

Change of perspective

Sustainability Report 2021
Interim Report



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Dear reader,



Dr. Uwe Horn
Chief Human
Resources Officer
IAV GmbH

Matthias Kratzsch
Chief Executive
Officer
IAV GmbH

Katja Ziegler
Chief Financial
Officer
IAV GmbH

The time to act is now. This is made clear not only by the latest reports of the Intergovernmental Panel on Climate Change. A sustainable mobility revolution is essential, as transport currently accounts for around 25 percent of total greenhouse gas emissions in the European Union.

For the mobility revolution, the transformation from conventional to alternative drives is fundamental. And it will be further accelerated by the planned tightening of the CO₂ fleet targets. This means that the automotive industry faces massive challenges – in addition to the tense geopolitical situation. The complexity of the challenges and the urgency to master them mean that “business as usual” can no longer be the case. A re-think, a change of perspective is necessary. As a company, we are repositioning ourselves and evolve – from a premium service provider to a tech solution provider. Because excellent technological and sustainable solutions are the central lever to master the challenges that lie ahead.

As a tech solution provider, we bring our developments into series production thanks to state-of-the-art development methods. Through our global understanding of the system, we continue to offer our customers safe and robust solutions.

Sustainability is firmly anchored in the mission of the tech solution provider: with ecological, economic and social contributions, we want to move the world for the better. Our values are a promise to use our innovative strength for sustainable progress and to actively assume responsibility. This is also reflected in our new leadership principles, which we are giving to our managers. This ensures that sustainability is systematically taken into account in corporate decisions.

In the following chapters, you can experience how we at IAV are constantly adopt new perspectives in order to implement sustainable development: symbolically in a new look with a new logo.

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Setting standards in corporate environmental protection

IAV enables sustainable development through technology and engineering. In order to reconcile environmental protection and economic success in the long term, innovative methods are already used in the provision of development services.



A double perspective on the ecological management of quarters: Dr. Joachim Senf (left in the picture) and Dr. Bennet Luck (right in the picture) give an insight into how IAV designs its facilities with the best possible efficiency, also by using its own market solutions. Joachim Senf is Senior Vice President of Facility Management at IAV. Bennet Luck heads the Control & Virtual Design Cluster department.

IAV's business activities as a tech solution provider differ from those of companies in the manufacturing industry. Mr. Senf, what does this mean for corporate environmental protection?

Senf: In the manufacturing sector, most energy and resource use typically occurs in production processes. At IAV, we do not have any production facilities in this sense. Most energy is used locally in our engine and roller test benches – but here we have only limited potential for savings. Therefore, the building infrastructure is a major focus if we want to reduce the use of energy and resources. Our vehicle fleet also stands out with a larger share of the total CO₂ footprint.

In 2019, IAV introduced a certified environmental management system in accordance with ISO 14001. What measures have been taken since then?

Senf: IAV manages 55 buildings in Germany and a total area of more than 250,000 square meters. With the certification we have set ourselves annual goals and are particularly active in those areas where we see the most important environmental impacts. In the case of energy-inefficient buildings, we consider very carefully whether there are sensible savings potentials. In our former Braunschweig plant, for example, this was also a reason why the employees were brought back to Gifhorn. At the same time, when constructing new office buildings resp. business premises, it is our aim to remain below the legally required energy standards. Examples of this are the new office building in Gifhorn or the new EMC center in Heimsheim.

“Our aim in building construction is to remain below the legally required energy standards.”

Dr. Joachim Senf

Senior Vice President Facility Management at IAV

The EU has set itself the target of reducing net greenhouse gas emissions by at least 55 % by 2030 compared to 1990 levels.

What contribution is IAV making to decarbonizing its business?

Senf: With our measures, we want to achieve the greatest possible effect as quickly as possible. Among other things, we have set ourselves the goal of covering the electricity consumption of our sites in Germany through renewable energies. All IAV locations in Germany have already been supplied with green electricity since 2021. But this is not the end of our activities. One important component is increasing energy efficiency, for example, by switching to LED lighting. In addition, we promote electro mobility in our vehicle fleet by expanding the charging infrastructure at our site.

Luck: The higher the proportion of green electricity in the supply, the more volatile the energy supply and therefore the greater are the demands on the grid infrastructure. After all the times at which electricity is generated are not always congruent with the times when the electricity is needed. This is a key challenge that IAV is addressing in the energy sector. One focus is on designing solutions to bring generation, storage and consumption in harmony. Based on this, we have created the foundation for being able to offer intelligent control technology in the future that enables proactive interventions.

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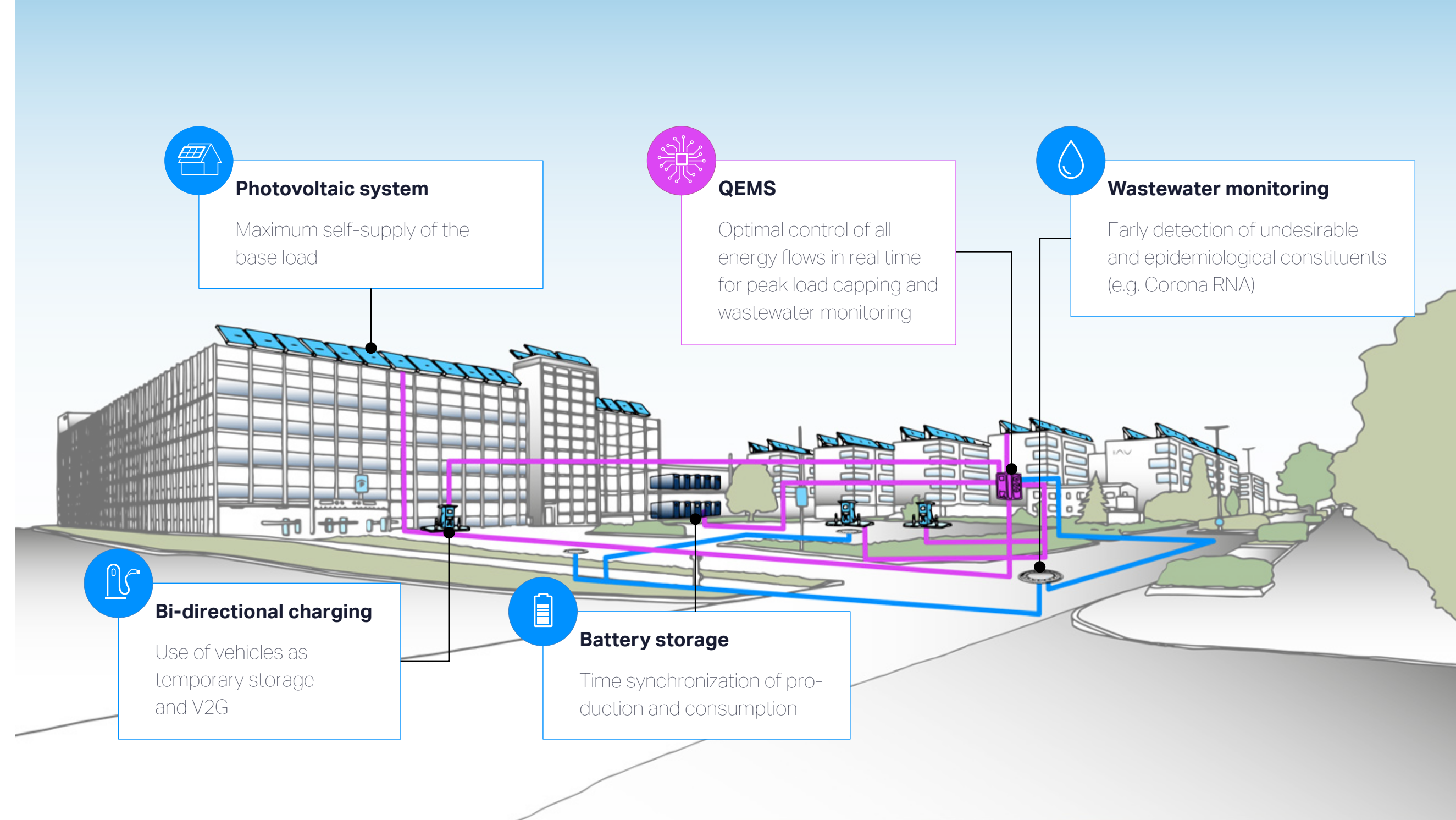


The use of buildings will not only change as a result of ecological developments. "New work" initiates a structural change in the world of work. How does IAV deal with these changes?

Senf: During the Corona pandemic, we gained significant experience with mobile working. Many areas and offices were not used, as at times a large part of the staff was not on site. Therefore, we are working with colleagues and the Works Council on pilot projects to implement modern usage concepts, such as „desk sharing. Further in the new office building at the development center in Gifhorn, we have implemented open and flexible space concepts to increase the connection between the teams and break down silos.

With the new office building on Rockwellstraße, IAV has laid the foundation for further growth at the Gifhorn location. What are the special features of this building?

Senf: First of all, it must be emphasized that the building is certified as an efficiency house according to the KfW 55 standard. This means that it consumes 45 % less energy than would have been necessary for the approval of such a building. Various measures work together to achieve this, e.g. increased insulation of the building shell, photovoltaic systems, heat recovery or absorption chillers. Attention was also paid to the use of sustainable materials in the interior design and floor coverings. In addition, we apply flexible room concepts with many glass walls, light flooding and system partition walls.



Overview of new office construction at the Gifhorn development center

Mr. Luck, what other plans are there for the future?

Luck: With our energy management system for quarters (QEMS), we are validating a solution that opens up savings potential in the energy supply of buildings at the moment. We are currently collecting a lot of data and environmental information to optimize it. A new building in our own house was the ideal opportunity for us to think of QEMS early on. At the beginning, we focused on high-level building automation and set up many sensors and measuring points. As a result, we have a comprehensive database with which we can now integrate further technologies in order to develop market solutions.

Which technologies will be used?

Luck: The core of the challenge is a real-time capable realization of a superordinate control of the essential energy flows. QEMS has the potential to enable the central control of the entire, usually heated, component landscape in the context of modern building energy technology. This includes photovoltaic systems that ensure the greatest possible basic load supply. Battery storage systems ensure that generation and consumption are

synchronised over time. Additionally, we are testing bi-directional charging to enable vehicles also to be used as temporary storage. For real-time capable and, above all, proactive optimization of all these components, we also use learned predictors to take into account external influences such as solar radiation or wind flow, for example. Complementing we also want to implement wastewater monitoring.

You describe solutions from the energy sector. However, IAV's core business lies in the automotive sector.

Luck: By looking at the problems of these industries, we usually discover the need to make complex strategic decisions in real-time and in advance. At the same time, many systems are based on energy flows, regardless of whether they are buildings, plants or automobiles. Often there is a similar structure of producers, storage and consumers. This enables IAV, as a tech solution provider, to transfer decades of experience in the automotive sector to several sectors using technology platforms and to offer efficient overall solutions.

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IAV's investments under the KfW Energy Efficiency Program were recognized by IKB Deutsche Industriebank with a certificate for sustainable loans.

The award was made on the basis of the Green Loan Framework, which was developed in coordination with CICERO, the renowned Center for International Climate Research based in Oslo.





So IAV is realigning its compass – with a greater industry and technology focus. Are there any risks involved?

Luck: When entering a new market, it naturally takes a certain amount of time to understand the market language and customer needs. But if we want to take advantage of opportunities, we must also have the courage to take risks. At IAV, we take this approach in a very targeted manner. This is essential if we are to be seen as a partner on an equal footing. We are familiar with this, as our traditional core business is undergoing major changes and we are also now well positioned for the future.

“If we want to take advantage of opportunities, we must have the courage to take risks. At IAV, we are taking this path in a very targeted manner.”

Dr. Bennet Luck

Head of Department “Control & Virtual Design Cluster” at IAV

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Leadership and diversity as a sustainable competitive advantage

The corporate culture is the biggest lever for successfully transforming IAV into a tech solution provider. Only value-oriented leaders who inspire and act as role models can move the world for the better – regardless of task or hierarchy.

What are the other things that make a good leader stand out?

Protschka: We have developed four other leadership dimensions. It is important that leaders give their sphere of influence a sense and a vision, strengthen people and empower them in their tasks. At the same time, our leaders must strive for business success, because only sustainably profitable business secures our future viability. Building on this, the last leadership dimension deals with the question of how IAV can be designed and continuously developed.

Hartfiel: In all these aspects, cooperation is the key to success. It is essential how teams work with each other. In my team, I put a lot of emphasis on a culture that is characterized by appreciation and an open approach to mistakes. Because only those who are authentic and stand by their mistakes can experience acceptance and support.

Two perspectives from the conceptual model to the operative implementation meet: Ines Protschka (right in the picture) and Romy Hartfiel (left on the picture) explain how leadership and diversity can be filled with life. Ines Protschka is a project manager from the “Culture & Sustainability” team at IAV. Romy Hartfiel is a team leader for product data, change request and requirements management.

In your opinion, how important is responsibility for leadership behaviour?

Protschka: We carried out a large survey in the organization and asked this question, among other things. It has become clear that taking responsibility and communicating are central to effective leadership. This is why this also forms the core of our leadership model which we developed in 2021.



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Our values form the framework

Responsibility
 Focus on customer
 Passion for technology
 Excellence
 Innovative power
 Personality
 Partnership



Presentation of the concept of the leadership model

Why is IAV focusing leadership right now?

Hartfiel: Leadership is essential to be successful in the market. We are on our way to become a tech solution provider, we are dedicated to future topics and offer many exciting jobs at IAV. For this, we naturally want to attract and retain the best talent. But we are not alone. Therefore, we have to remain constantly attractive in order to keep fluctuation as low as possible. In this context, leaders are in the role of multipliers for employer activity and employee satisfaction. Because employees do not leave their companies. They leave their leaders.

Are managers not currently overburdened with this?

Protschka: We start relatively gently: at the beginning we sensitize for these topics and create space for self-reflection. We then gradually adapt our processes to the new leadership model. On this way, our leaders are not alone, they are supported with many tools. These can also be small things, for example rules for feedback or a code of values. From this offer you can help yourself individually, depending on what fits the team or environment.

Hartfiel: It is up to everyone of us to confront this orientation openly. It is worth remembering that life is a permanent change, which has a significant impact on everyday activities. For this to happen, a company must create the right framework conditions and contribute more than just to communicate expectations.

Good leadership is not based on statutes and principles but must be lived. How can we ensure consistent and tangible implementation of the leadership model?

“Employees do not leave their companies. They leave their leaders.”

Romy Hartfiel

Team leader for product data, change request and requirements management at IAV

Protschka: The big challenge is starting now: we have a guiding image as a target framework for leadership at IAV, which must now be implemented. Sometimes it is necessary to break with patterns and to change the way we work. In order to highlight this aspect, we deliberately chose a modern implementation format with the so-called leadership journey. In a period of approximately six months, managers embark on a journey and reflect on the leadership model for themselves. However, the process is not the same, as all participants set themselves personal learning goals.

And to what extent is sustainability integrated into the leadership model?

Protschka: Sustainability is an integral component of responsibility and is therefore anchored in the core of the leadership principles. Together with our experts we have identified the role of managers in the context of sustainable development. This includes promoting the ability to innovate and creativity for the development of sustainable solutions. At the same time, managers take into account economic, ecological and social values in their work. And they promote diversity and treat different perspectives respectfully.

With a view to sustainable development, IAV has identified four fields of action. In the context of “responsibility for our employees”, diversity plays an elementary role. Do you see a connection between leadership and diversity?

Hartfiel: If we want to further develop our strategy, our orientation must be adapted to new insights and market situations. The more perspectives are included, the better. Therefore, good managers should always pay attention to a diverse composition of teams and question themselves.

Protschka: It is the responsibility of leaders to treat all employees equally. It is a leadership to take a clear position on diversity and to take action against any form of discrimination. And it is a leadership task to know why diversity and equal opportunities are important for IAV. Because the people at IAV make the difference and are our key success factor.

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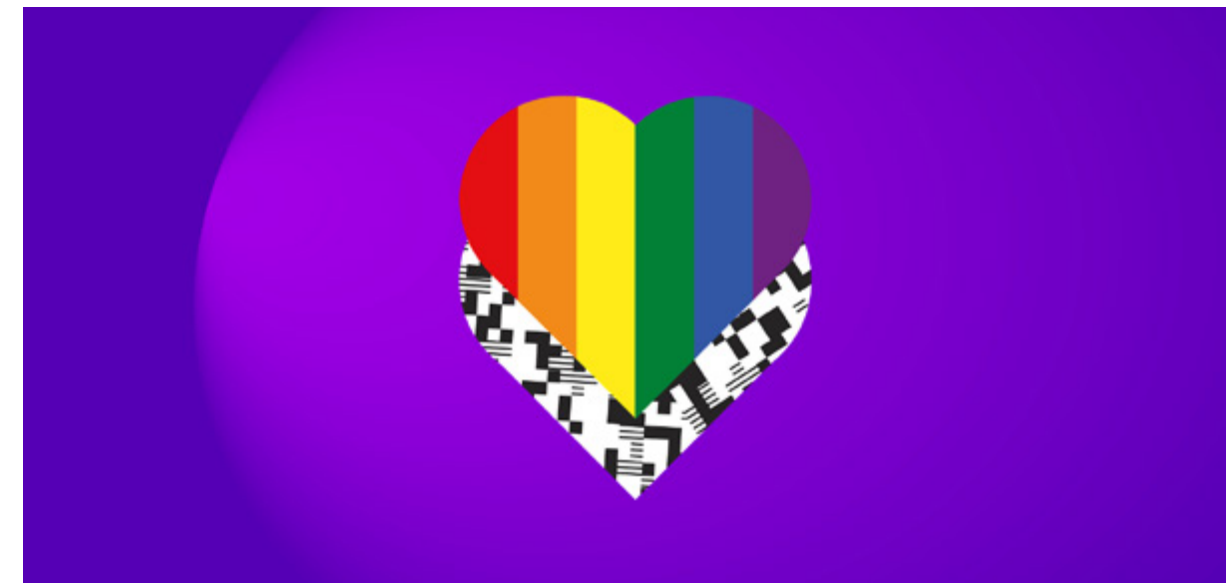


Would you agree that diversity is a business case?

Hartfiel: Recent studies show that companies with more diverse management teams are generating more revenue because they are simply more innovative. As a tech solution provider, we want to develop the best solutions for our customers and ultimately for society. For this we need social understanding, which we can only achieve if we reflect the diversity of society in our organization as well.

IAV signed the "Charta der Vielfalt" in 2021. What measures have been taken since then?

Protschka: At first, it was important for us to bring the people at IAV together. That is why we have established a network for diversity and equal opportunities. At the same time, IAV has also been a member of the "Employees for Equality" program since 2021. This provides us with a comprehensive learning tool to raise employees' awareness of diversity. This starts with language, which is why we gradually adapt our internal and external communication in a gender-neutral way.



What were the most valuable insights for you from the diversity and equal opportunities network?

Hartfiel: I was impressed by how committed the people at IAV are. It is very interesting when different opinions and thoughts meet. You have the opportunity to actively participate as an employee and to become effective. I am happy to share this with my team.

Protschka: This is a nice example of how managers can act as multipliers for diversity in their areas. The group is also characterised by its appreciative approach and energy. You can learn a lot from each other, and we also promote this with a varied offer, e.g. with guest lectures and workshops.

Perhaps you could conclude with an outlook on future activities!

Protschka: While we have initiated actions in the workforce, diversity is becoming more and more important at management level. This has led, among other things, to the establishment of an interdisciplinary working group that analyzes and shapes our human resources processes with regard to diversity and equal opportunities.

Hartfiel: I will continue to participate in these activities, and I will continue to push these issues forward. Diversity is not a project, but a continuous process of change. This also includes ensuring transparency. With various diversity stories, we want to put even more emphasis on the successes and challenges of everyday life.

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"The people at IAV make the difference and are our key success factor."

Ines Protschka

Project manager in the "Culture & Sustainability" team at IAV



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Living compliance and integrity internationally

Compliance with legal and ethical standards is a top priority for IAV. The confidence and protection against risks created by this process lays the basis for sustainable economic success.

Local experiences converge for a global perspective: Holger Kaiser and Simon Collins describe the process of the international rollout of IAV's Compliance Management System (CMS). Holger Kaiser is the Lead Coordinator for Technical Compliance. Simon Collins is the Managing Director of IAV do Brasil Ltda. In Sao Paulo.

Compliance – these are only guidelines on how to deal with gifts and other benefits, aren't they?

Kaiser: For IAV, compliance means that the business activities are based on all regulations known to us and applicable. This includes both classic topics from the commercial area as well as technical compliance for compliance with specifications relating to engineering.

Technical compliance is associated with a variety of laws for the daily work. How are employees supposed to know and comply with all these legal regulations?

Kaiser: Compliance is like driving a car: numerous rules initially seem complex. But after getting used to them, however, they enable orderly movement. We have established processes and systems to support our colleagues in this area. All employees are sensitized with a comprehensive training program. In our Compliance organization we have experts who advise on projects and can be contacted at any time. To ensure a compliance program that is tailored to needs and risks, it is also regularly evaluated by the Compliance Council.

“Compliance is like driving a car: numerous rules initially seem complex. But after getting used to them, however, they enable orderly movement.”

Holger Kaiser

Lead Coordinator Technical Compliance at IAV

What initiatives have been pushed forward in 2021 within the framework of the CMS?

Kaiser: A decisive milestone was the introduction of a central database in which regulatory requirements of all relevant technical areas are maintained in a uniform manner. The management continues to focus on an open culture and addresses the needs of the staff through various dialog formats. In addition, we have made significant progress in the international rollout of the CMS.



As a tech solution provider, our integrity, fairness and independence are of paramount importance.

We behave responsibly toward our employees, customers, suppliers and business partners and are careful in dealing with nature and resources.

Learn more about our [Code of Conduct](#).

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The international rollout began at IAV sites in the USA, China and Brazil. Why was the focus initially on these regions?

Kaiser: Our national and international subsidiaries were prioritized in an assessment according to uniform criteria with regard to possible compliance risks. It quickly became clear that the risk potential is greater in regions where we provide local engineering services. In addition, there are other factors, such as the legal framework or the local culture.

What are the elements of the international rollout?

Kaiser: Basically, the IAV group compliance system covers all subsidiaries and is gradually being established. During implementation, we divide into various elements, e.g. organization and culture or risk management and communication. In order to incorporate local particularities in the coordination of activities, we appoint a local Compliance Manager as an interface in each region.

Are all elements of the CMS equally relevant for the subsidiaries?

Kaiser: All elements are important, but there are differences in implementation and independence. Some subsidiaries have only a few employees, which is why the central compliance organization of IAV GmbH provides more support than for subsidiaries with 50 or 100 employees. For example, the whistleblowing system "SpeakUp" is organized centrally. In this case, the subsidiaries must nevertheless ensure that their employees are made aware of this.

Collins: This is also evident at IAV do Brasil Ltda.: one example are export controls. While IAV GmbH has to deal with numerous target countries and thus different laws, the scope of the business activities at the Brazilian location is limited by local influences. This also creates other requirements for the training of our employees.



Holger Kaiser (on the right in the picture) and Simon Collins (on the left in the picture) in exchange for the international rollout of the CMS

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Mr. Collins, how did you experience the rollout as Managing Director of IAV do Brasil Ltda.?

Collins: Against the background of a variety of topics, the process was very structured. Numerous teams participated in the project, there was close contact between the companies at all times. Working together was a crucial factor in the implementation.

Were there any challenges?

Collins: Unfortunately, Brazil was hit hard by the Corona virus in 2021. All employees worked remote, making it difficult to model new processes. This is particularly challenging in a traditionally shaped country like Brazil. Continuous dialog is therefore essential for sustainable change.

An open approach to mistakes is also part of the compliance culture. At IAV in particular, state-of-the-art solutions are worked on every day, so that the risk of possible mistakes is always present. How do you deal with it?

Collins: I conduct a personal interview with each new employee on the subject of compliance. Error culture is an integral part of this. It is important to be transparent and also to allay possible fears. If our colleagues don't take a courageous step forward, we won't be able to continue our development into a tech solution provider. Even management decisions are always characterized by uncertainty.

What responsibilities should leaders assume in this context?

Collins: Behaviour that complies with the rules and has integrity begins with attitude. This attitude is not static but is also influenced by leadership as a role model. Managers should see mistakes as an opportunity and make room for learning. If this it not should be the case, each employee can use different reporting channels. It would be better, however, if so much trust was created so that things were addressed openly.

Finally, your opinion on the following thesis would be exciting: "Compliance only costs and slows down business processes."

Collins: First of all, legal requirements cannot be circumvented. Compliance therefore secures the raison d'être of our business. With IAV's compliance structures, we offer our employees and our customers additional security. In doing so, we make sure that processes are as efficient as possible. In fact, we also notice a significant gain: with the CMS, IAV is differentiating itself in the competition – this is particularly striking in Brazil. As a tech solution provider, we want to take on even more responsibility for overall technical solutions in the future – this cannot be achieved without compliance.

"With the compliance structures at IAV, we offer our employees and our customers additional security."

Simon Collins

Managing Director IAV do Brasil Ltda. in Sao Paulo

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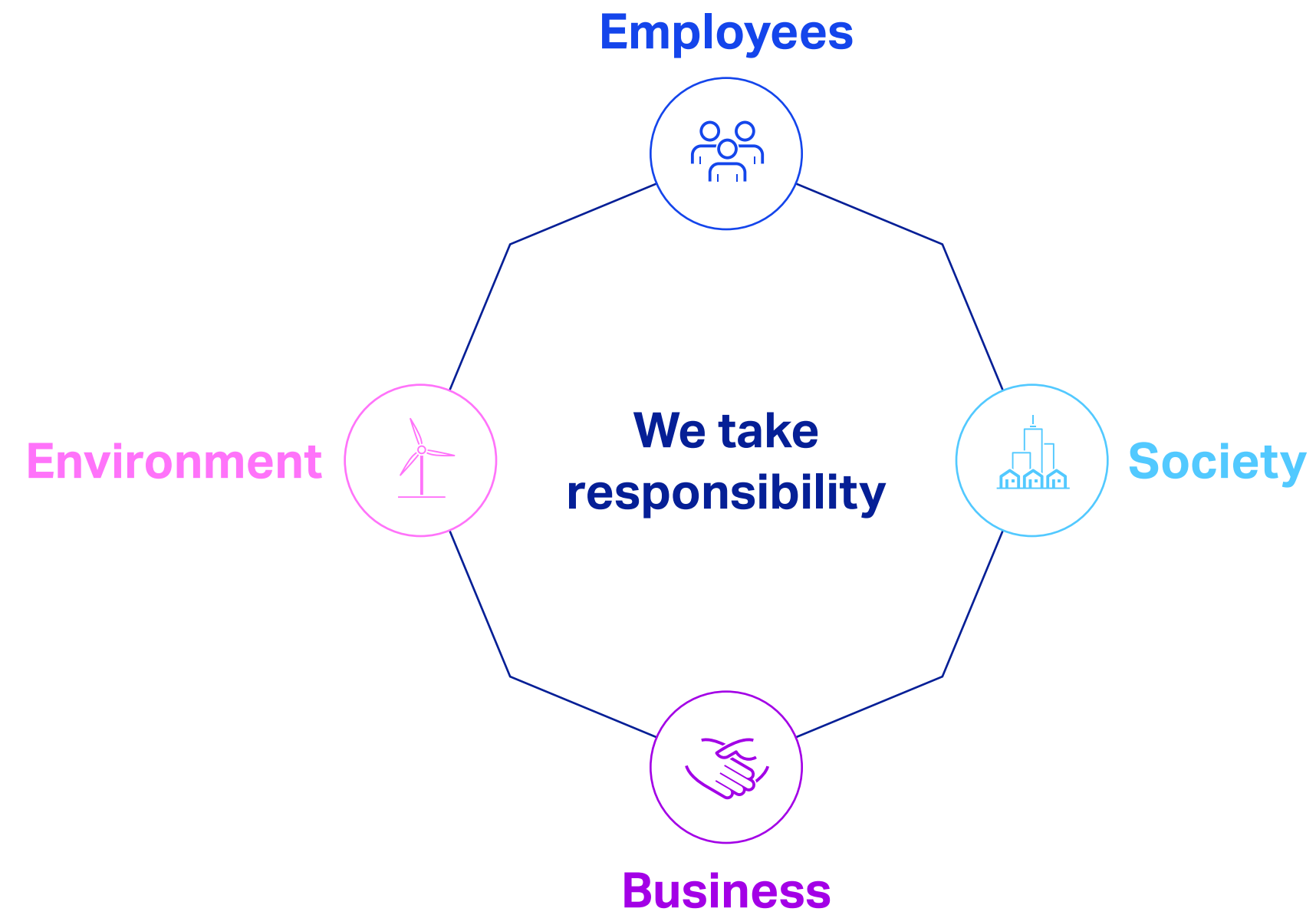
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IAV has firmly anchored sustainability in its value system: “We take responsibility.” for our developments, services and products – worldwide.

This leads to four central areas of action, within which concrete initiatives as well as indicators are to be used to show how we are fulfilling our responsibilities for our business, for our employees, for the environment and for society.

The following indicators apply in each case to the calendar year specified and relate to IAV GmbH. In the area of environmental responsibility, the environmental performance of IAV Fahrzeugsicherheit GmbH & Co. is also recorded. Selected sustainability indicators marked with the symbol “✓” have been subjected to a voluntary audit with limited assurance by an independent auditing firm. The audit report can be found on page 24.

- ✓ Adoption of the indicators from the audited annual financial statements 2021 of IAV GmbH
- ✓ Item 2021 was subjected to a voluntary audit by an external auditing company to obtain limited assurance



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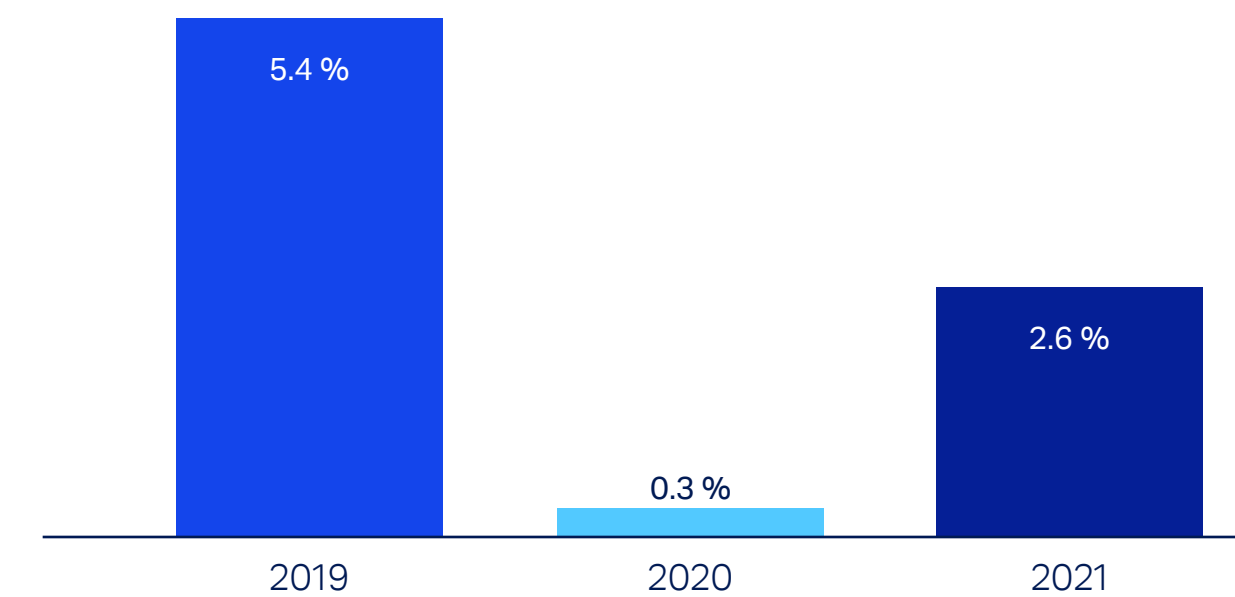
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Responsibility for our business

Financial indicators (IFRS)	Unit	2019	2020	2021
Total revenue	Million €	968.4 ✓	873.8 ✓	840.1 ✓
Material usage	Million €	123.7 ✓	71.2 ✓	60.8 ✓
Operating profit	Million €	55.3 ✓	8.4 ✓	22.3 ✓
Return on sales	%	5.4 ✓	0.3 ✓	2.6 ✓

Return on sales



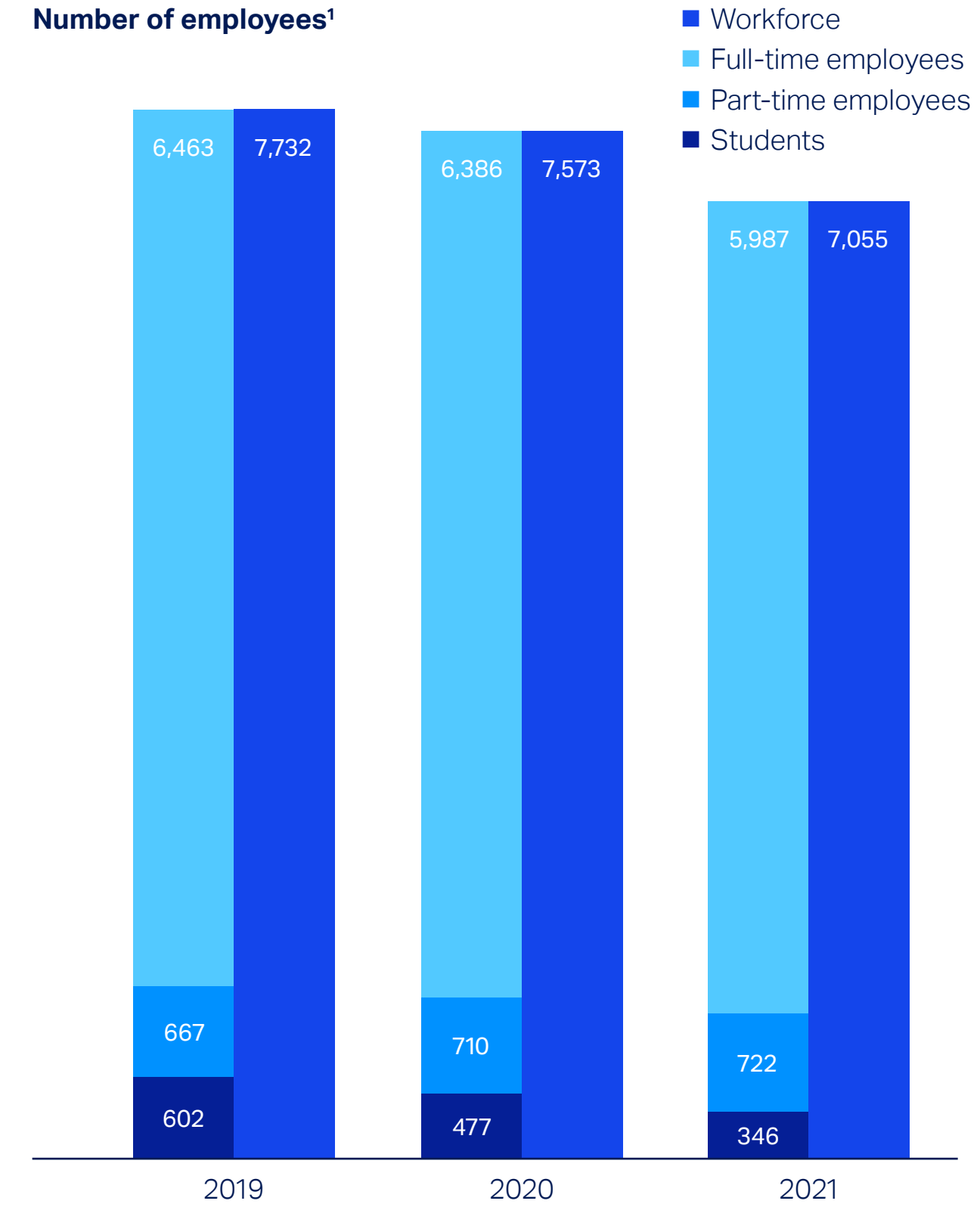
Responsibility for our employees

Number of employees ¹	Unit	2019	2020	2021
Workforce	Number	7,732	7,573	7,055 ✓
Full-time employees	Number	6,463	6,386	5,987 ✓
Female	Number	764	768	708 ✓
Male	Number	5,699	5,618	5,279 ✓
Part-time employees	Number	667	710	722 ✓
Female	Number	371	399	400 ✓
Male	Number	296	311	322 ✓
Students	Number	602	477	346 ✓
Female	Number	156	125	93 ✓
Male	Number	446	352	253 ✓

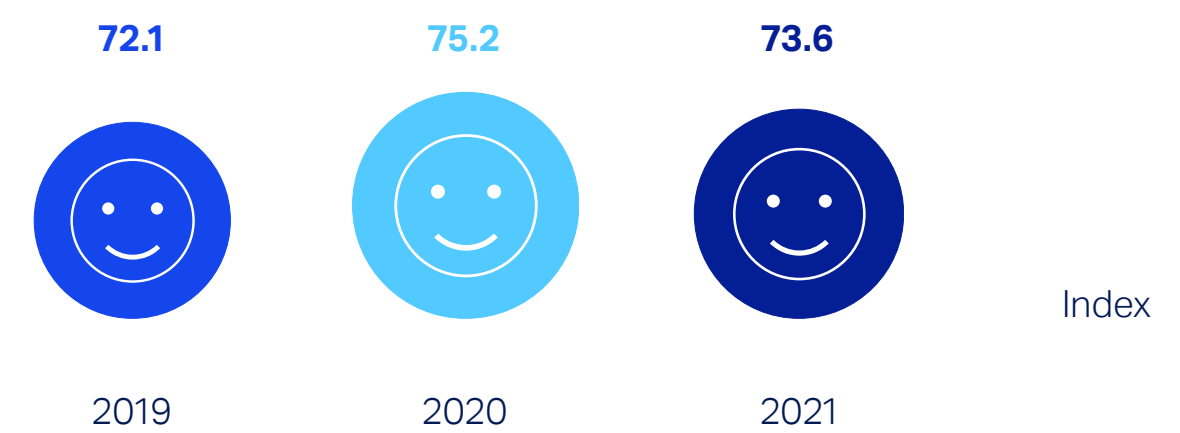
Number of employees on parental leave ^{2,3}	Unit	2019	2020	2021
Total employees on parental leave	Number	526	539	508 ✓
Female	Number	74	77	87 ✓
Male	Number	452	462	421 ✓

Retention of employees	Unit	2019	2020	2021
Average length of service ²	Years	8.6	9.3	10.4 ✓
Staff turnover rate ²	%	5.9	4.9	8.4 ✓
Employee satisfaction ⁴	Index	72.1	75.2	73.6 ✓

Number of employees¹



Employee satisfaction⁴



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Responsibility for our employees

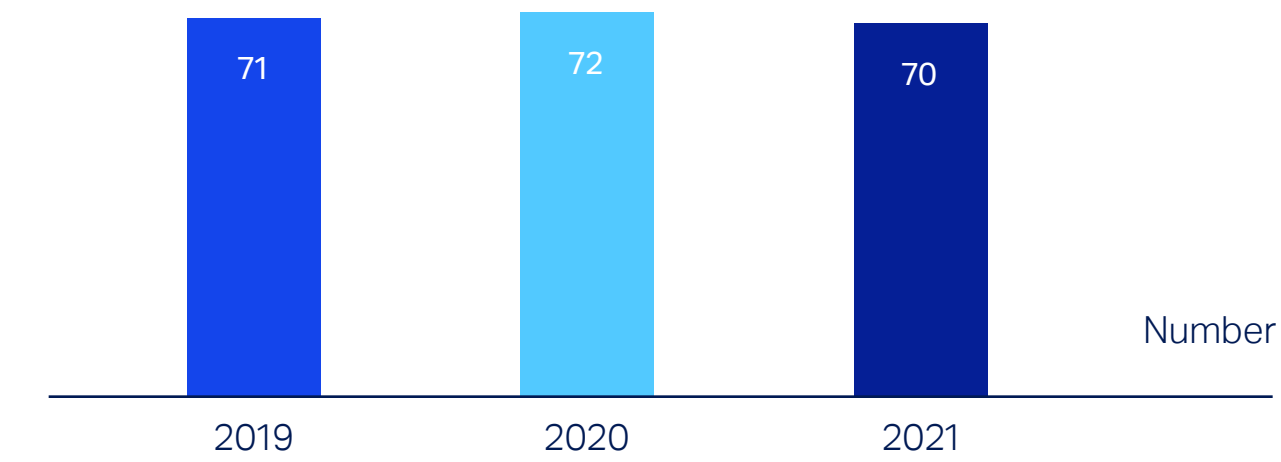
Qualification of employees ⁵	Unit	2019	2020	2021
Qualifications	Number	13,313	8,304	11,445 ✓
Average qualification time per employee	Hours	17.1	9.2	9.6 ✓
Technical further training	Hours	11.5	6.4	8.3 ✓
Interdisciplinary training	Hours	5.6	2.8	1.3 ✓

Diversity	Unit	2019	2020	2021
Percentage of women in the workforce	%	16.7	17.1	17.0 ✓
Percentage of women in management positions	%	5.5	5.7	6.0 ✓
Nationalities	Number	71	72	70 ✓

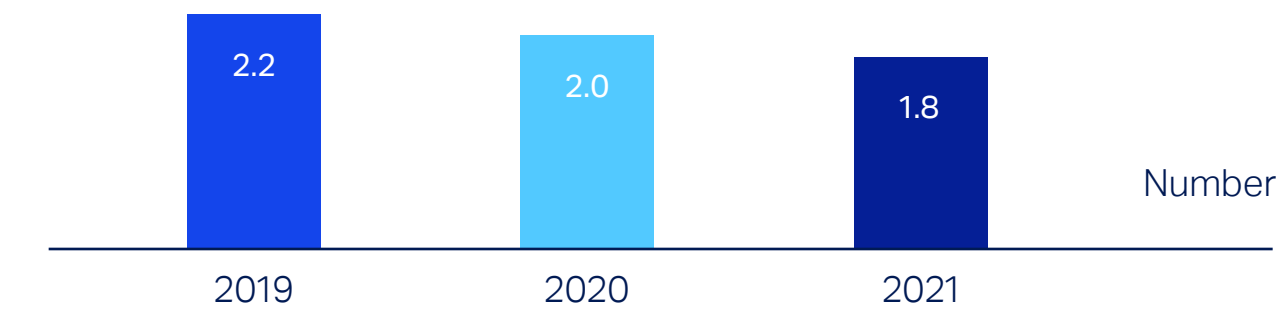
Age structure ¹	Unit	2019	2020	2021
< 30	%	13.1	10.3	7.4 ✓
30 – 39	%	44.6	44.5	42.3 ✓
40 – 49	%	24.2	25.2	28.3 ✓
> 50	%	18.1	20.0	22.0 ✓

Occupational health and safety	Unit	2019	2020	2021
Accident rate per 1,000 employees ⁶	Number	2.2	2.0	1.8 ✓

Nationalities



Accident rate per 1,000 employees⁶



¹ At the end of the year under review (Dec. 31)

² Full- and part-time employees

³ Number of employees who took parental leave in the reporting year

⁴ Global index from standard questions 1 – 23 of the company-wide employee survey

⁵ From 2021 without external qualifications

⁶ Number of occupational accidents with at least 3 days of lost days per 1,000 full-time employees

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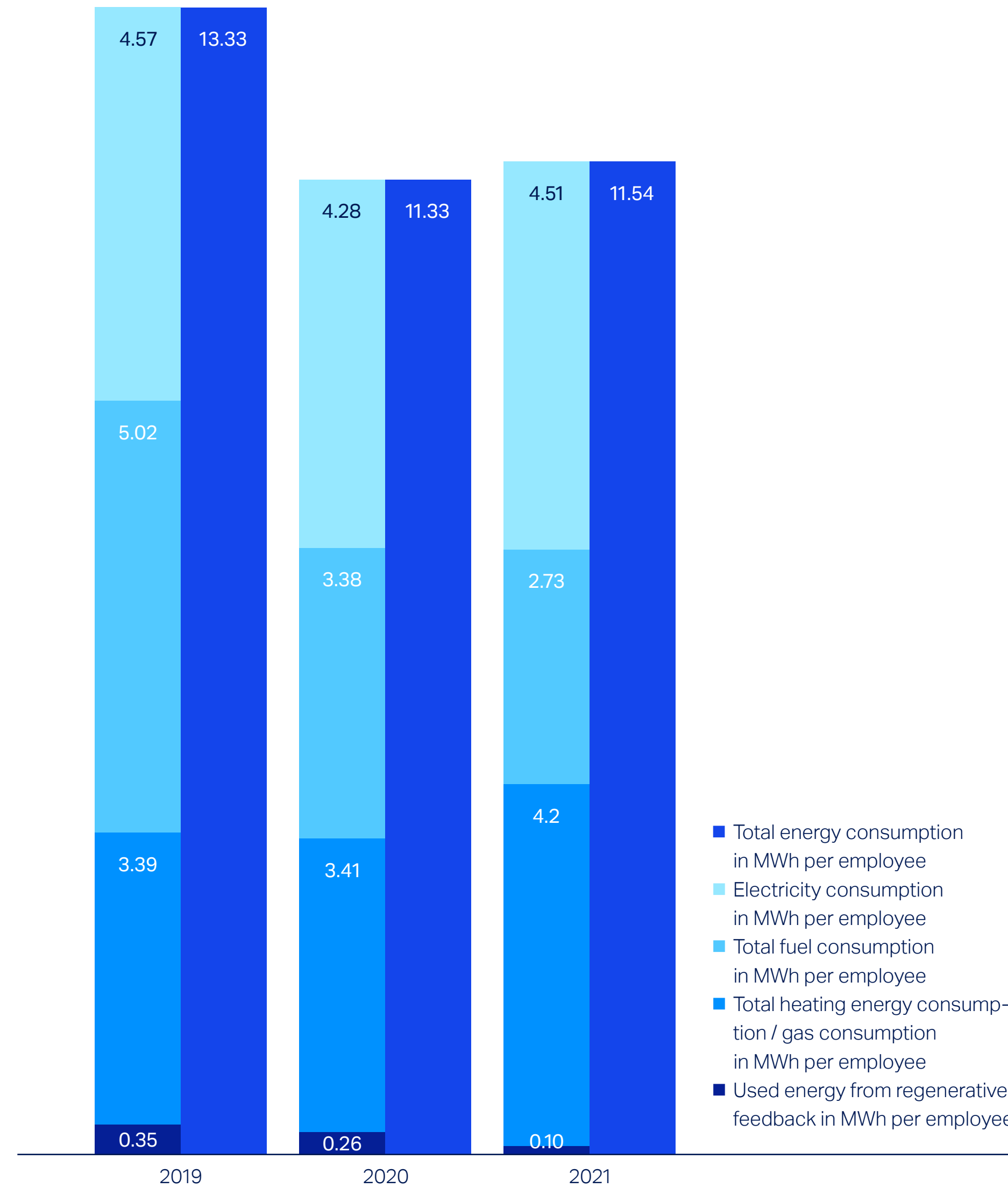
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Responsibility for the environment

Energy	Unit	2019	2020	2021	
Total energy consumption	MWh	105,339	88,326	82,149	✓
	MWh / employee	13.33	11.33	11.54	✓
Total electricity consumption	MWh	36,090	33,140	32,097	✓
	MWh / employee	4.57	4.28	4.51	✓
Electricity consumption from renewable sources ⁷	MWh	19,922	27,090	31,761	✓
Electricity consumption from non-renewable sources	MWh	16,168	6,050	336	✓
Total fuel consumption	MWh	39,657	26,149	19,462	✓
	MWh / employee	5.02	3.38	2.73	✓
Fuel consumption from renewable sources	MWh	238	158	72	✓
Fuel consumption from non-renewable sources	MWh	39,420	25,991	19,390	✓
Total heating energy consumption / gas consumption	MWh	26,800	27,007	29,913	✓
	MWh / employee	3.39	3.41	4.20	✓
Energy used from regenerative feedback ⁸	MWh	2,792	2,029	677	✓
	MWh / employee	0.35	0.26	0.10	✓

Energy consumption



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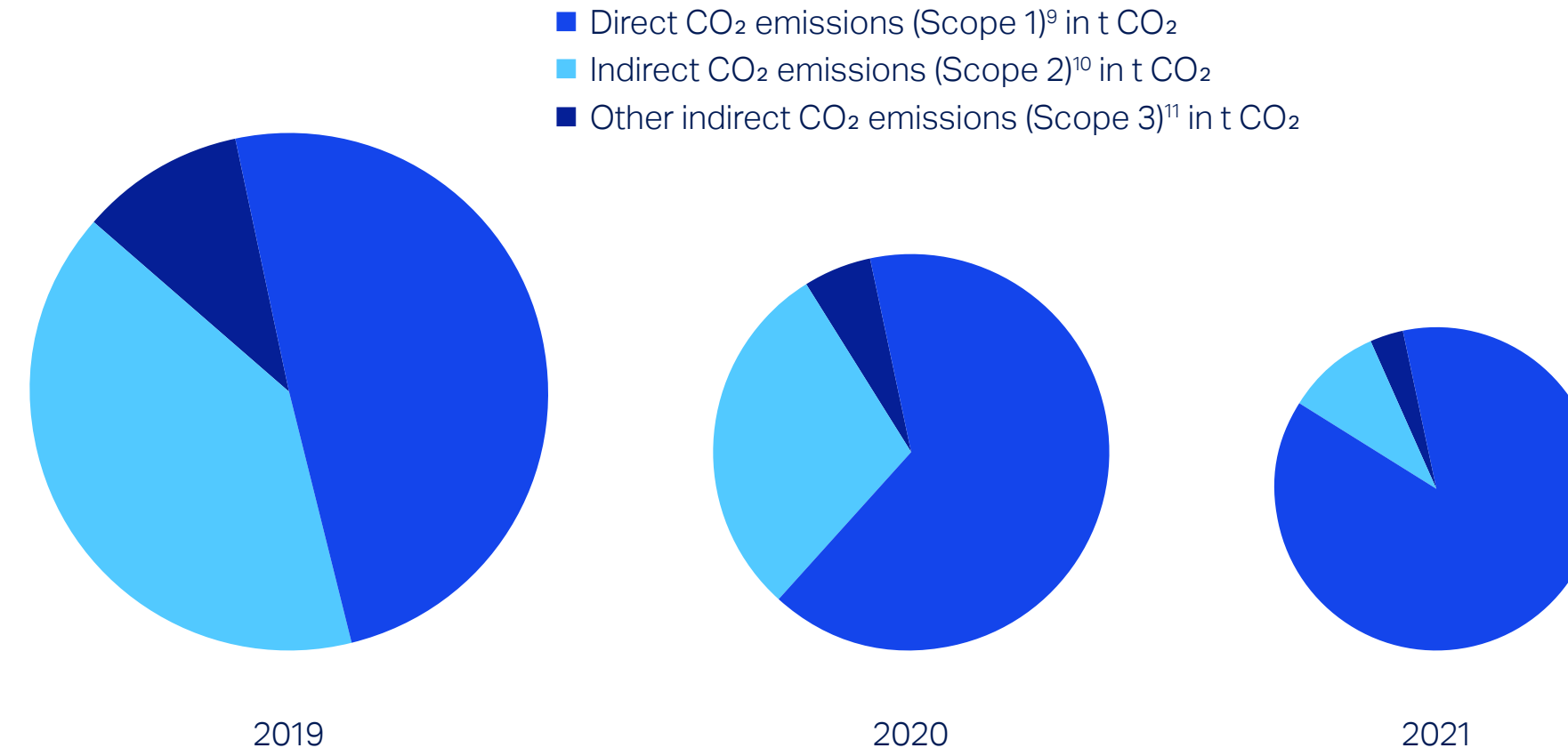


Responsibility for the environment

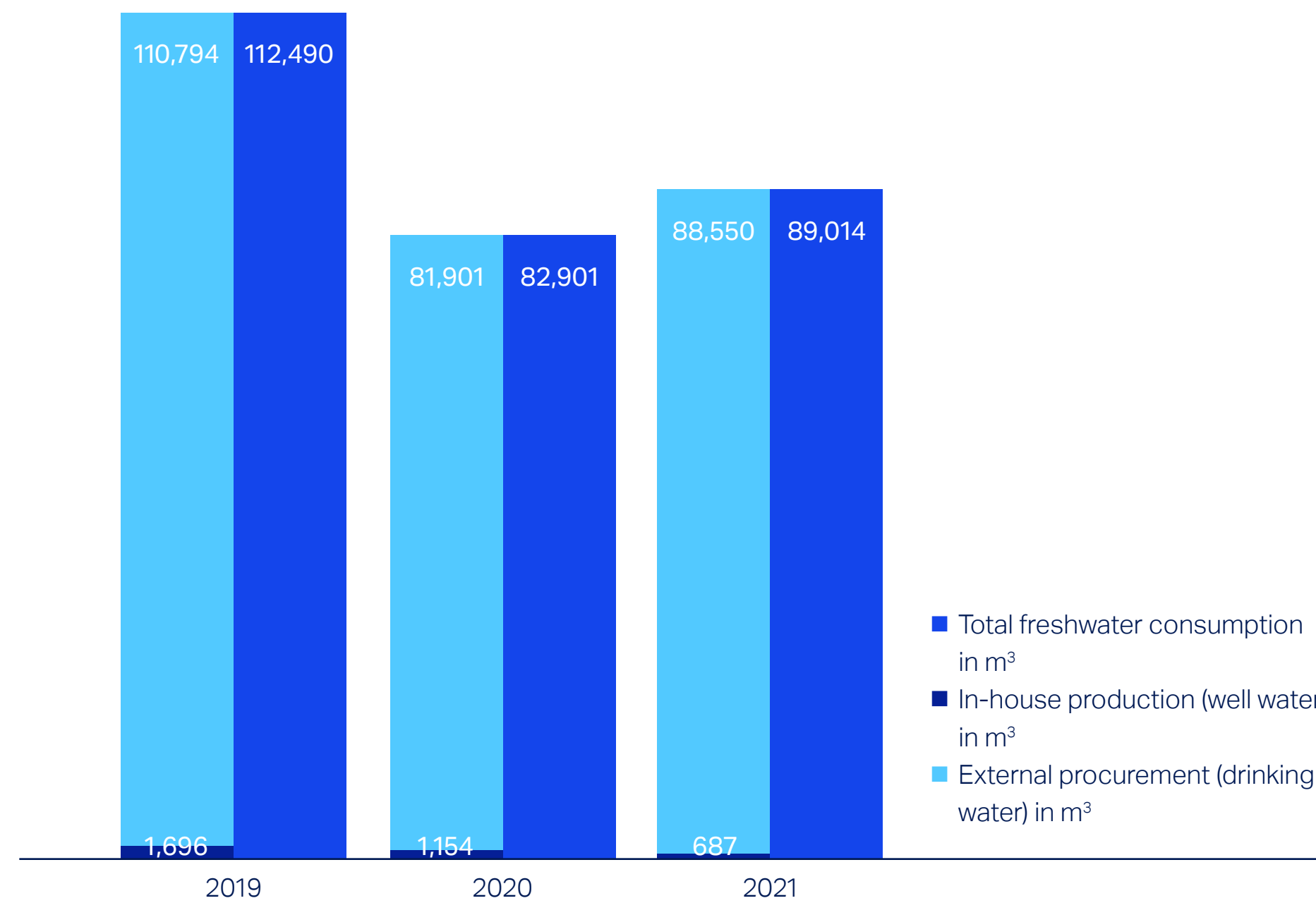
CO ₂ emissions	Unit	2019	2020	2021
Total CO ₂ emissions	t CO ₂	30,506	17,862	11,905 ✓
	t CO ₂ /employee	3.86	2.31	1.67 ✓
Direct CO ₂ emissions (Scope 1) ⁹	t CO ₂	15,164	11,633	10,412 ✓
Indirect CO ₂ emissions (Scope 2) ¹⁰	t CO ₂	12,276	5,268	1,117 ✓
Other indirect CO ₂ emissions (Scope 3) ¹¹	t CO ₂	3,066	961	377 ✓

Water and wastewater	Unit	2019	2020	2021
Total freshwater consumption	m ³	112,490	82,901 ¹²	89,014 ✓
	m ³ /employee	14.24	10.70	12.35 ✓
In-house production (well water)	m ³	1,696	1,154	687 ✓
External procurement (drinking water)	m ³	110,794	81,747	88,327 ✓
Total volume of wastewater	m ³	112,490	82,901 ¹²	89,014 ✓
	m ³ /employee	14.24	10.70	12.35 ✓

CO₂ emissions



Water and wastewater



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Responsibility for the environment

Waste	Unit	2019	2020	2021
Total waste generation	t	947	825	3,072 ¹³ ✓
	t/ employee	0.12	0.11	0.43 ✓
Total hazardous waste	t	122	113	79 ✓
Hazardous waste for disposal	t	51	44	26 ✓
Hazardous waste for recovery	t	71	68	53 ✓
Total non-hazardous waste	t	825	712	2,993 ✓
Non-hazardous waste for disposal	t	5	0	0 ✓
Non-hazardous waste for recovery	t	820	712	2,993 ✓

Responsibility for society

Social contribution	Einheit	2019	2020	2021
Public support in IAV R&D projects	Million €	4.9	3.1	3.4
Support of social projects (donations)	€	10,000	5,000	5,000

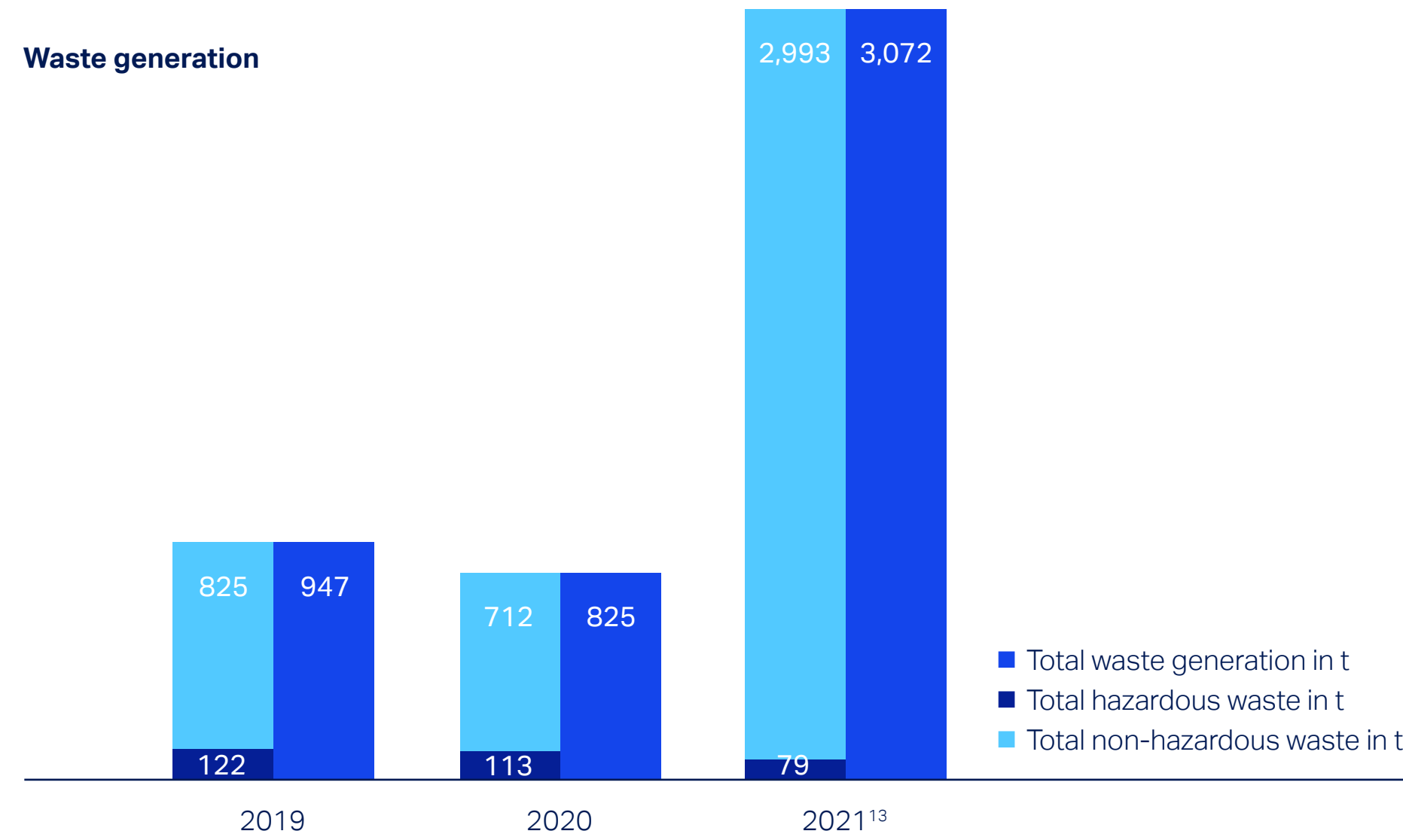
⁷ Electricity from own generation (solar plants) and external procurement, based on supply contracts and certificates of origin

⁸ Energy is fed back through recuperation at the brakes of the roller and engine test stands. The regenerated energy always remains in the IAV grid. As a rule, energy is not fed back into the public grid

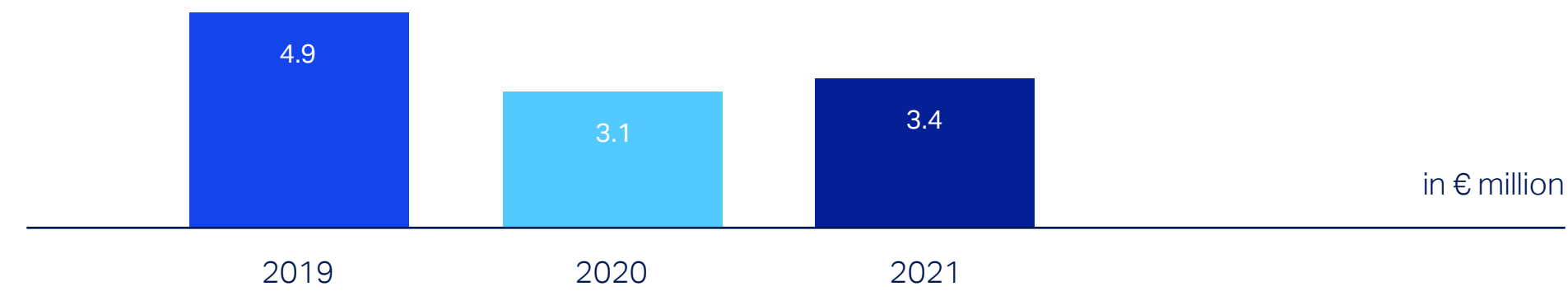
⁹ The following emission factors were used to calculate direct CO₂ emissions from combustibles and fuels: data from the German Federal Motor Transport Authority and the Forschungsstelle für Energiewirtschaft e. V. [Research Center for Energy Economics].

¹⁰ The following emission factors were used to calculate indirect CO₂ emissions: district heating (data provided

Waste generation



Public support in IAV R&D projects



by network operators or the most recent figures from the German Energy Agency); electricity (legally required electricity labeling of energy supply companies); auto electricity (latest available figures from the federal electricity mix).

¹¹ The figure includes business travel by air, rental car, and local and long-distance Deutsche Bahn AG transport. Business trips made using IAV vehicles are included in Scope 1.

¹² Adjustment of the value due to subsequent reports

¹³ The increase can be explained by one-off demolition work at the Heimsheim site during the new construction of an EMC hall.

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On this report

With its Sustainability Report 2021, IAV provides information on its activities and progress in the context of sustainable development. This is an interim report covering the period from 1 January 2021 to 31 December 2021. The editorial deadline was June 1, 2022.

In the core statements, this interim report refers to IAV GmbH; deviating observations are indicated at the appropriate point. The Sustainability Report 2021 was prepared on behalf IAV Group's Management Board. After careful review by all responsible persons, the contents of the report were approved by the Management Board. IAV has been publishing a sustainability report since 2017. The last report relates to the financial years 2019/20 and was published in June 2021. All reports are available online as PDF files in German and English (www.iav.com).

Reporting standard

Both IAV GmbH and the IAV Group were not subject to the reporting obligation pursuant to Section 289b of the German Commercial Code (HGB) on non-financial reporting in the 2021 financial year. The sustainability indicators were compiled in accordance with the standards of the Global Reporting Initiative (GRI Standards).

Legal Notices

The information and data contained in this report were collected with the greatest care and verified by those responsible. Nevertheless, we cannot exclude the possibility of errors. The report is therefore not a basis for liability claims of any kind. Insofar as statements are made about IAV's future development, these are based on information and forecasts available at the time of publication. These statements are subject to known and unknown risks and uncertainties, so that actual developments may differ from expectations. This report was published on 3 June 2022 and is entitled "IAV Sustainability Report 2021 - Interim Report".

List of abbreviations

CMS	Compliance Management System
EMC	Electromagnetic compatibility
R&D.	Research and development
GRI	Global Reporting Initiative
KfW	Credit institution for reconstruction
QEMS	Quartier energy management system
V2G	Vehicle-to-Grid

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Independent Auditor’s Report on a Limited Assurance Engagement on non-financial disclosures in the voluntary prepared sustainability report

To IAV GmbH Ingenieurgesellschaft Auto und Verkehr, Berlin

We have performed a limited assurance engagement on the disclosures denoted with “✓” in the voluntary prepared sustainability report of IAV GmbH Ingenieurgesellschaft Auto und Verkehr, Berlin, (hereinafter: “IAV GmbH”) for the period from January 1st, 2021 to December 31th, 2021 (hereinafter: “Report”). Our engagement in this context relates solely to the disclosures denoted with the symbol “✓”.

Responsibilities of the legal representatives

The legal representatives of the IAV GmbH are responsible for the preparation of the Report in accordance with the principles stated in the Sustainability Reporting Standards of the Global Reporting Initiative (hereinafter: “GRI-Criteria”) and for the selection of the disclosures to be evaluated. This responsibility of the legal representatives includes the selection and application of appropriate methods of sustainability reporting as well as making assumptions and estimates related to individual sustainability disclosures, which are reasonable in the circumstances. Furthermore, the legal representatives are responsible for such internal control as they have considered necessary to enable the preparation of a Report that is free from material misstatement, whether due to fraud or error.

Auditor’s Declaration Relating to Independence and Quality

We are independent of the entity in accordance with the provisions under German commercial law and professional requirements, and we have fulfilled our other ethical responsibilities in accordance with the relevant provisions within these requirements. Our audit firm applies the German national legal requirements and the German profession’s pronouncements for quality control, in particular the by-laws regulating the rights and duties of Wirtschaftsprüfer and vereidigte Buchprüfer in the exercise of their profession (Berufssatzung für

Wirtschaftsprüfer und vereidigte Buchprüfer) as well as the IDW Standard on Quality Control 1: Requirements for Quality Control in Audit Firms [IDW Qualitätssicherungsstandards 1: Anforderungen an die Qualitätssicherung in der Wirtschaftsprüferpraxis (IDW QS 1)].

Auditor’s Responsibilities

Our responsibility is to express a limited assurance conclusion on the disclosures denoted with “✓” in the Report, based on the assurance engagement we have performed.

We conducted our assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised): Assurance Engagements other than Audits or Reviews of Historical Financial Information, issued by the IAASB. This Standard requires that we plan and perform the assurance engagement to allow us to conclude with limited assurance that no matters have come to our attention that cause us to believe that the disclosures denoted with “✓” in the IAV GmbH’s Report for the period from January 1st, 2021 to December 31th, 2021 has not been prepared, in all material respects, in accordance with the relevant GRI-Criteria.

In a limited assurance engagement the assurance procedures are less in extent than for a reasonable assurance engagement and therefore a substantially lower level of assurance is obtained. The assurance procedures selected depend on the practitioner’s professional judgment. This includes assessing the risks of material misstatement of the Report, taking into account the reporting criteria.

Within the scope of our assurance engagement, we performed amongst others the following assurance procedures:

- Gaining an understanding of the measures and systems that the IAV GmbH has implemented in sustainability management.
- Assess local data collection, validation, and reporting processes and the reliability of reported data for sustainability reporting by recording and assessing the respective processes.
- Inquiries of personnel responsible for identifying non-financial performance indicators that we have audited, for performing internal control procedures relevant to those indicators, and for preparing the Sustainability Report.
- Analytical assessment of non-financial disclosures
- Conduct case-by-case reviews based on sampling for the period from January 1, 2021 to December 31, 2021, in particular using internal and external evidence.

Assurance Conclusion

Based on the assurance procedures performed and assurance evidence obtained, nothing has come to our attention that causes us to believe that the disclosures denoted with a “✓” in the IAV GmbH’s Report for the period from January 1, 2021 to December 31, 2021, has not been prepared, in all material aspects, in accordance with the relevant GRI-Criteria.

Intended Use of the Assurance Report

We issue this report on the basis of the engagement agreed with IAV GmbH. The assurance engagement has been performed for purposes of IAV GmbH and the report is solely intended to inform IAV GmbH as to the results of the assurance engagement.

The report is not intended to provide third parties with support in making (financial) decisions. Our responsibility lies solely toward IAV GmbH. We do not assume any responsibility towards third parties.

The performance of our engagement and our responsibilities, including in relation to third parties, are subject to the General Engagement Terms for German Public Auditors and German Public Audit Firms as of January 1, 2017 which are attached to this report.

Düsseldorf, den 3. Juni 2022

Baker Tilly GmbH & Co. KG
Wirtschaftsprüfungsgesellschaft
(Düsseldorf)

Thomas Gloth
Wirtschaftsprüfer

Christian Neundorf
Wirtschaftsprüfer

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Sustainability Report Fiscal Year 2021

IAV GmbH Ingenieurgesellschaft Automobil und Verkehr

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Editing	Numerous IAV employees have contributed to this Sustainability Report 2021. We will be happy to answer your questions and, if necessary, forward them to the relevant specialist departments.
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