

UIP: "The freight wagon is a key indicator of rail productivity..."

[by Pamela Luică]

There are transport policies in Europe aimed at boosting and developing railway freight transport, there are many statistical data on economic situations and estimates on transport demands, but we have to consider that rolling stock is the most important asset of railway transport in reaching economic performance and adjusting to logistics chain demands.

Freight wagons are major elements in a modern transport system connecting railway transport and related logistics services. In order to adapt to market trends, railway transport has to improve efficiency by innovating design and the use of freight wagons. According to statistics, the share of freight rolling stock procurement will drop and acquisitions will be focused on replacing obsolete wagons. Also, railway companies (former state-owned) are gradually reducing their rolling stock fleet and the market share of the companies that lease cargo wagons (independent owners) records rapid growth.



Photo: Club Feroviar

In this context, the factors that influence procurement strategies are the appropriate economic profitability and availability of financing sources, the additional needs of customers, the improvement of the companies' productivity, rolling stock renewal, replacement needs and the efficiency acquired through management systems and operational systems.

Mr. Gilles Peterhans, Secretary General UIP, explains in the current interview the role of rolling stock in the transport system, the need for investments in the procurement of new units and the current situation of the European railway freight transport.

RailwayPRO: Railway transport plays an important role in the EU initiatives on creating a single market. What do you think about the position and role of intermodal transport in the whole system?

Gilles Peterhans: The term "intermodal" has been used in many applications that include passenger transportation and the containerization of freight. In the context of creating a single market in Europe, a more descriptive term would be "multi-modal". Although combined traffic is frequently the first thing to come to mind when intermodal transport is discussed, it is important to note that many other

commodities are transported as intermodal shipments. If intermodal transport is measured as all multiple-mode single-bill shipments rather than the historical "containerized rail freight", the tremendous significance of intermodal movements in the logistics and supply chain structure will be more apparent. For example, many bulk like grain, or semi-bulk commodities such as fertilizers and building products move intermodally. Unfortunately, the traditional movements for small packages to less than-truckload (LTL) and truckload (TL) shipments are not spending enough time on rail! Compared to the other modes, railway transport faces significant challenges in being a part of intermodal networks, particularly when it comes to the number and location of rail terminals, rail yards, marshalling yards, shunting yards, type of lines, capacity of lines. As a result it competes intensively with trucking by offering customers timely, flexible, and long-haul transportation services. But to answer to your question, there is no doubt that intermodality plays an important role in moving freight to and from Europe's ports and for long distance "intercity" freight transportation. For UIP, it's time for shippers and rail stakeholders to develop common solutions that do not depend only on government's involvement. This will require the establishment of deeper and more collaborative relationships than has been the norm. Otherwise, twenty years from now we will still be discussing the need for the governments and Europe to develop a comprehensive intermodal freight plan. The way forward is a difficult path but as the old adage says: "You can eat an elephant one bite at a time."

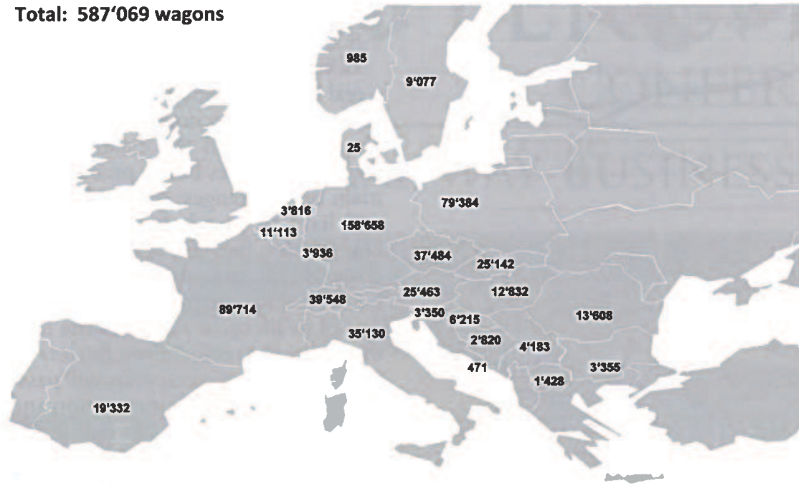
RailwayPRO: On the long-term, the EU wants to increase the share of freight volumes carried by rail to 80%, "longer trains

and 22.5-tonne axle loads", being the preferred solution. How will this measure impact on the freight transport market? How does UIP answer to this proposal?

Gilles Peterhans: To realise the "vision" of moving trucks off the highways onto the railways, longer trains and increased axle loads are only part of the solution. The introduction of a uniform loading gauge profile, P400 or UIC GC, throughout the whole network would also allow enhancing infrastructure capacity. Furthermore, the implementation of Regulation 913/2010 on the Freight Corridors is also an important measure aiming at increasing rail freight's market share. It will provide the conditions of use for the network which allow freight trains to run reliably and seamlessly across borders. Rail freight transportation is a system service involving a multitude of players. To increase the market share of rail freight, the whole European Rail sector will need to ensure coordinated efforts towards improving the attractiveness and performance of rail services and focus on enhancing efficiency, reliability and productivity. Furthermore, the question remains if we have appropriate funding for this step change all over Europe. Heavier, faster, and longer trains will also create the need for innovative types of track structures and innovative freight wagons. At UIP, with a view towards increasing infrastructure capacity, we see a target system allowing for an even greater payload-tare weight ratio by increasing the maximum axle weight from 22.5 to 25 tons. In the US, the increase of the axle load from 22.5 tons to more than 30 tons yielded in annual net benefits exceeding \$600mio in 2010. These benefits were spread among wagon keepers, customers, suppliers, and railway undertakings. Wagon keepers benefit from being able >

European wagon fleet: based on GCU and keepers' head office

Total: 587'069 wagons



Source: Gilles Peterhans - "Liberalisation of the railway markets. A challenge to finance railway systems" presentation Railway Days 2013

► to purchase capacity at a lower cost per ton. Railway undertakings save energy because they move less gross tonnage, and operate fewer trains with fewer locomotives and fewer wagon kilometers⁴.

RailwayPRO: It is obvious that we cannot talk about railway freight transport without also talking about rolling stock, the most important resource of railway transport. What is the role of wagons in providing economic performance in delivering railway services?

Gilles Peterhans: The freight wagon, as a core element of modern rail freight transportation, is a key indicator of rail productivity. It represents the link between rail transport and related logistics services. To adapt to the market trends in logistics like the demand for product individualisation, or added services, or the so called "goods structure effect" (from heavy bulk commodities, to more lightweight, high-value goods in smaller consignment volumes), rail transportation must improve its efficiency among other things by innovating the design and the use of rail freight wagons. Mercer consultants estimated in 1998 that better utilisation of rolling stock could alone lead to an increase in the wagon load by 30%, a reduction of maintenance costs per wagon by 40%, and an increase in staff productivity by 15%. However, the crucial factor for the future role of wagons is the noise issue. A modern wagon fleet may improve rail transport performance in environmental terms, but the extent to which freight wagons will play a role in providing better economic performance for rail, will also depend on the way the noise issue is resolved at European level.

RailwayPRO: What can you tell us about the current situation of the freight rolling stock fleet in Europe?

Gilles Peterhans: There are various and more or less publicly accessible sources of information on the European wagon

fleet (Eurostat, UIC, National Vehicle Registers), but even if the exact number of wagons currently operated in Europe is not known, the market trends are well acknowledged.

The last available studies⁵ show that:

- Procurement rates are expected to be low in the coming 5 years
- New procurements will serve mainly to replace old wagons
- Former state railways are still in a fleet downsizing process
- The market share of independent freight wagon lessors/keepers is rising

If we compare the rail freight volume and the evolution of the number of wagons in Europe, we can state that the wagon productivity (i.e. utilisation) has increased by approx. 30% in the last 10 years! In other words, this means that while transport volumes have been stable, the freight wagon fleet in Europe has been reduced by 30%.

RailwayPRO: According to the statistics that you presented during the Railway Days Summit, in the coming years, the rolling stock procurement will fall and future acquisitions will be aimed at replacing old wagons. What caused this situation and what solutions would you propose to recover this market segment?

Gilles Peterhans: To assess the development of the European wagon fleet, many factors need consideration: rail freight volumes, wagon productivity, wagon purchase costs, life cycle costs, etc... Independent wagon keepers are highly interested in value for money. Besides the acquisitions aiming at replacing old wagons, procurement of new wagons only makes sense if an adequate economic return can be demonstrated. Railway undertakings, on the other side, are interested in wagons as strategic assets to perform transportation and logistics services. They benefit from the advantages of a higher productivity and lower operational costs. In 2011 UIP assessed the economic impact

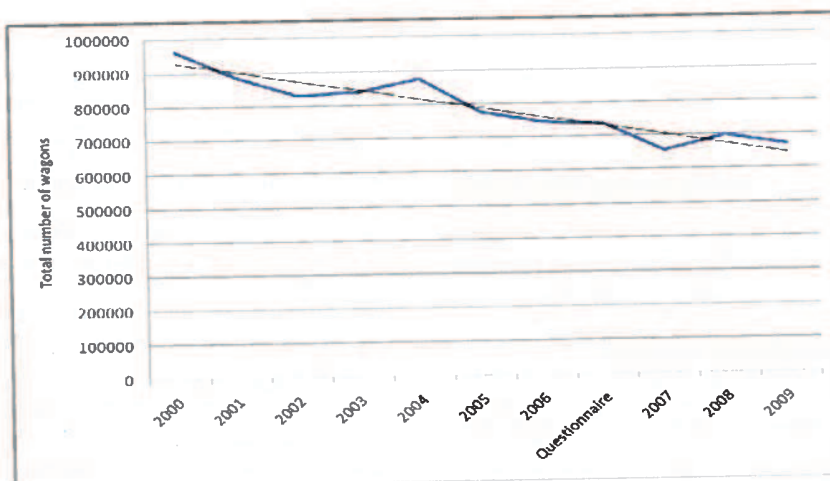
of new rules and regulations with regards to wagon related issues. The results show that in the past years wagon keepers have been confronted with a high additional cost burden which adds to a significant increase of Railway Undertakings' production costs linked for example to the implementation of ERTMS. All of this explains why procurement is falling and future acquisitions aim only at replacing old wagons. For the market to recover, we need targeted activities towards increasing rail efficiency, rail competitiveness and rail attractiveness. To this end, we need also further support from the European Institutions in order to define and implement a harmonized and consistent regulatory framework across Europe.

RailwayPRO: For the freight car market, including the industry, is it a good thing that the former state railways are reducing their rolling stock fleet, while the market share of the companies that lease freight cars increases rapidly. Is there a reciprocity report in this situation or the increasing car leasing segment is a consequence of the reduction of the fleet pertaining to former state railways?

Gilles Peterhans: Taking into account what I mentioned earlier, I wouldn't say that "it's a good thing per-se" but it's a logical evolution that follows the rail freight market opening to competition. Surviving liberalisation often leads to improved efficiency but also to outsourcing as companies have to focus on core competencies. The reduction of the fleet pertaining to former state railways is probably an effect of the liberalisation of railways in Europe. However, with higher wagon productivity and more or less constant rail freight volumes, the increased freight wagon market share of independent wagon keepers is mainly the consequence of the overall reduction of the European wagon fleet from approx. 900'000 in 2000 to around 600'000 in 2013⁶. But liberalisation also brings new-comers who need freight wagons. Both effects would allow for the freight wagon lessor businesses to grow further but only if rail freight volumes would grow as well! In this sense, independent wagon keepers have gained market shares but at the expense of profitability. I wouldn't say that we have an up-beat freight wagon market in Europe, but despite the impact of the European crisis, we are still in a stable, promising environment overall.

RailwayPRO: What are the factors which influence the car procurement strategies and how should they work for each company-operator so that the result would be the development of the fleet and of the activity?

Gilles Peterhans: I would list five key factors which influence procurement strategies:



Source: ERA EcoEv Unit; NSA questionnaire

- Adequate economic returns and availability of financing sources
- Fleet renewal rate and replacement needs (incl. policy driven)
- Additional or new customers' needs
- Improvement in the wagon productivity
- Efficiency gains through more elaborated wagon management systems or operational systems

Taking into account the correlation of the factors and more general issues like rail freight volumes, specific market developments, I think that you would have to develop a complex sensitivity matrix to allow for an assessment of possible business developments.

RailwayPRO: Funds are, of course, necessary in the procurement processes and financing sources are known by those who want to implement such programmes. But in your opinion, how could private investments be attracted considering risks and return?

Gilles Peterhans: Appropriate returns are key incentives to private investments. In assets financing, rolling stocks investments are characterised by long disbursement and loan repayment periods (15 – 20 years), relative constant returns with recurring revenue streams, more value than corporate and pledge of assets. Very often the political support for "more" rail is also seen as comparative advantage but the attractiveness for private investments suffers from low margins, low returns, and decreasing volumes.

In general, private investments will only be attracted to projects with revenue streams that are isolated from risks over which investors or banks have little control. Therefore we need to consider the following actions:

- Independent and strong regulatory authorities are essential to attract large

scale private investments.

- Government's sovereign regulatory functions must be separated from those of management and operation of railways.
- Policy makers must provide a stable regulatory framework and avoid over-regulation.
- Stakeholders have to focus on fields with competitive advantage and to improve productivity and service quality (in particular reliability, price and customer orientation).

RailwayPRO: What does the Fourth Railway Package mean for the railway system and for the wagon keepers? What are the expectations about the implementation of this legislative package and how does UIP see the takeover of certification of vehicles by the European Railway Agency (ERA)?

Gilles Peterhans: For UIP, reaching a sound agreement on the 4th Railway Package is the fundamental milestone for the establishment of the Single European Railway Area (SERA). As a representative body of wagon keepers, we expect from the 4th Railway Package and especially from the Technical Pillar, more Interoperability, "interoperable" Safety and a stronger role for ERA. We see it as a boost to market access by providing a kind of Schengen agreement for rail vehicles, a boost to innovation by reducing time and costs for the authorization of putting vehicles into service, but most of all as a boost towards enhanced efficiency with a clear framework on roles and responsibilities, ensuring a closer cooperation between all stakeholders as well as a clear framework to limit and reduce the number of national technical and "protective" rules.

RailwayPRO: In what context does liberalisation become a challenge for rail-

way financing? How would you explain this situation and how does liberalisation influence the financing of companies?

Gilles Peterhans: It will take time before a real European Single European Railway Area (SERA) becomes reality. In theory, liberalisation and the creation of SERA are opportunities but in practice, they remain big challenges: some 15 to 20 years will have to pass before the benefits of competition become fully visible, but the costs of replacing/renewing rolling stock before being amortised and reaching the end of its lifecycle will be borne now and mostly by the sector! Even the less critical minds agree that some years will pass until the achievements of competition and single market become really visible. On the medium term, reduced costs for authorisation can reflect some of the benefits but some stakeholders, like the wagon keepers, face high costs, especially relating to the noise issue and low benefits.

As such liberalisation and structural changes are not enough to foster performance, efficiency and ensure more private investments, we need also:

- Regulatory stability
- Sufficient investment in Rail infrastructure
- More common standards managed by the European Railway Agency to reduce technical and administrative barriers
- Strong regulators with strong coordination between them to ensure that key principles are implemented fairly and consistently
- Fair market conditions between transport modes and fair intramodal competition between freight and passenger (i.e. track access charges which reflect the priority and the quality of paths). ■

UIP: "Грузовой вагон это ключевой показатель производительности"

Грузовые вагоны являются основной современной транспортной системы, предоставляя связь между железнодорожным транспортом и соответствующими логистическими услугами; для соответствия тенденциям рынка, сектор железнодорожного транспорта должен оптимизировать свою эффективность путём инновации проектирования и использования грузовых вагонов. Для получения подробностей в связи с ролью подвижного состава в железнодорожной системе, необходимостью предоставления финансирования для закупки новых подвижных средств, а также, в связи с нынешней ситуацией железнодорожного рынка грузоперевозки на европейском уровне, мы провели интервью с господином Жиллес Петерханс, Генеральный Секретарь UIP. ■

Introduction of Heavy Axle Loads by the North American Rail Industry, Journal of the Transportation Research Forum, Vol. 52, No.2 (Summer 2013), pp.103-125

• SCI Verkehr: Freight Wagons - Global Market Trends 2013 or Boston Consulting Group: World Rail Market Study 2012

• European Railway Agency: Impact assessment report on the revision of the wagon TSI