

# カーボンフットプリントの最新動向

2011年2月16日 CFP日本フォーラム 普及・交流会

1. タイのカーボンフットプリント
2. ISO14067(イタリア・トリエステ会合の速報)
3. WRI/WBCSD
4. Sustainable Consortium
5. Global Guidance on LCA Databases

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**1. タイのカーボンフットプリント**

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**Applications of LCI Database:  
Thailand Carbon Footprint of Product: Pilot Project  
(TGO & MTEC + TEI/FTI/Universities)**

**Joint effort by 3 ministries: MOI/MOST/MONRE**



~25 pilot companies  
(Apr 2009 - Mar 2010)

**65 product from 23 Pilot companies:**

T-shirt (100% cotton), Nylon yarn, Carpet, TULC can, Ceramic tiles, Paper, Paper container, Sterile food packaging, Plastic-fiber pellet, Copying machine, Air conditioner, Tyre, PP cup, Coke can, Rice flour, Jasmine rice (2), Teriyaki chicken meat, Fresh chicken meat, Meat stick, Instant noodle, Canned tuna, Pineapple juice, Airline food, Chicken feed mill

**Technical support from Japanese Government**



# CFP Pilot companies/products of Thailand





# Main Output of CFP Project



2009

- Establish National CFP Labeling Scheme in 2009  
↳ **Technical guideline for CFP in Thailand**
- 65 Products in Thailand are certified Carbon Footprint Label (by TGO)
- Create More Than 20 CFP Experts (Consultants & Verifiers)
- Capacity Building → More Than 500 people

## Movement of CFP Activities in Thailand

2010-2011

- Build up Amount of Consultants and Verifiers
- Set Up Verifying System for CFP in Thailand
- Develop Product Category Rules (PCRs) for Textile, Rice, and Chicken Meat
- Pilot Project "Carbon Footprint for Organization in Thailand"

# 韓国とタイのCFP

- 韓国で、307製品(60社)が実施
- タイでは、25社60製品
  - (テスコ、カルフル、Tops、7-11で) コカコーラ、テリヤキチキン、鶏肉、インスタントライスヌードル、ジャスミンライス、グリーンカレー缶、ペットフード
  - (B2Bで) ナイロン糸、缶、ダンボール箱、パイナップルジュース、コンポジット、結晶マルチツール
  - (カスタマーセンターで) エアコン、複写機
  - (機内で) グリーンカレー(EU、オーストリア、ニュージーランド便)
  - (オランダで) ジャスミンライス
  - (ドイツで) 100%コットンTシャツ

# 2011.01.25 CFP展示会











22.9kg

ข้าวขาว

หอมมะลิ

ข้าวใหม่  
ต้นฤดู

High

SIZE

EAT

Do



# มันใจ เลือก ซีพี

มาตรฐานความปลอดภัยอาหาร: ดับซาก

ไก่สด Fresh Chicken



✓ ป้องกันการปนเปื้อนอย่างเข้มงวด ✓ ปลอดภัยปฏิจีวะ:  
✓ มาตรฐานตรวจสอบย้อนกลับการผลิตทุกชิ้น

ผลิต/บรรจุโดย บริษัท เจริญโภคภัณฑ์อาหาร จำกัด (มหาชน)  
333.333/1-2 หมู่ 9 ถนนสีคิ้ว-เวียงจันทน์ ตำบลท่าแย้ม  
อำเภอโชคชัย จังหวัดนครราชสีมา 30190

ผู้จัดการฝ่าย บริษัท ซีพีเอฟ ทรูดีดี จำกัด  
252/115-116 อาคารสำนักงานเมืองไทย-ทิส อารต 2  
ชั้น 22 ถนนรัชดาภิเษก แขวงจันทริกวัง กรุงเทพฯ 10310  
โทร. 0-2693-0590 โทรสาร. 0-2693-0593

CPF Consumer Center 0-2800-8000

www.cpfworldwide.com www.cpbandsite.com



2.14 kg

ลด Carbon Footprint  
คุณก็พร้อม ช่วยหยุดยั้ง  
ภาวะโลกร้อน

ISO 9001  
มาตรฐาน ISO 9001  
ผ่านการรับรอง  
โดย TÜV SÜD



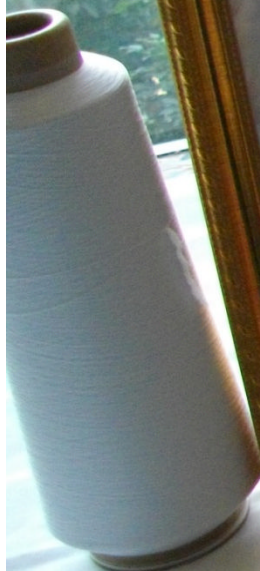
ซีพี  
fresh Chicken



มาตรฐานความปลอดภัย  
อาหาร: ดับซาก  
มาตรฐานความปลอดภัย  
อาหาร: ดับซาก  
มาตรฐานความปลอดภัย  
อาหาร: ดับซาก

Charoen Pokphand Foods PCL.  
Charoen Pokphand Foods PCL.





អង្គការសហប្រជាជាតិសម្រាប់ការពារបរិស្ថាន (United Nations Environment Programme) បានផ្តល់ការបញ្ជាក់ប្រយោជន៍ដល់ក្រុមហ៊ុនអាស៊ី ហ្វាម៉ែរ ភាសាខ្មែរ និងប្រើប្រាស់សញ្ញាដើម្បីបញ្ជាក់ប្រយោជន៍នេះ។

ក្រុមហ៊ុនអាស៊ី ហ្វាម៉ែរ បានបញ្ជាក់ប្រយោជន៍ដល់ក្រុមហ៊ុនអាស៊ី ហ្វាម៉ែរ ភាសាខ្មែរ និងប្រើប្រាស់សញ្ញាដើម្បីបញ្ជាក់ប្រយោជន៍នេះ។

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2011/01/25 16:59







ท์  
ของไทย

7.49 kg



P.S. GREEN





ตัวอย่างการจดราคาพร้อมกระฉอก  
(ใช้ที่โรงแรมพหุ)

ตัวอย่างผลิตภัณฑ์  
คาร์บอนฟุตพริ้นท์ของญี่ปุ่น

ตัวอย่างผลิตภัณฑ์  
คาร์บอนฟุตพริ้นท์ของญี่ปุ่น

Green Taste  
SE Aji-no-Mio  
KANSU  
Biji-biji  
10.8 kg

Green Grower Feed  
10.8 kg

Biji-biji

BUTTER COOKIES  
バタークッキー  
非売品

Biji-biji  
High Quality Peanuts  
しお味

CO<sub>2</sub> 125g  
CO<sub>2</sub> 35g

カーボ  
CO<sub>2</sub>

Blue spray bottle

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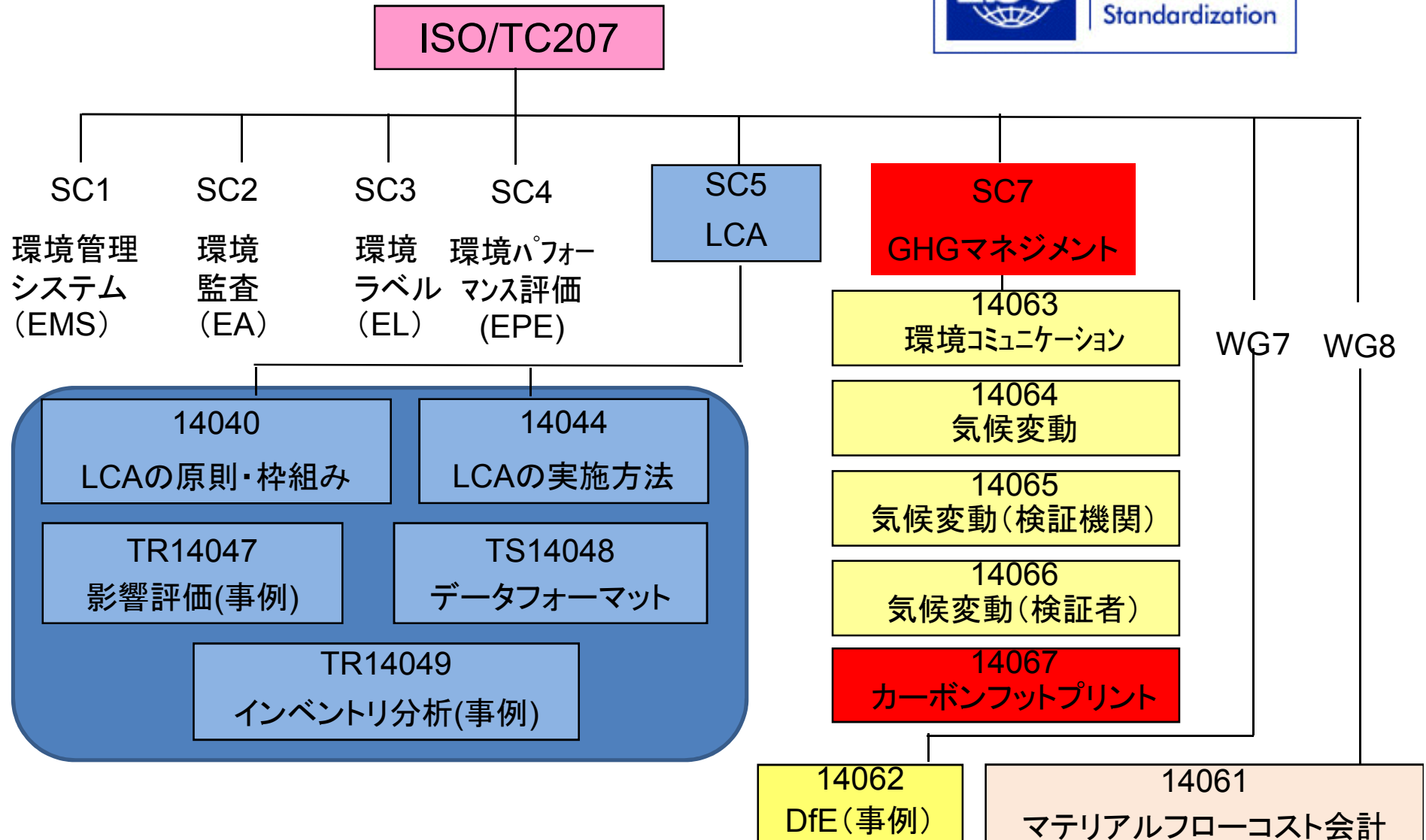


## 製品のカーボンフットプリントの経緯

- 2006 12月 英国テスコ社の実施宣言
- 2007 1月 英国ウォーカー社が試行販売実施
- 6月 ISO/TC207/SC7(北京)で検討開始
- 2008 6月 福田総理「低炭素社会・日本」METI試行プロジェクト開始
- 6月 SC7(ボクタ)新作業提案,11月可決
- 12月 エコプロダクツ2008で30社が試算
- 2009 1月 SC7-WG2第1回会合(コタキナバル)
- 6月 第2回(カイロ),10月 第3回(ウィーン)
- 10月 日本で3品目が市場へ
- 12月 エコプロダクツ2009で27社が実施
- 2010 2月 SC7-WG2第4回(東京)
- 7月 SC7-WG2第5回(メキシコ・レオン) DIS提案
- 12月 エコプロダクツ2010で27社が実施
- 2011 1月 SC7-WG2第6回(イタリア・トリエステ)

# ISO14000シリーズとライフサイクルアセスメント(LCA)

◆ISOにおける14000シリーズの検討体勢は以下の通り。



# ISO/TC207/SC7/WG2 (ISO14067-Part1 & Part2) トリエステ(イタリア)会合

- 2011年1月17日(月)～21日(金)
- オーストリア(WG2議長)、ドイツ(セクレタリ)、イギリス、オランダ、スウェーデン、デンマーク、ベルギー、イタリア、フィンランド、フランス、ノルウェイ、ケニア、ルワンダ、リビア、ウガンダ、タンザニア、エジプト、ヨルダン、レバノン、パレスチナ、オーストラリア、ニュージーランド、中国、アメリカ、IAI、ANEC、ECOS、WRI、EUROPA BIO, IEC/TC111、ISO/TCG等

-

# パート1と2のマージ(統合)

- CD投票の結果確認  
(パート1:DIS化承認、パート2:DIS化否認)
- 多数決でマージ案をSC7に推奨  
(賛成:46名、反対:12名。)
- 今回の結果(マージ版ドラフト)を「CD2」として作成し、2カ月投票を実施する

# Part-1

- 4.6 “Relevance”に”Storage(貯留)”が加わった。  
一方、「算定の目的」では貯留は削除。計算方法は未定。報告は別途記載。
- 4.11“Avoidance of Double Counting”に再生可能電力の例示が提案されたが削除された。
- 5.2.5一次データ：Financial／operational control 下のプロセスについては、一次データを取得しなければならない(shall)。
- 5.2.8 使用済み段階でAvoided emission(間接効果)が認められる方向へ。
- 5.3.4 航空機からの排出量をCFP算定に含める。



# Part2

- 目次案(構成変更案)

- X.1 一般(CFP及び部分的CFの外部コミュニケーション)

- X.2 一般要求事項

- X.2.1 一般的事項

- X.2.2 機密保持

- X.2.3 部分的CF

- X.2.4 比較

- X.2.5 検証

- X.3 BtoC

- X.4 BtoB

- X.4.1 公に開示されていないBtoB

- X.4.2 公に開示されているが消費者向けではないBtoB

## X.5 CFP及び部分的CFのコミュニケーションオプション

B2CではPCRと第三者検証は必須

X.5.1 CF外部レポート

X.5.2 CF外部パフォーマンスストラッキングレポート

X.5.3 CF自己主張

X.5.4 CFラベル

X.5.5 CF宣言

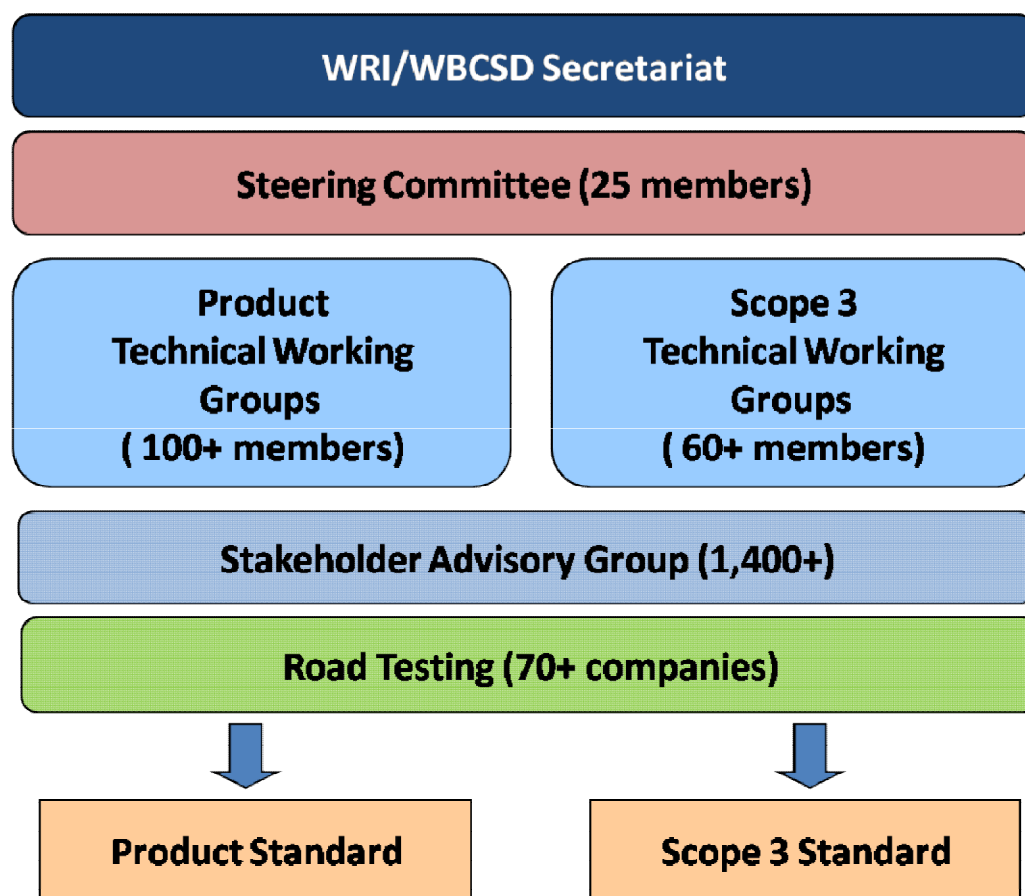
## X.6 CFプログラム

## X.7 CF商品種別算定基準

# ANNEX CFコミュニケーションの事例

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# Greenhouse Gas Protocol Product & Supply Chain Initiative



- The steering committee provides technical expertise and guidance throughout the development process
- The technical working group consists of volunteers from businesses and institutions worldwide who worked together to draft the standard
- The stakeholder advisory group is open to anyone who is interested in the standard and wants to provide comments on the standard drafts
- The road testers implemented the draft standards to give practical feedback on their usability

The valuable feedback from the Steering Committee, Technical Working Group Members, Stakeholders, and Road Testers is used by the Secretariat to update the Standards

# New Standards Under Development: Scope 3 and Product-level Accounting & Reporting

## Scope 3 (Corporate Value Chain) Accounting & Reporting Standard

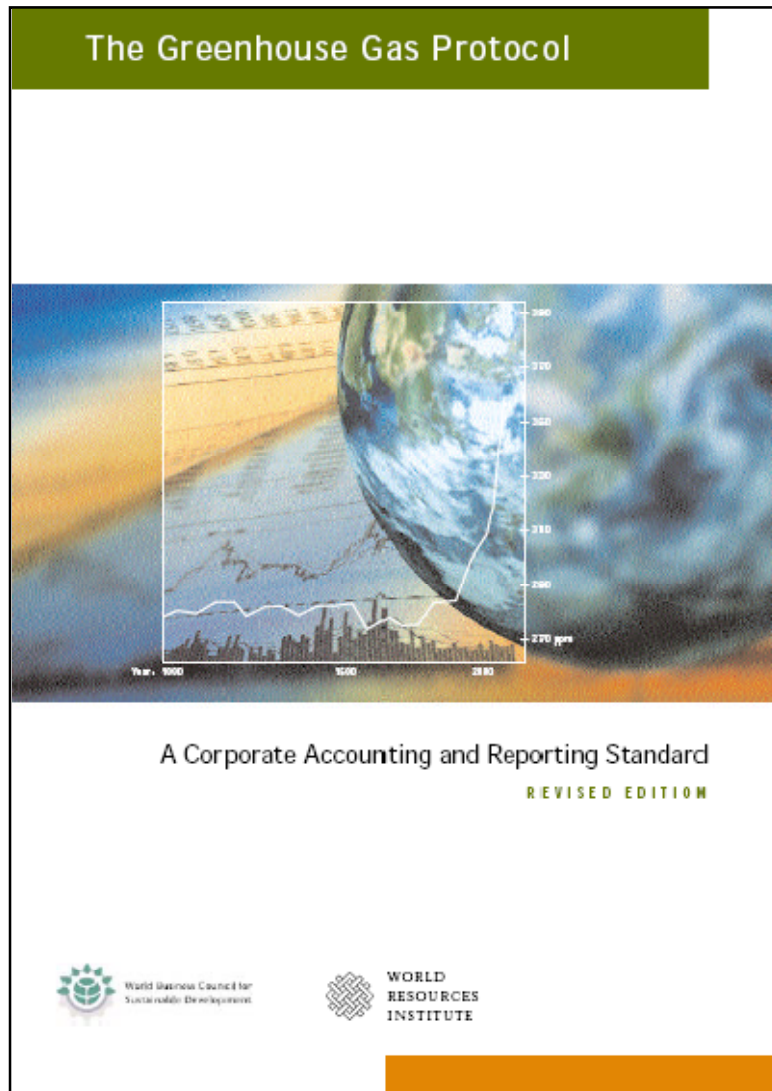
- The goal of the Scope 3 standard is to help companies:
  - Quantify GHG emissions in the value chain at the company or organization level
  - Understand, manage, and publically report GHG emissions across the entire value chain
- The Scope 3 standard is based on the GHG Protocol Corporate Standard

## Product Life Cycle Accounting & Reporting Standard

- The goal of the Product standard is to help companies:
  - Quantify GHG emissions of a product over its lifetime
  - Understand, manage, and publically report the life cycle GHG emissions associated with individual products
- The Product standard is based on existing life cycle assessment standards (i.e. ISO 14044)



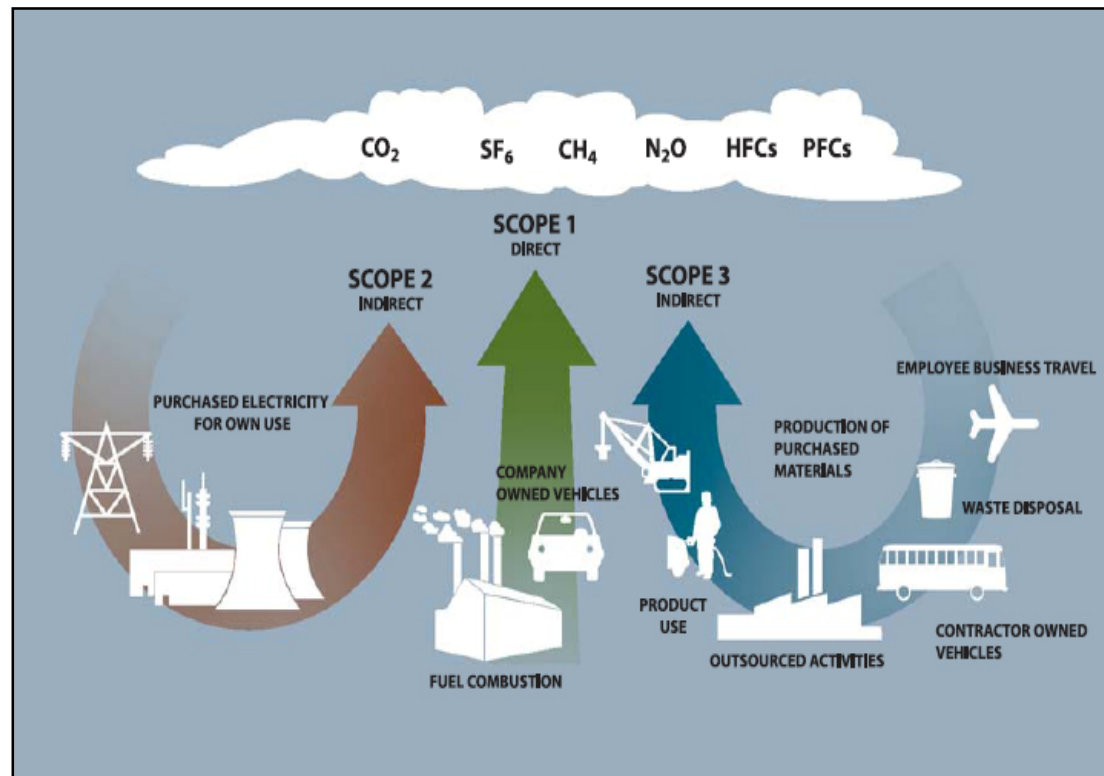
# The GHG Protocol Corporate Standard



- Originally published in 2001, revised in 2004
- The most widely used accounting tool for businesses to quantify, manage and report greenhouse gases
- Basis for ISO 14064-1
- Free standards and tools available at [www.GHGProtocol.org](http://www.GHGProtocol.org)

# The GHG Protocol Corporate Standard

- The corporate standard enables companies to complete a GHG Inventory for Scope 1 (direct emissions) and Scope 2 (purchased energy)



# Scope 3 で計算するカテゴリ

	#	カテゴリ
上流	1	Purchased Goods & Services 購入された製品、サービス
	2	Capital Goods 資本財
	3	Fuel- and Energy- Related Activities Not Included in Scope 1 or 2 スコープ1、2に含まれない燃料、エネルギー関連の活動
	4	Transportation & Distribution (Upstream) 輸送と流通(上流)
	5	Waste Generated in Operations 事業から発生する廃棄物
	6	Business Travel 出張
	7	Employee Commuting 従業員の通勤
	8	Leased Assets (Upstream) リース資産(上流)
	9	Investments 投資
下流	10	Transportation & Distribution (Downstream) 輸送と流通(下流)
	11	Processing of Sold Products 販売された製品の加工
	12	Use of Sold Products 販売された製品の使用
	13	End-of-Life Treatment of Sold Products 販売された製品の寿命後の処理
	14	Leased Assets (Downstream) リース資産(下流)
	15	Franchises フランチャイズ

Supplier Emissions サプライヤーの排出

# Sample of Road Testing Companies



Deutsche Post DHL



MITSUBISHI  
CHEMICAL



natura



PEPSICO

PRICEWATERHOUSECOOPERS

Johnson  
A FAMILY COMPANY



SIEMENS



SUZANO  
PULP AND PAPER



VEOLIA  
ENVIRONNEMENT

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# The Sustainability Consortium



Vision: Long-term desired state

To be an independent organization of diverse global participants contributing to **a more sustainable world through better products, consumption, and supply chains.**

Mission: The way we achieve the vision

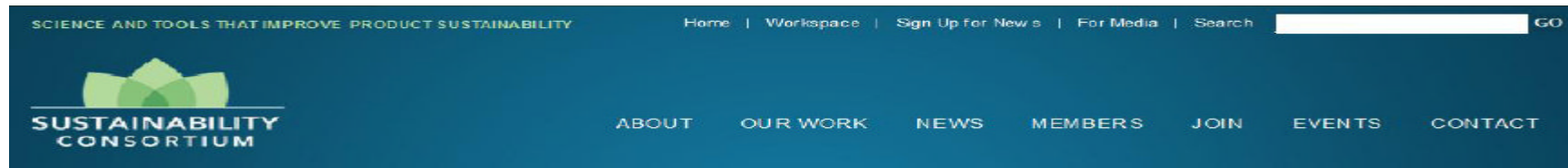
To develop and promote science and integrated tools that improve informed decision making for product sustainability.

In the “Start-up Phase” of TSC (**June 2009 to December 2010**) we:

- a. Developed staff and infrastructure
- b. Launched **prototype sustainability measurement and reporting standards (SMRS) development in 3 Sectors and 9 product categories**
- c. Grew membership size to 60
- d. Established collaborative relations with key stakeholder groups.

# サステナビリティ コンソーシアム

## The Sustainability Consortium



米国 **ウォールマート**がサプライチェーンのグリーン化を先導.



産学が協働して、より良い製品の生産、消費、サプライチェーンによる持続可能な社会の実現をめざす.

スタートアップ段階(2009年6月～2010年12月)

- a. スタッフ等の組織を確立する.
- b. プロトタイプの**SMRS(sustainability measurement and reporting Standards )**を3セクター9製品で作り始める.
- c. 会員を60に増やす.
- d. 主な関係者との協力体制を確立する.



# The Sustainability Consortium

## Members

### Tier 1 Members

\*Asterisk Denotes Founding Member



### NGOs and Government



As of January 1, 2011  
a **Board of Directors** made up of corporate and university members, and **several Advisory Councils** (Academic, Civil Society, Corporate)



# サステナビリティ コンソーシアム

## The Sustainability Consortium

### 会員(Members)

#### Tier 1 Members

\*Asterisk Denotes Founding Member



#### NGOs and Government



2011年1月から  
企業と大学のメンバー  
とアドバイザー委員から  
なる運営会議を作る。

# The Vision for Progress

Date	Current SMRS
Oct 10	SMRS draft (Energy, GHG, H2O)
Dec 10 - Jan 10	Internal approval
Jan 11	7 SMRS Prototypes released internally Social added; Public & panel review starts (concurrent)
Mar 11	Public & panel review complete
Apr 11	Revisions
May 11	7 Published prototype SMRS with CEWS Begin Ecosystem Quality, Human Health , Social Hot Spot Database
Jun 11	Begin new review process
Oct 11	7 Published final, complete SMRSs

# What is SMRS?

## Sustainable Measurement and Reporting Standard

- Establishes a foundation that allows business to business, business to retail and business to consumer reporting.
- It addresses the questions:
  - What sustainability measures or attributes should be captured?
  - How should they be measured?
  - How should they be reported?
- Initially applied to product category or higher

# Introducing Three Sectors



**ELECTRONICS**

# Members: <b>19</b>
# Participants: <b>25</b>
Launch Date: <b>Jan. 2010</b>
SMRS Prototype(s): <b>Laptop, Television</b>



**FOOD, BEVERAGE  
& AGRICULTURE**

# Members: <b>34</b>
# Participants: <b>80</b>
Launch Date: <b>Jul. 2009</b>
SMRS Prototype(s): <b>Wheat Cereal, Flavored Yogurt, Fruit Juice</b>



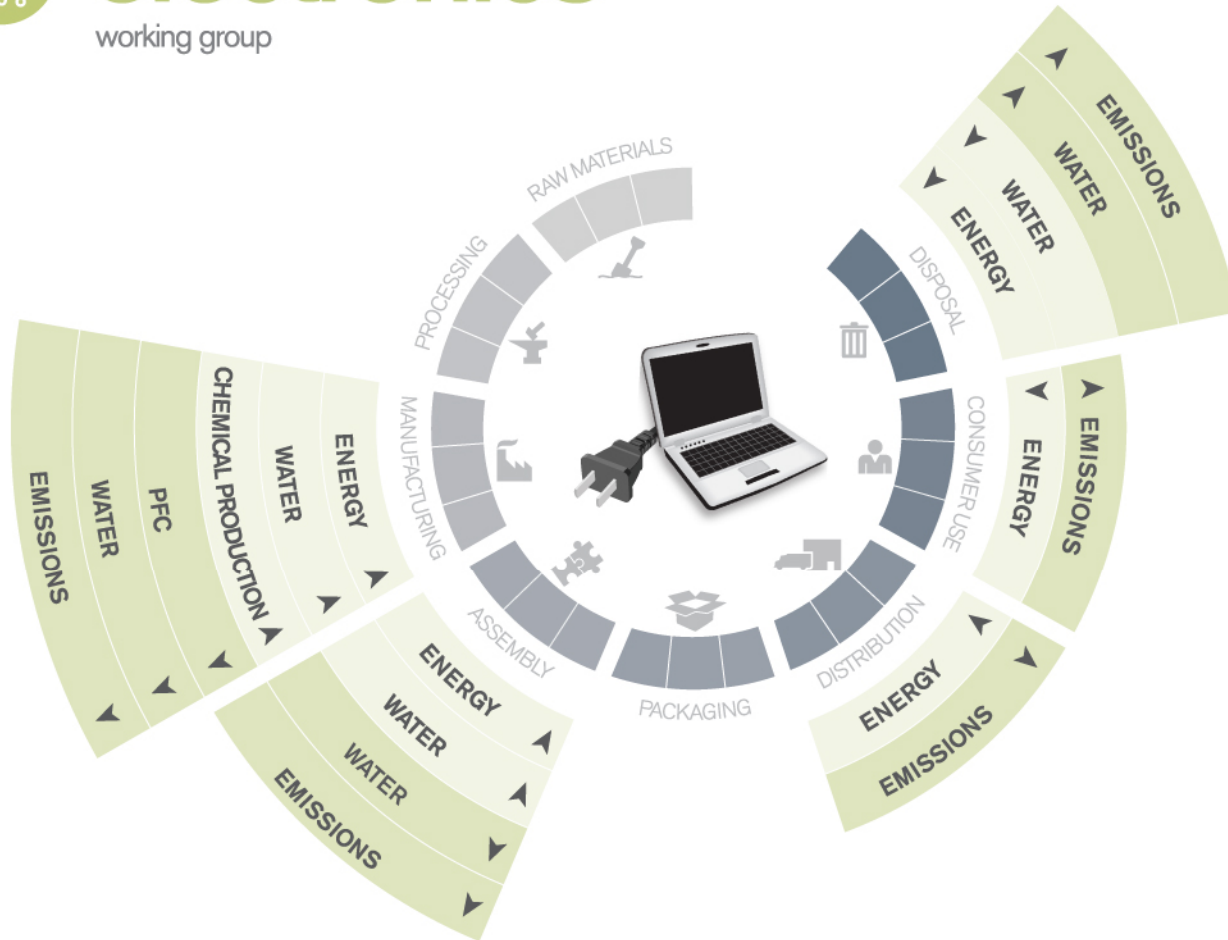
**HOME &  
PERSONAL CARE**

# Members: <b>27</b>
# Participants: <b>78</b>
Launch Date: <b>Sept. 2009</b>
SMRS Prototype(s): <b>Laundry Detergent, Shampoo, Household Cleaner</b>



# electronics

working group



# Baseline Models: 1
# Hotspots Identified: 5
# SPDs Identified: 10
Example: <b>Laptop</b>



### Functional Unit

One laptop computer plus external power supply



### Geographic Scope

Global - majority of manufacturing in Asia



### Inputs

Electricity, water, and chemical production



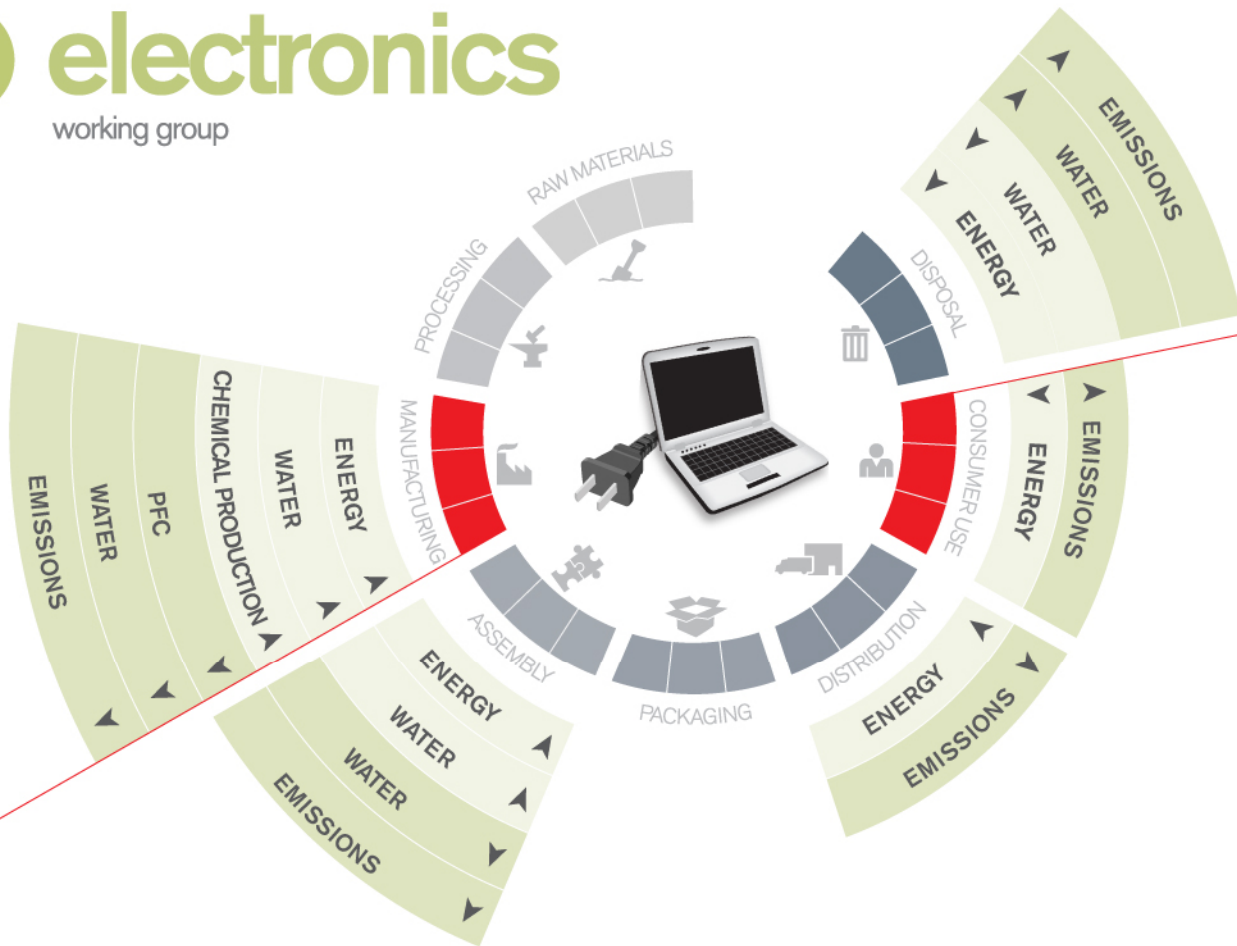
### Outputs

Water, PFC, and emissions



# electronics

working group



# Baseline Models: 1
# Hotspots Identified: 5
# SPDs Identified: 10
Example: Laptop

### HOTSPOT

Energy consumed during manufacturing phase for all components.

### HOTSPOT

PFC emission during manufacturing of LCD screens.

### HOTSPOT

Energy consumed during use phase.

### SPD

Energy consumed per unit area of component.

### SPD

PFC emissions in manufacturing: methodology TBD.

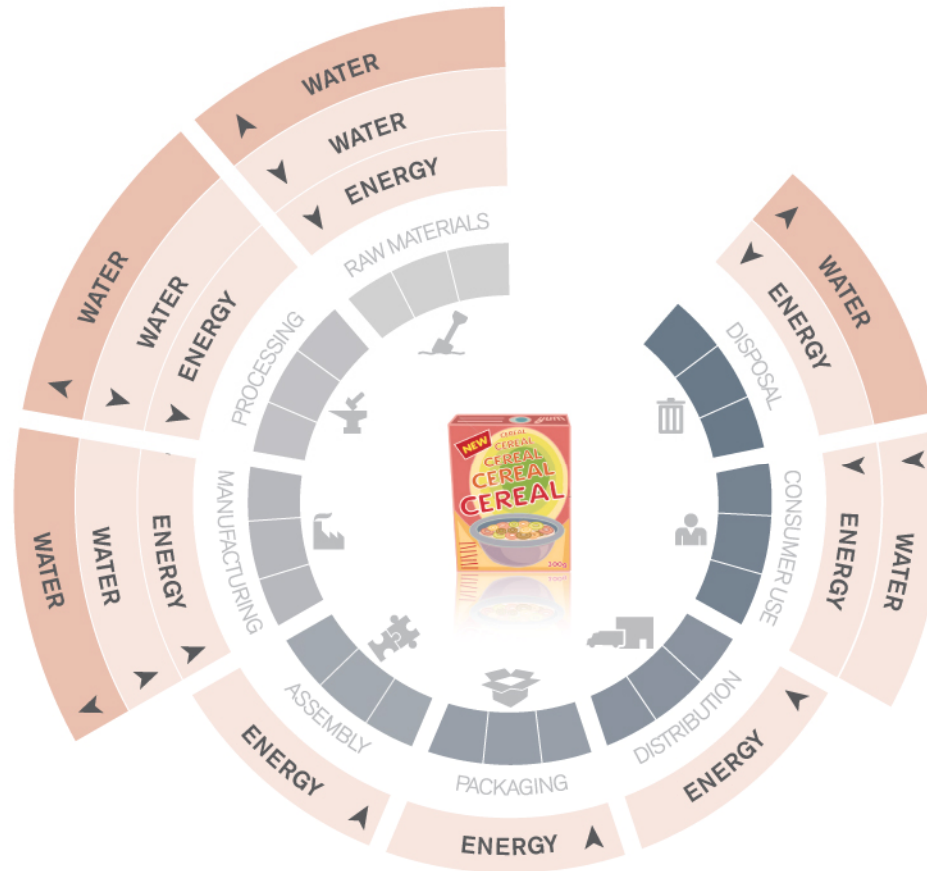
### SPD

Use phase energy consumption: ETEC (kWh, conversion to kCO<sub>2</sub>e), annual typical energy consumption as measured and calculated in the Energy Star program.



# food, beverage & agriculture

working group



# Baseline Models: 3
# Hotspots Identified: 9
# SPDs Identified: 0
Example: <b>Wheat Cereal</b>



**Functional Unit**  
300g (1 box) of wheat cereal, consumed and disposed (excludes milk)



**Geographic Scope**  
United States



**Inputs**  
Energy  
Water



**Outputs**  
Water

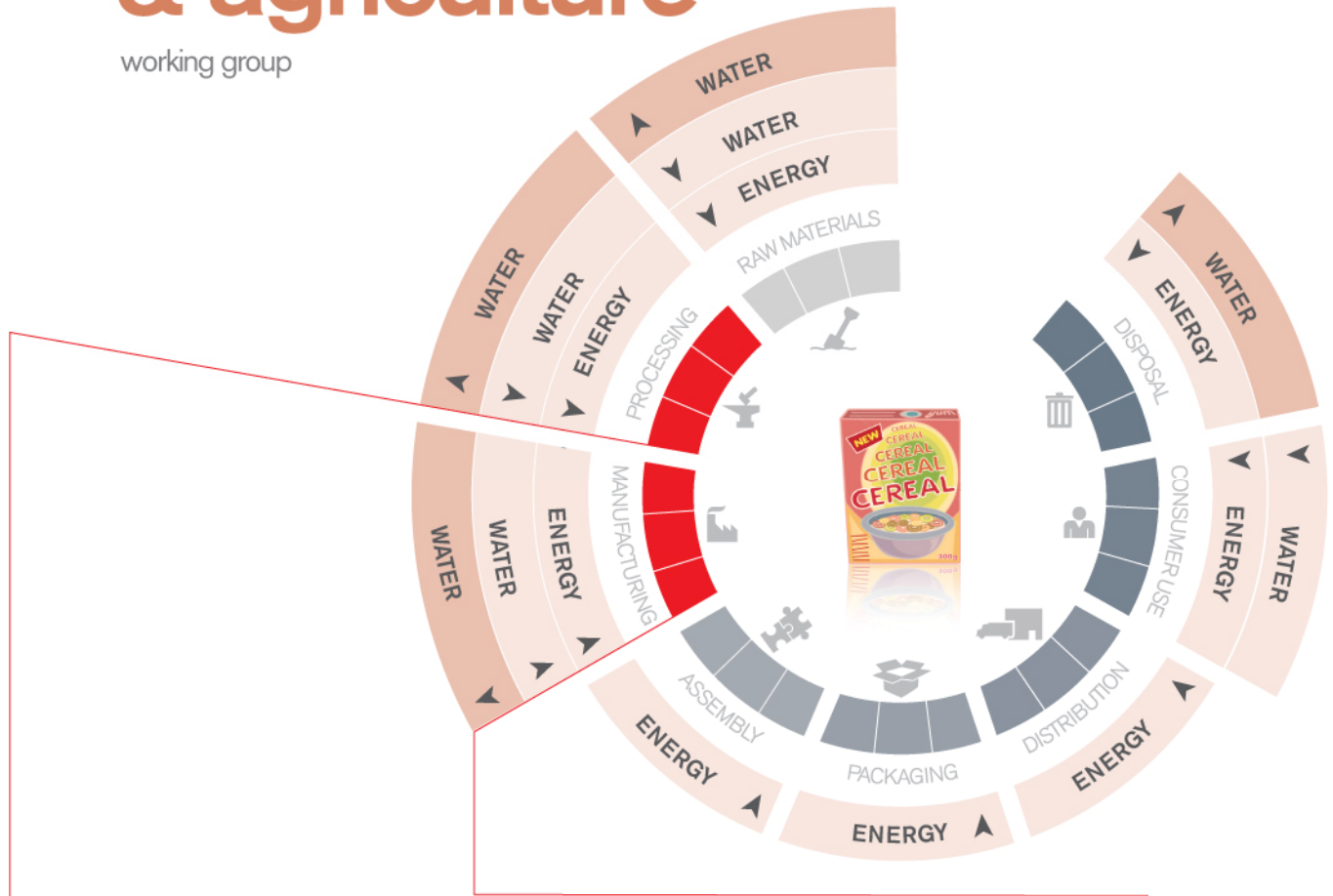




# food, beverage & agriculture

working group

# Baseline Models: 3
# Hotspots Identified: 9
# SPDs Identified: 0
Example: <b>Wheat Cereal</b>



### HOTSPOT

Greenhouse Gases in Fertilizer Production

### SPD

To be determined

### HOTSPOT

Water use in On-farm Production

### SPD

To be determined

### HOTSPOT

Primary Energy Demand in Processing and Manufacturing

### SPD

To be determined



# Is The Sustainability Consortium Developing a Consumer-Facing Sustainability Index?

No the consortium is not developing a consumer-facing Index or label. Rather, we are developing Sustainability Measurement and Reporting Standards (SMRS's) that will define, for a particular product type, what product manufacturers should measure, how to measure it, and how to report it to a common database. This reporting will be facilitated by IT tools and standards that make this viable in real supply chains, and by research concerning how buyers, merchants, and end-consumers make decisions about sustainable products. Once the product-level sustainability information is in a common database, then manufacturers, retailers, and third-party certification and index owners will be able to use these data for a variety of purposes, all aimed at driving communication of and improvement in product sustainability.



**Dr. Kevin Dooley**

**Arizona State University**

# サステナビリティ コンソーシアムは消費者に見せるラベルを作るのか？

No, 消費者に見せるラベルを作るのではない。

Sustainability Measurement and Reporting Standards (SMRS's) を作り、生産者が何をどのように測るかを示し、共通のデータベースにどのように報告するかを決める。

この報告は IT tools を使って行われ、現実のサプライチェーンの中で、バイヤーや販売者、最終ユーザーが持続可能な商品について決定することに役立つ。

商品レベルの持続性についての情報が共通のデータベースに入れば、生産者、流通業者、第3者認証機関、ラベル主催者が、商品についてのコミュニケーションを促進し、持続可能性を高めるための様々な用途にこのデータを利用することができる。



Dr. Kevin Dooley

Arizona State University

# Reporting Category Identification



## Library of Impact Assessment Methods/Reporting Categories

GHG, Energy Use, Land Use, Toxicity, Water Quality Biodiversity, Water Use, Etc...

A green circle containing a white circuit board icon.

**ELECTRONICS**  
GHG  
Water Quality  
Energy Use

A brown circle containing a white wheat stalk icon.

**FOOD, BEVERAGE & AGRICULTURE**  
GHG  
Water Quality  
Land Use

A green circle containing a white spray bottle icon.

**HOME & PERSONAL CARE**  
GHG  
Toxicity  
Energy Use  
...

Sectors identify appropriate reporting categories ...

**3月30日(水)に東京でセミナー開催を計画中**

# Review & Adoption of Existing Standards



- Existing product level footprint protocols (WRI, ISO, PAS2050) to be reviewed
- MSWG will examine each major topic in the standards for adoption by TSC
- Guidance will be given to SWG for development of SMRSs

1. タイのカーボンフットプリント
2. ISO14067(イタリア・トリエステ会合の速報)
3. WRI/WBCSD
4. Sustainable Consortium
5. Global Guidance on LCA Databases



# Global Guidance on LCA Databases

- 1月30日(日)～2月4日(金)湘南国際村センター
- UNEP/SETAC Life Cycle Initiative が主催
- 世界から選択された49名が参加
- データベース(DB)に関するガイダンスを作成
  - Unitプロセスデータ、積算型データの作り方
  - DBの作り方(レビュー、運営)
  - DBの連携(ネットワークキング)
  - 新たな手法(産業連関表分析,統計表、、、)



# ***Introduction and Objectives for the Workshop***

**Workshop on Global Guidance for LCA Databases**

**Shonan Village Center/ Japan, 30 Jan. – 4 Feb. 2011**

*Guido Sonnemann, Programme Officer, UNEP*

Life Cycle



Initiative



***United Nations Environment Programme  
Division of Technology, Industry and Economics  
Sustainable Consumption and Production Branch***



# LCA data base work international – just a snap shot – not complete

## **Countries/ Regions**

- Australia
- Brazil
- China
- EU – ELCD
- Japan
- Korea
- Malaysia
- Mexico
- Thailand
- Switzerland – ecoinvent
- US LCI

## **Industry Associations**

- European Federation of Corrugated Board Manufacturers (FEFCO)
- International Aluminium Association
- International Copper Institute (ICI)
- Plastics Europe
- worldsteel

## **Universities (with Partners)**

- CIRAI
- Sustainability Consortium
- University of Stuttgart - LBP







# Motivation

- ***Need for international guidance*** to guarantee an efficient allocation of resources, to ensure reliability and quality.
- Decision in 2007 to produce a ***manual on developing a countries' LCI data for energy systems***.
- However, the preparation of manual was confronted with an important amount of diverging comments.
- Discussions indicate that there are a ***number of contentious issues*** around the way how to develop a LCA database
- The idea was born of a ***workshop to address both political and technical issues*** related to LCA database guidance:
  - Political issues include the agreement on principles at the global level on ***how to set up and govern LCA databases***.
  - On the technical side the UNEP-SETAC International LCA database guidance should ***cover requirements on goal & scope, modelling, quality, documentation and review***.



# Vision towards a Global Guidance on LCA DB

- To provide global guidance on the establishment and maintenance of LCA databases, as the basis for future improved interlinkages of databases worldwide.
- To facilitate additional data generation (including for certain applications such as carbon and water footprint creation) and to enhance overall data accessibility.
- To increase the credibility of existing LCA data, , through the provision of such guidance, especially as it relates to usability for various purposes.
- To support a sound scientific basis for product stewardship in business & industry and life cycle based policies in governments, and ultimately, to help advance the sustainability of products.

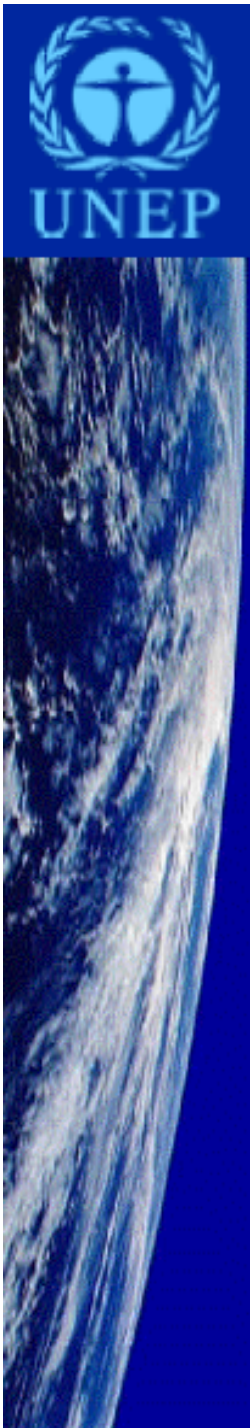
This process should complement other ongoing initiatives.





# Objectives of the Global (Pellston) Workshop

- ***Facilitate a platform to conclude on common agreements in the area of LCA databases and find ways to overcome contentious issues, e.g.:***
  - context of regional and national as well as industry database initiatives in a globalised world
  - relationship of unit versus systems data
  - role of data from Input-Output Analysis
  - overall guarantee of data quality and transparency
  - relationship of inventory and life cycle impact assessment
- ***Facilitate a consensus*** process by identifying the expected agreements among the leading LCA database experts worldwide and by drafting LCA database guidance document based on this.
- ***Focus on life cycle inventories (but cover the relation to life cycle impact assessment), not being sector-specific and not developing a common database format.***
- ***Guidance available for regional, national and industry database initiatives to support their efforts.***



# Conflict resolution mechanisms

Full consensus for agreements is the first option. Failing that, best consensus will be sought in the following way:

1. If there is consensus on a single best practice approach: Recommend a single approach
  2. If support is split between two or more best practice approaches: Offer a choice and make conflict explicit.
  3. If there is no agreement on two or more best practice approaches: Offer no guidance, give case studies or address qualitatively
  4. If the group agrees the issue should not be addressed in this guidance document (i.e. format, nomenclature and impact assessment) : Provide rational for omission in the document
  5. In any case allow for minority statements and recommendations, if asked for by the minority.
- All efforts should be made to achieve consensus on each aspect of the guidance document. If the workshop participants are unable to reach a consensus, they are asked to provide a set of options, indicating the relevant pros and cons of each option.
  - In the case of no consensus, every participant will have the possibility to mark a strong diverging opinion as “fundamental difference”. In that case, the diverging opinion will be noted and documented in final document.





# Steering Committee

- Leadership by UNEP and SETAC
- Regional and gender balance
- Equal representation from governments, industry and academia/ NGO  
(letters of support provided)

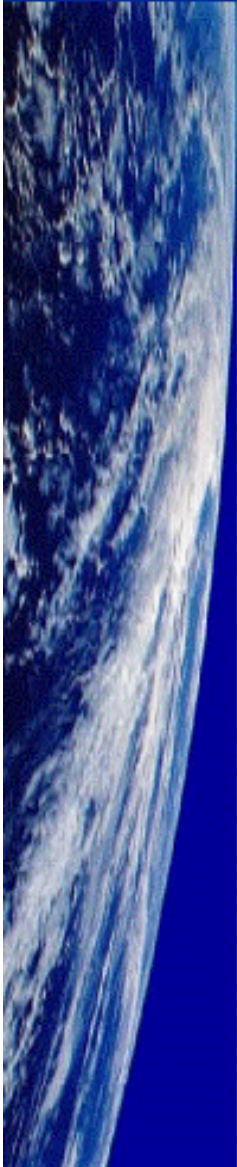




# Criteria for Workshop Participant Identification and Selection

- Expertise and involvement in ongoing regional and national as well as industry database initiatives in OECD countries, emerging economies and developing countries.
- Documented experience with the preparation of LCI studies involving the use of databases or the collection of primary data with expected future use in a database.
- Participation in internal company or industrial association/consortium efforts to develop data and/or database guidance for company or generic purposes.
- Experience with SETAC and regional life cycle networks.
- Selected users of LCA databases with articulated needs regarding data
- Experts in the information technologies associated with database creation and management, and emerging open source and web-based information systems.





## Workshop Topical Tracks

Overarching

Aligning Data  
with User  
Needs

How to define process boundaries and their influence on data collection and modeling?

Integration  
& Cross  
Fertilization

Implement editing process and rework document outline, identify intersecting ideas, and promote communications across groups.

Current Practice

Unit Process  
Data  
Development

Define unit process data quality indicators, metrics and requirements and present data with appropriate quality information.

Aggregated  
Process Data  
Development

Define aggregated data quality indicators, metrics and requirements and present data with appropriate quality information.

Data  
Review &  
Documentation

What is the role of review on LCI data? What needs to be reported and documented?

Futuring

Future  
Knowledge  
Management

Can we put Web 2.0 or beyond to use to produce higher quality or more efficient LCIs?

Adaptive LCI  
Approaches

What are the data demands for hybrid, dynamic and other approaches?

User  
Perspective

How do  
different  
user  
perspectives  
influence  
data needs  
and  
guidance  
needs?



# Revised Outline focusing on LCA Databases

- 1. Introduction**
- 2. Unit Process Data Development**
- 3. Aggregated Dataset Development**
- 4. Data Documentation, Review, and Management**
- 5. Adaptive LCI Approaches**
- 6. Future Knowledge Management**
- 7. Integration and Synthesis**  
(data provider and user perspective)









# Introduction and Objectives for the Workshop

Workshop on Global Guidance for LCA Databases  
Shonan Village Center, Japan, 30 Jan. – 4 Feb. 2011

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United Nations Environment Programme  
Division of Technology, Industry and Economics  
Sustainable Consumption and Production Branch









# Chapter 1

## 0 Prologue

## 1 Introduction

1,1 Glossary of Terminology

1,2 Overall Principles for Guidance

1,3 Defining and Applying Existing Practices

1.3.1 Defining Existing Practice

1.3.2 Building on Existing Guidance

1.3.3 Supportable but Not Consensus Guidance

1.4 Data Flow Maps

1.4.1 Flow of Data

1.4.1 Flow of Roles and Responsibilities

1,5 Factors Determining Data Needs and Database Requirements

1.5.1 Study Goal and Scope - Different application context

1.5.2 Relationship with Decision Context and Inclusion of LCIA

1,6 Database User and Dataset Provider/Database Manager Perspectives

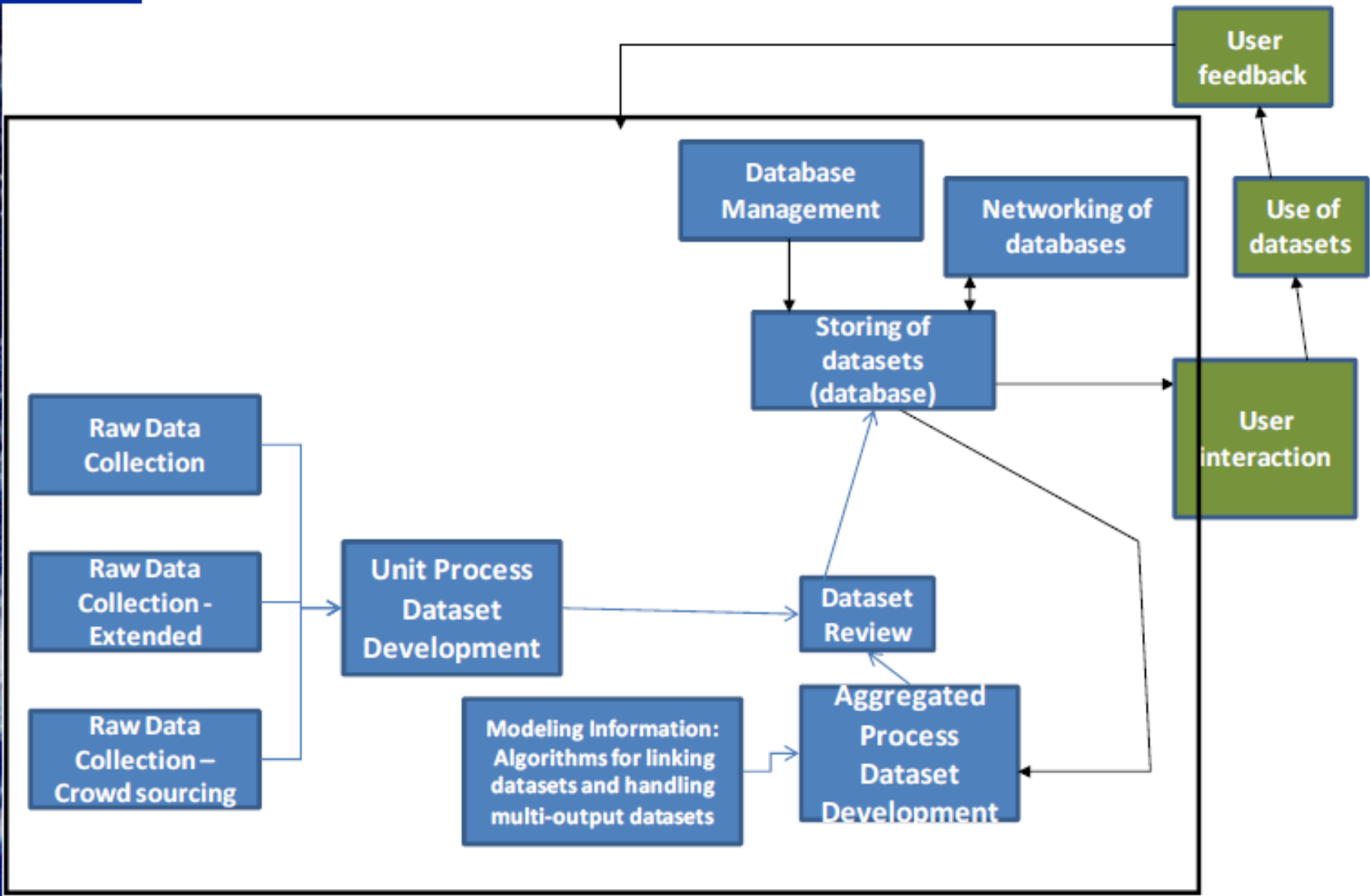


# Glossary of Terminology

<u>TERMS</u>	ecoinvent v3	ecoinvent v2	GHG Protocol Product Accounting Nov 2010 Draft)	ILCD EC JRC draft	ISO (14044 & 14048)	U.S. LCI Overview , 2010, Athena Institute & NREL	Other
allocation	-	-	Occurs when emissions and removals data collected for a common process needs to be partitioned between the studied product's life cycle and the life cycle of the other products.	(same as ISO)	partitioning the input or output flows of a process or a product system between the product system under study and one or more other product systems	(same as ISO)	
assumption	-	-	-	-	-	-	-
assurance	-	-	An objective assessment of the accuracy, completeness and presentation of a reported product GHG inventory and the conformity of the product GHG inventory to the Standard designed to enhance the degree of confidence of the intended users.	-	-	-	-
attributorial approach	-	-	Accounts for the GHG impacts of a product over its lifecycle, making use of historical, fact-based, and measurable data and including all processes that are identified to be attributable to the studied product's life cycle. (ILCD, 2010)	LCI method principle that inventories the inputs and output flows of all processes of a product system as they occur	-	LCI modeling frame that inventories the input and output flows of all processes of a system as they occur.	System modeling approach in which inputs and outputs are attributed to the functional unit of a product system by linking and/or partitioning the unit processes of the system according to a normative rule (Source: definition provided by Bo Weidema).  The attributional model is used to describe the environmental impacts caused by the average supply of a product in a given time period. Frischknecht & Stucki 2009
average data	-	-	-	(to be filled in)	-	-	-



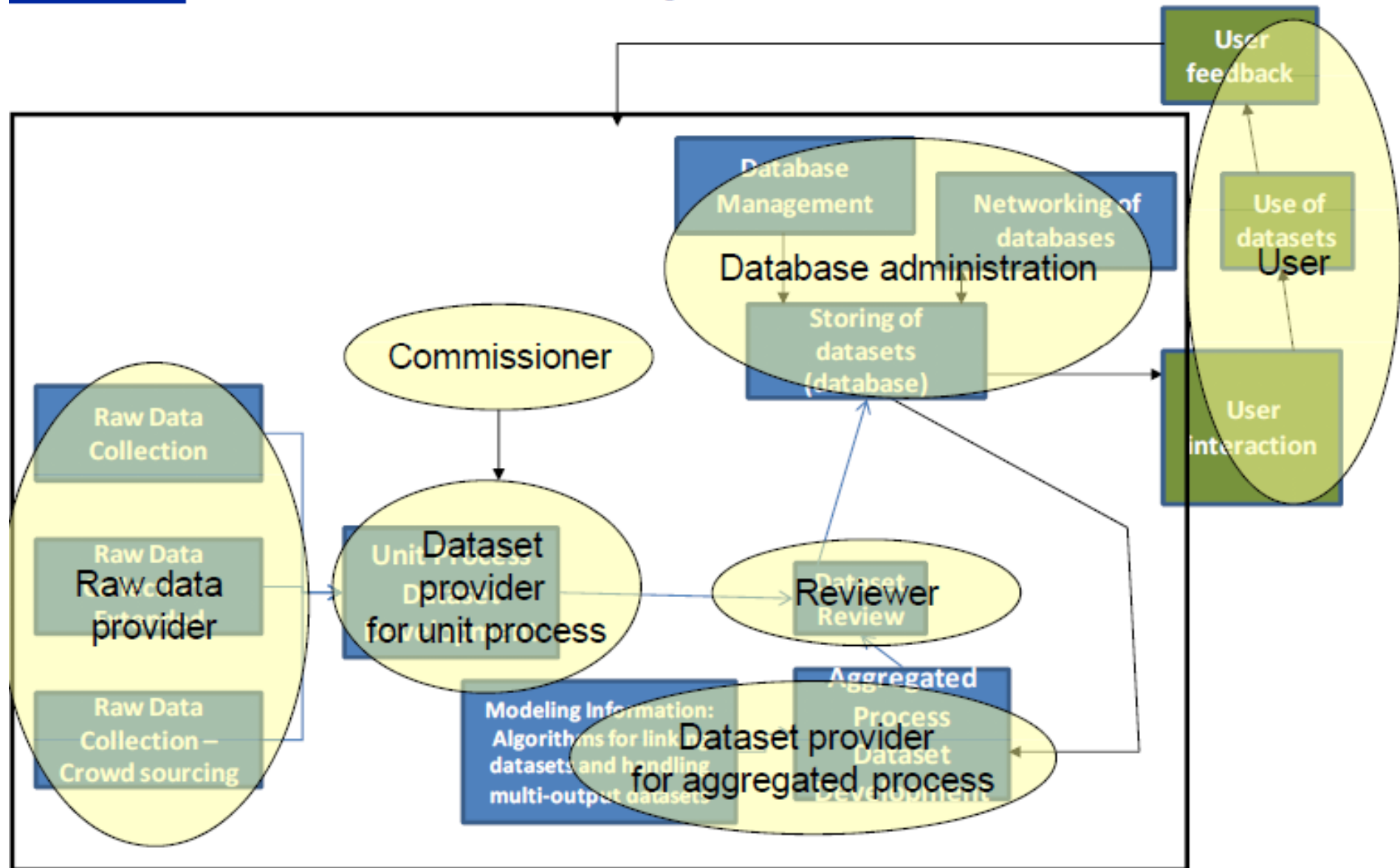
# Flow of Data



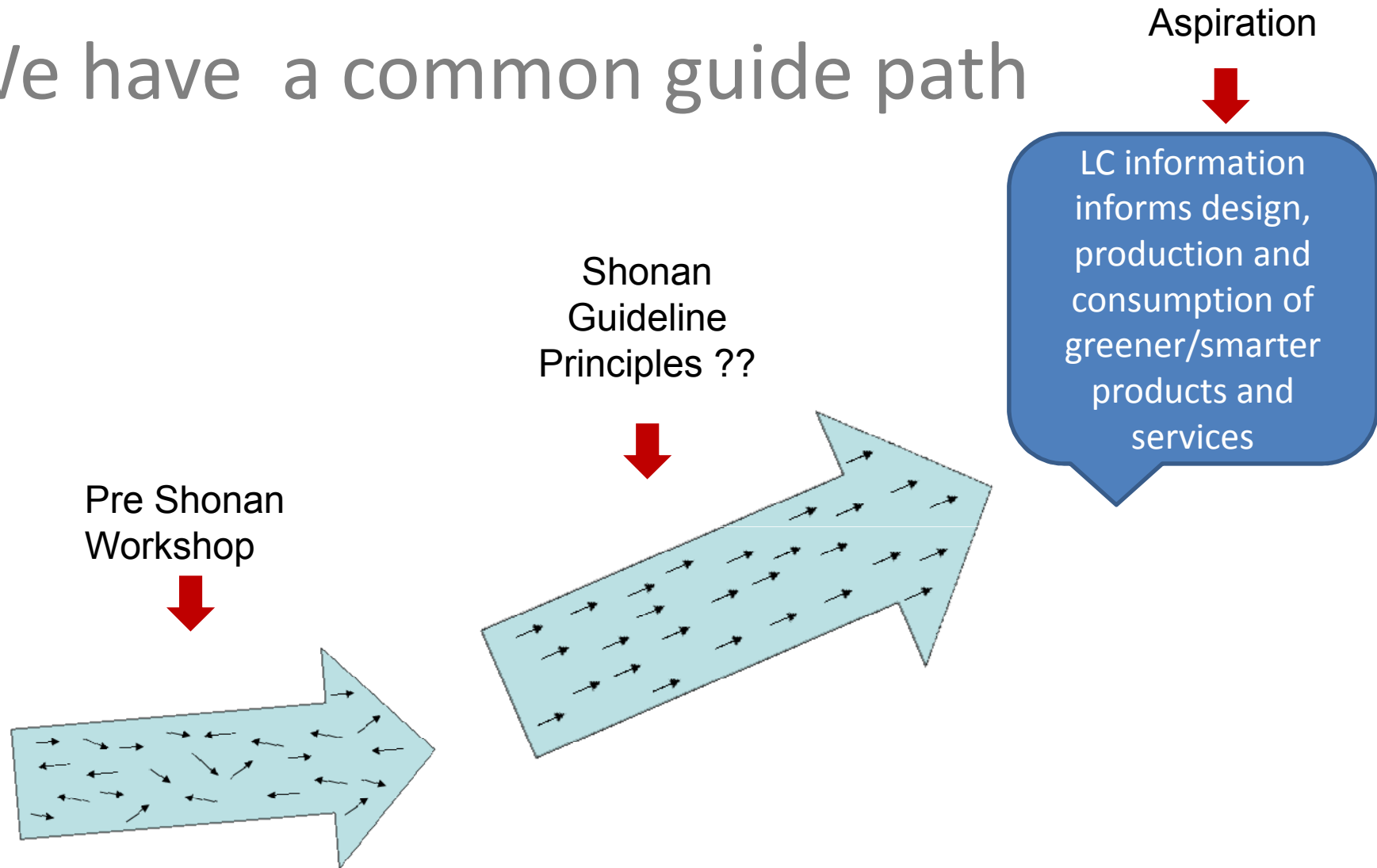




# Flow of Roles and Responsibilities

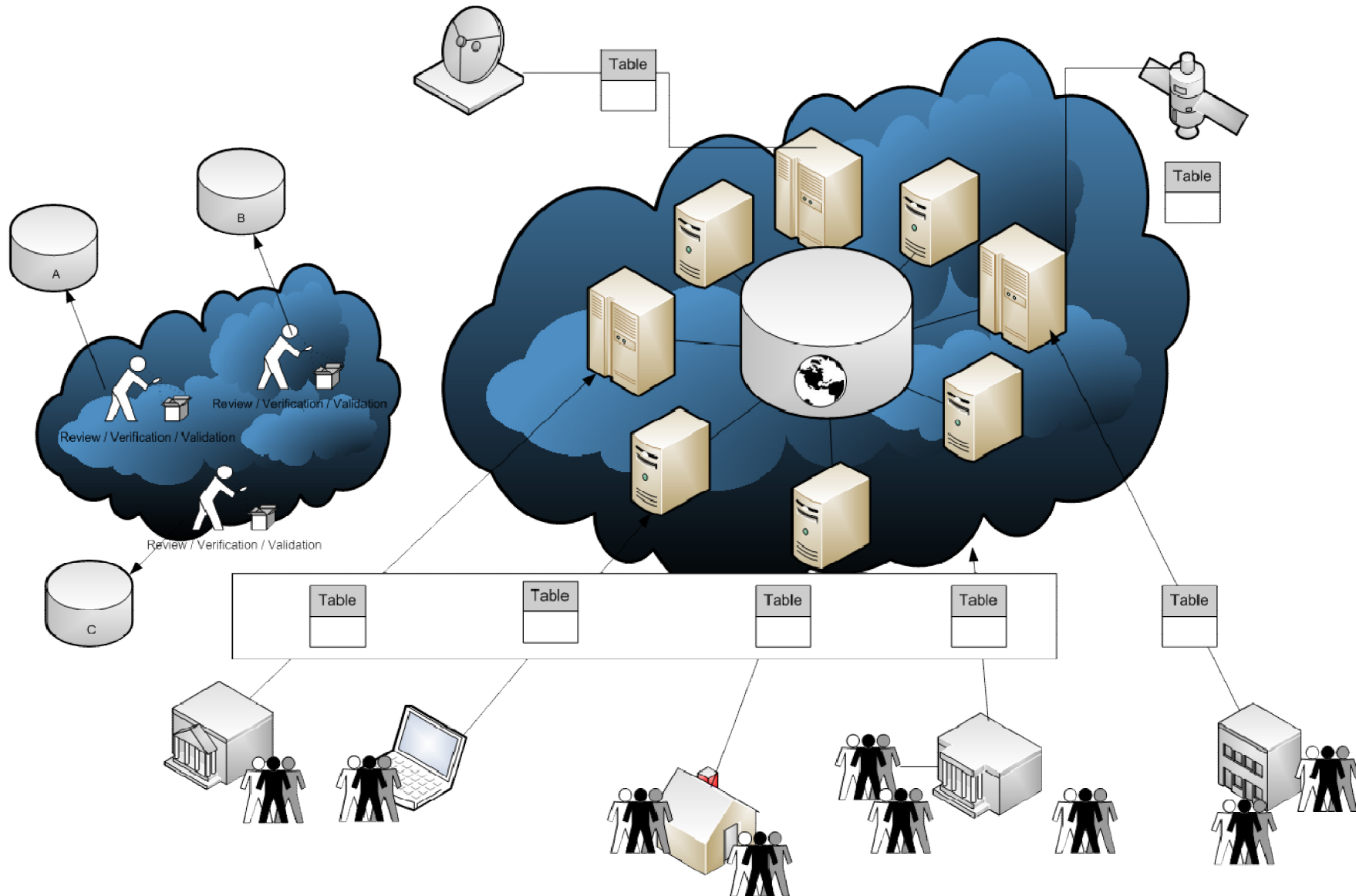


# We have a common guide path



## The Shonan Guidance Principles

# Crowd reviewing; competing reviewers select data relevant for their needs



# Next Step

Target Date	Activity
12 Feb	Co-chairs compose and send email on harmonization needs/solutions to leadership group with required response date
19 Feb	Leadership reviews and either concurs with recommended harmonization recommendation or does not
26 Feb	Hold leadership conference call to resolve non-concurred harmonization areas (option if small number)
12 Mar	Hold leadership conference call to resolve non-concurred harmonization areas (option if larger number)
2 Apr	Technical editorial review begins (communication of recommended edits as necessary)
28 Apr	Send draft to all participants, Secretariat collects comments on remaining inconsistencies/overlaps, etc.
19 May	Comments to WG chairs, prepare revision w. changer and each chapter sent to other WG members
1 Jun	Report goes into publication editing, layout and composition



## 今日の総括

- CFPは世界各国で着実に進んでいる。
- 大企業のイニシアチブが広がっている。
- データベース間の連携が議論されている。