



*Harmonization of Type III
Environmental Declaration Programs
and
the Application
Toward Sustainable Consumption*

Chie Nakaniwa

Japan Environmental Management Association for Industry (JEMAI)

ISO/TC207/SC3/WG4 Expert of GEDnet

(<http://www.environdec.com/gednet/>)



Overview of Today's Presentation

1. Activities of GEDnet
2. General description of Type III environmental declaration
-the methodology and characteristics
3. Activities for harmonizing programs
-the use of LCA
4. Issues for the application to sustainable consumption



1. Activities of GEDnet



Facts of GEDnet

- Established in 1999
- Purposes are:
 - 1) To encourage exchange of information and experiences between Type III practicing parties
 - 2) To discuss key issues in developing Type III programs
- Members are:
Canada, Denmark, Germany, Italy, Japan, Norway, South Korea and Sweden
- Since 2001, 'A' external liaison bodies of ISO/TC 207/SC3



Activities of GEDnet Are:

- Demonstrate the practical application of LCA methodology within programs
- Provide the basis for procedures of Type III
- Achieve mutual recognition between program
- Recognize the importance of a common and cost effective procedure for verifying
- Discuss the practical application of LCA methodology
- Provide guidance to new developing practitioners (guidebook, web page, PSR comparison, workshops)
- Provide theoretical and practical information



2. Description of Type III Environmental Declarations



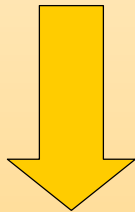
What's Type III Environmental Declarations?

The indication of quantitative environmental product information

*-Quantified environmental data for a product with pre-set categories of parameters based on the ISO 14040 series of standards, but not excluding additional environmental information provided within a Type III environmental declaration program
(ISO TR14025)*



Life Cycle Assessment As the Methodology

- Great need for information
 - Analysis of the environmental performance of a product is expected
- 
- Scientifically accepted method to assess the environmental aspects and potential impacts
 - Internationally valid method in accordance with ISO standards 14040 series



Sample of Type III Format(I)

Input/Output items		Life Cycle Stage	Unit	Production		Distribution	Use	Disposal		
				Raw materials	Product					
Consumption energy			MJ							
			Mcal							
Inventory Analysis	Consumption impact	Energy resources	Coal	kg						
			Crude oil	kg						
			Natural Gas	kg						
			Uranium ore	mg						
		Natural resources	Mineral resources	Crude oil	kg					
				Iron ore	kg					
				Copper ore	kg					
				Bauxite	kg					
				Nickele ore	kg					
				Chromium ore	kg					
				Manganese ore	kg					
				Calcium fluoride	kg					
				Limestone	kg					
				Rock salt	kg					
				Silica sand	kg					
Renewable resources	Lumber	kg								
	Water	kg								

Sample of Type III Format(2)



Input/Output items		Life Cycle Stage	Unit	Production		Distribution	Use	Disposal	
				Raw materials	Product				
Environmental emission impact	Into atmosphere	CO2	kg						
		SOx	kg						
		NOx	kg						
		N2O	kg						
		CH4	kg						
		CO	kg						
	Into water	BOD	kg						
		COD	kg						
		TN	kg						
		TP	kg						
	Into soil	Solid waste (dry type)	kg						
		Sludge(wet type)	kg						
Consumption impact	Resource Depletion	Energy resources(crude oil)	kg						
		Mineral resources(iron ore)	kg						
	Environmental emissions impact	Into atmosphere	Global warming(CO ₂ basis)	kg					
			Acidification(SO ₂ basis)	kg					
			Ozonelayer depletion	kg					
Into water		Eutrophication(phosphate)	kg						
Into soil									



Type III Environmental Declarations

Main Characteristics and Elements

1. Comprehensive
2. Indicative rather than decisive
3. Universal by applying ISO
4. Strategically procedural
5. Persuasive as a source of eco-label
6. Assured sufficiently
7. Objective secured by data verification
8. Explicit through reporting formats
9. Accessible via the Internet
10. Accumulative as future database



3. Activities Toward Harmonization -the Use of LCA



European Commission Study

Scopes of the study:

- Document and evaluate Type III ED systems
**both 10 national and 10 industry programs and projects*
- Compare them with each other and the current ISO/TR 14025
- Examine how best Type III ED systems should be integrated with other IPP tools
- Examine possible future directions for Type III ED systems in Europe



Evaluation and Comparison Criteria(1)

- Compliance with ISO TR 14025
- Programme owner:
-Private; Government
- Interested parties participation:
-In program development; In pre-set category selection
- Life cycle Basis:
-Conformity with ISO 14040 series; Life cycle considerations



Evaluation and Comparison Criteria(2)

- Quality assurance:
 - Third party verification; Critical review; Data quality control*
- Pre-set categories:
 - Generally defined within the scheme;*
Defined per product group
(=Product Specific Requirements)
- Other environmental Information:
 - Quantified data;*
Reference to Environmental Management System



Comparison of Schemes

Country-specific schemes

- All state compliance with TR14025
- Government involvement in private schemes
- All involve interested parties in programme and pre-set categories development
- Quality assurance (certification) levels different

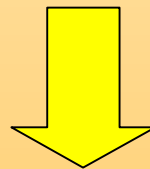
Sector-specific schemes

- Only 3 out of 13 in line with TR14025
- All privately owned
- 1 not involve interested party input
- only 1 with certification (construction)
- Significant differences in data quality assurance



Issues Caused by Different Programs

- Data collection and calculation methods are not carried out in the same way.
- Demands for data quality are different.
- Product categories are diversified.
- System boundaries are different.



Comparability, consistency are not ensured.



PSR (Product Specific Requirements)

- PSR ensures comparable LCA data by setting out requirements for the underlying LCA for products of a common function.
- PSR requirements are only procedural, they do not describe specific performance criteria

*PSR and EPD searchable engine

<http://www.environdec.com/psr/search.asp>



LCA-based Information

PSR Information to be Included

- Definition of functional unit(s)
- Choice and description of system boundaries
- Choice of cut-off rule
- Choice of allocation rules
- Description of quality requirements for data
- Description of what generic database(s) to use
- Choice of selected LCI results to be included in the declaration
- Description of parameters contributing to each pre-set category
- Description of specific information to be included in the use stage of the declaration

Environmental Product Declarations, EPD



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The EPD database includes searchable information about PSR work - both PSR documents under preparation, those approved and those accepted as international lead documents. Single questions or a combination of questions can be used for searching specific information. PSR's prepared and approved under the EPD® system can be separately identified.

The work with the global PSR database is carried out in close co-operation with the [Global Type III Environmental Product Declarations Network, GEDnet](#).

Choose product group/service type

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Explanations:

- PSR under initial preparation
- PSR for upcoming open consultation
- PSR under review
- International lead document (approved by GEDnet - Note: present indications for test purposes only)
- Flag Indicates the country of the company/organisation preparing the PSR
- Indicates PSR under preparation or approved according to the EPD® system

Click on the name of the PSR to access more information.

Product/service

Aerators			
Air filter for automotive use			
Circulation and filtration system for bath tub water			
Clean wiper for flooring			
Forest cranes			
Pipe type file			
Pumps and mixers, submersible types			●
Rice hulling machine			
Sandbag for filtering			



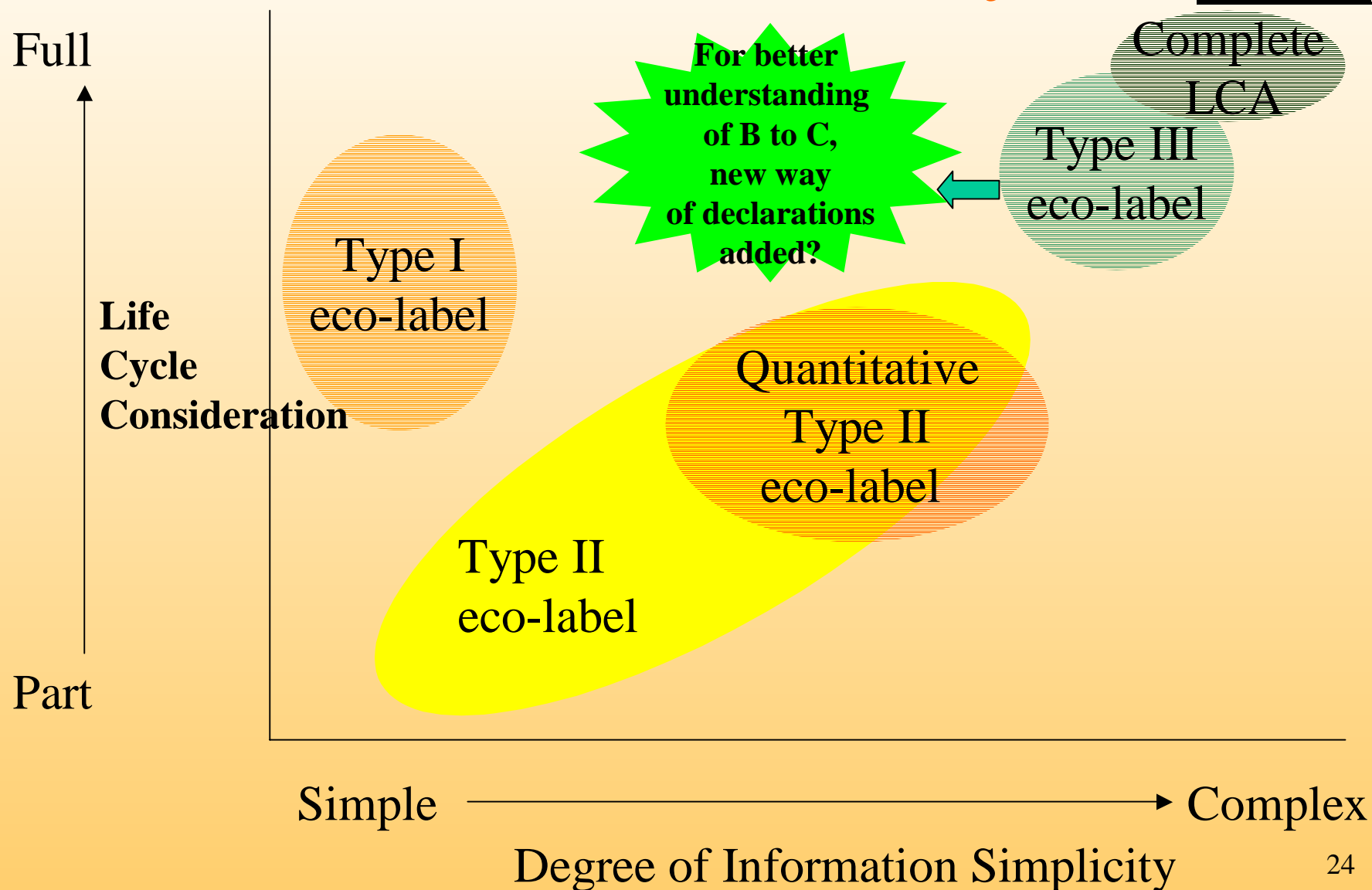
4. The Application Toward the Sustainable Consumption



Shift From Particular Interest to Whole Life Cycle

- Concerns are increasingly based on life cycle analysis rather than specific stage(production, usage, and disposal).
- Rather than single attribute, multi-aspects of environmental information are expected over product environmental information.

Several Types of Product Environmental Information





State of the Art

ISO/TR14025(Type III ED)

- June 2002
WG4 meeting in South Africa
Given the current market situation, it would seem appropriate that this kind of declaration is most suitable for B2B transactions. However, in developing any future standard WG4 believes it is important to retain the flexibility, such that we would not specifically exclude the needs of B2C type of declaration. (-Report to ISO/TC207/SC3)
- March 2003, WG 4 meeting in Argentina
Working Draft (WD) will be prepared – input
- June 2003, WG 4 meeting on Bali
SC 3 raises the WD to a Committee Draft in Indonesia
- 2005-2006(?)
International Standard



Key Points for Approaching Consumers by Using Type III ED

- Improving declaration format and visibility
- Offering consumer education and enhancing their awareness

To support the above,

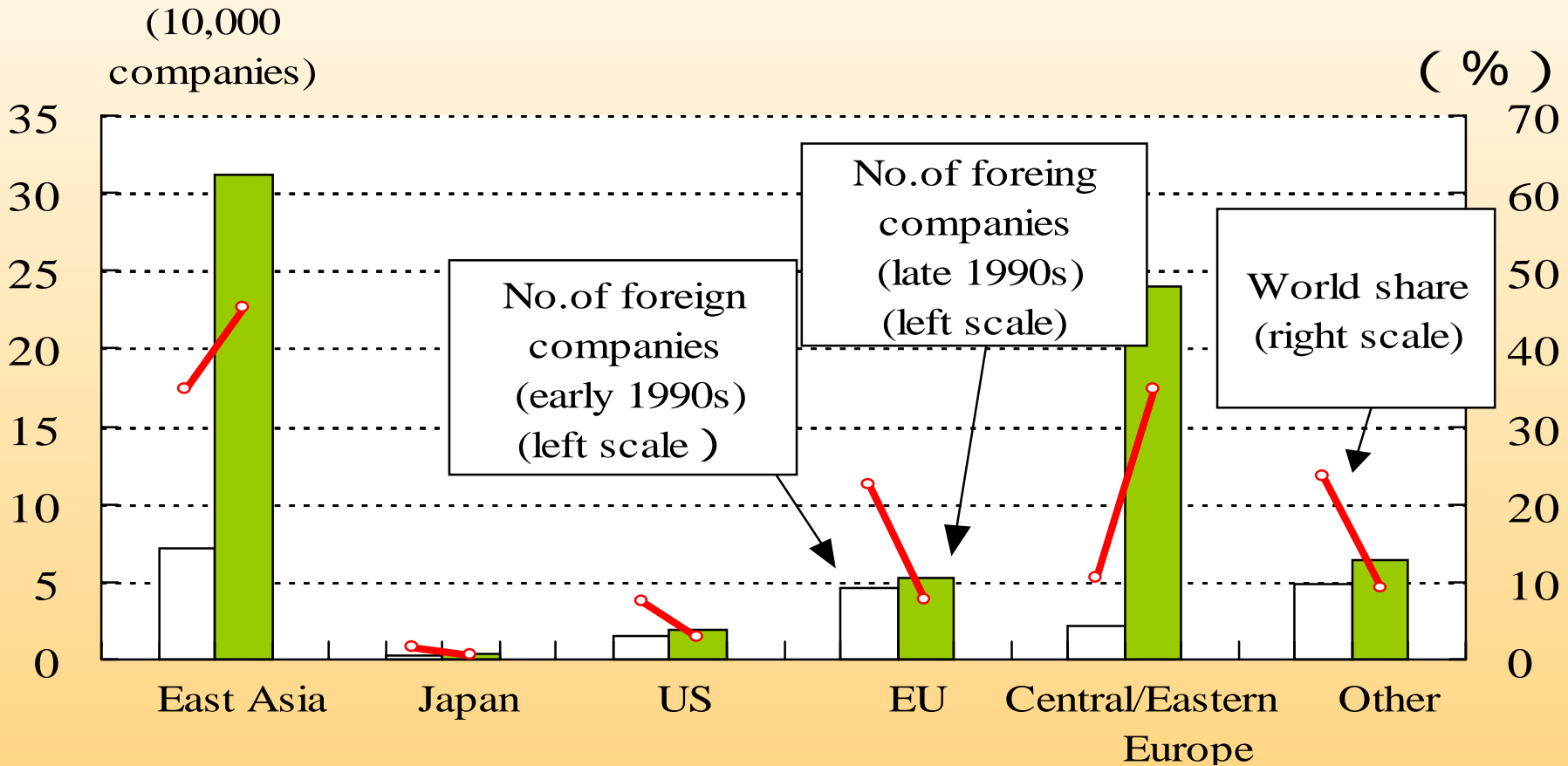
- Obtaining credibility endorsement by stakeholders
- Stimulating supply by improved availability to LCA inventory data, training, critical review process
- Stimulating demand by enhancing public procurement, promotion and training



Future Outlook

- To expand product categories
- From “Business to Business” to “Business to Consumer”, increasing accountability and explicitness
- To make synergy effect with other environmental management tool (green procurement and others)
- To increase and upgrade LCI data and join international cooperative action

Trends in Number of Foreign Companies by Country/Region and in World Share



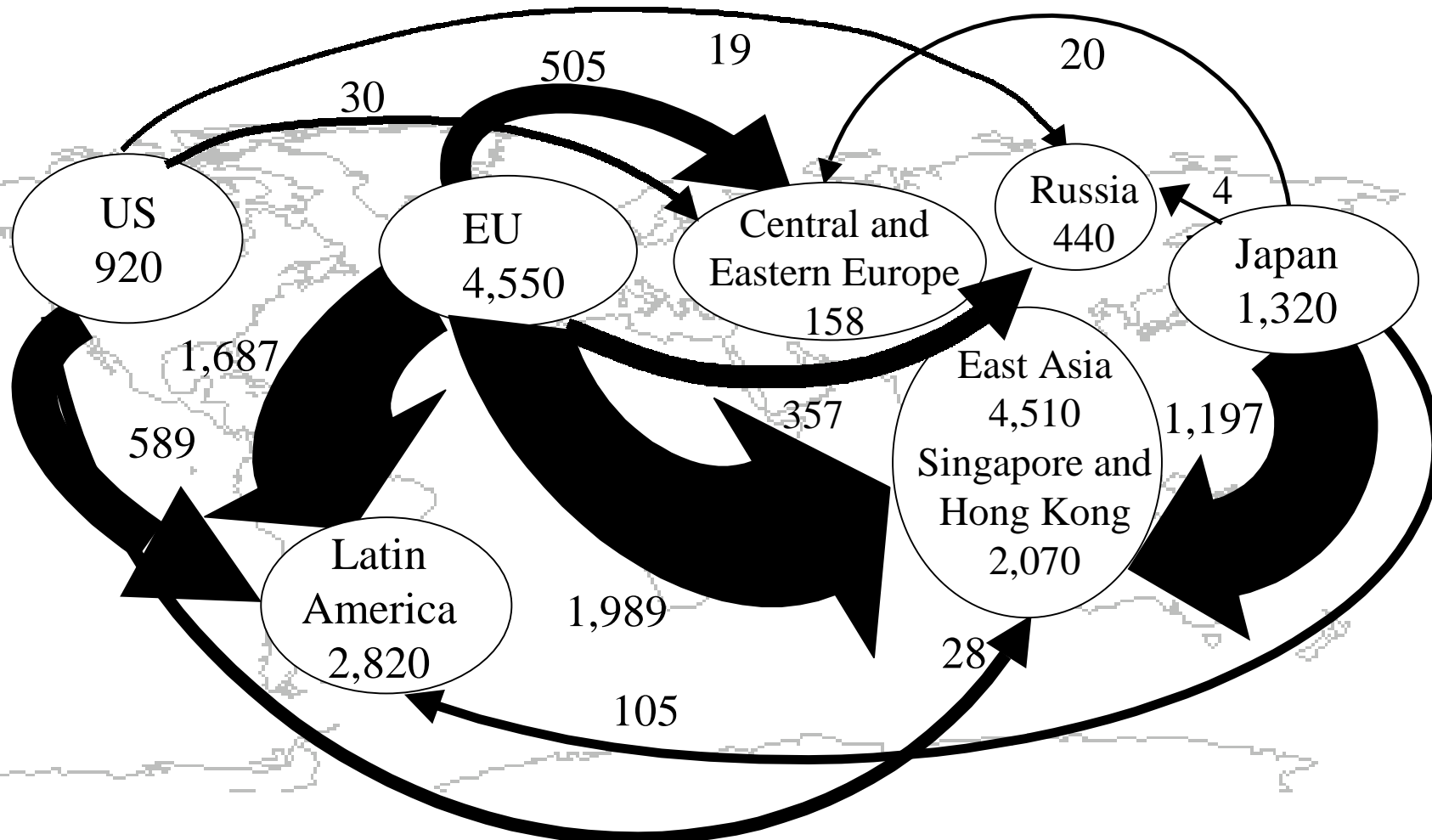
Note: Foreign companies are as defined by each particular country

Source: WIR(UNCTAD)

We realize globalization and market influence, evidence shows us...



Bank financing for developing countries by BIS-reporting banks(Japan, US, EU)



(1998; US\$100 million)