

# Parametric LCA for a first tier assessment of products by the example of logistics

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# | Who we are

## Henkel at a glance 2016

More than **50,000** employees  
worldwide

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**42%** of our sales generated in  
emerging markets

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Around **€18.7** bn sales, +3.1%  
organic sales growth

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More than **2,000** social  
projects supported

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**€3.2** bn adjusted<sup>1</sup> operating  
profit (EBIT)

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More than **140 years**  
of success

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<sup>1</sup> Adjusted for one-time charges/gains and restructuring charges.

# Who we are

Global leading positions in consumer and industrial businesses

## Adhesive Technologies



**LOCTITE**  
**TECHNOMELT**  
**BONDERITE**

## Beauty Care



Schwarzkopf  
**Dial**  
SYOSS

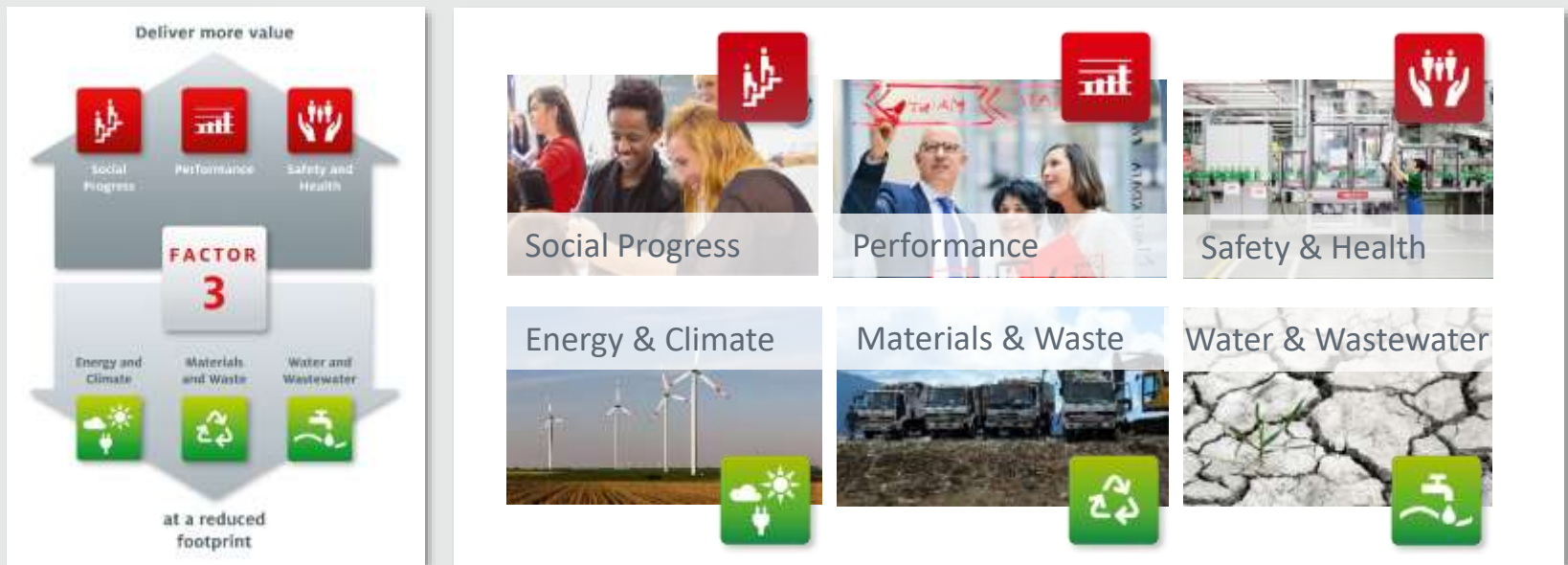
## Laundry & Home Care



**Persil**  
**Purex**  
**Pril**

# Translating value and footprint into concrete challenges

Our focal areas define the topics we need to concentrate on



Our six focal areas reflect the challenges of sustainable development as they relate to our operations.

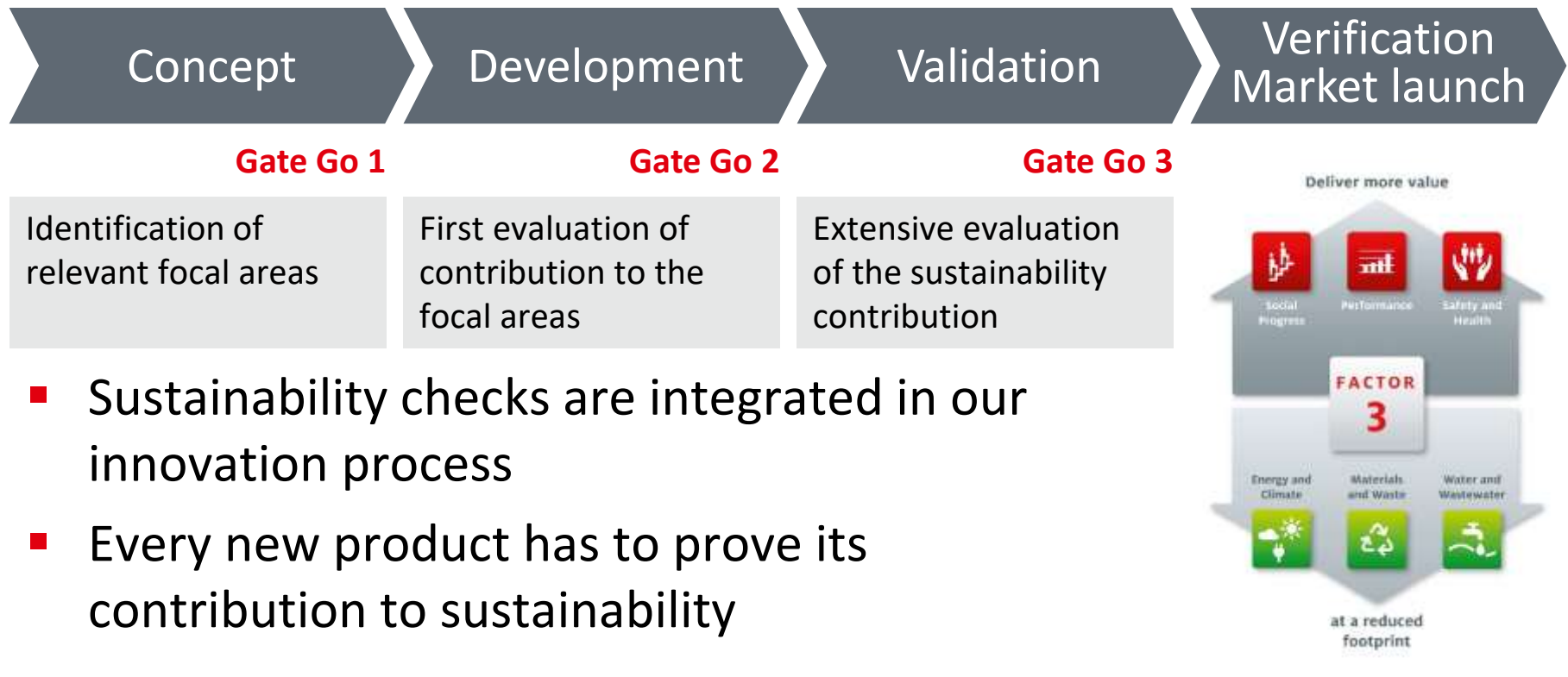
# | We implement our strategy along the entire value chain

From raw materials to disposal



# | Sustainability in the innovation process

Every new product is assessed towards its contribution



- Sustainability checks are integrated in our innovation process
- Every new product has to prove its contribution to sustainability

# Digital Tools for Divided Workflows

## Assessment of Chemical & Packaging Raw Materials

- Time demand for assessment of raw materials <2 Min.

Raw material  
assessment

Tool: Henkel EasyLCA

Compare  
alternatives & decide

Packaging

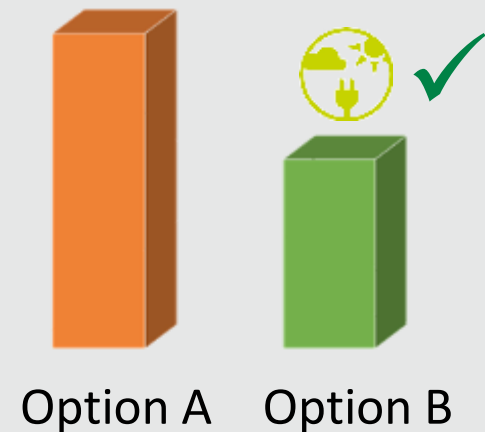


Product Formulas

Option A	Option B
10% Substance X	30% Substance X
50% Substance Y	20% Substance Y
40% Substance Z	50% Substance Z



Footprint



# | Our Concept for digital tools for LCA

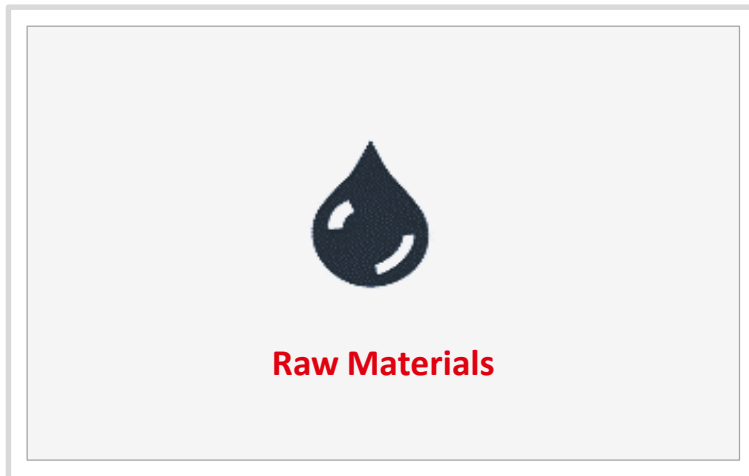
## Product specific assessment

- Formulation: Database, > 50000 raw materials
- Packaging: 24 Materials + 18 Processes



## Parametric assessment

- Production, logistics, service/use, disposal





# Calculation of the Emissions of Transportation

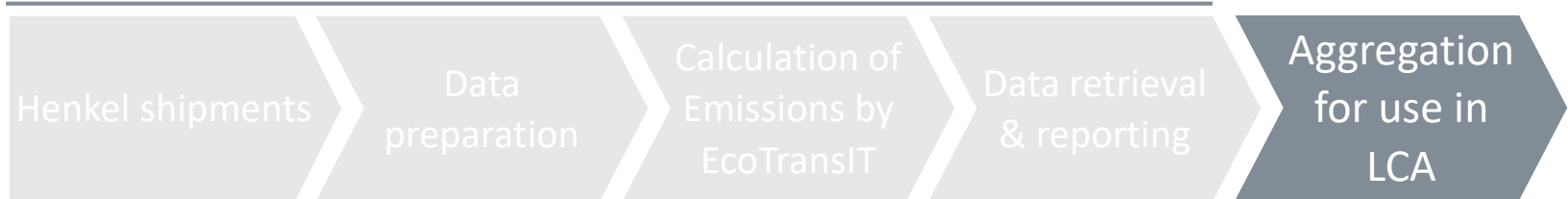


- 7 Mio shipments worldwide accounted for
- Factors entering the calculation:
  - 1) Postal codes (A → B)
  - 2) Modes of transport
  - 3) Warehousing
  - 4) Capacity Utilization



# Parametrization of the Model for EasyLCA

Prior steps



- Use shipment data statistics to parametrize LCA
- Shipment data reflects average of transport
- Higher-tier refinements can be considered

EasyLCA



Select Business unit	<input type="text" value="A"/> A B L
Select Country from	<input type="text" value="Germany"/> Germany Greece Guatemala Hong Kong Hungary India Indonesia Ireland
Select Country to	<input type="text" value="Belgium"/> Belgium Benin Bermuda Bolivia Bosnia Herzeg. Brazil Bulgaria Burkina Faso

# | Summary & Outlook

- Extend streamlined LCA approach to entire value chain
- Henkel pairs parametric and specific approach in LCAs for products
- Improvement by higher tier information possible (if required)

EasyLCA



**Thank you!**