

Non-profit organizations as strategic arms of the food and beverage industry: Case studies in Europe

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Keywords: food and beverage industry, industry influence, astroturf organizations, public policy, conflict of interest

<https://doi.org/10.26596/wn.202516347-57>

World Nutrition 2025;16(3):47-57

Background

Ultra-processed foods (UPFs) are a key driver of Europe's rising rates of obesity and non-communicable diseases. Although the food and beverage industry (F&BI) often challenges policies to reduce UPF consumption, relatively little is known about how industry-supported nonprofit organizations (NPOs) influence science, public opinion, and policy-making.

Objective

This study examines selected European NPOs with ties to the F&BI to understand their structures, activities, and potential role in shaping public policy.

Methods

We conducted a narrative review of scientific publications, grey literature, organizational documents, media coverage, and official websites. We used an exploratory, purposive sampling approach to identify relevant NPOs and selected them based on three criteria: (1) Funding from F&BI sources, (2) F&BI representatives in management roles, and (3) Activities with a potential conflict of interest.

Results

Five European NPOs were identified: International Life Sciences Institute Europe (ILSI Europe), European Food Information Council (EUFIC), British Nutrition Foundation (BNF), Fundaci n Espa ola de la Nutrici n (FEN), and Austria's Forum Ern hrung Heute (FEH). These organizations receive substantial industry funding and share leadership with the F&BI. They also engage in research and public communication activities that appear to advance industry interests, for example by downplaying the health risks of UPF. In addition, some of these NPOs are represented in influential policy forums.

Conclusions

Some F&BI-funded NPOs function as "astroturf" organizations. While their industry ties are often not visible, these groups can shape public and scientific discourse and influence policy-making processes. Strengthening transparency policies and conflict-of-interest regulations, and increasing awareness among scientists, policymakers and the public are critical to protect public health.

INTRODUCTION

Unhealthy diets are a major driver of obesity and noncommunicable diseases (NCDs) such as cardiovascular

disease, type 2 diabetes, and cancer (Adolph and Tilg 2024; Lara-Castor et al. 2025; WHO 2022a, 2022b, 2023b). In Europe

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obesity now affects nearly 60% of the population, and no EU Member State is currently on track to reverse this trend (WHO 2022b). This development has significant health, social, and economic implications, necessitating a comprehensive understanding of its underlying causes.

A major contributing factor is the high intake of ultra-processed foods (UPFs), which dominate many Western diets (Chen et al. 2020; Elizabeth et al. 2020; Lane et al. 2024; Lawrence and Baker 2019; Martini et al. 2021; Monteiro et al. 2018). UPFs are high in added sugars, fats, salts, and additives, while low in fiber, vitamins, and minerals (Martini et al. 2021). Their intake has been associated with excessive calorie intake and weight gain, addiction-like behaviors, and elevated risks of various NCDs (Chen et al. 2020; Fiolet et al. 2018; Hall et al., 2019; Henney et al. 2024; LaFata and Gearhardt 2022; Lane et al. 2024; Pagliai et al. 2021).

Public policy efforts to reduce UPF consumption are often undermined by the food and beverage industry (F&BI), which has a vested interest in downplaying the health harms of these products. This is concerning, as research on the commercial determinants of health suggests that commercial actors – including the unhealthy food, tobacco, fossil fuel, and alcohol industries – are responsible for at least a third of global deaths per year (The Lancet 2023). It is therefore essential to understand how the F&BI influences academic research, public discourse, and policy-making – for example, by fragmenting scientific consensus or strategically networking with key stakeholders such as scientists, journalists, and decision-makers (Harris et al. 2022; Holla and Gupta 2019; Mialon et al. 2015; Mialon et al. 2018).

To date, little research exists on how the F&BI instrumentalizes non-profit organizations (NPOs) in Europe. Ideally, NPOs are private, independent, self-governing, and mission-driven entities (European Commission 2020). This study focuses on organizations that are legally structured as NPOs but are significantly influenced by the F&BI. In the literature, such organizations are often referred to as “astroturf” organizations. The study investigates the structure, funding, and activities of such organizations in Europe. It addresses two main questions: 1) How are these organizations structured, and in what ways are they influenced by the F&BI? 2) What types of activities do they engage in that may affect scientific discourse, public opinion, and policy-making?

ASTROTURF NON-PROFIT ORGANIZATIONS

The term “astroturfing” is derived from “AstroTurf”, a brand of artificial grass, and is used metaphorically to describe artificially manufactured support for a cause. We use it here to refer to organizations or campaigns that imitate grassroots initiatives but are covertly driven by corporate interests (Cho et al. 2011; Malhotra et al., 2018). These entities often present themselves as independent, scientifically balanced, and trustworthy, while actually promoting industry agendas. In the context of global warming, astroturf organizations have been shown to influence public opinion and delay regulatory action (Cho et al. 2011). In the F&B sector, similar entities have been referred to as front groups (Steele et al. 2022) or quasi-commercial organizations (Lacy-Nichols et al. 2023).

In this study, we define astroturf NPOs as organizations that present themselves as neutral third parties but are structured in ways that allow F&BI influence, often resulting in activities that conflict with public health goals. These include disseminating seemingly independent information (Carpenter 2025), influencing scientific discourse (Greenhalgh 2023), or lobbying policymakers (Tselengidis and Östergren 2019).

This definition emphasizes the deceptive organizational strategies used to promote industry interests under the guise of impartiality (Cho et al., 2011; Lits, 2020). This does not require organizations to completely conceal their industry ties. Even when funding sources or affiliations are formally disclosed – such as on websites or in reports—the overall communication strategy may still frame the organization as independent, neutral, or science-based. This form of selective transparency can mislead audiences who often lack the time, capacity, or motivation to uncover and critically assess such disclosures.

METHODS

This study was conducted within the university course Global Health Policies at the Department of Social, Health & Public Management, MCI | The Entrepreneurial School. The research team was composed of two senior researchers and 18 Master students. The students were actively involved in all stages of the research process, including the development of the research design, case selection, data collection, and interpretation. This participatory approach aimed to strengthen students’ research skills, collaboration, and shared responsibility.

We used an exploratory, purposive sampling strategy to identify five astroturf NPOs operating in Europe. Inclusion was based on the following criteria, all of which had to be met: (a) the NPO receives financial support from the F&BI; (b) F&BI representatives are involved in the NPO’s governance or leadership; and (c) the NPO engages in activities that may present conflicts of interest – such as conducting or promoting scientific research, shaping public messaging, or lobbying policymakers in ways that benefit the F&BI.

Given the limited research on astroturf organizations in the F&BI sector, our goal was not to produce a comprehensive list but to identify illustrative cases, describe and document their activities and inform future research. To ensure some geographic diversity, we divided Europe into five regional clusters: (1) Mediterranean, Iberian, and Basque; (2) Eastern European, Balkan, and Post-Soviet; (3) Scandinavian and Nordic; (4) Western and Central European; and (5) British Isles. Each student group (2–4 students per cluster) searched for fitting organizations within their assigned region based on the study’s inclusion criteria.

While this approach allowed us to capture regional variation, the aim was not to generate a geographically representative sample or to generalize findings across Europe. Rather, we sought to examine mechanisms of influence through a strategically selected set of cases. After identifying the sample, we reviewed each organization’s website, reports, press releases, media coverage, and relevant grey literature.

RESULTS AND DISCUSSION

We identified five cases: the International Life Sciences Institute Europe (ILSI Europe), the European Food Information Council (EUFIC), the British Nutrition Foundation (BNF), Fundación Española de la Nutrición (FEN, Spanish Nutrition Foundation), and Forum Ernährung Heute (FEH, Forum Nutrition Today) in Austria. Table 1 presents basic information on these organizations and provides an overview of the activities documented in our analysis.

INTERNATIONAL LIFE SCIENCES INSTITUTE EUROPE (ILSI EUROPE)

ILSI is an international organization founded in the United States and now operating in Europe. According to its homepage, ILSI is a NPO that aims to connect scientists from industry, academia, and the public sector to develop solutions related to nutrition and food safety (ILSI Europe n.d.d).

Half of the Board of Directors and eight out of 17 members of the Scientific Advisory Committees of ILSI Europe are industry representatives from companies such as Mondelez International, Cargill, Barilla, Danone, Yakult and PepsiCo (ILSI Europe n.d.b). In 2023, ILSI Europe received 81% of its funding from membership fees paid by F&B companies, and 19% from public funding for EU projects (ILSI

Europe n.d.c, 2024).

ILSI is actively engaged in shaping the academic discourse. For instance, it publishes the journal *Nutrition Reviews* (ILSI Global n.d.), where 24.5% of articles are industry-supported (Sacks et al. 2020). Additionally, ILSI-sponsored research appears in other scientific journals, often with industry-affiliated co-authors (for example: Crevel et al. 2024; Eldridge et al. 2018). One critical example of ILSI's ambition to influence scientific discourse is its effort to shape ethical standards on conflicts of interest in nutrition research (Mialon et al. 2021).

ILSI Europe participates in 17 EU-funded projects, including prominent EU-Horizon projects (ILSI Europe 2024), focusing on topics like sweetener use, dietary exposure, and dietitian education (ILSI Europe n.d.a). For instance, in the project SWEET, ILSI is part of a consortium which evaluates the long-term benefits and risks of sweeteners and sweetness enhancers, including weight control effects (SWEET 2024).

ILSI is also active on the public policy level. According to Corporate Europe Observatory (2020) – a NPO independent from the F&BI – ILSI has maintained a significant presence within the European Food Safety Authority (EFSA), an agency providing scientific advice to the Commission and Parliament of the European Union.

Table 1. Identified Astroturf NPOs in Europe.

Organization	Region	Year of foundation	Influencing Research	Public Messaging	Networking & Lobbying
International Life Sciences Institute (ILSI)	Global / Europe	1970s (USA) 1986 (Europe)	✓	✓	✓
European Food Information Council (EUFIC)	Europe	1995	✓	✓	✓
British Nutrition Foundation (BNF)	UK	1967	✓	✓	✓
Fundación Española de la Nutrición (FEN)	Spain	1984	✓	✓	–
Forum. Ernährung Heute (FEH)	Austria	1991	✓	✓	✓

✓ documented, – not documented

EUROPEAN FOOD INFORMATION COUNCIL (EUFIC)

EUFIC describes its main tasks as translating food and nutrition science, countering misrepresentation of science, increasing critical thinking, providing information to European consumers, and fostering dialogue as a neutral platform (EUFIC n.d.d). The organization is funded by public funds (67%) and membership fees (31%) from major F&BI companies such as Coca-Cola, Nestlé, Ferrero, Mars, and Unilever (EUFIC n.d.c).

EUFIC's Board of Directors is composed of nine representatives from academia and three from the industry. Current Board members include executives from Cargill, Bunge, and Unilever (EUFIC n.d.a). The Board is appointed by EUFIC members, which include large F&BI companies like Coca-Cola, Ferrero, General Mills, Mars, Mondelez, and Nestlé (EUFIC n.d.e).

EUFIC participates in 28 EU-funded research projects covering topics such as food system transformation, obesity prevention, and nutrition projects (EUFIC n.d.b). However, EUFIC has been criticized for promoting industry-friendly positions within the scientific discourse, for example by funding and co-authoring the review "European research on consumer reactions to nutrition information on food labels" (Grunert and Wills 2007). In addition, EUFIC sponsored a cross-sectional survey to investigate consumers' nutrition

knowledge and their use and understanding of nutrition labels (for the survey see: Grunert et al. 2010). Both studies suggest that existing GDA (Guideline Daily Amounts) labeling systems are well understood by consumers, and that new systems are not needed. However, independent evidence shows that front-of-pack systems such as Nutri-Score help consumers make healthier choices, and that opposition to Nutri-Score is often linked to industry-funded research that disproportionately reports unfavorable results (Besançon et al. 2023).

EUFIC also engages in public communication through press releases on nutrition and health topics. In a 2022 press release EUFIC argued that a lack of professional consensus on the definition of terms like "healthy", "processing", or "ultra-processed" hinders effective public health communication, and framed food processing as part of the solution to meeting nutritional needs and reducing environmental impact (EUFIC 2022). This press release referred to a conflicted research article (Sadler et al. 2022), funded by EUFIC and co-authored by current and former EUFIC employees. EUFIC has also participated in events like the United Nations Food Systems Summit (UNFSS), where EUFIC speakers questioned the definition and harms of UPF (Yates et al. 2021).

BRITISH NUTRITION FOUNDATION (BNF)

The BNF defines itself as a membership charity organization focused on nutrition and claims to safeguard its independence. However, BNF's current CEO has previously held senior marketing and commercial roles at Cadbury Schweppes, Dr. Pepper Snapple Group, and The Coca-Cola Company (BNF n.d.c). Additionally, on the BNF Board of Trustees, two of the eleven members have industry ties: one held senior corporate communication roles at Unilever, McDonald's, and Nestlé, while another is a former Chair of the UK Breakfast Cereal Association (BNF n.d.b), which represents prominent breakfast cereal manufacturers, including Kellogg's and Weetabix (FDF Scotland 2022).

The BNF's current 49 members are exclusively companies from F&BI, including Coca-Cola, McDonald's, Mondelez, and Nestlé. Among these are 12 "sustaining members" who have committed to donating to the BNF for the next three years (BNF n.d.a). In 2023, BNF's income was composed of voluntary income (60%), charitable activities (39%), and investment income (1%). Of its £1.533 million received in 2022/23, the largest share came from corporate member donations (£715,035), followed by consultancy projects (£569,826) and membership subscriptions (£196,149) (BNF 2024).

The BNF is also involved in research projects, which are directly funded by its member companies (BNF 2022). For instance, the project "Ultra-Processed Foods" aims to bring "together a variety of stakeholders to discuss views on the topic" (BNF 2022). Another project, "Healthy, Sustainable Diets", targets young people to promote healthier and more sustainable eating habits and is supported by companies like Arla Foods, General Mills, Kellogg, Mars, and PepsiCo (BNF 2024; Science Media Centre 2022).

One key topic of the BNF in recent years was the defense of UPF in the public and scientific discourse. For instance, an editorial in "Nutrition Bulletin", the official scientific journal of BNF, suggested that excluding UPF could potentially put consumers at risk of insufficient intake of certain nutrients (Forde, 2023).

The BNF has presented a similar argument in a briefing organized by the Science Media Centre (SMC), which also receives funding from the F&BI. The panel, which also included a chair of BNF's advisory committee, argued that UPF has been unfairly demonized and that eliminating them from diets could potentially have negative effects for certain groups in the population (Gregory 2023).

Similarly, in response to a study revealing a high UPF intake in UK schools (Parnham et al. 2022), a BNF nutrition scientist commented by suggesting that "a healthy, balanced diet [...] can be achieved without having to exclude all ultra-processed foods from the diet completely." (Science Media Centre 2022).

FUNDACIÓN ESPAÑOLA DE LA NUTRICIÓN (FEN)

The Spanish FEN states that its primary mission is to promote and improve public health through research, education, and the dissemination of nutritional information (FEN n.d.a). FEN's activities include conducting research, offering scholarships and awards, disseminating nutritional information, and organizing conferences. The foundation also engages with the media and is frequently cited by news

sites and blogs (Osuna 2024; Huffpost, 2024; Sánchez 2024).

FEN is managed by a Board of Trustees, supported by Executive and Scientific Committees, and operational staff (FEN n.d.e). As with the other organizations described here, the management team consists of academics and representatives from the F&BI. For instance, the General Secretary had diverse roles in Spain's gastronomic academies and is also the owner of a large private wine cellar. Additionally, the vice president is Research & Development manager at Lactalis Puleva, a prominent global dairy company (FEN n.d.c). Furthermore, FEN's corporate members include 12 major players from the F&BI, such as Coca-Cola, Danone, McDonald's, and Nestlé (FEN n.d.b). However, details about FEN's funding sources are not transparently disclosed on its website.

FEN collaborates with industry sponsors on various nutrition topics. One example is its partnership with the Spanish Beer Association in the project "Foro para la investigación de la cerveza" ("Forum for beer research") (FEN n.d.d; FICYE n.d.). The project promotes moderate beer consumption as part of a healthy lifestyle and offers beer-pairing meal recipes.

FORUM ERNÄHRUNG HEUTE (FEH)

The Austrian FEH describes itself as an "Austrian competence center for nutrition and lifestyle" with the aim of making science-based nutritional information easily understandable and accessible to the public. FEH's website does not provide transparent or detailed information regarding its funding. The FEH was established in 1991 on the initiative of companies from the sugar, confectionery, and baked-goods sectors (email response to RH, June 26, 2024). According to its website, the FEH aims to help individuals make informed decisions about their diets and lifestyles. Its stated mission is "to promote health and well-being through accessible education and the dissemination of up-to-date nutritional science" (FEH n.d.d).

The FEH's members include Coca-Cola, Danone, McDonald's, Nestlé, and Unilever, among others (FEH n.d.a). The FEH Board Team consists of members who have been affiliated with the F&BI. For example, one chairman (and treasurer) was a former CEO of Agrana, an Austrian F&B company active in the sugar industry, a second chairman has worked for Unilever, its deputy treasurer worked for Mars, and the deputy secretary worked for Haribo (FEH n.d.b, n.d.c).

The FEH is known for publicly defending the consumption of sugar. For instance, FEH's website section on "facts about sugar" states that "less sugar does not protect against tooth decay" and "with regard to overweight, obesity and related diseases, the effectiveness of a strict sugar restriction is at least questionable on the basis of current data" (FEH 2018). Furthermore, FEH also publishes industry-friendly press releases (FEH 2024b) such as "science check on ultra-processed food" (FEH 2024c). The article emphasizes the heterogeneity of UPF and concludes that "completely avoiding highly processed foods seems to make little sense" (FEH 2024c). Similarly, FEH published a critical press release questioning the effectiveness of front-of-package labels, suggesting that such labels have little to no impact (FEH 2021).

In one press release, the FEH alleges public resistance to “extra taxes” on energy-dense food and beverages (FEH 2016). To provide evidence, the FEH conducted a Delphi study with selected stakeholders and experts claiming to show little support for extra taxes (FEH 2016). However, the study’s methodology lacks transparency, and the findings may have been influenced by the wording of survey items and the selection of stakeholders consulted. In contrast, several independent studies show significantly greater support for targeted taxes, such as those on sugar-sweetened beverages (Andreas et al. 2024; Eykelenboom et al. 2019; Pineda et al. 2024; Sacks et al. 2021).

In another press release, the FEH claims to debunk the “myth of food addiction” (FEH 2024a), presenting a definitive answer to a question that is still the subject of critical debate in academic discourse (Gearhardt and Schulte 2021; Gordon et al. 2018; LaFata et al. 2024; Qian et al. 2022; Yu and Muehleman 2023).

The FEH is represented with two members in Austria’s National Nutrition Commission. This commission is a key advisory body for Austrian public policy, and drafts national policy recommendations, including those for school meals (Doll 2022).

COMBINED DISCUSSION

All of the reviewed NPOs claim to provide science-based health and nutrition information. At the same time, their organizational structures are heavily influenced by the F&BI. For instance, current or former industry representatives often hold formal positions in the organizations’ leadership or advisory boards, as seen in EUFIC (with executives from Cargill, Bunge, and Unilever) and FEH (with members from major sugar and confectionery companies).

Not surprisingly, our review shows that these organizations do more than merely disseminate scientific information. They engage in a range of activities where clear conflicts of interest exist – such as influencing scientific debates, public discourse, and political decision-making. In doing so, they often provide biased information that supports industry-friendly narratives and may delay or undermine effective public health education and regulation. An overview of these activities is provided in Table 2.

INFLUENCE ON RESEARCH

The identified NPOs engage in scientific fieldwork, co-author journal articles, and interpret scientific evidence on topics where conflicts of interest are present. This is problematic, because there is evidence cumulating that nutrition research is vulnerable to industry bias (Bero 2022; Fabbri et al. 2018; Holla and Gupta 2019; Nestle 2018). ILSI and EUFIC are taking part in several European funded research networks and projects and their staff members are authors in numerous scientific publications. ILSI and the BNF publish their own scientific journals, which allow them to play a key gatekeeper role, and influence the scientific work, as well as the perspectives which are being published.

Through these activities, the F&BI can use scientific output created or supported by their astroturf NPOs to bolster their corporate perspectives in the scientific discourse. For instance, an editorial in the BNF’s journal “Nutrition Bulletin” casts doubt about the negative effects of UPF on

health, which supports industry narratives that UPF are unjustifiably demonized and should not be targeted by regulations. Furthermore, EUFIC affiliates have been authors of scientific papers on the impact of UPF and nutrition labeling (Grunert and Wills 2007; Grunert et al. 2010). These studies presented existing GDA labeling as a sufficient solution. However, independent studies show that GDA labeling is not well understood, and that traffic light labeling is more effective at nudging consumers toward healthier choices (Besançon et al. 2023; Ducrot et al. 2016; Sonnenberg et al. 2013; Thorndike et al. 2014). This discrepancy raises concerns that EUFIC’s research may be biased toward industry-friendly conclusions (Foodwatch Germany 2008, 2009). In line with this, studies funded by industry are more likely to report negative findings about Nutri-Score’s effectiveness (Besancon et al. 2023; Garde et al. 2024; Peonides et al. 2022; Sainsbury et al. 2020).

Mission-driven research produces outputs that fit industry narratives, leading to a shift in research questions and agendas away from more important questions for public health (Fabbri et al. 2018). The research community needs to develop stronger methods of disclosing conflicts of interest. One practical approach could be to require more prominent conflict-of-interest statements and funding disclosures in articles and research projects, making them easier for non-academic audiences (e.g., journalists) to spot. Furthermore, the research community must identify and critically discuss how astroturf organizations may affect research output, and respond publicly to misleading statements from these organizations.

Table 2. Identified Activities of Astroturf NPOs with Illustrating Examples and Potential Risks from a Public Health Perspective

Activities	Examples	Potential Risks
Participating in research projects	ILSI and EUFIC partner in Horizon Europe research projects, the EU’s flagship research funding scheme.	This may influence research to favor industry interests, compromising scientific credibility.
Funding scientific research	ILSI and EUFIC fund studies on policy-relevant nutrition topics.	This may produce biased outcomes that align with corporate agendas.
Editing scientific journals	The BNF publishes “Nutrition Bulletin”, and ILSI edits “Nutrition Reviews”.	This may publish industry-friendly studies or editorials, compromising the neutrality of the information.
Organizing stakeholder events	ILSI Europe sponsors scientific events, co-organized with industry representatives.	Co-organized events and funding scientists’ participation in them can bias scientists and skew scientific dialogue toward corporate interests.
Publishing press releases	FEH issues statements on topics like front-of-package labeling.	These may spread confusing information, casting doubt on scientific consensus.
Acting as information hubs	FEH provides a “science” section on their website, questioning the long-term health effects of front-of-package labels.	They may present industry-favorable information/conclusions, misleading the public and policymakers.
Providing educational material	BNF offers webinars on topics like nutrients, nutrition and health, infant feeding, and gut	Educational content aligned with industry perspectives may misinform youth, leading to long-term negative effects.

Table 2. *continue*

health.		
Providing hands-on healthy lifestyle tips	FEN offers recipes paired with selected beer recommendations in collaboration with the beer association.	Lifestyle advice aligned with industry products can conflict with public health goals, such as WHO recommendations.
Influencing political advisory bodies	Individuals linked to ILSI are involved with EFSA; FEH is represented in Austria's National Nutrition Commission.	Their involvement in advisory bodies may create conflicts of interest, compromising the independence of health policy decisions for society.

PUBLIC RELATIONS AND MESSAGING

The NPOs studied here also engage in extensive public relations and messaging activities to shape public perception and promote industry-friendly narratives. These activities include publishing press releases, organizing events, and providing educational and informational materials.

For instance, FEH provides a section on “myths” on its website, where it presents mixed messages, often in favor of the F&BI, which can create confusion and skepticism among the public regarding whom to trust for accurate health information, and diminish credibility by eroding trust in public health communication in general. Similarly, FEN collaborates with the Spanish Beer Association and promotes moderate beer consumption as part of a healthy lifestyle. This contradicts WHO recommendations, which state that no level of alcohol consumption is safe (WHO 2023a).

One of the key issues in public communication identified in our case studies was the defense of UPF. BNF, EUFIC and FEH were engaged in extensive media activities to downplay the role of UPF in causing ill-health. They all anchor the message that UPF are a heterogeneous group of products, and that some of these products are beneficial for health, and a source for important nutrients. Pushing this perspective is problematic in the context of public health messaging which seeks to nudge people to switch to healthier diets, which are based on natural and minimally processed food (Delgado-Lista et al. 2022; Guasch-Ferré and Willett 2021).

Some of the organizations, such as EUFIC, are using new social media channels, which may help them to build reputation among younger audiences. All organizations are involved in the production of educational materials. This is problematic because children and adolescents are at formative stages in developing their knowledge, habits, and attitudes toward health and nutrition (Hargreaves et al. 2022). Biased information that subtly favors industry interests (e.g., downplaying the negative role of UPF) could result in misconceptions about what constitutes a healthy diet, potentially leading to long-term negative impacts on their health. As shown by Howse et al. (2021), F&BI's narratives are already strongly present in the views and thinking of young people.

These efforts must be met with evidence-based information from professional public health organizations, such as the WHO or national public health agencies. Furthermore, increased resources are needed to support independent fact-checking and consumer organizations. Organizations such as Foodwatch and the European Consumer Organisation can highlight potential conflicts of interest, verify claims, and foster a more accurate and reliable information environment.

LOBBYING AND POLICY-MAKING

The NPOs also attempt to shape the public policy agenda. First, they do so indirectly, by influencing the scientific and public debates, for instance about the role of sugar or UPF, as these debates inform public policy debates. But they also do so in more direct ways, such as by organizing stakeholder events or even by sending industry-friendly personnel to visit public agencies. For example, ILSI has been criticized for its representation in EFSA (Corporate Europe Observatory 2020), and FEH for its representation in Austria's National Nutrition Commission (Doll 2022).

These representations can be used to push industry-preferred policy perspectives that may not be in the best interest of public health. For example, EUFIC and FEH have both expressed their concern about nutrition front-of-package labels, a topic that has long been debated in European policy and where industry influence has been prominent (Julia et al. 2025). Another example are taxes on UPF, such as sweetened beverages. Initiatives to implement such taxes are often compromised by industry influence (Sainsbury et al. 2020). FEH, for example, has engaged in public messaging against extra taxes (FEH, 2016). This is problematic, because independent evidence which supports the effectiveness of these taxes is strong (Andreyeva et al. 2022; Eykelenboom et al. 2019; Hagensars et al. 2021; Pineda et al. 2024).

Decision-making processes are particularly vulnerable to disproportionate influence from the F&BI (Grimm 2017). The F&BI has strong financial incentives and also the resources to influence key policy issues. Public oversight and a critical public discourse are needed to keep the industry, and their strategic partners, such as the organizations studied here, out of policy-relevant decision-making forums and to ensure that public health is prioritized over for-profit interests. Achieving this will require identifying and critically assessing potential conflicts of interest among members of policy advisory bodies, and limiting or prohibiting organizations with clear conflicts from serving on them.

STRENGTHS AND LIMITATIONS

The present study identifies mechanisms through which astroturf NPOs exert influence on research, public messaging, and policy in Europe, contributing to a largely underexplored area. Key strengths include a new conceptual definition of astroturf NPOs, a participatory research approach, use of multiple data sources, and a systematic yet flexible case selection strategy. However, the study also faces several limitations. For instance, the analysis covered only a small number of organizations, as illustrative cases. Furthermore, the researchers had limited access to relevant information, due to a lack of transparency on the part of the organizations studied, and no access to internal documents. Further research is needed to better understand the extent of these organizations' influence. This includes compiling country-specific lists of nutrition-focused NPOs influenced by the F&BI. In particular, more attention should be given to how such organizations operate in the Global South and how their activities impact marginalized populations. Future studies should examine how these NPOs shape public debate, scientific discourse, and policy-making across different

contexts.

CONCLUSION

Our analysis shows that astroturf NPOs provide potentially biased information to the public, journalists, researchers, and policymakers. This is problematic because these organizations present themselves as professional and trustworthy, while in reality functioning as strategic arms of the F&BI. They maintain well-designed websites and communication materials, engage in scientific networks and knowledge production, and foster ties between industry, academia, and political actors.

These activities often conflict with public health goals and contribute to the dissemination of selective or misleading information. For example, several of the organizations studied downplay the adverse health effects of UPF and excessive sugar intake, while promoting narratives that shift responsibility for health outcomes onto individual behavior (Carpenter, 2025; Greenhalgh 2019; Steele et al. 2020). They also cast doubt on the significance of food processing and question the effectiveness of public health measures such as front-of-package labeling and sugar taxes (Besançon et al. 2023; Peonides et al. 2022; Sainsbury et al. 2020).

Such strategies may hinder evidence-based understanding of key public health challenges, delay regulatory responses, and erode public trust in dietary guidance and health institutions. Ultimately, this can undermine efforts to address the rising burden of NCDs in Europe. Despite their potential impact, the monitoring and analysis of astroturf NPOs remains limited – likely due to low visibility and insufficient scrutiny. Further research is needed to examine the structures, motivations, and influence of these organizations in the food policy landscape.

AUTHOR CONTRIBUTIONS

RH and AJS contributed equally to this work as co-first authors. Conceptualization: RH, AJS. Data curation: RH, AJS, RA, ATA, EvW, HA, AC, CD, SD, JK, VK, ML, KL, LP, ER, JS, KS, AW, EIW. Investigation: RH, AJS, MM, RA, HA, AC, CD, SD, JK, VK, ML, KL, LP, ER, JS, KS, AW, EvW, EIW. Methodology: RH, AJS, MM, ATA, EvW. Project administration: RH, AJS, ATA, EvW. Resources: RH. Supervision: RH. Validation: RH. Writing – original draft: RH, AJS, MM, ATA, RA, HA, AC, CD, SD, JK, VK, ML, KL, LP, ER, JS, KS, AW, EvW, EIW. Writing – review & editing: RH, MM, AJS. All authors have read and approved the final version of the manuscript and agree to be accountable for all aspects of the work.

CONFLICT OF INTEREST

The authors declare that they have no other potential conflicts of interest.

DECLARATION OF GENERATIVE AI AND AI-ASSISTED TECHNOLOGIES IN SCIENTIFIC WRITING

The authors used ChatGPT and DeepL for language refinement (grammar and phrasing) in parts of the manuscript. All edits were carefully reviewed by the authors. Authors take full responsibility for the content of this publication.

ACKNOWLEDGEMENTS

None

FUNDING

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Received: March 25, 2025; **Revised:** June 20, 2025; **Accepted:** August 15, 2025; **Published:** September 30, 2025.



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