ORIGINAL ARTICLE

‘The second mother’: How the baby food industry captures science, health professions and civil society in France

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Abstract
Most babies in France are fed with infant formula and then commercial complementary foods, many of which are ultra-processed and harmful to health. Internationally, there is opposition by the baby food industry to the introduction of public health policies that would limit the marketing and consumption of such products. Our aim was to identify the key baby food industry actors, describe their history and corporate political activity (CPA) in France. We sourced publicly available information, which we triangulated with data from 10 semi-structured interviews. Qualitative thematic analysis was undertaken simultaneously to data collection, guided by an existing classification of the CPA of the food industry. The baby food industry in France has shaped the science on infant and young child nutrition and nurtured long-established relationships with health professionals. This corporate science and these relationships helped baby food companies to portray themselves as experts on child-related topics. The baby food industry has also engaged with a broad range of civil society organisations, particularly through the concept of the first 1000 days of life, and during the covid-19 pandemic. We found evidence, although limited, that the baby food industry directly lobbied the French government. Since its early development in France in the 19th century, the baby food industry used its CPA to promote its products and protect and sustain its market. Our findings can be used to recognise, anticipate and address the CPA of this industry, and to minimise any negative influence it may have on babies' and mother's health.

KEYWORDS
baby food industry, commercial determinants of health, corporate political activity, infants and young children feeding, ultra-processed foods

1 | INTRODUCTION

In France, the baby food market was valued at €1.25 billion in 2020; half of that market being for breast-milk substitutes (BMS), and the other half for dried and other prepared commercial complementary foods (e.g., infant cereals, pureed fruit pouches and biscuits) (Passport, 2020). BMS and many commercial complementary foods are ultra-processed, being industrial formulations containing no whole foods, but ingredients extracted from foods, often with cosmetic additives (Khandpur et al., 2020). Ultra-processed foods (UPF) often contain too much free sugars, harmful fats and sodium, and are low in fibres, vitamins and proteins (Monteiro et al., 2018). The World Health Organization (WHO) recently alerted European countries that many baby food products are often too high in added sugars...
In addition, the food industry has attempted to shape nutrition science to serve their commercial interests (Mialon & Mialon, 2018). Coca-Cola and McDonald’s have a strong presence in communities in the food industry, whose sales of UPF would inevitably be negatively impacted (Moodie et al., 2013; World Health Organization, 2013a). For example, in France, studies have shown that the food industry lobbied against the adoption of a new nutrition front-of-pack labelling system (Mialon et al., 2018); companies like Coca-Cola and McDonald’s have a strong presence in communities to forge a good image in the public’s eye (Mialon & Mialon, 2018); and others like Nestlé and Danone have used various strategies to shape nutrition science to serve their commercial interests (Mialon & Mialon, 2017, 2018). In addition, the food industry has attempted to shift the blame onto consumers as being solely responsible for their consumption choices and poor health (Mialon et al., 2020).

The baby food industry is no different and has: lobbied policy-makers at the international and national levels; funded, produced and selectively disseminated science; built strategic relationships with health professionals, communities and the media; and promoted its voluntary commitments for healthy diets (Baker et al., 2021; Tanrikulu et al., 2020). These practices have helped the industry avoid mandatory regulation of its products and practices in many countries (Baker et al., 2021; Granheim et al., 2017).

Despite the high consumption of UPF by babies in France and its likely impact on population health, little is known about the key actors in this industry, their history, and corporate political activity (CPA) in the country. The aim of the present study was, therefore, twofold: (i) to identify key elements in the history of the two main actors in the baby food industry in France (Bledina—a subsidiary of Danone—and Nestlé) and (ii) to document the CPA practices of the baby food industry in the country with a focus on its recent actions.

2 | METHODS

We undertook a qualitative study using a case study design between January and June 2021 (Yin, 2014). Data collection was carried out by the first author (a native French speaker), under the supervision of the last author (a native French speaker), as well as through regular discussions with the second author and a group of local experts working on infant and young child nutrition and health. All documents retrieved were in French, and data were managed on Microsoft Excel.

We first conducted preliminary searches to identify key historical and contextual elements about the baby food industry in France, with no date limits applied. The study then involved mapping the CPA practices of the baby food industry in France for the period May 2019 to April 2021, using publicly available information. This two-year period was justified, as based on earlier country-level studies applying the same method, it is suggested as providing adequate time to capture comprehensive retrospective evidence of CPA practices (Mialon et al., 2015).

These data were triangulated with information obtained from 10 interviews with key informants working in public health in France. The marketing practices of the baby food industry were out of the scope of our study, given that these practices have been documented.
elsewhere (Baker et al., 2021). However, some practices of the baby food industry both have a marketing purpose and also serve to build short- and long-term strategic alliances with health professionals and the public, or to produce scientific evidence that will be used in public policy, for example. These practices were, therefore, considered to be part of the CPA. When in doubt, discussions were held by the research team on whether to include or exclude the information in our analysis, until agreement was reached.

2.1 | Ethical statement

For this project, we followed the ethics rules of the French Data Protection Act; the French law relating to computers, files and freedoms; and European Regulation 2016/679 of 27 April 2016 (General Data Protection Regulation or GDPR).

2.2 | Preliminary searches

We conducted a preliminary search for historical and contextual information on the baby food industry in France. We used existing material on the baby food industry and its CPA globally, market data and Google, as well as extensive searches of the websites of companies and affiliated entities. We used Euromonitor to first identify the leading French baby food industry companies: Nestlé and Bledina (a branch of the international Danone group, so we refer to Danone in the present study) (Passport, 2020). Their subsidiaries, foundations, institutes and other third parties supported by these two companies were also included in the study.

2.3 | Collection of documents and other information sources

We then followed the five steps proposed by Mialon et al. for their INFORMAS monitoring tool that describes how to study the CPA of the food industry (Mialon et al., 2015): (i) selection of food industry actors to be studied; (ii) identification of relevant sources of information; (iii) ongoing data collection; (iv) data analysis, in an iterative process; and (v) reporting of results. That methodology was selected because it has been implemented successfully in many settings across the globe (Jaichuen et al., 2018; Mialon et al., 2016, 2020), including to monitor the CPA of the baby food industry in the United States (Tanrikulu et al., 2020). Data collection of publicly available information covered the period May 2019 to April 2021 to identify recent actions undertaken by the baby food industry.

We focused on Nestlé and Danone for that part of the study, as described above. Sources for collecting information on the CPA of the baby food industry included industry’s materials (from its websites, Twitter, or Facebook accounts); government materials (registers for lobbyists or websites of agencies responsible for infants and young children nutrition and health); websites of universities; professional organisations; charities; civil society organisations; and consumer associations. We also conducted searches on Google News and Google Scholar. In total, 77 websites were consulted. Details about sources of information are provided in Supplementary Information Appendix 1. All data were accessible online during data collection, but may no longer be available. No CPA practices were identified, at this stage, on the websites of French universities, major political parties, and commissions in charge of elections. We describe the steps undertaken for our analysis (Steps iii–v of INFORMAS) later in the methods section.

2.4 | Semistructured interviews

We triangulated and gathered additional evidence of the CPA of the baby food industry using online interviews (using Zoom). Potential participants were identified through the preliminary searches described above and consultation with local experts. Participation was voluntary and under the conditions of anonymity and confidentiality. We selected our participants purposively, based on their experience in observing and/or interacting with the baby food industry in France, as publicly stated in media material or blog posts, for example. Other participants were recruited using a purposive snowball sampling method (Gibbs et al., 2007).

We initially invited 42 individuals to participate by email from: the government (n = 10), civil society organisations (n = 14), international organisations (n = 3), both health professionals and working with civil society organisations (n = 8), a journalist (n = 1), academia (n = 2), the industry (n = 3) and a daycare network (n = 1). We shared with them a participant information leaflet and consent form. In total, 10 individuals accepted to participate in the study. Twenty-one declined to participate, and 11 did not respond. Participants were from civil society organisations (n = 3) and were health professionals working with civil society organisations (n = 7).

Before the interview, the interviewer and participants signed a consent form. Interviews were audio-recorded and notes taken with prior consent of the participants, and then transcribed verbatim by the interviewer. The interviews were semistructured, lasted 1 h on average, and participants were asked about their opinions as individuals, not that of their employers.

2.5 | Thematic qualitative analysis and reporting

For both data sources collected, a deductive thematic analysis was performed by the first author, using an existing classification of the CPA of the food industry (Mialon et al., 2018), already used for identifying the CPA of the baby food industry in the United States (Tanrikulu et al., 2020). The lead author consulted the websites listed earlier (and in Supplementary Appendix 1) and searched for information related to the CPA, until no new information was found on the websites. Then, the search engines on those websites, using the keywords Nestlé, Danone and Bledina, were consulted to identify
further relevant information that may have been missed at that stage. Data were analysed during data collection. All data are available in French in Supplementary Appendix 2. Each piece of data from that file is allocated with a unique code starting with the letter A followed by a number (e.g., A1).

For the interviews, the transcriptions were done as early as possible after the interviews so that the lead author could reflect on the responses made by participants. Interviews were conducted until data saturation was reached, when no new CPA strategy was described or when the same examples started to be shared by participants. To protect the confidentiality of our participants, we have removed any personal and sensitive information that could identify them in the present publication. Each participant was allocated an identifier starting with the letters FR followed by a number (e.g., FR1).

The last author reviewed 10% of the data at two different stages during data collection and analysis. Mutual agreement was reached through discussion between the first and last author to categorise CPA practices.

Results are presented in the form of a narrative. First, we describe the historical and contextual elements of the baby food industry in France. Then there is a discussion of its CPA, with illustrative examples (translated from French to English by the first author). Supplementary Appendix 3 is a translation of the present manuscript to French.

3 | RESULTS

3.1 | A brief history of the baby food industry in France

The baby food industry is long established in France. It began its activities in 1868, when the businessman Henri Nestlé, founder of the Swiss company Nestlé, opened a sales agency in Paris for farine lactée (milk flours), marketed as an ‘aliment complet’ (complete food) for infants (Nestlé Suisse, 2021), and sold through pharmacies (Nestlé, 1993). The physician Isaac Carasso founded the dairy food manufacturer Danone in 1919 (Danone, 2021; LSA, 2019), later becoming the Danone Group, following its merger with Bledina, which was cofounded under the name Jacquemaire by the pharmacists Léon Jacquemaire and Maurice Miguetin 1881 (Danone, 2021; LSA, 2019).

Henri Nestlé pioneered the industry’s ‘medical marketing’ strategy, involving a set of techniques which remain industry-standard practice today. This included strengthening ties and seeking endorsement from prominent scientific authorities and scientists, including engagements with professors of chemistry and physicians in French universities (Nestlé, 1993). Nestlé had an increasing number of research studies published in specialised journals, that according to the company, contributed ‘a lot to the promotion of its product in the medical profession’ (Nestlé, 1993).

The Bledina brand of BMS, and its slogan ‘Blédine Jacquemaire, the second mother’, was also instantly successful, with 15,000 boxes of its products sold each month since 1907 (Anonymous, 2015). From 1935 to 1971, a new manager of the company developed a new product portfolio, new packaging and marketing techniques, including the distribution of promotional booklets in maternity clinics (Anonymous, 2015). The strategy was successful, and Jacquemaire’s small jars of baby foods became popular in France in the 1960s (Blédina, 2018). Growing-up milks, which are BMS marketed for older babies, arrived on the French market later in 1978 (Institut Français pour la Nutrition, 2009).

These commercial relationships with health professionals expanded in the 1950s, with Nutricia, the ‘specialized nutrition’ division of Danone, hiring dieticians to provide information about its products to health professionals (Nutricia, 2021). From the 1960s to 1970s onwards, Nestlé focused its communication on convenience, claiming that its products met the new expectations of mothers who were adopting a different lifestyle from previous generations (Nestlé, 2016). The following years saw an exponential increase in the consumption of baby food products in France, from 2200 to 34000 tons between 1962 and 1973 (Nestlé, 2016).

From 1985 to 2000, Nestlé used new practices to promote its products in France. The company launched a free phone service, staffed by dieticians to provide guidance and answer mothers’ questions (Nestlé, 2016). Then, in the 1990s, Nestlé launched its first ‘7 Relais Nestlé’ (seven roadhouses Nestlé) on French highways, which often included free baby food (Nestlé, 2014). In the 2000s, Nestlé set up an educational programme called ‘Parcours Eveil et Alimentation’ (Awakening and Feeding Course) for parents to monitor their child’s nutrition from the age of 4–6 months to 3 years (Nestlé, 2016).

In the 1990s, the baby food industry started hosting scientific events and producing scientific information in France. In 1991, the Danone Institute was founded to engage health professionals through educational activities, including through the publication of a magazine. Danone has since established several prizes for health professionals, including the ‘Grand Prix Evian’ in 1992, awarded to the best theses written by midwifery students (Danone, 2020).

Today, the baby food industry in France is highly concentrated, dominated by just two companies—Nestlé and Bledina (of the international Danone Group), who controlled 33.9% and 28.5% of market sales, respectively, in 2020 (Passport, 2020).

These key historical and contextual elements help to understand who the baby food industry is in France, and the nature of its relationships with health professionals, caregivers, parents and babies. In the following section, we discuss the CPA of the industry in the country.

3.2 | Capturing the science

One of the key practices of the baby food industry in France has been influencing science. Industry employees frequently appeared as authors and partners in scientific research projects on infant and young child feeding (A350, A486, A487, A488, A489, A502, A504).
and the diets of pregnant women (A364, A494, A500). Furthermore, one of the specific objectives of Danone for the period 2019–2025 was to ‘continue to develop clinical and/or real-life studies to support the health benefits of our infant formulas’ (A361). To this end, the company established partnerships with academics and other corporate actors, and its research programmes have resulted in scientific and medical publications for over 40 years (A361).

The Danone Institute worked with ‘scientists, doctors, sociologists and experts in the world of nutrition and food’ (A162) and at the time of data collection, its board of directors comprised of health professionals and individuals from various French research organisations (such as the National Institute of Agronomic Research—INRA, and the Scientific Research National Center—CNRS) (A166, A167). In addition, health professionals served as consultants to the industry’s scientific committees (A501, A504, A506, A507, A511, A513, A531), whether paid or not (FR19).

Since 1998, the Danone Institute, in collaboration with the French Fondation pour la Recherche Médicale (Foundation for Medical Research), has awarded a prize for those working in food science research (A165). In 2021, the prize amounted to 100,000€ to support two teams of researchers over 2 years (A418). Nestlé and Guigoz were partners of the Société Française de Pédiatrie (French Society of Pediatrics—SFP) for the awarding of prizes intended to cover 1 year of research for young paediatricians (A406). Danone was a partner of the National Research Institute for Agriculture, Food and the Environment (A496).

Guigoz, together with the SFP, funded a study for ‘producing descriptive anthropometric references’ used in paediatric growth charts (A405). A qualitative survey on ‘the choice to breastfeed one’s first child: a maternal decision under influence’ was carried out in collaboration with Bledina-Danone (A508). Nestlé employees participated in a study on ‘Physician’s advice, parental practice and adherence to doctor’s advice: an original survey on infant feeding’, where the other authors also received funding from Nestlé (A513). One participant in our interviews noted that not all conflicts of interest in research are reported by those who worked with the industry:

\[\text{I have numerous examples of colleagues who have co-authored articles of recommendations or reflections and who announced the absence of conflicts of interest—but I knew very well that they had some (FR19)}\]

The baby food industry was also present in scientific events for paediatricians and organised its own events (A168, A321, A365, A366, A370, A371, A377, A379, A380, A410, A533), with scientists having worked with the industry sometimes presenting (FR24, A501, A503, A506, A511, A512, A513, A531). Nestlé had its session during the Congress of the SFP in 2021 (A410). Danone was present at the ‘Study days of the French Association of Dietitian Nutritionists’ to ‘exchange and raise awareness among dietitians and experts in nutrition and food on their commitments to improve our recipes and reduce sugar’ (A297). Informants also referred to the regular participation of baby food companies in scientific fora and health professional meetings, for example:

\[\text{We constantly find, in all the congresses (…)—they are going to talk about breastfeeding for half an hour, an hour, and then we will have either on our way to the booths, hostesses who will promote their companies (FR15)}\]

Danone went a step further and established, through the Danone-Bledina group, the Grand Forum des Tout-Petits (Big Forum for Little Ones), initially called the Grand Forum Bledina (Big Forum Bledina), with the legal status of a non-profit organisation. According to a study from 2019, the idea of having that organisation emanated from a ‘business issue’, where there was mistrust from consumers on the added value of Bledina’s products and a supposed lack of knowledge about the nutritional needs of pregnant women and babies (A419). The CEO of Danone recognised that the Forum needed to be ‘decentralized from the company to gain legitimacy’ (A419). The Grand Forum, therefore, gathered a group of ‘experts from all walks of life (paediatricians/practitioners, researchers, elected officials, NGOs, early childhood professionals, etc.)’ (A133). Its board of directors included, during data collection, individuals from food banks, city councils, the French National Commission for UNESCO and Bledina and Danone, among others (A132). The Grand Forum organises an annual scientific meeting (A140). In 2019, the Grand Forum held a symposium with the Danone Institute at the 17th Fall Days of Pediatrics (A321), and a symposium was also organised jointly by the Danone Institute and the Grand Forum des Tout-Petits as part of the ‘Francophone Nutrition Days’ (A168).

3.3 | Capturing paediatrics and other health professions

Another key practice of the baby food industry in France, related to its shaping of science, is its nurturing of relationships with paediatricians and other health professionals.

3.3.1 | The industry and training of medical and other professionals

Paediatricians are a specific target of the baby food industry in France, as we started to describe above. One of our participants reported that every year, during the first few weeks of their paediatrics training, medical students from a certain region of France have been invited to a seminar at the Nestlé headquarters in Switzerland (FR27). The cost of the seminar, including the hotel accommodation, was entirely covered by the company (FR27). During the seminar, students were given a short presentation by Nestlé on the benefits of breastfeeding (FR27). Participants also noted that sales
representatives from the baby food industry regularly had booths where they display their products and hand out promotional materials during medical classes (FR27). Students were also regularly given information about studies promoting new BMS products that companies has released onto the market (FR24). One of Danone’s objectives for 2019–2025 was ‘to continue to develop medical training for health professionals on infant feeding and health’ (A361). One of our interviewees explained:

The continuing education that we do as a group of pediatricians, our monthly—or almost monthly—meeting is always financed by a [company] which pays us a restaurant meal for about thirty people one evening each month (FR14).

As described earlier, the baby food industry has also funded continuing professional education programmes, and travel, and paid for the accommodation and meals of paediatricians at scientific conferences (FR14). For example, Gallia, a subsidiary company of Danone, awarded scholarships of €1500 to two young doctors for their travel and registration to the Congress of the European Society of Pediatric Gastroenterology and Hepatology in 2020 (A417). A participant in our interviews explained:

[The baby food industry] facilitates the training of [those] who did not have the means to afford training on their own, (...) all those caregivers, nurses, childcare auxiliaries (FR14).

3.3.2 | The industry and professional associations

Beyond the training of paediatricians, the baby food industry has entered into formal partnerships with professional associations. The ties take several forms. Nestlé and its brand Guigoz were the sponsors of the SFP during data collection (A406). Gallia supported the SFP website ‘Pas à pas’ (Step by step) (A407) and funded its annual Congress (A367, A411). Several authors of the recommendations made by the SFP declared having conflicts of interest with the baby food industry (FR14, FR05). Bledina also supported the website ‘Le quotidien du Médecin’ (The daily life of the Doctor), targeted at health professionals, where health information was regularly disseminated (A458, A470, A471, A472, A473, A474, A475). On the website, the baby food industry has provided information about infant and young child feeding (A448, A454, A455, A459, A460, A462, A465, A477). Tools to measure a baby’s growth were provided by Gallia on the website (A464).

Moreover, baby food companies had their own online platforms with nutrition and health information targeted at health professionals: ‘L’espace pro’ (The pro space) of Bledina and Gallia (A147) and the ‘Nestlé Nutri Pro’ platform (A193). The Nestlé Nutri Pro website provides health professionals with tools like a weight curve to monitor babies’ weight gain (A192). The Nestlé Nutrition Institute also created a website dedicated to health professionals with a comprehensive e-learning platform containing thousands of publications, events, news and a bookstore (A525).

3.3.3 | The industry as a source of information for health professionals

Our participants noted that paediatricians regularly received industry sales representatives in their offices (a marketing technique). In addition to the promotion of certain products and the receipt of branded gifts, paediatricians received scientific journals targeted at their profession with ads from the baby food industry, even though they did not pay for or subscribe to them (FR14, FR05). Bledina also supported the website ‘Le quotidien du Médecin’ (The daily life of the Doctor), targeted at health professionals, where health information was regularly disseminated (A458, A470, A471, A472, A473, A474, A475). On the website, the baby food industry has provided information about infant and young child feeding (A448, A454, A455, A459, A460, A462, A465, A477). Tools to measure a baby’s growth were provided by Gallia on the website (A464).

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3.4 | Portraying itself as an expert in childhood-related topics in the public’s eye

Building on the science it shaped, and on its work with health professionals, the baby food industry has presented itself as an expert on breastfeeding and infant nutrition to the public:

For over 40 years, our team of more than 250 paediatricians, nutritionists and scientists has been inspired by the ideal and natural food for infants: breast milk (A10).

The website www.alimentationduitoutpetit.fr (‘food for the little one’) looks like an independent source and promotes a new label ‘food for childhood’ to be found on food products:

From now on, everything you need to know to adopt good food practices is accessible in one place! (A438)

From the website’s legal notice, one discovers that, in fact, the website belongs to the Syndicat Français de la Nutrition Spécialisée (French trade association for specialised nutrition). That trade association belongs to the Alliance 7, a group of different trade associations in the food industry—itself hosted at the same address as the largest trade association in the French food sector, the ANIA.
Beyond nutrition, both Nestlé and Danone also strongly promoted the message that they were contributing to children’s good health, more broadly (A1, A5, A22, A25, A27, A173, A174, A175, A184, A191, A217, A274, A293).

Nestlé has had a campaign called ‘#EngagésPourLesBébés’ (Engaged for babies) (A208), and both companies emphasised their actions to address public health-related issues (A36, A178, A253).

In its efforts to portray itself as an expert, the baby food industry sometimes used its own studies. For example, the Danone Institute, when providing information on the microbiome and health, pointed to a website edited by the European Society of Neurogastroenterology and Motility with the support of Danone (A318, A337, A342). Industry-funded science was also used to promote its products in educational programmes. This was, for example, the case with Nestlé in response to the results of its infant and toddler feeding and health studies (A186).

Furthermore, the credibility of those professionals working with the industry has been used in the messaging of the industry. Sometimes, the claims made by the industry were, for example, supported by health professionals (gastroenterologists, paediatricians, nutritionists) on the industry’s websites (A94, A95, A99, A244). In addition, Bledina had a podcast, ‘Le Podcast des Parents Curieux’ (the podcast of curious parents), where the company interviewed early childhood specialists (A81, A62, A83). Bledina had a statement on its website saying that growing-up milk was recommended by the nutrition committee of the SFP (A99). ‘Experts’, dieticians and midwives were also available 24 h a day to answer parent’s questions (A65, A69, A93, A151, A152, A180).

The baby food industry, however, in its dissemination of information to the general public, did not systematically provide references to its scientific studies, especially when advising on difficulties faced by breastfeeding mothers (A153, A154), complementary feeding (A39, A40, A84, A85, A86, A88, A91, A92, A96, A111, A242) and follow-up milk and growing-up milk (A63, A64, A67, A89, A98, A103, A110, A172, A159, A211, A231, A443). Scientific evidence was also not systematically provided by baby food companies regarding nutrition claims used for many of their products (A89, A101, A211, A212, A225, A229, A230, A301, A357, A443). This lack of scientific references also applied to the information provided on commercial complementary foods (A11, A26, A37, A38, A197, A241).

3.5 | Capturing civil society

To be further seen as an expert and to forge alliances in communities, the baby food industry has also established relationships with civil society organisations in France, particularly those in health. Nestlé explained:

Consumers do not just want to buy our products; they want to know how Nestlé is responding to society’s challenges and what impact the Group is having on people’s lives (A392)

To be seen as a key part of society, the baby food industry undertook several activities. Gallia supported SOS Préma, a civil society organisation that provides advice and support to parents of premature babies (A534). Gallia funded some of SOS Préma’s information booklets, and one of our participants explained:

[There is] an annual race, often it is the parents of premature babies who do this race and it is called ‘Running for the most fragile’, for the little ones, and all the jerseys of all the participants, they are Gallia— who finances, who sponsors (FR23)

The Nestlé France Foundation was a founding partner of the obesity programme ‘Vivons en forme’ (let’s live in good shape) and a partner of the French Red Cross (A177). Nestlé supported the creation and renovation of playgrounds in 22 nurseries of the French Red Cross (A394). The Grand Forum des Tout-Petits, introduced earlier, ‘supports, through calls for projects, civil society organizations that are committed to prevention from early childhood’ (A47). In 2019, the winners of the call were announced by the Forum during the annual Congress of the Association Française de Pédiatrie Ambulatoire (French association of ambulatory paediatrics—AFPA) (A135).

With increased rates of food insecurity in France, particularly in recent months with the covid-19 pandemic, the baby food industry has seized the opportunity to become involved in the fight against poverty by partnering with various organisations (A189, A265, A381, A384, A385, A395, A396). The Nestlé Foundation had a parenting support system, the ‘Espaces Bébé Parents’ (Space for babies and parents), whose

...aim is to provide essential items: a box of milk (for mothers who do not breastfeed their babies) and a pack of diapers. Depending on the financial capabilities of the Espaces Bébé Parents, the baskets may also contain baby food (A389)

Those assisted can also participate in nutrition workshops, which cover the principles of a healthy and balanced diet (A391)

Danone provided financial support and ‘nutritional expertise on infant nutrition’ to the Restos du Coeur, a national food bank (A386). Danone was also a member of the board of directors of the Action Tank Entreprise & Pauvreté (Action Tank Corporations and Poverty), together with other industry actors and civil society organisations (A498).
The Programme Malin (Smart Programme) is another charity hosted by the French Red Cross, and another key organisation working on childhood with support from the baby food industry actors. The Programme has focused, to a certain extent, on poverty and had the intention to continue work in that space with the French government:

> After having reached more than 11,000 families in five pilot sites in France from 2012 to 2017, all the partners within the charity Programme Malin are committed to working alongside public authorities (Ministry of Health, CNAF...) so that, eventually, 160,000 children could benefit from the program. (A126)

Its founding members included the Action Tank Entreprise & Pauvreté, Danone Communities (a fund from Danone), Bledina, the French Red Cross, the SFP, and the AFPA (A119). All these actors, except from Danone communities—replaced by Société d’Emboutissage de Bourgogne (Groupe SEB; selling small household equipment, including that for cooking)—had a seat on the board of the Programme Malin (A119). Other companies and public actors were supporting the Programme (A120, A121, A124). The idea of the Programme Malin started in 2008, through a discussion between Danone and Mr. Hirsch, then a High Commissioner for Active Solidarity Against Poverty and High Commissioner for Youth in the French government, and now vice-president of the Programme Malin (A112). The Programme offered discount coupons on Bledina’s products and advice on child feeding practices (A115). For a person who does not know those elements, the Programme seemed to be independent. Nevertheless, Bledina has certainly used the Programme to stress the good traits of its company and the fact that the industry promotes child health (A52).

We also observed that Danone and Nestlé donated baby food products, including infant formula, coffee, chocolate and cereal bars, to various charities to respond to the covid-19 crisis (A259, A261, A265, A276, A277, A278, A388). Bledina and Nestlé, for example, partnered with the State Secretariat for Children and Families for the distribution of essential goods, such as diapers, infant hygiene products and food products, to 50,000 children aged 0–3 years in vulnerable situations (A412). Nestlé explained:

> Our medical representative (...) has all the entry keys to the Reunion Island’s hospitals and maternities. She therefore called each department manager, gathered the information we needed (delivery dates, possible quantity of reception, to which department to deliver, etc.). The logistics team organized the operations and we delivered more than 300 boxes to each of the hospitals (A259)

### 3.6 | Lobbying

For the period May 2019 to April 2021, we found two instances when the industry, represented by the aforementioned trade association Alliance 7, lobbied the French government. First, in 2019 with the Ministries of Agriculture, Economy, and Health to discuss the legislation on follow-up milk formula (A432). Second, in March 2021 with the Ministry of Family, Childhood and Women’s Rights to discuss the study ‘Nutribébé’ (Nourishbaby) that was going to be undertaken by the ANSES (Agence nationale de sécurité sanitaire de l’alimentation, de l’environnement et du travail or National Agency for Food, Environmental and Occupational Health Safety) (A430). Danone also made clear:

> We work hand in hand with government to help change parenting policies (A14)

### 3.7 | The case of the first 1000 days

We observed a particular focus of the baby food industry’s messaging using the concept of the first 1000 days of life (Scrinis, 2020). The use of this concept might be a strategic choice by the industry, since the same concept was at the heart of the French government’s strategy for protecting childhood (Ministère des Solidarités et de la Santé, 2019), as well as used by UNICEF international. Nestlé has had a nutritional programme dedicated to these first 1000 days, including a ‘Nestlé baby club’ for parents, that:

> intends to support you to help you better understand these first 1000 days, and to transform this knowledge into practical advice. So you can calmly offer your baby the right food at the right time (A206)

> The company’s brand Guigoz used messaging targeted at those 1000 days in its marketing (A483). The Grand-Forum des Tout-Petits also emphasised, in its communication, the first 1000 days (A44, A137) and rolled out a ‘1,000-day training for pharmacists’ (A140). The Grand-Forum stated that:

> In 2019, the Grand Forum des Tout-Petits has mainly focused its work on communication (...) with public authorities as part of the reflection on the support of the first 1000 days. (A140)

> On 19 September 2019, the president of the Republic launched a Commission on the first 1000 days of the child (Gouvernement français, 2019). Following the publication of a report from that Commission, in 2020, the Alliance 7 sought to convince members of the Ministry of Health to include information on child nutrition in the communication based on the report (A429).

### 4 | DISCUSSION

Through our study, we document many CPA practices of the baby food industry in France. First, we found evidence that the industry shapes the science of nutrition and nurtures relationships with...
pediatricians and health professionals. These links between the industry and health professionals are long-established, going back to the pioneering ‘medical marketing’ strategy of Nestlé in the 19th century. This helps baby food industry actors portray themselves as experts in childhood-related topics in the public’s eye. To further that image and its relationships with third parties outside the industry, baby food companies have engaged with a broad range of civil society organisations. We found limited information concerning lobbying practices undertaken by the industry with the French government.

Our study is the first attempt to describe the political practices of the baby food industry in France. Most of the strategies and practices identified by this study were similar to strategies previously identified as being used by the baby food industry in other countries and internationally (Baker et al., 2021; Granheim et al., 2017) and by other industries, including alcohol and tobacco for example (McCann et al., 2018; Mialon et al., 2015; Ulucanlar et al., 2016). A recent review of the market and political practices of the baby food industry, found evidence of coordinated lobbying of international and national policy-makers through a ‘global influence network’ of trade associations and front groups; the generation and deployment of favourable science that helps the corporations to engage with health professionals, and to promote a favourable image of milk formula as safe, scientific and ‘as close as possible to breast milk’; and the adoption of corporate policies on responsible marketing, to counter and substitute for regulatory action by governments (Baker et al., 2021).

The practices described here are barely questioned in France, as evidenced by limited news reporting, and by the near-complete absence of academic research on this topic. The industry is successful at being seen as one important partner of those trying to promote a good childhood. It is, however, important to consider the unintended or indirect harms that may result from these activities: a better image for the companies (no matter the harmfulness of their products), new promotional opportunities, credibility by association, access to new consumers (babies, which are future consumers, and people in vulnerable situations) and privileged access to policymakers. In addition, the partnerships described in our study carry the risk of being perceived as endorsing specific brands, products or companies, thereby undermining the credibility of the partner organisation, and, ultimately, child health, when such products or the portfolio of companies are primarily made-up of UPF.

It is imperative that the public health community learn about and monitor these practices, given the growing evidence on the marketing and political power of the baby food industry, and other corporate actors, to shape infant and young child feeding at the population level (Baker et al., 2021). This will help question the CPA of the industry and further the adoption of strategies to limit its impact on the health, and the lives of mothers and babies (Mialon et al., 2020).

4.1 | Limitations

This study has limitations. First, we mostly conducted interviews with health professionals, so participants’ responses focused primarily on health profession engagement, and less on other well-described forms of CPA, like lobbying policymakers. It was particularly difficult to get access to industry representatives, journalists and government officials. Furthermore, and due to time constraints, in our analysis of the register of lobbyists, we did not collect data relating to consulting, public relations, marketing, communications and law firms that serve the baby food industry. This probably has led to a lack of data on the CPA of the baby food industry in France and merits further investigation. Therefore, it is important to specify that an absence of evidence, or limited evidence, of the use of CPA practices does not mean that the industry is not using them—but that we could not collect that information. Danone works with the consulting firms Ambo Conseil and Edelman, among other companies (Haute Autorité pour la transparence de la vie publique, 2021). Another example is Nestlé, for its public communications, works with a world-leading communication company (Challenges, 2021; Offre Media, 2018). An important public figure in France inherited that communication company (Challenges, 2021), therefore, benefiting economically from the marketing of Nestlé’s products—Nestlé being just one of the many clients of the company. Some of our participants questioned those links between the baby food industry, the communication company, and the public positions of that person, who regularly criticises breastfeeding in the mainstream media in France, for example, saying that promoting breastfeeding is reducing women to chimpanzees (Rotman, 2010).

5 | CONCLUSION

In conclusion, since its early development in France in the 19th century, the baby food industry has used a broad range of CPA practices to promote its products, and to protect and sustain its market. Thus, our findings can be used to recognise, anticipate, and address the CPA of the baby food industry, and to minimise any negative influence it may have on babies’ and mother’s health.

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CONFLICT OF INTERESTS

The authors declare that there are no conflict of interests.

AUTHOR CONTRIBUTIONS

MM and EC developed the study design. EC led data collection and analysis, as well as the writing of the manuscript, under the supervision of MM. MM and PB provided critical review and comments for the revision of the manuscript. All authors have approved the final version for publication.
DATA AVAILABILITY STATEMENT
The data that supports the findings of this study are available in the supplementary material of this article.

REFERENCES
Anonymous. (2015). *Jacquaire*. https://jacquaire.com/
Baker, P., Melo, T., Augusto Neves, P., Machado, P., Smith, J., Piwowz, E., Barros, A. J. D., Victoria, C. G., & McCoy, D. (2020). First-food systems transformations and the ultra-processing of infant and young child diets: The determinants, dynamics and consequences of the global rise in commercial milk formula consumption. *Maternal and Child Nutrition*, 17, 13097. https://doi.org/10.1111/mcn.13097
Baker, P., Russ, K., Kang, M., Santos, T. M., Neves, P. A. R., Smith, J., Blédina, (2018). *The data that supports the findings of this study are available in the...* 10 of 11
Granheim, S. I., Engelhardt, K., Rundall, P., Bialous, S., Iellamo, A., et al. (2021). *Nutrition de la conception à l'adulte ACCESS à une transparence de l'étalage*. (2021). *Challenges*. (2021). *Biographie de Elisabeth Badinter*. https://www.challenges.fr/classements/torture/elisabeth-badinter-et-sa-famille-26
Chen, X., Zhang, Z., Yang, H., Qiu, P., Wang, H., Wang, F., Zhao, Q., Fang, J., & Nie, J. (2020). Consumption of ultra-processed food and health outcomes: A systematic review of epidemiological studies. *Nutrition Journal*, 19(1), 86. https://doi.org/10.1186/s12937-020-00604-1

Danone. (2020). *Commercie de presse: Grand Prix evian des Sages-Femmes*. 2020. https://www.danone.fr/content/dam/danone-corp/danone-fr/medias/media-fr/2020/brandnews/cp-grand-prix-evian-2020.pdf
Danone. (2021). Danone—Our history. https://www.danone.fr/fr/about-danone/ourhistory.html
Gibbs, L., Kealy, M., Willis, K., Green, J., Welch, N., & Daly, J. (2007). What have sampling and data collection got to do with good qualitative research? *Australian and New Zealand Journal of Public Health*, 31(6), 540–544. https://doi.org/10.1111/j.1753-6405.2007.00140.x
Gouvernement français. (2019). *La commission sur les 1 000 premiers jours de l’enfant a été lancée*. https://www.gouvernement.fr/la-commission-sur-les-1-000-premiers-jours-de-l-enfant-aete-lancee
Granheim, S. I., Engelhardt, K., Rundall, P., Blázou, S., Iellamo, A., Margetts, B., Street, H., & Park, A. (2017). Interference in public health policy: Examples of how the baby food industry uses tobacco industry tactics. *World Nutrition*, 8(2), 288–310.
Haute Autorité pour la transparence de la vie publique. (2021). *Résultats de recherche: Danone*. https://www.hatv.fr/le-repertoire/recherche-tous-les-resultats-filtres/?indexFilter=%5B%22REPR%22%5D%26;searchbox=%22danone%22%26;organisation%25%26;fieldsFilter=%5B%22Clients%22%25%26;mandants%22%26;organisation%25%26;FieldsFilter%5D=1
Institut Français pour la Nutrition. (2009). *Nutrition de la conception à l’enfant: Certitudes et perspectives*. http://alimentation-sante.org/wp-content/uploads/2011/07/Actes-02-2009.pdf
Jaichuen, N., Phukkul, S., Ceertthirkul, N., Sacks, G., & Tangcharoensathien, V. (2018). Corporate political activity of major food companies in Thailand: An assessment and policy recommendations. *Globalization and Health*, 14(115), Article 115. https://globalizationandhealth.biomedcentral.com/track/pdf/10.1186/s12992-018-0432-z
Khandpur, N., Neri, D. A., Monteiro, C., Mazur, A., Frelut, M.-L., Boyland, E., Weghuber, D., & Thivel, D. (2020). Ultra-processed food consumption among the paediatric population: An overview and call to action from the European childhood obesity group. *Annals of Nutrition & Metabolism*, 76(2), 109–113. https://doi.org/10.1159/000070840
Lane, M. M., Davis, J. A., Beattie, S., Gómez-Donoso, C., Loughman, A., O’Neill, A., Jacka, F., Berk, M., Page, R., Marx, W., & Rocks, T. (2021). Ultraprocessed food and chronic noncommunicable diseases: A systematic review and meta-analysis of 43 observational studies. *Obesity Reviews*, 22(3), e13146. https://doi.org/10.1111/obr.13146
LSA. (2019). *Annuaire des professionnels de la grande consommation—Isaac Carasso–Danone*. https://www.lsa-conso.fr/annuaire-professionnels-grande-consommation/carasso-isaac-148417
McCambridge, J., Mialon, M., & Hawkins, B. (2018). Alcohol industry involvement in policymaking: A systematic review. *In Addiction*, 113, 1571–1584. https://doi.org/10.1111/add.14216
Mialon, M., Corvalan, C., Ciediel, G., Scaglusi, F. B., & Reyes, M. (2020). Food industry political practices in Chile: “The economy has always been the main concern”. *Globalization and Health*, 16(1), 107. https://doi.org/10.1186/s12992-020-00638-4
Mialon, M., Julia, C., & Hercberg, S. (2018). *Nutri-score saga in France: How food industry actors tried to influence public health policies and public opinion*. *World Nutrition*, 9(2), 109–120. https://doi.org/10.26596/wn.201892109-120
Mialon, M., & Mialon, J. (2017). Corporate political activity of the dairy industry in France: An analysis of publicly available information. *Public Health Nutrition*, 20(13), 2432–2439. https://doi.org/10.1017/S1368980017001197
Mialon, M., & Mialon, J. (2018). Analysis of corporate political activity strategies of the food industry: Evidence from France. *Public Health Nutrition*, 21(18), 3407–3421. https://doi.org/10.1017/S1368980018001763
Mialon, M., Mialon, J., Callixto Andrade, G., & Jean-Claude, M. (2020). ‘We must have a sufficient level of profitability’: Food industry submissions to the French parliamentary inquiry on industrial food. *Critical public health*, 30(4), 457–467. https://doi.org/10.1080/09581596.2019.1606418
Mialon, M., Swinburn, B., & Sacks, G. (2015). A proposed approach to systematically identify and monitor the corporate political activity of the food industry with respect to public health using publicly available information. *Obesity Reviews*, 16(7), 519–530. https://doi.org/10.1111/obr.12289
Mialon, M., Swinburn, B., Wate, J., Tukana, I., & Sacks, G. (2016). Analysis of the corporate political activity of major food industry actors in Fiji. *Globalization and Health*, 12(1), Article 1. https://doi.org/10.1186/s12992-016-0158-9
Mialon, M., Vandejiyere, S., Carriedo-Lutzenkirchen, A., Bero, L., Gomes, F., Petticrew, M., McKee, M., Stuckler, D., & Sacks, G. (2020). Mechanisms for addressing and managing the influence of corporations on public health policy, research and practice: A scoping review. *BMJ Open*, 10(7), e034082. https://doi.org/10.1136/bmjopen-2019-034082
Ministère des Solidarités et de la Santé. (2019). *Les 1000 premiers jours de l’enfant*. https://solidarites-sante.gouv.fr/affaires-sociales/familles-enfance/pacte-pour-l-enfance/1000jours/
Monteiro, C. A., Cannon, G., Moubacar, J.-C., Levy, R. B., Louzada, M. L. C., & Jaime, P. C. (2018). The UN decade of nutrition, the NOVA food classification and the trouble with ultra-processing. *Public Health Nutrition*, 21(1), 5–17. https://doi.org/10.1017/S1368980017000234
Moodie, R., Stuckler, D., Monteiro, C., Sheron, N., Neal, B., Thamarangsi, T., Lincoln, P., & Casswell, S. (2013). Profits and pandemics: Prevention of harmful effects of tobacco, alcohol, and ultra-processed food and drink industries. *The Lancet*, 381(9867), 670–679. https://doi.org/10.1016/S0140-6736(12)62089-3
