

SOLUTIONS | ERA

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For those who follow the trends in intelligent engineering solutions

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News stream

- ▶ The Ministry of Transport and Communications of the Republic of Lithuania, public enterprise Placiujuostis internetas, and **FIMA have signed a contract on the further development of Lithuania's high-speed internet network – the next stage of the RAIN-2 project.** According to the plans, by late December 2014 **approximately 1,000 km of fibre optic cable** will have been laid in the remote areas of the country. Once this stage of the project is completed, high-speed broadband will be made available to 950 rural settlements and the high-speed internet will reach almost 99 per cent of the Lithuanian population.
- ▶ After successfully completing installation of a data centre for the **Latvian National Radio and Television Centre (LNRTC)**, the **Latvian-based subsidiary of FIMA has signed a contract to complete the second phase of fitting out the data centre.** To meet the growing needs of the market and of LNRTC, the second phase of work **will see the increase of the capacity of the data centre, the number of server cabinets will be almost doubled and the data centre's existing IT capacity of 300kW will be expanded.** Construction and outfitting work is scheduled to be completed by the summer of this year.
- ▶ In the new three-storey **office building of NFQ, an IT company, FIMA installed modern security systems.** This modern workplace situated in Kaunas Old Town features **innovative video surveillance, access control and security, as well as fire alarm systems.** A video surveillance system, featuring **megapixel video cameras and a user-friendly interface**, is used to monitor the office building area, its access points, corridors and the car park. New solutions allow security guards in the building to ensure high levels of security of both the workplace and employees.

UNIQUE PROJECT

Latest ionising radiation detection system installed at Klaipėda sea port

The latest technology – a fixed radiation detection system – has been in use at Klaipėda Seaport for some time. **This equipment is designed to ensure that state borders are better protected against the illicit trafficking of nuclear and other radiological materials.** A fixed radiation detection system (referred to subsequently as gates) has been used for several years at Lithuanian land and air frontier posts. However, because an increasing amount of cargo now comes through Klaipėda Seaport, it was decided to install the system at the sea border as well. **Klaipėda is the third major seaport in the Baltic States to use the system** which is already being used successfully at both Riga and Tallinn seaports.

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Aidas Kalvis, deputy chief of the Port station, Coast Guard District at the SBGS: “Until recently, officers of the State Border Guard Service used manual measuring devices to detect ionising radiation. A high flow of vehicles, cargo and people used to impose a substantial burden on the Seaport's frontier officers.”



Different port areas now feature 25 radiation control gates comprised of three different types: for cars, pedestrians and trains.



Special equipment records a violation, photographs the suspected vehicle or person, closes the road off with barriers and transmits all the relevant information to the central emergency warning station.

USA as the project partner

The gates at Klaipėda Seaport, like those in Riga and Tallinn, have been provided in cooperation with the U.S. Department of Energy. As part of their ongoing cooperation with their partners, the U.S. Department of Energy is seeking to strengthen the capabilities of their partners to deter, detect, and interdict illicit trafficking of special nuclear and other radiological materials at border crossing points and is working with various partners in different security initiatives. The U.S. Department of Energy published a tender for the project at Klaipėda Seaport and SES-Tech was selected. The U.S.-led project leaders were keen to make it work efficiently in Lithuania, so it was looking for a reliable partner who was knowledgeable in the specifics of Lithuania and in systems integration. It ended up choosing the leading provider of

intelligent engineering solutions in the Baltic States, FIMA. Once the partners signed a project contract in February 2012, design and construction of the radiation control gates began.

Unique requirements

Installation of the gate equipment was nothing new for FIMA's professionals. However, given that cargo and passengers in the port are transported in different types of vehicle, the company had to install customised gates of several designs. Different port areas now feature 25 radiation control gates comprised of three designs: for cars, pedestrians and trains. They all function according to the same principle. However, their specifications are slightly different. In some places there are additional road blocks, speed bumps and traffic lights. Railway gates are larger and feature additional pro-

tection from external impact, intentional damage, for example.

According to Tadas Rušinskis, FIMA project manager, "the Client (SES-Tech) came with strict requirements: it provided project specifications, guidelines and listed the specific materials it needed for implementation of the technology. We had to adapt all of the above requirements to Lithuanian standards and in the course of the project, we coordinated all the materials and hardware with the client. The preparatory works needed the specialist skills of managing this type of project, but also considerable time; hence we needed to get through other project stages faster".

Port operation undisturbed

The gates had to be built in the Seaport area, so the continued uninterrupted opera-

tion of businesses operating in the port had to be guaranteed.

"When planning sites for equipment and developing detailed system installation plans, we had to align them with the priorities of the companies that are based in the Seaport. We laid the foundation and installed the gates' video surveillance system as well as the fibre optic data transmission and power supply infrastructure in such a way so as not to interfere with the businesses operating at the port," FIMA's representative said while commenting on the process of the project.

Easier and more efficient cargo checks

As the checking system was introduced, the flows of people and cargo were redistributed to ensure they passed through the radiation control gates.

Aidas Kalvis, the deputy chief of the Seaport Frontier Station of the Coastal Guard Frontier District, said: "Until recently, officers of the State Border Guard Service (SBGS) used manual measuring devices to detect ionising radiation. A high flow of vehicles, cargo and people used to impose a substantial burden on the Seaport's frontier officers. The gates ensure more efficient control of ionising radiation in the Seaport, through which increasing amounts of cargo enters Lithuania every year." He added that instances of elevated radi-

ation comes, in the main, from transportation of non-hazardous products like fertilisers and construction materials. These are manufactured from natural substances that emit ionising radiation.

Real-time response to violations

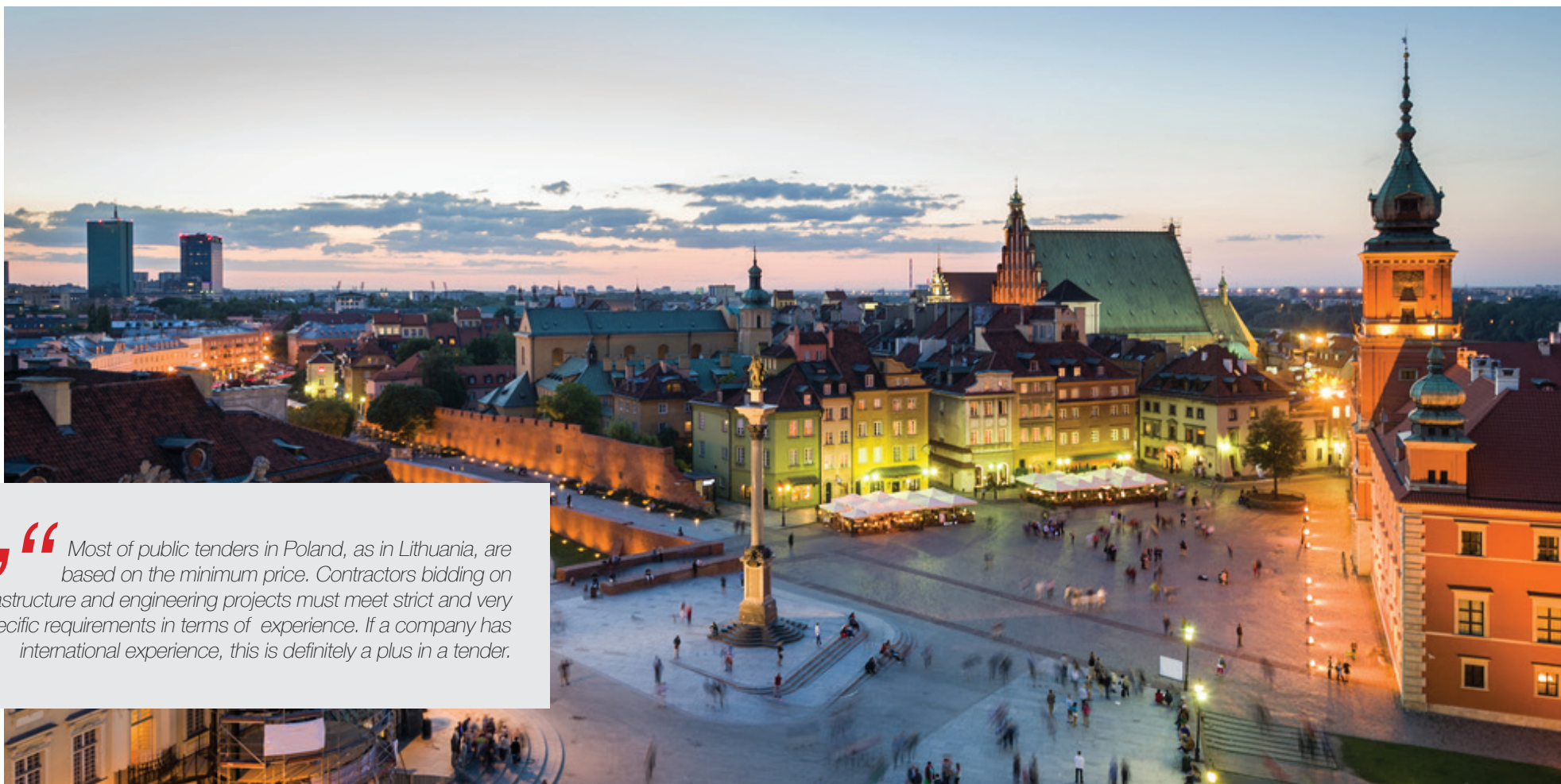
According to Mr Kalvis, the newly-installed advanced technology has centralised the entire system and has made it more efficient. Gamma and neutron radiation detectors installed in the gates scan the level of ionising radiation in cargo or vehicles. If radiation is identified, they automatically transmit a warning signal to the central emergency warning station located in the Seaport Frontier Station of the SBGS Coastal Guard Frontier District.

When cargo, a vehicle or person exceeds the established parameters, advanced technology photographs the suspected vehicle or person, closes the road off with barriers and transmits all the relevant information to the central emergency warning station.

Companies at the Seaport assist SBGS in controlling ionising radiation. Once an instance of increased ionising radiation has been detected, the vehicle, cargo or person is first stopped by security staff before SBGS officers come to the site to take control of the suspect object.

Reconnaissance by FIMA in Poland becomes successful business development

Poland-based **FIMA Polska**, a subsidiary of FIMA, now has dozens of projects under its belt; projects that have either been **completed or are in their early stages**. The company's first moves to research the market and its potential got underway a little over two years ago. **"The Polish market is 10 times larger than the Lithuanian one and contains many business opportunities. But before attempting any new strategic development, we wanted to assess the market carefully first. And it paid off,"** said Vytautas Zinkevičius, FIMA Business Development Director, describing the path taken into the Polish market.



“ Most of public tenders in Poland, as in Lithuania, are based on the minimum price. Contractors bidding on infrastructure and engineering projects must meet strict and very specific requirements in terms of experience. If a company has international experience, this is definitely a plus in a tender.

Partners helped to discover new development opportunities

The neighbouring Polish market is unique in that there are some 50-60 infrastructure projects of a particular type, while Lithuania offers five or six. But such a large market is accompanied by strong competition so any new player must be careful. Mr Zinkevičius added: "As with most Lithuanian businessmen, we initially took a rather stereotypical view of the country: as Polish goods and services are not expensive, it is probably difficult to compete and make a profit there. However, due to the size of the market and because of the large number of projects, it is natural that project prices are lower. Furthermore, due to

assess market potential. We witnessed first-hand the way public procurement is run, what conditions apply to contractors and other partners. In turn, this experience helped us to define the company's development plans," said Mr Zinkevičius describing why FIMA had to assess the Polish market before establishing a company there.

No shortage of willing candidates

Any company entering a foreign market primarily relies upon its team. According to Valdas Vrubliauskas, FIMA's representative, who is actively involved in projects in Poland and spends more than 50 per cent of his time with FIMA Polska, any lack of knowledge of the spe-

He added that the Polish labour market features several intricacies that a company should be aware of when picking a team. Mr Vrubliauskas said: "In Poland, employees do not get so attached to their job compared with Lithuanians, for example. They do not find changing job difficult; the work environment and motivational programmes here play a very important part. On the other hand, Polish employees are hard-working, eager to get involved in company activities, always are pro-active and come up with ideas on improving a particular operating aspect. This is of key importance particularly so during the early stages of activities." FIMA Polska now has 11 employees and it is still expanding.



Vytautas Zinkevičius: "Compared with other companies of similar profile, we have some aces up our sleeve in Poland: our extensive experience in Lithuania, Latvia, and Belarus."

“To use the comparison of technological solutions with different models of cars, one often dreams of a Mercedes in Lithuania because it is the most advanced model which is complex and will serve its purpose for decades. In Poland, in contrast, they take a more down-to-earth view on investment and prefer mid-market “cars”

The Polish are rational-minded clients

When FIMA started its first projects in Poland, it soon found out that, compared with Lithuania, the public procurement process is considerably more rational. As Mr Vrubliauskas puts it: "To use the comparison of technological solutions with different models of cars, one often dreams of a Mercedes in Lithuania because it is the most advanced model which is complex and will serve its purpose for decades. In Poland, in contrast, they take a more down-to-earth view on investment and prefer mid-market "cars". What mat-

the market's scale, niche businesses have a lot more opportunities".

In its first projects in Poland, FIMA operated with a partner which offered to jointly tender for several infrastructure modernisation projects. "That was a good way to look around and

cial features of the local market including linguistic and cultural differences will impact upon the business sooner or later. Therefore, he said, the first thing a company must do is to gather a team that contains several local people with impressive track records.

ters is to ensure that a system or solution can function efficiently for five to seven years and that new investment will follow later."

The practical approach in Poland also shows up in later project stages. For example, infrastructure modernisation projects carried out in Poland have less flexibility in the implementation stage as a number of decisions over the systems to be installed and their manufacturers are made during the design stage and later, in the course of

project implementation, are no longer subject to change.

As Mr Zinkevičius points out, these conditions are favourable to both the client and contractor because both parties "speak the same language" from the start and take the same approach over the ultimate outcome and so are prone to less miscommunication.

Mr Zinkevičius said: "For instance, Lithuania offers more flexibility in the project progress stage, as the design process



V. Vrubliauskas: "The important advice to businessmen considering entry into the Polish market is to start with reconnaissance, verify potential success in competing with local companies, and then, work hard."

usually establishes both the concept and functionality of a technical solution rather than specific vendors of equipment. We were accustomed to operating like this. After the first tenders were awarded in Poland we realised our ability to adapt easily to a different market and obtained more experience with each new tender."

The key to success in competition – extensive experience

Poland is a country for doing

business. The small and medium-sized business sector is extremely well-developed. According to Mr Zinkevičius this is why competition is so strong. He said: "Despite this, compared with other companies of similar profile, we have some aces up our sleeve in Poland: our extensive experience in Lithuania, Latvia, and Belarus."

Most of public tenders in Poland, as in Lithuania, are based on the minimum price. Contractors bidding on infrastructure and engineering proj-

ects must meet strict and very specific requirements in terms of experience. If a company has international experience, this is definitely a plus in a tender. "The terms and conditions around the amount of experience a company has are very particular. For example, there's a requirement to have installed at least five data centres of a certain size over a given period; if the company does not have the kind of experience, there is no point even taking part," said Mr Zinkevičius explaining the importance placed in Poland on the experience of a company. He added that the reasoning behind this is to choose best, most-reliable and most-experienced contractors.

FIMA Polska is currently working on the installation of infrastructure in data centres, telecommunications, business and office buildings of different sizes. FIMA's Development Manager hints at future plans: "The projects we are currently implementing in Poland are smaller in size when compared with Lithuanian ones but this is just a matter of time. We expect to focus on transport projects, railways in particular, because this is where we have extensive experience".

Lithuanian name, no problem for doing business

As for the question on whether a company with Lithuanian origins may face problems,

FIMA Polska is engaged in the following key projects in Poland:

- Installation of infrastructure in a technology park data centre in Katowice,
- Modernisation of Dalkia server room infrastructure,
- Modernisation of Polish National Forest Holding server room infrastructure,
- Installation of security, telecommunications, power supply, and building management system at an A class business centre in Warsaw,
- Equipment of eight server rooms within framework of a regional tele-information networks project in Lodz.

Mr Vrubliauskas, who spends a considerable amount of his time in Poland, says that the Polish press covers disagreements among Polish and Lithuanian people just as regularly; however, many businessmen are aware that these are just political games. "Naturally, you can meet people in business environment who take a slightly negative view on Lithuanians and Lithuanian business. However, it won't ever be said to your face and, during the time we have operated in Poland, we have never been confronted with peremptory notions over Lithuanian-based business," he said.

According to Mr Vrubliauskas, in Poland the quality of service matters more than the origin of a company's capital. There-

fore, as FIMA cooperates with its partners and customers and participates in tenders, it places great emphasis on its international experience.

"The Polish market has unique features, however, it is not difficult to understand them and the Lithuanian source of our capital does not pose any problems. The important advice to businessmen considering entry into the Polish market is to start with reconnaissance, verify potential success in competing with local companies, and then, work hard. Your effort might not pay off in the first year; however, the investment will be returned over and over again in time because Poland offers numerous opportunities," said Mr Vrubliauskas.

Belarus-based company FIMA BR has successfully completed several infrastructure modernisation projects in Minsk

FIMA BR, a Belarus-based subsidiary of FIMA, has successfully completed **several transport infrastructure modernisation projects in Minsk**. The city's busy streets now feature **modern traffic control systems** that allow more effective control of traffic flows and ensure the safety of pedestrians.



Ilja Mochovikov, project manager at FIMA BR: The traffic lights manufactured by our company are simple to install, with no additional parts required; subsequent repairs are straightforward and convenient.

Responding to a requirement of the National Transport Inspectorate, which is responsible for the city's traffic infrastructure, modern traffic light control systems were installed at the three

pedestrian crossings judged to have the highest risks of accidents, while an intersection with traffic light control system was implemented at a new shopping centre following an order by

shopping centers' development company.

Ilja Mochovikov, project manager at FIMA BR, said: "For the most part, the traffic lights used in Minsk are based on light di-

odes (200 to 300 light diodes each). As some of these burn out, the brightness of the traffic lights falls dramatically. So, when the sun shines, drivers may not be able to see the traffic light change colour. The traffic lights we have installed are more technologically advanced, and the lenses used in them prevent the so-called "phantom effect".

Convenient and cost-efficient operation

According to Mr Mochovikov, the new equipment, manufactured by FIMA BR in Belarus in line with local requirements, is easy and convenient to assemble and simple to operate. He added: "The traffic lights are simple to install, with no additional fittings required; subsequent repairs are straightforward and convenient. It only takes 10-15 minutes to replace a broken part and there is no need to take

„“ New equipment uses 50 per cent less electric power, which in turn cuts operating costs.

the traffic lights apart to do this. In contrast, the old traffic lights would need full disassembly, transport to a repair centre and workers would have to put up temporary traffic lights in the interim. He said that the new equipment uses 50 per cent less electric power, which in turn cuts

operating costs.

In the spring, FIMA BR will install induction loops at the modernised crossings. These will calculate and analyse transport flows and provide the authorities with the information that is needed to make decisions on future traffic control in Minsk.

Installation concentrating on latest technology

FIMA BR started the traffic infrastructure modernisation work in Minsk in 2012 with a pilot project commissioned by the National Transport Inspectorate. The project involved implementation of wireless traffic flow sensor systems and modern traffic light control equipment at some of the busiest intersections in the city. This significantly contributed to the throughput of transport flows.

The company is also integrating other technologies into Minsk's transport infrastructure. Since 2011 all old push buttons at the pedestrian crossings are being replaced. As many as 300 push buttons manufactured by FIMA BR have already been installed on city streets. Mr Mochovikov said: „We also have several pilot projects underway. We are now testing a video detector at a very busy crossing. The device calculates and analyses transport flows.“ The company is also planning to test a public transport priority system in the city.

Video conferences in a modern company are no longer a luxury

Because market needs change so rapidly, communication technology innovations develop extremely quickly while emerging opportunities shape new social habits. **The increasing number of mobile technologies allows users who adapt flexibly to innovations exchange information more conveniently and faster, and encourages faster decision making.** This has an impact on business communication strategies and information management: **meetings and other processes are increasingly moving to this new virtual environment and video conference gain another dimension.**



““ The advantages of Avaya Radvision include far better functionality when compared with solutions offered by other manufacturers for the same price as well as the opportunity to install additional functions in an easy and cost-efficient manner, without losing the money invested in a company's previous conferencing system.

A single conference can now connect several hundred or even thousands of rooms and mobile participants; employees can connect via personal computers and tablets or smartphones.

Most people, the younger generations in particular, feel completely at ease in front of a video camera installed on a mobile phone or tablet. It has been demonstrated that video conferences are as effective as face-to-face communication. No wonder that the largest companies like Google and Facebook as well as a number of suppliers of unified communication

solutions are investing heavily in development of mobile applications. Video conferences are now common in the business world tool but they are often associated with a screen fitted in a special room or with Skype, MSN Messenger, etc and intended for use by large numbers of people. However, applications intended for the masses are not a viable choice for business.

According to Vaidotas Černiauskas, Director of Telecommunications Solutions Department at FIMA: “The connection with applications used by very large numbers of people is often unstable and intermittent. Furthermore, it does not provide the security that firms need: a company, unable to control its information flows, risks not only network hardware problems but

also faces the potential leaking of sensitive information. In the post-Snowden era, until quantum computers move from the laboratory into the mainstream, cyphering remains the most secure solution for remote communication. It is therefore advisable to use IT solutions that can be adapted to corporate security policies.”

A necessary tool for doing business

According to Mr Černiauskas, a modern company does not consider whether or not to implement video conference solution: it only decides on the time and solution to be chosen, so that a business and organisation can compete in the market efficiently. He added: “This format of communication saves time and the cost of travelling to the actual meeting venue, employees can balance their professional and personal lives better and those who spend a lot of time away from the office do not feel excluded. The biggest advantage is improved speed and efficiency of business processes

and the shorter time it takes to make decisions.”

The FIMA representative said that video conferencing is no longer an advantage but simply a necessary tool to do business just like a mobile phone. “It is possible that while you are estimating the time that the equipment will take to recoup its costs, your competitors are cutting theirs and improving performance. A company with a video conference solution in place projects a modern image of a firm controlling its costs, taking care of its employees and embracing innovation.”

Mr Černiauskas pointed out that both video conference solutions and choosing the right supplier are equally important: “A professional supplier will assist in integrating the right solution into your business processes, adapting it to your company procedures, ensuring regular optimisation, consultations and opportunities for expansion”.

Avaya Radvision, preferred solution

As survey by an independent

company Frost & Sullivan analysis suggests, the major criteria when choosing communication technologies include security (66%), price (66%) and reliability (62%). These things matter to FIMA, the intelligent engineering solutions provider which now has offices across Lithuania including subsidiaries in Riga, Warsaw and Minsk. The company employs Avaya Radvision video conferencing system for its own needs and is offering this solution to the customers.

“Avaya” products stand out because of their extraordinary compatibility with hardware and software provided by other manufacturers meaning that their video conference system can be easily integrated into a company’s existing communication tools and software including video conference systems, desktop computers and laptops, mobile and smartphones, tablets, calendars, direct correspondence tools and tools that determine staff availability.

A quick return on investment

FIMA chose Avaya Radvision’s basic package. It can connect up to eight rooms, computers and mobile participants into a single conference. However, the solution can also be expanded to include hundreds or even thousands of points, whether stationary or mobile.

This is an optimal, complete

solution which, even in the basic package, features all key functionality. Mr Černiauskas added: “The advantages of Avaya Radvision include far better functionality when compared with solutions offered by other manufacturers for the same price as well as the opportunity to install additional features in an easy and cost-efficient manner, without losing the money invested in a company’s previous conferencing system. I have witnessed first-hand how the solution offers the best ratio of price, quality and benefits. Investment in the solution is comparable to making 10 trips to several European countries or the total monthly salary of a small department; so we saw payback in no time at all.”

A convenient and functional solution

Mr Černiauskas said: “The system is simple and convenient to use. In order to connect to a video conference, no assistance by an IT administrator or installation of special software is required. You only need the internet and link to a conference; thus attendance is open to customers and partners who don’t have a conference system. Any employee unable to be physically present at a training session can take part remotely or view a recording of the session later. High video quality of Avaya Radvision also allows the broadcast

of high-definition video material and videos to partners and customers. This provides companies with amazing flexibility.

Extensive application opportunities

Mr Černiauskas continued: “These systems are particularly popular in medicine. A doctor, who is not always available on the spot, can use video conferencing to monitor an operation in real time and consult his or her colleagues, communicate with mobile emergency groups in the

accident area, etc. During these consultations and procedures every detail must be shown and video conferences offer other advantages: high definition, the ability to zoom in and monitor several objects recorded by different video cameras simultaneously.”

According to Mr Černiauskas, this is the principle that allows people living in archipelagos and other remote areas abroad to contact clinics, hospitals and other municipal services while professionals based

in the regions are able to participate in training courses remotely. And when it comes to the wide range of applications available with video conference systems, he added: “This is how people can access primary services which are only available in large cities and helps to combat regional exclusion. Avaya Radvision has built-in security against tapping and hacking allowing government ministries and other authorities to install this type of system safe in the knowledge that it is secure”.

Avaya Radvision video conference system vs. other solutions

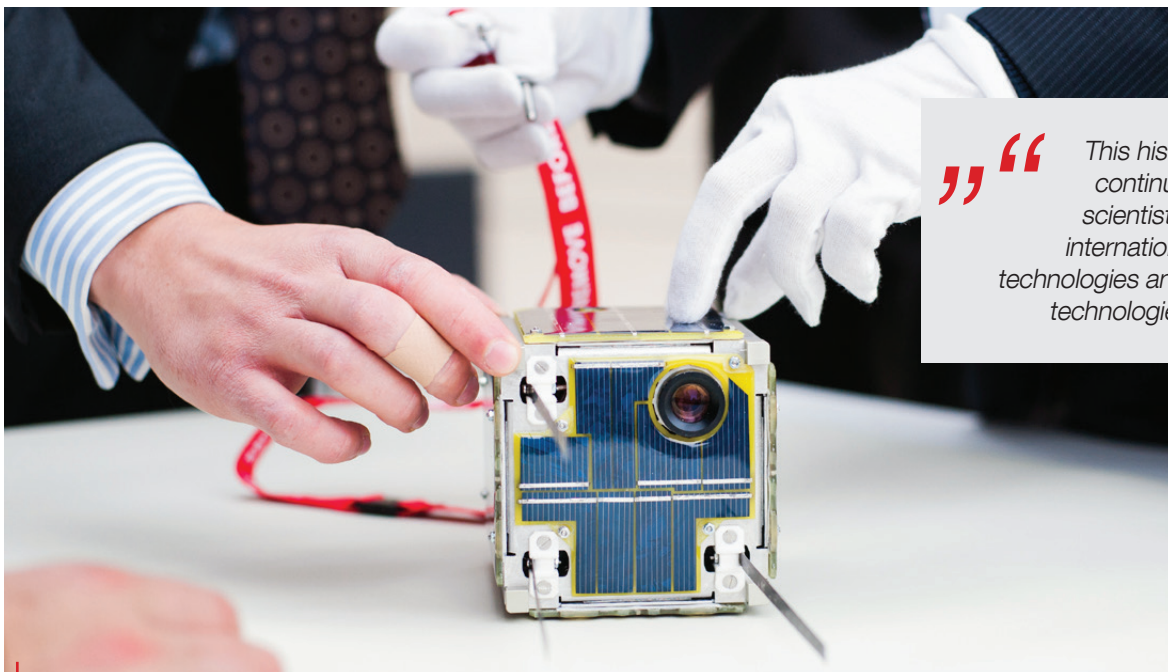
System parameters	Avaya Radvision basic solution	Other solutions of equivalent price
Number of parties/users, able to take part in a single video conference and video quality	Up to 8 points with high definition (HD) video quality.	Up to 4 points at HD quality or 6 at standard (TV) video quality.
Broadcasting of recorded video	Opportunity to broadcast high definition video recordings. Screen refreshes at 60 frames per second.	Poor quality broadcast of video recording (intermittent video). Low screen refresh rate.
Opportunities for connecting users to the system	Simple connection of any computer or portable device with an internet link. The system is available for use by a user independently and immediately.	Conference can only include users with special software installed on their computers or portable devices. That mostly requires assistance by an IT administrator. Additional users are often connected at extra cost.

Opportunities for system development:

Improvement of video quality	Without replacing hardware, one can upgrade video quality to Full HD in a cost-efficient manner. Purchase of a licence is sufficient.	Purchase of new / additional hardware is required; previous hardware may be unsuitable.
Installation of conference recording function	Simple, cost-efficient. Purchase of a licence is sufficient.	10 times more expensive than Avaya Radvision and a dedicated server must also be purchased.
Improvement of zoom function	Simple, cost-efficient. Purchase of a licence is sufficient.	Purchase of the new camera is required.
Opportunity to connect additional video cameras	Purchase of additional cameras is sufficient.	Purchase of a new video conferencing solution, requiring considerable investment, is necessary.

Gift by FIMA to the creators of the first-ever Lithuanian satellite – opportunity to watch the launch of LituanicaSAT-1

On January 8, the Antares carrier rocket was launched from a NASA rocket base in Wallops Island (USA). The rocket carried a Cygnus spaceship into space which, along with its cargo, **docked Lithuania's first satellite, LituanicaSAT-1, with the International Space Station (ISS). This historic event was witnessed by Vytenis Buzas, promoter of the idea to create and launch the first Lithuanian satellite.** The opportunity to travel to the US to witness the launch was made possible by FIMA.



On February 28, as the ISS was flying above the Eastern Siberia, LituanicaSat-1 became the first Lithuanian satellite to be launched into open space.

FIMA has supported the development of technologies, innovations and initiatives to improve skills of engineering students for a number of years and so this gift was a natural next step. Vytautas Zinkevičius, FIMA's Business Development Director, said: "By sponsoring the opportunity for

one of the satellite engineers to witness its launch, which was an historic event in itself, we have also shown our commitment to helping Lithuanian scientists and engineers become part of the international space technology community. At the same time, we have contributed to the mis-

sion's key objective to promote the development of space technologies".

Linus Bokauskas, deputy dean of the Faculty of Mathematics and Informatics at Vilnius University, serving as the construction base of the satellite, said in a radio interview that the

involvement of a private company demonstrates that the field

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This historic event is important to all of us and FIMA continues to support the cooperation of Lithuanian scientists and engineers, national involvement in the international community, studying and creating space technologies and the promotion and development of space technologies which was a key objective of the mission.

Mr Buzas said: "I am immensely glad that despite the short timeline, we succeeded in finding here, in Lithuania, so many people who believed in the idea and to assemble a strong team and infrastructure all within a single university (Vilnius University) despite the short timeline".

of space engineering will continue to expand. "Most people imagine that the members of our team are funded by some projects or banks. Instead, we are funded by companies developing information technologies and engineering solutions. The trip by Mr Buzas was funded by FIMA; this demonstrates that the private sector is ready to participate in projects of a similar scale, to donate money or to undertake specific work on them".

Mr Buzas and his colleague, Mr Mačiulis, initially thought of designing the first Lithuanian satellite a year and a half ago while on an internship at the NASA AMES Research Centre.

On its trip to space, LituanicaSAT1 was accompanied by another Lithuanian satellite, LitSAT1. They both started out within the framework of an important US experiment involving small and cost-efficient satellites. The Lithuanian satellites were intended to commemorate the 80th anniversary of the flight by Darius and Girėnas across the Atlantic.

On February 28, as the ISS was flying above the Eastern Siberia, LituanicaSat-1 became the first Lithuanian satellite even to be launched into open space. The signal transmitted by the satellite was recorded by German radio.

FIMA challenges engineering students to build weigh-in-motion system for vehicles



Students were given eight hours to build a system, as precisely as possible, for weighting of vehicles in motion and for recording and visual display of their weight.

In February, Kaunas University of Technology (KTU) ran the eighth engineering competition EBEC'14 Kaunas. The competition is the first stage of in a series of international competitions for engineering students – European BEST Engineering Competition. FIMA, a long-standing partner of the event, taking part for the sixth time, set up a task to prospective engineers to apply their academic knowledge in a real-life situation.

The that FIMA professionals came up with – Team Design – was to build a system, as precisely as possible, for weighting of vehicles in motion and for recording and visual display of their weight.

Vytautas Zinkevičius, FIMA Business Development Director and a member of the EBEC'14 Kaunas commission, said: “About 25 percent of heavy goods vehicles on national roads are overloaded. Overloading reduces road service life, increases maintenance costs and damages the business of those carriers that abide by the law. When a vehicle is overloaded, the stopping distance increases and manoeuvrability suffers, so there is a hazard to other road users.” He was happy with the intelligence and inventiveness of the participants. “As is the case every year, we gave the students an opportunity to apply knowledge and skills gained at the university in dealing with a real-life problem. While we observe the most gifted participants we are always on the lookout for potential new employees”.

Weighting systems built by the teams were tested by FIMA professionals using a radio-controlled car. The Koviniai ežiai team won the competition and will now progress to the regional stage to be held in Yekaterinburg.

FIMA's interactive stand lures students at Career Days

In March, Kaunas University of Technology (KTU) and Vilnius Gediminas Technical University (VGTU) held annual Career Days events which provide a point of contact between companies and students. The aims of the events included introducing students to national companies and to highlight internship and employment opportunities. FIMA's interactive stand stood out and invited students to approach and talk to company professionals.

FIMA used an interactive stand introducing the company and the projects it has completed. Relying on augmented reality, the projects were projected on different planes; every visitor had an opportunity to try it out first-hand using his or her smart device. This type of stand was being used for the first time in Lithuania and was synchronised with Facebook. Visitors were able in real time to become fans of the company and to watch the changing number of fans at the stand via an integrated meter.

According to Vytautas Zinkevičius, FIMA Business Development Director: “The students were interested in both internship and employment opportunities. There were a number of electronics and automation students. We are constantly looking for new employees, and, although personal qualities and aims of young people matter most to us, those specialties are still relevant.”



Electronics, automation, and students from other fields were interested in employment and internship opportunities with FIMA.



About FIMA companies

Solutions Era is a quarterly publication covering intelligent engineering news. It has been published by FIMA since 2006 and is available in Lithuanian, English, Russian and Latvian. Back issues can be downloaded at www.fima.lt.

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FIMA is the leader in intelligent engineering solutions in the Baltic countries, offering telecommunications, security, automation and data center solutions as well as individually tailored solutions for transport and energy sectors.

The company implements intelligent engineering solutions for businesses and governmental organisations in the Baltic states and Belarus and is continuously involved in projects of technological innovation. In two decades of operation, FIMA has carried out several thousand projects of a various scale and degree of complexity.

FIMA's headquarters are based in Vilnius, Lithuania. The company has subsidiaries in Latvia, Poland, Belarus.

Do you have ideas, suggestions or comments? Email us at solutions.era@fima.lt.

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