

**XXIIIrd WORLD ROAD CONGRESS
PARIS 2007**

LATVIA - NATIONAL REPORT

STRATEGIC DIRECTION SESSION ST4

QUALITY OF ROAD INFRASTRUCTURE

**Gints ALBERIŅŠ
Latvian State Roads,
Riga, Latvia
gints@lvceļi.lv**

Historically dense road network is developed in Latvia; however it has not been adequately maintained for the last 15 years. Shortage of maintenance is related to insufficient financing. The consequences are not only potholes on the roads. Small procurement amounts delayed the road sector development and in the result the building industry is not developed enough - it has poor technical facilities, raw materials depot and personnel, as well as, outdated standards. Certainly this situation is not favourable for the road quality.

Today the situation is changing rapidly and the amount of financing has reached the level where a fulltime job is being given to the industry. At present it is important to ensure that industry develops rapidly enough and in good quality at the same time. The result largely depends on how smart the processes will be administrated.

In spite of the fact that the main competence is developing in the private sector, the Latvian State Roads as a client plays one of the main roles in the ensuring of the road quality. Right decisions have to be ensured in every phase to reach the necessary result.

In the planning process it is important to ensure reliable medium-term information that would allow the industry to mobilize necessary resources in time.

With the increase of work amounts the gaps in the legislations are felt. They prevent the optimal solving of the problem with layout of the territories along roads, land acquisition for the needs of construction works, optimal use of resources, as well as, restrict the competition, allow inadequate road loads. In addition the lack of experience of the society in balancing the private and social interests obstructs the alignment of the legislation.

United European market requires always higher standard therefore we have to work with the modernization of standards that demands not only high competence level to develop them, but also big amount of resources to implement them. We can do this work only by cooperating with contractors and consultants.

In the designing stage it is important to ensure optimal solutions that are available in the market and promote the use of modern technologies and materials at the same time.

In the procurement process we try to liberalize requirements to the utmost to encourage the competition, as well as, search for new forms of contracts to increase the efficiency of the private business. More and more we practice merging of the several stages of construction – designing and construction – in one contract, as well as, seriously evaluate the possibility to attract private financing, combining designing and construction with the subsequent maintenance.

The amount of construction works is growing therefore we cannot ensure work supervision in sufficient amount. As from 2005 we handed over all the supervision of construction works to competition market, thereby creating advantageous conditions for the development of service, but this is not the only solution. We are looking for new ways to motivate the contractors to come forward with higher quality of construction works. We see one of the solutions in increasing the efficiency of quality management of the performer of construction works himself.

Qualified personnel is necessary for performance of these tasks, and the lack of it is especially felt at the moment. Together with the educational institutions we take steps to advertise the profession of road engineer. For the current engineers we organize professional courses, seminars. For Latvia as a small country that alone cannot develop

research programs on a large scale, cooperation with neighbouring countries is especially important, as well as experience on global scale.

If we succeed in every process mentioned above, the society may expect such quality of Latvian roads that meets its needs.

Reliable long-term plans are necessary for the balanced development of road industry and their preparation is the task of road administration.

Since the regain of independence Latvia has not been able to ensure the planning of sustainable road financing.

In the first years of independence the government financing ensured only the minimum necessary routine maintenance therefore road construction industry had to consider other businesses. Forest industry, fuel sales, car service are just some of the businesses where, the companies tried to use their production resources.

In co-operation with the European bank for Reconstruction and Development and the World Bank additional financing was acquired in the middle of 90-ties and they allowed to carry out the procurement of considerably big amount of periodic maintenance works. Parallely several significant studies on technologies, road standards and road financing were carried out. Successful financing model – the Road Fund – was created, and its income sources and expenditures were determined by the law. It provided insufficient but still reliable road financing from the planning point of view. It ensured sustainable planning of road routine maintenance expenditures, but periodic maintenance and construction still lacked money, and these programmes mostly relied on loans and the EU assistance. Even today we are not able to ensure homogeneous and reliable planning of reconstruction projects. The scale of projects co-financed by the EU is very considerable for the Latvian construction industry, but due to the lack of experience and some conditions set for this financing we are not able to ensure homogeneous distribution of procurement within several years.

Additional complications are created by the increase of construction prices that demand regular revision of the existing plans. Our neighbouring countries are in similar situation. Merging of markets of neighbouring countries would diminish the negative influence of changes in plans; however, in the road sector we are making only the first steps. Lack of reliable plans does not allow the contractors to invest in the development of technologies. Firstly the financing programme for the period of three years was approved only in 2006. Though the legislation stipulates that the budget may be approved only for one year the road administration has both the possibilities and the duty to follow this three year plan closely thus providing the opportunity for the road industry to prepare itself for the coming works.

Drawbacks of the legislation and lack of experience delays the implementation of projects and is not allowing the application of most qualitative project solutions.

At the first glance you may think that there are no serious problems in the legislation of the new EU countries as they have put lots of efforts in harmonising the legislation with the EU laws. At the same time it has to be noted that the Latvian society lacks the experience of working in free market conditions. Protection of customer rights frequently comes along with restrictions of competition. System of legal proceedings still works poorly therefore every argument that is presented to the court may delay projects for several years. Legal

practices are not known as in many cases no precedents have been there before. No case of forced land acquisition for the state road needs has been experienced in Latvia; there is no order how the compensations for new liens have to be calculated as there were no projects with such problems in the 90-ties due to the lack of financing. Some legal norms still exist that may not been used in practice, for example no design may be prepared on another person's land. The change of norms requires not only administrative resources but also knowledge and experience. We try to transfer this experience from the countries of old Europe and adapt it to our conditions. Transfer of experience in the level of direct executors is especially effective. It is of mutual benefit as the old countries have stabilised practice of market economy but the new countries are very efficient in introducing new European norms. Improvement of legislation ensures better project solutions.

Until 90-ties of the last century Latvia worked according to the Soviet standards. Considerable resources were allocated to the development of these standards in the former Soviet Union. After its collapse the development of standards stopped. Latvia as a small country had no resources for developing its own standards therefore political decision had to be made which standards of which country to adopt. Different standards were chosen in different areas: DIN for road design, Road 94 for road pavements, ASHTO and also GOST for construction materials. The situation is dual. On one hand the experience on different standards was acquired within the last ten years. On the other hand without serious research there is no sufficient confidence about the compatibility of these different standards and their conformity to specific conditions. The evidences of that are frequent defects and arguments during warranty period. Cause of defects may be both mistakes in design and violation in technology and poor materials; however, most frequently it is a combination of all these factors.

Usually the client and his consultant are responsible for design quality. Since 2001 we together with designers and contractors are preparing specifications for road works. They are reviewed every two years and considerably amended every five years. Uniform specifications considerably improved the designing quality, as in comparison with the previous situation when every consultant prepared designs according to his own specifications, the uniform specifications contained less mistakes, the amendments were discussed in a larger audience of engineers and they were retained and concerned every future designs. Though defects are not rare in completed works, however, we believe that in terms of standards we are on the right way.

Significant drawback in the development of our standards is poor co-operation with the neighbouring countries. Both Lithuania and Estonia and Byelorussia are countries with similar climatic, geologic and road loading conditions, however, there is no co-operation in the field of standardisation. The main obstacle in the Baltic countries is the language. Experts of each country firstly work in the national language, and ready made standards in the best case are published in English. So far, our co-operation has not developed further than mutual acquainting. In the future we plan more specific co-operation with establishing common work groups for the preparation of standards and specifications, exchange of experts for the solution of construction arguments and harmonisation of construction plans.

Closer co-operation in the level of road administrations would contribute to international competition in road construction. Differing from civil construction the execution of road construction works outside the home country is very seldom in the Baltic States. Such a small and undisturbed market lack immunity against many diseases such as inadequate price fluctuations and only one serious bid in tenders. The duty if the road administration is to use its resources in order to contribute to healthy competition. If five years ago we were

not concerted about the lack of competition then today the situation has changed dramatically. International companies have not yet discovered opportunities to work in our market, as the lack of free local engineers and the costs of moving production resources provide natural advantages to local companies. Local industry is successfully co-operating and joining together for the implementation of big reconstruction projects and competing severely in the time periods when there are no such big projects. This extreme situation is not favourable to healthy business environment and as a result to road quality. In the sphere of public procurement the road administration in Latvia was a pioneer in the Baltics and we still do well. The improvement of procurement procedures however may not improve the competition in our situation. The thing we can do is the balancing of the market by better planning and contribution to the merging of Baltic markets. Harmonisation of standards and procedures would be a considerable input to motivate the road sector companies to seek opportunities of a broader scale.

As for the road quality the road construction supervision has to be noted. Since 2005 we contract out all supervision of construction works on state roads. For this purpose the road administration was divided into two companies in 2004. One of these companies became a consultant who specialised in construction supervision. The experience of the first two construction seasons shows that we succeeded in the establishment of construction supervision market and it is one of the main conditions for achieving better service. The quality and efficiency of the service itself however is not yet good. The main problem in addition to difficulties because of the lack of appropriate experience with this new order is the lack of engineers. We unfortunately may not say if the lack of engineers is caused by the efficiency of the new order or by the increase of work amounts. Despite the reason we are not able to influence the efficiency of supervision companies and we may not hope for immediate changes in human resources, we may only create more favourable conditions. The present practice in Latvia envisages very intensive construction supervision. In line with the Nordic experience we are considering a gradual increase of the role of contractors' quality assurance systems. For this purpose we will need both changes in the specifications and legal acts for construction industry and the time when the changed order might be implemented in reality.

Considering the above mentioned I would like to note two things. Firstly, in spite of significant backlogs in road quality we have a clear vision of the measures to be implemented to improve this situation. Secondly, if in the previous period we thought about money when we considered the lack of resources for improving road quality, then today the lack of engineers becomes very topical. To solve this problem we put our efforts in advertising for the engineer's profession hoping for improvement in not so close future. We may ensure immediate effect by using the knowledge of road engineers from neighbouring countries.