

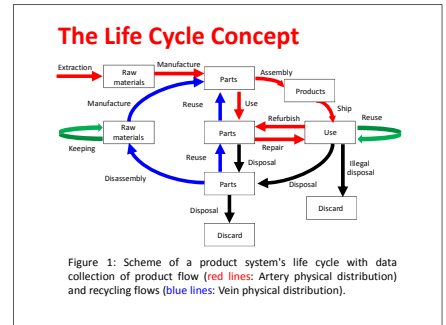
Cross Platform LCA System with Reliability, Simplicity and FOC for Standardization

奥原 浩之 (Risks Analysis Strategy Research Center, Visiting Professor (Osaka University Graduate School of Information Science Research Institute, Associate Professor))
 [共同研究者] 津田 博史 (Risks Analysis Strategy Research Center, Visiting Professor (Tohoku University Faculty of Engineering, Professor))
 椿 広計 (Data Science Research Institute, Professor / Risks Analysis Strategy Research Center Chief)
 曾根原 登 (National Institute of Information and Communications Research, Information Society Related Research Institute, Professor)

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Shift to eco-co-exist industry by LCA

- why use LCA
 - strong public demands for eco-products
 - shift to eco/benefit from costs/benefit
 - **objective reliable/transparent cheap LCA**
 - governments' backup by certification
 - industry's incentives to get certificates
 - industry's initiatives to increase sales



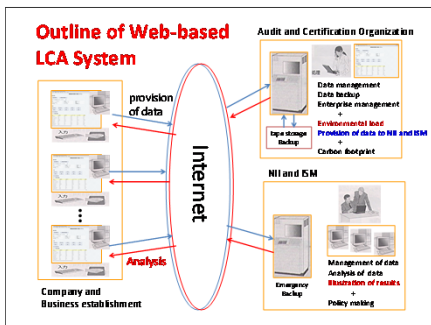
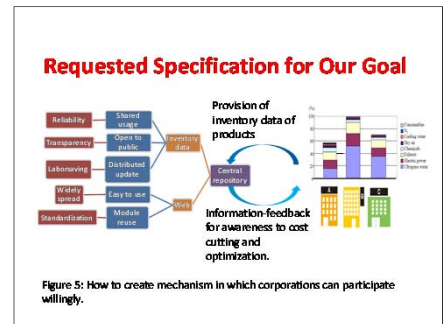
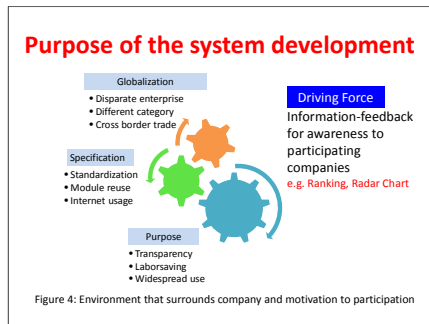
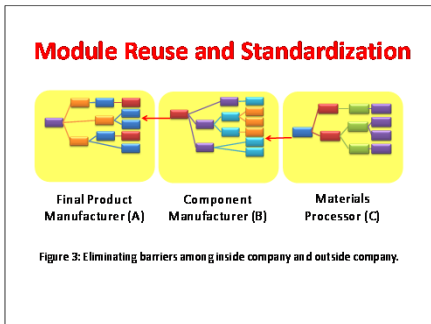
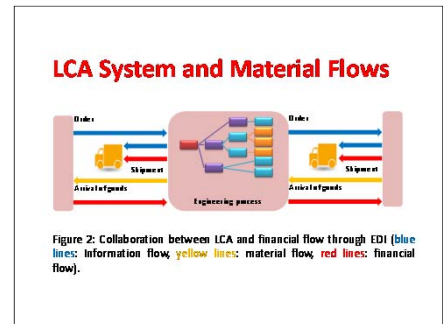
Life Cycle Assessment Software Tools (with version upgrade 3 or more)

Table 1: Major Commercial LCA Software.
(Other LCA tools are listed at http://lca.jrc.ec.europa.eu/lca_tools/index.html)

Supplier	Simapro ver. 7	TEAM ver. 4	Gabi ver. 4	JEMAI-LCA Pro	Eco Assist ver. 3
URL	http://www.prc.nl/	http://www.ecobilan.com/uk_lca_tool.php	http://www.pce-consulting-group.com/	http://www.jemai.or.jp/CACHE/lca/index.htm	http://www.ecoassist.com/
Structure	standalone, network version available	standalone, virtual client server installation using Object store	standalone, developed with Delphi	standalone	network version

LCA for small/medium companies developing countries

- transparency : common inventory data
- low costs :
 - research institute initiatives
 - web-client/host server system
- easy to operate: web-based user interfaces
- developing countries: multi-lingual/local servers
- governmental certifications: strong promotions



Portal site of Audit and Certification Organization

- > TOP screen
- new registration,
- function introduction (necessity, agreement, privacy policy),
- situation (the number of the participation companies),
- total situation (amount of discharge, quantity of reduction),
- information of supporting companies,
- news (environmental event information, news from the participation company),
- eco-idea from the participation company,
- a random banner link (links of supporting companies)

Audit and Certification Organization

- > Certification system
- > Enterprise management system
- > Database of coefficient for environmental impact material
- > Management system of coefficient for environmental impact material
- > Database of company and business establishment
- > Database of item information (manufacturing · traffic · service industry · energy etc.)
- > Database for standardization of investigation item
- > Online estimating system of environmental load

NII and ISM

- > Analytical system of statistical information
- > Database of results of statistical analysis
- > Display system of result of analysis

Prototype of Web-based LCA

Figure 6: The interrelationships of product life stages for case study.

Figure 7: Screenshots of prototype Web-based LCA system.

Architecture proposal of user friendly LCA for sustainable society

- standardization : module reuse
- embedded structure : access control
- easy to develop :
 - introduce established formula
- correspond to business environment :
 - globalization and supply chain
- user friendly eco-traceability :
 - public participation

