SOLUTIONS | ERA

NEWSLETTER
ISSUE 19, APRIL 2012

Fima

For those who follow the trends in intelligent engineering solutions

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News Stream

- Intelligent engineering solutions company Fima has upgraded one of the seven data centres operated by **Baltic Data Centre** and installed a server cooling system of the highest availability level. This is the **first system with such a high level of availability installed in Lithuania**. Previously, traditional freon-based cooling equipment was being used at the data centre.

- In March, the project to install a data centre at the **Latvian National Radio and Television Centre (LVRTC)** was completed. The solutions installed by Fima will ensure high reliability and energy efficiency in the data centre. A special system for managing the data centre infrastructure monitors the state of the infrastructure, automatically controls support systems, and monitors and helps to optimise the power usage.

- Fima has signed contracts with the Lithuanian electricity distribution network operator **LESTO AB** regarding the reconstruction of a control system **(SCADA)** for fourteen transformer substations in the Prienai and Pakruojis districts. The reconstruction of the substations will allow for much faster location and handling of failures in the electricity grid.

CEO'S COLLUMN

Gintaras Juknevičius: "You Can See Us Nearly Everywhere"

More than 10,000 various projects – this is the result that engineering solutions company **Fima** has achieved by its **20th anniversary**. All these projects are significant not only for Fima, but also for those who drive on Lithuanian roads, walk on Vilnius streets and spend time in sports and entertainment arenas.

"We usually discuss the projects that we work on in the professional language that contains many technical details and complicated engineering terms. Nevertheless, it harbours a specific goal of ensuring safety, guaranteeing immediate availability of assistance in case of an accident, contributing to creation of safe jobs, etc. Indeed, while waiting for a flight at an airport or parking a car, very few people realize how much labour and knowledge we invested in this," Fima's General Director Gintaras Juknevičius says.

Therefore, we are now inviting you, dear readers, to look at Fima's 20 years of experience through the eyes of ordinary people and see how the work performed by the company's team is reflected in the daily life. "It is a big responsibility, and our goal is to contribute to the creation of a high-quality functional environment and infrastructure. You can see us nearly everywhere: you are under the surveillance of cameras we have installed on streets, you get information about bad driving conditions from the road air conditions information system we have installed, your corporate or personal data is stored at state-of-the-art data centres equipped by our company," Mr Juknevičius said.

So, did you know that...

Fima in numbers:

- The company offers more than **50** different engineering systems.
- It is working on approximately **100** different projects at a time, and Fima Service Center is maintaining and servicing more than 500 objects.
- The total value of simultaneously executed projects exceeds **EUR 100 million**.
- The value of the currently executed largest project, the modernisation of IXD railway corridor, stands at **EUR 39 million**.
- The company's team consists of nearly **400** employees.
- The company operates **3** subsidiaries in Latvia, Belarus and Poland.

… cycling sports enthusiasts watching competitions in **Cido Arena** in Panevėžys can see finish results in milliseconds, as the arena features Lithuania's only cycling timing system; that one hundred surveillance cameras guarantee safety of visitors at **Snow Arena**, which covers 8 hectares and is the first winter entertainment center in the Baltic States that works all year round; or that Lithuania's first video cube was installed at **Siemens Arena** in Vilnius to facilitate better watching of sports competitions? These are all the results of efforts of Fima's specialists to make our leisure safe and convenient.

… the data about weather conditions, road conditions and traffic intensity is registered and processed by more than 100 road weather stations on Lithuanian roads on a daily basis. The data is forwarded to the staff of the Traffic Information Centre and, in the end, the processed information is provided to the drivers. This is the **first Traffic Information System in the Baltic states**, which Fima also contributed to. Therefore, before going on a trip, go to a special website **www.eismoinfo.lt** for any information you may need for a safe journey.

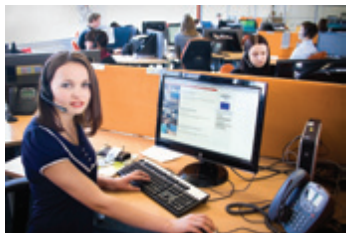
… residents and guests of Vilnius are under the surveillance of more than 100 surveillance cameras, which Fima has installed in the most visited public places and streets. Launching of **Lithuania's first public surveillance system** in the capital of Lithuania is reducing the crime rate in monitored locations every year, and the detailed information caught on camera, for example, a license plate or the sum paid for a stolen item, enables police officers to identify and punish offenders much faster. An analogous system has been launched in the port city of Klaipėda.

… by 2013, 98 per cent of Lithuania's population will have access to **modern broadband Internet connection**, and the quality of signal will be equally good and reliable in the largest cities and in the most remote villages. Fima is one of the contributors to what is probably the largest engineering project in terms of the scope of work, which will result in as many as 4,800 km of fibre-optic cables. Last year, the project was listed among Europe's 12 best projects in development of broadband communication infrastructure.

Fima

… the discipline of drivers is monitored not only by police officers but also by 150 **speed cameras** in Lithuania. The result is the continuous decrease in traffic accidents. According to the data provided by the Lithuanian Road Administration, in 2008-2010 the installation of speed cameras brought down the number of road deaths by 40%, the number of road traffic injuries by 43.5%, and the number of traffic accidents by a third.

… currently, the **Vilnius Airport** handles about 120,000 passengers per month, and the figure is expected to grow by at least a third for the summer season. Surveillance cameras and other complex security and management systems installed by Fima in the **new terminal of the airport** help handling the large flows of people and provide timely information to the passengers. For example, the terminal features Lithuania's first passenger flow management system, which facilitates smooth movement of passengers and provision of information to them. It also separates passengers from Schengen and non-Schengen countries. Leave alone the peculiar security requirements, which are ensured by 200 surveillance cameras.



… **Lintel contact centre** serves 40,000 clients on a daily basis, with one employee handling up to 100 inquiries per day. In case of need, the centre can easily answer additional 10,000 calls. Successful handling of the large flow of calls is possible thanks to technological solutions installed and are maintained by Fima's specialists. We can be sure that a call to a company assisted by Lintel call centre will be handled shortly.

… up to 40 passenger and cargo trains cross the **Kaunas railway tunnel**, which is the only railway tunnel in the Baltic states. Traffic safety is monitored by modern engineering systems installed by Fima. In case of an accident, the system would instantly report it, and assistance would be called within seconds.

Future of the Region's Transport Sector: **Modern Railways**

When did you last travel by train? You will probably have to rack your brain to answer this question, because statistical data show that people prefer travelling by car. This does not mean, however, that the importance of steel roads in the Baltic region is on the decrease. On the contrary, freight transportation by railways has been growing in recent years. According to the Lithuanian Department of Statistics, domestic rail freight tonnage increased by nearly two-thirds over the last decade, **from 30.7 million tonnes** in 2000 **to 48 million tonnes** in 2010. Preliminary figures show that the rail freight carried last year amounted to 52.3 million tonnes, i.e. increased by **8.9%** compared with 2010. The Latvian rail network picked up even more strongly: the volumes of freight in Latvia increased by **20%** last year compared with 2010.

Thus, the importance of railway transport is growing in the entire Baltic region, and considerable investments are being made in the development of this sector and the renovation of infrastructure.

"The role of railway transport in the national economy is crucial: last year, rail freight accounted for more than half of the total volume of freight carried in Lithuania. Freight traffic progressed remarkably: the total volume of freight increased by more than 12% compared with 2010. The upward trend in freight volume is attributable to a number of factors, such as a flexible tariff policy applied by Lithuanian Railways, long-term contracts with principal manufacturers and shippers, and a favourable situation on the freight market," said Stasys Gudvalis, Director of the Freight Transportation Directorate of Lithuanian Railways.

Nevertheless, the Lithuanian railway transport sector is still lagging behind the efficient and up-to-date rail networks of the European Union. "Technical obsolescence of the railway infrastructure, especially of traffic management systems, has a negative impact on the safety and intensity of train traffic, cargo and wagon turnover, and other performance indicators. Thus, the renewal and modernisation of traffic management and control equipment is one of the key priorities in the reconstruction of infrastructure," noted Albinas Ragauskis, Director of the Railway Infrastructure Directorate of Lithuanian Railways.

Remarkable Growth in a Period of Slowdown

Latvia has also put a lot of effort into the modernisation of railways, and the volume of freight carried by trains has increased at a particularly brisk pace. "Last year, the rail market growth rates in Latvia was significantly higher than the number in European neighbouring countries - last year there were carried by 10 million tonnes or about one fifth more than in 2010. This clearly illustrates the importance of railways in the national transport sector," remarked Aija Poča, Head of the Projects Department at Latvian Railways.

According to her, while the economic crisis resulted in the freight market shrinking in most of the neighbouring countries, Latvian railways saw no slowdown. In fact, the country expanded and developed its rail freight sector, becoming one of the leading players in the EU by freight volumes.

Fima has been participating in railways sector projects for more than 15 years, applying its expertise in Baltic countries.

"As freight traffic is constantly rising, it is necessary to ensure that the capacity of the railway line and the speed and safety of trains are adequate; therefore, significant investments have been allocated for the development of railway infrastructure. The primary concern is dealing with bottlenecks in railway networks. In order to increase the line capacity through rail bottlenecks, a second track is being built on the Skrīveri–Krustpils railway section. New branch lines to port terminals are being built in order to boost the volumes of cargoes discharged at Latvian ports. Moreover, a new automatic signalling system was launched in 2011, which ensures up-to-date traffic control on the East–West railway corridor and improves the capacity and safety of the rail line," said Ms Poča.

Massive Investments in the Modernisation of Railways

Investments in the renewal of railway infrastructure and the improvement of traffic control clearly illustrate the importance of the modern railway network for the state. This year, Latvia intends to invest more than EUR 198 million in its railway infrastructure, and Lithuania will use almost EUR 100 million from EU Structural Funds for the modernisation of railways. Lithuanian Railways intends to continue the implementation of the Rail Baltica project, which will connect Poland, Lithuania, Latvia, Estonia and Finland, the development of Klaipėda railway junction, and the construction of the Vilnius bypass infrastructure. Latvia's plans for this year include the reconstruction of the marshalling yard at Šķirotava station, modernisation of the Bolderāja–Zasulauks road junction, construction of a second station in Bolderāja and the completion of the second Skrīveri–Krustpils track, thus further developing the East–West railway corridor. Yet, the list of railway system renovation projects does not end there.

Aija Poča, Head of the Project Department at Latvian Railways: "As freight traffic is constantly rising, it is necessary to ensure that the capacity of the railway line and the speed and safety of trains are adequate; therefore, significant investments are being allocated for the development of railways infrastructure."

Lithuania expects to complete the modernisation of the branch of the IX D international railway corridor connecting the Russian Federation to the Kaliningrad Region. Modernisation works are being performed by Fima in cooperation with a Czech partner, AŽD Praha.

"Once this complex and large-scale project is completed, it will be possible to increase train speeds on the modernised line to 160 km/h. The works are being carried out on a 110-kilometre-long section, where our company renovates traffic control, power supply, telecommunication, and other important railway systems," said Vaidas Venskus, Director of Railway Solutions Department at UAB Fima.

The company has been participating in railway sector projects for more than 15 years, applying its expertise not only in Lithuania, but also in other Baltic countries.

"In Latvia, our company installs engineering solutions along the Skrīveri–Krustpils railway section.

Stasys Gudvalis, Director of the Freight Transportation Directorate of Lithuanian Railways: "The role of railways transport in the national economy is crucial: last year, rail freight accounted for more than half of the total volume of freight carried in Lithuania."

We are responsible for the design and implementation of traffic control, telecommunications, and power supply systems. On this section, we will implement an up-to-date computer-based train traffic control system, install nearly 300 state-of-the-art traffic lights, and centralise the control of 160 points," said Agnese Savule, Development Director at SIA Fima.

INTERESTING

Interesting Facts:

- Although sea transport has historically been the largest carrier of freight, overland transportation is nearly **three times faster**.
- The Saule container train from Europe to China covers nearly 11,000 kilometres in **18 days**.
- The Lithuanian railway network spans a distance of over **1,700 km**. All these railways stretched into one line would make a direct route from Vilnius to Paris.
- In Latvia, the railway network is even larger: the total length of lines is over **1,880 km**. It would cover the distance from Riga to Monaco.

SUCCESS STORY

Twenty-First-Century Technology
Makes Lithuania's Borders Hard to Breach

They say you can't place guards along an entire border, particularly if the border is more than 1,000 kilometres long – that is the length of the section of the Schengen area's external border that is controlled by Lithuania's border guards. It is, however, possible to deploy vigilant eyes that monitor the approaches to the country.

According to Chief of Staff Colonel **Valentinas Novikovas**, **Deputy Commander of the State Border Guard Service (SBGS)** of Lithuania, one can get a true experience of the twenty-first century on the Lithuanian borders. Today the sections of the Tribonys frontier district on the border with Belarus, as well as the Bardinai, Viešvilė and Plaškiai frontier districts guarding the borders with Russia, have been reinforced with state-of-the-art integrated electronic systems; this represents more than 120 kilometres of guarded Lithuanian borders with Russia and Belarus. The above-mentioned sections are equipped with video cameras, thermal imaging cameras (thermo visors), radars and microwave sensors. We asked Colonel Novikovas about how the state-of-the-art technology changes the work of border guards.

Deputy Commander of the State Border Guard Service, Chief of Staff Colonel Valentinas Novikovas.

State Border Guard Service
success indicators:

- In 2011, border guards detained 396 border transgressors who crossed the Lithuanian border illegally. This is **31.6 per cent more than in 2010**, when border guards apprehended 301 such transgressors.
- In 2008, officers apprehended 1,234 illegal immigrants, mostly citizens of Russia and Belarus. The number i**ncreased to 1,623** in 2011.
- Modernisation of border control systems at the Bardinai and Viešvilė frontier district sections brought the number of attempted illegal border crossings down by as much as **90 per cent**.
- Border guards at the Viešvilė frontier district section on the border with Russia, where a universal border control system has been deployed, **did not report a single attempted breach** of the country's borders in the period between September 2010 and November 2011.

What changes have taken place at the Lithuanian borders since the new security systems were launched?

To put it simply, the possibilities for border guard officers to monitor and record breaches have been boosted significantly. We are now able to operate successfully both during the day and at night, under any weather conditions. The equipment installed at key points automatically alerts officers to any movement, so nothing slips past border guards' eyes. State-of-the-art systems allow officers to react more promptly to the breaches – every minute counts when you want to apprehend a transgressor.

Are the changes reflected in the statistics of breaches?

Undoubtedly so. Security upgrades along certain sections of the border have significantly reduced the number of gaps in state border control. For example, after the deployment in 2010 of a state-of-the-art system at the Viešvilė frontier district, formerly considered the most troublesome along the border with Russia, not a single border breach was reported over the course of a year. The knowledge alone that Lithuania's borders are controlled by officers equipped with state-of-the-art devices is very important, because in locations where such state-of-the-art border control systems operate, attempts at illegal border crossings are down by as much as 90 per cent. Of course, stricter sanctions for smuggling, as well as educational work with border area residents and school students, have also contributed to the result.

Parts of the border areas controlled by Pagėgiai and Varėna border guard units have been among the first to be modernized. Last year a similar control system was deployed along the Plaškiai frontier district section. How the sections where security must be reinforced are selected?

Large numbers of breaches are reported along borders with Belarus and Russia – countries responsible for the biggest flows of contraband to Lithuania. Therefore, modernization of the points with the highest rate of breaches is a priority.

The first pilot project was implemented at the Bardinai section of the Pagėgiai frontier district and the Tribonys section of the Varėna frontier district. The sections were selected not only because of the high rate of breaches, but also due to the peculiarities of the local terrain. Lithuania's landscape is characterized by diverse natural conditions, and this poses a significant challenge when choosing a suitable technology. In the section of the Bardinai frontier district where the border with Russia goes along the River Nemunas, natural conditions are really complicated; the same applies to the section of the Tribonys frontier station on the border with Belarus, where the border line goes across marshland and forests, so we had an opportunity to comprehensively assess the possibilities offered by the technology used.

Have the expectations been met?

Figures provide the most eloquent answer: before modernization of the section, as recently as in 2005, the Bardinai frontier section accounted for 116 of the total of 179 breaches reported in the entire Pagėgiai district, while in 2009 the number of breaches along the entire district was 110, including as few as 20 breaches at the Bardinai section. The Viešvilė frontier section was also highly problematic, but after the deployment of an electronic security system was completed in 2010, not a single breach was reported along the section over the course of a year.

Security of state borders has always been and still remains one of the major priorities, and significant investments are earmarked for modernisation of border's surveillance systems.

Can one claim that Lithuania's border security is among the most modern and efficient in Europe? How do we compare to other European Union member states?

Although our progress over the last few years has been significant, if I have to compare our border security with that of some other EU member states, I would say that modernization in Lithuania has only just started; nevertheless, we are on the right track. It is important to note that the upgraded border sections are among the most advanced not only in Lithuania, but also in the entire EU. It is true that the majority of EU member states have only internal Schengen area borders, and their guarding receives not quite as much attention as that of the external borders. Our situation is different: we control approximately one tenth of the entire external land borders of the Schengen Agreement countries. With such neighbours as Russia and Belarus, where the biggest flows of transgressors originate, we must strengthen border security by all available means, and our focus must be much stronger and the spending greater. I very much hope that successful examples of activities in the upgraded sections alongside improved results will stimulate further modernisation.

USEFUL TO KNOW

Projects implemented by Fima in the sphere of strengthening state border control:

- Integrated electronic security systems in the Plaškiai, Viešvilė, Bardinai, and Tribonys frontier district sections in Lithuania – **more than 120 kilometres** in total.
- Video surveillance and perimeter control systems in 12 border control posts along the border of Lithuania with Russia and Belarus – **nearly 400** video cameras.
- Video surveillance and security solutions along individual railway sections and stations in order to strengthen control of transit trains **from Russia and back**.

How important are border security projects in the context of EU-funded projects?

Border security reinforcement projects are being implemented with the funding of the EU and the Lithuanian state. One of the aims of the External Border Fund (EBF) established by the European Union is the organisation of efficient external border controls. As much as 71 per cent of the funding allocated to Lithuania from the Fund is aimed specifically at the reinforcement of the so-called "green" border security, meaning that the projects are at the top of the list of priorities.

Border security is one of the most important functions of the state. What are the plans for strengthening it further?

I have some very bad news for smugglers and transgressors: vigilant control of state borders has always been and still remains one of the major priorities, and significant investments are earmarked for modernisation of border areas' surveillance systems. If last year EBF funding for the development of land border surveillance amounted to EUR 2.4 million, this year the amount of investments will be EUR 4.6 million with a further increase to EUR 9.6 million in 2013. State border security will only improve as the modernisation gains momentum.

INTERVIEW

Imminent Prospects for **Smart Technology in the Energy Sector**

Soaring energy resource prices and growing consumption, commitment to environmental protection, higher efficiency and lower cost, to name but a few, are the circumstances that bring up the debate of more efficient energy consumption. Modern technologies, including smart grids that are gaining ground in many countries, offer a solution by ensuring safe and reliable power supplies as well as efficient energy consumption. Global modernisation has not bypassed Lithuania, either, with the first smart grid installation projects afoot. In Lithuania, the **Smart Technologies Association (SMARTTA)** has been established to promote the development of modern technologies. Fima is one of the founders and a member of this association. Recent innovations in the energy sector, as well as in the Lithuanian economy and business are discussed in the following interview with SMARTTA President **Gediminas Abartis**.

Gediminas Abartis, President of the Smart Technologies Association, is convinced that only the strategy and the rate at which smart technologies are introduced will determine whether Lithuania ranks among the leading countries and takes the opportunity of creating smart infrastructure.

Mr Abartis, could you please describe in greater detail the Smart Technologies Association: who are its members and what are its key objectives?

The Association was founded in June 2011, and its main objective is the promotion and consistent development of smart technology ideas. Smart technologies are penetrating ever deeper into people's daily life. The Smart Technologies Association, which unites representatives from the leading business technology producers, system integration companies and scientific organisations, was established in order for this process to progress as smoothly as possible, which, in turn, enables us to take full advantage of the possibilities that emerge owing to smart technologies. We are truly pleased that such academic community members as the Kaunas University of Technology and the Lithuanian Energy Institute have joined the Association.

Immediately after it was founded, the Association initiated the project of smart technology cluster development, which received funding from the Lithuanian Business Support Agency. The cluster is set to encourage business enterprises to develop auspicious solutions and products in the field of smart technologies. In cooperation with 18 partners, including Nordic universities, municipalities and the information technology giant IBM, the smart technology cluster has already submitted its first application to participate in an international project titled Smart Cities and Communities. The project is financed by the European Commission.

It has come to our attention that the Association has been focusing on smart grids lately. We are hearing about this issue more and more frequently, but could you please explain the basic idea of a smart grid? What is the distinctive feature of these grids?

The key difference between usual and smart grids is that the latter not only transmit energy, but also collect and process data on the activity of all grid participants, as well as power consumption and production peculiarities. Cutting-edge engineering and computer solutions are employed in the installation of smart grids, while the use of modern equipment ensures safe and reliable power supplies. At the same time, advanced accounting systems are installed to enable real-time energy consumption analysis and adequate management of power production and supply. Special equipment allows us to find ways of consuming energy more efficiently, for instance, by activating devices when electricity is cheapest. Moreover,

In terms of inefficient electricity consumption, Lithuania surpasses the EU's average by 2.6 times. Smart grids, which allow for much more efficient power consumption, would help to improve this situation fundamentally.

technologies allow consumers to autonomously produce power at a competitive price and sell any surplus power.

Let us take a look at the smart grid concept from the consumer's perspective. What could be the expected advantage when such a grid is installed?

Without a doubt, smart power grids are in the best interests of ordinary consumers, as they have the opportunity to select when and how much electricity they consume, as well as to keep track of and analyse their total consumption. In turn, access to such data allows expenses to be cut by changing one's power consumption habits and choosing the lowest power supply prices.

However, I would like to underline that the installation of smart grids will benefit every participant of the power system. In the event of any disruption in the grid, the power supply operator could instantly respond to such interruptions and remotely eliminate most of the interferences, thus saving his and consumers' time and money.

This sounds really impressive. However, we all know that sometimes the implementation of major changes is not easy. In your opinion, what are the prospects for smart grids in Lithuania?

First of all, let us look at the facts: according to the statistical office Eurostat, Lithuania is among the Member States with the least efficient power consumption in the European Union. In terms of inefficient consumption, Lithuania surpasses the EU's average by 2.6 times. Smart grids, which allow for much more efficient power consumption, would help to improve this situation fundamentally, which is of major importance in view of rising energy resource prices.

Despite the implementation of some individual projects related to the development of smart technologies in the energy sector, Lithuania and Latvia still lags far behind other European countries. According to a report published by the European Smart Energy Institute last year, Lithuania, along with Latvia, Slovakia, and Luxembourg, is listed as the ‚laggard' in terms of the installation of smart meters; the authorities lack both a clear strategy and a legal basis. In order to achieve some progress, countries must draw up a plan for the development of smart technology, which requires closer cooperation between government, business and science representatives.

What are the smart technology prospects in the energy sector?

As concerns energy, smart technologies will make a significant contribution to higher competitiveness and efficiency. This process is inevitable, but the strategy and the rate at which new technology is introduced will determine whether Lithuania ranks among the leading countries and takes the opportunity of creating smart infrastructure surrounded by smart businesses.

The development of smart technologies in energy is a long-term and gradual process, because modern power grids are not created at once. Residential houses, companies and organisations must have smart meters installed; modern grid management systems need to be set up; equipment that controls consumer energy usage and power production/supply in real time is necessary, etc. As mentioned before, first and foremost, this requires a clear strategy and the combined efforts of institutions and organisations involved in modern technology development.

Thank you for the interview.

Please visit the Association's website at **www.smartta.eu**

COMMENT

Fima Project Manager **Valentas Titarenka:**

Smart technologies are already applied in Lithuania. The **Distribution Management System (DMS)** is one of the integral parts of smart grids. DMS ensures the efficiency and safety of power grid management and reduces management cost.

Currently, Fima is installing this system as part of the IXD railway corridor modernisation works in Lithuania; developed by the leading energy solutions company GE Energy, the integrated grid management system PowerON Fusion™ automates and connects all the power grid management and maintenance processes.

The company is also actively engaged in the modernisation of **SCADA control systems** at Lithuanian power grid transformer substations. The SCADA control system is a crucial infrastructural engineering system that collects and analyses grid data. The system is used by most power, water and gas suppliers.

Vaisala Solutions for Various Intelligent Technology Projects

Fima continues its cooperation with **Vaisala**, the global leader in environmental and industrial measurement technology.

Vaisala's solutions are applied widely in the implementation of intelligent transportation systems, large-scale aviation projects, various meteorological and hydrological measurements and many other technological areas.

Products from the Finnish company Vaisala have found application in Lithuania as well, and are used in the project of the Traffic Information System for Roads of National Importance. Road weather stations modernisation works, which began this January, shall include installation of 50 new weather stations manufactured by Vaisala. The new stations will provide more accurate information on air temperature and humidity, intensity of precipitation, visibility, wind speed and direction, the conditions of the road surface: the amount of water, snow and ice on the road, and the adhesion coefficient.

Vaisala has 75 years of working experience and clients in more than 140 countries worldwide.
More information about the company's solutions can be found at: **www.vaisala.com.**

Southwest Microwave Presents New-Generation Perimeter Security Systems

Fima's partner **Southwest Microwave** has launched its latest-generation INTREPID™ intelligent perimeter detection sensors.

New-generation INTREPID™ systems offer an integrated, multi-technology solution to address diverse outdoor perimeter security needs, and is versatile enough to address a broad range of protection challenges. The system provides fence, buried cable and digital microwave protection alternatives. By deploying these solutions on a single network platform, users can easily and cost-effectively protect each portion of the perimeter with an optimal sensor for that location.

Network architecture guarantees alarm delivery time and can be structured in a variety of configurations to best address network size and reporting requirements.

Southwest Microwave has been a trusted global supplier of perimeter detection technologies since 1971.

For more information about new-generation INTREPID™ technologies please go to:
www.southwestmicrowave.com/intrepid

Students Respond to **Fima's Challenge** with Innovative Ideas

Fima has for the fourth time challenged participants of **BEST Solutions**, a competition for university students of technical studies. This time, engineers-to-be were given a task of designing an autonomous attention catcher, which would not only warn drivers about a pedestrian crossing but also run on the energy it has accumulated.

Rokas Šlekys, director of Fima's Solutions Department, said the organizers have received highly interesting and unconventional solutions. Students proposed drawing drivers' attention with windmills, which would make a pleasant sound and generate energy, building transparent liquid containers, which would be lit up by car lights, and many other unique and creative ideas.

Petras Baršauskas, Rector of Kaunas University of Technology, who participated in the event said that the activity of BEST organisation comes into line with one of the three objectives of the university: promote advanced development of the state by way of cooperation with public and economic partners, develop launching of innovations and creation of technologies.

BEST is an international non-governmental and non-political organization of university students, which operates in many European countries. The aim of BEST Solutions competition is to educate young minds, improve their competences, promote engineering and encourage cooperation among participants and companies.

Robots Intellect 2012 Competition to Bring Together European Enthusiasts in Technologies Again

On **3 May**, Kaunas will become the attracting pole of enthusiasts of technologies from all of Europe. Organised by the Student Union of Science of Kaunas University of Technology for the second consecutive year, **Robots Intellect** is the biggest autonomic robots' competition in the Baltic States; it aims to increase the interest of young people from across Europe in intelligent management systems.

Robots Intellect brings together technologies enthusiasts from all over Europe, including those who are interested in electronics, robotics, mechatronics and artificial intelligence. The main task for the participants is to discover and deliver a 1 kilogram "bag of gold" on a 600 metre track with obstacles. The autonomous mobile robot that brings the bag will win its team a prize of EUR 9,000. Fima is one of the sponsors and promoters of creativity of young minds for the second year. It has also established a special prize – a Fima bag worth EUR 500, which will be hidden on the same track but will be somewhat easier to discover.

Participants of the competition will have an opportunity to test their creations in other events: line tracking, labyrinth and carrying a ball.

For more information, please visit **http://www.robotsintellect.lt**

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About „Fima” companies

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.**