Sustainability in medical devices: Johnson & Johnson’s perspective

Medical Devices Regulation Workshop
6 November, European Parliament Brussels
Blandine Gayral, Johnson & Johnson
Caring for the world, one person at a time, inspires and unites the people of Johnson & Johnson. We embrace research and science – bringing innovative ideas, products and services to advance the health and well-being of people.
J&J Medical Devices Business Segment

Cardiovascular & Specialty Solution
- Advance Sterilization Products
- Biosense Webster
- Acclarent
- Mentor

DePuy Synthes
- Orthopedics
- Neurological
- Sports Medicine

Ethicon
- Endo Surgery
- Wound and Sutures

Consumer Medical Devices
- Vision Care
- Diabetes Solutions
Evolution of Our Sustainability Goals

1987
Johnson & Johnson establishes first environmental goal aimed at reducing toxic emissions

1993-2000
Johnson & Johnson begins formalizing long-term goals across a range of environmental impacts with Pollution Prevention Goals

2000-2005
Johnson & Johnson launches Next Generation Goals

2005-2010
Johnson & Johnson launches Healthy Planet 2010 Goals

2005-2011
Johnson & Johnson adds Safe People 2010 goals and Healthy People 2012 Goals

2011
Johnson & Johnson launches Healthy Future 2015, our five-year strategic roadmap to propel our corporate citizenship and sustainability commitments forward.

2016
Johnson & Johnson launches new 2020 Health for Humanity Goals, expanding the ways we think about health, aspiring to help more people live healthier lives through the ideas we generate, products we make and good habits we create.
2020 Health for Humanity Goals

**People**
- Develop and deliver innovative, life-changing solutions to address the world’s major health challenges
- Deliver innovative health care access and training programs that impact a billion lives in underserved areas
- Collaborate with government, nonprofit and private sector to foster new models of health that improve economic well-being and health care in key emerging markets

**Places**
- Fully integrate sustainable design solutions into our product innovation processes
- Reduce our impacts on climate and water resources

**Practices**
- Collaborate with our suppliers to accelerate environmental and social improvements across the value chain
- Empower and engage the Johnson & Johnson family of employees to become the healthiest workforce

Photo Credits: Julien Harneis, dsorich, J&J
Our Global Health Care Customers Value Sustainability

Top Sustainability Focus Areas
- Product End-of-Life, Disposal
- Chemicals of Concern in Products
- Packaging
- Shipping Efficiencies

Customers looking for solutions that address these areas — 85% indicate that sustainability is essential or very important.

Sustainability is Good for Business
- Lower operational costs
- Allows hospitals to direct more resources to patient care

1. J&J Customer Experience Program Global Results: Sustainability, November 2015
Minimize Our Impact
The EARTHWARDS™ Process

EARTHWARDS™ Objectives:

• Support the development of more sustainable products
• Provide tools & resources to enable sustainable innovation
• Enable meaningful and credible claims
Our Earthwards® Approach

Through life-cycle thinking, we can identify opportunities to improve our performance.

• Defines how we address environmental and social impacts of our products

• Challenges employees to design innovative solutions across a product’s lifecycle

• Validated by annual 3rd party audit and NGO and academic Board members

• Achieve Earthwards® recognition, for sustainable innovation improvements, for 20% of Johnson & Johnson revenue by 2020
Earthwards® Areas of Measurement

The Earthwards® approach leverages innovation to improve our products in seven key areas:

- MATERIALS
- PACKAGING
- ENERGY
- WASTE
- WATER
- SOCIAL
- INNOVATION
Shifting Earthwards in the Stage Gate review process

Prompted at: **Gate C – Charter – Project Management & Risk**

✔ Agree overall approach to Earthwards for the project.

✔ Earthwards Innovation session suggested for ideation
Our Impact

Reduced
67,000 total tonnes of materials
That’s nearly 2.5x as heavy as The Statue of Liberty¹

Reduced
4,500 total tonnes of packaging
Or the equivalent of about nine Boeing 747 planes²

Saved
215 million total liters of water
Or the equivalent of nearly 85 Olympic-sized swimming pools³

Diverted
690,000 total tonnes from landfills
Or the equivalent of about 17,250 18-wheeler trucks³
## Growth of Earthwards® Recognized Products

<table>
<thead>
<tr>
<th>Year</th>
<th>Products Recognized</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>3</td>
<td>First prescription product and medical device recognized</td>
</tr>
<tr>
<td>2010</td>
<td>9</td>
<td>First full product line recognized—Neutrogena Naturals</td>
</tr>
<tr>
<td>2011</td>
<td>24</td>
<td>First external audit of Earthwards® products</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$2 billion in revenue</td>
</tr>
<tr>
<td>2012</td>
<td>35</td>
<td>Moved to online scorecard</td>
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<tr>
<td>2013</td>
<td>55</td>
<td>Incorporate PVC removal into global EHS standards</td>
</tr>
<tr>
<td>2014</td>
<td>73</td>
<td>Saved 3500 tons of PVC from packaging since 2010</td>
</tr>
<tr>
<td>2016</td>
<td>91</td>
<td>$11.5 billion in revenue</td>
</tr>
<tr>
<td>2020</td>
<td></td>
<td>Goal: 20% of revenue</td>
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### Key Milestones:
- **First Prescription Product and Medical Device Recognized** in 2009.
- **First Full Product Line Recognized**—Neutrogena Naturals in 2010.
- **First External Audit of Earthwards® Products** with $2 billion in revenue in 2011.
- **Moved to Online Scorecard** in 2012.
- **Incorporate PVC Removal into Global EHS Standards** in 2013.
- **Saved 3500 Tons of PVC from Packaging since 2010** in 2014.
- **$11.5 Billion in Revenue** by 2020.

**Goal:** 20% of revenue
ENSEAL® G2 Articulating Tissue Sealers (U.S.)

- Eliminated PVC from ENSEAL® G2 Articulating Tissue Sealer\(^1\)
- Reduced product weight by 13% compared to existing ENSEAL® G2 Tissue Sealers\(^2\)
- Reduced packaging weight by 33% compared to existing ENSEAL® G2 Tissue Sealers\(^3\)

\(^1\)removed 2.40 ounces of PVC weight compared to ENSEAL® G2 Tissue Sealer
\(^2\)Product weight reduction from .67 lbs (NSLG2S35) to .58 lbs (NSLG2S35A).
\(^3\)Packaging weight reduction from .47 lbs (NSLG2S35) to .32 lbs (NSLG2S35A).
DePuy Synthes Attune LOGICLOCK Tibial Base

- 24% reduction in water used to manufacture each part
- 31% reduction in electricity offset by input by an on-site wind turbine
- 33% reduction in the alloy required to cast each part
OneTouch® UltraMini Testing Kit

• A 55% reduction in materials as compared to the OneTouch® Basic® Testing Kit

• Reduced tertiary packaging by 35%

• Incorporated 70% post-consumer recycled materials into packaging

• Eliminated materials and chemicals covered in NGO lists of concern including:
  – Latex and PVC (polyvinylchloride)
  – DEHP (diocyl phthalate) from the carrying cases
  – Removed antimony trioxide from the test strips