



Future-Proof and Prospering

How ESPR and **Chemicals Traceability** Benefit Business and Support the Green Transition

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Traceability of chemical substances means knowing the chemicals present in products and used during production. Traceability of substances thus [has been identified as a key enabler](#) for achieving the Green Deal goals of a sustainable and just transition. It is **common sense**: precisely understanding what products are made of should be the basis for assessing and reducing its impacts on the environment, human health, climate and social goals. Likewise, it is a precondition to achieve the **Circular Single Market** as put forth by the recent [Letta report](#) as well as for boosting [EU resilience](#) through enhanced reuse and recycling capacities.

In fact, legislation implementing the Green Deal seems to assume that industry already is capable of tracing all chemicals in their operations, since, without having this asset, chances to be fully compliant with legal requirements from e.g. chemicals, products or sustainability reporting legislation (see below) simply are getting close to zero.

The reality however looks different. Panic on the part of industry whenever new plans for chemical restrictions appear on the horizon tell a clear story about the persistent lack of awareness and control of chemicals in products. For instance, there have been severe data gaps on where to find PFAS in the supply chains when the restriction was [initiated](#), both slowing down the work of authorities and creating uncertainties in industries across the board.

With this note, echoing [demands from proactive downstream industries](#) and also reflecting current developments at United Nations' level [in the run-up to a global Treaty on plastics](#), Civil Society Organizations are calling on EU policy-makers to take measures to pave the way towards chemicals traceability. In particular, there is a need for a **distinct traceability strategy**, addressing the issue horizontally and taking into account the instruments and information needs of Union legislation. Such a strategy shall comprise:

- **strong regulatory incentives** regarding chemicals transparency, notably when implementing the Ecodesign for Sustainable Products Regulation (ESPR). This has to be complemented by
- **capacity building**, notably **in industries**, as committed to under the [2020 Circular Economy Action Plan](#).

Ambitious implementation of the ESPR alongside the introduction of chemicals traceability would be mutually beneficial when it comes to developing more sustainable and competitive products and industries.

Reality check - an inconvenient truth

Chemicals in products – a societal challenge calling for regulatory responses

The overshoot [planetary boundary for “novel entities”](#) (i.e. chemicals) illustrates how the chemical pollution crisis creates a societal task just as big and demanding as the climate and biodiversity crises. The [World Bank reports](#) that in 2019 exposure to lead alone caused the premature deaths of more than 5.5 million people globally. At the same time, massive amounts of [human biomonitoring data on harmful chemicals](#) in the European population show that our bodies are dangerously polluted, and European citizens are [deeply concerned](#) about the impact substances present in everyday products can have on their health and the environment. After all, [“chemicals are present in more than 90% of manufactured goods”](#). Against this backdrop, the Union's legislative framework finally lifts chemicals right where they belong: at the centre of regulatory attention.

Legislative focus on chemicals – no longer feasible to not know what chemicals are in products

To step up regulatory governance, EU policies make increasing use of references to dynamic substance lists, i.e. which are evolving also after the framework legislation enters into force. Such frameworks not only refer to specific substances but also to legal classifications based on chemical hazard properties,

often subject to constant update and change. It means that companies have to be prepared that the **legal status of their products** containing these substances may change at any time.

Substances of Very High Concern (SVHCs), created through REACH, are one of the pioneers of this rationale, with an update of the [SVHC list](#) every six months, which triggers immediate reporting obligations.

In terms of coverage, SVHCs can only be outshined by Substances of Concern (SoC), a concept introduced by the [Chemicals Strategy for Sustainability \(CSS\)](#) comprising all SVHCs and adding to that an extended list of substances that receive harmonized classification under CLP as well as those that may impede re-use and recycling. The Corporate Sustainability Reporting Directive (CSRD), which entered into force in 2023 and requires Member States to implement its provisions into national law by 6 July 2024, is one of the first legal instruments to oblige companies across the board to identify and report on all SoC (per volume) in their products and operations. After all this applies to companies in scope of the CSRD which consider chemical opportunities and risks as “material” for their operations.

Banning chemicals in groups is another dynamic and thus effective approach employed by policy-makers. The [microplastics restriction](#) that entered into force in October 2023 is one example, so is the “Universal PFAS” restriction of potentially thousands of chemicals currently being prepared at EU level. Similarly, generic bans are used by some legal instruments e.g. the Toys Directive “automatically” restricting all substances classified as CMRs in products – and the CSS sets out to introduce more generic bans in “*consumer products – including, among other things, food contact materials, toys, childcare articles, cosmetics, detergents, furniture and textiles*”.

Benefits for industry - Knowing the substances in products helps companies meet existing legal and contractual obligations and to prepare for future more ambitious requirements. Traceability implies a (cross-)sector effort. Such harmonisation reduces burdens on all supply chain actors, as data prepared for one business partner can be used for other transactions as well. As traceability enables more automated data transfer, multiple use of data sets, and reduced testing needs it unlocks cost savings. A UNEP 2014 report “[The Business Case for Knowing Chemicals in Products and Supply Chains](#)” highlights that active strategies in managing chemical information create long-term value, while passive approaches lead to hidden liabilities and reputational damage. Not least, traceability enables innovation in greener products and thus increases competitiveness.

While there is at least [limited knowledge](#) about the SVHCs used in supply chains, companies are wondering where to find that information for the other substance classes of SoC or for substances subject to restriction initiatives which are neither SVHC, nor SoC.

Placing products on the market without knowing which chemicals are inside is like performing surgery without medical education. Non-compliance with the obligations outlined above may ensue severe financial, reputational, up to [criminal](#) sanctions, while investors [increasingly ask](#) for the chemical portfolios, and [insurers](#) are rethinking coverage of chemical risks.

Companies therefore – literally – cannot afford not to know the chemicals in their operations.

What needs to happen NOW

Traceability – a prerequisite for manageable chemicals management

Traceability of chemicals refers to the possibility to trace back which chemicals are present in which component of an article, or were used during production. In its most comprehensive form, **full traceability** describes the concept of passing on information on material composition down to single substances level throughout the entire value chain (also referred to as full material declaration/FMD). In simple terms it means that companies are knowing the chemicals they are using in individual materials and products – the most natural thing, one should think. No more surprises, when new chemical restrictions are looming.

Benefits for Consumers - Traceability would be the foundation for trustful claims on a product's impacts and performance in terms of chemicals, both when companies try to fulfil legal information requirements or in their marketing. Products are also to become safer and more sustainable when companies better understand the chemical risks, which creates incentives for re-design.

Apart from full traceability, there may be other ways to ensure that legal requirements and customer expectations for chemicals are met. Companies can perform ad hoc research into the supply chains whenever the legal status of any chemical changes, they can invest in ever more chemical testing. These approaches however inevitably leave knowledge gaps and, hence, risks, and are moreover not cost-effective, especially taking into account mid-to long term costs in a dynamic regulatory landscape. Rather, full traceability can be seen as a prerequisite for proportionate chemicals management. That is why [some sectors such as the automotive industry](#) have successfully employed traceability (in this case: "almost FMD" within the supply chain) for decades, showing the technology (in this case: a material data system / MDS) is available. The majority of sectors, however, are still waiting.

ESPR - strong regulatory incentives for traceability

[Implementation of the ESPR has to create momentum for traceability](#), something the CSRD has not been capable of so far. ESPR performance requirements on chemicals, but most of all transparency rules on SoC will have a crucial role to play. The Commission has to make ambitious use of this toolbox. In the delegated acts to be adopted,

- all most harmful substances (that cause cancers, gene mutations, affect the reproductive or the endocrine system, persistent and bioaccumulative, affect the immune, neurological or respiratory systems and are toxic to a specific organ) have to be banned, which according to the CSS do not belong in consumer products, let alone "sustainable" products in the scope of ESPR.
- Reporting of all SoC must indeed be the norm while extremely limited use has to be made of "duly justified exemptions" (Article 7(6)(c)), whereas
- the widest possible interpretation of SoCs that negatively affect the re-use and recycling of materials in the product (Article 2(27)(d)) is warranted, also extending to substances not yet classified (e.g. in relation to products that are very long-living and for which it cannot be estimated which chemicals present therein will impede re-use and recycling).

Benefits for re-use and recycling - Chemicals present in products can present a [major barrier](#) for the circular economy. The need for refurbishers and other end-of-life actors to have access to information on the chemical composition of products destined for reuse or recycling is recognised in the ESPR, in particular through a specific SoC category that points in this direction. However, only complete traceability of chemicals would make it possible to track the legal status of all chemicals contained in a material and thus create planning security for circular economy business models.

The Commission should also consider horizontal measures to enhance transparency of SoCs across wider groups of consumer products and to enhance transparency of compositions of substances and mixtures going beyond Safety Data Sheets (e.g. "[Enhanced Data Sheet](#)").

Capacity building - a [key prerequisite](#) for the traceability transition

Complementing regulatory efforts, the Commission has to "co-operate with industry to progressively develop harmonised systems to track and manage information on substances" – hence, delivering on a concrete commitment made in the 2020 Circular Economy Action Plan. This work would not have to start from scratch, as [technical recommendations](#) for cross-sectoral chemicals in products reporting are available, and ways to [overcome mindset blockades](#) and address justified confidentiality claims are being explored.

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