The Batteries Industry is essential to the EU.

A reliable alternative to the PFAS restriction proposal is needed.

RECHARGE - The leading voice of the advanced rechargeable and lithium batteries industry in Europe - is calling for an urgent decision by the Commission to exclude batteries from the ECHA PFAS restriction scope. Batteries are essential in reaching Green Deal targets and for the functioning of society, and the length of the ECHA PFAS restriction proposal process is detrimentally impacting investment decisions and the development of a European batteries industry and its value chain.

RECHARGE

Batteries are essential.

To achieve EU Green Deal objectives, the European Commission has identified batteries as a strategic value chain - 'Batteries are thus an important source of energy and one of the key enablers for sustainable development, green mobility, clean energy, and climate neutrality'[1].

The EU battery industry and its value chain hold significant importance:

- Two out of five Important Projects of Common European Interest (IPCEI) are dedicated to batteries[2].
- Batteries are one of only three clean energy technologies deemed of highly strategic importance, alongside solar and wind[3].

They are essential to the functioning of society:

They power a wide range of applications such as smartphones, tablets, power tools, hearing aids, defibrillators, safety lighting in public buildings, and provide many services to industry such as back-up power for mission critical industrial assets including nuclear power plants and internet data centres. Battery storage helps renewable generators reliably integrate with existing grids by storing the excess generation and by smoothing the energy distribution. The battery industry is also responsible for generating significant economic growth.

Batteries:

- Power general public applications – smartphones, tablets, power tools, hearing aids & defibrillators.
- Power industry – battery energy storage systems (BESS), emergency alarm systems & remote IoT applications, back up power for industrial assets such as nuclear power plants & internet data centres.
- Power mobility solutions - EVs and LMTs.

PFAS in batteries are essential

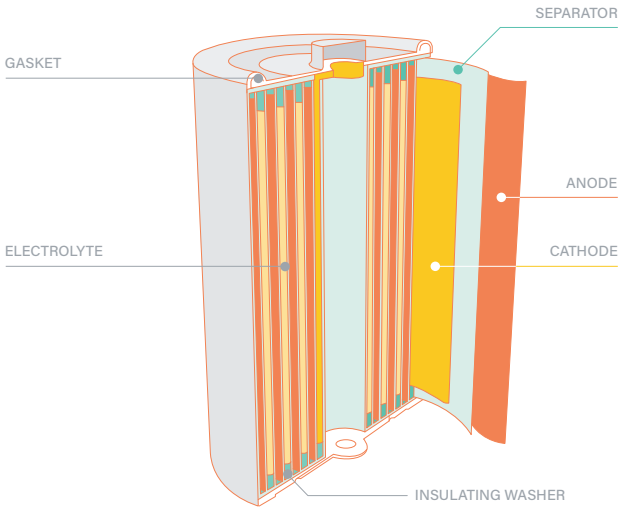
Their unique properties are critical and irreplaceable to the functioning of batteries - they are repellent (to water, oil and dirt); durable (under extreme conditions) and provide electrical and thermal insulation. As a result of their chemical resistance and tolerance to a high range of working temperatures, PFAS are present in key components for all high performance and lithium battery technologies (Figure 1).

Emerging non PFAS battery technologies

RECHARGE welcomes organisations that are exploring and/or have developed non PFAS alternatives in batteries. However, it is crucial to note these batteries cater to lower performance applications such as some stationary energy storage markets, which represent a minority in the battery industry. Any global transition is expected to take longer than the derogation limits set out in the ECHA PFAS Restriction proposal.

Figure 1:

KEY COMPONENTS WHERE PFAS ARE FOUND IN HIGH PERFORMANCE AND LITHIUM BATTERY TECHNOLOGIES



1 Page 1, Batteries Regulation (EU) 2023/1542. https://eur-lex.europa.eu/eli/reg/2023/1542/oj
2 COM(2023) 62 final – A Green Industrial Plan for the Net-Zero Age. https://commission.europa.eu/system/files/2023-02/COM_2023_62_2_EN_ACT_A%20Green%20Deal%20Industrial%20Plan%20for%20the%20Net-Zero%20Age.pdf
3 ENTEC report on supply chain risks in the EU's clean energy technologies (October 2023). https://energy.ec.europa.eu/publications/supply-chain-risks-eus-clean-energy-technologies_en

Handling of PFAS in batteries is safe.

Safety considerations of the PFAS restriction

RECHARGE supports efforts to restrict PFAS posing unacceptable risk to human health or the environment, at EU wide level and understands the concerns raised by the regulatory action of the PFAS restriction proposal.

A batteries exclusion is safe

PFAS in batteries do not pose an unacceptable risk to human health or to the environment.

There are no uncontrolled or unintended PFAS emissions during battery manufacturing, normal use and during recycling. For example, analysis shows that PFAS emissions during battery manufacturing are negligible (wastewater samples analysed during battery manufacturing confirm there is no detectable emission of PFAS to the environment).

Safe handling of substances incorporated in batteries results in no exposure to workers during manufacturing and recycling. There are also no PFAS emissions from any type of battery during normal use.

Alternative proposals to manage PFAS within EU legislation

In Europe, any release of emissions from battery manufacturing and recycling operations is controlled and must be below regulation threshold limits set by the Industrial Emissions Directive (IED) (2010/75/EU) preventing and limiting levels of pollution.

Under the EU Green Deal (EGD) this Directive is in the process of being amended with a proposal released last year (COM(2022) 156 final/3) addressing PFAS limits and clarifying requirements for reviewing and updating permits to comply with environmental quality standards, measures under the water legislation permits as well as reducing emissions of pollutants and greenhouse gases emissions. Also, the Chemicals Strategy for Sustainability Towards a Toxic-Free Environment directly addresses the production of safe and sustainable chemicals for batteries.

In addition, the new Batteries Regulation ((EU) 2023/1542) addresses the different environmental impacts of batteries in one regulation. Article 6 will identify specifically the substances of concern.

Alternative proposals to manage PFAS

PFAS management should also be more coherent with other non-EU approaches which are more relevant when it comes to focusing on the real sources of risks, such as the UK RMOA[4] or the US EPA's PFAS Framework[5].

4 Analysis of the most appropriate regulatory management options (RMOA). Substance name: Poly- and perfluoroalkyl substances (PFAS) (March 2023). https://www.hse.gov.uk/reach/assets/docs/PFAS-rmoa.pdf

5 Framework for Addressing New PFAS and New Uses of PFAS (US EPA). https://www.epa.gov/reviewing-new-chemicals-under-toxic-substances-control-act-tsca/framework-addressing-new-pfas-and

An urgent decision to the ECHA PFAS restriction is needed.

Investments and growth being jeopardised

The EU is projected to become the world's **second biggest battery cell manufacturer** by the end of the decade[6]. This will require 800,000 workers by 2025[7]. Also, the installation and maintenance of batteries as well as end of life recycling could potentially create between 3-4 million jobs by 2025[8].

The European Battery Alliance estimates the market will have an annual value of up to €250 billion by 2025.

3-4 million jobs by 2025

€250 billion annual value by 2025

However, the ECHA PFAS restriction proposal itself is creating high uncertainty for the battery industry.

The current ECHA proposal is now:

- Limiting the Green Deal in achieving its objectives & preventing Europe from achieving a net zero economy by 2050
- Diverting battery value chain investments away from Europe
- Inhibiting the growth of renewable energy & electrification of transport

Decision urgency

In order to meet demand, batteries must be excluded from the PFAS restriction. This is:

- to avoid further investment being diverted away from the EU
- to allow the industry to become a global competitor
- to stay on track with reaching EU Green Deal and climate neutrality objectives

An exclusion of batteries from the PFAS restriction scope will allow the industry to become a global competitor and to deliver on the EU Green Deal objectives and a net zero economy.

6 A European Response to the US Inflation Reduction Act, T&E report (January 2023). https://www.transportenvironment.org/discover/a-european-response-to-us-inflation-reduction-act/

7 SWD (2021) 307 final - Progress on competitiveness of clean energy technologies. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=SWD:2021:307:FIN#footnote114

8 Entwicklung und Umsetzung eines Monitoringsystems zur Analyse der Akteursstruktur bei Freiflächen-Photovoltaik und der Windenergie an Land (2021). https://www.umweltbundesamt.de/sites/default/files/medien/5750/publikationen/2021-06-28_cc_49-2021_monitoringsystem_akteursstruktur_wind_pv.pdf

Impact of a PFAS restriction without an exclusion of batteries from its scope.

A PFAS restriction for batteries will impact our society. Here a few key examples:

STOP the sales of life saving equipment such as defibrillators, pacemakers, emergency alarm systems and safety backup systems in planes, trains, metros.

STOP the use of everyday personal appliances such as smartphones and laptops.

STOP the growth of investment & jobs in Europe.

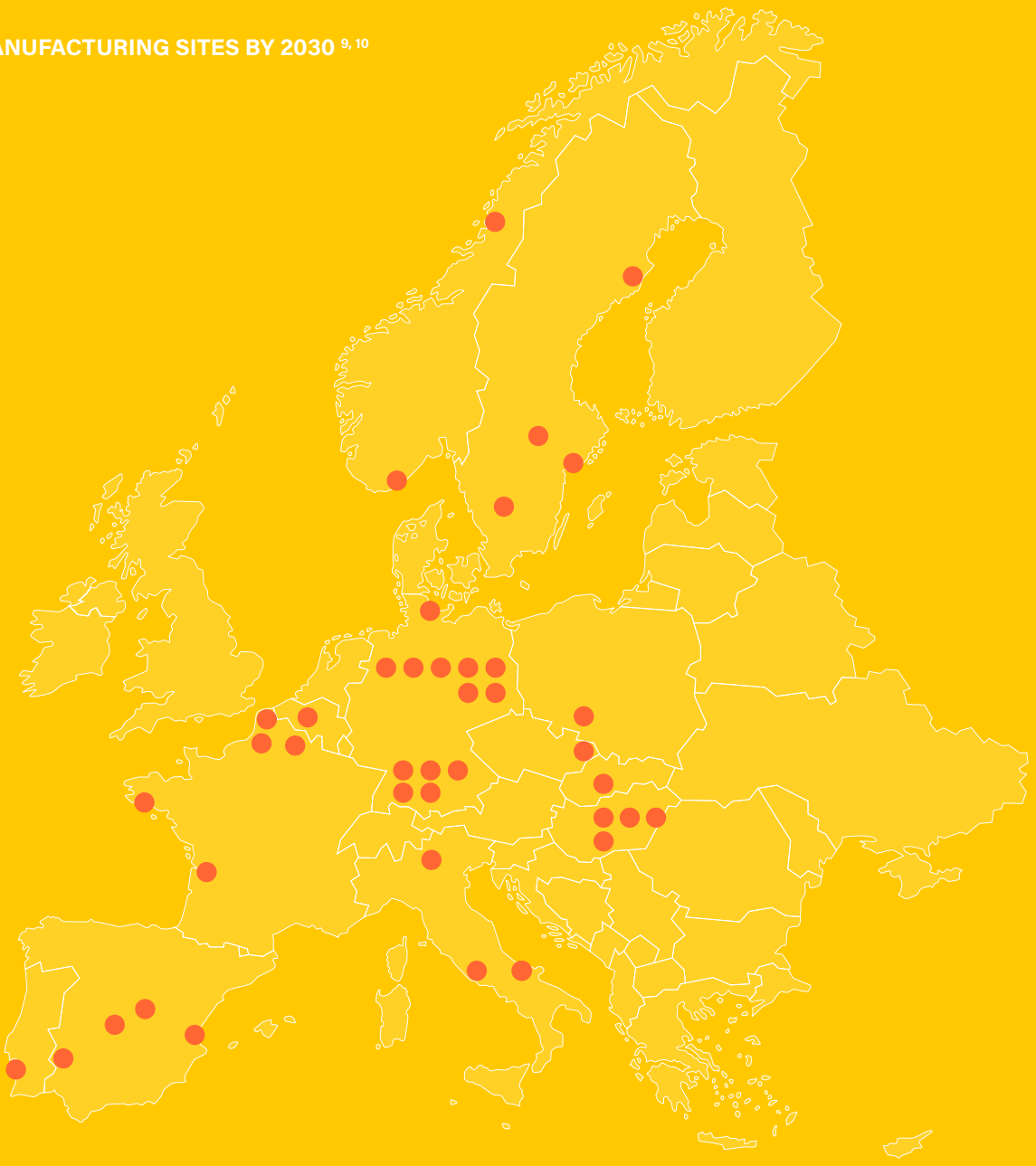
STOP the transition to electrification of mobility.

INHIBIT the growth of renewable energy.

STOP the EU's digital transition .

Figure 2:

BATTERY CELL MANUFACTURING SITES BY 2030 [9, 10]



An exclusion of batteries from the scope of a PFAS restriction, will allow the European batteries industry to become a global competitor and to deliver on the EU Green Deal objectives – making sure Europe is not left behind!

9 Based on Figure 2, IPCEI Market Analysis Q4 2022. https://www.ipcei-batteries.eu/fileadmin/Images/accompanying-research/publications/2023-02-BZF_Kurzinfo_Marktanalyse_Q4_22-ENG.pdf

10 Based on Figure 3, Special report, The EU's industrial policy on batteries, New strategic impetus needed. European Court of Auditors (June 2023). https://www.eca.europa.eu/en/publications/SR-2023-15

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