1
- Diesel fuel (GWh) Scope 1
- Revenue (€ million)

Energy consumption decreased by 154 GWh in 2020/21 and 99 GWh in 2021/22 compared to 2016/17.

RECUPERATORS SAVE NATURAL GAS

Overall, recuperators in the melting furnaces will be further expanded. New furnaces are being equipped accordingly as standard from the outset; older furnaces may also be retrofitted on an individual basis. Depending on capacity utilization and production, savings can amount to approximately 10 to 15% natural gas per ton of melt.

⁵ Absolute figures see Key Data page 69.

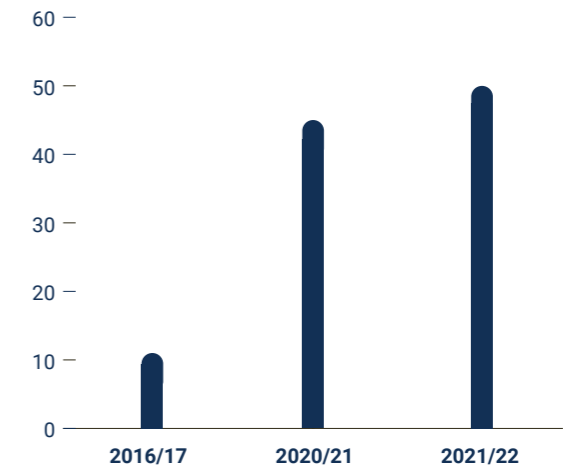
76 000 MWh SELF-GENERATED ELECTRICITY

Through the combined heat and power plant and the photovoltaic systems, RONAL GROUP is generating some 76 000 MWh of electricity by itself. Together with the heat recovery work, this results in a reduction of CO₂ emissions by approximately 22 000 t. In addition, the sites in Germany, Italy, Spain and Switzerland obtain 100% of their electricity from renewable sources with a certificate of origin.

OUTLOOK 2022 TO 2023

The rollout of RONAL Smart Casting is initially planned for plants in Poland and the Czech Republic, with other plants to follow. In Poland, two older screw compressors are to be replaced with a centrifugal compressor, significantly reducing power consumption for generating compressed air. The installation of a 3.5 MWp PV system is planned for the plant in Spain. With the use of new melting furnace and heat treatment technology within the scope of the project to expand the Spain site, additional gas and water consumption can be reduced. By 2024, RONAL GROUP's electricity requirements are to come from 100% renewable sources with corresponding proofs of origin.

PROPORTION OF RENEWABLE ENERGY⁶ (IN %)



By 2021/22, we were able to increase our electricity requirements from renewable sources by 39%. We obtain green electricity from hydro, solar and wind energy.

⁶ Absolute figures see Key Data page 69.

CONTRIBUTING TO THE SDGs OF THE UNITED NATIONS

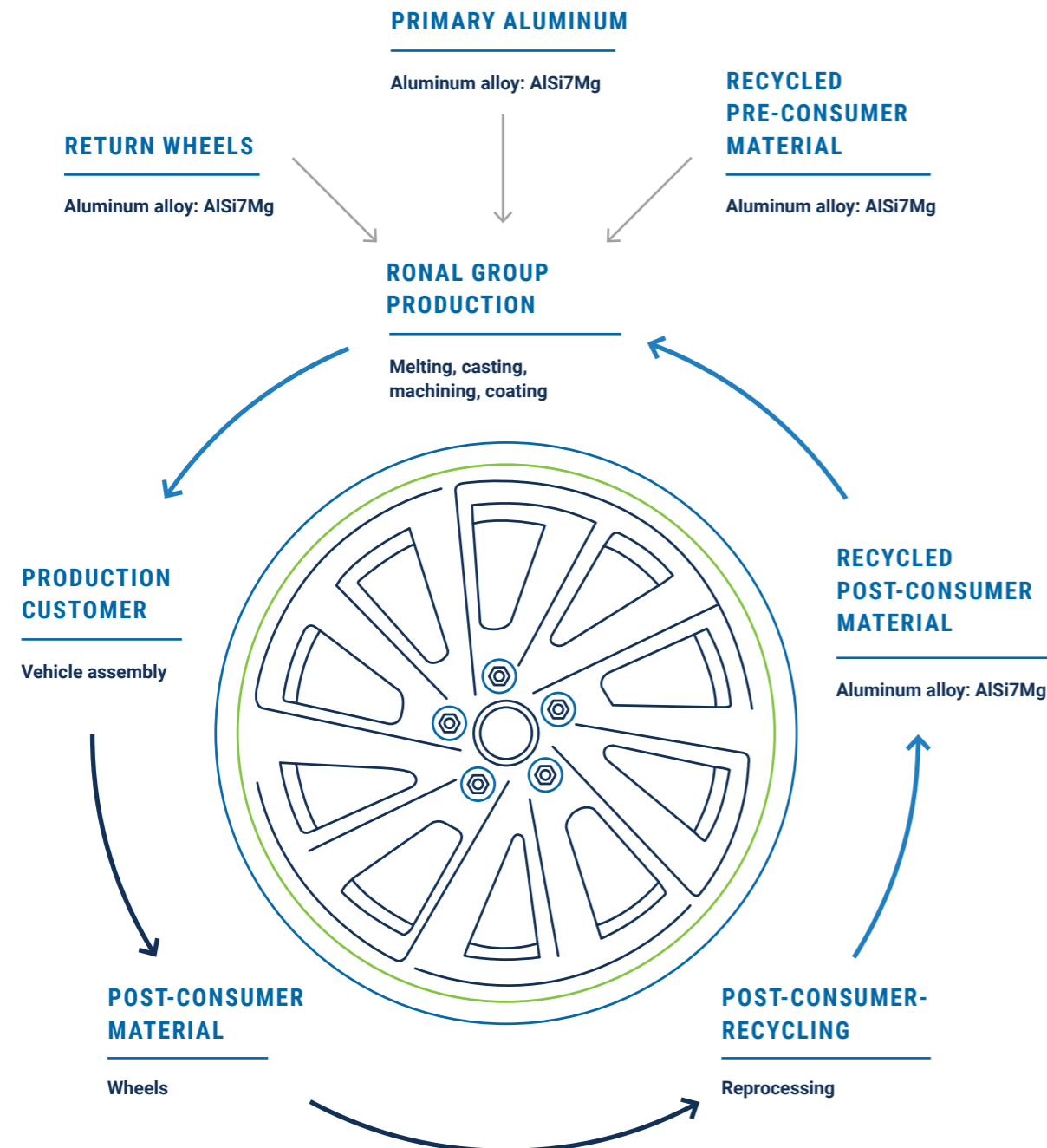
RONAL GROUP intends to link its sustainability goals more closely to the SDGs.* Eight SDGs were prioritized and assigned to RONAL GROUP's three fields of action.



* The United Nations Sustainable Development Goals (SDGs) are global development goals adopted in 2015 to be achieved by 2030.

SDG	Field of Action	Status/Measure	Target
4 QUALITY EDUCATION	Our People	Training and development opportunities are to be created at all sites. In addition, all employees are given access to the intranet and the e-learning platform.	RONAL GROUP continues to develop the potential of its employees. All employees should be aware of their career prospects.
6 CLEAN WATER AND SANITATION	Our Business	RONAL GROUP creates transparency regarding water consumption in the plants and therefore determines how this can be reduced. Systems for water recycling and for internal recycling are to be created.	By 2025, water consumption in the plants is to be reduced by 15% compared to 2016/17.
7 AFFORDABLE AND CLEAN ENERGY	Our World	When procuring energy, RONAL GROUP relies on energy from renewable sources and on its own generation wherever possible.	By 2025, the share of renewable electricity is to reach 100%. By 2050, RONAL GROUP aims to become CO ₂ -neutral.
8 DECENT WORK AND ECONOMIC GROWTH	Our People	Within RONAL GROUP and in its supply chain, policies are to be developed and implemented to safeguard human rights. This supports the enforcement of humane working conditions. In manufacturing its products and its purchasing volume, RONAL GROUP is also creating attractive jobs.	At all sites worldwide, a Health & Safety Management System in accordance with ISO 45001 will be introduced. RONAL GROUP intends to create transparency in the supply chain. It expects ASI certification from its aluminum suppliers. The requirements of the "Sustainability for Business Partners" guideline are also to be complied with by all suppliers.
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	Our Business	Digitalization – with this, RONAL GROUP is shaping a sustainable future. Greater data transparency in processes aims to bring about benefits that illustrate the potential of digital innovations for safety, quality and climate protection.	By 2025, RONAL GROUP will know the carbon footprint of every new wheel project.
12 RESPONSIBLE CONSUMPTION AND PRODUCTION	Our Business	RONAL GROUP is working to increase the efficiency of products and production and to significantly reduce the use of raw materials. These include the effective use of primary raw materials and increased use of secondary materials. This sets the course for sustainable and CO ₂ -reduced wheels.	By 2025, RONAL GROUP aims to reduce the carbon footprint of its processes and wheels by 25% compared to 2016/17. The proportion of post-consumer aluminum purchased is expected to rise to 50% in 2030.
13 CLIMATE ACTION	Our World	With PLANBLUE and its associated measures, RONAL GROUP is seeking to reduce emissions from its products, plants and supply chains. In this way, it is making a concrete contribution to global climate protection.	By 2030, CO ₂ emissions from Scope 1 and 2 will be reduced by 50%, and Scope 3 emissions by 25%. By 2050, RONAL GROUP aims to become CO ₂ -neutral.

RONAL GROUP COMMITTED TO CIRCULAR ECONOMY



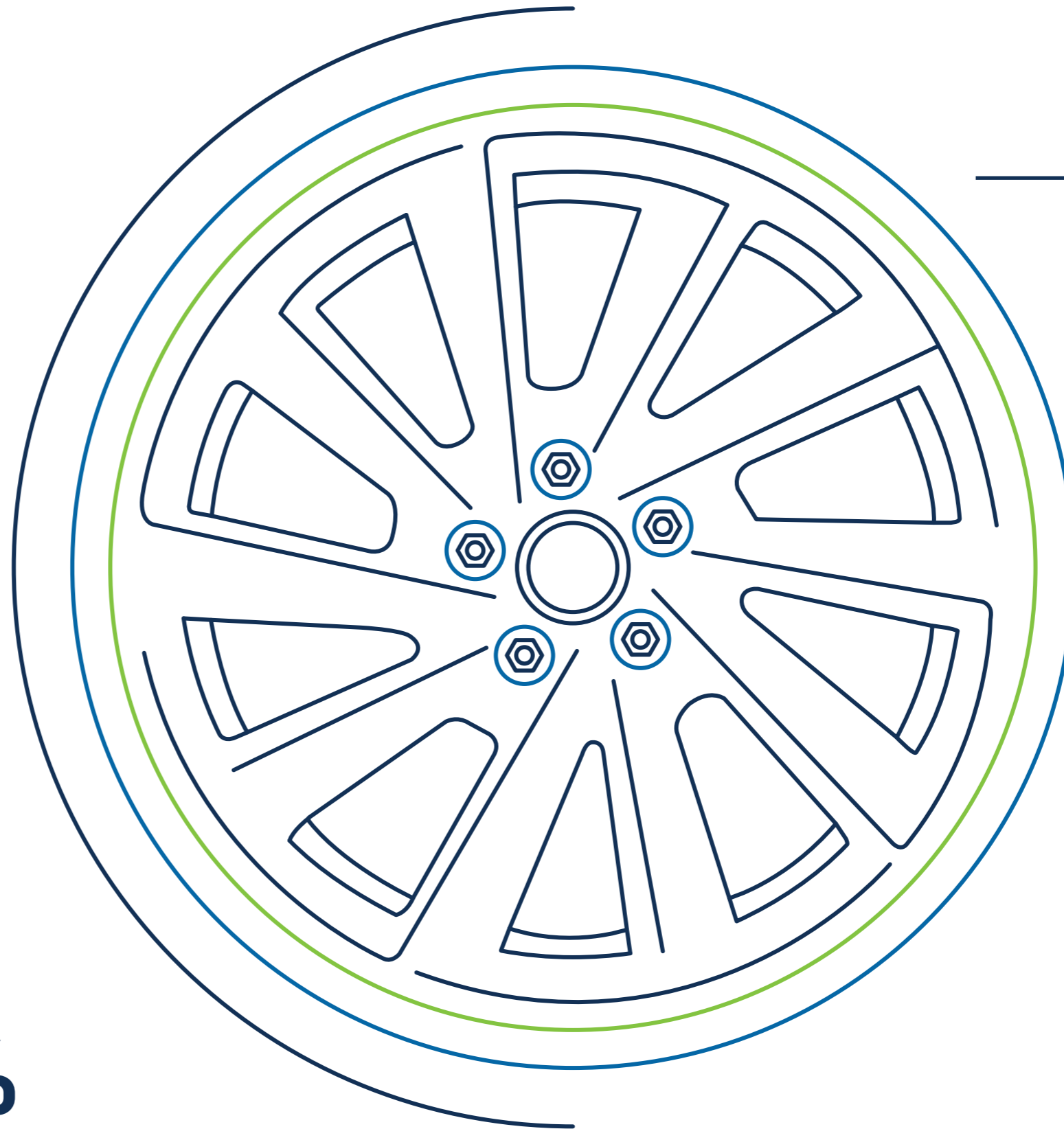
The circular economy is the antithesis of the throw-away society. Instead of just making products, consuming them and then disposing of them, resources should be treated for what they often are: rare goods. From mining to waste management, every step in the process is designed to maximize the potential of resources and thus reduce overall energy consumption. For a long time, this has not only been about recycling, but also about repair, reuse and reconditioning. In short, this extends the service life of the resources, thereby protecting the environment.

For RONAL GROUP, the most important raw material is aluminum. It is not only the main component of the wheels, it is also responsible for more than two thirds of our entire CO₂ emissions. However, as energy-intensive as the metal is, it can be recycled in line with the circular economy. If one kilogram of primary aluminum still causes four to twelve kilograms of CO₂ emissions, aluminum at the end of its life cycle emits only 0.5 kg CO₂.

That is why RONAL GROUP is committed to circular economy, making its contribution to a more sustainable industry with new projects for aluminum recycling such as RONAL-Re, but also with innovations for resource conservation and more efficient processes. For RONAL GROUP, the future is a circle. And it's really beginning to get rolling now.

THE WORLD'S FIRST CO₂-NEUTRAL RECYCLED WHEEL

The RONAL R70-blue car wheel is manufactured using 100% green electricity and consists mainly of reclaimed aluminum that is 100% recyclable. A major milestone for the PLANBLUE sustainability concept.



100%

Green electricity from sustainable production

100%

Recyclable aluminum rims

0%

CO₂ per wheel

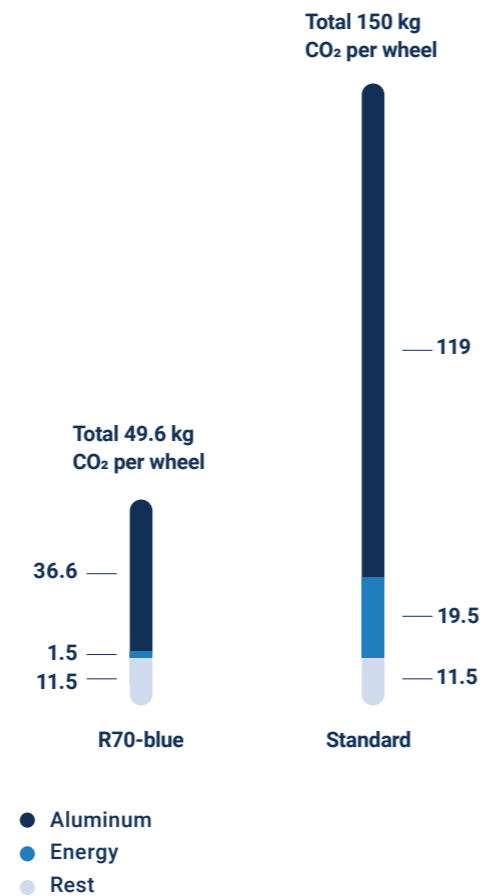
A WHEEL THAT DRIVES INNOVATION

The notion of CO₂-reduced components in the automotive sector is becoming increasingly important. With the RONAL R70-blue, RONAL GROUP is showing that it is possible to manufacture aluminum wheels with a small carbon footprint – reaffirming its role as an innovation and technology leader that cares about the environment and future generations. The RONAL R70-blue, whose product carbon footprint has been certified by TÜV Rheinland, is another milestone in the company's PLANBLUE sustainability concept.



“Made of 60% secondary aluminum and 40% green primary aluminum, the R70-blue is wholly sustainable.”

**PRODUCTION COMPARISON
STANDARD VS: RONAL R70-BLUE
(IN KG CO₂ PER WHEEL)**



THREE TIMES LESS EMISSIONS

The RONAL R70-blue is manufactured in RONAL GROUP's German production plant from 100% green electricity generated from hydropower. It consists of 60% secondary aluminum (half of which is pre-consumer and half post-consumer material) and the remainder primary aluminum produced exclusively using renewable energies. In its production, one R70-blue wheel generates 49.6 kg of CO₂. With a European average of 150 kg CO₂ per wheel in the conventional process, this means a 70% reduction in emissions.



The R70-blue comes in at just 11.9 kg and is based on undercut technology.

SHORT TRANSPORT, BIG IMPACT

CO₂ emissions that cannot be avoided in the production of R70-blue are offset with the help of Gold Standard: an internationally recognized, independent certification standard that promotes CO₂ compensation projects. The “Utsil Naj - healthy homes for all in Mexico” project, supported by RONAL GROUP, is committed to helping people in Mexico who are particularly affected by the consequences of climate change. But the R70-blue also includes other environmentally friendly and social aspects: ecological packaging with grass fiber and recycled paper content, short transport routes from the production plant in Landau to the logistics center in Forst, Germany, and accessories (such as screws and hub caps) that are packaged in workshops for people with disabilities.



fewer emissions are produced during the manufacture of the R70-blue

THE SECOND ONE CAN DO EVEN BETTER

The RONAL R70-blue is the second sustainable product in RONAL GROUP portfolio after the RONAL R60-blue (a wheel with 20% less emissions than conventional wheels). With the help of undercut technology, the weight has been optimized to 11.9 kg and has a wheel load of 850 kg.

FITS LIKE A GLOVE

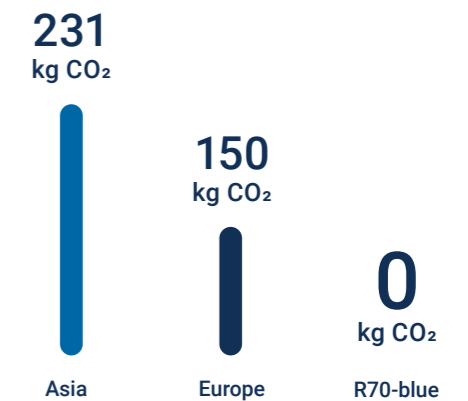
The CO₂-neutral wheel fits numerous compact and mid-range models, but is particularly suitable for the new generation of electric and hybrid cars. For the VW ID.3, the Mercedes A-Class and the Mercedes CLA, the rim is available as an ECE plug-and-drive variant throughout Europe without registration. In addition, combined with low rolling resistance tires, rolling resistance can be minimized, thereby reducing fuel consumption.



“The R70-blue is manufactured using 100% green electricity from hydropower in Germany.”

**CALCULATED, TESTED, CERTIFIED**

In order to determine the product carbon footprint of the R70-blue environmental, sustainability officers at RONAL GROUP created an LCA report (Life Cycle Assessment). They have calculated three scenarios that differ in the choice of primary aluminum, the amount of secondary aluminum, and the energy source. The result: Compared with the worst-case scenario, the carbon footprint of the R70-blue was reduced by almost 100 kg CO₂. The study was subsequently critically reviewed by TÜV Rheinland on behalf of RONAL AG in accordance with the international standard DIN EN ISO 14067:2019. This was followed in July 2021 by certification by TÜV Rheinland.

PRODUCTION COMPARISON STANDARD VS. RONAL R70-BLUE (PER WHEEL)**HOW CO₂ EMISSIONS ARE REDUCED**

1. The use of primary aluminum with a reduced carbon footprint and of secondary material (pre- and post-consumer aluminum) reduces emissions by 82 kg CO₂.
2. The use of 100% green electricity and the offsetting of natural gas combustion emissions reduce emissions by a further 18 kg CO₂.
3. The remaining CO₂ emissions are fully offset with the help of Gold Standard.

Compared with a wheel produced in Europe, savings of 70% can be achieved in production alone. With the help of offsetting, the end result is a fully CO₂-neutral wheel.



“With the R70-blue, CO₂ emissions are reduced to zero.”

SMUDO AND FOUR MOTORS RELY ON R70-BLUE

FANTASTIC FAST LAPS

Germany's first sustainable racing team is called Four Motors, founded in 2003 by Thomas von Löwis, team boss and ex-DTM driver. The team's most popular racer is Smudo, member of the German hip-hop group "Die Fantastischen Vier". In Bioconcept Cars with bodies made from renewable raw materials, the two men and other drivers take part in the Nürburgring Endurance Series (NLS) and the international 24-hour race. On board is the first CO₂-neutral wheel in the world, tailor-made by Four Motors partner RONAL GROUP.



Rapper Smudo of "Die Fantastischen Vier" and driver of the Four Motors team. © Four Motors/Gruppe C

R70-BLUE: GOOD LOOKING AND ROBUST

With its RONAL R70-blue wheel, RONAL GROUP is making a contribution to the overall concept of Four Motors. For use on the Bioconcept Cars, customized wheels were produced in 18 inches: in jet black, with a white tail and the blue PLANBLUE lettering. "Wheels are an important, safety-relevant part of a vehicle", says racing driver Smudo. "In motorsport, they not only have to look good, they also have to be exceptionally tough. In races, RONAL GROUP's R70-blue have shown that wheels made of recycled aluminum are just as durable as those made of primary aluminum, but cause far fewer carbon emissions during production. And that's great!"



Bioconcept Car car from Four Motors with custom R70-blue wheels. © Four Motors/Gruppe C



Find a film on the Four Motors racing team in this digital report susreport.ronalgroup.com

THE CIRCULARITY OF THE RONAL R70-BLUE

ALUMINUM ALLOY

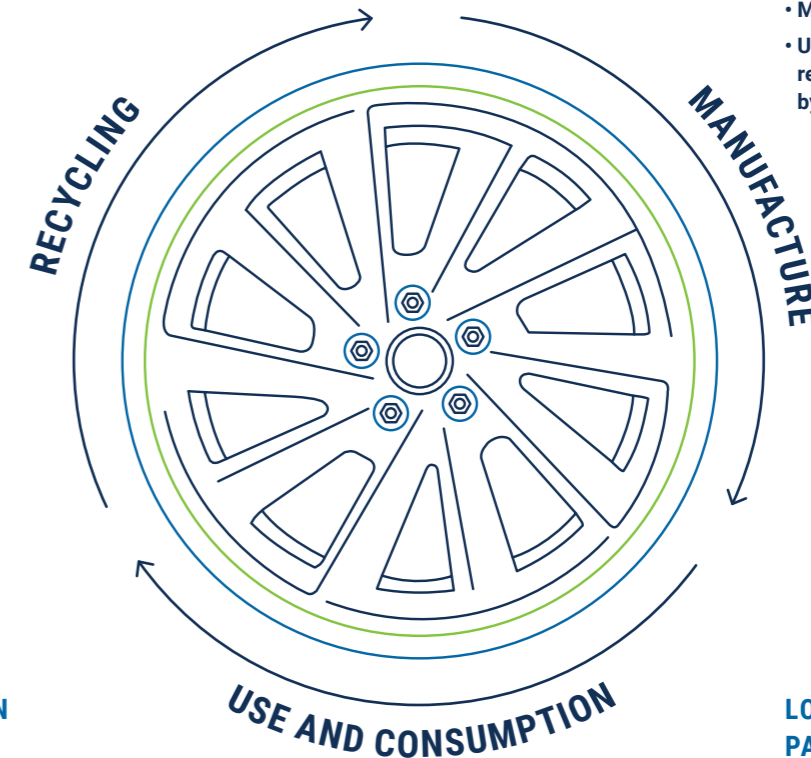
- Primary aluminum, produced using renewable energies
- Recycled aluminum from pre-consumer and post-consumer material

RENEWABLE ENERGY

- Produced using green electricity
- CO₂-neutral, certified gas

MANUFACTURING AND DEVELOPMENT INNOVATION

- Maximum energy efficiency
- Undercut technology – reduction of wheel weight by 400 g



CO₂ COMPENSATION

- Internationally recognized and independent certifications

USE AND CONSUMPTION

- Cradle-to-cradle approach
- 100% aluminum recycling possible – a wheel becomes a new wheel again

LOGISTICS AND PACKAGING

- Short distances
- Accessories assembled in workshops for people with disabilities
- Cardboard packaging made of 100% recycled material



Martin Wyss in front of the Group's headquarters in Härkingen, Switzerland

RONAL-RE: BECAUSE RECYCLED ALUMINUM IS JUST AS GOOD

Project manager Martin Wyss and project member Patric Steeg in an interview about the internal project RONAL-Re (RONAL Aluminum Wheel Recycling).



Martin Wyss, what do you mean by recycled aluminum?

MARTIN WYSS

To call it recycled material, the alloy of a wheel has to contain more than 60% recycled aluminum. Of this 60%, at least 25% must be post-consumer material. In other words, aluminum from waste from households and from commercial and industrial facilities that can no longer be used for its intended purpose – scrap wheels, for example. The remaining 35% can be pre-consumer scrap, i.e. material that is generated as waste during the manufacturing process. Wheels from tests and quality inspections, for example, or dross, risers and painted chips that are prepared for reuse in an additional process step.



“Qualitatively, recycled aluminum is just as good as primary aluminum – with the advantage of being more environmentally friendly.”

PATRIC STEEG

Patric Steeg, is recycled aluminum suitable for RONAL GROUP wheels at all?

PATRIC STEEG

Absolutely! Qualitatively, recycled aluminum is just as good as primary aluminum – with the advantage of being more environmentally friendly. The best proof of this is the successful development of our CO₂-neutral R70-blue wheel, the majority of which is made from recycled aluminum. The task now is to industrialize both the process to recover the recycled alloys and the production of the wheels from the R70-blue pilot project. And that is exactly what the RONAL-Re project is all about.

How do you go about all this in the project?

MARTIN WYSS

Basically, we need to clarify how and where we can procure recycled aluminum. But also how and where it is processed, what influence it has on the production processes and on the quality of the wheels, and which aluminum recipe (a mixture of post- and pre-consumer and primary aluminum) is most suitable and reduces CO₂ emissions the most. We are developing the answers in several phases along a roadmap. The goal is to gradually increase the share of recycled aluminum by 2030/31.

RONAL-Re was launched in March 2021. What milestones were achieved in the first year?

MARTIN WYSS

On the one hand, we were able to finalize the roadmap for the industrialization of end-to-end processes for the production of CO₂-reduced wheels. We have performed quality tests on wheels with varying amounts of recycled aluminum and recognized that wheels with more secondary material score just as good as wheels with standard alloy. But we have also decided on the internal and external processing of pre-consumer scrap.

“The goal is to gradually increase the share of recycled aluminum by 2030/31.”

MARTIN WYSS

What have been the challenges so far?

PATRIC STEEG

Some capacity bottlenecks at the plants where we carry out material tests with recycled aluminum were challenging. Supplying customers is, of course, a priority at all times. Only when this has been ensured can we test. During the tests, the casting is carried out with the effective recipes, which is possible only when a furnace from the production is exclusively available for the tests. It can also happen that a planned test run has to be postponed. However, the biggest challenge will come when we start series production of wheels with increased recycled aluminum content. When using recycled aluminum, the order processing is considerably more complex, from procurement of the aluminum and ensuring storage through to the charging of the melt. At the same time, we need to ensure we have the required quality at all times, without incurring any additional costs.



MARTIN WYSS

has been working at RONAL GROUP since 2003 as Group Area Head Group Tool Manufacturing. Since 2021 he has also been Project Manager of RONAL-Re.



PATRIC STEEG

has been working at RONAL GROUP since 2009 as Senior Key Account Manager and since 2021 he has also been a project team member of RONAL-Re.



Find a film about the
RONAL GROUP melting process at
susreport.ronalgroup.com

RONAL-RE: THE RECYCLING PROJECT AT A GLANCE

MORE ALUMINUM DOES NOT MEAN MORE CO₂

According to forecasts, aluminum consumption in the transport sector in Europe is set to grow strongly. As early as 2050, it is expected to grow 55% over 2017 figures. Associated CO₂ emissions do not have to grow along with them. Primary aluminum, which is what RONAL GROUP wheels are made of, contributes to a large extent to a wheel's carbon footprint. If primary aluminum were replaced by domestically produced end-of-life aluminum, 46% of annual CO₂ emissions could be saved.

NEW LIFE FOR OLD ALUMINUM

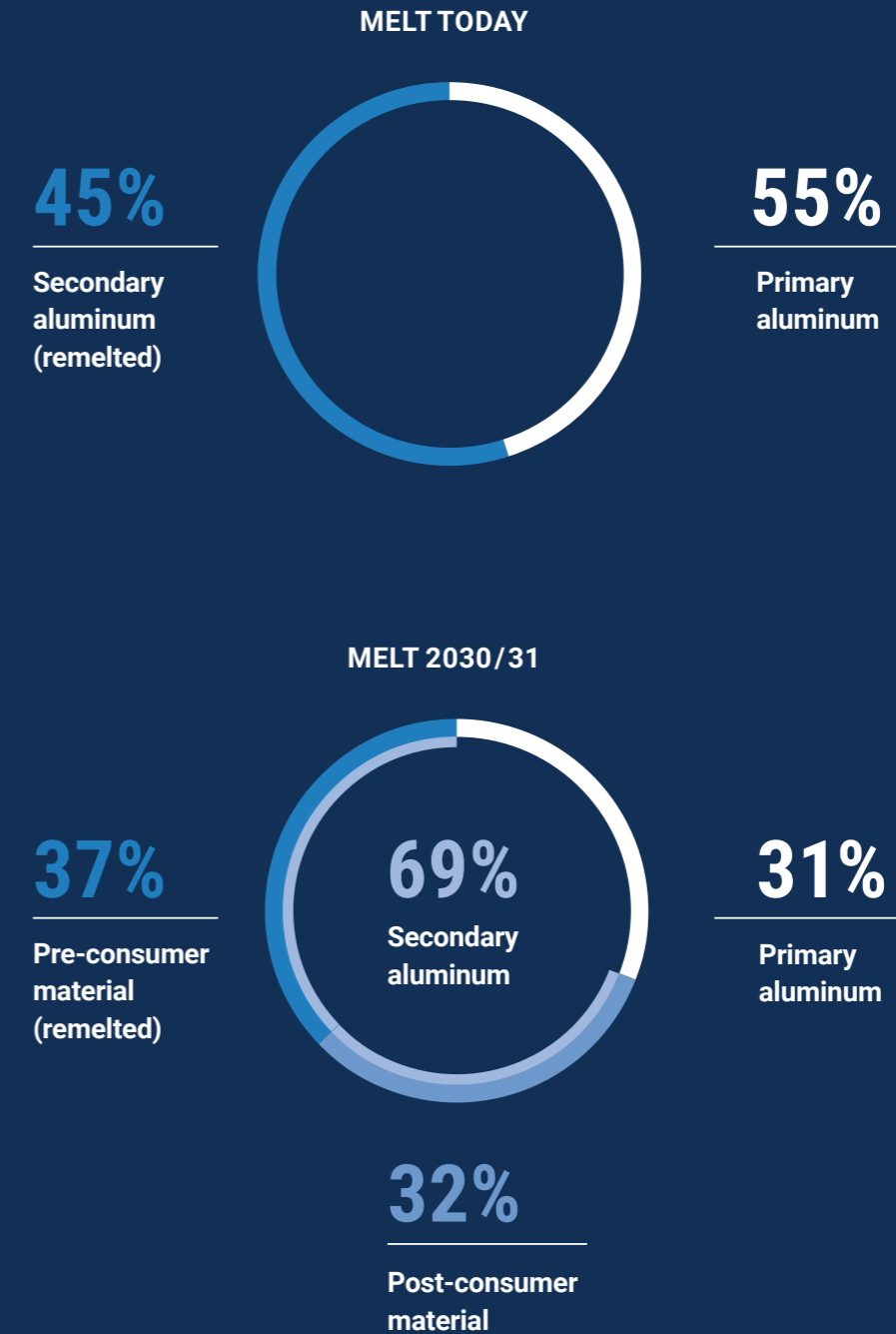
This is exactly where RONAL-Re comes in. To reduce CO₂ emissions in wheel production, the RONAL Aluminum Wheel Recycling project (in short: RONAL-Re) was launched in March 2021. The aim of the project is for RONAL GROUP to reduce its demand for primary aluminum in defined steps. It is replaced by aluminum at the end of its life cycle and by internal recycled material, almost 100% of which is already returned to the process.

EFFECTIVENESS IN FIGURES

Today, the substitution rate for primary aluminum – i.e. the amount of primary raw materials that is replaced by recycled materials – is around 3%. By 2025, however, this is expected to be 30% and by 2030 to account for 50%. RONAL-Re is thus laying the foundation for PLANBLUE's sustainability goal of reducing the carbon footprint of RONAL GROUP's processes and wheels by 25% by 2025 compared to 2016/17.

The following graph illustrates RONAL-Re's objectives in terms of melt composition.

WITH POST-CONSUMER MATERIAL TO MORE SUSTAINABLE WHEELS





©Audi AG

AUDI E-TRON GT WITH CO₂-REDUCED WHEELS

The innovative ELYSIS™ melting process releases oxygen instead of CO₂. RONAL GROUP equips the Audi e-tron GT with the world's first wheels produced in this way.



ELYSIS™ process and Alcoa's low-carbon EcoLum™ aluminum lead to a significant reduction in the carbon footprint of the wheels for the Audi e-tron GT.



The Audi e-tron GT: with CO₂-reduced wheels – and fully electric. ©Audi AG

OXYGEN INSTEAD OF CARBON

The Audi e-tron GT has been on the market since May 2021 – Audi's first fully electric Gran Turismo. Within the framework of a pilot project, RONAL GROUP supplies 20-inch aluminum alloy wheels for the e-tron GT, which, to reduce weight, are produced using flowforming technology. For production, Alcoa supplies RONAL GROUP with aluminum produced using the ELYSIS™ process. In contrast to the conventional process, the innovative melting technology does not emit any direct CO₂. All greenhouse gas emissions are eliminated and, by using inert anodes, pure oxygen is released. The wheels are produced using 100% green electricity at the Landau site in Germany. The total gas consumption there is also compensated by securitized CO₂-reduction rights.

SMALL CARBON FOOTPRINT

ELYSIS™ process and Alcoa's low-carbon EcoLum™ aluminum lead to a significant reduction in the carbon footprint of the wheels for the Audi e-tron GT. EcoLum™ is primary aluminum with no more than 4.0 metric tons of CO₂ emission for every ton of metal produced. This value contains direct and indirect (Scope 1 and Scope 2) emissions over the entire production chain, including bauxite mining and alumina refining.

“The ELYSIS™ process is promising because it already takes effect in the raw material processing phase.”

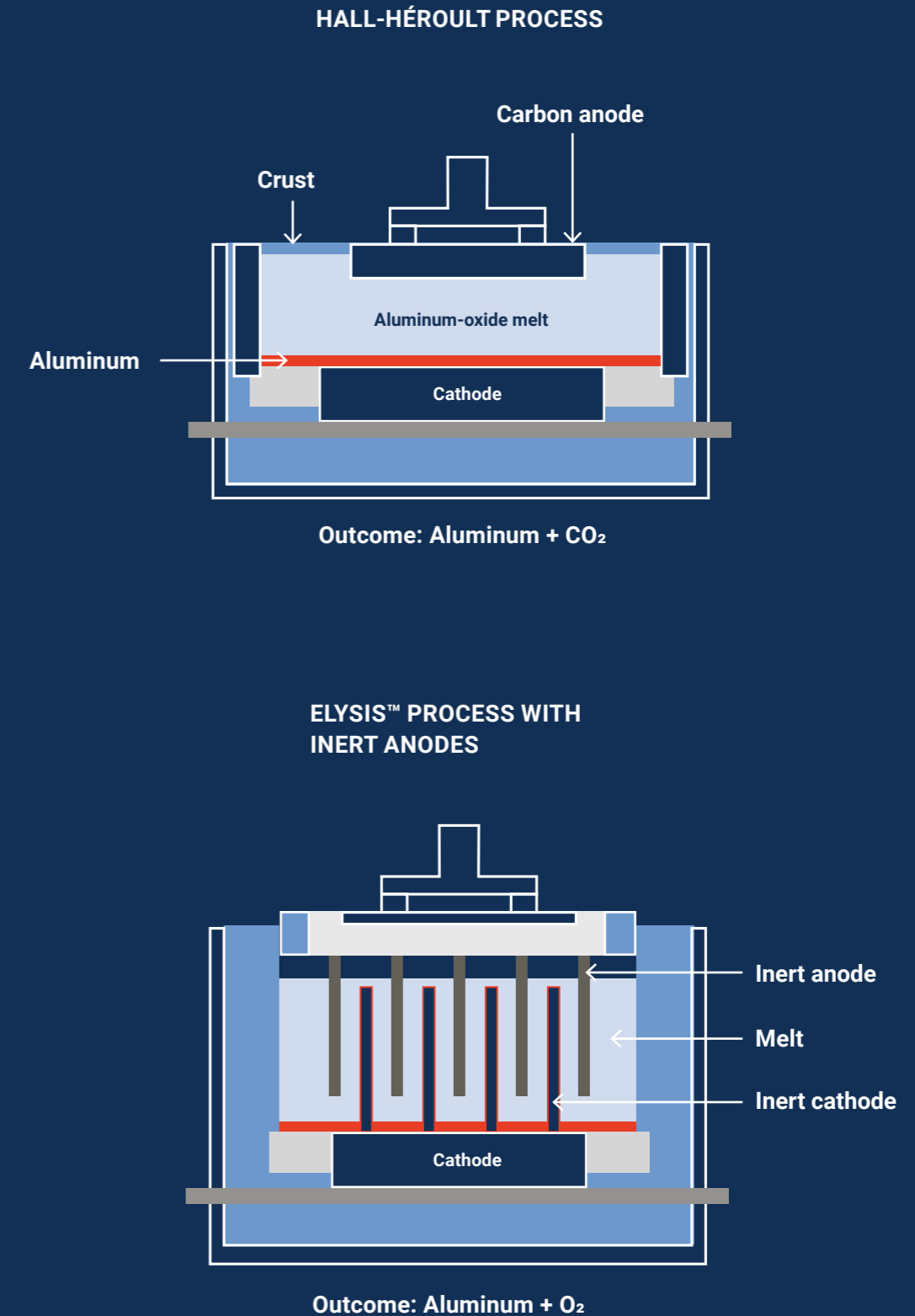
A PROMISING PROCESS

Marco Philippi, Head of Strategy Procurement at Audi, says: “The ELYSIS™ process is promising because it already takes effect in the raw material processing phase. We also appreciate that RONAL GROUP produces the wheels with 100% green energy. All this allows us to increase our sustainability performance in the supply chain and to ensure that our models arrive at the customers with a smaller carbon footprint.”

100% ASI CERTIFIED

Alcoa, Audi and RONAL GROUP are members of the Aluminum Stewardship Initiative (ASI). The non-profit organization brings together producers, users and stakeholders in the Al value chain and works to maximize aluminum's contribution to a sustainable society. For the first time, certification in line with the ASI standard pools ethical, ecological and social aspects along the entire value chain. Today, RONAL GROUP already sources 100% of its aluminum from ASI members.

CO₂-FREE MELTING PROCESS WITH ELYSIS™





RONLOG LOGISTICS CENTER – CO₂-NEUTRAL SINCE 2021

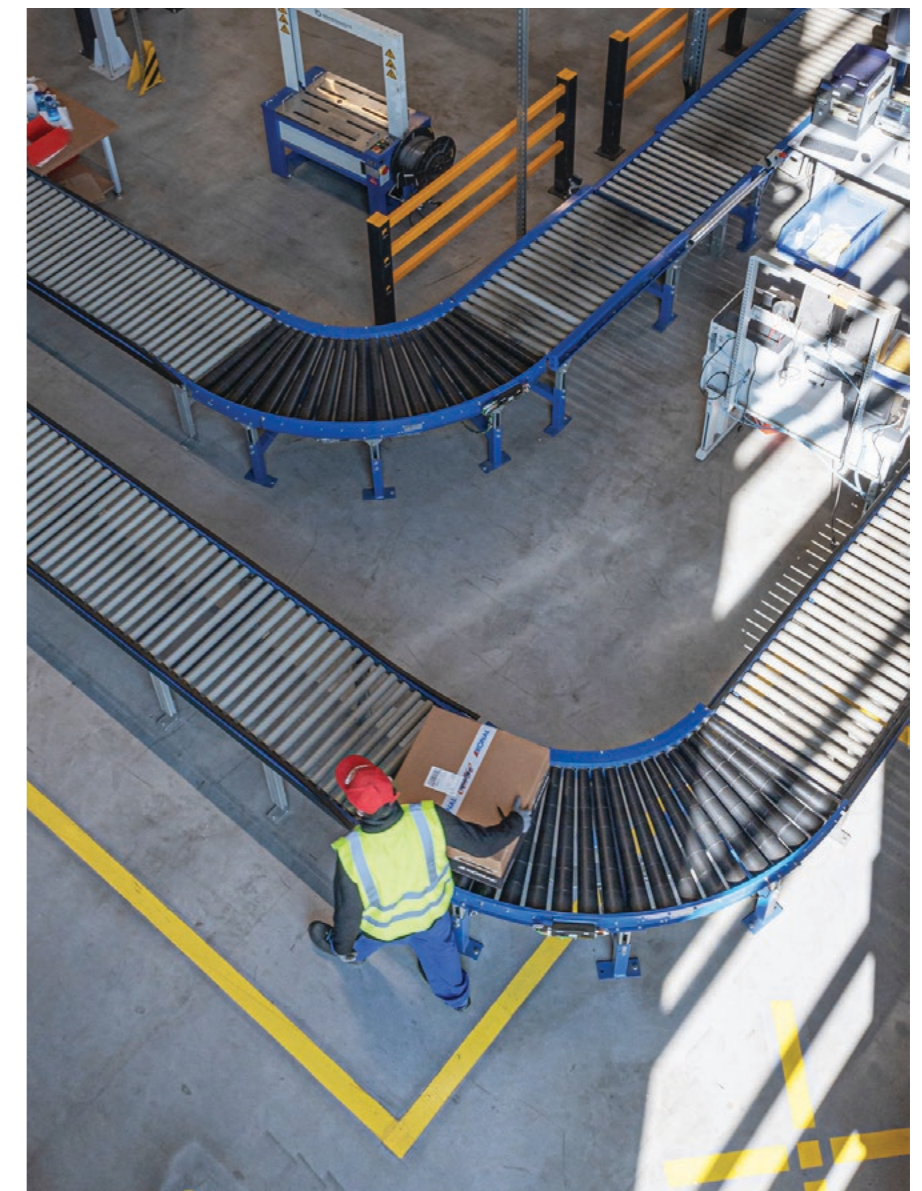
The RONLOG logistics center achieved climate neutrality in Scope 1 and 2 in 2021. RONAL GROUP is thereby making an important contribution to the Paris Agreement on climate protection.

GREATER EFFICIENCY MEANS MORE SUSTAINABILITY

The Paris Agreement on climate change, ratified in 2015, aims to limit man-made global warming to below two degrees Celsius compared to pre-industrial levels. Industrial companies like RONAL GROUP can have a major influence on this. According to the International Energy Agency (IEA), industry accounts for around 32% of global carbon dioxide emissions.

That is why the RONLOG logistics center in Forst, Germany, has been working for years to reduce its own energy consumption. With a series of efficiency measures, RONLOG has succeeded in reducing its own gas and electricity consumption and thus reducing greenhouse gas emissions in the Scope 1 and 2* categories.

* Explanation Scope 1-3 page 47



RONLOG is now more efficient – and consumes less gas and electricity.

EVERY CONTRIBUTION COUNTS

To reduce energy consumption, RONLOG has, among other things, introduced heat recovery systems for two compressors and equipped the packaging plant with a standby circuit to switch off pneumatic components. The logistics center's vehicle fleet now consists of hybrid vehicles, and two charging stations for electric cars at the Forst site promote sustainable mobility. Work bicycles for employees also enable them to make their own contribution to reducing CO₂.

RIGHT AT THE SOURCE

Since 2017, RONLOG has been sourcing 100% of the electricity it needs from renewable sources with a certificate of origin. This means that greenhouse gas emissions from Scope 2 have been avoided completely. Of course, it shouldn't stop there. The company is looking into the possibility of installing its own photovoltaic system to generate part of the electricity itself and to further reduce electricity consumption through intelligent lighting technology. Since 2021, RONLOG has also been purchasing CO₂-neutral gas directly from a utility company. The supplier confirms this in the form of certificates and TÜV Nord provides the external validation.



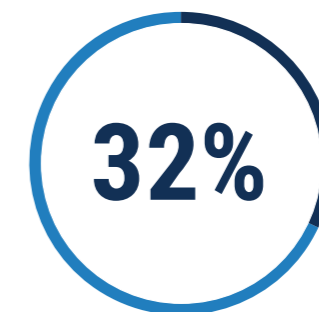
All forklifts in the logistics center are electric.



The use of long trucks is being explored with an external freight forwarder.

MORE LOADING SPACE ON TRUCKS

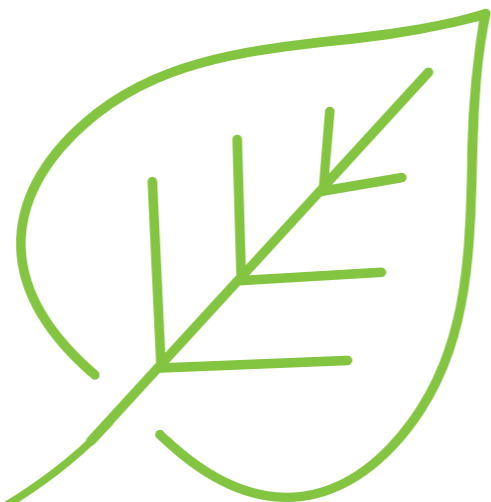
RONLOG compensates unavoidable emissions of around 60 metric tons of CO₂ annually (mainly from refrigerants and fuels) with Gold Standard certificates. However, further measures will aim to reduce this in the future. In cooperation with an external freight forwarder, RONLOG is looking into the possibility of transporting wheels to customers in the future using long trucks that provide more loading space and volume. The goal for the coming financial years is to reduce emissions from Scope 3 and to compensate unavoidable emissions by 2030.



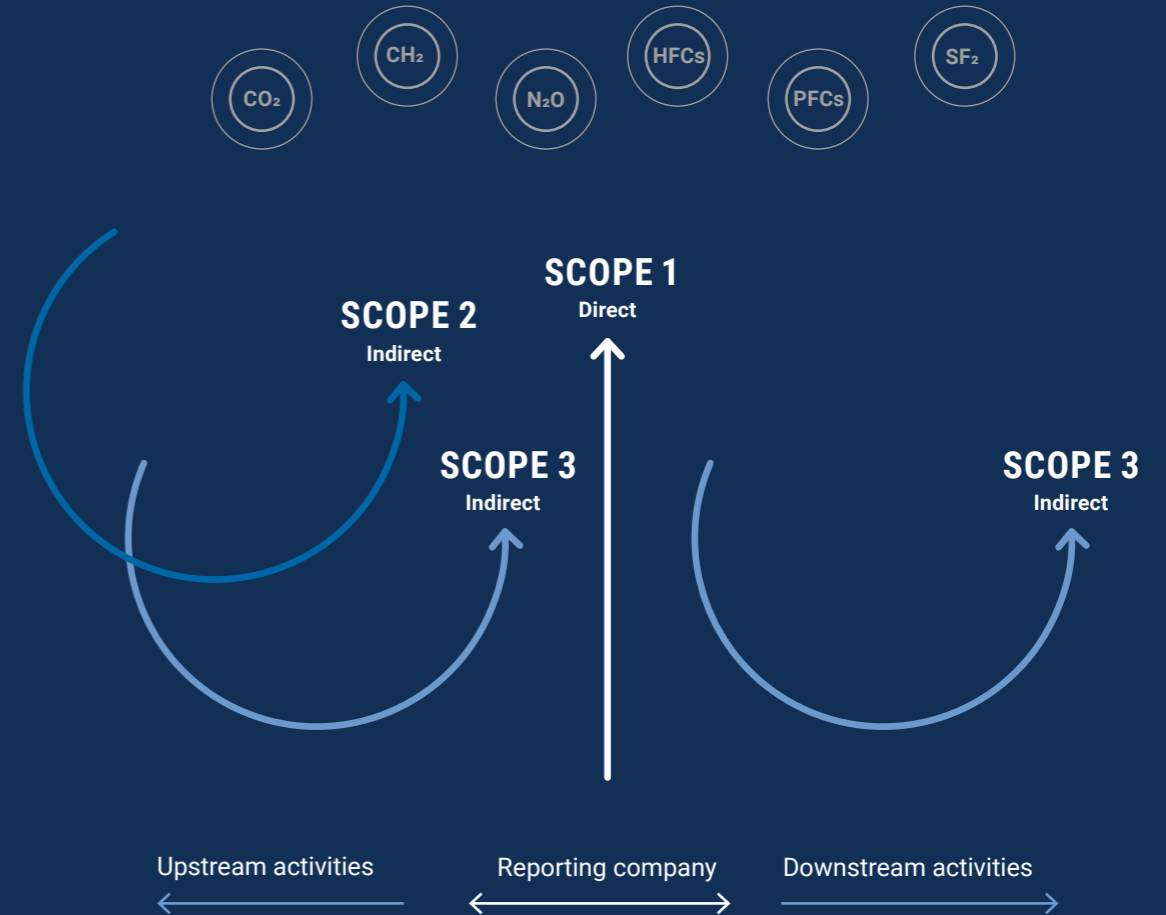
of worldwide CO₂ emissions are accounted for by industry, according to the International Energy Agency.

MEASURES IMPLEMENTED BY EFFICIENCY FOR REDUCING CO₂ AT RONLOG

- 01**
Heat recovery systems for two compressors
- 02**
Switching to green electricity
- 03**
Converting to compensated gas
- 04**
The installation of a standby circuit to switch off pneumatic components on the packaging line
- 05**
Feeding scrap wheels to other sites for remelting
- 06**
Carrying out leakage tests to detect pressure losses
- 07**
Converting the site fleet to hybrid vehicles
- 08**
Installing and commissioning two e-charging columns
- 09**
Introducing work bikes for employees
- 10**
Purchasing company bike for in-house mail at the Forst site
- 11**
Self-generating demineralized water to fill batteries
- 12**
Paperless and digital picking
- 13**
Use of paper labels
- 14**
Use of paper based adhesive tape



EMISSIONS THROUGHOUT THE ENTIRE VALUE CHAIN BASED ON THE GREENHOUSE GAS (GHG) PROTOCOL



SCOPE 1

Scope 1 includes all direct emissions resulting from production, e.g. from fuel combustion, coolants or emissions from the company's own vehicle fleet. These are emissions from sources directly controlled by companies.

SCOPE 2

Scope 2 includes all indirect emissions caused by the energy used. In other words, emissions from purchased energy consumed by the company, such as electricity, steam, district heating or district cooling.

SCOPE 3

All other emissions are combined in Scope 3. These occur upstream and downstream in the supply chain, for example through the use of resources or products and services, office materials, events, employee commuter miles, and waste disposal.



SMART CASTING – THE NEW CASTING TECHNOLOGY USING WATER COOLING

With more sustainable water cooling in the low-pressure casting process, RONAL Smart Casting (RSC) has brought RONAL GROUP into a new era of casting.

COMPRESSED AIR IS NOT SUSTAINABLE

RONAL GROUP previously used compressed air to cool casting molds in the low-pressure casting process. Some 50 m³ of compressed air per die-cast (casting mold) is required for the production of one wheel. This compressed air can only be used once and consumes a great deal of electricity when it is produced. This cooling of the die-casts alone accounts for about 70% of a plant's total electricity requirements. The use of compressed air is therefore not only expensive, it is also not exactly sustainable. Although RONAL GROUP already uses 50% green electricity, electricity consumption accounts for 121 000 tons of the company's CO₂ emissions.

COOL WATER FOR LIGHT WHEELS

In RONAL Smart Casting (RSC), water cooling in addition to air cooling is used. The water used in the process can be recycled and used again and again after cooling. One kilogram of CO₂ emissions per wheel is saved simply by halving the compressed air consumption at RSC. RSC also achieves greater material strength, enabling wall thicknesses to be reduced and ensuring that the finished wheels are lighter.



Water cooling is used in smart casting.



The use of water requires precision work.

STILL WATER ON STAGE

Water cooling is more efficient than conventional cooling using compressed air. It facilitates higher cooling capacity in the die-cast, which means that the heat is dissipated more quickly. It is also much quieter, thereby improving the working conditions on the casting platform. However, the use of water also calls for higher demands in terms of safety at work and precise handling.



One kilogram of CO₂ emissions per wheel is saved simply by halving the compressed air consumption at RSC.

A NEW ERA FOR RONAL GROUP

With the acceptance of the proof of concept by the Executive Board in September 2021, RONAL GROUP is embarking on a new era of casting. "This is a milestone for the future of RONAL GROUP", confirms Dietmar Süß, EVP Group Operations. "By using this technology, we are contributing to the reduction of our carbon footprint and taking

a big step toward technology leadership." The first new casting machines are being deployed in Teruel, Spain. As part of the "Plant Setup" program, however, as many of the Group's casting machines as possible are to be converted to water cooling in the years ahead.

Each wheel has its own shape; CO₂-reduced and more sustainable in the future.





CIRCULAR ECONOMY AT HOME? SAN LUIS POTOSÍ SHOWS HOW

From graywater recycling to orchards: At the Mexican site in San Luis Potosí, employees have demonstrated that sustainability can also be experienced at home.

SMALL ON BUDGET, BIG ON CREATIVITY

A campaign to promote the circular economy has inspired employees at the Mexican site in San Luis Potosí to come up with creative solutions. Those who presented the best idea for circular use of materials in their own home could win prizes such as a bicycle or a sound system. Participants made short videos showing how they reuse, repair, refurbish, recycle, share, or avoid using materials and resources. The ideas submitted demonstrated great ingenuity in implementing simple projects on limited budgets. And above all, they showed that commitment to the environment begins with small changes in behavior at home.

FOUR OF THE IDEAS SUBMITTED

- A homemade graywater system in the laundry collects water that can be reused for cleaning processes.
- Organic waste from the kitchen becomes compost material for the garden.
- A homegrown fruit and vegetable garden in front of the house for regularly consumed produce such as tomatoes and tangerines reduces a family's carbon footprint.
- The purchase of rechargeable batteries in exchange for disposable batteries is a good example of how even the life cycle of a not particularly sustainable product can be closed.

OF COMPOST AND LEMONS

Despite a somewhat hesitant participation in this first environmental campaign, the participants themselves showed great interest. Once the campaign was over, the HR department received inquiries from employees who wanted this type of environmental activity to continue. As a result, it was decided to implement two of the proposed ideas. The first project aims to create compost from organic waste from the plant canteen, which serves more than 400 lunches daily. In the second project, a small grove of citrus trees will be established, and fertilized with yields from the first project. Both projects are still in the early planning stages, but are expected to be implemented over the next two years.

Commitment to the environment begins with small changes in behavior at home.



Find a film about the sustainability project in San Luis Potosí at susreport.ronalgroup.com



“THERE SHOULD BE NO GREENWASHING”

With PLANBLUE, RONAL GROUP has made sustainability one of its core issues. Judith Pietschmann and Nadine Schaufelberger, Group Environment, in an interview about what has been achieved so far, the challenges faced, and the outlook ahead.

Reducing CO₂ emissions is one of the “burning” issues in the area of sustainability. According to the International Energy Agency, industry accounts for around one third of global CO₂ emissions. How is RONAL GROUP dealing with this?

JUDITH PIETSCHMANN

Cutting CO₂ emissions is naturally crucial for us too. We have set ourselves the goal of providing our customers with CO₂-neutral products and being completely carbon neutral by the year 2050.

Where are we currently on this path?

JUDITH PIETSCHMANN

The greatest impact on reducing CO₂ will come from the use of recycled aluminum. For us as a manufacturer of light metal wheels, aluminum is one of our main resources. The production of primary aluminum and the manufacturing process of a wheel are energy-intensive processes that have effects on the environment and climate. Around two-thirds of our greenhouse gas emissions are attributable to primary aluminum, the remainder being due to energy and other “Upstream Scope 3” emissions. With the development of the first CO₂-neutral wheel – RONAL R70-blue – composed largely of recycled aluminum, we have taken a big step toward reducing CO₂.

NADINE SCHAUFELBERGER

Not only that, but with this report, we have created transparency about the impact of our business on the environment – and not just with regard to reducing CO₂ emissions. We cannot achieve our goals without our suppliers and the contribution they make. We have to work together toward the goal of CO₂-neutrality. We already work closely with our aluminum suppliers and have been able to reduce our carbon footprint from primary aluminum by 25%.



“The greatest impact on reducing CO₂ will come from the use of recycled aluminum.”

JUDITH PIETSCHMANN

Speaking of transparency: what are the challenges facing you currently?

NADINE SCHAUFELBERGER

First and foremost we have customers demanding that we quickly reduce CO₂ but without imposing additional costs for the final product. This doesn't make it any easier to reconcile business with sustainability. At the end of the day, we are a business that needs to make money. A major issue in the future will be transparency in the supply chain. As a customer, we share responsibility for ensuring that social and environmental standards are met.

CEO Oliver Brauner says: "PLANBLUE: this is our path toward becoming a sustainable company. We want to achieve our goals together – with our employees." What contribution can individual employees actually make?

NADINE SCHAUFELBERGER

It is important that we all "pull together" in one direction. Only together can we become more sustainable and achieve our ambitious targets. Employees can demonstrate environmentally conscious behavior by saving energy and water both at work and at home. Machine efficiency in home use can also play a big role, as it does in the workplace. Car sharing, both private and professional, has long been an issue. Waste separation and the use of glass collection points are well-known methods and therefore a "no-brainer". You just have to do it.

Are you doing this all together?

NADINE SCHAUFELBERGER

No, at the beginning of the current financial year, we set up a new Sustainability Committee, which I am pleased to preside over. Energy, Operations, Finance and Supply Chain make up the core team. On top of this there are other business departments, depending on our focus topics. The committee will expand over time, the list of tasks will be fleshed out, and roles clearly assigned. If we want to achieve our climate targets, we still have a wide range of tasks ahead of us. We certainly will not get bored.

JUDITH PIETSCHMANN

The committee is new, but the structured sustainability activities under the "PLANBLUE" label have been in place for six years now. Don't forget, this is not RONAL GROUP's first sustainability report. However, this is the first report to go public. We are not obliged to do so, but want to send a clear signal to the automotive supply industry.

What is your main focus, personally?

JUDITH PIETSCHMANN

That we act consistently and transparently. We are not "greenwashing" here in an effort to secure a supposedly better image both in-house and externally. Something like that would certainly come back to haunt us. Incidentally, "sustainability" doesn't just imply an environmental commitment. There are still the areas of health and safety at work, employee development and legal compliance. We are an industrial company with plants in eleven countries and intend to contribute to the Sustainability Development Goals – the SDGs.

NADINE SCHAUFELBERGER

Transparency is very important to me. In a similar vein to what Judith mentioned, there cannot be any sense of greenwashing. The company should communicate openly, transparently and honestly both externally and internally – even if we have not met interim targets. Lying to line your own pockets is useless. With this Sustainability Report, we have already taken a major step toward greater transparency.

What do you think, will there still be a RONAL GROUP sustainability report in ten years?

NADINE SCHAUFELBERGER

We will certainly continue to report on our activities in the area of sustainability in the future. Reports are one thing, but building continued awareness in the company is only possible with regular communication: "sustainable storytelling" about sustainability issues, if you will.

JUDITH PIETSCHMANN

By then, of course, this will no longer be "my" report, but if I could have one more wish here, it would be that our wheels be made of 100% renewable raw materials and secondary materials by the end of 2030/31. That's something I would raise my glass to.



JUDITH PIETSCHMANN has been working at RONAL GROUP since 2008 as Group Department Head in the Group Environment team.



NADINE SCHAUFELBERGER joined RONAL GROUP in 2017 as Project Manager in the Group Environment team and leads the Sustainability Committee.

RONAL GROUP IN FIGURES 2021/22*

* Exclusive SanSwiss



about

6 500

Number of employee as of March 31, 2022



~18

Capacity in
million wheels



~65%

Equity ratio

1969

Year founded



1.0

Revenue in billion euros



14

Production sites on
3 continents

VALUE CHAIN AND TOPIC BOUNDARIES

The materiality analysis identified the impact on the value chain and topic boundaries. Energy consumption and emissions are highly relevant along the entire chain, while other issues are mainly relevant for RONAL GROUP and the upstream stages.



Supply chain



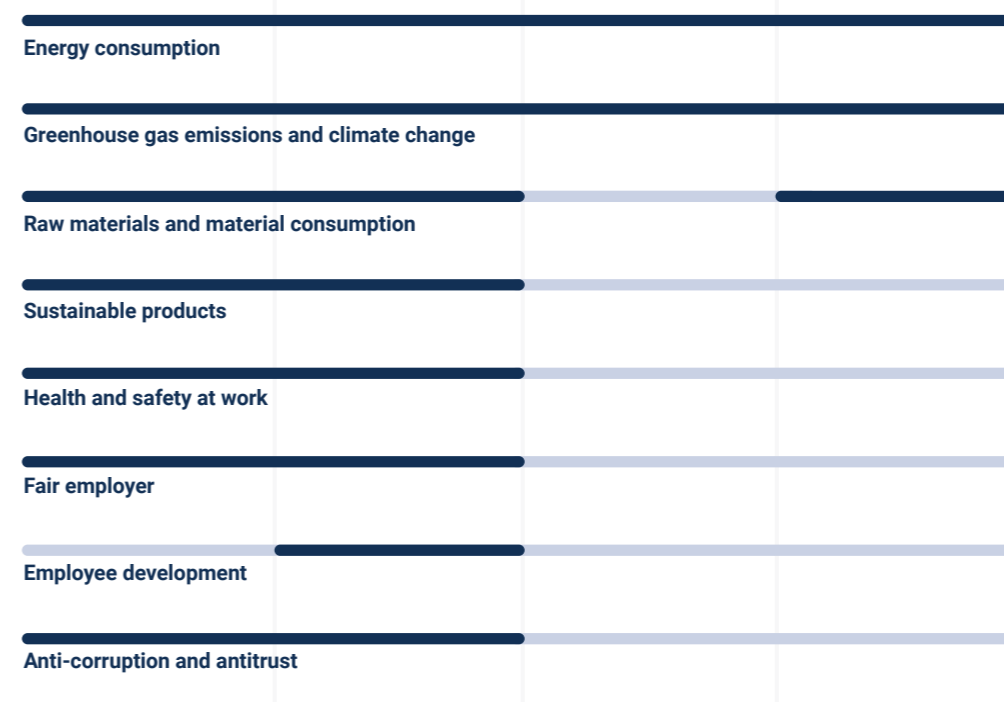
Production



Waste



Disposal



THE ENVIRONMENT IS IN THE HOUSE OF RONAL

“We make the best wheels in the world” – this is the vision of RONAL GROUP. To achieve this, we need a clear understanding of our foundation, of daily work, strategic goals and how to implement them – the House of RONAL.

FOUNDATION

RONAL GROUP is based on a reliable foundation. This foundation shapes our day-to-day work, our strategic objectives and the way we implement them to bring our vision to life. The foundation consists of a clear definition of “Organization,” “Communication,” “Leadership,” “Innovation” and “Environment”.

Environmental awareness is a deeply rooted core principle for both the House of RONAL and our corporate strategy. As an industrial company, RONAL GROUP intends to contribute to the protection of the planet and has set itself the clear target of a 50% reduction in CO₂ emissions by 2030.

DAILY BUSINESS

As a process-oriented company, RONAL GROUP aims to be aligned with end-to-end business processes and is constantly developing them in terms of both quality and quantity. The focus here is on reducing general waste and continuously optimizing quality.

It is our aspiration to solve problems permanently and thereby avoid repetitive errors. This is the only way to reduce waste in all areas of the company and ensure that production is competitive in the long term.

STRATEGY

Strategy is the way to achieve our vision. The corporate strategy is reviewed and, if necessary, adjusted in annual strategy reviews by the Executive Board. Managers of all areas and sites focus their respective goals and operational activities on the five strategy areas “Business”, “Customers & Markets”, “Products & Innovations”, “Locations & Investments” and “Organizational Development”.



RONAL GROUP'S 2020/21 AND 2021/22 CARBON FOOTPRINT

Since 2017, RONAL GROUP has been preparing a carbon footprint for the Group and the plants. Target achievements are measured against this annually. These are the results for 2020/21 and 2021/22:

OVERALL 50% LESS CO₂ EMISSIONS

CO₂ emissions fell by 36% compared with the baseline year, resulting in a decrease in CO₂ emissions of 1.1 million tons.

MORE CLIMATE-FRIENDLY ALUMINUM CONSUMPTION

74% of the CO₂ emissions are caused by the use of aluminum. Compared with the base year, these emissions have fallen by 40% or 977 600 t CO₂.

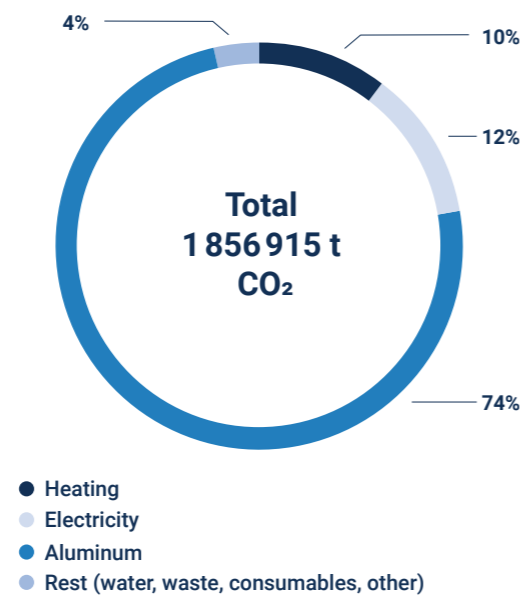
ELECTRICITY WITH A SMALLER CARBON FOOTPRINT

Electricity accounts for the second-largest share of the carbon footprint. These emissions decreased by 28% compared to the base year (85 900 t CO₂).

LESS CO₂ THROUGH NATURAL GAS CONSUMPTION

Consumption of natural gas, which accounts for 10% of total emissions, also fell by 26% compared with the base year⁷ or 68 580 t less CO₂.

SWISS CLIMATE CO₂ REPORT 2020 / 21⁸



- Heating
- Electricity
- Aluminum
- Rest (water, waste, consumables, other)

⁸ Swiss Climate is a consulting company in the areas of CO₂ management, sustainability, CO₂ compensation and energy.

⁷ Base year = Financial year 2016/17

PANDEMIC-RELATED DECREASE IN EMISSIONS

The remaining emissions account for about 5% of the RONAL GROUP carbon footprint. Nearly all categories have experienced a decrease in emissions over the past two years as production among other things declined due to the COVID pandemic.

12 KG LESS CO₂ PER FINISHED WHEEL

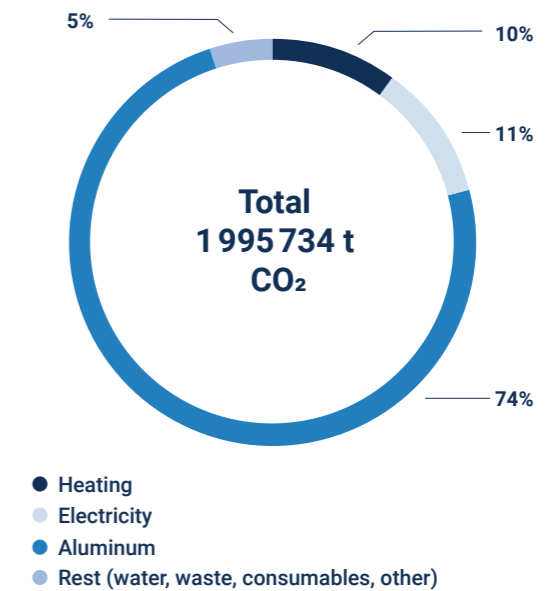
CO₂ emissions per finished wheel were reduced by 8% compared with the base year and are now 145 kg CO₂ per wheel (up 10 kg on the previous year).

The number of finished wheels serves as a reference value for the KPI (key performance indicator). This enables CO₂ performance to be monitored and evaluated over the years. The KPI also enables meaningful comparisons when total emissions change due to growth.

BASIS FOR THE REPORTING

The capturing, calculation and reporting of the carbon footprint is based on the international standard ISO 14064-1 (2018-12): "Greenhouse Gases - Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals."

SWISS CLIMATE CO₂ REPORT 2021/22



- Heating
- Electricity
- Aluminum
- Rest (water, waste, consumables, other)

ASSESSMENT IN THE CARBON DISCLOSURE PROJECT

Since 2013, RONAL GROUP has been reporting its CO₂ emissions in the Carbon Disclosure Project (CDP). In the 2021 reporting year, the overall Management B-rating was again achieved in the areas of Climate Change and Water Security. As in previous years, we achieved an A-rating in the CDP Supplier Engagement Report.

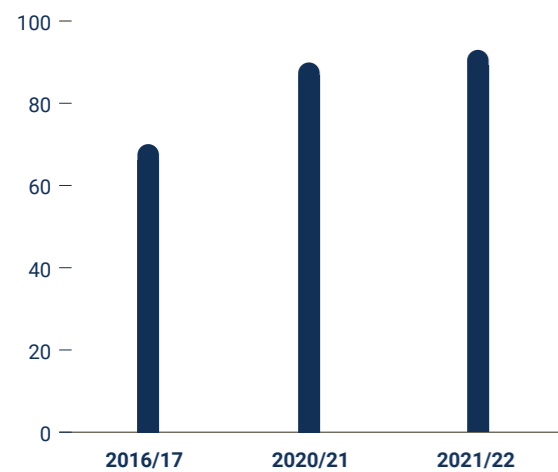
ENVIRONMENTAL FIGURES FOR RONAL GROUP

Environmental figures for RONAL GROUP include energy consumption, water consumption, waste water and waste.

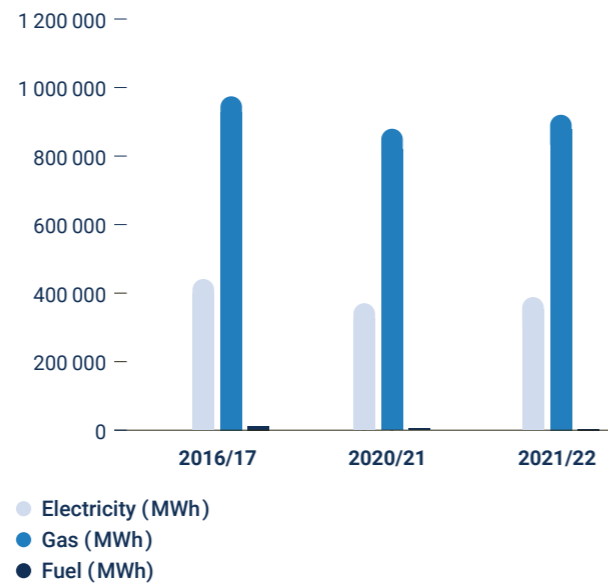
RONAL GROUP ENERGY CONSUMPTION

Besides aluminum, energy is the largest resource required in the production of aluminum wheels. More than 80% of the gas used is required for melting the aluminum ingots, heat-treating the raw cast wheels and curing (baking) the coatings. Electricity is mainly used for compressed air generation and machine operation. In 2020/21 and 2021/22, a total of 2 300 GWh gas and electricity consumed from non-renewable sources, and 260 GWh from renewable sources.

ENERGY CONSUMPTION⁹ (IN kWh/ FINISHED WHEEL)



ENERGY CONSUMPTION, ELECTRICITY, GAS AND FUEL¹⁰ (IN MWh)



RONAL GROUP WATER CONSUMPTION

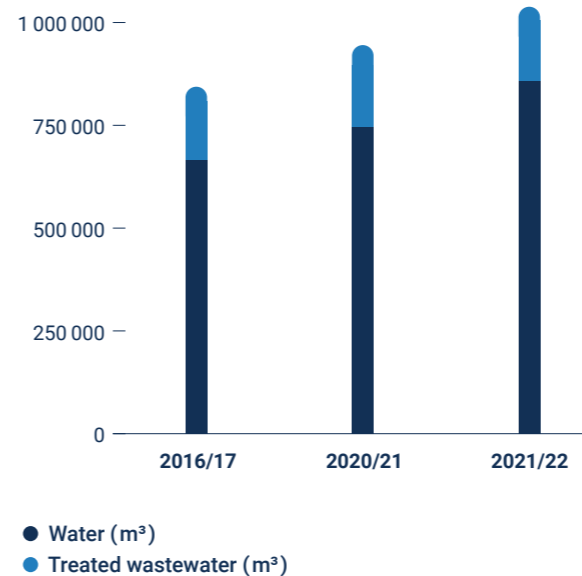
The largest consumers of water in the production process are the heat treatment, pretreatment in the paint shop and the cooling towers for heat reduction. Large quantities of water evaporate in the wastewater basins of the heat treatments and in the cooling towers. 100% of the pre-treatment wastewater is fed into the wastewater treatment plant and treated and purified in accordance with legal requirements before being discharged into the sewer system. The goal is to reuse this water within the process.

^{9 10} Absolute figures see Key Data on page 69.

RONAL GROUP WASTE MANAGEMENT

For RONAL GROUP, the principle is: avoid, reduce, recycle in the process or through external recycling and disposal (landfill or incineration). A distinction is made between hazardous and non-hazardous waste. Non-hazardous waste should be reused in the process as far as customer requirements and quality guidelines allow. 100% of aluminum chips without any paint deposits are recycled in the process. Aluminum risers, chips from the diamond cutting process and aluminum drosses are processed externally and are thus available again as material. In 2020/21 and 2021/22, the volume of non-hazardous waste averaged 24 100 tons and the amount of hazardous waste was 5 850 tons.

QUANTITY OF WATER (m³) AND QUANTITY OF TREATED WASTEWATER¹¹ (m³)



^{11 12} Absolute figures see Key Data on page 71.

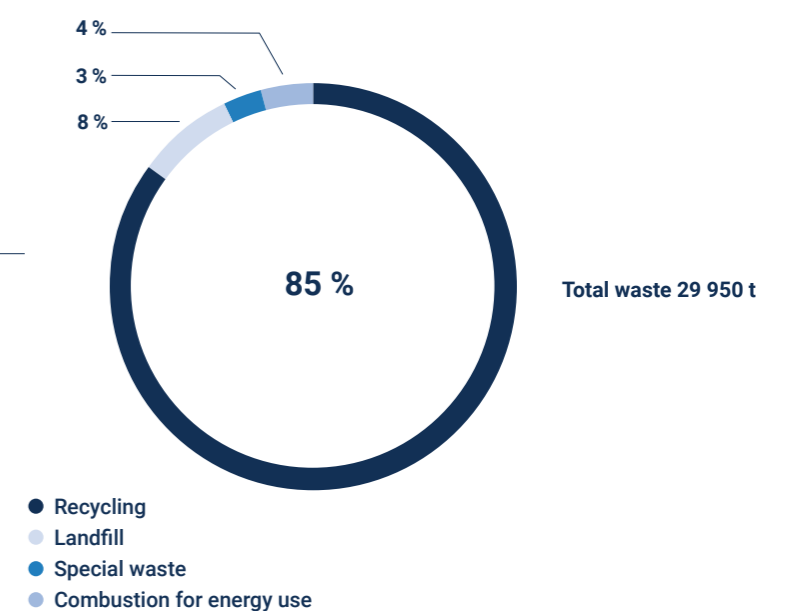
WASTE¹² (t)



HAZARDOUS WASTE IN WHEEL PRODUCTION

- Solvent from the paint shop for cleaning
- Paints and paint sludge from the paint shop and overspray separation
- Cooling lubricants from mechanical processing
- Chemicals and sludges from pretreatment and wastewater treatment

WASTE ROUTES – AVERAGE FOR 2020/21 AND 2021/22





SANSWISS: A RONAL GROUP COMPANY

In 1981, Karl Wirth, founder of RONAL, decided to set up a second source of income, independent of the automotive industry but connected to the raw material aluminum. In Bitche, France, near the German border, he started to produce shower enclosures – the sanitary history of RONAL GROUP began.

CONSTANT GROWTH

In 1999, the increasing demand for shower screens led to the decision to start the production of shower enclosures at the wheel plant in Jičín in the Czech Republic. Since 2001, a plant with a 10 000 m²-production area has been located in Jičín.

In 2009, all sanitary companies were brought together under one roof and the SanSwiss brand was established. In January 2010, the company expanded to Romania and started producing shower enclosures at that site as well.

With six subsidiaries and representatives in sixteen countries, SanSwiss is now one of the leading suppliers of bathroom equipment.

INVESTMENTS IN THE FUTURE

In 2020, the site in Jičín was expanded and modernized. The result is a modern production and logistics complex with over 18 600 m² in surface area. The construction enables the efficient reorganization of the entire flow of materials and end products, thereby reducing delivery times while increasing flexibility.

In the next two financial years, SanSwiss will measure the carbon footprint of its sites in order to define potential and measures for reduction.

SANSWISS IN FIGURES 2021/2022



310

Employees



65

Revenue in million euros



235

Shower partitions in thousands

KEY DATA 2020/21 AND 2021/22

RONAL GROUP		2016/17	2020/21	2021/22
Net revenue	EUR m	1 165	925	1 086
Equity ratio	%	65.8	74	~65
Capacity	Million wheels	~20	~18	~18
Production plants	Number	13	14	14

Sustainable and innovative products*

Percentage of aluminum procured from ASI members	%	25	100	100
Percentage of procured aluminum manufactured using renewable energy	%	40	56	63
Percentage of procured aluminum from ASI certified suppliers	%	0	68	90
Recyclability of wheels	%	100	100	100
Material consumption, total	t	375 100	294 000	300 500
Material consumption, non-renewable	t	255 900	193 000	195 500
Material consumption, renewable	t	119 200	101 000	105 000
Percentage of secondary raw materials in all materials used	%	32	34	35
Percentage of recycled aluminum chips	%	96.5	100	100
Percentage of post-consumer material	%	0	0	0.13

Energy and climate*

Energy consumption, total	MWh	1 411 083	1 256 750	1 312 267
Energy consumption, non-renewable	MWh	1 364 083	1 130 810	1 178 557
Fuel (diesel)	MWh	13 600	5 500	4 600
Natural gas	MWh	957 000	881 000	920 000
Electricity	MWh	393 483	244 310	253 957
Electricity consumption, renewable	MWh	47 000	125 940	133 710
Renewable electricity Germany	MWh	36 200	37 000	45 000
Renewable electricity Italy	MWh	0	40 100	40 000
Renewable electricity Spain	MWh	10 800	47 600	47 200
Renewable electricity Switzerland	MWh	0	1 240	1 510
Renewable electricity with Certificate of Origin	MWh	47 000	125 940	133 710
Percentage of renewable energy	%	11	45	50
Energy efficiency, total	MWh/EUR	1 211	1 360	1 208
CO ₂ equivalent emissions, total	t CO ₂	427 000	333 000	318 000
Scope 1	t CO ₂	222 000	201 000	197 000
Scope 2	t CO ₂	205 000	132 000	121 000
Self-generated electricity (photovoltaic and combined heat and power plant)	MWh	0	35 038	41 187
Photovoltaic system Switzerland	MWh	0	44	971
Combined heat and power plant Mexico	MWh	0	34 994	40 216
Energy consumption – gas and electricity (production plants)	MWh	1 374 179	1 260 632	1 310 646
Energy consumption per finished wheel	kWh/Wheel	70	92	95

* Exclusive sales sites in the USA and France and Speedline Truck sales.

SanSwiss is not included in the Key Data.

Employee development

		2016/17	2020/21	2021/22
Employees	Headcount	7 476	7 036	6 500
Employees	FTE	7 166	6 995	6 456
Women	%	7	8.5	8.7
Full-time	FTE	511	591.6	558
Europe	FTE	164	50	48
Central Europe	FTE	177	304	294
Central America/USA	FTE	180	216	193
Asia	FTE	35	25	28
Men	%	93	92	91
Full-time	FTE	5 976	6 176	5 719
Europe	FTE	2 209	542	500
Central Europe	FTE	2 923	4 220	3 823
Central America/USA	FTE	1 242	1 474	1 402
Asia	FTE	234	164	168
Fluctuation	%	13	18	20
< 30 years	%	6	6.6	6.7
30–50 years	%	6	8,6	10
> 50 years	%	1	2.7	3.2
Women	%	1	1.8	2.2
Men	%	9	16	18
% of all employees by gender and employee category who have regularly received an assessment of their performance and career development	%	N/A	57	61
Women	%	N/A	50	50
Men	%	N/A	52	56

* This data was not compiled for 2016/17.

SanSwiss is not included in the Key Data.

Occupational health and safety

		2020/21	2021/22
Occupational accidents	Number	457	177
Accident frequency			
Percentage of procured aluminum manufactured using renewable energy	1000-man rate	7	2.15
Absentee rate	%	0.3	0.21
Lost hours	h	32 330	22 594
Lost days	d	4 041	2 824

Sustainable and innovative products**

		2020/21	2021/22
Aluminum total	t	228 000	172 400
Aluminum using renewable energy manufactured in EU	t	N/A	96 530
CO ₂ emissions Al manufactured using non-renewables	t CO ₂	N/A	675 000
CO ₂ emissions Al manufactured using renewables	t CO ₂	N/A	386 000
CO ₂ savings using Al purchases renewables	t CO ₂	N/A	473 000
CO ₂ savings using post-consumer material	t CO ₂	0	0
Carbon footprint per finished wheel	kg CO ₂	157	135
Reduction in carbon footprint	%	0	-14
Scope 3	t CO ₂	1 880 000	1 504 500

Environmental figures**

		2020/21	2021/22
Water consumption (all sites)	m ³	827 000	782 400
Water consumption (production plants)	m ³	664 000	745 000
Treated wastewater (production plants)	m ³	189 000	199 000
Waste	t	31 700	29 500
Hazardous waste	t	6 100	6 000
Non-hazardous waste	t	25 600	23 500

** Exclusive sales sites in the USA and France and Speedline Truck sales.

GRI CONTENT INDEX

Disclosure number	Disclosure title	Reference
GRI 102 General disclosures		
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303-4	Water discharge	Pages 64–65 & 71
303-5	Water consumption	Pages 64–65 & 71

Disclosure number	Disclosure title	Reference
GRI 305: Emissions		
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305-3	Other indirect emissions (Scope 3)	Pages 62–63 & 69
305-4	GHG emissions intensity	Pages 62–63 & 69
305-5	Reduction of GHG emissions	Pages 62–63
GRI 403 Occupational Health and Safety		
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GRI 404: Training and education		
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ABOUT THIS REPORT

The RONAL GROUP Sustainability Report informs its stakeholders about its key issues, objectives and achievement of those objectives.

REPORTING STRUCTURE

This report is based on both the GRI Standards and GRI principles for determining the content of the report, as well as the principles for the quality of the report. The basis of the Sustainability Report is the materiality analysis. This report references GRI disclosures in the GRI Content Index table.

REPORTING PERIOD AND CYCLE

The report covers financial year 2020/21 (April 1, 2020 to March 31, 2021) and financial year 2021/22 (April 1, 2021 to March 31, 2022). The reporting date for all key data is March 31, 2022. Information from previous years was included where it seemed necessary to give readers a complete picture of the sustainability approach and the performance of RONAL GROUP. If information does not come from the financial years mentioned, it is clearly indicated. This is RONAL GROUP's fourth Sustainability Report. The first report covered the 2016/17 financial year. In future, a sustainability report will be published every year. The report is published in German and English on the RONAL GROUP website.

SURVEY METHODS

This report refers to RONAL GROUP with its wheel production plants, tool manufacturing and sales sites. The following were not included: SanSwiss, the sales sites in the USA and France, and Speedline Truck sales. If only part of the company is meant (as an example or due to the data available), it is clearly indicated. Notes on the calculation methods are provided in footnotes to the respective graphs.

OWNERSHIP AND LEGAL FORM

RONAL AG is majority-owned by the Ronal Foundation headquartered in Härkingen, Switzerland. Among other things, the Ronal Foundation ensures the preservation and promotion of RONAL GROUP as an independent manufacturing company.

EXTERNAL CONFIRMATION

No external opinion was sought for this report.

DISCLAIMER

Where CO₂ values are given, these are in each case CO₂ equivalents (CO₂e) – a comparative value for measuring the warming effect of different greenhouse gases on the climate. To protect the climate, this report is only available in digital and not printed form.

LEGAL NOTICE

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