

Comments

on EU Battery Regulation
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In General

The German Association of the Automotive Industry (VDA) represents more than 600 companies in the automotive industry - manufacturers of motor vehicles and their engines, set-ups, installations, containers and vehicle parts and equipment - which produce in Germany. The automotive industry is the highest-turnover branch and generated a revenue of more than 435 billion euros in 2019. Approximately 833,000 employees manufactured about 4.7 million cars in Germany - from 16 million cars worldwide. This does not include commercial vehicles (trucks and buses) produced by our member companies. Together we research and produce for a clean, safe, and sustainable mobility of the future.

The German automotive industry is fully aware of its responsibility throughout the entire cycle of a car's production and use. Therefore, the VDA supports the goal of the European Commission to reduce waste and foster the reuse of resources. All political initiatives should be directly linked to the primary goal of the European Union to achieve climate neutrality until 2050.

However, the European Green Deal and the European Directive on Waste must be considered in a differentiated way. The VDA recommends that electric vehicle batteries must be treated completely independently of other battery categories in a separate chapter. Existing legislation should be taken into account which is already being planned or revised, e.g. the End-of-Life Vehicles Directive.

The automotive industry is pioneer for circular economy

Due to the ELV Directive a high-quality, certified take-back and recycling network for ELVs has been established in Europe by car manufactures and its business partners. In this network take-back is free of charge for the last holder and an environment friendly treatment of ELVs is guaranteed.

The products of car manufacturers and suppliers are pioneer for circular economy and are benchmark for other industries due to

- high amounts of recycled steel and Non-ferrous metals in new vehicles,
- established remanufacturing processes with high volumes,
- very good reparability,
- longevity of their products and
- significant reduction of hazardous materials.

This will also apply for electric vehicle.

There is a need for a separate chapter on electric vehicle batteries.

The vehicle is placed on the market as a holistic product by car manufacturers and can therefore only be treated as a holistic product due to the manufacturer responsibility. This basic understanding is more current than ever because of the increasing complexity of the product.

Electromobility does not change this basic understanding. The distributors of electric vehicles are responsible for the whole vehicle. The electric vehicle battery is part of the electric vehicle, such as the internal combustion engine of the conventional vehicle. Without electric vehicle battery, the vehicle is not a vehicle. Without a vehicle, the electric vehicle battery is not a electric vehicle battery.

From the perspective of the automotive industry, the specificities of the vehicle must therefore also be considered on a regulatory basis. This applies in particular to electric vehicle batteries.

There are already many vehicle regulations (see overview) which can be reviewed in the context of electromobility or are currently being reviewed in the context of the European Green Deal.

The examples of legislation listed below should be considered in the dedicated chapter on electric vehicle batteries.

Topic	Directive / Regulation
Responsible Sourcing	Due Dilligence
Hazardous Substances	REACH + ELV
Carbon Footprint	International Standardisation; EU Fleet Regulation
Take back (incl. batteries)	ELV
Recycled Content	ELV
Recycling and recovery target	ELV
Performance and durability requirements	International Standardisation: UNECE EVE
SESS Safety	International Standardisation
Information and labelling	Car Labelling / Energy Consumption Label
Classification / Definition	Car Labelling / Energy Consumption Label

The new chapter on electric vehicle batteries must regulate the transition from a second life electric vehicle battery to a stationary, industrial battery.

For safety reasons, the Batteries Regulation must be in line with the ELV Directive to ensure that the electric vehicle battery after the end of life does not flow into uncontrolled routes, but is only sent to professional reuse.

We recommend that the electric vehicle battery has its own code number under 16 01 (End-of-life vehicles... and waste from the dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14, 16 06 and 16 08) and a specific code number for the industrial battery. This would make it easy to follow the transition.

Guiding principles for the revision of future regulations in context of electric mobility

Following guidelines should be taken into account for the above-mentioned regulation:

Promoting markets and innovation

We are committed to a rules-based economic policy. Our economic policy positions stem from the conviction that competition, ownership and open markets are the indispensable basis for individual and aggregate economic success driven by innovation and investment.

Take-back and treatment of ELVs is a self-sustaining business model today. The value of an ELV sufficiently covers the cost of all necessary treatment steps throughout the entire recycling value chain. Raw materials are highly valuable goods. Therefore, automotive manufactures have already established closed loops of materials, re-use, and re-manufacturing applications. This trend will be enhanced in the next years and will be boosted if the electric vehicle battery is – in a legal perspective of the ELV Directive – a component of the vehicle.

In addition, research and development must consider the complexity and the high requirements to vehicles. To ensure innovation and future reliability of passenger cars the industry depends on flexible use of advanced materials. Specific material recycling quotas or quotas for the use of recycled materials would contradict this approach.

Preferring European and international standardization over implementing acts

Specifications, developed by specific single stakeholder empowered via implementing acts, usually do not respect important principles such as “transparency”, “internationality” and “openness”. In general, VDA favours the usage of European and International standardization for the development of such supporting specifications. Standardization, based on the principles as given in Regulation 1025/2012 on European standardization, ensures not only those principles, but it also involves many stakeholders such as consumers, researchers, testing engineers and experts from different industrial areas. Thanks to this approach, standards are always representing the widest possible technical expertise, are in line with the market requirements and are consensus-based. Our industry is well prepared to supplement the battery regulation by standards as requested in the parallel standardization request (SReq). Nevertheless, the SReq connected to this regulation needs to be adjusted in a way that it supports the principles of design and technology freedom and provides more flexibility for the content of those future standards.

Protecting intellectual property

The prerequisite for innovation is the protection of intellectual property. Existing information needs transparency requirements and must always be consistent with the protection of intellectual property. This consistency is endangered if, for example, there is a need to disclose the battery management system to any actor (“independent operator”). This is also extremely worrying in the context of cyber-security debates.

Regulation must promote the achievement of climate objectives

The differentiation of batteries is an important driver for the development of electromobility in terms of range and cost. With a battery regulation, there is a risk that this possibility of differentiation will be severely limited and that electric vehicles will not develop according to their performance criteria and according to the demand of potential users of electromobility. However, the upscaling of electro-mobility is essential to achieve the European Commission’s very ambitious climate targets in 2030.

Consider functional unit of electric vehicle and electric vehicle battery

When regulating the carbon footprint or the end of life of an electric vehicle, the intended use must be taken into account in order to avoid mismanagement. The methodology must be transparent and comparable throughout the supply chain in terms of CO₂ footprint. It must be also capable to be connected to car manufacturers’ decarbonisation activities. In order to ensure comparability of international supply chains, the Product Environmental Footprint (PEF) methodology has so far been insufficient and needs to be further developed and harmonised with internationally standardised methods.

Considering the complexity and dynamic development of batteries

The electric vehicle battery is an extremely complex component of the electric vehicle with battery casings, cooling and heat technologies, battery management system, battery modules and battery cells that are subject to rapid development cycles. In the last 5 years alone, cell chemistry has changed radically. This complexity and dynamics must be considered when establishing material-specific quotas, recycling rates, take-back systems or transition to second-life applications.