

## GOODS IN THE PADANO-VENETO WATERWAY SYSTEM (Ing. Ivano Galvani)

Statistical data demonstrates that, on the whole in European Community countries, land transport demand increases at the same rhythm as the 'PIL' (gross internal product). After a difficult period in 2006, economy once again began to increase and the forecast began to brighten. Generally economic growth in 'Euroland' countries is significantly backed by a high level of exports towards south-east Asia.

Internal shipping, however, has had different evolutions and behavioural patterns depending on the nation states, their waterways and means of water transport. Italy continues to remain at very modest figures, around 0,1% of all transport (also taking into consideration the inert transport on the Po river). Navigation is potentially one of the forms of transport which functions better with inter-modules and is predisposed to progress with ease where it already occupies important parts of the market helped along by the density of the existing network and by development in the surrounding territory.

The convenience to use these waterway systems is powerful when industrial plants are localised nearby and therefore do not need expensive breaking up of loads which affect final transport costs.

Transport via waterways in the Padano-Veneto area substantially comes about on five stretches: on the Po river from Cremona to Volta Grimana, on the final stretch of the Mincio below Mantua, on the Fissero – Tartaro – Canalbiano – Po di Levante, on the Ferrara waterway and on the Po canal – Brondolo – Venetian lagoon. The main typology of the goods transported are combustible oil for the thermoelectric power stations on the Po, (now diminishing due to the introduction of oil pipes, plant transformation to gas), industrial chemical products in the Mantua area, gas for deposits in the Cremona area, flours and cereals for the ports of Mantua and Rovigo, inert materials (feldspar, kaolin, clay and gravel) in the lower part of the Ferrara waterway and along the wharfs of Port Levante, arrival of goods from countries over the Adriatic sea and every now and then exceptional loads. Moreover, an internal traffic of inert substances exist connected to the work and trade of the Po's sand taken from the surrounding area.

The amount of goods transported in the last few years on the Padano-Veneto waterway system shows around 2.5 million tons of which 2,000,000 belong to the inert substances of the Po. Transport via inland waterways was and still is today widespread and practical a direct relationship between industrial and contractors' needs in the immediate vicinity of the waterway network. In the last three years internal navigation has established itself on typical goods: combustible liquids, chemical products, flours and cereals, inert and/or building materials, exceptional loads. The increase in traffic is therefore connected to the capability of market development that uses these types of goods.

The beginning of container transport is more complex and is conditioned by logistic flows, which, at the moment, does not cross the few and still modest establishments close to the waterways, which, in turn, do not reach the important centres of production in the Padova area.

Consequently, the crediting and reinforcement of transport on inland waterways necessarily passes through the perfection and improvement, already in being, in relation to production and industrial needs all along the banks of the waterway network already working and the building of new connections favourably predisposed. Contextually, in the planning of industrial zones, one should favour new establishments keeping in mind where possible of the presence of water.