



# The Sustainability Consortium (TSC)

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**LEI - Wageningen UR**  
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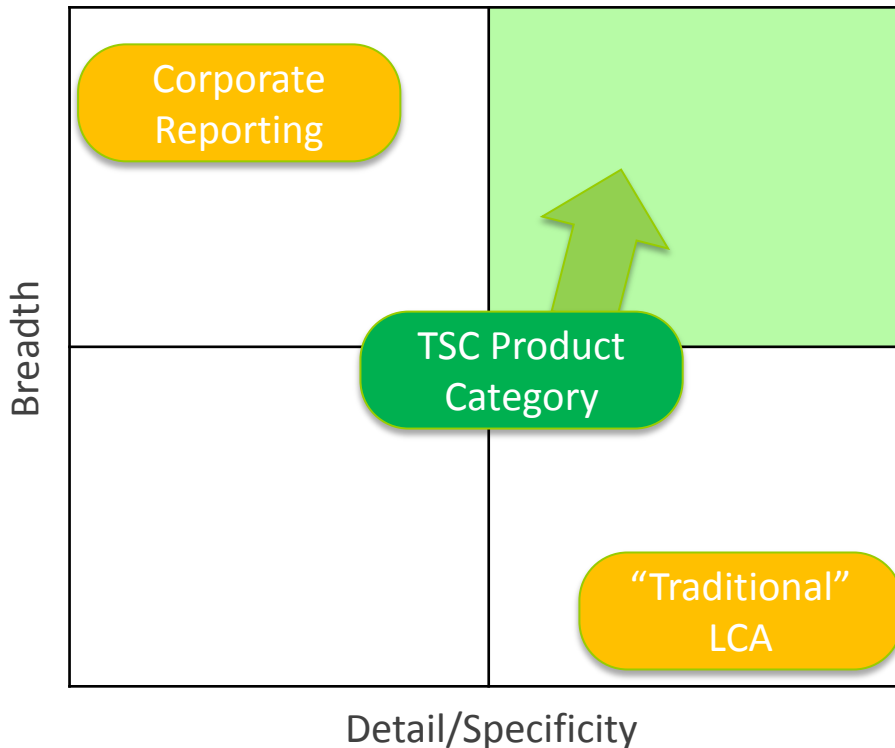
# Content

- Introduction TSC
- Sustainable Measurement and Reporting System
- Challenges



# How our Work Fits In

## How TSC's SMRS Fits In



- Started in 2009
- Social & environmental
- Consumer goods
- Product category approach
- 80% of impacts in 2015
- Global
- Full lifecycle approach
- Member and (recently) user funding

# The Consortium is coordinated by universities in the United States, Europe and China



# Members from business, academia, government and the NGO sectors. Corporate annual turnover nearly 2 Trillion Euro



# TSC product category output has 3 major components...

## Category Dossier



Risk/Impact analysis:  
product category  
environmental and social  
hotspots, and  
improvement opportunities

## Category Sustainability Profile (CSP)



Synthesis of product  
sustainability knowledge  
and improvement  
opportunities

## Key Performance Indicators (KPIs)

SMRS Knowledge Base: Laundry Detergent KPIs

**Key Performance Indicators**

Indicator	Value	Unit	Target	Weight	Score
Carbon Footprint	1.2	kg CO2e/kg	1.0	10	12
Water Footprint	10	liters/kg	8	10	10
Energy Footprint	0.5	kWh/kg	0.4	10	5
Biodegradability	95	%	90	10	95
Recyclability	80	%	70	10	80
Chemical Safety	90	%	85	10	90
Labeling	85	%	80	10	85
Packaging	75	%	70	10	75
Overall Score	85		80	100	85

Questions to  
measure and track product  
category sustainability

Source: TSC



# Overview of completed & 2014 planned product categories

## ≈ 70 Completed Product Categories

### Food, Beverages & Agri (FBA)

- Apples
- Bananas
- Beans, lentils & peas
- Beef
- Beer
- Berries
- Bread
- Butter
- Chicken
- Cheese
- Citrus
- Cocoa/chocolate
- Coffee
- Cotton
- Cucumbers
- Eggs
- Farmed Salmon
- Farmed Shellfish
- Grain / Cereals
- Grapes (table grapes)
- High Fructose Corn syrup
- Leaf vegetables (lettuce)
- Milk
- Nuts
- Packaged Cereals
- Pasta
- Potatoes
- Pork
- Prepared salads
- Seed oils
- Sorghum
- Sugar (incl. sugar beet)
- Tea
- Tomatoes
- Wild caught fish
- Wine
- Yogurt

### Electronics & General Merchandise

- Bicycles
- CDs and DVDs
- Flatware, cutlery & utensils
- Hand tools
- Printer Ink
- Printers
- Small Appliances
- Small Batteries
- Computers
- Televisions
- Video Game Consoles

### Paper, Pulp & Forestry

- Dimensional lumber
- Facial Tissue
- Greeting Cards
- Paper Towels
- Copy Paper
- Toilet Tissue

### Home & Personal Care

- Air freshener (non-aerosol)
- Aerosol air freshener
- Baby Diapers (disposable)
- Feminine/Nursing Hygiene
- Baby Wipes
- Leave-on skin care products
- Laundry detergent
- Showering products
- Surface Cleaners

### Toys

- Board games
- Metal Toys
- Plush Toys
- Plastic Toys

### Clothing, Footwear & Textiles

- Cotton Textiles

## ≈ 65 Planned New Product Categories 2014 (due date)

### Food, Beverage & Agri (FBA)

- Stone Fruit (May)
- Non-Dairy products (July)
- Pet food (wet & dry) (July)
- Soup (July)
- Frozen Convenience Meals (July)
- Jams & Preservatives (July)
- Alcoholic beverages (liqueur) (Sept)
- Juice, Sports & Energy Drinks (Sept)
- Bakery goods (Sept)
- Herbs, spices & condiments (Sept)
- Ice cream (Sept)
- Flavorings (Sept)
- Brassica vegetables (Dec)
- Bulb vegetables (Dec)
- Peppers (Dec)
- Prepared Food Variety Packs (Dec)
- Melons (Dec)
- Mushrooms (Dec)
- Stem vegetables (Dec)

### Electronics & Gen. Merchandise

- Paints (March)
- Lighting (May)
- Glass (May)
- Computer & communications peripherals & components (opt. May)
- Ceramics (July)
- Stationary Telephones (optional July)
- Audio equipment & accessories (Dec)
- Digital cameras (Dec)
- Jewellery/personal accessories (Sept)
- Packing tape (Sept)
- Fuel (Sept)
- Motor oil/additives (Sept)
- Lubricants (Sept)
- Anti-freeze (Sept)
- Insect control & lawn chemical (Sept)
- Pens & markers (optional Dec)

### Toys

- Wooden Toys (March)

### Paper, Pulp & Forestry

- Composite lumber (March)
- Stationery paper (dyed & modified paper) (March)
- Books & magazines (May)
- Pencils (July)
- Structural wood panels (July)
- Wood furniture (non-upholstered) (opt. Sept)

### Home & Personal Care

- Make-up (March)
- Deodorant (July)
- Dentifrice (July)
- First Aid products (July)
- Hair coloring products (July)
- OTC Pharma-Ingest (Sept)
- OTC Pharma-Leave On (Sept)
- Sealers & Adhesives/Glue (opt. Dec)

### Clothing, Footwear & Textiles

- Polyester Textiles (May)
- Nylon Textiles (May)
- Rayon Textiles (Sept)
- Wool sweaters (Sept)
- Leather shoes (Sept)
- Athletic footwear (Sept)
- Bed & bath textiles (Dec)

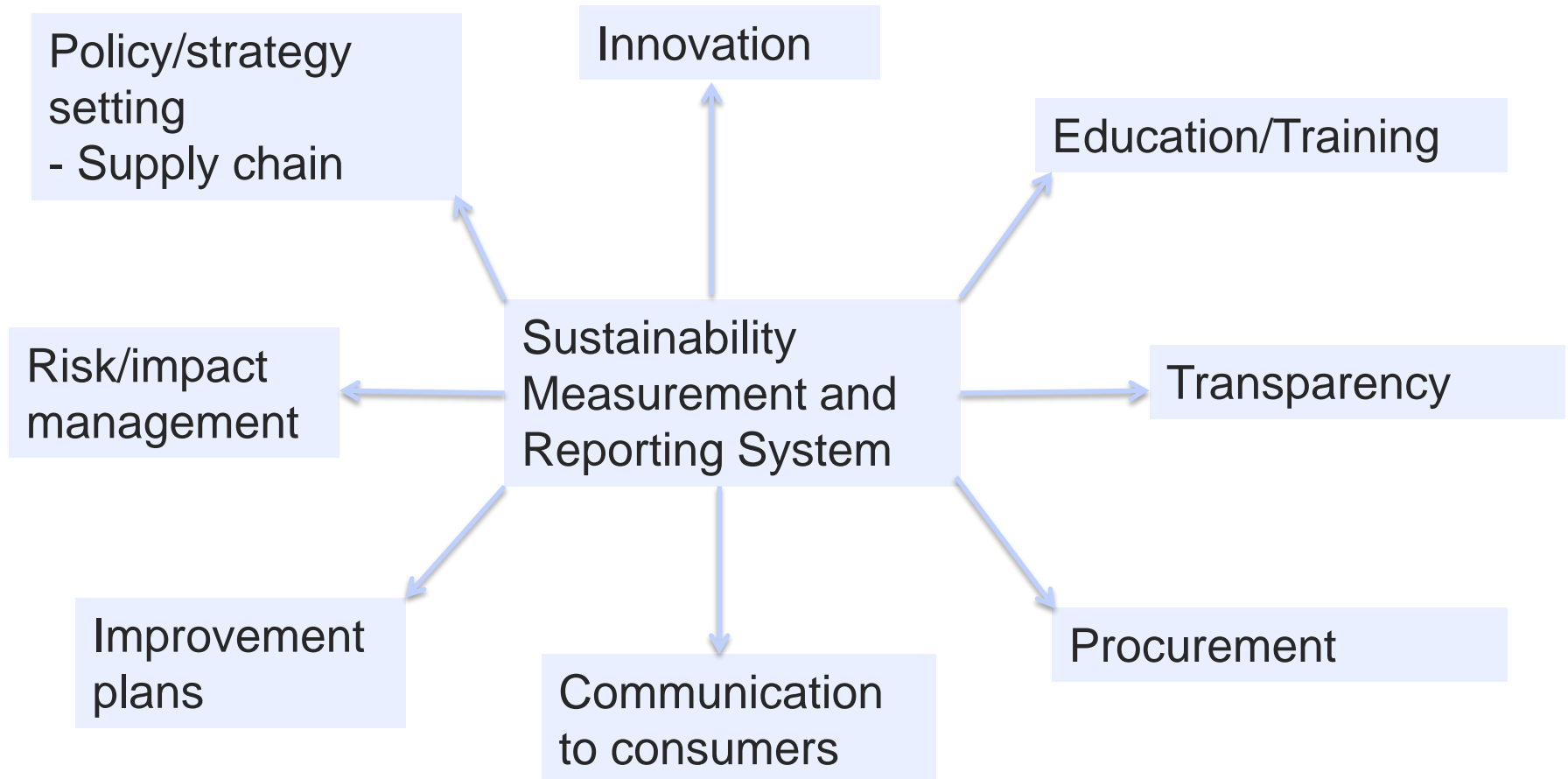
### Packaging

- Packaging (May)
- Supplies – Stretch film (July)
- Supplies – Corrugated (July)

### Logistics

- Transportation (June)
- Transportation batteries (Sept)
- Trucks (Sept)
- Trailers (Sept)
- Reefers (Sept)
- Tires (Sept)

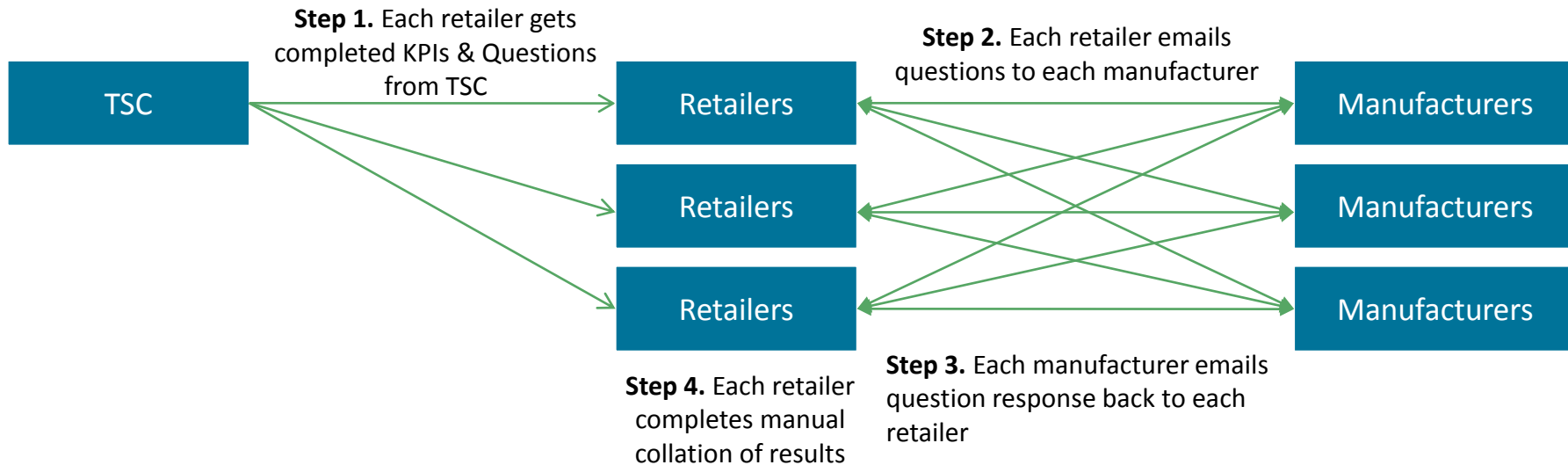
# How are TSC Knowledge Products being implemented throughout supply chains?



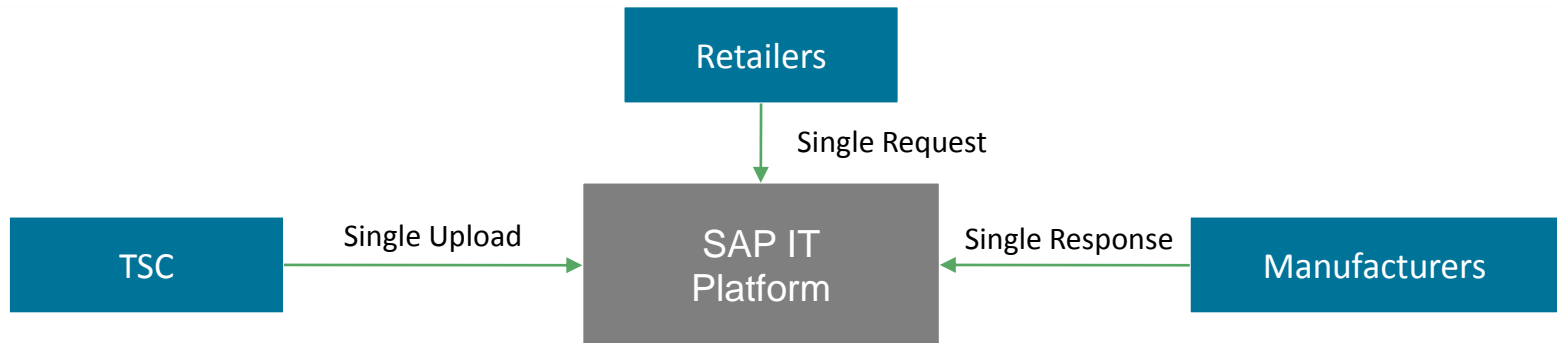
# Reporting Platform

A simple software tool can cut significant time and effort for everyone involved

## “Manual” Process



## Process with Reporting Platform



# Use of results – Exchange of KPI scores

## USA:

- Wal-Mart
  - Fall 2012: 5000 suppliers responsible for billions of sales
  - January 2014: 4000 USA suppliers, pilots in 6 other countries

## Europe:

- Delhaize and M&S: Small scale pilots
- Ahold
  - Start 1<sup>st</sup> of January 2013
  - Co-operation with farmers organization (ZLTO) and Rabobank

Winter 2014: Implementation of SAP tool.  
A group of European retailers is going to pilot.



# How to use TSC products?

- Originally only membership
- Second option: Use of SAP tool
  - Pay small amount for access to products and use of tool (between 300 and 700 Euro)
- Tool for exchange of data but also learning tool:
  - Benchmarking
  - TSC documents
- No participation in TSC activities/network
  - Building Product Sustainability Toolkits
  - Innovation projects
  - Meetings/network/strategy/access to dossiers



# What we do different from others

- Global
- All sustainability issues
- All consumer products
- Academic base
- Strong link to business (2,4 Trillion US\$)
- Main stream (no small segment)
- Concentrate on issues that matter
- Strong link to improvement opportunities

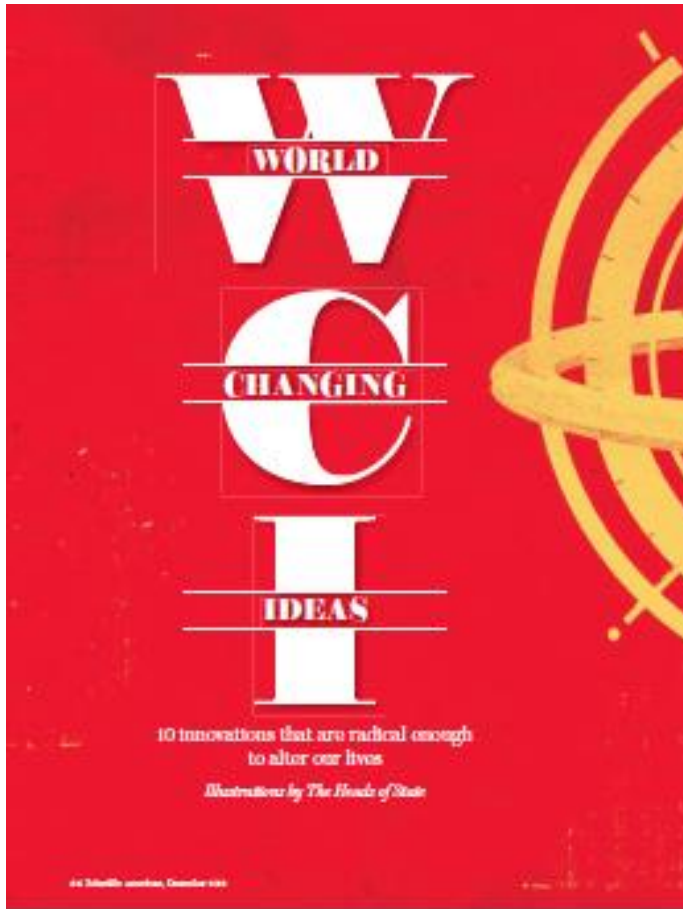
Impact!



## Co-Operating With Other Initiatives

- EU Product Environmental Footprint
  - Participating in piloting (Detergents, shoes?, retail? and food)
- Consumer Goods Forum
  - Endorsed TSC
- WBCSD
  - Working on structural co-operation
- Green Public Procurement
  - Dutch and American government
- Global Reporting Initiative
- SAI
- International Network on Product Sustainability Initiatives
- CDP: TSC member
- Sector, Product or sustainability theme specific initiatives

# The Sustainability Consortium® has been recognized as a World Changing Idea by Scientific American Magazine



The Sustainability Consortium was ranked as a top ten world changing ideas for 2012 by Scientific American Magazine. TSC measurement and reporting system has been recognized as superior due to its comprehensive nature and cross-sector approach.

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“The Consortium’s ratings will factor in closely held data on emissions, waste, labor practices, water usage and other sensitive factors...”

—Adam Piore, Scientific American



# Challenges:

- Data availability and cost to assemble data
- Complexity supply chains
- Scope of the work
  - All consumer products
  - All sustainability issues
  - Global scale
- Prioritisation (complex products)
- Verification
- Regionalisation/production systems





# THE SUSTAINABILITY CONSORTIUM

The Sustainability Consortium® is jointly administered by  
Arizona State University and University of Arkansas with additional  
operations at Wageningen University and Nanjing University.



WAGENINGEN UR  
*For quality of life*



# Example for pork

## Category Dossier

Literature cited and levels of evidence evaluated.

Feed:

- Energy LCA > 50% (Cederberg et al. 2009)
- GHG LCA >50% (Dalgaard, 2007)
- Nutrients (de Vries en de Boer, 2010)
- Land use (Dolman, 2012)
- Worker health (Smith et al., 2013)

## Category Sustainability Profile (CSP)

Hotspots and improvement opportunities summarized.

- Improvement opportunities:
  - Feed conversion
  - Feed additives
  - Feed formulation
  - Benchmarking
  - Precision agriculture

## Key Performance Indicators (KPIs)

On average what is the feed conversion ratio for delivered pigs?

- A. Unable to determine at this time
- B. Participate in external initiative
- C. Have determined average feed conversion rate only for finishing phase
- D. Overall feed conversion rate is greater than or equal to 3.1:1
- E. Overall feed conversion rate is between 2.8:1 - 3.1:1
- F. Overall feed conversion rate is less than or equal to 2.8:1

Source: TSC

