

Good news for research and innovation in the railway industry

[by Elena Ilie]

The European Commission adopted the "SHIFT2RAIL" initiative, a new public-private partnership that gives green light to an investment of just under EUR 1 Billion in research and innovation to get more passengers and freight onto European railways. Although rail is among the most efficient and climate-friendly forms of transport, currently it only carries only about 10% of European cargo and 6% of passengers each year. Investments in research and innovation will definitely increase railway transport share as related to the other transport modes.

The project will involve virtually all of Europe's rail industry suppliers, including innovative small and medium enterprises, to accelerate the development of new technologies and bring them to the market. It will also involve rail operators and infrastructure managers in order to ensure that research activities are aligned to market needs. To date, rail equipment manufacturers Alstom, Ansaldo STS, Bombardier, Siemens, Thales and CAF, as well as infrastructure managers Trafikverket and Network Rail, have already confirmed that they will each make a contribution of at least EUR 30 Million to the SHIFT2RAIL initiative which brings the project a total of EUR 270 Million apart from the financing of the European Commission.

Launched by the European Rail Industry Association, the "SHIFT2RAIL" initiative is an ambitious public-private partner-

ship which will manage a 7-year work programme of targeted research and innovation to support the development of better rail services in Europe. It will develop and accelerate the bringing to market of technological breakthroughs.

With "SHIFT2RAIL", the European Commission is more than tripling its financing for rail research and innovation to EUR 450 Million (2014-2020) compared to EUR 155 Million for the previous period. This will be matched by EUR 470 Million from the rail industry. The net gains of this long term collaborative approach will give a very substantial boost to innovation in the rail industry, compared to previous co-funding of individual projects.

The SHIFT2RAIL initiative aims to deliver: a reduction, by up to 50%, in the life-cycle cost of railway transport (for example costs of building, operating, maintaining and renewing infrastructure and rolling

stock), an overall increase in capacity of up to 100% and an overall increase in reliability of up to 50% in the different rail market segments.

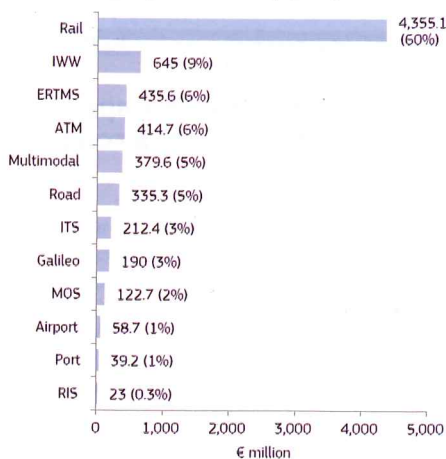
The research and innovation will focus on five key areas.

First of all, in order to improve the quality of services, it will focus on developing a new generation of high capacity trains which are cost-efficient and reliable. Secondly, to increase capacity and get more trains running on the same lines – it will develop better intelligent traffic management and control systems. The third research area will seek to provide reliable, high quality, infrastructure, including reducing track noise, cutting costs and developing intelligent maintenance. Also, to provide integrated ticketing and journey planners – it will develop innovative IT solutions and services. To allow rail to compete effectively in more markets, the fifth research area will develop better logistics and inter-modal freight solutions, so rail can connect better with other forms of transport.

"If we want to get more passengers and freight on Europe's railways, then rail needs to provide better services and offer an attractive choice to more customers. For that to happen, rail needs to innovate. This public private partnership is a major breakthrough", believes Siim Kallas, the European Commission Vice President Siim Kallas responsible for Transport.

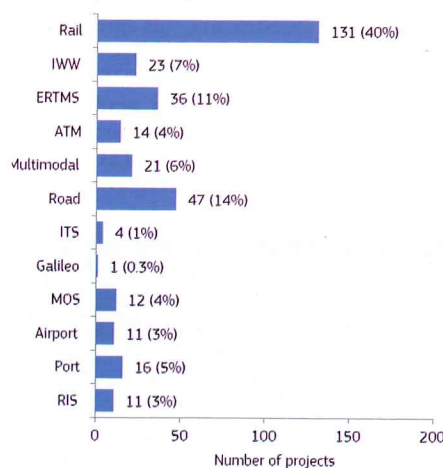
In turn, the Commissioner for Research Maire Geoghegan-Quinn said that "this investment will allow for a major industrial effort, combining public and private funding from throughout the whole rail sector, to develop strategic technologies and solutions that will help to strengthen the competitiveness of European businesses and retain Europe's leadership in the global rail market."

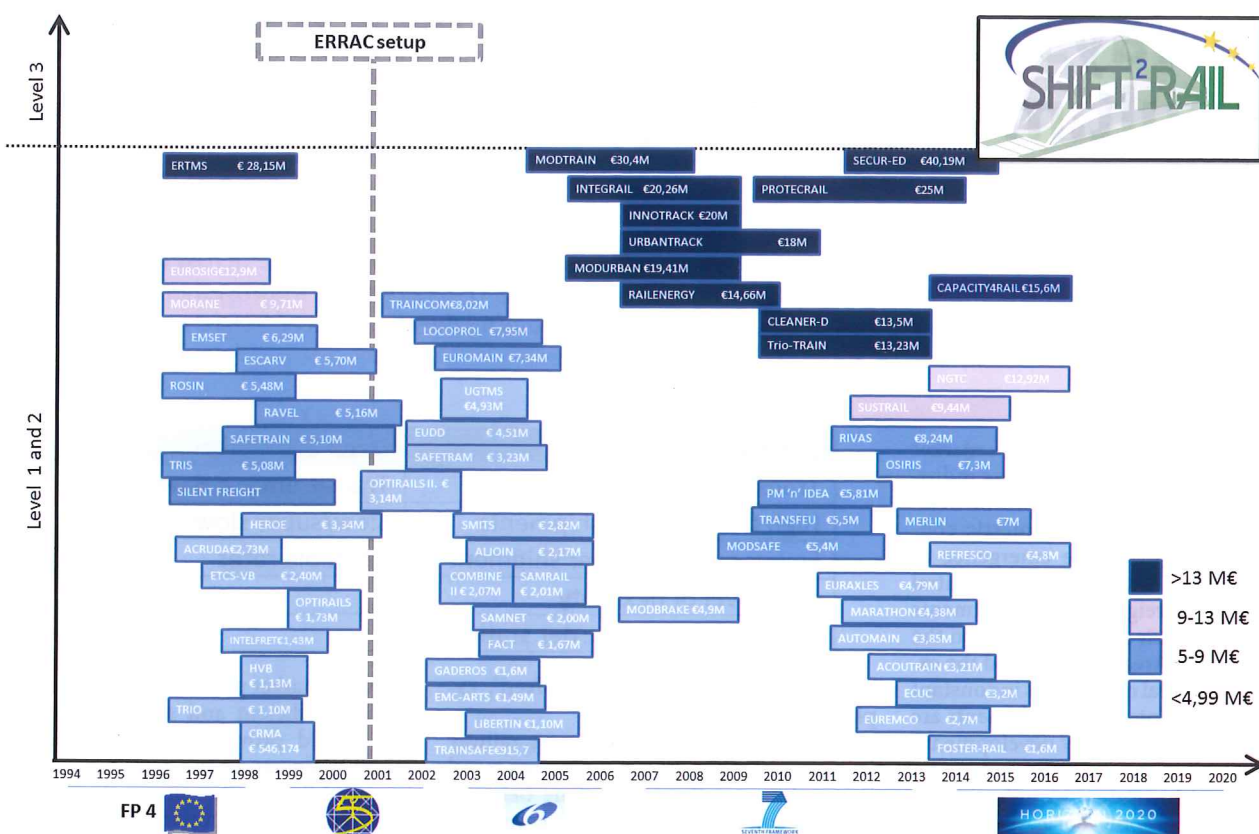
TEN-T funding (€ million) by transport mode



Source: UNIFE

Number of projects by transport mode





Source: Shift2Rail.org

The studies elaborated in the past years have shown that Research & Innovation in the rail sector is currently carried out in a fragmented manner and therefore, coordination is necessary to create the Single European Railway Area, not only in infrastructure management or freight and passenger transport operation, but also in the railway industry which delivers equipment and rolling stock.

UNIFE has launched the Rail Joint Technology Initiative SHIF2RAIL within the Horizon 2020 Programme, the first such initiative in the railway industry in order to increase research and innovation for more competitiveness in the European railway sector.

The Rail Joint Technology Initiative SHIF2RAIL refers to the whole European railway sector, especially to wide range innovation and competitiveness and to the consolidation of the European industry in order to face international competition.

SHIF2RAIL will develop and implement a new way of addressing the challenges for innovation in railway technology. Two key objectives have been identified by the initiative, the first one is increasing capacity so as to enable rail to absorb a greater share of traffic growth and the second is to attract business and improve the efficiency of the rail transportation mode as a whole.

The initiative will contribute to an increase in the overall efficiency of the rail transport system, satisfy transport user's needs, and at the same time help foster the competitiveness of the European manufac-

turing industry, through the implementation of technological innovation.

"After more than 10 years of already close Research & Development cooperation within EU projects, the European rail supply industry in concert with a growing number of operators and infrastructure managers are now pushing for a real step change in rail Research and Development. As well as coping with growing demand, this initiative would result in increased user satisfaction with Europe's railways, whilst at the same time reducing their cost and augmenting the competitiveness of the European rail supply industry.

The latest developments on SHIF2RAIL include the extension of the SHIF2RAIL promoters' circle, the finalisation of the technical preparatory work by the signatories as well as the growing interest and support for the initiative throughout Europe and within the European Institutions", declared Philippe Citroën, Director General of the Association of European Rail Industry (UNIFE) in the July 2013 issue of Railway PRO.

SHIF2RAIL will not only maintain and possibly improve the competitiveness of EU industry against growing competition from Asia. The initiative, supported by railway product suppliers, transport operators and railway institutions will overcome some of the present deficiencies of the EU rail market, namely: fragmentation of production, low collaboration and partnership among the rail industry, different operating procedures among railway undertakings, low standardization, and low efficiency.

"SHIF2RAIL will bring together on a large scale for the first time in our history, industry, railway undertakings, urban operators, infrastructure managers, SMEs and research centres/academia from all over the European Union to solve our collective transport challenges", said Philippe Citroën at the approval of the Technological Initiative. ■

Хорошие новости в области исследования и инновации в железнодорожной промышленности

Инициатива SHIF2RAIL будет способствовать общему развитию железнодорожной системы, удовлетворит потребности пользователей в области транспортных услуг, а также, повысит уровень конкурентоспособности европейской промышленности, путём использования инновационной технологии. Технологическая Инициатива SHIF2RAIL, пущена в ход Ассоциацией Европейской Железнодорожной Промышленности (UNIFE), является масштабным партнёрством между общественным и частным сектором, управляющим специфической программой исследования и инновации, со сроком действия 7 лет. ■