Fat Based Consumer Products

What can we expect?

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For Prof. Dr. Michael Bockisch
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The Basis (Consumer Trends)

Trends (Western and emerging countries)

- more dogmatism,
- hedonism,
- land of milk and honey-like choices,
- situation-based and schizophrenic behaviour with no typology any more,
- dogmatism in wealth, intolerance,
- health – wellness,
- contradictory emotional behaviour,
- abandoning traditional behaviour patterns,
- obesity – mal-nutrition.
The Basis:

Within these trends

Only food products, will succeed that are accepted by

- the trade
- the consumers

Governments for instance will only be able to forbid, they will not be able to launch products.
The Basis:
Help is needed from wise Politicians

It can’t be the task of politicians, to monitor public opinion and then do the popular things.

Task of a politician is, to do the right things and to make them popular.

Walter Scheel (ex-President of Germany)
The Basis:

A Dogma

is a fixed definition, with an inherent, indisputable substance of truth, as it assumes to reflect reality.
The Basis:
this automatically means

Living under a dogma means
• there is no need to reflect
• there is no need to decide
Dogmas:

Some Consequences:

• stand still,
• curing symptoms instead of root causes,
• no discussion,
• no progress
Functional Food

Becel pro activ as an example

• enriched with sterols from oil seeds,
• reduces cholesterol level by 10-15%,
• Food, no drug!
• Novel Food Legislation,
• >10 years development time,
• appr. 100 mln € cost
Functional Food
Becel pro activ as an example

- enriched with sterols from oil seeds,
- reduces cholesterol level by 10--15%,
- Food, no drug!
- Novel Food Legislation, >10 years development time, appr. 100 mln €

From the example can be learnt:

Real big innovation that has to undergo The EU novel food legislation needs a wide and regular consumption for the required pay-back.
Functional Food
what is supposed to come?

- Food for the prevention and relief of widespread diseases as for instance:
  - High Blood Pressure
  - Rheumatic Diseases
- Food to secure sufficient ω-3-FA
- Also more food with no scientifically proven effect
  - but possibly with a „personal“ positive effect
Functional Food
We all would be helped by

- E.g. Long chained (marine) ω-3-fatty acids (EPA, DHA) with a positive effect on the brain development in infants and with many other advantages for men

but.....
Functional Food
We all would be helped by
ω-3-fatty acids…but…..

• they come only from fish
• fish is scarce
• farmed fish only holds them, when it is fed fish or special algae

They might – also as a feed for fish - come from GMO-rape, which at present is not at all accepted in Europe
Energy from Food Sources
Renewable Energy

All want to return to nature,
but nobody on foot.

Petra Kelly, German Green Party Activist
1947 - 1992
Energy from Food Sources means for the Food Industry

- fighting for their raw material
- fighting against an industry that money-wise thinks in a different league
- being aware that farmers will possibly seek new alliances
- being alarmed that food prices might rise dramatically
Energy from Food Sources

with bio diesel as a tortuous path

• burning the physiologically best vegetable oil Europe has

• using a plant that is not energy but food/feed optimised since centuries

• disturbing the equilibrium between two very different markets

• making inferior usage of our land resources

• With a very questionable contribution to the environment
Energy from Food Sources

Food vs Fuel: Disturbing the equilibrium

Edible oils market: 2.5 m barrels/day

Energy market: 85.5 m barrels/day
Energy from Food Sources

inferior usage of acreage

Biodiesel
Bioethanol
Biomass-to Liquid
Biomethan

energy yield / ha / a
as diesel equivalent (l)

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Greenhouse Gas Emissions from Biofuels Relative to Fossil Fuels with and without Inclusion of Land Use Change (LUC) and Soil Carbon

- Biodiesel w/o soil C, LUC and aerosols (values from 40 references; error bars indicate range)
- Ethanol w/o soil C, LUC and aerosols (values from 40 references; error bars indicate range)
- Biodiesel (PO) with soil C and LUC distributed over 100yrs (Reijnders & Huijbregts, 2006)
- Biodiesel (PO) with soil C and LUC distributed over 25yrs (Reijnders & Huijbregts, 2006)
- Biodiesel (US soya) with soil C and aerosols (Delucchi, 2006)
Energy from Food Sources

What are the issues?

- EU forces fuel from renewable sources, above what locally can be produced
- Palm oil cheaper than rape seed oil
- Mineral Oil Companies engage in palm oil plantations
- NGOs start activities against palm oil (logging - the rain forest issue)
- Taking food from the poor (Tortilla War)
- Eventually with a very questionable environmental impact
Water Management

What might be next?

Track in virtual water

At present we need to produce 1kg of:

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Water (liters)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maize</td>
<td>900</td>
</tr>
<tr>
<td>Wheat</td>
<td>1350</td>
</tr>
<tr>
<td>Palm oil</td>
<td>2000</td>
</tr>
<tr>
<td>Milk</td>
<td>1000</td>
</tr>
<tr>
<td>Soya Beans</td>
<td>1800</td>
</tr>
<tr>
<td>Beef</td>
<td>16000</td>
</tr>
</tbody>
</table>

Source amongst others: www.waterfootprint.org
Water Management

What might be next?

Track in virtual water

At present we need to produce 1 kg of:

- Maize: 900 litres of water
- Milk: 1000 litres of water
- Wheat: 1350 litres of water
- Soya Beans: 1800 litres of water
- Palm oil: 2000 litres of water
- Beef: 16000 litres of water

Water, virtually tracked via soya beans, amounts to 70,000,000,000 metric tons annually, at present.

Source amongst others: www.waterfootprint.org
Obesity

We as the Fat Industry are in the Focus
Obesity
Is it Darwinism?

Source: The Economist
Obesitas-Trends unter Erwachsenen in den USA *BMI>30

*Body Mass Index (BMI) von 30 heißt:

ca. 15kg Übergewicht für eine Person von ca. 1,65m

c.a. 20kg Übergewicht für eine Person von ca. 1,80m

Source: Behavioral Risk Factor Surveillance System, CDC

Oils, Fats and Lipids in a Changing World
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Obesitas-Trends unter Erwachsenen in den USA *BMI>30

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Obesity

Why is this an issue of the Fat-Industry?

- food obviously plays a role (even if a very small-one)
- we have been pointed at as „The Guilty“
- a patent remedy is looked for
- the Food Industry is part of the society that has that problem

- but also: „Helping-to-Slim“-Food promises good business
Obesity

Food can help,

- Food – especially fat-based products with reduced calorific value are in the market since more than 25 years and are permanently improved.
- Fat Phobia is of no use and dangerous.
- **No product can resolve the input-output problem** (insufficient physical activity).
- Discriminating food harms.
- There will be no food product with „negative caloric value“!
Obesity

„Easy Solutions“ are easier than bearing the truth

Quelle: A. Berg
Obesity

„Easy Solutions“

- are counterproductive replacing self responsibility by misleading guidance
- do not resolve the issue and may lead to diseases by fat-phobia
- are far too slow to reflect any progress in science
- will not at all resolve the problem
Health:

Food can help!

We will see

• more products allowing for a better ω-3/ω-6 balance
• more products with EPA and or DHA
• even difficult-to-change product formulations being trans-FA-free
• better texture in fat reduced products
• more products where fats are replaced by oils
Emotions:

Food is highly emotional, therefore:

- the non-GMO trend in Europe will not be broken
- more “guaranteed-GMO-free” sources and supply chains will become available
- we will see a continued trend towards “organically grown” raw materials even in discounters, also for oils and fats
- a still tiny trend towards cold pressed certified-origin seed oils will grow
- the industry must observe and take these trends serious in order not to loose out
Thank you for your attention!