

SUSTA[IN]

BACK TO BALANCE

We have to redefine our future path –
quickly and fundamentally

SUSTAINABLE INNOVATION

Sustainable innovation is the
hot topic of our time

SMART SOLUTIONS

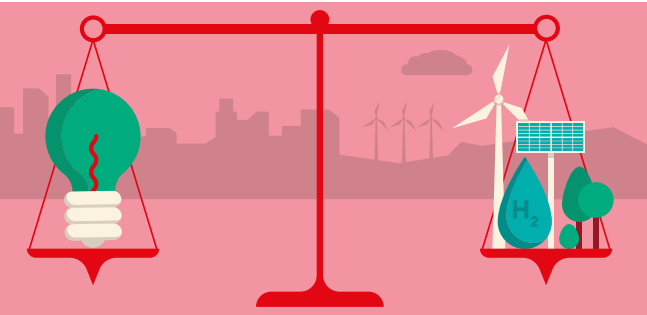
A clearer focus on the climate
than ever before

[INDUS]

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DRIVING SUSTAINABLE INNOVATION FORWARD

Dr. Jörn Großmann,
Member of the Board of
Management of INDUS Holding AG

It is indisputable that innovation and sustainability are two key factors in bringing about transformative changes in the world. Securing resources for future generations is the absolute focus in this regard. Promoting links between innovation and sustainability can serve as a real game changer as it opens up new opportunities for tackling ecological and social challenges. How else can we achieve the German government's target of attaining climate neutrality by 2045, without losing sight of economic growth?

Promoting the potential of both of these disciplines while simultaneously growing will be easy for INDUS with its two initiatives "Driving Innovation" and "Striving for Sustainability." Firmly established in the INDUS strategy PARKOUR perform – and thus in the Group's collective awareness and values – the two areas are working closely together. The portfolio companies are making the most of the continually developing offers from the holding company and are initiating numerous innovation projects, which we are sponsoring. In 2022, we funded another six initiatives with the new sustainability development bank. Independently of the development projects, many INDUS companies have embraced the opportunity to improve their products and make them more sustainable.

What does that mean exactly? In our – now third – sustainability magazine, you can read all about the sustainable innovations that the Group is working on. Our portfolio companies are also very actively working towards creating a sustainable balance between the interests of the planet, people and the economy.

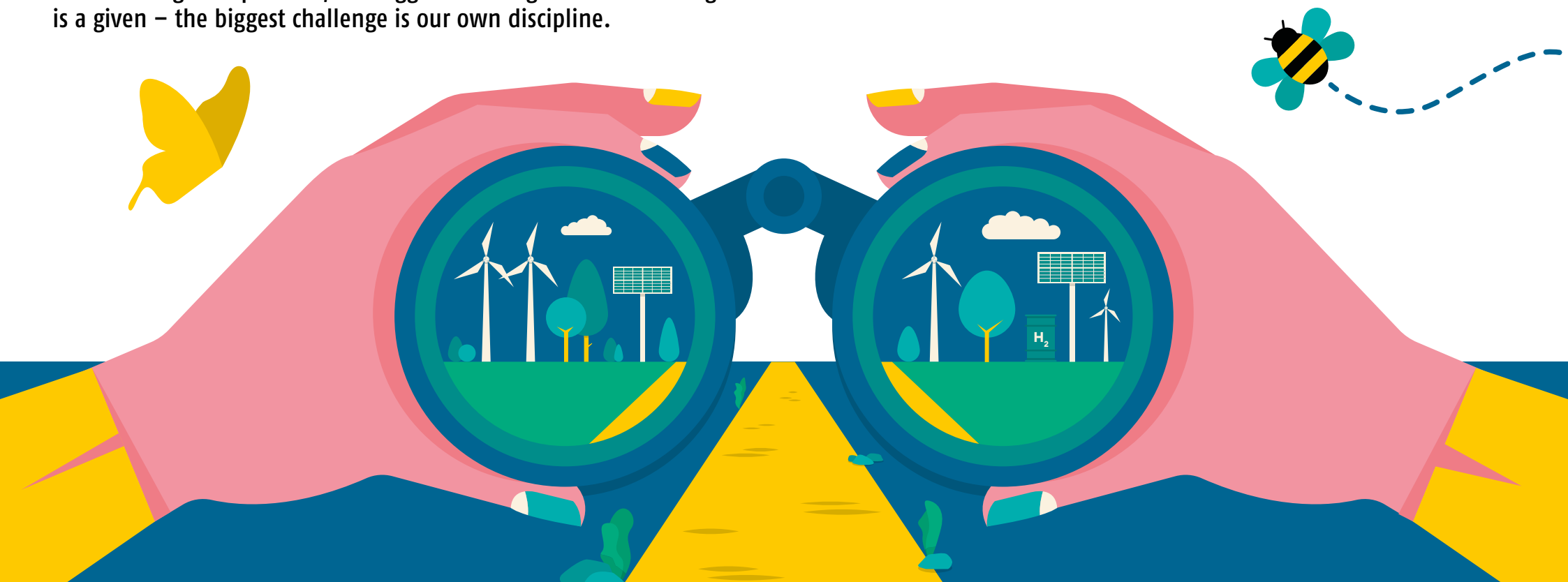
I hope you enjoy reading our magazine.

Yours,
Jörn Großmann

A handwritten signature in black ink, consisting of a stylized 'J' and 'G' with a horizontal line crossing through them.

BACK TO BALANCE – BY INNOVATION

STORY There's no way back. We have to redefine our future path – quickly and fundamentally. This is the simple fact of our situation. How can we reestablish a sustainable balance? In answering this question, the biggest challenge is not in finding solutions – our innovativeness is a given – the biggest challenge is our own discipline.





More than ever before in the history of mankind, we have to work together and take responsibility for future generations – despite the competition and our drive to be successful and grow. Despite the considerable social and geopolitical obstacles that we already need to find solutions for today.

THE TASKS AHEAD ARE MONUMENTAL

Just how great the challenges are that we face can be seen in the World Economic Forum’s Global Risk Report. The tasks for the global community are growing. What is significant in our time according to the Forum’s estimates is the collision of “old” and “new” risks. Old risks include inflation, trade conflicts, the flow of capital out of emerging economies and geopolitical confrontations, for instance. New risks are the increasing levels of national debt, rising economic weakness and signs of deglobalization. Looking at the ten material risks for the next decade shows that managing climate and environmental risks is at the heart of the tasks the world faces.

Fortunately, we now have consensus regarding the importance of these tasks. Scientists are compiling new data on a daily basis that proves that global warming is on the rise. According to the latest research, for example, the probability of a heatwave in the Mediterranean in April has increased a hundredfold – with severe consequences for everyday life there and food supply on our continent. Spain is Europe’s vegetable patch.

Politicians have reacted to the deteriorating situation with specific targets and ambitious frameworks for businesses (EFRAG, supply chain due diligence, etc.). By 2030, greenhouse gas emissions should be reduced by at least 55% against 1990 and to net zero by 2050. As a contribution to these targets, the EU Commission is channeling a third of its EUR 1.8 trillion investment from the NextGenerationEU recovery plan and the seven-year budget into financing the Green Deal.

Net zero

This is the EU target for reducing all greenhouse gas emissions by 2050

THE BIGGEST GLOBAL RISKS IN THE NEXT TEN YEARS
ESTIMATES ON THE MOST SIGNIFICANT IMPACTS,
RANKED BY RELEVANCE

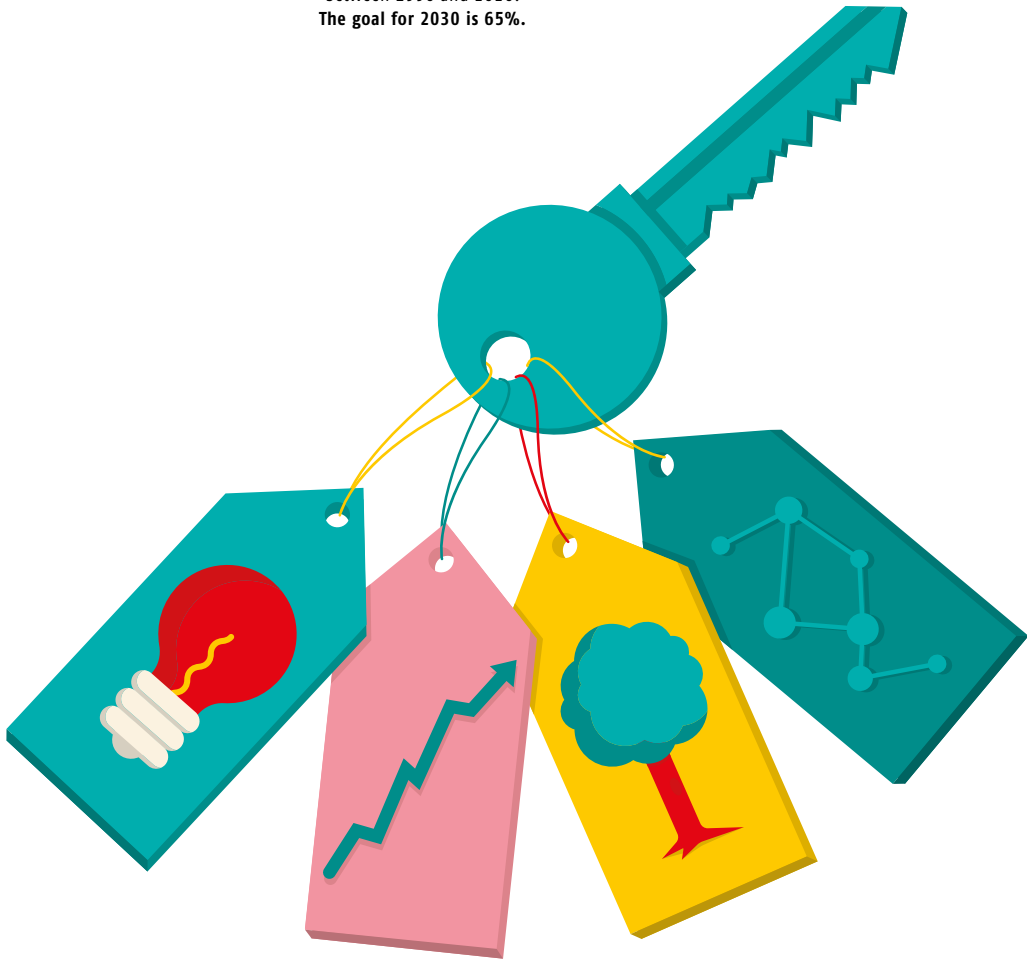
01 Failure to mitigate climate change	Environment
02 Failure of climate change adaptation	Environment
03 Natural disasters and extreme weather events	Environment
04 Biodiversity loss and ecosystem collapse	Environment
05 Large-scale involuntary migration	Society
06 Natural resource crisis	Environment
07 Erosion of social cohesion and societal polarization	Society
08 Widespread cybercrime and cyber insecurity	Technology
09 Geoeconomic confrontation	Geopolitics
10 Large-scale environmental damage incidents	Environment

Source: World Economic Forum

Greenhouse gas emissions declined by

41%

in Germany
between 1990 and 2020.
The goal for 2030 is 65%.

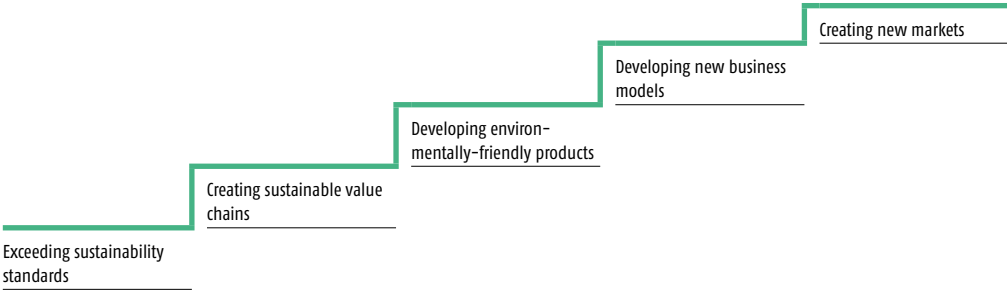


INNOVATION – WITH A NEW UNDERSTANDING

Of course, that alone is not enough. If Germany really wants to transition to a modern, resource-efficient and competitive economy by 2045, everyone involved will have to take a new approach. A rethink is required. More than that in fact – a new mindset is required. We need systematic solutions rather than linear solutions. We need to use rather than consume resources. Truly suitable for the purpose rather than just purposeful. This makes innovation a key factor.

There is no lack of incentives. It is not only legislators, but also customers who are increasingly demanding sustainable products. And sustainability in production is also economic. This has been proven by the three American entrepreneurs and scientists Nidumolu, Prahalad and Rangaswami. They spent time researching the sustainability initiatives of 30 corporations. Their findings showed that sustainability led to organizational and technical innovations that increased both sales and income. Environmentally-friendly business practices lower costs because companies use fewer resources. This approach also allows companies to achieve additional income through better products or establish new business fields. As these latter goals are also due to entrepreneurial innovation, the experts believe that sustainability should be treated as a new field for innovation.

FIVE STEPS TO SUSTAINABILITY



Central Challenge

Driving innovation by exceeding industry standards	Improving efficiency in the value chain	Developing sustainable offers or making existing offers more environmentally friendly	Changing the competitive playing field through new types of added value	Questioning the logic of current business from the point of view of sustainability
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Source: Nidumolu et. al. In Harvard Business manager 2009 and 2023

GLOBAL BENCHMARKS: ROOM FOR IMPROVEMENT

German and Swiss companies are renowned for their fundamentally high level of innovativeness. The two countries are among the leading industrial nations in the world. This is also reflected in the latest innovation indicator produced annually by a consortium from the Fraunhofer Institute for Systems and Innovation Research (ISI) and the Centre for European Economic Research (ZEW). The BDI and the consultancy firm Roland Berger were co-initiators. In the major economies, Germany still ranks after South Korea in the list of most innovative countries. The USA comes in behind Germany, as do the UK and France. Switzerland takes first position.

But the research also shows that the smaller nations are pushing ahead with great momentum. In the overall ranking of the 35 economies reviewed, Germany only makes it to the tenth spot. Smaller economies such as Switzerland, Singapore and Denmark are heading the list with a clear head start. At tenth place, Germany has barely improved over the last 15 years.

“Stable, but with little momentum” is the rather damning summary from the experts. They believe Germany’s comparative standstill in innovativeness is due to the lack of dynamic financial and personnel structures, low high-risk capital investment and the shortage of labor. Germany has something to learn from Switzerland here. Switzerland’s advantages come from higher federal funding for innovation and start-ups, but also – as can be seen in research from Darmstadt University – more agile and interdisciplinary work.

On a more positive note, Germany is very strong in all future fields. In the key technology of new production technologies, Germany heads the pack. In the key technologies of circular economy and energy technology, the country is among the top three. In these fields, Switzerland comes in mostly just behind Germany, as it does when it comes to sustainability. The experts believe Germany is broadly sustainability-oriented. The country can make the most of this by:

- Developing new circular business models and redesigning value chains
- Taking the potential of start-ups into consideration more when funding sustainable technologies
- Consistently integrating sustainability targets into (public) procurement



INNOVATION AND SUSTAINABILITY: A SYMBIOTIC RELATIONSHIP AT INDUS

What recommendations for action can be derived from these results for INDUS? In short, the Group is on the right track when it comes to innovation and sustainability. Innovation has been a central focal point of the current strategy for a long time. With the rapid digitalization push, the Group has increased the momentum of recent years again massively. In addition to product innovation, INDUS actively promotes new services, new business processes and new business models with:

- Funding distributed via a specially established development bank
- Targeted knowledge transfer
- The creation of innovation-promoting connections (networks)
- The acquisition of innovative companies

The same applies when it comes to sustainability. Dr. Jörn Großmann is the member of the Board of Management responsible for both initiatives. His opinion on the importance of the topic is clear: “Sustainable business practices create competitive advantages, increase corporate value and strengthen the corporate culture. Sustainable conduct doesn’t cost money, but increases economic success – and more than ever before under the current conditions. We therefore actively support the further improvement of our portfolio companies’ sustainability performance.” He’s aware that “achieving climate neutrality is a long-term goal: an ultra-marathon. If we want to achieve this – as a Group and as a national economy – we must acknowledge that short-term training incentives won’t bring us far.”

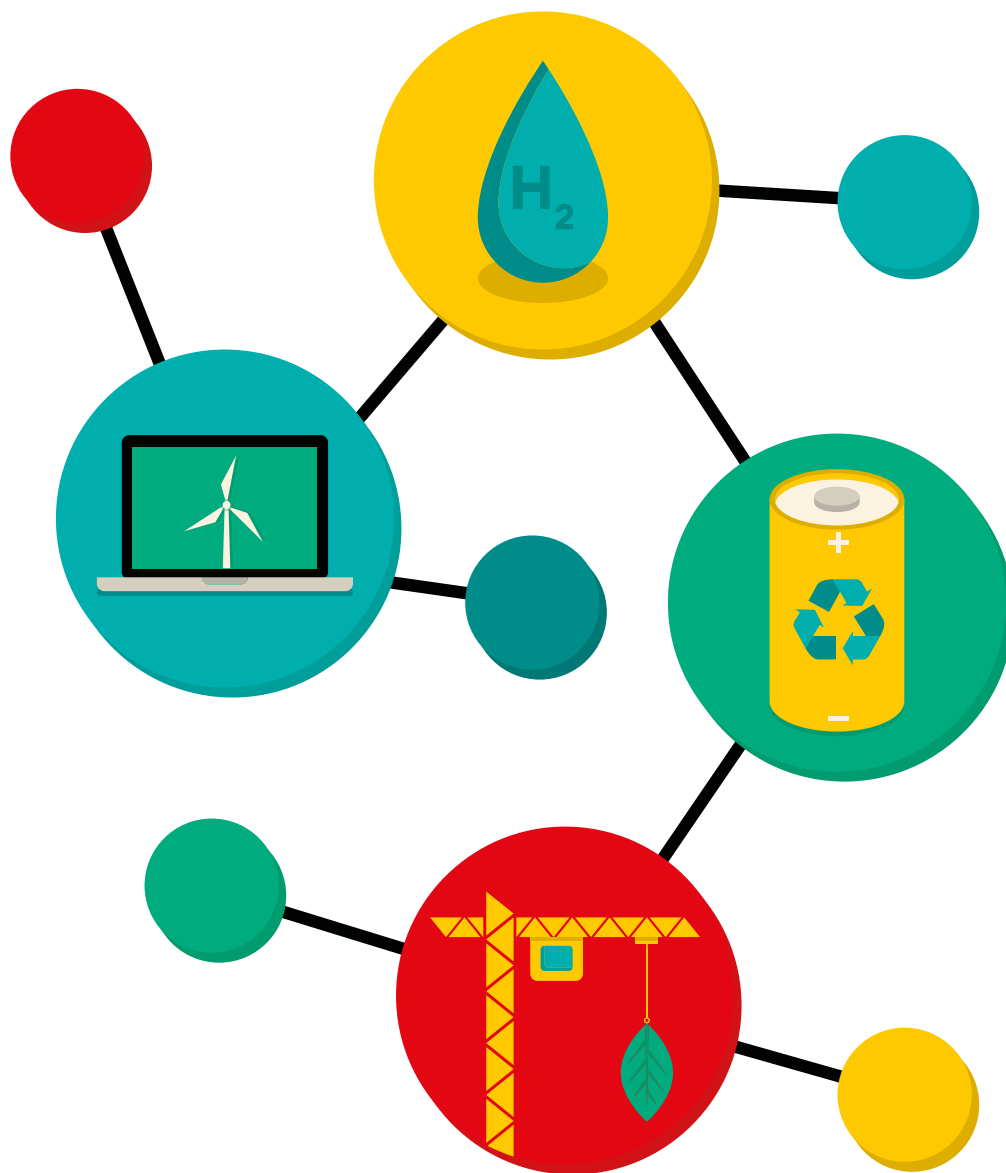
That’s fine, because focusing on long-term targets is in our DNA at INDUS. This also applies to the topic of responsibility, which is experiencing a revival in the public’s awareness, partly thanks to sustainability. In order to make our priorities visible outside of INDUS, we established “Striving for Sustainability” as the fourth initiative in our corporate strategy in 2022.

Striving for sustainability requires innovation. And vice versa: innovations must be sustainable if they are to successfully position themselves in the markets of the future. Both topics are therefore closely connected at INDUS. The tools that the holding company uses to advance sustainability in the Group largely correspond to those used to drive innovation. This includes our own development bank. Dr. Jörn Großmann: “With our newly founded sustainability development bank we provide financial support to the portfolio companies for projects that aim to conserve resources and reduce emissions. The innovation development bank will also provide funding for sustainable product innovation in the future field of greentech.”

TOP 100

TOP 100 most innovative companies in the German SME sector:
INDUS contributes its expertise to the jury with Dr. Jörn Großmann.





TOP-DOWN – BOTTOM-UP

It's not money that drives progress, but people. That is why the Board of Management and the managing directors of the portfolio companies are regularly in touch. There is also a person responsible for the fields of innovation and sustainability at the holding company to support the portfolio companies with ideas and tools. This cooperation is already a firmly established part of everyday business in the Group. In 2022, working groups met and were formed to deal with topics that will be relevant for the future, such as hydrogen technology, artificial intelligence and sustainable construction.

Many Group companies are already on the right track with regard to sustainability. Dr. Großmann: "For a long time, we were not aware of how well the portfolio companies were positioned in terms of sustainability. Today, while setting up a more detailed database for our taxonomy tasks, we are always surprised at just how much our companies have already done, simply because this is in line with SME and social sector processes and understanding." All INDUS portfolio companies have a sustainability officer that is responsible for the topic within the company and maintains communications with the responsible person in the holding company.

The portfolio companies make the most of the continually developing offerings of the holding company and are launching numerous sustainability project initiatives. Six projects received support from the new sustainability bank in 2022. A closed cooling-water circuit is currently being implemented at VULKAN INOX, a producer of stainless steel abrasives. OFA, a manufacturer of surgical stockings, is transitioning to more environmentally-friendly production processes in terms of energy consumption. The INDUS subsidiary SIMON Sinterlutions, a manufacturer of installable components made of metal powder, is turning to the use of special net filters to reduce electricity losses. Large photovoltaic plants are being installed at BETEK, a producer of wear tools, MBN, a mechanical engineering company, and HAUFF-Technik, a manufacturer of cable and pipe feed-throughs.

Some investments in the future only pay off after 20 years or more. It is important to INDUS that the portfolio companies choose the option that will be right for the long term, if in doubt. That is why it is the Board of Management's policy to fund the gap between the wrong sustainable options whenever there is any doubt. This, too, is what the INDUS development banks were established for.



Note: An overview of the Strategic Initiatives can be found starting on page 27 of the INDUS 2022 Annual Report.

PULLING THE RIGHT LEVERS

How well positioned some companies in the Group are, both at innovation and sustainability level, can be seen in the example provided by Rietberg-based window manufacturer, WIRUS. The East-Westphalian company manages production with an extremely high degree of digitalization. This makes the company highly competitive and ready for further growth, while ensuring that production is also highly sustainable. At the end of their life cycles, the windows can be virtually fully recycled.

HELD, a manufacturer of laser-technology systems is a good example of a portfolio company that is specifically expanding its innovation abilities in sustainable sectors. The company, which joined the Group last year, is making the most of its core skills in innovative laser-welding systems for H₂ electrodes in order to position itself in the future field of hydrogen electrolysis. Hydrogen is a good alternative to traditional process gas. Establishing the chain will take considerably more time and effort, but the chain will also be more sustainable – and more successful in the long term.

CONTINUING ALONG THE PATH

In 2022, many companies again utilized the opportunity to intelligently improve their products and make them more sustainable. Dr. Großmann: “In 2021 and 2022 we were able to reduce our carbon emissions considerably. We want to continue along this path. When we look at the net zero target, we understand that the last mile will be the most difficult. Our focus will need to be on developing our organization in such a way that we can hit that target. At the moment, however, we’re already ahead of schedule.”

Development could be advanced by taking a closer look at Scope 3 emissions, for instance. Making supply chains more local could reduce transport journeys and dependence on increasingly less politically stable countries of origin for the stainless steel abrasive manufacturer VULKAN INOX and the metal processor RÜBSAMEN, for example.

The M&A pipeline is also looking good. Infrastructure for renewable energy sources and energy renovations are gaining in importance and increasingly becoming a focal point for investment – just like fields which the company doesn’t yet have in the portfolio, such as water and environmental technology. The strategy is in place. The tools are working. The job profiles have been refined. Now, we just have to maintain our discipline level and carry on. <<



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”

Dr. Jörn Großmann



HYDROGEN

WORKING GROUP Hydrogen is considered a promising source of energy for a sustainable future. As a clean and efficient fuel, it could contribute to the decarbonization of industry, transport and energy supply. In the carbon-intensive steel industry, hydrogen can be used as a reducing agent to produce green steel. Hydrogen reacts with iron ore, pulling out the oxygen. Sponge iron remains which can then be processed to create raw steel.

The challenge for all hydrogen projects is developing cost-effective and scalable solutions for storing hydrogen. One innovative technology for storing hydrogen is liquid organic hydrogen carrier (LOHC). This technology involves chemically bonding hydrogen to carrier modules, thus allowing the hydrogen to be transported and stored more safely and efficiently. The INDUS working group on hydrogen, together with the Helmholtz Institute Erlangen-Nürnberg, has an eye on the future, dealing with the topics of hydrogen technology

and specifically with the topic of hydrogen storage. At the top of the agenda at the last meeting was storing hydrogen using LOHC.

 www.energiesystem-forschung.de

AN EYE ON THE ENERGY SOURCE OF THE FUTURE: THE HYDROGEN WORKING GROUP

Why is INDUS focusing on the topic of hydrogen technology and established a working group? The climate crisis is considered the biggest challenge of our time. The most important lever we have to gradually overcome this challenge is the reduction of greenhouse gas emissions. In this regard, hydrogen technology is seen as a key factor in the decarbonization of energy systems. Hydrogen is considered a clean energy source, and the topic is hotly discussed and very much in the political spotlight with the National Hydrogen Strategy. According to a survey, carried out by Kantar Market Research for Open Grid Europe, around 69% of German residents consider hydrogen to be a future technology that can contribute to a successful energy revolution.

At the head of the pack when it comes to researching renewable energy sources is the Helmholtz Institute Erlangen-Nürnberg for Renewable Energies (HI ERN). The Helmholtz community is Germany's largest organization for promoting and financing research and is one of the largest scientific research organizations in the world. With HI ERN, INDUS has gained a strong partner for its hydrogen working group. One of the working group's aims is to raise awareness for a joint network in order to advance synergy effects in electricity, heating, and transport. Nils Maassen, INDUS innovation and technology expert: "The Group-wide experience and knowledge transfer from cooperation with external research facilities is an important advantage for the INDUS portfolio

companies. It gives us the opportunity to think big and identify and approach new future topics together." The hydrogen working group met in person for the third time in October 2022 with five INDUS portfolio companies (at HI ERN). The main topic was hydrogen storage using LOHC technology. Dr. Geißelbrecht and Dr. Röntzsch were the experts and they each gave inspiring seminars on hydrogen storage technologies at the 2022 meeting. The pilot LOHC plant and HI ERN laboratory were also inspected during this meeting.

GREEN HYDROGEN: KEY ROLE IN THE ENERGY TRANSITION

What makes hydrogen so attractive? Hydrogen molecules are gaseous, very light energy sources. The appeal is in the fact that hydrogen is available in sufficient quantities on Earth both in water and bound in hydrocarbons, and that only water remains after burning. As a result, no damaging emissions or greenhouse gases are released. It can also be made using various renewable energy sources. This reduces dependency on fossil fuels and thus contributes to stable long-term energy security.

Hydrogen can also be used as a storage medium for excess energy from renewable sources, for clean fuel in the transport sector, and can enable emission-free mobility. Another advantage is that hydrogen can be used in fuel cells for decentralized energy generation and storage, which increases the flexibility of energy systems.

Rediscovered: Although hydrogen is the most common element in the universe, we are only just discovering its potential for innovation now.



 www.bmbf.de

 www.handelsblatt.com



Find out more about the formula for future success in SUSTA[IN] #1 starting on page 19.

Hydrogen technology therefore offer numerous advantages such as climate friendliness, numerous applications, high energy density and long-term energy security. Another thing that is clear though is that it is only really sustainable if it is used in connection with renewable energy sources, such as wind or solar power. The use of hydrogen from fossil fuels would continue to cause greenhouse gas emissions (gray hydrogen). The necessary infrastructure must be developed and established before this technology can be widely used. A significant technical challenge that must be overcome together is storage. Because the volume-based energy density of hydrogen is very low, large quantities can only be stored under very high pressure. In addition, for long-term storage, hydrogen has to be compressed or liquefied.

LOHC: STORING AND TRANSPORTING HYDROGEN

A practicable technology for storing and transporting hydrogen is liquid organic hydrogen carrier, or LOHC. Liquid organic hydrogen carriers are organic compounds that can take up and release hydrogen in a chemical reaction. This bonding of hydrogen to another liquid, organic compound serves as a carrier that can be used to safely and efficiently transport hydrogen. The hydrogen is chemically bonded to the LOHC molecule and can be released again when required. The advantage of LOHC technology is that hydrogen can be stored stably and efficiently at ambient temperature and normal pressure. This enables safe transport and the storage of hydrogen without the need for high pressure or extremely low temperatures, as is the case with other storage technologies such as pressure tanks or liquid hydrogen. This simplifies making hydrogen available for a variety of applications.

www.emcel.com/en/

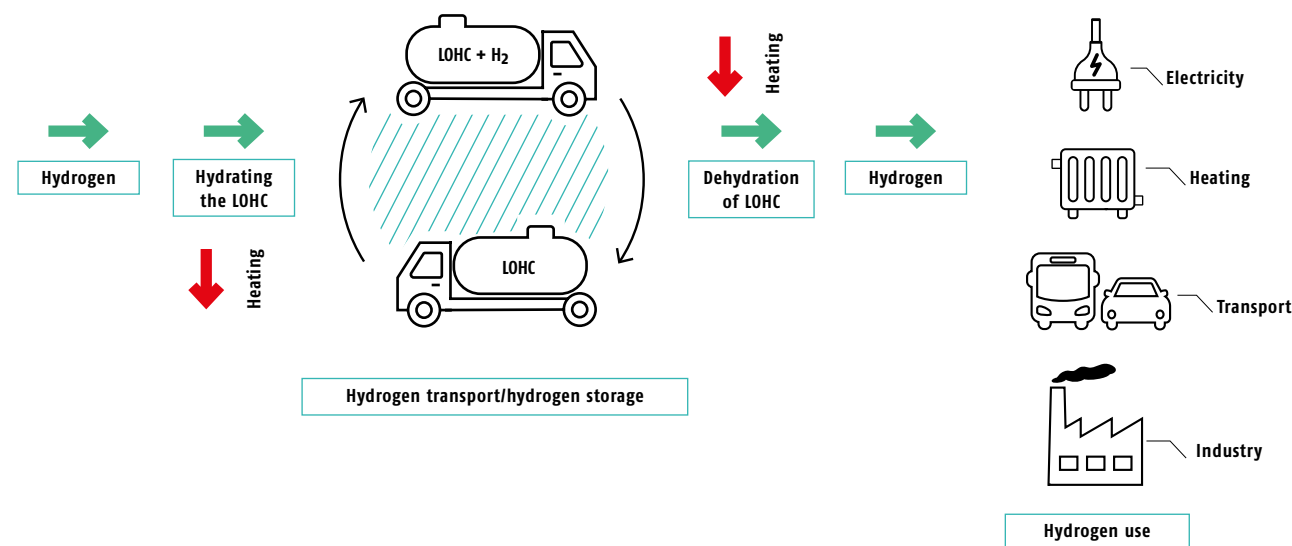
HOW LOHC HYDROGEN STORAGE WORKS

The LOHC storage process basically consists of two steps: hydrogenation and dehydrogenation. An exothermic reaction (hydrogenation), bonds hydrogen chemically to liquid, organic hydrogen carriers. The hydrogen is then stored in tanks with the LOHC carrier. The bonded hydrogen is then released using an endothermic catalytic reaction (dehydrogenation). The organic carrier liquid is not consumed during this process and can be reused.

www.encn.de/en/



GRAPH LIQUID ORGANIC HYDROGEN CARRIER



Source: www.emcel.com/de/wp-content/uploads/2021/02/LOHC-Wasserstoffspeicherung.png

INVOLVEMENT IN THE INDUS WORKING GROUP

ELTHERM TRACE HEATING IN THE HYDROGEN PROCESS

The Burbach-based INDUS subsidiary eltherm has been working on the topic of hydrogen for a while. When it comes into contact with an open flame and in combination with oxygen, gaseous hydrogen is considered to be highly hazardous. An oxyhydrogen reaction occurs. All hydrogen pipelines transporting undried hydrogen therefore require electric heat tracing.

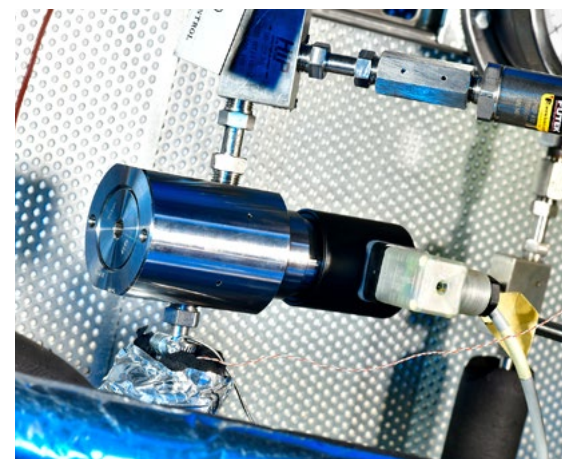
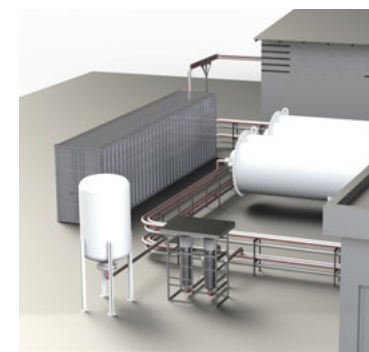
The specialist for electric heat tracing systems is already able to provide solutions to protect undried hydrogen (hydrogen gas that has not had the moisture removed) from the formation of condensation during transportation and storage. This concerns hydrogen lines from the electrolysis station to the compressor, from the compressor to the storage tanks, and from the storage tanks to the surge tank and the dryer or transfer station on to the local grid. You could say eltherm enables the process. With the existing storage technology, hydrogen can only be stored at extremely low temperatures (-253°C) or under pressure. This is another reason that eltherm is keeping a very close eye on the innovative LOHC storage technology and is part of the hydrogen working group. www.eltherm.com

VALVES FOR HYDROGEN APPLICATIONS: GSR VENTILTECHNIK

GSR Ventiltechnik is also part of the hydrogen working group and offers solutions for the transport and storage of hydrogen using the existing gas infrastructure with its valves. The East-Westphalian company has specialized in the development and production of sophisticated valves for a variety of applications such as hydrogen plants, shipbuilding, water treatment, space technology and the food industry, since its founding in 1971.

Valves that help to increase the volume of hydrogen during refueling and thus the range of the tank filling are currently in demand. Managing Director Jens Fuhrmann states, "We are certain that hydrogen will be one of the main energy sources in the future. But we have to master this element. Valves will have an important role to play in this." The stresses and loads that the valves will undergo will place the highest demands on the functions, seals, service life and safety of the magnetic valves used, which will also be subject to very frequent switches. With around 150 employees in Vlotho-Exter, the company has developed a servo-controlled, high-pressure solenoid valve for climate-neutral hydrogen refueling plants, built to withstand pressure of up to 1,000 bar. Through continually refined valve geometry and the use of specially selected and minutely matched, high-quality materials, this valve fulfills the highest mechanical demands of the refueling manufacturers and impresses with its high service life of more than 100,000 switches, meaning the operation and maintenance costs of the plants can be kept to a minimum. www.gsrvalves.com <<

Electric heat tracing keeps the processes in the energy park at the right temperature.



High precision and technical know-how enables not only safe but also efficient tanking with GSR valves.



DIGITAL REVOLUTION The digital transformation is opening up new horizons. Data in particular can be processed better and serve as a reliable foundation for decisions when digital tools are employed. But a plan is needed in order to make the most of digital opportunities and really set things in motion. INDUS Holding AG is turning to WDP's Digital Potential Map and attending network meetings on the topic of AI.

TURNING DIGITALIZATION INTO AN OPPORTUNITY



PHILIPP WACHTER IS THE FOUNDER AND FORMER PARTNER OF WDP GMBH

The consulting company is well known for strategic and operational digitalization approaches including for corporate growth and changes. Since January 2023, he has been active at shareholder level at Valantic GmbH as a partner and senior advisor. He is acting as a digitalization consultant for Valantic's strategy.



Industrial companies today face the enormous challenge of not only keeping on top of the digital trends but also of integrating them into their business models. Many small to medium enterprises recognize the importance of digitalization, but implementation is often not systematic and isolated within various departments. A promising approach in this regard is the Digital Potential Map, which is a strategic tool for collecting and prioritizing digital initiatives and projects. Six select INDUS Group companies have inspected their digitalization strategies with WDP and their Digital Potential Map.

Developments in the digital world demand that companies adjust continually. In order to overcome this challenge, WDP GmbH – a Valantic company – has created the digital potential map, an innovative tool that provides support in collecting and prioritizing digital initiatives. With the map, companies can identify digital potential in a variety of different companies together with INDUS Holding AG and create realistic recommendations for the senior management.

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**DIGITALIZED
COMPANIES FIND IT
EASIER TO ENABLE
INNOVATION.**

”
Philipp Wachter

FOUR QUESTIONS FOR DIGITALIZATION EXPERT AND WDP GMBH FOUNDER PHILIP WACHTER

[QUESTION] What does digitalization mean to you?

PHILIPP WACHTER Digitalization means making processes robust and more scalable using digital tools, regardless of whether those processes are in production, communication, innovation or sustainability. The purpose is to make the companies more successful. Attitude is everything: Not everything that can be digitalized, should be digitalized. Digitalization in itself is not the purpose.

[QUESTION] You are working on the digital potential map project. What is it about?

WACHTER The digital potential map has been carried out for select INDUS portfolio companies. The point is to find answers to the following questions: What can digitalization improve and what are the prerequisites that must be in place at the company? At what level is there potential that can be leveraged? It could be at organizational or procedural level, or management or responsibility level.

[QUESTION] What criteria should be met for it to make sense to deploy a digitalization strategy?

WACHTER It is important that we decide whether the expense of digitalization is at least equal to the expected cost and benefit advantages. In addition, the digitalization strategy should be customized for the company. It is vital to evaluate whether digitalization is in harmony with the corporate strategy and the business model and can generate added value. By taking these criteria into consideration we can develop and implement a sensible and customized digitalization strategy.

CHECKLIST FOR A ROBUST DIGITALIZATION STRATEGY

- 01 Potential analysis: Identifying and evaluating digital potential in the company's value chains.
- 02 Strategic direction: Comparing potential with the long-term corporate strategy in order to ensure they're a match.
- 03 Resource assessment: Examining existing staff qualifications and technological resources for the successful implementation of digitalization.
- 04 Stakeholder inclusion: Including relevant interest groups in order to take their needs and perspectives into consideration.
- 05 Measuring success and handling failure: Determining key performance indicators and developing plans to monitor progress and overcome obstacles.
- 06 Employee commitment and skills development: Creating a culture of commitment and furthering employees' digital skills.
- 07 Communication and controls: Implementing an effective communication plan and setting up control mechanisms in order to check progress and ensure target achievement.

[QUESTION] What processes should be digitalized?

WACHTER Processes in administrative and commercial areas in particular should be digitalized, such as in recruiting and financing, and in the fields of marketing and sales. By making use of targeted contributions on platforms such as Kununu, companies can gain better employees quickly and develop scalable processes. Sales can also profit from digitalization. Controlling can be simplified with digitalized processes since the work is based on key figures that can be evaluated. It is important to ensure the checks in these processes and to make the digitalization process visible. It is often simpler to start with these processes, and successes can be achieved very quickly. This results in specific advantages that improve competitiveness. The next step that I would then recommend is to turn to processes that are closer to the core business and the actual added value – i.e., product development, innovation or even completely new products and services. The digitalization of these challenging, product-specific processes requires an understanding of change management and the corporate culture.

APPLICATION OF THE DIGITAL POTENTIAL MAP

During the project, WDP GmbH collected all ideas and projects with the help of a core team consisting of employees from a variety of company areas and a survey distributed to several employees. Finally, the internal effort (cost/working hours) and the benefit to the company was discussed with the employees from the companies involved. In addition, how well the projects fit with the companies' overall strategy was evaluated together with the senior management. At the heart of this method is the creation of a matrix that enables the categorization of projects by quick wins, short-term priorities and strategically important projects. This allows companies to approach the digitalization topics systematically and according to a plan and to develop a digitalization road map that corresponds to their individual corporate strategies.

A particular focus was on specific measures related to sustainability. MESUTRONIC implemented paper-free production and digital process documentation; Raguse worked on digital dockets and improved customer interfaces to reduce paper documentation; and Bilstein & Siekermann established a digital production control, which resulted in a reduction of paper consumption for weekly plans and production papers.

Cooperation is key – dialogue and collaboration result in new digital concepts.



FUTURE EMPLOYEE AI?!

Along with digitalization, artificial intelligence (AI) holds an increasingly important role in companies. But why do companies use AI? Artificial intelligence offers great potential for the optimization of corporate processes and products. Instead of making employees redundant, AI simplifies employees' work and helps prevent overload. In light of the numerous service providers on the market, companies can identify and deploy the right AI application for them to increase their competitiveness. AI has the potential to revolutionize products, business areas and internal processes, and offers considerable opportunities to improve sustainability. For example, AI could help to increase products' service lives, optimize supply chains or improve working conditions.

RECOGNIZING THE POTENTIAL OF AI

Being well aware of this potential, INDUS Holding AG organized an AI day in October 2022 in partnership with the renowned Fraunhofer IPA. The aim of the event was to integrate the topic of artificial intelligence into day-to-day business and to offer the companies involved support. As part of the event, an active discussion on artificial intelligence was launched. The focus was on closing any gaps in knowledge and identifying potential application cases. The participants also had the opportunity to inform themselves of existing

support offers and project sponsors. A lively discussion with experts and specialists from other company areas were an important part of the event. At the heart of these discussions was the development of business models around AI and creating the right framework conditions for deploying AI in participants' own companies.

ADVANTAGES OF IMPLEMENTING AI AND SUSTAINABILITY PROCESSES:

Reducing wear – target: longer useful product lives

Optimizing supply chains to reduce carbon emissions

Consumption – improved energy efficiency in buildings and plants

Improved working conditions – efficient and forward-looking distribution of tasks

The opportunities to increase sustainability through digitalization and the use of AI are huge. Now it is up to the companies to recognize and make the most of this potential. Digital tools provide support for smart calculations and can lower resource consumption, for example in production. Now we have to fully capitalize on these opportunities. Let's do it! <<



AI: the key to groundbreaking innovation.

SUSTAINABLE INNOVATION

RESEARCH & DEVELOPMENT Sustainable innovation is the core of a new era where ecological responsibility and economic progress go hand in hand. Resource shortages and environmental pollution demand sustainable solutions – now more than ever. The INDUS Group is working on innovative developments and technologies that aim to secure a sustainable future for generations to come.



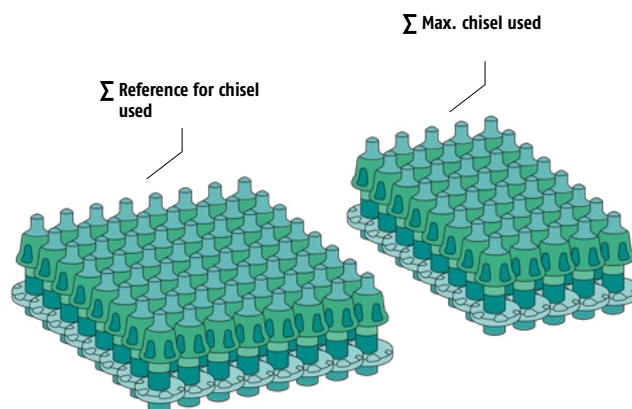
WORKING WITH A SPIRIT OF INNOVATION

Innovation plays an important role at the INDUS Group, particularly innovation related to sustainability – since this often means great savings potential and new market opportunities. This year, the INDUS subsidiary BETEK, a global player in carbide tools, was named one of the 100 most innovative SMEs in Germany for the sixth time by TOP 100. This success is no accident – the Aichhalden company is proud of its R&D activities, for example, in the field of tool development.

In 2022, BETEK presented PROMatrix, an innovative new carbide material that will primarily be used in heavy duty work, such as trenching and surface-mounted cutting tools and recycling tools. The new material is 30% to 50% more wear resistant than traditional carbide materials. In certain applications this allows for double the service life. This extended tool service life provides a considerable competitive advantage, especially in the construction and agricultural industries. Customers can use the tools for longer and have lower downtimes, due to replacing tools, for instance. In addition the new carbide material reduces the carbon footprint across the tool's entire life cycle by up to 12% through lower energy consumption in production, less packaging material, and the transport journeys saved on replacement tools.

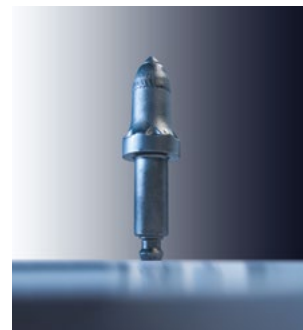
The five material scientists at BETEK worked on the project with a variety of universities and research facilities. Launched in 2019, the material project was introduced at the leading trade fair BAUMA after just three years of intense development. The patent-pending material PROMatrix will in the future also be used for other applications. www.betek.de/en/

COMPARISON OF CHISELS IN USE



Efficiency as a lever to improve sustainability is the focus of innovation: lower consumption through the use of more resilient materials.

An application for PROMatrix, the innovative carbide from BETEK

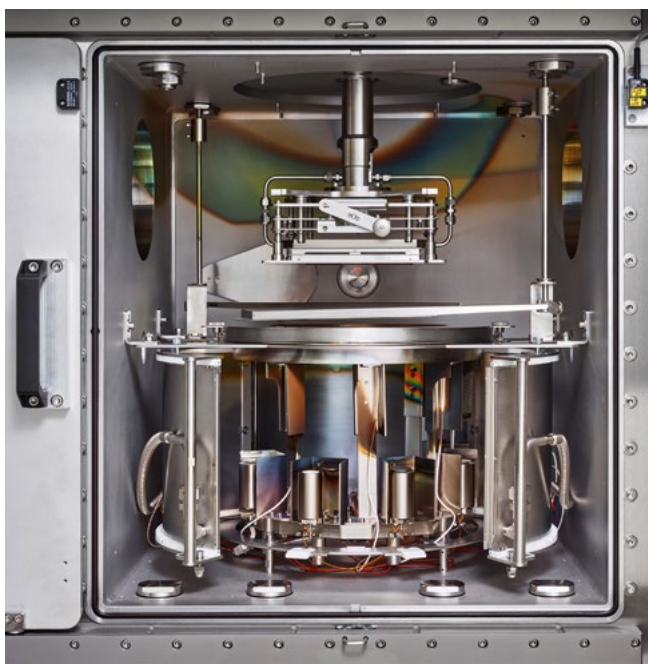


Focusing on research and development, BETEK is continually improving its products and is ranked among the best.



In addition to innovations in the field of materials, INDUS subsidiaries are also working on innovations in the field of renewable energy. MBRAUN, a provider of inert gas glove-box systems, has developed an innovative product portfolio which covers special applications for perovskite solar cells and batteries. Both applications have the potential to redefine the way that we use and store energy.

Perovskite solar cells and batteries have huge potential in the field of renewable energy. Thanks to its ability to absorb high levels of light, perovskite is able to efficiently generate and store electrical energy. Considerable growth is predicted for the perovskite solar cells market due to the material's high energy yield and significantly lower manufacturing costs in comparison with silicon solar cells, for instance.



MBRAUN recognized the potential of perovskite early on and added two important products for perovskite applications to the portfolio with glove boxes and vacuum coating systems. Both products have been designed to cover a broad spectrum of requirements – from small laboratory systems to large-scale industrial production. The surrounding conditions must be precisely controlled for perovskite research and development – this is provided for by MBRAUN's glove boxes as cutting-edge containment systems. They also offer a high level of personal protection. MBRAUN's patented solution for vacuum coating systems is also deployed by research institutes (including the Helmholtz center in Berlin) and industrial partners around the world.

Along with external development partners, the INDUS portfolio companies can count on the holding company's support for their R&D projects. INDUS supports select projects through the "Driving Innovation" initiative. It provides funding through the innovation development bank, but also support through working groups and network meetings. INDUS thus boosts R&D projects in the Group that promise to open up new opportunities directly – in order to reduce the impact on the environment with the right technology, increase resource efficiency, and develop innovative solutions for tackling ecological challenges. www.mbraun.de/en/

The PEROvap vacuum coating chamber from MBRAUN is specially designed for the production of perovskite solar cells.

FOCUS ON EMISSIONS

SUPPLY CHAIN & PACKAGING Procurement, production, transport and investment – emissions occur along a company's entire value chain. It is therefore vital that companies comprehensively take into account the carbon footprint throughout their supply chains. Transparency and data acquisition are key here. On the way to becoming emission-free companies, the concept of sustainable supply chains is constantly gaining in importance for INDUS, too. But what does this mean in practice for the INDUS portfolio companies?

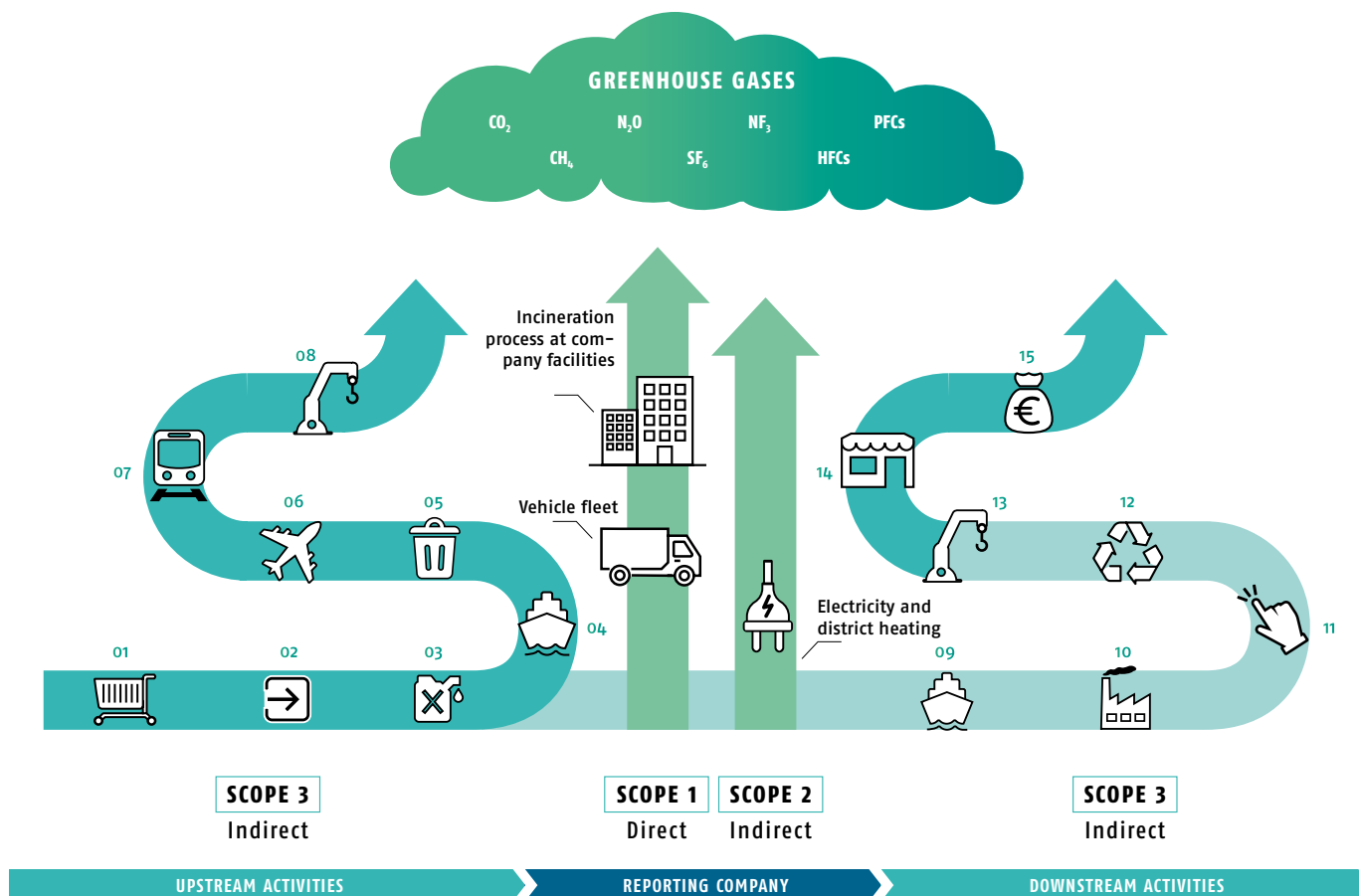
TRANSPARENCY ABOUT EMISSIONS

Reducing greenhouse gas emissions is vitally important, including for the INDUS Group. Establishing sustainable and transparent supply chains is the ideal way to achieve this. In order to reduce carbon emissions, companies must first fully understand their own value chain – from how the raw materials are extracted to delivery to the end consumer. In addition to direct (Scope 1) emissions and indirect (Scope 2) emissions, Scope 3 emissions are also important – especially as they often make up the majority of a company's carbon footprint. Scope 3 emissions include all indirect emissions that occur upstream and downstream from a company's processes, such as through business trips or purchased goods and services. Recording and minimizing these emissions is an important part of creating a sustainable supply chain.

It is also important to include all parties involved in the sustainability process. That means companies should work together with their suppliers in order to ensure that they, too, are keeping their carbon footprints as low as possible. Beyond this, sustainability should also be a key factor in procurement strategies, the selection of suppliers and the procurement of raw materials and services.

OVERVIEW OF SCOPE 3 EMISSIONS

Activities along the entire value chain



Source: www.primaklima.org/fileadmin/fuer-unternehmen/Der_CO2-Fussabdruck_von_Unternehmen.pdf

SCOPE 3 EMISSIONS AT INDUS

The INDUS portfolio companies realized that due to the diversity of the Group and the positions in the value chain, an individual approach would be needed to consider Scope 3 emissions. Financial data such as sales, purchased services and material expenses is used for the calculation. These are then offset against emissions factors based on sustainability reports from representative companies. All 15 categories of the Greenhouse Gas (GHG) Protocol Corporate Standard are taken into account in this process.

LIST OF SCOPE 3 CATEGORIES

Upstream or downstream	Scope 3 category
Upstream Scope 3 emissions	01 Purchased Goods and Services
	02 Capital Goods
	03 Fuel- and Energy-Related Activities Not Included in Scope 1 or Scope 2
	04 Upstream Transportation and Distribution
	05 Waste Generated in Operations
	06 Business Travel
	07 Employee Commuting
	08 Upstream Leased Assets
	09 Downstream Transportation and Distribution
Downstream Scope 3 emissions	10 Processing of Sold Products
	11 Use of Sold Products
	12 End-of-Life Treatment of Sold Products
	13 Downstream Leased Assets
	14 Franchises
	15 Investments

Source: Greenhouse Gas Protocol, Corporate Value Chain Standard

VULKAN INOX already calculates its carbon footprint at product level, as detailed in the Chronital example.



VULKAN INOX: SUSTAINABLE PROCUREMENT

The INDUS portfolio company VULKAN INOX, a leading manufacturer of granulated stainless steel abrasives, took a systematic look at its carbon emissions. The company’s products stand out for their high performance, recyclability and deployment in various sectors. However, the production process consumes large amounts of energy. VULKAN INOX therefore decided to integrate the NRW efficiency agency ecocockpit in its processes to evaluate its greenhouse gas emissions as part of its sustainability efforts. The ecocockpit not only takes direct and indirect (Scope 1 and 2) emissions into consideration, but also Scope 3 emissions for its products Chronital and Grittal. This enables VULKAN INOX to analyze the greenhouse gas equivalents in its processes and derive improvements. By switching to 100% renewable electricity and optimizations in the field of input materials, the company was able to achieve significant reductions in its greenhouse gas emissions. Consumption sources were also analyzed and projects to achieve further emissions reductions were initiated. Calculating the greenhouse gas emissions gave the company a new view of processes and input materials and helped them to identify specific savings potential.

www.vulkan-inox.de/en/

OBUK: SMART PACKAGING CONCEPTS

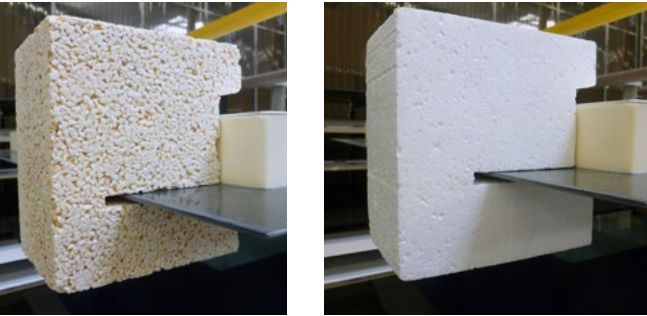
In addition to the purchase of products and materials, packaging also plays a central role in the supply chain. There is huge potential for companies to save resources and minimize the carbon footprint of the supply chain.

INDUS subsidiary OBUK, a specialist for high-quality door panels, has begun to look for alternative packaging solutions. Mohamed Alhossain conducted an investigation as part of his Bachelor’s degree at the Hanover University Institute for Food Packaging Technology in collaboration with his professor Dr. Rainer Brandt (Professor for Biochemical engineering). The aim was to find ecologically and economically viable alternatives to the current packaging for door panels. Despite the institute’s focus on food packaging, the topic was interesting due to the dimensions and required robustness of the packaging. Various options were investigated, including one with a corrugated base and folding corrugated cardboard, one made of organic raw materials, and one made of optimized EPS profiles. The requirements for the alternative packaging include economical and ecological aspects, quality preservation, protection, weather-resistance, simple handling and low disposal effort. Following comprehensive tests and

calculations, optimized EPS profiles were found to have the most benefits overall. They provide high levels of protection, fulfill the requirements relating to humidity resistance, and overall packaging costs are low in comparison with the other options. www.obuk.de

TACKLING CHALLENGES

All in all, these examples show the INDUS portfolio companies’ dedication to achieving more sustainable supply chains. By taking Scope 3 emissions into consideration and searching for ecologically sound alternatives in the supply chain, companies can make an important contribution to reducing the ecological footprint, while increasing efficiency from a business point of view. <<



Two variations of the EPS profile from bio-based raw materials (left) and the optimized profile (right).

Front door with OBUK door panel – a bespoke and durable design product.



SHOWROOM

Selected ESG initiatives from
our portfolio companies

CHRISTMAS SHOEBOX PROJECT

IPETRONIK

We all remember how excited we were as children about Christmas presents. But not every child is that lucky. That is why IPETRONIK took part in the world's biggest project for children in need, "Operation Christmas Child", in 2021 and again in 2022. The charity project organizes Christmas presents in shoeboxes for children in need. This provides children with a happy moment, and a feeling of appreciation, love and hope. The IPETRONIK trainees organized and managed the project.



www.ipetronik.com/en/



CIRCULAR ECONOMY: RECLAIMING PLASTIC

HAUFF-Technik

HAUFF-Technik GmbH & Co. KG processes around 160 tons of ABS per year. Plastic has great potential when it comes to being reusable, saving resources, and preventing carbon emissions. Injection molding results in unavoidable plastic remains that in the past were disposed of. In an ongoing project, HAUFF-Technik is collecting this material and turning it into granulate. The product was then analyzed in order to find out whether the granulate fulfills the requirements for this type of plastic and is thus suitable for production. The first parts have already been molded using the granulate and are currently undergoing a detailed quality check. Up until now, around 3,800 kg of granulate have been gained through the collection and recycling of scrap. The first results from the samples are positive. Following completion of the test phase, the recyclates will be approved for production, closing the loop further.

www.hauff-technik.com/en/

WASTEWATER REDUCED

AURORA

Often, little changes to processes can have a big impact. AURORA, a manufacturer of cutting-edge heating and air conditioning systems and components used in on-road and off-road vehicles, has changed its leak test for heat exchangers, evaporators and condensers. The switch from leak tests in water basins to a dry test using helium has led to 6,000 liters of wastewater being saved each month. Another pleasing result is the electricity saved from drying following the tests.

 www.aurora-eos.com/en/



Left: Leak tests with helium “sniffer probe” as a dry test method.

Right: The old water basin needed 1.5 m³ of water each week. Doing away with the old basin has led to monthly savings of 6,000 liters of wastewater.



EWALD – FROM THE HEART

eltherm

Eltherm is committed to the adapted reforestation with deciduous trees of spruce forests affected by the bark beetle in Burbach. The company is funding the reforestation of one hectare in Lipper Höhe. The Siegerland company is fully dedicated to sustainability. They recognize that forests serve as air conditioning, habitats, water and air filters, timber suppliers and flood protection. Making means available for reforestation is a topic close to people’s hearts at eltherm. The two managing directors and local representatives planted the first trees at the end of April. The aim is to make a contribution to regional climate protection with the “ewald” forest project.

 www.eltherm.com



REUSABLE PACKAGING FOR RENTAL EQUIPMENT

m+p international

m+p international uses transport boxes made of recycled plastics for its rental equipment service. In order to keep downtimes to a minimum, e.g., during a plant calibration of measuring systems at the m+p international headquarters in Hanover, customers are provided with equivalent rental equipment. The transport box not only enables the specialist for measuring and testing systems to save resources, but also to safely ship the delicate rental equipment.

 www.mpihome.com/en/



CLEANUP CAMPAIGN 2023

MESUTRONIC

Our MESUTRONIC colleagues took part in the “Ramadama” cleanup campaign in April. In the Lower Bavarian community of Kirchberg im Wald, a large number of people got involved in this year’s refuse collection campaign and did their part for local environmental protection. The safety and well-being of the volunteers was also high on the list of priorities. MESUTRONIC provided high-vis vests and refreshments and at the end raffled off restaurant vouchers. We’re especially proud of our proactive colleagues, who worked with a great attitude, determined to get the job done and keep their town clean.

 www.mesutronic.de

A SECOND LIFE FOR PACKAGING

Ofa Bamberg

Reusing packaging is a simple but effective measure to save resources in logistics. Ofa Bamberg, a leading manufacturer of medical products in Germany, is going one step further and is using recycled paper for its packaging and advertising – gone are the days of using bubble wrap and plastic adhesive tape. Secondary raw materials marketing also plays an important role. Paper and card waste is collected in a press container or at the premises in Glauchau in a company press and then sold as secondary raw material. The company will soon dispense with card entirely in its own logistics, switching gradually to reusable small load carriers. With all these measures, Ofa Bamberg always has its eye on one clear goal. The company wants to achieve a recycling rate of over 70% in production waste and packaging in the interest of ecological sustainability.

 www.ofa.de/en/



YOUNG RESEARCHERS

ASS Maschinenbau

Since 2016, every October 3 at ASS in Overath is a family open day. “Türen auf mit der Maus” is an event where children can take a look at the automation specialist’s production. It is very hands on. In 2022, 24 children, assisted by trainees in their second year, built a robot hand and then mechanically and pneumatically connected it to an industrial robot. At the end, the handling device was able to move a pylon and even blow bubbles! The motto for this year’s open day is “valuable treasures” – and we can’t wait to find out what treasures ASS is hiding!

Investing in youth pays off: The ASS team of trainees won first place in the IHK Köln (Cologne Chamber of Commerce and Industry) “Circularity Scout” competition. Their project “RE-Portal – Recycling or refurbishing used gripping parts” refurbishes used gripping parts so that they can be used again. It is an innovative circular economy and resource-efficiency project. Minister Mona Neubaur presented the team with the EUR 1,000 prize.

 www.ass-automation.com



Wertvolle Schätze

**Türen auf
mit der Maus**
2023



SMART SOLUTIONS

CLIMATE CHANGE & CLIMATE TECHNOLOGY

Politicians' and the general public's awareness regarding the climate is greater than ever before. Awareness of the need for sustainable mindsets, lives and action is currently on the rise. Sustainable construction is one of the areas that is particularly in focus. This shows that sustainability is becoming a necessity rather than option.



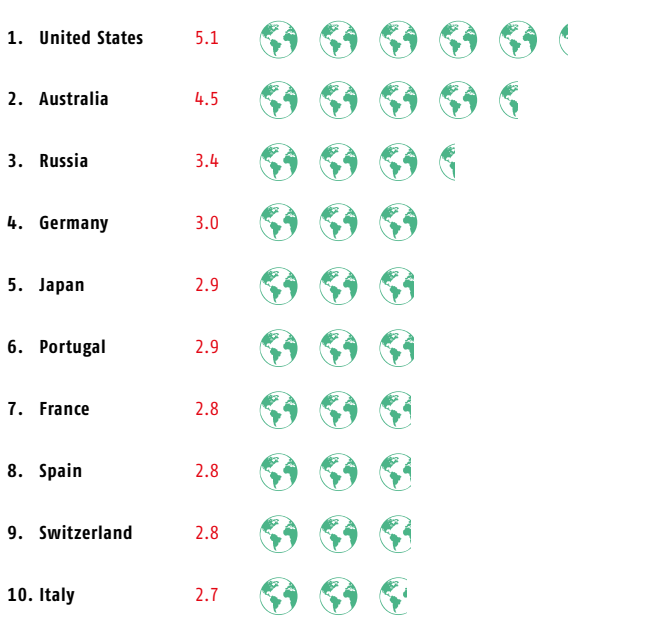
NAVIGATING THE CLIMATE TARGETS

Recently the Global Footprint Network calculated that Germany’s “Earth Overshoot Day” was May 4, 2023. This means that Germany’s inhabitants have used up as many natural resources on average from January 1 to May 4 as the planet can renew per person in an entire year. The challenge: There is no plan(et) B. It is vital that we stick to the agenda – reducing the use of energy and raw materials in production and making products last longer.

Every sector must reduce its ecological footprint – including the construction industry. Just the construction and operation of buildings are responsible for 38% of global greenhouse gas emissions, as the UN’s Global Status Report for Buildings and Constructions shows.

Every building erected has a negative impact on the environment. In every phase of its life cycle, raw materials and energy are consumed and surface area is sealed. Even journeys to and from the building sites in vehicles emit CO₂ into the environment. Around a third of a building’s entire greenhouse gas emissions are created before it is ever used. This was determined by the German Sustainable Building Council (DGNB). We cannot afford to waste resources in this way over the long term. The German Climate Protection Act has set the bar high, demanding a reduction in emissions of at least 65% by 2030 against 1990. The levers to reducing carbon emissions in construction projects are the construction method, large construction components – such as concrete walls and steel trusses – and the useful life of the construction materials.

HOW MANY PLANET EARTHS WOULD WE NEED IF EVERYONE LIVED LIKE THEY DO IN THESE COUNTRIES?



 www.overshootday.org



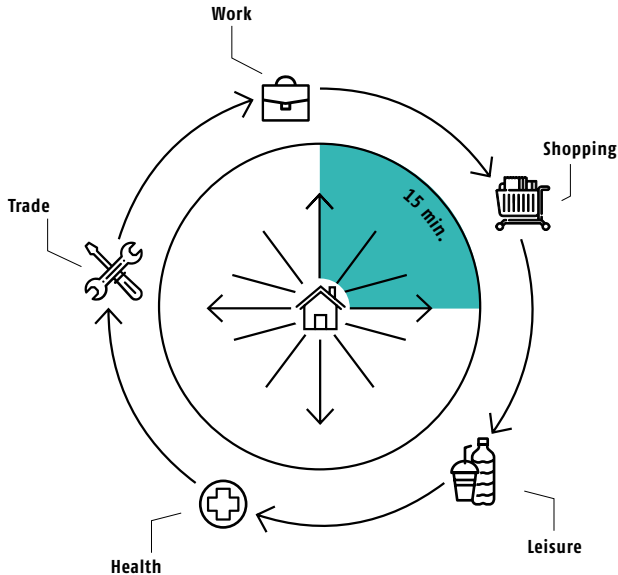
Not just easy on the eye but also great for the climate: Green construction looks great.

PAVING THE WAY FOR SUSTAINABILITY

“15-Minute cities” are once again a hot topic. The aim: being within 15 minutes of everything you need in daily life. Day-care, schools, shops, doctors and green spaces for sport and leisure – ideally reachable on foot, by bike, or public transport rather than by car. France’s capital is one of the pioneers of the 15-minute city; France promoted cycling and rapidly expanded the bike lane network during the pandemic. The Mayor of Paris, Anne Hidalgo’s ambitious aim is to have a bike line on every street in the city by the 2024 Olympic Games.

The goal of becoming greener is one she shares with the INDUS Group as a whole. Some of our portfolio companies are going above and beyond to help us achieve this goal. Here are three examples from many projects underway.

15-MINUTE CITIES





MIGUA is the first joint profile manufacturer to develop an exchangeable joint profile.

70,000

kWh of electricity
is generated annually by the photovoltaic equipment



The INDUS portfolio company Schuster Klima Lüftung GmbH & Co has already achieved net zero with the energy-efficient construction of its headquarters.

A PIONEERING SPIRIT AND EFFICIENCY

MIGUA Fugensysteme GmbH, a joint profile manufacturer based in Wülfrath, North Rhine-Westphalia, has developed an exchangeable joint profile that has already been patented and is unique of its kind on the market. The idea behind it is surprisingly simple. If the profile shows signs of wear and tear after many years of continuous use in high-traffic areas, the visible part can simply be unscrewed and replaced with a new profile – without damaging the floor along the profile. The positive effects of this are numerous – resources are saved, wage and material costs are lowered, and downtimes are minimized. The profile itself is made entirely of recyclable aluminum, meaning that it can be returned to the material cycle after use.

www.migua.com/en/

Creating a good climate is the Bavarian company Schuster Klima Lüftung GmbH & Co. KG's core skill. The Friedberg company is all about sustainability. The headquarters were built to be zero-energy and have served as a flagship project ever since for energy-efficient construction. In addition to triple-glazed windows, the energy-efficient technology is an ecological hallmark. The building features concrete core activation. Plastic pipes are placed within the concrete ceilings – similar to floor heating. The practical bit: In winter the system provides heating and in summer cooling. Because the water for the heating is generated through a groundwater heat pump, there is no need for a conventional heating system. The photovoltaic equipment on the roof generates approximately 70,000 kWh of electricity, enough to cover the company's entire energy needs. As you might therefore expect, the headquarters also have e-charging stations.

www.klima-schuster.de/



Discreet and attractive – heat pumps really can be stylish.

A NATURAL REVOLUTION

Remko GmbH & Co. KG, the industrial SME based in Lippe, builds smart heat pumps using the free natural resources of air and geothermal heat. Air heat pumps require little energy to operate and can pay off in the long term through lower operating costs in comparison with oil and gas heating systems. The best part is that the pumps generate energy-efficient heating in the winter through green heating. In summer, the water system provides pleasant air conditioning.



Sustainable construction has many advantages – it reduces carbon emissions, lowers energy costs, and improves quality of living. Innovative technologies and funding programs also support the transition. We must be consistent on our path to sustainable construction – for a green and better future. <<

Progress and protecting the environment are not contradictory – it is possible to have both.



IN DEMAND

INTERVIEW WITH SUSTAINABILITY EXPERT STEPHANIE THIELE

FROM THE HOLDING COMPANY The INDUS Group portfolio companies are on track to achieve climate neutrality by 2045. And the holding company in Bergisch Gladbach is also contributing to lowering the INDUS Group's carbon footprint. An interview with Stephanie Thiele, sustainability expert at INDUS.





INDUS SUSTAINABILITY EXPERT, STEPHANIE THIELE

Stephanie Thiele has been INDUS' sustainability expert since September 2021. Before she joined INDUS, she was employed in a number of controlling stations – initially in the telecommunications sector, then at an environmental service provider and finally as head of controlling for a corporate group. Following her switch from controlling to sustainability management at INTERZERO Holding GmbH & Co. KG, she helped to establish and continually improve sustainability management processes there. Stephanie Thiele studied Business Administration in Marburg and Düsseldorf.



[QUESTION] There have been lots of changes in terms of sustainability at the INDUS Group in recent years. At the holding company in Bergisch Gladbach, too, plenty of initiatives have been kicked off. Could you tell us more about that?

STEPHANIE THIELE A major project that we were able to complete this year was the expansion of our e-charging station infrastructure. There are now a total of 29 charging stations available for our colleagues. And by switching our vehicle fleet to electric and hybrid we were able to significantly reduce our carbon footprint here in Bergish Gladbach. But smaller measures, too, like no longer printing our annual report, a simple system for separating waste, and the introduction of JobBike will all help us to achieve our climate targets. If we look over the shopping lists for everyday office supplies, it's surprising how much potential there is to make savings – the amount of general waste each year could be reduced by around 15% just by switching to fabric hand towels.

[QUESTION] How can we get our colleagues interested in the topic of sustainability on a lasting basis?

THIELE It is important to make people aware of the topic and get them to integrate it into their everyday work. The first changes are often small – should I turn the PC off or put it on stand by? Little reminders, positive incentives, and involving people help keep the discussion going. This could be through online training or our annual sustainability day – the motto of this year is “Saving Resources”.

[QUESTION] Looking to the future: What is coming up on the Group's sustainability agenda?

THIELE Saving energy and switching heating systems to renewable energy sources is right at the top of the list for the INDUS Group. Increasing our PV equipment and switching to LED lighting are central levers. The innovative projects underway, such as the SIMON Group's “electricity cleanup,” are also interesting. This project should result in an almost 5% reduction in electricity consumption at SIMON Sinterlutions and soon BETEK, too.



The insect hotel was built at the INDUS premises as part of a trainee project run by ASS Maschinenbau.



We're saving resources – our annual report has been available in digital format only since 2022.



**"
LITTLE CHANGES
CAN HAVE A BIG
IMPACT IN THE
LONG RUN.
"**

Stephanie Thiele



Green mobility: more charging points
for INDUS employees.



[QUESTIONS] What are the challenges we face when implementing these kinds of sustainability projects?

THIELE Financing, especially for larger projects, is certainly often a barrier. Fortunately, we're well positioned with our sustainability development bank and are able to provide our portfolio companies with financial assistance for their projects. But a lack of awareness among employees or the lack of a person responsible in the company can also pose challenges. Finally, data acquisition to fulfill non-financial reporting obligations is also an important topic for the INDUS Group. Our task as a holding company is to be selective and decide what is plausible for the portfolio companies.

[QUESTION] And finally a personal question: What does sustainability mean to you? What do you do personally to lower your own carbon footprint?

THIELE Through my work alone, I'm already aware of the importance of using resources sparingly. And this is where little changes can have a big impact in the long run. Specifically, wherever possible I buy regional goods, eat much less meat, and generally try to keep my consumption low. I use my bike as often as I can in Cologne and other than that only an electric vehicle. I think everyone can make a contribution, no matter how small. <<

WHAT WE HAVE ACHIEVED

ENVIRONMENTAL ISSUES || PROTECTING THE ENVIRONMENT

EMPLOYEE ISSUES || FAIR WORK

113

t CO₂eq/EUR million GAV
Base year: 2018

76

t CO₂eq/EUR million GAV
2022



-19%

year-over-year



As an intermediate target, emission intensity is to be reduced by 35% by 2025 compared to the 2018 base year.

73

t CO₂eq/EUR million GAV
Target year: 2025

INDUS already meets the German government's more stringent targets for achieving climate neutrality by 2045.

3.3

per 100 FTE
Base year: 2018

2.6

per 100 FTE
2022



<3.0

per 100 FTE
Target year: 2025

The aim is to completely prevent work accidents (excluding accidents while commuting), particularly fatal accidents.

96.1

% of total FTE
Base year: 2018

95.9

% of total FTE
2022



Attracting and keeping qualified staff remain the foundation for organic growth. In addition, we support our employees through professional development and continuous training and the provision of training positions and places for students on dual study courses.

You can find out more about our non-financial report at:

 www.indus.de/en/nonfinancialreport/2022

GHG EMISSIONS (SCOPE 1+2)

WORK ACCIDENTS

PROPORTION OF PERMANENT CONTRACTS

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