### Attractive Markets

<table>
<thead>
<tr>
<th>Developed Markets</th>
<th>Emerging Markets</th>
</tr>
</thead>
<tbody>
<tr>
<td>~65% Share of NR*</td>
<td>~35% Share of NR*</td>
</tr>
</tbody>
</table>

### Power Brands

- **Global**: OREO, DAIRY MILK, Milka, Trident, beVita, Barni, HALLS, CLUB SOCIAL, TOBLERONE
- **Regional**: RITZ, LU, Wheat Thins, Alpen Gold, Sour Patch, Triscuit, Newtons, Honey Maid, Юбилейное, LACTA, CÔTE D’OR

### Global Leader

- **Biscuits**: #1
- **Chocolate**: #1
- **Gum**: #2
- **Candy**: #1

### Data Source

Global Leadership Rankings based on Euromonitor

Data Source: Mondelez International 2016 Annual Report

* = Net Revenue
Challenges we faced....
A Complex Supply Chain after a century of Acquisitions

More than 150 factories around the world...

- Fragmented machinery and equipment supplier base
- Significant number of products, formats and formulas
- Sub-scale plants with low efficiency assets
- Countless variations of (often) locally modified processing machinery
- Highly complex spare parts portfolio, long delivery times for repairs and upgrades
Executive Summary
Mondelēz Design for Value Collaborative Workshops

Within three years Mondelēz had to install +100 manufacturing lines. No food processing company ever attempted such a comprehensive footprint upgrade in such a short time before...

☐ This aggressive investment forced us to create - from scratch - collaborative solutions with equipment suppliers.

☐ Tools and methodologies became a standard practice with more than 120 colleagues today engaged in projects.

☐ Along the way engineering overhead was cut, start-up costs were reduced and we helped build Mondelēz into the most profitable snack food supplier in the world!
Our Mission
Closer Collaboration with our Machinery and Equipment Suppliers

What is the purpose of Design for Value?

If anything inside, atop or anywhere around the equipment or handling systems doesn’t add customer value, then it is waste --- remove it!

Breakthrough gains required increased emphasis on:

✅ modularity,
✅ build-to-print design, and
✅ competitive sourcing and assembly of equipment (best cost countries).

This was not about discounts! How do we deliver truly game-changing savings of 30%-40%? …or more than that?

April 2015 Team Kick-Off with Mondelēz EVP ISC Daniel Myers
How we approach Design for Value
Our Framework

A Two Chapter Cookbook …

First Chapter
Identify Opportunities
Existing Machinery

i. joint supplier-Mondelēz workshop to identify bill of material and logistics inefficiencies …

ii. cross functional teams prioritize these opportunities for implementation within 12 months…

iii. project tracking is launched, includes monthly reviews for each sub-team…

Second Chapter
Design for Value
Next Generation

iv. follow-up deep dives and second optimization round: incremental ambition for 20% in cost outs …

v. next generation solution designed to fulfill Mondelēz IL6σ (Integrated Lean Six Sigma) goals…

vi. cascade of successful ideas across global machinery installed base…

☐ Bill of Material Optimization
   Tier II Optimization
   Best-Cost Components

☐ Complexity Reduction
   Standards Across Equipment
   Poka Yoke

☐ Project Execution
   Best-In-Class Commissioning
   Best-In-Class Installation

☐ Continuous Improvement
   Utilities – Maintenance
   Overhead Costs

☐ Value Stream Efficiency
   Identify Waste
   Reduce Equipment Lead Times

☐ Innovation / Next Generation
   Many-into-Few Modules
   New Solutions
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Example
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Tier II Optimization
Best-Cost Components
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Example
☑ Innovation / Next Generation
Many-into-Few Modules
New Solutions

designs leverage Mondelēz know-how and years of in-house experience
we now have machines assembled by BCC (best cost country) manufacturers at significant cost reduction

some processing equipment now being fabricated from Mondelēz-owned designs
huge development cost savings on repeat orders

Mondelez International
EMS Summit European Manufacturing Strategies
Design for Value Example
_Opportunity wherever we look_

**a key component travelled +12,000 km between sub suppliers during various stages of assembly. Almost no value added!**

The component ended where its life began --- seventeen weeks earlier!
Design for Value Methodology

How we track ideas and ensure their implementation

D4V Workshop Groups

Checklist

Our aspiration = Deliver savings within 24 months!

Savings Workstreams

<table>
<thead>
<tr>
<th>Workstream</th>
<th>Phase I savings range</th>
<th>Phase II savings range</th>
<th>Phase III savings range</th>
<th>Consolidated savings range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bill of Material Optimization</td>
<td>low</td>
<td>low</td>
<td>low</td>
<td>low</td>
</tr>
<tr>
<td>Complexity Reduction</td>
<td>high</td>
<td>high</td>
<td>high</td>
<td>high</td>
</tr>
<tr>
<td>Project Execution</td>
<td>low</td>
<td>low</td>
<td>low</td>
<td>low</td>
</tr>
<tr>
<td>Continuous Improvement</td>
<td>TCO</td>
<td>high</td>
<td>high</td>
<td>high</td>
</tr>
<tr>
<td>Value Stream Map</td>
<td>Logistics</td>
<td>low</td>
<td>low</td>
<td>low</td>
</tr>
<tr>
<td>Innovation</td>
<td>Lines of the Future</td>
<td>high</td>
<td>high</td>
<td>high</td>
</tr>
</tbody>
</table>

Average Savings vs. Today’s Cost Structure:

- xxx%
- xxxx%
- xxx%
- xxx%

Workshop #2 Interim Results

<table>
<thead>
<tr>
<th>Specific Savings Actions</th>
<th>Phase I savings</th>
<th>Phase II savings</th>
<th>Phase III savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bill of Material...</td>
<td>3.75%</td>
<td>0.03%</td>
<td>4.17%</td>
</tr>
<tr>
<td>Complexity Reduction...</td>
<td>1.04%</td>
<td>0.03%</td>
<td>1.67%</td>
</tr>
<tr>
<td>Project Execution...</td>
<td>0.83%</td>
<td>0.83%</td>
<td>1.67%</td>
</tr>
<tr>
<td>Continuous Improvement...</td>
<td>1.67%</td>
<td>1.67%</td>
<td>8.13%</td>
</tr>
</tbody>
</table>

Total: 23.12%
Design for Value Partners
Most of our Strategic Partners have participated in Workshops
Design for Value Partners
We’re now also introducing D4V to Suppliers from Best Cost Countries

- Brazil
- Bulgaria
- China
- Czech Republic
- India
- Malaysia
- Poland
- Romania
- Slovakia
Design for Value Results
Successes published in our Annual Reports

Breakthrough Gains:

- modular, build-to-print designs
- competitive sourcing of components
- equipment assembly in best cost countries

Results:

- reduced capital investments
- lower processing and conversion costs
- increased throughput and efficiency
- reduced process waste

Source: Mondelēz Annual Report 2016
How we approach Design for Value
Our New and Improved Framework

We added a New Chapter to our Cookbook …

Third Chapter
Operator Feedback
Vertical Start-Ups

vii. supplier design engineers operate lines, clean the machines and replace parts while the plant teams offer candid advice on downtimes…

viii. supplier design engineers learn about operators’ challenges first-hand because they must reach inside, across or under their own machinery!

ix. supplier design engineers provide 3D drawings of their equipment - in advance of design freeze - to solicit feedback from operators…
Design for Value Reloaded
Our New and Improved Framework

**D4V + VSU Results =**

- **VSU (vertical line start-ups)** achieved at FPA (first production approval) with sharp boost in operating efficiencies
- **Significant production defect reduction** as operations are now $\geq 4\sigma$ (Four Sigma)
- **Autonomous and Progressive Maintenance** enabled with 5S methodology in place
- **Structured transfers of operator skills:** balanced and **aligned production teams**
- **Consistent LOTO (lock out tag out) and other safety features**
The workshop spirit was positive and tangible. We aim to strengthen our relationship with Mondelēz and this was the best way to grow as a team. We consider it confirmation and reinforcement of cooperation between our companies.

Marco and Roberto Vicario
CEO and Chairman

The Design for Value workshop is a mutual commitment to enter into a real and smart partnership, adding benefits to Mondelēz and Haas-Meincke. Our workshop analyzed the full value chain so we could find considerable savings and efficiency gains. I now use this internally to drive efficiency and vertical start-ups.

Frank Müntzberg
Managing Director
Design for Value Workshops
Mondelēz Executive Feedback

Consumers are price sensitive and selective when it comes to snacking. We listen and translate changes from the market into technological platforms. We look for reliable partners who can cope with market challenges and work together with us in a Design for Value partnership.

Alex Turolla
Vice President, Global Logistics and Manufacturing

A product is not premium because it’s hard to make or costs a lot of as manufacturers typically believe. Customers pay only for what is useful to them and gives them value. That is why we focus on Design for Value.

Cristian Negrescu
Senior Director, Global Engineering

In a market like gum, every move our competition makes has an impact on our ability to grow. Innovations such as Design for Value give us a competitive edge.

Orhan Bazna
Senior Director, Business Development - Global Biscuits, Gum and Candy

We’re developing systems to tap collective capabilities and strengths to shape our future value chain, from manufacture to logistics. Our Design for Value partners are handpicked as the best and most innovative in their industries.

Emil Virag
Director, Integrated Supply Chain – Business Development

Alex Turolla
Vice President, Global Logistics and Manufacturing
Questions? Feedback?

John M Walker
Head, Global Manufacturing, Supply Chain + Infrastructure Investments
Mondelēz International
Lindbergh-Allee 1 | 8152 Glattpark | Switzerland

john.walker@mdlz.com
mobile: +41 79 751 0993