Trends and innovation needs in the European Food and Drink Industry
European Food and Drink Industry - Key Data

The number one manufacturing industry in the EU

The food and drink industry is the number one manufacturing industry in the EU in terms of:

1. Turnover: 50.3% (16% for food & drink products, 10.8% for machinery & equipments, 8.8% for automobile, 7.2% for fabricated metal products, 6.9% for rubber & plastic products, 7.1% for chemicals, 6.6% for others)
2. Value added: 52.1% (13.8% for food & drink products, 10.7% for machinery & equipments, 9.8% for fabricated metal products, 7.1% for rubber & plastic products, 6.6% for chemicals, 7.7% for automobile, 5.5% for others)
3. Employment: 50.6% (14.6% for food & drink products, 11.7% for machinery & equipments, 9.9% for fabricated metal products, 9.9% for rubber & plastic products, 7.7% for chemicals, 7.7% for automobile, 5.5% for others)

European Food and Drink Industry- Key Data

A highly diversified industry

274,000 European food and drink companies produce a vast range of foods, satisfying the wide range of evolving needs of Europe’s 500 million consumers every day.

European Food and Drink Industry - Key Data

- Exports: €65 billion
- Imports: €56 billion
- Trade balance: €10 billion
- EU market share of global exports: 17.8%

Map showing EU exports by region, 2010 (€ million):
- NAFTA: 13,662
- EFTA: 6,795
- Balkans: 1,956
- Medit. Count.: 3,715
- Gulf Cooperation Council (GCC): 3,258
- Andean Group: 590
- Mercosur: 1,192
- ACP: 5,950
- ASEAN: 3,889
- CIS: 7,478
Food and drink industry is less innovative compared to other manufacturing sectors...

<table>
<thead>
<tr>
<th>Patent applications to the EPO by sector in the EU, 2008</th>
<th>(% in manufacturing)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10% - 8%</td>
<td>7% - 4%</td>
</tr>
<tr>
<td>Automobile</td>
<td>Basic chemicals</td>
</tr>
<tr>
<td>Office machinery</td>
<td>Transport equipment</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td></td>
</tr>
<tr>
<td>Television and radio</td>
<td></td>
</tr>
</tbody>
</table>

(1) European Patent Office  
Source: Eurostat (Science, technology and innovation database)
...but EU food and drink companies innovate more than anywhere else in the world

<table>
<thead>
<tr>
<th>Sector</th>
<th>World (1000)</th>
<th>EU (1000)</th>
<th>EU share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logistics</td>
<td>10.6</td>
<td>5.8</td>
<td>55</td>
</tr>
<tr>
<td>Agriculture and food</td>
<td>24.3</td>
<td>10.2</td>
<td>42</td>
</tr>
<tr>
<td>Water</td>
<td>23.8</td>
<td>9.5</td>
<td>40</td>
</tr>
<tr>
<td>Horticulture</td>
<td>8.7</td>
<td>3.5</td>
<td>40</td>
</tr>
<tr>
<td>Chemicals</td>
<td>551.2</td>
<td>212.1</td>
<td>38</td>
</tr>
<tr>
<td>Energy</td>
<td>23.7</td>
<td>8.3</td>
<td>35</td>
</tr>
<tr>
<td>Life sciences</td>
<td>298.0</td>
<td>99.2</td>
<td>33</td>
</tr>
<tr>
<td>Creative ind.</td>
<td>40.0</td>
<td>8.8</td>
<td>22</td>
</tr>
<tr>
<td>High technological ind.</td>
<td>1,331.1</td>
<td>208.9</td>
<td>16</td>
</tr>
</tbody>
</table>

Sources: Octrooitppers, Topgebieden vanuit octrooiperspectief, Ministerie van Economische Zaken, Landbouw en Innovatie, July 2011

(1) Share of EU patent applications for a particular category in the global number of patent applications of that category.
Innovation objectives of the food industry

Highly important innovation objectives in the food industry, 2008 (% of companies with innovation activity)

- Improve quality of goods or services
- Improve flexibility for producing goods or services
- Improve range of goods or services
- Increase market share
- Increase capacity for producing goods or services
- Replace outdated products or processes
- Enter new market
- Improve health and safety
- Reduce labour costs per unit output

Source: Eurostat (Science, technology and innovation database)
European Food Industry: Key Challenges

- Increased international competition
- Increased worldwide food demand
- Concerns for food safety and quality
- Interest in added-value food
- Changing attitudes and emerging consumer trends
Consumer Trends in Food selection

The XTC Trends Tree™ is a hierarchical structure that summarizes overall consumer expectations and categorizes them under five axes, and then breaks them down into innovation trends and subsequently into the new drivers used by the world’s manufacturers to meet these expectations, http://www.xtcworldinnovation.com
<table>
<thead>
<tr>
<th>Axis</th>
<th>Trends</th>
<th>Group of claims</th>
<th>General claims</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>&quot;Medical&quot;</td>
<td>Cardiovascular health</td>
<td>Promotes a healthy cardiovascular system</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Fights cholesterol</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Regulates triglyceridemia</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Promotes healthy blood circulation/pressure</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Fights anemia</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bone health</td>
<td>Fights osteoporosis</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Reinforces bone mass</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Promotes bone growth</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fights the signs of aging</td>
<td>Fights arthritis</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Fights the signs of aging cellulaire</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mental health</td>
<td>Boosts mental alertness and concentration</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Improves memory</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Promotes development of the brain and nerve cells</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Regulates mood</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hormonal health</td>
<td>Fights the effects of menopause</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Regulates blood sugar levels</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Immune health</td>
<td>Helps control diabetes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Strengthens the immune system</td>
</tr>
</tbody>
</table>

Legend:
- **Dominant claims**
- **Growing claims**
- **Emerging claims**
European Technology Platform Food for Life

- An industry-led, public/private partnership encouraged by the EC to drive innovation and unite stakeholder communities (industry, academia, researchers, consumers, media, etc.) in reaching strategic research objectives for the agro-food sector
- To increase industry competitiveness and safeguard the continued well-being and welfare of consumers across Europe

http://etp.fooddrinkeurope.eu
European Technology Platform Food for Life

Challenges

1. Ensuring that the healthy choice is the easy choice for consumers
2. Delivering a healthy diet
3. Developing value-added food products with superior quality, convenience, availability and affordability
4. Assuring safe foods that consumers can trust,
5. Achieving sustainable food production
6. Managing the food chain
7. Communication, training and technology transfer, competitiveness and consumer interaction
Challenge 1: Ensuring that the healthy choice is the easy choice for consumers

- Goal 1: Better and agreed upon measurement in food consumer Science
- Goal 2: Developing comprehensive models of consumer food choice processes
- Goal 3: Promoting effective interaction with consumer groups and consumers directly through communication and public participation
- Goal 4: Developing strategies to induce behavioural change in order to improve consumer health and social responsibility (through healthier food choices)

Challenge 2: Delivering a healthier diet

- Goal 1: Understanding brain function in relation to diet
- Goal 2: Understanding effects of diet-gut interactions on intestinal and immune functions
- Goal 3: Understanding the link between diet and metabolic function (obesity and associated metabolic disorders)
- Goal 4: Understanding consumer behaviour and effective communication in relation to health and nutrition
Challenge 3: Developing quality food products

- Goal 1: Relevance of the research to small, medium or large enterprises
- Goal 2: Define the needs to develop specific training and/or education programs
- Goal 3: The need for ERA-Nets in areas of research defined as high priority
- Goal 4: Investments in infrastructure

Challenge 4: Assuring safe foods that consumers can trust

- Goal 1: Predicting and monitoring the behaviour and fate of relevant known and emerging biological hazards
- Goal 2: Predicting and monitoring the behaviour and fate of relevant known and emerging chemical hazards including toxins of biological origin
- Goal 3: Improving risk assessment and risk-benefit evaluation
- Goal 4: Developing tools to ensure security of the food chain
- Goal 5: Understanding and addressing consumer concerns with food safety issues
Challenge 5: Achieving sustainable food production

- Goal 1: Progressing the sustainability of food production and supply in Europe
- Goal 2: Developing scenarios of future European food production and supply
- Goal 3: Developing sustainable processing, preservation, packaging and logistics systems
- Goal 4: Ensuring sustainable primary food production in Europe
- Goal 5: Understanding consumers and their behaviour regarding sustainable food production

Challenge 6: Managing the food chain

- Goal 1: Serving consumer needs for affordable food of quality and diversity
- Goal 2: Serving transparency needs for advancements in chain governance, efficiency, innovation dynamics, and trust
- Goal 3: Serving SME needs for better integration into value chain relationships
- Goal 4: Serving sector needs for better understanding the dynamics in critical success factors for competitive performance and sustainability in times of globalisation and change
Thank you!