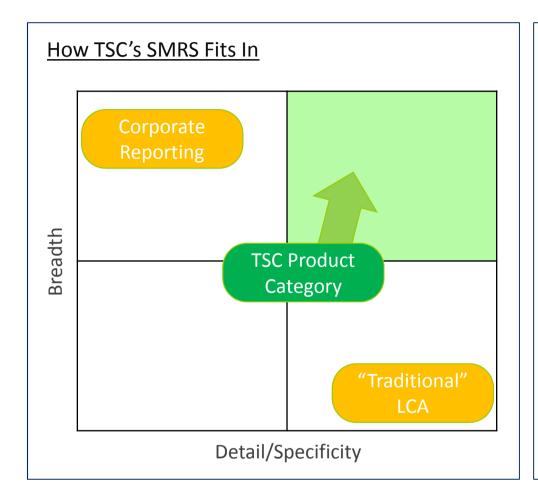


Content

- Introduction TSC
- Sustainable Measurement and Reporting System
- Implementation of TSC results



How our Work 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)



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 (nonupholstered) (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-Ingest (Sept)
 OTC Pharma-Leave On (Sept)
- Sealers & Adhesives/Glue (opt. Dec)

Clothing. Footwear & Textiles

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

Packaging

- Packaging (Mav)
- Supplies Stretch film (July)
- Supplies Corrugated (July)

Logistics

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



CONSORTIUM

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?

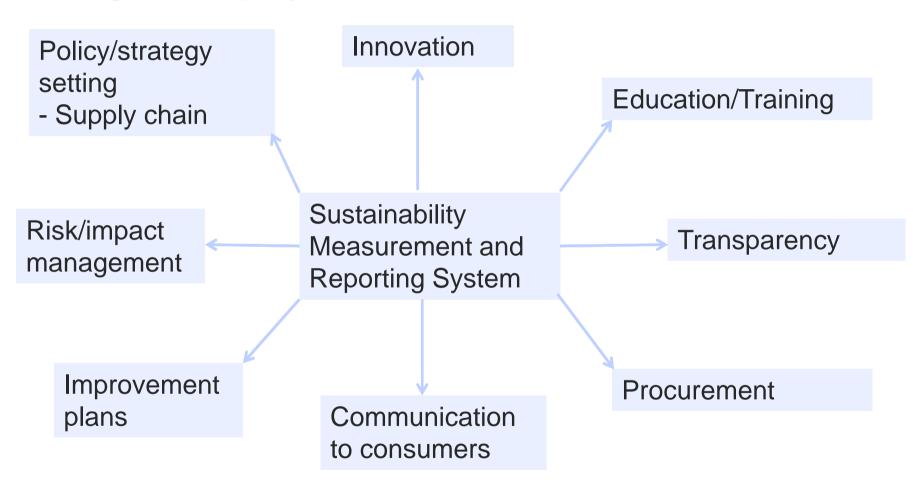
- A. Unable to determine at this time
- B. Participate in external initiative
- C. Have determined average feed conversion rate only for finishing phase
- D. Overall feed conversion rate is greater than or equal to 3.1:1
- E. Overall feed conversion rate is between 2.8:1 3.1:1
- F. Overall feed conversion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

Source: TSC





How are TSC Knowledge Products being implemented throughout supply chains?



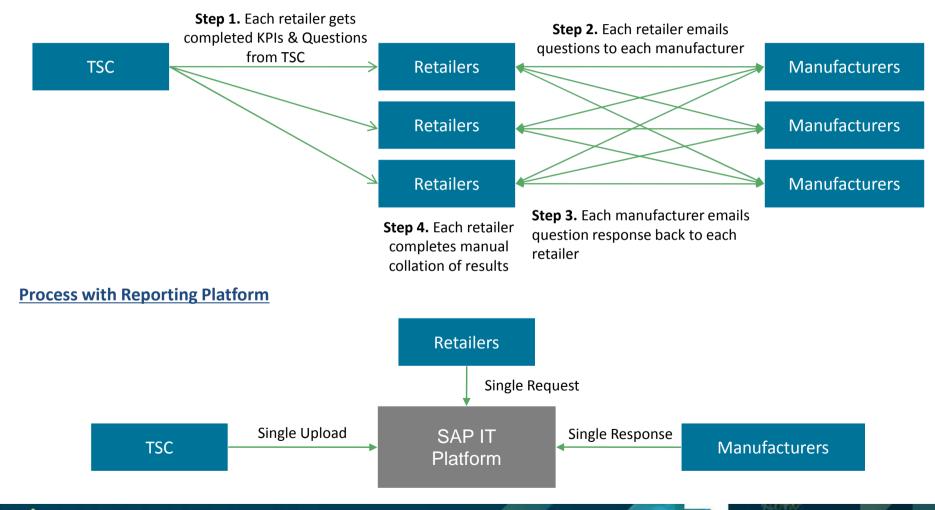




Reporting Platform

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

"Manual" Process



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 1st 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 (nearly 2 Trillion Euro)
- Main stream (no small segment)
- Concentrate on issues that matter
- Strong link to improvement opportunities

Impact!

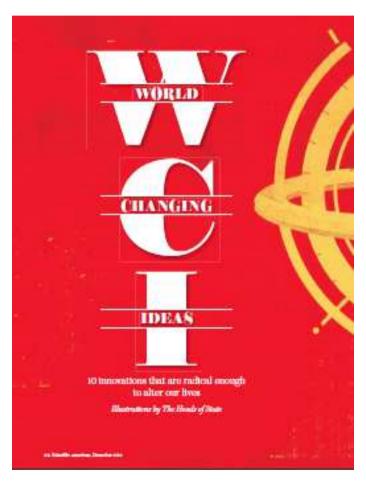




Co-Operating With Other Initiatives

- 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
- SAI
- International Network on Product Sustainability Initiatives (UNEP/Grenelle/EC/WRAP/GS 1 etc.)
- 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.

"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





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







