

## EAST EUROPEAN INLAND WATERWAY TRANSPORTATION: GENERAL PERSPECTIVES AND PROBLEMS

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The issue of transportation systems inside the territory of European Union member states and in the neighbouring countries has been officially included in the sphere of interest of Brussels communitarian institutions for nearly ten years. One of the first defined action plans directly aimed at addressing the transportation development and improvement on a continental level dates back to 2007 (it goes up to 2013) when a budget, an aim and the means to reach it were established in a structural and far reaching way by the European Commission. The programme, called TEN-T (Trans European Transport Network), is working as a groundwork for the enlarging and rationalizing of a trans-border transportation network with regard to the main communication routes determined by the European institutions and agencies. It comprises railway, sea, road and inland waterway systems, taken both from the trans-border point of view and from the national one. The lesser known, the less commonly utilized and the less developed of these sectors is the river navigation. These reasons are at the bottom of the decision to invest in the inland navigation segment of the European transportation sector and to increase the present amount of

commodities carried by river. In fact the European inland waterways are seen as underdeveloped and their unexploited potential as means of transporting of goods is believed to be huge. Since the post war period almost everywhere in western Europe the majority of resources have been assigned to road transport, leaving behind the railway and waterway systems. The same has happened more recently almost everywhere in eastern Europe after the fall of the Soviet Union and the establishment of market economy since the mid nineties. As a consequence the inland waterway transportation is now one of the sectors least utilized for the carriage of goods. In order to strengthen the river infrastructures and make this kind of transport more attractive to the private sector, the European Commission has been promoting a series of initiatives and agencies in which the presence of the private operators and local institutions plays a key role.

Two major examples of this strategy are given by the NAIADES (Navigation and Inland waterway Action and Development in Europe) action programme launched in 2006 and the related PLATINA (Platform for the implementation of the NAIADES action programme) started in 2008. Both of them are thought not only to unfold the potential of the river transportation, but also to coordinate and unify as much as possible the sector throughout Europe. This aspect is essential for the particular kind of transport represented by inland waterways because of the several state authorities involved in the management of rivers safety and operability. By bringing together, through this two institutionalized programs, private shipping companies, small local operators, public authorities, governments and the EU, the Commission hopes to increase the pace of expansion in the rivers use as a carriage way. This task must be accomplished by recurrent consultation between the stakeholders concerned, the partnership among public and private sectors of each area and the funds earmarked by the European Commission. Moreover the EU has incorporated the river transport

inside the official and better known funding schemes which are used for a variety of issues and purposes all around the continent (such as the Cohesion Found, the European Regional Development Found, the Trans European Transport Network, the Instrument of Pre-accession Assistance etc..).

The initiatives listed above have been carried out since 2006 in a strong and systematic way bringing some advancements in the expansion of the sector. As for now the whole EU fluvial infrastructure is under a process of upgrading, despite a considerable distance separating the present situation from the one described in the European Commission's program goals. Moreover, a deep gap exists between the different geographical areas of the EU with regard to the level of technological advancement of the navigation services, navigability of rivers and multimodal connection with the other kind of transport (railway, road etc..). The considerable economical and political means put in place over a period of almost ten years (from 2006 to 2013) for the progress of European river transportation, underline the European Commission's commitment in investing in a structural way on this transport sector. The reasons that inspire the European Commission's strategy are many, but among them three are key. First is the absence of alternatives in the short run to the transportation on overcrowded roads, except for via railway and waterway. Second is the belief that the inland waterways are the most environmentally friendly of all possible means of transport and must therefore be exploited to reduce pollution and emissions. Third is the supposed safety, punctuality and massive capacity of river transportation.

As far as concerns Central Eastern and Balkan Europe, the European Commission strategy is centred on the Danube river basin, which embrace fourteen states in the area. The inland waterway strategy is taken in high consideration by the programs and agencies promoted in the EU framework because of the relatively young age of

the modern transport system in the regions involved. In the eyes of Brussels, the inland waterways can be supported to enhance the present phase of diversification of the transport sector, which can be better done given the immature stage of development in mass transportation. Countries such as Bulgaria or Serbia, placed along the Danube river, can assign a significant portion of the amount of goods transported to the waterway system (in this particular case the Danube one). The intent of the Commission is to shift the attention of the policymakers and the operators from road transport to the other ones, including inland waterway. Notwithstanding that, at the moment the nations of Central Eastern and Balkan Europe are favouring streets and highways, but the rivers are now conquering a little more market share than the last ten years. The goal of a significant amount carried by river is still far away, but the investments made by the EU agencies during the last few years and the ones forecasted for the near future suggest the enlargement in the use of rivers as an important and branched transport route will continue. At least this is the ultimate goal of the Commission's policy for the inland waterways in Eastern Europe. This context implies a series of effective actions in order to make it possible to get the plan done in a reasonable time (if possible the 2013-2015 period).

The two main points on which the Commission is more adamant and resolute are: the improvement of infrastructures related to the river transportation and its links to other forms of transferring goods; and the removing of the so called bottlenecks present along rivers. These two goals are coupled with upgrading and spreading of the ICT technology on both ships and in ports, the diffusion of trained and skilled personnel in areas such as the Balkans and research applied to more ecological ship-building techniques. The envisaged, and partly started, construction and enlargement of river infrastructures network on a large scale will have heavy repercussions on environment and hydrogeological balance of the regions involved. Though the rivers in the area

considered are already deeply modified in their original shape and natural path, the structural adaptations needed to make navigation possible/easier for bigger container boats will probably have an impact on rivers ecosystems too hard to bear. For example, nowadays 80% of the Danube river (the centre point of the EU inland waterway strategy in Eastern and Balkan Europe) is artificially regulated for preventing floods; in the first half of its length there are already more than 60 large dams for generating electric energy which abruptly disrupt the river's course, while along its tributaries there are approximately 700 dams. The vast operations necessary for the wanted frequency, efficiency and capacity of the inland navigation, plus the removal of "bottlenecks" through dredging and digging deeper the natural riverbed, described as the ultimate goal of the EU strategy, will add more and probably unbearable interruptions and deviations to previously hard-hit watercourses in Central Eastern Europe and the Balkans. Moreover additional wetlands and floodplains will be dried and destroyed in order to build the facilities for the enhanced shipping transport of goods and its connections to highways and railways. The damage caused by the broad and systematic European Commission plan for inland navigation in Eastern Europe and in the Balkans to the environment and local economies has still not been counted, but it is surely higher when compared to the benefits, since it includes: definitive and widespread loss of biodiversity and healthy environment; high reduction of species of fish (fishery sector and ecological balance); destruction of beautiful natural landscapes (tourism sector); erosion of river banks, lakes and beaches; reduction of rivers flow and droughts (affecting agriculture and drinking water supply); hydrogeological changes which cause deadly floods (seriously disrupting the agricultural sector and normal life activities; causing deaths and billions of euro of damages every year), landslides and an alarming drop in the quantity and quality of water available for domestic and use and consumption.

The transformation of the East European and Balkan river system as a complementary alternative for the recurrent and intensive transportation of goods as suggested by the European commission via the PLATINA platform, appears to be unsustainable for the environment as well as human activities and health, since it doesn't take into consideration the medium-long term effects of the ongoing infrastructural work. With regard to the ecological connotation of this kind of transport, the data available certify that it is the best possible option in terms of greenhouse gas emissions. However, it has not been evaluated the impact of infrastructures construction and adaptation in order to make navigation of big ships possible as well as the release of pollutants downstream due to the use of fossil fuel together with the increase of traffic estimated in the coming years. The higher degree of safety of transportation on river is real and proved, particularly if compared to transport on land by trucks. Nevertheless an accident is still possible (and it has happened several times in the past) and this case would be devastating for two reasons: on one hand the very dangerous nature of the goods carried by big sized ships (often chemical substances); and on the other hand the narrow space where such substances would pour out, plus the distance which would be covered by any spill on a river course. Another weak point is represented by the lack of consistency during the year. In fact the flowing of any river is not steady and changes with seasons and weather conditions. This aspect will have a growing relevance given climate changes and increasingly extreme climate (for example more frequent flooding and droughts), reducing unavoidably the number of days in which a river can be navigable. In the end it is worth saying that a widespread and intensive transit of big ships on rivers in Eastern and Balkan Europe, pushed forward by the European Commission and shipping companies interested in expanding inland waterway transportation, will thwart every other EU plan intended to safeguard environment and habitats of the areas considered from further and fatal deterioration.

Rivers are a useful mean of transport, which must be utilized with care, to diversify transportation and to overcome difficult land passages. Following this path the European strategy can be successful, opening the way to responsible, prudent and sustainable use of inland waterways. The European Commission program for river transportation exposes medium and long rivers of eastern and Balkan Europe to the real risk of being over exploited and it doesn't seem to consider the value of healthy nature conservation as an irreplaceable element in the measurement of the quality of life, not to mention the very high relevance of hydrogeological steadiness for human life.

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