

34,326

This is the number of chat messages sent on our TEAMS platform during a normal working day. Not including the preferred video calls. This means that we are in constant exchange with each other. Back in 2018, we started using the TEAMS chat function from Microsoft's Office 365 package to handle our internal communication. We replaced the old chain emails with this and have further developed our collaborative, communicative approach. With our more than 200 users, we were still among the first to use this solution company-wide at that time. Today, also accelerated by the COVID-19 pandemic, more than 145 million people worldwide use Microsoft TEAMS every month.





EDITORIAL

Dear readers,

today you are holding another issue of **seranews** in your hands, which has been produced under special conditions this year. The COVID-19 pandemic continues to keep people around the world on tenterhooks. We still cannot really predict how this pandemic will continue to spread in waves in the short and medium term and how it will have a long-term socio-economic, social and geo-strategic impact. The current situation is stressful for all of us and still requires great efforts in many areas of life, especially from people in the medical care, therapeutic and nursing sectors. But not only there, but ultimately by all of us, whether privately or in our companies, organisations and institutions.

In addition to these pandemic effects and framework conditions, major future challenges lie ahead of us, e.g. the energy transition, climate protection, advancing electrification and digitalisation, as well as societal change, which we must successfully master. All of this requires enormous joint efforts and resources in the years or even decades ahead. Our motto for this year's issue therefore is change. Not only the past months of the pandemic, but also the current difficulties and consequences due to globally interrupted supply chains, material and supply bottlenecks that have arisen and even inflationary price increases have shown us all how volatile, uncertain, complex and ambiguous global economic activities have become now.

Adapting to this requires a willingness to change, courage, energy and, last but not least, fresh ideas from all of us. That is why we at **sera** launched our "**sera in motion**" programme several years ago to proactively help shape our future.

In this issue, we give you a small insight into the many large and small measures that we have initiated. For example, you can get to know our new Creative Hub, which was developed by our apprentices, or find out about the now almost completed conversion of our main plant in Immenhausen. As always, you will also find insights into our social commitment and many other projects that drive us. All this is true to our motto: We create added value for people and the environment.

I wish you an inspiring read and much pleasure with the latest issue of **seranews**! Stay healthy, everyone!

Yours, Carsten Rahier



Editorial

Working at high pressure – The right solution for every application

sera compressors in the first energy self-sufficient commercial buildings in Germany

On the way to new opportunities – Transformation of the company location

Promoting the future – **sera**'s environmental award

Trade fairs in times of Corona – How we stay close to our customers

SPA Digital Days – Online presentations on a new level

sera pumps dose the special boom in Hard Seltzer production

Fight the papers

Corona vaccination campaign at sera

Not everyone can work remotely – the **sera** service during Corona

Turning ideas into reality How trainees developed a new place for creative work

Next step – iSTEP XS

<u>Transformation of work</u> – Or how we can all prepare for the future

> The pump of the future – We are on the right track

> > sera Social Day 2021

For the sake of the environment – sustainable marketing at **sera**

The **sera** Future Challenge

Legal notice



The sera Group is constantly expanding its product range and has set itself the goal of offering its customers everything from a single source. One logical consequence of this is that the company now also serves the high-pressure technology market; after all, pumps play a major role here. Complete high-pressure units and pump-motor units are, therefore, manufactured to customer specifications at the Austrian subsidiary sera Technology Austria GmbH.

All system components of a complete solution created according to the customer's wishes, such as the pump unit, control system, nozzles and fittings, are precisely matched to each other and tested in detail at the factory before delivery. In this way, **sera Technology Austria** guarantees a complete solution that is flawless during commissioning, meets all requirements and delivers the desired result.

High-pressure cleaner

In addition to customised systems, **sera** has already defined standards for its customers and offers both stationary and mobile high-pressure cleaners for industry. The power packs have been specially designed for commercial and agricultural applications. The compact design is particularly space-saving, and with the integrated electrical control, the unit is ready for connection. A very long service life is achieved for wear parts by using high-quality components. The integrated, high-quality pump is suitable for 24-hour use and thus makes the **sera** high pressure cleaner an absolute professional in its field!



CUSTOMISED SOLUTIONS HIGH PRESSURE TECHNOLOGY TANK WASHING HEAD, SPRAY NOZZLE, PUMP AND ASSEMBLY –

EVERYTHING FROM A SINGLE SOURCE!

Evaporative cooling

When one litre of water evaporates, it extracts 630W of heat energy from the ambient air. To enable this evaporation, very fine water droplets must be produced by means of a high-pressure atomisation process. Water atomised by high pressure evaporates 850 times faster because the water surface is increased two million times. Enthalpy control atomises only as much water as the air can actually absorb.

- No water precipitation
- No condensate formation
- Everything stays dry

These types of cooling systems are individually designed by **sera** according to the respective customer's wishes and specially made for these requirements.

The range of applications for these plants include:

- Adiabatic industrial cooling
- Condensation cooling
- Ambient air cooling
- Atomisation units

The customer decides not only on the arrangement of the various units, but also on the type of power transmission, direct drive with bellhousing, gearbox or belt drive.

Due to the company's extensive know-how, not only in high-pressure but especially in dosing technology, **sera** always offers an individual, allin-one solution and everything from one source.

Cleaning of tanks and tankers

Here, the combination of individually combinable high-pressure units with tank washing heads that are suitable for the respective requirements provides an All-in-One solution for the most diverse applications.

- Tanker interior clean
 - ing (truck and rail)
- Tank cleaningFood and
- Beverage industry
- Pharmaceutical and Chemical industry
- Waste management

Advantages

- Better cleaning results
- Reduced cleaning time
- Reduced water consumption
- Reduced use of chemicals

One major advantage is the combination of the robust high-pressure units designed for continuous operation, which are equipped with the required cleaning heads, and the dosing technology for the use of chemicals.







CURRENT PROJECTS



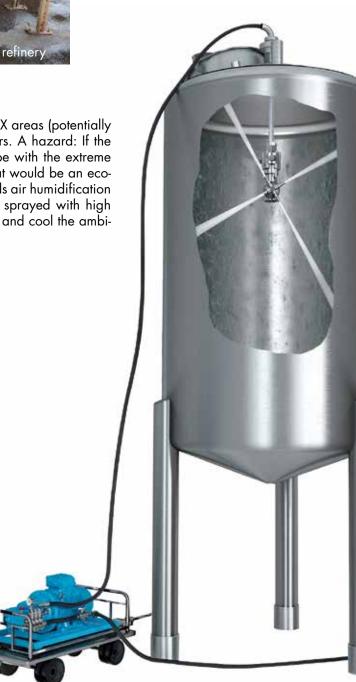
CONDENSER COOLING IN A GERMAN REFINERY

The **sera** high-pressure products are used in large refineries in ATEX areas (potentially explosive atmospheres) for cooling heat exchangers or condensers. A hazard: If the re-coolers are too small, have lost capacity or can no longer cope with the extreme summer temperatures, the cooling system may fail completely. That would be an economic disaster for the refinery. **sera Technology Austria GmbH** builds air humidification systems for adiabatic cooling for this purpose. Water drops are sprayed with high pressure (approx. 80 bar) via extremely fine **sera** special nozzles and cool the ambient air. In this way, expensive downtimes can be prevented.

In addition to the design, manufacture and assembly of complete systems in the ATEX area, **sera** also takes care of the maintenance of the supplied systems. This means that the customer can rely on the essential high-pressure systems functioning at all times and ensuring cooling.



sera special nozzles cool the supply air as desired.





APPLICATION POSSIBILITIES HIGH-PRESSURE TECHNOLOGY FROM SETC

- Car washes (e.g. self-service car washes, brushless car washes, pre-wash units)
- Chemical processes

 (e.g. PU foam production, chemical dosing, liquid CO₂)
- Reverse osmosis

 (e.g. seawater desalination, beverage industry, dialysis processes, leachate treatment, frack water treatment, industrial waste water treatment)
- High-pressure cleaning (e.g. hot water units, cold water units, stationary and mobile units, water sandblasting, high-pressure phosphating)
- Food
 (e.g. fruit juices, gelatine, ice cream, milk)
- Air-conditioning technology

 (e.g. air humidification, temperature control, dust binding, exhaust gas cooling, condenser cooling)
- Water hydraulics (e.g. nuclear power plants, presses, machine tools, mining, ...)
- Special areas (e.g. off-shore, water jet cutting (steel, concrete), water injection for oil production)
- Pressure boosting/testing (e.g. test stands, laboratory equipment)
- Hot water
 (e.g. boiler feed water, sterilisation sluices)





AUTOMATIC CLEANING OF HEAVILY SOILED CONTAINERS

Customer: Dry mortar manufacturer

sera Austria manufactured complete tank cleaning systems for a manufacturer of dry mortar, including both the tank washing heads and three high-pressure units. In addition to the installation of the complete system at the customer's site, **sera** naturally also takes care of commissioning. The complete system now cleans the soiled containers fully automatically at the end of work, saving not only water but also time and thus money.

System performance: 150 l/min at 100 bar in continuous operation Water: Process water

Sera COMPRESSORS IN THE FIRST ENERGY SELF-SUFFICIENT COMMERCIAL BUILDINGS IN GERMANY

When faced with the task of building a new property in today's world, it is no longer just the location and size of the building that are the main considerations when planning.

OKCEO

Dealing with rising energy costs and the integration of climate-relevant issues are at the forefront of considerations. Who wouldn't want to be self-sufficient, produce their own electricity to save costs in the long term and also protect the environment? This has long since ceased to be wishful thinking for single-family homes, thanks to the picea energy system from the Berlin-based company HPS Home Power Solutions, but now this has also been implemented for commercial buildings for the first time. As Germany's first energy

self-sufficient commercial building, the new headquarters of the heating and sanitation company Küppers was inaugurated this year in Meckenheim near Bonn.

Photovoltaic modules on the roof and façades of the company building, which was constructed using a timber hybrid construction method, generate electricity that is converted into "green" hydrogen by electrolysis. This hydrogen is stored in pressurised cylinders and can be called up by a fuel cell in winter and converted back into electricity or heat. By using an additional geothermal probe heat pump for heating and cooling, the "energy self-sufficiency" of the building is achieved. This means that electricity only has to be drawn from outside in an emergency.

THE **SETC** COMPRESSOR IS THE HEART OF THE PICEA SYSTEM

The surplus electricity from the photovoltaic system that is not used for self-consumption is to be stored for times when not enough "own" electricity is produced.

For this purpose, an electrolyser converts the surplus electricity into hydrogen.

In order to be able to store the hydrogen, however, it must be compressed.

And this is where the sera compressor "Agility" comes into play

The Agility compresses the generated medium and pushes it into the cylinder bundles and is thus the core technology for making the hydrogen storable.

The dry-running, hermetic piston compressor from **sera** compresses the medium further up to 300 bar with a delivery rate greater than 1 Nm³/h from an inlet pressure of between 20-30 bar at the start of the electrolysis.

Due to the innovative design of the drive concept, very quiet running noises are achieved.

The oil- and grease-free structure makes regular lubricant changes or operating material renewal unnecessary. This means that the compressor requires little maintenance and complies with all environmental, health and safety regulations.

The compact design and the technical/hermetic separation between the drive and pressure side also distinguish the **sera** compressor.

The complete system is a small but essential building block for meeting the current and future challenges of climate-friendly electricity and heat supply and once again underlines

sera

sera's corporate philosophy of "creating added value for people and the environment".

In the aforementioned commercial building, five Picea systems are installed, each of which contains a **sera** compressor. The entire system has a total storage capacity of 7,500 kWh (electrical power) in the form of hydrogen. This alone, without the parallel ongoing generation of electricity via photovoltaics, would cover the electricity needs of a family of six for a year.

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After compression, the hydrogen can be stored in cylinder bundles for an indefinite period of time and, if required, converted back into electricity and heat via the fuel cell located in the "Picea system".





ON THE WAY TO NEW OPPORTUNITIES TRANSFORMATION OF THE COMPANY LOCATION



The newly designed factory hall 3 at the main company location in Immenhausen



The climate protection goals of the German government and the European Union require massive efforts and investments in the coming years. By 2030, industry should emit up to 143 million tonnes less CO2. Ambitious goals that can only be achieved with a holistic and sustainable concept. One important option here is the energy-centric refurbishment of industrial buildings, which is one of the most costly measures in climate protection. But the options for bringing a building up to scratch in terms of energy are as diverse as they are difficult to grasp. Insulating the façade, installing intelligent heating technology or new windows: which step brings the greatest cost-benefit effect? We have taken up this challenge and completed a comprehensive rebuilding of our main location. And the result is something to be proud of. Both environmentally and economically.



Renovated Hall 6 with new technology and larger skylights for more brightness



View of the main site with part of the new photovoltaic system on hall 4, PV inverter for converting the direct current into alternating current

CONVERSION MEASURES:

- PV system with approx. 303 KW/peak corresponds to the average annual electricity demand at Plant 1
- New main electrical distribution board and sub-distribution boards plus expansion of connection capacity for e-mobility charging infrastructure, among other things
- Bright, consistent colour design indoors and outdoors
- Bright, transparent design through glass fronts/fixtures
- Energy-saving LED lighting indoors/outdoors
- Energy-saving new heating and control system incl. temperature sensors in the production halls
- Central digital control system for heating, lighting, ventilation (KNX)
- New central digital security system
- New roofing and waterproofing with improved thermal insulation
- Expansion of the production/logistics areas
- New ceiling construction for flexible manufacturing/assembly concepts
- Expansion of new inspection and test rooms

sera has a long tradition at our company location. We have been developing, producing and selling our products from Immenhausen for more than 76 years. There are now two locations at the headquarters. As early as in 2012, the administration building was rebuilt and renewed. Plant 2 was purchased, refurbished and put into operation in recent years. Now Plant 1 also has been fundamentally revised.

Protect the climate, increase growth potential

Companies across Germany are investing in energy efficiency and renewable energies to save energy and protect the climate. We, too, have taken up this challenge and have placed sustainability and increased efficiency at the forefront of the conversion of our Plant 1. What were our goals? Our newly designed halls should provide us with the maximum flexibility for tomorrow's production and allow room for expansion. In addition, we wanted to combine our sustainability goals with effective cost reductions through energy efficiency and savings. Along the way, a place should also be created where our colleagues are happy to work on the future. What have we implemented in concrete terms?

Saving electricity through better light

LED lamps are more energy-efficient than incandescent, halogen and energy-saving lamps. Energy-efficient LEDs are modern all-rounders. Brightness, light colour and dimmability can be selected. The new EU energy label also makes it easy to compare energy efficiency.

LED lamps cost more to buy than a halogen lamp, but thanks to the significantly lower energy consumption, the investment pays off after about a year. After all, lighting accounts for almost 5% of annual electricity costs. Another advantage of LED lamps is that they do not get so hot.

Our new halls and outdoor areas were, therefore, completely equipped with this all-rounder.

Intelligent energy use and control

If the light in a hall is no longer needed, it switches off. This is controlled via an intelligent central control system (KNX) that monitors and coordinates ventilation and heating in addition to lighting. Equipped with sensors, the appropriate energy management is thus operated to optimally adapt the lighting to your needs.

The so-called smart home offers many more possibilities. The demand for heat, both in production and in the operation of office and commercial spaces, is high and often unavoidable. However, efficiency can be significantly increased and specific emissions considerably reduced in various ways if the control system is directly controlled via temperature probes and other sensors, thus avoiding unnecessary or excessive consumption. By connecting to our new energy-saving heating system, we can thus save a large part of emissions and costs.

Saving energy through energy avoidance

The thermal insulation of industrial plants offers great potential. A study by the Research Centre for Energy Economics found that heat losses account for between 6% and 20% of total fuel consumption. Measures such as insulating the outer façade or installing new windows, therefore, pay off relatively quickly for companies. We have, therefore, decided to have our factory halls fitted with a completely new exterior façade, insulation of all roof surfaces and the installation of new glass fronts that provide



KNX display for setting the various different light areas



View into the newly designed Hall 4 with transparent glass front to the outside

significantly more light. This not only made our halls more energy-efficient, but also brighter and more open.

Green energy

In Germany, there are currently over 2 million photovoltaic systems with a nominal capacity of around 54 gigawatts, which in 2020 will have covered just under 10% of total gross electricity consumption – equivalent to 34.9 million tonnes of greenhouse gas emissions avoided in CO2 equivalents.

Meaning that generating clean electricity yourself saves many tonnes of CO2 a year – and the more energy generated in this way, the better it is for the climate. The photovoltaic system uses the sun as a renewable, inexhaustible source of energy and thus contributes to the expansion of renewable energies in Germany. Those who generate their own electrical energy and also consume it directly also secure long-term independence from the electricity market. Therefore, it was obvious to also rely on a large PV system during the conversion of our plant. With the electricity we generate ourselves, we too essentially pursue two goals: sustainable energy production and independence from the electricity market of the future.

As part of the conversion, all suitable roof areas on the main site were, therefore, included in the project. The installed capacity of our new plant is currently over 300 kWp and thus completely covers the average annual consumption of Plant 1. This will enable us to save almost 200 tonnes of CO2 per year. Especially in the commercial sector, the generation of renewable energy makes a lot of sense, as a high rate of self-consumption can be achieved. Work there is mainly done during the day, i.e. precisely when the energy yield is particularly high. This is due to the times of use for machines, light or heating, which essentially take place during the hours of sunshine. In order to make the most of this, an intelligent load management system has been integrated into the plant, which temporarily stores unused energy and can, for example, forward it to the additional 14 charging points for electric cars that are currently under construction. Surplus eneray is finally fed into the grid. In addition, further charging points for the use of e-bikes are being planned, which will then also be integrated into the system.

By using green electricity, we are pursuing our goal of **sera** goes green.

Better working atmosphere and more space for efficiency

The entire area can be used much better and more efficiently today. A larger production area was created, giving us maximum flexibility for the changes of the future. The completely new concept (e.g. ceiling construction) will enable us to implement any form of production layout in the halls in the future. In addition, due to the high demands in our product areas, the inspection and test rooms were improved and expanded once again. With the new open and transparent halls, we have created a basis for all colleagues to feel totally comfortable and to work together with us on the energy of the future.



Exterior view of the façade with a new look and larger, more open glass fronts

PROMOTION NORDHESSEN

- promotion Nordhessen has been taking place for 21 years
- 550 companies were created through the initiative, of which over 320 are in North Hesse
- Over 2,320 new jobs have been created as a result
- Approximately 3,930 prospective start-up founders have been supported, 132 in the current competition round alone
- 40 business plans have currently been submitted
- 100 volunteer coaches are on hand to advise the start-up founders
- More than 25 seminars, workshops and coaching evenings take place per competition round

PROMOTING THE FUTURE – **SECA'S ENVIRONMENTAL AWARD**

sera has supported the promotion Nordhessen business plan competition for many years. With our environmental award, we want to help young start-ups and companies in the founding phase to implement their innovative ideas.

With its 21st round, promotion Nordhessen is one of the longest-running business plan competitions all over Germany and can look back on an extremely successful history. The competition is advertised and organised annually by Regionalmanagement Nordhessen GmbH, supported by the State of Hesse with ERDF funding (European Regional Development Fund) and co-financed by the regional sponsors.

As part of promotion Nordhessen, founders receive comprehensive and free advice on all strategic and organisational issues related to setting up a business. The young entrepreneurs can draw on a comprehensive network of coaches and advisors. Regular workshops and a business plan tool round off the offer for young company founders. The preparation of a business plan for setting up a company plays a central role, as each round of the competition ends with the awarding of prizes to the best business plans.

Businessplanwettbewerb





Award ceremony with the Hessian Minister of Economics Tarek Al-Wazir

Within the framework of the competition, the Environmental Award forms its own category and is aimed at start-up founders who deal with the topic of the environment and environmental technology in particular.

THE 2021 COMPETITION

This year, the competition again took place under difficult conditions. Due to the Corona pandemic, many activities were carried out digitally and remotely. For example, for the award ceremony with the Hessian Minister of Economics, Tarek Al-Wazir, a hybrid concept was realised with video feeds of the winners.

ENVIRONMENTAL AWARD WINNER 2021

The winner of this year's environmental award is SHARDS from Kassel with the founders Dr. Moritz von Galen, Leya Bilgic and Lea Schücking.

THE IDEA

Construction waste made into tiles – SHARDS are the pioneers here. Typical tiles are made of clay, stone or concrete. The import and extraction of these raw materials is always associated with irreversible environmental impacts. In 2018, for example, 14.4 million tonnes of clay were mined in Germany alone, while at the same time, four times the amount of construction waste was produced. The production of SHARDS tiles conserves valuable natural resources while helping to reduce the burden on landfills. SHARDS is the first upcycling solution for construction waste and thus solves an acute problem of landfilling in Germany.

CONSISTENT CIRCULAR ECONOMY IMPLEMENTED

On the one hand, SHARDS consist of reused building materials from the city in the spirit of "urban mining". On the other hand, broken SHARDS can be 100% reintegrated into the SHARDS production. With SHARDS, consumers purchase a high-quality product that is produced locally in Germany and has already been awarded the Federal Ecodesign Prize by the Federal Environment Ministry in 2018. SHARDS means 100% recycled material. To live up to this claim, no binders or dyes are used in the production of SHARDS. The fine balancing of the raw materials creates tiles with a great visual and tactile variety. Co-design and personalisation welcome. SHARDS customers can help shape the colour, format and surface feel of their personalised SHARDS. In addition, materials provided by the customer can be processed. Renovation finished and old bricks left over? SHARDS turns it into tiles for the new kitchen.

Environmental Award winners have convinced the jury: Their sustainable and innovative approach also brought them the overall victory in the start-up competition. They show the potential and the enormous range that circular economy and upcycling make possible and that they can even result in really beautiful products. In addition, the subject scored points with a well thought-out and well-developed business plan. We wish SHARDS the success that the young company deserves.

The next round of the competition is already in preparation. The design of the environmental award will also be revised for the future and is intended to focus even more strongly on the issues that also concern us at **sera**. Watch this space.

EXHIBITIONS / Sera serd



The COVID-19 pandemic and the accompanying restrictions have also changed the trade fair landscape. From March 2020 until autumn 2021, virtually all attendance fairs have been cancelled – from the regional exhibition to the leading international world trade fairs. Meeting customers, presenting innovations, networking, observing the competition - all this was not possible in the usual form.

However, many trade fairs at which sera had planned to participate were not cancelled without replacement: The organisers have adapted to the circumstances and launched digital formats. Online seminars, digital fairs and networking events became a substitute for the otherwise so important face-to-face fairs. The great advantage of online events is, of course, that anyone, from anywhere, can take part in them – without much effort and usually even free of charge. Travelling and juggling appointments are no longer an issue here. We at sera have also experienced that it is possible to address broader target groups internationally in a more effective and comprehensive way.





IFAT - the world's leading trade fair for water, sewage, waste and raw materials management – was actually scheduled for spring 2020. As the staging of major events was banned and there was no sign of how quickly a vaccine would be available and thus a return to normality, Messe München decided to suspend the 2020 edition.

However, the organisers of IFAT did not want to leave the exhibitors out in the cold and developed IFAT AHEAD - a digital 365-day platform for the environmental technology industry. By now, more than 700 companies, including sera ProDos GmbH of course, present not only themselves there, but also product solutions and applications. Interested parties and experts thus have the



opportunity to obtain comprehensive information free of charge at any time – 24 hours a day, 365 days a year.

IFAT AHEAD is so well-received that it will continue – even if IFAT 2022 finally allows for a presence format again. We firmly expect that the platform, running parallel to the trade fair in Munich, will offer some extended opportunities for exhibitors and visitors. Nevertheless, we are very much looking forward to welcoming you in person at our stand from 30 May to 3 June 2022.



Pumps & Valves in Dortmund was the last trade fair that **sera** participated in as an exhibitor before the COVID-19 pandemic in February 2020. On 16m², **sera** presented product solutions and pumps for all kinds of industrial applications, held interesting discussions and initiated exciting projects.

Unfortunately, Pumps & Valves 2021 could not take place as an attended fair, but an alternative online programme was also set up here: The Online Days powered by Pumps & Valves took place from 18 - 21 May 2021. All exhibitors had the opportunity to present themselves online with their planned exhibition exhibits, new products, but also vacancies and could additionally give online presentations on relevant topics. We also took advantage of this opportunity and were able to present our new iSTEP XS to a wide audience, which was very well-received. As successful as the Online Days were, we are looking forward to meeting our customers and interested parties again on-site in Dortmund in February, where we will be able to present our product solutions to them live.

BrauBeviale

BrauBeviale, an important trade fair for the beverage industry, based in Nuremberg, faced an even greater challenge: Not only could the 2020 edition not take place due to Corona – a move to November 2021 had to be well-thought-out. This is because, in actuality, BrauBeviale sits out one year every four years, because this year DrinkTec is taking place in Munich. Both fairs would, otherwise, compete for exhibitors and visitors. But now DrinkTec was scheduled for 2021 – so how to deal with this clash of dates?

The organiser of BrauBeviale, Messe Nuremberg, did what no other organiser has done: They invited the exhibitors to digital round tables (several possible dates, in English or German) and asked everyone for their opinion: Should BrauBeviale take place in its usual form in November 2021, although DrinkTec was to be held in Munich a few weeks earlier? The opinion was strong and clear: No one would want to do without the exceptionally good networks and contacts of BrauBeviale – however, in case of doubt, the choice would rather fall to an exhibition participation at DrinkTec with its significantly more international orientation and larger area – after all, trade fair participations are still quite an expensive marketing instrument and participation in both trade fairs would simply not be within the marketing budget of many, especially smaller companies.

Messe Nuremberg took the exhibitors' feedback to heart and decided to distance itself from a classic trade fair. Instead, the Beviale Summit in Nuremberg was planned for 9 and 10 November 2021. Unfortunately, despite excellent planning and a very well thought-out hygiene concept, this had to be cancelled at short notice because not enough participants had registered.

How BrauBeviale will continue in 2022 is currently open. Since the organisers of DrinkTec have cancelled the exhibition for 2021 and also postponed it to 2022, Messe Nuremberg is again faced with the challenge of possibly having to do without long-standing exhibitors if both exhibitions are held in the same year. We are excited by the decision and are already burning for the next "real" BrauBeviale in Nuremberg.





partner Our long-standing SIMONA, a provider within the field of wastewater and water treatment, has taken advantage of the Corona period to offer a series of webinars. We were also able to share our expertise on one particular topic: Seawater desalination. For this purpose, the head of our Spanish subsidiary sera ProDos S.L., Mauro Francés Miralles, together with representatives of SIMONA, gave an online presentation in English on our experience in the field of seawater desalination. Among other things, he reported on the world's most modern seawater desalination plant in Agadir and the contribution sera made to this extraordinary project. Here, 17 dosing systems from sera with a total of 77 dosing pumps ensure that 450,000 m³ of seawater are desalinated and made usable every day. (We reported in detail in the seranews issue 2020).

The webinar was aimed at **sera** and SIMONA customers, as well as all other interested parties, and was communicated via all social media channels as well as directly to distributors, as was the case with all other online events held over the past year and a half.

In summary, we can say that many organisers and partners have created adequate substitutes for cancelled fairs. Of course, these online events cannot replace presence fairs. Direct, personal customer contact, as well as the haptic presentation of our products and solutions, are indispensable. Nevertheless, we see a lot of positives in complementary online presentations and events: Regardless of time and place, we can get in touch with interested customers and give them a first insight into the **sera** product range. The perceived barrier to watching an online trade fair or webinar is now much lower than planning a visit to a trade fair, as they offer a way to "get a taste" first without investing a lot of time or money.

THINGS STARTING UP SLOWLY AGAIN

We are glad and grateful that the first events and fairs could take place again – almost – in their usual form. Thus, since late summer 2021, we have again been able to participate as exhibitors in some events.

TRADE FAIR PARTICIPATIONS OF OUR BRANCHES

Our branch in Austria has already participated as an exhibitor in two smaller, accompanying trade fairs: The Umwelttage Oberösterreich (Environment Days Upper Austria) and the Braumeistertagung (Brewmasters' Conference) in Zwettl. During the breaks, participants had access to an exhibition with product solutions for their industry sectors.



Environment Days Upper Autria

At both events, our colleagues were represented with a small stand and presented our product solutions to the industry audience accordingly. While the Umwelttage Oberösterreich (Environment Days Upper Austria) were mainly about water and wastewater treatment, where our Polyline polymer preparation plant was particularly convincing, the Braumeistertagung (Brewmasters' Conference) was aimed at just them: Brewmasters. Both the sera high-pressure technology and our products for CIP cleaning were very well received there.

With ChemUK, a traditional trade fair was finally able to take place in England again. Our subsidiary **sera ProDos UK Ltd.** was, of course, also represented again after a break of almost two years, where we presented the latest member of our product family on site: The iSTEP XS.



For the very first time ever, our youngest subsidiary – sera Tech-nology Swiss GmbH – was able to present itself at a trade fair. Founded only in 2019, the Corona crisis that soon followed did not allow it to present itself to a wide audience at trade fairs. The colleagues were able to make up for this at Pumps & Valves in Zurich, which took place in mid-November: Of course, it had long been known on the market that the successful sera Group now has a branch in Switzerland – but now interested parties were finally able to experience the extensive product range, concentrated in one place, in Switzerland, too, after all, the motto of the trade fair stand was: "Solutions from A - Z – Everything from a single source".

We are already looking forward to the year 2022 with the trade fairs taking place then – and to meeting you in person!





The **sera ProDos** Water Treatment team was also finally able to put in a show once more. At the end of October 2021, the STATION in Berlin once again hosted the Tausendwasser, a fairly young trade fair whose third instalment was only able to be caught up on recently. Despite the

long break, the Tausendwasser fair has established itself and become much bigger: The number of exhibitors roughly quadrupled compared to the pre-Corona times

and, even if the number of visitors was rather low, their quality was convincing. We held many very informative expert discussions and were able to generate some orders from them. A complete success! We can draw a positive conclusion for all fairs held in 2021: Even though the number of visitors was lower compared to life "before Corona", the visitors on-site were, in all cases, highly qualified and interested. Perhaps one effect - only those who are really interested will travel to the fair and thus real added value will be created - for exhibitors and visitors. All events took place under strict hygiene regulations, which were observed and checked throughout. Even though many visitors and stand crews naturally kept their distance and acted a little more cautiously overall, you never had the feeling that a real "trade fair feeling" was missing. In the end, face-to-face contact was much more personal and direct than would have been possible by telephone or video conference.

FINALLY, TRADE FAIRS ARE BACK - MEET US ON-SITE

FAIR NAME	LOCATION	APPOINTMENT	EXHIBITOR
Aqua Pro	Bulle	9 11 February 2022	sera Technology Swiss GmbH
Pumps & Valves	Dortmund	16. & 17 February 2022	sera ProDos GmbH
Paint Expo	Karlsruhe	26 29 April 2022	sera ProDos GmbH
ChemUK	Birmingham	11. & 12 May 2022	sera ProDos UK Ltd.
IFAT	Munich	30. May - 3 June 2022	sera ProDos GmbH
Surface Technology	Stuttgart	21 23 June 2022	sera ProDos GmbH

*Participations in these trade fairs had already been booked by the editorial deadline. More are sure to follow. Always stay up-to-date at: https://www.sera-web.com/en/exhibitions



24 seranews



sera is a founding member of the Star Pump Alliance (SPA). This makes us a strategic partner in a network of leading global pump manufacturers since 2018. The aim of the Star Pump Alliance is to make it easier for professional pump users to choose precisely the right pump technology for their applications. When looking for application-specific and usually personalised information on pump technology, professional pump users are often dissatisfied with results from conventional search engines since these do not meet the requirements of industrial applications. This gap is filled by the Star Pump Alliance, which not only offers an application-specific pump selector via its website www.starpumpalliance.com, but also regularly provides interested parties with application examples of different pump technologies, as well as news about its members.

PREVIOUS SPAFair

The online offer of the Star Pump Alliance was complemented by SPAFair, an online trade fair where every member can host a digital trade fair stand: In the look & feel of the respective company, the relevant pump technologies are presented, the appropriate information is made available for download and the company is introduced with a short image film. Of course, there is also a contact person directly at **sera**, integrated into the trade fair stand – almost like in real life.

With SPAFair, the Star Pump Alliance came up with the right idea long before the Corona pandemic and put together an online offer aimed at experts in the pump industry who can get online advice and find the right pump technology for their respective application – without having to get up from their desks.

SPA DIGITAL DAYS

Until the Corona pandemic, SPA was also regularly present at trade fairs, together with or representing members. With the onset of the pandemic, it quickly became clear that added value for customers and members had to be created in a different way. A webinar series was quickly established in which individual pump technologies were presented. A great success with up to 1,000 digital participants.

But that was not enough. Together with all members it was decided to hold the SPA Digital Days: A 2-day event series in the digital sphere. It quickly became clear that they did not want to just fall back on what has long been tried-and-tested and offer presentations via TEAMS or Zoom: They thought bigger. A digital pump industry conference was launched, streamed live on 28 & 29 September 2021 from the Pool Group's AR Studios in Emsdetten.

Each member of the Star Pump Alliance gave a value-added presentation on a variety of pump-related topics: "How to avoid damage", "Total Cost of Ownership" or "How to design a pump safely" are just a small insight into a diverse and interesting programme that focused mainly on challenges and solutions in practical applications.

In order to be able to address customers in all time zones worldwide, the same programme was offered on both days, but with different dates for the individual presentations. Both days were broadcast live and, of course, in English.



YESTERDAY. TODAY. TOMORROW. -APPLICATIONS AND DEVELOPMENT OF DOSING PUMPS

Naturally, **sera** was also part of the SPA Digital Days. With Pandu Rundana, Product Manager at **sera ProDos GmbH**, a young, motivated speaker was found who not only feels at home in English, but also knows **sera**'s pump technologies like the back of his hand.

In a collaborative effort between the Marketing Department of the **sera Group** and the Product Management and Sales Departments of **sera ProDos**, a topic was also quickly found that would meet with enthusiasm. In reference to the **sera Group**'s 75th anniversary in 2020, it was decided to take the viewer on a journey through time: "YESTERDAY. TODAY. TOMORROW. – APPLICATIONS AND DEVELOPMENT OF DOSING PUMPS"

YESTERDAY.

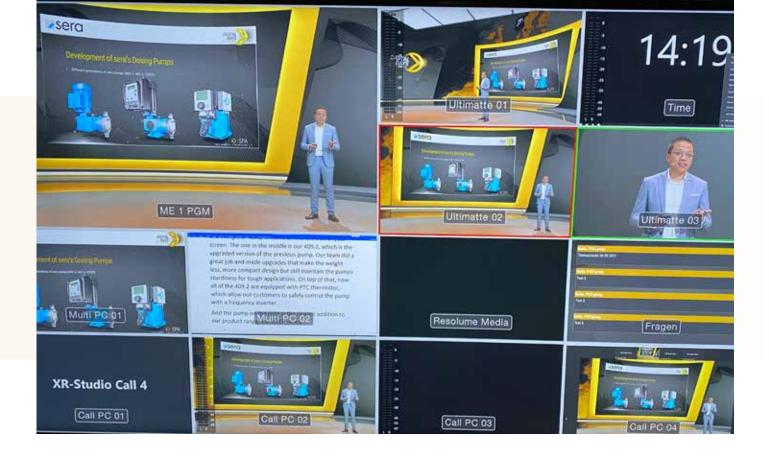
The content for the YESTERDAY part was, of course, set: sera was founded in 1945 and initially produced everything that society lacked, such as various household items. But as early as 1948, the first dosing pump developed by sera came onto the market, for which sera also received the first patent in 1950. This was then further developed and differentiated over the years. Durability and quality have always been the benchmark. Innovations always led to giving customers the pump and the application they needed to make their processes as safe and simple as possible.

TODAY.

sera creates added value for people and the environment. That was the message of the mid section of **sera**'s presentation at the SPA Digital Days.

First of all, the iSTEP XS, the new stepper motor pump from **sera**, was presented – the free-standing, moving 3D model of the pump was impressive here, showing in explosive style the different versions as well as the technical data of the iSTEP XS – it was designed by the **sera Group**, staged in front of the green screen in the Pool Group's virtual studio.





Pandu Rundana then presented application examples that show that **sera** products ensure a sustainable future: From waste water treatment to the finest dosing operation in the chemical sector and CIP cleaning, both of which avoid wasting resources, to the most modern seawater desalination plant in the world – dosing technology from **sera** is used everywhere and thus creates added value for people and the environment.



TOMORROW.

sera is constantly developing itself and its products further and stays true to the approach of "Inspired. Solutions. For Customers." It always remains in close proximity to the customer and proved this with this part of the presentation – because for this, **sera**'s customers were asked what they wanted from the pump of the future. About 1,000 customers were asked about their current setup – how are pumps served in their processes? And, as things stand, only about 15% of customers operate their pump manually, while over 70% control it via an analogue signal, ProfiBus or ProfiNet.

The pump of the future must become even more digital for our customers – whether controlled via WiFi or an app, automatic service or the re-ordering of spare parts – the pump of the future must think for itself. And one thing is clear here: **sera** is on the right track. The **sera Group**'s presentation was rounded off with questions that the audience could ask directly after the presentation. Product Manager Pandu Rundana also delivered a convincing performance here and was able to answer a large number of questions from the interested audience.

The SPA Digital Days were a great success for all participants. Although the implementation was a completely new challenge for all **sera** team members involved, it showed once again just how effective cooperation across departments can be. Together, all requirements were fulfilled and a presentation that was impressive in terms of both content and appearance led to resounding success.

Also, the collaboration with the Star Pump Alliance, the other SPA members and the Pool Group was an extraordinarily positive example that brought added value to all involved.

sera is ready for the future – whether in the field of digital trade fairs or intelligent pumps.

SERA PUMPS DOSE THE THE SPECIAL BOOM IN HARD SELTZER PRODUCTION

In the USA and in South America, a new fashionable drink has been on the rise for some time: Hard Seltzer – sparkling water with flavour and alcohol. In the meantime, more and more European and German customers are developing a taste for this low-calorie drink. sera has been a reliable partner to the beverage industry for decades and its products always ensure consistent quality of a wide variety of products – now, with Hard Seltzer, sera has already succeeded in supplying more than 50 pumps and dosing systems, which now produce this high-quality in-drink in cooperation with international plant manufacturers.



sera multi-layer diaphragm pumps ensure precise dosing in a system from our partner Centec

CIP-cleanable pump

28 sera**news**

In 2020, the biggest beverage trend to hit the US in years is "Hard Seltzer" – also known as fizzy alcoholic water. Hard Seltzer was the big success story of the beverage industry in the year of Corona – sales in the USA increased by 200% within 12 months. Experts predict equally impressive growth for this indrink over the next three years. Neither consumers nor beverage producers could get past Hard Seltzer. Even in 2019, there were festivals dedicated to it, blogs inspired by it and even the biggest brand, White Claw, recorded a supply shortage, leaving thirsty millennials panicking.

Hard Seltzer ("hard sparkling water") by definition consists of sparkling water, alcohol and sometimes – not always – added fruit flavour. Here, however, water is not simply mixed with a spirit; in fact, Hard Seltzer is a fermented, brewed product. Hard Seltzer is produced in almost all regions of the world based on fermentation alcohol. The raw material used is predominantly a malt or sugar base. The base obtained from fermentation is then purified via membrane filtration and mixed with fruit aromas. A rather complex process made possible by products from **sera**.

In an extensive process, in which pumps from sera are also deployed, a finished Hard Seltzer product, i.e. a "water" with approx. 5% vol. alcohol and flavour, is produced from a wide variety of components at the end.

sera supplies hygienic pumps for the dosing of dyes and multi-layer diaphragm pumps for the dosing of high-proof alcohols (due to Ex-requirements) for the production of Hard Seltzer products, partly according to the American regulation Nema Claas 1 Division 2.

These pumps dose the corresponding components – dyes and alcohols – with the highest precision. Since the systems have to map or feed different products and outputs, there are sometimes large spreads at the individual dosing points. Therefore, the dosing areas are designed with two pumps to serve the entire metering area with high quality and accuracy.

As is the case everywhere in beverage production, one of the most important points is the cleaning (CIP - Cleaning in Place) of the entire system and, of course, of each individual pump and dosing point - sera dosing systems are also used here. Here, the 2% acids, alkalis and disinfectants commonly used in CIP cleaning are used for rinsing at up to 90 degrees Celsius, for approx. 15-20 minutes. It is essential that the entire production system is compatible with CIP requirements. In other words, all the parts that have to be cleaned are food-safe. Aseptic and technical sterilisation specifications must be observed in this context. The geometry of the individual parts and of the entire structure must be designed in such a way that no dead spaces are created and that all surfaces can be covered at an appropriate flow speed during CIP. CIP-compatible diaphragm pumps from sera meet these specifications: Seals and connections are standardised according to DIN industry standards, while the pump body and all other materials that come into contact with the fluid are electropolished.

The chemicals needed for cleaning are stored in IBCs, drums or tanks in liquid form. The **sera** CVD compact dosing system doses the chemicals into fresh water in such a way that the cleaning agent or disinfectant required has the perfect concentration and can be added directly to the cleaning process. Some users also deploy the **sera** caustic soda preparation station, which ensures the safe and efficient preparation of caustic soda based on sodium hydroxide (NaOH) in solid form (pellets, flakes, beads or powder) and water.

Centec, **sera**'s long-standing partner, has also relied on **sera**'s expertise in the design of plants for Hard Seltzer production and equipped their systems with the appropriate pumps. These are now in use at many well-known beverage manufacturers and ensure that the on-trend drink Hard Seltzer can always be produced reliably in consistent quality. **sera** may not be able to turn water into wine – but into a really delicious refreshment that everyone should try.

FIGHT THE PAPERS

The topic of the "paperless office" has been on everyone's lips for years. Digitalisation 4.0 is also no longer a hot new topic.

sera has been working on the idea of paperless offices for some time now and is already taking giant steps towards realising the future in this area. It would already have been implemented to a large extent – if there were not the "problem" with the documentation of goods. From service providers, suppliers but also from sera itself.

Because if you look at the range of this manufacturer information that companies have to make available to their buyers, we are still a long way from the goal of "paperless".





Companies produce goods. The manufacturer must "attach" the information that is relevant for different purposes for the customer depending on the product life cycle phase. This manufacturer information, also called documentation, includes, for example, certificates, safety instructions, plans, operating instructions, maintenance information or parts lists.

To change this, companies from the process industry have decided to tackle this problem. Under the umbrella of the VDI (Association of German Engineers), standards for the transfer of digital documentation have been developed and summarised in the guideline "VDI 2770".

The most important point in the directive is standardisation. It precisely describes the nature of the manufacturer information and thus enables a fully automatic transfer of the information as a data object from the IT systems of the manufacturer to the IT systems of the user/customer.

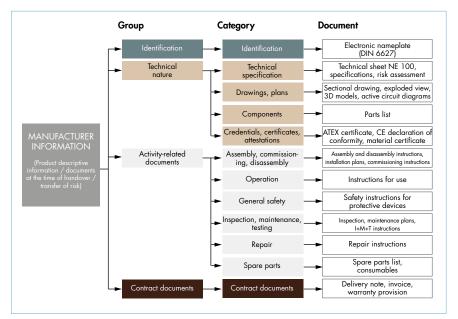
But first, let's take a step back. Let's look at how it is currently (still) going:

The manufacturers hand over the documentation to the customer in digital or paper form – depending on the customer's wishes.

According to the Machinery Directive, an instruction handbook must always be sent along with an acceptance test certificate, declaration of conformity, product description and, if applicable, supplier documentation. There may be additional certificates requested by the client. For some products, a dimensional

drawing is also added.

The customer now has to file the



Classification of manufacturer information (documents) in groups and categories including example documents. Source VDI 2770

documentation in their own systems, depending on the purpose and use, and pick out the right document when needed.

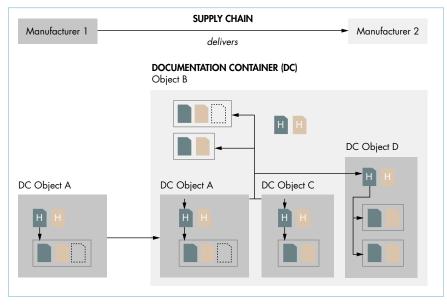
Both are often done manually, which is time-consuming and error-prone.

How does the VDI guideline aim to improve this?

The guideline first sets standards regarding four important criteria: the classification of documents, a predefined set of metadata per document, the structure of the documentation and the file formats.

In turn, four groups (identification, technical nature, activity-related doc-

uments, contract documents), which are subdivided into twelve categories, help to assign the documents precisely later. The categories are divided according to the type of content and partly according to the intended use.



Manufacturer 1 delivers the documentation container (DC) for its object A together with A to its customer manufacturer 2. Manufacturer 2 packs the documentation container from manufacturer 1 into its documentation container and references it in its main document (H). Similarly, it integrates the documentation containers of the supplied objects C and D. (Source Robert Erfle)

The so-called metadata play an important role in this. They are responsible for the precise identification of each document and are attached to each document in a stand-alone metadata file in XML format.

They include unique identification IDs for the version of the document, classifications for the above categories, reference to the manufacturer, the language, the creator, relationship to other documents within the entire documentation, short descriptions and titles of the document, and much more.

In summary, the metadata contains all the document's important information so that the user can find it again as quickly as possible later.

The ID must be readable and assignable both on the document and on the object/product. This can also be done via a QR code. In addition, the guideline also specifies the file formats of the documents.

Each document, therefore, consists of a physical file (PDF) and an associated metadata file (XML). These related files are combined in a ZIP container, the so-called document container. All documents with a documentation batch are again summarised in a documentation container and supplemented by a main document, which lists all documents contained in the documentation and also carries a metadata file.

This means that document containers can also be easily integrated within a supply chain. In the process, the document containers of the supplied part are integrated into the higher-level documentation container and the main document is supplemented with this data.

This structure of the overall documentation keeps the effort for handing over documentation across longer supply chains low.

The clear reference to the physical object, as well as the classification of the supply chain documents, enable a high degree of automation on both sides.

And how are things looking with the technical implementation?

In addition to creating the content, each document must be saved in a PDF/A version and a metadata file must be generated. The main document and the "packing" of the document and documentation containers are further tasks needed to achieve a standardised approach.

Depending on the existing systems in the companies, all of the above tasks are not excessively big hurdles. This was a major concern of the authors of the guideline, so that a high level of acceptance and readiness for implementation can be achieved.

Ideally, as many of the tasks as possible should be automated, so that the goal is a fully automated process that minimises workload and errors.

Conclusion and benefit of the VDI guideline

Contractual specifications and coordination between the contractual partners and individual wishes on the customer side will be a thing of the past in the future, because now there is a guideline that provides a structured and, above all, standardised and automated framework.

This makes it possible for customers and manufacturers to automatically distribute and adopt the documents that accompany the product and ensures secure documentation.

sera has also set out to take this important step towards standardised, digital documentation in order to drive the transformation forward at this point as well.

CORONA VACCINATION CAMPAIGN AT Sera

Maintain social distancing, wear a mask, wash your hands. Even though our society largely adhered to the hygiene regulations, it was clear: Corona vaccination is the key to controlling the pandemic and the best way to protect us all.

The fact that the first vaccines were already available at the end of 2020 and received fasttrack approval gave rise to hope. Nevertheless, patience was required, after all, vaccinations were carried out according to priority. First the elderly and those with compromised immune systems, then gradually other parts of the population. In the

summer of 2021, vaccination programmes were launched in companies, and **sera** quickly



















made a vaccination offer available to its staff members: On two dates in June, almost 100 **sera** team members were vaccinated against the Corona virus with the BioNTech vaccine Comirnaty by a mobile vaccination team from the Calden vaccination centre at the **sera** main company location in Immenhausen. The sense of joy and relief they felt was clearly visible – despite the mask. They all received the second vaccination in August, again directly from **sera**. A big thank you must also be expressed at this point to management and the HR department, as well as the mobile vaccination team from the Calden vaccination centre, who all made the vaccination process possible and coordinated it perfectly.



NOT EVERYONE CAN WORK REMOTELY The sera service during Corona

For more than a year and a half, all of our lives have been shaped by the COVID-19 pandemic and much has changed. This issue of **seranews**, for example, is being created again, just like the 2020 issue remotely – and that is working very well. But what does it actually look like in departments at **sera** where remote working is simply not possible? How has the pandemic affected the work in customer service at **sera ProDos GmbH**? A report.

New Year 2020: People on all continents, whether old or young, poor or rich, are once again looking forward to a new year full of inspiration and hope. Unfortunately, hope is abruptly shattered with the first report of a new lung disease that has emerged in China. In February, Germany's skiers were still whizzing across the slopes of neighbouring Austria, feeling safe and carefree despite the ongoing pandemic situation in neighbouring Italy. But from the winter sports metropolis of Ischgl, the lung disease that was now known as COVID-19 spread with a veracity that no one thought was possible. Life as we knew it in Europe collapsed, Germany issued a lockdown on 16 March 2020, which came into effect on 22 March 2020. Schools, kindergartens, department stores, pubs, cinemas and car dealerships are just a sample of the list of public activities now forced to close. All of a sudden, digitalisation with the keyword "home office" was being driven forward in Germany as never before in the internet age. **sera** also moved many workplaces to a remote setup, safe at home to protect its employees. This may not be a problem for VDU workstations, but what about our technicians in the field who assemble and maintain pumps and systems?

Do our technicians get access authorisation on-site? What does working look like in terms of hygiene measures? What danger are our **sera** staff exposing themselves to?







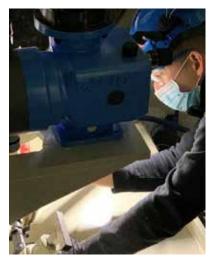
All these questions remained unanswered. In 2019, we did everything we could to fill the order books for the aftersales market and set the course for double-digit growth. And, suddenly, none of it mattered.

Based on these great unknowns, we decided to reduce the accumulated overtime of our technicians and even let individual working time accounts run into a deficit.

At the end of March 2020, the **sera Group** announced short-time work and we already made some calculations in the **sera ProDos** customer service department about how many man-days and how much turnover we would probably lose, but everything turned out differently.

Already after Easter 2020, we had no problems obtaining access authorisations from our customers, all customers suddenly wanted to use the quiet time due to Corona to carry out maintenance and assembly in their companies and the demand for maintenance by our staff did not stop.



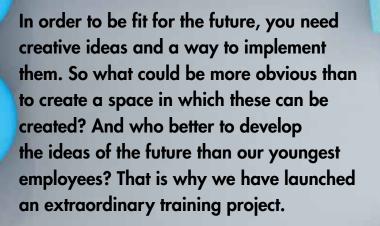


Service trips with more than one **seranian** only took place after a negative Corona test – which, in turn, was also necessary to gain access to clients' plants. Both at the customer's site and during the in-house repairs at **sera**, all hygiene measures (mouth-nose protection, keeping a distance, disinfection) were observed – for the safety of all involved.

At short notice, we decided to equip another car with tools and parts to cope with the high demand. Business stabilised at the monthly forecast turnover, with some months even exceeding expectations.

But it was not only business at the customer's site that was stable; the sharp increase in the number of in-house repairs also took us by surprise and we were only able to cope with the rush with great difficulty. In November and December 2020, we operated a large construction site for the city of Idar-Oberstein and piped a large polymer plant for the Dingolfing public utility company. In November 2020, we also received our first order for the laying of a double pipe at Kraftwerks- und Netzgesellschaft, the power plant and grid company in Rostock, with a volume of approx. 300 m. The end of the year was positive – even if it was marred by the absence of **sera**'s year-end party.

In the meantime, **sera ProDos** has firmly established itself on the service market; we have developed into a powerful partner for application technicians and customers, regardless of whether plastic or stainless steel pipes are involved. Whether it involves a sewage treatment plant, industry or power plant – our experts look after our customers true to the motto "customer intimacy" and offer customised solutions.







An idea becomes a project

The idea of revising the room concepts quickly became a project. We wanted a space for creative work and a place where collaboration among colleagues is encouraged to the max. But who should take this on? In a phase where many colleagues could only work remotely, there was often a lack of ideas and also time. Since there were many different tasks involved, we also had to rely on a larger team. Our trainees and students have always contributed suggestions for the use of the rooms, and so the idea arose to turn it into a training project.

Self-organisation and responsibility

One goal was to integrate all commercial and industrial trainees as well as our students. Another goal was to promote self-organisation and personal responsibility among our junior staff. In the project, junior staff were, therefore, given a coach who acted as an advisor and contact person, but who was otherwise supposed to let the young colleagues act largely independently.

At the beginning of the project, all trainees and students were informed together about the task and objectives. At an initial workshop, everyone was able to contribute freely and a variety of ideas for the spaces were developed this way.

As part of our "sera in motion" programme, we have been focusing for some time now on constantly reinventing ourselves to meet the challenges of the future. This ongoing process of change is part of the daily work (see also our article "Transformation of work" in this issue). In order to be able to develop these changes and improvements time and again, you need an environment that promotes them to the maximum. That's why we at sera have always created places in the past where ideas can be developed. Thus, many years ago, a library and a "Room of Inspiration" were created, which was intended for switching off, but also for inspiration. In the course of the COVID-19 pandemic, the idea arose to use the time of absence of many colleagues through remote working, to revise and rethink these spatial concepts. This was the start of an unusual training project, because it was not our colleagues from the established structures such as facility management – who took on this task, but our students and trainees.

TURNING IDEAS INTO REALITY

HOW TRAINEES HAVE DEVELOPED A NEW PLACE FOR CREATIVE WORK

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CREATIVE HUB

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Afterwards, the trainees and students organised themselves into three teams: Planning, procurement and implementation. In the respective teams, schedules were drawn up, tasks distributed and cost plans created. Within the framework of the project, our junior staff members went through all phases of a normal project process and were able to learn and experience it under real conditions. Within the planning

team, the conception and the development of ideas were driven forward, in the procurement team, suppliers and prices were sought out and, in the implementation team, plans for the realisation were drawn up. Each team was responsible for its own area of responsibility and had to exchange information with the other teams on a regular basis. If there were any questions, the coach was available as an advisor to the teams. Statement by student André Walter: "The great freedom and personal responsibility of being able to do the project like this has meant a lot to me personally."

> Once the concept had been developed, the costs had to be determined and the necessary input from departments in the areas of Finance, Marketing, IT or even Facility Management had to be clarified. Our junior staff worked with such commitment and personal responsibility.

LET'S GO

When the ideas turned into a concrete implementation project, all that was left was to get the project approved. Up to this point, the junior staff members were allowed to work completely independently and were only guided by the goals. The result was a concept for a creative hub where workshops and meetings can be held in a completely different ambience. In a second room, a collaboration room has been created where colleagues can meet and work together in a different atmosphere or simply have time to exchange ideas.

The last hurdle was the presentation of the project to management. Here, the ideas now had to be convincing. This was also implemented and carried out independently by the trainees and students under the guidance of the coach. Both the concept and the time and cost planning met with great enthusiasm. Perhaps more decisive than the result was the realisation of how independently and professionally the junior staff had already planned and implemented the project.



Statement by Head of HR Jasmin Katrina: "With this project, we not only got a really great space to work creatively together, but also an innovative added value for the training of our junior staff. We implement projects like this regularly and use the ideas and contributions of our young talents to do so."



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Statement by coach Stefan Merwar: "I wished at the start that we would simply tear through a project like this, but I have once again been positively surprised by the team."



The conversion then marked the start of the hot phase for the project. The old room had to be gutted, old materials had to be put to good use and preliminary work had to be done for the conver-

sion. In addition, there were some in-house fabrication projects that were carried out by our industrial trainees. In addition, delivery times and delays were coordinated in procurement. Here, too, our junior staff were able to gain some important learns from the project. The final phase

of the project ultimately began with the interior fittings. The team had decided on a new floor and it had to be laid, painting work had to be done, special wall tattoos had to be applied and furniture had to be built or delivered. In the meantime, the room has been completed and will be ceremoniously opened at this year's end-of-year party, circumstances permitting. The result is impressive: In two completely redesigned rooms with a range of extraordinary ideas, our

Statement by trainees Maja Faßhold & Tom Häder: "We were able to learn a lot for our subsequent activities in the course of the project. The fact that we had the freedom to do a project like this is very special."

> colleagues can now find the inspiration to develop creative solutions and new ideas for the future. With their special ambience, the rooms offer the opportunity to think differently. And this has been made possible by our colleagues of the future, our trainees and students at **sera**.

REATIVE HU

NEXT STEP – iSTEP XS

This year, sera launched the iSTEP XS, an extension of its successful iSTEP stepper motor pump series. The new, smaller iSTEP XS complements the performance range associated with the larger version iSTEP S. The new sera stepper motor pump iSTEP XS combines the proven, intelligent drive concept with the accuracy of a diaphragm dosing pump, and sets standards in terms of reproducibility and reliability. Due to the variable speed adjustment and a capacity range of 0.007...15 l/h at 10...7 bar, the possible applications are almost unlimited. It is intuitive to use, durable and particularly suited to demanding dosing tasks. The iSTEP XS is also a real winner on the market – and not just because of its great performance at a low price.

ADVANTAGES AT A GLANCE

- Extremely large capacity range with just one pump
- Adjustment range 1:1000, meaning it can, therefore, be adjusted optimally
- Low-pulsation dosing
- Microprocessor-controlled drive

PROFIBUS / PROFINET INTERFACE MODULE (OPTIONAL)

The Pro+ control electronics of the iSTEP XS can be extended by interface modules for PROFIBUS or PROFINET networks.

The PROFIBUS INTERFACE MODULE has a level input and two connections, with which the iSTEP XS can be directly integrated into a bus system. The connection is located directly on the module, additional distributors are not required.

The PROFINET INTERFACE MODULE offers the possibility to integrate the dosing pump into a PROFINET network. With two PROFINET connections, it can be integrated into both ring and tree structures.

- THE RANGE OF APPLICATIONS

- Chlorine dosing for drinking water treatment
- Flocculating agent dosing in wastewater treatment
- Dosing of flocculant aids
- CIP applications

INTERNATIONALLY APPLICABLE

The CE and TR certifications confirm safe use of the iSTEP XS in all relevant markets. Individual mains plugs (voltage range 100-240V) ensure smooth use anywhere in the world. The display is also equipped with nine menu languages (DE, EN, ES, FR, NL, CS, FI, TR, SV), making it intuitive to use internationally.

SIMPLE PARAMETERISATION OF SEVERAL — PUMPS THROUGH REMOVABLE CONTROL ELEMENT

The iSTEP XS Pro+ is operated via the removable control element using buttons and a click-wheel. It ensures quick commissioning of several pumps with the same function. The parameterisation of one iSTEP is saved in the control element. The control element can then be connected to other pumps and the stored parameters can be transferred.

- INPUTS & OUTPUTS iStepXS Pro

110

• 2 digital inputs

sera

- 1 analogue output for 0/4...20mA
- 2 digital outputs

- INPUTS & OUTPUTS iStepXS Pro+

- 3 inputs programmable as 3x digital inputs
 - 2x analogue inputs 0/4...20mA
- 2 digital outputs

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- 1 analogue output for 0/4...20mA signal
- All inputs and outputs are freely configurable

TRANSFORMATION OF WORK – OR HOW WE CAN ALL PREPARE FOR THE FUTURE

The work of the future is becoming increasingly digital and ever more detached from traditional processes. In many areas, the requirements are also becoming more complex and can only be met with new and agile methods. Responding to these changes means empowering people and changing processes. A fundamental discussion with our Chief Digital Officer Stefan Merwar.

Dear Stefan, Digital Transformation, New Work, Working 4.0. What do these terms mean for you as CDO at **sera**?

First of all, it has to be said that these are all buzzwords that are incredibly fashionable right now, but at their core mean very different types of change. The fact is: Digitalisation has changed our working world. Processes that used to require a lot of effort now run automatically. Networking employees is much easier, cross-location collaboration is no longer a problem. Knowledge is becoming ever more important. New professions are emerging. So the real topic is change.

Why is the topic of change so important for companies right now?

Take, for example, the term New Work. It was introduced by Frithjof Bergmann at the end of the 1970s and described a counter-design to the classical forms of wage labour towards more personal responsibility, independence and participation. A radical notion no less. Today, the term is used more for the structural change of companies in terms of work organisation and methods. Meaning that this is more of a transfer of the idea into existing systems, a smooth transition. The reasons why New Work has become so fashionable right now include digitalisation, globalisation and the change in markets and technologies, which open up completely new opportunities and possibilities in the execution and organisation of work, while at the same time increasing the pressure on companies. And so, New Work today stands for this urgent transformation of our working world.



What about the Digital Transformation?

Digital Transformation, similar to the term Working 4.0, is thought of more in terms of the use of digital means for the execution of work. How can workflows be made faster, leaner and better with the help of digital processes? Where do we achieve added value through the use of digital processes? This transformation is also nothing new, but has been going on for decades. At the moment, we are only reaching higher and higher speeds in implementation, and this is primarily fuelling fears due to the complexity involved. Work 4.0, on the other hand, is more directed at the employee himself. What will I do in the future and what skills do I need for it? The main issue is the specific workplace and whether we will still need it in this form in the near future. Here, too, it is about change – but on the part of colleagues, and that also frightens many.

_____ In which way?

I'd like to answer that with figures from a survey by the Centre for European Economic Research (ZEW). They have calculated that 42% of all jobs in this country will be endangered in the long term by advancing digitalisation. This view is also shared by many workers. Almost 70% believe that this will happen. Curiously, at the same time, it was found that almost 80% of the respondents believed that this does not apply to their own job. And there, we already see our two challenges: On the one hand, we have to start (or continue with) the transformation of tasks and, at the same time, we first have to convince people that it is necessary for them to change themselves. And both under a lot of time pressure, because the demands from outside are already catching up with us.

What does this mean for your company? And why is it so important to address these issues now?

For many companies, New Work means a completely new mindset. Factors such as the development of employees' potential, flexible working arrangements (trust-based working hours and locations) and the involvement of employees in decision-making are becoming increasingly important. We are also facing an enormous upheaval in terms of staff structure. With the retirement of the baby boomer generation and the arrival of Generation Y, Generation Z, etc., we are getting completely new perspectives on the topic of work and work organisation. Companies that want to remain fit for the future should address these issues now, as this is the only way they can find and retain good employees in the long term and thus increase both productivity and innovative strength.

What it is that makes these new working worlds what they are?

First and foremost, it is about coping with greater complexities. The processes from today's perspective are often still linear and clearly comprehensible. In the future, processes and systems will become increasingly complex and new skills will be needed to cope with them. To do this, we first have to empower people so that we can then implement these processes in the best possible way as a next step. In many areas, jobs will be completely eliminated or fundamentally changed through the automation of processes. At the same time, the shortage of skilled workers elsewhere is significant for professions such as computer scientists. This presents us as a company with completely new challenges. It is not enough to simply talk about retraining, we need a completely new mindset in the company.

MIND SEI

When you talk about mindset, isn't that the next buzzword?

Mindset, or simply "attitude", is not just a buzzword from the ground up. We have also been talking about this for a long time. At **sera**, we launched the "**sera in motion**" programme several years ago, in order to transform ourselves from a traditional mechanical engineering company to a future-oriented environmental technology company. In this respect, the right attitude or mindset is a basic building block for change. However, fundamental changes are coming together today in the demands of digitalisation and globalisation, which must first be mastered.

— For example?

Our basic goals are the same as before: Increased efficiency, customer-centric action, innovation and faster, more effective in-house collaboration. But while in the past this could be solved with silo thinking and a clear chain of hierarchy, today we need the opposite. "Entrepreneurs in the company" are in demand, self-responsibility and the willingness to contribute and share ideas are decisive for the success of the company. None of this "the boss will fix it" or "it's not my job" mentality will help. Employees are taking on ever more responsibility; without that, it is no longer possible. And we have to create the framework conditions for this, and we have been doing that for some time now.

— What does sera do exactly?

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We work on three levels. Infrastructure, methods and people. On the one hand, there is, of course, the technical level. We are trying to consistently move down the path to digitalisation that we embarked on more than 15 years ago. For example, well before the COVID-19 pandemic, we worked towards moving our data to the cloud and also adopted the Microsoft 365 collaboration platform. For example, in March 2020, at the start of the lockdown, we were able to move 95 % of our office workstations into remote work within a few days. Networking and cross-departmental work has also not been a problem for us for some years now, even at a data level. In this way, colleagues can form interdisciplinary teams, share data and work together in the same document at the same time, even though one colleague is based at the headquarters in Immenhausen and the other in Spain.

On the other hand, we rely on tools that enable colleagues to work together more efficiently and quickly. The rule here is always: as much as possible, as little as necessary. We do not want to create something of a behemoth in the digital space, but pragmatic solutions that work.

On the other hand, we are continuously working on structures. By structures, I mean above all the framework conditions for staff. On the one hand, there is the infrastructure in its purest form, as well as the processes and methods, that are used. — And that means in practice?

When it comes to infrastructure, sera has been far ahead of the pack for a long time. Thanks to the use of end devices, all colleagues are optimally equipped to be able to work on the move. In the few places where this is not yet possible, we are already working on solutions to make this possible in the future. This gives us considerably more leeway in the implementation of projects and greatly promotes cooperation worldwide. The use of the latest technology is always a signal to the workforce. In addition, we also offer many opportunities to embrace new and different forms of work on site. By that, I don't mean the obligatory table football or the large beanbags, which have, of course, been with us for more than ten years. Rather, our space concept at sera includes different rooms for different activities, such as workshop or creative spaces. Currently, this is being reinvented once again as part of a great vocational trainee project (see also our article on the Creative Hub in this issue). In the background, we are also looking into multi-space concepts and new office spaces in order to be able to react flexibly to future requirements. And anyone who has ever sat with their laptop in the cool courtyard with us in the hot summer knows what I'm talking about.

And what do you depend on when it comes to methods and processes?

Here, too, **sera** has been a pioneer for many years. We have deployed a trust-based working time model for several years and have had very great experience with it. The employees very much appreciate the flexibility and the leap of faith this involves. In addition, we not only have very flat hierarchies, but also a culture in which you can address everyone directly, regardless of their position. The first name culture, which has a long tradition here, is also very helpful. All this makes cross-departmental teamwork much easier, making it the analogy to the digital possibilities via the tools involved. Today, if you want to speak to someone quickly, you write to them briefly in the chat or simply make a video call directly. It's all much more direct, participatory and, above all, collaborative than the old classic chains of command.

And I would like to emphasise that, for us, this not only refers to a purely office level. We also try to implement these methods and models consistently in production. Here, the challenges are often even higher, but today, we can connect all colleagues via the TEAMS platform and work with shop floor management in the production areas, where a daily stand-up is nothing unusual. And that brings us to our third level.

—— And what is the third level?

The third level is the **sera** employee. As already mentioned: without the right mindset, every digital process, every idea is doomed to fail. It is the people who make the machine fly. The example of shop floor management shows that it is worth starting. As was to be expected, there were reservations among colleagues at the beginning of the introduction and not everyone could immediately see the added value in these methods, but with time and many positive experiences, we have now found a high level of acceptance for them. We are working intensively on fostering and expanding know-how and knowledge, in order to take colleagues at all levels along for the ride. In order to step up to the challenges involved, the willingness to change must be great and we must act very flexibly in the future. That's why we started integrating agile methods and processes into our company some time ago. Everyone knows that agile working methods accelerate the implementation of complex projects and promote the development of innovative ideas. For this to work, you need the appropriate know-how and positive experiences, then you also generate authentic enthusiasm among your colleagues.

KNOW-HOW

MFTHODS -

— How do you go about delivering that?

This change does not happen overnight, but takes time and perseverance. We, therefore, rely on continuity. One example of this is the "Methods Wednesday" that we started in 2020. Every Wednesday, we offer a half-hour training session or lecture on the topic of Collaboration, Agile Methods or New Work. Tips and tricks or even basic background information on the topic of agile working are covered in order to "enlighten" the colleagues as much as possible. This series takes place online due to the current pandemic and is also recorded so that it will be available later as a video. Every colleague can join in if they have time, or they can watch the topic later via video. In this way, we achieve continuous engagement with the topic and can spread knowledge as widely as possible.

WEDNESDAY

And what has been your experience so far?

Our experience has been exclusively positive. The colleagues are enthusiastic throughout and many suggestions have been implemented directly in-house, de-centrally, by the colleagues in the teams. For example, many teams now work with daily stand-ups for coordination and updates, whether in person or also in hybrid forms. Many tips on the topic of remote working were directly implemented and you can discover the Kanban boards that have been created in many offices. The whole thing creates a tremendous sense of optimism around the theme and that is what we wanted to achieve. In the meantime, there are already offers from the staff to present something themselves. There is a real culture of sharing knowledge and ideas.

In addition, of course, we also work on very specific topics and hold workshops, try out new project management methods and thus deepen our experience. To this end, we have already conducted the first retrospectives to see where we stand and what can be improved. This is not always easy, but it changes the way we look at the issues and makes us better in the end. And, of course, you must always question whether you should use this or that method for a topic. There is not "the one" solution.

— What are your next goals?

The most important goal is that we continue steadily. These changes are not a project that can be completed at some point. Rather, it is a permanent task to check yourself time and again in order to become better. In the end, we want to do the right thing with the right means.

In order to meet the challenges, the willingness to change must be great and we must act very flexibly in the future. Dear Stefan, thank you very much for the interview.

THE PUMP OF THE FUTURE -WE ARE ON THE RIGHT TRACK

The COVID-19 pandemic is accelerating digitalisation in all areas. Whether remote working, IoT or intelligent production plants. We at sera also feel this. But is this feeling also provable? What do our customers want from the pump of the future?

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About 1,000 customers participated in the online-based survey and their feedback was very interesting. Many took the time to answer open questions and gave us direct feedback on **sera** products used, underlined how satisfied they are with them or formulated wishes for improvement. Not an intended result, but nevertheless nice to see, was the cross-section of our customers that the survey depicted: Long-standing customers who have trusted sera for decades, but also new customers took part. Customers who have only purchased pumps sporadically, but also major customers with dozens of pumps in use. Buyers, project planners, end customers. Operators of sewage treatment plants, beverage chemical producers, workers. They all took the time to answer a few questions for **sera**. Bluetooth connection As different as the participants are, one answer is clear: **sera** products are mainly bought

because of their reliability and the very good price-performance ratio. Of course, we can only provide a small insight into the survey here, but, of course, we do not want to withhold some exciting feedback from you. We asked our customers how they operate their pumps, and here it is clear to see that digitalisation already plays a major role in most processes: Less than 10% operate their pumps manually, whereas more than 70% of the respondents stated to operate them either by analogue signal, by ProfiBus or ProfiNet.

The result was even clearer when asked what our customers want from the pump of the future: More than 75% still see the future of the pump as significantly more digital. After all, 25% expect a simple and stable WiFi integration or internet connection, and another 23% would like to be able to control their pumps de-centrally via an app or remotely via Bluetooth. The desire for more automation was also clear: Automatic error message forwarding directly to sera, combined with an automatic service call or the ordering of required spare parts are clear needs for our customers.

These are all topics for the future that we at sera are working on at full speed. Watch this space when it comes to our pump(s) of the future.

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FINALLY DOING GOOD TOGETHER AGAIN



"We create added value for people and the environment" – at sera, this motto is at the heart of everything we do. The sera Social Day has already become a small tradition at the headquarters of the sera Group in Immenhausen – the sera trainees get involved together with the managers to support a project that has been jointly selected beforehand by donating their efforts and a free Saturday. Remarkable projects – such as new outdoor facilities for a children's home or an educational garden for a special school – have already been implemented. The sera Social Day is now an established and, above all, popular event for all sera employees involved. Unfortunately, it had to be cancelled in 2020 due to Corona. But in September 2021, the time finally came again: Together, trainees and managers rolled up their sleeves and donated a free Saturday to a good cause.

11 September was to be a special day: A lot of helpers had registered for this Saturday at the KiTa Wehlheiden in Kassel, run by the AKGG (Working group on community-based health care). This year's **sera** Social Day was planned, while necessary tools and working material had already been delivered by **sera** staff the day before. But the educators, who were there especially early to give the guests a nice welcome, started what was supposed to be a beautiful day with a shock: Work materials had been stolen during the night! Stones that had been delivered the day before and were planned for the construction of a herb spiral were gone. This could have

sera social DAY 2021

sero



spoiled the mood (or even the whole day), but the employees of the day care centre in Wehlheiden did not let that happen; instead, they acted and actually managed to get replacements with the help of parents. On a Saturday morning. This alone shows how much they care about "their" KiTa (day care centre).

In the meantime, about 20 **seranians** had also arrived – traditionally made up of teams of trainees and managers. They were joined by kindergarten children and their parents. With bright sunshine still pouring down and a cup of coffee, tasks were distributed and off we went.

Everyone really lent a hand and always had a smile on their face. Everyone noticed what they were digging, hammering or mixing concrete for: For the kids, who enthusiastically helped where they could. What you can achieve in one day is quite spectacular. The **sera** staff managed to implement the following outdoor projects together with the educators at the day care centre, as well as the children and their parents:

- A herb spiral made of quarry stone wall incl. planting was created
- A raspberry trellis was built and planted
- A barefoot path with different soils was excavated and laid out
- The outside staircase was planted with vine
- In the sandbox, a mosaic panel was lovingly puzzled together for mud games
- Trees and shrubs were planted throughout the outdoor area and along the fence.

And all this despite recurring heavy rain, which made the work much more difficult. The newly installed parasol – fortunately a waterproof one – was a welcome shelter that also invited those involved in for a chat in the dry.

At the end, everyone had a barbecue together and looked back on a successful day – even the stone theft had long been reconciled as one of those things that, unfortunately, happen. Doing good is good.



The sera branches in Passau and Austria were inspired by the commitment of their colleagues in Immenhausen and introduced their own sera Social Day, with a slight modification. This is particularly pleasing for the Ronald McDonald House in Passau, which has benefited from this social commitment shown by colleagues since 2020.

01



SOCIAL COMMITMENT IN BAVARIAN TRADITION – sera Austria supports the Ronald McDonald House in Passau

The Ronald McDonald House and the – Oase – (Oasis) in Passau offer families a temporary home while their seriously ill children are being treated in the children's hospital. Since 2020, the colleagues of **sera Austria** and **sera VSS** have been committed to bringing some joy to the families during this difficult time.

Due to the current Corona situation in Passau, a Social Day in the spring of 2021 was, unfortunately, not possible. But that did not stop the colleagues: They got creative and came up with a great alternative: "Theme baskets". The first theme was also found quickly - they orientated their efforts to the Maidult (folk festival in Passau) which normally takes place in May. Fittingly, the baskets for the five families were filled with all kinds of traditional treats: roasted almonds, strawberry skewers, pretzels, cheese and drinks. One special highlight was the custom-made sera aingerbread hearts.



With the best beer garden weather and dressed in traditional Bavarian costumes, Alexandra Strobl and Celine Haider – colleagues in charge of this social project – handed over the Maidult baskets to the grateful families. The required social distancing rules were, of course, observed. The team from **sera** really hit the jackpot with their idea and, at least for a moment, made the families' difficult situations fade into the background.

"Such a beautiful thing to do! This is exactly what we need right now," said a touched mother. **sera** creates added value for people and the environment – with this campaign, too. And since doing good does so much good, it will not be the last surprise that the colleagues of **sera** Austria have planned for the Ronald McDonald House and the Oasis in Passau. There are already ideas for further themed events. Until then, **sera** wishes the families in their temporary home much strength and, of course, good health.



FOR THE SAKE OF THE ENVIRONMENT – SUSTAINABLE MARKETING AT SETC

How do you manage to carry the sustainability idea through all parts of the company and also implement it? This is a question that the Communication Departments, in particular, are currently grappling with. But how do you implement a goal like "sera goes green" in marketing?

If you want to think about sustainability holistically, you quickly come up against limits in everyday professional life. Thus, in the context of our communication to clients, employees and other target groups, we were quickly faced with the question of how to achieve our goal of providing comprehensive information and, at the same time, act in a more sustainable way. Many of the ways discussed had both advantages and disadvantages. Can we, for example, consistently distance ourselves from printed material and instead only communicate digitally? Will we then still reach all stakeholders, or will we lose contact with target groups? And if we go down this path, is the digital channel really sustainable enough?

We have, therefore, decided to transform our actions in different steps to give colleagues options. With the question: "Can this also be made more sustainable?" we, therefore, set out on our journey.

Today, we produce considerably fewer printed versions of our documents, and only in response to specific requests for very small print runs. We make sure that the paper is made from renewable or recycled materials and that the printing is always carried out with a CO₂-free certificate. Care is also taken to ensure that the printing inks are solvent-free. This applies consistently to all printed advertising material.

Sere web.c



In addition, our previous measures have been consistently digitalised. Whether it's information to staff that we've moved to internal blogs and infoboards, or events that we've been able to turn into digital formats in many cases to minimise travel. The expansion of digital channels, which we have already been pursuing for several years, has, of course, also received a significant boost from the pandemic.

But you can also embrace the sustainability idea in face-to-face events that continue to exist. For example, we take care not to use plastic or disposable tableware, talk to caterers about sustainable or local supplies and also design the events in a sustainable way in terms of equipment. Give-aways or staff clothing are selected according to eco-standards and thus contribute to a more sustainable implementation.

For the continuous and sustainable implementation of **sera goes green**, we will continue to work on further building blocks and ideas in the future, in order to be able to implement our objective even more consistently.

BOP



We have successfully organised the sera Handball Day together with MT Melsungen three times to date, and created truly special moments for hundreds of children and young people. They were allowed to spend an afternoon training with their idols, the MT Melsungen professionals, and see them up close.

Unfortunately, the sera Handball Day was not allowed to take place again this year after 2020. These special times emphasize more than ever that new creative, sustainable and modern ideas are needed. And so, we thought about it and developed a great alternative together with MT Melsungen:

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The **sera** Future Challenge

IN COOPERATION WITH MT MELSUNGEN



We found it exciting to interact with the kids with this slightly different format, and to try out this somewhat different kind of challenge.

Based on our guiding principle of "We create added value for people and the environment", we wanted to shed light on the topics of climate change, water scarcity and the mobility of tomorrow from the perspective of children and young people. This is because the future belongs to our children and we wanted to learn from them how we can make it a little more sustainable and better together. Children aged eight to 15 were able to submit ideas as individuals or in teams in the form of presentations, videos, painted or shot pictures, savings plans and much more.

We wrote directly to schools and clubs and sent them posters and brochures about the Challenge, we advertised the Challenge in the matchday magazine at MT Melsungen's home games and, of course, promoted everything via our social media channels. A jury consisting of representatives from MT Melsungen and ourselves will evaluate the entries at the end of November (after this edition of **seranews** goes to press).



IN COOPERATION WITH MT MELSUNGEN



You can also watch the videos with our three national handball players Finn Lemke, Tobias Reichmann and Timo Kastening. (just scan the QR code)

CHALLENGE 1 – WATER AS A RESOURCE

Water is an increasingly important commodity and we all notice that it is slowly becoming scarce. Germany, too, is now characterised by droughts, and forest dieback is largely due to excessively dry summers. So for all of us, water is a resource to be used wisely. We should not waste it unnecessarily, and we should counteract the ever-increasing rate of consumption – on a small scale in the family, and on a large scale in industry and agriculture.

At **sera**, we ensure on a large scale that water is usable and drinkable worldwide. We have developed special plants for this purpose, which are used, for example, in water treatment or for the desalination of seawater.



At our annual **sera** Environment Day, all **sera** colleagues lend a hand and create added value for people and the environment – for example, by building insect hotels and bird houses, planting flowering meadows and collecting rubbish.

CHALLENGE 2 – THE MOBILITY OF TOMORROW

What will the mobility of tomorrow look like? It is clear that not only industry but also internal combustion engines emit too many exhaust gases and thus contribute in no small part to our poor CO_2 footprint.

We at **sera** have recognised this and, as an environmental technology company, are focusing on the future market of hydrogen. We not only manufacture hydrogen filling stations, but also develop solutions to power ships with hydrogen.

We also rely on e-mobility for our own vehicle fleet: We mainly use our e-bikes for internal transport and the company fleet can be "refuelled" at **sera**'s own e-charging stations.



CHALLENGE 3 – CLIMATE CHANGE

Climate change concerns us all. Extreme weather phenomena are becoming more frequent, biodiversity is declining significantly, temperature increases are causing the



polar ice to melt – these are just a few examples of the effects that climate change has and will continue to have. We must all act now to protect our Earth and ensure that future generations can still live here.

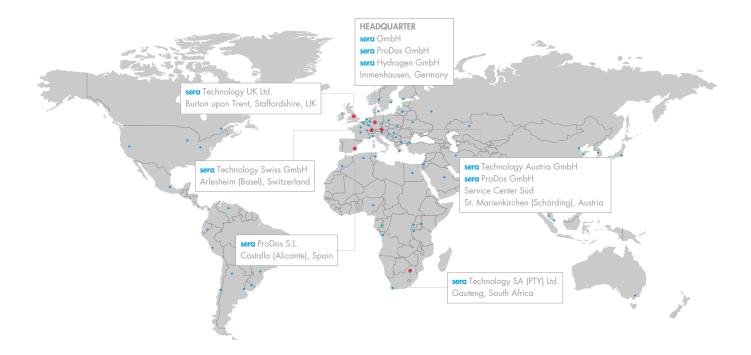
sera products ensure, for example, that waste is recycled sustainably in waste incineration plants. However, we are also committed to environmental protection in our daily work: Whether it's a paperless office, striving for CO2 neutrality throughout the company, switching giveaways and packaging to sustainable alternatives – this is why we have also received the certificate as an environmental technology company.

We are thrilled with how well this new format has been received and, together with MT, are now looking forward to evaluating the entries at the jury meeting at the end of November. We will share the winners' ideas on our website and social channels – an incentive for all of us to act a little more sustainably in ways both large and small. We will be awarding prizes to the winners at one of MT Melsungen's next home games and will thus be able to give many an early Christmas present.

WORKING FOR YOU ALL OVER THE WORLD

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With headquarters in Germany and subsidiaries in the UK, Spain, Austria, Switzerland and South Africa, as well as a global sales and service network with over 30 partners in more than 80 countries all over the world, **sera** guarantees the best possible customer care on-site.



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"Print CO, -checked" initiative

In the print and media industry, too, awareness of climate change is ubiquitous at the moment. The "Print CO₂-checked" initiative, led by the associations of the printing and media industries, is raising awareness of harmful emissions in the sector. "Print CO₂-checked" was set up by the Bundesverband Druck und Medien (Federal Association of Print and Media (BVDM)).

The Association developed the principles for its approach and the CO_2 calculations in consultation with the Federal Ministry for the Environment and the Öko-Institut Freiburg. Companies interested in participating in the initiative simply have to be members of an association in the printing or media industries. Across Germany, more than 100 businesses are already working to improve their climate balance with the aid of "Print CO_2 -checked".

The "Print CO₂-checked" seal stands for three basic objectives:

- determining CO₂
- avoiding CO₂
- offsetting CO₂

If you wish to join the "Print CO₂-checked" initiative, you also undertake to review your energy consumption with the help of independent experts. Opportunities to make savings can often be identified in this process.

At the end of it, companies are shown ways to neutralise harmful emissions and thus to get involved actively in climate protection. The company First Climate, which promotes renewable energies in cooperation with the WWF, is responsible for neutralisation. The CO_2 certificates of this seranews support a reforestation project in Uganda.

This edition of **seranews** was printed by our partner printshop in the region in a CO_2 -neutral process. The waste heat from the printing machines, for example, is used to heat the building. In addition, only mineral-oil-free inks were used during printing, as they contain plant oils from sustainable agriculture that are easily bio-degradable and thus leave no residues when recycling used paper.



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