

MANAGING INNOVATIONS

FOUNDERS: LIKE ATHLETES AT THE IRONMAN

The path from a patent-ready idea to marketable technology is comparable to the long, rocky road ahead of the Ironmen who compete in the top class of triathlons in the sweltering heat of Hawaii: from the swim start in the Pacific Ocean, to the bike course under strong winds, to an almost shadowless marathon. An endurance competition of extremes. Being world class in three disciplines all by yourself is not easy.

Even ambitious founders know this: from financing to management to the development of the actual idea, everything has to be right. It's good to have a partner at your side who can give you a decisive advantage in two of the three disciplines. The Patentpool Group provides the right financing and optimal strategic management. This allows founders to focus entirely on the development of their technology. Together, they succeed in crossing the finish line.

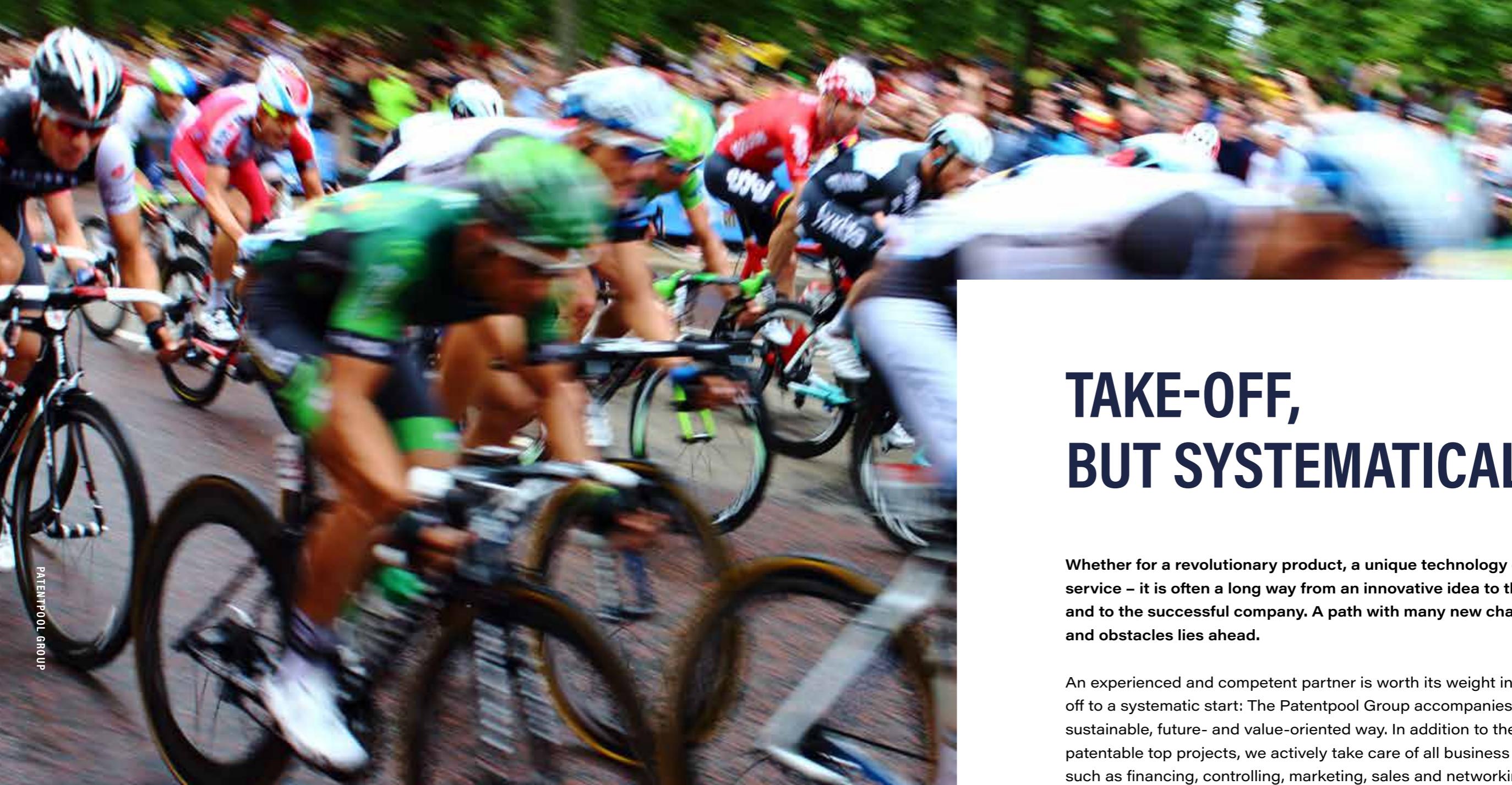
The Patentpool Group is committed to filtering out the promising stars of the top class at an early stage and developing the right plan together. With a lot of experience, network, know-how and capital, only those projects find a place in our portfolio that have been carefully selected, tested and are patentable. An inexhaustible deal flow and a project pipeline looking far into the future are thus guaranteed.



Dr. Heiner Pollert
CEO & Managing Director



→ **With a great deal of experience, network, know-how and capital, only those projects find a place in our portfolio that have been carefully selected, tested and are patentable.**



TAKE-OFF, BUT SYSTEMATICALLY

Whether for a revolutionary product, a unique technology or a future-oriented service – it is often a long way from an innovative idea to the implementation and to the successful company. A path with many new challenges, hurdles and obstacles lies ahead.

An experienced and competent partner is worth its weight in gold in order to get off to a systematic start: The Patentpool Group accompanies its innovators in a sustainable, future- and value-oriented way. In addition to the identification of patentable top projects, we actively take care of all business management tasks such as financing, controlling, marketing, sales and networking. In addition, we develop a comprehensive patent strategy with our intellectual property specialists and create a legally compliant and tax secure framework.

→ In addition to identifying cutting-edge projects that are eligible for patent protection, we actively take care of all business management tasks such as financing, controlling, marketing, sales and networking.

In this way, we give creative founders a free hand to focus on the technical development and market launch of their idea. Often a crucial point for investors looking for returns. This partnership with a system saves time, energy and numerous start-up mistakes.



Dr. Christoph Wamlek
Director

MILESTONES FOR YOUR SUCCESS

Every journey, no matter how long, begins with a first step. Many decisive steps finally bring founders to the home stretch: The fundamental milestone is set by a partnership with the Patentpool Group. A joint capital company forms the basis.

In more than 20 years of constant market presence, we have put revolutionary ideas on the road to success with more than 240 registered patents. Always on the pulse of time, our innovation management gives founders a strong tailwind. Promoting, patenting and implementing promising ideas – this has been our core competence since 1998. For many years, our team has included top-class experts and experienced cooperation partners. These include renowned universities and organizations such as the German Institute for Innovations ("Deutsches Institut für Erfindungswesen") and the German Association of Small and Medium-Sized Enterprises ("Bundesverband mittelständische Wirtschaft"). This enables us to find, examine and accompany patentable projects at a very early stage.

 "From many years of experience, we know which fundamental components are essential for success in keeping innovators focused and on track. It takes intensive preparation from many building blocks to be able to start in personal top form. We see ourselves as enablers: As a structuring interface, we drive projects along the value chain unerringly forward. Stage by stage, we mark motivating milestones as success factors."



Dr. Heiner Pollert
CEO & Managing Director

OUR SERVICES

 Identification of technologies that can be protected under patent law	 Strategic business plan
 Intellectual property management	 Planned financing through controlling
 Matching partners and cooperations	 Sales of investments and licenses
 Development of prototypes and products	 Knowledge transfer with professional experience and social competence
 Target group oriented marketing and public relations	 Legally compliant and tax-secure framework
 Branding and communication design	 Professional selection of personnel / HR

CHANCES OF RETURN ON INVESTMENT THROUGH INNOVATIVE TECHNOLOGIES

Innovative technologies and disruptive ideas are the drivers of a healthy economy and largely responsible for the prosperity of a society. To turn a promising idea into reality, every good business model needs capital.

Young companies in particular fall through the cracks when it comes to traditional financing: Neither the capital resources at the start, nor the cash flow or the risk profile fit a conventional corporate loan. Equity or venture capital, on the other hand, does. This is because the risk of investing in a growth company is offset by the chance of an above-average return.

In a long-term view by Morgan Stanley Investments, the greatest return opportunities are offered in the asset class venture capital. This is especially true for early-stage venture capital. A good example of this is provided by John Doerr, CEO of the Silicon Valley based company Kleiner Perkins. Early on, he bet on Amazon, Netscape and Google. As a result, he became one of the richest VC investors. His fortune is estimated by Forbes at \$8.7 billion. In addition to the above-average return potential, the venture capital portfolio of the Patentpool Group is characterized by systematic risk management: In a multi-stage process, our investment strategists filter out the projects whose risk-reward profile is convincing in the long term.

In addition to the patentable idea, the focus is on the high scalability of the business case, taking into account a lean cost structure. The development of the start-up is continuously accompanied by the Patentpool Group during the entire investment process right up to the exit.



With decades of reputation in the market, our experienced management team ensures a secure workflow. We offer institutional and private investors direct and indirect participation opportunities in our portfolio. Transparency in the investment strategy and its performance are as self-evident as the fair distribution of returns. The successful marketing of our projects has top priority in order to create added value for our investors.

SELECTION CRITERIA FOR OUR PROJECTS

Future market / Disruptive technology	Compelling opportunity-risk-profile
Patent protectability	High scalability at manageable costs

MANAGING TECHNOLOGY

→ Our unique selling proposition is, above all, that we build companies hand in hand with our innovators. In doing so, we contribute our entire experience as well as all core business management functions.

AND INNOVATION

OUR ROADMAP TO THE INVESTMENT OBJECTIVE

No one can guarantee the success of a start-up. But you can do everything in your power to minimize the risk: It starts with forward-looking sourcing, substantiated by a meticulous due diligence process, and leads to a project pipeline with promising innovations. In the best case, a successful exit occurs after a few years.

→ **The Patentpool Group's nine-point plan is designed to provide maximum security in a risky market.**

1. PROJECT ACQUISITION / SOURCING

Whether science, pharmaceuticals or IT – for more than two decades, the Patentpool Group has been considered the first address when it comes to finding innovative ideas and technologies from future and growth markets.

Every year, around 3,000 exciting projects reach us through many different channels. Also lining up at the start: top-class cooperation partners, including numerous industrial companies, renowned universities, research institutes and associations, such as the German Institute for Invention ("Deutsches Institut für Erfindungswesen") and the German Association of Small and Medium-Sized Enterprises ("Bundesverband mittelständischer Wirtschaft"). This unique network enables us to select projects in a class of their own: only the most promising and patentable projects. And at the earliest possible stage. The added value is guaranteed by an inexhaustible deal flow and a project pipeline with synergy potential that looks far into the future. Only projects that we consider morally, ethically and ecologically unobjectionable and sustainable find a place in our portfolio.

2. DUE DILIGENCE

Once we have discovered a promising star among the start-ups, the underlying idea is analyzed very carefully. In particular, our experts scrutinize the economic, legal, tax, financial, technical and patent-specific aspects.

If the opportunity-risk profile is promising, the company is highly scalable and has a recognizable technological lead over the competition, we offer the innovators the opportunity to establish a joint corporation. The basic prerequisite is the market situation of the innovation in question: Either we are the only player in the market in question or we are in a market position that offers us and our investors outstanding prospects of success.

4. FINANCING

Plan-secure funding is a monumental milestone for startups. Financing is essentially based on two pillars.

First, politics paves the way for innovations with the help of subsidies. After all, innovative ideas are the driver of the economic future. The second crucial pillar is venture capital. If our experts are convinced that a project has a promising future and is financially auspicious, we get involved not only with our hearts and know-how, but also with our own capital. Together with the innovator, we establish a corporation and become a partner. In addition, we offer institutional and private investors company investments as private placements. Further investment opportunities exist in the form of mezzanine capital, profit participation rights or silent partnerships. The investment and its performance are always presented transparently. Returns and increases in value are distributed fairly. Achieving the highest possible return for investors is our top priority. We create added value for venture capital investors and the industry.

3. BUSINESS PLANNING

A strategically well thought-out business plan is the directional roadmap with which we send our founders well equipped into the race. With a great deal of experience, our experts develop a business plan based on a real business model from a business idea and finally a mature corporate concept.

From strategy, tasks, milestones and responsibilities to key figures and forecasts, we outline every step towards the goal. Turnover, costs and cash flow always in view. Whether as a guide in the start-up process, as a signboard in the search for investors and cooperation partners or as a roadmap after the foundation – our business plan serves as a valuable signpost for profitability and success at all stages.

5. TEAM STRUCTURING

Peak performance only works as a team: When the corporation is founded, we also take over the operational management and all administrative tasks.

Whether professional personnel selection and HR, target group-oriented marketing and PR, branding and communication design, sales and networking – the Patentpool Group takes care of the business organization of the new company and purposeful distribution of tasks. As an enabler with an experienced team of experts, we clear the way for founders. Focused on the technical development, they can push their unique idea and quickly lead it to market maturity.

6. OPERATIONAL IMPLEMENTATION

Strategic, systematic and goal-oriented preparation leads unerringly to the next stage victory – operational implementation.

The innovative start-up idea is launched. Even better: It takes off. By consistently adhering to the business plan, the prototype and product development is advanced step by step until it is ready for the market. At the same time, we ensure the protection of intellectual property – with holistic IP management. The result: an increase in market value, step by step.

8. MARKET LAUNCH

Once the start-up is well established operationally, the team has been built up and corporate management has been created, we also accompany our innovator on the final stage on the home stretch to success: market entry. An innovative idea becomes a marketable product.

And what's more: a revolutionary project becomes a real company. The market launch of a new product is a demanding task. That is why we support our founders with a lot of expertise and experience. We develop targeted strategies to successfully place the idea on the market. The result: A significantly increased market value for investors and industry.

7. INTELLECTUAL PROPERTY

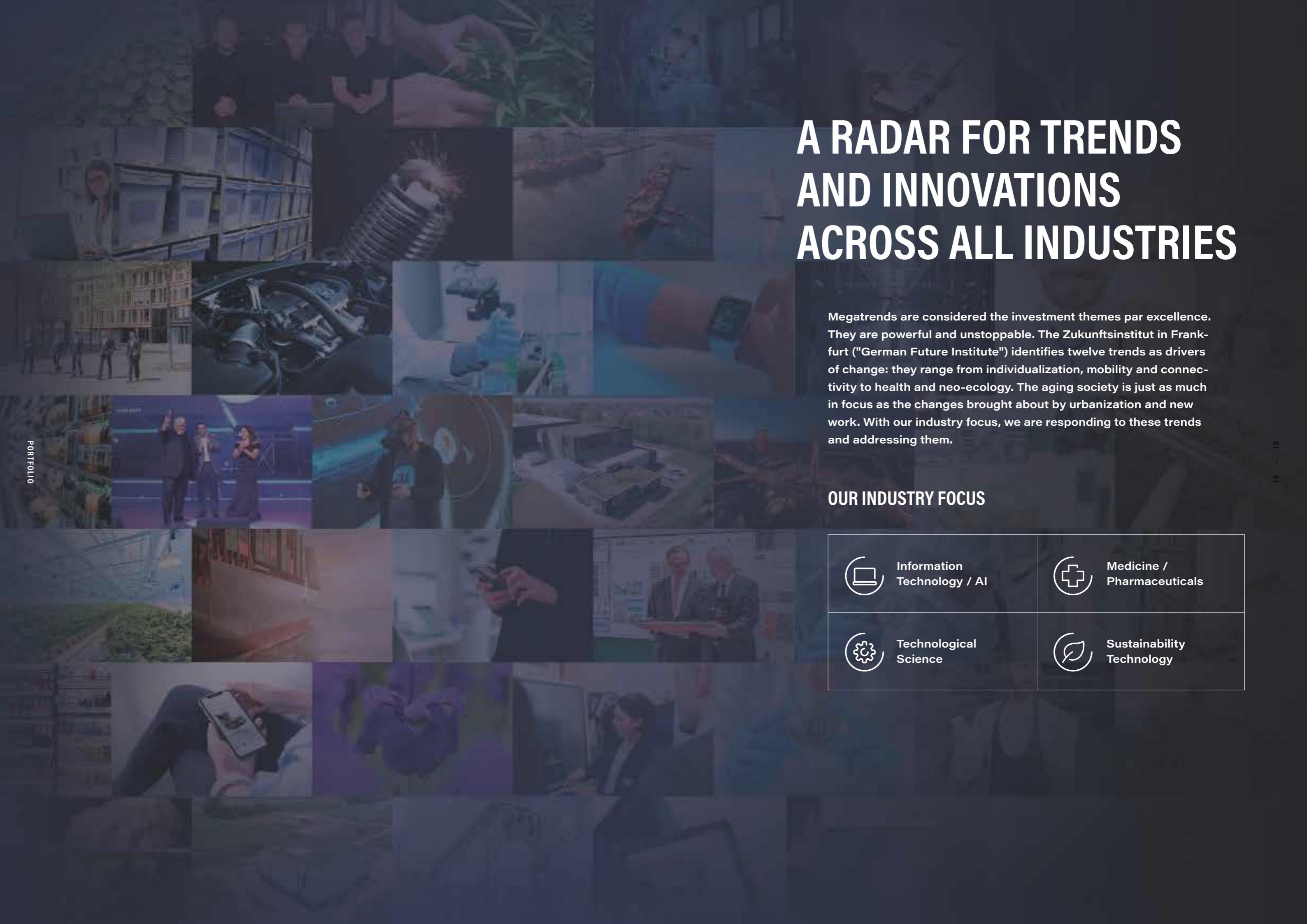
It is a long, rocky road from patent maturity and application to the grant of the patent, with many scientific, technical and legal uncertainties. But the goal is worth it: patent protection for disruptive technologies strengthens a company's position ahead of its competitors.

This protection gives us a strategic monopoly on use, enabling us to sell or license innovations at a profit. The patents can be recognized in the balance sheet and represent a significant increase in the value of the company. Based on our many years of experience and cooperation with renowned patent law firms and tax consultants, we find optimal solutions to elegantly overcome hurdles. Thus, we reliably determine the monetary value of intangible assets with a professional initial IP valuation. This value plays an important role for value-oriented IP management. But this valuation is also crucial for entrepreneurial decisions in the context of licensing, purchase and sales transactions.

9. EXIT

After a successful market launch, a successful exit is like crossing the finish line after the last leg. The Patentpool Group operates the start-up in the form of a joint exploitation company, increases the added value step by step and monitors patents and other property rights until the exit.

In more than 20 years, we have been able to complete several profitable exits with returns of up to 30 percent. Thanks to our unique network, we are able to broker patented technologies to suitable partners at a profit for both sides. For example, Dr. Heiner Pollert, CEO and Managing Director of the Patentpool Group, is always in active exchange with many companies in a wide range of industries as a business senator of the German Association of Medium-Sized Businesses ("Bundesverband mittelständischer Wirtschaft").



A RADAR FOR TRENDS AND INNOVATIONS ACROSS ALL INDUSTRIES

Megatrends are considered the investment themes par excellence. They are powerful and unstoppable. The Zukunftsinstitut in Frankfurt ("German Future Institute") identifies twelve trends as drivers of change: they range from individualization, mobility and connectivity to health and neo-ecology. The aging society is just as much in focus as the changes brought about by urbanization and new work. With our industry focus, we are responding to these trends and addressing them.

OUR INDUSTRY FOCUS

 Information Technology / AI	 Medicine / Pharmaceuticals
 Technological Science	 Sustainability Technology



MEDICINAL CANNABIS FOR PHARMACIES

→ Canify AG (formerly Bavaria Weed GmbH) is one of the first companies in Europe to hold both a full GMP manufacturing license for unlimited processing and packaging of medicinal cannabis, a BTM license (license to handle narcotics and controlled substances), and a pharmaceutical wholesale license in Germany, relying on a fully digitalized production and supply chain. Canify acquires cannabis agricultural raw materials from licensed producers and stores, packages and markets them under its own name as finished medicinal products in Germany.

Canify's goal is to become the leading European importer, pharmaceutical manufacturer and wholesaler of high-quality medical cannabis products.

The extraordinarily high level of digitalization and automation, which is patent-protected by the Patentpool experts, not only serves low unit and transaction costs, but also forms the basis for a unique production and trading platform. With this platform, Canify is able to offer international producers (cultivation), brokers and wholesalers unique production services such as the import, storage, contract production and international distribution of cannabinoid pharmaceuticals and thus the entry into the European market in the form of an unprecedented "out of the box solution" based on a fully GMP-validated IT platform.

Canify AG works exclusively with outstanding product quality and focuses on sustainable, sun-ripened (sungrown) quality products.

Company Foundation	March 2018
Partner since	June 2018
Management	T. Hoffmann, Dr. D. Surjo, T. Seitter
Form of Enterprise	AG ("stock company", formerly GmbH)
Locations	Herrsching, Leipheim (Germany)
Industry	Pharma
Website	canify-pharma.de

Benefits



Market for cannabis is growing exponentially



Digitalization & Automation



Pioneering role in Germany and Europe



Product quality & sustainable cultivation

ENVIRONMENTALLY FRIENDLY CARGO SHIPS

→ The Aircoating technology is a comprehensively patented process for air-retaining and biological surface coating developed on the model of nature, more specifically the water-repellent floating fern *Salvinia Molesta*.



When a ship comes into contact with water, three main effects can be observed, which represent the central problems of shipping: Fouling of the ship's hull with marine organisms, corrosion of the material by salt water and, above all, frictional resistance during movement.

These effects have disastrous economic and environmental consequences: The use of environmentally harmful anti-fouling coatings, in addition to costly maintenance work and, above all, high fuel consumption combined with exorbitant emissions of pollutants. These emissions are so vast that the 50 largest ships emit more toxic substances than all the cars in the world put together. The Aircoating technology finds a remedy by means of structured and functionalized surfaces that maintain a permanent layer of air under water.

Through continuous development, Aircoating Technologies' process has great potential to be of significant benefit in other applications - beyond shipping.

Company Foundation	August 2017
Partner since	August 2017
Management	Dr. Heiner Pollert
Form of Enterprise	GmbH ("Limited liability company")
Locations	Munich, Karlsruhe (Germany)
Industries	Engineering, Cleantech, Nanotech
Website	aircoating-technologies.com

Benefits



Reduction of
energy con-
sumption



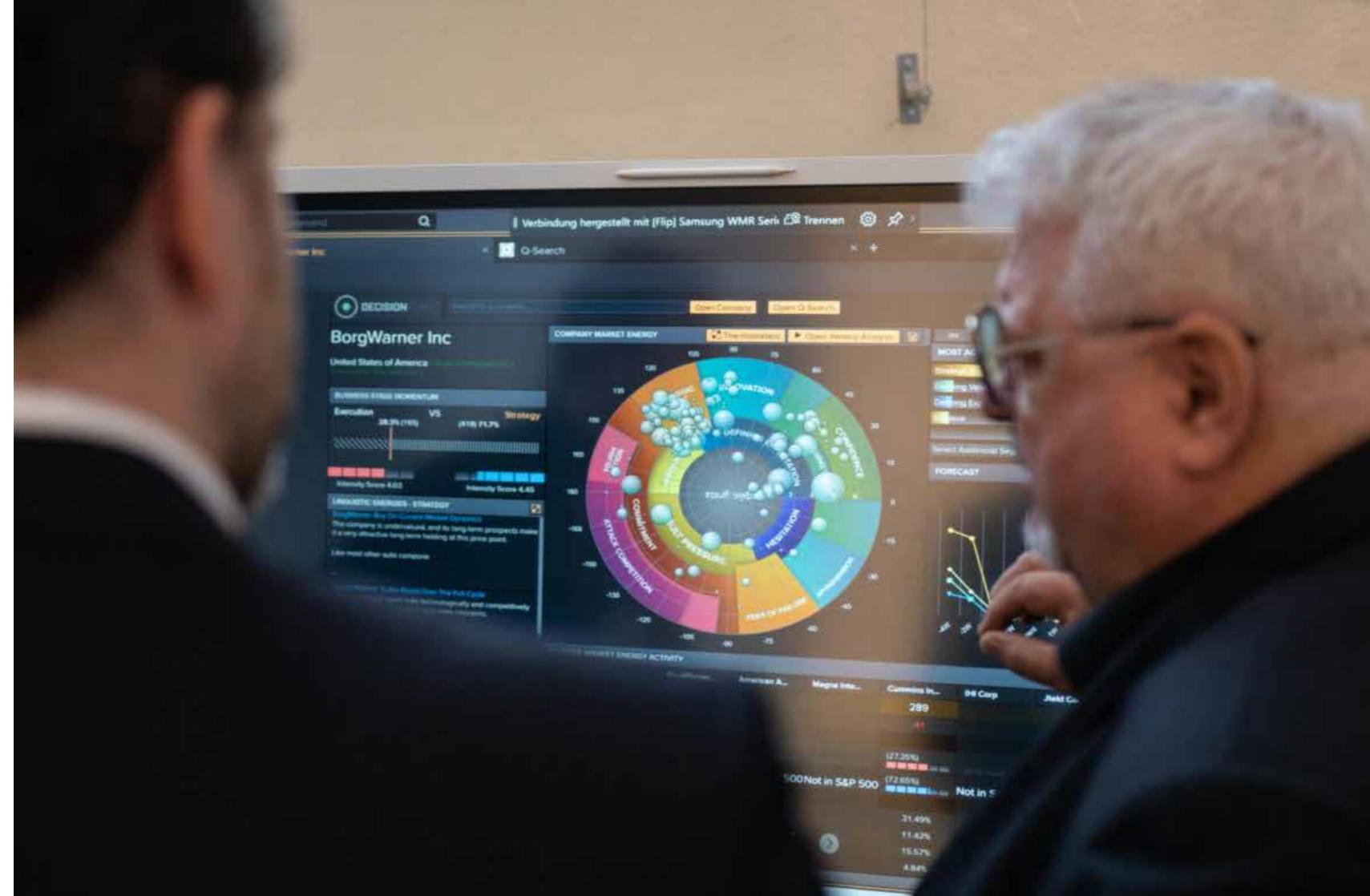
Reduction of
corrosion



Reduction of
polluting emis-
sions



Reduction of
noise emissions



ANALYZING BIG DATA WITH ARTIFICIAL INTELLIGENCE

→ Prisma Analytics has developed a technology that is capable of extracting, analyzing and correlating a wide range of structured as well as unstructured information from digital sources in real time. Prisma Analytics' "data brain" is able to natively and autonomously arrange extremely large amounts of data in real-time according to their causal relations. This is because the human brain does not distinguish between databases on the one hand and programs on the other.

Rather, it uses intelligent data (disaggregated and stored in billions of neurons) that autonomously responds, learns, calculates, thinks, and changes, etc. Based on this model, Prisma Analytics' AI creates intelligent data and stores it within the patented data model.

Based on the "Quantum Relations Principle" of co-founder Hardy F. Schloer, the Quantum Relations Machine (QRM) processes Big-Data of all types and sources into a fully generalized, completely autonomously acting and absolutely self-organizing data model, the "C+8 Data Model". For this purpose, thousands of terabytes of information are read every month, broken down and immediately stored in the proprietary C+8 Data Model. This results in a constantly growing set of natively arranged, dynamic data sets, all of which associate with each other and autonomously through common connections based on quantifiable dependencies (causations), thus reflecting the real world exactly as it behaves in reality. In this way, Prisma creates an organically growing, connected knowledge base, which in turn is the basis for a wide range of applications.

Company Foundation	October 2016
Partner since	October 2016
Management	Dr. Heiner Pollert, Hardy F. Schloer
Form of Enterprise	GmbH ("Limited liability company")
Locations	Munich (Germany), Bucharest (Romania), Barcelona (Spain)
Industries	IT, Artificial Intelligence, Big Data
Website	prisma-analytics.com

Benefits



Dynamic representation of the real world



Raw data from around the world



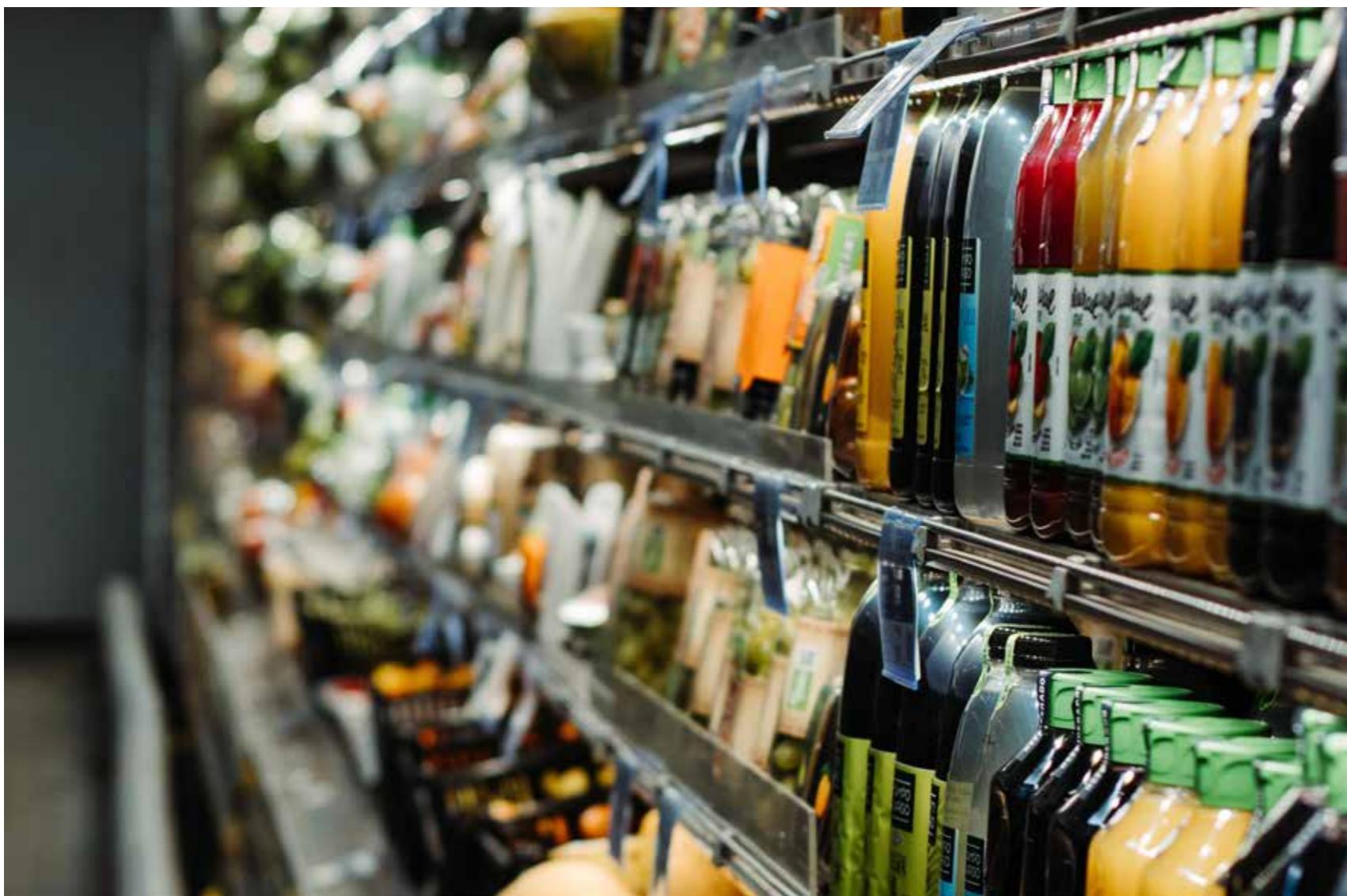
Autonomous data optimization



Knowledge for decision making

RETAIL AND WHOLESALE ON ONE PLATFORM

→ FrontNow enables manufacturers of consumer goods to place their products in brick-and-mortar stores via an online platform. The goal is to support consumer goods producers in selling their products in retail through an AI-based online platform and at the same time enable retailers to offer the right products for their clientele on site.



A standard supermarket like the German retail chain REWE replaces around 6,000 of its 16,000 products every year in order to permanently adapt its product portfolio to the needs and wishes of its customers. In contrast, it is a complex process for consumer goods manufacturers to get a new product successfully placed in supermarkets and drugstores. It is extremely difficult to make contact with the retailer's responsible buyer and to arouse his interest in new products. The buyer also has to find the right products for his clientele among all the available products.

This is where FrontNow comes in, providing the consumer goods manufacturer with a direct link to the buyers of the major brick-and-mortar retailers. For the retailer, FrontNow creates an efficient and intelligent overview of the products available and specific to the retailer. Artificial intelligence systems decide which available products are prioritized for the retailer. For retailers, the use of the platform is free of charge in order to create a pull factor with further consumer goods manufacturers.

Company Foundation	December 2020
Partner since	December 2020
Management	Marc Funk, Bernhard Lihotzky
Form of Enterprise	GmbH ("Limited liability company")
Location	Berlin (Germany)
Industry	SaaS
Website	frontnow.com

Benefits



Increased sales
for dealers &
manufacturers



Time saving &
efficiency for
consumers



Sales efficiency
& clear target
groups



Less food waste
and CO2 emis-
sions



THE ORIGIN OF CLOUD-COMPUTING

→ The Tosca Project deals with various patents covering the protection of groundbreaking technological concepts. In Germany, one of the patents granted in the dispute against Microsoft was most recently declared valid by the German Federal Supreme Court. This patent covers a groundbreaking technical teaching that made various concepts of the early Internet and today's cloud computing possible in the first place.

The aspects include secure data communication and the server-side creation of websites. This is a basic technology that was used illegally for many years by various international companies in the high-tech sector without payment. The European patent for this was filed in 1999 and granted in 2006 for Germany and Great Britain.

The patent strategy: The innovation is so complex and radical that not all ideas could be protected. The focus was on a so-called gatekeeper function. With it, we essentially protected only the one central and elementary necessary component that anyone who creates dynamic Web content violates. Numerous project approaches were offered to the IT industry, including Microsoft, on multiple occasions. As is so often the case with groundbreaking innovations, those responsible in the executive suites and development departments of the companies approached refused to cooperate. In the process, a great deal of know-how was leaked, which is unavoidable when technologies are presented. After all, the gatekeeper patent protects against imitators. Finally, on October 7 2021, the Federal Court of Justice in Karlsruhe made its decision: Our subsidiary Zoe Life Technologies AG won in full in the action for annulment X 98/19 against Microsoft Deutschland GmbH. The highest court thus ruled that the patent attacked by Microsoft Deutschland GmbH is valid in Germany to the extent granted.

Project Launch	October 2000
Partner since	July 2000
Project Name	The Tosca Project
Location	Munich (Germany)
Industries	IT, Cloud Computing, Patent Infringement

Benefits



Patent was already applied for in 1999



Patent protects basic technologies



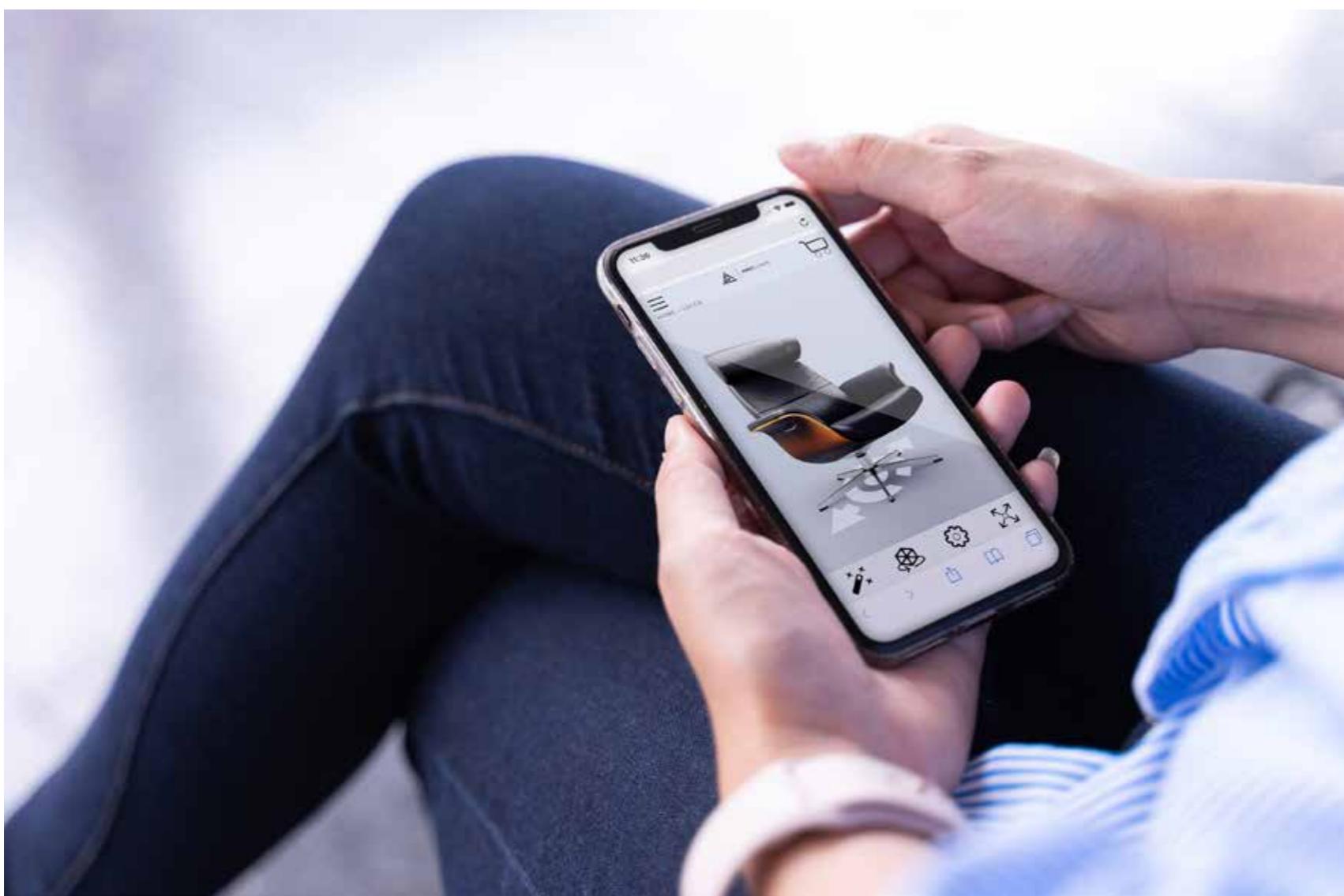
Patent infringements are contested



2021 victorious in action for annulment

STREAM 3D APPLICATIONS INTERACTIVELY

→ **ARCWARE 3D.Cloud is a streaming platform for interactive real-time 3D applications. Modern 3D output formats are no longer limited to image and video, but can provide complete interactive 3D applications. This opens up totally new possibilities in a variety of application areas such as virtual product development, virtual training and meetings, or even in the field of teaching and medicine.**



There are also many fields of application in online sales and marketing, such as interactive product visualizations, photorealistic configurators, virtual shopping malls, trade shows and 3D advertising formats. The market for business 3D applications is immense, but it has a catch: It is currently technically almost impossible to make such real-time 3D applications available to a broad mass of people in a scalable way.

There are two main reasons for this – halfway sophisticated 3D applications require very large amounts of memory on the user's device, which makes mobile transfers in particular very tedious or even impossible. Secondly, many devices, such as tablets or smartphones, hardly have the required processor and graphics power to run demanding 3D applications. The solution is to run the applications in a powerful cloud and to stream the output to the terminal device. This is exactly the core idea of the ARCWARE 3D.Cloud platform and at the same time one of today's still unsolved technological problems. With the help of the cloud, real-time 3D applications are made accessible in an interactive way on almost any device via fast and interactive streaming.

Company Foundation	January 2019
Partner since	December 2020
Management	Dimitri Mistetski
Form of Enterprise	GmbH ("Limited liability company")
Location	Munich (Germany)
Industries	3D Visualization, Streaming, Cloud
Website	arcware.com

Benefits



Real-time
interactive 3D
streaming



Low costs of
streaming



Best quality
available on the
market



Scalable
performance



MICROWAVES THAT REDUCE FUEL CONSUMPTION

→ MWI AG is developing a new type of ignition technology for engines that ignites faster and more powerfully than the spark plug, thus generating more energy from the same amount of fuel at lower temperatures. Microwave chamber ignition can also be used in aircraft and ship propulsion systems.

MWI technology is a microwave-based chamber ignition process that can be used in all internal combustion engines supplied with liquid or gaseous fuel. These include diesel, kerosene, alcohol, gasoline and renewable fuels such as e-fuel and blue diesel.

The technology promises to drastically reduce fuel consumption while maintaining engine performance. Currently, a reduction of approximately 14% has been measured in various test series, although the optimization potential has not yet been exhausted. In addition, a sharp drop in pollutant emissions can be expected. Initial measurement results from 2020 have shown that CO2 emissions have already been reduced by 16%, HC particles by around 10% and the extremely toxic CO by around 93%, with a slight NOx increase of around 11%. The current principal requirement, the reduction of CO2, can thus be met by MWI by an overwhelming margin.

A major advantage of MWI technology is that the existing engine designs do not have to be changed, only the ignition system has to be replaced.

Company Foundation	August 2007
Partner since	August 2011
Management	Armin Gallatz, Volker Gallatz
Form of Enterprise	AG ("stock corporation")
Location	Stuttgart (Germany)
Industries	Engineering, Sustainability
Website	mwi-ag.com

THE PLATFORM FOR PRACTICING AND EMPLOYED PHYSICIANS

→ **mediorbis is a physicians' portal for practicing and employed physicians, which offers content, consulting and services in the form of job portal, headhunting, practice exchange or IT support for physicians with over 400 physician consultants.**
mediorbis GmbH focuses on the areas of HealthTech, LegalTech and FinTech.



The physicians' portal mediorbis.de is a disruptive entry into the health-care sector. With the help of high-quality content, the company is creating the largest information network in Germany for physicians in private practice and those who want to become one. The portal also offers content for patients. There, doctors find the opportunity to offer telematics services in a relevant environment. Physicians can be represented free of charge in the medical contents, in order to win over patients for video consulting.

With the cannorbis® brand, mediorbis is establishing an ecosystem for medicinal cannabis focused on the triad of patient – physician – pharmacist: The company is developing the first medicinal cannabis finder for doctors and patients, as well as a marketplace for cannabis pharmacies. In the second half of 2022, the platform went live with the promise that every resident of Germany will have medicinal cannabis delivered to their homes within a few hours and at fair prices. To this end, the company is connecting over 300 pharmacies to the platform and forming a nationwide delivery network.

Company Foundation	May 2021
Partner since	April 2022
Management	M. Ross-Büttgen, U. Brandt, S. Rehwald
Form of Enterprise	GmbH ("Limited liability company")
Location	Munich (Germany)
Industry	Technology
Website	mediobis.de

Benefits



Largest information network for physicians



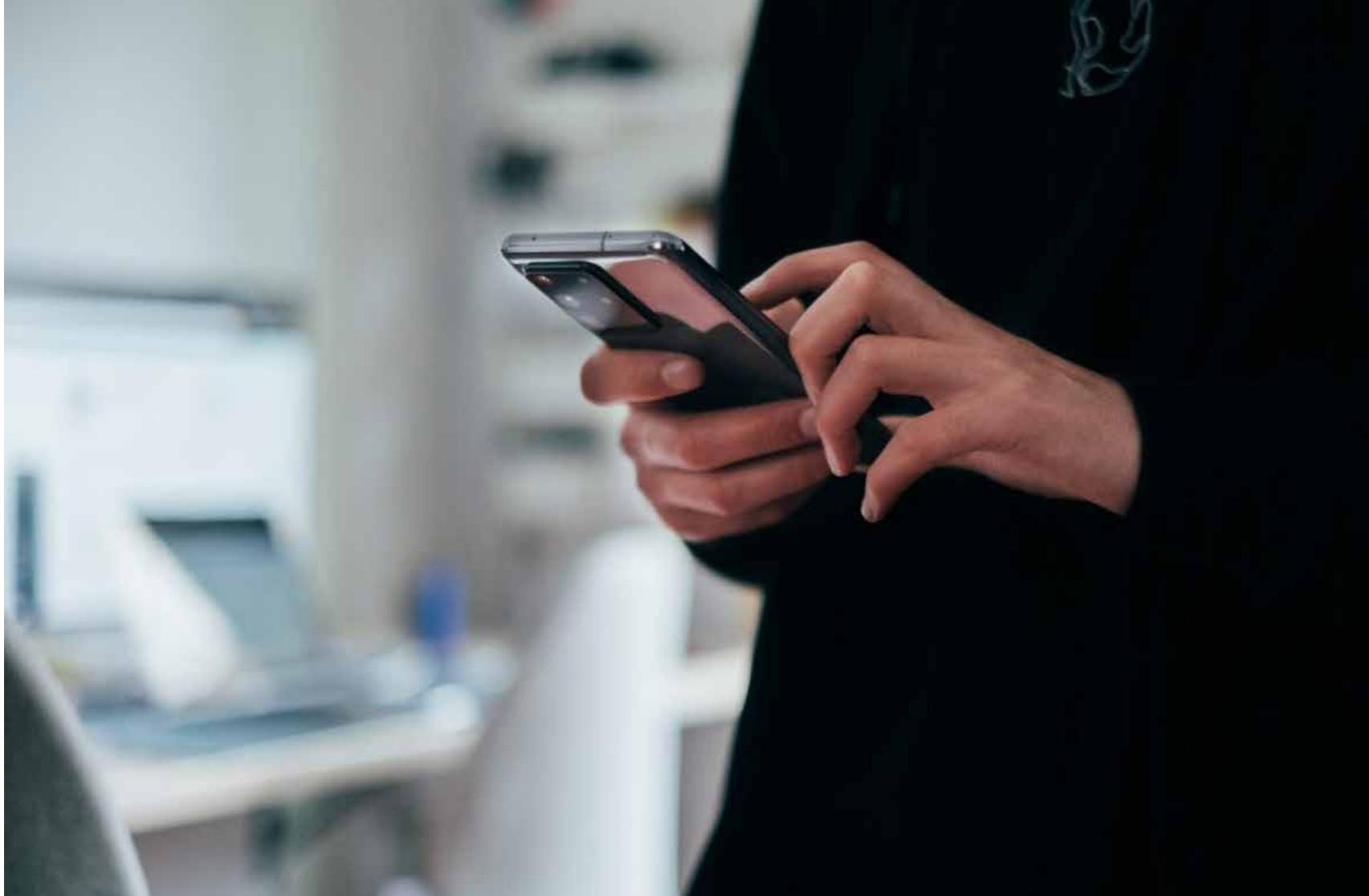
Own ecosystem for medicinal cannabis



Cannabis delivery network



Over 400 physician advisors



ENCRYPTED COMMUNICATION ON ALL DEVICES

→ Wispr is an app from the software producer CryptoDATA for encrypted messages, file transfers, calls and video conferences, which secures and encrypts all communication. State-of-the-art technologies ensure that every interaction with other users is protected.



Secure communication is ensured by using VOBP (Voice Over Blockchain Protocol) and the latest encryption and security tools, which ensure that no conversation can be recorded. Developed by CryptoDATA engineers, VOBP technology is an innovative security system that fully protects data. In doing so, the technology combines knowledge from a variety of scientific fields to enhance smartphone security.

Features of the app, available in the Google Play Store for Android devices, include encrypted text messages, voice messages, (video) phone calls and file transfers. Each type of communication is completely private and no third party entity, including CryptoDATA, ever has access to the generated data.

It is also planned that Wispr will become one of the first providers of micropayments, analogous to WeChat's in-chat payments, in Europe.

Company Foundation	August 2021
Partner since	August 2022
Company	CryptoDATA
Form of Enterprise	SRL ("Limited liability company")
Locations	Voluntari (Romania)
Industries	IT, Software
Website	cryptodata.com/wispr

Benefits



Blockchain-based private communication



Complete privacy



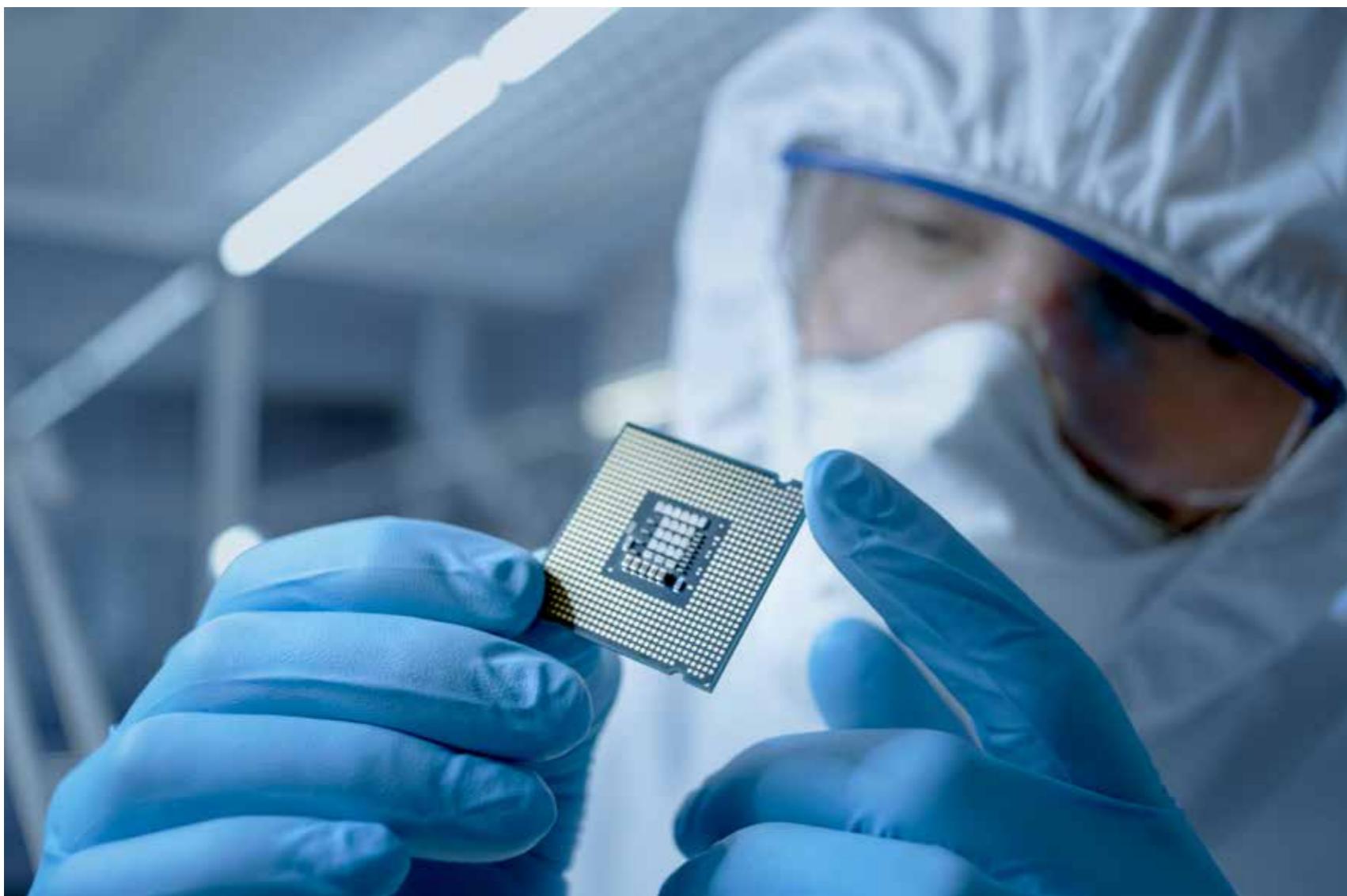
Free of charge and easy to setup



Based on VOBP

THE NANO SIZED REVOLUTION

→ Today, microchips are not only found in computers and smartphones, but also in household appliances such as refrigerators and dishwashers. The switch elements on these microchips, the transistors, already consume more than 10% of the world's electricity. If the Internet were a country, it would be the world's sixth-largest energy consumer. The technology reduces the electrical voltage required to perform logical operations on a microchip by a factor of 100, which means a 10,000-fold energy saving.



Compared to other transistors, the circuit is controlled by a single metal atom. For the technologically new approach, the scientists fabricated two tiny metal contacts that can be controlled by a single silver atom. Unlike conventional quantum electronic devices, the transistor operates at room temperature and is made entirely of metal, reducing dependence on raw materials and semiconductors. A ten-thousand-fold reduction in power consumption compared to conventional transistors underscores the enormous potential of the novel technology.

Two tiny gold electrodes are deposited on a carrier (e.g. made of glass or silicon) with a 50 to 100 nm gap between them. Now, silver is galvanically deposited from an electrolyte at the opposite ends of the gold electrodes until the two silver contacts touch at one atom. The contacting atom is switched back and forth between two defined positions to selectively open or close the circuit. This requires atomic bistability, which can be established by a separate and independent gate electrode. This "control" electrode can interrupt or close the circuit between the two contacts by means of a change in potential. This is the first time that the function of a transistor has been realized on an atomic scale.

Company Foundation	September 2022
Partner since	September 2022
Management	Prof. Dr. Thomas Schimmel, Dr. Heiner Pollert
Form of Enterprise	GmbH ("Limited liability company")
Locations	Karlsruhe, Munich (Germany)
Industries	Biotechnology, IT

Benefits



Disruptive technology and big market



Energy savings by a factor of 10,000



Safe and easy to handle



Conventional, inexpensive materials



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