

Preserving the Environment and Industrial Capacity

FEDIL Position – A Luxembourg Perspective on PFAS Restrictions

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Introduction

This paper presents FEDIL's position on the future regulation of PFAS from the perspective of the Luxembourg industry. As restrictions are being assessed at EU level, Luxembourg will need to define its position on the scope of future measures, possible derogations, transition periods and implementation conditions.

FEDIL aims to contribute to this discussion by highlighting the key regulatory choices ahead and their implications for the Luxembourg industry, including where premature restrictions could put industrial activity, employment and strategic capabilities at risk.

The objective is to support a regulatory approach that delivers meaningful environmental benefits while remaining proportionate, workable and compatible with the competitiveness of the Luxembourg and European industry. The position therefore focuses on the need for differentiated treatment of industrial uses, a predictable European framework and close cooperation between industry and the Luxembourg authorities.

1. PFAS in the Luxembourg industry: limited but technically important applications

Luxembourg's industrial sector fully recognises the regulatory and scientific debate associated with certain per- and polyfluoroalkyl substances (PFAS). As restrictions are being assessed at EU level, FEDIL supports reducing avoidable emissions and substituting PFAS where safe and technically viable alternatives exist. Protecting workers, consumers, and the environment remains a core subject for industry.

PFAS use in the Luxembourg industry is targeted and concentrated in a limited number of technically demanding applications. FEDIL members rely on PFAS where their combination of chemical and thermal resistance, durability and sealing performance remains difficult to reproduce. These applications support safety-critical value chains including aerospace, medical technologies, transport and energy, as well as specialised industrial and chemical production. In such sectors, material failure can have consequences well beyond reduced product performance: it can affect containment, equipment integrity, operational reliability and ultimately human safety. **Replacing PFAS with materials that do not meet the required performance standards can therefore introduce new risks rather than eliminate them.**

Substitution is therefore not always a simple one-to-one replacement. It will require the development and qualification of new materials, industrial trials, equipment adaptation and, where relevant, customer or regulatory approval. For most PFAS uses identified in the Luxembourg industry, substitution is not currently feasible within a short timeframe, either because suitable alternatives are not yet available or because they still require substantial development and qualification.

The regulatory challenge is therefore to distinguish between applications that can be substituted within a realistic timeframe and those for which viable alternatives are not yet available. An effective framework should enable substitution where feasible, while providing sufficient transition time or targeted derogations for technically critical uses until suitable alternatives can be developed and qualified.

2. PFAS use does not automatically translate into environmental pollution

The presence of PFAS in an industrial product or process does not in itself determine its environmental impact. A distinction must be made between **the use or presence of a PFAS, its potential release from industrial activity, subsequent environmental exposure, and the resulting risk**. These elements can differ substantially from one application to another.

This distinction is particularly relevant for Luxembourg's industry, where PFAS are, for example, used in seals and linings in industrial equipment and in specialised films or coatings, incorporated into manufactured components. In such applications, the PFAS is embedded in a solid material rather than used as a readily dispersible process chemical. Its presence therefore does not automatically lead to release during normal operation. Potential emissions depend instead on the specific use and lifecycle stage, with particular attention needed during maintenance, waste treatment, or end-of-life. This illustrates why the environmental relevance of PFAS must be assessed based on actual release pathways, not presence alone.

Further, Luxembourg industrial operators manage PFAS-related risks according to the **specific application and lifecycle stage** concerned. Measures include contained processes, controlled handling of waste and end-of-life materials and, where relevant, wastewater and air-emission monitoring.

PFAS regulation should therefore not treat the presence of a substance as equivalent to environmental pollution. Regulatory assessment should focus on actual releases and exposure pathways while accounting for existing safeguards. This would allow policy to distinguish between controlled industrial uses with limited release potential and applications that contribute materially to emissions, and to concentrate regulatory action where it delivers the greatest environmental benefit.

3. An undifferentiated restriction could create major industrial impacts without eliminating PFAS use

Premature PFAS restrictions could put substantial parts of Luxembourg's industrial activity at risk. For several FEDIL members, PFAS-dependent activities represent **around half of their business**, while in one particularly exposed case they are involved in **almost the entire product portfolio**. If critical uses are restricted before viable alternatives are available, companies foresee serious losses in competitiveness, reductions in production capacity and employment, and potentially the discontinuation of activities. Members' feedback indicates that the potential employment impact can be very substantial, with estimates reaching around 40–50% in exposed activities.

The wider European consequence is equally important. Restricting critical industrial use does not remove the underlying demand for the function it performs. Where viable alternatives do not yet exist, production and investment may instead shift outside Europe and the same PFAS-dependent products may subsequently be imported. Europe would then lose **industrial capacity, know-how, investment and employment without a corresponding reduction in global PFAS use or emissions**. At a time of growing geopolitical tensions, this would also run counter to the EU's objective of strengthening its **industrial resilience, defense capabilities and strategic autonomy**. Before restricting critical uses, policymakers should therefore understand which industrial capacities and strategic value chains depend on them, whether viable alternatives exist and what environmental benefit a restriction would actually deliver.

FEDIL thus calls for a proportionate, differentiated approach based on an exhaustive prior mapping of critical uses, release profiles, substitution potential, and economic and strategic exposure. Restrictions should focus on uses for which viable substitutes exist and where they deliver a clear environmental benefit. Where substitution is not yet

technically feasible, sufficient transition periods or targeted derogations are necessary to avoid the unnecessary loss of industrial capacity, know-how and employment in Luxembourg and Europe.

4. A predictable European framework for industrial transition

The preceding chapters show that PFAS uses in Luxembourg industry's differ significantly in their technical necessity, release profile and substitution potential. Regulation should reflect these differences while providing industry with a clear and predictable pathway towards substitution. For the Luxembourg industry, three elements are essential:

- A harmonised European framework,
- Renewable derogations where viable alternatives do not yet exist, and
- Equivalent treatment of competing imports.

A harmonised European framework

Luxembourg should address PFAS restrictions through a **common EU framework**, rather than through unilateral national measures. The Luxembourg industry operates within European and international value chains, and divergent national requirements would create different competitive conditions within the Single Market, complicate investment decisions and add regulatory uncertainty.

FEDIL members strongly support a harmonised European approach. Luxembourg should therefore actively contribute to shaping the EU framework, particularly on the scope of restrictions, derogation criteria, transition periods and implementation conditions. National measures should complement, not pre-empt or fragment, the European framework.

Renewable derogations where alternatives do not yet exist

Where viable alternatives are not yet available, use-specific derogations must provide sufficient time for substitution and remain renewable where the conditions justifying them continue to apply. This is particularly important for concerned Luxembourg companies: several technically critical applications would require long development and qualification periods, with some companies estimating ten to twelve years, while others cannot yet identify a realistic substitution timeline.

Derogations should therefore be based on clear criteria, including the availability of alternatives, technical and safety requirements, release profile and the economic and strategic consequences of prohibition. They should be subject to periodic review rather than fixed expiry dates disconnected from technological progress. Where no viable alternative has emerged, continued renewal must remain possible. Proportionate monitoring, reporting or substitution plans can accompany such derogations where they contribute meaningfully to reducing environmental risk.

Equivalent treatment of imports

PFAS restrictions must ensure equivalent treatment of European production and competing imports. Requiring EU manufacturers to eliminate a PFAS-dependent application while allowing products containing the same substances to enter the European market would undermine both the environmental objective of the restriction and the competitiveness of European industry.

Where Europe requires substitution for a particular application, equivalent requirements should therefore apply to relevant imported products, components and articles placed on the EU market. PFAS regulation should reduce the environmental footprint of products consumed in Europe, not merely relocate their production outside Europe.

5. A trusted framework for cooperation with Luxembourg authorities

The Luxembourg industry is prepared to cooperate with the authorities to improve the understanding of PFAS uses, potential release pathways and substitution possibilities. FEDIL members are willing to provide general information on industrial uses and, where appropriate, more detailed data on volumes, economic exposure or monitoring. This will help ensure that regulatory decisions reflect the realities of Luxembourg industry.

Such cooperation must, however, recognise that information on processes, substances, production volumes, suppliers, customer applications, substitution projects or investment decisions can be commercially sensitive. The more detailed the information requested, the clearer its purpose and protection must be.

FEDIL therefore calls for a trusted and structured framework for information exchange with Luxembourg authorities. Confidential business information should be protected, data used only for clearly defined purposes, and public reporting sufficiently aggregated or anonymised to prevent the identification of individual companies or sites.

FEDIL can act as an intermediary where useful, consolidating industry information and facilitating exchanges while protecting commercially sensitive data. This dialogue should continue as technologies, substitution possibilities and the European regulatory framework evolve.

FEDIL remains committed to providing the evidence needed for proportionate and workable PFAS regulation.

FEDIL - The Voice of Luxembourg's Industry

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