FEDIOL presentation on Emerging risk trend: anti-processing and impact on contaminants

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EFSA discussion group on emerging risks
November 2025

Overview

- Introduction to FEDIOL and its main priorities
- Role of refining for vegetable oils and fats
- FEDIOL and emerging risks: how FEDIOL identifies emerging risks
- Emerging risk trend: anti-processing trend and contaminants
  - ➢ Context
  - ➢ Consequences: risk of increased contaminants and pesticides residues
    - ❖ case study 1: mycotoxins e.g. alternaria toxins
    - ❖ case study 2: heavy metals

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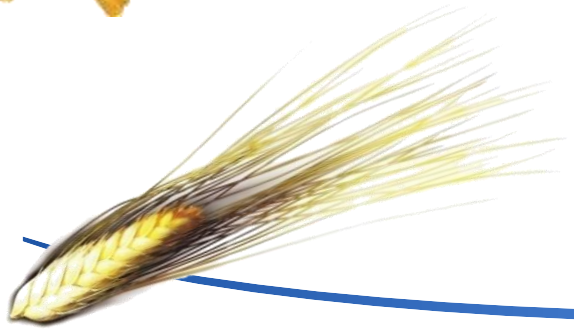
Primary Food Processors

Turning raw agricultural inputs into valuable food and feed ingredients

Almost **250m tonnes** of **agricultural raw materials** processed per year, mainly from EU domestic production, of which:

110 mil. tonnes of sugar beets
47 mil. tonnes of wheat, rye & oats
50 mil. tonnes of vegetable oilseeds
22 mil. tonnes of starches
1.6 mil. tonnes of cocoa beans
17 mil. tonnes of vegetable proteins



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Primary Food Processors

Who & where are we in the food chain?

3 000 companies in 26 EU Member States
137 500 persons employed
Over 60 billion € turnover

Supplying sugar, wheat flour, vegetable oil, starch products, vegetable protein, cocoa-based products & other food ingredients like lecithin, protein meals, feed materials to variety of industries

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About FEDIOL

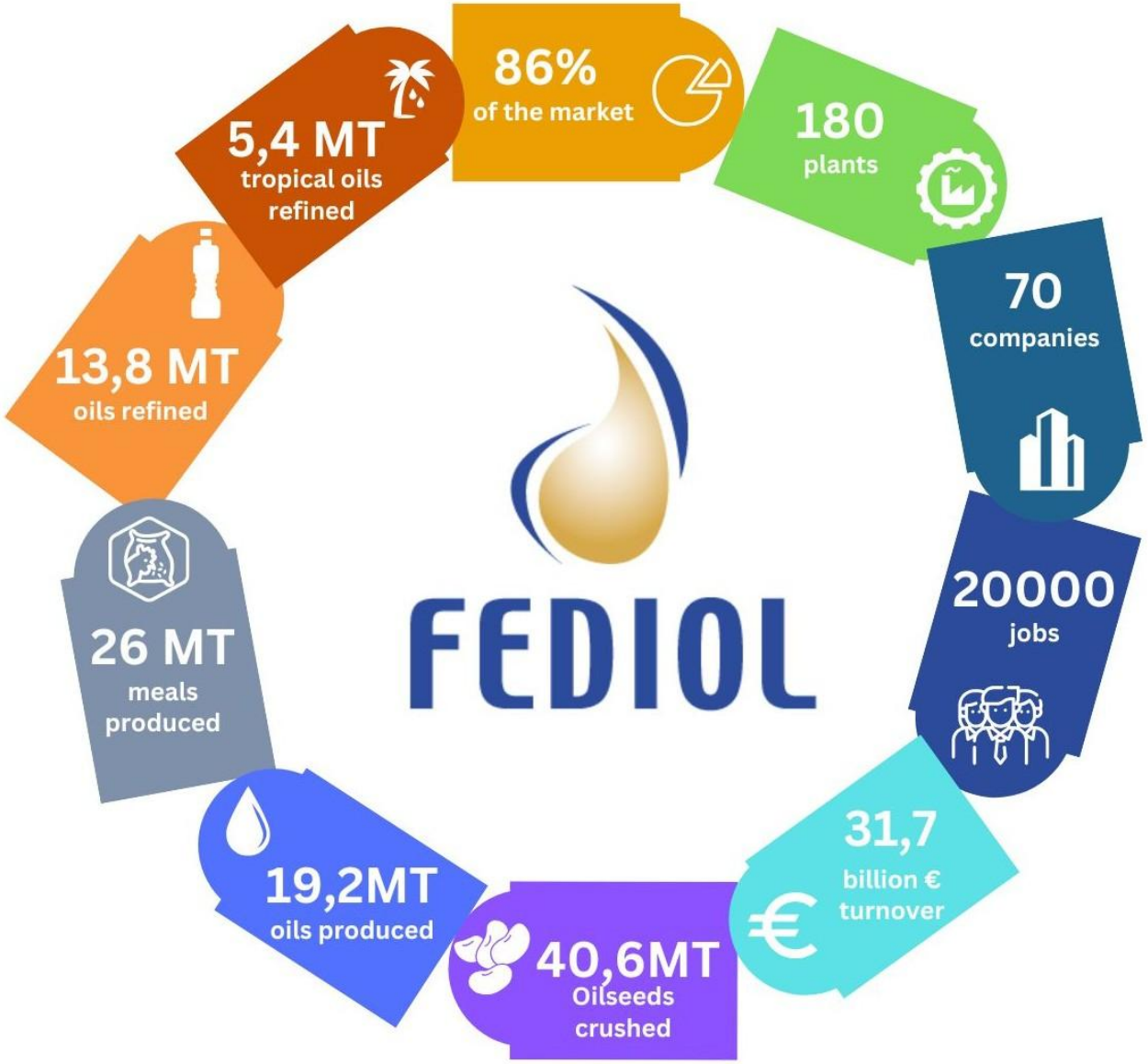
FEDIOL represents the EU industry

- which crushes and extracts oils, meals and other derivatives from oilseeds and other oleaginous fruits
- which processes, including bottling, crude oils and fats of vegetable origin, intended for food and non-food uses

FEDIOL has Member associations in 10 EU countries, UK and company membership in 7 EU countries

- Members process EU and imported agricultural commodities

FEDIOL members cooperate on food and feed safety, food legislation, labelling, environment, sustainability, biofuels, trade



Vegetable oils and fats – the role of the refining process

Quality & sensory

- Taste, Smell, Odour
- Colour
- Stability and shelf life

Nutritional benefits

- Vitamin E (tocopherols)
- Sterols
- Phospholipids

Purity and food safety

- Pesticides residues
- Free fatty acids
- Colours and pigments
- Volatile compounds & contaminants
- Other substances

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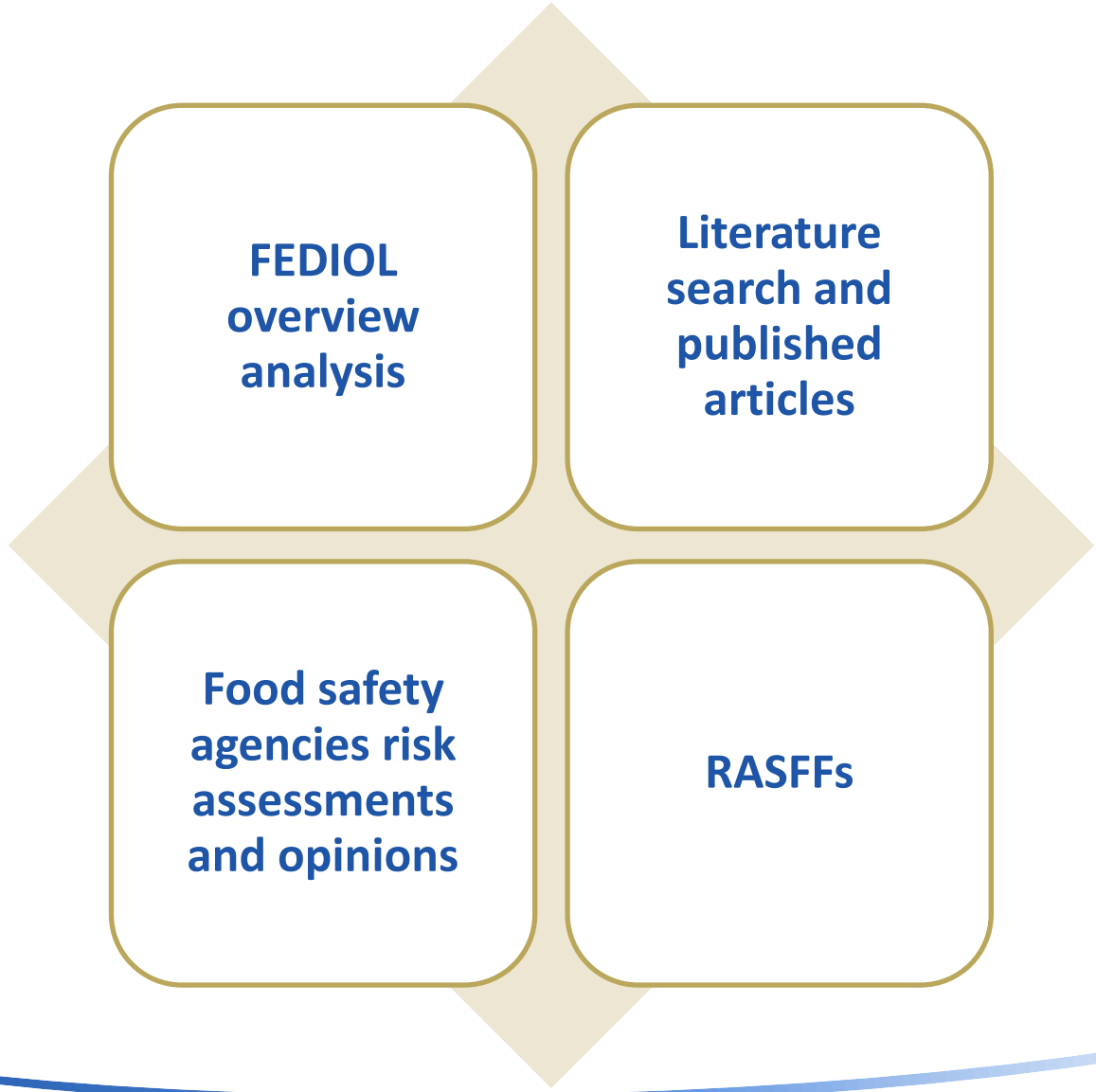
How FEDIOL and its members identify emerging risks and trends



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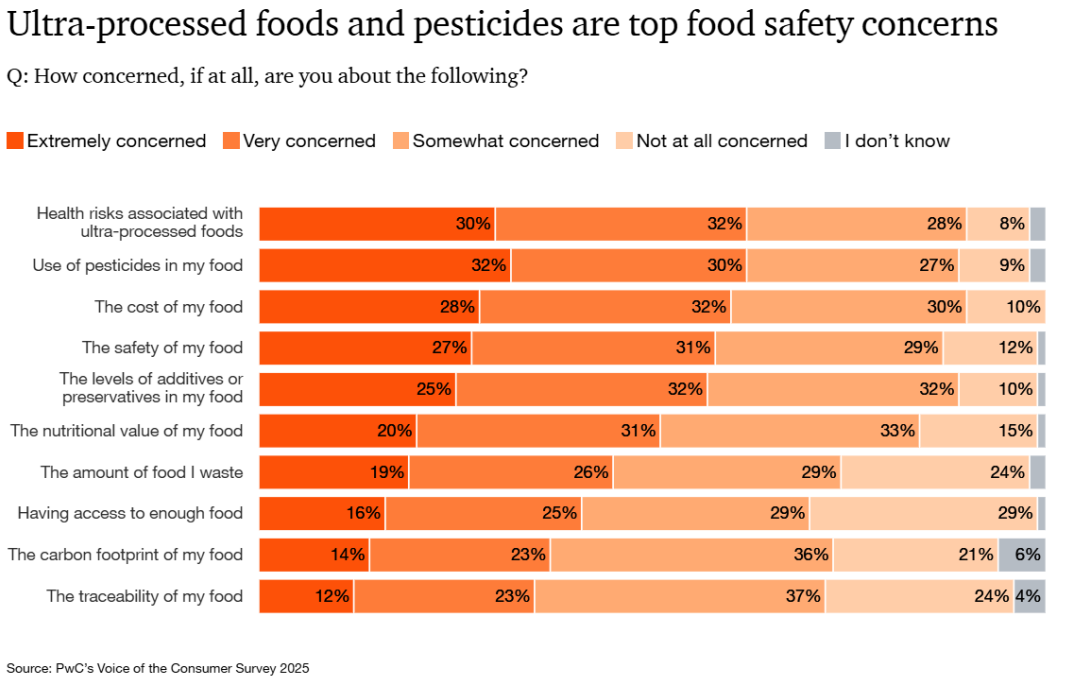
Emerging risk trend: anti-processing and impact on contaminants

Rationale:

- FEDIOL identified **topic of anti-processing attitudes in reaction to UPF narratives as an emerging risk trend**, following many publications in the media and published articles

Context:

- UPF: multiple & different definitions; some processes in or out depending on applied definition whilst recommended in dietary guidelines
- National food safety assessments: **weak weight of available evidence between UPF and adverse health effects** (ANSES, AECOSAN)



Behind all this: "anti-processed" trend

- multifaceted movement driven by various elements such as desire for simpler & more natural products, assumptions that processing is unhealthy etc.
- Linked to terms "clean label", "natural", "minimally processed".

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Multifaceted trend

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In parallel: demand for convenient, affordable, « tasty », healthy and safe foods

- Eurostat household spending 2024: -3.7% in *Food and non-alcoholic beverages, confirming the negative change that can also be observed between 2022 and 2021.*
- Food consumption behaviours in Europe (VALUMICS 2021): price as key driver of food purchasing behaviour.
- 2025 Eurobarometer on Food Safety in the EU: Among factors influencing food choices, cost (60%) comes first, followed by taste (51%) and food safety (46%). NB: in 2022 Eurobarometer: Cost (54%) is most frequently selected by respondents when it comes to the most important factors when buying food. Taste (51%) comes second, followed by food safety (…)


SPECIAL EUROBAROMETER 103.3

Food safety in the EU

EUROBAROMETER REPORT
MARCH – APRIL 2025

- Price as a key driver of food purchasing behaviour. Behaviours do not seem to be necessarily driven by the cheapest price, but price considerations count among the main determinants of purchasing decisions.
- The social context and habits also have a considerable influence in food consumption behaviour. It stood out how the eating habits of the family or other social contexts around the individual are important in shaping food purchasing behaviour.
- Health concerns may function as a sustainability opportunity or barrier depending on the context. Health was identified as playing an increasingly important role in shaping food consumption behaviours.
- Environmental awareness exists but is not top of the list, as other factors seem to take precedence, such as price considerations, lack of time and food shopping habits. The actual sense of environmental awareness with regards to food consumption among most consumers was identified as being low or inexistent.

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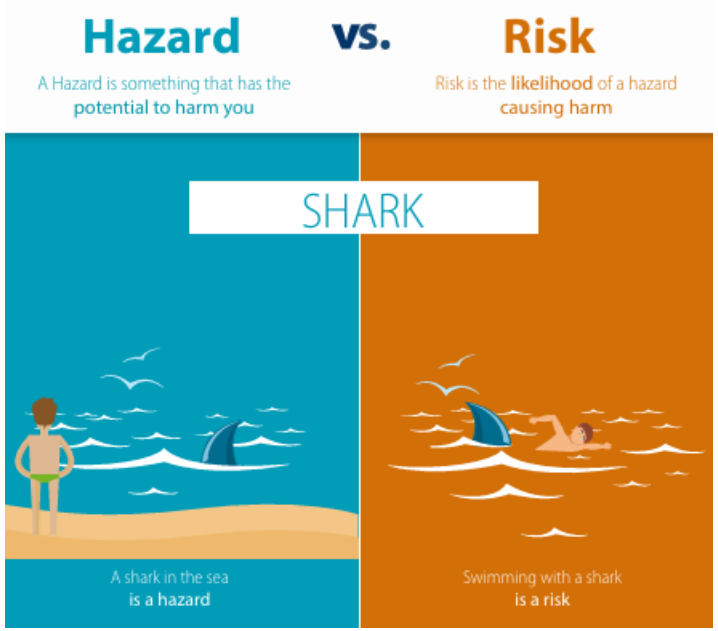
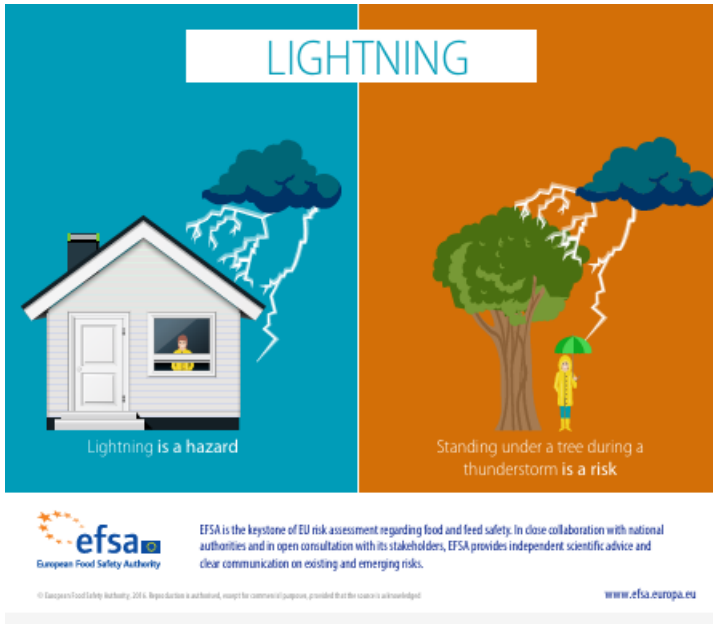
Consequences: risk of increased levels of contaminants, dietary imbalance due to avoidance of certain foods/replacement with perceived healthier/less processed food





Taking 2 case studies from FEDIOL sector to illustrate issue, but other food products & processing likely also relevant

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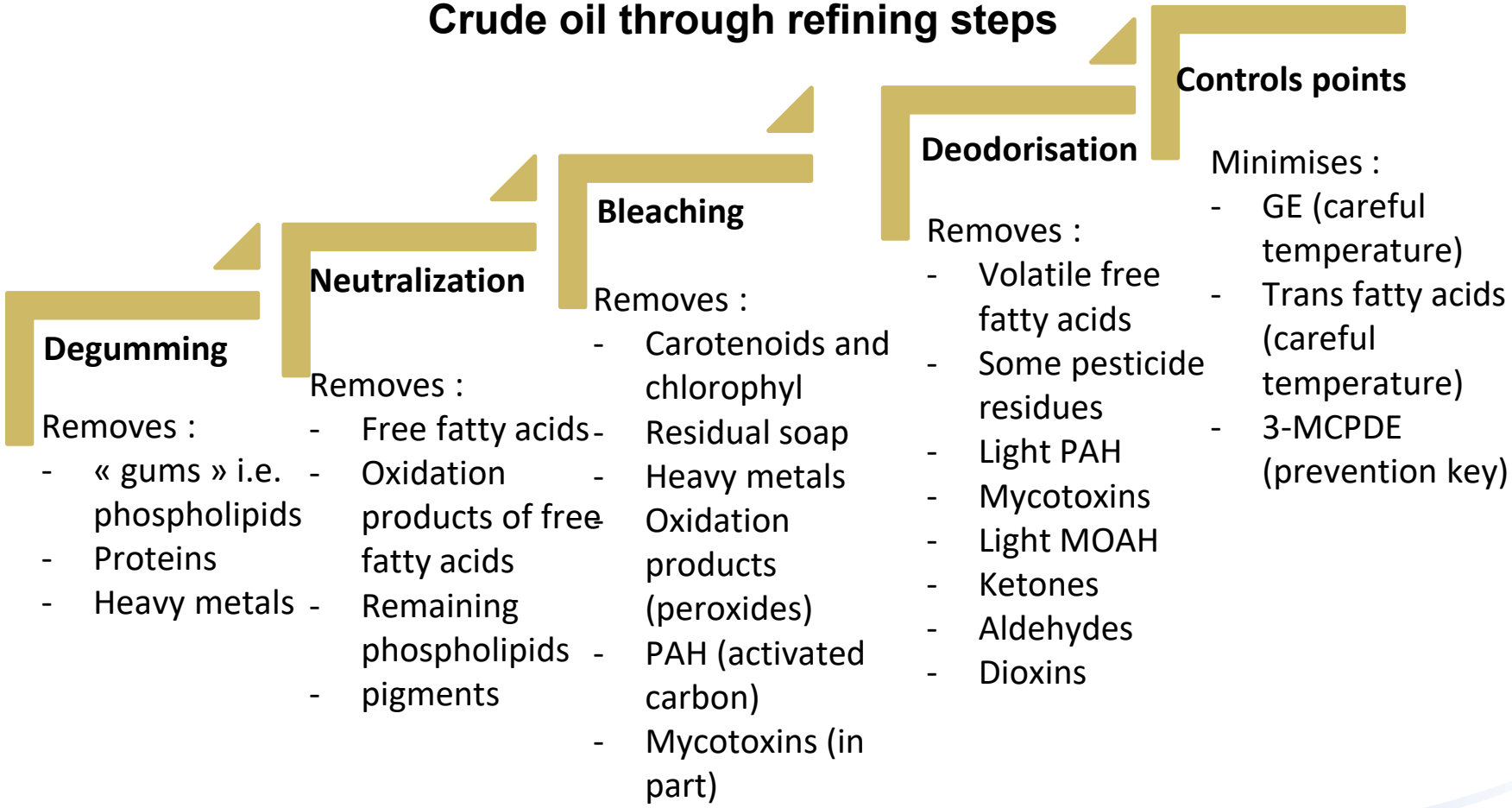
Removal effect of refining through each step of refining



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Case study 1: mycotoxins e.g. alternaria toxins

- Mycotoxins increase due notably to **climate change**: already discussed on several occasions in the EFSA discussion group on emerging risks
- Concentration of such mycotoxins in crops like oilseeds and in crude oils
- Mycotoxins MLs regulated at EU level following EFSA opinions; new EFSA opinion on Alternaria toxins expected in 2026
- **Refining** of vegetable oils and fats enables to significantly reduce levels of mycotoxins like alternaria toxins in vegetable oils and fats: demonstrated by FEDIOL data
- Sufficient temperature required during refining – whilst balancing other contaminants in parallel
- Trend towards “anti/minimally processed”: if conditions not met to reduce levels through refining, risk of increased mycotoxin levels

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Case study 2: heavy metals e.g. nickel

- Heavy metals such as nickel regulated at EU level following EFSA opinions
- Presence in food from both **natural and anthropogenic sources**
- Greater understanding of health concerns posed by such compounds e.g. EFSA opinion on nickel 2022
- Substance picked up by crops like oilseeds
- **Refining** of vegetable oils and fats (bleaching step) capturing heavy metals like nickel from crude/partially refined oils and enables to significantly reduce their levels in vegetable oils and fats: demonstrated by FEDIOL data
- Trend towards “anti/minimally processed”: if conditions not met to reduce levels through refining, risk of increases heavy metal content

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- **EU Vision for agriculture and Food February 2025**: calling to *launch a study on the impact of the consumption of the so-called 'ultra-processed foods'.*
- A full assessment of UPF will also require **to look at the effect of minimising processing and its negative impacts on increasing food safety risks.**
- July 2025: EU Communication on Choose Europe for life sciences A strategy to position the EU as the world's most attractive place for life sciences by 2030: *The Commission will seek scientific and ethical advice on so-called 'ultra-processed foods' from the Scientific Advice Mechanism and the European Group on Ethics in Science and New Technologies.*

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Conclusions:

- Role of refining: not only for food quality but also key for food safety.
- As demonstrated by 2 FEDIOL case studies, processing is key to continue providing high quality and safe foods.
- Assessing the effects of anti-processing/minimally processing will require to also address consequences of not using some processes: **clear negative consequences as effect of anti/minimally-processing**.
- **Levels of these contaminants** need to be further reduced to satisfy the need for safer foods: how if not through processing?
- **Need of science-based approach** in addressing UPF/anti-processing.
- **International context**: MAHA US policy.

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Any question?

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謝謝
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Баярлалаа
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thank you
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xièxie
감사합니다
merci

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