Rethinking EU Food Law: Addressing Slow Harm in the Age of Ultra-Processed Foods

The EU has long championed food safety as a pillar of consumer <u>protection</u>. From its origins in market harmonisation to the post-BSE shift toward consumer safety, the EU's food law regime has matured into a globally influential framework. Yet, as dietary landscapes transform, particularly with the dominance of ultra-processed foods (UPFs), it is increasingly clear that EU food law is ill-equipped to address one of the most insidious threats to public health: slow harm.

Slow harm refers to the gradual, cumulative damage caused by sustained exposure to harmful conditions or <u>substances</u>. In the context of UPFs, it encapsulates the chronic health effects linked to their long-term consumption—<u>obesity</u>, type 2 <u>diabetes</u>, <u>cardiovascular</u> disease, and <u>cognitive</u> decline, to name a few. While the General Food Law (<u>Regulation (EC) No 178/2002</u>) offers tools for addressing acute food hazards, it largely neglects the systemic, cross-sectoral risks associated with UPFs.

This post looks at that regulatory gap by analysing three interrelated issues: the limitations of the current hazard-based framework, the structural challenges in attributing responsibility for cumulative dietary harm, and the inadequacy of consumer information models. I argue that these dimensions together illustrate the need for a recalibrated approach to EU food regulation to be capable of addressing the realities of contemporary consumption.

Limited Food Law's Hazard Paradigm

The EU food safety framework defines food hazards as biological, chemical, or physical risks (Article 3(14) of the Regulation (EC) No 178/2002). Regulatory responses are designed around acute threats: contamination, spoilage, pathogens. This paradigm enables swift action, such as recalls and withdrawals of affected food products. But it also constrains the legal imagination, excluding slow harm from its scope. The result is a regulatory blind spot: UPFs, which contribute significantly to public health deterioration, are considered technically safe per current standard.

Although Article 14 of <u>Regulation (EC) No 178/2002</u> recognises long-term risks through the notion of "cumulative toxic effects," in practice this refers to chemical exposure from individual substances. It does not account for the broader dietary environment in which these foods are consumed, nor for the cumulative impact of UPFs across the market. A bottle of soda or a snack bar might individually pose no risk. But the structural embedding of such products in everyday diets leads to population-wide harm.

Another gap lies in the treatment of food processing itself. Extensive industrial processing reduces nutrient content, adds harmful compounds like acrylamides and advanced glycation end-products, and transforms food matrices in ways that affect digestion and <u>metabolism</u>. Yet none of these factors qualify as hazards under current EU definitions.

This oversight allows UPFs to be labelled and marketed as safe, despite <u>mounting</u> <u>epidemiological evidence</u> linking them to serious health conditions. Scientific bodies including the <u>World Health Organization (WHO)</u> have increasingly pointed to UPFs as a driver of the

global non-communicable disease burden. By failing to consider processing as a relevant risk factor, EU law remains tethered to an outdated conception of food safety.

Lack of Holistic Approach to Cumulative Effects of Harm

The EU's product-by-product regulatory <u>model</u> assigns responsibility to individual producers for ensuring that each food item is safe. Under this model, if a particular food product is found unsafe, the producer is expected to take remedial action. This approach is designed around the three categories of hazards outlined in the General Food Law—biological, chemical, and physical. In these cases, responsibility is clear and targeted: each producer is accountable for managing specific risks associated with their product.

However, this model falls short when it comes to addressing cumulative dietary harm. While individual products may comply with established safety standards, their combined effect—such as the excessive intake of sugars, trans fats, additives, and exposure to industrial processing—can generate adverse health outcomes over time. Unlike acute hazards, the aggregate risk from UPFs is diffuse. In effect, while product-level responsibility operates efficiently for discrete hazards, the cumulative harm arising from UPF consumption ultimately falls on consumers, who bear the health burden without corresponding avenues for redress.

Food additives provide a clear illustration of this gap. They are regulated through the <u>Food Additives Regulation (EC No 1333/2008)</u>, which assigns Acceptable Daily Intakes (ADIs) to individual substances based largely on animal testing and established safety margins. Yet, these ADIs do not take into account the <u>"cocktail effect"</u>—the combined impact of multiple additives consumed simultaneously. <u>Emerging evidence</u> suggests that such combinations may affect gut microbiota, endocrine function, and inflammatory pathways. Despite these concerns, EU law does not require testing for additive interactions nor compel the disclosure of additive quantities on labels. Consequently, the lack of a mechanism for assessing cumulative exposure leaves consumers unprotected from potentially significant long-term effects.

The Informational Paradigm: Burdening the Consumer

The EU's preferred solution to dietary harm is informed consumer <u>choice</u>. Regulations like the <u>Food Information to Consumers (FIC) Regulation (EU No 1169/2011)</u> mandate clear labelling, while the <u>Nutrition and Health Claims Regulation (EC No 1924/2006)</u> sets rules for on-pack messaging. These tools aim to empower consumers to make informed decisions to avoid harm.

But this empowerment assumes equal capacity among consumers to interpret and act on provided information. It ignores structural inequalities that shape dietary behaviour. Especially for lower-income groups, <u>food deserts</u>, time scarcity, and general economic precarity can limit access to fresh, nutritious food alternatives. Label reading is of little help if UPFs are the only affordable or accessible option. <u>Evidence shows</u> that these groups consume UPFs at higher rates, face greater exposure to their harms, and lack the resources to mitigate them.

Moreover, the informational model absolves regulators and producers of responsibility. By casting food harm as a matter of choice, it deflects attention from the systems and policies that normalise unhealthy diets, in this way entrenching health disparities.

Reimagining Food Regulation

Countries such as <u>Chile</u>, <u>Mexico</u>, and <u>Brazil</u> have moved beyond information-based approaches by adopting structural measures to limit the consumption of UPFs. These include front-of-pack warning labels, restrictions in schools, and dietary guidelines that explicitly discourage UPF consumption. These strategies shift responsibility away from individual consumers and towards systemic regulatory intervention.

The EU can draw from these models without abandoning existing legal principles. EU food law already contains underused tools capable of addressing slow, cumulative dietary harm. Article 14 of the General Food Law prohibits food that is "injurious to health"—a concept traditionally applied to acute risks posed by individual products. Yet it could be interpreted more broadly to encompass population-level harm resulting from chronic UPF consumption. This would enable regulatory action not only against isolated unsafe items but also against structurally harmful dietary patterns.

The precautionary <u>principle</u> provides an additional legal basis for intervention where scientific evidence is emerging but not yet conclusive. It permits protective action in the face of plausible health risks—particularly relevant in light of growing but still-developing evidence on the cumulative and interactive effects of additives, processing, and UPF consumption. Together, these principles could support a more forward-looking regulatory approach.

UPFs do not fit neatly into a framework designed to address discrete, short-term hazards. Yet their long-term effects are no less significant. Reform need not entail legislative overhaul. A revised application of existing provisions, combined with an expanded remit for the European Food Safety Authority, could allow risk assessments to address cumulative exposures, processing effects, and broader dietary trends. Recognising slow harm as a legitimate regulatory concern—and deploying the tools already available—would bring EU food law closer to its stated objective: ensuring a high level of protection for public health in a structurally altered food environment.