Healthier consumer trends – opportunity or risk?

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Key messages

- We understand consumer needs and preference – today and in the future
- We have strong science & technology behind our products and brands
- We balance taste and nutrition
- We develop appropriate structures
## Outline

1. **Changing environment**
2. Why processed food
3. Consumer trends
4. Our R&D setup
5. Consumer centricity
6. Technology lead
7. Examples
8. Conclusions
A changing environment creates new challenges and opportunities

Population growth
From 7.1 to 9.6 billion in 2050 70% in urban areas

Sustainably feeding the world population

Food vs. nutrition
From under nutrition to obesity

Globalization
will further expose the food system to economic and political pressures

Production & climate change
Scarcity of land, water and energy

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Innovation supports our Food Safety, Nutrition and Health Roadmap
Processed food adds value

Food safety
Food security
Food supply
We leverage consumer preference & trends
And quantify the dimensions of food pleasure
… to translate what drives consumer preference

- Sweet
- Sour
- Bitter
- Salty
- Umami
We address selected food attributes, which are relevant for our consumer

- All natural
- High in fiber
- Sustainably sourced ingredients
- Low salt / sodium
- High in protein
- Low sugar / sugar free
- Low / no fat
- Low / no calories
- Micronutrient fortified
- Gluten-free

Nielsen Global Health and Wellness Report 2015
We have unmatched R&D capability to innovate

**Discover**
- Nestlé Institute of Health Sciences
- Nestlé Research Center
  - Nestlé Clinical Development Unit

**Develop**
- R&D Centres
- PTCs

**Deploy**
- > 300 AGs
- In over 80 countries
Our R&D network has a global reach
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The consumer at the center of our thinking and activity

**Consumer**
What are the benefits for our consumers?

**Operational Sustainability**
Can we create value for society and Nestlé along the value chain?

**Science & Technology**
Do we have differentiating technologies to find new solutions?

**Commercial**
Do we have the commercial capabilities to do this?
Therefore we address the whole value chain

... new or more efficient solutions

... new consumer offers or benefits
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We apply consumer feedback in LEAN product design

Structured consumer data analysis
Understand consumer value drivers
Identify value adding ingredients & processes
LEAN product design

Ingredients
Reformulation
Process technology
Visual design

60/40+
Complaints
Sensory maps

We apply consumer feedback in LEAN product design.
We provide balanced nutrition and...

- Consumer understanding
- Perception physiology
- Air
- Water
- Carbohydrates
- Biotransformation
- Sweeteners & taste enhancers
We reduce sugar & fat to drive consumer preference in Ready to drink

**Science & Technology**
Consumer centric reformulation without compromise on taste and texture:

- 54% total sugar reduction
- 45% total fat reduction
- 25% more protein

**Outcome**
Health Care Professionals understand better nutritional composition compared to the competitor product (1400/94%)
New Nesquik with great taste that kids love and mums approve – a perfect milk modifier

Sugar reduction compliant with WHO recommendations

> 1'000 tons of sugar reduced worldwide

Micro fortification to support Kids’ growth & development

Fortification
- Potassium 15%
- Vit D 30%
- Iron 15%
- Vit C 15%
- Zinc 15%
- Vit B1 15-30%

LESS Sugar
We provide balanced nutrition and...

- Consumer understanding
- Perception physiology
- Air
- Water
- Carbohydrates
- Proteins
- Bulking agents
- Food structuring
We substitute partially hydrogenated oil with high oleic soybean oil

**Science & Technology**

Partnership with *DuPont Pioneer* to grow new soy oil crop at large scale for the first time

**Outcome**

By end of 2015 (US):

- 45% SFA reduced
- 25’800 tons of oil substituted
- 9’900 tons of trans fat removed

**Liquid Coffee-mate**
Protein aggregation can lead to a viscosity increase
Vanilla & Brownies

Mix recipe
- Milk fat
- Dairy proteins
- Stabilizer

Vanilla & Brownies new product

New mix recipe
- 28% fat
- Increased protein content
- NO Starch

New technology wins 60/40 vs. full fat Ice Cream
We provide balanced nutrition and…

- Consumer understanding
- Perception physiology
- Minerals
- Biotransformation
- Culinary art & taste compensation
- Material science
We deliver great taste, while reducing sodium and SFA in Instant Noodles

- 15% SODIUM reduction whilst improving taste
- Exported in 17 countries under 4 brands
- 50% SFA reduction through pre-drying & oil blend optimization
We drive micronutrient fortification to counteract malnutrition

More than 167 billion servings in 2013

200 billion servings fortified by 2016

Nestlé is engaging in biofortification of maize, cassava, wheat etc.

Planting & consumption by smallholder farmers will improve the nutrient supply
We incorporate whole grain technology in RTD

Science & Technology

Enzymatic hydrolysis of cereals to generate and stabilize fibers in liquid application

Outcome

- 8 g whole grain/serving
- Fibers, vitamins, mineral preserved
- Sugar reduction
In a retrospective we have achieved a lot

<table>
<thead>
<tr>
<th>Product Type</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td># renovated products for nutrition or health considerations</td>
<td>6692</td>
<td>7789</td>
<td>10818</td>
</tr>
<tr>
<td># products with reduced sodium, sugars, trans-fat, total fat, calories or</td>
<td>3317</td>
<td>4221</td>
<td>6973</td>
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<tr>
<td>artificial colorings</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># products with increase in nutritious ingredients or essential nutrients</td>
<td>4691</td>
<td>4778</td>
<td>6359</td>
</tr>
</tbody>
</table>
Out of home solutions deliver multiple choice through consumer interaction

**Input**

- Machine settings
- Coffee type
- Milk components
- Sugar

**MILANO 2**

**Outcome**

Understanding the process influence on sensory characteristics
We focus on packaging to drive consumer preference.

Functionality = f(torque + peel force + cap diam.)

Prefernce = Handle | Open | Read

<table>
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<tr>
<th>Preference</th>
<th>Handle</th>
<th>Open</th>
<th>Read</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Score</td>
<td>6.27</td>
<td>5.97</td>
<td>5.31</td>
</tr>
<tr>
<td>(n=62, 7-point scale)</td>
<td>4.60</td>
<td>5.12</td>
<td>4.85</td>
</tr>
</tbody>
</table>
We deploy our innovations and ensure sustainability

- **61%** Production volume
- **6%** Total on-site energy consumption
- **-14%** Direct GHG emissions
- **-16%** Total water withdrawal
- **-38%** Total water discharge
- **-51%** Total waste for disposal
Consumer centric product I&R is paying off (US)

- NHW benefits, e.g. gluten free, high in protein, organic
- Ethnic dishes

- Fresh and real, not dehydrated vegetables giving authentic, clean taste

- Rich in proteins, complex carbohydrates and vegetables
- Modern ethnic flavours

- Clean label