PRISMA

The WILD Group magazine

DESIGNING A CIRCULAR ECONOMY.

Photonic: HPRL streamlines microscope workflow 3

Acting consistently in terms of a circular economy 4

WILD extends your product's lifespan 7

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WILD PHOTONIC

THINKING AND ACTING SUSTAINABLY.

Josef Hackl
CEO WILD Group

Supply bottlenecks, price increases for goods and energy, the war in the Ukraine and the consequences of covid-19 have been on our minds for months now. These topics have become so present that they distract us from many central issues which deserve our attention.

As a result, the biggest task of all, namely that of effectively tackling climate change and resource conservation, seems impossible to manage. Yet is up to us as a society and especially to companies like the WILD Group to take concrete steps here and now. Steps that are truly effective in the long term and are not just touted as sustainable by politicians or lobbyists. What we need is an honest and holistic approach.

In our search for a structure for our sustainability concept, we came across the Ellen McArthur Foundation, established by yachtswoman Ellen McArthur in London in 2009. For us, her notion of circular economy was a starting point for identifying numerous areas of activity within our group of companies and deriving specific measures therefrom.

In our "On the path of sustainability" report, we summarise the four stages of our holistic approach towards incorporating circular economy into the world of the WILD Group. In "As good as new", we specifically address an element of stage 3. In "Our CO_2 mission", we give you an insight into the numerous measures of stage 4.

Let's get together and start this great mission and continuously improve it along the way.

Josef Hackl
CEO WILD Group

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INTUITIVE USE.

Whether in automated quality control or whenever manual precision work under the microscope is required: Photonic's LED high power ring light can be smoothly integrated into any workflow.

Those who carry out precision work under the microscope must fully concentrate on their task. This is often difficult in the case of conventional ring lights, since you have to take your eyes off the microscope to find the separate control unit and lose sight of the object under examination as a result. Lighting specialist Photonic has thus developed an LED high power ring light (HPRL) with integrated control for industrial and life science applications.

"The position of the rotary/push button control on our LED high power ring light allows for an easy change from the focus/zoom control of the microscope to the ring light", explains Mark Gorecki-Schwarz, who works in the electronics development section at Photonic. "This direct control at the light source enables the user to intuitively adjust both the brightness and the illumination angle. When users change a setting during work, they have immediate, easy access to a previously stored setting at the push of a button", Gorecki-Schwarz explains. When combined with multi-purpose optics, the latest LED technology also guarantees unparalleled brightness while maintaining a homogeneous illumination.

IDEAL FOR AUTOMATIC QUALITY CONTROL

Photonic's LED high power ring light has already established itself in the area of quality control. "Thanks to its USB connection, our system can be seamlessly integrated into an industry 4.0 workplace. Especially in automated quality control, this remote version allows the user to quickly cycle through different predefined illumination scenarios to highlight different properties of the test sample", stresses Photonic Sales Manager Annette Stampfer.

The HPRL with USB connection is the latest addition to Photonic's LED product line for direct object illumination in stereomicroscopy. The product range also features a whole series of ring lights for microscopy. In addition, the lighting specialist offers fibre optic light sources and closely cooperates with renowned microscope manufacturers on the development of intelligent lighting systems.

YOUR CONTACT:

Annette Stampfer
Mail: stampfer@photonic.at

ON THE PATH OF SUSTAINABILITY.

Designing and maintaining a product in such a way that it can be used for generations. The WILD Group sees circular economy as a clear mission and has devised lines of action for all its business units.

Make, use, dispose: This is how our linear economic system has functioned for around one and a half centuries. With all the negative side effects we are now increasingly beginning to feel. According to a study carried out by the European Commission, if we continue like this, in less than 30 years we will need three earths to cover our demand for resources.

But there is another way: Those who opt for a circular economy protect the environment and are less dependent on raw material supplies. Yet a circular economy can only function when perceived holistically and goes far beyond correct recycling. The underlying model incorporates the cycle of raw materials from the very beginning and involves the development and design of products with the longest possible service life, which are also easy to repair or upgrade. "In essence, it's about achieving a product life cycle which is planned on the basis of these considerations. Those products must be developed and produced in such a manner that the user can work well with them for as long as possible", stresses Stephan Payer, Head of Business Unit WILD Electronics

> **We take this responsibility seriously, we are putting circular economy on the same level as our very own corporate economics**
> *Josef Hackl, CEO WILD Group*

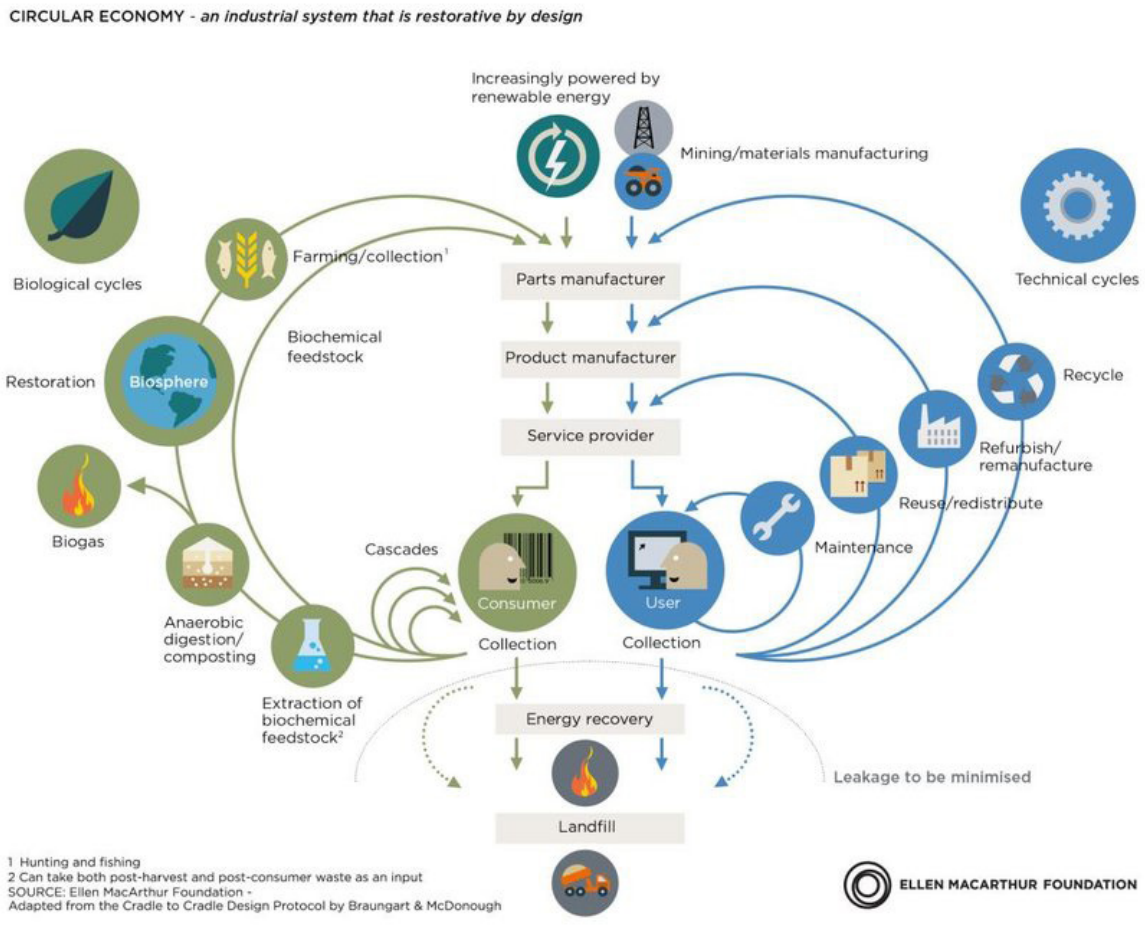
Even if we are currently facing major global challenges, the WILD Group has decided to systematically address the issue

of circular economy. It is a topic that is now really gathering pace and is also increasingly becoming the focus of the company's customers. WILD initially looked at the concept of circular economy based on the model of the Ellen MacArthur Foundation, one of the leading think tanks in this area. It then derived specific lines of actions from the model, which can be summarised in a 4-stage plan.

STAGE 1 incorporates the sustainability strategy into the corporate culture of the WILD Group. Based on a common understanding of values, the notion of sustainability must be implemented in all levels of the company's sphere of activity. This has an impact on business models, product design and all processes along the supply chain. "We take this responsibility seriously, we are putting circular economy on the same level as our very own corporate economics", CEO Dr. Josef Hackl emphasises. "Sustainable thinking must become self-evident in all departments. From development to packaging, all of our employees must keep the following question in the back of their minds: How can we succeed in maintaining a product in the innermost loop of the technical cycle for as long as possible, based on the Ellen MacArthur model?", says Hackl. The implementation of this approach takes place in a three-stage model:

STAGE 2 relates to the business model of the customer. "When we are involved in a very early phase as contract developers, we can draw the customer's attention to the issue in many different ways. The product itself is not yet at the centre of our considerations. Instead, the focus is on the following questions: "Would the ‚product as a service' model make sense for this customer? How could this cycle work? What is the situation regarding the service providers and the structure behind them? How is the consumables supply planned?", says Stephan Payer.

In **STAGE 3,** WILD looks at product design. The primary objective is to reduce a product's CO_2 footprint throughout its entire lifecycle. "We already support our customers in the development phase, making sure that products can stay operational for as long as possible." For instance, components in a device are all designed to have the same life expectancy. A modular design is also important to ensure that any unavoidable wear parts can be replaced as quickly and easily as possible. As part of predictive maintenance, sensors can proactively support a proactive maintenance process. ▶



When it comes to materials, developers also have a range of options at their disposal to design more sustainable products. New technologies such as 3D printing of grid structures support them in using less material. Another approach is to avoid mixing too many materials, so as to facilitate recycling at a later stage. In the design process, preventing dirt accumulation is just as important as providing for a simple product care. Avoiding sharp edges and using surfaces that are resistant to detergents is indispensable for a long product lifecycle. Products can also be made to last longer through additional features that can be provided via software upgrades or through easily replaceable hardware components. "In those cases, in which we are also the product manufacturer, we try to offer repairs and refurbishments as a service ", adds Payer.

Last but not least, in **STAGE 4** WILD uses a series of levers within its own supply chain to guarantee CO_2-optimised production. "This specifically concerns those areas which are 100 percent in our control", stresses Josef Hackl. This ranges from seemingly trivial things, like optimised recycling of shavings and reusable packaging, to major investments, such as, e.g., a new photovoltaic facility. The latter will go into operation at the Völkermarkt site this summer and is expected to reach an output of more than 666 kWp.

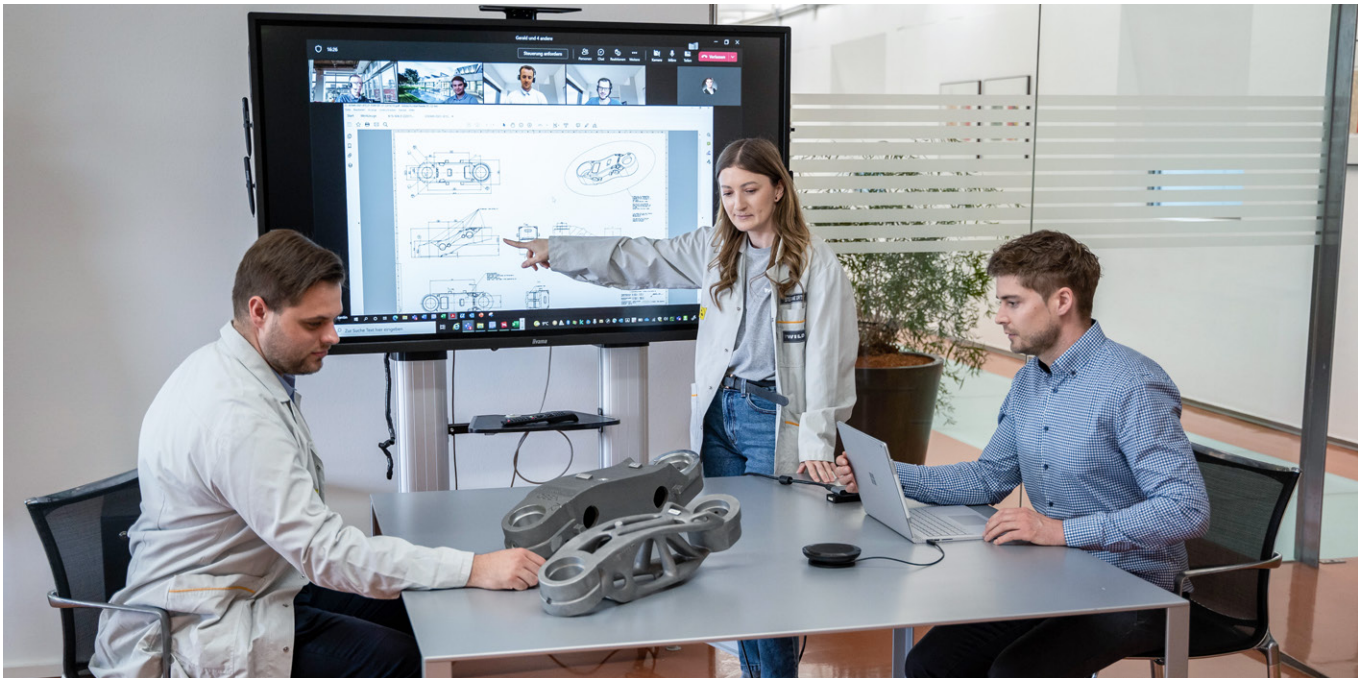
"We are currently developing a comprehensive monitoring system that will provide us with reliable figures. As a result, sustainability will become a corporate objective with measurable requirements. In addition, the data will show that by focusing on environmental protection, we do not only live up to our social responsibility, but that many of these measures also make economic sense", Hackl stresses.

WILD has long used recyclable packaging and has thus reduced its CO_2 footprint

Because of all these measures, WILD is already prepared for tomorrow's customer needs and statutory and social requirements for environmental protection and sustainability. Furthermore, the technology partner is confident that sustainable management also generates competitive advantages, such as innovative development, quality and cost optimisation, company reputation, first-mover advantages and risk minimisation.

YOUR CONTACT:

Josef Hackl
Mail: josef.hackl@wild.at



More sustainability: The cornerstone lies in the development of the product and/or business model in close collaboration with the customer.

AS GOOD AS NEW.

Fully exploiting a device's lifecycle makes sense both from an economic and an ecologic perspective.

Though numerous devices are becoming ever more complex and product lifecycles ever shorter, a trend toward general overhauling is on the rise. Consumers are realising that the repair, refurbishment and updating of equipment offers ecological advantages and saves money. At the same time, manufacturers are increasingly appreciating that repairs and refurbishments can help extend their products' lifespan. What ideally begins early in the development phase with a modular design will later require suitable processes to safely and efficiently transfer equipment "from the field" to a regulated repair and upgrading process. WILD is an expert in both areas - both in the development of modular systems and in repair and refurbishment with the corresponding spare part management. "Currently, almost 95% of our customers are ordering such services with us. In addition to conventional repairs, they primarily take advantage of services in connection with software and hardware updates", explains Stephan Payer, Head of Business Unit WILD Electronics.

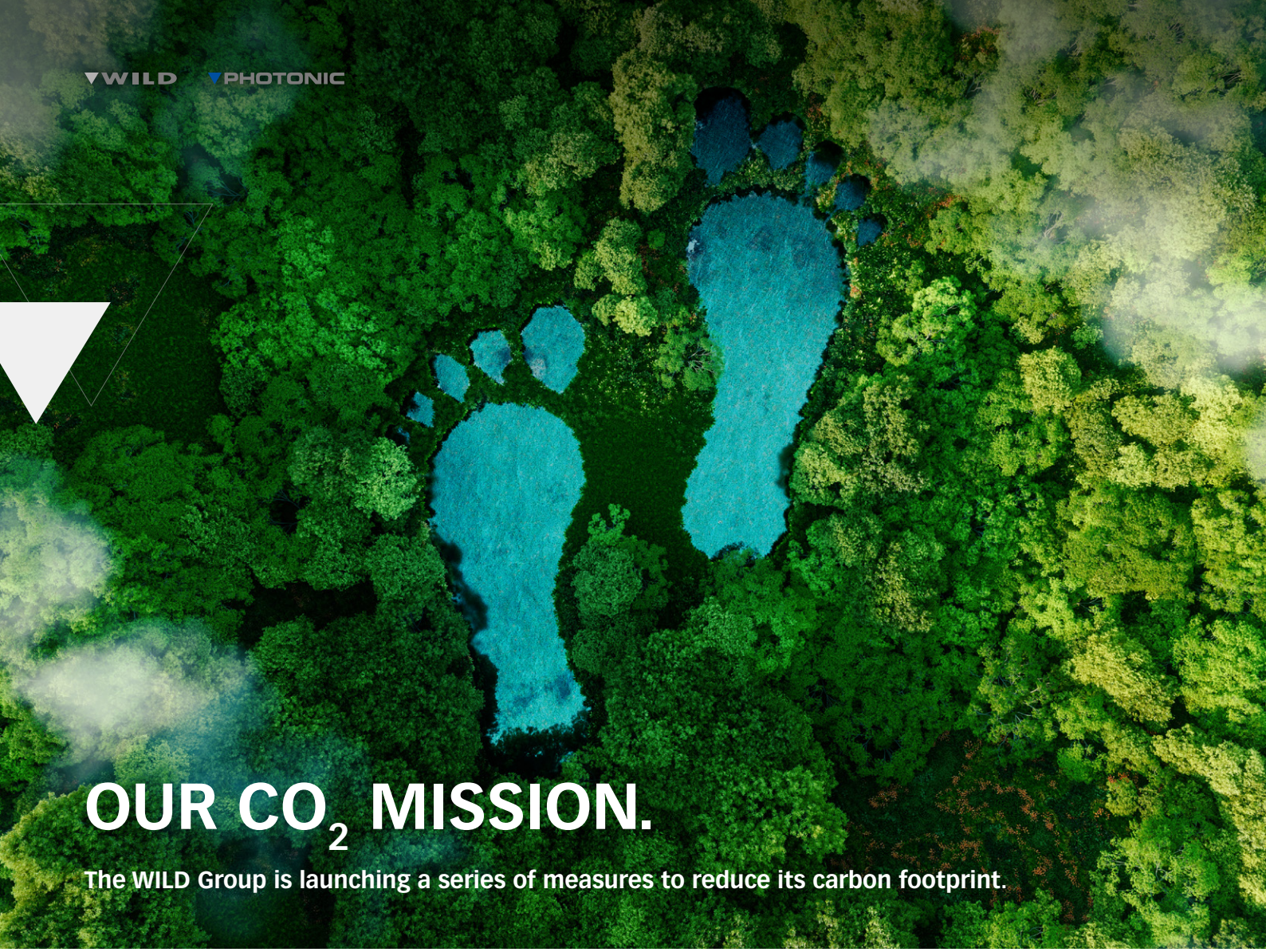
GETTING THE BEST OUT OF AVAILABLE RESOURCES

For our customers, the decision to outsource repair and refurbishment services is based on organisational and economic considerations. "As a technology partner, we have the advantage of exploiting numerous synergies. The infrastructure and the human resources are in place. Moreover, it is possible to cost-effectively manage spare parts along the away and assembly documents and test reports are always available in the most updated version. In addition, we either take care of the corresponding line clearance or we set up dedicated service and refurbishing workplaces in the vicinity of the serial production," says Payer. WILD thus makes the best use of the resources available, while complying at the same time with the applicable regulatory provisions that, in the case of medical products, require separate workplaces for serial production and repair.

This one-stop solution offered by WILD is very much appreciated by a manufacturer of IVD devices: when repairs are necessary, WILD also takes care of the replacement and the return of the device to the product cycle as a new-device equivalent. In the case of revision changes, devices currently in operation are replaced accordingly and brought up to the state of the art so that all assemblies correspond to the latest stage of development.

YOUR CONTACT:

Stephan Payer
Mail: stephan.payer@wild.at



OUR CO_2 MISSION.

The WILD Group is launching a series of measures to reduce its carbon footprint.

When it comes to sustainable manufacturing as an industrial company, WILD has set itself quite ambitious targets. The technology partner has identified energy supply as one of the major levers for the reduction of its greenhouse gases and has implemented numerous measures in this respect. For instance, the entire heating system at the Völkermarkt site was converted from fossil to renewable energy. All logic and control systems for space heating were replaced with digital ones and the building envelope was fully insulated. In combination with heat recovery, e.g., by using the waste heat from the compressed air station, the company achieved a massive reduction in energy consumption.

The same applies to cooling. Atomisers are now used for this purpose in the assembly halls. The shading of the wall and skylights has also been completed. Moreover, the conversion of the hall lighting and the frequency-controlled drive of the ventilation systems have resulted in significant energy savings.

The next big step is coming in the summer: WILD will be installing 1,700 photovoltaic panels with a total output of 666 kWp on a surface of 3,400 square metres. "Electricity is our main source of energy, so we are making maximum use of the entire roof surface for the new PV installation. In total, we will be generating 735 MWh per year. That corresponds to 20 % of our power demand at the Völkermarkt site", CEO Dr. Josef Hackl explains.

After tackling the major CO_2 footprint blocks, the company will now be focusing on numerous other optimisations, including in areas such as reusable packaging, milk runs and IT systems.

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T +43 4232 2527-0, E-Mail: sales@wild.at
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Editorial staff: Andrea Patterer und Sabine Salcher
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THE WILD GROUP

The WILD Group is comprised of the WILD brands which are established in Völkermarkt and Wernberg (Austria) and Trnava (Slovakia), as well as Vienna-based Photonic. The technology partner develops and produces optomechatronic systems for medical and industrial applications as well as optical technologies exclusively on behalf of its customers. Approximately 500 staff members are always the first choice whenever precision and reliability are called for and wherever innovation takes place.