

Driving Green Supply Chain through International Standards

2 April 2013

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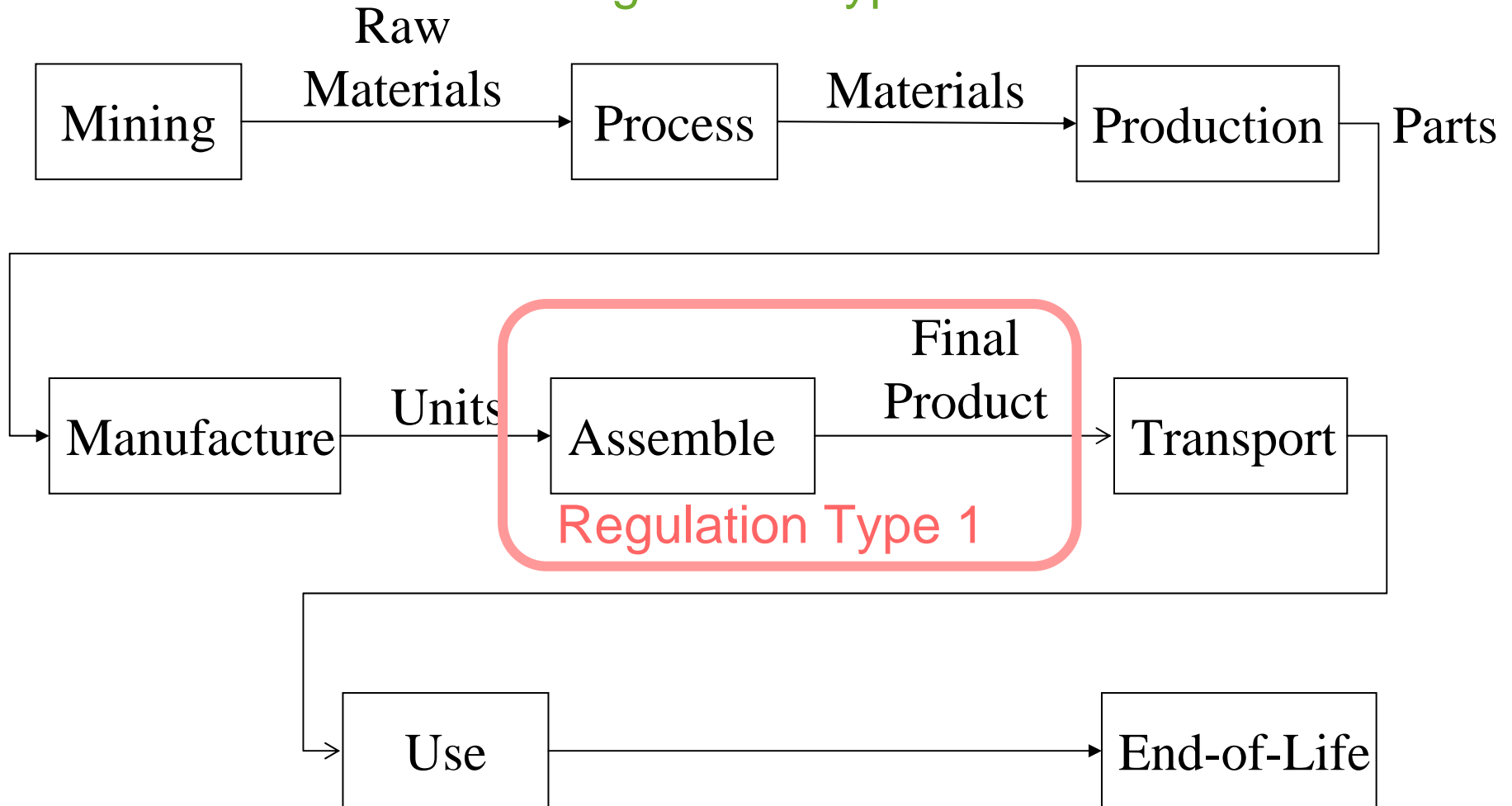
1 Basic understanding of the green supply chain issues

2 IEC TC 111 activities

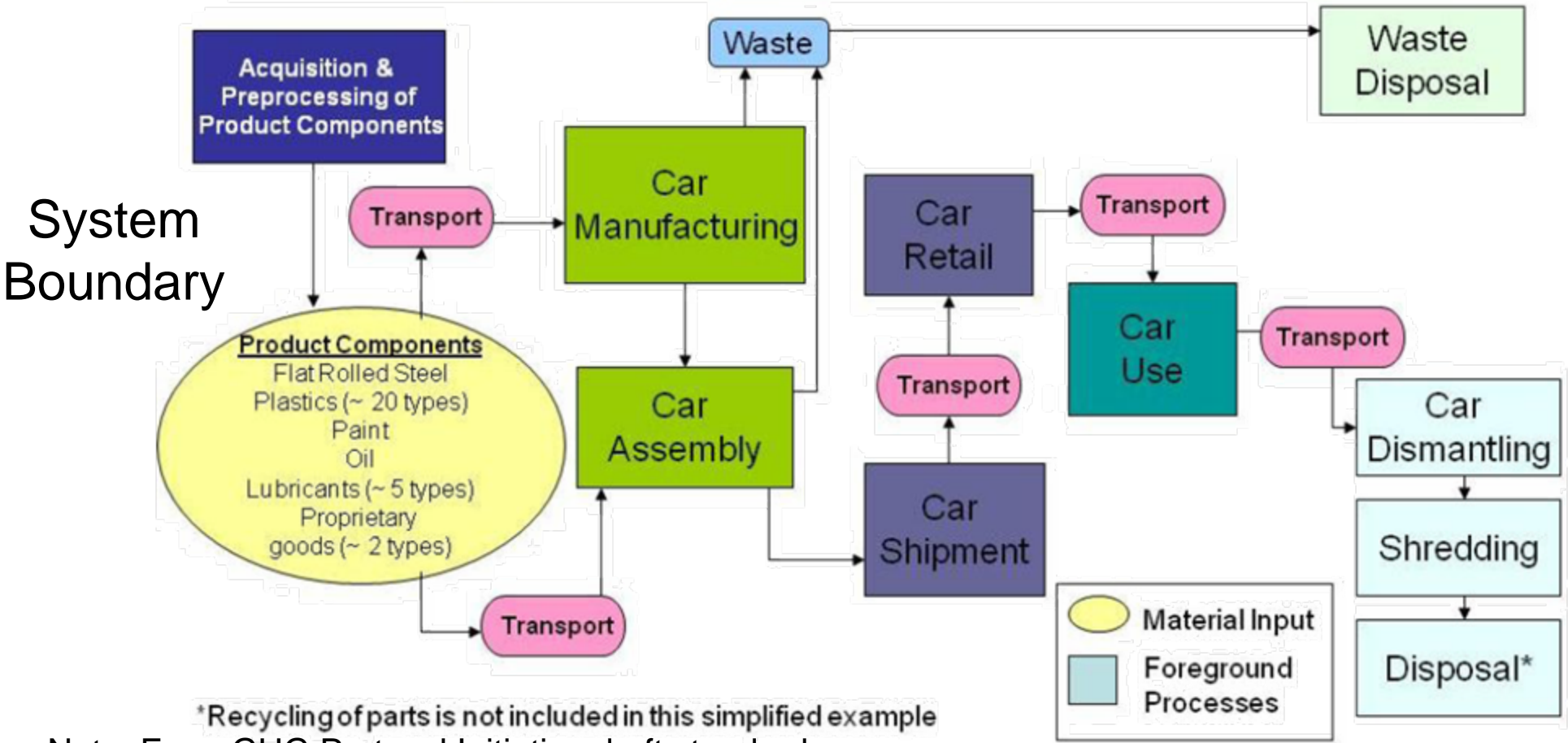
3 ISO TC 207 and ITU-T SG5 activities

Supply Chain and Life Cycle

Regulation Type 2



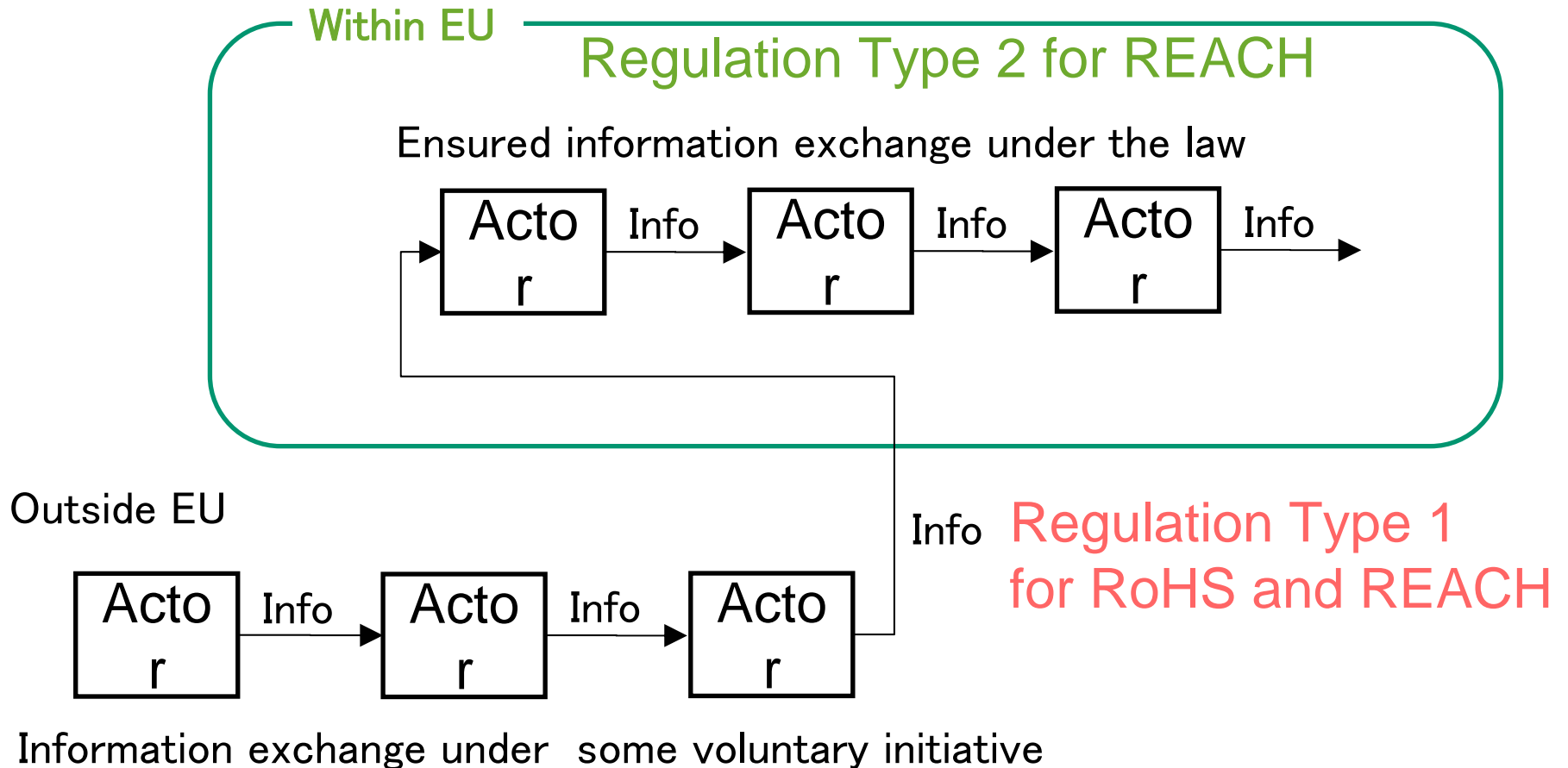
A Simplified Example for the Supply-chain of a Car



*Recycling of parts is not included in this simplified example

Note: From GHG Protocol Initiative draft standard

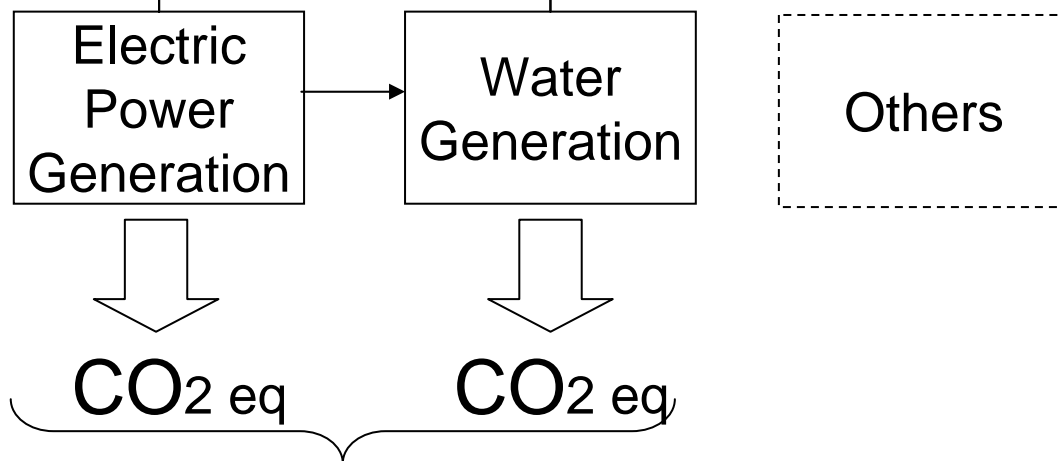
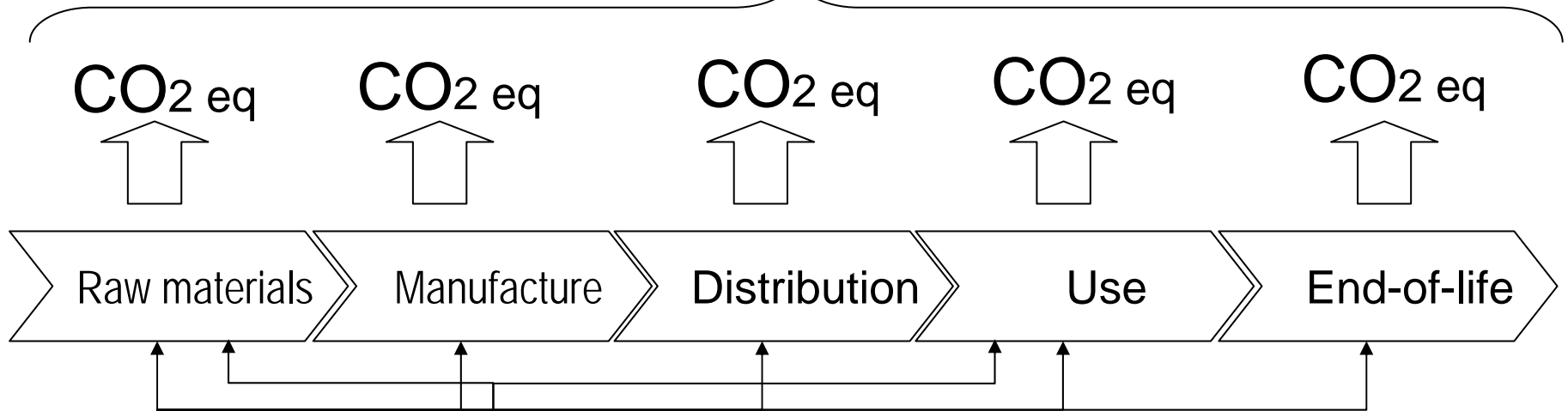
REACH and RoHS



Asian regions are key strategic regions
critical for transferring important data on the substances in products.

Carbon Footprint of Product (CFP)

Direct emissions in a product's lifecycle



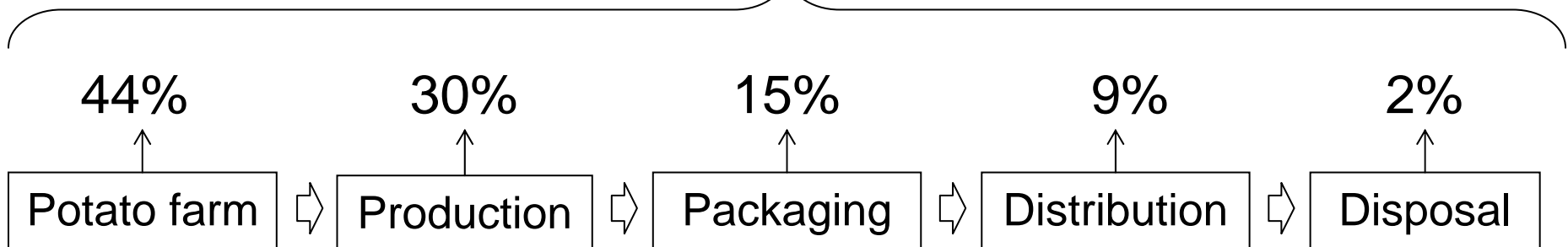
CFP: total sum of those emissions including indirect ones in a product's lifecycle.

Indirect emissions in a product's lifecycle

Voluntary or Pilot Initiatives



CO2 Emission 75g



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2 IEC TC 111 activities

3 ISO TC 207 and ITU-T SG5 activities

Tree Major Standardisation Bodies and Environmental TCs

IEC
International Electrotechnical Commission

TC 111

*Environmental
Focus*

ITU

SG 5

ISO

TC 207

International Telecommunication Union International Standard Organization

Outline of IEC TC 111

- **Established:** October, 2004
- **Title:** Environmental Standardization for Electrical and Electronic Products and Systems
cf. ISO TC 207 "Environmental management"
- **Officers**
 - ❖ **Chairman:** Yoshiaki Ichikawa (Japan)
 - ❖ **Secretary:** Andrea Legnani (Italy)
 - ❖ **Technical Officer:** Matei Cocimarov(IEC)

Scope of IEC TC111

Standardization of environmental aspects concerning:

- To prepare the necessary guidelines, *basic and horizontal* standards, including technical reports, in the environmental area, in close cooperation with product committees of IEC, which remain autonomous in dealing with the environmental aspects relevant to their products;
- *To liaise with product committees* in the elaboration of environmental requirements of product standards in order to foster common technical approaches and solutions for similar problems and thus *assure consistency in IEC standards*;
- *To liaise with ACEA and ISO/TC 207*;
- To monitor closely the corresponding regional standardization *activities worldwide* in order to *become a focal point for discussions concerning standardization*;
- EMC and EMF aspects are excluded from the scope.

IEC TC111 Meetings



May 2005 Milan



Oct 2005 Cape Town



Jun 2006 Redmond



Mar 2007 Tokyo



Oct 2007 Paris



Oct 2008 Jeju



Oct 2009 Tel Aviv



Oct 2010 Seattle



Oct 2011 Melbourne

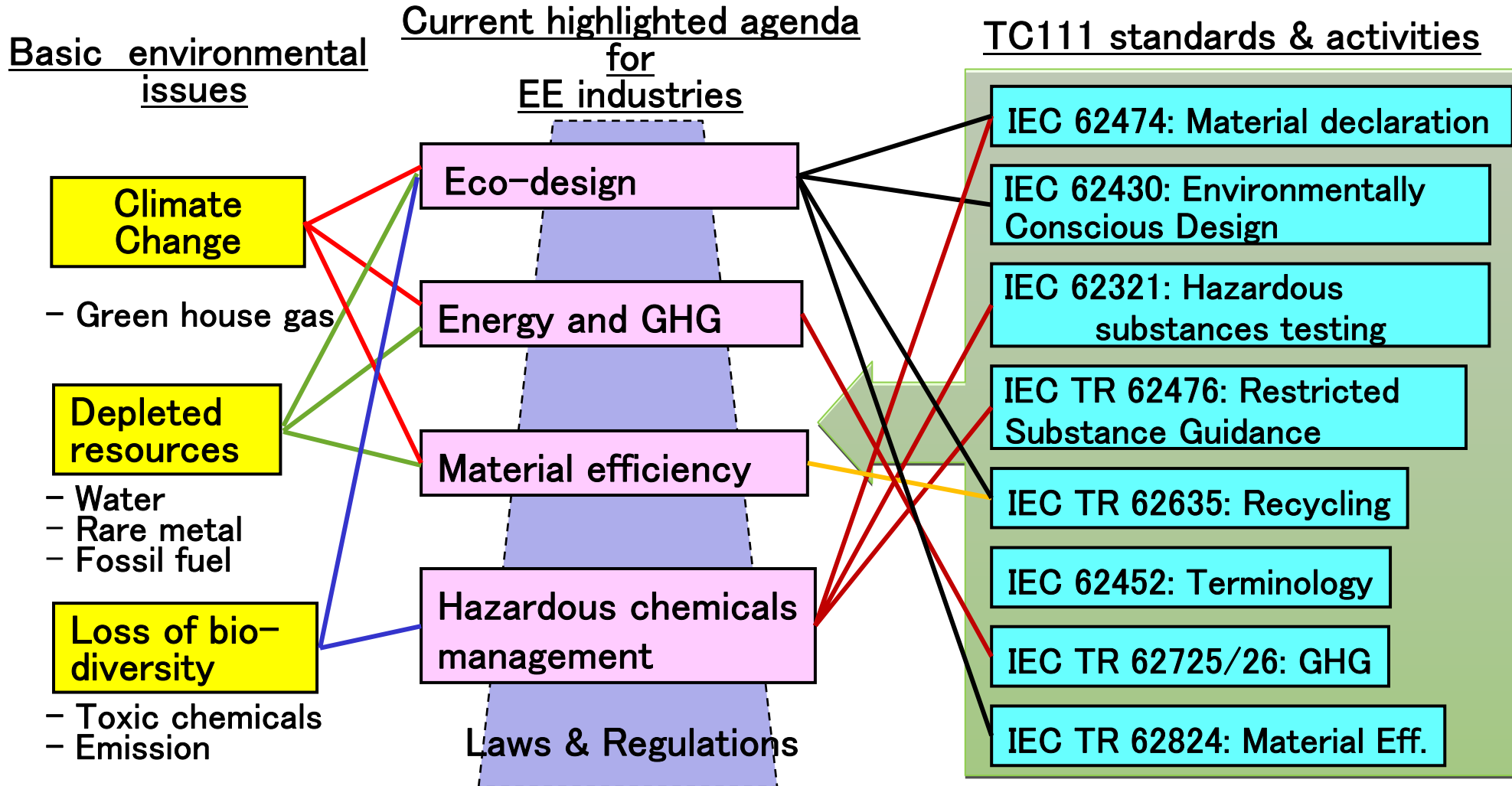


Oct 2012 Fortaleza

Membership of IEC TC111

- **Members** (15/2005 => 33/2011)
 - ◆ **P-members:** AU, BE, CA, CN, CZ, DK, FI, FR, DE, IN, IL, IT, JP, KR, MY, MX, NL, NO, RO, SG, ZA, ES, SE, TH, GB, US, BR, PK (28)
 - ◆ **O-Members:** PL, SK, SI, CH, AT (5)
 - ◆ **Outside liaisons:** ISO/TC207, ISO/TC61 (Plastics), ECMA, ISO/TC269/SC1 (Smart Community Infra.) ITU-T SG5 (with WG4)
 - ◆ **Internal liaisons:** TC3/SC3D, SC17B, SC22H, TC47, TC59, SC62A, TC85, SC86A, TC91, TC96, TC100, TC107, TC108, TC110, TC113

Relationships of Environmental Issues and IEC TC111 Projects



Structure of IEC TC 111

WG1: Material Declaration IEC 62474 Ed.1.0



VT 62474: DB for Material Declaration

MT 62430: Environmentally Conscious Design IEC 62430 Ed.1.0

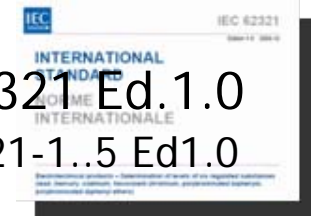


PT 62635/62650: Recyclability IEC TR 62635 Ed.1.0



PT 62824: Material Efficiency Guidance for ECD

WG3: Test Procedures for Regulated Hazardous Substances IEC 62321 Ed.1.0



IEC 62321-1..5 Ed1.0
in publ.

WG4: Green House Gasses IEC TR 62725
(in publ.)


PT 62476: Guidance for Evaluation of Product with Respect to Substance Use Restrictions IEC TR 62476 Ed.1.0



PT 62542: Terminology IEC 62542 (FDIS in publ.)

AHG 9: Marketing

AHG10: Advisory for SBP

 Disbanded after publication

WG1: Material Declaration – IEC 62474 –

- **Title:**
Material Declaration for Products of and for the Electrotechnical Industry
- **Convenor:** Robert Friedman (USA)
- **Objective:** To describe the form and procedure relating to the declarations of materials in products, for input into environmentally conscious design and other business needs.
- **Progress:**
 - ◆ 1st CD (2008.4)
 - ◆ 2nd CD(2009.5)
 - ◆ CDV (2010.7)
Approved (2011.1)
 - ◆ Database Project Approved by SMB (2011.2)
 - ◆ VT 62474 established (2011.3)
 - ◆ FDIS (2011.12)
 - ◆ Published (2012.3)
- **New project** Guidance for material declaration

⇒ Start maintaining substance list, etc.



IEC 62474

Edition 1.0 2012-03

INTERNATIONAL STANDARD

NORME INTERNATIONALE



Material declaration for products of and for the electrotechnical industry

Déclaration de matière pour des produits de et pour l'industrie électrotechnique

VT 62474

Material Declaration for Products of and for the Electrotechnical Industry DB

- [Web URL \(access for free of charge\)](http://std.iec.ch/iec62474/iec62474.nsf/)
<http://std.iec.ch/iec62474/iec62474.nsf/>

The screenshot shows the IEC 62474 website interface. At the top left is the IEC logo. The main header reads "International Electrotechnical Commission" and "IEC 62474 - Material Declaration for Products of and for the Electrotechnical Industry". A search bar is visible on the right. On the left side, there is a navigation menu with links for Home, Introduction, News, Declarable substance groups and declarable substances, Reference substances, Material classes, and XML schema for materials declaration. The main content area is titled "Declarable substances" and includes an "Export all" button. A dropdown menu is set to "Lead/Lead Compounds". Below this is a table with three columns: "Reportable applications", "Reporting treshold", and "Reporting requirement". Each row in the table includes a "Details" button.

<u>Reportable applications</u>	<u>Reporting treshold</u>	<u>Reporting requirement</u>	
All, except for batteries, cables and children's articles/toys	0.1 mass% of total Pb in homogenous material	Mandatory	Details
Consumer products designed or intended primarily for children 12 years of age or younger	0.03 mass%	Mandatory	Details
Paint and similar surface coatings of toys and other articles intended for use by children	0.009 mass% of surface coating material	Mandatory	Details
Cables/cords with thermoset or thermoplastic coatings	0.03 mass% of surface coating material	Mandatory	Details
Batteries	0.004 mass% of battery	Mandatory	Details

Examples of Material Declaration in IEC 62474

Product part			Material			Substance group ^a					Substance ^a			
Name	Mass ^b g	Mass ^b %	Name	Mass ^c g	Mass ^c %	Name	Mass ^d g	Mass % ^d	Material mass % ^d	Exemption ^e	Name	Mass ^d g	Mass ^d %	Material mass ^d %
Active part		6,50	Ceramics		100						Mn ₃ O ₄		64	
											NiO		17	
											Co ₃ O ₄		15	
Termination		73,50	Metal/ Plating		0,65						Ag		100	
			Glass		0,03				9,3	RoHS exemption 5 lead in glass of electronic components	SiO ₂		90	
				Lead/Lead Compounds							PbO		10	
			Metal/sol- der		1,36	Lead/Lead Compounds		97,0	RoHS exemption 7a Lead in high melting temperature type solders	Pb		97		
											Sn		1	
											Ag		2	
			Metal/ Leads		97,96					Cu		96		
							Sn		4					
Encapsula- tion		20,00	Organic Polymer		100					Epoxy		100		

WG4: GHG – IEC TR 62725 / 62726–

■ Title:

TR 62725 Quantification methodology of greenhouse gas emissions for electrical and electronic products and systems

TR 62726 Quantification Methodology of greenhouse gas emission reductions for electrical and electronic products and systems from the project baseline

■ Convenor: Kiyoshi Saito (Japan)

■ Objective: To give guidance to those in electrical and electronics industries on quantification of GHG emission across the product lifecycle and its "enabling effect" in reducing it.

■ Progress

◆ TR 62725 DTR (approved 2012.9)

◆ TR 62726 DC (expected 2013)

◆ TR 62725 Publication (expected early 2013)

Guidelines for end-of-life information provided by manufacturers and recyclers and for recyclability rate calculation of electrical and electronic equipment

- **Publication:** IEC 62635 Edition 1.0 (2012-10)
- **Abstract:** IEC/TR 62635:2012(E) provides a methodology for information exchange involving EEE manufacturers and recyclers, and for calculating the recyclability and recoverability rates to provide information to recyclers to enable appropriate and optimized EoL treatment operations, provide sufficient information to characterize activities at EoL treatment facilities in order to enable manufacturers to implement effective ECD, evaluate the recyclability and recoverability rates based on product attributes and reflecting real end-of-life practices.



JAMP Consortium

★ お気に入り JAMP Joint Article Management Promotion-consor... Site Map Site Policy Japanese

JAMP


Joint Article Management Promotion-consor

About Us Information on Admission Member List Tool Approved Company Download FAQ Link Seminar

By spreading the common formats such as MSDSplus and AIS, JAMP aims to transmit chemical information through companies on supply chain smoothly and effectively

Upstream companies


Substance
Preparation



MSDSplus

Midstream companies


Article



AIS

Downstream companies

Product



Information Back Number

2013/03/18

⇒ [Released the AIS quick manuals on AIS version 4.0](#)

2013/01/23

⇒ [Released the revised version of JAMP External List and JAMP tools ver. 4.0a.](#)

Notice of JAMP seminar Back Number

Notification of JAMP declarable substances change Back Number

2010/09/24

⇒ [Notice of Publishing REACH 4th SVHC Candidate Substances into the JAMP Chemical Substances List](#)

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ISO TC 207 Green Supply Chain Activities (1)



Standards and projects under the direct responsibility of TC 207/SC 5

◆ Standard and/or project

✎ ISO/DIS 14046

Environmental management – Water footprint – Principles, requirements and guidelines

✎ ISO/NP TS 14071

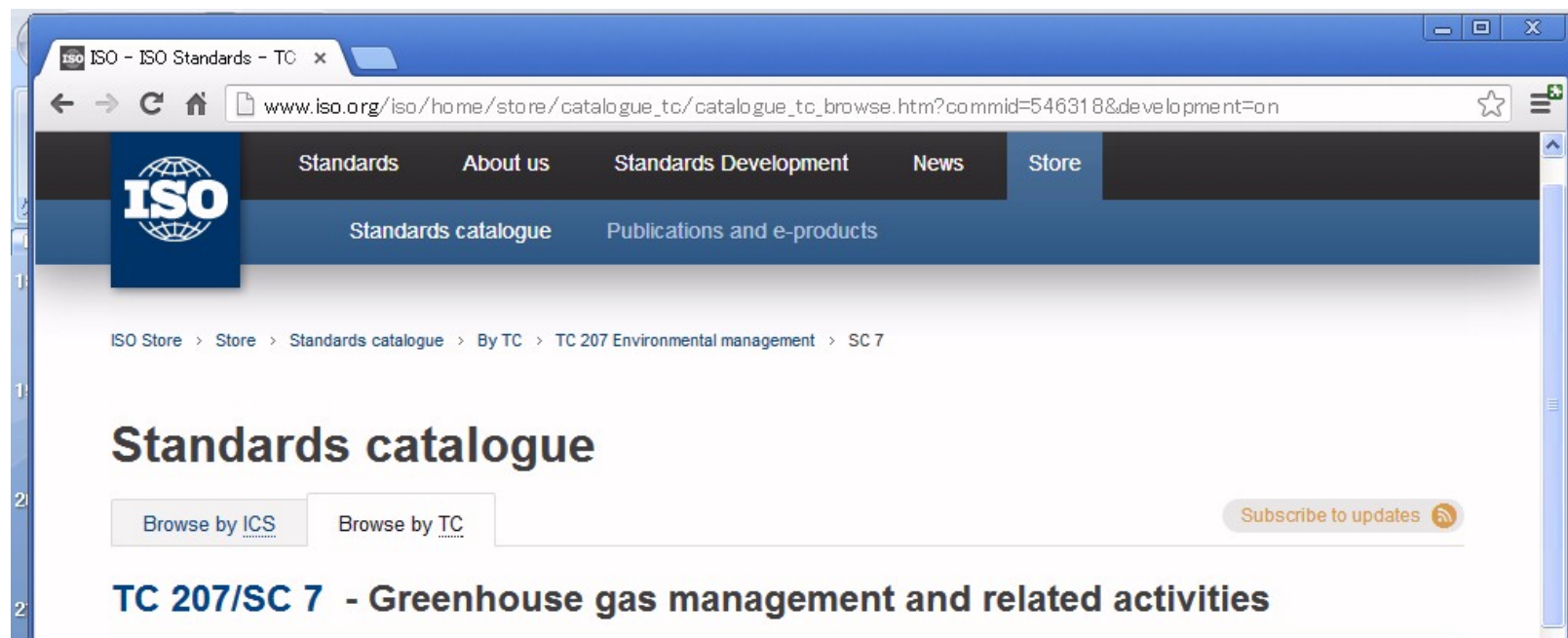
Life cycle assessment – Critical review processes and reviewer competencies – Additional requirements and guidelines to ISO 14044:2006

✎ ISO/NP TS 14072

Life cycle assessment – Additional requirements and guidelines for organizations

Life cycle assessment – Additional requirements and guidelines for organizations


ISO TC 207 Green Supply Chain Activities (2)



The screenshot shows a web browser window displaying the ISO Standards website. The address bar shows the URL: www.iso.org/iso/home/store/catalogue_tc/catalogue_tc_browse.htm?commid=546318&development=on. The navigation menu includes "Standards", "About us", "Standards Development", "News", and "Store". The "Store" menu is active, showing "Standards catalogue" and "Publications and e-products". The breadcrumb trail reads: "ISO Store > Store > Standards catalogue > By TC > TC 207 Environmental management > SC 7". The main heading is "Standards catalogue". Below it are two buttons: "Browse by ICS" and "Browse by TC". A "Subscribe to updates" button is also visible. The main content area displays "TC 207/SC 7 - Greenhouse gas management and related activities".

Standards and projects under the direct responsibility of TC 207/SC 7 Secretariat

◆ Standard and/or project

 **ISO/DIS 14067.2**
Carbon footprint of products – Requirements and guidelines for quantification and communication

 **ISO/PRF TR 14069**
Greenhouse gases – Quantification and reporting of greenhouse gas emissions for organizations -
- Guidance for the application of ISO 14064-1

ITU-T SG5



Committed to connecting the world

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About ITU-T Study Groups Events All Groups Join ITU-T Publications Resources Workshops Regional Presence

ITU-T SG5: Environment and climate change

ITU-T WORK PROGRAMME

[2013-2016] : [SG 5] : [Q13/5]

[Declared patent(s)] - [Associated work]

L.rare metal measurement

Under study [Issued from previous study period]

AAP

Recommendation

A method to measure the amount and type of rare metals in ICT products

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

L.1410

(03/2012)

SERIES L: CONSTRUCTION, INSTALLATION AND PROTECTION OF CABLES AND OTHER ELEMENTS OF OUTSIDE PLANT

Methodology for the assessment of the environmental impact of information and communication technology goods, networks and services

Thank you for your attention

Any questions?

ONLY ONE EARTH

