leatherhead food research
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From MAHA to Market: Understanding the Implications

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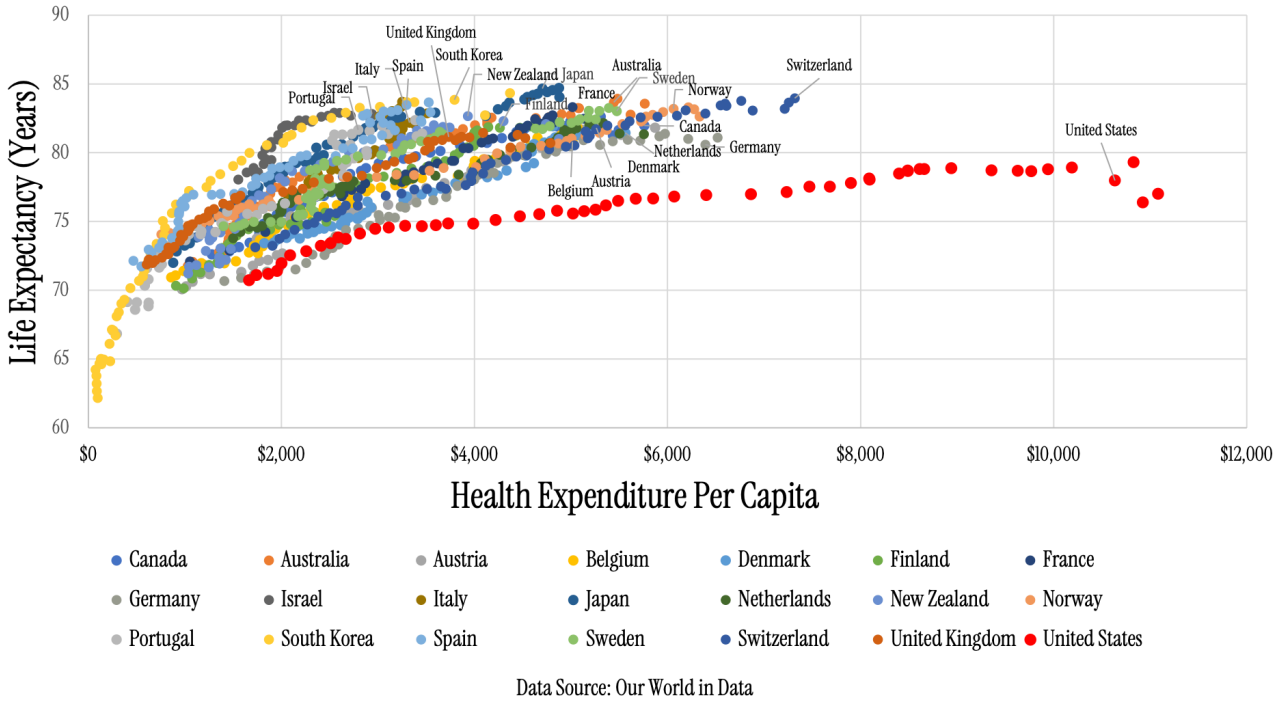
Agenda

- Introduction and current state of MAHA
- Key regulatory areas: UPF, post-market chemical review, and GRAS reform
- How to prepare

Making America Healthy Again

Life Expectancy and Health Expenditure Per Capita By Country (1970-2023)



Data Source: Our World in Data

THE WHITE HOUSE
WASHINGTON

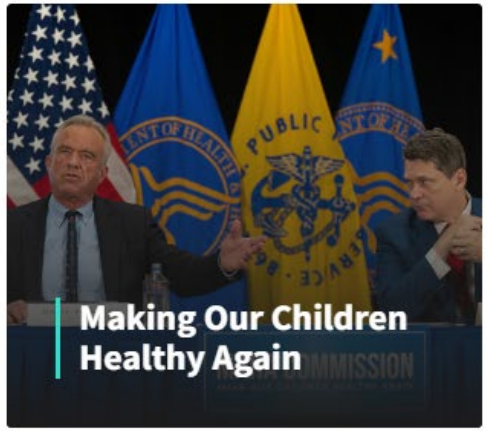
THE MAHA REPORT

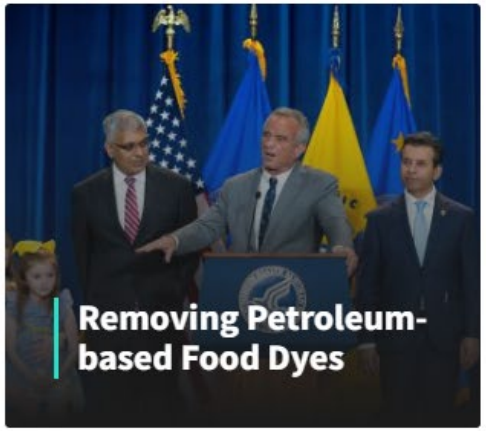
End childhood chronic disease

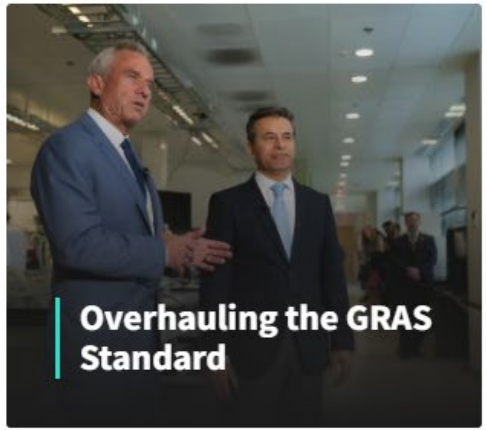
The MAHA *Report* and the MAHA *Strategy*

The Report identified four drivers of childhood chronic diseases:

1. Poor diet
2. Chemical exposure
3. Lack of physical activity and chronic stress
4. Overmedicalization



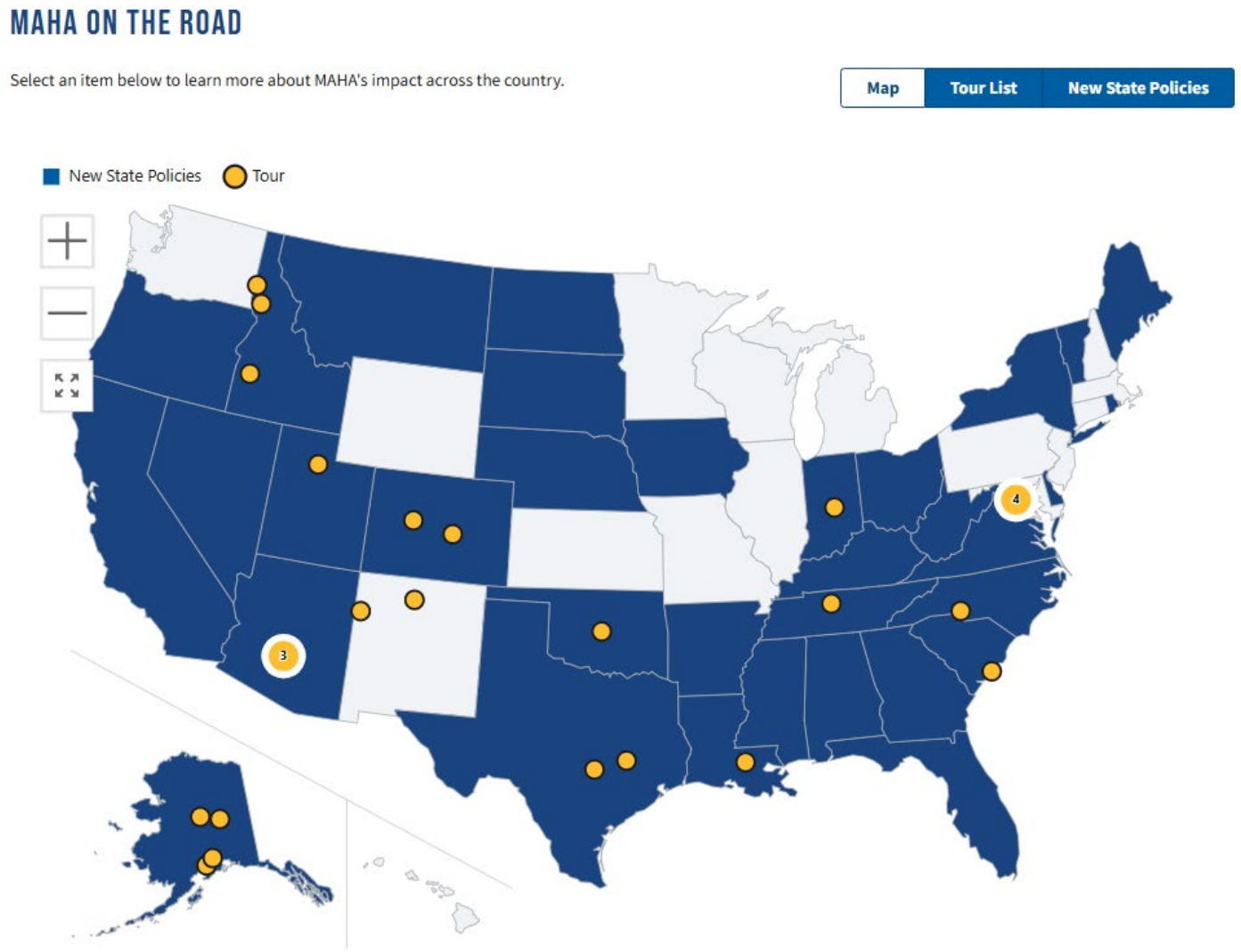




"Over 60% of children's calories now come from highly processed foods, contributing to obesity, diabetes, and other chronic conditions."

– MAHA Strategy

Change is already underway



Source: [Make America Healthy Again (MAHA) | HHS.gov]

*"We are asking, as an administration, American food companies to remove these petroleum-based food chemicals and replace them with natural ingredients for American kids**, just as they have already done for kids in Europe and Canada**."*

- Food and Drug Administration Commissioner Dr Marty Makary

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Chemical Classes and Common Exposure Pathways

Heavy Metals

- Lead, Mercury
- Exposure: Legacy paint, pipes, dust

Air Pollutants

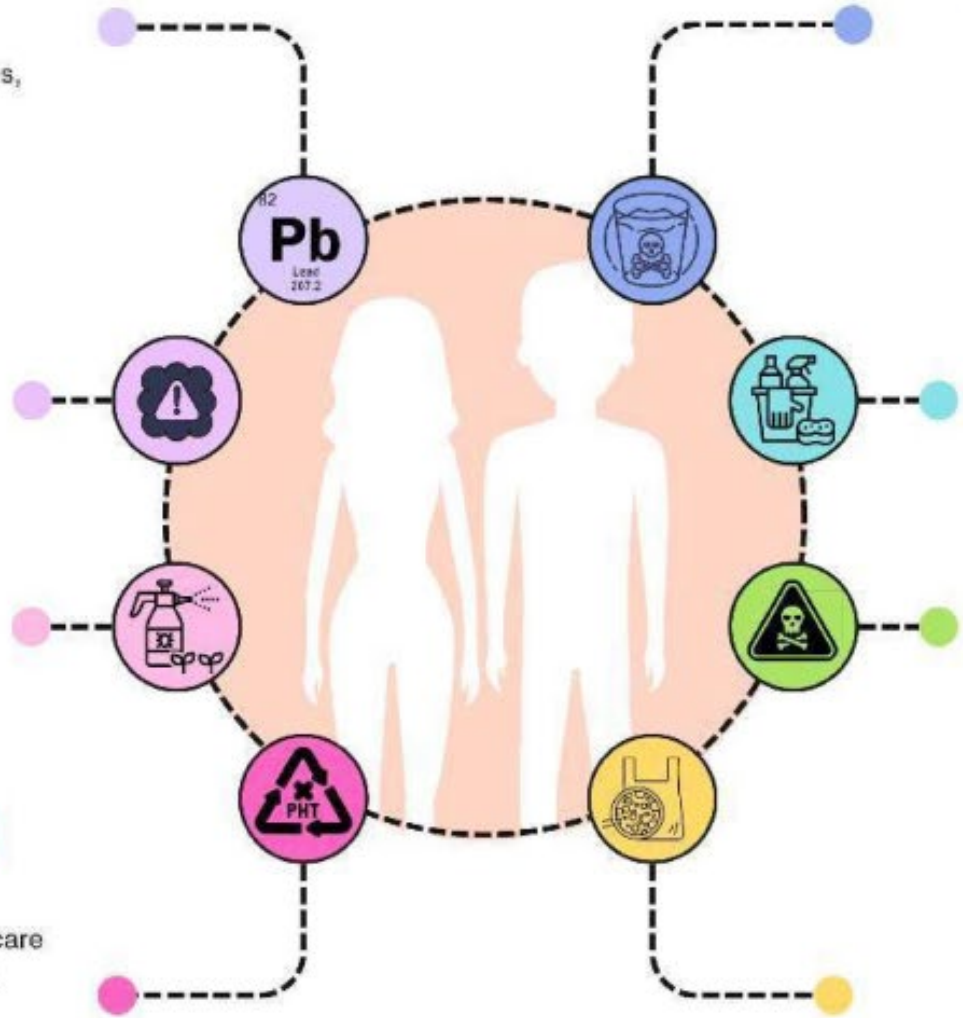
- CO, O_3, Particulate Matter, NO_2, SO_2, ETC, PAHs
- Exposure: VOCs, smog, wildfires

Pesticides

- Atrazine, Chlorpyrifos, Glyphosate
- Exposure: Food, water, dust, lawn treatment, household sprays

Endocrine-Disrupting Chemicals

- Phthalates, BPA, PBDEs
- Exposure: Plastics, personal care products, packaging, textiles, dust



Waterborne Contaminants

- PFAS, Nitrates, Fluoride
- Exposure: Drinking water, agricultural runoff

Industrial Residues

- Formaldehyde, Cleaning Products, Cosmetics
- Exposure: Home surfaces, building materials, cosmetics, cleaners

Persistent Organic Pollutants

- PCBs, Dioxins, PBDEs
- Exposure: Dust, food

Physical Agents

- EMR; Microplastics
- Exposure: Wi-Fi, mobile phones, 5G; food, water, air

Source: MAHA Assessment

Navigating the food regulation landscape

Emerging regulatory shifts in food safety and nutrition: five critical frontiers to watch

Ultra-processed foods

USDA, HHS & FDA working on a unified definition to guide research and policy

Post-market chemical review

FDA to enhance evidence-based review of chemicals in food (additives, GRAS, packaging, contaminants)

Front-of-pack nutrition labels

FDA reviewing public input and upcoming dietary guidelines to finalize labeling rules

GRAS reform

FDA to close loopholes, require mandatory notifications, and improve transparency

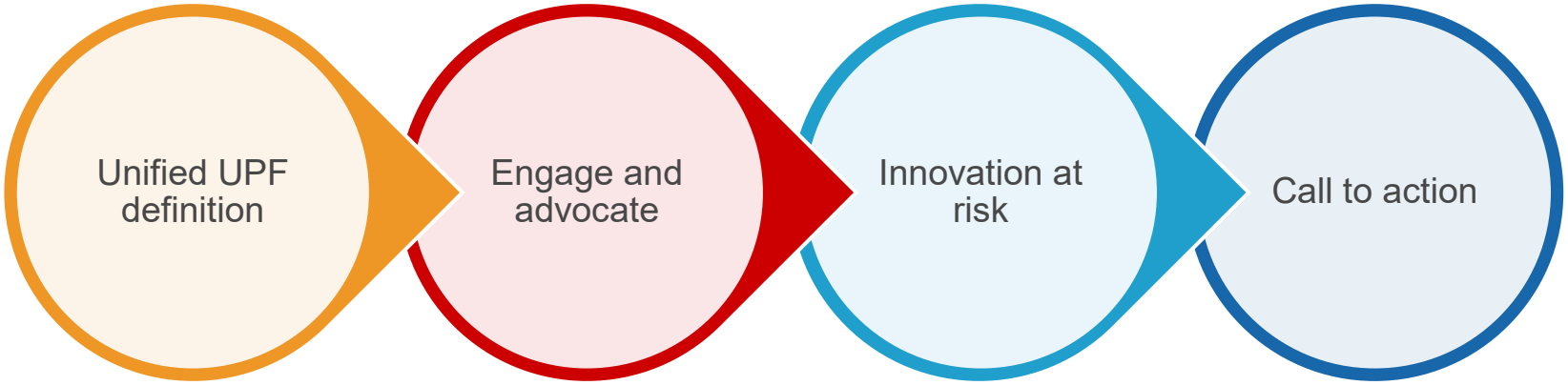
Food allergies

FDA to issue guidance on diagnostics/ treatments and improve ingredient disclosure (e.g., gluten, allergens)

Ultra-processed foods: why the definition matters

Ultra-processed foods

USDA, HHS & FDA working on a unified definition to guide research and policy



Preparing for UPF definition

Evaluate product portfolios against potential UPF definitions

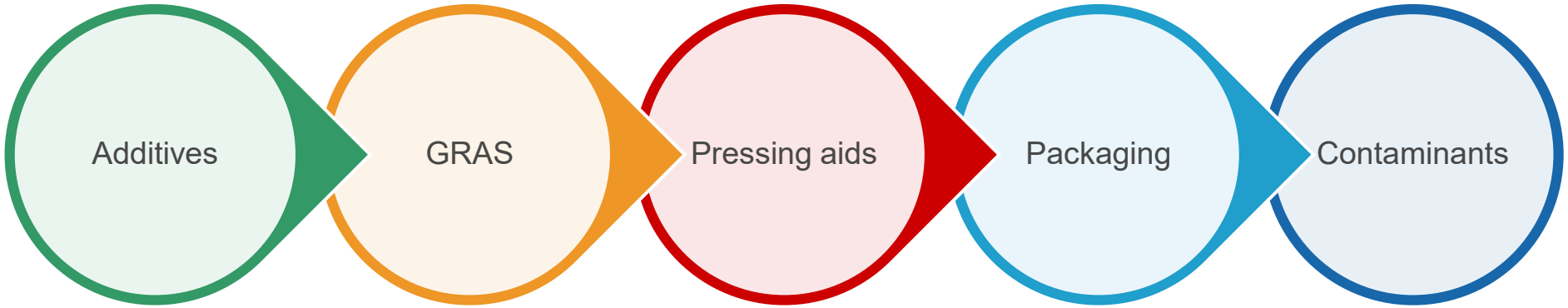
Prioritize products with both high regulatory risk and significant commercial impact

Externally, collaborate with suppliers

From GRAS to glass: FDA's science-driven review of food-related chemicals

Post-market chemical review

FDA to enhance evidence-based review of chemicals in food (additives, GRAS, packaging, contaminants)



From risk to opportunity: global strategy for food innovation

Identify the chemicals that have raised concerns in other markets, and evaluate how your product portfolio, addresses or mitigates and ensure your project portfolio is future-proofed

Ensure your innovation efforts in the U.S. also deliver value in other key markets

GRAS reform: closing loopholes

Closing the GRAS loophole

The FDA will eliminate the **self-affirmed GRAS pathway**, which currently lets companies declare substances safe without FDA oversight

Mandatory GRAS notification program

Companies will be required to **notify the FDA** when they intend to use a substance under GRAS status. This aims to ensure **regulatory oversight and accountability**

Increased transparency

The FDA will improve **public access to information** about substances in the food supply, including those with GRAS status. This includes publishing more detailed data and safety evaluations

Review of existing GRAS substances

The FDA may re-evaluate substances already in use under GRAS, especially those linked to health

Preparing for GRAS reform

Internal readiness & compliance

Audit all ingredients
Update internal protocols
Prepare for FDA notification
Adjust product development timelines and budgets

External engagement & transparency

Monitor regulatory developments
Enhance supply chain communication
Prepare for public disclosure
Advocate and collaborate

R&D

How are innovators responding?

Raw materials and supply chains

Alternative ingredients
(e.g. colour/dye, sweeteners – likely? exposure? solutions?)

Supply chain dynamics
(agricultural practices, contaminants)

Consumer reaction
(ingredient differentiator)

Processing challenges

Minimal processing vs UPF
(high P, T)

Challenges
(scale up, cost, energy/sustainability quality & safety)

Consumer impact
(e.g. sensory, nutrition)

Product innovation

Reformulation, renovation vs innovation
(resource allocation)

Portfolio management
(impact analysis, options)

Maintaining/gaining competitive edge

Packaging innovation

Alternative packaging materials
(options? functionality)

Recycled materials challenges
(contaminants)

Packaging design
(e.g. format, adhesives, coatings, printing inks)

Strategy

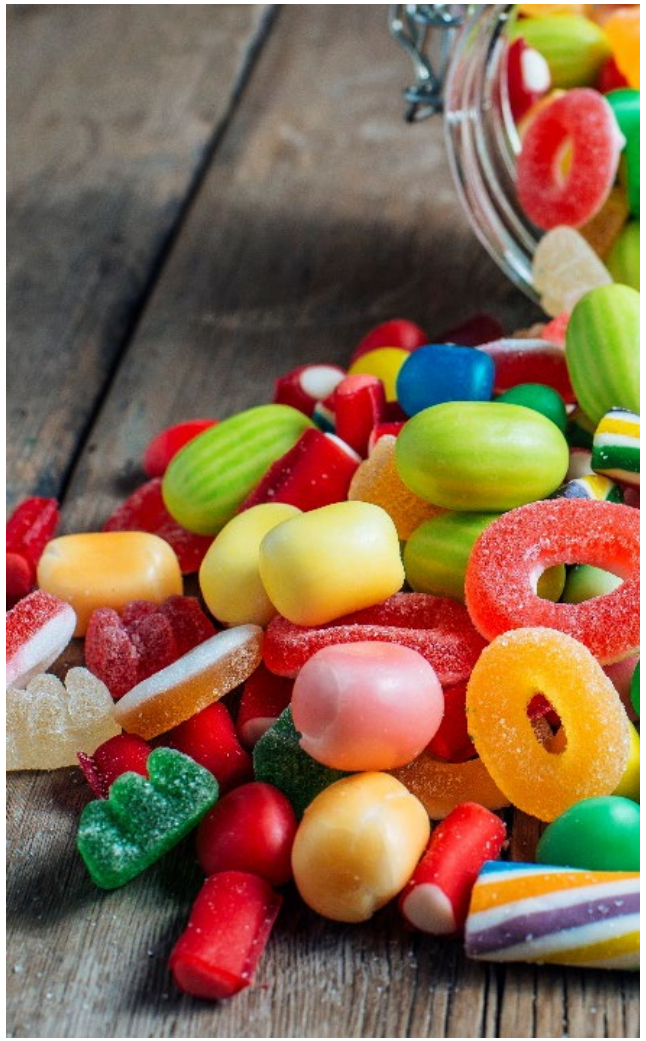
Assessment of overall risks & opportunities

Organisational structure

Ecosystems – collaboration is key

Building holistic value proposition

Reinventing a confectionery product using only natural ingredients



Our client asked:

Our client, a global confectionery company, approached us to re-invent confectionery products using only natural, sustainable and clean-label ingredients. Competitive formulations are not perceived as giving the consumer the same sensorial qualities as the product made with artificial ingredients.

The project story:

- Sagentia Innovation identified natural functional materials that could provide suitable chemical, physical and textural properties for use in the product
- Formulation concepts were generated that theoretically could deliver the target sensorial and textural attributes
- The naturally based formulations were then created in a kitchen environment and evaluated for performance using tailor-made in-vitro methodologies and an expert sensory panel

Client benefit:

Our formulation performed on par with the predicate (artificial) formulation, enabling the client to take development on internally to scale-up tasks.

Product successfully launched.

Preservative-free beverage formulations with natural sweeteners

Our client asked:

The client wishes to succeed in the well-being and stimulation market by introducing novel branded drinks with mood-state effects for the US and Aus/NZ markets and wanted Sagentia Innovation to provide an understanding of the impact on the taste of their beverage formulation if their current sweetener is replaced with an alternative natural sweetener.

The project story:

- Sagentia Innovation conducted a sweetener search and regulatory review to identify UK-approved natural sweeteners that can be trialled and tasted
- An experimental plan was developed considering the most promising sweeteners and their regulatory limits in the target markets
- Selected ingredients were trialled in prototype formulations over multiple experimental rounds to explore the effect of inclusion levels, supplemental sweeteners and flavour enhancers, bitterness masking flavourings and bitterness-blocking agents, and acidity levels to control sourness
- Prototypes were tasted by a small internal panel to identify the effect of formulation on taste attributes
- Analysis and recommendations were presented to the client based on experimental findings and the estimated cost of each sweetener

Client benefit:

We delivered a report that outlines details of identified ingredients, experimental approach, experimental findings and analysis, recommendations and next steps.

Questions?

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