



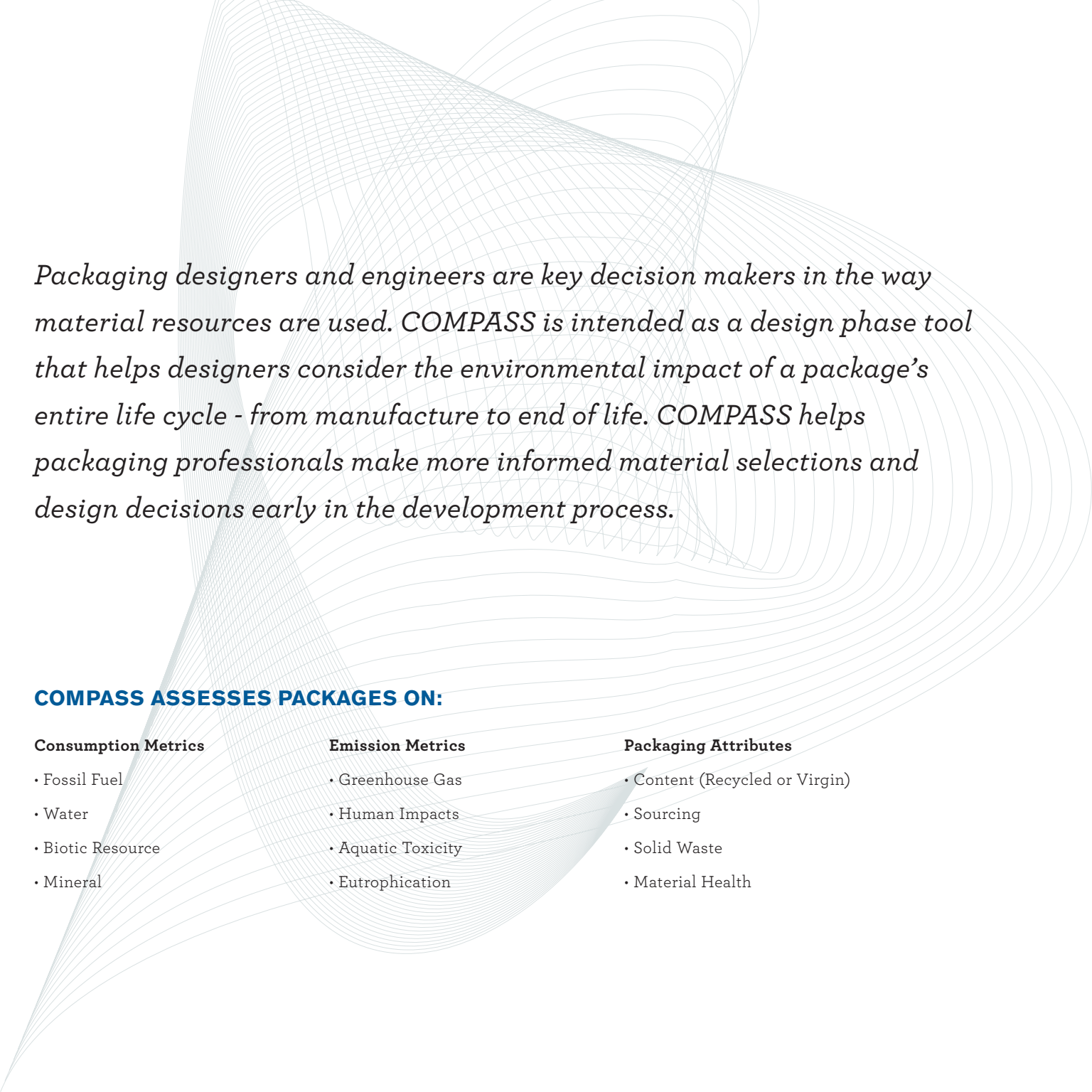
[WWW.DESIGN-COMPASS.ORG](http://WWW.DESIGN-COMPASS.ORG)



**COMPASS**<sup>®</sup>  
COMPARATIVE PACKAGING ASSESSMENT

**A web-based application that allows packaging professionals to compare the environmental impacts of packaging designs using a life cycle approach.**

**DEVELOPED BY THE SUSTAINABLE PACKAGING COALITION**



*Packaging designers and engineers are key decision makers in the way material resources are used. COMPASS is intended as a design phase tool that helps designers consider the environmental impact of a package's entire life cycle - from manufacture to end of life. COMPASS helps packaging professionals make more informed material selections and design decisions early in the development process.*

## **COMPASS ASSESSES PACKAGES ON:**

### **Consumption Metrics**

- Fossil Fuel
- Water
- Biotic Resource
- Mineral

### **Emission Metrics**

- Greenhouse Gas
- Human Impacts
- Aquatic Toxicity
- Eutrophication

### **Packaging Attributes**

- Content (Recycled or Virgin)
- Sourcing
- Solid Waste
- Material Health



**FREE TRIAL AVAILABLE AT [WWW.DESIGN-COMPASS.ORG](http://WWW.DESIGN-COMPASS.ORG)**

**COMPASS** is used by leading global brand owner companies such as Procter & Gamble, Johnson and Johnson, UPS and others. **COMPASS** is also used by the undergraduate and graduate packaging programs at Rochester Institute of Technology and Michigan State University.

Annual license subscription provides access for five secure user accounts and costs \$1,000 for SPC member companies and \$2,000 for non-member companies.



**SUSTAINABLE PACKAGING  
COALITION®**

a project of **GreenBlue** 



Funded in part  
by the U.S. EPA

Refill Example - Hand Soap → Analysis

### METRICS DEVELOPMENT

COMPASS metrics and methodologies were developed through consensus by leaders in the packaging industry and LCA experts, and thoroughly vetted by global brand owners: companies, the U.S. EPA and sustainability academics.

### Life Cycle Metrics

Functional Unit of Comparison:  
1250 ML

1 unit(s) of Soap in a Pump dispenser + refill pouch

- Manufacture
- Conversion
- Distribution
- End of life

EXPORT CHART DATA PRINT

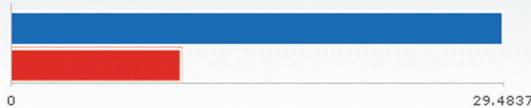
UPDATE LIFE CYCLE CHARTS

### LIFE CYCLE PHASES

Compare the proportional impact of different life cycle stages (manufacture, conversion, transport related to distribution and end-of-life fate).

#### LIFE CYCLE METRICS CHARTS

Fossil Fuel Consumption (MJ-equiv)



GHG Emission (kg CO2-Equiv)



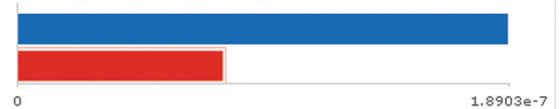
Water Consumption (l)



### FAST VISUAL GUIDANCE

Compare up to four package designs side-by-side for a quick snapshot of environmental impacts.

CP: Human Impacts (Total) (DALYs)



Biotic Resource Consumption



CP: Aquatic Toxicity (CTUe)



Mineral Consumption (kg)



Eutrophication (kg P04-Equiv)



Refill Example - Hand Soap → Soap in a Pump dispenser + refill pouch

ANALYZE : LIFE CYCLE METRICS | PACKAGING ATTRIBUTES & MATERIAL HEALTH

PRIMARY PACKAGE OVERVIEW:

SOAP IN A PUMP DISPENSER + REFILL POUCH

DELETE PACKAGE

NAME

Soap in a Pump dispenser + refill pouch

DESCRIPTION

Primary package: PET bottle and pump assembly, composite pouch with 4x volume. Compared to five units of the pump dispenser.

TOTAL CAPACITY 1,250 ml

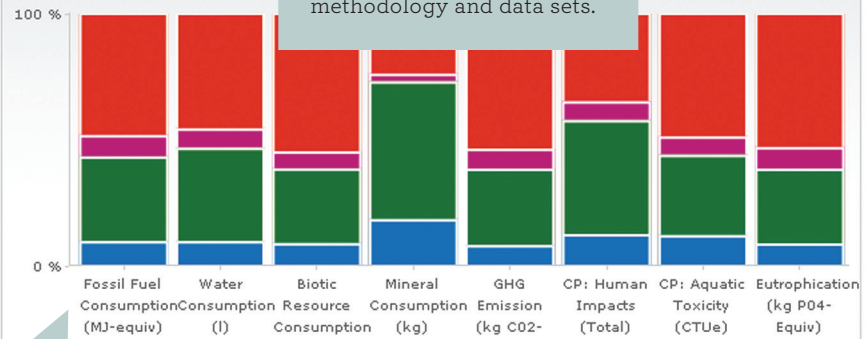
DATA SET US

LIST

TRANSPARENCY

Access to fully vetted methodology and data sets.

COMPONENT CONTRIBUTION



DATA

Includes LCIA data sets for the U.S., Canada and Europe.

COMPONENT CONTRIBUTION

Assess the relative impact of each component in relation to the whole package.

COMPONENT DETAILS + NEW + ADD EXISTING COMPONENT

NAME	MATERIAL AND CONVERSION	% PCR	% CERT.	DISTRIBUTION LEGS	COMPONENTS
<span style="color: red;">■</span> <b>Bottle</b> <a href="#">EDIT</a>   <a href="#">COPY</a>   <a href="#">DELETE</a>	50.0 g of Polyethylene Terephthalate (PET) converted using Injection Molding	0.0	0.0	(None Yet) <a href="#">ADD FIRST</a>	(None Yet) <a href="#">ADD FIRST</a>
<span style="color: purple;">■</span> <b>Cap</b> <a href="#">EDIT</a>   <a href="#">COPY</a>   <a href="#">DELETE</a>	7.0 g of Polystyrene (PS) converted using Injection Molding	0.0	0.0	(None Yet) <a href="#">ADD FIRST</a>	(None Yet) <a href="#">ADD FIRST</a>
<span style="color: green;">■</span> <b>Pouch</b> <a href="#">EDIT</a>   <a href="#">COPY</a>   <a href="#">DELETE</a>	Composite (total weight: 32.5 grams)	0.0	0.0	(None Yet) <a href="#">ADD FIRST</a>	2 + <a href="#">ADD ANOTHER</a>
<span style="color: blue;">■</span> <b>Pump assembly</b> <a href="#">EDIT</a>   <a href="#">COPY</a>   <a href="#">DELETE</a>	Composite (total weight: 10.0 grams)	3.5	0.0	(None Yet) <a href="#">ADD FIRST</a>	4 + <a href="#">ADD ANOTHER</a>

**FREE TRIAL AVAILABLE AT [WWW.DESIGN-COMPASS.ORG](http://WWW.DESIGN-COMPASS.ORG)**