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Potential of Latvian Construction Industry

Construction industry is one of the most important industries in Latvian national economy both according to the financial turnover and the number of employees. Data of Central Statistical Bureau show that the share of construction in the structure of GDP in Latvia has rapidly increased since 2005 (by 6.1% in 2005, by 7.4% in 2006 and maximum by 8.4% in 2007). This increase was the evidence of the development of construction industry, increase in demand for construction services and increase in construction volumes. The amounts of construction production during the recent years have increased up to 818.1 thousand Lats in 2005, 1131.6 thousand Lats in 2006, 1609.7 thousand Lats in 2007 and 1774.1 thousand Lats in 2008.

Legal framework for construction industry is based on the Construction Law adopted by the Parliament on August 10, 1995, the conditions of which concern all types of structures. The construction industry in Latvia is developing in line with the National Programme on Construction 2012 approved by the Cabinet of Ministers. Its main defined aim is to ensure the development of competitive construction. The essence of competitiveness lies in meeting the demand of national economy with environmentally friendly, healthy, energy and resource saving, aesthetical and modern construction products in diversified economic environment of modern knowledge, innovations and technologies.

To ensure the competitiveness in construction industry the National Programme on Construction has set the following four targets:

1. to ensure the harmonisation of Latvian technical and organisational construction norms with the appropriate EU legislation,
2. to contribute to qualitative and energy efficient construction,
3. to educate competitive construction specialists,
4. to develop competitive construction science.

Tasks defined in the National Programme on Construction are defined closely in line with the National Development Plan for 2007–2013 and Latvia's Sustainable Development Strategy 2030.

The construction is regulated by the Construction Law, Regulations of the Cabinet of Ministers and Latvian construction norms. Starting with January 1, 2011, structures will be designed according to appropriate requirements of EUROCODE. The year 2010 is a transition period towards these new norms. Thus until the year 2011 we shall join the common European space of structural calculations and design norms.

The companies of construction industry have united in several professional associations: Association of Latvian Construction Engineers, Latvian Construction Contractors Association, Latvian Association of Consulting Engineers, Association of Infrastructure Engineers, Union of Latvian Road Builders and Latvian Road Association, Latvian Association of Construction Material Manufacturers and Latvia Building Materials Traders' Association, Association of Latvian Window and Door Manufacturers and Latvian Association of Heat, Gas and Water Technology Engineers. Special competition among the Latvian construction companies is established, for example, Latvian Construction Contractors Association arranges regular annual competition „Structure of the Year“. Latvian construction companies have been awarded contracts not only in Latvia, but also abroad: in Byelorussia, the Czech Republic, Finland, Island, Norway, Poland, Russia and Sweden.

Latvia is well known for its good transport infrastructure and developed production basis. Terminal and runway of Riga International Airport have recently been reconstructed, harbour terminals in Riga and Ventspils have been expanded, European structural funds have been attracted for

the reconstruction of the road Via Baltica, several water treatment facilities and waste processing polygons have been constructed. In recent years thermal power stations TEC-1 and TEC-2, as well as, "Cemex" and „Knauf" construction material manufacturing plants have been totally renovated. Riga is also famous for the art nouveau architectural heritage dating back to the 19th and 20th centuries, as well as, the National Opera and the National Theatre dating back to the 19th century that have been successfully renovated and reconstructed owing to the professionalism and competence of our builders. At present the building of the Latvian National Library is under construction in Riga. A number of structures that have earned the recognition of European civil engineers have been included in the edition of the European Council of Civil Engineers, „Civil Engineering Heritage in Europe, 18th–21st Century". The following structures described in the book are clear evidence of the skills of our engineers to design and construct complicated structures already in the 19th century:

the longest European brick masonry road bridge over the Venta river in Kuldīga where traffic was opened on November 2, 1874;

reinforced concrete bridge over the Gauja river in Sigulda, opened for traffic on July 23, 1937;

Čiekurkalns and Āgenskalns water towers built in 1910 and 1913 in Riga.

One of the modern structures mentioned in the book is the Southern Bridge over the Daugava river in Riga, opened for traffic on November 17, 2008.

Higher education of civil engineers in Latvia is provided by two universities – Riga Technical University and Latvian University of Agriculture. In both institutions study process is organized in accordance with the requirements of the Bologna Process. It is worth to mention, that in the first volume published by the European Civil Engineering Education and Training (EUCEET) network in 2001 „Inquiries into European Higher Education in Civil Engineering" it was stated that two-level higher education in civil engineering was implemented in Latvia already in 1993. The number of students in both universities is high, for example in 2009 there were more than 2900 civil engineering students in Riga Technical University. Every year close to 200 engineers graduate from the Faculty of Civil Engineering of RTU.

Issues of construction science in Latvia are the competence of Riga Technical University, the Faculty of Rural Engineering of the Latvian University of Agriculture and scientific groups of the Latvian Academy of Sciences. One of the most important research

directions is connected with the development of new environmentally friendly and economical construction materials.

Specialists of construction industry are actively involved in important research at the national level connected with improved durability of road and engineering structures, improvements in traffic safety, quality control of construction materials and construction works, improved energy efficiency of buildings. The results achieved by the scientists of the Faculty of Civil Engineering of Riga Technical University in the projects of EU co-financed Framework Programme on the use of new composite materials (FRIENDCOPTER, COCOMAT, interSHIP, SANDCORE, ALCAS, CASSEM, ENCOMAR-ACC), as well as, the development of new technology for the preparation and supply of drinking water (SAFER, TECHNEAU SECUREAU) have gained global recognition.

Ancient skills and knowledge of Latvian builders and masters reinforced by today's science and technologies and materialised in civil engineering structures are constant gratification to our guests and ourselves of the quality of living environment, safety and profoundness so characteristic to the Baltics.

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