

Sehr geehrte Damen und Herren,

in dieser Stellungnahme möchten wir den Entwurf der Überarbeitung der TSI Noise Reference 006REC1072 kommentieren. Insbesondere den Ansatz der Implementierung der sogenannten „quieter routes“:

- In Deutschland ist am 29.07.2017 das Schienenlärmschutzgesetz – SchlärmSchG in Kraft getreten. Es verbietet das Fahren oder Fahrenlassen von Güterzügen, in die „laute Güterwagen“ eingestellt sind, mit Beginn des Netzfahrsplans 2020/2021 am 13. Dezember 2020. Laute Güterwagen sind Fahrzeuge die bei Inbetriebnahme nicht den Anforderungen der Verordnung (EU) Nr. 1304/2014 entsprechen. Anwendung findet diese Regelung auf der regelspurigen öffentlichen Eisenbahninfrastruktur in Deutschland.
- Die Definition von „quieter routes“ würde diesem Ansatz widersprechen, da nur einzelne Streckenabschnitte unter die Regelung fallen würden.

- Eine Aufteilung in „quieter routes“ und übrige Strecken würde bedeuten, einen großen Teil der Bevölkerung von dem angestrebten Schutz vor Bahnlärm durch „Laute Güterwagen“, auszuschließen. Insgesamt wäre es der Bevölkerung nicht zu vermitteln, warum ausgerechnet der sie betreffende Streckenabschnitt keine „quieter route“ geworden ist.

- Zudem ist ein großer organisatorischer Aufwand zu erwarten, die „quieter routes“ in bestehende Planungsprozesse seitens der Strecken-Nutzer und Strecken-Betreiber zu integrieren. Das Ziel, die Bevölkerung vor Bahnlärm zu schützen wird hierdurch nicht verbessert.

Aus den oben genannten Gründen, lehnen wir den Ansatz der „quieter routes“ ab.

Mit freundlichen Grüßen  
Im Auftrag

Thomas Loch

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Bundesvereinigung gegen Schienenlärm e.V.

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per Email an 006REC1072@era.europa.eu

Berlin, 21.03.2018

Consultation on the draft of the limited revision of the TSI relating the subsystem  
rolling stock - Noise (TSI Noise)

hier: Stellungnahme der Bundesvereinigung gegen Schienenlärm e.V. (BVS)

Sehr geehrte Damen und Herren,

die BVS nimmt zum Entwurf der ERA einer geringfügigen Modifikation der TSI NOI wie folgt  
Stellung:

### 1. Fehlende Beteiligung von Umweltverbänden bei der Entstehung des Vorschlags der ERA

Im ERA-Report ERA-REP-155 vom 17. Januar 2018 ist die Entstehung des Vorschlags der  
ERA beschrieben. An den Sitzungen und Gesprächen nahmen neben den nationalen Eisen-  
bahnbehörden und der OTIF auch die Eisenbahnlobbyverbände CER (Community of European  
Railway and Infrastructure Companies), EIM (European Rail Infrastructure Managers), ERAFA  
(The European Rail Freight Association), FEMFM (Federation of European Manufacturers of  
Friction Materials), UIP (International Union of Wagon Keepers) und NB-Rail Association AISBL  
teil.

Auf die Frage, welche Umweltverbände zur Teilnahme eingeladen waren, teilte uns der Leiter  
der ERA, Dr. Josef Doppelbauer, am 12.02.2018 per Email mit: "...wurde als Umweltverband  
Transport & Environment (T&E) eingeladen. T&E hat auch einen Experten nominiert, der aber  
bedauerlicherweise an den Sitzungen dann nicht teilnahm."

Ausweislich seiner Website befasst sich der in Brüssel ansässige Umweltverband Transport &  
Environment (T&E) seit vielen Jahren nicht mit Schienenlärm. Auch hat er nach den Teilneh-  
merlisten im ERA-Report ERA-REP-155 an keiner einzigen ERA-Veranstaltung teilgenom-  
men. Unsere Email-Anfrage vom 19.01.2018 an Dr. Josef Doppelbauer, der vor seiner Tätigkeit

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(06.03.2018)

Aufgrund der Netzwirkung halten wir das favorisierte Konzept der „quieter routes“ in der Praxis für nicht überwachbar und daher für ungeeignet und plädieren für ein Konzept der „quieter states“, d. h. Einzelstaaten können selbst bestimmen, ob und ggf. in welchem Umfang auf ihrem

maximalen volkswirtschaftlichen Nutzen verbunden wäre. Inkrafttreten der Umrustpflicht für Bestandsgüterwagen in Betracht, zumal dies auch mit einem Schutz der Gesundheit ernst nehmen will, dann kommt nur eine kürzestmögliche Frist für das „laute“ Güterwagen ab Ende 2020 beschränkt wird. Wenn die ERA ihre Verpflichtung zum (Schienenlärmschutzgesetz – SchlärmasschG) beschlossen, mit dem in Deutschland der Beginn auf Leben und körperliche Unversehrtheit das Gesetz zum Verbot des Betriebs lauter Güterwagen mitzuführen und hat im nationalen Alleingang mit Verweis auf Wahrung des Grundrechts Die deutsche Bundesregierung war im letzten Jahr nicht länger bereit, die Untätigkeit der ERA

**Damit verstößt die ERA durch Untätigkeit eklatant gegen seine Verpflichtung zum Gesundheitsschutz aus Artikel 35 Satz 2 der Charta der Europäischen Union (2012/C 326/02).**

In der Sache selbst sind die Vorschläge der ERA nicht weitreichend genug, um die Gesundheit der Bahnanlieger an den vielen Hauptstrecken, insbesondere in Deutschland, zu schützen. Denn – unabhängig von der Frage des Inkrafttretens der von der ERA vorgeschlagenen Regelungen und etwaiger Ausnahmen – bleiben die nächtlichen Immissionspegel an zehntausenden Bahnstrecken weiterhin über 70/60 dB(A) tags/nachts – jener Lärmbelastung, die von deutschen Bundesgerichten als grundrechtlich zulässige Schwelle anerkannt ist. Neuere lärmmedizinische Erkenntnisse zeigen, dass bereits ab Lärmbelastungen von LDEN > 45 dB(A) mit einer erhöhten Zahl vorzeitiger lärmbedingter Erkrankungen und Todesfälle zu rechnen ist.

## 2. Kein ausreichender Gesundheitsschutz

Die BVS fordert den Leiter der ERA, Herrn Dr. Doppelbauer, auch auf, bei allen künftigen Verfahren der ERA zur Entwicklung von Regeln mit Umweltrelevanz Umweltverbände hinzuzuziehen und diesen auch die Teilnahme zu ermöglichen.

Die BVS stellt daher Unparteilichkeit des Verwaltungshandelns der ERA ebenso in Frage wie die demokratische und rechtliche Legitimation des praktizierten Verfahrens. Die BVS fordert den Leiter der ERA, Herrn Dr. Doppelbauer erneut auf, die in der Email vom 19.01.2018 an ihn gestellten Fragen unverzüglich zu beantworten, insbesondere, weshalb er in Anbetracht des offensichtlichen Desinteresses von T&E nicht dafür gesorgt hat, dass andere Umweltverbände beteiligt werden.

So verunudet es nicht, dass in den Protokollen und Begleitdokumenten der Sitzungen der ERA Task Force zur TSI NOISE, der ERA ad hoc meetings zur TSI NOISE und zu den Sitzungen der „ERA Working parties“ zur TSI NOISE, die die BVS aufgrund eines Antrags auf Zugang zu Umwelteinformationen nach EU-Verordnung 1049/2001 Anfang Februar von der ERA auf einem USB-Stick erhielt, die Positionen der Eisenbahnlobbyverbände dominierten und auch im Entwurf niederschlugen, während die Interessen der betroffenen Bahnanlieger nicht vertreten waren.

bei der europäischen Behörde ERA bei Bombardier Transportation beschäftigt war und daher als befangen anzusehen ist, weshalb die ERA angesichts des offensichtlichen Desinteresses bei T&E denn keinen anderen Umweltverband, insbesondere keinen aus Deutschland, einem der von Bahnlärm meistbetroffenen Ländern, zur Teilnahme eingeladen hat, blieb bis heute unbeantwortet.

Staatsgebiet noch „laute“ Güterwagen verkehren dürfen. Eine solche Lösung wäre auch vollständig kompatibel zur bestehenden deutschen Gesetzgebung.

Darüber hinaus fordern wir die ERA auf, folgende Änderungen der TSI NOISE kurzfristig in die Wege zu leiten:

- Zulassung nur noch von solchen Neufahrzeugen aller Art, die dem fortgeschrittenen Stand von Wissenschaft und Technik zur Lärminderung entsprechen
- Verpflichtung zur lärmminimierenden Um/Nachrüstung aller Arten von Bestandfahrzeugen (Loks, Triebwagen, Personenfahrzeuge, auch: Güterwagen mit LL/K) innerhalb gestaffelter Fristen

Wir fordern die ERA auch auf, zum Schutz der Gesundheit der Bahnanlieger auf EU-Ebene die rechtlichen Rahmenbedingungen für die Anordnung von Nachtfahrbeschränkungen durch nationale und lokale Behörden auf all jenen Strecken zu schaffen, bei denen nächtliche Immissionspegel von 49 dB(A) überschritten werden.

Mit freundlichem Gruß

*Dr. Ludwig Steininger*

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**Consultation on the draft of the limited revision of the TSI Noise** March 22, 2018

Dear Sir or Madam,

VDV is the association of public passenger and rail freight transport in Germany. The VDV advises and supports its member companies and politicians, supports the exchange of experience and know-how between the members and prepares technical, operational, legal and economic principles. About 150 rail freight companies operating rail freight on regional, national and international level are organised in VDV's rail freight section.

Rail noise is one of the great challenges for VDV and its member companies. For many years, VDV has given support to significantly reduce rail noise with suitable measures. VDV strongly supports the aim of the German government to halve rail noise until 2020, and in accordance with freight railroads and civil society the prohibition of loud wagons in Germany from mid december 2020.

Against this background, we critically judge ERA's recommendation for amending the TSI Noise. Contrary to the common opinion of the European railway associations, ERA follows exclusively the so called "quieter routes approach". From our point of view, this approach does not offer a suitable solution regarding the rail noise problem.

If the current ERA recommendation will have been implemented, quiet and noisy routes will permanently alternate in the rail network in Europe. This means that noisy routes will remain and, in any case, noisy freight trains are allowed to run on this routes in all member states.

In result, freight railroads and infrastructure managers will be faced with additional operational obstacles to run their business.

Also for political reasons, a parallel existence of noisy and quiet routes ist not acceptable. Within the last few years, a comprehensive network of initiatives has arisen in Germany, acting against rail noise. They do not accept noisy freight trains



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Oliver Wolff  
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even if they run on noisy routes. This is a considerable political risk for the further development of rail freight.

The "quieter routes approach" has a number of disadvantages leading to operational, political and in consequence political difficulties not only for Rail Freight Undertakings. Therefore VDV prefers the so called "vehicle approach": A stepwise prohibition of noisy wagons starting with the member states having a big rail noise problem, followed by a second step for cross-border-traffic including bilateral exemptions and ending with a last step for all international and domestic freight traffic, earliest in 2030.

On the other side, the acceptance of the "quieter routes approach" could be significantly improved with some minor revisions. Most important is the possibility for member states to influence criteria for the definition of quieter routes and to declare all national routes to quieter routes.

As member of CBR, we also support CBR's position paper to this consultation.

We would be pleased if you could take our position into account in your further considerations regarding the revision of TSI Noise.

Kind regards



Managing Director Railway Transport



**ASTOC reply to the ERA public consultation on the draft of the limited revision of the TSI relating the subsystem rolling stock – Noise (TSI Noise)**

ASTOC – the Association of Swedish Train Operating Companies represents the commercial railway undertakings with operations in Sweden. We are a member based industry association with some 40 active members. On behalf of the Swedish commercial railway undertakings, ASTOC is an active member of the Community of European Railway and Infrastructure Companies (CER) in Brussels.

Our members are in direct ownership of some 5,000 rail freight wagons and additionally makes use of some 9,000 rail freight wagons.

**1. ASTOC's general statement on the TSI Noise revision**

*The proposal*

Rolling noise, the major source of noise associated with the railway system, is regulated at EU level by the TSI Noise limit values imposed to wagons. On noise complying reference tracks, new and refurbished wagons are under an obligation to comply with the strict values set in the existing TSI Noise. The railway sector is presently accelerating the retrofitting of existing wagons. This is clearly reflected in the oversubscription of the 2016 noise call under the Connecting Europe Facility (CEF), which proves that public funding is key in implementing a rapid retrofitting programme at EU level.

ASTOC appreciates the work undertaken by the European Union Agency for Railways (ERA) following the mandate of the Commission to draft a recommendation for the limited revision of the TSI Noise with the aim of making the European wagon fleet quieter. ASTOC has in dialogue with the Swedish government officials and the NSA in Sweden, Transportstyrelsen, contributed to the development of the draft recommendation.

ASTOC is deeply concerned that the legislative proposal under consultation is in fact a draft with many unresolved issues remaining. We expect the proposal to be supplemented by a number of exemptions or "specific cases", which are currently not known. The lack of clarity makes it nearly impossible to provide a clear position on the legislative proposal. Given the

ambitions behind the Regulatory Fitness and Performance Test (REFIT), this is a severe drawback in the process.

### *Traffic safety*

Accordingly, for railway traffic to be safe in Sweden a permanent specific case for Sweden is necessary, at least until 2032. The chosen date should ensure enough time to find adequate solutions to the safety challenges in Nordic winter conditions. Preferably new generation technology such as efficient disc brake solutions will be available in the coming years. We do not expect composite brake blocks to be the final answer to the present challenges created by railway noise.

Composite brake blocks do not ensure sufficient braking performance in Swedish winter conditions. Composite brake blocks have caused several serious traffic safety incidents. The most effective way to ensure sufficient braking performance even in harsh winter conditions is to remove composite brake blocks and replace them with cast iron blocks. The mandatory use of composite brake blocks may become a major problem for ASTOC's member companies and other RUs on the Swedish rail infrastructure. Unpredictable behaviour of braking in train operations during winter time cannot be accepted.

Winter tests using composite brake blocks have been carried out during winter 2018.

In ASTOC's opinion it is vital that the use of wagons with composite brake blocks does not undermine railway safety, in particular when used in freight operations in Nordic winter conditions. Traffic safety must always come first and the safe functioning of composite brake blocks in winter conditions must be confirmed before the regulation enters into force in any country affected by harsh winter conditions, which have proven to display challenges in the Nordics different from those in central Europe. Obviously, the operations and braking schemes in Sweden differ from those in countries such as Germany, Switzerland and Austria, giving rise to additional reservations in terms of traffic safety.

### *Reduced operability*

Limited interoperability and accordingly the movement of goods gives reason to seriously question the concept of quieter routes. The quieter routes concept as proposed in the legislative proposal will make rail freight even more inflexible than today and in practice create new trade barriers. Among others, the following operational challenges have been identified thus far:

- Parallel planning work for deployment of quiet routes, internationally and nationally driving costs of working processes as well as additional costs for ICT and staff.
- Wagon investment and increased costs for transporting wagons to places where they are needed. Double systems reduce optimisation and increases infrastructure costs and costs related to train production. The wagons may need longer transport routes and (the bypass factor increases) resulting in more trainkilometres.
- More trains need to be built at marshalling and shunting yards. More marshalling, shunting and administration will be required and more tracks for train construction, wagon grouping and shunting will be

needed as well as supporting tracks. The result will be slower transport for customers and fewer service points.

- Lower brake percentages following lower braking power with LL blocks lead to slower trains and thus also greater infrastructure wear as well as more locomotive, driver and wagon time in the system.

### *Quieter routes*

Regarding the quieter routes approach, the Task Force meetings and the two workshops held in 2017 could hardly deliver a firm conclusion to go further with this approach. CBR, ASTOC's leg in Brussels, clearly expressed that the sector did not have a common position on the preferred approach and requested both approaches to be equally evaluated at the ERA Working Party. ASTOC and CBR regret that the Commission adopted a narrow mandate, thus excluding the original "vehicle based approach". Nevertheless, CBR suggested a small modification of this approach by a gradual application of the revised TSI Noise to existing freight wagons to address different degrees of noise affectedness in the member states. The proposed implementation strategy that is based on deadlines from 2022 to 2036 was supported by the majority of RU members of CBR.

Given the meanwhile noticeable economical and operational challenges of the quieter routes approach and its risks for the competitiveness of European rail freight, ASTOC considers a renewed legal assessment of a successive European noise abatement strategy, wagon based approach, to be urgently required.

### *Support to a proportionate and step by step approach*

ASTOC is committed to supporting noise reduction at source through a step by step migration towards a quieter freight wagon fleet. For this reason, a one-size-fits-all approach is not feasible to solve the noise problem effectively. Instead, solutions have to be found that ensure both complementary requirements:

- on the one hand safeguard a smooth operation of rail freight transport from, to and through countries with high noise sensitivity and,
- on the other hand, minimise the administrative and financial burden of implementing measures such as retrofitting in member states where citizens are less exposed to noise and thus having lower public concern.

Therefore, an EU approach on rail freight noise should be proportionate. In doing so, the policy makers should also learn from the experience from other regulations (e.g. ETCS) and refrain from generalising regulations taking into account a lacking intermodal level playing field (cf. the sector funding requests as expressed by CBR).

To conclude, ASTOC believes that retrofitting existing wagons with composite brake blocks is – at present – one of the most effective noise mitigation measures available. It is already part of the TSI Noise in respect of new rolling stock and it is embedded in the sector strategy for reducing rail freight noise and will mandatorily be requested and therefore accelerated by the limited revision of the TSI Noise. The deployment of new technology, however, must not undermine railway safety, in particular to freight operations in winter conditions and/or related to track circuits once retrofitted freight wagons are massively introduced on the network. ASTOC's member RU Green Cargo has repeatedly reported traffic safety issues

with composite brake blocks in Nordic winter conditions to the ERA. Similar reports have been submitted by VR, the major RU in Finland.

## 2. ASTOC's comments on the draft recommendation

Even if the legislative proposal under consultation is in fact a draft with many unresolved issues remaining, our main reservations are the following.

For railway traffic to be safe in Sweden a permanent specific case for Sweden is necessary, at least until 2032. The chosen date should ensure enough time to find adequate solutions to the safety challenges in Nordic winter conditions.

Additionally, for wagons for which there exists no 1-to-1 retrofit solution, retrofitting should not be mandatory even in noise sensitive countries as it would create a trade barrier clearly disadvantageous for the Swedish wagon fleet. Details on the main three affected wagon types have been submitted by the Swedish NSA, Transportstyrelsen.

ASTOC clarifies that the idea of the quieter routes approach was to have a common approach that addresses the different degrees of noise affectedness in the member states and as a consequence to concentrate the retrofitting and relating costs on areas where it is urgently needed. A common understanding on the operating rules of rolling out quieter routes at European level needs to be developed before the revised TSI Noise enters into force. ASTOC reiterates that the complexity of running freight businesses must not be further increased. Freight RUs represented by ASTOC have already expressed their concerns on daily operational difficulties that would arise from the implementation of quieter routes in the EU. Overall, this approach could lead to further weakening of rail freight's competitiveness.

ASTOC objects to any retroactive application of legislation. The revision of the TSI Noise shall not lead to the removal of existing authorisation of vehicles. The TSI Noise limit values should gradually be applied to existing freight wagons.

## 3. Impact assessment data

Based on cost calculations carried out by the International union of wagon keepers (UIP) Swedish railway organisations have estimated that maintenance (mainly wheels) costs will increase by approximately 30 percent, which implies a cost increase for rail freight by 5-7 percent. The composite brake blocks are 3 to 5 times more expensive, however their lifetime is only twice as long. In addition to increased maintenance costs, there will also be a cost for retrofitting existing wagons. The increased costs will be transferred to shippers and harm their competitiveness, which in the end also reduces the competitiveness of the railway. This could cause the noise reduction ambitions to pave the way for shift of externalities from rail to road and increasing CO<sub>2</sub>-emissions at the same time.

In this section we present some relevant impact data as collected by the Swedish NSA, Transportstyrelsen, whose reply in the public consultation we support.

Safety and maintained competitiveness of the Swedish Railways sector are key elements. On the one hand, the composite brakes show evident inadequate performance, leading to probable high risks. To mitigate these safety threats costly operative measures need to be put in place.

Secondly, the draft legislation is proposed to enter in force within a short term. This will cause increased costs for retrofitting and necessary adjustment measures, as the 1-1-solution is not feasible on the Swedish wagon fleet and therefore severely damage the Swedish railway sector. The proposal will cause direct unproportioned increase of costs – operative and material – hence hampering the railway undertakings.

Thirdly, the introduction of quieter routes will impede and unlawfully restrict the access to the European market, and only offer an unbalanced benefit for a few Member States. Quieter routes in a Member State will handicap the Swedish existing wagon fleet automatically. Hence, limiting the possibility to offer business opportunities on the European market for the transport buyer, and its products. This will affect the Swedish industrial market economy in its entirety.

The consequences will lead to modal shift from rail to road as an immediate consequence of the increased operative and material costs directly linked to retrofitting and risk mitigating measures. Freight transport will move from rail to road traffic. Railway will lose its competitiveness and performance.

The following are estimated costs of the proposal:

The costs to retrofit, presuming no operative restriction, the fleet in Sweden would be :  
 The cost of retrofitting a wagon in Sweden ranges from: 17,000 SEK – 80,000 SEK  
 (1 EUR = 10 SEK)

- Wagons 1:1 used for transport in Sweden: 9,000 wagons x 20,000 SEK = 180,000,000 SEK

- Brake system retrofit : 1,500 wagons x 80,000 SEK = 120,000,000 SEK

- Wagons with load changing device : 3,800 wagons x 70,000 SEK = 266,000,000 SEK

- Wagons which need kink valve : 1,300 wagons x 40,000 SEK = 52,000,000 SEK

**Grand total : 618 000 000 SEK one-off costs**

The railway sector in Sweden estimates that the increase in maintenance costs yearly is: 0.3 SEK/km x 700,000,000 km = 200,000,000 SEK yearly

In addition, the administrative costs due to less efficient management of the fleet for each wagon for each trip is estimated to be around 200 SEK = 200,000,000 SEK

**Grand total : 400,000,000 SEK yearly costs**

Furthermore, the poor brake performance in severe winter conditions will have to be mitigated by operative measures such as shunting cast-iron brake blocked wagons in all trains. The operative costs in order to mitigate the risk of loss of brake performance in wintertime is 275 SEK/~28 EUR wagon shifted in a train = 400 000 000 SEK during five winter months.

The operative measure suggested by ERA is to shift wagons equipped with safe cast iron brake blocks into the trains in wintertime; half of the wagons in a train would have to be equipped with safe brake blocks. Even with the wagon composition measures the transport need to decrease the speed of the train from 100 km/h to 80 km/h to uphold a normal safety performance level. The mainline is saturated and a loss of speed would immediately lead to a loss of capacity on the line in the range of 20-25%. The estimation is that this capacity loss would be shifted from rail to road. These costs amount to 145,000,000 SEK in direct costs.

**Grand total : 545,000,000 SEK**

Finally, in order to accommodate the wagons required at the borders and in main hubs for the shifting in order to form trains with guaranteed brake performance necessary infrastructure investments consisting in new tracks would be required to be built.

The cost of this would be not less than 2 billion SEK/~2,200,000 EUR.

The indirect costs for the modal shift, etc would amount to 479,000,000 SEK.

So, the proposal would lead to the following costs for the Swedish railway undertakings and Swedish society:

**One-off costs : 2,618,000,000 SEK**

**Direct yearly costs : 945,000,000 SEK**

**Indirect yearly costs : 479,000,000 SEK**

#### **4. Funding requests**

Sufficient direct funding is a pre-condition for speeding up the retrofitting of wagons. The EU support to retrofitting is provided via dedicated CEF calls but the budget is currently capped at 1% of the 2014-2020 CEF transport envelope. Besides, the co-funding rate covers only up to 20% of the eligible costs. National funding is available in Germany for all national and foreign wagon keepers operating on the German network and was provided to Swiss wagon keepers in Switzerland, too. Additionally, retrofitting could be incentivised by noise-differentiated track access charges (NDTAC). Today, NDTAC systems are applicable only in Austria, Germany, the Netherlands and Switzerland.

ASTOC demands that the availability of public funding be consistent with the policy goals set by decision makers. Today, the availability of public funding corresponds to only one third of the investment costs (estimated to be minimum EUR 700 million) and the scope of funding is limited (20% of eligible costs are covered).

As stated above the costs for retrofitting, maintenance and wear and tear of wheels have proven to be higher in Sweden than in other countries. The costs for operational challenges are huge and are not covered by any support programme.

ASTOC welcomes the 2014 and 2016 noise reduction-dedicated CEF calls and the resulting allocation of more than EUR 33 million. ASTOC would also welcome a third dedicated CEF call in 2019 with an extension of the eligible costs (e.g. to additional operational costs of retrofitted wagons) and an increased budget compared to the 2016 ASTOC call. Finally, ASTOC reminds that the European Commission is legally entitled to allocating more than EUR 200 million to noise reduction actions under the 2014-2020 Multi-Annual Financial Framework.

Reduction of rail freight noise, including the retrofitting of existing rolling stock should continue to be co-funded by CEF grants under the post-2020 Multi-Annual Financial Framework, with a co-funding rate of *at least* 50% of the eligible costs. The proper funding for investments in noise barriers should also be ensured in the context of the Multi-Annual Financial Framework and CEF.

ASTOC is ready to support the ongoing evaluation of the Implementing Regulation 2015/429 on noise charges. Depending on its outcome, it might be useful to extend the Regulation's application to cover increased operational costs for running retrofitted wagons.

ASTOC understands that allocating financial sources is a challenge for the EU and the member states due to budget constraints. ASTOC suggests providing additional capital for retrofitting by taking into account socio-economic cost savings (e.g. health costs) both at European and national level thanks to quieter rail freight traffic.

There is a particular need for coordination of funding programs between the national level and the EU level.

Stockholm, 22 March 2018

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**Consultation on the draft of the limited revision of the TSI relating the subsystem rolling stock - Noise (TSI Noise)**

Dear ladies and gentlemen,  
in the name of the Austrian Association of the Railway Industrie I want to contribute to the consulting process on the draft of the limited revision of the TSI relating the subsystem rolling stock - Noise (TSI Noise).

The comments come from the following experts:

Dr. Michael Petz, Plasser & Theurer,  
DI Andreas Pumberger, Plasser & Theurer

Best regards,

Dr. Angela Berger  
Managing Director

Stellungnahme zur TSI Noise (EU) 1304/2014	Comments concerning TSI Noise (EU) 1304/2014
<p><u>Heutiger Stand:</u></p> <ul style="list-style-type: none"> <li>• Der aktuelle Grenzwert der TSI Noise (EU) 1304/2014 für das Standgeräusch beträgt für Diesellokomotiven und Gleisbaumaschinen mit Dieselantrieb nach Tabelle 2: <math>L_{pAeq,T[un]it} = 71</math> dB!</li> <li>• In der Vorgängerversion der TSI Noise 2011/229/EU betrug der vergleichbare Wert: 75 dB.</li> <li>• In der Erstversion der TSI Noise 2006/66/EG waren Gleisbau- maschinen generell noch nicht genannt.</li> </ul> <p><u>Zusatzbemerkungen:</u></p> <ul style="list-style-type: none"> <li>• Die TSI Lärm musste bis jetzt nur für einen Teil unserer Maschinen erfüllt werden.</li> <li>• Mit dem 4. Eisenbahnpaket (bis spätestens 19.06.2019) wird dies für alle unsere Maschinen notwendig werden.</li> <li>• Es ist daher jetzt schwer abzuschätzen, ob dabei bei manchen Maschinenkategorien Probleme entstehen.</li> </ul> <p><u>Empfehlung:</u> Für Gleisbaumaschinen wird ein etwas erhöhter Grenzwert von: <math>L_{pAeq,T[un]it} = 75</math> dB für das Außenstandgeräusch zuzulassen.</p> <p><u>Begründungen der Empfehlung:</u></p> <ul style="list-style-type: none"> <li>• Die Anzahl der Gleisbaumaschinen ist verhältnismäßig sehr gering am Gesamtschienen-Verkehrsaufkommen.</li> <li>• Die teilweise offene Bauweise verschiedener Aggregate (Gewichts-problematik, Zugänglichkeit zu den Modulen, etc.) erschwert oft eine entsprechende lärmtechnische Optimierung.</li> <li>• Lärmquellen in Richtung „oben“ örtlich zu positionieren ist bei manchen Aggregaten (z.B. Förderbänder) konstruktiv sehr schwierig umzusetzen!</li> </ul>	<p><u>Today's situation:</u></p> <ul style="list-style-type: none"> <li>• The actual limit value of the TSI Noise (EU) 1304/2014 for stationary noise for Diesel locomotives and OTMs is defined in Table 2: <math>L_{pAeq,T[un]it} = 71</math> dB!</li> <li>• The previous version of the TSI Noise 2011/229/EU defined for that comparable value: 75 dB.</li> <li>• Within the first version of the TSI Noise 2006/66/EG OTMs were not even mentioned.</li> </ul> <p><u>Additional remarks:</u></p> <ul style="list-style-type: none"> <li>• The TSI Noise was only to be fulfilled by some OTMs.</li> <li>• With the 4<sup>th</sup> RWP (latest till 19.06.2019) the TSI Noise has to be applied to all machines.</li> <li>• It is difficult to pre-estimate now, if for some OTMs problems are created.</li> </ul> <p><u>Recommendation:</u> For OTMs an slightly increased stationary noise of: <math>L_{pAeq,T[un]it} = 75</math> dB is permitted.</p> <p><u>Explanations of recommendation:</u></p> <ul style="list-style-type: none"> <li>• The number of OTMs is relatively small compared to the total rail traffic.</li> <li>• The partially open construction of the various aggregates (weight, accessibility to modules, etc.) often hinders a low noise optimisation.</li> <li>• Positioning of noise sources in direction “to the top” is for some aggregates (e.g. conveyors) from the point of design quite difficult.</li> </ul>

Dear Sir or Madam,

thank you for giving us the opportunity to send you our views regarding the draft of the limited revision of the TSI Noise. I'm answering from the viewpoint of the Bavarian Ministry of Housing, Building and Transport.

Freight wagons are in operation for decades and low-noise break blocks are state of the art for most freight wagons. The 'quieter route' approach however does neither fulfill the requirements of noise protection nor those of effective railway operation.

The German federal state of Bavaria is heavily affected by the growing number of freight trains. In our densely populated state, nearly each railway track appropriate for freight services – even the secondary lines – affect settlements. Further or later a freight train passes cities on each possible routing. Though, the quieter route approach will result in shifting freight traffic from potent main lines, where partly noise barriers exist, to secondary lines without noise abatement measures, less capacity and less technical standard (e. g. at level crossings). That also means an extension of the rail noise problem to secondary lines, and people not affected from rail noise so far will suffer from noise in future. This result of a European legislative act is not communicable to the German public, which is very sensitive to rail noise. Additionally, more and more secondary routes will become quiet routes, and the options to operate with noisy wagons will decrease corresponding. Therefore the need to retrofit all wagons seems to be a question of only few years. But in the meantime, the quiet route approach matters a lot of operational and administrative burdens to all involved parties.

It seems impossible for railway undertakings (RU) to manage the quieter routes approach operational. RU's typically order a route from the infrastructure manager (IM) a long time before the train runs in effective. Neither the IM, nor the RU know at this time of what wagons from what keeps the real train will be composed later. The RU usually will be given a slot on a main line (quiet route), which are the fastest and most capable routes. But, if the later real train covers some noisy wagons, the routing has to be switched in last minute. This is unlikely considering the need for track knowledge by the driver, and furthermore it seems impossible for authorities to control if a permitted case of degraded mode is given or not.

Therefore we plead in favor of making the TSI Noise applicable to all freight wagons in international traffic as far as suitable low-noise break-blocks are available. Alternatively, dense populated member states with a very sensible public like Germany should have the possibility to declare their whole railway network to a quiet network.

In addition, we share the comments addressed to the agency by German federal railway (Deutsche Bahn AG) during this consultation.

Best regards

Stefan Schell

Head of Unit IIE3 "Railway Infrastructure and railway affairs"

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# CER reply to the ERA consultation on the draft of the limited revision of the TSI relating to the subsystem rolling stock – Noise (TSI Noise)

Position Paper  
Brussels, 7 March 2018

The Voice of European Railways

**CER**



- 1. CER's general statement on the TSI Noise revision**
- Rolling noise, the major source of noise associated with the railway system, is regulated at EU level by the TSI Noise limit values imposed to wagons. On noise TSI complying reference tracks, new and refurbished wagons are already complying with the strict values set in the TSI Noise. The sector is also accelerating the retrofitting of existing wagons. This is clearly reflected in the oversubscription of the 2016 noise call under the Connecting Europe Facility (CEF), which proves that public funding is key in implementing a rapid retrofitting programme at EU level.
  - CER appreciates the work undertaken by the European Union Agency for Railways (ERA) following the mandate of the Commission to draft a recommendation for the limited revision of the TSI Noise with the aim of making the European wagon fleet quieter. CER has been part of the Working Party and actively contributed to the development of the draft recommendation.
  - CER is committed to supporting noise reduction at source through a step by step migration towards a quieter freight wagon fleet. For this reason, a one-size-fits-all approach is not feasible to solve the noise problem effectively. Instead, solutions have to be found that ensure both complementary requirements:
    - on the one hand safeguard a smooth operation of rail freight transport from, to and through countries with high noise sensitivity and,
    - on the other hand, minimise the administrative and financial burden of implementing measures such as retrofitting in those member states, where citizens are less exposed to noise and thus having lower public concern.
  - Therefore, an EU approach on rail freight noise should be proportionate. In doing so, the policy makers should also learn from the experience from other regulations (e.g. ETCS) and refrain from generalising regulations taking into account a lacking intermodal level playing field (see CER funding requests).
  - Regarding the quieter routes approach, the Task Force meetings and the two workshops held in 2017 could hardly deliver a firm conclusion to go further with this approach. CER, also, clearly expressed that the sector did not have a common position on the preferred approach and requested both approaches to be equally evaluated at the ERA Working Party. CER therefore regrets that the Commission adopted a narrow mandate, thus excluding the original "vehicle based approach". Nevertheless, CER suggested a small modification of this approach by a gradual application of the revised TSI Noise to existing freight wagons to address different degrees of noise affectedness in the member states (see attached CER comments to the ERA dated 11 September 2017). The proposed implementation strategy that is based on deadlines from 2022 to 2036 was supported by the majority of RUs at CER.
  - CER believes that retrofitting existing wagons with composite brake blocks is the most effective noise mitigation measure. It is already embedded in the sector strategy for reducing rail freight noise and will mandatorily be requested and therefore accelerated by the limited revision of the TSI Noise. The deployment of this technology, however, must not undermine railway safety, in particular to freight operations in winter conditions and/or related to track circuits once retrofitted freight wagons are massively introduced on the network.

- CER values the hybrid nature of all analysed approaches. They are contributing (among other noise action plans) to realising the objectives of the Environmental Noise Directive, therefore making it possible to utilise the EU interoperability policy by contributing to reduce rail freight noise.
- CER clarifies that the idea of the quieter routes approach was to have a common approach that addresses the different degrees of noise affectedness in the member states and as a consequence to concentrate the retrofitting and relating costs on areas where it is urgently needed. The approach should, therefore, provide the flexibility to those member states with a significant noise sensitivity to declare all routes as quiet.
- The proposed harmonised noise indicator-based quieter routes approach should focus on the population receiving the highest levels of noise. Some exceptions should, however, be allowed at national level.
- A common understanding on the operating rules of rolling out quieter routes at European level needs to be developed before the revised TSI Noise enters into force. CER reiterates that the complexity of running freight businesses must not be further increased. Freight RUs and some IMs represented by CER have already expressed their concerns on daily operational difficulties that would arise from the implementation of quieter routes in the EU. Overall, this approach could lead to further weakening of rail freight's competitiveness.
- CER objects to any retroactive application of legislation. The revision of the TSI Noise shall not lead to the removal of existing authorisation of vehicles. The TSI Noise limit values should gradually be applied to existing freight wagons.

## 2. CER comments on the draft Recommendation

- Sufficient direct funding is a pre-condition for speeding up the retrofitting of wagons. The EU support to retrofitting is provided via dedicated CEF calls but the budget is currently capped at 1% of the 2014-2020 CEF transport envelope. Besides, the co-funding rate covers only up to 20% of the eligible costs. For the Cohesion countries, ESIF funding could be claimed as well. National funding is available in Germany for all national and foreign wagon keepers operating on the German network and was provided to Swiss wagon keepers in Switzerland, too. Additionally, retrofitting is incentivised by noise-differentiated track access charges (NDTAC). Today, NDTAC systems are applicable in Austria, Germany, the Netherlands and Switzerland.
- CER demands that the availability of public funding be consistent with the policy goals set by decision makers. Today, the availability of public funding corresponds to only one third of the investment costs (estimated to be minimum € 700 million) and the scope of funding is limited (20% of eligible costs are covered).
- CER welcomes the 2014 and 2016 noise reduction-dedicated CEF calls and the resulting allocation of more than € 33 million. CER would also welcome a third dedicated CEF call in 2019 with an extension of the eligible costs (e.g. to additional operational costs of retrofitted wagons) and an increased budget compared to the 2016 CEF call. Finally, CER reminds that the European Commission is legally entitled to allocating more than € 200 million to noise reduction actions under the 2014-2020 Multi-Annual Financial Framework.
- Reduction of rail freight noise, including the retrofitting of existing rolling stock should continue to be co-funded by CEF grants under the post-2020 Multi-Annual Financial Framework, with a co-funding rate of 50% of the eligible costs. The proper funding for investments in noise barriers should also be ensured in the context of the Multi-Annual Financial Framework and CEF.
- CER is ready to support the ongoing evaluation of the Implementing Regulation 2015/429 on noise charges. Depending on its outcome, it might be useful to extend the Regulation's application to cover increased operational costs for running retrofitted wagons.
- CER understands that allocating financial sources is a challenge for the EU and the member states due to budget constraints. CER suggests providing additional capital for retrofitting by taking into account socio-economic cost savings (e.g. health costs) both at European and national level thanks to quieter rail freight traffic.

### 3. CER funding requests



## About CER

The Community of European Railway and Infrastructure Companies (CER) brings together more than 70 railway undertakings, their national associations as well as infrastructure managers and vehicle leasing companies. The membership is made up of long-established bodies, new entrants and both private and public enterprises, representing 73% of the rail network length, 77% of the rail freight business and about 93% of rail passenger operations in EU, EFTA and EU accession countries. CER represents the interests of its members towards EU policymakers and transport stakeholders, advocating rail as the backbone of a competitive and sustainable transport system in Europe. For more information, visit [www.cer.be](http://www.cer.be) or follow us on Twitter @CER\_railways.

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## General comments from CER to the Agency on the Task Force Report

11.09.2017

1. CER clarifies that it has no common position yet for or against one of the discussed approaches. The sector supports a pragmatic and cost efficient solution. Many Task Force members so far not expressed their view on the recent modifications (see Section 4.2.2) of the quieter routes approach and some expressed objections and stated that the proposal needs to be further developed. It is therefore necessary to state that no final decision from the Task Force to go further with this approach is taken.

2. A detailed impact assessment of the quieter routes approach has not been performed so far. Updated Impact Assessment including an assessment of the quieter routes approach has to be done before concluding the Task Force Report as a precondition to start with the Working Party (as the report will form the basis for its work). The pros and cons of the original, vehicle-based approach and the quieter routes approach have to be carefully assessed and the view of all relevant stakeholders has to be taken into account for this purpose; in particular the situation in those countries which have already invested into noise mitigation measures. Given the ultimate aim of reducing rail freight noise by extending the NOI TSI to existing wagons, it should be avoided that these countries cannot ban noisy wagons from using (the sensitive parts of) their network because of previous investments.

3. Freight RUs and some IMs represented by CER have expressed their concern of operational difficulties that would arise from the implementation of a quieter routes approach. This would lead to further weakening of rail freight's competitiveness. Therefore CER believes that an assessment from a pure economical perspective will not be sufficient for making a final decision on the implementation strategy. Operational, administrative and political aspects have to be taken into account as well as economic impacts.

4. As a consequence, some CER members believe that it will hardly be possible to start with the Working Party in October. It will be preferable to continue with the work of the Task Force to clarify all the open points before launching the Working Party with a comprehensive mandate, equally addressing both approaches.

5. Regarding the original Commission's approach (deadlines for international and then national), CER suggests a small modification by a gradual application of the revised NOI TSI to existing freight wagons to address different degrees of noise affectedness in the EU states. The following implementation strategy is currently

- discussed and supported by the majority of RUs at CER. In a first step NOI TSI limits for existing wagons could be applicable in those states having a significant noise problem. For other states a later date could be applicable:
- a. a short-term deadline such as 2022 for all freight traffic passing through those states, where there is high political sensitivity on rail freight noise (like Germany, the Netherlands and Switzerland; other member states might follow);
  - b. a mid-term deadline such as 2026 only for international traffic of the remaining member states, with the possibility of bilateral exemptions between bordering states, where the political sensitivity is lower.
  - c. a long-term deadline with a general application of the revised NOI TSI for all freight traffic in Europe as of 2036, except in those countries which have a specific case to NOI TSI.
6. There are number of specific cases to be discussed further to be properly address under the implementation strategy. Among them:
- a. Railway networks that are undergoing major overhaul and temporary peaks (harvest, diversionary traffic) e.g. Poland's planned big-scale infrastructure modernization for 2023, which will cover 46% of total railway network (9,000 km of lines out of 19,500 km). This will lead to diversion of traffic. This will eventually impact the deadline to define quieter routes.
  - b. Access to workshops, which are only reached by (or situated on) a "quieter route".

**Comments of Deutsche Bahn AG**

**Consultation on the draft of the limited revision of the TSI relating the subsystem rolling stock – Noise (TSI Noise)**

March 2018



Deutsche Bahn AG  
Transport Policy Europe (IWE)  
Potsdamer Platz 2  
10785 Berlin

1. Today about 50% of rail freight transport is international and the current EU policies aim to increase its volumes further. This means that a large number of wagons run across the borders.
2. In order to maintain public acceptance of environmentally friendly freight transport and to secure its growth possibilities the reduction of rail freight noise is needed.
3. The perception of rail freight noise as a problem depends on the degree of affectedness (transport volume), average speed of the train, settlement structure (vicinity of residential areas to tracks + population density), dual use (passenger and freight transport through cities), and socio-cultural aspects. This affectedness varies considerably within the EU. Also the freight operating section of Deutsche Bahn AG, DB Cargo Group, that is operating its own subsidiaries in 15 European countries, realizes this in its daily business. For this reason a one-size-fits-all approach over whole Europe is not constructive to solve the noise problem.
4. Instead, solutions have to be found that ensure on the one hand that rail freight transport can still run inside, into, out of and through countries with high public concern but on the other hand minimize the technical, administrative and financial burden of retrofitting and subsequently increased maintenance cost for those member states where the noise exposure and public concern is less.
5. The "quieter routes" approach as defined in the current draft version is not a suitable solution to solve the rail freight noise problem in Europe. Also the updated results of the Impact Assessment show clearly that the quieter routes approach has only a low benefit/cost ratio while other approaches are quite more efficient. It will lead to further weakness of rail because of its disadvantages from an economic, political, technical, and operational point of view:
  - a) Noisy routes remain. Even in countries where the problem of noise has already been actively addressed and noise reduction is progressing strongly no pacification of the noise discussion will be reached because still noisy trains and corridors are remaining.
  - b) The current draft does not foresee grandfathering for quiet routes. The definition of silent and noisy routes will be reviewed periodically. This means that a route that has been defined as a quieter route (QR) could be re-defined as a noisy one when traffic maps are updated. This is incompatible with the noise reduction strategy of Deutsche Bahn AG which

<sup>1</sup> Each project for changing or upgrading existing railway lines as well as for building new lines requires exhaustive noise impact studies during the environmental approval process. These noise impact studies are based on traffic forecasts, usually on a 15 years horizon base. For these, some basic information about the predicted traffic (types and length of trains, speed, etc.) is required. However, existing rail lines are also affected, as they will receive noise protection piece by piece as part of the programme "Lärmsanierungsprogramm". Here it is essential to know if the trains will be composed out of noisy or silent wagons in the future. If it wasn't explicitly binding that a QR would remain declared as a QR after an update of traffic maps, it would be necessary to assume all trains to be noisy ones. If not, the prediction within the noise and environmental impact studies would not be legally guaranteed and could come under attack from the concerned people during the planning approval process. This legal uncertainty would require that the benefit or silent compared to noisy wagons could not be taken into account in the impact studies and all other infrastructure based mitigation measures would have to be calculated and measured as for noisy trains emission. This would result not only in exhaustive additional investment in infrastructure installation e.g. noise barriers but also in the resulting maintenance costs. In addition, this can lead to very high noise barriers which are not actually necessary and which only meet with limited acceptance.

7. The updated results of the Impact Assessment show clearly that option 11b (wagon approach) and option 11b (complete network instead of quieter routes) have the highest B/C rel ratio. DB therefore recommends a country-specific
6. Therefore, Deutsche Bahn AG advocates to develop simple and problem-adequate solutions. This means, in particular, speeding up the issue of noise where there is a real problem and putting it in time where there is no real problem.
- d) If quieter routes will have to be implemented in all EU member states from the same implementing date on (e.g. end of 2024) this would require retrofitting also in less noise affected states until the end of 2024. On one side this will cause difficulties because of capacity restraints for the brake block industry as well as for workshop capacities. On the other hand this causes costs of retrofitting itself (ca. 1 700 €/4axle-wagon) and the costs after retrofitting like the increased maintenance costs of retrofitted wagons (ca. 600 €/4axle-wagon/30 000km). This would lead to further weakness of rail freight in intermodal competition although there is no relevant noise issue.
- c) The QR approach would result in a further complication of daily railway operations. The implementation of quieter routes leads to a duality of quiet and loud routes and wagons in all operational processes for all RUs and IMs in Europe: in the planning, daily disposition, empty wagon supply, train formation, main courses, worksite management as well as the management of severe weather and of temporary capacity bottlenecks etc. in the respective country and over several countries. This will also be the case for railway undertakings operating in less noise affected countries. For instance, these operational burdens will impact the intermodal competition of about 10 DB Cargo subsidiaries although there is no relevant noise issue in those member states.
- trains pass the affected houses again.  
requires predictability and legal certainty<sup>1</sup>. In addition, it cannot be communicated to affected residents that after updating the maps, noisy freight

differentiated approach with the objective to define an implementation strategy and implementation date that takes into account the different degrees of noise affectedness within the EU. Also in other fields of European regulation for interoperability like ERTMS the national differences have been taken into account and solutions have been developed to drive down costs and maintain the sector's competitiveness.

8. There are different ways to achieve a differentiated implementation of the TSI noise:

a) **A slight modification of the original Commission's proposal:** consideration of different degrees of noise affectedness in the EU states by a simple solution for heavily affected states however remaining economically feasible for less affected states. This could be reached by a slight modification of the original Commission's proposal<sup>2</sup> by a gradual application of the revised TSI. In a first step it should be applicable for those member states with a significant noise problem. For other member states a later application should be discussed:

i. **a short-term deadline like 2022** for domestic and international traffic of those (member) states that are facing a high noise problem (like Germany, Netherlands, AT and CH; other member states might follow). International means incoming, outgoing and transit freight traffic

ii. **a mid-term deadline like 2026** for international traffic of the remaining member states, with the possibility of bilateral exemptions between bordering member states.

iii. **a long-term-deadline** with a general application of the revised TSI for domestic and all international traffic as of **2030 or later**.

b) **A slight modification of the "quieter routes- approach":** implementation of quieter routes in all member states spread over time according to noise affectedness till 2035, combined with the possibility for the respective member states to declare all routes as silent as from 2022 on. If this approach is chosen grandfathering for QR is essential also after an update of traffic maps.

c) **Quieter Networks instead of quieter routes:** implementation of quieter networks in especially noise affected states first with the possibility of successive expansion according to political sensitivity until about 2035.

<sup>2</sup> At the beginning of the discussion the European Commission stated that they would like to have a two-step-approach to gradually extend NOI TSI to all wagons authorised to be operated on the EU's railways network: the deadline for the first stage to be 2022 and for the second stage 2026. Also possible opt-outs shall be discussed. As an example, an agreement between two bordering Member States to allow noisy wagons could be considered.



9. Also regarding the necessity of retrofitting for foreign wagon keepers or railway companies operating in noise sensitive member states such solutions would be manageable. Analyses of DB Cargo wagon flows in cooperative transports reveal that 90% of the transport is carried out with about 30,000 different wagons of state railways. Still without any pooling measures and frequency of use of only 1 - 2 annual uses. Pooling of silent wagons and limited operational planning reduces this number and thus the necessity of retrofitting even further. As a result only a few thousand wagons remain per railway that had to be retrofitted.
10. Therefore, the interoperability of transport operations between (still) "noisy" and "quieter" countries can be ensured by a relatively small retrofitting and the "pooling" of retrofitted and new quiet wagons with limited effort.
11. In parallel retrofitting is funded by NDTAC systems in NL, in D, in AT and in CH. In Germany, in addition to the NDTAC system, there is direct state support, which is available to all domestic and foreign wagon keepers operating on the German network. In addition, public financing on the EU-level is provided via CEF and EFSI funding.



EIM welcomes the opportunity to react to EUAR's public consultation and acknowledges that noise is one of the most widespread public health threats in industrialized countries.

EIM underlines the need for speeding up the process of the freight wagon fleet to become quieter. A quieter freight wagon fleet will make freight transport via railway network more acceptable for citizens living along the railways. State authorities and infrastructure managers would have less need for building expensive and view blocking noise barriers.

New freight wagons have to comply the noise limits already since 2005. Existing freight wagons do not have to comply these noise limits and thus would run until end-of-life without having to become quieter. EIM states that solutions to make existing wagons quieter should be available and should have no effect on the safety on the freight transportation. The costs for adapting existing freight wagons should not cause a modal shift towards road traffic.

The implementation strategy of introducing quieter routes at which all freight wagons should comply the noise limits is not preferred by EIM. This implementation strategy possibly causes a large administrative burden for the infrastructure managers and the freight train operators during the daily operation of capacity allocation and traffic management. A more general approach, such as a ban of noisy wagons at a certain time, seems to be more feasible.

EIM proposes several additions and improvements to the "quieter routes" approach in our detailed comments underneath. EIM strongly proposes to introduce the "once a quieter route, always a quieter route" approach to maintain the durable liveability along railway lines.

**Remarks of EIM regarding the Annex: Amendments to Technical specification for interoperability relating to the subsystem 'Rolling stock - noise' (Annex to Regulation 1304/2014)**

1.

EIM does not prefer the scope of this TSI to be extended to operational aspects. The introduction of operational aspects introduces a large administrative burden.

Other options are available to apply the noise limits to existing freight vehicles.

2.

OK

3.

Section 4

EIM states that there should be specific rules for the operation of wagons on quieter routes in case of scheduled infrastructure and wagons maintenance. The operation of wagons not compliant with point 7.2.2 on quieter routes should be possible in case of scheduled wagons maintenance where a quieter route is the only suitable way to access the maintenance workshop. Contingency

arrangements set out in clause 4.4.1 should be applicable in case of scheduled infrastructure maintenance activities where a quieter route is the only suitable alternative.

4.

OK

5.

Section 7.2

The start date is still open in the consultation version. EIM proposes the start date to comply the following rules:

- The start date should be feasible for wagon owners and operators. It should be possible to combine the retrofit of wagons with normal maintenance of wagons to lower the costs of the retrofitting
- Starting date should be the same as the starting date of the new time table (2nd Sunday of December)

EIM prefers to have an evaluation moment one year after the starting date of the "quieter routes" approach. The objective of the evaluation should be whether the change of the TSI has been enough to achieve the goal to tackle noise from railway freight traffic. Part of this evaluation would be the need and feasibility of a total ban at a certain moment.

6.

OK

7.

Appendix D, E, F and G:

D1:

EIM prefers "2016" to be replaced by "the year preceding the publication of the map/table".

D2:

EIM prefers a table to define the quieter routes instead of a map. A table would contain the routes in a way railway lines are appointed within the logistic process. Maps can be useful to show the quieter routes to a broader public and should be made for communication purposes only.

EIM states that the Member States should be able to provide the Agency with the maps/tables depicting the quieter routes no later than 6 (instead of 3) months after the date of publication of this TSI.

D3:

EIM states that a route that once has been defined as a quieter route should remain a quieter route, even after updating the tables and maps. This is necessary in legal procedures concerning spatial planning so that there is no deterioration of the noise situation on a specific line in the future.

EIM states that during updating it should be possible to include predictive data when lines are built or revised in such a way that it is foreseen that the line will meet the requirements to become a quieter route or not. Also, in this case this is necessary in legal procedures to know beforehand that a line will be a quieter route to prevent high and long noise barriers from being built.





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**Consultation on the draft of the limited revision of the TSI  
relating to the subsystem rolling stock - Noise  
(Draft Recommendation N. 006REC1072)**

Aktenzeichen: LA18/5181.18/1

Datum: Berlin, 21 March 2018

Seite 1 von 3

Dear Madam/Sir,

Thank you for providing the opportunity to comment on the limited revision of the TSI NOI. There is a great need for action in terms of rail noise protection, freight in particular, and we appreciate the constant effort and the EU commission's commitment in this regard.

We also find that the modernisation of the freight wagon fleet, either by renewal or retrofitting, is the most efficient and sustainable means for reducing rail noise for the overall EU population - a standpoint reflected in the implementation of various schemes and incentive measures in Germany since 2012, most importantly the funding guidelines for EU wagon keepers for retrofitting existing freight wagons with noise-reducing brake blocks (IATPS funding guidelines).

The "quieter routes" approach on the other hand, though allowing for rail noise reduction on important parts of the network, poses several disadvantages in our opinion.

1. Operational Impossibility

The quieter routes approach would generate significant additional efforts in relation to the established planning processes for the railway



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undertakers as well as for the infrastructure managers. Hence, the railway sector strongly advises to take into account resulting operational inefficiencies as well as potential obstacles and further prolongation of their procedures, which, in addition, would need to be revised or even newly defined to integrate the quieter routes approach. We also fear that the proposition of EU-wide identical parameters for quieter routes could miscarry and likely result in stronger requirements than necessary in Member States with low population numbers impacted whilst not helping to solve noise problems elsewhere. For Member States where the overall or most of the population suffers from rail noise, the approach would require to declare the whole network as quiet.

## 2. Communication Impossibility

It is non-communicable to the public and affected regions or communities why noisy freight wagons are banned on a specific route but not on another one. We do not believe in the spillover effect of the quieter routes approach either. Moreover, it is impossible to communicate to the public a noise mitigation strategy implying the existence of 'new' noisy routes where there have not been any before, or the possibility of a quieter route becoming a noisy one during the updating process. Last not least, in densely populated urban areas the situation may arise where residents live next to two railway lines of which one is a quieter route while the other one is not.

## 3. Legal Impossibility

A regulation defining only route sections as quiet is incompatible with the legal situation that was created by the German Federal Parliament upon approval of the Schienenlärmgesetz – the national law restricting the use of noisy freight wagons – by the German Bundestag. The decision for adoption was made unanimously by all Parties as a response to the widespread popular outrage about rail freight noise. Also, it is common knowledge and was communicated from the introduction of the German funding scheme concerning retrofitting freight wagons with composite brake blocks in December 2012 (IaTPS), that the funding would expire by December 2020 and be followed by a restriction of the use of noisy wagons on the German network. This was meant to secure certainty in the planning process for railway undertakings and wagon keepers.

While in the draft for consultation the starting date for the "quieter routes" approach is still pending, it was fixed to 8 December 2024 during the 4th meeting of the working party, thus dating 4 years after the German Schienenlärmgesetz coming into effect. Considering the hitherto long discussions within the sector – since May 2016 also within the ERA task force – such postponement (of almost 3 years compared to ERA's initial proposal of 1 January 2022) will not







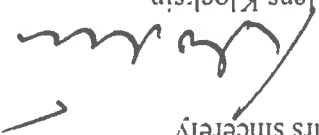
meet with public acceptance in Germany. Moreover, since we have seen quite an effort in renewal and retrofitting: More than 53 % of the freight wagons running on the German network are equipped with low-noise braking systems as per 28 February 2018.

Looking at the aforementioned central disadvantages, we can only support a network-wide implementation strategy. Even the cost-benefit-analysis by ERA, presented during the 5th meeting of the working party (see MoM) depicts that the most efficient strategy would be scenario III b) Quieter networks in AT, CH, DE and NL in 2022 and all wagons retrofitted in 2028. The footnote comment claiming the scenario is not feasible from a regulatory point of view is questionable in our opinion as it only applies to a narrowly defined transition period. With a better understanding of the deduced legal restraints on side of the EU there might even be room for effective yet minor adaptations.

Resultantly, our central wish would be for more flexibility in the respective approach allowing Member States to adapt the solution to their specific needs and possibilities. In accordance with the principle of subsidiarity, the competence to define "quieter routes" or a whole quieter network should be allocated to the Member States, as should be the possibility to define national rule exceptions.

We are convinced such approach provides the common basis needed to tackle the problem of rail freight noise at European level.

Yours sincerely

  
Dr. Jens Klocksin





# UNE NUISANCE A TRAITER Pour un mode de transport globalement vertueux

## 1. LES SOURCES DU BRUIT FERROVIAIRE

### Les 3 origines du bruit ferroviaire

- Le bruit des équipements tels que moteurs, ventilateurs ou climatisation, ainsi que ceux liés à l'ouverture et la fermeture des portes, sont prépondérants à l'arrêt. Les nuisances sonores sont ainsi non-négligeables autour des gares de triage de marchandises et des plateformes de chargement et déchargement, avec la maintenance et l'accès des poids lourds.

- Le bruit lié à l'effort de traction provenant des moteurs et des ventilateurs est prépondérant à moins de 60 km/h.

- Le bruit de roulement est le bruit principal. Il résulte du contact roue/rail et est prédominant de 60 à 320 km/h. Ponctuellement, au freinage ou dans les courbes, des bruits de crissement peuvent s'ajouter. Des défauts de quelques microns (rugosité) sur les surfaces de la roue et du rail génèrent des vibrations lors du contact : la roue vibre, des ondes vibratoires sont engendrées dans le rail qui vibre à son tour et transmet, par l'intermédiaire des semelles reliant la traverse au rail, la vibration aux traverses.

Le bruit aérodynamique, prédominant au-dessus de 320 km/h, ne concerne quasiment pas les trains circulant en France.

### D'importants progrès réalisés

Le bruit de roulement des voitures de voyageurs a fait de très importants progrès. Les rames TGV, neuves actuelles, émettent 3 fois moins de bruit [14 dB(A)] que celles de 1981. Les sabots de frein en fonte des voitures des RER C ont été remplacés entre 2004 et 2006 et aujourd'hui toutes les rames RER sont équipées de semelles composites.

Par contre, le bruit de roulement des wagons de fret, dû à la présence de semelles de freins en fonte, n'a fait l'objet d'aucune amélioration, sauf pour les wagons neufs, comme ceux des wagons Modahor, équipés de freins à disque. De plus, le vieillissement de ces matériels ou leur mauvais entretien peut provoquer une aggravation des perturbations sonores.

C'est bien à ce type de bruit qu'il faut désormais s'attaquer et il faut noter que nombre de ces wagons n'appartiennent pas au groupe SNCF. C'est ce qu'a mis en évidence le rapport du CGEDD de mars 2014 intitulé « Le bruit du fret ferroviaire, Une stratégie pour en limiter les impacts » et qui pointe la modeste de l'enjeu financier, à l'échelle ferroviaire, dans son résumé : « Le bruit généré par les trains de voyageurs a globalement fortement baissé. Celui des trains de fret reste plus élevé. Le remplacement des semelles de frein par de nouvelles semelles en matériau composite, laissant la roue lisse, réduit le bruit de l'ordre de 7 à 10 dB. Le coût de l'équipement de tous les wagons de fret français concerné est moindre que le surcoût des protections par mur anti-bruit ou en façade sur la seule rive droite du Rhône, pour un même niveau d'exposition sonore résultant ».

Pour FNE, il est nécessaire d'avoir une politique volontariste de remplacement des semelles de freins, sans que cela ne dispense la France de réaliser des aménagements à la source, avec des protections anti-bruit ou une couverture de la voie, lorsqu'elles sont nécessaires pour une plus grande efficacité. Il s'agit d'ailleurs d'une pratique courante concernant le bruit routier.

## 2. UN PROBLÈME TECHNIQUEMENT SOLUBLE

Afin de relancer le fret ferroviaire, dont les bénéfices environnementaux sont indiscutables, en particulier sur la qualité de l'air et concernant les faibles émissions de gaz à effet de serre, il convient de résoudre le problème du bruit ferroviaire. Sur un plan local, les riverains craignent une dégradation de leurs conditions de vie et tendent à s'opposer au retour du fret ferroviaire, tel que l'on a pu le constater avec les riverains de la ligne Serqueux – Gisors, dans le cadre de la mise en place d'un itinéraire fret pour desservir le port du Havre et sur la rive Sud du Rhône, ligne dédiée au fret ferroviaire, avec la perspective de doubler le trafic des convois de fret.

Alors que les trains de voyageurs roulent principalement de jour, le trafic de marchandises peut être plus conséquent la nuit, entraînant donc des perturbations du sommeil des populations riveraines.

Parmi les nuisances environnementales, le bruit est une préoccupation des français qui ne génère toutefois pas le même niveau d'inquiétude que la pollution de l'air, le dérèglement climatique et les catastrophes naturelles, qui sont les 3 préoccupations environnementales majeures des français (Baromètre annuel des préoccupations environnementales des Français, CGDD).

Les solutions techniques existent et sont connues du monde ferroviaire, or la France tarde à régler le problème des nuisances sonores faute de décision politique concernant le financement de ces mesures.

## L'Allemagne agit

Le gouvernement allemand a bien compris l'enjeu du bruit, dans un pays où le volume du fret ferroviaire a doublé pour atteindre 23% de part modale, alors qu'il ne cesse de baisser en France et est autour de 10% aujourd'hui. DB Schenker Rail, propriétaire de 60 000 wagons anciens, rééquippa l'ensemble de son matériel avec des semelles de frein en matériau composite d'ici 2020. Les nouveaux wagons (20 000 à cette date) sont équipés d'origine. Les propriétaires des 120 000 wagons n'appartenant pas à la DB bénéficient d'une aide de l'État pour remplacer les semelles de frein.

## Une question de financement et de volonté politique

En France, les Points Noirs ont été recensés et font l'objet d'un plan de traitement qui est actuellement en panne faute de financement de la part de l'Etat et de l'ADEME, SNCF Réseau ne pouvant pas assumer seul la charge financière avec une dette de près de 50 milliards d'€. En Allemagne, l'Etat avait repris la dette du ferroviaire, ce qui permet aujourd'hui à l'opérateur historique d'avoir les moyens d'une politique de report modal et de limitation des nuisances pour les riverains des infrastructures.

Il serait intéressant de calculer le coût global, pour les finances publiques françaises, des protections réalisées depuis 35 ans pour lutter contre le bruit routier. Le bruit ferroviaire doit connaître le même traitement, avec une contribution financière publique équitable.

Les moyens qui, aujourd'hui encore, sont engagés ou projetés pour des lignes ferroviaires nouvelles doivent être en priorité dirigés vers l'amélioration de l'existant, dont le traitement du bruit ferroviaire. D'autre part, il convient de prendre en considération que le développement du fret ferroviaire permettrait de faire réaliser à la France des économies, liées à une meilleure qualité de l'air et à la réduction des émissions climaticides.

### 3. UNE NUISANCE SUR-ESTIMÉE

Le rapport préliminaire du CGDD, sur la « Comparaison des coûts externes et des prélèvements des différents modes de transport » surestime grossièrement l'impact du bruit lié au fret ferroviaire, par rapport à celui du mode routier.

#### TRANSPORT DE MARCHANDISES

cé/km	PL	Fivral	Fer
	13 t		
Coûts externes hors infra 1	2,44	1,93	0,78
Coûts externes hors infra 2	2,29	1,93	0,77
Environnement	1,29	1,93	0,64
dont CO2	0,35	0,23	0,04
dont pollution locale	0,93	1,70	0,06
dont bruit	0,01	0,00	0,54
Insécurité approche 1	0,36	0,00	0,11
Insécurité approche 2	0,21	0,00	0,10
Congestion	0,79	0,00	0,03
Coût marginal usage infra	0,57	0,20	0,59
Total coûts externes 1	3,01	2,13	1,37
Total coûts externes 2	2,86	2,13	1,36
Prélèvements	2,40	0,20	0,43
dont TICPE, CSPE	1,10	0,10	0,01
dont péages/retardances	0,80	0,10	0,42
autres	0,50	0,00	0,00



Ainsi, d'après ce pré-rapport, l'impact du bruit ferroviaire serait 54 fois plus élevé que celui du fret routier. Ce chiffre interpelle par sa disproportion et mériterait d'être objectif.

#### **4. LE BRUIT LIÉ À DE NOUVELLES LIGNES À GRANDE VITESSE (LGV)**

### **Une réglementation inadaptée**

Les réactions des riverains, cet été, lors de la mise en service de deux nouvelles lignes LGV ont montré le décalage entre les exigences de la réglementation du bruit ferroviaire des lignes nouvelles LGV et la perception des riverains.

La réglementation française, comme la quasi totalité des réglementations dans les pays européens, est fondée sur la notion d'énergie sonore cumulée, qui ne doit pas être dépassée pendant le jour ou la nuit (avec des valeurs différentes). Cette réglementation ne prend quasiment pas en compte le bruit émergeant au passage d'un train (voyageur ou marchandisé) qui est le plus ressenti par les riverains. Cette contradiction ne pourra être résolue que par une évolution de la réglementation française, dont le Conseil National du Bruit devrait être saisi.

**Directoire Transports et Mobilité Durables**  
France Nature Environnement

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Ihr Zeichen	006REC1072
Ihre Nachricht vom	
Datum	20.03.2018

Consultation on the draft of the limited revision of the TSI relating the subsystem rolling stock - Noise (TSI Noise)  
Reference 006REC1072

Dear Sir or Madam,

thank you for giving me the opportunity to send you my views regarding the draft of the limited revision of the TSI Noise. The Hesse Minister of Economics Tarek Al-Wazir has asked me to respond on his behalf.

1. Given that freight wagons are in operation for 40 and more years and that low-noise break blocks are state of the art and applicable in most existing freight wagons

I strongly support making the TSI Noise applicable to existing rolling stock. Hesse already expressed this in the response to the EU-Consultation "Effective reduction of noise generated by rail freight wagons in the EU" in 2013.

The state of Hesse is heavily affected by the growing number of freight trains on many railway-lines that run right through cities and towns. Hesse is therefore strongly committed to reducing the impact of noise on the population and thoroughly supports the federal legislation in Germany that aims at limiting the use of old-standard noisy wagons that do not fulfill the requirements of the TSI Noise ("Schienenlärmgesetz").

The TSI Noise should be applicable to all freight wagons for which suitable low-noise break-blocks are available and approved. The approach of defining 'quieter routes' in the draft of the limited revision of the TSI Noise does neither fulfill the requirements of noise protection nor of an effective network operation.

For Hesse it is not acceptable to have different noise levels applying to different parts

of the existing network. Moreover, German law, the "Schienenlärmschutzgesetz," does not allow such a distinction. For the network operator it is operationally not feasible to check which wagon can be allowed on which track. Such a differentiation would hence be counterproductive to the competitiveness of the railway system.

I therefore would ask you to reconsider the original European Commission's approach of a compulsory application of the TSI Noise to all freight wagons in international traffic (as far as suitable low-noise break-blocks are available). For wagons that are only used within a single member state, the member state should decide about the application.

Yours sincerely,

I. A. Peter Lindner





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Our reference

IENW/BSK-2018/35554

Your reference

Enclosure(s)

Date

26 MAART 2018

Subject  
Reply on ERA consultation on the draft revision TSI Noise

Dear Sir/Madam,

Thank you for giving us the opportunity to reply to the ERA consultation on the  
Draft revision of the TSI Noise (006REC1072).

The contribution of the Dutch Ministry of Infrastructure and Water Management to  
the stakeholder consultation as received by email on the 22<sup>nd</sup> of December, 2017  
is attached in Annex 1. This contribution is without prejudice to the further  
political decision making on the TSI Noise regulatory decisions.

In addition, we would like to make a general remark concerning the TSI Noise  
approach on phasing out noisy wagons. This approach must be accompanied with  
an active retrofitting policy in order to make this feasible. In this respect, the CEF  
mandatory way according to the TSI Noise and successful measures of the Noise  
Differentiated Track Access Charging. In addition source-related measures on  
noise reduction should be included in the relevant EU innovation programs for  
railways.

We remain at your disposal for further explanation on our position.

Yours sincerely,

THE ACTING DIRECTOR PUBLIC TRANSPORT AND RAILWAYS,

Ms. Heidi Boussen



## Annex 1: Dutch contribution to the Draft revision of the TSI Noise (006REC1072)

Please note: This is a limited revision of the existing TSI subsystem rolling stock Noise.

Railway noise reduction at the source is a critical issue for the further development of railway transport in Europe. Especially where railway lines are crossing conurbations. Railway noise must be reduced at the source because this is by far the most cost-effective means of noise reduction.

Freight wagons are responsible for much of the noise produced. In 1996 the European Commission had already published a "Green paper" where rail freight wagons were identified as a source of noise production and pinpointed for measures. Research has shown that, in order to make freight transport by railway less noisy, at least 80% of all wagons in a certain train should be 'silent'. From 2006, all new wagons have to comply to standards (TSI) that can only by installing modern brakes. Policy aimed at the existing wagons has until now resulted in approximately 50% silent wagons in the Netherlands, due to an active retrofitting policy.

The issue of noise reduction for railway freight wagons should be addressed at the European level. This is because wagons are used internationally. In the Netherlands, we have a specific legal regime for rail and road noise which consist of about 60.000 noise emission points with each its own ceiling. In order to accommodate the growth of the rail traffic and limit its impact on people living near the tracks 80-100% on the wagons needs to be silent by 2020 traffic and keep the effects for railway infrastructure investments are being made on the assumption that 80-100% of railway freight wagons will be 'silent' by 2020 (either new TSI compliant wagons or retrofitted existing wagons).

German, Swiss and Dutch ministries have cooperated closely on the issue of noise reduction for railway freight wagons and have made a proposal (Annex 2) for the EC in June 2017 on phasing out noisy wagons by 2021. The scope of the proposal encompasses the entire European rail network. In addition, the proposal includes the possibility of derogation for member states in order to allow for some flexibility in implementation.

The draft of the TSI Noise (006REC1072) now in consultation, assumes a quieter routes approach. Targeting lines with more than 12 freight trains per night. This is not the preferred approach for the Netherlands. We foresee issues pertaining to communication with our stakeholders and with citizens. More specifically, we foresee the following issues:

- The application of this criterion may cause issues in communication because it is based on specific locations and does not apply to an entire corridor. For example, it is possible that a specific route is not classified as a 'quieter route' in the Netherlands, but is designated as such more directly over the border with Belgium or Germany.
- IM's do not and should have a mandate to stop trains entering a quieter route and check the wagons. This would hinder operations.
- The draft refers to 'quieter routes', but the perception or experience of individual or groups of citizens may be different. While we acknowledge that the use of 'quieter routes' throughout the EU will indirectly lead to



more wagons becoming 'silent', the use of this term may create

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Dir. Openbaar Vervoer en  
Spoor

Our reference  
IENW/BSK-2018/3554

- The quieter routes approach could have adverse effects in NL: we have invested billions in the dedicated Betuweroute from the Port of Rotterdam to the German 'hinterland'. This route avoids densely populated areas and is established with many noise mitigation measures. Not allowing noise wagons on this route and forcing these to ride elsewhere would have an effect which is adverse from the aim of the Noise TSI.

For an effective European approach the following elements must be addressed:

- Next to the draft for 'quieter routes', the phasing out of noisy wagons in the EU should be researched. We see this draft, in combination with the aforementioned research, as a first step in the direction of totally phasing out noisy wagons.

- In the Netherlands we prefer more 'quieter routes' on our railways instead of solutions based on specific locations. So that we can reduce noise for more citizens along the railway routes.
- As communicated earlier, in regards to the phasing out of noisy wagons we prefer a timeline where noisy wagons are phased out by 2021, because that is realistic for Member States that introduced retrofitting policy on time.

- The supervision concerning the TSI should become the responsibility of National Safety Authority of each Member State.
- There aren't safety risks by the use of silent brake blocks.

In considering the proposal on 'quieter routes' from the ERA, the following conditions apply:

- The proposal is the only one with sufficient support at European level at short term;
- Noisy wagons will effectively be phased out by 2021 from densely used railway networks such as the Netherlands has.
- Supervisory and regulatory costs of the measures envisaged will remain under control.



## Annex 2: Note for July 2017 EC Railway Interoperability and Safety committee. Issue: report ERA task force on TSI NOI revision

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Our reference  
JENW/BSK-2018/35554

Date: 22 June 2017

NL Ministry of Infrastructure and the Environment, prepared in cooperation with  
CH / DE

Contact persons:

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Objective: broaden the scope of scenarios to be analyzed for TSI NOI revision as included in the mandate from EC to ERA following RIS committee July 2017

### 1. Introduction

The report from ERA task force well identifies the need for action at European level looking at the impact assessment weighing costs and benefits of phasing out noisy wagons. The RIS committee shall review the report from ERA task force in the context of the preparation of the Commission's mandate to the ERA for a working group to develop a formal recommendation on TSI NOI revision. The issuing of the mandate is dependent also on the adoption of the delegated act under the 4<sup>th</sup> railway package allowing EC to make proposals for applying TSI values/norms on existing rolling stock. In this note NL argues the mandate should include one more scenario to be looked at before the ERA director shall make a recommendation to EC on revising TSI NOI. Background is that NL has serious doubts about effectiveness and monitoring / administrative aspects of ERA scenario "silent sections", ERA scenario "international / national" is for NL and DE acceptable to elaborate but complicated number of members of the task force for the revision of the NOISE TSI seemed to be rather skeptical about this approach. This is why NL and DE propose to add following scenario number 3 (European ban with derogations) to the ERA analysis.

### 2. Proposal to add following scenario to be analysed

- A. European ban of noisy wagons by 1.1.2021 (or with timetable change 2020/2021 with possibility for Member States to ask for derogations.
- Renewal and retrofitting of the relevant fleet is not at advanced stage;
  - Retrofitting with a longer transitional period has a more positive cost-benefit ratio given e.g. age of the fleet and renewal investments expected.

In this way the noisy wagons would be phased out by e.g. 2030, the same date set as for the completion of the TEN T core network corridors. Realistic final date of end of derogations has to be analysed by ERA working group but should not be later than 2040.

During the derogation period National Safety Authority for this specific Member State shall supervise the retrofitting progress even if the TSI NOI compliance of existing wagons is not yet mandatory. For Member States without a derogation National Safety Authorities shall supervise the application of the TSI NOI limits



also for existing wagons including for international and domestic rail freight

**Bestuurskern**

Dir. Openbaar Vervoer en

Spoor

The Commission should evaluate the progress achieved by 01.01.2026 (i.e. after a period of 5 years).

The benefits of this scenario are:

- High positive impact on reducing noise for citizens thus reducing negative health impacts from rail noise for affected citizens;
- Interoperability of European rail system ensured;
- No difference between international wagons and national operating wagons;
- Realistic transitional period;
- Clearly to explain at European and domestic political level and in dialogue with citizens;
- Simple to apply, monitor and supervise by the respective National Safety Authorities;
- Allows flexibility for Member States that need more time for (financing) retrofitting process

Possible disadvantages / open issues to be looked at:

- Can wagons registered from non-EU but OTIF member countries continue to run with non-TSI NOI compliant wagons? Would this be substantially impacting the scenario?



Sehr geehrte Damen und Herren,

Wir bedanken uns für die Möglichkeit zur Stellungnahme zum Entwurf der Änderung der TSI Noise und für das Engagement der EU-Kommission und die ständigen Bemühungen um einen verbesserten Lärmschutz in Europa.

Nach unserer Auffassung ist eine Beschränkung des vorgeschlagenen europaweiten Fahrverbots für laute Güterwagen auf die sogenannten „Quieter routes“ jedoch weder praktikabel noch zielführend. Außerdem widerspricht es der mit dem Schienenlärmschutzgesetz geschaffenen Rechtslage in Deutschland.

Lärmschutz hat für die Landesregierung des Bundeslandes Baden-Württemberg eine hohe Bedeutung. Verkehrslärm, insbesondere auch der Schienenverkehrslärm, hat sich zu einem zentralen Umweltproblem entwickelt. Denn viele Hauptachsen führen durch dicht besiedelte Gebiete, wie beispielsweise am Oberrhein. Die Lärmbelastung der direkt an vielen Schienentrassen wohnenden Menschen ist sehr hoch. Der Güterverkehr trägt im hohen Maße zu dieser Belastung bei.

Ausweislich des von der ERA im Auftrag der EU-Kommission gemachten Änderungsvorschlags wird als einzige Strategie der Ansatz sog. „quieter routes“ verfolgt, wonach in allen Mitgliedsstaaten nur für einzelne besonders hochbelastete Strecken (nachts mehr als 12 Züge / Tag im Jahresdurchschnitt 2016) der Einsatz leiser Wagen vorgeschrieben werden soll.

Aus unserer Sicht ist es in der Öffentlichkeit und in den betroffenen Regionen nicht verständlich kommunizierbar, weshalb laute Güterwagen auf bestimmten Routen verboten sind, auf anderen jedoch nicht. Zudem bezweifeln wir, dass von dem Ansatz der „quieter routes“ ein positiver Übertragungseffekt ausgehen kann. Darüber hinaus ist es auch unmöglich, der Öffentlichkeit eine Lärminderungsstrategie zu vermitteln, die „neue“ laute Strecken festlegt, wo vorher keine vorhanden waren oder bei der einmal als „leise“ festlegte Routen bei einer Fortschreibung des Routenkonzepts wieder als „laut“ definiert werden können.

Eine Regelung, die nur Streckenabschnitte als ruhig definiert, ist auch mit der vom Deutschen Bundestag nach Zustimmung des Bundesrates getroffenen Rechtslage

unvereinbar. Die Entscheidung wurde von allen Parteien einstimmig als Antwort auf die weit verbreitete Empörung über den Schienenlärmschutz getroffen. Das sog. Schienenlärmschutzgesetz, das im vergangenen Jahr in Deutschland in Kraft getreten ist, war ein wichtiger Meilenstein auf dem Weg zum Schutz der Anwohnerinnen und Anwohner vor Schienenverkehrslärm von Güterwagen. Das Schienenlärmschutzgesetz schafft die erforderliche Rechtssicherheit, denn es sendet ein deutliches Signal an noch zögernde Eisenbahnunternehmen, die Entscheidung zur Umrüstung oder zum Austausch vorhandener lauter Güterwagen alsbald zu treffen.

Mit Blick auf diese Nachteile befürworten wir ein offenes Mandat für die ERA Arbeitsgruppe, das auch die wagongestützte oder eine netzwerkbasierende Umsetzungsstrategie umfasst. Offene Probleme, z.B. eine gemeinsame Definition der betroffenen Flotte oder ein Ansatz, mit dem die Schienennetze von Mitgliedsstaaten mit einem erheblichen Lärmproblem schrittweise als „ruhig“ definiert werden, sollte auf der Grundlage der Diskussionen der Task-Force leicht lösbar sein. Eine detaillierte Untersuchung würde sicherlich weitere mögliche Definitionen als Grundlage für die fahrzeug- oder netzwerkbasierende Implementierungsstrategie liefern.

Insgesamt sind wir der Auffassung, dass der gewählte Ansatz wenig geeignet ist, zur Lösung der Lärmprobleme beizutragen. Wir bitten Sie deshalb, in der ERA-Arbeitsgruppe eine Lösung zu erarbeiten, die mit dem deutschen Recht kompatibel ist.

Mit freundlichen Grüßen

Doris Kaiser

Stellvertretende Referatsleiterin

Ref. 34

Eisenbahnen, Schieneninfrastruktur, Güterverkehr, Binnenschifffahrt  
Ministerium für Verkehr Baden-Württemberg

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Berlin, 18<sup>th</sup> March 2018

Consultation of the European Union Agency for Railways (ERA) on the draft of the limited revision of the TSI relating to the subsystem rolling stock – noise (TSI Noise) in order to make it applicable to the existing freight wagons

Position of the Noise Control Association of the German Acoustic Society (ALD)

As a German NGO, the ALD aims at the improvement of the noise protection in Germany and Europe. We thank the ERA for the opportunity to comment on the planned application of the TSI Noise to the existing freight wagon fleet. Our main positions on the draft TSI are:

1. The ALD welcomes this extended application as an important step to ban the operation of the freight wagons with traditional braking technique (Cast Iron brake blocks CI). It is an important step for the accelerated reduction of rail noise in Europe.
2. The ALD is strongly in favor of the application of the TSI Noise limits to the existing fleet as early as possible. This would be the most effective and transparent approach.
3. To ban the operation of the CI wagons on certain – or even all – lines of the European network is in our view less suited to eliminate the CI wagons. The ALD rejects the planned concept of the Quieter Routes, as this will lead to only a limited reduction of rail noise for the population.
4. Noise exposure from rail freight operation causes health risks, not only along the important rail freight corridors in Europe. Therefore, the immediate reduction of the exposure is indispensable. The ALD cannot accept scenarios or options that delay the complete elimination of CI wagons to the year 2030.

The reasons for our positions are as follows:

### Options for the application of the TSI Noise to the existing freight wagons

There is a wide consensus that noise reduction for the freight wagons is the most important measure. The introduction of noise emission limits for new railway vehicles in 2006 was the first important step to eliminate the freight wagon with CI brakes (mainly by using the K-blocks). As the freight fleet renewal is slow, it was also clear that the existing fleet must be addressed as well if one would not accept to delay this renewal up to 2050. A viable technical solution for that is available since 2013 with the homologation of the LL-blocks.

In 2013, the EU started a subsidy program for the retrofitting of existing freight wagons within the framework of the Connecting Europe Facility (CEF). In the first call subsidies for the retrofitting of 17.098 wagons were granted, in the second call this increased to 120.855 wagons of 7 Europe wide operating wagon keeper companies with a total subsidy amount of 27,6 Mio. €. The programmes will be implemented in 2020 at the latest (European Commission 2018).

Furthermore, in 2015 the European Commission proposed a two-step-approach (European Commission 2015) for the application of the TSI Noise to existing wagons, starting with the international operating wagons, then with all other wagons.

The current draft of the revision (ERA 2018b) does no longer contain this approach. Instead the concept of the "Quieter routes" is proposed, where only wagons in conformity with the TSI Noise are allowed to operate. "Quieter routes" are parts of the European railway network with an average number of more than 12 freight trains during the night and a minimal length of 20 km.

Switzerland and some Member States (Germany, Netherlands) have started retrofitting programmes for the existing wagons. Germany will spend 152 Mio. € between 2013 and 2020 (in the form of mileage dependent boni). The programme is open to all wagon keepers with operation in Germany. The most important German wagon keepers (DB Cargo, VPI undertakings) with a total of 120.000 wagons have committed themselves to operate only "quiet wagons" by the end of 2020. Additionally in 2017, Germany passed a law forbidding operation of CI wagons from 2021 on. Empty are non-scheduled services running on lines where the noise reception limits of the German Verkehrsschutzverordnung (Traffic Noise regulation for new or substantially upgraded lines) are complied with (for residential areas nighttime equivalent sound pressure levels of not more than 49 dB(A) outdoors) or with a reduced speed thus complying with the emissions of quiet wagons.

Switzerland introduced a ban for CI Wagons by 2020. The Impact Assessment of ERA (ERA 2018c) distinguishes between two forms of "Quieter routes": either parts of the network or the authorization for the Member States to introduce bans for the complete national network.

### General application of the TSI Noise limits to existing wagons

Due to the achieved or expected progress in retrofitting, the early withdrawal of the certifications for CI wagons seems to be the most effective option. It would give a clear signal to all wagon keepers and railway undertakings. It would urge them to apply for retrofitting programmes and Member States could start funding. The CEF means for the third call could be increased (with a funding quota of 50 % instead of currently 20 % of the eligible costs, as already in discussion). The implementation of this option is less complicated than the identification and monitoring of admissible lines and transport relations within the proposed "Quieter routes" - approach.

The ALD supports a withdrawal date by 2021. This would allow Germany to renounce its act for the ban of noisy wagons (which would not easily be implemented). At least the original timetable of the Commission should be applied: 2022 for internationally operating wagons, 2026 for all wagons.

### Network or line related ban of CI wagons

The ALD thinks that the proposed "Quieter route" approach has considerable deficits. 12 trains with CI wagons generate an equivalent night level of around 69 dB(A) in 25 m distance (assumptions: 500 m length, speed of 100 km/h, ballast bed with concrete sleepers, average quality of the rail running surface, no measures in the sound propagation path). But the noise effect research identifies 55 dB(A) as threshold for evident health risks. Due to the slow revised identification of the quieter routes every five years, traffic on the non-quieter routes will increase leading to even higher exposures for a long time. The level of protection is below the German definition of accessible lines with nighttime reception limits of 49 dB(A). With the additional requirement of a minimum quieter route length of 20 km the number of persons with high exposure will further increase.

The concept generates a high logistic burden to infrastructure managers and railway undertakings for the implementation and supervision of admissible routes within the networks. A ban of the whole network would have the same effect as a license withdrawal of CI wagons. Instead, the authorization of the Member State to ban the complete national network could be an acceptable option (possibly in the German form to avoid EU legal problems).

### Immediate reduction of the exposures

The exposures along the European railway lines are still too high and often considerably above the thresholds for health risks - despite the implementation of mitigation programmes in many Member States. The Charter of Fundamental Rights of the European Union grants: "Everyone has the right to respect for his or her physical and mental integrity" (Art. 11-63 (1)). Neglecting this right on the non-quieter routes or the delay of implementation not before 2030 (as planned for certain operations) can therefore not be accepted. Furthermore, the ALD is very concerned about the methodology to derive cost-benefit-ratios within impact assessments by simply monetarizing health effects. In our view this is not compatible with the individual right of integrity.

M. Jäcker

M. Jäcker-Cüppers

Vice Chair of the ALD

Consultation of the European Union Agency for Railways (ERA) on the draft of the limited revision of the TSI relating to the subsystem rolling stock – noise (TSI Noise) Position of the Noise Control Association of the German Acoustic Society (ALD), 18 March 2018

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Your reference: 006REC1072  
Bern, 2<sup>nd</sup> march 2018

Consultation on the draft of the limited revision of the TSI relating to the subsystem rolling stock - Noise (TSI NOI, Draft Recommendation N. 006REC1072)

Dear Madam, dear Sir,

We thank you for the opportunity to comment on the limited revision of the TSI NOI during the consultation. We highly appreciate that the EU tackles the issue of noisy freight wagons. Traffic of noisy freight wagons is the most serious environmental problem of rail transport for a large number of railway residents.

Measures in this field are a mandatory prerequisite for the acceptance of night-time freight transport on rail. Noise abatement is crucial for shifting freight traffic from road to rail, a central pillar of Swiss and European transport policy. Last but not least, the solution of the problem is essential for health protection of railway residents.

From Switzerland's point of view, applying the emission limit values of the TSI NOI (in force since 2006) to the whole fleet of freight wagons in international traffic is still the most appropriate approach:

- It defines a clear framework for railway undertakings and wagon keepers. Certainty in the planning process is ensured.

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- Retrofitting with LL-blocks (approved since 2013) can be carried out for the majority of the international freight wagons as part of maintenance process at relatively low cost. Retrofitting can be considered as maintenance according to the state of the art.

Switzerland followed this approach by introducing limit values by law (1 March 2013) and the corresponding ordinance (4 December 2015). Therefore, the limit values of the TSI NOI will be mandatory to all running freight wagons in Switzerland from 1 January 2020 (exceptions for special vehicles, in particular for rail maintenance as well as for historical vehicles).

At request of the European Commission (EC), the Swiss law includes the possibility of a postponement of up to two years. This flexibility was introduced based on the discussions in the Joint Committee on the Land Transport Agreement and the Swiss notification to the EC and the WTO. The latest date of entry into force is thus 1 January 2022.

In the draft for the consultation the starting date for the "Quieter Routes" is still missing. In the meantime the date has been fixed to 8 December 2024 during the 4th meeting of the working party. It is therefore not possible to coordinate the timing with an European solution in our current legal framework. This would require a new decision of the Swiss parliament (legislative level). In view of the unanimous vote in both chambers of parliament on banning noisy freight wagons (emission limits) on the Swiss network from 2020 onwards, a further postponement is hardly to achieve.

The current draft TSI NOI provides to define so-called "Quieter Routes" based on number of freight trains during the night in every member state. Only on these routes noisy freight wagons with cast iron blocks should be banned. In accordance with the Swiss solution noisy wagons would be banned from important parts of the railway network. However the law and the ordinance in Switzerland prescribe limit values on the whole Swiss railway network. The approach of the "Quieter Routes" proposed in the draft revised TSI NOI is therefore in conflict with the Swiss legislation also in this respect.

We welcome the fact that with "Quieter Routes" rail noise can be reduced on important parts of the network. However we do not consider the approach of the "Quieter Routes" to be appropriate for the following reasons:

- The implementation for the industry is very complex. The planning of the use of international freight wagons will be very difficult. The need for retrofitting will only be clear after the definition of the "Quieter Routes" by the member states. It will take too much time to clarify this.
- In many Member States, retrofitting of freight wagons used in a limited geographical area is being enforced, although the problem of noise is considered to be of little urgency.

The application of limit values to the existing fleet is a temporary solution for speeding up the retrofitting process. This helps to solve noise problems in densely populated areas with a high volume of rail freight traffic. More flexibility should be given to Member States to adapt this solution to their specific needs and possibilities. The competence to define the "Quieter Routes" should therefore be allocated to the Member States in accordance with the principle of subsidiarity. This solution would only compromise the principle of legal unity in the European Union during the transition period of a few years.

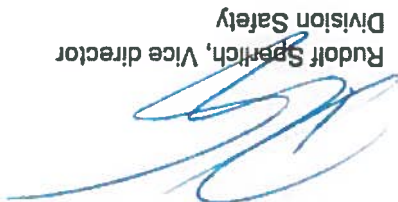
In any case, we are currently noticing that the ongoing discussions have led to extensive retrofitting of freight wagons. In addition to the renewal of the vehicle fleet, this has led to a significant increase in the number of vehicles equipped with low-noise braking equipment. Many freight wagons from other European countries also contribute to this positive development in Switzerland. We would appreciate if a solution to the problem of noisy freight wagons could be found at European level in accordance with Switzerland. It would be an important step for a successful railway transport in Europe.

Reference air / BAV-511 1-00001/00009/00013/00002

If you have any further questions, please do not hesitate to contact us.


Yours sincerely

Federal Office of Transport



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## Public consultation on the draft of the limited revision of the TSI relating the subsystem rolling stock - Noise (TSI Noise)

Transportstyrelsen would like to thank ERA for the opportunity to comment on the draft document. Transportstyrelsen considers it an interesting proposal in the mitigation of noise levels affecting public health.

The proposal, however, is infested with a couple of major drawbacks.

First of all, we have several times in the working group drawn the groups attention to the safety issue of using composite brake blocks in severe winter conditions; conditions that persevere 4-5 months/year. There are even an incident where a train has passed a signal at danger (SPAD) due to poor or non-existing brake performance of the composite brake blocks. Also, recent tests in Finland indicates clearly that the brake performance of composite brake blocks is poor.

Safety and maintained competitiveness of the Swedish Railways sector are key elements. On the one hand, the composite brakes show evident inadequate performance, leading to probable high risks. To mitigate these safety threats costly operative measures need to be put in place.

Secondly, the draft legislation is proposed to enter in force within a short term. This will cause increased costs for retrofitting and necessary adjustment measures, as the I-I-solution is not feasible on the Swedish wagon fleet. Thus severely damage the Swedish Railway business. The proposal will cause direct unproportioned increase of costs – operative and material – hence hampering the railway undertakings.

Thirdly, the introduction of quieter routes will impede and unlawfully restrict the access to the European market, and only offer an unbalanced benefit for a few Member States. Quieter routes in a Member State will handicap the Swedish existing wagon fleet automatically. Hence, limiting the possibility to offer business opportunities on the European market for the transport

buyer, and its products. This will affect the Swedish industrial market economy in its entirety.

The consequences will lead to modal shift from rail to road as an immediate consequence of the increased operative and material costs directly linked to retrofitting and risk mitigating measures. Transport business will go from rail to road. Railway will lose its competitiveness and performance.

Following are estimated costs of the proposal:

The costs to retrofit, presuming no operative restriction, the fleet in Sweden would be :

The cost of retrofitting a wagon in Sweden ranges from: 7000 SEK – 80 000 SEK  
(1 euro = 10 SEK)

- Wagons 1:1 used for transport in Sweden: 9 000 wagons x 20 000 SEK = 180 000 000 SEK

- Brake system retrofit : 1 500 wagons x 80 000 SEK = 120 000 000 SEK

- Wagons with load changing device : 3 800 wagons x 70 000 SEK = 266 000 000 SEK

- Wagons which need kink valve : 1 300 wagons x 40 000 SEK = 52 000 000 SEK

**Grand total : 618 000 000 SEK one-off costs**

The railway sector in Sweden estimates that the increase in maintenance costs yearly is: 0,3 SEK/km x 700 000 000 km = 200 000 000 SEK yearly

In addition, the administrative costs due to less efficient management of the fleet for each wagon for each trip is estimated to be around 200 SEK = 200 000 000 SEK

**Grand total : 400 000 000 SEK yearly costs**

Furthermore, the poor brake performance in severe winter conditions will have to be mitigated by operative measures such as shunting cast-iron brake blocked wagons in all trains. The operative costs in order to mitigate the risk of loss of brake performance in wintertime is 275 SEK /~28€ wagon shifted in a train = 400 000 000 SEK during five winter months.

The operative measure suggested by ERA is to shift wagons equipped with safe cast iron brake blocks into the trains in wintertime; half of the wagons in a train would have to be equipped with safe brake blocks. Even with the

wagon composition measures the transport need to decrease the speed of the train from 100 km/h to 80 km/h to uphold a normal safety performance level. The mainline is saturated and a loss of speed would immediately lead to a loss of capacity on the line in the range of 20-25%. The estimation is that this capacity loss would be shifted from rail to road. These costs amount to 145 000 000 SEK in direct costs.

**Grand total : 545 000 000 SEK**

Finally, in order to accommodate the wagons required at the borders and in main hubs for the shifting in order to form trains with guaranteed brake performance necessary infrastructure investments consisting in new tracks would be required to be built.

The cost of this would be not less than 2 billion SEK/~2 200 000 €.

The indirect costs for the modal shift, etc would amount to 479 000 000 SEK. So, the proposal would lead to the following costs for the Swedish railway undertakings and Swedish society:

**One-off costs : 2 618 000 000 SEK**

**Direct yearly costs : 945 000 000 SEK**

**Indirect yearly costs : 479 000 000 SEK**

Med vänlig hälsning

Lina Erika Andersson och Mikael Aho  
Utredare  
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19.03.2018

## Intro

The aim of the most efficient measure to reduce railway noise, like TSI NOI revision intends, is to speed up retrofitting of existing wagons. This is because of the 'natural' lifespan for freight wagons, which is too long for short-time noise reduction. Therefore, quieter wagons (freight trains) shall be operated as soon as possible, to overcome the 'Achilles' heel amongst environmental advantages of rail', the noise issue (ERRAC).

BBB is highly interested in an environmental friendly railway and has invested millions of Euro in noise protection measures, has introduced NDTAC in 2017, and intends to retrofit its freight wagons within the next couple of years, depending on the availability of financial resources.

Yet, the additional measure 'limited revision of TSI NOI' (draft of December 2017) is for OBB not acceptable because of the following reasons:

## General remarks:

- The proposed "limited revision" of the TSI NOISE is lacking a holistic system approach.
- As the IA is still not finalized, the financial and operational impacts of the revision are not yet fully evaluated and known.
- Without any further reasoning the possible approach of the revision of TSI NOI was limited only to the assessment of the "route based approach".

## #1: Unclear & many definitions still missing:

Numerous issues must be defined resp. clarified before set-into-force, e.g. coordinated connection and inter-dependencies with TSI OPE (1.1.2., 4.3. and 4.4.1.) exist but are not respected there; it is unclear, if "quieter routes" need to be included also in 'Route compatibility check'; Europe-wide standardized measures for train operation when noisy wagons are identified/detected, etc.

## #2: Impact assessment of all options is still missing:

A mature and comprehensive IA has to be enforced an essential base for every decision on the TSI NOI revision. IA must include - besides costs for refitting of wagons, operation of retrofitted wagons, administration of operation - also all costs to be spent by IM for train operation and monitoring issues. Nevertheless, at the moment a serious estimation of administrative / logistics costs of the implementation of quieter routes is not possible because of unclear respectively not defined rules for train operation in case noisy wagons were identified/detected.

**#3: 100% funding is necessary:**

Because one is crystal clear already now: instead of spending additional administrative/logistics costs in the implementation of quieter routes – like for train operation management and monitoring stations – these financial resources are better placed for a real retrofitting of the fleet in question. So the retrofitting and additional operating costs have to be funded by 100% - then there is no need for any monitoring and heavy-handed administration. The more so, because the retrofitting of existing wagons with silent brake blocks brings considerable costs to the railway industry without any advantages. The railways have to finance not only one-off retrofitting costs but additionally higher operational costs on an annual basis – so there is no financial incentive for them even in the long term perspective. The benefits from the noise reduction get alone the citizens and health insurances. Therefore, it is a serious distortion to calculate societal benefits against the railway costs as “Overall Benefits/Costs ratio” – as it was done in the IA draft. Therefore, this case of changing the European provisions made to guarantee existing standards for investment protection has to be funded 100 % (e.g. half by EU, half by MS – so EU doesn't have to administer it) in order not to weaken the competitive positions of Railway Undertakings and so to achieve the environmental goals. As such there are no ongoing comparable measures concerning the road system at the moment.

**#4: Narrow minded point of view – actual several measures exist to speed-up retrofitting:**

The IA draft for TSI NOI on existing wagons does not take into account the impacts of existing NDTAC schemes in some countries today (i) – The Regulation (EU) 2015/429 for NDTAC - specification is a more effective instrument for implementation. It is not efficient to ‘invent’ new measures when measures are already in place to speed up retrofitting. Therefore, TSI NOI rev. will be not necessary anymore, In our view the IA shall also include an estimation of the effects on retrofitting from today up to 2025 of existing measures like NDTAC-scheme, CEF funding and existing Cast-iron-bans in two states of the European continent. Finally, a complete IA shall be the basis for a decision which measure (or combination of measures) will be the most effective for the railway noise reduction.

**#5: Other measures are existing and more efficient:**

The CEF-funding for retrofitting (corresponding Regulation (EU) No 1316/2013) is more efficient because of (1) using an existing instrument and (2) earlier implementation than TSI NOI in force. For CEF-rules, a more realistic funding share (up to 100% of eligible cost) is welcomed. Therefore, all these additional measures shall be taken into account when estimating the effort, cost and impact of the limited revised of TSI NOI as one measure for rail freight transport to become silent.

**#6: Existing CI-bans in Europe and resulting side-effects:**

The limited revision of TSI NOI on existing wagons does also not take into account adequately that a cast-iron brake block-ban exist in two states (one non-EU, one EU) - which already show high effects on retrofitting of the existing fleet in other states, beginning from today up to their foreseen coming into force in 2020 (CH) and 2021 (DE). It seems to be not adequately included in the IA draft because the gradient of the number of silent/noisy wagons is gently inclining /declining after 2020; if the same incline/decline is taken like in the period 2017-2020, than the goal of silent wagon is reached in 2027 (approx.)! Furthermore, the CI-ban of an EU member state as a single uncoordinated approach was taken

even as a "Baseline scenario" in the IA! – And this despite the stated "General objectives" – to prevent national measures making detrimental effects of freight by rails'.

**#7: Minimise bureaucracy, not generate 'sustainable growth' of bureaucracy:** The existing limited revision of TSI NOI with the quieter routes approach will generate additional bureaucracy (in particular for train operation with impact for IM and RL) while other (existing) measures are established and working. The wagon based approach seems still to be simpler, and for legal aspects (e.g. OTIF) solutions shall be identified.

**#8: Not in line with EC-goals on transport 2030/2050:** Increasing costs for freight traffic operation are completely not in line with the goals of EC- "White paper of transport" where a modal shift towards environmental friendly transportation modes like the railway is addressed for 2030 and 2050. To introduce political motivated time-limits instead of limits like the lifespan of wagons will lead to a modal shift from rail to road. Such a modal shift will lead to more environmental 'unfriendly' impacts than railway transportation (beside noise) and these effects shall also be quantified and included.

**#9: General inconsistency:** In practice under the quieter route approach nearly all vehicles have to be retrofitted from the very beginning as otherwise operation would be extremely limited. In conclusion if all wagons have to be retrofitted from the very beginning (=silent), it makes no sense to identify quieter routes and even update the maps 'every 5 years' (in particular in relation with 7.2.2. implementation date 20xx - 2024 in discussion)

**#10: Rejection of wagon based approach is not comprehensible and doesn't fulfil criteria of transparency:**

Up to now there is no updated legal expertise document available why the wagon based approach was rejected. The argument of existing OTIF agreements is stated but not elaborated in detail (measures to avoid 'register hopping' – large scale and frequent transfers to make use of the most favourable conditions - were discussed with an positive result at the 29<sup>th</sup> and 30<sup>th</sup> OTIF meetings). Such an approach does not fulfil the requirements of transparency for essential decisions. The rejection without elaboration of arguments in detail is not in line with TOR: the objective of the limited revision is as follows: "Revise TSI NOI to include provisions effectively addressing rail freight noise by retrofitting of existing freight wagons with composite brake blocks, or via other appropriate solutions in accordance with art. 6.1 of the Delegated Decision and following the 'quieter route' implementation strategy defined in the report ERA-RFP-155" – up to now only one approach is elaborated in detail. Additionally, the current quieter route approach does not allow a non-EU wagon (e.g. from OTIF-states), which is a "loud" one, to run on a quieter route in EU countries. There is no updated legal statement that the actual version of the quieter routes approach is in line with OTIF agreements and agreed by OTIF.

**#11: Lack of system approach:** The whole work for the limited revision of TSI Noise doesn't follow a railway system approach. This leads to a risk that the new approach will be not manageable in the practice.







## OTIF Secretariat's position paper concerning: The draft limited revision of the NOI TSI

TECH-18003  
22.3.2018

### Introduction

Since 2007 all new freight wagons authorised in the EU must meet harmonised noise emission requirements in accordance with the NOI TSI. Since the end of 2012 these provisions have been taken over in the UTP NOI and are also applicable to new wagons admitted in accordance with COTIF. This means that progressively, as old wagons are being replaced with new ones, the fleet of freight wagons will become quieter.

Nevertheless, the progress in phasing out old noisy wagons is not quick enough for several states and additional measures are required. Research and impact assessments have demonstrated that the most effective measure is to replace cast iron brake blocks on old wagons with composite brake blocks which smoothen the wheels' running surface, thus reduce running noise. The core of the issue is how to use the law to stimulate the progress of such replacement, often referred to as 'retrofitting'.

In order to avoid unilateral measures by individual states, the European Commission initiated a coordinated approach at EU level and mandated the European Union Agency for Railways (ERA) to recommend solutions.

ERA is in the process of drafting a recommendation on the limited revision of the NOI TSI. The revision process started in October 2017. The objective was to amend the NOI TSI by including provisions that effectively address rail freight noise by stimulating the retrofitting of existing freight wagons with composite brake blocks. The drafting process followed the work of the ERA's Task Force and ad-hoc workshops held in 2016 and 2017 in which the OTIF Secretariat was involved and the results of which the OTIF Committee of Technical Experts and its standing working group were kept informed about.

As the NOI TSI has its equivalent in COTIF in the UTP NOI, the proposed modifications are of interest to OTIF.

The draft recommendation on the limited revision of the NOI TSI is currently subject to consultation, which allows stakeholders and OTIF's non-EU Member States to comment on the proposals before they become formal proposals.

ERA has published its consultation here:

<http://www.era.europa.eu/Document-Register/Pages/Consultation-draft-limited-revision-TSI-subsystem-rolling-stock-Noise.aspx>

### Summary of the proposals subject to consultation

Instead of requiring all wagons to become silent before a certain deadline, ERA proposes to restrict the use of existing freight wagons which are equipped with cast-iron brake blocks. The concept is that some parts of the railway networks within the European Union will be declared 'quieter routes', on which only freight wagons complying with the TSI Noise or the UTP Noise (such as retrofitted wagons) will be permitted to run. The proposal foresees common criteria applicable throughout the EU to establish which routes are 'quieter routes'.

The rationale behind this is that pass-by noise could be defined as a parameter of compatibility between the infrastructure and the vehicle. It would then be the responsibility of the railway undertaking to ensure that it runs only quiet wagons on infrastructure designated as a 'quieter route'.

The concept is not very different from the railway undertaking's duty to ensure that, for example, the operating speed, the axle load and the gauge of the vehicles and the infrastructure are compatible. ERA also proposed criteria which must be applied by states when defining which parts of the network are quieter routes. All EU Member States would have to apply these criteria. The main criterion is traffic density during the night.

### Possibility of taking over the requirements in COTIF

It should be noted that COTIF is a treaty concerning international carriage by rail and that noise abatement is not included in its scope or aims. In principle therefore, noise abatement policy is not covered by COTIF. It has nevertheless proved necessary, under COTIF, to harmonise noise emission requirements for new railway vehicles so they can be accepted by all states.

One element of the proposal is to make noise a compatibility parameter between the vehicle and the infrastructure. This element seems to fit within the scope of COTIF and is possible to transpose.

Article 6 § 2 ATMF lays down that "An admission to operation allows the rail transport undertakings to operate a vehicle only on infrastructures compatible with the vehicle according to its specifications and other conditions of the admission: it is the responsibility of the rail transport undertaking to ensure this". There is no explicit list of infrastructure compatibility parameters, so "noise" could be one of them.

Another element of the proposal concerns the criteria which states must apply when defining quieter routes. This element seems not to fit within the scope of COTIF.

COTIF does not provide a legal basis for setting mandatory harmonised criteria which (non EU) Contracting States would be required to use to define quieter routes. If, in line with the proposal, noise were to become an infrastructure compatibility parameter, it would most likely be at the discretion of each (non EU) state as to whether, and according to which criteria, they would define quieter routes. However, defining criteria under COTIF as 'soft law', in the form of recommended best practices, should not be ruled out. In such case it would probably not be sufficient to only consider traffic density as a criterion, but population density along the railway route should be considered as well.

It is not anticipated that this potential difference between EU law (mandatory criteria for defining quieter routes) and COTIF (no criteria or recommended criteria) will create legal incompatibilities.

### Position of the OTIF Secretariat

The OTIF Secretariat supports the proposed recommendation on the basis of the following arguments: Measures which effectively address rail freight noise are necessary in several OTIF Member States. If measures are not taken at international level, unilateral and potentially incompatible measures will be taken by individual states. Therefore, there is a need to act.

ERA's impact assessment indicates that the operational costs of wagons increase after they are retrofitted with composite brake blocks. It therefore seems reasonable to require the retrofitting of wagons only if they are used on routes where rail noise is an issue, without imposing the retrofitting of all wagons. States could continue to allow the operation of noisy wagons on part of the network where noise nuisance is limited, for example if the traffic density is limited.

The concept of making pass-by noise a train-infrastructure compatibility parameter is compatible with COTIF without having to change the existing provisions. In this case the parameter should be included in the list of parameters of vehicles and fixed subsystems to be checked by railway undertaking to ensure compatibility.

Although the criteria for defining quieter routes could probably not be taken over in COTIF in a mandatory form, this is not expected to create legal incompatibilities between COTIF and EU law.

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CONSULTATION ON THE DRAFT OF THE LIMITED REVISION OF THE TSI RELATING TO THE SUBSYSTEM ROLLING STOCK - NOISE (TSI NOISE)  
SNCF contribution

SNCF would like to thank ERA for the constructive discussions held in the TSI noise revision-dedicated task force and working party, as well as for providing stakeholders with the opportunity to comment on the draft of the limited revision.

SNCF underlines it is providing an opinion on the "Final draft of the Technical specification for interoperability relating to the subsystem 'rolling stock — noise' (NOI TSI)", last updated on 9<sup>th</sup> March 2018, and not on the "draft 2.0 of the Technical specification for interoperability relating to the subsystem 'rolling stock — noise' (NOI TSI)", given that the former was sent out to stakeholders before the deadline of the consultation on the latter.

SNCF reminds that noise-abatement measures mean fitting costs and increased recurrent operational costs which worsen the relative competitiveness of rail if borne by the sector. Besides, massive deployment of composite brake blocks must not undermine railway safety, in particular the proper functioning of track circuits.

The European Commission mandated ERA to work on a limited revision of TSI noise based on the "quieter routes" approach. The methodology to be applied to define a route a quieter one should be simple and harmonised at EU level. Effectively addressing rail freight noise and limiting operational constraints requires the network of quieter routes to be large and applied within a reasonable time horizon allowing wagon keepers to adapt their fleets. SNCF stresses that these goals can only be achieved if the following cumulative conditions are respected:

- The reference night freight traffic used to define quieter routes should not exceed 5 trains;
- The date of entry into force of quieter routes should be 8<sup>th</sup> December 2024 as proposed in this draft;
- A route defined quieter should remain quieter even after updating of the list, so as to avoid uncertainty for both the rail sector and people living nearby railway lines.

In addition:

- The minimum length of a quieter route should be 2 km instead of 20 km, otherwise a number of densely-populated urban areas crossed by railway lines will be out of scope;
- Gathering and processing traffic data takes time. Considering that the Regulation is likely to be published early 2019, the reference year used in the definition of quieter routes should be 2017. This will allow IMs to deliver lists based on recent, aggregated and reliable data.

Please find in the Annex proposals for amendments that reflect these views.

## ANNEX: PROPOSALS FOR AMENDMENTS TO APPENDIX D

### Appendix D Quieter routes

#### D.1 Definition

A 'quieter route' is a part of the network with a minimum length of 20 km in the geographical scope of this TSI, on which the annual average daily operated freight trains in ~~the year preceding the publication date of Regulation xx/xxx [amendment to TSI NOISE]2017~~ during night time was higher than 125.

Night time is defined for each Member State in its national legislation transposing Directive 2002/49/EC.

#### D.2 Identification of quieter routes

The Member States shall provide the Agency with a list of quieter routes no later than 3 months after the date of publication of this TSI.

The list shall contain at least the following information:

- Start and end point of the quieter route. If one of these points is at the border of the Member State, it shall be reflected.
- Identification of the line(s) making up the quieter route
- Number of freight trains circulating during night on the quieter route

The Member States may provide maps illustrating the quieter routes on a voluntary basis. All lists and maps shall be published on the Agency website (<http://www.era.europa.eu>) no later than 6 months after the date of publication of this TSI.

#### D.3 Update of quieter routes

Member States shall update the quieter routes at least every 5 years after 8<sup>th</sup> December 2024. The traffic data used shall refer to the year preceding the update. Member States shall provide the Agency with the updated quieter routes for their publication. In case of new or renewed lines added to the existing network, the expected traffic can be used for classification. ~~Once defined quieter, a route remains a quieter route, even after updating.~~

The Agency shall inform the Commission of any changes to the quieter routes. The Commission shall inform the Member States of these changes through the committee referred to in Article 51 of Directive (EU) 2016/797. The updates shall be applicable from the next December timetable change following one year after the Commission has informed the Member States of the changes. The Agency shall publish the updated quieter routes on its website (<http://www.era.europa.eu>) one month after the Commission has informed the Member States.

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SNCF is listed in the transparency register under the number: 97914681026-14  
SNCF is a member of CER and UIC.

Stockholm 21 March 2018

EU Agency for railways

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## **Swedish Shippers' Council's comments on the draft of the limited revision of the TSI relating the subsystem rolling stock - Noise (TSI Noise)**

About Swedish Shippers' Council (SSC)

SSC represents the interests of companies and organisations in the industry and trade sector in Sweden. SSC is a transport buyer, shipper organisation and is recognised as the voice of Swedish transport buyers. For all of the members, transport is an indispensable link to their customers. Efficient and sustainable transport and logistics are therefore critical for the competitiveness of the Swedish industry and the socio-economic welfare in Sweden. SSC is also a member of the European Shippers' Council in Brussels.

SSC's comments on the draft

SSC recognizes that noise from railway rolling stock is a problem, especially in densely populated areas in Central Europe with intense railway traffic. Noise from rolling stock on railways is already regulated at EU level by the technical specification for interoperability (TSI) noise limit values imposed to wagons but more needs to be done in order to approach the noise problem effectively. The limited revision of the TSI noise is one, limited, way of tackling with the issue.

The SSC notices that the consultation concerns a draft with many uncertainties still remaining, which makes it hard to predict and take a position on possible consequences. The expected national exceptions make it even harder.

According to SSC, it is vital that retrofitting existing wagons with composite brake blocks does not undermine railway safety, in particular to freight operations in winter conditions and/or related to track circuits once retrofitted freight wagons are massively introduced on the network. Safety must always come first and safe functioning of composite brake blocks in winter conditions should be verified before the regulation enters into force. Composite brake blocks do not ensure sufficient braking performance in winter conditions and have caused several serious incidents. Fortunately, no accidents have occurred. The most effective way to ensure sufficient braking performance even in harsh winter conditions is to use cast iron brake blocks until new technology that ensures both safety and quieter rolling stock is in place.

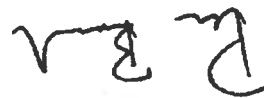
Swedish companies are export oriented and shippers rely on efficient and competitive transports and logistics, also outside the Swedish borders. Railway interoperability facilitates free movement of goods and is therefore necessary for the industry. In SSC's opinion there should be a strive to find a solution that on the one hand safeguards a smooth operation of rail freight transport from, to and through countries with high noise sensitivity and, on the other hand, minimises the administrative and financial burden of implementing measures such as retrofitting in those member states, where citizens are less exposed to noise and thus having lower public concern which is the case in the less populated, rural areas of Scandinavia and Finland. Rail freight is significant to the industry in the Nordic region, why SSC believes that exceptions should be considered in the ongoing work, also considering the safety aspects, in the rural areas of the region. At the same time transport buyers in northern Sweden should be able to choose direct rail transport to continental Europe even in the future.

Limited interoperability, i.e. movement of goods, is also one reason to why SSC is sceptical to the idea of quieter routes. SSC means further that quieter routes as proposed in the draft would make rail freight even more inflexible than today and in practice create a new trade barrier. Based on cost calculations carried out by the International union of wagon keepers (UIP) Swedish railway organisations<sup>1</sup> have estimated that maintenance costs will increase by approximately 30 percent, which implies a cost increase for rail freight by 5-7 percent. The composite brake blocks will also wear out faster. In addition to increased maintenance costs, there will also be a cost for retrofitting existing wagons. The increased costs will be transferred to shippers and harm their competitiveness, which in the end also reduces the competitiveness of the railway. This could cause the noise problem to shift from rail to road, and thereby even closer to residents in sensitive areas, increasing CO<sub>2</sub>-emissions at the same time.

SSC also supports in its main points comments on the draft made by ASTOC – the Association of Swedish Train Operating Companies.

## Swedish Shippers' Council

Per Bondemark  
Chairman



Guy Ehrling  
Secretary general



<sup>1</sup> Svenska privatvagnföreningen, SWEDTRAIN and the Association of Swedish Train Operating Companies (ASTOC)

# Composite Brake Blocks in Finland

## Identified Hazards and Risk Management

Position Paper

1 (3)

Position Paper  
Composite Brake Blocks in Finland  
Version 1  
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## 1 INTRODUCTION

VR Group Ltd (VR) has been using C33 sintered K-type brake blocks in Snps and Snpsst timber wagons, which are manufactured in two series between 2007 and 2014. Total amount of these wagons is 370 pcs. The brake block configuration is 2\*Bgu.

Between years 2007-2013 the wagons were used in mixed trains which consisted of Snps/Snpsst wagons and Sp wagons with cast iron brake blocks. In 2014 VR decided to form trains consisted of only Snps/Snpsst wagons. Quickly after starting the new operational concept, the train drivers began to report reduced braking performance of timber wagons. The reports related mainly to low speed braking in shunting work. Drivers reported of abnormal accumulation of ice between blocks and wheels.

VR has managed to keep the risk in control and no accidents have occurred from sudden loss of braking performance, but there have been serious incidents with a risk of collision, including signal passed at danger (SPAD). Further actions are needed to lower the risk.

## 2 IDENTIFIED HAZARDS

Composite brake blocks in Snps/Snpsst wagons are causing sudden loss of braking performance, because of abnormal accumulation of ice between blocks and wheels. After the investigation of accumulating snow and ice it was seen that even a thin layer of snow and ice can lead to loss of braking performance. When compared to other types of wagons and brake blocks in Finland, the ice or snow layer may be built up very quickly, and this often comes as a surprise to the driver. Cold air merely doesn't cause the problem, it also needs blowing powdered snow. The worst conditions for snow and ice formation is in temperature 0...-5 °C with flying snow. The braking performance can be lost both in unloaded and in loaded conditions.

To get better understanding of the problem the deceleration data was collected and analysed from the train data recorders. The analysis includes data only from line operation. The statistics are indicative. Analysis revealed that the braking power with composite brake blocks varies a lot and it is unpredictable (diagram 1).

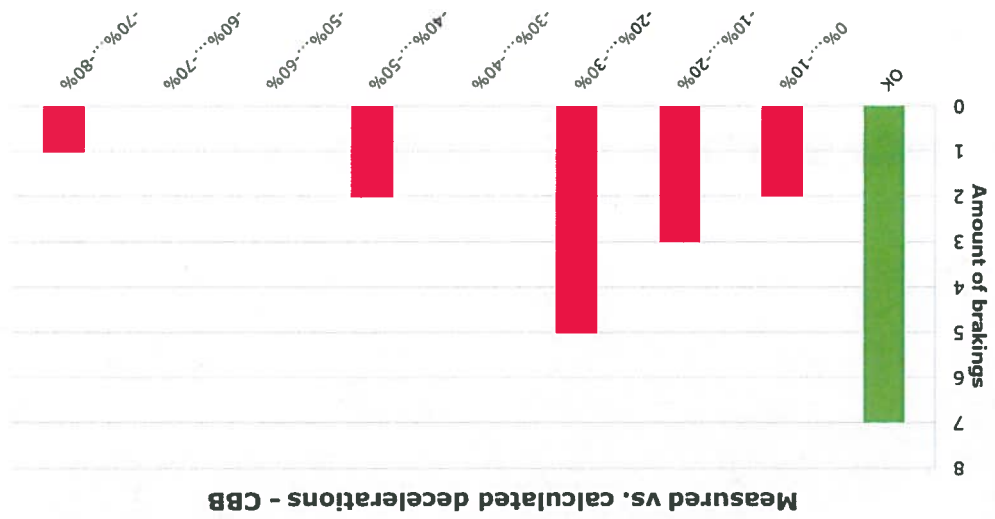


Diagram 1: Measured vs. calculated deceleration data from train data recorder (trains in operation), composite brake blocks (data from winter 2015-2016)



### Measured vs. calculated decelerations - cast iron blocks

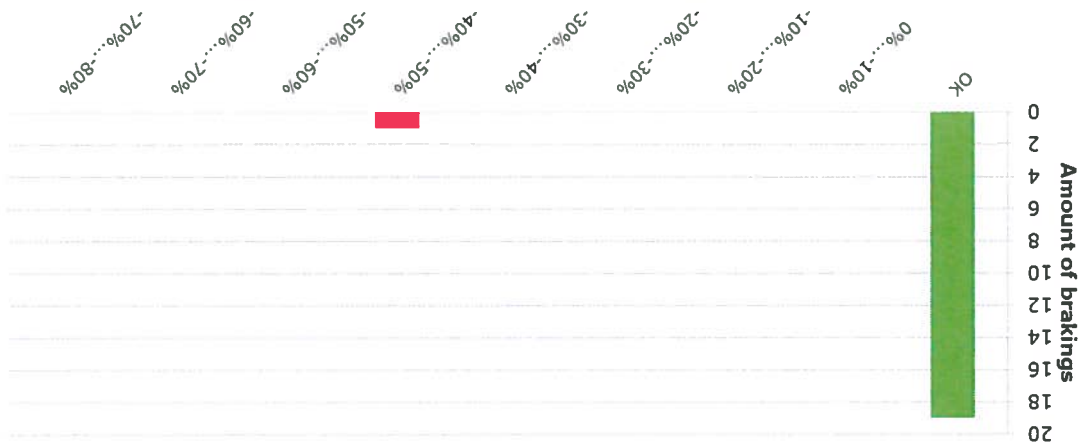


Diagram 2: Measured vs. calculated deceleration data from train data recorder (trains in operation), cast iron brake blocks (data from winter 2016-2017)

VR replaced the Snps/Snps wagons with old cast iron block wagons in operation between track section Kemijärvi – Kemi in winter 2016-2017. A comparable data was collected from those trains (diagram 2). The braking performance with cast iron blocks is much better and more predictable.

VR has made a safety alert on composite brake blocks on 12<sup>th</sup> of October 2016 and Finnish Transport Safety Agency on 1<sup>st</sup> of July 2016.

### 3 RISK MANAGEMENT AND FURTHER ACTIONS

To keep the risk in control VR has implemented several mitigating actions during the past few years and the problem has not caused accidents. However, several serious incidents with a risk of collision have occurred and it is necessary to implement more effective measures immediately. The most effective way to ensure sufficient braking performance even in harsh winter conditions is to remove composite brake blocks from the Snps/Snps wagons and replace them with cast iron blocks. VR has already started this process, and at least 150 wagons will be refitted with cast iron blocks as soon as possible.

In addition, we have agreed to participate in further testing of composite brake blocks during the winter 2017-2018 in Northern Finland. The tests will be done in co-operation with Finnish Transport Safety Agency.

### 4 SUMMARY

Composite brake blocks do not ensure sufficient braking performance in Finnish winter conditions. The brake blocks have caused several serious incidents with a risk of collision. Fortunately, no accidents have occurred. The most effective way to ensure sufficient braking performance even in harsh winter conditions is to remove composite brake blocks and replace them with cast iron blocks. The mandatory use of composite brake blocks is a major problem for VR, and the company cannot take the risk of using unpredictable braking blocks in train operation during the winter time. Finland needs to have a permanent specific case in NOI TSI or WAG TSI for not to use composite brake blocks.

