

▼TRM

Version 3.0

▼WILD

▼PHOTONIC

The Technology Roadmap of the WILD Group

Shaping tomorrow's technologies today

Which technological advancements are going to shape future product generations? How can we succeed in mastering these technologies in time and in their full complexity so we can develop innovative solutions for the future? WILD has an answer to these questions: A Technology Roadmap (TRM) which it has developed itself. It guarantees that we constantly maintain a lead in as many as 12 areas of technology, and thus remain fit for innovations. Targeted groundwork helps us accelerate project implementation: When a customer requires know-how, we can step in immediately and at a very high level

Such a comprehensive build-up of knowledge, however, can only be achieved by being open to new ideas. We have learned to not only develop, design and produce ourselves, but also to think in sophisticated networks. The TRM is the foremost reason why today we manage international, highly competent networks. Thanks to our WILD Integrated Network (WIN), we have succeeded in strategically forging partnerships, e.g. with research organisations, universities and research clusters to secure the necessary flexibility for new topics. The most significant source that feeds our technology work, however, continue to be the close links we maintain to our customers.

At the same time, a fundamental cultural shift has taken place within the WILD Group. After all, technology work must not end in the development department. It must extend throughout the entire company. Therefore, our first step was to synchronise the customer, development, investment, SCM and production areas.

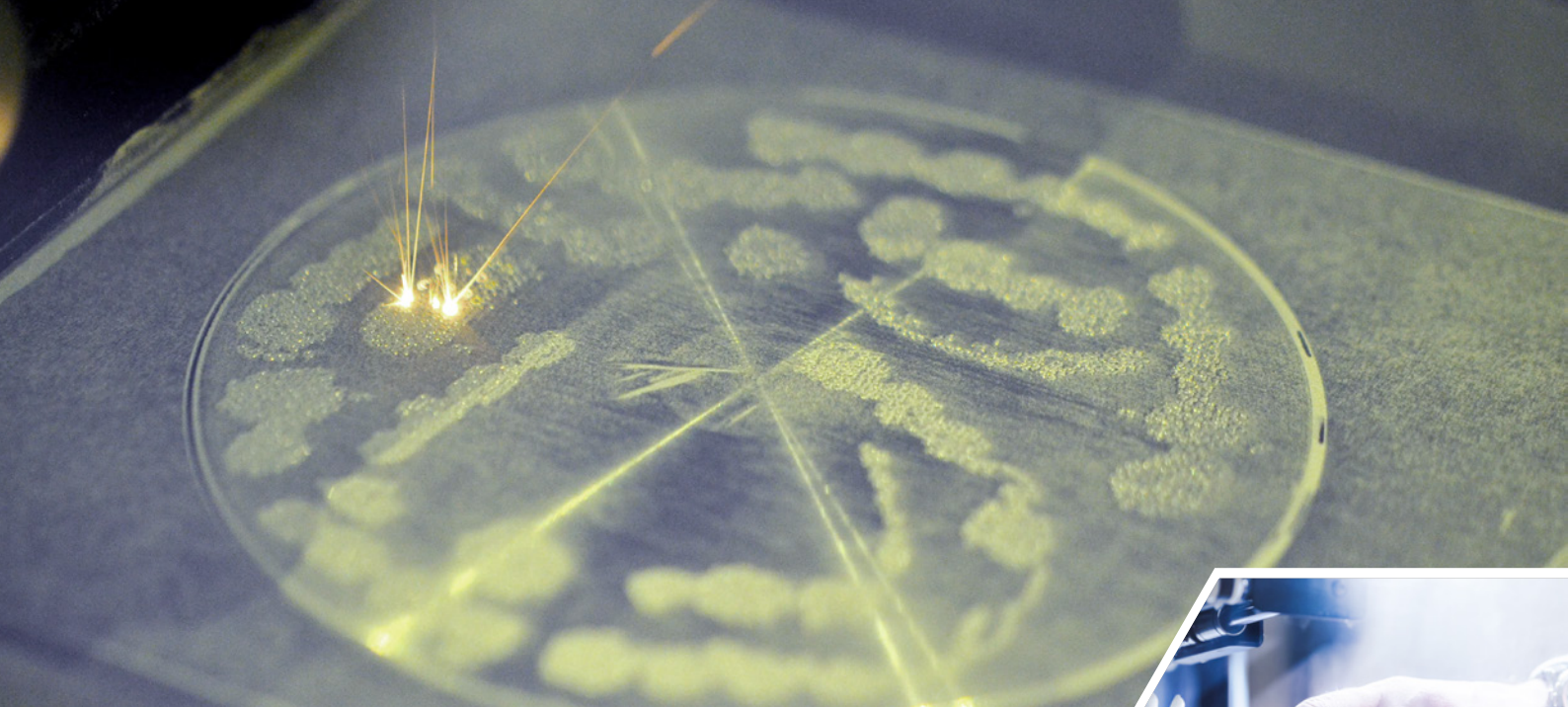
We are now all familiar with our common path. The feedback from customers confirms that we are right on trend with our topics. Some of these technologies have gained great significance in the market. Usability, for instance, is no longer a voluntary exercise but an absolute necessity and has become an integral part of medical technology regulations. There is no getting around additive manufacturing either. Most certainly, the Technology Roadmap will remain a „living organism“ at WILD and with it we have a navigation instrument in place to keep us on the right course. The destination is clear: We intend to remain the best possible technology partner for our customers.



**DI Dr. Josef Hackl
& Wolfgang Warum**

CEO & CTO WILD Group





Additive manufacturing

FUNCTION-OPTIMISED COMPONENTS WITH LIMITLESS DESIGN POSSIBILITIES

In recent years, 3D printing and the relevant production technologies have triggered a genuine innovation boost. Entire generations of designers are now thinking and designing in all dimensions without limitations thanks to additive manufacturing.

WILD already recognised this trend several years ago and is making intensive use of the various manufacturing techniques available on the market, especially in the field of design samples and operational models. These years of experience are now fully available to our customers. Since 3D printing technologies are still young technologies, the latest developments, trends and production methods must be analysed and assessed for economic applicability at the shortest possible intervals.

At the same time, however, classic manufacturing methods still maintain their *raison d'être*, as serious consideration must be given to when and for which applications additive manufacturing is worthwhile.

Profitable additive manufacturing

When 3D-printed parts are used in serial production, the geometrical complexity of a part is an essential factor in addition to the lot size and material selection. Complex geometrical shapes can be implemented at a very low price using additive manufacturing. This is precisely where WILD sees a potential. We subject the design to a critical review and examine which functional tasks can be implemented as 3D-printed parts in serial production. Current developments in the 3D printing sector demonstrate that, nowadays, even CFRP parts can be implemented with the suitable manufacturing equipment.

Suction system with a multi-material design casing

Additive manufacturing plays to its strengths where conventional manufacturing reaches its limits. Moreover, it reduces the time to market of new products. WILD has already furnished proof thereof in a unique suction system used in ophthalmology. This suction system, which is directly integrated in an eye laser surgery system, is positioned without any vibrations and very closely above the patient's eye shortly before the intervention begins, completely removing the particle clouds that are generated during treatment.

This solution is made possible thanks to a multi-material casing design implemented using rapid prototyping. This stable and biocompatible casing provides the necessary support and, at the same time, integrates the electronic systems, the suction and cable channels, the mounting for lighting elements and the thermal management.

YOUR CONTACT

Manuel Pruntsch

manuel.pruntsch@wild.at



Casing technology

ECONOMICALLY OPTIMISED CASINGS THAT MEET THE HIGHEST REQUIREMENTS

Innovative systems and devices must meet the highest requirements in terms of quality, reliability and handling. This, however, often leads to very cost-intensive designs caused by late or incorrect decisions taken during product development.

The quest for suitable materials and manufacturing technologies starts at the beginning of every casing design. Especially in casing technology, subsequent modifications frequently result in higher costs. WILD has developed a methodical approach to avoid this and to determine the ideal combination of technology, design and cost structure from the very start. It involves a systematic decision process that helps customers meet both technical and normative, as well as economic requirements. This balancing act is based on mathematical optimisation techniques which search for the best combination of material and manufacturing technology using characteristic indicators. Priority must be given to the most objective assessment of the various options available since this is the only way to develop an efficient and innovative device concept.

Software-based decision-making

More specifically, a process developed by WILD takes the development team through a systematic decision-making procedure which results in the selection of the ideal material for the intended function in combination with the manufacturing technology best suited for the production volume. It can therefore be said that, where manufacturing technologies are concerned, mathematical optimisation is also used to determine the most cost-effective solution. In addition, this delivers an outlook on the expected cost structure, which includes the initial costs for tools and equipment and the costs for material.

This structured method ensures that WILD always opts for the most cost-effective manufacturing process for the development of a product. It also makes it easier to identify how much planned the design features will cost in the production of the casing. This, in turn, gives customers the certainty of having taken the best decision for their product since it also assesses the monetary impact of aesthetic features.

An impressive example for the application of this optimisation method is the biochemistry analyser, a completely novel all-in-one device for in-vitro diagnostics. In this compact tabletop device, it was possible to separate the user and process areas, making operation both easier and safer. This, however, meant enormous challenges for the casing technology. On the one hand, the aim was to develop a cost-efficient casing while, on the other, to meet the highest aesthetic requirements with a high-contrast design. By applying the systematic decision process, the developers at WILD managed to choose casing components with an ideal cost-benefit ratio. As a result, the customer obtained the necessary investment and planning certainty to quickly introduce the biochemistry analyser on to the market with a perfect look and feel.

YOUR CONTACT

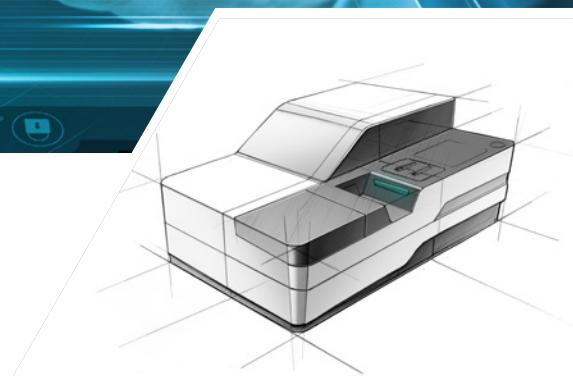
Markus Aichwalder

markus.aichwalder@wild.at



Usability & Style

COMBINING AESTHETICS AND USABILITY



The quality of high-tech equipment is increasingly being measured by the extent to which it meets user requirements. The objective is to create a design that corresponds to the zeitgeist, meets aesthetic and technical requirements and focuses on usability.

At WILD, usability experts are involved in the development process from the very start. They ensure that attention is given to the user-product interface in terms of efficiency and ease of operation. Thanks to its proven Usability Engineering concept, WILD makes sure that the actual usage requirements are identified and suitable solutions are found. The services it provides range from requirement analysis and concept in the form of design models and operating procedures to the assembling of design and function modules and support in usability verification.

The ultimate result is an optimised system that can be operated safely and intuitively. In medical technology in particular, this user experience has become a prerequisite for registration and thus an absolute necessity.

In addition, the experts at WILD keep up to date with the latest European regulations (MDR - Medical Device Regulation and IVDR - In-Vitro Diagnostic Device Regulation) which put an enormous emphasis on the issue of usability. WILD thus offers a service package that helps customers make their products MDR-compliant, e.g. by compiling the documentation requirements or supporting them with the risk analysis and validation of production processes.

Safe and easy use

How well a product can be adjusted to the users' demands is demonstrated by the Biochemistry Analyzer, an all-in-one device for in-vitro diagnostics. For the first time, it was possible to separate the user and process areas in a compact tabletop device, making operation both easier and safer. In conventional devices, users must manually intervene in the hazardous analysis area, exposing them to infection risks. The Biochemistry Analyzer, however, can independently carry out up to 400 individual measurements per hour and automatically stores data and status information directly into the laboratory database. A camera system identifies the sample containers and evaluates the barcode data, thus reducing sample mix-ups by the user to a minimum.

From an aesthetic point of view, the Biochemistry Analyzer stands out with clear, sleek shapes and structures. Even the graphical user interface has been reduced to a minimum. Clear contrasts and shapes ensure that the device can be securely used even under stress.

YOUR CONTACT

Markus Poßegger

markus.possegger@wild.at



Digital imaging

SPECIFIC IMAGE PROCESSING TO SUIT YOUR PRODUCT



Image processing and its enormous development leaps are yielding extensive possibilities that reach into many areas of our everyday lives. WILD offers bespoke solutions for your specific tasks in this area which are optimised to deliver maximum efficiency

Optical image processing systems can see objects with greater precision, speed and endurance than humans. They systematically detect errors and thus guarantee defect-free products and flawless manufacturing processes. This results in significant improvements for users in laboratory diagnostics, medical technology, optical metrology, quality assurance and many other areas.

Modular software library

WILD implements individual digital imaging solutions using a modular software library which allows the company to create smart solutions in very little time. The experts at WILD will determine the best-suited platform to integrate the application for you. It is thus possible to simply implement image processing tasks on a compact board, which will carry out the required evaluations cost-effectively and efficiently as a module.

Diverse innovative applications

Such compact systems are used, for instance, to identify and control specimen receptacles containing blood samples, which are inserted into an in-vitro diagnostic device. They can quickly identify the shape of the specimen receptacles and the barcodes or QR codes printed on the receptacles. At WILD, the principles of digital imaging are also applied in a lens testing

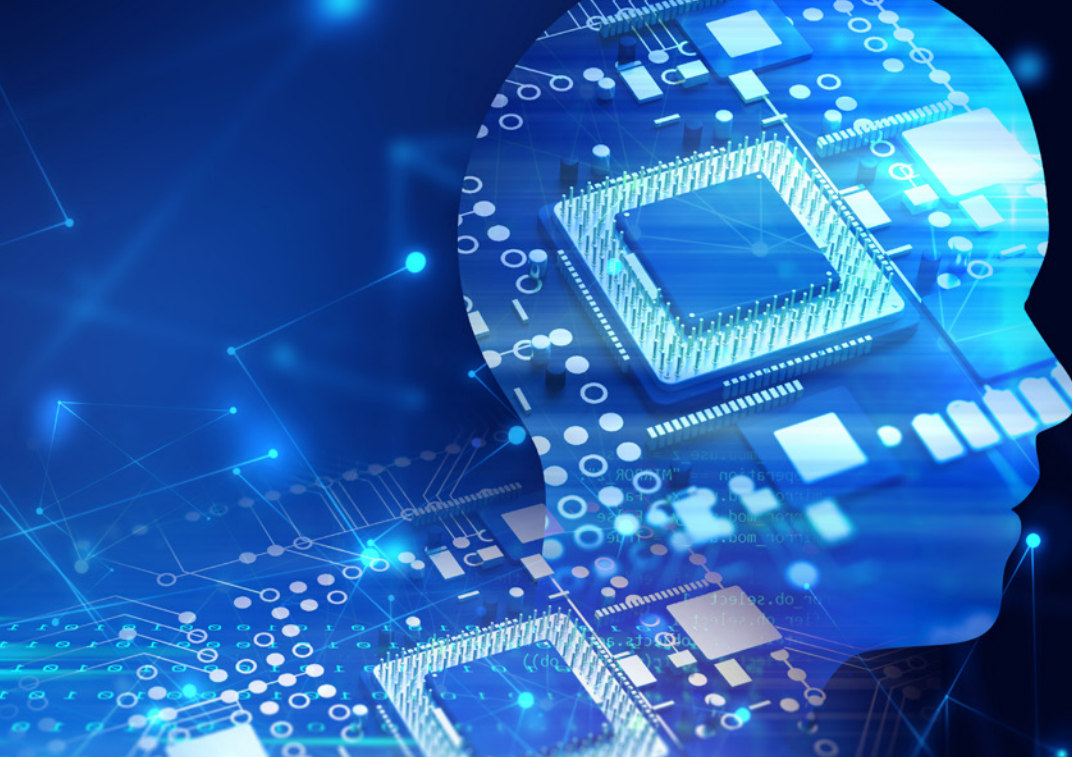
system that detects even the smallest surface defects. The system penetrates the lenses of laser optics with diffuse light. A camera focuses on the individual lens surfaces and detects even the smallest particles, scratches or bubbles in the glass thanks to its micrometre-level resolution.

As part of its Technology Roadmap, WILD is continuously advancing its know-how in the area of digital imaging in collaboration with external experts and is currently focusing on the following fields: Object recognition for automatic counting, measurement and detection, quality assurance, image processing hardware for camera and lighting systems, hyperspectral imaging and 3D image processing. Embedded imaging is also becoming increasingly important for customers as their systems become smaller, more flexible, more cost effective and more energy efficient. These factors already play a significant role in wearable devices and they will also be part of an ever increasing number of applications in other systems in the future.

YOUR CONTACT

Daniel Harrich

daniel.harrich@wild.at



Software

AGILE SOFTWARE FOR AGILE SOLUTIONS

Software has long become a central component of numerous product innovations. With increasing processor performance and an almost unlimited availability of memory, computer systems are becoming ever more powerful and equally flexible.

In addition to the development and manufacturing of primarily optical and mechatronic systems, WILD also offers suitable, fully integrated software. Based on the requirements of our customers, we have developed a comprehensive programme library especially for optomechatronic systems, which allows us to control simple sensors and motors, as well as complex systems. In combination with tested components, this programme library can drastically reduce development time for new systems. Part of this library consists of a modular software platform developed for a similarly modular hardware platform, which is being continuously expanded. It provides our customers with ready-made solutions for a large number of tasks, which only need minor adjustments for new developments. It is therefore no longer necessary to create and test new interface, actuator and sensor modules at considerable expense, thus saving time and costs and minimising the implementation risk.

Bespoke, compliant software

Based on the above, WILD also offers bespoke application software. The advantage is that the latter has been tested and validated in several projects with the software for the optomechatronic hardware. This means that our customers will receive the suitable application together with their device. The standards applicable in medical technology and

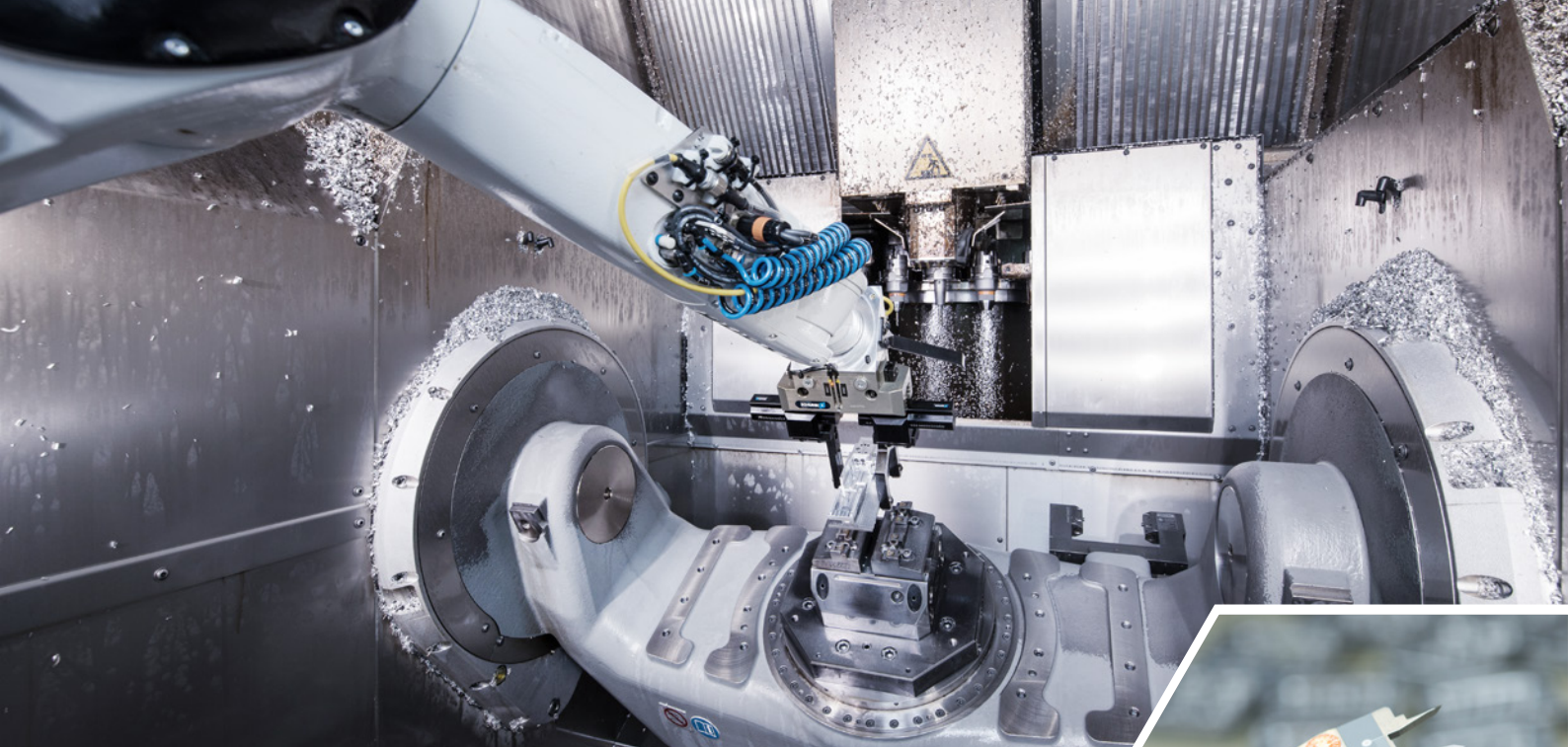
in-vitro diagnostics are another essential aspect that WILD takes into account in this context. For our customers, this means that we develop, test and validate our software in accordance with the relevant standards. Our objective is to offer a robust and documented solution, with which the product can be registered.

The WILD Group realised quite early how important the combination of electronics and software can be in medical technology and metrology and already began developing and producing assemblies for in-vitro diagnostics several years ago. These were followed by navigation-guided instruments, medical cameras, microbiological handling devices and biochemical analysis systems. Meanwhile, WILD has become an expert in embedded systems, which the rise of the internet of things will render more significant in the future. We offer our customers the complete spectrum, ranging from controls for stepper motors and servomotors and simple microcontrollers to the development of project-specific application software for PCs and mobile devices.

YOUR CONTACT

Walter Hernler

walter.hernler@wild.at



High precision

ECONOMICALLY OPTIMISED HIGH PRECISION MANUFACTURING

Precision tolerances of a thousandth of a millimetre have already been the standard in mechanical manufacturing for quite some time. WILD recognised this trend at an early stage and has invested in the corresponding machine park and optimised its manufacturing and measurement processes in recent years.

Demand for components with micron-measured tolerances is rising steadily. WILD is taking on this challenge and already meets tolerance requirements of ± 0.002 mm. This roughly corresponds to the size of a bacterium. In order to achieve this, WILD has also invested in high-precision lathes to further optimise its manufacturing process. Disturbance variables are systematically ruled out. For our customers, this results in higher precision and repeat accuracy while ensuring cost-effective manufacturing.

WILD also manages these precision tasks thanks to specially trained staff, state-of-the-art CNC machines and an air-conditioned measurement room equipped with two automated 3D coordinate measuring machines. In addition, WILD maintains a network that also includes specialist machine manufacturers. This network provides our customers with the assurance of being able to supply the corresponding volumes and gives them access to high-precision classes.

Alignment turning and complex hydraulic components

Particular mention should be made here of the alignment turning method perfected at WILD. Using optical measurement tools in a modern high-performance lathe, the mechanical axis of a rotating mount is adjusted to the optical axis of the lens.

Using a ball chuck alignment developed by WILD, the company now achieves a precision of a few arc seconds. The systems partner has also made a name for itself as a high-precision manufacturer of complex hydraulic components. These complex elements featuring several geometric tolerances can be manufactured at WILD within a tolerance range of $5\mu\text{m}$.

WILD's active strategy toward smart production presents an additional benefit for our customers. The company is specifically exploiting the possibilities of automation and digitalisation in production to maximise benefit. For instance, in 2018 WILD invested in a milling machine with automated material handling which allows for manufacturing even without a human machine operator present on site. The next step will be to collect electronic measurement data directly at the machine workstations (statistical process control). This will allow production workers at WILD to store their measurement results directly in an electronic product file, thus further improving process stability and traceability.

YOUR CONTACT

Mario Pfössl

mario.pfoestl@wild.at



Laser technology

LASER APPLICATION KNOW-HOW FOR THE HIGHEST REQUIREMENTS

Lasers have long become an established factor in industrial manufacturing, medicine, metrology and in many areas of everyday life. In future, the application areas of modern laser technology will increase exponentially.

WILD is best positioned to support its customers as a strategic partner in laser technology. In this field, the contract developer and manufacturer can apply its entire optomechanics expertise in combination with its enormous process know-how. Thanks to its 25 years of experience in the use of lasers, WILD also possesses the necessary routine and safety in the implementation of demanding laser applications. This relevant and integrated process know-how ranges from optics design, precision manufacturing and cleaning to precision cleanroom assembly along with the corresponding safety systems.

Highest cleanliness requirements

To achieve the long-term stability of laser components, the full-service provider guarantees that all components are free of particles and film contamination, since these would be extremely detrimental to the quality and long-term stability of laser optics. WILD therefore relies on a proven, safe and closed process chain and invests heavily on component cleaning, precision cleaning and cleanroom manufacturing.

High standards with respect to the production environment, however, apply to all laser technology areas in which WILD operates, ranging from optics for laser cutting, lasers for material processing, medical technology and laser assemblies for particle analysis to laser rangefinders or 3D metrology.

Optics assembly and adjustment of laser modules

The core competencies of the systems partner also include the assembly and adjustment of precise laser modules. This covers, for instance, the alignment of optics in metal tubes with arc-second precision using alignment turning. It also includes the testing of optics, where WILD is capable of developing project-specific test systems for optics.

Laser technology in practice

WILD, for instance, manufactures a SmartBeam DPSS (diode-pumped solid-state) laser. It forms the centrepiece of a mass spectrometer that laboratory workers use to collect and analyse data from minute sample quantities. In practice, it emits short laser flashes onto biological samples, causing these to evaporate and ionize. The ions are accelerated in an electric field - the large ones less than the small ones - so that one can determine the molecular mass very precisely based on the flight time to a given target.

YOUR CONTACT

Rembert Fertner

rembert.fernter@wild.at



Surface engineering

INNOVATIVE METHODS FOR NOVEL, FUNCTIONAL SURFACES

WILD is intensively researching into innovative methods for the creation of functional surfaces. These expand the range of applications of available materials and play a decisive role in practically all industries.

Especially in medical technology, but also in components and complete devices for optical technology applications, the demand for high-quality surfaces is on the rise. Sophisticated basic materials often have a determining influence on the development of new products. The objective is not only to meet the necessary requirements with regard to wear and tear, environmental performance and cost effectiveness: Often these surfaces must also be biocompatible and meet individual decorative requirements.

WILD offers various surface treatment methods, ranging from anodising, hard-anodising, chemical nickel plating to passivating of aluminium, blue annealing of brass, glass bead blasting, silk screen or pad printing and laser labelling. The most important topics for the future include decorative anodising with biocompatible varnishes in special colours and the metallic coating of casing parts. Chemical nickel plating techniques guarantee ideal protection against wear and corrosion - an area in which WILD already has many years of experience and is continuously expanding its know-how.

Qualitative surface engineering

WILD puts a particular emphasis on surface engineering in its value chain, not least because it's one of its core competencies. The surface engineering experts at WILD

are involved in the project from the very beginning. WILD applies a process-oriented and efficient approach to the processing, refining and cleaning of functional surfaces. The parts move straight, i.e. without interruption, from the production machines to the surface engineering section. This saves transport costs and also guarantees a continuous process chain, which is a basic prerequisite for top quality. Such quality, however, is not just the result of state-of-the-art facilities at WILD.

It is first and foremost attributable to the longstanding expertise of the surface engineering staff. This body of experience allows great flexibility in the specification of surfaces. Decorative surfaces for finished goods, for instance, always feature the corporate identity colours of our customers. In many cases, these are not standard palette colours. The surface engineers at WILD will support you in the individual adjustment of the colour tone for your product, be it for anodising or for the selection of a wet paint, which also has to be biocompatible.

YOUR CONTACT

Mario Pföstl

mario.pfoestl@wild.at



Cleaning processes

THE HIGHEST PURITY FOR THE
BEST PRODUCT PERFORMANCE

A cleaning process is the sum of cleaning stages made possible by the concatenation of cleaning systems and manual cleaning and transport steps.

In recent years, WILD has gradually expanded its possibilities for systematic cleaning of parts, leading to the development of a modular cleaning concept which allows the company to design a cost-optimised cleaning process for each respective task. This optimisation is made possible with the use of several specific cleaning steps, ranging from the removal of coarse contaminations to fine cleaning. It involves the application of cleaning processes, e.g. for components in mass spectroscopy, for laser, optical or laboratory applications and for sterile products.

Complete documentation

The question of the required cleanliness is at the beginning of every optimisation process. Is the cleaning aimed at film contamination or particle contamination? What is the intended purpose of the parts to be cleaned? This analysis, accompanied by a cleaning test, ensures that the company selects and sets up the best possible cleaning process for the job. As a result, production costs are also kept under control from the very start. Moreover, the individual cleaning process and its complete documentation are already fully available from the first production batch. Ensuring the highest level of cleanliness and analytical purity in manufacturing, however,

also requires a closed process chain. The latter covers everything from goods receipt to packaging and shipment.

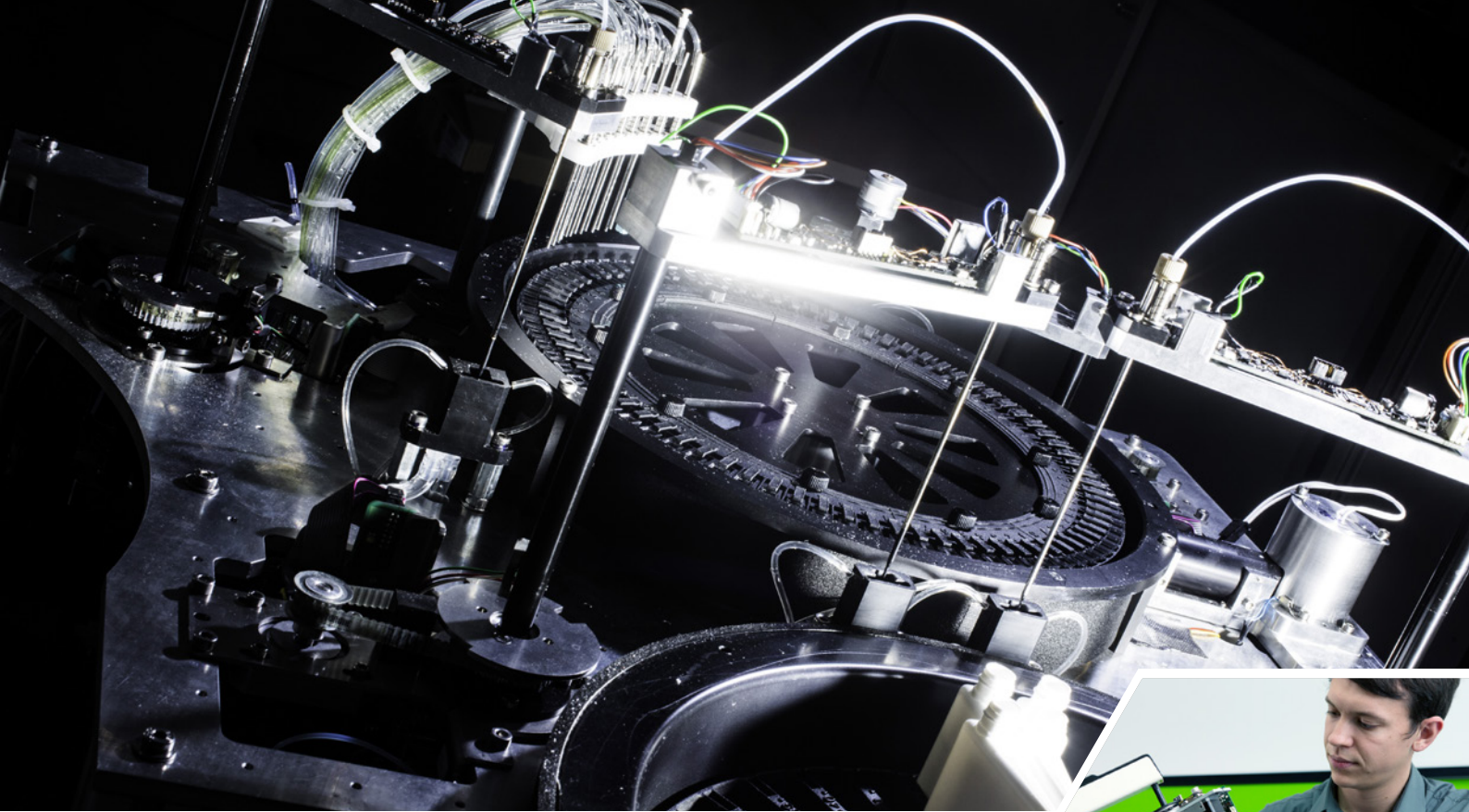
Quality controls guarantee cleanliness

WILD works together with an independent, accredited test laboratory. This ensures that all analyses are valid and that the established cleaning processes are stable. These aspects also play a decisive role in bacteria-controlled production, for which WILD has already built up a dedicated process. Bacterial control extends from goods receipt to whiteroom assembly. Highest cleanliness requirements are also essential, for instance, in the production of a DPSS laser that WILD is building for the mass spectrometer of a leading worldwide manufacturer of analytical measuring systems. The reliability of this device used for laboratory applications depends on a completely clean processing of the components in the cleanroom. In order to guarantee this, WILD continuously evaluates new cleaning methods and processes together with its customers.

YOUR CONTACT

Manfred Santer

manfred.santer@wild.at



Kinematic systems

DYNAMIC OPTOMECHATRONICS IN A COMPLEX SYNERGY

The kinematic systems developed by the experts at WILD provide access to future-oriented technologies with a short time to market and thus secures a significant competitive edge.

Industrial automation is advancing at an unstoppable pace. The same trend has been visible with new products and development projects for years. WILD is constantly expanding its know-how in the area of kinematic systems and is therefore familiar with the direction optomechatronics is taking and the extent to which it is already influenced by such systems today. The systems partner has established itself in this segment as a full-service provider for the development and production of devices and assemblies.

A modular system allows a shorter time to market

To achieve a shorter time to market, the experts at WILD have developed a kinematics module system consisting of standardised central components. Sensors and actuators from various manufacturers can be simply connected to this module system, thereby significantly reducing development time. As a result, it is possible to develop and implement kinematic systems with smoothly interacting components in reasonably short periods.

Process knowledge required

In addition to the development and manufacturing know-how required to deliver such technical solutions quickly, a

corresponding process knowledge of the application is also necessary. In the initial phase of a project, WILD obtains such knowledge directly from the customer. After that, WILD's technology experts convert it into efficient solutions on the basis of the module system. Even during the implementation phase, WILD can quickly expand the software and hardware of the existing module system at any time.

As a result, WILD was able to build two fully functional in-vitro diagnostics prototypes for a customer based on the aforementioned module system within just six weeks. Stepping motors, BLDC motors, a temperature stabilisation and an optical measurement unit were built into these prototypes. The prototype was able to communicate directly with a PC via a USB port using the application software developed by WILD, which also allows the user to control the device. Had it been necessary to develop the required hardware and software components first, the project would have taken three times as long to finish.

YOUR CONTACT

Stefan Plasonig
stefan.plasonig@wild.at



Free form optics

COMPACT AND POWERFUL OPTICS FOR INNOVATIVE PRODUCTS

Free form optics are bespoke precision optics which combine several optical functions in a single component. They are small, lightweight and they deliver additional functionalities.

As a rule, optical assemblies or beam delivery systems are based on a sophisticated system of precisely coordinated mirrors, lenses, and prisms. In the case of free form optics, however, a single component ideally suffices to implement the same range of functions. They enjoy a special status in optical applications and they are primarily used where several optical-functional components or surfaces must be combined due to limited space. Thanks to their low weight and compact design, free form optics can be installed where very little space is available.

Based on its many years of experience, WILD puts a great emphasis on the manufacturability of the final product already during the development phase of free form optics. Designers will consider the use of free-form optics especially when the product needs to be very lightweight and compact, e.g. for handheld devices. Moreover, by reducing the number of necessary optical components to a minimum, it is also possible to achieve lower manufacturing costs. Another argument in favour of free form optics is their simpler assembly, since they can potentially render the adjustment on the assembly obsolete. In addition, their surfaces can be designed in any desired shape. All in all, this allows for greater flexibility in the optical design while increasing the performance of the overall product.

High-power ring light

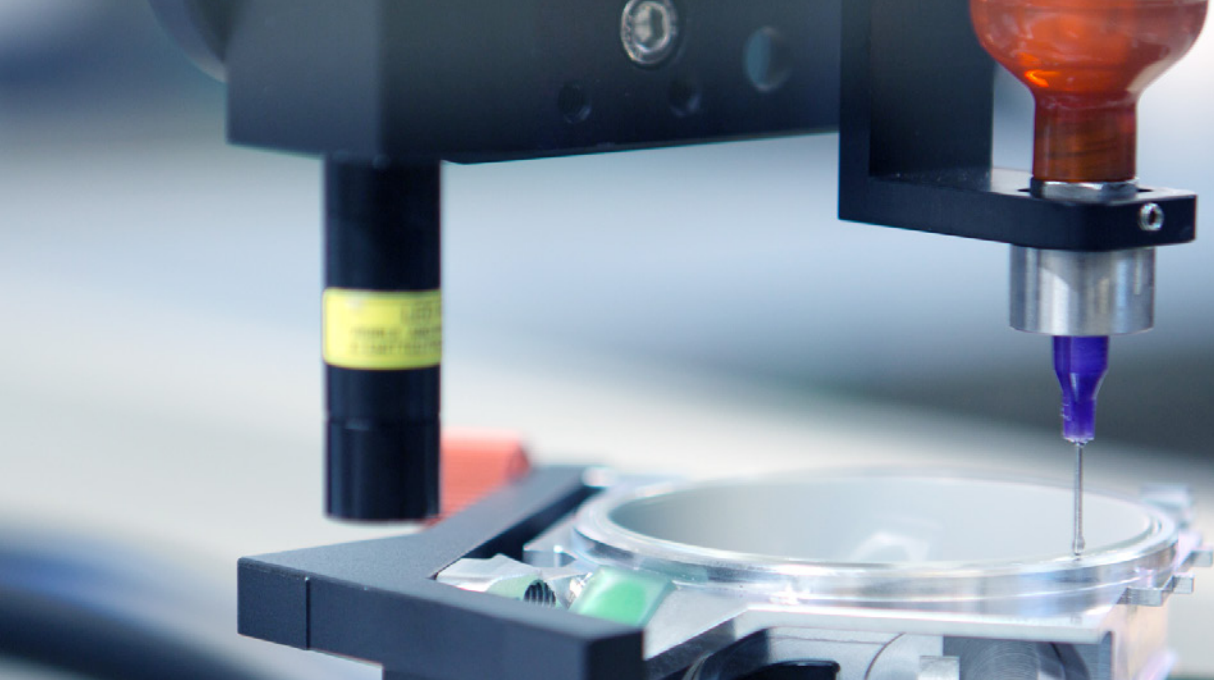
WILD has aptly demonstrated these advantages in a high power ring light (HPRL). The use of free form optics in this system made a compact design possible in the first place. The respective free form lens in front of each LED - always only one for each LED - allows for a special beam shaping and delivery for a homogeneous illumination of objects. If standard optics had been used, several lenses positioned in a row would have been necessary to achieve the same result. In addition to being continuously dimmable, this system also achieves top brightness while maintaining a stable, homogeneous illumination.

Another advantage is the adjustable position of the lens, which allows the user to ideally adjust brightness both at small and large working distances. These are all features of a modern lighting unit that can only be implemented using free form optics.

YOUR CONTACT

Rembert Fertner

rembert.fertner@wild.at



Adhesive bonding technology

GLUING IS THE JOINING TECHNOLOGY OF THE 21ST CENTURY

The sustainable joining method of adhesive bonding has long been the state of the art. With this method, it is possible to combine different substrates with each other permanently or for a “programmable” period of time.

Meanwhile, we have also begun using adhesives that can create liquid-tight and gas-tight bonds in human organs. These are currently being applied in eye surgery, in plastic surgery and, last but not least, in transplantation. Adhesive bonding has numerous advantages over traditional joining technologies: It allows, for instance, materials with different thermal expansion coefficients to be easily joined with an even distribution of tension and forces. In addition, it is easily possible to create liquid-tight and gas-tight connections, as well as vibration-absorbing and rigidity-enhancing junctions. It takes comprehensive expertise to apply these ideal properties, which the specialists at WILD have acquired over many years. Such expertise covers knowledge on the structural design of the joining geometry, the choice of adhesive, the suitable surface treatment, and the exact dosage.

A solid bond

This expertise already comes into play during the product development stage, thus ensuring that no complicated interventions, e.g. in product design, will be needed later during implementation. Our customers benefit from the fact that WILD examines beforehand which connections are suitable for adhesive bonding and assesses the advantages that can be gained, e.g. a more lightweight construction or shorter assembly times. Industry 4.0 methods are now being introduced to adhesive bonding, too: WILD is currently operating a gluing robot in its

assembly, which applies various adhesive bonding techniques precisely, repeatedly, and always in the exact same dosage. This robot is used, for instance, to glue together the components of a 3D laser scanner assembly. The exact dosage and positioning of the light-curable adhesive and of the component to be glued are decisive factors. Moreover, the robot guarantees an ideal bonding quality as a result of the exact and process-stable duration of exposure to the light source during the curing process.

The capabilities of adhesive bonding technology in practice

A project in which the decision to use adhesive bonding for the casing parts was already taken during the development phase involved an autoclavable instrument for navigation during surgery, which is used, among others, to carry out neurosurgical interventions. This helped achieve the balancing act between tool and manufacturing costs at small production quantities. At the same time, it was possible to guarantee tightness for several sterilisation cycles and ensure the precise positioning of the integrated metallic sensor tip within the required tolerances.

YOUR CONTACT

Günter Moser

guenter.moser@wild.at

WILD GMBH

Wildstraße 4
9100 Völkermarkt, Austria
T +43 4232 2527-0
sales@wild.at
www.wild.at

WILD ELECTRONICS

Industriestraße 4
9241 Wernberg, Austria
T +43 4232 2527-300
electronics@wild.at
www.wild.at

WILD TECHNOLOGIES S.R.O.

Coburgova 84 / 7607
91748 Trnava, Slovakia
T +421-33-29 018 02
wildtechnologies@wild.at
www.wild.at

PHOTONIC OPTISCHE GERÄTE GMBH & CO KG

Seeböckgasse 59
1160 Wien, Austria
T +43 1 486 56 91-0
office@phonic.at
www.phonic.at

imprint

Owner and publisher:

WILD GmbH, Wildstraße 4, 9100 Völkermarkt, Austria
T +43 4232 2527-0, E-Mail: sales@wild.at

Responsible for the contents: CEO Josef Hackl, CTO Wolfgang Warum

Editorial: Andrea Patterer & Sabine Salcher, WILD Pressestelle
sowie Heidrun Freimuth, Marketing WILD Gruppe

Layout & graphic design: STERNENKLAR GMBH

Photos: WILD, Shutterstock, Thinkstock | Druck: Compact Delta

The WILD Group

The WILD Group comprises the WILD brands based in Völkermarkt, Wernberg (Austria) and Trnava (Slovakia), and the Vienna-based Photonic. We are your reliable partner on a path of continuous growth. We generate an annual group turnover of 91 million euros with a staff of 442 highly qualified workers and employees.