POSITION PAPER ON NOISE

July 2013

INTRODUCTION

The International Union of Wagon Keepers (UIP) recognises that noise is the most significant environmental burden of rail that affects not only society, but also the performance and perspectives of the whole railway system around Europe. With that in mind, UIP fully understands and supports the objective of reducing rail freight noise, but calls for a unified approach on Noise reduction at European level.

This position paper stresses the importance to carefully consider the impact of any future EU legislation and both future and existing national rail noise abatement programmes on transaction, operational and maintenance costs for the rail freight sector. Despite the fact that the level of concerns with regard to rail noise actually differs amongst the Member States, if we want to see a reduction of noise emissions in rail, without jeopardising further rail freight competitiveness and efficient cross border traffic, UIP asks for appropriate funding, suitable incentive schemes and harmonised implementation across Europe in order to promote the retrofitting of the existing wagons fleet.

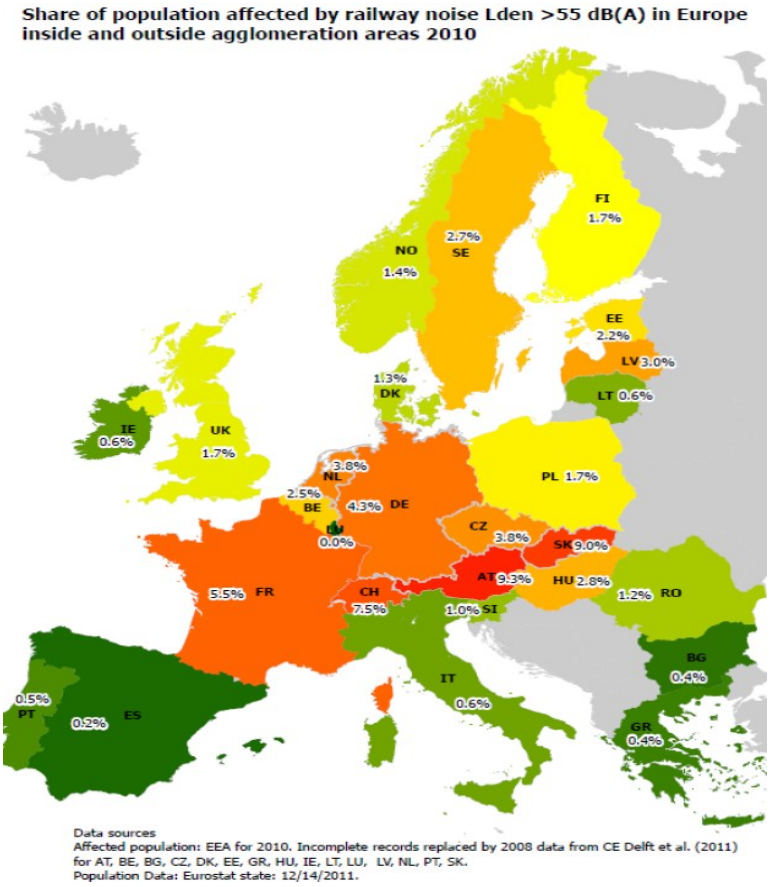


Figure 1:EP TRAN, Study on Reducing Railway Noise Pollution, Clausen et.al. 2012, page 18

BACKGROUND

While noise creation aspects are legislated at European level, noise reception is submitted to the subsidiary principles and legislated at a national level. As a consequence, although there is a common agreement on the fact that retrofitting existing wagons is the most efficient method to reduce railway noise, various pathways are being pursued at both European and national levels.

Since 2002, the Environmental Noise Directive requires Member States to submit noise maps and action plans to assess the number of people exposed to different noise levels throughout Europe. However, the directive does not set any limit value, nor does it prescribe the measures to be used in the action plans.

At national level, almost all European countries have noise reception limit values for new railway lines and in almost all Member States limit values exist also for upgraded lines. However, only few countries, due to a real political will and a clear and necessary objective to reduce noise emissions, have defined a legislative framework to provide financing and incentives to reduce noise at the source and promote the retrofitting of the existing wagons fleet. Incentive models, such as Noise Differentiated Track Access Charges (NDTAC)schemes, should neither weaken the market share of rail freight as transport, nor disadvantage any freight market player. As shown in Figure 2 above, different incentive models may lead to very different behaviour in the market when it comes to retrofittig. NDTAC can't function as incentive scheme if the bonus levels are not sufficient enough and the data collection schemes are different throughout Europe.

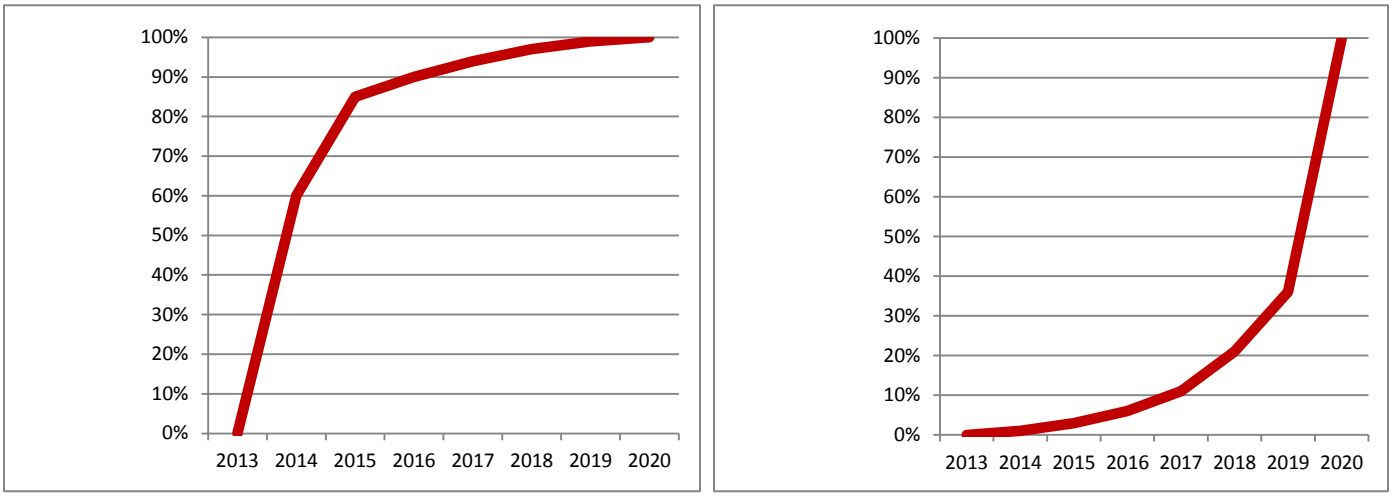


Figure 2: anticipated behaviour (% of retrofitted fleet) in time based on the Swiss and German NDTAC models

In this context, UIP appreciates the efforts of the European Commision and the European Railway Agency towards setting up harmonised technical requirements to encourage retrofitting in the European Union and towards the publication of a roadmap defining appropriate policy measures and harmonised incentives.

However, the current EU legislation neither **prescribes harmonised EU measures** to be included in the MS action plans nor **defines a timescale for their implementation**. As a result, general and open approach based national programmes prevent wagon Keepers who operate at a European level from establishing reliable retrofitting plans.

The Consequences of National Incentives Programms:

The EU has undertaken several studies over the past few years concerning incentive schemes. The method of choice for the EU is Noise Differentiated Track Access Charging (NDTAC). An introduction of NDTAC as an incentive to retrofit freight wagons with low noise brake blocks has always been considered as the first step to internalise the external cost of noise.

This measure is reflected in Directive 2012/34/EC ("recast of the First Railway Package"). However, other low costs incentives schemes such as a wagon scrap allowance programme should be also included in the current EC Impact Assessment study on freight noise reduction.

So far Germany, the Netherlands and Switzerland have introduced charging and compensation schemes for retrofitting, but only the Swiss action plan offers a full coverage for all low-noise wagons independently of retrofitting date, country of registration or other criteria. For the wagon Keepers, whose wagons move around Europe, different rules for compensation and application procedures in a Member or a non-Member State increase transaction and operational costs.

Therefore, such non homogenous NDTAC schemes do not create any incentive for retrofitting. Furthermore, most of the NDTAC systems are based on a wagon-km or even a axel-km principle but as per today, such mileage data are not readily available, due to the lack of binding EU rules on any delivery obligation. As a result, providing any evidence on mileage or even collecting mileage data goes adds to the a massive operational cost increase.

In this context, **getting a commitment** from the entire railway sector to set up and implement appropriate retrofitting programmes and to define priorities **is unlikely to happen**. Furthermore, UIP members wish to draw the attention on the fact that either not setting, or setting different timeframes for **measures at national level** (incl. ban dates for wagons equipped with cast iron brake blocks)**, leads to loss of interoperability** between retrofitted and non-retrofitted vehicles. Moreover, any national and unilateral measure will hamper international rail freight traffic, creating distortions to competition in a Single European railway market.

The Consequences of Low Noise Wagons:

The major cause for noise is the interaction between wheels and rail. Many years of research in railway noise abatment have led to the conclusion that the retrofitting of the existing wagon fleets is the most effcient measure to reduce noise levels at the source.

Since 1998, the sector has worked out many action programs and achieved with the homologation of two LL-type brake blocks a major milestone. However, for some wagon categories (e.g: wagons with small wheels), the technology to allow a retrofitting of the existing fleet is still missing.

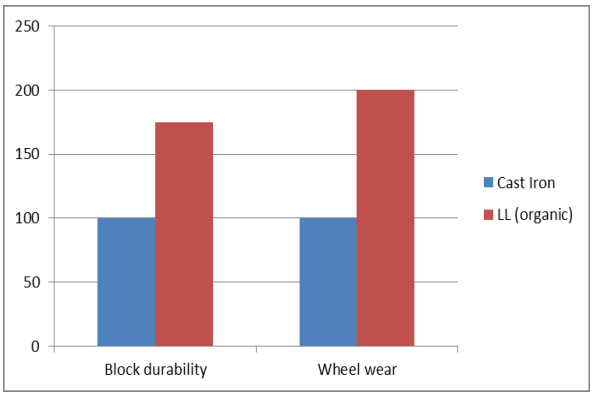
In the context of retrofitting and incentive schemes, three cost elements have to be considered in the long term:

1. The **retrofitting cost** itself: Costs to install composite blocks (K/LL). These costs are well known and widely acknowledged. They are reasonably low for retrofitting with LL brake blocks and rather high in case of retrofitting with K brake blocks.

2. The **additional life-cycle costs** of using K/LL blocks: These costs are known for K blocks and can be estimated to a high reliable degree for LL blocks thanks to the results of the EuropeTrain project.

   The recent results from the "Europe Train" project show dramatic changes when cast iron blocks are replaced with LL Brake Blocks. The results shown in the table to the right mean that:

   - **Durability will improve by 1.5 times**
   - **Unit price is 3 to 4 times higher**
   - **Monitoring will become more frequent** (i.e. check of the wheel flange height every 50,000km)
   - **Wheel wear will be twice as fast.**



3. The **transaction costs** to implement NDTAC and forward the bonus/malus to wagon Keepers: These costs are known but there is a disagreement on estimates. To clarify this, KCW GmbH conducted a study which was finalised in April 2011.

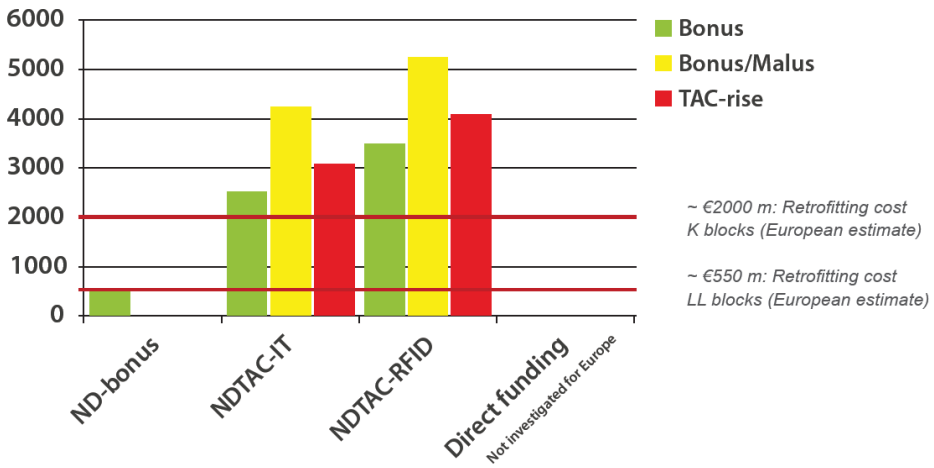


Figure 3: KWC Study, Extrapolation of transaction costs at European level, mio EUR over 8 years

Over the years, the return of experience in economical terms shows **that the additional life cycle costs are a critical issue** for the competitiveness of rail freight in the long term. According to UIP analysis[1], the use of the new composite brake blocks (K or LL)causes a **30% loss of kilometre distance normally run** by the wheels when compared to the average today, and **doubles the re-profiling intervals**. Whilst there is a wide range of approaches for developing incentive schemes on the retrofitting issue, a long term view and **a proper impact assessment** linked to the adverse effects of a substantial noise reduction **on the objectives of the 2011 Transport White Paper** for rail freight transportation in Europea is still missing.

[1] UIP final report on "Economic Impact of New Rules and Regulations", 21.11.2011

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CONCLUSIONS

The success of any noise reduction measure in rail freight depends on the willingness of all actors involved (incl. Member States) to define an appropriate homogenous <u>costs and benefits sharing model and an uniform ban date with reasonable leading time.</u>

UIP View on operational costs

UIP recognises the need for a reduction of the rail freight noise and understands the importance of retrofitting. However, in order to avoid any further loss of competitiveness:

- Any discrimination and market distortions both within the rail market and between the transport modes must be avoided.
- Any differences in "ban dates" for wagons equipped with cast iron brake blocks must be prohibited and reasonable leading time needs to be defined.
- Appropriate funding at both European (e.g. „**CEF**") and National level has to be provided and should not be limited to the costs for retrofitting. As shown earlier, maintenance and operational costs are higher than the retrofitting itself.
- Homogenous and low transaction costs NDTAC models throughout the EU are crucial.

UIP View on a European incentive scheme

UIP believes that it is important to maintain and further boost interoperability and competition in rail freight. In a Single European Market:

- We do not need new Regulations. We need an EU harmonized and incentive-driven framework.
- A flexible approach for Member States who cannot yet commit to noise reduction to join the harmonised NDTAC scheme at a later stage with a feasible timeframe and ban date.
- A legal framework for funding and compensation claim model taking into account available EU funding and Member State national funding programs under their transport and environmental priorities and objectives.
- A clear role and commitment from the RUs and IMs in the provision of mileage data in order to enable wagon Keepers to accurately calculate the charges and make appropriate claims.

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Founded in 1950, the UIP – International Union of Wagon Keepers, with its seat in Brussels, is the umbrella association of national associations from fourteen European countries, thus representing more than 250 keepers with approximately 180.000 freight wagons, performing 50 % of the rail freight tonne-kilometres throughout Europe. UIP represents the members' concerns at international level. By means of research, lobbying and focused cooperation with all stakeholders and organisations interested in rail freight transportation, the UIP wants to secure on the long term the future of rail freight transport. www.uiprail.org