

ETRMA written contribution in response to the stakeholder workshop of the ELV directive revision

ETRMA welcomes the opportunity to additionally respond to the proposals now put forward through the workshop on the ELV directive revision.

Tyres are essential to achieving the multiple functions of vehicles mobility and the mobility systems – they have an important role in road safety, they can contribute to CO2 reduction from transport as well as to the optimization of other performances, such as traffic noise.

Tyres they are high-tech engineered articles, requested to perform under various conditions without compromising key environmental performances, such as energy efficiency, nor the key role of tyres on road safety.

Specific Objective 2.1: Improve design and production of vehicles to support reuse and recycling

Within the workshop and disseminated sheets it is mentioned that:

In the calculation of the potential reusability and recyclability of materials within the 3R type approval:

The recyclability rate (Rcyc) calculation is to be revised, introducing additional elements to those required under the ISO Standard 22628 EN. To be considered recyclable, a component part or material would be linked to a proven recycling technology. The amount of material to be considered toward fulfilling the recycled target would depend on the TRL of the recycling technology (see next slide). For some materials where the actual recycling rate is far from 100%, a reduced share may also be prescribed for the calculation (e.g., tyres).

We have a strong understanding of the market arisings and treatment throughout Europe. And collection and recycling rates are reported through End of Life Tyre EPR systems in Europe. As part of the mandatory obligations put forward in the ELT EPR laws. This statutory framework is essential to the fair workings of the EPR systems around ELTs.

And has been one of the success factors for EPR of ELTs in Europe. Which is exemplified by the fact that ELTs are among the best performing EPR schemes across Europe in terms of collected materials and treatment rates.

Tyres are in principle 100% recyclable, but not enough recycling capacity and end markets exist. Currently all tyres are treated and we have a treatment rate of 95% in Europe. However barriers exist to further expand the amount of recycling currently achieved.

We ask the commission to consider our knowledge of the tyre recycling value chain through the national EPR schemes in place when determining calculation rules and data needs to determine what reduced or not share is appropriate for the calculation of the 3R type approval.

Specific Objective 2.2 Increase the reuse and remanufacturing rates of parts and components

Reuse and remanufacturing are two different things. For passenger car segment when we talk about reuse we generally talk about part worn or second hand tyres that have their service life extended by being reintroduced into the market. Investigations by FFact on behalf of the ETRMA show that this is on average 31% of the ELV tyre arisings.

Next to that truck and bus tyres are designed for remanufacturing in the form of retreading. And as such provide an opportunity by design for reuse. But this is quite a different concept from the concept of reuse. As tyres are intended by design to be remanufactured. And as such do not come to their end of life when collected for retreading.

Apart from that truck and bus carcasses are inspected to rule out any safety concerns before they are deemed appropriate for retreading. Adding a validation step in terms of safety.

Retreading is deemed to be remanufacturing. But the current Waste Framework directive doesn't accurately reflect the retreading use case.

Retreaded tyres are not deemed to be at the end of their life but are in fact designed for multiple life times.

Retreading markets do not currently exist for passenger car tyres. And are related to truck and bus tyres.

For tyres (i.e. Truck and Bus) that are designed to be retreaded, it is possible to replace the tread with a new one while preserving the casing and avoiding it from being discarded, following a thorough safety assessment. Retreading is a *de facto* product's life extension for certain tyres and whose casings demonstrate performance for a new cycle of use if certain conditions are met. Retreading optimizes the use of raw materials and energy for production, while also reducing waste. What is more, certain tyre types and tyre carcasses are suitable for multiple retreading activities, i.e. several life extensions resulting in several additional hundreds of thousands of km with the same carcass.

For a large part, retreading relies on short economic circuits, that collect worn tyres from their distribution and maintenance, and has a strong local component, thereby sustaining the business of hundreds of SMEs. To exemplify these benefits, it is estimated that the production of a retreaded tyre uses 70% less new material and 80% less energy than manufacturing a new tyre. Further compared to a non-retreaded tyre, a retreaded one depending on the size and application could enable savings of about 70% natural resource extraction (ore, oil...), mainly because of the avoided consumption of steel casings, 29% land use, 24% CO₂ emissions and 21% air pollution, as measured by particulate matter emissions¹. Yearly, retreading a heavy-duty vehicle tyre reduces approximately 160 kg of waste for each tyre retreaded twice and saves 104 kg raw materials, all whilst achieving CO₂ savings.

Tyres for truck, bus, aircraft, off-road and earth moving machinery, as well as for agricultural vehicles are often designed to have more than one life through retreading and/or regrooving² process.

Tyre retreading is performed in accordance with strict technical regulations referenced also by the EU legislation, namely UNECE Regulation 108 (passenger cars) and UNECE Regulation 109 (commercial vehicles). These regulations specify the key requirements in the retreading process, lay down the requirements for approval of the retreading production unit and state which marks must be displayed on tyres.

In order to be granted and to maintain the approval mark under Regulations 108 and 109, the retreading plant is subjected to checks and it must have 0,01 % of the total annual production but, in any case not less than 2 and not necessarily more than 10 tyres tested for load and speed index. At the EU level, these norms are recognised by the EU 2019/2144. Retreaded tyres can be unequivocally identified through the respective type approval marking.

Given the specificities of the process to extend the life of the major parts of the tyre, the sector does not consider those processes as such neither *reuse nor repair* but *remanufacturing*.

In order to promote those practices in the Tyre sector, the following incentives have the potential to successfully support retreading services.

¹ EY report: the Socio Economic impact of truck tyre retreading in Europe, based on the results of the Life Cycle Assessment study: Comparison of Environmental Impacts different truck tyres scenarios conducted by Group Michelin in February 2016, certified ISO 14040:2006 and ISO 14044:2006 by Quantis. <https://www.etrma.org/key-topics/circular-economy/>

² Tyre manufacturers publish instructions regarding the patterns to follow when regrooving their tyres as well as the relevant recommended widths and permitted depths below the base of the original pattern. It is essential to ensure that the regrooving process does not expose the tyre casing, breakers or belts and that sufficient rubber is left for its protection SOURCE: Recommendations Edition, 30 April 2020 by ETRTO, The European Tyre and Rim Technical Organisation.

- **Tax exemptions fiscal advantages** for business/professional such as bonuses and incentives to commercial fleets for tyres with A or B rolling resistance level, as well as for retreaded tyres for heavy-duty vehicles, as done in the *De Minimis* programme in Germany³.
- **Incentives at points of sale and through green public procurement** for retreaded products and retreading services, as those would create congruity between the supply and the demand sides along with environmental and social objectives. [add reference to the French law on circular economy]

Specific objective 2.2e) Establish provisions to support the market of used spare parts

Within the workshop and disseminated sheets it is mentioned that:

Introducing an obligation in the future legislation of ELVs that car repair shops must provide customers with an offer to repair a vehicle with used/remanufactured components alongside offers to repair the vehicle with new components.

Introducing an obligation for insurance companies to offer car owners discounted policies if they agree that repairs are performed with reused/remanufactured parts when these are available.

Tyres are wear-parts. Once they are fitted on a vehicle they are supposed to be used until they are worn down to the legal tread depth, which is defined by safety requirements. However, during this use phase and mainly for truck tyres, there are two situations in which tyres can be repaired (regrooving) or remanufactured (retreading), in order to extend their service life.

The decision not to repair and replace or remanufacture a tyre is dictated by no other consideration but safety. At the same time, a regulation is being defined in order to foster extension of the lifespan of tyres, in the framework of the tyre regulatory framework of UNECE.

Indeed, within the boundaries of the safety constraints, the tyre industry has been constantly working to improve tyre performances, notably through work on extension of tyre life.

Specific objective 2.3 Increase the recycling rates of materials and components

Currently material recycling rates for End of Life Tyres are at around 50%. It will be very difficult to set thresholds for recycling targets from the ELV directive perspective on End of Life tyres as this is only a small fraction (up to 10%) of the ELT arisings. The vast majority coming from the replacement market.

The recyclability of tyres depends on the end market applications and uses that are currently developed and are put under a heavy strain. Such as a potential end of the infill market due to the microplastics restriction. Which will end about 30% of the end use applications currently in place.

There are currently barriers in place that limit the applications, and current applications are under pressure. Also from a regulatory perspective. For example the upcoming microplastics restriction. Which when banning rubber granulates for artificial infill will ban 30% of current end use applications of rubber granulates.

Barriers that exist currently are the absence of Europe wide End of waste status and criteria. And the underdevelopment of rubber asphalt. A proven viable technological and economic option in for instance the US where this has been an established market for years. However the uptake in Europe has been very limited to non-existent to date.

Therefore, we need for the treatment of tyres different end market applications. One of which are tyre derived fuels used as co incineration in the cement industry. Where the steel fraction in tyres is attributed to material recycling targets as we present them as ETRMA. It is clear that without the current spectrum of ELT applications we are unable to treat ELT at the current rate of 95% across Europe.

³ <https://www.tyrepress.com/2017/06/7-vipal-treads-verified-for-german-government-incentive-programme/>



The advancement of the recycling of ELTs cannot be put solely on the manufactures of those items. It is clear that we need a common approach supported by legislation to advance the recycling. Only together can we achieve further uptake and higher recycling rates.

European Tyre & Rubber Manufacturers Association (ETRMA) represents nearly 4.400 companies in the EU, directly employing about 370.000 people. The global sales of ETRMA's corporate members represent 70% of total global sales and 7 out of 10 world leaders in the sector are ETRMA Members⁴. We have a strong manufacturing and research presence within the EU and candidate countries, with 93 tyre-producing plants and 17 R&D centres.

⁴ ETRMA's membership include the following tyre manufacturers: APOLLO VREDESTEIN, BRIDGESTONE EUROPE, BRISA, COOPER TIRES, CONTINENTAL, GOODYEAR, HANKOOK, MARANGONI, MICHELIN, NEXENS Tyre Corporation, NOKIAN TYRES, PIRELLI, PROMETEON, SUMITOMO RUBBER INDUSTRIES AND TRELLEBORG WHEEL SYSTEMS. Furthermore, members include Associations in the following countries: Belgium, Finland, France, Germany, Hungary, Italy, the Netherlands, Poland, Spain and the UK.