
KVANT
SINCE 1995
30

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We are people who find fulfillment and enjoyment in our work. It is both our mission and our passion. This is our story.

This book is dedicated to all colleagues and friends who have helped us achieve 30 successful years of business.

We dedicate it to our loved ones, who enable us to walk this path.

Thank you to everyone who has walked with us and continues to do so.

Ľubomír Mach Pavol Kubošek

- **Confucius: „Choose a job you love, and you will never have to work a day in your life.“**
- **Mark Twain: „The secret of success is to make your leisure activities your work.“**
- **Steve Jobs: „The only way to do great work is to love what you do.“**
- **Kahlil Gibran: „Work is love made visible.“**
- **Albert Schweitzer: „Success is not the key to happiness. Happiness is the key to success. If you love what you are doing, you will be successful.“**

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Contents:

Motto: We turn thoughts and dreams into reality

Every challenge, every project gives us the opportunity to discover new solutions and gain valuable experience. We continuously develop our skills and our ability to transform ideas and visions into reality.

Our vision is to bring the latest scientific knowledge and technological innovations into practical application.

The name **KVANT** (QUANT) originates from expressions such as "*quantum light generator* = LASER (*Light Amplification by Stimulated Emission of Radiation*)". The development and production of laser systems was, in fact, one of the main impulses behind the company's founding.

This year, **KVANT** celebrates its **30th anniversary** (the company was officially registered in the Commercial Register of the Slovak Republic on **July 13, 1995**). At the same time, the **Faculty of Mathematics, Physics and Informatics**, where our headquarters are located and where we studied, celebrates its **45th anniversary** (founded in **1980**).

The **United Nations** has declared **2025** the International Year of Quantum Science and Technology to highlight the importance of quantum research — and we are proud that our company marks its milestone anniversary in this very year.

Ľubomír Mach a Pavol Kubošek

Memories Ľubomír:

After returning from military service in 1991, I began working as a research fellow at the Institute of Construction and Architecture of the Slovak Academy of Sciences, in the Laboratory of Optical Non-Destructive Measurement Methods.

We carried out a range of fascinating experiments, measuring bridges, studying the propagation of mechanical waves in concrete slabs, and observing surface manifestations of plasticized zones in materials using various laser interferometric methods. At the same time, I was also running my own small business.

My supervisor, **Milan Držík**, who had also guided my diploma thesis, helped me develop a universal optical teaching kit for schools. It allowed students to demonstrate not only the principles of geometrical optics but also wave optics phenomena such as **interferometry, diffraction, and holography**.

My collaboration with **Pavol** began in **1993**. At that time, I was purchasing **helium–neon lasers** from him. He was doing his PhD research at the Institute of Measurement Science of the Slovak Academy of Sciences whilst also having his own trade license. Our cooperation gradually deepened. Pavol had developed a **camera optical adapter for microscopes**, in collaboration with his colleagues from the Institute, and was supplying **microscopes, cameras, and overhead projectors from Meopta** to schools.

Both of us started from scratch, **without privatization, without loans, without financial backing** from sponsors or investors. To get his business off the ground alongside his academic work, Pavol worked **night shifts as a taxi driver**, while I received my first shipment of trade goods from my brother-in-law in Varna, which I was able to pay for only after selling them months later.

In **1993**, we **rented premises at Mlynské Luhy 6 in Bratislava**, where we ran our businesses side by side until 1995, reinvesting every profit into founding **KVANT** that same year.

At first, our optical kits used **He–Ne lasers imported from Lviv**, but we gradually replaced them with **semiconductor laser modules**. Our first employee, **Pavol Petráš**, helped develop semiconductor lasers and laser control units.

The **first address of KVANT** was actually **Pavol's apartment at Kríková 1**.

In 1995, our former classmate from the Faculty of Mathematics and Physics, **Tibor Furda**, who helped us with graphics and promotional materials, mentioned that the **Faculty of Mathematics, Physics and Informatics of Comenius University** might have available premises for rent. He was right, and with the help of **Assoc. Prof. Ján Pavlík**, we were able to secure space at the Faculty. That autumn, **we moved into the university campus in Mlynská dolina**, returning, in a way, to where it had all begun, the very place we had studied just a few years earlier.

Memories Pavol:

Ľubo and I both graduated from the **Faculty of Mathematics and Physics at Comenius University**, majoring in **Physical Electronics and Optics**. During our studies, we both worked with lasers in laboratory measurements.

After completing military service, I began working at the **Institute of Measurement Science**, where I was when the events of **November 1989** unfolded. One day, I read an article by then-Prime Minister **Marián Čalfa**, who wrote that "people are like Foolish John, waiting for happiness to come their way," and that one must **bend down and pick it up from the ground**. That line inspired me and so I started **driving a taxi at night** while keeping my job at the institute.

After about half a year, I had saved some money and began assembling lasers for Ľubo, and later, for early **Lasershow**. From there, our collaboration truly took off.

Ľubo and I are deeply **grateful to everyone we've met through KVANT**. Each person has contributed in their own way to what the company has become. Many seized their opportunity and showed what they were capable of.

It has been, and still is, a **beautiful ride**. I believe that at KVANT, we've built a culture where **talent and effort never go unnoticed**.

Thank you all for these wonderful years and here's to the future ahead.

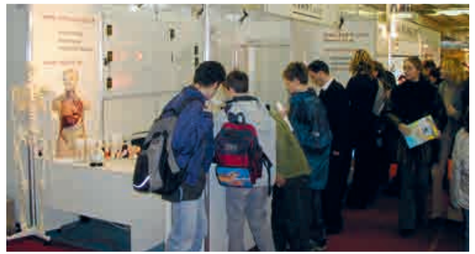
1996-2005

Our first laser optics kit

1996 WORLDDIDAC BASEL

From left: Miroslav Mateides and Erika Šterbáková

Ivan Šlesarik demonstrating a microscope camera



2002 PEDAGOGIKA

On the left: Andrea Repková

OUR FIRST INTERNATIONAL EXHIBITIONS

1997 MEDACTA NITRA

Ivan Šlesarik

Rastislav Nemeček and Ľubomír Mach

The first laser profilometry setup

Petra Grobarčík

2003 LASER MUNICH

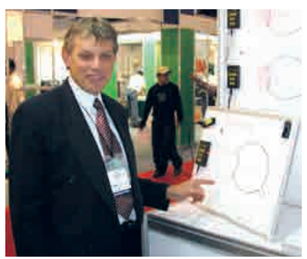
1998 WORLDDIDAC BASEL

Ľubomír Mach

Alenka Hašková

Jaroslav Plaček

2003 WORLDDIDAC MEXICO



Boris Michal

On the right: Jitka Jelinková

On the right:
Commercial Counsellor Michal Boris

KVANT

DEVELOPING DIGITAL IMAGE PROCESSING – IMPOR

In 1996, our fellow physics graduate **Pavol Masaryk** from the Faculty of Mathematics and Physics (MFF) informed us that **the Institute of Forensic Science was planning to acquire systems for digital image data processing.** At that time, we were already supplying microscope cameras, designing optical reducers, and working on related projects. We hired programmer **Miroslav Mateides,** also an alumnus of MFF, and began the development process.

After just three months, we had a working system ready – with the flexibility to expand its functionality further. Our main competitor was Laboratory Imaging from Prague. **We named our system IMPOR (IMage Processing).**

We received two votes from the five-member commission, while our competitors received three votes. In spite of the lack of trust in the local young company, we were cheaper and we believed in ourselves. **We wrote a letter to the director of the Institute of Forensic Science, pointing out the advantages of our system over the competition** (lower price, immediate domestic service, extended functionality, etc.). Director **Milan Danihel** chose a diplomatic solution:the departments that preferred our system could purchase IMPOR.

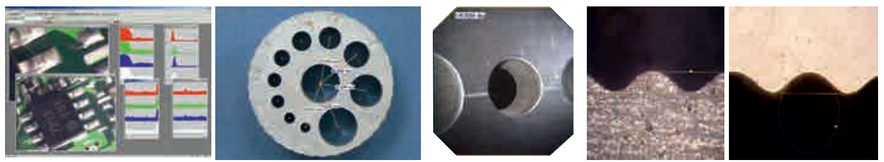
That decision became our gateway to the Institute of Forensic Science. Over time, we earned their trust, and the system gradually spread to all departments. We began regularly participating in international forensic conferences and became experts in graphic diagnostics (security features on documents and banknotes), ballistics, pyrotechnics, mechanoscopy, trasology, handwriting analysis, and other fields. **Gradually, we began supplying laboratory equipment to individual departments. We also began working on several research projects** involving the analysis of crossed strokes, handwriting analysis, the development of imaging devices for trace evidence, the development of a rotating "strelofot" (a bullet trajectory imaging system) for ballistics, and many others.

▲Measuring structures at ON Semiconductor

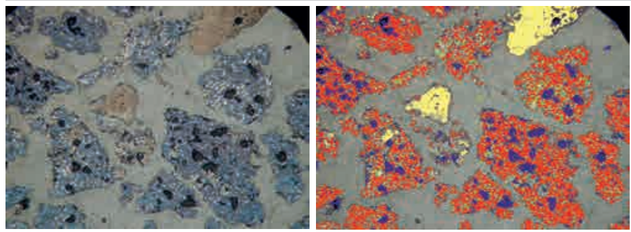
At a forensic science conference

HOW DOES IMPOR WORK?

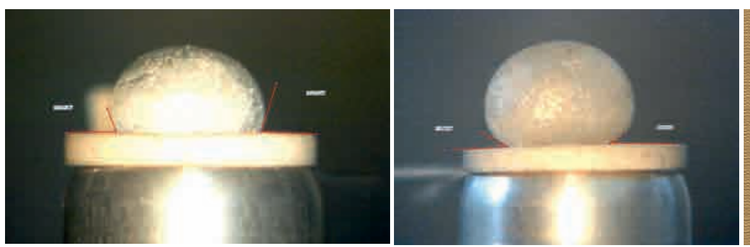
The IMPOR software is designed for image data analysis, including measurement, spectral analysis, form generation, and comparison. It has found applications in various fields of quality control and image analysis, such as mineralogy, ballistics, hallmark inspection, and metallography.



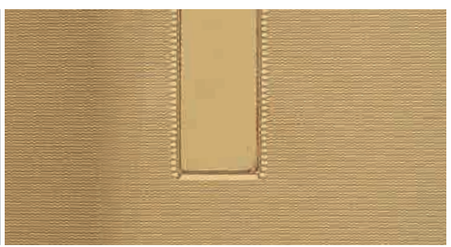
High-precision dimensional measurement with calibration



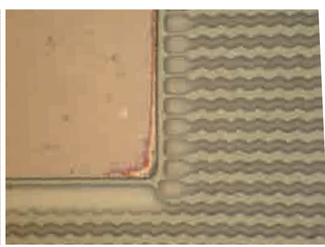
Mineralogical analysis of clinker (Ladce cement plant)



Surface tension measurement



Structure magnified - 20x



Structure magnified - 150x

1996-2005

2001 - Liptovský Ján

From left: Gustáv Kelemen, Ľubomír Mach, Howard Lord, Jozef Valenčík

Center: Rastislav Nemeček

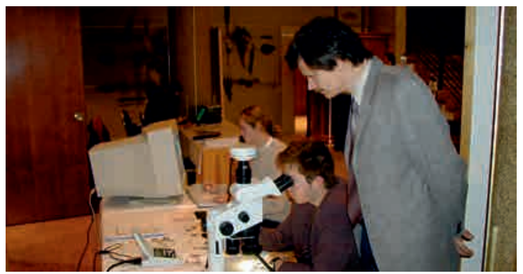
ENSFI conferences in Bratislava, 2002

Center: Leslie Hawke from Foster Freeman

Social evenings and fine wine are an essential part of great conferences

From left: Jaroslav Trštanský and Peter Čellár

Jozef Valenčík and Howard Lord



At the microscope: Michal Čordáš

2003 – 6th International symposium on forensic sciences, Liptovský Ján

WE PARTICIPATE IN FORENSIC CONFERENCES

RPS 2004 exhibition in Trenčín

Andrea Repková

Center: Nick Lord

KVANT

DIGITAL IMAGE PROCESSING SYSTEMS

Our digital image processing was gradually introduced into various institutes and enterprises, where we carried out the required measurements using digital image analysis.

Back in 2000, our digital **image-processing solutions were gradually introduced together with digital cameras to most departments of the Institute of Forensic Science.**

Gradually, foreign companies began reaching out to us, asking whether we could also offer and integrate their systems. A key recommendation came from **Peter Čellár**, Deputy Director of the Institute of Forensic Science, who connected us with **Howard Lord** from the UK-based company Data Loop, representing their solutions in Central and Eastern Europe.

Our first successful project with Howard was the delivery of a digital spectral comparator for the National Bank of Slovakia. Subsequently, the cooperation developed further through new programs. We also managed to supply comparison devices to the departments of the Institute of Forensic Science. During this period, we also worked closely with our external expert **Jozef Valenčík**, another fellow graduate from the Faculty of Mathematics and Physics.

In 2001, the Assay Office approached us regarding image analysis of hallmarks on jewelry and rings.

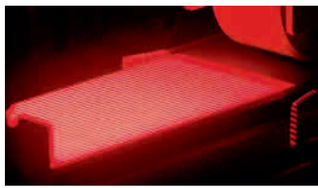
After studying the topic, we offered them an optimal imaging system with homogeneous lighting and reflection elimination. For field applications, we developed a portable case device called Hallmark. The system proved successful not only in Slovakia, but also in Hungary and the Czech Republic. Further image analysis systems were implemented for ON Semiconductor, Medical Glas, Ladce Cement Plant, and others.

Several image analysis projects were implemented for the Ladce Cement Plant, such as microscopic mineralogical analysis and measurement of steel ball wear in the mill. Flame Analysis, using a specially cooled camera, was able to analyze the process directly in the furnace. These projects were realized by **Rastislav Nemeček, Peter Varga, Bohuš Bohunický, Michal Čordáš, Gustáv Kelemen, and other colleagues.**

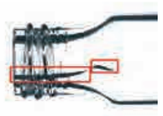
▲Martin Balog in front of the sorting line

We also developed a wooden lamella measurement system for Bürkle in Germany, coordinated by Juraj Tekuš on the client's side. Using projected laser lines, we created a profilometric system capable of measuring lamellae moving at speeds up to 15 m/s. In addition to measuring slat deformation, we also determined the qualitative color analysis of the surface. The project team included programmers Martin Balog and Vladimír Držík, while Maroš Fridrich designed the electronics, light sources, and synchronization circuits.

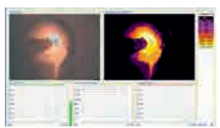
Laser profilometry on the premises



Laser profilometry on a flat surface



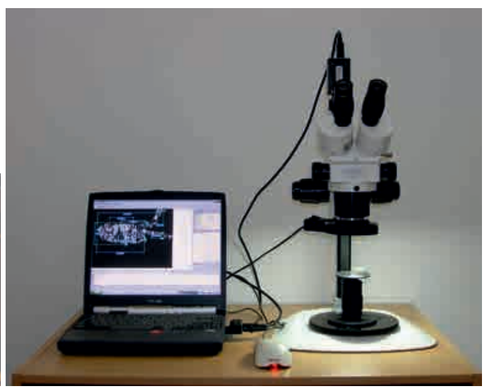
Crack detection system for Medical Glass a.s.



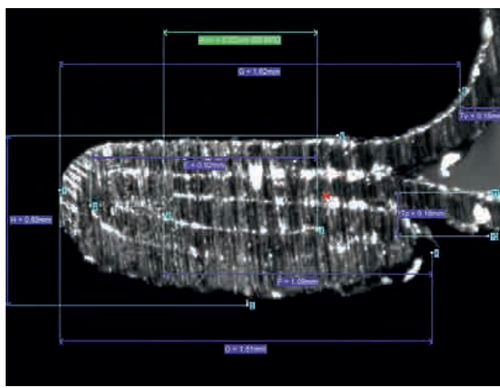
Flame measurement and analysis in the Ladce cement kiln

▲Iris scanning

Imaging device



System for measuring can embossing



Detail of metal embossing measurement

From right: Ľuboš Hríň, Milan Držík, Juraj Tekuš, Ľubomír Mach

CHRISTMAS CABBAGE SOUP 2001
... and we enjoyed every bite...

Peter Polák

Maroš Fridrich and Mirka Kokavcová

Michal Šimkovič and Ivan Dobrodenka

Alenka Dulovičová

KVANT CHRISTMAS CABBAGE SOUP 2002
... it even tasted great to Peter Polák...

Prof. Ján Ružička and Ivan Šlesarik - October 11, 2002

Gathering – October 4, 2002

Mirka Kokavcová enjoyed it too

KVANT

DEVELOPING THE LABORATORY INFORMATION MANAGEMENT SYSTEM – EVIDENCE

In 2003, we were awarded a development project at the Institute of Forensic Science of the Police Force (IFS PF SR) for a laboratory management system called Impor – Evidence. Over time, the project evolved into a commercial product – Evidence, a full-featured Laboratory Information Management System (LIMS) – **www.lims.sk**

This has become one of the most successful projects in our company's history, and through our subsidiary Vision Systems, it continues to develop to this day. The original idea came from **Jaroslav Tršťanský**, Head of the Department of Chemistry at IFS PF SR. The system was designed to digitize and manage the registration of secured forensic traces, label them with barcodes, and assign them to responsible personnel.

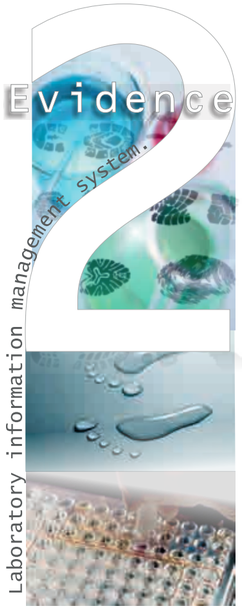
It was needed to track who handled each sample and when, and where it was located at any given time. Integration with laboratory analytical instruments enables greater efficiency and accuracy in forensic investigations. A key figure in implementing the system at the Forensic Institute was its director, **Milan Danihel**. Thanks to his support, IFS PF of the Ministry of Interior can today pride itself on having one of the most advanced LIMS solutions in Europe.

At KVANT, the project is managed by **Peter Varga.**

Over time, additional interconnected systems have been developed — including the **Bomb Data Center** for pyrotechnic analysis linked with INTERPOL, a mobile evidence module for field forensic technicians, and integration with systems of the Ministry of Justice and the Ministry of Interior.

Today, EVIDENCE represents a comprehensive forensic laboratory platform that is open to future expansion through additional specialized modules.

brochure:



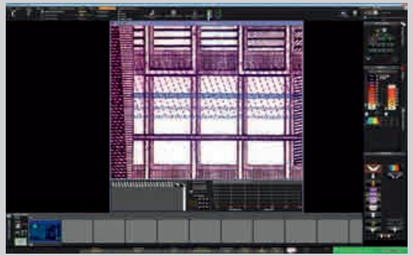
▲ Jaroslav Tršťanský (right) – initiator of the Evidence system implementation

▼ Presentation of the system at the Forensic Conference in Bratislava

▼ Peter Varga presenting the system to Director Ondrej Laciak

▲ Sample analysis and organization – simple implementation and clear result representation

▼ Integration with other systems for forensic technicians



2005

KVANT

DEVELOPING A SYSTEM FOR AUTOMATIC INSPECTION OF SLIDING BEARINGS

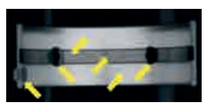
At the beginning of 2005, we received a request from Glacier Tribometal in Dolný Kubín to develop a system for the automatic inspection of sliding bearings.

Inspection based solely on visual inspection was unreliable and undocumented.

The greatest challenge was the curved, highly reflective surface, which was extremely difficult to illuminate properly. To overcome this, **we developed a special omnidirectional diffused light source,** allowing for high-quality imaging of the inspected objects.

The captured image is compared in real time with a reference standard directly on the production line. **The system operates continuously, automatically rejecting defective parts via a pneumatic sorting unit.**

The Bearing Checker system performs visual inspection of the bearing's quality parameters by measuring its key structural elements — such as lubrication holes, oil grooves, tabs, and the surface quality of the bearing lining. The system was developed for KVANT by **Pavol Mišík and Peter Varga.**



Perfectly aligned parts on the conveyor

▲Pavol Mišík in action

Ready for optical inspection

The heart of the system – omnidirectional diffused light source with camera

KVANT

MV - Crete 1995

The show in Crete for **Amway** was our very first big event. We could hardly believe we would even make it there. Back then, the Avia truck was packed with equipment — the kind we could now easily fit into a single suitcase. The plane was even delayed because of it.

A lot of things went wrong, and we had to fix them right there on the spot, but in the end, everything turned out great. The show was such a success that they invited us to perform again at San Siro and in Munich.

MV Stadium

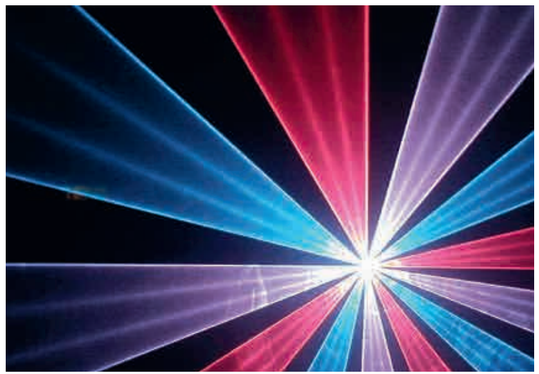
San Siro MV 1996

First Artistic Installation by Bohuš Kubinský 1993

Laser Line – Bratislava 2000

Exhibition – Bratislava 1997

Laser show



Pangolin

Exhibition – Rimini

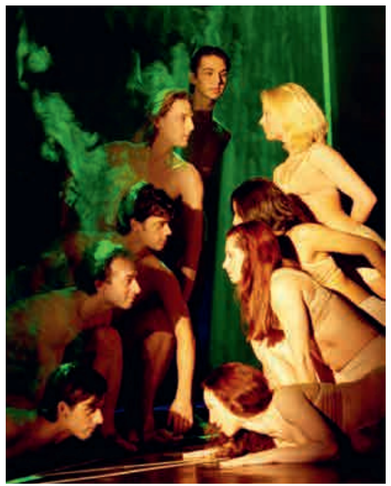
Over time, we gained more confidence and started attending trade shows. Our first stop was Rimini, which at the time hosted the best lighting exhibitions in the world. Later, we also made our way to Frankfurt for the **Prolight and Sound fair.**

Laser Physics – 1 W Green Laser

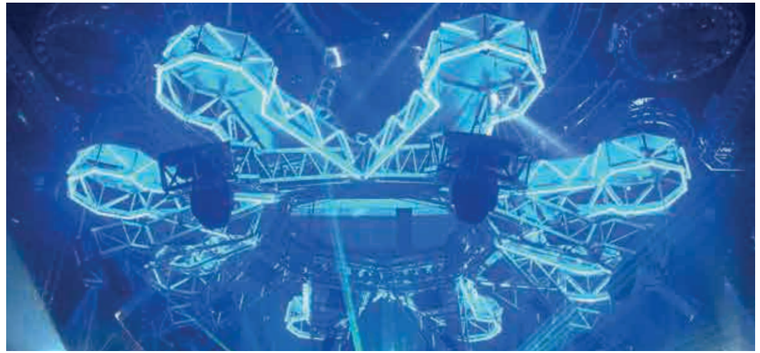
Fontana – Prague

The shows kept getting bigger and more exciting.

Salzburg



Theatre – Salzburg



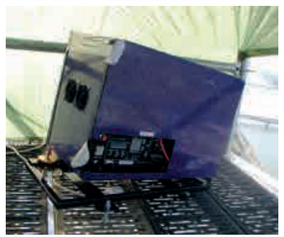
Don't Tell Mama – Korea

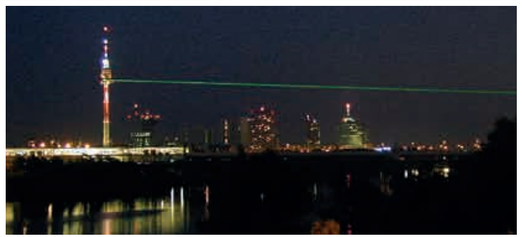
Our first major permanent installation was at the **Don't Tell Mama club** in Korea. Just a day or two before the opening, the place was still a construction site. Everyone worked around the clock without stopping — and somehow, they made it in time. One Korean technician even held his eyelids open with matchsticks to stay awake. I was there together with **Maroš Fridrich.**

Orion Hall

Donau Fest – Vienna

A beautiful event near Vienna. That's where we learned that to keep a laser beam stable, all you need is to secure it to a case filled with sand. From three buildings on a small peninsula, we connected three green **2 W Yena** lasers into one spectacular light projection.







Crete

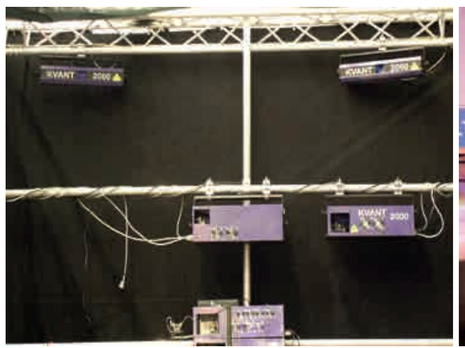
We had a great relationship with **Gero Argo,** the event organizer for **Amway.** Thanks to that, he invited us to one of their events every year.


Old Workshop – Faculty of Mathematics, Physics and Informatics, Comenius University, Bratislava



Spectrum 5 W

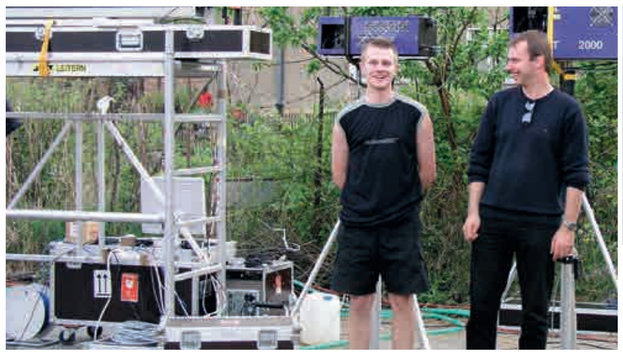
Exhibition – Rimini




Exhibition – Prolight and Sound, Frankfurt

Eurovea

Eurovea was a stunning project. An unprecedented setup of 50 lasers was used to create the silhouette of what would become the future Eurovea complex. The goal was achieved — it looked absolutely magnificent. The event marked the laying of Eurovea's foundation stone, and a total of 56 lasers were used to simulate a building roughly 300 by 150 meters in size.



Matador Rally

At the **Matador event,** we used a powerful 5 W **Spectra-Physics 171 laser,** which gave the entire scene a striking light dynamic and a truly professional visual effect.

Marau In Marau, the winter was brutally cold.

Egypt

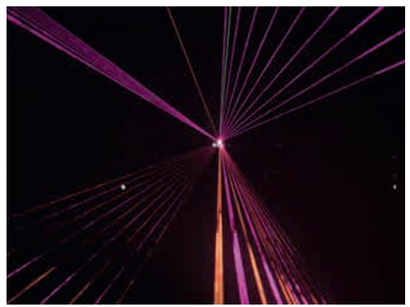
Armin – Prague

ČEZ - Pardubice

BMW 5 – Bratislava Castle

Tiesto

Hammamed - Tunis



At the Hammam event, we used a laser optical bank that created unique and mesmerizing laser effects.

Talent of the Year – Košice

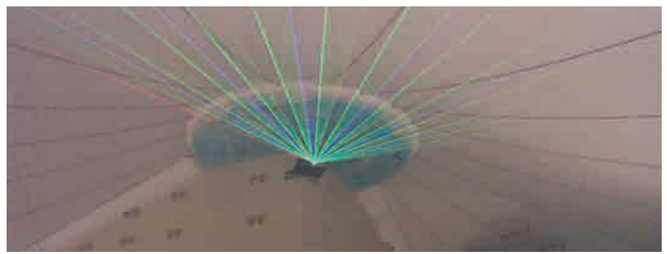
New Year's Eve

nGate – Prague

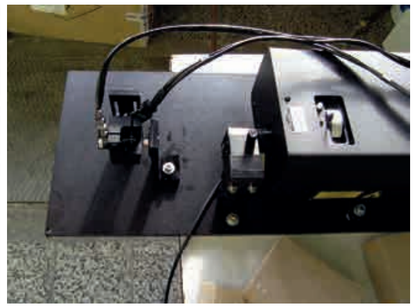
Dubai

This was a permanent installation for a sheikh in Dubai, set up inside a tent in the middle of the desert. The tent itself had brick walls, with only the roof covered by fabric. I was there with Maroš, and that's where we first experienced Ramadan. We spent the whole day in the desert without being given any food or water.

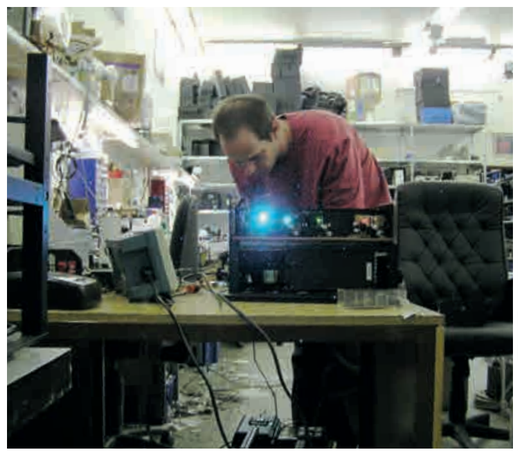
The next day, though, we came prepared. We locked ourselves in one of the rooms during the day, and soon the entire building was filled with the delicious smell of soup.



Chroma 5 to Thailand



Chroma 10



Old Workshop

Spectrum 1.2 W

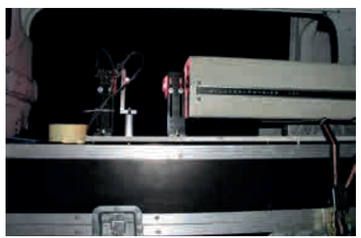
Maxim 2×8 W – two-story setup

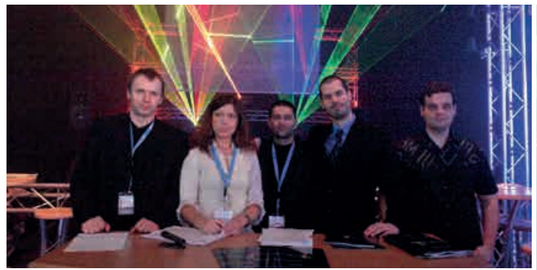
Exhibition – Rimini

SIEL Paris

Bluemau Gilette

Spectra-Physics 171 – complete with its own cooling unit





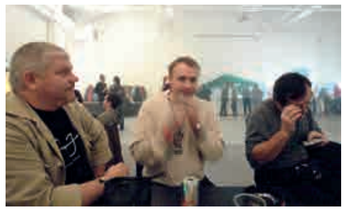
Exhibition – Prolight and Sound, Frankfurt

Exhibition – Palme, Dubai

SNP Bridge – Bratislava

Triangle – Prague

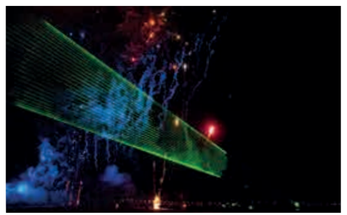
Beckov



Pau van Dyk

Abu Dhabi

Royan – France



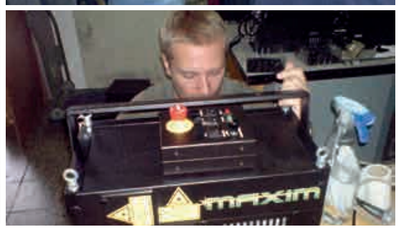
Kotor - Montenegro

The Maximus disco club in Montenegro was an unforgettable experience. We met incredibly friendly people there. The town itself was beautiful, full of narrow streets barely a meter wide. On Sunday morning, I woke up to a deafening sound — the church bell ringing right across the alley. It was so close that it felt like it was ringing directly in my room.

Prolight and Sound Shanghai

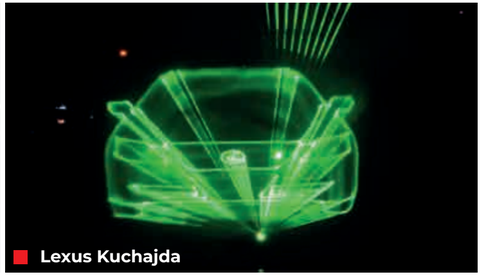
Frankfurt Laser on a rotating platform

Certificate presentation



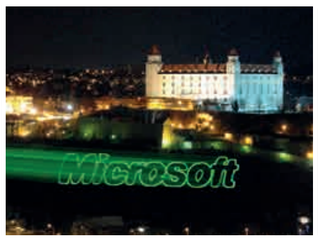
Old Workshop – Faculty of Mathematics, Physics and Informatics, Comenius University, Bratislava

Karat Club (permanent)



Lexus Kuchajda

Abu Dhabi Monster



Agem

Peugeot 308

Bahrain

We were invited to the Bahrain event directly from there, and honestly, until that moment, I didn't even know Bahrain existed. The trip started badly — we missed our flight from Amsterdam to Bahrain and had to spend an extra night in the city.

My friend **Rudo Tuček** also took part in this project. He had a very powerful **Coherent laser,** and our collaboration went perfectly — both technically and personally. Rudo is a true professional and an expert in his field.

Exhibition – Dubai

Exhibition – Palme, India

Exhibition – Plasa, London

Exhibition – Rimini

Exhibition – Prolight and Sound, Frankfurt

As early as 2008, we were already synchronizing lasers with video — a big step forward in show production at the time.

UAE National Day in Emirates Tower A glimpse from one of our events in Dubai. There, we worked closely with **Nabil,** with whom we created many truly spectacular shows.

Becherovka

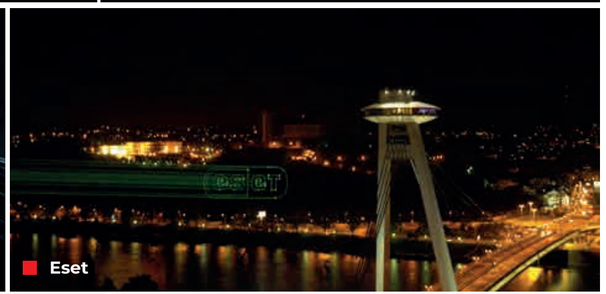
Apocalipso

Amnesia Ibiza

Montenegro

VW Tiguan

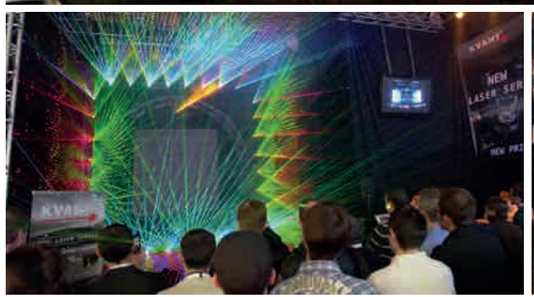
Audi Q5



Eset

VUB

Shott



Exhibition – Prolight and Sound, Frankfurt

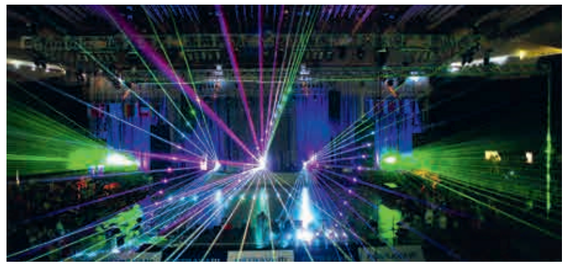
Exhibition – Plasa, London

Amnesia Ibiza Club

more info:

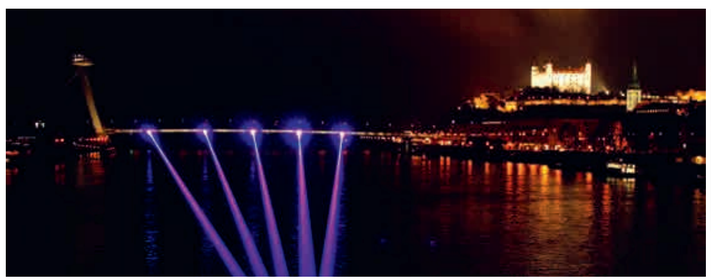
Fatboy Slim – Denmark

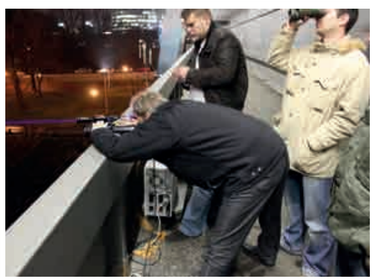
more info:



Ostrava, Czechia 9×10 m Water Screen

LR Health & Beauty Ostrava





SNP Bridge Test of 1 W blue lasers used to visually connect the bridges.

Welcome Euro

Tiesto more info:

Le Sphinx – France





Opening of the Mardan Palace Hotel – Antalya, Turkey

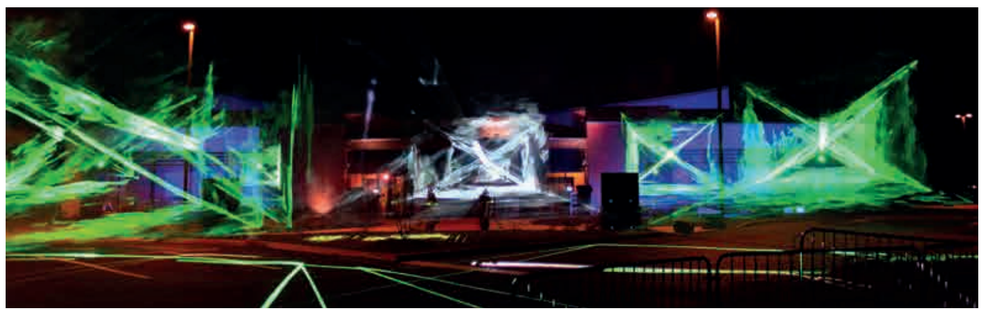
We created a laser show in collaboration with our partners **LSE** and **Orion Art,** resulting in an impressive blend of light, music, and visual artistry


more info:

Paul Van Dyk

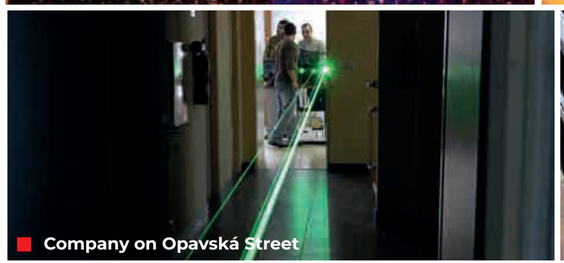
more info:

New Year's Eve – Dubai

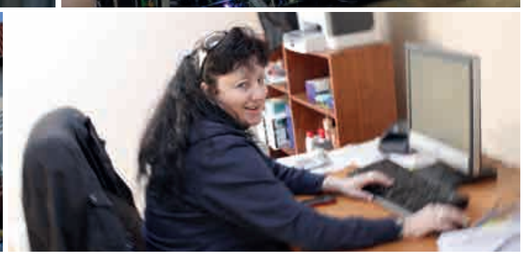


Nomexy – France

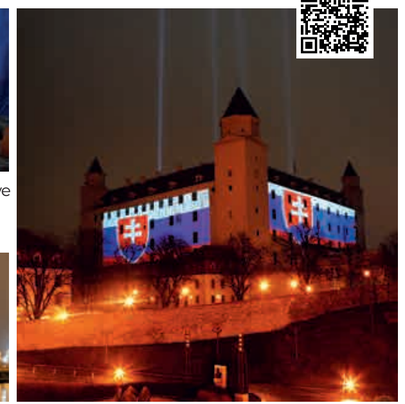
Romania



Company on Opavská Street



more info:



New Year's Eve – Bratislava

For New Year's Eve 2009 in Bratislava, we created an impressive projection on the castle, along with a laser countdown that launched the arrival of the new year in grand style.

Exhibition – Prolight and Sound, Frankfurt

Plasa

more info:

Ha Long Bay – Vietnam

In Vietnam, we worked on an installation in Ha Long Bay — one of the most beautiful places on Earth. The main challenge came from the IP68 housings we ordered from Germany. They were expensive, but as it turned out, not truly IP68 at all.

more info:

450th Anniversary – Laos

more info:

Armin – A State of Trance

For **Armin van Buuren,** we created an unforgettable laser show during the **A State of Trance** event in Bratislava in 2010, perfectly amplifying the energy of his performance.

Azerbaijan

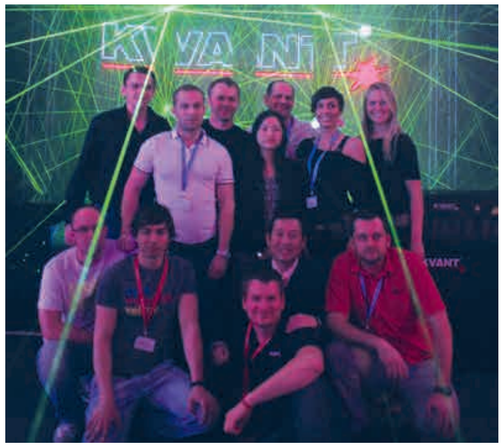
Disco Hill - Budva, Montenegro

Wedding – Saudi Arabia

BMW AWT Bavaria

Saudi Arabia

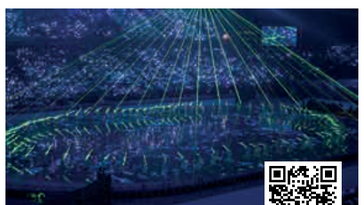
JamRock Fest Žamberk



Exhibition – Prolight and Sound, Frankfurt

We presented a captivating laser show that once again demonstrated the power of precise technology combined with creative light artistry.

Exhibition – Plasa, London



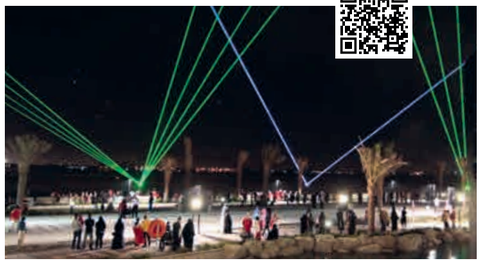
Astana Winter Olympics

more info:

For the 2011 **Asian Winter Games** in Astana, Kazakhstan, we created a unique show that illuminated the ceremony with our cutting-edge laser technology.

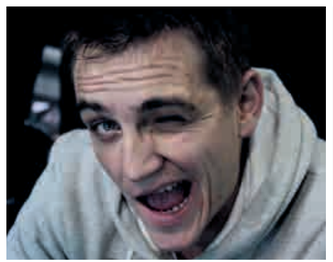
more info:

Al Saif Heritage – Kuwait

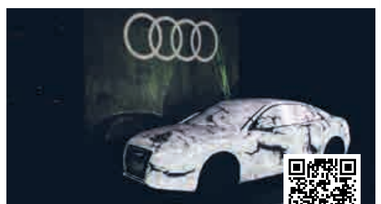


Bahrain

more info:



Czech and Slovak Talent Show



Mapping Audi

more info:

Green Energy Event – Austria

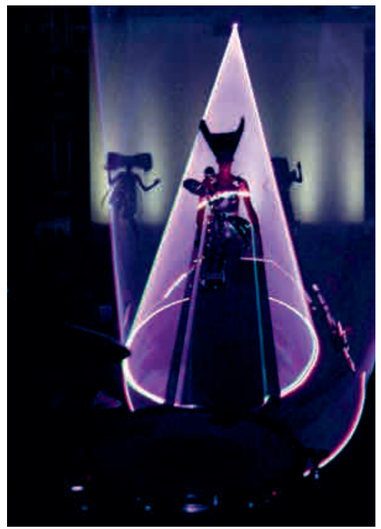
more info:

Ha Long Bay - Vietnam

In Ha Long Bay, Vietnam – a fusion of technology, nature, and adrenaline during installation. It was a demanding permanent setup, full of precision work and unforgettable moments that everyone involved will remember for a long time.

more info:

Armin Van Buren



Aichi – Prague

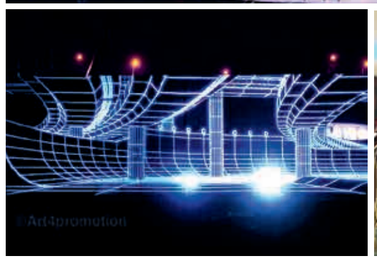
Tiesto – Košice

Plaza – Plzeň

more info:

Czech and Slovak Talent Show – Finals

A special dance performance, **Alien Dance,** accompanied by a laser show — simply an incredible spectacle. In 2013, this performance received the prestigious **ILDA Award.**

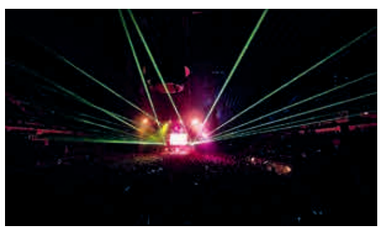


Hyundai

Koh I Noor – Moskva

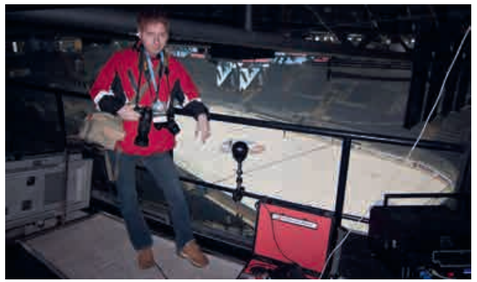
more info:

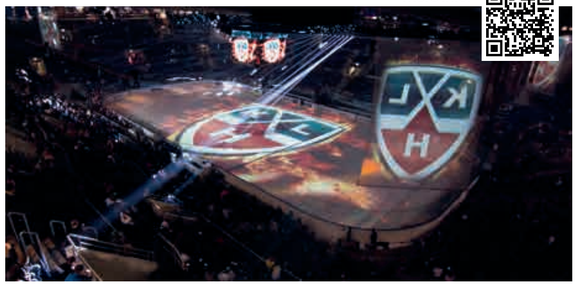
I love Zepter



Michal David

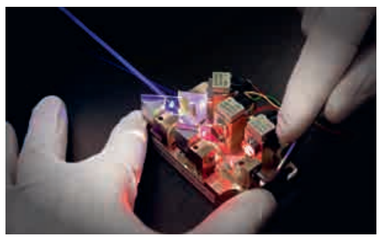
more info:

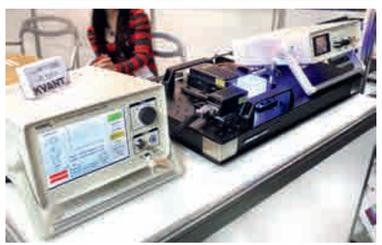


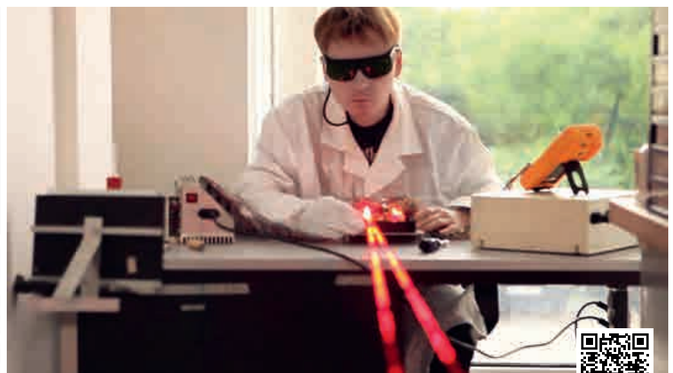


KHL – Bratislava

For the first time, we illuminated an ice rink using laser technology, creating a truly unique visual experience. Several video and laser projectors by **Kvant** were used to bring the show to life.







Moduly

more info:

Have you ever wondered how we make our lasers at **KVANT**? Watch this short video to see the entire process — from receiving an order to shipping the finished product.

Eventland teambuilding

As an operator, I take part in preparing various light and laser shows around the world. Every project is different, yet each one requires precise preparation, detailed planning, and strong teamwork.

The actual show may last only a few minutes or hours, but the preparations often take weeks or even months. They involve technical design, selecting the right effects, programming timing sequences, and thorough testing to ensure that light, music, and movement come together in perfect harmony.

On-site, we handle installation, calibration, and rehearsals — everything must run with split-second accuracy. We create light and laser shows in many different settings — from festivals and concerts to corporate events, city celebrations, and architectural installations.

Each project has its own specifics, but the goal is always the same: to deliver an unforgettable visual experience that blends emotion, technology, and creativity into one seamless whole.

Martin Gabčo

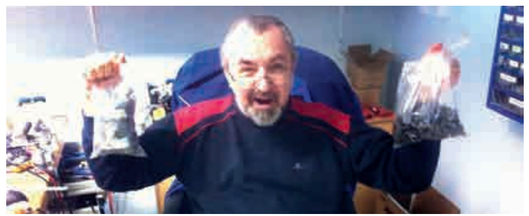
Exhibition – Prolight and Sound, Frankfurt

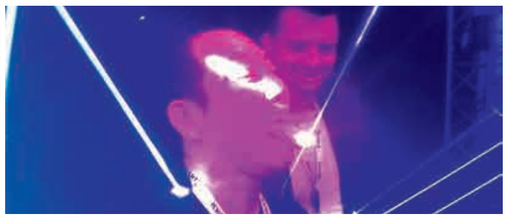
more info:

The **Kvant** team spent seven days preparing their booth and show for the exhibition, with eight technicians working on setup. During the four-day event itself, the project involved eighteen team members and five dancers, making it a truly dynamic and collaborative production.

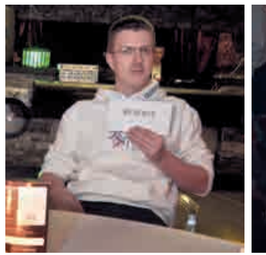
Incheba Demo

Slávik 2012

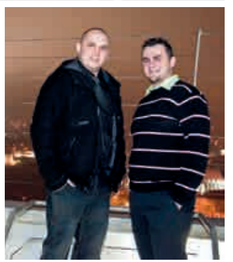




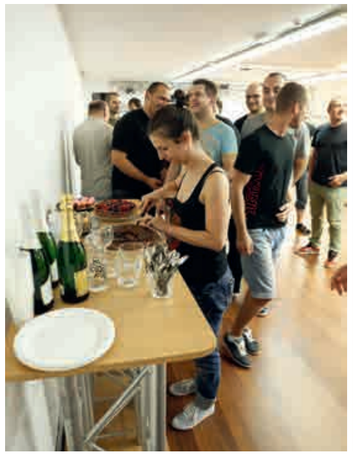
Workshop



KVANT Party



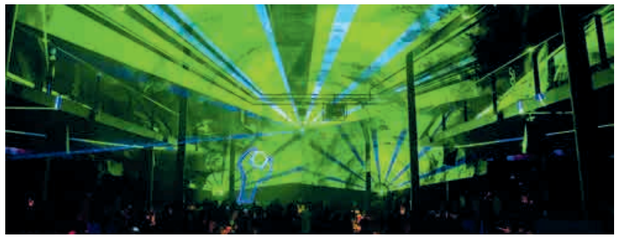
19th Company Anniversary



Ilda

Dreamland Zlaté Piesky

Škoda – Prague

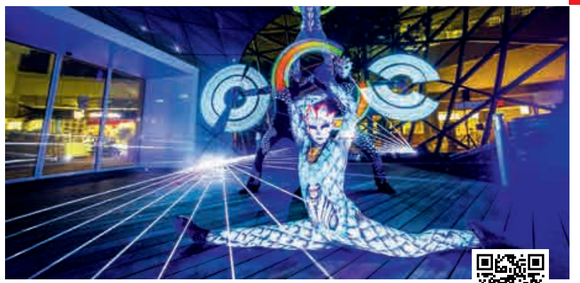


more info:

Main Square – Bratislava

Sazka – Prague An outdoor RGB laser show featuring a massive water screen — one of the largest of its kind, measuring 50 by 20 meters.

Distributor Meeting



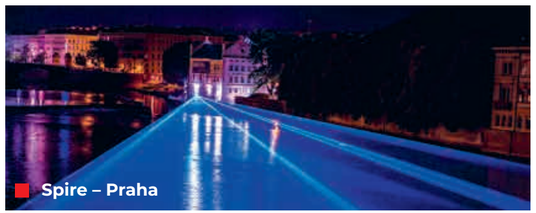
Bory Mall Opening

The laser show for the **Bory Mall** grand opening was performed using six **Kvant Atom 6000 RGB lasers,** accompanied by the acrobatic group **Vertigo.**

more info:

BMW

Jindřichův Hradec



Spire – Praha

KVANT Party

more info:

Exhibition – Prolight and Sound, Frankfurt

At the exhibition, we used fifty laser systems arranged in a circular configuration to showcase a wide range of new and innovative laser effects. Combined with other visual media and an energetic dance performance, the show became one of the highlights of the entire hall — at least according to most visitors.

Event Expo

Munich

David Guetta more info:

Ice Hockey World Championship – Ostrava more info:

Koh I Noor – Hluboká nad Vltavou more info:

BMW more info:

České Budějovice

Czech and Slovak Talent Show – Michael Jackson Tribute

Dubai

LED Warehouse

Skrillex – Sonar Barcelona

more info:

City Arena Trnava

more info:

Creamfields UK

KVANT

WE SUPPORT THE TRAVELLING EXHIBITION – SCIENCE FOR LIFE

Within the framework of European Social Fund projects, the **Faculty of Mathematics, Physics and Informatics of Comenius University** received a popularization grant titled **"Science for Life"** – www.vedaprezivot.sk.

The project was developed by **Michal Gregor** and coordinated by **Branislav Kvasnica** and **Michal Pevný**.

Our company **KVANT** prepared all exhibits, educational panels, and visual materials in a record time of just **three months**.

- The project's goal was to **promote science, research, and innovation** among the general public (especially among **young people in primary and secondary schools**), helping them choose their future careers through **interactive travelling exhibitions and seminars** with nationwide reach.

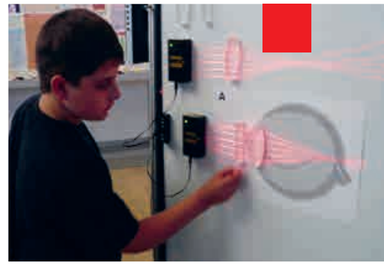
The exhibitions were held in **Nitra, Trenčín, Žilina, Banská Bystrica, Prešov, Poprad, Trnava, and Košice, attracting thousands of visitors from across Slovakia**.

Exhibition Catalogue

Bernoulli's Principle

Michal Pevný and Minister of Education Ján Mikolaj

Facial reconstruction



Our optical kits were an essential part of the exhibition

Detection of security features in the near infrared spectrum

Verifying the authenticity of banknotes

Recording a plasma discharge

Filip succeeded in generating enough energy

Holography

Hologram exhibition

Michal Pevný and microwaves

Ján Mikolaj observing crystal growth

KVANT

WE SUPPLY THE NATIONAL BALLISTIC SYSTEM

The visionary behind the idea of an automated ballistic identification and comparison system was **Janko Zemeník, Head of the Ballistics Department at the Institute of Forensic Science of the Slovak Police Force (KEU PZ SR).** Manual comparison of ballistic traces was highly time-consuming, and while some countries had developed automated systems, few achieved both reliability and affordability at the same time.

At that time, the most widely used system was IBIS from Canada, and while highly sophisticated it was prohibitively expensive and not always reliable. Meanwhile, several Russian companies, such as Condor and Poisc, had developed systems based on rotational scanning technology, achieving better results at a fraction of the cost. Based on recommendations from German colleagues, Janko **Zemeník** chose to adopt the Poisc system.

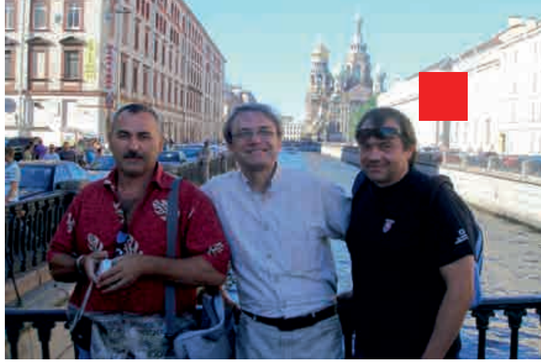
Our company became the official representative of SBC St. Petersburg, and we successfully delivered ballistic systems to laboratories in Bratislava, Slovenská Ľupča, and Košice. Our added **value lay in the integration of the ballistic system with our Evidence system, creating a seamless and efficient forensic workflow.**

The Automated Ballistic Identification and Comparison System **enables automated matching and analysis of ballistic traces** (bullets and cartridge cases) in a comprehensive database. It provides 3D visualization of deformed projectiles and supports rapid identification of similar traces nationwide. The complete National Ballistic System was delivered to the Ministry of the Interior of the Slovak Republic in 2010, with further system expansion implemented in 2012.

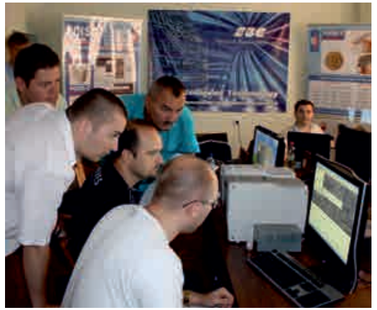
Gradually, various interconnected projects were added to the main project, **such as the Bomb Data Center for pyrotechnic investigations linked to INTERPOL,** a connection system for forensic technicians from mobile stations, and the integration of the system with other projects implemented by the Ministry of Justice and the Ministry of the Interior.

Professor Fedorenko▲ from Saratov

Ivan Šlesarik became a leading expert in ballistic scanning



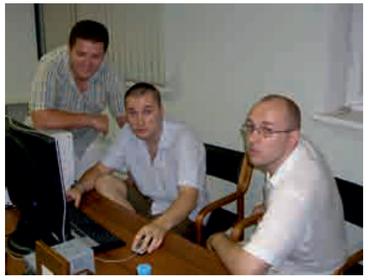
Exploring the sights of St. Petersburg



Specialized training on the system

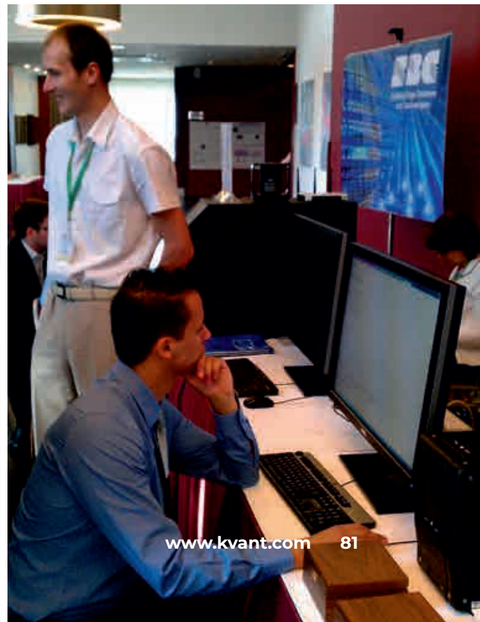
Specialized training on the system

Igor Szegényi (center)



Certificate ceremony for successful trainees

Peter Varga at an international conference in St. Petersburg, 2012



2006-2015

2014 ENFSI CONFERENCE Peter Varga, Zuzana Némethová and Zuzana Tekáčová

On the left: Igor Szegenyi

On the left: Ondrej Laciak,
Director of the Criminalistics and Expert Institute
of the Police Force of the Slovak Republic (KEU PZ SR)

2015 - International forensic conference in Prague

Center: Jozef Horváth during his presentation

Bohuš Bohunický and František Močiliak

OUR PARTICIPATION IN INTERNATIONAL FORENSIC CONFERENCES

2015 ENFSI Conference in Bratislava On the right: Peter Mudra

2014 - International project Slovakia–Czechia–Poland

Signing of the cooperation agreement
by the Police Director of the South Moravian Region

Nick Lord

František Kuffel, Ľubo Mach, Gustáv Kelemen

Milan and Margita Gono

Peťo, Mirka, Marcelka and Jožko

THE WAY WE WERE

Michal Čordáš

Spider-Man Marek Svätený

A star team in the workroom

Aďa Slaninová embraced by colleagues

The challenges in the life of assistants

Gabika Hančíková
and her secret identity

KVANT

JOINING THE EUROPEAN RESEARCHERS' NIGHT

An event **celebrating science and research — its goal is to connect the public with the world of science.**

It is essential to raise public awareness of science, stimulate interest in it, especially among young people, and show that researchers are an integral part of everyday life. The origins of this event date back to 2005, when it was initiated by the European Commission as part of a campaign to promote science and research across Europe.

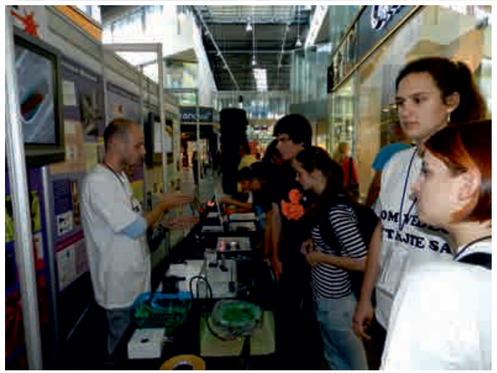
Since then, the event has grown and spread across Europe to more than 300 cities in different countries, offering interactive activities, workshops, lectures, and meetings with scientists.

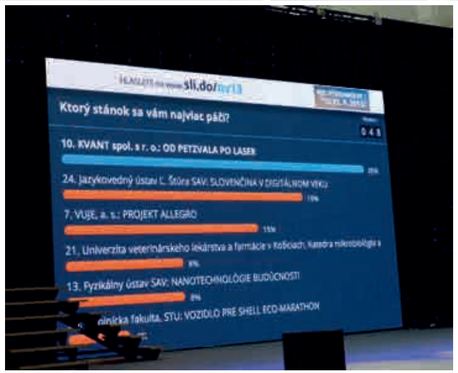
History of the European Researchers' Night:

- **2005** – First event held in Barcelona, Spain
- **2006** – Expanded to other European countries as part of the European Researchers' Night initiative. In Bratislava, it was held under the motto: "What is research?"
- **2007** – Together on the Path to Knowledge
- **2008** – Opening the Doors to the World of Science
- **2009** – Science in Your Hands
- **2010** – Revealing Scientific Mysteries
- **2011** – Between Science and You
- **2012** – Science Is All Around Us
- **2013** – Science Enables a Better Future
- **2014** – Science Has a Chance
- **2015** – Science Destroys Myths

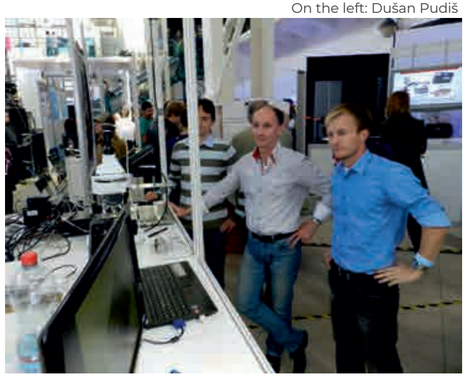
Each theme or motto reflected the main mission of the event — to make science and research more attractive to the public and highlight their importance for society.

Both **KVANT** centers are an important part of this night every year and bring something new to visitors each year. Our exhibits and accompanying programs are consistently among the most attractive highlights of the entire event.





On the left: Dušan Pudiš



Marian Dubina and Juraj Melicher

From the right: Zsolt Lukáč and Michal Pevný

KVANT

WE SUPPORT SLOVAK AUTHORS

From the very beginning of our existence, **we have been open to the ideas and visions of our colleagues, business partners, and friends.** Thanks to them, some of our products have been created, which we successfully offer today.

The idea to support Slovak teachers and authors arose spontaneously and naturally. After all, we have been part of the educational environment since the very beginning of our company's history. We never wanted to be mere "box movers." **From the start, our ambition was to create original teaching aids that would complement our educational programs and textbooks.**

Among the first Slovak authors whose ideas we successfully transformed into products was **Prof. RNDr. Stanislav Holec, PhD.** His **"Geometric Optics Plus"** kit remains one of our longest-selling educational sets in the export department's range.

Another key collaborator is **PaedDr. Jozef Beňuška, PhD.**, whose digital physics textbook for primary and secondary schools we have been offering since 2010. **In 2017, he was named the Best European Physics Teacher.** As the founder of the Center for the Popularization of Physics at the Gymnázium in Martin, his boundless enthusiasm for teaching and inspiring students makes him a true role model and we are honored to support his work.

In 2011, **PaedDr. Ján Marinič** guided two of his students from Snina to victory in the Slovak Technical Olympiad with their model of a physics car. **Two years later, together with Kamil Dunaj, he developed a prototype of the teaching tool "Physics Car", which we have been successfully distributing both in Slovakia and abroad since 2014.**

Assoc. Prof. RNDr. Viera Uherčíková, CSc., a passionate popularizer of mathematics, created engaging math teaching aids based on **her philosophy: "Mathematics teaches us how to count on everything in life." Her Tangram puzzles and Eraser sets, designed with a full methodological guide, have been part of our offer since 2020.**

▲Assoc. Prof. RNDr.
Viera Uherčíková, CSc.

PaedDr. Jozef Beňuška, PhD.

prof. RNDr. Stanislav Holec PhD.

PaedDr. Ján Marinič

Set: Erasers
– Tangram Solutions

TANGRAM

Activity worksheets
developing students' skills through independent work

Physics textbooks
thematic books aligned with the national curriculum

Set: Geometric Optics Plus

Physics Car

Patent certificate

Mária Drozdová

Mirka Bariančíková, Zuzka Tekáčová

Jaro Mráz, Veronika Vyčítalová

WE PARTICIPATE IN THE BIBLIOTEKA PEDAGOGY FAIR

2006 - Presenting Easy School

Michal Cordáš, Danka Bednárová

Marek Zednikovič

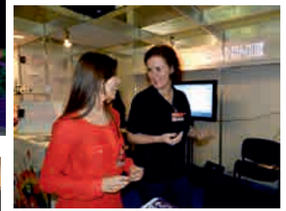
2010 - On the right: Mária Jantoláková

2009

On the left: Martin Pohánka

Anka Kiljanová, Martina Franczelová, Martin Pohánka, Janka Geralská

Janka Geralská and Zlatka Palkovičová



Mirka Slobodová

2013

Janka Matulániová and Miška Reichelová

Majka Hagarová

2015 - Miška Reichelová

Tomáš Močko and Zuzana Žemličková▲

KVANT

SUCCESS AT THE WORLDDIDAC EXHIBITION IN ASTANA

We took part in a didactic exhibition in Kazakhstan.

We proudly represented Slovakia at the **WORLDDIDAC ASTANA 2012, an international exhibition of educational technologies and professional training held in May 2012 in the capital of Kazakhstan. The event brought together over 130 companies from 21 countries,** showcasing the latest global trends in education and innovation.

Our company received the main award of the exhibition for the most captivating exposition. We presented advanced laser and spectrometric instruments and educational kits, which were later donated to the **prestigious Nazarbayev University in Astana to support teaching in wave and geometrical optics and spectrometry.**

Our exhibition was visited by **Mr. Ľubomír Rehák, PhD., Slovak Ambassador**, who remarked that "only modern technologies with high added value can bring Slovak producers success abroad." **Our Managing Director Ľubomír Mach added that the success of KVANT is also a success of the Faculty of Mathematics, Physics and Informatics at Comenius University in Bratislava,** whose researchers, including **RNDr. Pavol Vojtek, CSc.**, actively collaborate on the development of our products.

Pavol Vojtek presenting the spectrometer to Ambassador Ľubomír Rehák in Astana

Pavol Vojtek installing a 2D spectrometer at the Nazarbayev University laboratory

Ľubomír Mach, Director of KVANT, receiving the award for the most captivating exposition

Ľubomír Mach demonstrating the propagation of acoustic waves in a metal plate

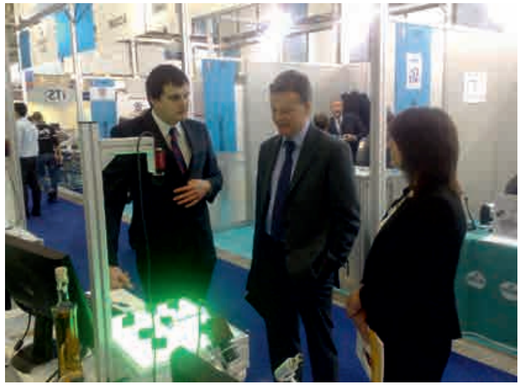
Miroslava Zajcevová, Commercial Counsellor of the Slovak Embassy in Astana, during the presentation of a laser transmission system by Ivan Šlesarik

Ivan Šlesarik handing over a laser optics kit to Mr. Farkhat Murat at Nazarbayev University

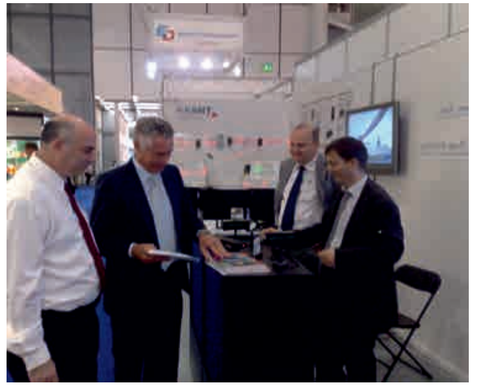
KVANT

WE PARTICIPATE IN INTERNATIONAL EDUCATIONAL FAIRS

At most international exhibitions focused on education and didactic technology, we were the only representative from Slovakia.Our products have been showcased at leading global education fairs such as Worlddidac, Didacta, and BETT, which highlight innovation, teaching tools, and advances in modern pedagogy.



2010 - on the left: Martin Guldan

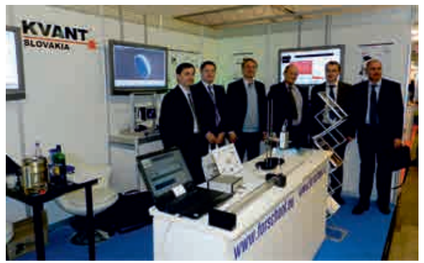


2008 - Worlddidac Basel, on the right: Jiří Startil, Ivan Šlesarik

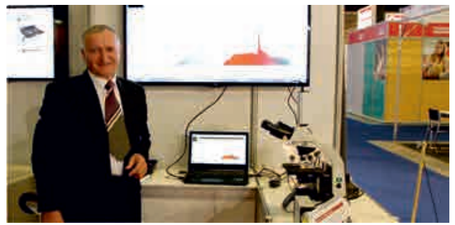
2008 - Moskva, Sokolniki

Worldidac Basel, Ivan Šlesarik and Ľubomír Mach with Mr. Conatex, company owner

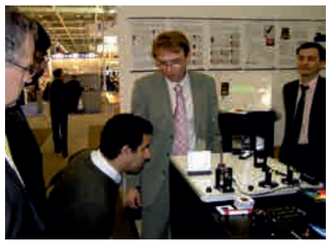
2010 – Worlddidac Basel



2010 – Worlddidac Basel



2014 – Worlddidac Basel, RNDr. Pavel Vojtek CSc



2006 - Worlddidac Basel

Katka Seberíniová

2012 – BETT London

KVANT

CREATING EXHIBITS FOR THE SCIENCE AND TECHNOLOGY CENTER IN KOŠICE

This story is about passionate work, cooperation, and the courage to bring science closer to people.

Our first major project involving scientific exhibits began **rather inconspicuously. Bea Zbiteková** discovered a competition for the Technical **Museum in Košice**. Most of the requested exhibits were unfamiliar to us, some, such as models, figures, and teaching aids, were commonplace for us. So a small expedition was formed: Bea, Majka Hagarová, and Peter Gašparík set out for Liberec to draw inspiration.

Full of enthusiasm, we prepared our bid and won. That marked the beginning of our journey into the world of educational exhibits, the launch of our website **www.sciencemodels.sk** and the start of many beautiful projects that followed.

As project mentor **Marián Dubina** recalls: "At the beginning, we said to ourselves: this we have, that we can build or buy... The lengthy administration discouraged competitors and trimmed the budget, but we drove hundreds of kilometers, searched for solutions, found suppliers on three continents, and engaged several departments. Three months later, we delivered 122 exhibits to the museum, where they to this day withstand the onsalught of visitors."

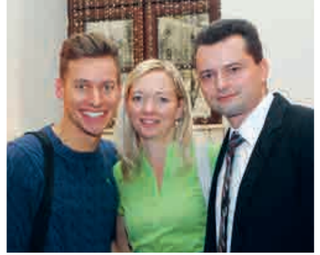
Just three months after signing the contract, on September 5, 2013, the Science and Technology Center for Children and Youth at the Slovak Technical Museum in Košice was officially opened in the presence of distinguished guests and national media.

Special thanks go to everyone who contributed to this achievement — **Marián Dubina, Ivan Šlesarik, Martin Guldan, Bohuš Bohunický, Peter Červenec, and many others.**

Thematic blocks: electricity, magnetism, hydrodynamics, mechanics, optics, games, mazes, solar energy, microcosm, acoustics, space, geometry, gravity, vibrations, thermovision, aerodynamics, anatomy, bioelectricity, reflexes, plasma discharges, music, and biotesting.

Official opening of the exhibition attended by Mr. Rudolf Schuster, President of the Slovak Republic

2012









Christmas Party 2012











KVANT

DEVELOPING TRAFFIC APPLICATIONS

As a traffic solutions integrator, we have developed and implemented traffic measurement systems for the **Slovak Road Administration** and **Betamont s.r.o.**, using scanners, radar systems, lidars, and camera technologies. These systems are designed for the digitization of road surfaces and their surroundings.

Our solutions include a traffic data evaluation system, providing statistical analyses and comprehensive reporting.

The monitoring setup also includes vehicle profiling (shape and dimensions), vehicle weight, speed, noise, emission levels, and other physical parameters.

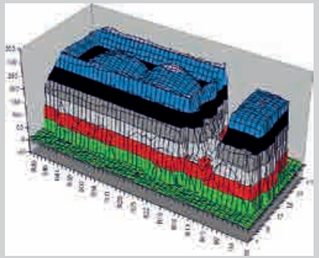
The measured data directly contribute to traffic regulation and congestion prevention, utilizing information boards and adaptive traffic restrictions.

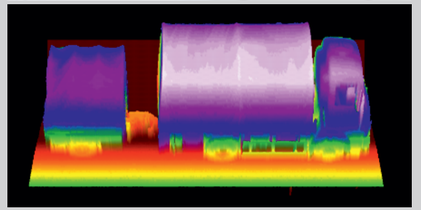
DEVELOPING CONTACTLESS ROAD SURFACE TEXTURE MEASUREMENT

For the **Research Centre of the University of Žilina**, we developed a non-contact road surface texture measurement system. The resolution for macrostructures is 3 micrometers, and for microstructures, 0.2 micrometres. For macrostructure scanning, a laser profilometer with an 18 mm field of view is used. For microstructure imaging, a system based on the structured light principle is applied, with a 1.6 × 1.2 mm field of view.

The measurement head is controlled by a motorized stage along the X, Y, and Z axes. The accompanying software provides data post-processing, selection of measurement areas, export of 3D point clouds, and interpolation of missing data.

The device is part of the Laboratory of New Diagnostic Methods for Transport Infrastructure at the Research Centre of the University of Žilina, where it is used for road surface quality assessment and analysis.





KVANT

SUPPLYING A REFRIGERATOR FOR THE INSTITUTE OF PHYSICS, SAS, AND FMFI UK

We supplied a **unique cryogenic system**, capable of reaching **temperatures as low as 10 millikelvins**, to the **Laboratory of Physics of Extremely Low Temperatures** at the **Institute of Physics of the Slovak Academy of Sciences** and to the **Department of Experimental Physics, Faculty of Mathematics, Physics and Informatics at Comenius University**.

The laboratory focuses on studying physical **phenomena that occur at temperatures near absolute zero**, providing essential conditions for research on macroscopic quantum effects.

It was equipped with **state-of-the-art measuring instruments and electrical signal analyzers**, representing the technological frontier of that time. The system requires a **special charge of helium-3**, an extremely rare and costly gas that constitutes **only 0.000137% of natural helium**.

Thanks to strong professional connections, we successfully overcame the challenges related to its procurement and delivery. The project was coordinated on behalf of the Institute of Physics SAS and FMFI UK by **Prof. Miroslav Grajcar**.

SUPPLYING UNIQUE LABORATORY EQUIPMENT

We have also delivered **ultra-high vacuum (UHV) systems** operating at pressures down to **10^{-6} Pa**, manufactured by **Omicron**. These systems are installed in the laboratories of the **Department of Experimental Physics, FMFI UK**.

The **pulsed laser deposition system** is used for the **preparation of thin films** for materials research and nanotechnology applications. It is equipped with a **powerful excimer laser** and **in-situ diagnostic methods**, including **RHEED (Reflection High-Energy Electron Diffraction) and ellipsometry**.

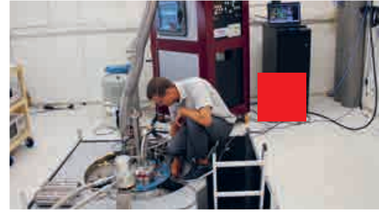
The **analytical UHV system** is used for **investigating the properties of thin films**. It includes an **electron energy analyzer**, an **X-ray source for XPS (X-ray Photoelectron Spectroscopy)**, a **VUV source**, and an **electron scanning microscope column** for **electron and Auger scanning microscopy**.

On behalf of FMFI UK, the project was led by **Prof. Andrej Plecenník** and **Prof. Peter Kuš**. The delivery and installation were carried out by **Bohuš Bohunický** and **Martin Guldan** from **KVANT**.

Professor Miroslav Grajcar during the system installation

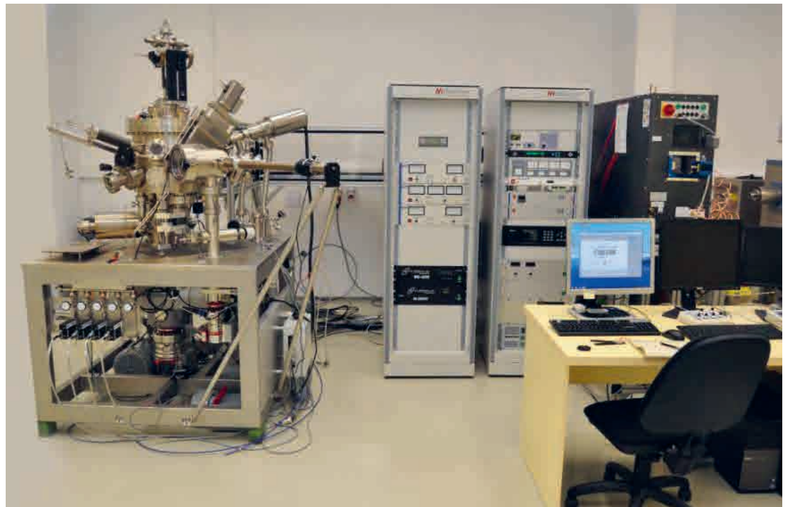
Martin Guldan at the entrance to the refrigerator installation shaft

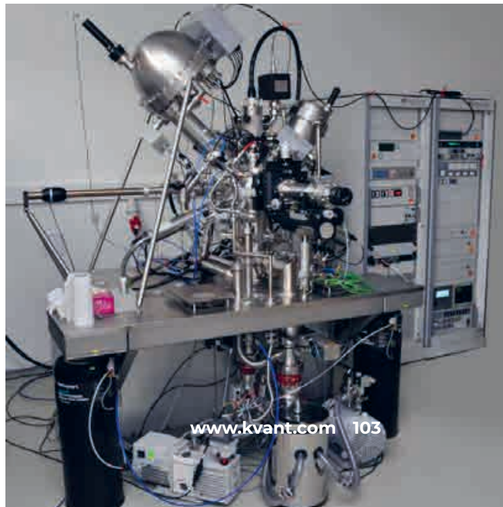
Pavol Neilinger during the installation of the amplifier



Refrigerator

Laboratory with UHV and PLD technology





KVANT

BUILDING A TANDEM ION ACCELERATOR

Since **2011**, our company has been involved in the development of this unique research facility for the **Faculty of Mathematics, Physics and Informatics of Comenius University.**

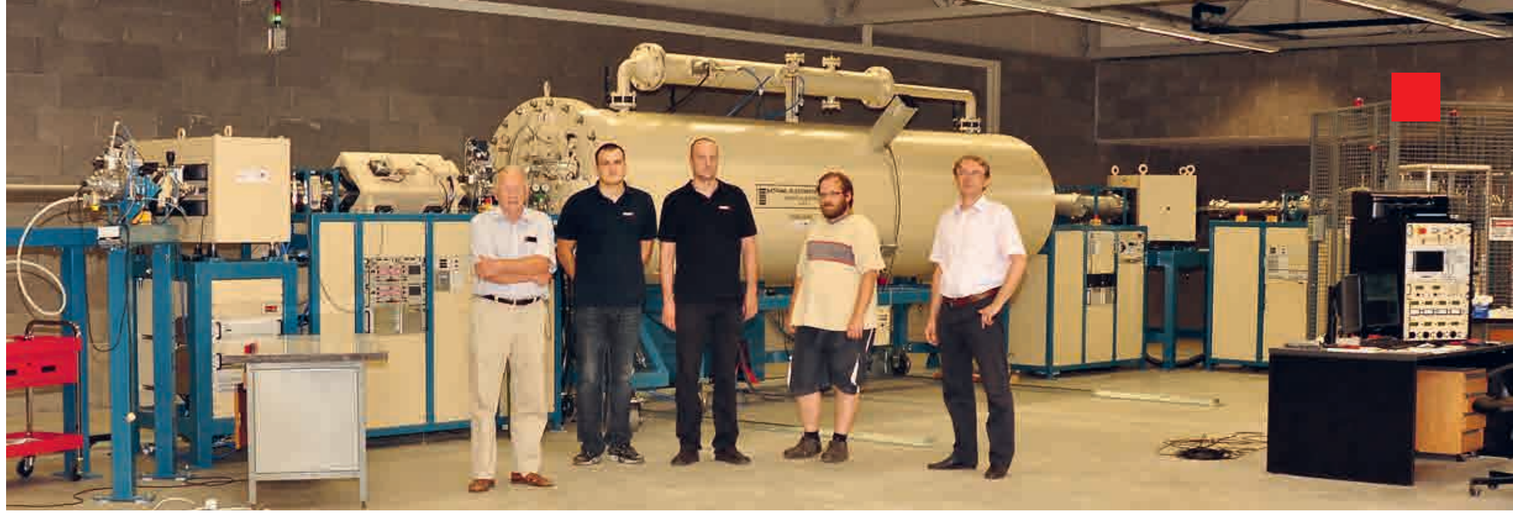
The project was implemented in several stages, with **delivery of the main system completed in 2013**. Thanks to the **"Centers of Excellence at Comenius University"** project, Slovakia gained **cutting-edge technology** for the research and detection of materials and ionizing radiation.

Just **four months before delivery**, the client discovered that installation could not be carried out in the Development Workshop premises, making it necessary to **urgently construct a separate building**. Given the circumstances in Bratislava, this was an incredible achievement by **Professor Peter Kuš**, who managed to obtain all the necessary permits in record time. Our company also played a major role in the construction process. Everything was completed on schedule, in full compliance with the project contract.

We would like to express our gratitude for the successful implementation of the project, especially to **Bohuš Bohunický**, **Martin Guldan**, and everyone who contributed to its completion.

The system allows **ultrasensitive detection and analysis of ion isotopes** in collected samples and is among the **most advanced facilities in Central Europe**. It enables researchers to analyze ions from environmental samples and detect anomalies that may indicate unusual radioactive events.

For example, the **Fukushima explosion** was reflected just a few days later by a noticeable **increase in specific radioactive isotopes** detected in our environment. The equipment can serve as an integral component of an **early-warning system for public safety in Slovakia** in the event of nuclear incidents similar to **Chernobyl** or **Fukushima**.



Overall view of the accelerator technology, from left: Professor Pavel Povinec, Martin Guldan, Bohuš Bohunický, Róbert Breit, and Ľubomír Mach

Official opening on September 16, 2015, attended by President Andrej Kiska

2014

Presentation of the "Navigator" solution at the BIEMH exhibition in Spain

Our game KVANT GT3 ▲ ▶ ▼

The Vision Show exhibition is held every two years in Stuttgart, focusing on computer vision and image processing, and attended by experts from the machine vision industry.

Our software development department represented the company at the fairs in 2008, 2010, and 2014, presenting three innovative solutions: BulletScanner, SmartCity, and AmosStar.

OUR PARTICIPATION IN INTERNATIONAL FAIRS – VISION SHOW

Presentation of the "Navigator" solution at the BIEMH exhibition in Spain

Peter Varga and Petr Kindl

Our game "KVANT GT3 Challenge" was a great success at the fair

In the center: Katarína Tulnerová

KVANT

OUR "STELLAR" SOLUTIONS FOR ASTRONOMERS

We are proud to collaborate with several leading astronomical institutions:

In 2012, we supplied Pavol Jozef Šafárik University in Košice with an **astronomical telescope equipped with a high-sensitivity imaging system.**

For the Astronomical Institute of the Slovak Academy of Sciences (SAS) – the Lomnický Štít Observatory, as part of the project ***Center for Space Research – Development of Technical Infrastructure – Neutron Monitor***, we delivered a **cosmic-ray detector, also known as a neutron monitor.** This instrument detects and monitors neutrons – subatomic particles generated by the interaction of cosmic radiation with Earth's atmosphere.

In 2014, under the project ***Detection Technology for Astronomical Observations***, we supplied several instruments to the Skalnaté Pleso Observatory. One of them was the **Echelle spectrograph.** When we initially requested a quote from the manufacturer, we had no idea that after winning the tender, its price would double. Fortunately, in cooperation with **RNDr. Pavol Vojtek, CSc.**, we designed, developed, and manufactured our own spectrograph. The device required a custom-made optical prism measuring 200 × 200 × 140 mm, whose production and polishing took six months.

The spectrograph's structure itself was impressive — 1800 × 1200 mm. Individual components were transported by cable car from Skalnaté Pleso to Lomnický Štít and assembled on-site under challenging mountain conditions.

We also cooperate with the Faculty of Mathematics, Physics and Informatics, Comenius University, on the development of the **AMOS system**, which measures the physical and orbital characteristics of meteoroids.

▲Vacuum coating system for mirror production – Astronomical Institute of SAS

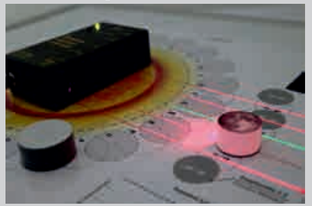
Echelle spectrograph for the Skalnaté Pleso Observatory

Reflecting telescope at Skalnaté Pleso

ASTRO LASER SET – a kit for astronomy education and outreach

Developed during the COVID period, this educational kit is designed for astronomy clubs and for teaching natural sciences, geography, and physics. The main developer was **Peter Benkovič**, and the final design was completed by our external collaborator **Michal Figura**, known for his educational program ***"Magical Physics."*** The set covers a wide range of topics: The View of the Sky, The Spectrum of Electromagnetic Radiation, Phases of the Moon, Eclipses, Albedo, Astronomical Telescopes, Exoplanet Detection via Transit Method, and Variable Stars.

Michal Figura and Peter Benkovič



AMOS – meteoroid observation system

The AMOS system consists of an all-sky fisheye lens, an image-intensifying optoelectronic unit, and a digital video imaging module. The entire system is protected by inner and outer casings and monitored by temperature, rain, wind, and sky-brightness sensors. It is primarily used for meteor observation, but can also be adapted for meteorological, geophysical, aviation, and satellite applications.

KVANT

SUPPLYING DIDACTIC TOOLS AND EQUIPMENT TO 49 PRIMARY SCHOOLS

A project that began quietly but tested our strength, creativity, and resilience.

"It was November 2013. In the office of the then-director of SIOV, the cigarette smoke was so thick you could slice it. Ľubo and I sat across from her, our eyes watering, two plump dogs circling our legs, and **we could hardly believe that what we were seeing was real."** — **Bea Zbiteková** recalls the beginning of the story.

The origins of this project go back to May 2012, when the principal of a primary school (for which we had just built a beautiful physics lab) asked us to help a colleague from the Ministry of Education. **She urgently needed example documentation for school laboratories. We shared our materials.** At that time, Mr. Mach just waved his hand and said, "another project for the drawer."

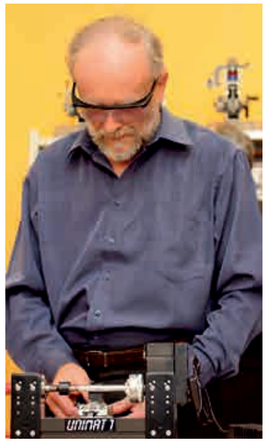
But by spring 2013, the project had been taken over by SIOV (State Institute of Vocational Education). It was further refined by educational specialists, teachers, and experts — and ultimately, we delivered it.

The project "Dielne 1" (Workshops 1) became SIOV's pilot initiative with the aim of developing polytechnics and enabling students to decide on their career path when choosing a secondary school. **A total of 49 primary schools were equipped with laboratories for physics, technology, and biochemistry.**

Workshops 1 in numbers:

- 105,997 individual items
- 22,220 complete sets
- 61 delivery days
- 87, 228 kilometers driven
- 108 suppliers involved
- 66 dedicated team members — to all of whom we owe great thanks and recognition

PaedDr. Jozef Kuzma PhD.



prof. PaedDr. Jozef Pavelka CSC.

KVANT

WE ARE FINALISTS IN THE ENTREPRENEUR OF THE YEAR AWARD

The managing directors of KVANT spol. s r.o., Pavol Kubošek and Ľubomír Mach, were recognized as **finalists in the EY Entrepreneur of the Year 2013 award.** The Entrepreneur of the Year® program, first announced by EY in 1986 in the United States, honors outstanding entrepreneurs from around the world. In 2013, national rounds were held in more than 50 countries, including Poland, Hungary, the Czech Republic, Austria, and Ukraine. EY is a global leader in audit, tax, and business advisory services.

WE RECEIVED THE SLOVAK GOLD AWARD

Each year, the **Slovak Gold Foundation** recognizes the most successful Slovak products and services. In 2014, KVANT became the proud recipient of two prestigious awards: In the **"Specific Products"** category for our **Laser Geometric Optics Set** and in the **"Services"** category for **the design and realization of laser and multimedia shows.** We extend our sincere thanks to all our colleagues from production, export, and the entire team whose work made the Slovak Gold Award possible.

Highlights from the awards ceremony:

Our heartfelt thanks to our dear wives for their support and patience.

KVANT

WE LAUNCH OUR COMPANY NEWSLETTER – KVANTOVINY

A company newsletter that has been connecting us since 2014.

In March 2014, company management decided to strengthen internal communication and create a space where we could share important information, ideas, and experiences.

This is how **KVANTOVINY, our internal electronic newsletter,** was born.

From the very beginning, its main goal was to enhance awareness of company projects, share updates about events, conferences, and exhibitions, look for ways to improve work efficiency, and collectively tackle challenges we face.

To date, more than 100 issues have been published, and they have become an important link within our team. It's truly remarkable how many stories, successes, and experiences we've recorded over the years. Thanks to the newsletter, we've had the opportunity to get to know each other better, find inspiration, and grow together. In fact, KVANTOVINY has served as a key source of material for this book.

A heartfelt thank you to everyone who contributed articles over the years, and especially to the editorial team:

Marcela Olšavská
Michaela Barta Reichelová
Miriam Slobodová
Robert Pleška
Ľubomír Mach
Veronika Bartošová
Tomáš Čajda
Tomáš Močko
Barbora Koch
Nikol Bajáková
Peter Benkovič
Róberta Schmidtová
Katarína Mažárová
Peter Červenec - IT support

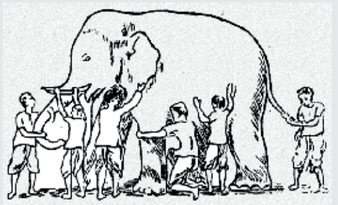
All issues are available by scanning the QR code.

EMPATHY IN NEGOTIATIONS (5/2014)

I often encounter a lack of empathy during negotiations – the ability to understand the needs of the other side. You know the situation: everyone insists on their own "truth," their own perspective, and no one can find common ground.

There's a beautiful fable that comes to mind:

Four blind men were arguing about what an elephant looks like. One held its leg and said the elephant was like a pillar. Another held its trunk and said it was like a flexible tube. The third leaned against its side and said it was like a wall hanging. The fourth grabbed its tail and said the elephant was like a rope.



They argued and couldn't agree, a fight seemed imminent. A wise man passing by advised them to change places and then talk again. When they did, they finally understood the whole truth.

I share this because understanding another person's perspective and needs is the foundation of every collaboration and every relationship, whether professional, familial, or friendly. No business negotiation can succeed without understanding the customer's needs and having the ability to empathize.

I wish all of you success in mastering this skill — both at work and in life.

Lubo Mach

APRIL SHOWERS? NO PROBLEM! (4/2018)

FUN CORNER (3/2014)

2015

KVANT

SUPPLYING DIDACTIC EQUIPMENT TO 177 PRIMARY SCHOOLS

The largest single project in Slovakia delivering educational tools to **177 primary schools at once.**

The project "Dielne 2" (Workshops 2) was a continuation of the pilot program, refined according to the feedback of teachers and educational experts from Workshops 1. **Participating schools received teaching aids for technical education, physics, chemistry, and biology, as well as methodological manuals,** all aimed at supporting hands-on learning and early career orientation among pupils.

For us, it was an extremely demanding challenge. Although we could build on our previous experience, this time the scope tripled — three times more schools, more complex logistics, and severe time pressure. Even the public competition itself was stressful, and after it ended, we waited half a year for the results, which shortened the delivery period even further. And yet we won once again. Despite all the constraints and pricing imbalances caused by these circumstances, we completed it successfully.

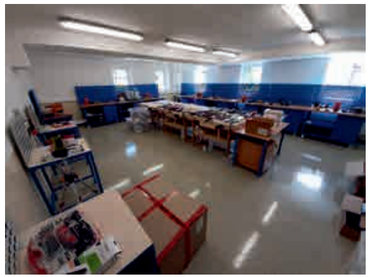
The contract was signed in May 2015, and we had only four months to deliver nearly 80,000 sets to 177 schools across Slovakia. **Impossible? Without debate. Did we manage? We sure did.**

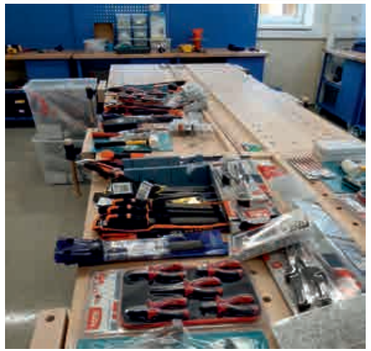
It could have been one of those beautiful projects everyone remembers with pride. And in fact, within professional circles at SIOV and among teachers, the project is still spoken of with great respect. The final conference in December 2015 confirmed its success, and we were proud to be there. Unfortunately, no official written evaluation can be found today; only a bittersweet aftertaste remains. Why? Because of the siphon.

Workshops 2 in numbers:

- 187,446 individual items
- 21,771 complete sets
- 53 suppliers
- 177 schools
- 18,686 pupils

More than 20 KVANT colleagues took part under the leadership of **Bea Zbiteková**. Our deepest thanks go especially to **Peter Červenec, Stano Vdoviak, Majka Hagarová, Janka Geralská, Braňo Hlinka, Mišo Čordáš, Fany Rohalová, Marcelka Olšavská, Tomáš Čajda, Zuzka Pevná, Martin Pohánka, Katka Minichová, Eva Červencová, Mati Franczelová, Mojmír Kratochvíl**, and most of all to **Rasťo Oravec.**





THE GOLDEN SIPHON

This is a short excerpt of a conversation from a Czech cult classic:
Bohouš: "Two siphons."
Waiter: "We only serve siphon with coffee."

Well, in this project, we delivered 177 siphons. They were disassemblable models mounted on boards with screen printing and QR codes linking to animations explaining the principle of communicating vessels. Everything seemed fine until 2016, when the so-called "siphon war" erupted on Facebook. Suddenly, it was everywhere, in the media, in parliament, even under investigation by NAKA and OLAF. No irregularities were found, but the siphon became famous. Today, it holds an honorary place in our company as our very own "Golden Siphon."

KVANT

WE SUPPLY EXHIBITS FOR THE AURELIUM SCIENCE CENTER IN BRATISLAVA

We delivered more than expected — because money was never the goal; it was merely a means to an end. **Our true goal was to create a space where children and adults alike can learn to understand the world through their own eyes, hands, and experiences.**

The road to Aurelium was not an easy one. In 2013, we built the first major science and technology center for children in Košice, and it became clear that science popularization was a direction we wanted to pursue. A year later, however, that project was halted due to bureaucratic obstacles. A new opportunity came in 2015, when the Slovak Centre of Scientific and Technical Information (CVTI SR) announced a new call for building a science park in Bratislava. Our proposals ranked among the best, but we lost a third of the project time waiting for the contract to be signed, and then the race against time began.

"Do you really think you can finish this?" asked some of the experienced suppliers. Elsewhere, similar centers take at least six months to build; we barely had two (and spent another four fine-tuning details). **The result is Aurelium – www.aurelium.sk – an experiential science center that follows the global trends of interactive learning parks.**

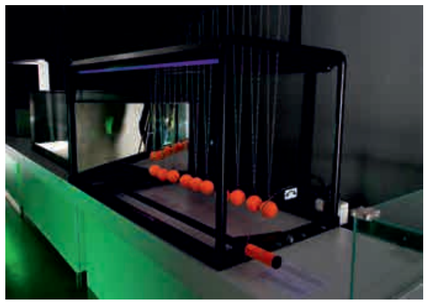
The exhibition features over one hundred exhibits from the fields of mechanics, electromagnetism, optics, ecology, chemistry, mathematics, and Tesla's world. We also delivered advanced installations, including laser exhibits, 3D mapping, and interactive tablet-controlled systems.

Although the official opening was postponed several times, even during the trial operation Aurelium quickly gained attention from both professionals and the general public. It was visited by schools, KVANT employees with their families, summer camps, and even a delegation from the European Union. **The reactions ranged from a child's joyful "Wow!" to expert praise for the quality of execution.**

Aurelium entered trial operation in December 2015 and was officially opened on November 7, 2016. Since then, it has welcomed tens of thousands of visitors.

More information: **www.sciencemodels.info**

more info:



KVANT team excursion to Aurelium

KVANT

WE ARE THE MOST INNOVATIVE COMPANY OF 2014

On November 11, 2015, our company took part in the **"Diamonds of Slovak Business"** event, organized in cooperation with Forbes Slovakia and Enterprise Investors. It was the seventh annual edition of this competition, which recognizes the business achievements of Slovak companies.

KVANT was selected as the **"Most Innovative Company in the Small and Medium Enterprises category."** During the award ceremony at the DoubleTree by Hilton Hotel in Bratislava, company directors **Ľubomír Mach** and **Pavol Kubošek** received this prestigious award.

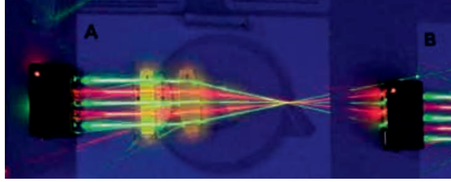
The winners were chosen **from more than 100 companies** across all regions of Slovakia.

As Forbes wrote:

"It's the story of two scientists who built a company with million-euro revenues. Their firm, KVANT, has become one of the world's best-known brands in laser manufacturing. Pop stars such as Justin Timberlake and Katy Perry use their lasers for concert shows. But the Bratislava-based company has an even broader scope – it also develops forensic systems for criminal investigations, and recently presented its warning laser system to the London police."

(continued in Forbes magazine, 10/2015 – see QR code)

Forbes 10/2015:



KVANT

BUILDING THE RESEARCH CENTER OF THE UNIVERSITY OF ŽILINA

Construction of the Research Center and University Science Park of the University of Žilina.

In 2015, our company became the main supplier of laboratory and research equipment for the Research Center, as well as the supplier of **several technological systems for the Science Park of the University of Žilina.** This project was preceded by competitive dialogues and design competitions, which were ultimately canceled.

Thanks to our active participation in the previous stages, we succeeded in winning the public procurement for the delivery of technological infrastructure worth more than **15 million EUR — the largest single contract in KVANT's history up to date.**

The project was led by **Ivan Šlesarik** on behalf of KVANT, **and by Professor Branislav Hadzima, the first director of the Research Center,** on behalf of the client.

The main research areas of the University of Žilina's Research Center are those in which the university has established excellence within the EU and plays a significant role internationally.

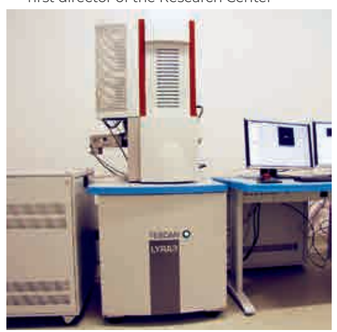
These include transport and traffic engineering (with an emphasis on management, operation, new materials, and construction), mechanical engineering, and intelligent systems, such as the control of smart buildings and renewable energy technologies.

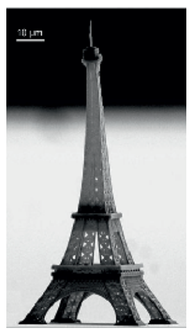
Minister of Education Juraj Draxler

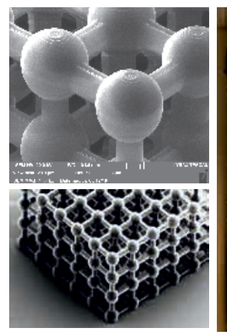
In the center: Professor Branislav Hadzima, first director of the Research Center

Road diagnostic measurement vehicles

Newly built Research Center building

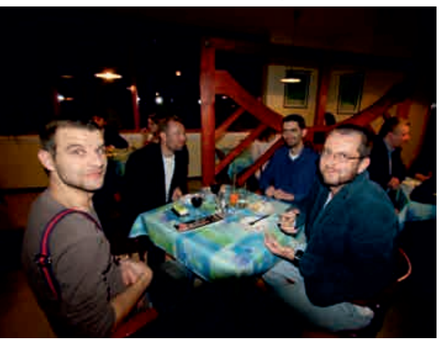


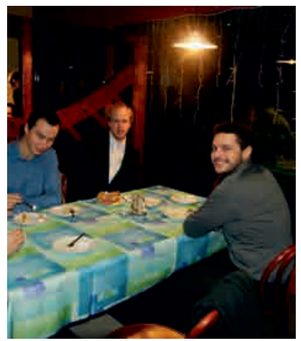




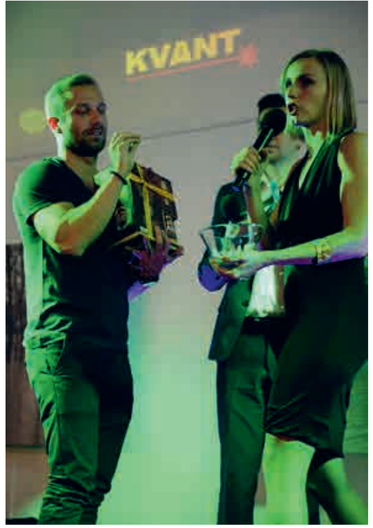
2015

On November 23, 2015, on the occasion of our company's 20th anniversary, we gathered together with our employees and business partners to celebrate at a theatre performance by the Radošina Naive Theatre titled "Mixed Doubles."

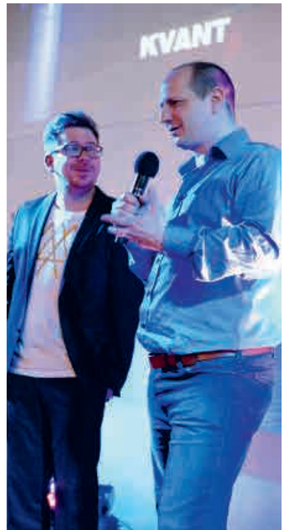




2015



Christmas Party 2015



KVANT VISION SYSTEMS

DEVELOPING A ROAD LASER SCANNER

This development project brings **high-precision, fast measurement of road profiles**, even at highway speeds.

In cooperation with the **Research Centre of the University of Žilina, KVANT** developed a scanning system for high-accuracy transverse road-profile measurements. The system can scan roads up to **4.2 m** wide at highway speeds while suppressing the effects of ambient light.

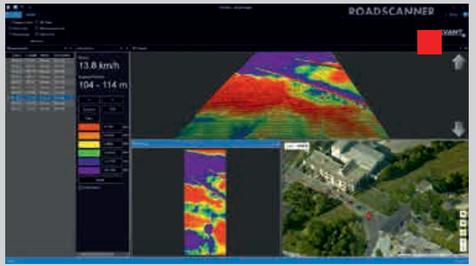
The device is designed for **mobile, high-capacity, non-contact measurement of road surface profiles** with the precision required for determining the International Roughness Index (IRI).

RoadScanner measures road profiles in motion, in high resolution, and compensates for the vibration of the measuring beam using gyroscopes and accelerometers.

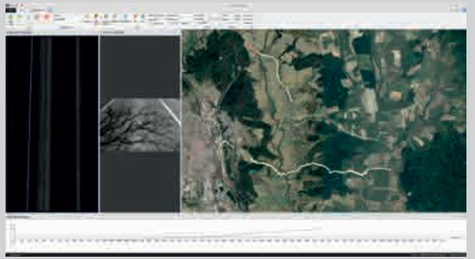
The system detects ruts, measures their depth, and calculates the theoretical water-retention depth. Measurement results are immediately available to the operator via a touchscreen interface during operation.

The system is ideal for **road-section monitoring, surface-quality evaluation, and road-network mapping.** As part of surface-marking inspections in **Upper Austria**, we measured and analyzed more than 10,000 kilometers of horizontal traffic markings.

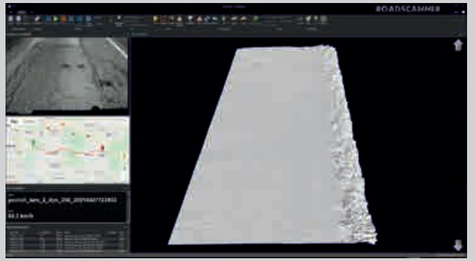
video:



RoadViewer



Screenshot from the DRS – Viewer application



Screenshot from the DRS – Grabber application

www.roadscanner.sk
www.visionsystems.sk

ŠKOLA.SK S.R.O.

We were established in **2016** as a natural result of the **diversification of activities** of our parent company, **KVANT s.r.o.**

We took over not only the well-known website www.skola.sk, trusted by **teachers and educators for more than a quarter of a century**, but also the entire **retail division** dealing with **educational aids, didactic technology, school furniture, and laboratory equipment** for primary and secondary schools across Slovakia.

Our team brings together over **100 years of combined experience** in the field of educational tools and didactic technology.

We're a diverse mix of **physicists, teachers, technicians, scientists, creatives, IT experts, graphic designers, and yes, even a few workaholics**. We love using modern **virtual technologies** and understand their purpose and value. At the same time, we believe that **children, in their journey of exploring the world and discovering the laws of nature, need to touch, taste, smell, hear, and feel**. To see and try things for themselves. That's how true understanding and lasting knowledge are built.

That's why our motto is: **SEE + TRY = UNDERSTAND.**

www.skola.sk

ONE TEAM TOGETHER

Every autumn, the gates of the **INCHEBA exhibition center** open to visitors and at our booth we welcome them with the **latest selection of didactic technology, educational tools, and teaching innovations**.

WE PARTICIPATE IN THE PEDAGOGIKA – BIBLIOTEKA FAIR

2016-2025

This period was marked by the “COVID break” between 2020 and 2022.

In the subsequent years, we regularly participated in exhibitions and our booth was always a guarantee of **100% product quality and 52% beverage quality**.

WE PARTICIPATE IN INTERNATIONAL DIDACTIC FAIRS

KVANT®

WE ARE PART OF THE EUROPEAN RESEARCHERS' NIGHT

2016 – "The Heart and Mind of Slovak Science" Since our hearts beat for science and our minds are always coming up with new ideas, our **stand and laser show** were a must.









2017 – "Research That Changes the World"

2018 – "The Researchers Within Us"





2019 – "What If We Could" — without a doubt, our best exhibition yet

2023 – no motto this time, combined with the White Night event

Science fair – Science and technology week

DIDFYZ (DIDACTICS OF PHYSICS CONFERENCE)

Student science conference

Physics olympiad

SUPPORTING NON-PROFIT INITIATIVES

Astrofilm

ITAPA - HEALTHCARE

Summer science camp at Zelená voda

Partnership with the KIA foundation

SEA – AGENCY FOR EDUCATION AND SCIENCE

We are a civic association that has been active since its founding in 1993 in the field of supporting education, science, and research.

Since 2016, we have been actively involved in a number of exciting scientific projects, focusing on the popularization of science and research and their connection with real-world practice. At the same time, we provide support to schools in developing modern and innovative education and help them build stronger links with industrial practice.

Our vision is a modern society open to innovation, new ideas, and creativity, a society that values the contribution of new trends and creative solutions and knows how to apply them effectively in everyday life.

Our mission is to bring new solutions and to support:

- **education and lifelong learning initiatives**
- **science and technology**, and their integration into practical applications
- **scientific and research projects** in both the natural and human sciences
- **artistic activities** and the **public presentation of artists**
- **events promoting a healthy lifestyle**, sports, personal development, and balanced living

Our goal is to contribute to the development of **modern, innovative education**. We help schools **obtain funding through grants, projects, and public calls**. We are strong advocates of **interactive and engaging learning**, appealing to both children and adults. By organizing various **competitions for children and youth**, we foster creativity, personal growth, and curiosity.

At the same time, we also work to **make science, technology, and research more visible and accessible**, emphasizing their role in practice. Our aim is to **encourage activities that inspire young people** to explore both the natural and human sciences.

What we do:

- Organize **educational programs, workshops, lectures, and seminars**
- Provide **consulting and advisory services**
- Offer **project management** support
- Cooperate with **public institutions, independent organizations, and foundations** both in Slovakia and abroad
- Engage in **publishing activities**, supporting talented authors and their work

www.avv.sk

ONE TEAM TOGETHER

2016

CREATING THE FESTIVAL OF LIGHT

Our capital city experienced three unforgettable nights, during which **Bratislava's most iconic landmarks came alive with the magic of myths, fairy tales, and legends.**

From September 22 to 24, 2016, Bratislava lit up with a Festival of Light that united science, art, and technology into a unique experience for everyone.

The goal of the festival was to create a sustainable format that combines contemporary art, science, and technology with added value for the city and its visitors.

This ambitious European project, connecting science and art while supporting young talents, held its second edition in Bratislava. The festival was organized by SEA, with KVANT spol. s r.o. and the International Laser Centre as main partners. During evening walks through the city, historic buildings and squares came to life thanks to light installations using cutting-edge technologies.

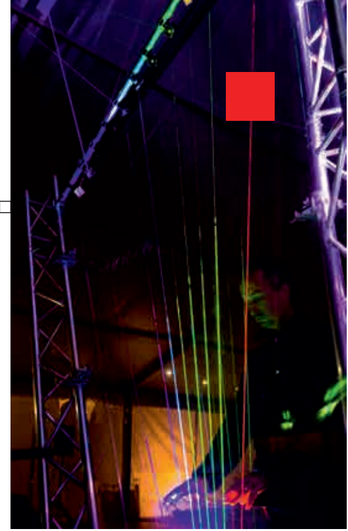
The Festival of Light was created for residents and visitors alike, highlighting the importance of photonics (the science and technology of light). The installations offered immersive experiences, interactivity, and artistic expression, while also showcasing innovative companies. The stories told through light drew inspiration from ancient legends and modern tales. Among the installations were: **The Cosmic Beacon, The Spirit of Pressburg, The Heart of Bratislava, The Danube Queen, The Gateway to Imagination, Touch the Stars, and Alice in Wonderland.**

All installations can be viewed on the festival's website: **www.festivalsvetla.sk.**

We extend our heartfelt thanks to **all colleagues, experts, and partners** who made this remarkable project possible.

more info:






2016-2019

SEA Science and Education Agency KVANT

SUPPORTING THE H2GP HYDROGEN CAR RACING CHALLENGE

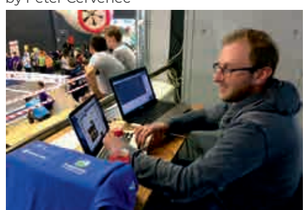
The Hydrogen Horizon Automotive Challenge is an international educational initiative for high schools, designed to teach students about renewable energy, sustainability, and STEM through hands-on experience.**In cooperation with Horizon Educational, KVANT spol. s r.o.** proudly supported the organizer, the SEA Agency, throughout four editions of the international hydrogen RC car racing competition.The godfather of the races was our colleague **Braňo Hlinka,** for whom model cars were a lifelong passion. **The first Slovak race took place at Aurelium in 2016. In March 2018, our team visited Sacramento,** USA, for inspiration, and later that year, another national round was held again in Aurelium, Bratislava, with 20 competing schools. The finalists came from Košice and Bratislava.In April 2019, Aurelium hosted the Horizon Grand Prix, where 10 teams competed for victory. The champions were the "Kysuce Engineers" and their success was determined not by speed, but by performance, reliability, and endurance. **At the World Finals in Prague, Slovak teams achieved the best ranking among all European schools.**

They wrote about us:

HORIZON GRAND PRIX SLOVAKIA

In the center: Braňo Hlinka

Speed measurement by Peter Červenec



Even race cars need models

WE ORGANIZE THE INTERNATIONAL CONFERENCE ON 3D MEASUREMENT

The non-profit organization **SEA – Science and Education Agency**, in cooperation with **Vision Systems spol. s r.o.** and **KVANT spol. s r.o.**, has organized four editions of the **International Conference on 3D Measurement and Imaging**. The conferences were held at the headquarters of KVANT spol. s r.o. in Bratislava at Odborárska 21.

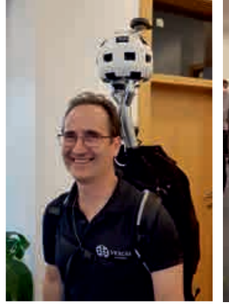
The international conference focused on 3D measurement and imaging technologies, offered participants insight into the latest trends and innovations in this rapidly developing field. Presentations introduced various physical principles and measurement techniques from leading global manufacturers, accompanied by practical demonstrations and the opportunity to try selected devices firsthand.

We look forward to the next editions of the 3D Measurement and Imaging Conference.

More information can be found at:
konferencia3d.avv.sk

Proceedings:

▲2016 - the first year of the conference of a new tradition
▼2017 - the second year of the conference,
lecture by Dušan Chorvát from the ILC



▲2018 - the third year of the conference
▼2019 - the fourth year of the conference

Water festival, Ecological act of the year, Danube day

Competitions: “I know what I'll be” and “Young Filmmaker”

WE ARE PARTNERS IN EDUCATIONAL PROJECTS

FAIRY TALES ABOUT LITTLE JULKA
by Bibiana Ondrejková,
illustrated by Veronika Gabčová, 2016

LUNCH WITH A DRAGON
by Anna Kiliánová, 2014

THE MESSAGE FROM WATER
by Masaru Emoto, 2015

DIALOGUES WITH THE SOUL
by Petr Hanuliak, 2015

SEVEN COLORS OF THE RAINBOW
by Miroslava Atanasová, 2013

Fund for the support of talented authors

Videos of Young Filmmakers

Download:

International fair of training companies

Presentation at Slovakia Tech Expo

Young people, let's not be afraid to do business

Let's bring clusters to schools

CELEBRATING THE INTERNATIONAL DAY OF (QUANTUM) CHILDREN TOGETHER

The Children's Day celebration in Harmónia has become not only a **joyful event for kids**, but also a **symbol of togetherness for the entire KVANT family.**

The International Children's Day has grown into a beloved tradition at KVANT. Since 2016, employees and their families have gathered almost every year at Penzión Harmónia in Modra to celebrate this special day. The only exceptions were the pandemic years, when the event couldn't take place.

The goal has always been to create an unforgettable day full of games, discovery, and adventure. A time for children of our colleagues to enjoy moments with their parents and friends outside of work. The event connects families, encourages creativity, playfulness, and the joy of movement.

We meet each June, usually during the first weekend after Children's Day. The Harmónia guesthouse offers the perfect setting with a meadow for games, activity stations, and plenty of space for shared fun and relaxation.

Every edition has had its own unique theme: from the Kingdom of Harmónia (2016), to Fortress Quest (2017), a Fairy Tale with Dwarfs and an Ecological Message (2018), Searching for Forest Elves (2019), and finally Pirate Adventures with Hidden Treasure (2022). Children received a map or a task card and completed sports, creative, logical, and eco-friendly challenges. Activities included archery, rope climbing, workshops, tower building, face painting, nature experiments, and fun games for the youngest, like a ball pit or bouncy castle.

For each completed task, they earned clues, stickers, or "eco-stones" and, at the end, received diplomas, medals, and small gifts. The day always concluded with a barbecue and free entertainment.

Every year has been praised as a great success, with attendance growing from 40 children in 2016 to over 60 in 2022.

KVANTOVINY SPECIAL:


2017


2017


2022


2017


2022

Special thanks go to **Mirka Atanásová, Miška Barta Reichelová, Miška Šlesariková,** and **Veronika Bartošová** for their creativity and dedication in preparing the children's programs and atmosphere for each event. Our warm thanks also go to **Angelina Machová** for creating the welcoming environment at Penzión Harmónia, where we always feel right at home.


2018


2018


2019

SEA Science and Education Agency KVANT®

CREATING THE "KNOWLEDGE ISLANDS" PROJECT

A beautiful interactive project tailor-made for the VW Foundation, bringing a digital world full of science, technology, and fun to a hundred schools across Slovakia.

At the beginning of 2017, the **SEA Agency (www.avv.sk)** was approached by the VW Foundation to collaborate on a project initially titled **"Knowledge Island."**

The goal was to support 100 primary schools by providing internet access and digital educational content in the fields of traffic education, physics, technology, ecology, German language, and career guidance presented in an engaging and interactive format with competitive quizzes.

The technical solution was developed by KVANTspol. s r.o., which designed and produced kiosks with touchscreen displays accessible even to younger children and wheelchair users. The digital content included educational software such as Beňuška's Physics, German Language, Traffic Education, and Career Guidance. **But it still wasn't quite what we had envisioned... So, we created an animated "Knowledge Island",** where users could click on marked points to access over 750 fascinating facts across all subjects — connected to real-world applications, environmental impacts, home experiments, videos, and other engaging content, all of which could be tested and tracked interactively.

The results: 100 kiosks, 300 computers, 5,388 lower-grade pupils tested, 8,356 upper-grade pupils tested, 31,445 completed tests, 442,000 answers submitted (The fastest test lasted 1 minute and 3 seconds — probably Chuck Norris :)).

The creative team behind "Knowledge Islands": Bea Zbiteková, Miška Barta Reichelová, Miška Šlesariková, Peter Červenec, Tomáš Schejbal, Marek Švirec, Juraj Krasňanský, Tomáš Močko, Majka Hagarová, Stano Vdoviak, and several external collaborators.

More at **www.vedomostne-ostrovy.sk.**

Media coverage:

▲Press conference and project launch – August 17, 2017, Goethe Institute

▼Training session for teachers from participating schools

▼Award ceremony at the Aurelium Science Experience Center

SEA Science and Education Agency KVANT

TRAVELING TO MADAGASCAR WITH THE "KNOWLEDGE ISLANDS" PROJECT

Ending the project with **an expedition to an island with "a touch of Slovak history"** was the perfect finale.

The continuation of the Knowledge Islands project for the Volkswagen Foundation culminated in a **competition for creating digital educational topics**. The award ceremony took place in June 2019 at Hrebienok in the High Tatras. The creators of the three best topics didn't know until the very end who would win **the grand prize – a study trip to Madagascar, the home of the project's mascot, Lemur Emur. The winner was teacher Renata Mariničová from Stará Kremnička Primary School**, who received 185 votes.

The idea to end the project on Madagascar came about, as most great ideas do, by a stroke of luck. Bea happened to hear a radio interview with **Anežka Boriová**, a Slovak philanthropist who had built a school in Madagascar. Since our project already featured a lemur in its logo, the connection was instant. As soon as Bea and Anežka joined forces, it was clear where the project's journey would conclude.

Our expedition also had a deeper purpose: thanks to our project partners, Volkswagen Foundation and KVANT, we brought ten suitcases filled with educational materials and gifts for the children at Anežka's school. And what we experienced there was truly unforgettable.

With **Anežka's** boundless energy, **Father Vladimír's** warm charisma, and **guide Richard's** care, we safely ventured to places untouched by tourism, saw wild lemurs, visited villages plunged into complete darkness after sunset, tasted zebu and Dzama rum, and learned what it truly means to live by the Malagasy motto "MORA-MORA" – take it slow.

More about the expedition: **madagaskar.avv.sk**

From the Kvantoviny newsletter:

▲Renáta Mariničová, winner of the grand prize

▲Winning school: Stará Kremnička Primary and the Knowledge Islands team

WE SUPPLY EDUCATIONAL EQUIPMENT IN IROP PROJECTS

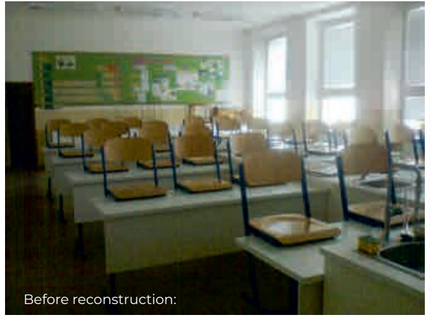
The IROP (Integrated Regional Operational Programme) projects began to take shape in 2017, drawing inspiration from our earlier national projects Workshops 1 and 2, which helped to establish the standards for equipping specialized classrooms in Slovak primary schools. At the beginning, we supported schools by preparing hundreds of project budgets. These were gradually evaluated in 2018 and onwards, and by 2019, successful schools began procuring their equipment. What followed was a five-year effort, during which we delivered educational tools and materials to more than 700 primary schools across Slovakia. To handle the volume, we set up an additional warehouse for packaging and dispatching teaching kits, involving an average of 25 team members.

All of this happened during the challenging period of the COVID-19 pandemic. In terms of scale and logistics, it was one of the largest projects ever realized by our UP, TE, OP, and EV departments. **IROP in numbers: 277,861 individual items, 78,378 assembled sets, 48,843 working hours, 52 people involved.**

And of course — **every great project deserves a proper celebration!**

SUPPLYING EQUIPMENT FOR THE IT ACADEMY PROJECT

The IT Academy was a national initiative organized under the auspices of CVTI SR (Slovak Centre of Scientific and Technical Information) in cooperation with several partner universities: Pavol Jozef Šafárik University in Košice, University of Žilina, Matej Bel University in Banská Bystrica, Technical University of Košice, and Constantine the Philosopher University in Nitra. Its goal was to prepare young people for the needs of a modern, knowledge-based society and job market, with a focus on informatics and ICT. KVANT participated in the project by delivering equipment for the IT ScienceLabs at 99 locations across Slovakia. The first deliveries began just before Christmas 2018, and the final shipments were completed in March 2019. Among the supplied technologies were meteorological stations, designed and manufactured by our colleagues **Michal Hančák, Peter Lakomčík, and Martin Guldan.** In total, 87 units were produced and distributed to participating primary schools, grammar schools, and selected universities.


Before reconstruction:

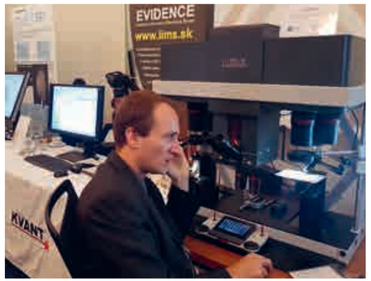

After reconstruction:

Besides work, it is also necessary to relax and strengthen team spirit.

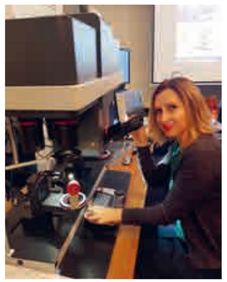
THE WAREHOUSE AT ODBORÁRSKA 21

For some colleagues, it was a virtual concept — for others, a very real daily experience. On the second floor, **Aďa Fhima, Jožko Tóth, Miňko Štefunko**, and many others took turns managing an intense workflow: checking and labeling materials, assembling teaching kits, packing pallets, and loading shipments onto trucks.

A steady stream of couriers kept everyone on their toes, demanding **patience, precision, and plenty of improvisation.** And as for the **school deliveries, Marián Dubina** could tell countless stories about those journeys...



OUR PARTICIPATION IN FORENSIC SCIENCE CONFERENCES



KVANT

WE SUPPLY ELECTRON MICROSCOPES

We have been cooperating with Tescan as the exclusive distributor for Slovakia since 2010. Our most significant clients include university departments, institutes of the Slovak Academy of Sciences, as well as industrial companies that use electron microscopy for laboratory quality control.

In addition to the electron microscope itself, we supply a wide range of related detectors — EDX systems for chemical analysis, XRF solutions for elemental analysis, and many others.

Our advantage is the provision of professional service and support, delivered by our colleagues **Michal Roščák** and **Filip Marcell**.

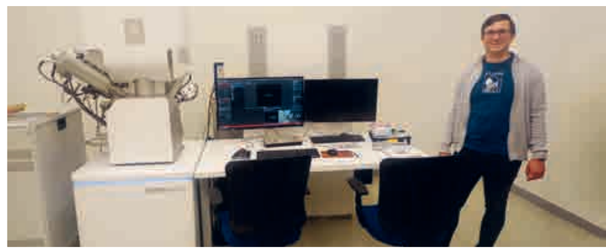
WE WOULD LIKE TO EXPRESS OUR GRATITUDE TO **BOHUŠ BOHUNICKÝ**, **MICHAL ROŠČÁK**, **JOZEF HORVÁTH**, **MIKULÁŠ KEVÉLY** AND MANY OTHER COLLEAGUES FOR BUILDING A STRONG REPUTATION FOR OUR COMPANY AS A RELIABLE SUPPLIER OF ELECTRON MICROSCOPES.

Our clients in Slovakia:

VEGA II LS – Alldeco (2005)
VEGA II LMU – University of Žilina, Prof. Palček (2007)
VEGA II SBH – FMFI UK Bratislava, Paľo Ďurina (2008)
VEGA II XMU – Volkswagen Bratislava (2008)
VEGA 3 SBU – Slovak University of Technology, Bratislava, Mr. Pavlík (2015)
VEGA 3 SBU – Saneca Hlohovec (2011)
VEGA 3 SBU – FPT Púchov (2015)
VEGA 3 XMU – Schaeffler Kysucké Nové Mesto (2015)
VEGA 3 XMU – Institute of Materials and Machine Mechanics SAS, Žiar nad Hronom (2015)
VEGA 3 SBU – Hengstler Kežmarok (2010)
VEGA 3 XMU – Pavol Jozef Šafárik University in Košice, Mr. Komanický (2012)
VEGA 3 LMU – Institute of Experimental Physics SAS, Košice (2013)
VEGA 3 XMU – U.S. Steel Košice (2015)
VEGA 3 XMU – Marelli Kechnec (2018)
VEGA 3 LMH – Heneken Spišské Vlachy (2019)
LYRA 3 XMU – FMFI UK Bratislava, Leonid (2011)
LYRA 3 XMU – University of Žilina, Prof. Pudiš (2015)
MIRA 3 LMU – Institute of Geotechnics SAS, Košice, Prof. Briančin (2012)
MIRA 3 XMU GSR – Academy of the Police Force in Bratislava (2016)
SOLARIS GMU (G4) – Faculty of Materials Science and Technology, Trnava (2023)
VEGA Compact LMH (G4) – Faculty of Natural Sciences, Comenius University, Bratislava (2025)

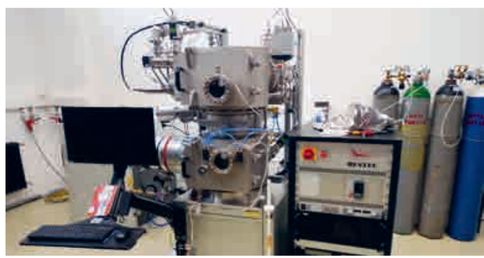
Electron microscope MIRA 3 for the Academy of the Police Force, Department of Chemistry, used for gunshot residue analysis, equipped with EDX and XRF detectors ▼

Michal Roščák performing maintenance



FIB–SEM TESCAN SOLARIS microscope – MTF STU Trnava, used for high-resolution depth analysis. Combines SEM and FIB technologies. In the photo: Zoltán Száraz

▲ Working in a clean environment is an essential condition for successful service



Vacuum coating systems are often a part of laboratory equipment

KVANT VISION SYSTEMS

DEVELOPING A LASER SCANNER FOR ROAD TRAFFIC

The development of the **Laser Traffic Scan** system originated from the need to categorize passing vehicles. Using the principle of laser profilometry, the system captures a large number of vehicle cross-sections and creates a precise 3D model of the vehicle. It allows for the determination of vehicle length, height, axle count, and other required parameters.

An additional feature is the measurement of vehicle speed based on laser distance sensing. The entire system is optimized to capture and process moving objects with the highest possible accuracy.

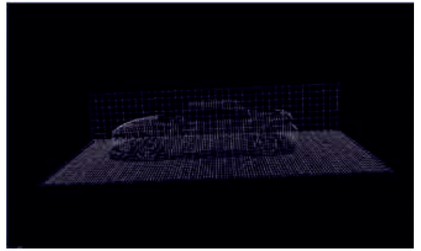
DEVELOPING A LASER TRAFFIC COUNTER

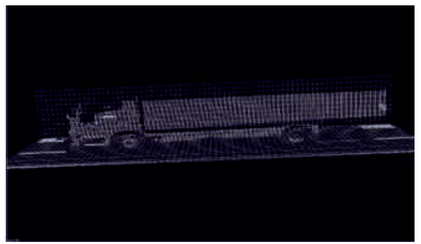
The Laser Traffic Counter is a unique autonomous measuring device powered by a $LiFePO_4$ battery and operating on an optical principle, outperforming traditional radar-based systems in many aspects. Controlled power consumption and infrared illumination management ensure long-term and efficient operation even in poor visibility conditions and all weather conditions.

The device is fully autonomous and designed for easy, yet secure installation. It includes tilt sensors, vibration detectors, and a tamper sensor, all connected to a GSM module that sends alerts to the control center when necessary.

Key features of the Laser Traffic Counter system:

- *Traffic statistics for monitored road sections*
- *Instantaneous speed measurement*
- *Average (section) speed measurement*
- *Vehicle type recognition*
- *Detection of specific, pre-selected vehicles*
- *Online traffic monitoring*
- *Road usage analysis*





KVANT

CELEBRATING THE 160TH ANNIVERSARY OF AUREL STODOLA'S BIRTH

We paid tribute to this world-renowned scientist and pioneer of steam and combustion turbine theory through our mobile science exhibits.

In 2019, **a cultural and educational event was held in Liptovský Mikuláš to honor Aurel Stodola,** a long-time professor at the prestigious Swiss Federal Institute of Technology in Zurich (ETH Zürich), mentor, and close friend of Albert Einstein.

Alongside presentations from invited guests, **two floors of the local shopping center were transformed into a lively science space filled with interactive exhibits** created by KVANT. With the enthusiastic help of local students, we built a vibrant atmosphere that drew visitors of all ages eager to explore, experiment, and learn through play.

The event, titled "Genius Park," aimed to not only commemorate this extraordinary scientist, but also to entertain and inspire through hands-on science.

The most popular attractions, as always, included our reaction-based exhibits and the air cannon. But visitors were also fascinated by the **levitating light bulb, infinity loop, laser harp, and labyrinth, which captured the imagination of both children and adults.** Others tested their knowledge of electrostatics, **engine mechanics, Gaussian distribution, and balance principles.**

Once again, we proved that science is never boring — when it can be experienced and explored directly, it becomes colorful, enriching, and endlessly inspiring.

More Information:

Peter Fock and his air cannon drew everyone's attention

Aurel and Albert

Magical Physics with Michal Figura – always a spectacle

Coincidence
or Gaussian distribution?

Finding your way out of the maze
(and answering correctly!)

City representatives
and the piston engine demonstration

An unforgettable meeting

Ivan Šlesarik with Žilina University
rector Jozef Jandačka

David Trandžík explaining
the importance of science popularization

Demonstration of a piston engine
powered by air pressure

2019

KVANT

OPENING
THE KVANTARIUM AT HREBIENOK

The entire exhibition is magical, artistic, playful, physical, and scientific all at once.
It's more than just an exhibition; ***it's an unforgettable play of light.***

What was once only a bold vision prefaced with the word "someday" became reality at the beginning of 2019 **we opened the first permanent exhibition dedicated entirely to light, the KVANTARIUM.**

The exhibition was created in the renovated left wing of the former Hrebienok Hotel, where art, science, and modern technology come together across eight rooms to form an experience that is both captivating and educational.

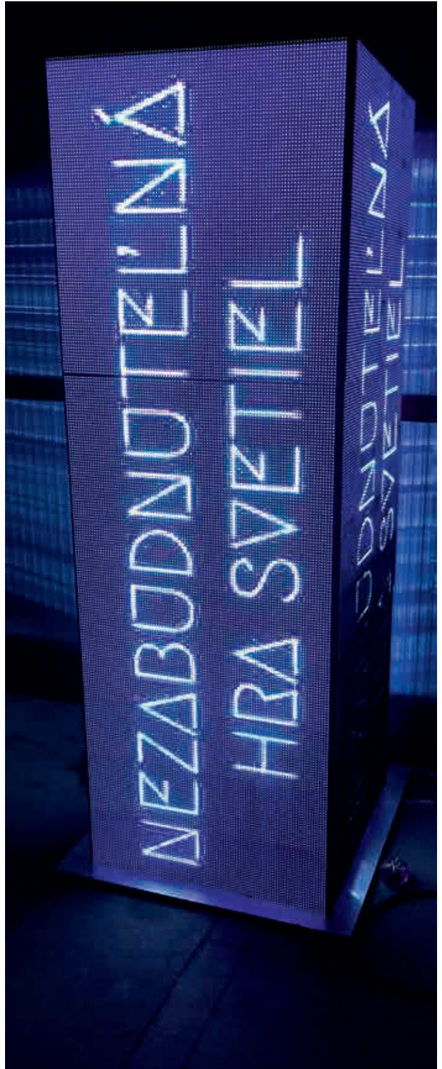
Kvantarium is an interactive science and entertainment center for children and adults alike, where visually stunning exhibits help visitors grasp the beauty of physical phenomena. The tour has a fairy-tale atmosphere to engage younger visitors while still offering a sense of discovery for adults.

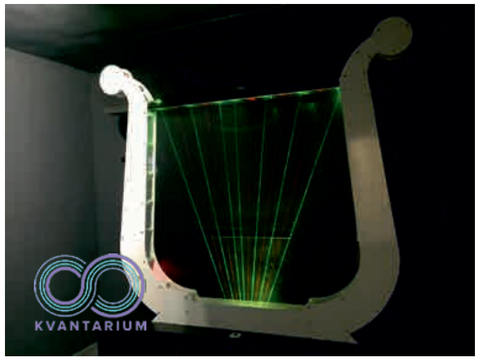
Many of the exhibits were custom-designed specifically for this installation. Each room provides a unique sensory experience, and together they form a truly unforgettable atmosphere.

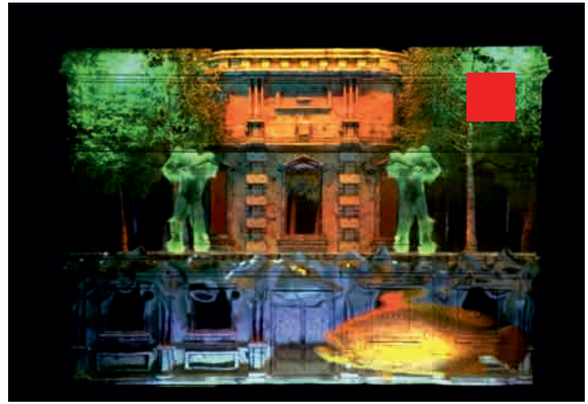
Main attractions: **Laser Show** – a symphony of beams and sound; **Drawing with Light** – creating art with trails of light; **Videomapping Show** – storytelling projected onto real-world objects; **Interactive Sandbox** – blending play and projection; **Laser Harp** – a musical instrument played by light beams; **Science Room** – hands-on exploration of physical phenomena.

Kvantarium is the fusion of scientific inspiration and artistic creativity – a space where knowledge transforms into experience.

video:







VISION SYSTEMS S.R.O.

We have **many years of experience** in **quality control, automation**, and the **development of software and hardware solutions**. Since **1995**, we have operated as part of **KVANT s.r.o.**

In **2019**, in agreement with KVANT's management, we decided to establish our **own independent brand – Vision Systems**, focusing on the **field of quality control**.

Over the years, we have successfully completed numerous projects across a **wide range of industrial sectors**. Our team consists mainly of **young professionals** driven by their **passion for technology and innovation**. It brings together **experienced software developers, camera and lighting system specialists, electrical and mechanical designers**, and **technical engineers**.

Our company is **certified according to ISO 9001, ISO 27001,** and **ISO 14001**, ensuring **high process quality**, **environmental responsibility**, and **strong** information security. **Clients can rely** on our professional approach and our commitment to the **continually improving our services**.

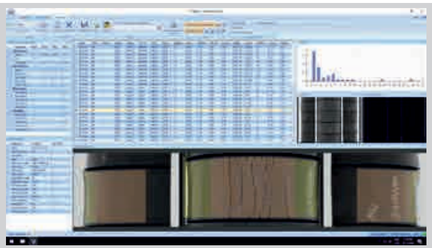
As part of our activities, we **distribute industrial profilometers** on the Slovak market, specifically the **Gocator series** from the Canadian company **LMI3D** (www.3dkontrola.sk). We also design and manufacture **custom-made profilometers** tailored to specific customer requirements. In addition, we distribute **industrial cameras and lenses** for industrial Solutions (www.priemyselne.kamery.sk).

By supporting our customers in automating processes and optimizing production, we help them achieve **measurable improvements in both quality and productivity**.

Our mission is to assist clients in implementing **the most advanced methods of non-contact 2D and 3D inspection**.

www.visionsystems.sk

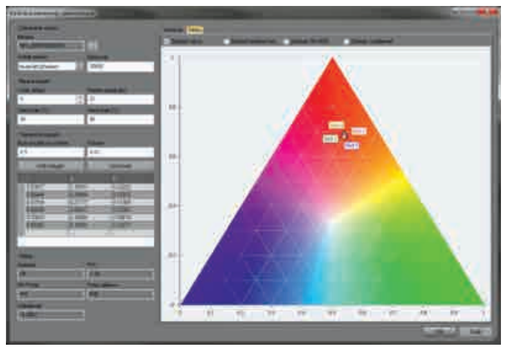
TOGETHER AS ONE TEAM



Detection and classification of cracks on rubber samples

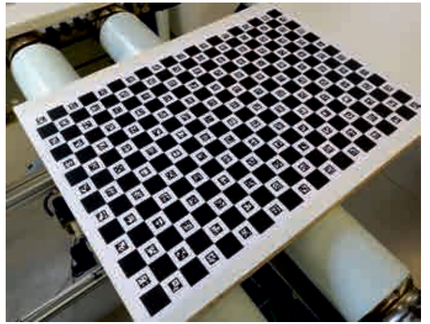
SNAPSHOT ANALYZER

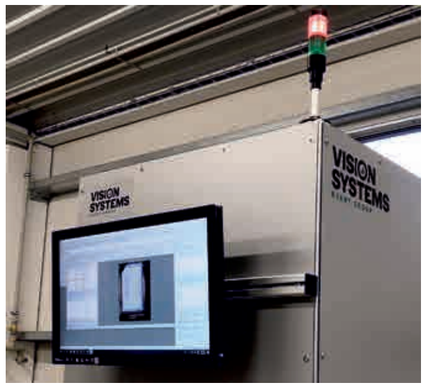
A universal software platform for industrial camera applications, built on a modular plugin architecture that enables rapid development of specialized solutions for production control and product analysis.

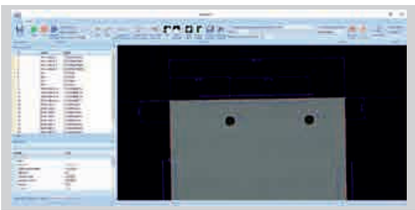


FURNITURE PANEL INSPECTION SYSTEM

A camera-based system that automatically inspects the dimensions, positions, and quality of holes and grooves in furniture panels with an accuracy of hundredths of a millimeter, instantly detecting manufacturing deviations and defects.







INNOVATIVE SOLUTION FOR DETECTING FALLEN AMPOULES

An intelligent camera system that continuously monitors the movement of ampoules on a vibrating conveyor, reliably identifies fallen pieces, and thus improves safety, continuity, and efficiency in pharmaceutical production.

VISION SYSTEMS KVANT

LASER NAVIGATOR

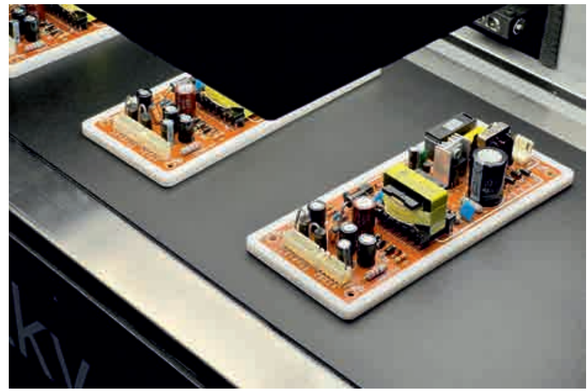
A high-precision laser system that projects a wall template directly onto the production surface according to architectural blueprints including the exact positions of doors, sockets, and switches.
This solution significantly speeds up and simplifies the manufacturing of prefabricated houses. The system is also supplied for positioning assembly components in the automotive industry.

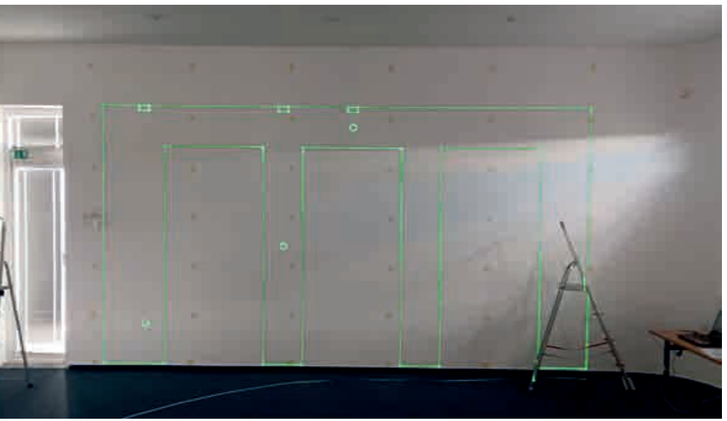
Installation of laser navigators in a production hall

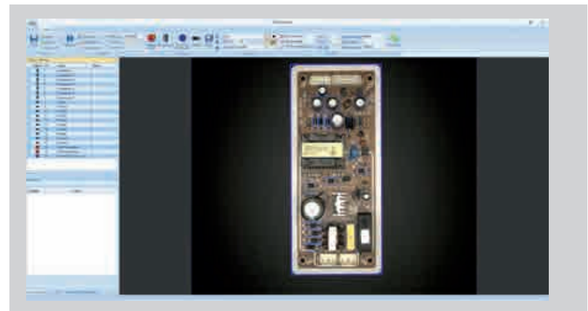
Presentation of our innovative solutions at the AMPER exhibition in Brno

AUTOMATED PCB INSPECTION SYSTEM

An innovative solution for automated visual inspection of printed circuit boards (PCB) that combines a video magnifier, inspection table, and online conveyor-based inspection module to ensure 100% accuracy, speed, and reliability in real-time quality control.







VISION SYSTEMS

DEVELOPING TESTERS FOR AUTOMOTIVE INTERIOR LIGHTING INSPECTION

In August 2019, we were awarded a project to design and build inspection testers for interior lighting components of a new Audi vehicle model. **The goal was to develop five EOL (End of Line) testers within six months, located in the dashboard, door panels, and side sections of the center console, each designed for a different illuminated component.** The task included mechanical design, electrical and pneumatic integration, and complete assembly and commissioning of the testers.

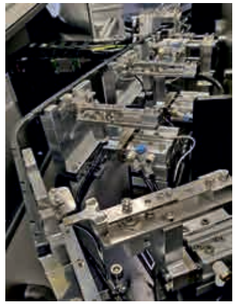
By 2025, under the leadership of **Peter Varga**, the team successfully delivered **39 testers**, not only for Slovak manufacturers but also for international clients.

Our customers value the exceptional quality of our products. In August 2023, team members **Juraj Solčáni, Walter Pörsök,** and **Marcel Schichman** traveled to Monterrey, Mexico, to install seven testers designed for interior lighting inspection of VW Tayron and VW Taos vehicles for the North American market.

AJP Journal:

WHAT IS AN EOL (END OF LINE) TESTER?

An EOL tester is a device used to verify product functionality at the final stage of production. During testing, the system must simulate real-world operating conditions. In serial production, it must be quick, efficient, and reliable to ensure 100% quality assurance. Each component that leaves the factory has successfully passed the test and is labeled with a data matrix code, including the serial number and component version details.



▲ Unloading and installation of testers in Monterrey, Mexico
▼ From left: Marcel Schichman, Walter Pörsök, Juraj Solčáni

Farewell to Baška

Peter's 40th Birthday

Christmas Party

Farewell to Melinda

DELIVERING EXHIBITS FOR THE IQ MATHEMATIKUM IN LIBEREC

The assignment was clear: ***"Make mathematics attractive and bring it closer to young people through interactive exhibits."***

The project for the iQLANDIA Science and Entertainment Center in Liberec, Czech Republic, became one of our greatest challenges during the COVID-19 pandemic. It wasn't just a technical delivery – it was **a comprehensive process combining design, educational content, creative solutions, and precise execution.**

The first months were devoted to design concepts and consultations with the iQLANDIA team on how to transform mathematics into an engaging experience. We created visualizations, prototypes, and tested functionality and durability. Production in our workshops included mechanical structures, control units, and software. After the final inspection, the client remarked appreciatively: ***"We couldn't have designed it better ourselves."***

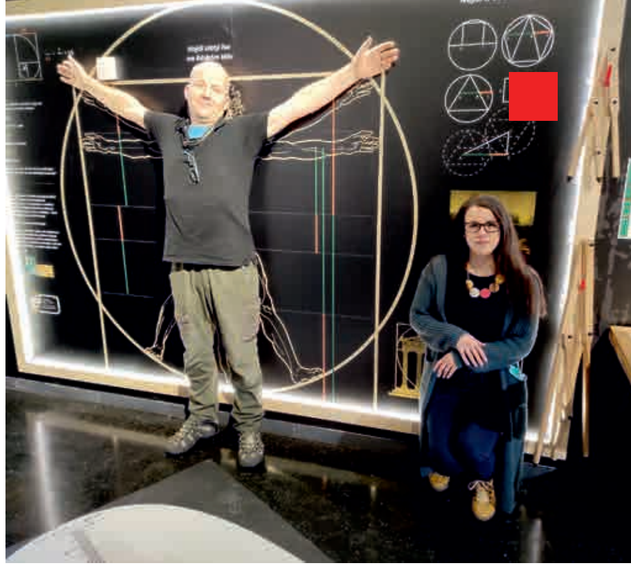
The most demanding phase came during on-site installation in Liberec. Dozens of exhibits had to be transported, assembled, and integrated into the infrastructure. The process required perfect coordination of multiple teams and often stretched late into the evening. The graphic and content design was just as important. Icons, text, and color schemes had to be clear, educational, and visually consistent with the exhibition's concept.

The exhibition opened on February 2, 2022. We delivered 68 exhibits connecting nature, history, architecture, art, and modern technology, proving that mathematics accompanies us at every step of life, and we transformed it into an interactive world full of discovery and challenge.

The project was brought to life by a diverse and talented team: **Ľubomír Mach** – creative vision, project management, and coordination; **Michaela Barta Reichelová** – mathematics and didactics wrapped in elegant graphic design; **Róberta Schmidtová** – 3D modeling and technical detailing; **Peter Fock** – construction and mechanical functionality; **Tomáš Schejbal** – software development and programming; **Dušan Chorvát**, external consultant – design and layout inspired by world science centers. Our sincere thanks also go to the iQLANDIA team for their cooperation and support throughout the project.

www.sciencemodels.info

more info:



Peter Fock and Michaela Barta Reichelová

KVANT

WE HELP TO SAVE LIVES THANKS TO THERMAL IMAGING CAMERAS

In **August 2022**, we delivered **120 thermal imaging cameras** to support the work of the **Fire and Rescue Corps** (HaZZ) during emergency operations. The project coordination and training were led by **Mikuláš Kevély**.

The cameras were supplied to **118 fire stations**, the **Secondary School of Fire Protection of the Ministry of Interior in Žilina**, and the **HaZZ Training Center in Lešť**.

These thermal cameras are among the **most advanced in the world**, offering **higher resolution, superior image and video capture**, and **enhanced performance** compared to earlier models. Firefighters use thermal cameras primarily to d**etect hidden fire sources, navigate through smoke-filled areas, identify heat radiation**, and **locate people** in smoke or complex terrain conditions.

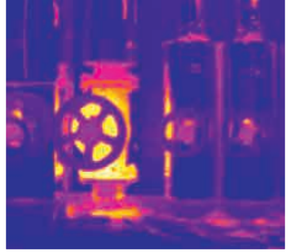
SUPPORTING THE VLADIMÍR RUŽIČKA FIREFIGHTERS' MEMORIAL

This memorial was established as a **tribute to Vladimír Ružička**, a distinguished Slovak firefighter and public servant. The event is a **competition held in his honor**, celebrating his dedication and service while promoting **firefighting traditions, commitment, and teamwork**.

The name **"Schody" (Stairs)** refers to one of the key disciplines, a stair-climbing challenge that tests firefighters' endurance and skill.

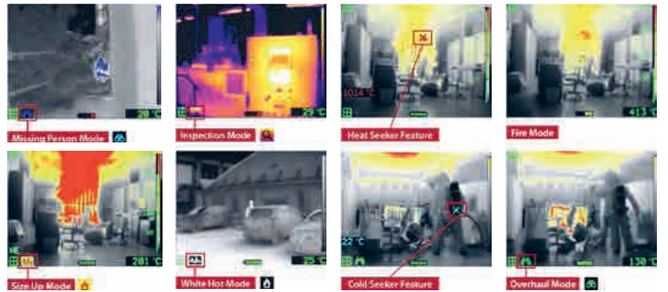
Each year, the **"Schody" race** takes place in a **different high-rise building**, symbolizing the courage and resilience of firefighters.

Our company **proudly supports this event every year**, with organization and coordination provided by **Mikuláš Kevély** and **Radoslav Mach**.



What else can a thermal camera do:

It detects infrared radiation (heat emissions), allowing users to identify overheating equipment, mechanical load on machines or bearings, fluid flow, faulty thermal insulation, or overheated electrical wiring.



KVANT

CREATING EXHIBITIONS AT THE ILAVA CITY MUSEUM

In **2022**, we successfully completed the **design and installation of the first-floor exhibition** at the **Ilava City Museum**, in collaboration with the creative duo **Martin Hraško** and **Jaro Pavle**, supported by the talented graphic designer **Christina Tabaková**.

The goal of the project was to **revitalize existing museum exhibits** focused on the **history of the town of Ilava and its prison**, and to connect them through **modern interactive elements**.

The result is a fascinating exhibition spread across **four rooms**, offering visitors an engaging overview of **Ilava's origins, history, and daily life**. Through the **Expoinfo application**, visitors can access additional information, while an **interactive quiz controlled by hand gestures** allows them to test what they have learned in a playful way.

IN THE FOOTSTEPS OF THE GREAT MORAVIAN SLAVS – EXHIBITION AT HOLÍČ CASTLE

If you've ever been interested in the history of **Great Moravia**, you may know that just across Slovakia's border lies one of the largest Great Moravian fortresses, near the village of **Mikulčice**.

During this project, our team learned much about this historical period while collaborating with our **contracted expert** and researchers from the **Archaeological Institute of the Czech Academy of Sciences in Brno**.

Together, we created an interactive **map of Great Moravia**, collected **lesser-known historical facts**, and thanks to **Norbert Végh**, captured **drone footage of Mikulčice and Kopčany**. We also developed **3D models of historical artifacts**, experimented with **Glagolitic script**, produced **stained glass replicas**, and even **reconstructed a conversation between Rastislav and Svatopluk**.

IMPLEMENTING THE "HISTORY OF TRNAVA" EXHIBITION

At the beginning of 2024, we completed a new exhibition for the **Western Slovak Museum in Trnava**, dedicated to the **history of the city**, from early settlement to the end of the **18th century**.

The exhibition is divided into **three chronological sections**, where visitors can explore a wide range of historical artifacts, such as a **copy of the 1238 town charter**, a **mayor's scepter**, or period weapons, while also interacting with **digital technologies**. These include touchless interactive screens, a projection model of the city, and a **digital book** that can be browsed with a simple **hand movement**.

This exhibition combines **traditional artifacts** with **modern presentation methods**, making the **rich and diverse history of Trnava** accessible to all visitors.

We extend our thanks for the realization of all three projects to **Jakub Kochan** and his **creative team**: **Miška Barta Reichelová**, **Robo Pleška**, **Tomáš Schejbal**, **Marián Dubina**, **Tomáš Močko**, **Filip Marcell**, **Peter Fock**, **Viťo Zákopčan**, **Marek Sabo**, **Evka Červencová**, **Peťo Benda**, **Miňo Štefunko**, **Róberta Schmidtová**, **Ľuboš Šaray**, **Juro Kopáni**, **Matej Kubatka**, and the **Mármotovci team**.





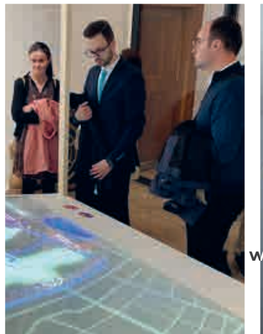


Opening of the exhibition by Mayor Zdenko Čambal and Ľubomír Mach










KVANT

IMPLEMENTING THE ACCORD PROJECT

ACCORD SCIENCE FOR FUTURE

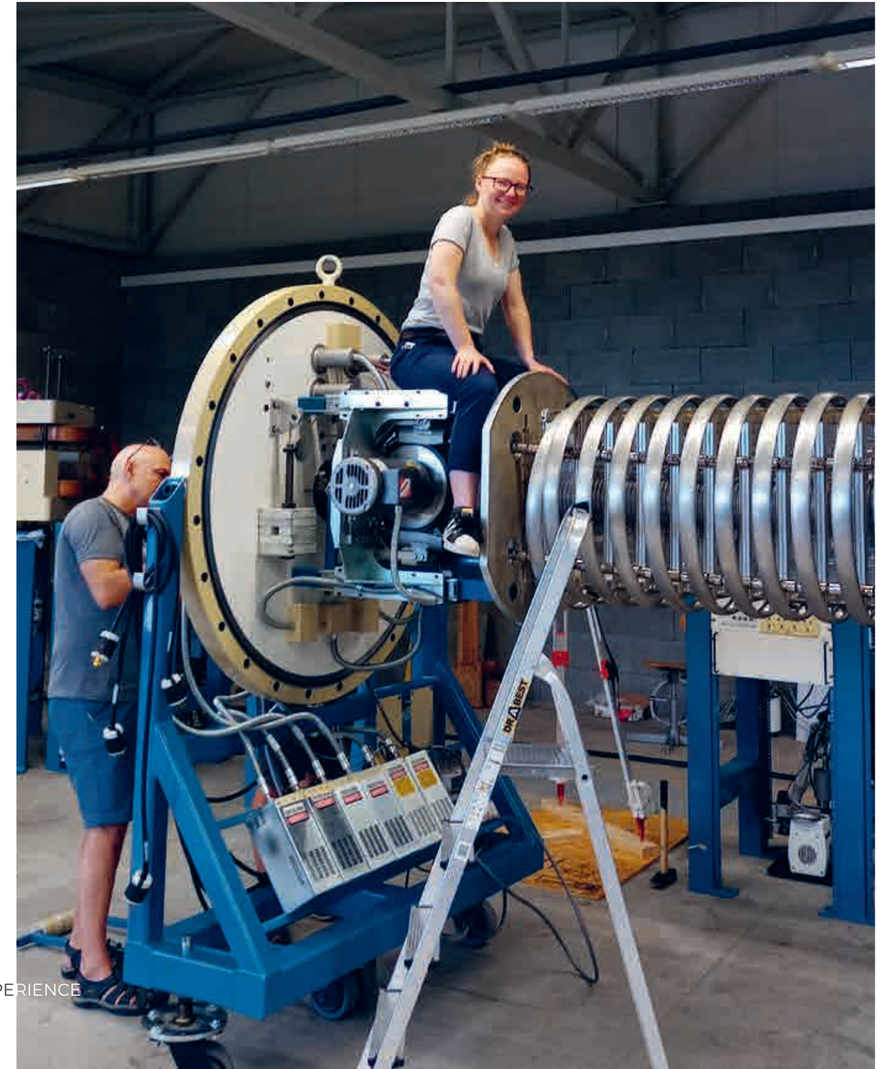
2022 – Implementation of the ACCORD Project (**A**dvancing University **C**apacity and **Co**mpetence in **R**esearch, **D**evelopment and Innovation)

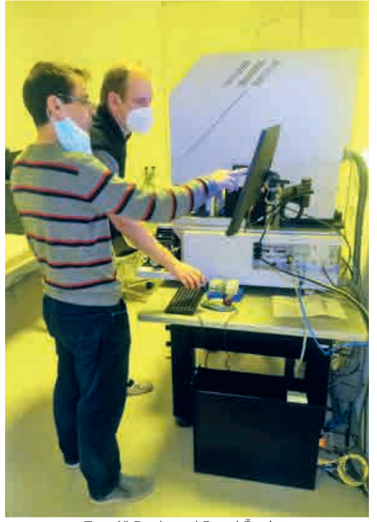
The project focused on e**nhancing university capacity and competence in research, development, and innovation** for **Comenius University** and the **Slovak University of Technology (STU)** in Bratislava.

In 2022, we launched the final phase of direct equipment deliveries. The deliveries included a **Lithography System by EVG** and a **Vacuum Deposition Unit by BESTEC** for the **Faculty of Mathematics, Physics and Informatics of Comenius University (FMFI UK)** — a project actively supported by **Tomáš Roch** and **Pavol Ďurina**.

The **greatest challenge** was the continued development of the **tandem ion accelerator facility**. A major milestone was the installation of the **High-Energy Ion Analyzer** from **National Electrostatics Corp. (NEC)**, which provided new capabilities for **mass ion analysis**. With its parameters, the facility now ranks among the **most advanced in Central Europe**.

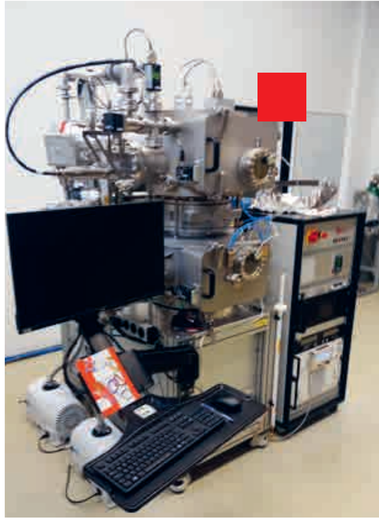
The project was managed on behalf of **KVANT** by **Jozef Horváth**, with **Michal Roščák** playing an indispensable role in the equipment installation.





Tomáš Roch and Pavol Ďurina

Final system launch



Evaporation unit by Bestec

A technological marvel of precision mechanics and high-voltage physics

Complete circuit of the tandem ion accelerator with analyzer

KVANT

CREATING THE MOTIO EXHIBITION IN ŽILINA

Our goal was clear: ***"To create an innovative environment that helps young people develop technical skills and understand scientific principles – with a special focus on transportation."***

In spring 2023, the University of Žilina and the Kia Slovakia Foundation signed a memorandum of cooperation with the aim of creating a new science and discovery center for children and students. The realization of this vision was entrusted to us, a company with extensive experience from projects such as Aurelium in Bratislava, the Technical Museum in Košice, and the Matematikum in Liberec.

One year later, **in April 2024, the Science and Technology Discovery Center – MOTIO (www.motio.sk) officially opened on the university campus.** Its name symbolizes motion, energy, and exploration.

MOTIO is an interactive science center built on the principles of "Hands-on, Minds-on, Hearts-on Science", meaning learning through touch, thought, and emotion. **Its mission is to inspire curiosity and passion for science among children and young people, with a particular focus on transportation, mechanics, and modern technology.**

The center features 38 interactive exhibits divided into nine thematic zones. Visitors can explore the principles of motion, robotics, energy, carbon footprint, and modern transport systems. Digital applications and interactive interfaces transform complex scientific concepts into playful and engaging experiences. A special feature of the center is the interactive classroom, designed for workshops, experiments, and discussions with scientists. One of the most popular attractions is the **Lever Car**. A real Kia vehicle mounted as an outdoor exhibit, allowing visitors to experience the physics of leverage firsthand by lifting the car themselves.

We thank all our colleagues from KVANT who made Motio a reality: **Ivan Šlesarik, Michaela Barta Reichelová, Robert Pleška, Frederik Németh, Marián Dubina, Peter Fock, Peter Lakomčík, Michal Hančák, Filip Marcell**, and many others.

In the photo (top center): **Beáta Ďurišová** from the Kia Slovakia Foundation and **Jozef Ristvej** from the University of Žilina, whose vision and cooperation made this project possible.

www.sciencemodels.info

more info:

The opening ceremony featured live physics experiments by PaedDr. Jozef Beňuška, who vividly demonstrated the laws of pressure and fluids.

KVANT

WE ARE PART OF PROJECTS AT THE SLOVAK UNIVERSITY OF TECHNOLOGY IN TRNAVA

1. Project: Scientific Research Center of Excellence SlovakION for Material and Interdisciplinary Research

The TESCAN SOLARIS FIB SEM is a plasma microscope designed for high-resolution, in-depth material analysis. It enables the scanning of large surface areas while examining a wide range of material defects and structural imperfections.

2. Project: Teaming for the Faculty of Materials Science and Technology of STU

A spectrometer equipped with two timing detectors and a gas ionization chamber serving as an energy detector.

3. Project: Time-of-Flight Elastic Recoil Detection Analysis (ToF-ERDA)

A system designed for quantitative analysis of thin films, enabling depth profiling of elements and their concentration within a sample. The ion source is a 6 MV Tandetron particle accelerator.

We thank **Jozef Horváth** and **Mikuláš Kevély** for the successful implementation of these projects.

DELIVERING EQUIPMENT FOR THE CREATIVE CENTER OF THE ALEXANDER DUBČEK UNIVERSITY OF TRENČÍN

In 2023, we delivered two key systems for this innovation center:

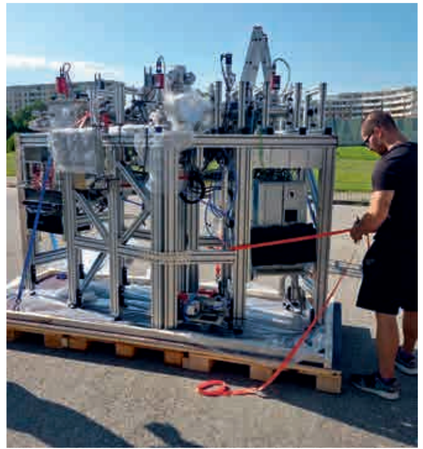
1. CNC Router DATRON M5Cube, a milling machine capable of both 2D machining (e.g., sheet-metal cutting, drilling from 2D drawings) and 3D milling (e.g., model preparation for casting, laminating, or thermoforming).

2. Precision measuring equipment for reverse engineering, enhancing the connection between university research and industry in the Trenčín region: **Mitutoyo CRYSTA-Apex V776 and Mitutoyo Surftest SMM.**

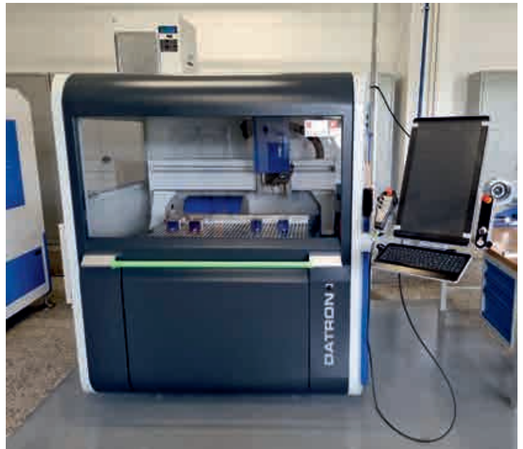
The project coordinator for the University of Trenčín was **Jozef Horváth.**

In the photo by the TESCAN SOLARIS FIB SEM (from left): Zoltán Száraz, Michal Klášterecký, Pavol Noga

Transfer of the ToF-ERDA system



Delivered equipment: CNC M5Cube and Mitutoyo CRYSTA-Apex V776



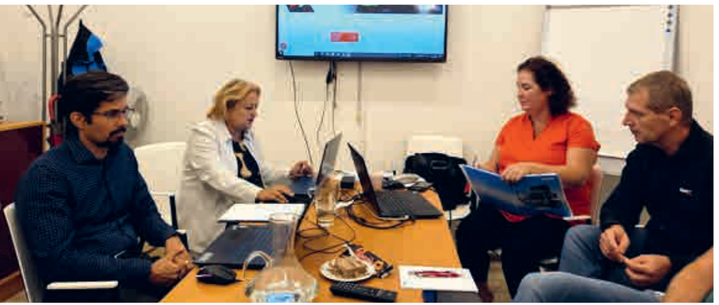
Mišo Hančák and the electrical panel

Tatra peaks – Jakub and Ľubo's adventure

Our annual audit tradition

A rose among thorns

A thorn among roses



Mirka – our ISO guru

Milan Grígel – what a 60th birthday!

SHARED MOMENTS, SHARED MEMORIES

Peťo Fock – always working

Rado Mach

Zdenka and Lenka
– blooming with beauty

Mirka Slobodová

2016-2025







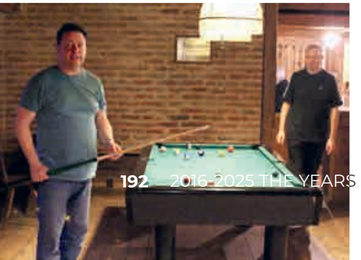




SHARED MOMENTS, SHARED MEMORIES










SEA Science and Education Agency

WE PARTICIPATE IN ERASMUS+ PROJECTS MASTERS OF TECHNICS

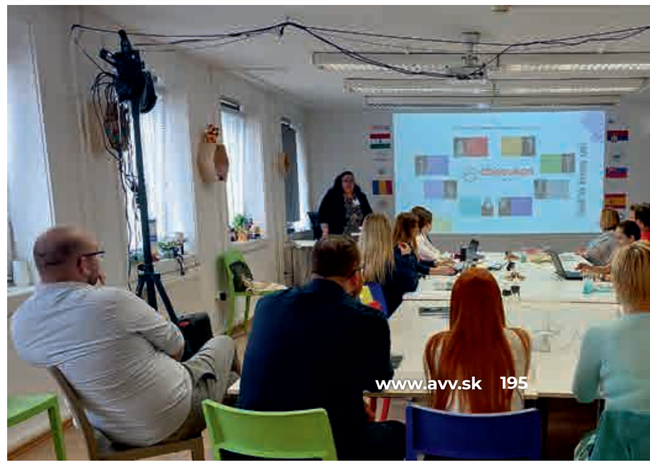
MASTERS OF TECHNICS

A project that received Erasmus+ Small Partnership funding in 2023, created as a response to a growing issue in the labor market — the shortage of skilled craftsmen. We joined forces with partners from Croatia, Slovenia, and Slovakia to explore whether both boys and girls at primary schools could develop an interest in working with wood. Our Croatian colleagues shared their long-term experience in organizing woodworking competitions using small educational machine tools, which are also used in schools across Slovakia and Slovenia. Following their example, we held the same competition in all three countries. Teams of two students worked for three hours, and the results exceeded expectations because in each country, female teams placed among the top three. Evaluation focused on precision, aesthetics, workplace organization, and teamwork. We're pleased that the partnership continues even after the official end of the project in May 2025, the Slovak winning team took part in the international finals in Croatia, achieving an excellent 7th place.

URBOTICS

A project combining robotics and urbanism, in which KVANT participates as a partner country. The initiative, supported by Erasmus+ Large Partnership funding in 2024, is led by the Hungarian organization Abacusan, with additional partners from Spain, Romania, and Serbia. The project's goal is to exchange knowledge and create educational materials for teaching with programmable robots on the theme of urbanization in the 21st century. Each partner country hosts a meeting to share experiences and test educational approaches.In Slovakia, the newly developed materials will be piloted in three schools. The project runs for two years and has already included inspiring meetings in Budapest, Avilés (Spain), and Bratislava with more exciting visits ahead.

More information:

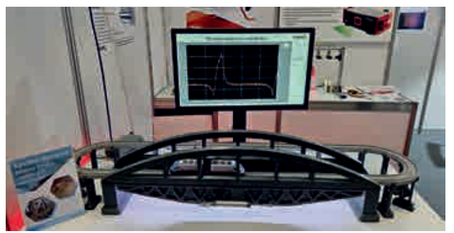


2016-2025

2nd place in the MSV Nitra 2023 awards – Winner of the 2023 fair award

WE ARE EXHIBITING AT THE INTERNATIONAL ENGINEERING FAIR IN NITRA

Engineering fair 2024, Nitra



Engineering fair 2025, Nitra – Winner of the fair award

KVANTLED

The Journey of Light and Image

At the beginning, there was an idea — one that didn't come overnight. But a vision did arrive, growing together with the desire to push boundaries.

KVANTLED was born from the belief that light and image can tell stories just as powerfully as words or music. The first projects were modest. Every panel, every screen, every installation was a test of patience and precision. Yet it was these small steps that laid the solid foundations on which today's vast world of LED solutions stands.

Over time, technology evolved — screens became larger, sharper, more flexible. What once seemed impossible became everyday reality. **KVANTLED** began to appear in spaces no one could have imagined before — film studios, international stages, retail stores, halls, even elevators. Each project brought a new challenge — Expo in Kazakhstan, open-air festivals, TV studios, international conferences that required a flawless image for millions of viewers. These were the moments that proved **KVANTLED** isn't just about technology — it's about people. About a team that combines passion with precision.

How It All Began

It started almost unnoticed. **KVANT,** originally focused on laser technology, discovered LED screens almost by chance — at a trade fair. The company was known for manufacturing and renting lasers, but demand for LED solutions was growing. So, the first panels were purchased. That was the birth of a small, fledgling LED display department that gradually found its place.

Each new installation was a learning experience — there was no infrastructure, no proper cabling or facilities; everything was handled through improvisation. But those experiences proved to be the most valuable ones.

The Warehouse Journey

Our beginnings with LED screens were not just about technology — they were also about finding a place to store and prepare them for events.

The first warehouse was literally a basement in Kramáre, on Opavská Street — a garage in a residential neighborhood. LED panels and accessories had to be unloaded and stored manually — difficult, impractical, but at that time, only one thing mattered: that we had started, and that it was possible.

Later, an extension was built, offering 250 m² of space. It still wasn't ideal, but at least loading became easier. In the meantime, a rented warehouse in Ivanka pri Dunaji was added. The material was scattered across Bratislava, so transporting it became a small logistical operation in itself.








2016 – The Turning Point and the Move to Matadorka

A major turning point came when we moved into the former Matadorka building in Petržalka, on Gogolova Street. The new 750 m² warehouse and office space finally gave us the feeling of having a solid base. For ten years, we created projects there that pushed us forward.

But as the company grew and materials multiplied, even this space eventually became too small. There were no loading ramps, and capacity reached its limits. Then came one of the greatest challenges **KVANTLED** ever faced — the COVID-19 pandemic.

During that time, cultural and social events came to a complete halt, and our business, so closely tied to them, dropped to zero. No orders, no events. It was a difficult period when we had to find new ways to keep the company afloat. That's when our creativity and adaptability truly shone. We transformed our hall into a virtual studio, where podcasts, film scenes, and various clips could be produced.

What looked like a crisis became an opportunity. The studio not only helped us survive this challenging period but also gave us new experiences and a deeper understanding of what filmmakers and creators really need. We realized how important flexible solutions are — and how our technology can be used in entirely new ways. This period showed us that we can stand together, find new paths, and that every challenge can move us forward. It was then that the time for a significant change arrived.

A New Home in Contera Park — More Than Just Offices

The move to Contera Park in Rača wasn't just about relocating to larger premises. It was a step toward setting a whole new standard for our work.

Here, we managed not only to build office spaces but also a complete ecosystem where LED technology lives and breathes with us. Instead of a traditional showroom, we integrated LED screens into every corner of our workspace — as part of the interior itself. Clients don't just see the technology in "demo mode"; they experience it as a natural element of our environment. Each screen acts like a painting on the wall, showing how flexibly our solutions can be adapted.

We also customized our hall precisely to our needs — with high-rack storage, testing platforms, and a system for efficient panel preparation. We designed the entire space ourselves, and it reflects our philosophy: to combine technology with comfort and to show that LED solutions can be part of everyday life.

Numbers Tell the Story

2007

- **90 m² hall**
- **Approx. 100 m² of LED technology**
- **Average screen size at events: 30 m²**

This was a time of first experiences and experimentation.

2025

- **1,700 m² hall**
- **More than 2,300 m² of LED screens**
- **Average screen size at events: 200 m²**

These aren't just numbers — they are proof of rapid growth, adaptability, and continuous investment in technology.

Passion and Determination

Behind every project, there have always been people. In the beginning, there were just two or three of us — young, full of energy. We loaded the van, hit the road, and drove hundreds of kilometers to events. No excuses, no luxury of rest. Upon arrival, we immediately started installing, building, and setting up.

Those were years that tested us both physically and mentally — but they also gave us something priceless: the thrill of doing something new, something big. We learned on the go, often through trial and error. And those little stories — the endless night drives, improvised setups, or small on-site disasters that we somehow turned into successes — are what we now recall with a smile. These experiences taught us that technology is only half the story. The other half is our determination, teamwork, and the will to never give up.

Today and Tomorrow

Today, KVANTLED is more than just a screen supplier — it's a partner. A partner for TV stations that demand a flawless image. A partner for festivals that want their visuals to come alive. A partner for companies and venues where LED solutions bring new ways to communicate.

The future is full of possibilities — transparent LED screens, mobile solutions like LED trucks, and interactive surfaces that respond to the audience. **KVANTLED** now has the experience, infrastructure, and team to make these visions a reality. The story of **KVANTLED** is not a closed chapter — it's an open book. With every project, a new line is written. And the best part is that it's written together with those who believe not only in the power of the image, but above all, in the power of themselves.

KVANT SHOW PRODUCTION

Vision, Preparation, and Purpose

Even though we started solely as a manufacturer of laser projectors, we've always thought of our business differently. We don't see ourselves merely as a laser equipment company — we see ourselves as part of the entertainment industry. That means going beyond traditional laser shows to create everything else that makes an experience unforgettable — from custom laser projections, 3D video and laser mapping, and holographic projections, to water screen visuals, kinetic light shows, and a variety of special effects.

Over the last 30 years, countless opportunities have arisen that challenged us and expanded our expertise. Being part of creative teams behind entertainment shows of all kinds and scales has taught us many different approaches and helped shape who we are today — a regularly award-winning show production team.

The Kvant Show Production division of the **KVANT Group** has many years of experience in designing and delivering shows for events of every type. Our success is built on top-class equipment in the right hands.

Our team of selected professionals bridges the gap between technical mastery and visual artistry. Their dedication to excellence means they always give 101% of their effort — producing the very best shows possible.

We design, program, and execute laser and multimedia shows — from the first sketch to the final applause. Whether you already have a clear idea, an unfinished vision, or don't even know where to start, we can take your project at any stage and shape it into a show that evokes emotions your audience will remember long after it ends. We specialize in combining a wide range of multimedia elements into a coherent timeline that draws the audience in and delivers a message filled with emotion.

Of course, every great show requires the right equipment. That's why our warehouse holds a broad selection of professional gear, carefully optimized for maximum performance. It's packed with state-of-the-art **KVANT** green and full-color lasers with optical power outputs of up to 270 watts.

We also have access to top-tier video projectors, which our specialized video production team uses to their fullest potential.

Because in the end, life itself is a show.

A Bit of History

In 2007, within the **KVANT** company, a dedicated department was established focusing exclusively on equipment rental and show production as part of Division 2. The department was led by **Michal Šimkovič,** a long-time team member with extensive experience in both production and show operations.

In 2016, the official subsidiary **Kvant Show Production s.r.o.** was founded, with **Michal Šimkovič** appointed as its CEO. **Martin Gabčo,** the company's lead show designer and laser operator, officially joined **KVANT** in 2010. He initially worked in the **Kvant Lasers** division before moving to what is now the **Kvant Show Production** division.

Peter Benkovič, known for his reliability and precision, first joined **KVANT's Division 1** back in 2002. He later became head of production in the **Kvant forSchool** department, and in 2020 transitioned to **Kvant Show Production** as an event manager.

In 2021, **Peter Prokopčák,** an exceptional sales manager, joined the team. In 2022, together with **Michal Šimkovič,** he co-founded **Kvant Events – Middle East,** expanding the company's international presence.

In 2024, **Peter Lipnický,** with strong production experience, became part of the team as sales and project manager for the Slovakia & Czech Republic region.

This core leadership team — together with a group of outstanding colleagues including designers, operators, technicians, assistants, warehouse staff, and service specialists — has elevated the company in recent years to the top tier of the global show production industry.

KSP Statistics as of September 15, 2025

Awards	Countries	Employees	Warehouses	Lasers in warehouse	Branches	Showroom
58	66	20	2	118	1	1

KVANT LASERS

Light That Became Art

It all began in Bratislava in 1995. In a small workshop, surrounded by tables full of tools and optical components, a dream was born — a dream that a beam of light could be more than just a physical phenomenon. For the founders, it wasn't just about technology; they saw the laser as a medium that could connect science and aesthetics, precision and emotion.

From the first educational aids and modest modules emerged a brand that, decades later, would become a synonym for reliability and innovation. Years of experimentation brought new experience, ambition, and courage. The laser evolved from a teaching instrument into a promising tool for industry, science, and entertainment.

But the real turning point came in 2016, when **KVANT Lasers s.r.o.** was founded — a step that opened the door to a new era. It was no longer just a division within a larger company but a standalone brand with its own identity and global ambitions. With its own R&D center, CNC workshop, and optical and electronic laboratories, **KVANT** could now manage everything — from initial concept to final testing — under one roof.

KVANT set out to create lasers that would be not only powerful and beautiful but, above all, reliable. In a short time, the small Bratislava workshop grew into a brand recognized in dozens of countries.

2017 marked the takeoff — a year that launched the company to new heights. What followed was a period of rapid growth: the projector portfolio expanded, exports increased, and new partnerships and clients joined the journey. In 2019, KVANT moved into a new building, three times larger than the original one. The modern space provided room for development, testing, and production, raising the company to a level comparable to the world's top players.

The following years brought further technological milestones. New generations of OPSL and RGB systems emerged, and **KVANT's** reputation grew in the fields of architectural and outdoor illumination. In 2022, a strategic partnership with Pangolin strengthened both software and R&D capabilities, cementing KVANT's position as one of the most respected names in the global laser industry.

Today, the company's portfolio ranges from compact projectors to monumental systems exceeding 1500 watts of optical power, designed to perform flawlessly under any conditions. Alongside them are laser modules spanning wavelengths from UV to NIR, used across industry, medicine, and scientific research.

Operating in over 50 countries, **KVANT Lasers** stands for one simple truth: **"They work. And they work very well."**

The story of **KVANT** is the story of light that transcended the boundaries of laboratories and became art. It's a journey where technology transforms into experience — where a beam of light becomes a language capable of storytelling.

A universal language that speaks across countries, cultures, and generations. Because to us, light is more than just energy.

It is passion. And from passion, art is born.

KL Statistics as of September 15, 2025

ILDA Awards	Countries	Employees	**Lasers** made whole period	**KVANT Lasers** made from 2017	**Modules** made whole period	Manufacture	Showroom
8	**70+**	**55**	**14 100+**	**7 650+**	**40 000+**	**1**	**1**

KVANT SHOW PRODUCTION KVANT LASERS



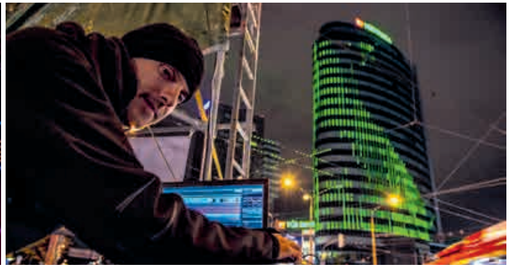

Event Land teambuilding

On August 3, 2016, we enjoyed an unforgettable company-wide teambuilding event at **Eventland** — a day filled with experiences, laughter, great activities, and fantastic hospitality. A huge thank-you goes to **Barborka Koch** from Division 2 for her flawless organization!


Ilda

At the **ILDA 2016 Conference** in Baltimore, USA, we not only gained valuable experience and new connections but also proudly received five prestigious awards for our exceptional laser shows.

White Night



Krumlov

Researchers' Night – First Hologram

more info:

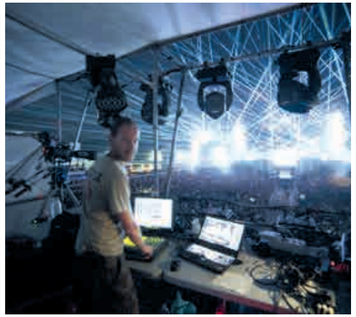
F1 – Bahrain

more info:

Exhibition – Prolight and Sound, Frankfurt

European Figure Skating Championships

Miss 2016



Meduza – Barcelona

Krušovice Aupark more info:

Beerfest

Lucie Bílá – Fifty Fifty

VItava Žije – Budějovice

more info:

Czech and Slovak Talent Show

Projection Mapping – Primate's Palace

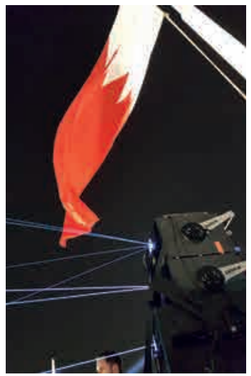
KVANT SHOW PRODUCTION KVANT LASERS KVANT LED SCREENS

more info:

Researchers' Night At **the European Researchers' Night 2017,** we amazed visitors with a spectacular laser show, a 50 m² LED screen, and the premiere of mesmerizing kinetic spheres that delivered an unforgettable visual experience.

more info:

Allianz – Budapest



Bahrain Grand Prix

At the Bahrain **Formula 1 Grand Prix,** our **KVANT** lasers shone from the roof of the VIP Tower, catching the attention of TV viewers worldwide. Our team returned home with unforgettable memories — including a meeting with **Kimi Räikkönen.**

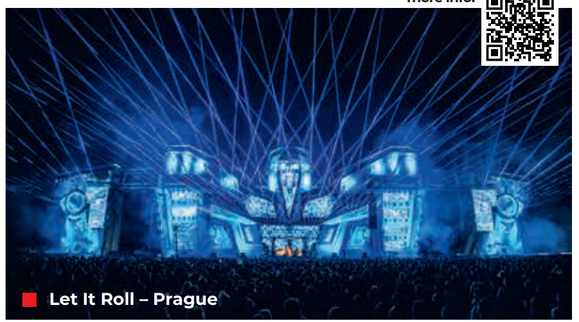
Masters of Hardcore

Tribute to the First Slavic Pope – John Paul II

A concert at the Steel Arena in Košice dedicated to the life of **Pope John Paul II** combined the music of world-class composers with a unique multimedia laser and video show, offering the audience an unforgettable pre-Christmas experience.

At the legendary **Masters of Hardcore** event in Vienna, our **Show Production team** lit up the arena with ten **KVANT Spectrum 30 W lasers** and **Sparkular** effects, creating an electrifying atmosphere full of energy and light.

more info:



Let It Roll – Prague

David Guetta - Vienna

At the 10th anniversary of **Let It Roll,** the world's largest drum & bass festival, our team illuminated the stage with eight **Spectrum 30 W lasers,** delivering a show that thrilled thousands of fans.

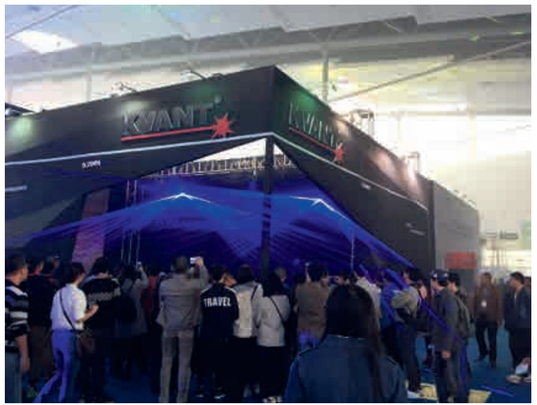
ILDA Conference – Bratislava

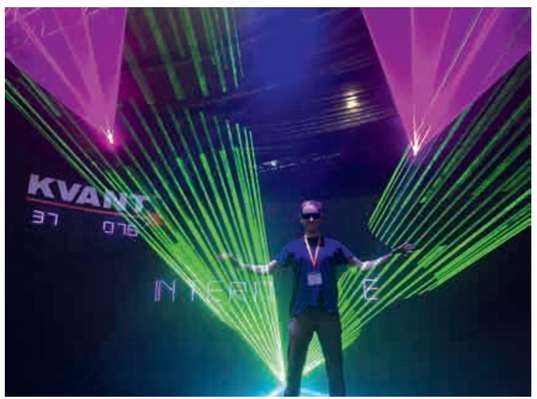
more info:

In November 2017, Bratislava became the host city of the prestigious **ILDA Conference** — the annual gathering of the **International Laser Display Association.** As long-standing members, we had the honor of co-organizing the event and welcoming guests from around the world.

The conference, which takes place in a different location each year — previously in Baltimore and Dubai — was held this time under the Tatra Mountains. Lectures and meetings took place at the Carlton Hotel, while accompanying events were hosted in the modern spaces of Aurelium – Science Experience Center.

The evening program opened with the Lase-Off competition, where laser jockeys performed live improvisations to unknown tracks, and culminated in the **ILDA Awards Ceremony.** For us, this conference held special significance — we proudly received eight awards across prestigious categories, from corporate shows and festivals to laser art. It was a powerful confirmation that our work meets world-class standards and stands proudly among the best.





Prolight + Sound Guangzhou & GETShow – China

At **the Prolight and Sound Guangzhou** and **GETShow exhibitions,** we proudly showcased our laser technology, joining forces with **Pangolin** for the very first time. Thanks to an outstanding team effort, we successfully managed even the complex logistics of moving between the two trade fairs. The events brought us many new contacts and valuable experiences.

Prolight and Sound – Frankfurt

The Prolight and Sound Exhibition in Frankfurt once again kicked off our working year with a spectacular multimedia show and exciting new innovations from Division 2. The enthusiastic reactions from visitors confirmed that we rank among the most captivating exhibitors at the event.

more info:

more info:

Czech and Slovak Talent Show

OTO

VItava Žije

For the filming of the **Czech and Slovak Talent Show** finale, our team built an impressive TV stage made up of more than 300 m² of state-of-the-art LED screens, giving the production a grand visual look and showcasing our technical precision.

Mikulov

Kinetic LED Balls

more info:

Our **KVANT Show Production team** expanded its inventory with an incredible 500 new kinetic spheres, which, when combined with lighting effects, create a mesmerizing and dynamic visual experience.

Expo Astana

more info:

Prestige, Innovation, and Pride — that's how we could describe our participation in **EXPO 2017** in Astana, where we were responsible for the construction and technical setup of the Slovak Pavilion under the theme **"Energy of the Future."** We installed 40 lasers, LED walls and flooring, a water screen, and several interactive exhibits — including an energy-generating bicycle and the Ecocapsule. The highlight of the pavilion was the installation **"Cold Fusion"** — a symbolic representation of new energy sources, brought to life through our laser technologies.

The pavilion, which beautifully combined modern innovation with Slovak culture, became one of the most visited at the entire exposition and received the **Silver Award for Exhibition Design** in the category up to 400 m². During the exhibition (June 9 – September 10, 2017), it welcomed 311,166 visitors out of a total of 3.86 million who attended **EXPO 2017.**

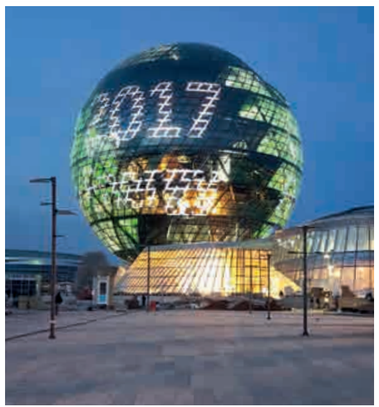
Project Lead: Mr. Kubošek

Team in Astana: Michal Šimkovič, Milan Lukáček, Boris Bello, Tomáš Krže, Martin Gabčo, Michal Kosiba, Jozef Dobšovič, Lukáš Varga, Matej Homola, Filip Čupka, Petr Navara

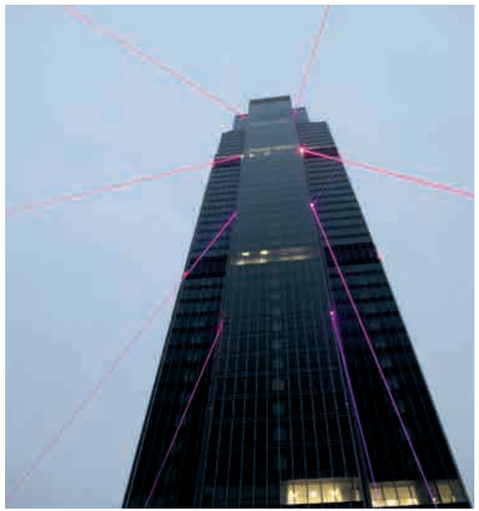
A FEW FACTS ABOUT THE EXHIBITION

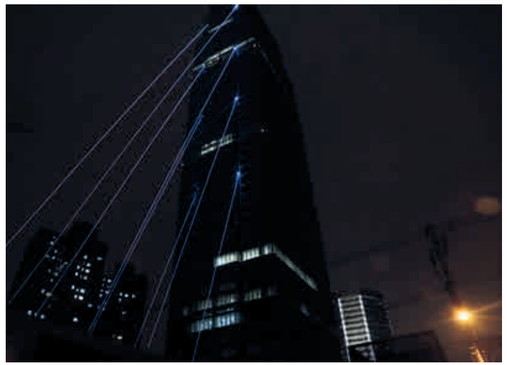
- Opening date: **June 10, 2017**
- Closing date: **September 10, 2017**
- Total number of visitors to EXPO 2017: **3,860,000**
- Visitors to the Slovak Pavilion: **311,166**
- Area of the Slovak Exhibition: **360 m²**
- Visitors from Slovakia: **1,221**

(261 as part of official delegations, 960 as individual tourists)



KVANT SHOW PRODUCTION KVANT LASERS KVANT LED SCREENS



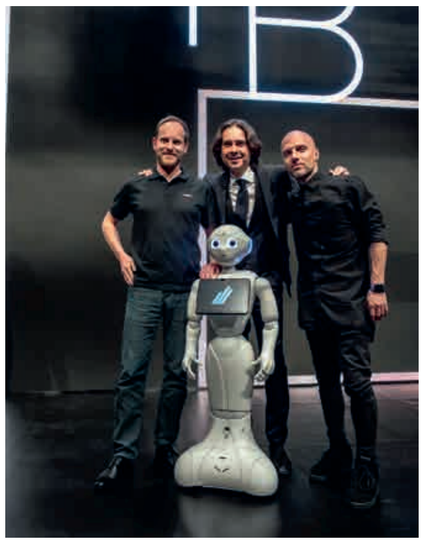


Architectural Laser Installation - Shangai

In Shanghai, we successfully completed an exceptional architectural laser installation on a 200-meter-tall building, merging precision technology, advanced software, and innovative design into a breathtaking light experience — the result of close collaboration between both **KVANT divisions.**

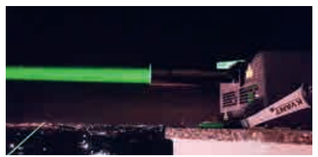
Tatra Banka Foundation Art Award

The award ceremony for one of Slovakia's most modern banks was a celebration of the harmony between technology and art. **The KVANTLED** and **KVANT Show Production teams** created a grand audiovisual show featuring a massive LED wall and perfectly synchronized kinetic spheres.



Frequency Festival – Austria

The summer at Division 2 was filled with festival energy as our **KVANTLED team** supplied a large number of LED screens for Austria's **Frequency Festival** hosted by FM4 radio, helping to create the unforgettable atmosphere of this iconic event.



Viva Musica – Italy

At the Italian **Viva Festival,** our Show Production team connected the towns of **Martina Franca,** Locorotondo, and Cisternino with laser beams, forming a unique light installation that symbolically represented friendship and collaboration between the cities.

Enrique Iglesias

Lebanon

more info:

Let It Roll

more info:

Medusa Festival

more info:

KVANT SHOW PRODUCTION KVANT LASERS KVANT LED SCREENS

New Product Launch

more info:

Exhibition – Prolight and Sound, Frankfurt

At the exhibition, we proudly unveiled five new products along with a completely redesigned booth. The innovative presentation received excellent feedback and once again highlighted the strength and creativity of our **Division 2 team.**

ILDA Conference 2018 – Montreal, Canada

At the **ILDA Conference 2018** in Montreal, we were deeply honored to receive five prestigious awards, reaffirming the world-class quality of our team and the technical excellence of our laser solutions.

1st Place – Live Stage Show: Prolight + Sound 2017

1st Place – Laser Photography: Angel

1st Place – Permanent Installation Shanghai

1st Place – Fenning Award for Technical Achievement Static Laser Beam Auto-alignment Safety System

2nd Place – Multi-Effect Laser Show: Showroom

SPIE Photonics West – San Francisco

At the beginning of February, we presented our cutting-edge laser modules at an exhibition in San Francisco, proudly showcasing technology designed for science, research, and industry — featuring innovative designs, a wide range of wavelengths, and our patented **LASORB protection system.**

ČSOB Relay Marathon

ILDA Awards – Orlando

At the prestigious ILDA Awards Ceremony in Orlando, our colleagues **Michal Rezek** and **Martin Gabčo** proudly accepted four international awards, recognizing the creativity, technical excellence, and world-class standard of our projects — from MJ Sergio to the Tatra Ice Dome.

1st Place – Edited Film/TV/Video
MJ Sergio

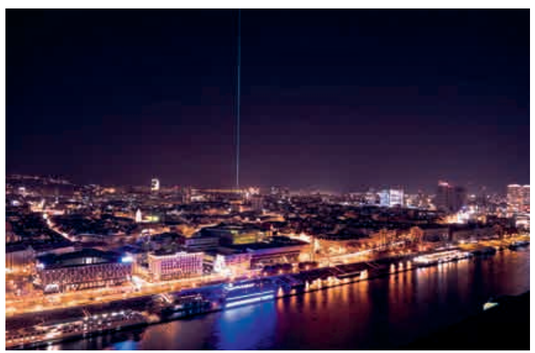
2nd Place – Innovative and Fine Art Laser Applications: ASOT

3rd Place – Planetarium
KVANT Sféra

3rd Place – Edited Film/TV/Video:
Tatranský Ľadový Dóm

Researchers' Night

more info:



Space Canon


Bruno Mars 24K Magic Tour

During Bruno Mars' world tour **"24K Magic,"** twenty of our **Spectrum 20 W** and **Atom 4W** lasers illuminated the stage, making our products part of one of the most spectacular music shows in the world.


Enrique Iglesias

At the Enrique Iglesias concert in Bratislava, part of his **All The Hits Live tour,** the stage was lit by twenty **Burstberry laser projectors**, giving the performance a distinctive visual signature and a truly world-class atmosphere.

more info:

IXPO – Bratislava

At a major technology festival, we proudly joined as an official partner, enriching the event's atmosphere with our innovative technologies and an interactive booth that demonstrated how **KVANT** blends light, science, and experience into one futuristic whole.

Shell Gala Awards

more info:

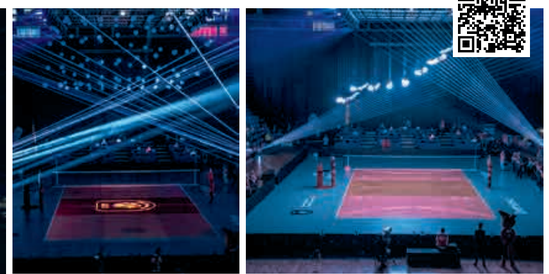
Prague

more info:

Mauritius

more info:

Our team created a stunning and colorful laser show in Mauritius for the opening ceremony of the 10th Indian Ocean Island Games, leaving a vivid impression on audiences from across the region.



Eurovolley

At the **Women's Volleyball Championship** in Slovakia, the **KVANT Show Production team** delivered an unforgettable opening show and special effects that turned the sporting event into a dynamic, high-energy spectacle.

Exhibition – Prolight and Sound Guangzhou

more info:

Exhibition – Prolight and Sound Frankfurt

At the Frankfurt exhibition, we introduced our new gallery-style booth concept created in collaboration with artist **Ašot Haas,** delivering an immersive audiovisual experience that blended art, sound, and light into one captivating laser gallery.

São Paulo – Brazil

At the concert of Brazilian superstar **Ivete Sangalo** in the Allianz Parque Arena, we proudly delivered a top-tier laser show featuring our **KVANT Spectrum 30W** and **ClubMax 6000** systems, adding unforgettable energy and brilliance to the performance.

NBS

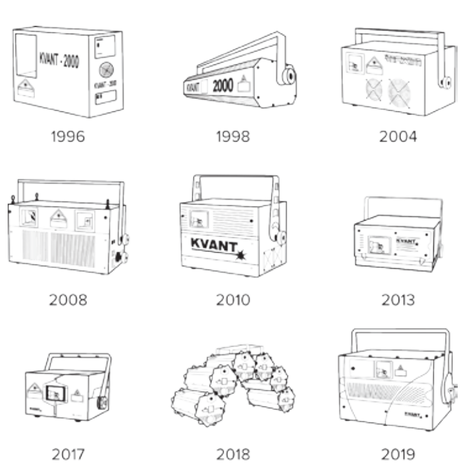
To mark the 30th anniversary of a milestone event in Slovak history, the **KVANT Show Production team** created a grand laser and video projection show on the building of the National Bank of Slovakia, illuminating Bratislava with a powerful blend of light and remembrance.

KvantLED Training

Croatia Teambuilding

After fifteen years, thanks to the initiative from **KVANT Lasers,** we revived the legendary **“Kvant Trip”** — turning it into an unforgettable Croatian getaway full of laughter, challenges, adventures, and friendship. Thirty-three colleagues enjoyed four days of teambuilding, sunshine, and great vibes — from a competitive team day to a boat trip with Captain Martin Miček and an excursion to the historic town of Rab.

St. Nicholas Day

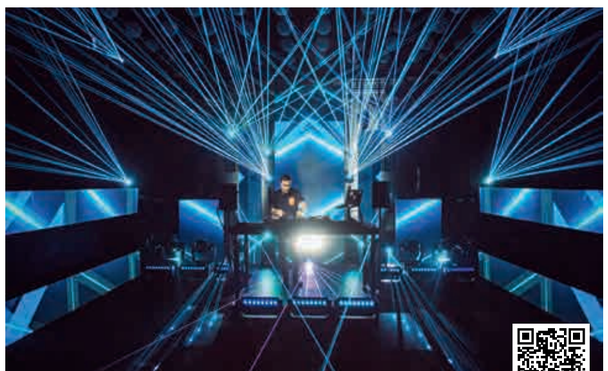


New Year – Bratislava

Our **KVANT Show Production team** welcomed the year 2019 with a spectacular New Year's Eve laser show in Bratislava's Old Town. In collaboration with the organizers of White Night, we lit up both the sky and the faces of thousands of spectators with a breathtaking display of light and celebration.

Christmas Party

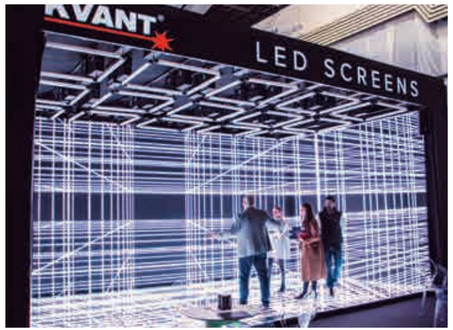
Light Sessions – Bratislava



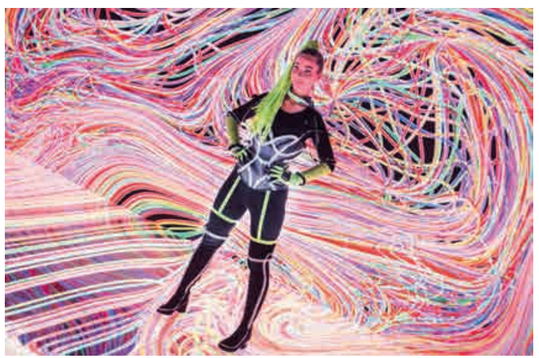
more info:

31st Anniversary of the Velvet Revolution

EventEXPO – Bratislava



At the **EventEXPO exhibition** in Bratislava's Incheba Expo Center, our technicians presented a breathtaking spatial LED installation with a kinetic show, proving that even without lasers, creativity and technology can come together to create an unforgettable experience.



more info:



Maluma World Tour

At the **Maluma World Tour 2020,** our **KVANT Show Production** team and laser systems brought energy and visual flair worthy of a true Latin megashow.

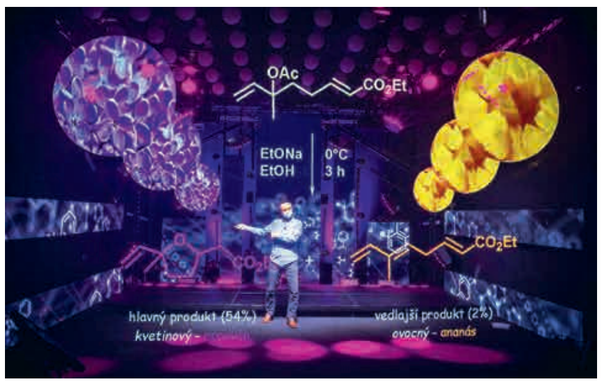
Collector's Euro Coin Projection – Bratislava

In collaboration with the **National Bank of Slovakia, White Night,** and **designer Ján Šicko,** we transformed the NBS building in Bratislava into an artistic canvas, bringing the motifs of the new collector euro coins to life through projection mapping.

Sheraton Hotel – China

Our **KVANT Atom 30 W laser** recently became part of a permanent art-light installation for the Sheraton Hotel in China, blending technology and design into a stunning visual centerpiece.

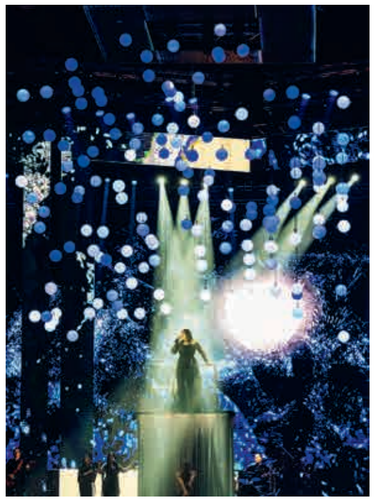

Twiins – Bratislava

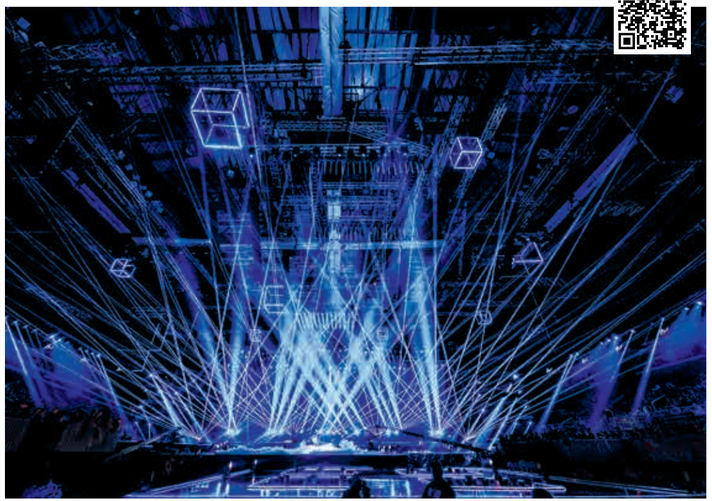


Researchers' Night

KVANT SHOW PRODUCTION KVANT LASERS

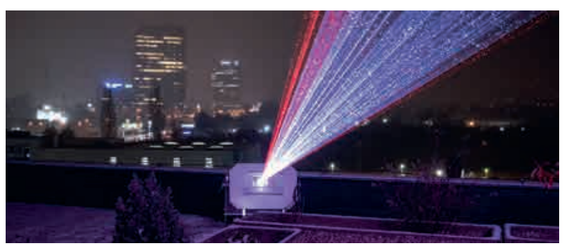
more info:





Music Awards Ceremony – Belgrade

Our **KVANT Show Production team** kicked off the year in grand style at the **Music Awards Ceremony 2020** in Belgrade, dazzling audiences with a spectacular laser and kinetic show that rivaled world-class events such as the **MTV Awards.**

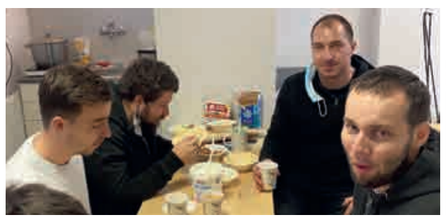


Monsoonbox Roof Installation

Slovak Volleyball Federation – Virtual Audience

Teambuilding in the Mountains

This year, our teambuilding took us to the beautiful Slovak mountains, where we hiked along the western ridge of the Kriváňska Malá Fatra, enjoying nature, team spirit, and unforgettable views.



St. Nicholas Day

more info:

Beatpatrol

Night Aerial “Dolphin Show”

At the **Piešťany Aviation Festival 2022,** in collaboration with the **Slovak Aviation Agency** and **L29.sk,** we created a truly unique nighttime **Dolphin Show,** where the sky was illuminated by powerful **KVANT lasers** mounted directly onto a subsonic **Aero L-29 aircraft.**

Online Event – Challenge Accelerator

Our **KVANT showroom** became the stage for an innovative online conference, **Challenge Accelerator,** where participants from different locations — including the Mayor of Bratislava, Matúš Vallo — appeared together through holographic projection, merging technology and reality in a groundbreaking way.

Slavnica

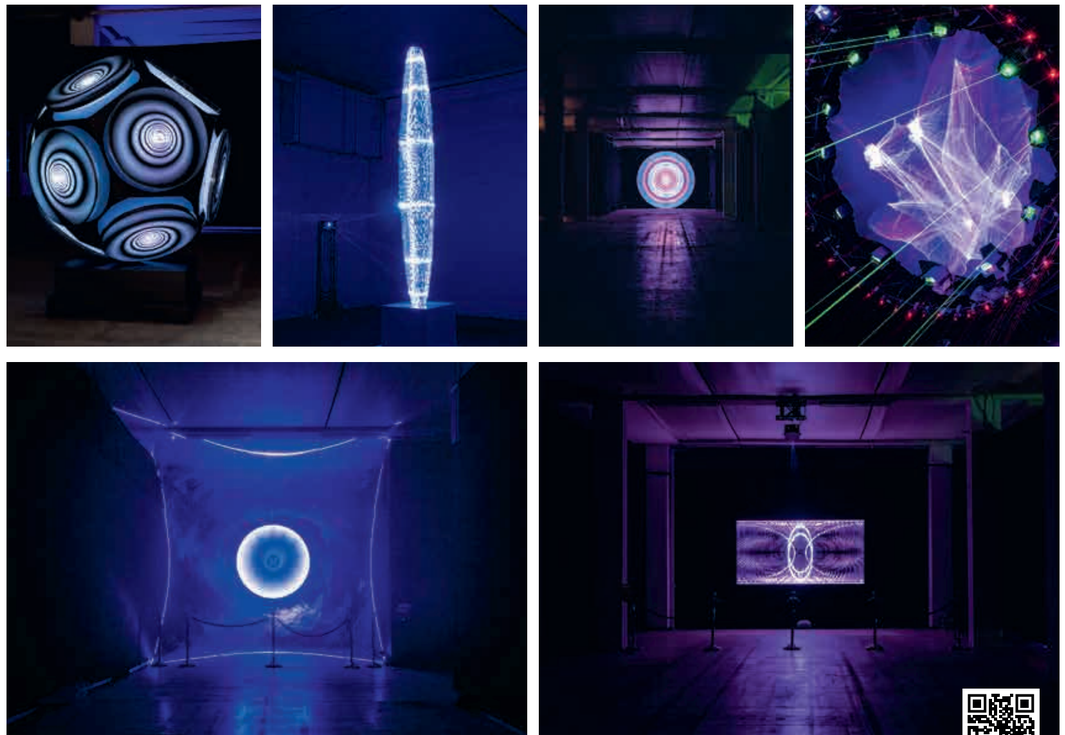
more info:

White Night – National Bank of Slovakia

One of the most spectacular installations of **White Night 2021** in Bratislava was undoubtedly this laser mapping performance, featuring 10 KVANT Spectrum 30W lasers. For three consecutive nights, visitors enjoyed the stunning work of light designer and laser operator **Martin Gabčo,** in collaboration with music producer **Stroon,** as two iconic buildings — Radio and Television Slovakia and the National Bank of Slovakia, standing 111 meters tall — came alive with light and sound.

1st Architect 300W

Oravská Lesná

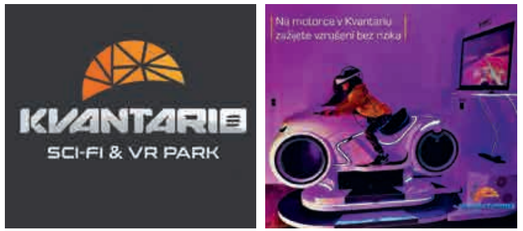


Asot Haas and KVANT

more info:

Divoká voda

On the last day of August, we enjoyed an unforgettable teambuilding event in Čunovo, packed with adrenaline and fun — from rafting, jet skiing, and paddleboarding to friendly matches of football and table tennis under the sunny sky.



more info:

Opening of the Sci-Fi & VR Park

The newly opened **KVANTARIO** amusement park in Benešov near Prague is a one-of-a-kind project that combines science, technology, and entertainment into an immersive world of virtual reality. Spanning more than 6,500 m², it features interactive installations, laser, and audiovisual effects that draw visitors right into the action.

Over three years, leading developers, graphic designers, and artists from Slovakia, the Czech Republic, and abroad collaborated on its creation. The technological part of the project alone reached a value exceeding 200 million CZK. **KVANTARIO** offers dozens of unique experiences — from a virtual flight over Africa to explorations of futuristic worlds — making it a new European hub for digital entertainment.

more info:

Spectrum 2022

The new generation of **Spectrum lasers** pushes the boundaries of laser technology with its unique foam aluminum housing, combining extreme durability with minimal weight. This design makes the projector 30% lighter, smaller, and more resistant than conventional systems, perfectly withstanding shocks, vibrations, and the demanding conditions of world tours.

Enhanced with a floating heatsink that eliminates thermal distortion and ensures precise color alignment, **Spectrum** represents the pinnacle of reliability and performance. Its revolutionary design and engineering excellence have been recognized with the iF Design Award 2023 and several other international honors.

Hika-Rakuyo – Saudi Arabia

At the **Noor Riyadh Festival** in Saudi Arabia, we proudly illuminated the sky with a poetic water projection and laser show titled **“Hika-Rakuyo,”** symbolically reflecting the delicate beauty of life.

Architect Bojnice

more info:

Qatar Airways

During the celebration of **Qatar Airways’ 25th anniversary** in Doha, both **Jennifer Lopez** and our **KVANT Show Production** laser performance lit up the Khalifa Stadium, where 15 powerful lasers created an unforgettable spectacle of light and emotion.

IMAGINE – Dubai

A breathtaking laser, light, and fountain show that blends art, technology, and emotion into one unforgettable experience. **IMAGINE** is now among the largest multimedia shows in the world, proving that the fusion of creativity and innovation can truly light up the sky above Dubai.

Exhibition – Prolight and Sound 2022, Frankfurt

more info:

After a two-year break, the **KVANT team** from **Division 2** returned to the prestigious Prolight and Sound 2022 exhibition. Together with partners **Pangolin** and **Unity,** they built the largest booth in the company's history, attracting hundreds of visitors.

The event marked the world premiere of the revolutionary **Beam Brush lasers** and the new **Spectrum 2022 systems,** both of which generated huge interest among industry professionals. Thanks to our lead programmers, the final presentation was visually stunning and reaffirmed **KVANT's** position among the world leaders in laser technology.

Teambuilding

On the first day, we faced the Hron River, challenges, and our own limits with courage — and in the evening, we enjoyed grilling and a raffle that lasted late into the night. The second day took us to the top of Kráľova Hoľa, where after hundreds of meters of elevation, we were rewarded with a breathtaking view and a strong sense of shared achievement.

St. Nicholas Day

Christmas Party

December was filled not only with the year-end rush but also with traditions, great food, and plenty of laughter. The St. Nicholas celebration on the rooftop brought hot cabbage soup, punch, and smiles all around, while the Christmas party at Pradiareň brought the entire team together in a warm and festive atmosphere.

New Headquarters – Odborárska Street

ILDA Awards 2022

We proudly received five **ILDA Awards in 2022,** a recognition of our passion for innovation, art, and precision technology — and a testament to the fact that our light continues to shine among the world's best.

1st Place – Fine Art Laser Display: White Night 2021: Dialogue

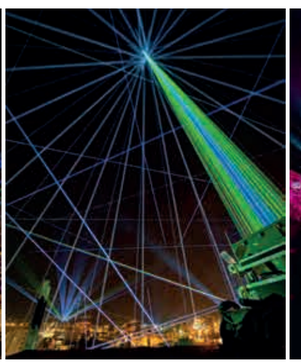
2nd Place – Permanent Installation: Sci-Fi & VR Park KVANTARIO

2nd Place – Fenning Technical Achievement Award: Kvant Spectrum 2022

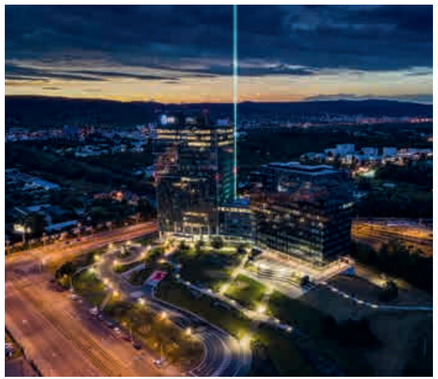
3rd Place – Fine Art Laser Display: White Night 2021: Force Fields

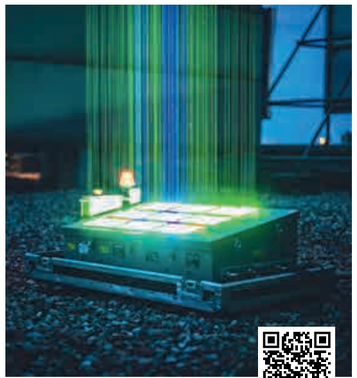
3rd Place – Permanent Installation: ABHA

KSA National Day of Abha



2023 SCYLLA 50TH ANNIVERSARY





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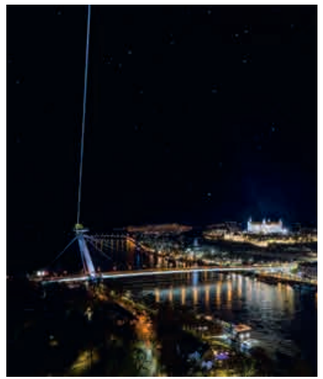
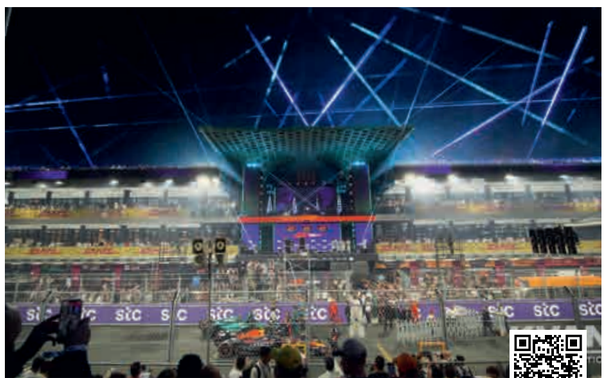


Architect – Bratislava

Architect UFO



more info:

Formula 1, Jeddah GP

more info:

New Year's Eve – Belgrade

For the 168-meter Kula Tower, the tallest building in the region, we collaborated with **SkyMusic Production** and **Fireworks by Grucci** to install dozens of devices that created a breathtaking symphony of light and sound. The show was perfectly timecode-synchronized, blending lasers, lights, the media façade, and fireworks into one mesmerizing visual and musical harmony. Thousands of spectators — along with several Serbian TV stations broadcasting live — witnessed this unforgettable celebration illuminating the night sky over Belgrade.

Music Awards Ceremony

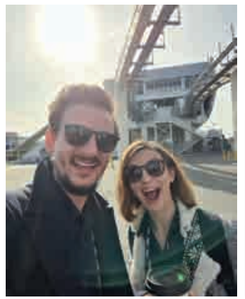
At the **Music Awards Ceremony 2023** in Belgrade, we delivered a breathtaking laser and kinetic show that illuminated the entire stage and captivated the audience with its power and energy.

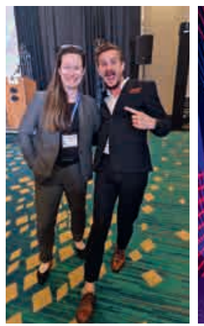
Light Festival - Vilnius

At the **Vilnius Light Festival,** together with **AB Light,** we sent a powerful **“Message of Freedom”** into the world — a monumental **300 W ARCHITECT laser** shining over the city as a symbol of light, openness, and courage.

Church Installation – Belgium

Las Vegas





Ilda - Las Vegas

KVANT Show Production earned two major recognitions:

1st Place – Fine Art Laser Display: Hika-Rakuyo
3rd Place – Fine Art Laser Display: White Night 2022: Liiine



Exhibition – Prolight and Sound Frankfurt

At the exhibition, we unveiled our latest innovations — the **Clubmax FB4 lasers** (24 W and 40 W) and the **Epic projectors** (100–270W). The joint **KVANT & Pangolin show** attracted huge attention, captivating visitors with its precision, creativity, and power.

more info:

ČSOB Run




Teambuilding – Malé Karpaty

Ugly Sweater Day

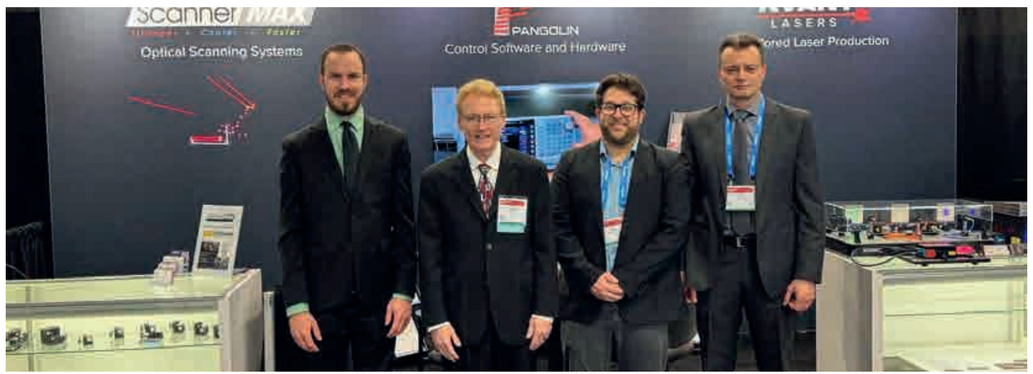

Christmas Party

White Night

more info:

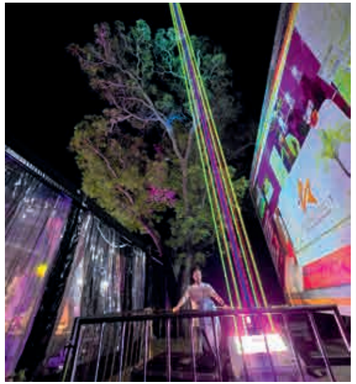
Festival Khareef Dhofar – Salalah, Oman

more info:

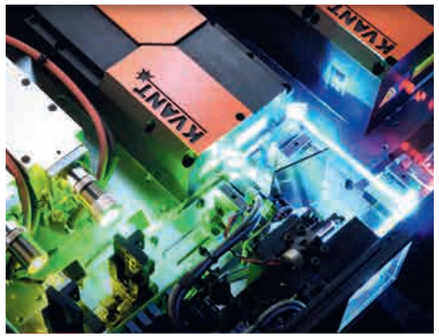


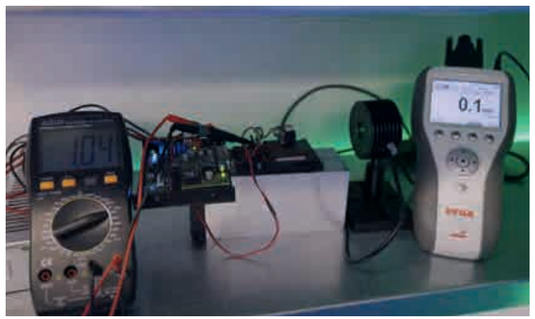
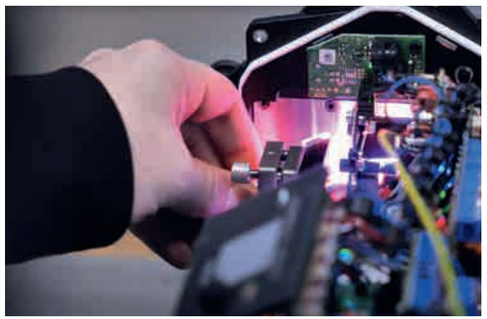
International Exhibition of Optics and Photonics

At the **International Exhibition of Optics and Photonics,** we showcased our state-of-the-art laser source technology, demonstrating **KVANT's** expertise and innovation in the field of advanced photonics.



Zimbabwe



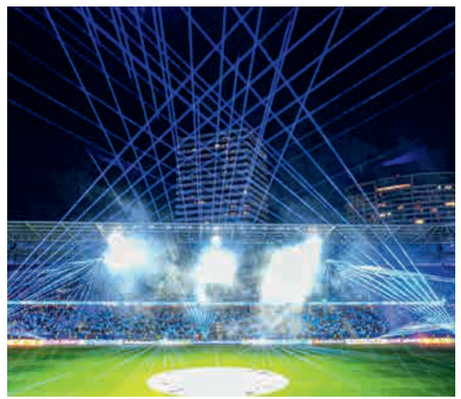
We Are KVANT!

Every laser projector begins with an idea — one that takes shape in the hands of our experts through precision, passion, and quality craftsmanship. Its creation is a true team effort, from research and development to final inspection, all driven by a single goal: a satisfied customer and a flawless result.

Our strength lies in meticulous laser diode testing, where every detail matters. With our in-house research and development facilities, we push beyond industry standards to ensure exceptional reliability and long lifespan. Each diode is tested before production even begins, guaranteeing that every client receives only the highest level of performance and quality.


Light in the City – Banská Bystrica

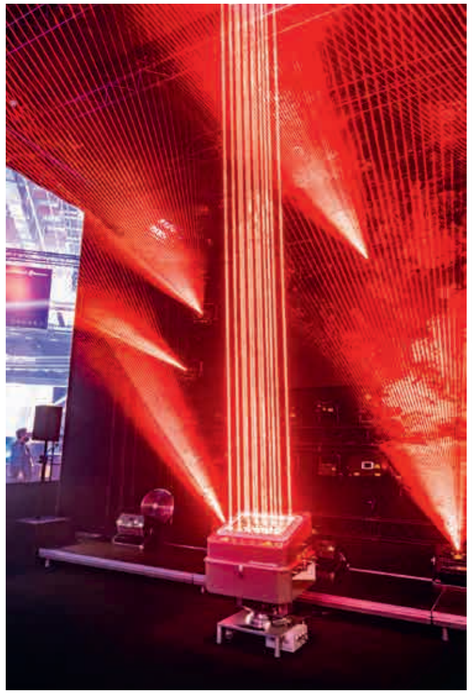
more info:




UEFa

At Tehelné pole Stadium in Bratislava, during the match between ŠK Slovan Bratislava and Manchester City FC, we lit up the arena with a spectacular laser show, creating an unforgettable atmosphere that electrified both the crowd and the night sky.

more info:



Exhibition – Prolight and Sound, Frankfurt

At the exhibition, we captivated visitors with over 60 laser systems, including our powerful **400 W Architect,** transforming the stage into an unforgettable spectacle of light and precision.

As a Team, We Accepted the Challenge

From the Tatras to the Danube — 345 kilometers, 12 runners, and 36 hours filled with adrenaline, laughter, and team spirit. It was an unforgettable weekend of sport, challenge, and mental refreshment — and we're already looking forward to the next edition!

Teambuilding - Terchová

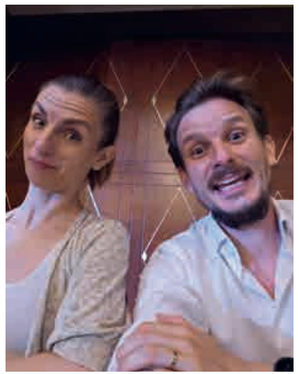
more info:

Sydney – Australia

Al Khobar – Qadsiah Festival, Saudi Arabia

Open Days – Czech Republic & Romania

75 Years of Bangladesh Awami League – Dhaka, Bangladesh



Egypt

Beonix Festival

more info:

Distributors' Meeting

After a ten-year break, we once again welcomed our partners from around the world to the **Distributors' Meeting** in Bratislava, where we presented our latest technological innovations.

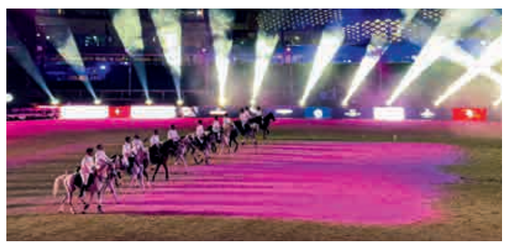
The event featured expert discussions, insightful presentations, and valuable opportunities to strengthen relationships within the global **KVANT Lasers** network, reinforcing our shared vision for the future of light and technology.

more info:

Muse Awards

KVANT Show Production proudly received seven **MUSE Awards** in 2024, recognizing our creativity, precision, and passion for merging art and technology.

Platinum Winners (3): Aviation Festival Piešťany 2022, CEV EuroVolley Tallinn 2023, New Year's Eve Belgrade 2022
Gold Winners (3): White Night 2022, RTI, Tigernut
Silver Winner (1): National Day Abha 2023

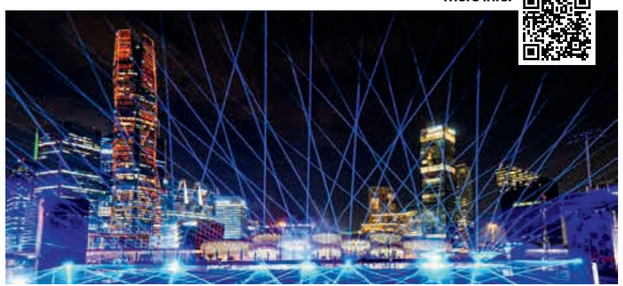


Longines Global Champions Tour – Riyadh, Saudi Arabia

In the heart of Riyadh, we proudly delivered a spectacular laser show for the prestigious **Longines Global Champions Tour,** where the world's top riders competed in a breathtaking atmosphere of light, elegance, and precision.

Las Vegas

more info:



Christmas Party

We wrapped up 2024 with our traditional Christmas celebration, once again joined by our wonderful **KVANT sisters,** sharing laughter, good food, and festive cheer to close another incredible year together.

more info:

Festival letectva Piešťany

At the festival, we illuminated the night sky with a spectacular laser show by **KVANT Show Production,** perfectly synchronized with the fireworks by **Detonics S.A.,** creating an unforgettable sensory experience that left the audience in awe.

more info:

Abu Dhabi

At the opening of the **teamLab Phenomena exhibition** in Abu Dhabi, our **KVANT Events Middle East team** produced one of the largest laser mapping shows in the region, transforming iconic buildings and a water screen into a breathtaking visual story of light.

Exhibizz

During the **SORRYWECAN Exhibizz event,** we crafted a vibrant atmosphere full of energy, rhythm, and visual brilliance — a perfect fusion of art and technology.

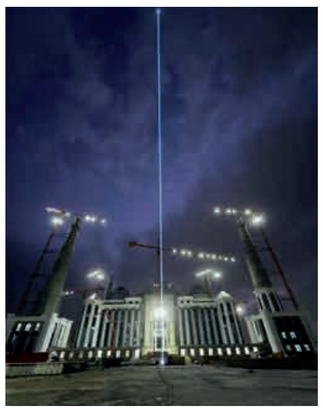
2000 W Architectural Lighting

In Dubai, our **2000 W architectural lighting system** illuminated the skyline, showcasing the city's dynamic spirit through light.

Let's Dance

Arkadag – Turkmenistan

In Turkmenistan, we created a unique demonstration for the ARKADAG project, where four **Epic 270 lasers** and our most powerful **ARCHITECT W1500B projector** lit up the mountains and the mosque, laying the foundation for one of the most powerful permanent laser installations in the world.

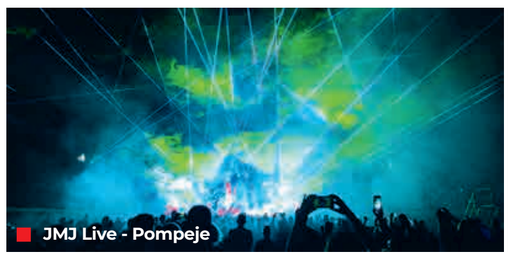


KVANT SHOW PRODUCTION KVANT EVENTS • MIDDLE EAST KVANT LASERS

more info:



Jean Michel Jarre We were incredibly proud to accompany the legendary **Jean-Michel Jarre** on his recent **European tour,** delivering a breathtaking laser show that perfectly complemented his iconic performances and elevated every concert into a multisensory masterpiece.

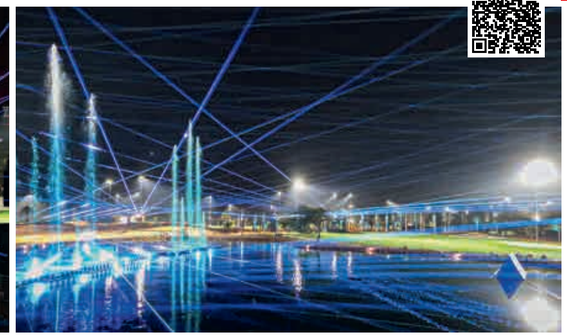

JMJ Live - Pompeje

more info:

Khareef Dhofar Festival

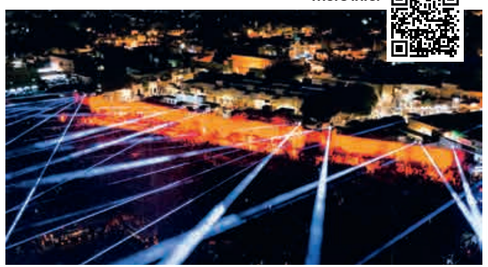
At the **Khareef Dhofar Festival** in Oman, **KVANT Events Middle East** once again took the lead, proudly managing both the technical and production aspects of this extraordinary event — transforming Salalah into a vibrant center of entertainment and culture.

more info:

Riyadh Golf Club – Saudi Arabia At a spectacular event in Riyadh, we illuminated the **Riyadh Golf Club** with 50 lasers, including the **Atom 42W, Epic 270W, and Architect 500 W models,** creating a magical light and fountain show that captivated audiences with its grandeur and precision.

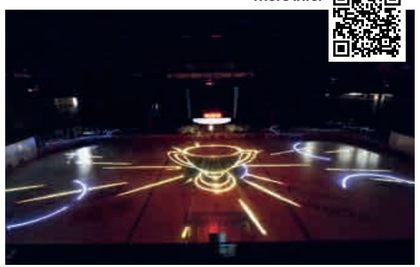
more info:



Nizwa – Oman

The city of Nizwa celebrated the accession day of **His Majesty Sultan Haitham** with an unforgettable night filled with emotion. A stunning fireworks and laser show lit up the sky above the city's iconic fortress, offering a mesmerizing view and a moment of national pride.

more info:



Ice as a Canvas – Pardubice

Six **10 W Clubmax lasers** from **KVANT Show Production** transformed a hockey match in Pardubice into a breathtaking laser mapping performance, turning the ice rink into a shimmering stage of light, energy, and wonder.

Trenčín

KVANT LASERS KVANT SHOW PRODUCTION KVANT EVENTS - MIDDLE EAST KVANT LED SCREENS

more info:

Presidential Palace

At the Presidential Palace, we created a breathtaking video projection that brought to life the masterpieces of **Kovačica folk art,** transforming the historic building into a vibrant gallery of color and emotion.

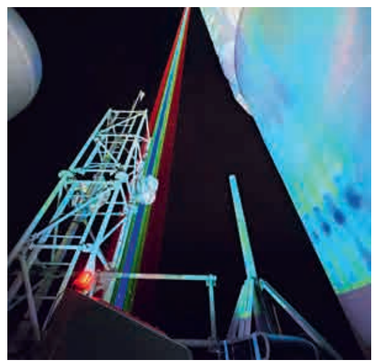
Exhibition – ISE Barcelona

KVANT®
EVENTS - MIDDLE EAST

In 2022, the company **KVANT Events** was established in Dubai by **P. Prokopčák, M. Šimkovič, P. Kubošek,** and **M. Gabčo.** The firm specializes in the Middle Eastern region, where it operates as both a distributor for **KVANT Lasers** and a producer of large-scale laser shows.

Award – Company of the Year: KVANT Events Middle East

At a gala evening held under the patronage of the Slovak Chamber of Commerce in Dubai and TRIM, we proudly received first place in the **"Top Slovak Company"** category, marking a major milestone and recognition of our success in the Middle East region.



Prague

more info:

Grand Opening Show – Grand Egyptian Museum

History came alive in full force — right under the majestic Egyptian night sky! Our **KVANT Events Middle East** division, in collaboration with **KVANT Show Production,** had the honor of contributing to the grand opening of the **Grand Egyptian Museum** — an event destined to be remembered among the greatest in modern history.

The Three Giants of the Desert — the Great Pyramid of Giza (Cheops), Khafre, and Menkaure — shone in all their glory through the magic of our laser technology. Using three **Architect 500 W systems,** we illuminated each pyramid as if the light of the ancient gods radiated from their very peaks. Additionally, six **Epic 270 W** units created layered beams that seamlessly blended modern technology with millennia-old legacy, resulting in a mesmerizing light symphony over the sands of Giza.

more info:

A Dazzling Collaboration in Kuala Lumpur

Together with our Malaysian partner, we lit up the Kuala Lumpur skyline from the top of Merdeka 118, one of the world's tallest buildings, using our most powerful **ARCHITECT W1500B projector.** The result was a monumental light experience — a fusion of innovation, scale, and emotion.

Beonix Festival - Cyprus

The Future Is Brighter Than Ever

And what awaits us at the end of 2025? A spectacular light show on one of the world's most iconic buildings — and the beginning of a new era in permanent installations.

A PERMANENT INSTALLATION THAT CHANGED THE WORLD'S VIEW OF LASER ART.

Light that became part of the skyline. Technology that transformed an architectural icon into a living canvas. With over 358 moving lights and more than 89 lasers, **KVANT** proudly delivered the world's largest permanent laser installation — a nightly symphony of light and architecture designed and engineered by our teams.
Each evening, the lasers breathe with the city — weaving luminous stories across its skyline. This is not just technology. It's a new symbol of light. A new global standard for monumental urban installations. A project that proves boundaries exist only until someone dares to push them further.

INSTEAD OF A CONCLUSION, A CONTINUATION...

Over the course of **30 years**, many things have changed at **KVANT** — our company culture, relationships, and, of course, the people themselves. Step by step, we have taken on projects of increasing complexity and scale.

Every day, we continue to learn how to solve new challenges and adapt to new situations. Each experience, every single success or setback, teaches us something valuable and moves us forward. Sometimes it's **two steps ahead and one step back**, sometimes the other way around, but even a **lesson learned** has its worth. Ultimately, we are always progressing.

The **diversification of our activities** helps us reduce risks, and even those ventures that may not yet be efficient have meaning when guided by a **vision for the future**. The creation of **independent companies** has enabled **deeper specialization** and greater potential for growth.

We often like to compare our company to a **means of transport**. In the beginning, it was a **motorbike** ridden by **Ľubo Mach** and **Palo Kubošek** (before that, each of us had our own "scooter"). Then **Ivan Šlesarik** joined, and we needed a **car**. As more people came aboard, the car became a **minibus**, and later a **bus** capable of carrying out bigger projects and taking more passengers. But as the bus grew, it became harder to accelerate and harder to change direction.

We realized it was more efficient to have a **fleet of vehicles**, several buses, each with its own path and purpose. And so our **fleet expanded** with the creation of **independent companies**.

It's important to remember that **every vehicle is made up of many parts**, each one essential. The **engine** drives it forward, but the **brake** also has its role, even if we sometimes get frustrated that it keeps us from moving as fast as we'd like.

In many ways, this is our shared **"School of Life."** Here, we enrich one another, learn to see things from new perspectives, and grow together. Unfortunately, we don't always have the time and patience to explain everything and understand the context, which is why we say:

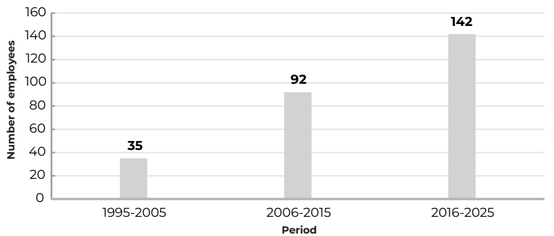
Every problem is simply neglected communication.

What matters most is the ability to **resolve challenges, rise above them**, and **move forward**. Become wiser, stronger, and better prepared to avoid mistakes in the future.

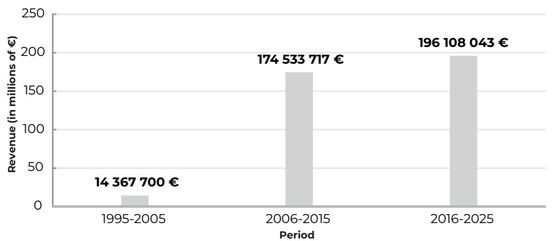
As we look ahead, we wish all our **KVANTmobiles** strong momentum, a **safe journey forward**, as few potholes as possible along the road, and to everyone who helps keep us moving **good health, joy in successful projects, and pride in work well done**.

Ľubomír Mach and Pavol Kubošek

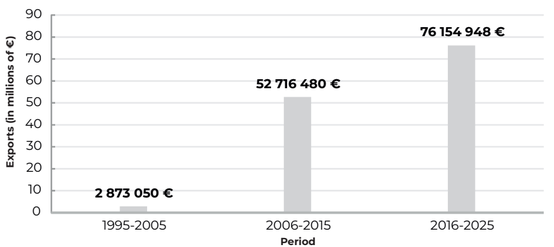
AVERAGE NUMBER OF EMPLOYEES



TOTAL REVENUE FOR ALL COMPANIES



TOTAL EXPORTS FOR ALL COMPANIES



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KVANT LED SCREENS

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VISION SYSTEMS

KVANT EVENTS - MIDDLE EAST

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Peter Rantúch; Petra Rauch; Richard Ravasz; Július Rebeťák; Peter Rehák; Michal Reiffers; Jaroslav Reichel; Andrea Repková; Sergey Reshetov; Juraj Retter; Michal Rezek; Matúš Rohál; Františka Rohaľová; Petra Rőhmanová; Michal Roka; Andrej Rosák; Michal Roščák; Filip Rovenský; Adam Rybár; Vladimír Rymšin; Andrej Rymšin; Michaela Řepišová; Marek Sabo; Katarína Seberíniová; Juraj Sedláček; Nicolas Seidl; Matúš Seidl; Alex Seidl; Peter Sekerka; Katarína Sellyeiová; Dagmar Senderáková; Juraj Serbák; Tomáš Schejbal; Dávid Schifferdecker; Marcel Schichman; Róberta Schmidtová; Peter Sirotný; Teodor Skok; Marek Skokánek; Martin Skýva; Pavol Slamka; Jakub Slanina; Tomáš Sliška; Libor Slobodník; Miriam Slobodová; Dominik Slováček; Dávid Slovák; Peter Smolár; Roman Smyček; Robert Sobčák; Martin Soják; Juraj Solčáni; Ahmed Soliman; Mária Somorovská; Róbert Spielmann; Peter Spurný; Katarína Sroková; Marek Stachera; Kristína Starčeková; Maroš Starosta; Martin Starý; Filip Starý; Daniel Sternmüller; Robert Sternmüller; 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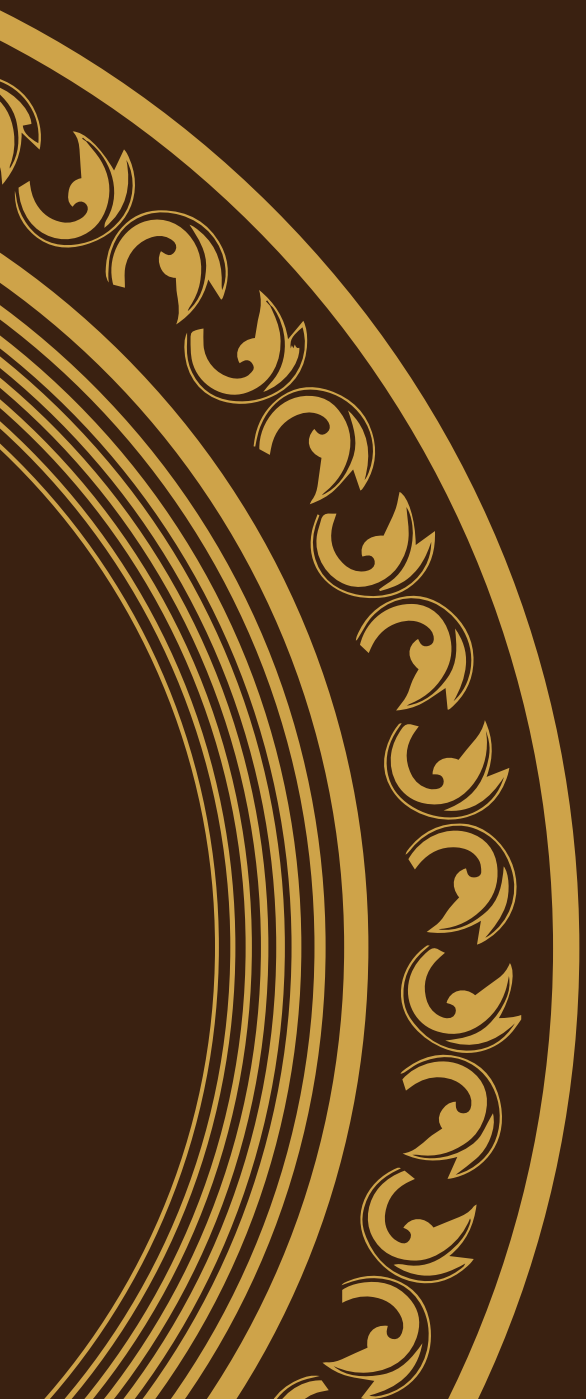

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