Growth through Innovation

Introduction
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EVP, Strategic Business Units, Marketing, Sales

Science for Business
Stefan Catsicas
EVP, Chief Technology Officer: Innovation, Technology and R&D

Experience Innovation
Patrice Bula

Nestlé Investor Seminar
24 – 25 May, 2016
Disclaimer

This presentation contains forward looking statements which reflect Management’s current views and estimates. The forward looking statements involve certain risks and uncertainties that could cause actual results to differ materially from those contained in the forward looking statements. Potential risks and uncertainties include such factors as general economic conditions, foreign exchange fluctuations, competitive product and pricing pressures and regulatory developments.
A Dynamic Innovation Ecosystem

DISRUPTIVE TREND IDENTIFICATION

SOCIAL LISTENING AND CONVERSATION

MARKET CONSUMER INSIGHTS

SCIENCE, NUTRITION & HEALTH

OPEN INNOVATION PLATFORM

SILICON VALLEY OUTPOST
A Dynamic Innovation Ecosystem

SOCIAL LISTENING AND CONVERSATION

DISRUPTIVE TREND IDENTIFICATION

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SILICON VALLEY OUTPOST

INSTITUTE FOR THE FUTURE

Research

Nestlé Digital Acceleration Team

Nestlé Silicon Valley Innovation Outpost

Nestlé MassChallenge @Nestlé
Brands are living creatures

- 31% of sales from products <3 years old
- >1000 renovations
- >3000 recipe reformulations
- >500 “clean label” renovations
- >200 taste preference test (60/40) renovations
A Dynamic Innovation Ecosystem

- Social Listening and Conversation
- Disruptive Trend Identification
- Market Consumer Insights
- Silicon Valley Outpost
- Science, Nutrition & Health
- Open Innovation Platform
A unique R&D ecosystem

**Material Science** (e.g. lowering sugar, fat and salt)

**Nutrition Science** (e.g. bioavailability, micronutrients)

**Natural Technology** (e.g. micronisation, bio-fermentation)

Consumers
A strategy to improve the nutritional value of our products

The Nestlé in Society Commitments

Sugars, Salt, Saturated / Trans Fats

Fortification and Provide:

- whole grain
- vegetables
- natural ingredients
- portion guidance

Without compromising Taste & Pleasure
## Deploying new science and technology

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Nestlé leverages material science to reduce sugar

Sugar crystals → Slow dissolution → Nestlé sugar → Fast dissolution

Nestlé sugar crystals dissolve faster than traditional sugar crystals.

2017 → 2019
Natural
20-40% reduction
Nestlé leverages material science to reduce salt

Micro salt particles maximize perception

“Artisanal” corn applied to pizza crust

2016 → 2019
Natural 15-30% reduction
### Deploying new science and technology

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Fat reduction, proteins, and new textures

- Controlled aggregation of proteins
- Fat reduction
- Enhance **creaminess and mouthfeel**
- Improved **flavour release**
- Cost improvement
Deploying new science and technology

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Open innovation with three leading universities

New York

Cambridge

Paris

Lausanne

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## Deploying new science and technology

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Consumer insight: Sensory mapping
Many consumers dislike harsh Robusta typical rubbery, earthy, process and bitter notes
Membrane purification using carrier lipids

- Roasting
- Grinding
- Aroma recovery
- Extraction
- Evaporation
- Drying

Launch in 28 Markets starting 2016
Milk oligosaccharides

Harnessing a Child’s Natural Potential

2016 → 2019
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<td>Nutrient</td>
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<tr>
<td>Iron</td>
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<td>Vitamin A</td>
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<td>Iodine</td>
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<td>Zinc</td>
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Average haemoglobin and access to fortification

**Consumer of fortified babyfood**

- **Hb 100 g/l threshold**

**Non-consumer**

- **50% lower anaemia risk**
- **Improved cognition**
- **5-17% gain productivity**

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Prieto A & Detzel P: Association between feeding types and haemoglobin concentrations in India. Poster presentation ISPOR, Italy 2015 – based on NFHS 2005-06

Eichler et al. BMC Public Health 2012, 12:506
The EpiGen-Nestlé collaboration on gestational diabetes
Deploying new science and technology

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Brain is 5% of body mass and 20% of body energy.

Skin and gut mirror our health.

Interactive diets

Nestlé has the world’s largest probiotic collection.

The Gut-Brain-Skin nexus
Brain energy: Refractory epilepsy
Charlie’s Story, courtesy of “The Food Hospital”, Channel 4
Brain energy: “Big Data” 10’000 neurons reconstruction
Brain energy

One human neuron

Nucleus DNA

MCTs Ketone bodies
Vitaflo: Ketogenic diet with quality of life

Ketogenic Diet

High Fat Diets/Calorie Restriction

MCT Therapy

Modified Diet Therapies

Cellular Metabolism

Mechanism of novel therapies
## Deploying new science and technology

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Nutrition, Health & Wellness is about People’s Quality of Life

First do no harm

Inspired by nature
4 Key Take-aways

1. PEOPLE CENTRIC RESEARCH AND DEVELOPMENT
   Nestlé is actively addressing people’s needs and global trends with cutting edge food, nutrition and health science.

2. CATEGORY FOCUS AND MULTI-CATEGORY SOLUTIONS
   Solutions by Nestlé Research are business driven and can be deployed across categories and businesses.

3. GLOBAL PRESENCE
   Our geographical reach gives us the opportunity to address the needs of local communities in a personalized way.

4. OPEN INNOVATION
   We are connected with world class academia, research institutions and innovation partners through long-term partnerships that support future innovations for Nestlé.
Nutrition science led innovation

"Shape"
Low Protein

Health Science

Cognitive Performance
# Technology led innovation

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<tr>
<th>Special.T</th>
<th>Papyrus</th>
<th>L’Atelier</th>
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<td><img src="image1.png" alt="Special.T image" /></td>
<td><img src="image2.png" alt="Papyrus image" /></td>
<td><img src="image3.png" alt="L’Atelier image" /></td>
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### Consumer Insight
The new Health and Wellness dimension

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<tr>
<th>Gluten Free</th>
<th>Natural / Authentic / Organic</th>
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<td><img src="image1" alt="Herta Gluten Free" /></td>
<td><img src="image2" alt="Outshine Fruit Bars" /></td>
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<td><img src="image3" alt="Buitoni Gluten Free Corn Flakes" /></td>
<td><img src="image4" alt="Nestlé NaturNes Apple" /></td>
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<tr>
<td><img src="image5" alt="Buitoni Gluten Free Margherita Pizza" /></td>
<td><img src="image6" alt="Gerber Organic" /></td>
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### Consumer Insight

**The new Health and Wellness dimension**

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<th>Flexitarian</th>
<th>Lactose Free</th>
<th>Grains Based Diet</th>
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<td><img src="NIDO.png" alt="Image" /></td>
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<td><img src="Svelty.png" alt="Image" /></td>
<td><img src="UncleTofbos.png" alt="Image" /></td>
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Premiumisation

Ice Cream

Confectionery

Culinary
Answering the Good Lifers specific needs

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<th>Health Science</th>
<th>Adult Milk</th>
<th>Acticol Omega</th>
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<tr>
<td>Meritene</td>
<td>Jia-Jien™</td>
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<td>Mobilitis</td>
<td>Multi-care Nutrients</td>
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<td>Comfortis</td>
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- **Jia-Jien™**
  - Good Mobility
  - Calcium, Glucosamine
  - Good Digestion
  - Fibersol 2
  - Good Vitality
  - Omega3
  - Good Eyesight
  - Vitamin A, Lutein
Innovating beyond products

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<th>Digital Services</th>
<th>Health Services</th>
<th>Route to market</th>
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