

Observations of Technical Services

Improving road safety of non-road mobile machinery

EU-Commission's Regulation proposal leaves important questions open

Executive Summary

The proposed EU-Commission's Regulation to streamline the use of non-road mobile machinery on public roads is welcomed by TÜV-Verband, DEKRA, SGS and GTÜ. However, the effectiveness of the EU-wide harmonized regulatory framework in upholding or enhancing road safety standards for this type of vehicle will depend on the design of the technical requirements in the delegated acts.

The current lack of unified requirements for non-road mobile machinery on EU public roads leads to delays and costs for manufacturers and end users. The proposed Regulation aims to address this gap, remove barriers, improve standards, and enhance competitiveness in EU industries.

Key features of the proposed Regulation include establishing a harmonized regulatory framework, reducing administrative burden and costs, ensuring proportionality and legal certainty, and implementing effective market surveillance procedures aligned with EU legislative framework on products.

Harmonizing technical requirements for non-road machinery will enhance the Single Market, promote free circulation, and ensure high road safety standards. TÜV-Verband, DEKRA, SGS and GTÜ support the creation of a European legal framework based on harmonized type approval regulations.

Ensuring road safety remains a top priority for regulating this type of vehicle. The members of TÜV-Verband, DEKRA, SGS and GTÜ express strong support for designing non-road mobile machinery in a way that minimizes risks to occupants, others, and road infrastructure, aligning with the Vision Zero approach.

The development of comprehensive and standardized guidelines in the delegated acts is crucial for effective implementation of the Regulation, focusing on detailed technical requirements and tests for various machine features.

Applying the same technical requirements for non-road machinery as for motor vehicles is important, with compliance assessed by an independent and neutral technical service.

Harmonized requirements for excessive dimensions and weights of non-road machinery should be provided to enable their circulation on public roads. Future type-approval procedures should consider the increasing complexity of mobile machines, including functional safety and electrical safety.

Road traffic noise should be addressed in the regulation by considering relevant Commission Delegated Regulations. The members of TÜV-Verband, DEKRA, SGS and GTÜ will actively participate in the drafting of the delegated acts, contributing expertise to ensure effective implementation and maintenance of road safety standards.

Additionally, the need for clear and precise German translation of the regulation is emphasized for uniform application at the national level.

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In general, the members of TÜV-Verband, DEKRA, SGS and GTÜ welcome the proposed regulation to streamline the use of [non-road mobile machinery](#)¹ on public roads. However, it is only through the [design of the technical requirements in the delegated acts](#) that we will truly gauge whether an EU-wide harmonized regulatory framework can effectively uphold or enhance the road safety standards for this type of vehicle.

Currently, there are no unified requirements for using non-road mobile machinery on EU public roads, causing delays and significant costs for manufacturers and end users. The proposed Regulation intends to fill this gap and exemplifies the EU-Commission's commitment to removing barriers, improving standards, and enhancing competitiveness in EU industries.

By harmonizing the technical requirements for the approval of non-road machinery at the EU level, the new rules will enhance the Single Market, promote free circulation of such machinery, and ensure high road safety standards depending on the specifications of the delegated acts.

In the view of TÜV-Verband, DEKRA, SGS and GTÜ, the creation of a European legal framework for mobile machinery has to be based on the harmonized [type approval regulations](#), in particular in accordance with Regulation (EU) 167/2013 on the approval and market surveillance of agricultural and forestry vehicles and Regulation (EU) 2018/858 on the approval and market surveillance of motor vehicles.

For a first step, [elements of simplification](#) of this type-approval process according to the characteristics of non-road mobile machinery (low circulation frequency) are practical and appropriate for the market. However, according to the commitment towards an ever-closer union among the Member States of the European Union we strongly emphasize the need for [mandatory application of the established approval regime in future](#). We support as well the approach that the regulation covers self-propelled machinery only (not towed), with a maximum design speed limit of 40 km/h since most of the towed equipment can already be type-approved under other vehicle categories.

¹ A non-road mobile machinery is used, among other things, for construction, agricultural, garden, forestry, material handling and municipal applications (such as harvesters, sprayers, loaders, excavators, mobile cranes, ride-on mowers, forklifts, telehandlers, street sweepers, lifting platforms or snow cleaners).

Application of the EU type approval procedure

By revising the legal framework of the European type approval procedure in the last decade, the EU Commission established according to Regulation (EU) 2018/858 an agile, stable, transparent and sustainable procedure that can be applied to a large number of EU vehicle classes. For all machines travelling on public roads, the same requirements should be applied as for motor vehicles [in accordance with the EU type-approval regulation](#) both with regard to approval and regulatory aspects, and should thus be subject to the assessment of compliance with the requirements by an independent and neutral technical service. From our perspective, [Article 21](#) of the draft regulation does not reflect this principle of the EU type-approval procedure. For the purpose of granting EU type-approvals, the approval authority shall verify compliance with the technical requirements of this Regulation by means of appropriate tests that are performed by its technical services. Article 21 needs to be amended in order to ensure coherence with the EU type-approval procedure.

Safety first

Improving [road safety](#) must remain the ultimate benchmark when regulating this type of vehicle. TÜV-Verband, DEKRA, SGS and GTÜ express our strong support for [article 15 \(1\) of the draft Regulation](#) that emphasizes the need for non-road mobile machinery to be designed, constructed, and assembled in a manner that minimizes the risk of injury to occupants, other individuals, and road infrastructure. This commitment aligns with the [Vision Zero](#) approach, which prioritizes road safety and aims to prevent accidents and eliminate fatalities. We believe that by constantly adhering to these principles, we can make significant strides in improving and maintaining road safety for all stakeholders involved.

Consequently, the preparatory work on [the delegated acts](#) provided for in this Regulation are of utmost importance as it ensures the development of comprehensive and standardized guidelines that will have a significant impact on the implementation and effectiveness of the Regulation. This refers directly to the detailed technical requirements and tests requested for each of the relevant machine features (braking, steering, lighting, field of vision, masses, dimensions, etc) according to article 15 (2) and article 21 of the proposed regulation.

Realizing the Value of the Regulation: Defining Technical Requirements for Maximum Impact

For all machines travelling on public roads, the same [technical requirements](#) should be applied as for motor vehicles in accordance with the EU type-approval regulation both with regard to approval and regulatory aspects, and should thus be subject to the assessment of compliance with the requirements by an independent and neutral technical service. Similarly, in accordance with Article 20 of EU Regulation 2016/1628 on the requirements relating to gaseous and particulate pollutant emission limits and type-approval for internal combustion engines, the European legislature has decided to [mandatorily integrate an independent and neutral technical service](#) for the type-approval test for mobile machinery and equipment. Many other assemblies and systems of mobile machinery must also be inspected by a neutral third party in order to prevent misuse, ensure safety and protect consumers (e.g. noise emission, field of vision, speed, axle loads, installation of light-signaling devices, coupling devices etc.). Confirmation of the positive result of these independent tests are provided by the relevant national competent authority. The granting of vehicle type-approval shall entitle the manufacturer to issue certificates of conformity for an unlimited number of compliant vehicles during the period of validity of the approval. At the same time, the manufacturer also has far-reaching obligations: On the one hand, the manufacturer assumes responsibility for all aspects of the approval procedure vis-à-vis the approval authority. On the other hand, the manufacturer is obliged to ensure the conformity of production of the vehicles.

Given that, in certain instances, non-road mobile machinery, due to its excessive [dimensions](#), would not allow for sufficient maneuverability on public roads or, due to its excessive weight or masses, could damage the surface of public roads or other road infrastructure, it would be appropriate to provide harmonized requirements to allow the circulation of such machinery.

Even mobile machines are becoming increasingly complex due to their [electrification](#) and the [integration of automated systems](#) in vehicle construction. Future type-approval procedures will have to meet these new road safety requirements. The associated topics of functional safety and electrical safety have not been adequately addressed in the technical requirements so far. From our perspective, these aspects should be included in the scope covered by an independent assessment of Technical Services.

[Road traffic noise](#) is generated by the sound emissions of vehicles. The noises emitted by vehicles are mainly the engine noise and the tire rolling noise. The provisions of Directive 2000/14/EC only cover environmentally harmful noise emissions from equipment intended for outdoor use. In our view, these are not sufficient for use in road traffic. The regulation should therefore take into account the Delegated Act (EU) 2018/985, Annex II accordingly. This act deals with the approval of motor vehicles with at least four wheels with regard to their noise emission and create uniform provisions for the approval of low-noise road vehicles with regard to their reduced audibility.

Considering the drafting of the delegated acts, we will actively participate in and support the preparatory work in the coming months. As [independent stakeholders](#) commissioned by the national authorities of the Member States of the EU, we will provide our expertise and contribute to the development of these acts. Our involvement underscores, firstly, our commitment to ensuring the effective implementation of the objectives of the Regulation in line with the interests of all stakeholders involved. Secondly, it demonstrates our dedication to maintaining, and ideally enhancing, the current level of road safety for this kind of vehicles.

Finally, we want to give the friendly advice that the German [translation](#) is not clear and leaves a lot of room for interpretation. This applies in particular to Article 1(1), Article 2(1) and Article 15(2). For a correspondingly uniform application in the national message, the translation must be tightened up noticeably.

Author and contact



[Richard Goebelt](#)

Director Automotive & Mobility

E-Mail: richard.goebelt@tuev-verband.de

Phone: +49 151 12039 690

www.tuev-verband.de

About TÜV-Verband e. V.: As TÜV Association, we represent the policy interests of the TÜV assessment organisations and foster the professional exchange between our members. We are committed to the technical safety, digital security and sustainability of vehicles, products, systems and services. Universally applicable standards, independent assessments and qualified training form the basis. Our goal is to maintain the high level of technical safety, to build trust in our digital world and to preserve our livelihoods. To this end, we are in regular exchange with policymakers, authorities, the media, companies and consumers.