

4. Generation links are developing. Today there are special courses for retired people, where they are trained to use personal computers and Internet. New common interests build up bridges over the generation gap and the links between generations are strengthened.

5. Another ICT achievement is simplification of housekeeping by calculation of the family budget or creating an interior design of your house with the aid of certain software.

It is hard to know what might be invented in the near future, but that undoubtedly will be. The hectic pulse of contemporary life requires ICT development and improvement both in manufacture and households. ICT is a key to technological advance of any civilization.

Khanykova V.

## **RUSSIAN RAILWAYS: THE EXPERIENCE OF A STATE-OWNED JOINT-STOCK-COMPANYING IT**

*(PbGUEF, St. Petersburg)*

### **A government-granted monopoly**

A government-granted monopoly (also called a «de jure monopoly») is a form of coercive monopoly by which a government grants exclusive privilege to a private individual or firm to be the sole provider of goods or services; potential competitors are excluded from the market by law, regulation, or other mechanisms of government enforcement. Copyright, patents and trademarks are examples of government-granted monopolies.

### **Economic description**

The second largest network in the world with 85,200 km of track, of which 43,000 km are electrified.

Carries over 1.1 billion passengers and 1.1 billion tonnes of freight annually across 11 time zones

Responsible for 43% of Russia's total freight traffic (including pipelines) and more than 41% of passenger traffic

Employs over 1 million people

A major contributor to the fast-growing Russian economy

Assets worth over USD 88 billion (as of 31/12/2008)

Russia's fourth-largest company by revenue – over USD 41 billion for 2008 (according IFRS)

Comprises 987 enterprises and 165 subsidiaries

Rolling stock includes:

20,100 goods and passenger locomotives

624,900 goods wagons

24,100 long-distance passenger carriages

15,600 short-range passenger carriages

### **Services and Infrastructure**

Freight transportation  
 Long-distance passenger transport  
 Suburban passenger transport  
 Infrastructure services  
 Locomotive propulsion services  
 Repair and maintenance of rolling stock  
 Building infrastructure  
 Research and development

### **Financials**

State-owned joint-stock company  
 Charter capital over RUB 1 698,1 billion (01.01.2011)  
 One of Russia's most profitable companies – net income over RUB 14.4 billion in 2009

### **The Russian Context**

Because of the country's huge territory and vast natural resources, a highly developed railway system is vital to Russia

Many of Russia's natural resources are in remote, harsh and sparsely populated regions of Siberia and the Russian Far East that have bad road distribution and are far removed from the main population centres in European Russia

Rail connect 85 of Russia's 89 regions and provides services to most major cities and have a direct impact on growth, industrial development and regional integration

Much of the population relies on the railways not only because of relatively few roads, huge distances and the remoteness of large parts of the country but also because Russian Railways is the biggest employer in the country

### **Reform Program**

The programme of reforms includes the update of production and technical facilities, renewal of track and rolling stock, greater efficiency and increased revenues, greater competitiveness and the higher motivation of railway personnel

Planned total investment in developing rail transport in Russia up to 2030 is USD450 billion

The new lines will ensure transport to and from industrial areas and newly-developed mineral deposits

Important aims include the elimination of cross-subsidies and, in the longer-term future, partial privatisation

Yakunin pointed to the great strides made by RZD since it became a joint stock company in 2003 as part of the three-stage reform of Russian railways. Freight traffic has increased by 12% and freight turnover by 27%, while passenger turnover has grown by 12%. At the time there have been huge improvements in productivity, with locomotive utilization increasing by 11% and that for freight wagons by 24%. Staff productivity has soared by 48%, which Yakunin described as an unprecedented achievement in Russia. Investment has trebled to reach \$US 15.6 billion during this period.

### **Social Responsibility**

A socially responsible company, Russian Railways human resources policy is strongly based on long-term investment in personnel

Russian Railways makes substantial investments in employees' development and supports a large educational and training network specialising in the railway industry, as well as providing scholarships to students

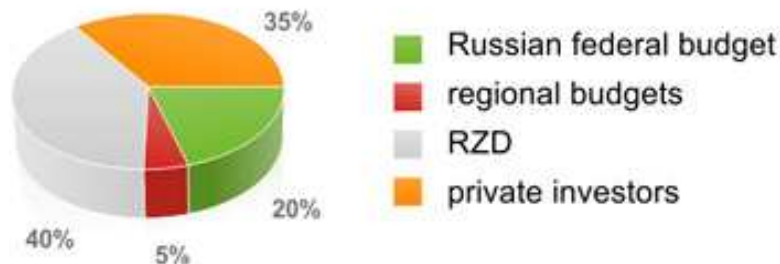
The Company's facilities range from pre-schools and schools to study centres, universities and R&D institutes specialising in railway transport and engineering, including 17 study centres and 33 technical railway centres

Russian Railways' environmental programme has successfully reduced harmful emissions into the air, water and ground in recent years, even while increasing production

By providing attractive rail alternatives to many air routes, Russian Railways reduces the air pollution resulting from air travel

The structural reform was designed to preserve the unity of the railway network and separate the functions of state regulation from operational management.

### **Finding the investment**



The investment needed for rail development between 2008 and 2030 is put at 11447.8 bn roubles in the minimum version. This breaks down into 5119.5 bn roubles for the initial period from 2008-15, of which 954.7 bn roubles is for the development of specific projects, and a further 6328.3 bn roubles from 2016-30.

In the maximum version, the total investment amounts to 13812.4 bn roubles. Spending in 2008-15 is slightly higher than in the minimum version at 5218.9 bn roubles, of which 1054.1 bn will be for specific projects, but the allocation over 2016-30 is significantly greater at 8593.5 bn roubles.

All prices are in January 2007 prices, excluding VAT and the purchase of land!

Funding for the strategic development of general rail transport in the first period will come from the national budget, regional budgets and private investors, including RZD itself. Specific projects and specialised services will be fully funded by private investors.

The creation of a strong rail network will lead to a significant improvement in transport provision in many regions. This will provide a basis for social and economic development at a faster rate than planned. Depending on the dynamics of regional growth, it may prove necessary to build additional lines for social or economic reasons.

### **Transport security**

I'd been asked a lot of questions about the security on the railways last time when I presented my work. I want to answer now with the quotation from Yakunin's speech

«Transport security is a complex task that must be solved together. Implementing this kind of cooperation is possible, including within the framework of the regional antiterrorist commissions.»

Suddenly, the materialization of these words can be unreal, because we all know, how it works in Russia. Let's hope, that it will be taken under control.

### **ICT**

Information Technology is the industry that has evolved to include the study, science, and solution sets for all aspects of Data, Information and Knowledge management and/or processing.

The conference «Innovative Development and Protection of Intellectual Property: The Global Context and National Priorities» was held on 20 April 2011 in Moscow as part of the Russian Business Week.

In attendance were representatives from executive authorities, public organisations and the business community.

Senior Vice-President at Russian Railways Valentin Gapanovich addressed the conference and spoke about the implementation of the «Innovative Development Programme» at Russian Railways, which has been approved by the Company's Board of Directors.

The programme provides for the implementation of the main areas for innovative development and contains a series of measures aimed at developing and introducing new technologies, innovative products and services up to international standards.

At the same time, the technologies used in the programme are stimulating the innovative development of key Russian industries.

Scientific and technological development at Russian Railways is based on the latest global advances and trends and the use of intellectual property.

As witnessed by a number of leading world experts, Russian Railways has major priorities and a global leadership in a number of areas, including:

technologies for using liquefied natural gas as locomotive fuel,

self-repairing and maintenance systems for high-speed trains with energy-saving features,

technologies for managing large-scale combined transport processes across large areas,

satellite technology for monitoring the condition of infrastructure and organising maintenance and repair work.

As the internet site says: the Company boasts a high technical level in a number of other areas as well, such as fibre-optic communications systems, the hardware and software systems used computer and server centres, microprocessor systems of electrical signalling and automatic locking systems.

**BUT!** What I've got, when asked a person, who works in RZD. He said, that the introduction of the IT is a great problem for some parts of the corporation. RZD has offices in almost all parts of Russia, and some of them don't have even good telephone connection, what can be said about computers...

Do you remember some railway crossings which aren't in the city? Just a small cabin near the railway. What kind of IT is used there? It would be great, if there

would be somebody, though there would be nothing that can help to control the ways. RZD takes care of the huge projects, but forgets about its simple parts.

### **WI-FI technology in the trains**

That's the thing that I'm waiting for! When a person should travel a lot, 'specially on business trips, the Internet connection is priceless.

The first train with Wi-Fi in Russia was going to be «Nevsky Express» which connects Moscow and St. Petersburg. The question about tariffs was discussed, but the approximate speed was- 690 kbit/s, that was in 2007.

### **The latest news**

Wi-Fi in Sapsan isn't provided for a comfortable using. You can find the RZD connection while travelling, but it isn't fast and it is intermittent. In the LiveJournal a RZD consultant described the situation. He said that WI-FI in the Sapsan is used only for technical connection among the personnel, and sometimes passengers are able to find the net-connection. The public Wi-Fi is still under construction. But this description can lead to plenty of questions.

For example, why the technical connection isn't locked.

The Russian Railways is controlled by the Government. And almost every part in this big structure was in need of renovation after 1991. However, it still is in need of it. That's why the IT and RZD are objects to speak about.

Kiselev A.A.

## **INTERNATIONAL FINANCIAL CENTRES: PROSPECTS OF DEVELOPMENT IN THE RUSSIAN FEDERATION**

*(SPbGUEF, St. Petersburg)*

The creation of an international financial centre in Russia is the government's strategic task, successful achievement of which will definitely reinforce the country's position in the world economy. The international financial centres of New York, London, Tokyo, Frankfurt, Geneva and Zurich are considered to have historically arisen in economically developed countries on the basis of the national capital markets. Gradually major cities in emerging economies began to attain the status of international financial centres, too. The brightest examples are Singapore, Hong Kong, Shanghai, Dubai, Mumbai and others. Many «young» financial centres operate rather as offshore banking centres, though notably liberal currency and tax environment in the international financial and credit operations are typical of practically all international financial centres, because their formation follows the concept «the more freedom, the more money». Therefore over the last decades an increasing number of countries build their financial systems on principles of free movement of capital.

The purposes of international financial centres are similar for different countries; these are capital inflow to the city and country as a whole, replenishment of the revenue section of budget, city infrastructure improvement, maintenance of population employment. All of the factors finally promote the growth of the country's gross