



Handbook on Accounting for Global Value Chains

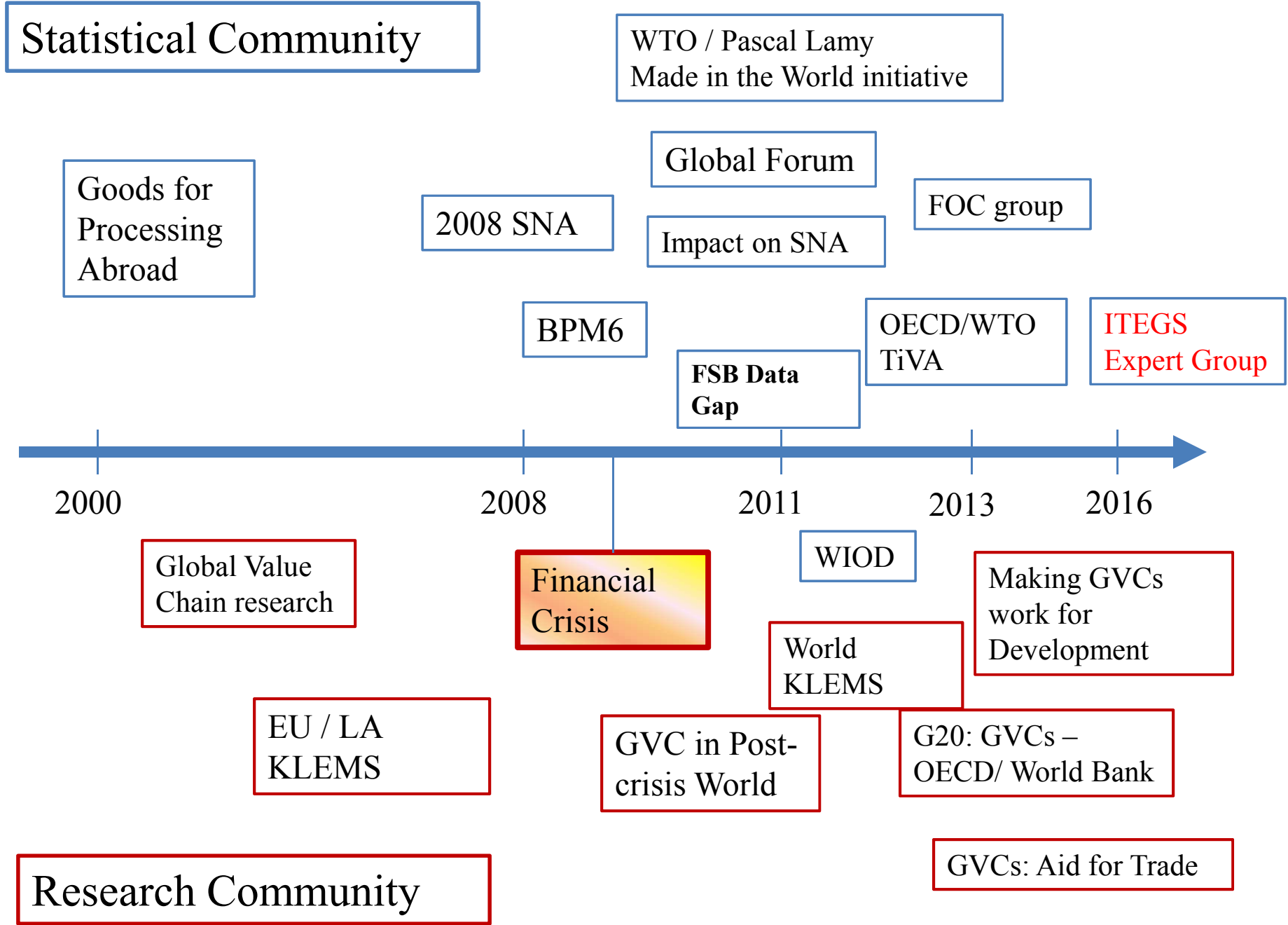
Extended National Accounts and Integrated Business Statistics

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New York



Expert Group on ITEGS

Mandate received from the Statistical Commission in March 2015 to prepare a Handbook on the measurement framework for international trade and economic globalization

Annex I Members of the United Nations Expert Group on International Trade and Economic Globalization Statistics

Europe: Ireland (Chair), Denmark, Italy, the Netherlands and the United Kingdom

America: Canada, Colombia, Costa Rica, Mexico and the United States of America

Africa: Cabo Verde, Morocco, South Africa and Uganda

Asia: China, India, Iran (Islamic Republic of), Kazakhstan, the Republic of Korea, Thailand, and Viet Nam

Agencies: Eurostat, IMF, OECD, the United Nations Conference on Trade and Development, the World Trade Organization, the Economic Commission for Europe and the Statistics Division

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Meetings –

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Handbook on ITEGS

- ➔ High-level overview of how economic statistics can be made more accurate and relevant in **measuring the effects of globalization in national accounts and business statistics**
- ➔ Better inform public policies and business decisions on
 - growth and productivity,
 - domestic and foreign share of value added in trade,
 - domestic and foreign labor and capital used in the trade
- ➔ **Provide a national perspective on globalization based on a GVC model**
- ➔ Specific GVC industries in a multi-country supply chain of goods, value adding services and institutional arrangements



Five Parts of the Handbook

- I. Policy, Business and Statistical Motivation**
- II. General Statistical Framework**
- III. Global Value Chain approach**
- IV. Integrated Business, Trade and Investment Statistics**
- V. Application of the measurement framework**

General Statistical Framework

- Chapter 2: Overview of the Framework
- Chapter 3: Extended Supply and Use Tables (TiVA)
- Chapter 4: Extended Productivity (KLEMS) Accounts
- Chapter 5: Extended Environmental-Economic Accounts
- Chapter 6: Extended Capital and Financial Accounts
- Chapter 7: Conceptual issues of Global Enterprise perspective
- Chapter 8: Special Accounting Topics

Global Value Chain Approach

Chapter 9: Global Value Chain Satellite Account

- GVC Template

Chapter 10: GVC Industry Modules and their Application

- NA Automotive
- Morocco Automotive
- Costa Rica electronics and medical devices
- Vietnam electronics and apparel

Integrated Business, Trade and Investment Statistics, and the applications

Part IV

Chapter 11: Firm heterogeneity related to globalisation

- Micro-data linking
- Business Functions

Chapter 12: Bilateral asymmetries, Global Groups
Register and data sharing

Part V

Chapter 13: Public policy use of the Extended Accounts

Chapter 14: Research Agenda

Global Value Chains case studies

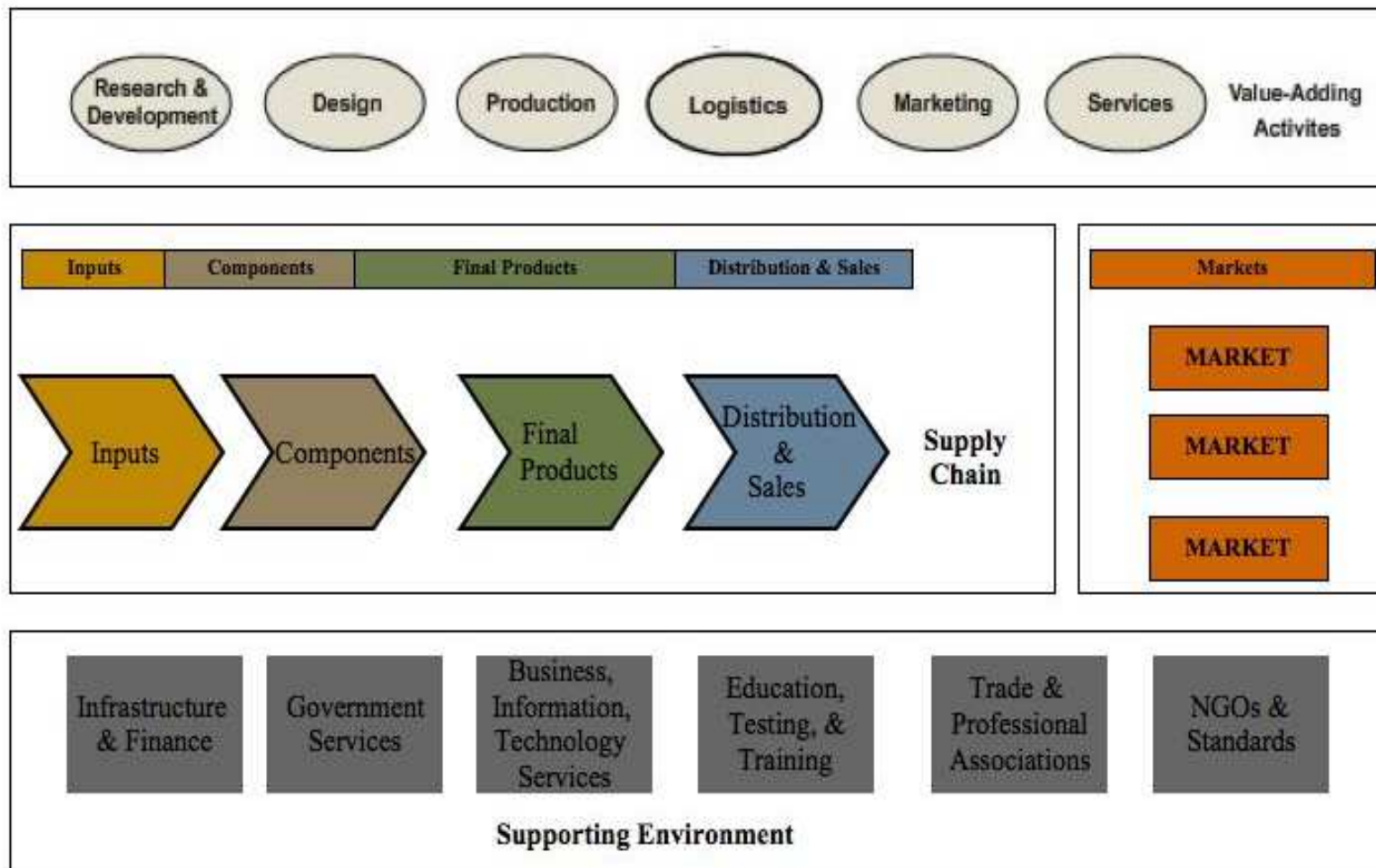
Example of the Automotive GVC in North America





Global Value Chain (GVC) Model

The GVC model describes the full range of activities, business functions, value adding services, and institutional arrangements required to bring a product or service from conception through the different phases of production, delivery to





GVC for Automotive Industry

Figure 2: GVC for the automotive industry

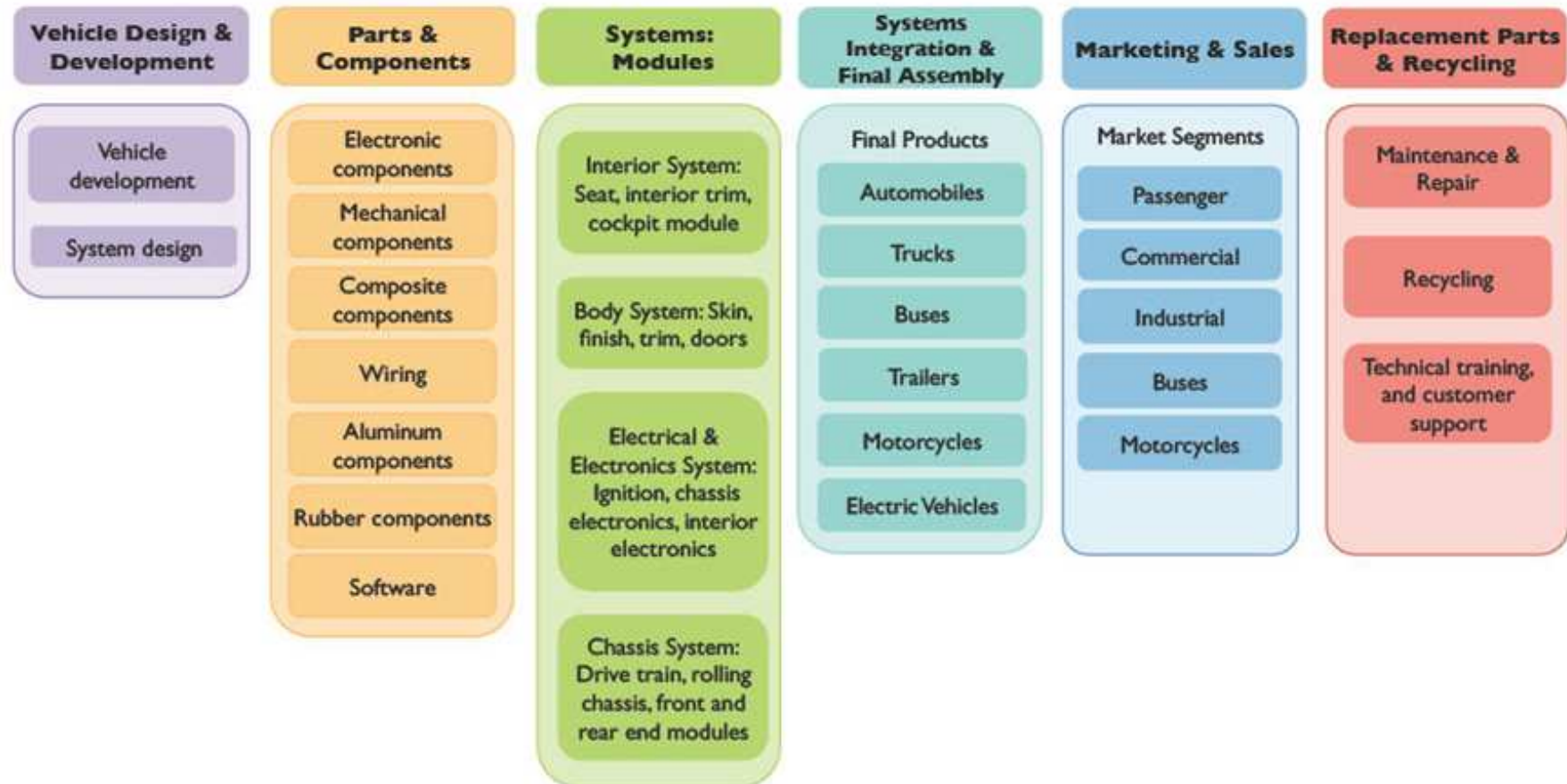


Table 2: Motor Vehicle HS Codes

VC Stage/ Subassembly	HS Codes (2002)	HS Code Descriptions	VC Sector	Mfg.
Final Products				
Passenger vehicles	870321 870322 870323 870324 870331 870332 870333	870321, 870322, 870323, 870324: Other vehicles, with spark-ignition internal combustion reciprocating piston engine <1000cc, 1000 – 1500cc, 1500 – 3000cc, > 3000cc 87033: Other vehicles, with compression-ignition internal combustion piston engine (diesel or semi-diesel) <1500cc, 1500 - 2500cc, >2500cc	–	Lead Firms
Subassemblies				
Body system	870600	8706: Chassis fitted with engines, for the motor vehicles of headings 87.01-87.05	Chassis	Lead Firms
Drive train	840733 840734 840820	Reciprocating piston engines used for the propulsion of vehicles of Chapter 87; of a cylinder capacity: > 250 cc ≤ 1,000 cc > 1,000 cc Compression-ignition internal combustion piston engines (diesel or semi-diesel engines); of a kind used for the propulsion of vehicles of Chapter 87	Engine	
Components/Parts				
Body system (suspension)	401110 401211 870831 ⁺ 870839 ⁺ 870870	401110: New pneumatic tires, of rubber; of a kind used on motor cars 401211: Retreaded tires; of a kind used on motor cars (including station wagons and racing cars) 870831: Brakes and servo-brakes and parts thereof; 870839: Brakes and servo-brakes and parts thereof; 870870: Brakes and servo-brakes and parts thereof;	Tires Brakes [^] Wheels Suspension	Suppliers



Extended supply table for GVCs

Each cell indicates the amount of each commodity that is produced domestically by each industry

		INDUSTRIES									Imports				Total supply at basic prices (15)
		Agriculture (1)	Manufacturing (2)			...	Trade, transport and communication (7)	Finance and business services (8)	Other services (9)	Output (10)	Total (11)	from Country A (12)	from Country B (13)	from ... (14)	
			total	ISC 291 - Manufacture of motor vehicles			relevant ISIC of Business functions	relevant ISIC of Business functions	relevant ISIC of Business functions						
				Large MNEs	other										
			foreign owned (3)	nationally owned (4)											
PRODUCTS (1)														
 (2)														
	Input products - CPC-BEC codes (3)														
	Components - CPC-BEC codes (4)														
	Final products - CPC code (5)														
	Services of R&D - CPC code (6)														
	Services of Design - CPC code (7)														
 (8)														
	Total (9)														
Adjustments	CIFFOB adjustments on imports (10)														
	Direct purchases abroad by resid (11)														
	Total (12)														



Extended use table for GVCs

Each cell indicates the amount of a commodity purchased by each industry as an intermediate input into the industry's production process

	INDUSTRIES										FINAL USE					Total use					
	Agriculture	Manufacturing					...	Trade, transport and communication	Finance and business services	Other services	Total	Final consumption expenditure	Gross capital formation	Exports			Total				
		total	SIC 281 - Manufacture of motor vehicles		other	relevant SIC of Business functions								relevant SIC of Business functions	relevant SIC of Business functions			Total	to Country A	to Country B	to ...
			Large MNEs foreign owned	nationally owned																	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(15)	(16)	(17)	(18)	(19)	(20)				
PRODUCTS	...	(1)																			
	...	(2)																			
	Input products - CPC-BEC codes	(3)																			
	Components - CPC-BEC codes	(4)																			
	Final products - CPC code	(5)																			
	Services of R&D - CPC code	(6)																			
Services of Design - CPC code	(7)																				
...	(8)																				
Adjustments	CF/FOB adjustments on exports	(10)																			
	Total at purchasers' prices	(13)																			
GVA	Compensation of employees	(14)																			
	Other taxes less subsidies on production	(15)																			
	Consumption of fixed capital	(16)																			
	Net operating surplus/net mixed income	(17)																			
	Gross operating surplus/gross mixed income	(18)																			
GVA	(19)																				
Total input at basic prices	(20)																				

	INDUSTRIES									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Gross capital formation by asset type	(1)									
Capital stock by asset type	(2)									
Labour by relevant breakdown	(3)									
TEC Indicators (??)	(4)									
number of enterprises	(5)									
size enterprises by size class	(6)									



GVCs and the role of lead firms

- **The GVC includes all the forward and backward linkages of lead firms with other enterprises**
- **Lead firms determine the specifications for the production of inputs parts and components**
- **More information needed on these lead firms:**
 - **Domestic or foreign ownerships**
 - **Structure of its foreign affiliates**
 - **Trade intensity of domestic and foreign affiliates**
 - **Outsourcing of business functions**
- **Proposal for a global business groups register**
- **Proposal for international data-sharing agreements**

1. How can we compare the various levels of measurement?

- ➡ Global extended SUTs
- ➡ Regional extended SUTs
- ➡ Industry specific GVC extended SUTs
 - **Large MNEs**
 - **Limited number of partners**
 - **National compiler ownership**

2. Which indicators do we want to recommend from micro-level business statistics and various macro-level extended SUTs?



Thank you