Food innovation that benefits consumers – What regulatory framework do we need?

Workshop on regulatory challenges on innovation in food

Ispra, Italy

8th-9th October 2015
BEUC in a nutshell

- European Consumer Organisation

- Umbrella organisation for 41 well respected, independent national consumer organisations, from 31 European countries.

- Mission = to promote consumer interests in EU decision making.
BEUC members’ work on innovation in food

- Consumer research, polls and daily interactions with individual consumers
  Understanding consumer priorities, concerns and expectations

- Food product testing
  Checking compliance with EU rules (e.g. legal limits on food additives)

- Consumer information
  Raising consumer awareness on how food is produced and with which ingredients

- Advocacy work
  Ensuring EU laws take due account of consumer interests
The future of food
Giving consumers a say
Conditions for approval – Taking inspiration from the food additives legal framework

Article 6

General conditions for inclusion and use of food additives in Community lists

1. A food additive may be included in the Community lists in Annexes II and III only if it meets the following conditions and, where relevant, other legitimate factors, including environmental factors:

   (a) it does not, on the basis of the scientific evidence available, pose a safety concern to the health of the consumer at the level of use proposed;

   (b) there is a reasonable technological need that cannot be achieved by other economically and technologically practicable means; and

   (c) its use does not mislead the consumer.

2. To be included in the Community lists in Annexes II and III a food additive must have advantages and benefits for the consumer and therefore serve one or more of the following purposes:

   (a) preserving the nutritional quality of the food;

   (b) providing necessary ingredients or constituents for foods manufactured for groups of consumers with special dietary needs;
Safety as a prerequisite (1)

• **Thorough safety risk assessment** by the European Food Safety Authority followed by EU-level **pre-market authorisation**

  *EFSA mandate can be too narrow*: e.g. recent opinion on safety of enzyme thrombin overlooks potential safety issues associated with consumption of rare “glued meat” steak

• **“No data, no market”**. EU food legislation puts the onus on industry to prove its products/ingredients are safe.  
  e.g. recent withdrawal of five flavouring authorisations after industry missed legal deadline to provide requested toxicity data to EFSA.

• **Precautionary Principle** to ensure a high level of consumer protection in case science is inconclusive on safety.  
  e.g. food applications of nanotechnologies
Safety as a prerequisite (2)

- Safe today ... does not mean safe tomorrow. Need for post-market monitoring and periodic re-evaluation.

- Health effects of ‘phytosterols’ questioned by French food safety agency (following query by UFC- Que Choisir)

- Partially hydrogenated oils were a great innovation 100 years ago ... but today the culprit for consumers’ intake of harmful trans fatty acids

- Foods traditionally consumed in third countries not to be just assumed to be safe.

  e.g. Eating insects is common practice in many parts of the world and has growing popularity in EU but potential health risks are not to be overlooked: allergens, parasites, etc.
Reasonable technological need not otherwise achievable

- Technological need ... for whom?
  - Preventing microbiological growth in meat preparations vs. making meat look fresher (sulphites)
  - Maintaining all year-round wheat flour quality vs. upgrading low quality wheat flour (enzymes)
  - Preserving taste of fruits transported on very long distance vs. making them look more shiny and appealing (glazing agents and waxes)
  - Preventing excessive water loss during cooking of frozen burger vs. binding water (phosphates)

Table 1: Profit increase by selective use of flour and flour improver

<table>
<thead>
<tr>
<th></th>
<th>High quality wheat</th>
<th>Average quality wheat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flour costs per ton [USD]</td>
<td>377.00</td>
<td>342.00</td>
</tr>
<tr>
<td>Flour improver cost per ton [USD]</td>
<td>-</td>
<td>9.85</td>
</tr>
<tr>
<td>Total flour cost per ton [USD]</td>
<td>377.00</td>
<td>351.85</td>
</tr>
<tr>
<td>Flour cost difference per ton [USD]</td>
<td>25.15</td>
<td></td>
</tr>
<tr>
<td>Flour cost per ton [%]</td>
<td>100</td>
<td>93.3</td>
</tr>
</tbody>
</table>

Source: Buhler Group [website](http://www.buhlergroup.com)
Advantages and benefits for the consumer

- “Food additives, colours, preservatives” are Top 5 concern of consumers (after pesticides, food poisoning, diet-related diseases and obesity)
  
  Source: Special Eurobarometer 354 on food-related risks, November 2010

- Which?/UK Government Office for Science’s research on Food System Challenges
  
  Consumers prefer solutions that are low-tech, natural or focused on behaviour change. Hi-tech solutions not rejected out of hand but need for independent safety evaluation, clear benefits and absence of low-tech alternatives which would be publicly acceptable and achieve similar outcomes.

- Consumer benefits from food innovation:
  
  ✓ HEALTHINESS/REFORMULATION (reduced fat/salt/sugar levels without compromising taste)
  ✓ NATURALNESS (no ‘E-numbers’ and chemicals)
  ✓ CONVENIENCE (e.g. easy to prepare; resealable package; longer shelf life)
  ✓ SUSTAINABILITY (e.g. better for the environment or animal welfare ... but still affordable; less food waste)
Advantages and benefits for the consumer – The case of sweeteners

- As other additives, sweeteners shall only be permitted where their use brings benefits to the consumer (significant calorie reduction or total replacement of added sugars)

- Discussions at international level (Codex footnote 161). EU should stick to current approach for the sake of consumer protection.

**Article 7
Specific conditions for sweeteners**

A food additive may be included in the Community list in Annex II for the functional class of sweetener only if, in addition to serving one or more of the purposes set out in Article 6(2), it serves one or more of the following purposes:

(a) replacing sugars for the production of energy-reduced food, non-cariogenic food or food with no added sugars; or

(b) replacing sugars where this permits an increase in the shelf-life of the food; or

(c) producing food intended for particular nutritional uses as defined in Article 1(2)(a) of Directive 89/398/EEC.
Are labels telling the whole truth to consumers? (1)

- **72%** of households **willing to pay more** for naturally-produced foods. *(Source: KAMPFFMEYER Food Innovation GmbH. Clean Label Study 2012.)*

“**clean label**” trend

... **BUT**

- Processing aids, including enzymes, exempted from labelling requirement
  - Used in “free from” products conveying image of “tradition”, “naturalness”, etc.
  - Only case-by-case “effect labelling” for enzymes (e.g. meat glue thrombin and transglutaminase)
  - Borderline cases for processing aid vs. additive status (e.g. enzymes used in precooked bread?)
Are labels telling the whole truth to consumers? (2)

• **Food additive** or “functional” ingredient?
  Some ingredients bear no E-number ... but are only used to serve a technological function

  ✓ e.g. potato proteins providing volume and texture to gluten-free bakery products;
  ✓ colouring foodstuffs
  ✓ citrus pulp used in meat preparations to retain water.

• EC guidance on **classification of food extracts/concentrates with colouring properties**.

  - Reservations raised by some Member States:
    ✓ May lead to increased use of extracts that have not been assessed for their safe use.
    ✓ What about extracts produced from novel foods of which the sole purpose would be to use them for colouring purposes?

  - And what about risk of consumer misleading?

• Labelling of **nano food additives** (TiO$_2$, SiO$_2$)?
... when not trying to confuse them

- **ECJ landmark ruling** on the labelling of a flavoured fruit tea (June 2015)
  
  “The list of ingredients may, even though correct and comprehensive, not be capable of correcting sufficiently the consumer’s erroneous or misleading impression that stems from such labelling”

- Prominent “free from” claims diverting consumer attention from the list of ingredients and nutritional composition

- The “obfuscation” strategy (US example):
  
  “potassium sorbate added to maintain freshness” (i.e. a preservative)
Innovation in food: consumer expectations from risk managers

• Food safety first!

• Beyond safety, approval procedure should also consider “other legitimate factors”
  ✓ technological need
  ✓ consumer acceptance
  ✓ consumer benefits/advantages
  ✓ risk of consumer misleading

Need to involve and consult consumer groups

• Effective enforcement of EU rules once set
  • Recent FVO audit missions have reported on insufficient enforcement of EU food additive provisions for meat preparations and products