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Nowadays, energy plays an increasingly important role for every country. Finland is not an exception as the country's authorities throughout the years are trying to delineate a policy that has as main objectives sustainability and predictability. Therefore, the country's policy rests on three fundamental elements: energy, economy and the environment. This means that the country is trying to secure energy supply in a competitive price and by keeping

the arising environmental emissions within the international commitments. The aforementioned policy is delineated by the fact that Finland has been one of the leading industrialized countries that use extensively renewable energy and especially bio energy.

One of the energy sources that are used in Finland is nuclear power. More than a quarter of electricity consumed in Finland is produced with nuclear power. There are four operative nuclear power plants in Finland, and in February 2005 the government gave a construction license for the fifth nuclear power plant unit. Nuclear power plays a major role in the implementation of the Finnish energy strategy. The reason is that it does not cause any greenhouse gas emissions, thus is friendly to the environment.

As it is already mentioned Finland is one of the world's leading users of renewable sources of energy and especially bio energy. Renewable energy sources provide 1/4<sup>th</sup> of Finland's total energy consumption and account for more than 1/4<sup>th</sup> of its power generation. The country's most important renewable sources of energy include bioenergy (wood and wood-based fuels in particular), hydropower, wind power, ground heat and solar energy. Another important renewable source of energy for Finland is peat. With a share of approximately six (6%), it holds a significant position in the national energy balance and has an important impact on regional policy and employment.



Another energy source that plays an important role in Finland is natural Gas. The reason is that it is a secure, green and inexpensive energy source. Currently, the natural gas grid covers the south and southeast of Finland. In this area, natural gas accounts for approximately 30% of the fuel used for

combined heat and power generation. A key project in increasing the use of natural gas involves the extension of the natural gas grid to western Finland and a supply of natural gas to the Turku region.



One of the most important structural reforms of the Finnish energy market was made in 1995 when Finland's electricity market was gradually opened to competition after the passing of the Electricity Market Act (386/1995). The purpose of the electricity market reform was to increase the efficiency of operations and to integrate Finland's electricity market into the Nordic market. The experiment was successful and the aforementioned actions increased productivity and environmental efficiency, as the Nordic hydropower capacity can now be utilized efficiently.

Finland is cooperating with the other Nordic countries in the domain of energy. The main purpose is to promote efficient and environmentally acceptable energy economy in the Nordic countries, the Baltic Sea region and neighboring areas. The most significant outcome has been the development of the Nordic electricity market. Additionally, Finland participates in some other international organizations for energy such as the OECD (Organisation for Economic Co-operation and Development) countries' co-operation on energy, the IEA (International Energy Agency) and the NEA (International Energy Agency).

Kyriazis Vasileios,

Epicos Newsletter Head Editor



## FY-COMPOSITES

“We have high professional personnel and unique technology in our company and therefore we have achieved success also on export market. Our products have been supplied for instance to Swedish, Norwegian, Estonian, German, Czech, Slovak, Greece and French armies”, said Mr. Asko Kylkilahti, Export Manager of FY-Composites Oy in an exclusive interview given to Epicos.

- Could you please describe the current place of FY-Composites Oy in the national and international market?

FY-Composites Oy has been the main supplier of reinforced plastic products for the Finnish Army and Navy last twenty years. Our successful co-operation with the Finnish Defence Forces started late 80's when they selected FY-Composites as their partner for developing modern composite combat helmet for Finnish soldiers. After those days we have developed and supplied several other innovative ballistic protection products for the Finnish Army. Our company's other business area is structural composite products and components. Most challenging projects in this area have been development, design and manufacturing of full composite multifunctional superstructures for the Finnish Navy new Hovercraft and four Hamina-class Fast Attack Crafts.

As Finnish market is rather small it is also necessary to find other business opportunities abroad. We have high professional personnel and unique technology in our company and therefore we have achieved success also on export market. Our products have been supplied for instance to Swedish, Norwegian, Estonian, German, Czech, Slovak, Greek and French armies. Naval composite structures we have supplied even to the US Navy. Export sale is 30-60 % of our annual turnover.

- What are the main business areas in which FY-Composites Oy is activated?



Main business areas are lightweight ballistic protection equipments and solutions, load carrying structural components and after sales service. Research and development is essential part of our business activities to provide new innovative solutions for our customers.

- What are the main products that FY-Composites Oy is manufacturing?

Personal protection equipments such like ballistic helmets, visors, bullet proof shields, Rapid Armor Shelter System and ballistic blankets. Customized light weight armoring solutions for cars, military trucks, armored personal carriers and containers. Structural composite components for Navy and industrial applications.

- What are the main technological advantages of FY-Composites Oy products?

Our solutions are much lighter compared to traditional materials and it is desirable issue nowadays in mobile military systems.

- What are the next steps and priorities of the company?

Our strategy is to improve our products cost efficiency and that way to increase use of our lightweight solutions in new applications. We are also continuing to develop export market intensively to find new customers for our high quality products.

- Currently the company started a new collaboration with the German company MWB Fahrzeugtechnik. Could you please tell us a few things about this collaboration?



We have excellent win-win situation with MWB Fahrzeugtechnik offering new PTV Armadillo vehicles for the customers. MWB Fahrzeugtechnik has a long term experience of maintenance and repair of military vehicles and we are armoring expert. We really see future promising for our new cost effective PTV Armadillo vehicle, which provide armies excellent technical performance in reasonable costs compared to corresponding brand new vehicle. Our target has been that we are able to offer armored vehicle in same price as brand new soft cabin vehicle costs.

- What are the parts of this vehicle that FY-Composites Oy is producing?

FY-Composites lightweight solutions are used in the components to provide best performance and mobility for the vehicle. In practice our Lightweight Armored Structure Solution technology is used in vehicle's doors, walls and roof parts. Inner spall liners are also made of lightweight and high performance composite materials.

- FY-Composites Oy is steadily trying to promote its products through international exhibitions and events. In a few days one of the most important exhibitions in Europe, Eurosatory, will take place in Paris. Will you be there?

Yes certainly. FY-Composites is exhibiting at the Finnish Pavilion Hall 6 Stand E410 in Eurosatory. We are inviting all the visitors who are looking for innovative and lightweight armoring solutions to visit us. Especially additional information of PTV Armadillo is available during the show. I am looking forward to see you in Paris!





PTV Armadillo 4x4 is a low cost armoured transport vehicle offering a high level of protection against bullet, fragment, blast and mine threats, excellent off-road capability, attractive weight-payload-ratio. The vehicle being designed as transport vehicle avoids martial design elements.



The PTV Armadillo 4x4 is available in different configurations such like ambulance, tactical and logistical vehicle.

- The platform is available with spall-liners on the bottom and the platform gates to protect the payload.
- The ambulance cabin that also can be used as workshop or command post will be protected if needed, due to the large surfaces at the price of a significant weight increase but within the limits.

Technical Data (preliminary data as of May 2010)			
<b>Versatility</b>	Proven Unimog 1300L technology		
<b>Versatility</b>	130 HP (96 kW) reliable Diesel engine w/o electronic features		
<b>Versatility</b>	Max speed 95 km/h		
<b>Versatility</b>	4 WD – excellent off road performance		
<b>Versatility</b>	Cabin with air condition		
<b>Versatility</b>	Cabin with secured loading space		
<b>Versatility</b>	Platform or Cabin (e.g. Ambulance or Command Stand)		
Technical Data (preliminary data as of May 2010) Dimensions		Technical Data (preliminary data as of May 2010) Protection	
<b>Length</b>	5540 mm	<b>Ballistic</b>	according to Stanag
<b>Width</b>	2300 mm	<b>Mines and Blast</b>	according to Stanag
<b>Height</b>	2950 mm	<b>Cabin clearance</b>	>1000 mm
<b>Empty weight</b>	5900 kg	<b>seats and footrest</b>	Decoupled
<b>Gross weigh</b>	7500 kg (Payload 1600 kg)		
<b>Gross weight plus</b>	7900 kg (Payload 2000 kg)		
<b>Axle front</b>	empty 3700 kg max. 4000 kg		
<b>Axle rear</b>	empty 2200 kg max. 4000 kg		

## Low Cost Approach

Taking a used vehicle saves a lot of money. As MRO-experts we are used to perform overhaul on vehicles and make sure that the vehicle receives “another life”. After having performed the overhaul services the vehicle can be used another 10plus years. Due to the number of MB Unimog vehicles sold worldwide there will be no obsolescence issue for many years.

Using “old fashioned” non electronic Diesel engines is another advantage: The engine remains very reliable and can be maintained in the field with simple tools by almost any mechanic.

The protection is achieved by a combination of low cost armoured steel and low weight fibre- /ceramics composite material. The respective material is used where it offers the maximum benefit in regard to performance, weight and cost. Some minor modifications are made to chassis to improve effectively mine resistance, vehicle stability and driving comfort with armouring.



Last but not least the concentration on basic and passive protection leads to low cost, too. The air condition does not offer NBC-protection, there is no turret and no other cost-driving equipment installed. PTV Armadillo 4x4 – no frills, just the basic protection to save the life and health of the persons on board.

## Companies behind PTV Armadillo

PTV Armadillo 4x4 is result of develop ent and research co-operation between FY-Composites Oy and German MWB Fahrzeugtechnik GmbH. Companies has successfully combined their expertises in this new product which will offer something new solution for the market. It is clear that there is huge need on the market for technically reliable all terrain trucks and for this market segment we are offering outstanding low cost solution.

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[For Further Info about the Company Press Here](#)



Epicos "Project Opportunities" provides a unique set of online tools enabling the structure, identification and implementation of comprehensive Offsets programs, through a searchable database. By introducing different offset projects and ideas proposed by local A&D industry it ensures the optimum cost for Prime Contractors and reassures that the priorities of local industry are fully met...

[For Further Information Press Here](#)

### Portable, semi-automatic heavy gun barrel cleaning system



A well established developer and producer of barrel cleaning solutions, is proposing the implementation of an advanced semi-automatic and environmental-friendly cleaning system to support military and peace keeping operations in harsh environments worldwide.

[For Further Information Contact our ICO Department](#)

Mail at: [a-dimou@epicos.com](mailto:a-dimou@epicos.com)

### Rugged mission data recording system for monitoring and debriefing applications in modern digital ground forces



A company with vast experience in industrial rugged computers development and production and video signal processing, is proposing the development of a new rugged mission data recording system to be used in several network centric battlefield applications providing continuous monitoring (multiple video and audio signals) and training (e.g. debriefing) applications.

The recording system will interface with vehicle vectronics collecting and storing video and audio from crew members and various sensors providing advanced debriefing capabilities.

[For Further Information Contact our ICO Department](#)

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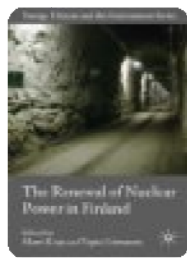


**OECD Economic Surveys: Finland 2010, by OECD Organisation for Economic Co-operation and Development**



OECD is an international organization that 30 democracies work together to address the economic, social and environmental challenges of globalization. OECD is also at the forefront of efforts to help governments respond to the new development and concerns, such as corporate governance, the information economy and the challenges of an ageing population. This is the organization's survey of Finland's economy. It includes a variety of socio- economical subjects such as macroeconomic policies, the measures that the country is taking in order to **cope with the** job crisis and with rising inequalities that are challenging Finland's social model.

**The Renewal of Nuclear Power in Finland, By Matti Kojo (Editor), Tapio Litmanen (Editor)**



Concerns about the potential environmental, social and economic impacts of climate change have led to a major international debate over what could and should be done to reduce emissions of greenhouse gases. One of the energy areas where perhaps has been most conflict over policy choices is nuclear power. This book analyzes the major phases of the decision-making process in the aforementioned issue and it should be regarded as an excellent guide to understanding energy and climate policy in Finland and thus the main ideas behind the renewal of nuclear power in Europe.



## Russia wins large contract to modernize Indian Su-30MKI fighters – media

NEW DELHI, May 30 (RIA Novosti) - India has placed orders with the Russian defense industry to modernize Su-30MKI Flanker-H fighters produced in India under the Russian license, India Today magazine reported in its June issue, without disclosing the sum of the contract. The project codenamed Super 30 stipulates the installation of new radars, onboard computers, electronic warfare systems and BrahMos supersonic missiles on 40 Su-30MKI fighters, the magazine said. The Indian Air Force currently operates about 100 Su-30MKI fighters and plans to produce another 170 aircraft in the next 10 years under the Russian license. India has a long history of defense ties with Moscow. The current cooperation program comprises about 200 joint projects, including the transfer of technology for the licensed assembly of T-90 tanks in India, the production of BrahMos missiles and the purchase of Smerch MLRS by India. The BrahMos missile has a range of 290 km (180 miles) and can carry a conventional warhead of up to 300 kg (660 lbs). It can effectively engage ground targets from an altitude as low as 10 meters (30 feet) and has a top speed of Mach 2.8, which is about three times faster than the U.S.-made subsonic Tomahawk cruise missile. Established in 1998, BrahMos Aerospace, a joint Indian-Russian venture, produces and markets BrahMos supersonic missiles. The sea-based and land-based versions have been successfully tested and put into service with the Indian Army and Navy.

**Source:** RIA Novosti

## Saab signs contract with FMV regarding Gripen

Saab has received an order from the Swedish Defence Material Administration, FMV, for the continuous support of Gripen's operational capacity. The contract is valued to MSEK 230.

Amongst other things the order covers product maintenance, technical support, basic operations such as test flying, rigs and simulators in order to ensure the Gripen system's operational ability and airworthiness. This work will be undertaken during the second half of 2010 at Saab's plants located in Linköping, Arboga, Goteborg and Stockholm.

For streaming and broadcast-standard video, please visit [www.thenewsmarket.com/saab](http://www.thenewsmarket.com/saab) . If you are a first-time user, please take a moment to register. In case you have any questions, please e-mail [journalisthelp@thenewsmarket.com](mailto:journalisthelp@thenewsmarket.com).

The information is that which Saab AB is required to declare by the Securities Business Act and/or the Financial Instruments Trading Act. The information was submitted for publication on 1 June at 11.00.

For further information, please contact: Saab Press Centre, +46 (0)734 180 018

## About SAAB

Saab serves the global market with world-leading products, services and solutions ranging from military defence to civil security. Saab has operations and employees on all continents and constantly develops, adopts and improves new technology to meet customers' changing needs.

**Source:** Epicos, Saab

## Russian economy shows robust recovery after crisis - NYSE president

NEW YORK, June 1 (RIA Novosti) - The Russian economy, which was severely affected by the 2008 global economic and financial crisis, is demonstrating robust recovery and becoming increasingly attractive for international investors, the president of NYSE Euronext said on Tuesday. "Russia has taken a heavy loss during the period of crisis, however, it is turning around very fast and has experienced a very positive GDP growth in 2010," Dominique Cerutti, who is also a deputy CEO of NYSE Euronext, told RIA Novosti. Cerutti is expected to arrive in Russia to attend the St. Petersburg international economic forum on June 17-19. "Russia has a history of volatility but has the know-how on coping with difficulties and capable to sort out many of its problems in a relatively fast pace," he said. NYSE Euronext is a leading global operator of stock exchanges in New York, Paris, Amsterdam, Brussels and Lisbon. It also operates the London International Financial Futures and Options Exchange (LIFFE). NYSE Euronext holds the first place in the world with market capitalization of \$29.7 trillion and the shareholders' equity of \$14.4 billion based on the results of 2009. The influential financier said Russian corporate papers circulating on western trading floors offered a good opportunity for investment. "We view the development of Russian economy as a great opportunity for international investors to participate and contribute to such development and one of the avenues for such participation is by having Russian companies conduct their IPO on NYSE Euronext's various platforms in the USA and/or Europe." Moscow has already proved its potential to turn into a major world financial center and St. Petersburg has also good chances to capture similar positions in the near future as industrial growth accelerates, he said. "We believe that in the development of the Russian economy all of the major cities in Russia could become financial centers for its own geographical region. In a very short time, Moscow has already reached a point where it can compete in the financial sector with other major cities in Europe and St. Petersburg should be able to develop similar capabilities in the near future," he said. Cerutti said, however, that Russia's excessive dependence on raw material prices was a major risk for the country. "As long as the commodity prices are on the rise Russia will do well and in particular its basic resource sector will do extremely well, however, Russia must develop its other industries such as technology, consumer goods and others as an equilibrium and not rely so heavily on the volatility of basic resources," he said. Cerutti and his team from NYSE Euronext will participate in various panel sessions at the St. Petersburg forum, among others, the session

entitled "Finance after the Crisis" to be held by Sberbank and the World Economic Forum, NYSE Euronext team will also conduct many one-on-one meetings with Russian politicians and businesses.

**Source:** RIA Novosti

### **Turkmenistan starts building \$2 bln East-West gas pipeline**

MOSCOW, June 1 (RIA Novosti) - Turkmenistan has launched the construction of a \$2 billion pipeline to deliver natural gas from its largest gas field to the coast of the Caspian Sea, a business paper reported on Tuesday. The start of the gas pipeline's construction on Monday was announced by Turkmen President Gurbanguly Berdymukhamedov. "The construction of the gas pipeline has both economic and political significance. Its construction ... can be considered as Turkmenistan's contribution to global energy security," the paper quoted him as saying. The gas pipeline, when it is completed, will intensify competition between Russia and the EU for the purchase of Turkmen gas, the paper said. The project could be financed by U.S. oil and gas companies developing offshore deposits in the Caspian Sea or by Chinese financial institutions. Last year, however, Turkmenistan discussed the project's implementation with quite a different foreign partner, Russia. The Turkmen president flew to Moscow in March 2009 to specifically discuss the project with Russian President Dmitry Medvedev. The Kremlin pinned special hopes on the project but the deal failed to get through as Russia sought guarantees that the entire gas volume from the pipeline in the amount of 30-40 billion cubic meters annually would be pumped into the Moscow-backed Caspian pipeline to become a major source for the South Stream gas project. But Turkmenistan refused to provide such guarantees, following which it announced a tender for the pipeline construction, which involved more than 70 foreign companies. The tender failed and the energy-rich Central Asian republic decided to build the pipeline on its own. Turkmenistan's largest gas field, South Yolotan, is a major source for the pipeline. According to data from the British-based Gaffney Cline & Associates, the gas field's reserves are estimated at 4-14 trillion cubic meters of natural gas, making it the world's fourth largest gas field.

**Source:** RIA Novosti

### **Export duty on Russian oil grows to \$292.1 per ton from Tuesday**

MOSCOW, June 1 (RIA Novosti) - The export duty on Russian oil has grown by \$8.1 to \$292.1 per ton effective from June 1 in line with a government resolution. The duty on light oil products has gone up to \$209.1 per ton from \$203.7. The duty on dark oil products has risen to \$112.7 from \$109.7 per ton. In fall 2008, due to falling world oil prices, the Russian government took a number of measures to adjust calculations of the export duty on oil and petroleum products. In particular, the period for which duties are effective was reduced for

Urals oil from two months to one to more promptly take into account the changes in the world situation. This also reduced tax load on oil companies.

**Source:** RIA Novosti