

EGMF & EPTA POSITION PAPER

The garden, outdoor power and power tools industries have already implemented main principles of the EU circular economy policy

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Garden and outdoor power equipment and power tool manufacturers share with households, municipalities, landscapers and greenkeepers the responsibility for green area maintenance, which improves life quality. Being close to nature, we fully recognise that our job and business fully depend on the protection of the environment. Therefore, our industries push the boundaries regarding the overall environmental impact of our products and their use.

Quality, safety, efficiency and environmental performance are key priorities for EGMF and EPTA and their members. Indeed, garden and outdoor power equipment as well as power tools manufacturers are deeply committed towards achieving ever-more sustainable and innovative production systems. Our industries are continuously striving to develop and adopt technological solutions to have the lowest possible negative impact on the environment and to preserve our natural resources. EGMF and EPTA members are compliant with European legislation on safety, ergonomics and the environment, and work hard towards integrating circularity principles in their production.

EGMF and EPTA members support the overarching objectives of the EU circular economy policy and already implement these as part of our daily processes. Within this paper we aim to showcase our shared practices for making our products more sustainable addressing:

- Design of durable and reliable products
- Application of material efficiency and hazardous substances substitution
- Limiting noise and exhaust emissions
- Reparability and extending product lifetime
- Integrating recyclability and safe waste management aspects at the design stage
- Limiting packaging and its impacts
- New business models

1. Our industries design durable and reliable products

Garden machinery and power tools are designed to be durable with **long life** expectancies. Furthermore, manufacturers strive to have interchangeable parts, compatible with old products. This allows for the **upgrading of products** and cost reductions for manufacturers and consumers.

Furthermore, the consumables of the power tools industry, such as drill bits, are designed so that they may be interoperable with other products of the same product category from different brands in the industry.

Several components of the garden equipment are covered under the **Ecodesign Directive (2009/125/EC) and its implementing measures**, including electric motors. This means that many EGMF products are developed to deliver low energy usage while reaching high performance standards. Power tools that are outside of the scope of ecodesign measures are switching from AC to DC motors in order to reduce their energy usage, while safeguarding the efficiency of products.

Furthermore, most companies within our industries offer an **interoperable battery system** that allows the consumer to use the same battery and battery charger for different types of equipment within the same brand. For example, some manufacturers offer solutions allowing tools within a specific voltage segment (e.g. 18V or 36V) to be operated by one battery. This approach allows for a more efficient use of battery systems and resources. It also reduces consumer costs since there is no need to buy additional batteries for subsequent equipment.

On the one hand most garden and outdoor power equipment are only used a few times per year on a seasonal basis, from spring to autumn. On the other hand, most power tools have an interval usage. For example, in a construction site, tools such as drills are used only for a few minutes within an eight-hour working day.

1.1 Our industries apply material efficiency and substitute hazardous substances

EGMF and EPTA fully support the EU's chemicals policy and its overall objective to protect the health of European citizens, wildlife and the environment, including the proactive substitution of hazardous substances when alternatives are available.

For example, the garden and outdoor power equipment industry has been proactively working on a substitution strategy for chromium trioxide. Companies are already using available alternatives to the greatest extent for surface treatment. Processes using hexavalent chromium are replaced by alternative processes for surface treatment before painting and corrosion protection. Certain uses for which there are no suitable alternatives to provide the required high level of quality, performance, durability and safety benefit from exemptions under the RoHS Directive.

Moreover, garden, outdoor power equipment and power tools are already subject to various legislative controls, notably the REACH Regulation ([1907/2006/EC](#)) and the RoHS ([2011/65/EU](#)) and Batteries ([2006/66/EC](#)) Directives. We would welcome increased synergies between the different legislations in order to improve the consistency of measures and objectives.

1.2 Outdoor power equipment has limited noise and exhaust emissions

Garden and outdoor power equipment is designed to have limited noise and exhaust emission levels. Indeed, our equipment is subject to legislation such as the **Regulation on exhaust emission for non-road mobile machinery (2016/1628)** and the **Outdoor Noise Directive (2000/14/EC)** with ambitious requirements to make European mobile machines the quietest and cleanest in the world.

The new state of the art 'Stage V' exhaust emission levels enshrined in the Non-Road Mobile Machinery gaseous and particulate pollutant emission Regulation is set to reduce exhaust emissions even further by setting stricter limits, by introducing particulate number limits, and by extending the scope of the Regulation to additional power categories - i.e. those with a reference power of < 19 kW and > 560 kW, for spark-ignited engines (SI) and compression-ignition engines (CI).

2. Our industries offer reparability solutions to extend our product lifetime

The majority of EGMF and EPTA products are easily **reparable** using spare parts supplied by the manufacturer for a number of years after the placing the product on the market. Depending on the machine, some repairs can be done directly by the consumer following the requirements and instructions contained in the manufacturer's manual, whereas professional workers or dealers must perform repairs that are more complex in order to ensure the safety of consumers. Furthermore, articles are easy to disassemble in order to facilitate the repair, most articles make use of fasteners and not glued housings.

The availability of spare parts is of utmost importance for the garden machinery and power tools industries as it is for other sectors such as the engineering, automotive and aerospace industries. For example, the garden machinery industry and power tools industries produce spare parts to ensure proper repair, re-use and upgrade of the 49 million products placed yearly on the European market. This covers the public procurement, professional and consumer equipment areas. Furthermore, most equipment is designed to have a long lifetime. All these measures combined contribute to extend product service life.

Professional equipment managed through **commercial services** is maintained via periodic inspections to assess the need for repairs, changing spare parts, and overall maintenance of the equipment.

3. Our industries already integrate recyclability and safe waste management aspects at the design stage

Consumers can ensure that once their product becomes waste it will be properly treated by depositing it in their nearest recycling station, or by bringing it to the retailer when purchasing a new product.

Most products can be easily **disassembled**, and there are ongoing efforts to ensure that recyclable materials such as plastics are properly **marked for recycling**. Many manufacturers have embossed letters or numbers in injection moulded parts to identify the materials built into equipment in order to simplify recycling. Although this is not always possible for particularly small components. However,

for some products where disassembly is difficult, some manufacturers have cooperated with waste handlers to obtain their feedback on best-methods to remove or detach some product components such as batteries. However, we caution against including product design requirements in end of life legislation.

4. The packaging and its impacts are bared to the minimum

The garden machinery industry is strongly committed to keeping plastic **packaging to a bare minimum**. This goal is maintained for example by avoiding the use of non-recyclable polystyrene foams. The main packaging is generally controlled by robust specifications dictated by the manufacturer – normally using recyclable or biodegradable materials such as cardboard, wooden boxes and reusable packaging systems.

Furthermore, companies from both sectors develop the design for the product and packaging in parallel as a measure to obtain the optimal balance between product design and packaging and transportation needs. In addition to that, some companies design first the packaging before the product, as a means of minimising resource consumption, the size of packaging required, and increasing the number of products that can be transported. Companies offer durable transport cases designed to protect the product during its entire life time, resulting in reduced packaging waste and economic savings for companies.

5. New business models will be implemented in the garden and outdoor power industry

Digitalisation offers various new opportunities for the sector. Interconnectivity with different applications and **software upgrades** allow different equipment to be periodically updated and enhancing performance, such as for robotic lawnmowers and DC motors. Software upgrades allow consumers to benefit from the latest state-of-the art functionalities without having to purchase an entire new product to enjoy the same services and functionalities.

New services are arising through the **sharing economy**, such as rental services for products which have low annual uses. For example, some companies are currently testing business models inspired by the sharing economy by which customers can check the availability of equipment through a mobile phone app and pick-it up in target locations for short periods. The purpose is to enable smarter and more efficient services for consumers while minimising resource consumption.

Although Product-Service Systems (aftersales services, leasing, pay per service unit, etc.) are still rare today, they might play a more prominent role in the future in the transition to a circular economy of our sectors.

6. Technology trends in the garden machinery and power tool market

Our sectors are experiencing a relatively new trend on the European market: the development of cordless electric equipment. The share of battery products has increased significantly over the last decade, notably due to the placing on the market of innovative equipment. In fact, our industries are very innovative: we spend more in R&D than the EU average.

Battery products account for half of the sales from the power tool industry with a growing tendency for cordless solutions. The share of battery equipment in the garden machinery industry is also increasing every year and now represents almost a quarter of the market.

However, a complete switch to electrically powered cordless products only is currently not technically possible. The introduction of the battery technology in the professional ground maintenance area is subject to the condition that the equipment has an equivalent performance to internal combustion engine powered products. This is not the case today and, despite significant progress, will not be the case in the very near future.

It should be noted that batteries are not completely suited for all types of activities, hampering thus the full transition to batteries. Batteries require a stationary power source for recharging and are highly sensitive to extreme climate and temperature conditions.

Moreover, the energy content of a battery does not match the energy content of petrol/diesel at equivalent weight. While the battery technology offers a weight reduction of the overall equipment, the product performance is limited. The overall equipment performance depends on the quality of the battery, notably cells, and the charger technology. EGMF however acknowledges that more powerful and efficient batteries are under development.

In addition, not all machines will be battery-powered due to cost considerations. Battery-powered garden equipment is usually two to three times more expensive than the equivalent corded or internal combustion engine powered machine. Recovering the initial investment might prove almost impossible over the life span of some specific types of products, notably rarely used tools and short lifetime equipment. Batteries offer significant benefits for users: a battery-driven equipment is easier to start up, recharge and service. Due to these benefits for consumers, market demand has increased. In addition, batteries do not produce local exhaust emissions.

In conclusion, all currently competing technologies – internal combustion engine, electric corded and battery - offer both advantages and disadvantages that need to be assessed according to the specific needs of the users.

Therefore, the European legislative framework should remain technology neutral, and not impose or discriminate against a particular kind of technology. We believe that the European market should not be distorted or hinder innovation by overregulation that could jeopardize jobs growth and competitiveness. Instead, the European legislative framework should emphasize the consideration of full life-cycle impacts, from the extraction of raw materials to production, use and end of life, to allow valid comparisons between different current and future competing technologies.



EGMF

The European Garden Machinery Federation represents the manufacturers for garden, landscaping, forestry and turf equipment. Our 30 corporate members and 7 national associations are responsible for employing 120,000 people in the EU, and in 2017 sold over 18 million units in the European Market.

For further information please visit www.egmf.org or contact us at secretariat@egmf.org.

EPTA

The European Power Tool Association was formed in 1984 to represent the interests of European power tool manufacturers. The 27 EPTA members represent approximately 20.000 employees in Europe and around 85% of all corded and cordless electric hand -held power tool sold (in value). Power tools are used by professionals, skilled tradesmen and DIY (do it yourself) consumers. The industry's EU annual power tool sales is around €6bn.

Further details can be found at www.epta.eu.