Consumer archetypes in future systems

The European Commission’s science and knowledge service
Joint Research Centre

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In "Tomorrow's healthy society: research priorities for foods and diets" EC, 2014
The EU consumer ...

• understands the general concepts of a healthy diet
• feels confident and well informed about food
• purchases taking into account predominantly food quality price and appearance (*but also thinks of taste and pleasure*)
• buys in supermarket, trend towards spending less time cooking at home and more time in out of home eating.

In "Delivering on Food safety and Nutrition in 2050", EC 2016
Future challenges and preparedness

Population pyramid 2008 & 2060, Eurostat

Source: Eurostat, EUROPOP2008 convergence scenario
<table>
<thead>
<tr>
<th>Driver</th>
<th>“Global Food”</th>
<th>“Regional Food”</th>
<th>“Partnership Food”</th>
<th>“Pharma Food”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global trade</td>
<td>Full liberalisation</td>
<td>Disrupted and fragmented</td>
<td>EU trade focus on the US &amp; Canada</td>
<td>Full liberalisation</td>
</tr>
<tr>
<td>EU economic growth</td>
<td>Medium</td>
<td>Decoupled, GDP no longer used as indicator</td>
<td>Stagnation</td>
<td>High</td>
</tr>
<tr>
<td>Agro-food chain structure</td>
<td>Concentration</td>
<td>Diversification, alternative food chains</td>
<td>Concentration</td>
<td>Concentration</td>
</tr>
<tr>
<td>Technology uptake</td>
<td>High</td>
<td>High with focus on environmental sustainability</td>
<td>High</td>
<td>High with focus on nutrition &amp; health</td>
</tr>
<tr>
<td>Social cohesion</td>
<td>Low</td>
<td>High</td>
<td>Limited to local community</td>
<td>High</td>
</tr>
<tr>
<td>Food values</td>
<td>Low</td>
<td>High with focus on local production &amp; quality</td>
<td>Low</td>
<td>High with focus on nutrition &amp; health</td>
</tr>
<tr>
<td>Climate change</td>
<td></td>
<td>2°C threshold of temperature increase will be reached by 2050</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depletion of natural resources</td>
<td></td>
<td>Progressive natural resource depletion towards 2050</td>
<td></td>
<td></td>
</tr>
<tr>
<td>World population growth</td>
<td></td>
<td>World population will increase to about 9 billion by 2050</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In "Delivering on Food safety and Nutrition in 2050", EC 2016
Scenario Pharma Food

- **2015**: NCDs prevalence – public health expenditure, Slow EU economy recovery
- **2030**: R&D prevention NCDs, EU citizen health-aware, Science breakthroughs - food & health, Evidence-based, targeted diets
- **2050**: Personalised nutrition mainstream, Buy-in for all, Food – pharma merge

European Commission
<table>
<thead>
<tr>
<th>Challenges Pharma food</th>
<th>Policy Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential drawbacks of personalised nutrition and “phoods”</td>
<td>Adapt or create an effective regulatory framework</td>
</tr>
<tr>
<td></td>
<td>Redefine health and nutrition claims</td>
</tr>
<tr>
<td>Ability to perform official food-related controls (e.g. prosumer)</td>
<td>Regulate “phood” manufacture by introducing a “Phood licence”</td>
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<td></td>
<td>Enhance post-market monitoring and “nutrivigilance” controls</td>
</tr>
<tr>
<td></td>
<td>Expand third country controls</td>
</tr>
<tr>
<td>Suitability of current EU risk assessment for new food ingredients, food products</td>
<td>Deal with cumulative effects and long term exposure</td>
</tr>
<tr>
<td>and food-related technologies (inc. suitability of exposure data and maximum residue</td>
<td></td>
</tr>
<tr>
<td>levels)</td>
<td></td>
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</tbody>
</table>
Scenario: Global Food

**2015**
- Little climate change mitigation

**2030**
- Climate change impacts rural areas, agri-food chain
- Increased urbanisation
- "Emerged" economies- EU one of many players
- Trade as an answer to resource scarcity

**2050**
- Major WTO deal – full liberalisation
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<tbody>
<tr>
<td>Differences in the handling of food in 3rd countries &amp; Ability to perform official food-related controls</td>
<td>... (see report)</td>
</tr>
</tbody>
</table>
| Increased sedentary behaviour & Diets based on highly processed foods and decreased availability of fresh produce | Fiscal measures -> food taxation or other (des)incentives  
Reformulation towards healthier food options  
Zoning & incentives for fresh food markets  
Standards for healthier options in public food procurement  
National and European actions on balanced diets and access to fresh produce (inc. education and provision of information) |
| Abundance of voluntary food information, increased opportunity for misleading information | Harmonisation of labelling at international level beyond language barriers |
Scenario Regional Food

2015
Little climate change mitigation

Climate change impacts rural areas, agri-food chain

2030
EU society reacts – environmental sustainability

Uphill struggle for the EU

Profound resource scarcity

2050
EU abandons international trade agreements

Trade disruptions – food safety scares
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| Greater reliance for food safety on individuals engaging in food production                                                                                                                                                | Scope of the General Food Law, hygiene regulations and related controls to include "individuals engaging in food production"  
Registration and vaccination of all livestock  
Food safety education  
List of “high-risk” products                                                                                           |
| Temporary shortages of fresh produce and food poverty in a self-sufficient food system                                                                                                                                         | Emergency mechanisms for food re-distribution  
Production quotas to ensure balanced diets during temporary shortages  
Education -> adequate nutrition during temporary disruption of fresh produce                                                                                      |
| Failure to provide appropriate food safety information to the consumer                                                                                                                                                       | Social networks and ICT use by "individuals engaging in food production" to provide food information to their peers                                                                                          |
| Re-introduction of food waste and organic side-stream products in the food chain                                                                                                                                              | Scope of the General Food Law as above  
Communal food waste handling or recycling centres Education -> re-use of food waste                                                                                                                                  |
Conclusions

• The "future" consumer(s) will bring about new challenges

• Anticipation -> research priorities and policy

• Indicators

• Food systems (win-wins and trade-offs)
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