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KVADOS magazine

SPRING / SUMMER 2019

CRYSTAL BALL 4.0

SPRING / SUMMER KEY on page 10

SHMMARV

10 CRYSTAL BALL 4.0

The dream of every company is to find the ideal balance between supply and demand and maintain inventory at precisely the level of customer demand. That's why obtaining the required quantity of goods at the right time is the key task of buyers. If they could see into the future, they could easily predict what customers will want, and stock up in advance. Neural networks have enormous potential that we have only just begun to explore.



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Not blackboard as a blackboard

The move from blackboard and chalk to a flipchart and marker was primarily made for practical reasons. Although it was by no means a major revolution, the flipchart became an integral part of the conference space and meeting rooms of most companies around the world for many decades. But the time of the flipchart as we know it is slowly coming to an end.



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ESSENCE

Embracing a hybrid future

Do you long to drive a car where all you can hear is birds singing and crickets chirping? The magic of sustainable mobility is heading into an entirely new dimension. An utterly new feeling of freedom opens the door to the world of virtually silent mobility with zero CO₂ emissions, bringing an entirely new concept of pure driving in an open car.

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your Key to KVADOS

KVADOS magazine – Spring / Summer 2019

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PRODUCT DEPARTMENT UNDER NEW MANAGEMENT

Dearreaders,

it's been more than 25 years since KVADOS began its journey as a software developer and provider. We have gradually added new products and solutions that cover ERP, WMS, CRM, cash register systems, task management and process management in companies today. With such a broad range of applications, it's vital that each product be handled by specialists with a clear vision to push development forward. I am fortunate to have assembled an excellent team. They have lots of ideas and maintain the constant innovation so characteristic of KVADOS.

"I am fortunate to have assembled an excellent team. They have lots of ideas and maintain the constant innovation so characteristic of KVADOS."

I would like to introduce myself. I have over twenty years of management and business experience in services, wholesale and IT. I have worked at O2, AUTOCONT, Démos trade and Alfa Plastik. I began working with KVADOS two years ago as an external consultant. I am now looking forward to new challenges as Product Director. I will try to make sure our products remain interesting and bring added value to our customers. In my new position, I will develop the solutions we deliver in accordance with the product strategy we have adopted. I believe that my customer experience with myAVIS®, VENTUS® and myTEAM® will help these products meet the needs of users even more.

I follow trends, as well as the changing conditions in the market environment. Customers are continually looking for more, they want better quality services. Everything is so much more accessible thanks to new technologies. The concepts of company digitisation or Industry 4.0 are becoming a reality and our aim is to help companies meet these challenges. Information technology in the corporate sector has become a tool for increasing the efficiency of company management and gaining a competitive advantage.

Our product team currently consists of four product managers, supported by teams of analysts and testers. Right now, we are working on new versions of the myTEAM® and myCASH® products. The innovated myTEAM® is incorporating all the experience we have gained with this solution to date, while at the same time we want to significantly improve the quality of the user interface, so that the application is intuitive and easy to use. The goal is to help clients digitise their documents, share information and manage company processes. Thanks to the task manager, the user knows exactly what needs to be done, and all tasks are located in a single place.

We are also continuing to work on the further development of the VENTUS® information system. The latest features include improved accounting and calculation of receivables insurance, expanded EDIFACT communication for Amazon or a review of payment transactions. For warehouse management, we are expanding our mySTOCK® product to include activity measurement. New functions have also been added to myAVIS®, such as assigning price lists to individual customers or enhancing security.

To keep you up to date with the latest information about what we are working on, we send out our regular myRELEASE newsletter. With every wave of updates, which take place quarterly, we clearly present you with all the changes in one place. Another tradition is KVADOS DAY, an annual event we prepare for you, our clients. yourK magazine comes out on the same day, so if you've signed up for this year's conference, I'll be glad to meet with you in person. It's another opportunity for us to share our latest product news and vision, while at the same time listening to your opinions and suggestions.

I would like us to keep in touch so that we can share ideas about increasing the quality of our products and improving functionalities. In conclusion, it is my wish that our products help you at work and that you enjoy working with them.

Radoslav Revenda

Product Director

REPORT

The new issue of the myRELEASE newsletter is out now

Each quarter, we inform you of the most important innovations we've incorporated into our products. And before we knew it, another issue of the newsletter is here. This time, we'll take a look at how easy it is to manage contractual documents at your company. The myTEAM system handles the approval process, sends alerts when documents are about to expire or its time for a revision and it always generates the necessary tasks for you. Our CRM myAVIS now make it possible to edit listings, and you can run automatic checks of discount cards in the myCASH cash register system. For the VENTUS system, we've prepared a new tool for transmitting data, the business connector. What can it do? Read the new myRELEASE newsletter and find out all kinds of useful information!

In the newsletter video, you can once again see some of the most interesting things you'll find inside. If you haven't received the new issue of myRELEASE yet, you can request it at obchod@kvados.cz.

You will find the video here:



PRODUCT INNOVATIONS AT CLIENTS



Reznictví H+H joins the ranks of our clients

One of the best quality butchers in the Czech Republic is undoubtedly Řeznictví H+H, a family-owned chain of butcher shops closely affiliated with our client MP Krásno. Supplying fresh meat and meat products such as smoked meats, hams and traditional products, it currently has 27 stores (in the Moravian-Silesian, Zlín and South Moravian regions). Řeznictví H+H is committed to preserving the tradition of handmade smoked specialities, and especially maintaining and increasing the guality of the products and services it provides customers. That's why Řeznictví H+H has become another KVADOS VIP client. Beginning this year, company sales reps can rely on the myAVIS® mobile CRM solution. The client expects the system to more efficiently manage sales and sales representatives in the field, reduce administrative costs, increase sales and last but not least, continually improve customer relations.

Not long ago, we also welcomed IKN Czech to our family of clients. This company creates innovative solutions for the production of cement, lime. magnesite, ceramsite, and processing iron ore for the paper and chemical industries. They will now be using myTEAM® to help organise their work, specifically in the areas of managing strategic and operative tasks or managing meetings. IKN Czech also plans on using the myTEAM® project management module in the future.

We have begun initial analysis of the mySTOCK® and VENTUS® solutions for Slovak publishing house IKAR. After detailed consultation with company management and an inspection of the warehouse, we will design a communication solution for the line and kardexes.

The mySTOCK® system to support and manage warehouse and logistics processes is also being developed and implemented for our client EURO NÁŘADÍ. The aim is to improve warehouse processes and efficiency, especially stocking from goods received and picking goods. The warehouse operator currently chooses the

location for stocking based on memory and experience of where things are. The goods are then picked for individual orders throughout the entire warehouse. The new system will pick in batches, taking into account worker's rights, available handling equipment and other parameters, including the option of preparing multiple orders at the same time – multipicking. Deployment is planned for July 2019.

myTEAM® is now in full operation at FEBE CRAFT. The company actively uses the central task manager and contract agenda. The myTEAM® solution has helped manage rights at the company, and quickly search for and organise documents that are also accessible from other locations.

Over the past six months, we've been deploying myCASH® in more stores of our existing clients. AMERIGO opened a new branch at the Olympia Plzeň shopping centre. They now also use a mobile cash register that can travel between stores. The myCASH® solution was also installed at the newest location of the VELTA Free Shop, which opened in Rožany. However, the greatest number of stores was opened by VETRO-PLUS, which added a total of 10 new stores in three countries.

RUDOLF JELÍNEK is migrating to the new generation of myAVIS

After 13 years of using the myAVIS® SFA (Sales Force Automation) product, RUDOLF JELÍNEK is moving to the new generation of the system that uses Android technology. This enables sales representatives to better work with current product information, contacts and reports. In addition to the basic module, the company will be implementing the Sales, CRM, Logistics and Finance modules. The new application offers myAVIS® users greater comfort when working in the field.

IN THE EYES OF AN EXPERT



Miroslav Hampel **How to implement DMS**

What are the most important prerequisites for choosing the right content management system with quality functions? It should be intuitive and easy to control, so that users quickly become accustomed to it and embrace its use. On the other hand, the solution must be robust and meet expectations in terms of security, user rights and performance.

The main problem during implementation tends to be the desire to jump from minimalism to maximalism. Typically, no metadata is recorded and storage logic is built on a directory structure in the initial stage. During DMS implementation, complications tend to arise from trying to maximise data, which then burdens individual users and elicits resistance to use. Another stumbling block tends to be the definition of too many types of documents or the lack of a uniform approach to handling metadata from the very beginning.

Many times, the logic of the original directory system is carried over into the implementation of the new DMS, or a particular DMS solution forces the introduction of a document management system according to its own internal logic. For the system to be simple, it should relieve users of the task of deciding where to save a document. This task should be handled by the system based on pre-defined metadata. Likewise, it is important to change the way searches are performed. Instead of searching for a document, the user enters the parameters of the search. This is probably the most fundamental change that a new DMS should bring, and the DMS module of the myTEAM® solution fits the bill.

A basic requirement for DMS implementation today is easy content management and maintenance. Managing individual document processes tends to be secondary for clients. myTEAM® helps manage processes at the level of pre-implemented agendas such as Contracts and Guidelines. So, the very introduction of the system makes these processes operational, even if clients did not plan them until the second stage.

KVADOS wins the STOCK Plzeň-Božkov tender

We're proud to add another major Czech client to our portfolio, this time the manufacturer of the finest traditional spirits and bitter liqueurs. STOCK Plzeň-Božkov supplies more than 40 products on the market, including well-known brands such as Fernet Stock, Amundsen vodka or Božkov Tuzemský rum. A total of 250 sales reps will be using the myAVIS® mobile solution both in the Czech Republic and Slovakia. The main requirement was to unify CRM, since each department currently uses a different system. In addition to standard implementation, we will also add a number of custom features like a new window for the warehouse management application, add tile views to distribution control and create local listings right in the application. We will also be implementing a B2B portal for the company.

EFFECTIVE CHAOS

Selecting a location to store goods would seem to be an easy task for any WMS. But what parameters and circumstances are important for selecting a location so that the warehouse operator can stock the goods and the picker can later quickly and repeatedly pick the goods (for many orders) at minimal cost (and delay)?



Previously, clients generally worked with designated storage, where each good had its designated location and the WMS system didn't really solve anything and just generated warehouse tasks based on set rules.

Thanks to high computing power and the application of advanced algorithms, the trend in recent years, however, is chaotic storage, where there is no fixed link between the goods and where they are placed. Our WMS system, mySTOCK, has also adopted this trend. It selects what appears to be a random location for storing goods (even illogical from the perspective of warehouse staff) that is ultimately very efficient. The system considers many important parameters that include the turnover of goods, delivery schedule and current operating situation at the warehouse. It takes into account the volume of goods and capacity of the target location, as well as the dimensions, weight, handling, stackability, firmness of packaging, storage restrictions, product class, batch, FIFO, turnover (e.g. based on ABC analysis), operating regime (e.g. speed

vs. warehouse cleaning), current capacity of human resources and equipment, total capacity of the warehouse and individual locations, average size of picked batches (including consideration of various picking regimes such as multipicking) and many other parameters. With chaotic warehouse management, the same goods are thus stored in different places, even in small amounts along with other, unrelated items sharing the same logistic parameters.

The advantage is that there are no lines of pickers for the most frequented items. Another positive effect is the increased use of storage space with an increase in filled capacity from an average of 40-50 % up to 70-85 %. The warehouse manager is then only interested in one thing, for total costs and the time required for stocking and picking to be minimal in both the short and long term. At KVADOS, finding the optimal algorithm for chaotic storage that always takes into account the specific needs of each client has become an exciting, never-ending process.

THE FIRST PROGRAMMER WAS A WOMAN

Women in the history of IT

The field of IT is laden with many stereotypes, such as the notion that it is a purely male affair or that IT specialists are somewhat unkempt beings who only communicate in programming languages. Here at KVADOS, we know the reality is different. Computers certainly aren't just for boys, and the people who work with them often surprise you with the unusual diversity of their interests, knowledge and perspective. Even so, it is interesting that if we look back at the history of IT, the first programmer was a woman.

The first algorithm specifically designed for implementation on a computer was written by Countess Augusta Ada Lovelace, who happened to be the daughter of famous English poet Lord Byron. In her notes, the unusually gifted mathematician described the working of the Babbage Analytical Engine in detail and added instructions describing how the machine could calculate Bernoulli's numbers. She defined specific operations that would lead to the calculation, and the manner it could be coded into the machine using punch cards.

Women contributed significantly to the development of a machine for

calculating artillery firing tables, which were begun by the American army in 1943. Algorithms for the well-known ENIAC computer were written by Fran Bilas, Betty Jennings, Ruth Lichterman, Kay McNulty, Betty Snyder and Marlyn Wescoff, although they also needed detailed knowledge of the hardware to bring ENIAC to life. For the machine to function, it was necessary to properly connect cables and set up 40 panels with 3,600 ten-position switches. All by hand, of course.

The giant MARC I computer was also partially the work of American Grace Hopper. She created the codes and wrote a five-hundred page manual for it. She was also a leading pioneer in the development of programming languages. She came up with the idea that programs should not be written in machine code, but in a language similar to English. The programming language COBOL, introduced in 1959, was based on this very principle.

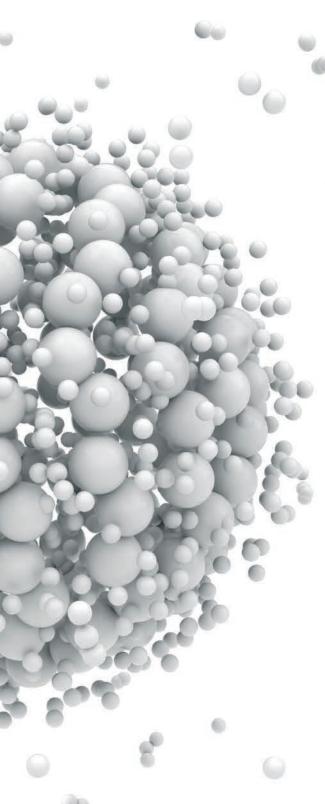
If we look at Czech history, we must mention the founder of the Department of Automated Computers at the Faculty of Electrical Engineering of the Brno University of Technology and the BUT Faculty of Information Technology Zdena Rábová. Her work focused on the field of simulation languages and their translation and under her guidance the Brno team created the first Eastern European translator of the ALGOL 60 language.

Today, women are not represented in Czech IT companies in great numbers, less than 10 percent according to statistics. To increase this number, girls need to be motivated to study IT. That's why KVADOS recently got involved with the Czechitas project, which opens the doors of information technology to girls. Girls also take part in our courses for students, which we are very pleased to see. And we already have a few talented IT ladies at KVADOS, so we're sure there will be more soon!

Countess Augusta Ada Lovelace



KEV



When planning for the future, we would all like to have a crystal ball. That's why scientists have put so much effort into experiments aimed at creating an algorithm that can meet this challenge. Their efforts have borne fruit in the form of artificial neural networks inspired by the structure of our brains. These have gradually become standard in the field of predictive software. But they can offer us much more.

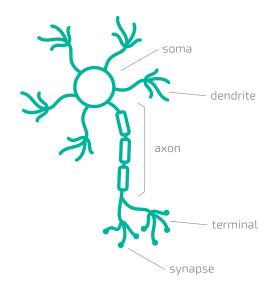
Neural networks

The dream of every company is to find the ideal balance between supply and demand and maintain inventory at precisely the level of customer demand. That's why obtaining the required quantity of goods at the right time is the key task of buyers. If they could see into the future, they could easily predict what customers will want, and stock up in advance.

In reality, they mainly rely on their intuition and experience. However, there are now advanced computer tools designed to make this difficult task easier for buyers. The power of today's information systems lies in the enormous amount of data they can process. Such power provides interesting opportunities for the application of artificial intelligence based on neural networks, because calculations using regular statistical methods cannot be performed within a reasonable time due to the large number of interacting variables. Algorithms can not only evaluate volumes of data exceeding the capacity of the human brain, but they can also find mathematical relations between many factors in the data, and are therefore a handy tool to push human capabilities beyond their current boundaries.

Inspired by nature

Artificial neural networks are modelled after nature. Just as the pioneers of aviation observed birds and the way they fly, the architects of the first neural networks drew inspiration for their designs from biological processes. Specifically, the human brain and its structure. Our brain contains basic computing units – neurons, that process and pass on information.



THE NEURON AS A BUILDING BLOCK

A neuron is composed of the body (soma), to which nearly 100,000 dendrites lead and act as input. In contrast, there is only one output – the axon. The axon branches out into numerous terminals. The importance of neurons consists of their ability to communicate with one another. Information passes through the axon as an electrical impulse to the terminals. The place where one neuron almost touches another is called the synapse, and it is across the synapses that information is passed from neuron to neuron. The actual exchange of information takes place in the form of chemical signals. What is crucial is the fact that neural networks have memory.



Based on this biological analogy, an artificial neural network is created from mathematical neurons, primitive units that process input signals, communicate with one another and generate output information. This is a form of artificial intelligence consisting of an algorithm that learns by comparing historical data with reality. At the very beginning, training data is prepared to launch the neural network. The network then automatically examines mutual relationships, learns to recognise them and prepares to predict future values.

In the world of IT, the mathematical model of neural networks is identical to its biological counterpart. Let's explain this using a simple example. Our goal is to use a neural network to determine whether a person is alive. Processed data in the form of vital signs (heart rate, respiration, temperature) is sent to the input layer of neurons. It passes from them to other inner layers and the process continues until it reaches the output layer, which makes the final evaluation. In our case, the algorithm would consider any person demonstrating the minimum values of all vital signs to be alive. The ability to draw conclusions independently is one of the key features of neural networks. This ability must first be learned.

Learning with or without a teacher

Conventional algorithms are told by the programmer exactly what to do with data and in what manner. Instead of exact rules and formulas, neural networks are given a vision of results. During the subsequent learning process, we give them feedback whether a particular result is closer or further from our vision. An important prerequisite for using neural networks is having enough historical data to teach them.

A neural network learns in a similar way to people. If we learn something incorrectly but have a good teacher or coach, then they will point out our mistake and get us headed in the right direction. In the same way, when teaching a neural network, we give it feedback in the form of anticipated results, which we have at our disposal in historical data. After comparing predicted and real values, the neural network starts thinking which way to adjust the weight of individual inputs. Each

neuron contains its own activation function, which is the heart of the entire calculation, and it calculates the corresponding weights and sends this information to the synapses connecting with other neurons. The measured difference ripples back through all layers of the entire network, leading to a new iteration of the entire calculation. The entire process repeats until errors are reduced to a minimum. At this moment, we have finally trained a neural network to independently address the task at hand.

An important prerequisite for using neural networks is having enough historical data to teach them.

Here the classic saying about a good servant but bad master comes to mind. Learning from historical data with available results may be quite efficient, but it also presents a certain set of problems. If the data reflects certain cultural or other customs and biases, then the neural network will learn them too. An ignominious example was the situation where an algorithm was used to perform an initial assessment of resumés submitted by job seekers. Here, an undesirable effect occurred when the algorithm automatically penalized women applying for demanding technical positions. This happened because it was primarily men who worked in these positions at this company in the past. Surprisingly, the neural network had learned that this was how things were done and automatically used gender as one of the deciding factors.

A similar problem occurred when trying to use artificial intelligence to determine sentencing in trials of people with criminal records. The primary basis for sentencing was supposed to have been the person's criminal history. Odd results however forced experts to take a closer look at the program, because apparently the algorithm was also taking other factors into account. In this case, they found that skin colour was used by the algorithm as an aggravating factor, and prediction by the algorithm matched the verdicts of real judges in barely twenty percent of cases.

The learning process can also take place without our feedback. In such case, we don't provide the neural network with any vision of the results and merely examine the relationships it discovers by itself. This approach is worthwhile in tasks requiring sorting and classification. Without a teacher, the neural network does not suffer from any of the prejudices and biases that we carry around in our heads.

Just like our brains, neural networks also need to be constantly stimulated with new data so that they don't atrophy. The more we fine-tune them, the better and longer they will serve us. The good news is that this process can be automated to a large degree.

Without a teacher, the neural network does not suffer from any of the prejudices and biases that we carry around in our heads.

AT THE DOCTOR

Medicine is one area where neural networks are increasingly helping to save lives. An interesting experiment pitted a neural network against human dermatologists in the diagnosis of melanomas from photographs of skin. The doctors also had access to additional information about patients and their medical history. They were able to correctly diagnose the condition in 89% of cases. Even without the additional information, the neural network achieved an accuracy of 95%. The key to its success is the enormous volume of data it received to learn from. It saw so many photographs that a human simply cannot compete.



Author Richard Zhang. Source http://colorization.eecs.berkeley.edu/siggraph/legacy_photos/

Universal assistant

The ability to process input data of a widely diverse nature is another advantage. Input can be anything that we can transform into the required format. This has led to many interesting applications. One beautiful example is a website that generates photographs of people who don't exist. It was created by one of the developers of Uber with the intent of spreading awareness of new possibilities. It uses a database of over 70,000 actual photographs of people from social networks. It then uses these to generate entirely new faces, that can't be distinguished from actual people.

Another example worth mentioning is an interesting project from the Microsoft workshop, which attempts to guess the age and gender of people from their photograph. We can upload a photo from our phone in real time and have it evaluated by artificial intelligence. While not always entirely correct, the guesses are quite entertaining.

Over the course of several successful projects, software was created that can breathe new life into black and white photographs by adding colour.

But neural networks can do much more with pictures. Over the course of several successful projects, software was created that can breathe new life into black and white photographs by adding colour. The program learned from the work of human artists who colourised black and white photos based on their knowledge and experience. In some cases, neural networks became so advanced that they were even able to colourise entire black and white films.

LIP-READING

Interesting results have been achieved when using neural networks for lip-reading. A neural network was able to correctly identify 93% of words from a video. Its human counterparts had a success rate of around 52%. In this case, the network was trained using over 11 years of video recordings. In the future, we can expect to see this technology help improve the quality of video calls in noisy environments.

KVADOS caught up in the net

Here, at KVADOS, we've also decided to explore the advantages of neural networks. In a pilot project, we were able to experimentally use a neural network to predict the sales of goods. We drew on all the aforementioned advantages of this technology to attain the most accurate results possible. Our experts prepared a whole series of interesting experiments and examined the impact of classic phenomena such as national holidays or vacations. They were able to successfully incorporate historical data on weather and combine this with weather forecasts in our software. As the hypothetical cherry on top, they examined the effect of book covers on sales. Did you know, for example, that a fairy tale with a winter-theme cover can minimise sales outside the Christmas season? And that's even if the story has nothing to do with Christmas.

Optimising warehouse inventory

Is it possible to use this form of artificial intelligence to optimise inventory? That is the big question that has led to many research projects. Here at KVADOS, under the auspices of the IT Cluster. we are engaged in a project that seeks to find the answer. The work endeavours to analyse the sales of all key groups and areas of products. One of the main components is determining external factors affecting consumption and determining the relationships and specifics of various products.

Examining these factors is a challenging but exciting task in which our experts often had to assume the role of psychologists when analysing buying habits and ask themselves many questions:

- · what impact do discounted goods have on similar products
- · what impact does brand have on sales,
- · how are sales affected by holidays and weekends, also in surrounding countries,
- · how much are book sales affected by their cover,
- · how are the sales of a particular group of goods affected by a rainy week or a heatwave,
- · how does the appearance of an author on a television talk-show affect the need to s tockpile inventory,
- \cdot do the increased sales of beer during the summer also affect the sales of non-seasonal products ...

Feeding neural networks

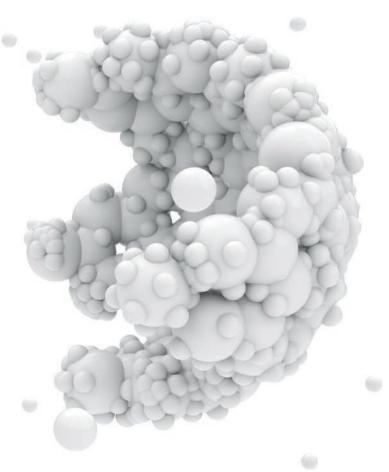
At the beginning of the project, it was necessary to prepare the data we had gathered as a training set and eliminate any anomalies that could distort prediction. We added data on influencing factors and analysed the weight of factors influencing the particular set. The next step was to create the topology of the neural networks and monitor the results during first experimental learning.

The data prepared for the neural networks included data on books and their particulars. Finding relationships between the author and their work to date, the genre, trending titles and e-book sales was an important task for meaningful prediction.

Based on the results of the pilot experiments, we had numerous consultations with experts from the studied fields, who helped us greatly with valuable recommendations about what other influencing factors to include. No less effort was also invested in consulting experienced data scientists, who guided us many times when addressing technical details and optimising the entire process.

ERP instead of a crystal ball

The project has resulted in the development of a comprehensive software tool to predict warehouse inventory that can be incorporated into independent primary ERP systems. It can determine the quantity of products that will be consumed in a defined upcoming period so that there is no overstocking or, on the contrary, shortage of goods in the warehouse. During the project, we also developed an administrator interface that can be used to set up an independent neural network, even without deeper IT knowledge. The system is prepared for automated machine learning, including automatic tasks, that will expand the training set based on new sales, conduct new training, and compare the results with the current network. This will ensure constant and automatic improvement of prediction accuracy.



Neural networks have enormous potential that we have only just begun to explore. The rapid development of hardware now enables us to teach networks with volumes of data exceeding the capacity of our brains in times that could not have been dreamed of not long ago. This is one of the key benefits that this technology offers when facing our challenges. Every buyer would undoubtedly appreciate an assistant that could use artificial intelligence to predict consumption. Here at KVADOS, we are offering just such an ERP module for warehouse management.

KNOW-HOW

DOCUMENTS ON THE MOVE

The Dopravní podnik Ostrava has the ambition of becoming the most modern municipal transport company in the country. For example, the company was the first to introduce bank card purchases of tickets directly in trams or buses or purchases using Apple Pay, and plans to eliminate paper tickets entirely in the near future. It is continually renewing its vehicle fleet and adding modern, ecological, air-conditioned trams and trolley buses. The number of stops and vehicles where passengers can use Wi-Fi continues to grow. And new technology, specifically the KVADOS myTEAM® solution, is now helping the Dopravní podnik Ostrava manage documents.

The Dopravní podnik Ostrava had never used a document management system (DMS) before. Until recently, their contracts, invoices, minutes from meetings and all other documents were on paper. But everything is different now. The daily administrative processes of this company with nearly two thousand employees are now run by myTEAM®.

Implementation began in June after KVADOS won the tender. "We deployed a standard solution for the client with a full range of agendas covering the circulation of correspondence via a mail room, automated e-mail retrieval, invoice approval, the organisation of meetings, a central task manager, approval of vacation requests and much more," says project manager Čestmír Mališ. The primary aim was to increase productivity when working with documents, limit duplicity when storing data, shorten and clarify approval processes and gain immediate access to documents regardless of their location or format.

As the project received funding from European grant programmes, it was on a very strict timetable. The solution had to be deployed and accepted by the end of November.

A team of over 40 KVADOS specialists worked to deploy the new system. The team was composed of analysts, who sought the best settings for all internal company processes related to document circulation, as well as programmers, testers and consultants who incorporated the necessary functionality and helped connect the myTEAM® solution to other external systems such as the Helios Green accounting program or the identity management system (IDM).





"Considering the large number of invoices coming in to the Dopravní podnik Ostrava every day, we also equipped myTEAM® with an automatic extraction tool. This means that when an invoice comes to the mail room, an employee only enters it into the system as mail – records the type of content and sender and scans the document. From the scan, the system automatically reads other information such as the amount, due date, tax information, account number, etc. Invoices therefore reach accountants much faster and the mail room has less work as nothing has to

be typed in manually. Of course, there are also control mechanisms to minimise errors," explains Čestmír Mališ. Part of the contract was also to provide the necessary hardware. KVADOS not only supplied the servers that run myTEAM®, but also a special scanner suitable for extracting invoices, as well as data storage.

From the client's perspective, the implementation of the KVADOS DMS meant a fundamental change in established procedures. "People accustomed to paper documents had



to switch to another way of working and start treating electronic documents with the same respect as the old paper ones. In our experience this takes a while," says Čestmír. That's also why KVADOS helped the Dopravní podnik Ostrava train key employees and provided materials to create e-learning training for users, who currently number several hundred.

"With this project, KVADOS showed that it's one big team. In addition to the people who are primarily responsible for myTEAM®, many others also had a hand in the work. Everyone cooperated readily and effectively and understood the importance of the project. We are pleased that the project was launched successfully even with the limited amount of time we were given," adds Čestmír.

DOPRAVNÍ PODNIK OSTRAVA

is the company that operates the municipal public transport system in Ostrava. It operates a network of bus, tram and trolley bus lines that make up the Ostrava integrated transit system. The company was founded over one hundred and twenty years ago by the City of Ostrava.

WE LIVE ONLINE

You've probably already noticed that we are increasingly engaged in promoting KVADOS online. The reasons are clear. People generally spend a lot of time on the internet and our potential clients are no exception. The aim is to raise awareness about us, our products and sales support, but also to present KVADOS as an interesting employer that has something to offer. Perhaps you can benefit from taking a look at the effectiveness of these marketing activities too.

The magic of measurability

The old offline world as we know it is hard to grasp in terms of evaluating results. How can you calculate whether an investment in a billboard or printed ad was worth it? Of course, you have a certain amount of input data provided by the sales rep for the given media. You can base your decision on costs and readership, or choose a medium according to the proclaimed type of readers. But to a certain degree, the decision remains based on certain assumptions and impressions. If a potential customer then calls you or sends you an e-mail, you're all set. But you won't get any specific numbers on how many people read your article, or how many of them might be interested in learning more about you.

In the online environment, you don't need to make decisions based on feelings. That's one of the main reasons why we are trying to increasingly shift our marketing activity in this direction. In the world of IT there's no room for speculation. We like numbers, tables and reports!

We also want to make better use of the opportunity to choose who sees our advertising. Online advertising can be extremely targeted, either by interest, profession or other parameters. Of course, this assumes perfect knowledge of the market segment where you want to sell your product. Preparing such an analysis and rethinking who your potential clients are can be very useful for business in general.

Test one hundred times

We also like the ability to constantly test our online advertising. After all, we do the same when developing our software. We first verify and test individual functionalities before sending an update to clients. A great advantage of online ads is that if they're not successful, we can quickly assess the situation and change strategy, or move our activities elsewhere.

In the world of IT there's no room for speculation. We like numbers, tables and reports!

The new myTEAM website

Right now, we are primarily focusing on the myTEAM® product, where we see great potential. We believe it could prove interesting to a wide range of potential customers. In fact, every medium-sized enterprise in any business sector should have an in-house management tool. Therefore, we've prepared a new web presentation of this product (www.myteam.cz) and launched campaigns through various media channels. However, we're not abandoning offline advertising completely, but rather seeking ways to combine both worlds.

NOT BLACKBOARD AS A BLACKBOARD

Samsung FlipDigital flipchart

with interactive display

The move from blackboard and chalk to a flipchart and marker was primarily made for practical reasons. Although it was by no means a major revolution, the flipchart became an integral part of the conference space and meeting rooms of most companies around the world for many decades. But the time of the flipchart as we know it is slowly coming to an end.

Evolution affects all plants and animals. It's driving force is the process of natural selection, by which individuals in groups are selectively inhibited or favoured according to various criteria. In addition to biological systems, we can also observe these principles in our office equipment. Analogue typewriters, faxes and wall calendars have been replaced by the universal computer. It's



therefore surprising that flipcharts have evaded office evolution so far. But the reason is clear: there was no alternative, a natural predator. Fortunately, that situation is changing. Meet the Samsung Flip – the Flip(chart) of the future.

Innovative, creative, and above all functional

The Samsung Flip is a tool to increase the efficiency of meetings, and at first glance still looks like a flipchart. But that's where the similarities end. The Samsung Flip was designed to share and develop ideas and concepts – with several people working on different devices in real time, right there during the meeting.

The multi-touch display of the Samsung Flip measures 55" with a

resolution of 3,840 × 2,160 pixels. Up to 4 users can simultaneously connect to it via an HDMI cable or WiFi connection, enabling them to work together from their computers, tablets or telephones through the Touch Out Control function. Changes on the display are sent to other devices in real time and vice versa. Each user can choose their own font and colour, and thanks to UHD resolution all notes are clearly visible. All voices will be heard, no idea is lost.

Information security and exporting

The Flip display user has up to 20 pages of space, including the ability to search for content and to lock non-public parts of the document. After logging in, all meeting participants can download the

relevant content and share it by e-mail, in traditional printed form, or to save notes on a USB disk or other external medium, making the creation and distribution of minutes from the meeting more efficient.

Ergonomic and practical spatial design

The Samsung Flip boasts an ergonomic design. It works in both vertical and horizontal position and includes a pen case and shelf. The stand has wheels, so it can be used virtually anywhere. Turning on the Flip display is fast and intuitive. Thanks to intelligent sensors, all you need to do is approach the screen, turn it around or take a pen out of the case. The response time of the Flip display is an imperceptible 8 ms.





Ergonomic and practical spatial design

Samsung Flip				
Dimensions	1023 × 1611 × 991 mm			
Display	Edge LED, 55", 3840 x 2160 px			
Weight	31,7 kg			
Contrast	4700:1			
Brightness	300 (without glass), 220 (with glass)			
Viewing angle	178/178			
Response time	8 ms			
Colour range	72 %			
V-Scanning frequency	60 Hz			
H-Scanning frequency	135 Hz			
Glass Haze	2,3 % (bez skla)			
Maximal display				
frequency	578 Hz			





MARKÉTA MATĚJČNÁ: WALLACHIAN CURE-ALL

A blue plum on the label and the delectable smell of plum brandy ... That's what comes to mind when any Czech hears the name RUDOLF JELÍNEK. The story of the Vizovice spirits maker began more than 120 years ago, over which time the brand has had to endure many trials and shocks due to historical events and more. Today, the company is the largest European producer of fruit spirits. We talked about plums, pears and much more with the Director of Economics, Logistics and IT Markéta Matějčná.

Where does the strength of the RUDOLF JELÍNEK brand lie?

Definitely in the product - in the traditional spirit with a hundred-year history. And also in the people who make it, and the customers who enjoy it. You could say Wallachians have slivovitz encoded in their genes. You'll find it in every cottage. You reach for it when you're happy and when you're sad. When a family gets together, when a friend comes to visit, when you feel a cold coming on or you have a stomach ache. The original owners from the Jelínek family were able to spread the popularity of slivovitz beyond the borders of Wallachia and later generations of distillers have only confirmed the quality of our products with their work. Today, we are modernising production facilities, introducing additional quality assurance into the production process to meet increasingly demanding certification requirements and kosher certification requirements, but the focus of our attention remains the product as such – a pure natural product with the taste and aroma of fruit.

The brand is also well known abroad. How much of your production do you export and where do you send it?

We have a tradition here as well. Our biggest foreign markets include the USA, where Rudolf Jelínek began exporting kosher slivovitz back in 1934. Since then, we've continued to export kosher products there, with the only hiatus during the Second World War. But by far the largest foreign market for us is Slovakia. Annually we export about 30-35% of our production to the US and Slovakia, and also to Germany, Austria, Poland, Bulgaria and Hungary. Our export managers have also broken into exotic markets such as China, Japan and Nigeria. We export to 40 different countries and with the exception of Antarctica, you'll find our products on every continent.

> "All it takes is two or three hours of frost during the night and the entire crop is lost."

Is slivovitz the most popular product?

Slivovitz is the flagship of our product portfolio. Vizovická slivovitz made exclusively from the plums of our own orchard in Vizovice is particularly popular. During the first harvest in 2008, we harvested 25 tons of plums and we are down to the last few bottles from that year in the company archive. Pear brandy made from Williams pears and distilled by our Chilean sister company also holds an important place in our range of products. But customers are also interested in new flavours. That's why brandies from other fruits are catching on - raspberries, blackthorns, blueberries, quince and service berries... Elixirs are new in recent years. These are not distilled, but made my macerating fruit in a spirit base. Our special annual series of Gold Cock single malt whisky is also very popular.

When distilling spirits, the quality of ingredients is important. How many tons of fruit do you consume each year and where do you get it?

We buy several million kilograms of fruit each year, but it always depends on the weather. Fruit trees are sensitive to frost, especially during the flowering and fruiting period, and the earlier onset of spring in recent years has not been kind. All it takes is two or three hours of frost during the night and the entire crop is lost. Last year, we finally had an excellent harvest after several years, but the frosts in 2017 and 2016 significantly reduced the yield. When there's a good crop, we have to buy as much quality fruit as possible to build up sufficient reserves for the coming years. We also produce a number of aged (multi-year) spirits, so we have to plan long term when purchasing. We have strict criteria for any fruit we buy, and if the supplier doesn't meet these, we don't take delivery. We primarily place emphasis on ripeness, sugar content and juiciness, the fruit must not be mouldy, rotten or contain impurities. Each variety is different and not all are suitable for distillation. That's why we have our own orchards or buy fruit from areas that have similar natural conditions to Wallachia.

In addition to producing spirits, you are also involved in tourism. You operate guest houses and run the Distillery Land Visitor Centre, which acquaints visitors with the traditions and history of distilling fruit. How successful are these endeavours?



We try to meet our customers face to face. We opened the Distillery Land Visitor Centre in Vizovice in 2003. We had always run tours of our production facilities, and since they were successful, we decided to officially open all parts of the company to quests. We are currently building the Slivovitz Museum in Prague. In the second half of this year we will also be opening a little Vizovice embassy here - an interactive museum with a shop and tasting bar. In Chřiby, we run the Bunč Forest Guest House and Kostelany Ranch, where quests can sample our products in a beautiful, pristine natural environment.

RUDOLF JELÍNEK began working with KVADOS in 2001 with the implementation of the VENTUS ERP system. Later you also added other KVADOS solutions, myAVIS, mySTOCK, myCASH. How have our solutions helped you?

We are a production company that produces alcoholic beverages, so we work with excise tax and are involved in many various activities. This places high demands on the system we use. We need all data to be integrated, synchronised and for our employees to quickly and properly orient themselves in all parts of the software solution. Our warehouse is a tax warehouse, so we need precise, real-time records of alcohol, not just of finished products but also raw materials and semi-finished goods here too. We are in the food industry, so we have to be able to track raw materials and the flow of our products to customers. We were happy with the VENTUS ERP and therefore looked for other ways to use KVADOS solutions in other areas to reap the benefits of working with systems from a single supplier.

Which of the joint projects was the most demanding from your perspective?

The most recent of course :-). Although I've been with the company for 15 years, I didn't personally take part in all the deployments, so I can't objectively compare all the projects. The most demanding from my perspective was setting up the entire ERP, but perhaps the most difficult in the end was implementing the mySTOCK solution. We need to record a great deal of information: batches, control bands, product alcohol content, excise tax calculations for various groups of products... The system has to monitor location, evaluate logistics data and direct products to the right place, while everything is processed into legal records and linked to production records and statistics for production documentation. It's challenging to set up the system, maintain it in perfect order and keep adding growing legal requirements.

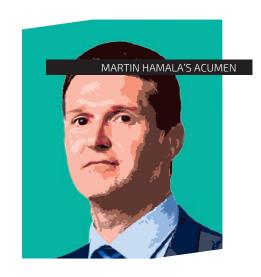
"We were happy with the VENTUS ERP and therefore looked for other ways to use KVADOS solutions in other areas to reap the benefits of working with systems from a single supplier."

What areas of company development will you be focusing on in the near future? Can KVADOS help you with that?

At the beginning of this year, we decided to deploy the new myAVIS solution for our sales team, and analysis is presently underway. We will be changing the system after 13 years. The previous version was brought online at the beginning of 2006, when we were one of the very first users. Since last year, we've been discussing the deployment of myTEAM as part of digitising our document flow. The opening of the Prague Slivovitz Museum will be a great challenge for us and KVADOS, as will automating the connection of our ERP system to the operating system of this centre. Other tasks await in the future, such as increasing the efficiency of production planning and automating the purchase of raw materials.

AN AGILE APPROACH HAS PROVED ITS WORTH

At KVADOS, we have long been devoted to project management and are continually working to improve our skills in this area. We follow the latest trends at project management conferences, take part in professional training sessions, workshops and networking events through the Chamber of Project Managers, of which we are an active member. One current trend is the controlled introduction of agile elements into traditional methods of project management.



The objective is to use and mutually combine the strengths of both these approaches, the traditional and the agile. Especially in projects with greater innovative potential and scope that is difficult to predict in advance. When commencing cooperation with a new client, we always carefully consider whether to choose a traditional project management approach using PRINCE2 project management principles, or to go with a more agile approach using elements of SCRUM methodology. Based on our own experience, we can confirm that the agile method of project management works very well for the internal development of our products, which is why we also try to incorporate the advantages of this method in standard client projects. These approaches are new for many clients, and therefore face a certain degree of mistrust on their part. So, let's take a look at the key benefits of using agile methods.

Flexibility – Agile methods flexibly respond to changes during project implementation. For example, perhaps a client doesn't know exactly what to expect from a product, and for this reason needs to further specify requirements during project implementation. Agile methods an-

ticipate such changes and allow them to be incorporated without endangering the successful completion of the project.

Efficiency – Agile methods bring elements of effective organisation and communication to project teams that promote teamwork and contribute to greater team productivity. A properly configured agile team continuously works on eliminating inefficient activities and fostering activities that bring the greatest added value. Through regular retrospectives, the team steadily increases the efficiency of processes. Quality - Do you have a problem with delivered quality? What project doesn't... Thanks to specific practices, agile methods help better manage product quality, reduce the risk of technical deficits and limit the number of problems reported after deployment.

Cooperation – Establishing close and regular cooperation between the client and the supplier throughout the entire project makes it possible to flexibly respond to changes and cost-effectively implement changes in project scope and priorities. Regular and timely feedback from clients helps minimise inefficient work/activities. Satisfaction – A key benefit for the

client is that it not only gets what it ordered, it gets what it truly needs. Agile methods engage the client in the process and directly take into account the added value of individual functionalities. Client satisfaction is important, but no less important is the satisfaction of agile team members. Agile methods enhance the responsibility and motivation of individual team members and increase satisfaction on the part of the client and provider.

I am sure that after seeing the benefits of agile development for the implementation of software projects, you will have no doubts that these methods have their place in project management. When properly applied, they increase the performance of implementation teams and improve project implementation to the satisfaction of all involved. Many elements of agile development can be used when addressing situations both at or outside work, so there's no need to shy away from terms such as stand up, retrospective or back log. retrospective or back l

Martin Hamala Project Director



TO KOGO FOR FISH

Today's exploration of Czech and Moravian restaurants takes us to Slovanský dům in Prague, and the Kogo restaurant to be exact. Although it's located in the inland heart of Europe, it specialises in fish and seafood. This is no contradiction, because at Kogo they really know their fish.







The Czech Republic is not a coastal country, and so getting good fish in our restaurants can be a bit of a problem. That's why I'm so glad I discovered Kogo. I particularly like to visit this Mediterranean style restaurant in the summer, when you can sit outside in the covered part of the courtyard. It always reminds me of summer vacations by the Adriatic, the smell of pine trees in the air, all that's missing is the chirping of cicadas in the evening... but I digress in my reverie.

The interior of the restaurant is pleasant and the staff attentive, so the stage is set for an enjoyable stay. The owners have understandably tried to place as many tables as possible in the restaurant, so I recommend reserving a table in the lower section or somewhere in a corner where there is less noise

to interrupt conversation, especially during the winter when the garden is closed.

Fish on ice

At the entrance, you are welcomed with a selection of fresh fish. That's the way it should be at a good fish restaurant. I must admit that when I'm in the mood for fish, even when abroad, I look for establishments displaying fresh fish, and often peek into the kitchen to see whether the fish is stored fresh on ice, and not pulled out of a freezer. Tell-tale signs of freshness are the eyes, which should be shiny and not too clouded, and especially the gills, which should still be bloody, not dark and brown. It's a good idea to see the selection of fish and make sure they cook the one you pick even at seaside resorts. There's no guarantee guests will always be served fresh fish even by the sea.

It all starts with the soup

So, let's take a seat. The menu doesn't help with making your choice. There's so much to choose from, from appetizers to main courses. Of course, you have the good fortune of having a guide to advise you J. If you enjoy fish soup, you don't want to miss out on it here. I must admit that I particularly look forward to the one here. And I have to say, finding a place that makes really good fish soup is not easy, even in Croatia. At Kogo, they make it from pieces of fish, shrimp and mussels, the bowl is big and you will definitely enjoy it. I recommend ordering some fresh bread with it, baked right here at Kogo. And if you have some unfortunate childhood memories of carp soup, put those aside and take my advice. You won't regret it.





I'll skip the hot and cold appetizers today because I'm inviting you to have what I like best at Kogo. For two or more diners, the ideal choice is a shared plate with the fish of the day. The John Dory is excellent, but you can't go wrong with the sea bass or gilt-head bream. I recommend having it served as a de-boned fillet with grilled octopus, St. Jacob mussels and a few shrimp if you're really hungry. As a side, they will bring you roast potatoes, wonderfully prepared spinach and grilled vegetables. You really can't want for anything more, except.... what am I saying – of course you do! Good wine.

Meals are not a sprint

You can take some advice from the local sommelier for your selection, the wine list is extensive. I prefer a white with fish and would go

with a Riesling from Alsace. Its mineral tones blend perfectly with the taste of fish. It doesn't overpower the fish, but brings it to life and underscores it. If you prefer a red, try one of the excellent Italian wines that put the proper flourish on the Mediterranean atmosphere and play an ode to sunshine and ripe grapes on the palate. Two bottles will last you long enough at Kogo to properly enjoy your lunch or dinner. People in the south don't rush their meals like we Czechs. On the contrary, they relish the time, converse and simply enjoy life. There's no reason not to learn from them.

If you feel like dessert, then you may want to sample some fruit sorbet or perhaps a cheese platter to help you finish up that lovely bottle of red. The staff at Kogo is very willing and knowledgeable, but it's better to

order everything at once. The restaurant tends to be full and the waiters busy, so you may not always have them at hand.

I hope that I've given you a bit of inspiration and that you are already looking for the next free date on your calendar to book a table at Kogo.

RISTORANTE KOGO SLOVANSKÝ DŮM

Na Příkopě 22, Praha 1 50.0864122N, 14.4273183E +420 221 451 259 slovanskydum@kogo.cz kogo.cz

CUBICAL

The secret of Cubical London gin lies in the purity of the alcohol, obtained by selecting only the finest of ingredients. This unique gin was first produced in 1920 by the Langley Distillery, which continues to use traditional production methods to this day. These traditions, the first-rate ingredients and special local water combine to create a gin of exceptional quality.

Cubical Gin is made by hand with production beginning in the United Kingdom and ending in Spain. Distillation takes place in vessels more than 100 years old, supplied by legendary manufacturer John Dore Ltd.

In the second phase of production, a number of natural botanicals from Spain are added to the distillate, including orange peel, almond shell and a citrus fruit known as "Buddha's hand". This strange fruit grows in groups that look like the fingers on a hand. According to Buddhist tradition, the fingers should be in a more closed position to symbolise prayer. The fruit has a tough skin and only a small amount of acidic pulp, with no juice or seeds. It is very fragrant and not as bitter as other citruses. Because of its subtlety and fragrance, it is often used in gourmet desserts.

Cubical London Dry Gin Premium is light and dry with dominant herbal tones, the presence of juniper berries, almond shells and a touch of citrus tones from Buddha's hand and sweet orange. It leaves a very light, smooth and elegant taste in the mouth with a hint of herbs. The gin is distilled three times and is excellent for preparing mixed drinks.

Where are these exceptional gin available?

Global Wines & Spirits Václavské nám. 53, 110 00 Praha 1 +420 221 965 217, eshop@global-wines.cz global-wines.cz

Cubical London Dry Gin Ultra Premium is distilled four times and has a higher alcohol content. It has a very intense and delicate aroma dominated by the citrus tones of Buddha's hand and sweet orange. The taste is accompanied by the spicy and earthy tones of seeds, especially juniper and coriander, enveloped in floral tones of orange. After tasting, you will note special citrus tones that leave subtle memories and a pleasant finish. It is very elegant, fragrant and lasting when combined with tonic. Just add a slice of cucumber, juniper berries or pieces of liquorice.



EMBRACING A HYBRID FUTURE

Do you long to drive a car where all you can hear is birds singing and crickets chirping? The magic of sustainable mobility is heading into an entirely new dimension. The new BMW i8 Roadster combines locally emission-free operation and high performance with the experience of driving with the wind in your hair. An utterly new feeling of freedom opens the door to the world of virtually silent mobility with zero CO₂ emissions, bringing an entirely new concept of pure driving in an open car.





The BMW i8 Roadster also benefits from its lightweight design and even weight distribution between individual axles.

From the moment it was unveiled, the BMW i8 was heralded as the exceptionally successful sports car of the future. Since it first hit the road, the i8 has become the best-selling hybrid sports car in the world, gaining numerous awards in recognition of its visionary design and ground-breaking concept. The BMW i8 plug-in hybrid system has won the International Engine of the Year award three times running and blazed the trail for the ever-increasing number of BMW and MINI plug-in hybrid models.

The Roadster is joined on the sales floor by a new version of the BMW i8 Coupé. Both models are built on the foundations of LifeDrive architecture, which was specially designed for BMW i vehicles. The aluminium Drive module combines a drive system, high-voltage battery, wheel suspension, safety deformation zone and structural bearing function, while the Life module is an ultralight passenger cabin made of high-strength carbon-fibre.

The BMW i8 Roadster also benefits from its lightweight design and even weight distribution between individual axles. The exterior is sleek and aerodynamic, and the model features special doors that open upwards. The soft-top roof immediately gives the impression of lightness – everything is steeped in the sophisticated design language so characteristic of the BMW i series. The result is a two-seater that boasts a striking and elegantly elongated silhouette with the promise of high performance.

Heaven within reach

Passengers in the vehicle can enjoy the open sky, or put up the quality soft-top with extra soundproofing that's good in all weather. Fully electric controls guarantee that the roof will open or close within 15 seconds, virtually without a sound, and if necessary, at speeds of up to 50 km/h. Nothing quite compares to driving this machine with the top down, sunshine on your face and the wind in your hair.

The BMW i8 Roadster is the only vehicle in its class that offers a soft-top, which folds down into the rear of the car. There is roughly 100 litres of storage space between the folded roof and the driver and passenger seats, while the luggage compartment in the rear holds another 88 litres, guaranteeing that the open version of this plug-in hybrid sports car offers the greatest utility for everyday use and trips.



Intelligent lightweight design and innovative production technology played a key role in the construction of the roadster. For example, the aluminium components joining the roof mechanism to the chassis of the BMW i8 Roadster are produced using new 3D printing technology. This production process for the production of aluminium components is turning the automotive industry on its head and enables the production of topologically optimised struts of geometric shapes that could not be made using classic casting techniques, while also guaranteeing optimal balance between the strength and weight of components.

Surrounded by silence

All the power of the new BMW i8 is carefully controlled by improved BMW eDrive technology. The number of driving situations where the car runs on the electric motor alone has increased significantly. The combustion engine only engages when the vehicle accelerates quickly, and more often turns off again during more relaxed driving. The futuristic nature of the new BMW i8 Coupé is highlighted

by the intelligent management of energy flows, ensuring that drivers of the new BMW i8 Roadster can fully enjoy quiet, locally emission-free driving with an open roof.

At the core of this new level of locally emission-free driving is the modernised version of the lithium-ion battery, developed directly for the BMW i8. The highvoltage battery is located in the middle of the vehicle and the cell charge has increased from 20 to 34 Ah. This means that the electric motor has more electricity available. In addition, the cell configuration makes it possible to increase the maximum power of the electric motor by 9 kW/12 k to a total of 105 kW/143 k, giving the car even more dynamic sprints on pure electricity.

The electric range of the BMW i8 has also increased. According to the NEDC testing cycle, the new BMW i8 Roadster can travel up to 53 kilometres with zero emissions and the new BMW i8 Coupé up to 55 kilometres. Arange like that will easily get you out of the city.



The futuristic nature of the new BMW i8 Coupé is highlighted by the intelligent management of energy flows.

You can purchase the BMW i8 Roadster at

STRATOS AUTO

Hradec Králové – Březhrad Březhradská 195 +420 495 733 733 stratosauto.cz



4 689 mm

2 800 mm



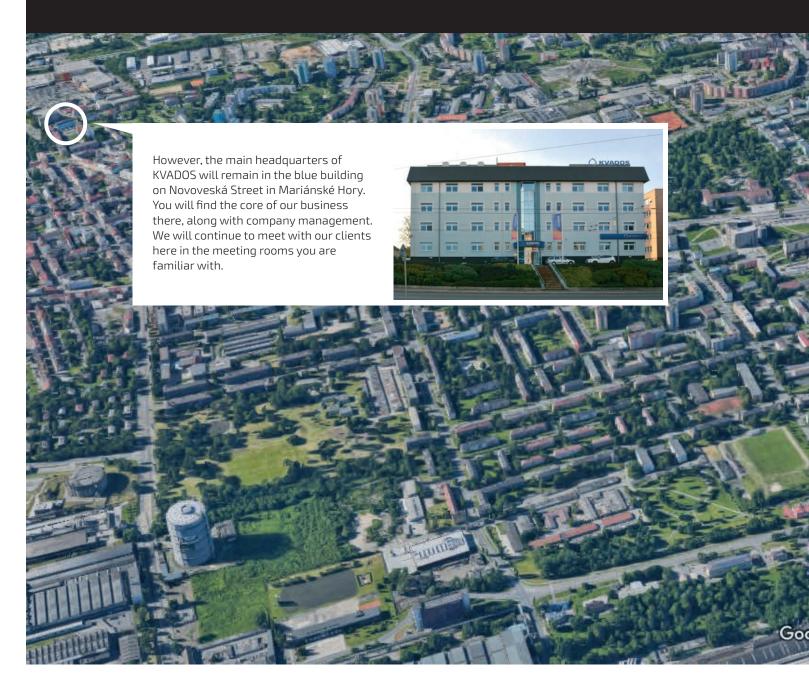
1 942 mm

BMW i8 Roadster

Engine 6A + 2A Transmission Automatic 1499 cm³ Capacity 3 Cylinder 170 kW (231 PS) Maximum power 105 kW (143 PS) Maximum power of electric engine Maximum torque 320 Nm Maximum speed 250 km/h 4,6 s Acceleration 0-100 Km/h Axle drive both

THE KVADOS FAMILY CONTINUES TO GROW!

We've got big plans for the coming years and the need for new employees continues to grow. There are 170 of us right now, but we're not stopping there. So, the decision was clear. We need another building! We are headed back to where it all began, to the centre of Ostrava. The move will be gradual, some of us are there already and other teams will follow.









Manages internal company processes and work with documents