

Upstream

Ilyssa Gordon, MD, PhD

Assistant Professor of Pathology
Cleveland Clinic

with guests

Keith Sutter

Worldwide Director of Sustainability
Johnson & Johnson

Mark Gmelin

Sustainability Coordinator
Labcon North America



MATERIALS



PACKAGING



ENERGY



WASTE



WATER



SOCIAL



INNOVATION

The earthwards® approach

REQUIRED

(All new products & packaging)

ENCOURAGED

1

Meet product
stewardship
requirements

2

Review
lifecycle
impacts

3

Implement
and validate
improvements

4

Achieve
Earthwards®
Recognition

Using Earthwards® as our guide, we're being thoughtful and innovative in our approach to material selection, packaging, energy and water use, waste reduction, and even social impacts.

Our product teams are also encouraged to collaborate with sustainability experts to improve products in ways that matter most. Products that have achieved at least three significant improvements are eligible for Earthwards® recognition, an honor celebrating our most innovative and broadly improved products. Today, more than 70 Johnson & Johnson products – representing more than \$8 billion in revenue – have achieved Earthwards® recognition.

Learn more at www.earthwards.com For employees: earthwards.jnj.com

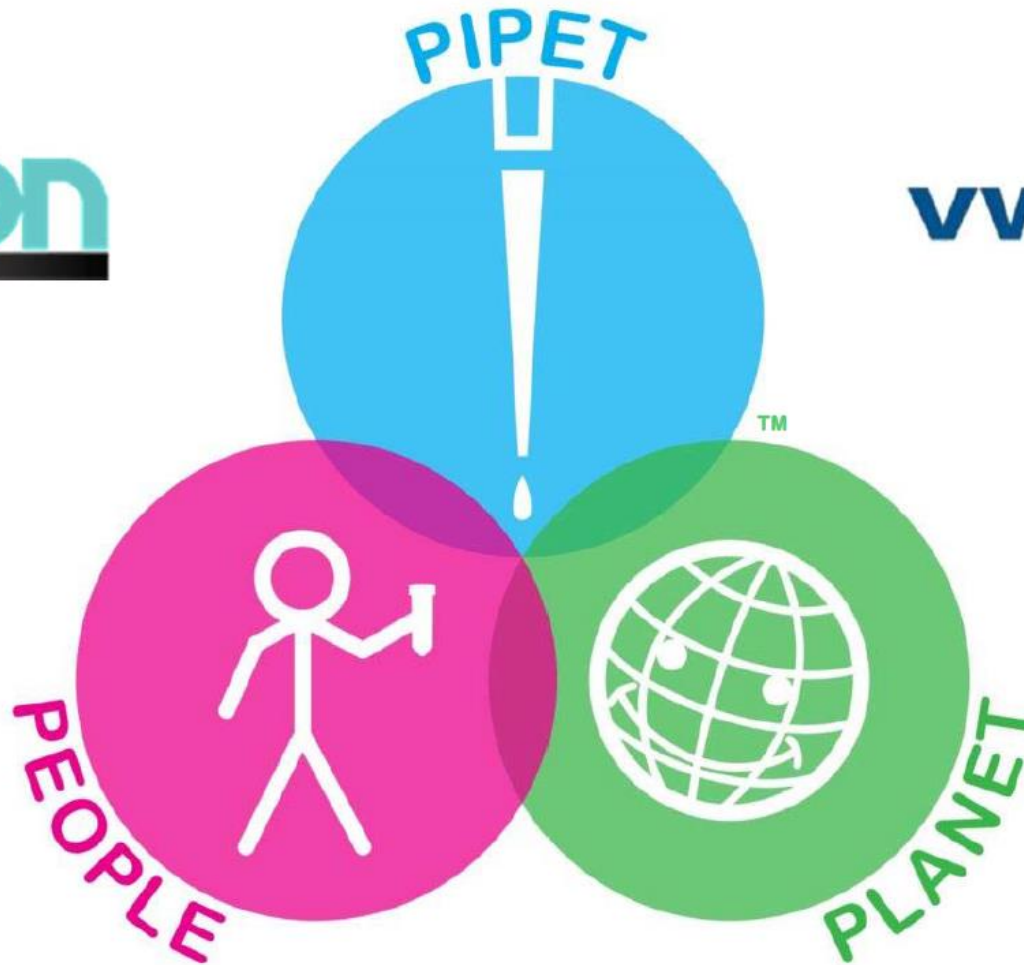
Innovation for a healthy future

Our customers and consumers expect us to incorporate sustainability in everything we do. To meet this growing demand, Johnson & Johnson developed the Earthwards® approach to address our products' impacts throughout their lifecycles.



earthwards®
Johnson & Johnson

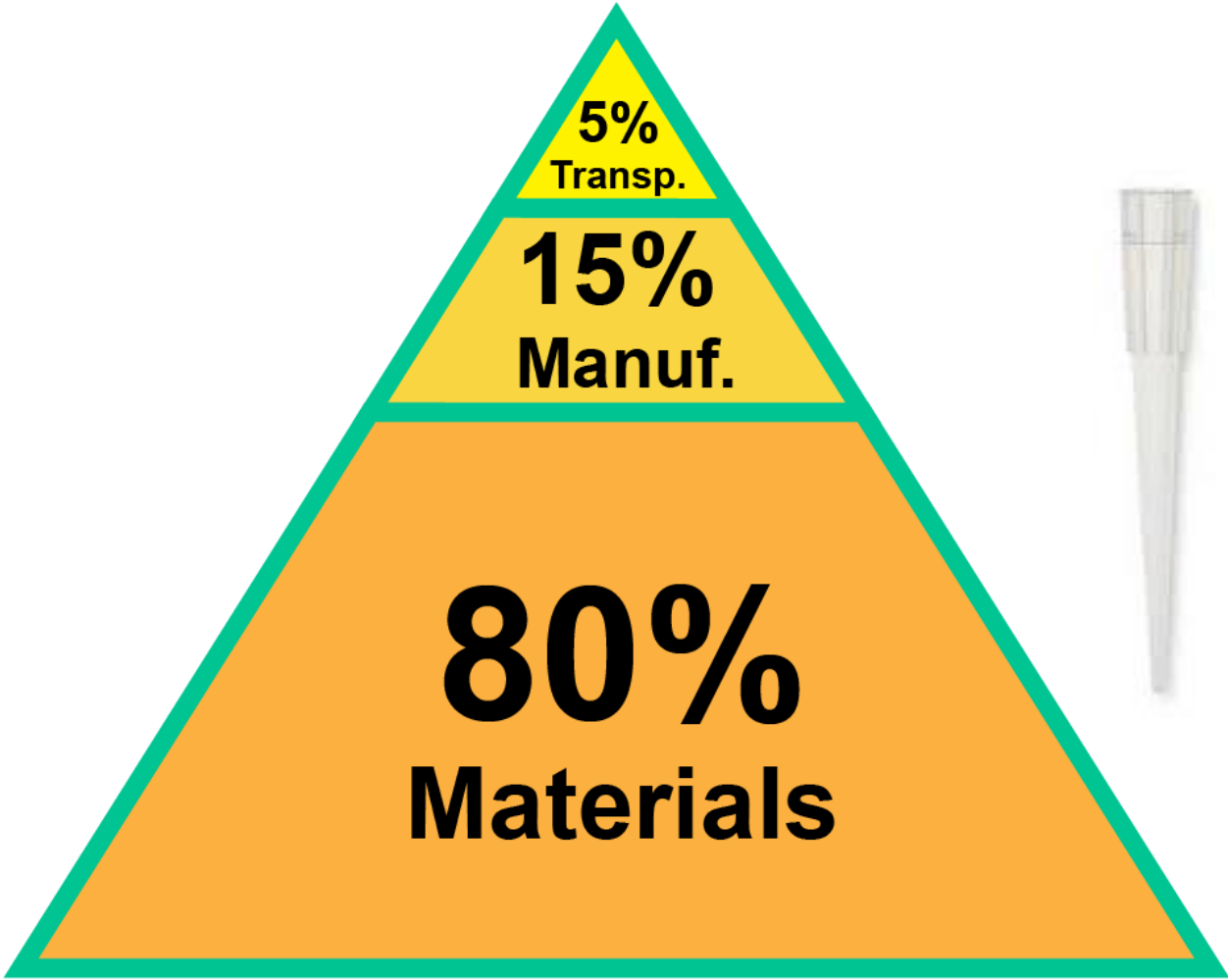




Earth Friendly Labware Solutions

Innovative, Sustainable Design and Manufacturing

Labware: Carbon Footprint



→
Use &
Disposal

Typical Cradle to Gate Life Cycle Analysis of Labware

Materials: Replace, Recycle & Reuse



Styrofoam/EPS

1 case 500 tubes
= 1 cu-ft of EPS



Recyclable Paperboard



Reusable/Recyclable

Sustainability Goals:

- Reduce and Replace
- Reuse and Refill
- Recyclable and Recycled
- Renewable

Materials: Reduce, Reuse/Refill & Recycle

25%
UP



15%
UP



35%
UP



63% UP



=



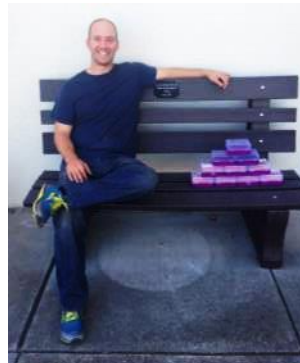
**80-95%
Less Waste &
saves 1 kg plastic**

1 Refill

10 Tip Racks



Tip Rack
Recycling



35-40%
UP



Others: 3X Packaging

Materials: Recycled & Recyclable



Recycle codes on all parts



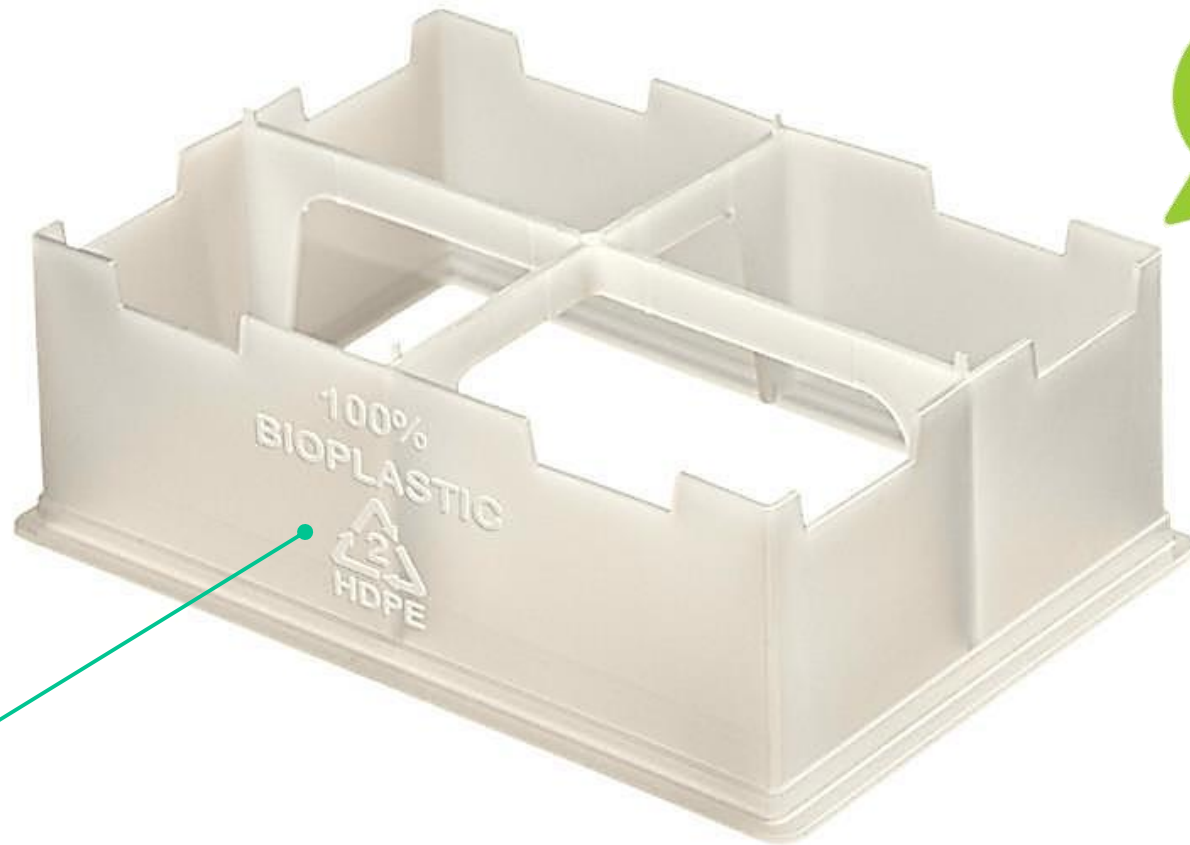
PP labels on PP parts

Ebeam Sterilizer

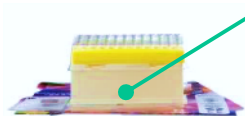
869 kW Solar

Solar EV Charging

Materials: Renewable & Recyclable



100%
BIOPLASTIC



1 kg of green HDPE sequesters 2.5 kg of CO₂

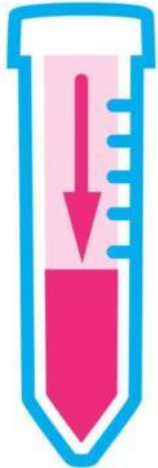
Manufacturing: Reduce Wasted Resources



-86%
Waste/Scrap
(kg/case)



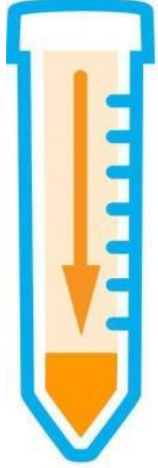
-83%
Water
(L/case)



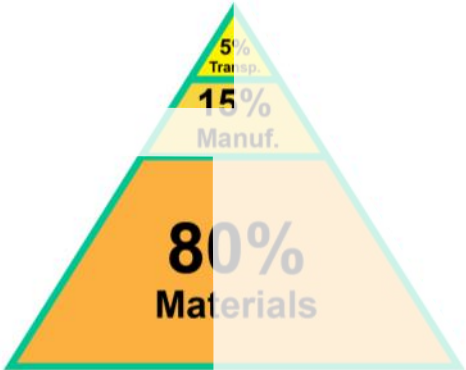
-52%
Energy
(kWh/case)



54%
Renewable
Energy
(30% onsite)



-79%
GHG Mfg
(kg/case)



Resources for Sustainable Labs

- MyGreenLab.org for FREE green lab assessment & certification.
- Labconscious.com blog for sustainable ideas and articles.
- Recycling: Earth911.com & VWR/Terracycle for pipet tip rack collection. [Kimberly Clark](#) for glove and garment recycling
- Waste, Biohazard/Pharma: Stericycle.com
- Solvent Recycling : cbgtech.com OR nextgenenviro.com
- Repurpose: Seedinglabs.org donate old equipment
- Labcon Sustainability, Mark Gmelin: mgmelin@labcon.com



my green lab.

Seeding Labs



Earth911



labconscious



TERRACYCLE



Stericycle

labcon

