

International Workshop on Energy Statistics Mexico, 2-5 December 2008

Do "traditional" supply-demand data give a sufficient basis for sound energy efficiency policies?

Introduction to Energy Efficiency Indicators

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International Energy Agency

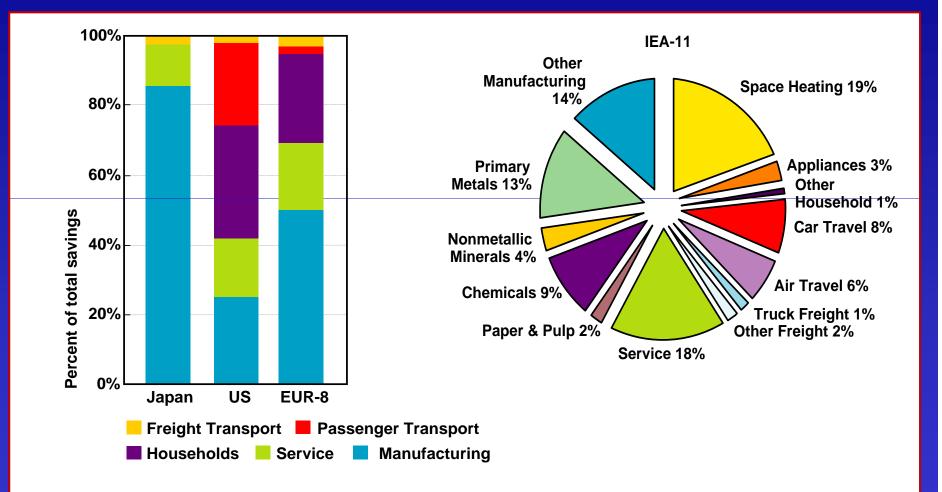


To support any sound energy policy

- A need to know what are the sub-sectors which consume "too much" energy (ex: trucks, heating, cement, offices, ..)
- What is 'too much"? A need to have benchmarking and best practices
- A need to compare with the situation in "similar" countries (climate, size, economy, …)
- To monitor progresses (or failures) of actions and programs on energy efficiency
- To be used as the basis for detailed modeling and forecasts



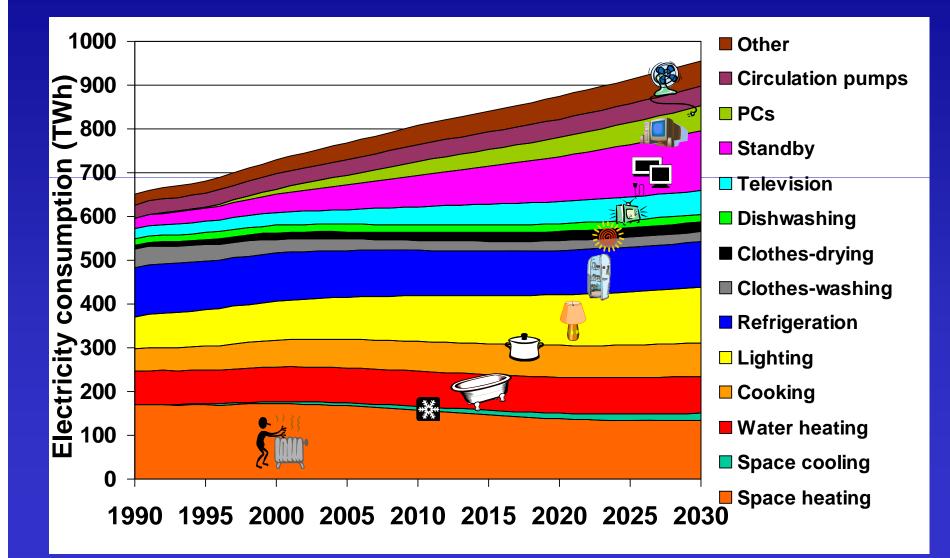
Contribution to Energy Savings from Sectors and End Uses

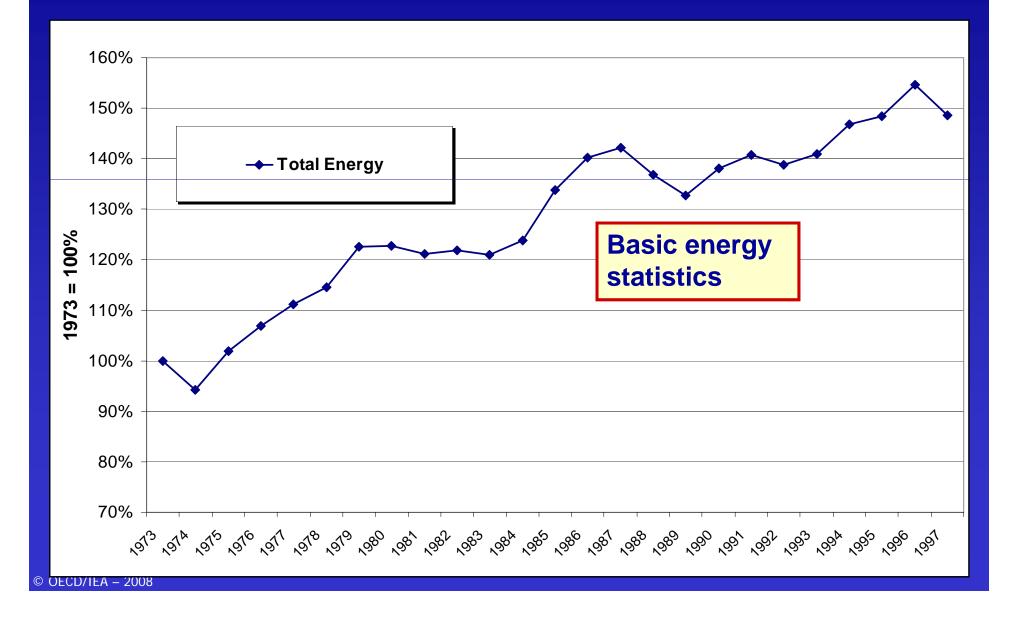


Indicators are useful to understand the past...

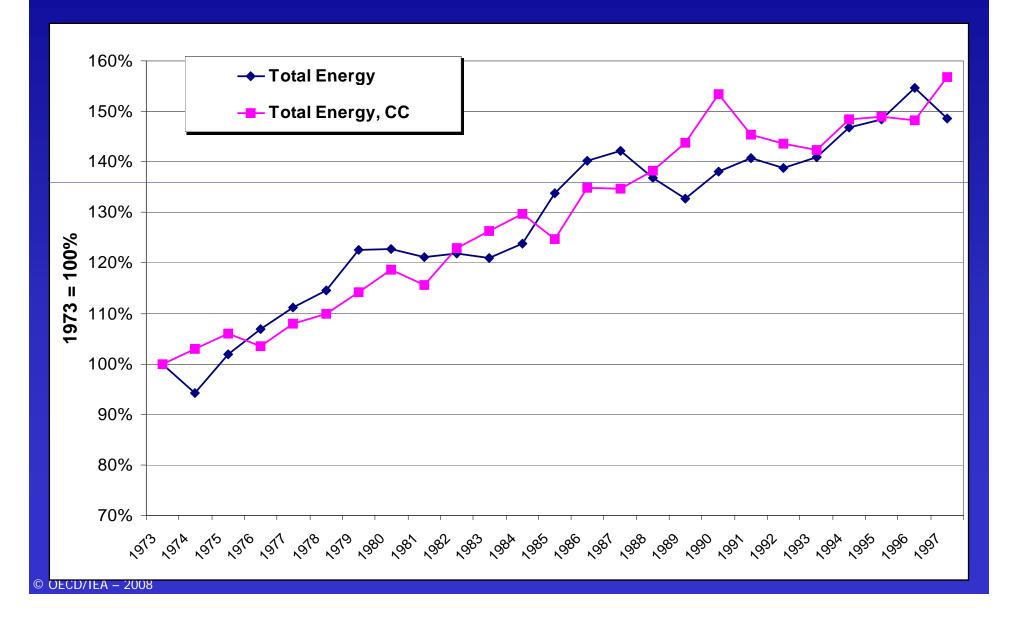


... as well as the future

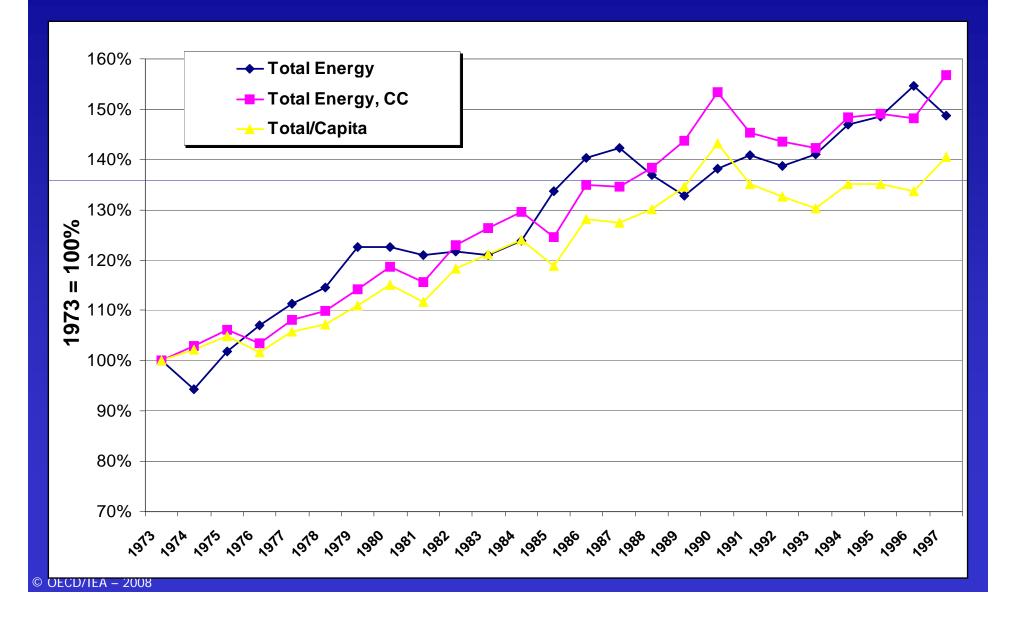




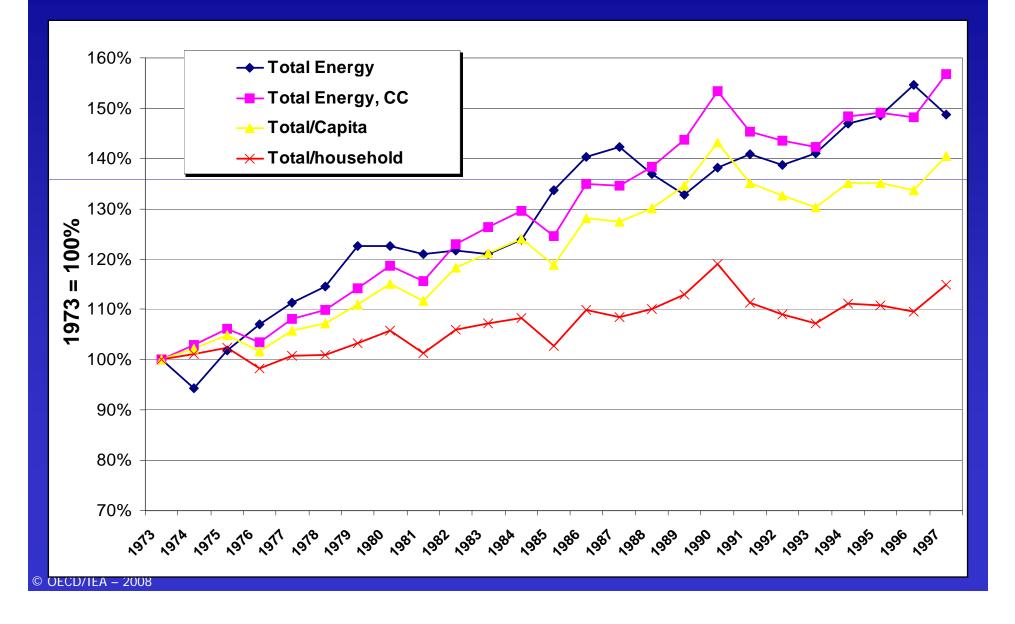
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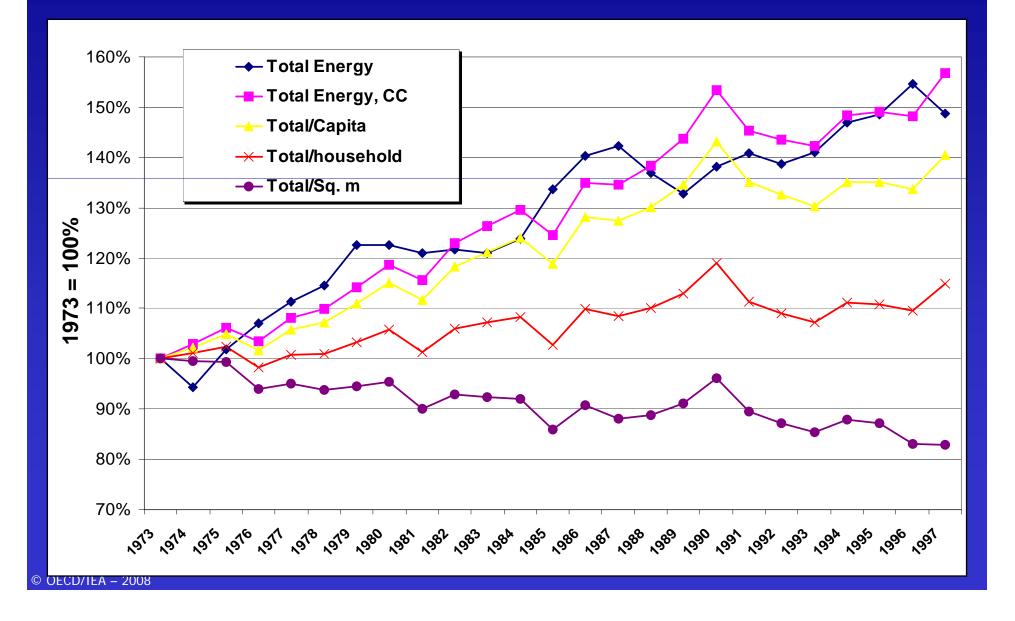
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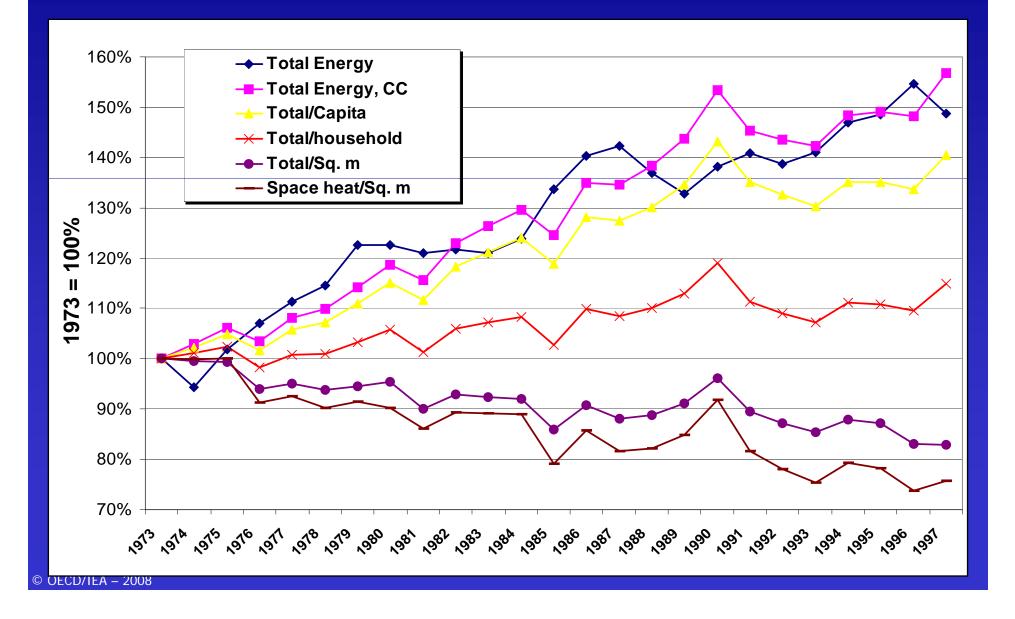
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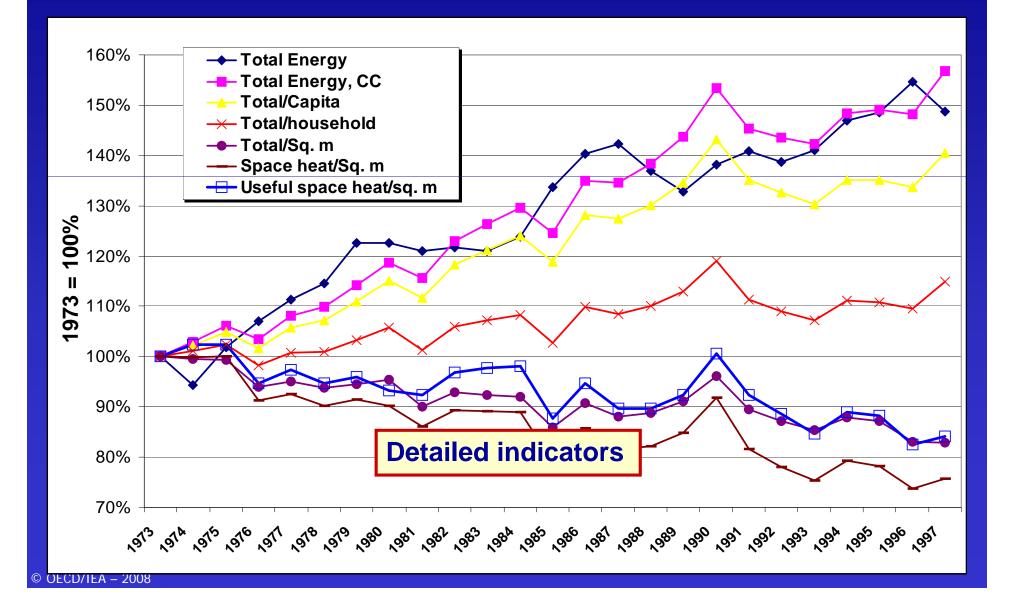


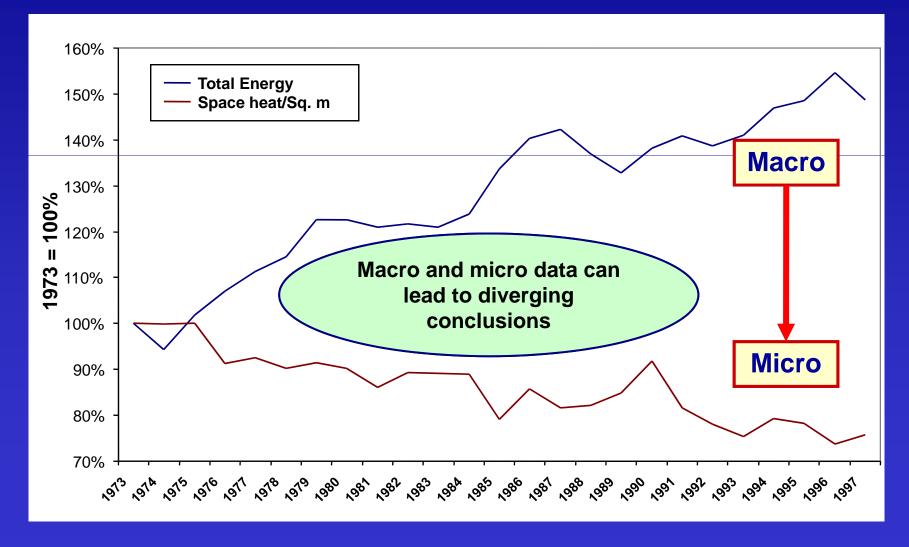
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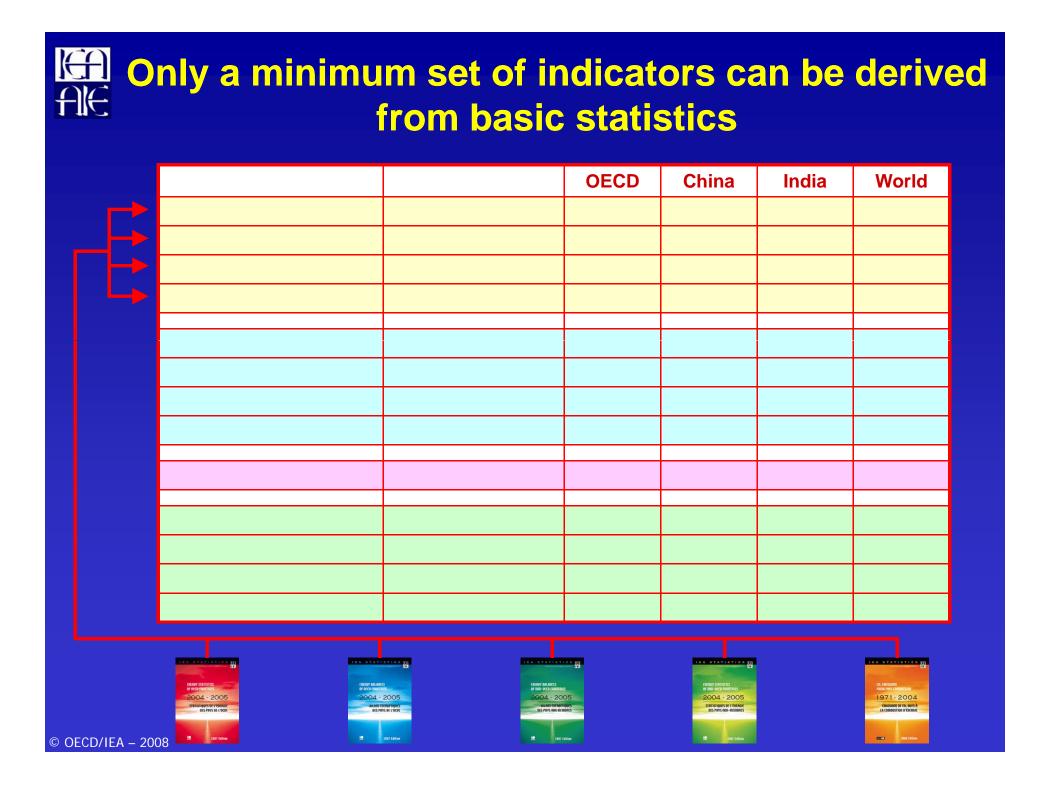
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Agriculture/Forestry121Fishing38Non-specified38		21175 - -	-	-		-	- 7536 - 11532	18 - 988	14286 - 5033





Only a minimum set of indicators can be derived from basic statistics

		OECD	China	India	World
Production	Mtoe	3 834	1 641	419	11 468
TPES	Mtoe	5 548	1 717	537	11 434
Electricity Consumption	TWh	9 800	2 322	525	16 695
CO ₂ Emissions	Mt of CO ₂	12 910	5 059	1 147	27 136

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TPES/GDP	toe / 000 2000\$	0.20	0.91	0.83	0.32
TPES/GDP(PPP)	toe / 000 2000\$ PPP	0.18	0.22	0.16	0.21
TPES/Population	toe / capita	4.74	1.32	0.49	1.78













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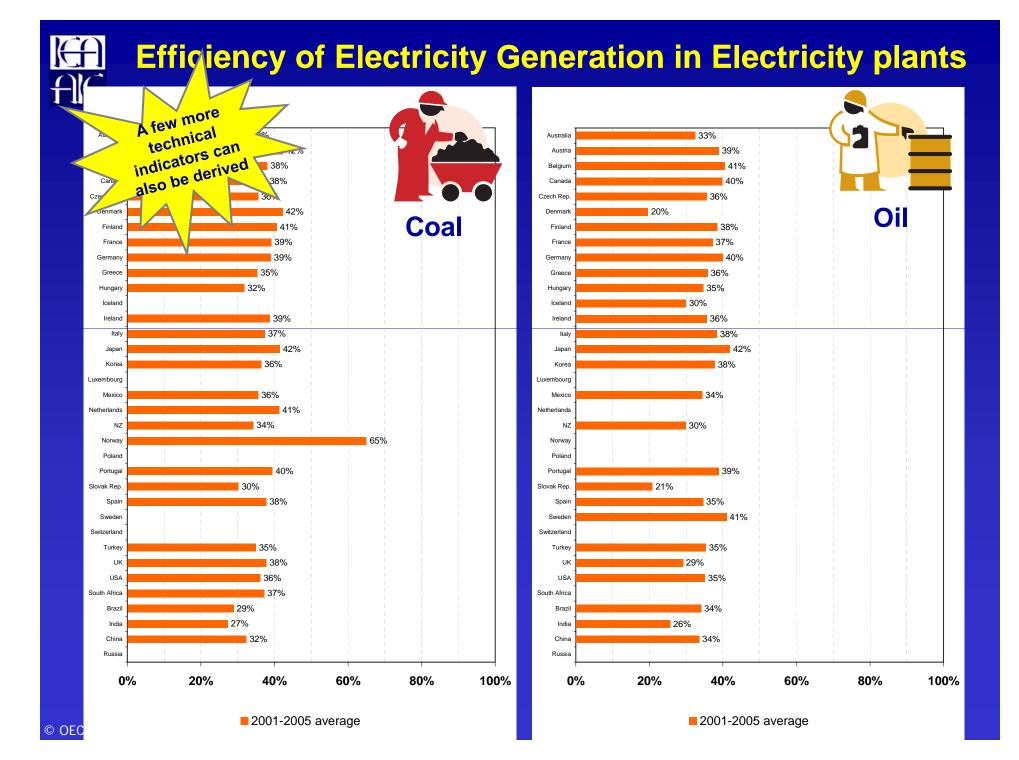
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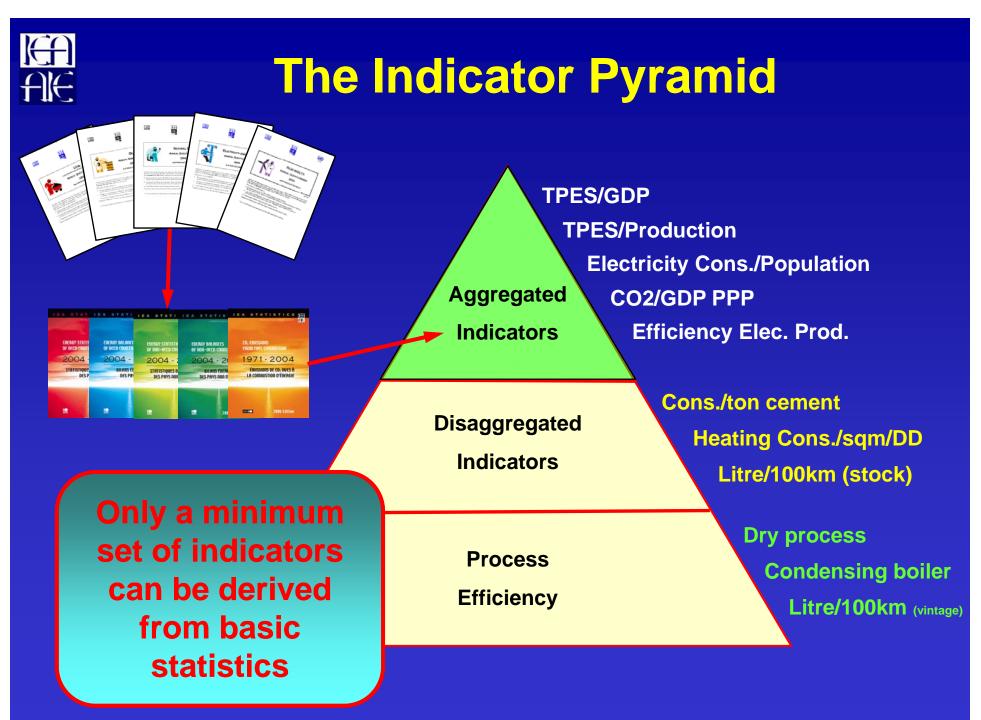
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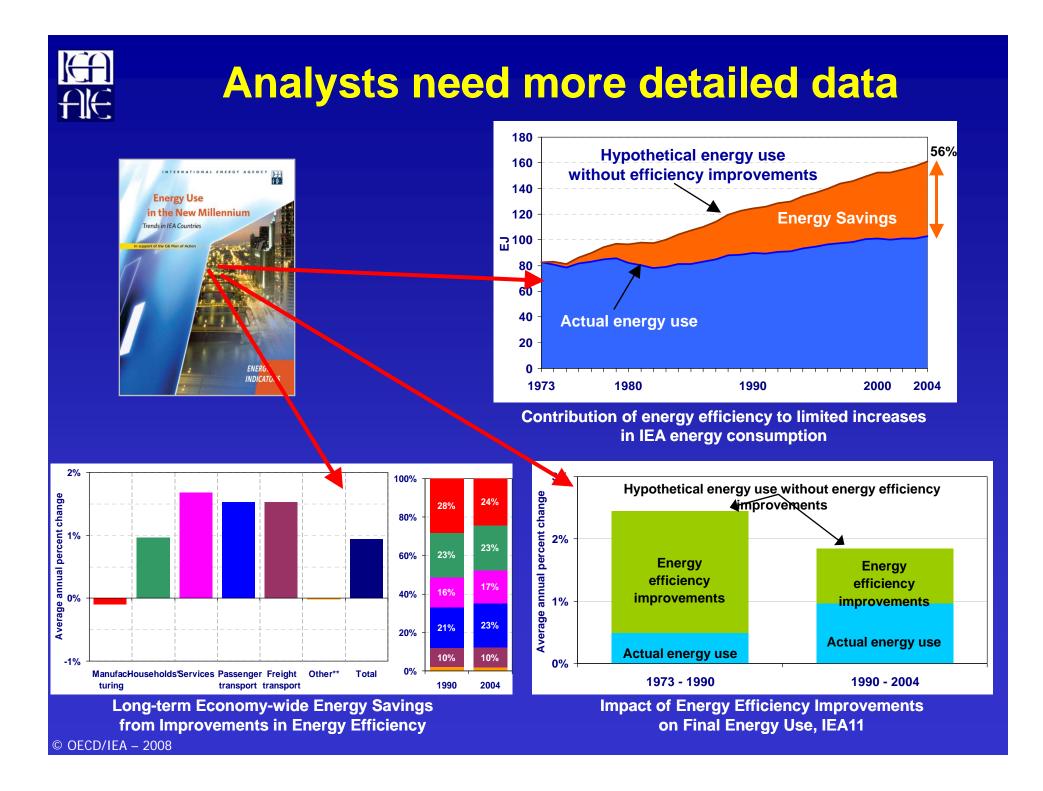


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CO ₂ /TPES	t CO ₂ / toe	2.33	2.95	2.14	2.37
CO ₂ /GDP	kg CO ₂ / 2000 \$	0.45	2.68	1.78	0.75
CO ₂ / GDP (PPP)	kg CO ₂ / 2000 \$ PPP	0.43	0.65	0.34	0.50
CO ₂ / Population	t CO ₂ / capita	11.02	3.88	1.05	4.22









So, what could be done to bridge the gap (the IEA's example)

Priority was given to cooperation

- Data on industry: network of industry association (WBCSD)
- Data on residential, services, transport: cooperation with the ODYSSEE programme of the European Commission for EU countries
- Cooperation with APEC for APEC Member Economies
- Direct contacts with national administrations (e.g. EIA (USDOE) for RECS, MECS, ...)

In 2006, the IEA defined templates to ease the reporting of the basic data by countries



The initial templates

Microsoft Excel - Copy of IndicatorsQuest	ionnaire (2).xls														
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2 NOTES	Notes & Inform	ation Point the mouse over the													
14 BASIC INDICATORS	Data from IEA Energy Statistics Div IV. GDP in NOMINAL NATIONAL CURRENCY	ision													
21 MACRO ECONOMIC DATA	IV. GDF III NOMINAL NATIONAL CORRENCT														
44 CONSUMPTION - ISIC															
BB SERVICES	01-05 Agriculture, hunting, fishing and forestry						0 0								
76 RESIDENTIAL	10 - 14 Mining and quarrying	0 0 0	0 0		0 0										
* BZ 83 TRANSPORT	10 - 12 10+11+12: Mining, quarrying and extraction of fuels		0 0		0 0	0 0	0 0								
• 89 90	13 - 14 13+14: Other mining, quarrying and extraction	TRANSPORT	0 0 units	0 0 0 0 0 1990 1991 1992 1993 1994	0 0	0 0 16 1997 1998	0 0 1999 24	00 2001	2002 2003	2004 20	15 2006				
91 92	15-37 Manufacturing	Activity & Structure indicators													
93	15 - 16 15+16: Manufacture of food products, beverages and tobacco produc	Passenger transport [passenger Allometres]	Lett.		1	N 9				0	1				
96	17 - 19 17+18+19: Manufacture of textiles, wearing apparel, fur and leather	Cars, SUV and personal light trucks - gasoline (spark ignition) engine	10 ⁴ pass-km 10 ⁴ pass-km		0	0 0 0 0 0 0	0	0 0	a a	0	0 0				
96 96 97 98	20 20: Manufacture of wood and of products of wood and cork, except fu	- desel (compression ignition) engine Motorcycles (2 wheelers) & 3 wheelers	10 ⁸ pass-km 10 ⁸ pass-km	0 0 0 0 0 0 0 0 0	0	0 0 0 6 0 0	0	0 0	0 0	0	v 0 0 0				
99	21 21: Manufacture of paper and paper products	Buses Passenger Trains	10 ⁹ pass-km 10 ⁹ pass-km	0 0 0 0 0	0	0 0 0	0	0 0	0 0	0	0 0				
101	22 22: Publishing, printing and reproduction of recorded media	Domestic passenger airplanes Domestic passenger ships	10 ⁸ pass-km 10 ⁸ pass-km	0 0 0 0 0 0 0 0 0	0	0 0 0 0 0 0	0	0 0	0 0	0	0 0				
101 102 103 104	21+22 21+22: Paper & Printing	Freight transport (tonne-kilometres) Freight & Commercial road transport	10 ⁸ tonne-km				100		100		-				
104	23 23: Manufacture of coke, refined petroleum products and nuclear fuel	- gasoline (spark ignition) engine - diesel (compression ignition) engine	10 [#] tonne-km	40 - 41 Electricity, gas and water suppl Oil & Petroleum Products	PJ	0 0	0 0	0	0 0	0 0	0	0	0 0	0 0	0 0
106	24 24: Manufacture of chemicals and chemical products	Freight trains Domestic freight airplanes	10 ⁸ tonne-km 10 ⁸ tonne-km	Natural Gas Coal & Coal Products	PJ PJ	0 0	0 0	0	0	0 0	0	0	0	0 0	0 0
106 108 107 108 110 110 110 111 112 112 114 116 116 117	25 25: Manufacture of rubber and plastics products	Domestic freight ships	10 ⁴ tonne-km	Combus. Renewables & Waste	PJ	0 0	0 0	0	0 0	0 0	0	0	0 0	0 0	0 0
110	26 26: Manufacture of other non-metallic mineral products	Freight transport (tonnes) Freight & Commercial road transport	10 ⁸ tornes	Heat Electricity	PJ PJ	0 0	0 0	0	0 0	0 0	0	0	0 0	0 0	0 0
112	27 27: Manufacture of basic metals	 gasoline (spark ignition) engine diesei (compression ignition) engine 	10 ⁶ tannes	Other Total Energy Use	PJ PJ	0 0	0 0	0	0 0	0 0	0	0	0 0	0 0	0 0
114	Class 2710+2731: Manufacture + Casting of iron and steel	Freight trains Domestic freight airplanes	10 ^e tannes 10 ^e tannes		10	0				0	9		0	0	0 0
116	Class 2720+2732: Manufacture + Casting of precious and non-fem	Domestic freight ships	10 ⁶ tonnes	45 Construction Oil & Petroleum Products	PJ	0 0	0 0	0	0 0	0 0	0	0	0 0	0 0	0 0
118 119	28 - 32 28+29+30+31+32: Manufacture of fabricated metal products, machin	Cars, SUV and personal light trucks	10 ^e vim	Natural Gas Coal & Coal Products	PJ PJ	0 0	0 0	0	0 0	0 0	0	0	0 0	0 0	0 0
H + + H NOTES A BASIC INDICATORS	34 - 35 34+35: Manufacture of motor vehicles and other transport equipment	- gasoline (spark ignition) engine - diesel (compression ignition) engine	10 ⁸ vkm 10 ⁹ vkm	Combus. Renewables & Waste	PJ	0 0	0 0	0	0 0	0 0	0	0	0 0	0 0	0 0
Draw * 😥 AgtoShapes * 🔪 🔪 🖂 🔿 🔠 🗸	👞 😋 33+36+37 33+36+37: Other manufacturing	Motorcycles (2 wheelers) & 3 wheelers Buses	10 ⁸ vkm 10 ⁸ vkm 10 ⁸ vkm	Electricity	PJ	0 0	0 0	0	0 0	0 0	0	0	0 0	0 0	0 0
Ready	40 - 41 Electricity, gas and water supply	Passenger Trains Domestic passenger airplanes	10 ⁴ vkm 10 ⁸ vkm	Other Total Energy Use	PJ PJ	0 0	0 0	0	0 0	0 0	0	0	0 0	0 0	0 0
	45 Construction	Domestic passenger ships Freight & Commercial road transport	10° vkm												
	50 - 99 Services	 gasoline (spark ignition) engine 	10 ⁴ skm	50.55, 63.99 Services (excluding Transport Oil & Petroleum Products	PJ	0 0	0 0	0	0 0	0 0	0	0	0 0	0 0	0 0
	Total gross value added at basic prices	desel (compression ignition) engine Freight trains Domestic freight airplanes	10 ⁸ vkm 10 ⁸ vkm 10 ⁹ vkm	Natural Gas Coal & Coal Products	PJ PJ	0 0	0 0	0	0 0	0 0	0	0	0 0	0 0	0 0
	Statistical discrepancy (output approach)	Domestic freight ships	10 ⁴ vkm	Combus. Renewables & Waste Heat	PJ PJ	0 0	0 0	0	0 0	0 0	0	0	0 0	0 0	0 0
	GDP at market prices (output approach)	Vehicle stocks (number of vehicles in me) Cars, SUV and personal light trucks	10*	Electricity	PJ	0 0	0 0	0	0 0	0 0	0	0	0 0	0 0	0 0
		gasoline (spark ignition) engine desel (compression ignition) engine	50 ⁴	Other Total Energy Use	PJ PJ	0 0	0 0	0	0 0	0 0	0	0	0 0	0 0	0 0
	END OF GDP (VALUE ADDED)	Motorcycles (2 wheelers) & 3 wheelers Buses	50 ⁶	60.62 Transport						all and					
		Passenger Trains Domestic passenger airplanes	50 ⁶ 50 ⁶ 50 ⁶ 50 ⁶ 50 ⁶ 50 ⁶	Oil & Petroleum Products Natural Gas	PJ	0 0	0 0	0	0 0	0 0	0	0	0 0	0 0	0 0
		Domestic passenger ships		Coal & Coal Products	PJ	0 0	0 0	0	0 0	0 0	0	0	0 0	0 0	0 0
		Freight & Commercial road transport - gasoline (spark ignition) engine	50 ⁶ 50 ⁶ 50 ⁶ 50 ⁶ 50 ⁶	Combus Renewables & Waste Heat	PJ PJ	0 0	0 0	0	0 0	0 0	0	0	0 0	0 0	0 0
		desel (compression ignition) engine Freight trains	10° 10 ⁴	Electricity Other	PJ PJ	0 0	0 0	0	0 0	0 0	0	0	0 0	0 0	0 0
		Domestic freight sirplanes Domestic freight ships	10 ⁴	Total Energy Use	PJ	0 0	0 0	0	0 0	0 0	0	0	0 0	0 0	0 0
				01-99 Total Energy Use											
				Oil & Petroleum Products Natural Gas	PJ PJ	0 0	0 0	0	0	0 0	0	0	0	0 0	0 0
				Coal & Coal Products	PJ	0 0	0 0	0	0 0	0 0	0	0	0 0	0 0	0 0
				Combus. Renewables & Waste Heat	PJ PJ	0 0	0 0	0	0 0	0 0	0	0	0 0	0 0	0 0
				Electricity Other	PJ PJ	0 0	0 0	0	0 0	0 0	0	0	0	0 0	0 0
				Total Energy Use	PJ	0 0	0 0	0	0 0	0 0	0	0	0	0 0	0 0
				END OF ENERGY USE											
OECD/IEA - 2008															



Detailed data on transport

TRANSPORT

IRANSPORI	units	1990 1	991 1992	2 1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	20
Passenger transport [passenger-kilometres]	10° ¥ ⊶km																
Cars, SUV and personal light trucks	10° 🗕 ;-km	0			0	0	o	0	0	0	0	0	0	0	0	0	
- gasoline (spark ignition) engine	10° 0				0	0	0	0			0		-			0	
- diesel (compression ignition) engine	10° ()	0			0	0	0	0	0		0				0	0	
Motorcycles (2 wheelers) & 3 wheelers	10° 0 - km	o 🌽			0	0	0	0	0		0	-	_		0	0	
Buses	10° 0km				0	0	0	0	0	-	0		_			0	
Passenger Trains	10 ⁹ 3-km			0 0	0	0	0	0 0	0		0			0	0	0	
Domestic passenger airplanes	10 ⁹ »-km				0	0	0	0	0	0	0	0	0	0	0	0	
Domestic passenger ships	10 ⁹ noon-km	0	0	0 0	0	0	0	0	0	0	0					0	
Freight transport [tonne-kilometres]																	
Freight & Commercial road transport	10° 10° 10°	0	0 0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	
- gasoline (spark ignition) engine	10° 🗕 - km	0		0 0	0	0	0	0			0						
- diesel (compression ignition) engine	10 ⁹ 0	0		0 0	0	0	0	-	0		0					0	
Freight trains	10 ⁹ Ö km	0			-		0	0	0		0					0	
Domestic freight airplanes	10° 🗳 km	0		0		\sim		0	0		0					0	
Domestic freight ships	10 ⁹ . . 2-km	0	0 0			\sim		0	0	0	0	0	0			0	
	.0																
Freight transport [tonnes]	i i i i i i i i i i i i i i i i i i i																
Freight & Commercial road transport	10 nes	0	0 0				0	0	0	0	0	0	0	0	0	0	
- gasoline (spark ignition) engine	10 nes	0	0 0	o 🔰			0	0	0	0	0	0	0	0	0	0	
- diesel (compression ignition) engine	10 () nes	0	0 (• 🗡			0	0	0	0	0	0	0	0	0	0	
Freight trains	10 🔮 nes	0	0 (0	0	0	0	0	0	0	0	0	0	
Domestic freight airplanes	10 🗲 nes	0	0 (0	-		- o	0	0	0	0	0	0	0	0	0	
Domestic freight ships	10 G nes 10 G nes	0	0 0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	
Vehicle kilometres	Ц Ц																
Cars, SUV and personal light trucks	1 m	0	0 0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	
- gasoline (spark ignition) engine	10 ⁹ vkm	0	0 0	0 0	0	0	0	0	0			- 0	0	0	0	0	
- diesel (compression ignition) engine	10 ⁹ vkm	0	0 0	0 0	0	0	0	0	1	0		5	0	0	0	0	
Motorcycles (2 wheelers) & 3 wheelers	1 m	0	0 0	0 0	0	0	0	0	\sim				0	0	0	0	
Buses	1 C m	0	0 0	0 0	0	0	0	0			4		0	0	0	0	
Passenger Trains		0	0 0	0 0	0	0	0	0			P		0			0	
Domestic passenger airplanes	1 ¥ m	0	0 0	0 0	0	0	0	0					0	0	0	0	
Domestic passenger ships	1 🖵 m	0	0 0	0 0	0	0	0	0			>) I I	0	0	0	0	
Freight & Commercial road transport	1 9 m	0	0 (0 0	0	0	0	0		Ran			0	0	0	0	
- gasoline (spark ignition) engine	1 m	0		0 0	0	0	0	0			-					0	
- gasoline (spark ignition) engine - diesel (compression ignition) engine	10° vкm	0		0 0	0	0	0	0	H	120			-	-		0	
Freight trains	10° vkm	0		0 0	0	0	0	0	<u> </u>				_	0		0	
Domestic freight airplanes	10° vkm	0		0 0	0	0	0	0	0	0	0	v	-			0	
Domestic freight ships	10 ⁹ vkm	0		0 0	0	0	0	0			0						
Vehicle stocks (number of vehicles in use)																	
Cars, SUV and personal light trucks	10 ⁶	0	0 0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	
- gasoline (spark ignition) engine	10 ⁶	0	0 0	0 0	0	-	0	0	0		0					0	
- gasoline (spark ignition) engine - diesel (compression ignition) engine	10 ⁶	0	0 1	0 0	0			0	0	_	0	-	-			0	
- diesel (compression ignition) engine Motorcycles (2 wheelers) & 3 wheelers	105	0		0 U D O				0	0		0					0	
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Passenger Trains				U				0	0		0		-		0	0	
Domestic passenger airplanes	Ő				0	U	U	U	0	0	-	-	-	-	0	0	
Domestic passenger ships		U	0	0	U			0			0	0	0	0	0	0	
Freight & Commercial road transport		0	0						-		0	0	0	0	0	0	
		0	0								0					0	
- gasoline (spark ignition) engine		0	-					(- 0		-			0	
- diesel (compression ignition) engine	10 ⁶	-							– 0 0		0	-	-				
Freight trains	10° 10 ⁶	0			0	0	0	0	-	-	-		-	0		0	
Domestic freight airplanes			-	<u> </u>	-	0	0	0			0					0	
Domestic freight ships	10 ⁶	0	0 0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	



Energy consumption broken down by end use

Services																		
JEI VILES	nits	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Energy Use (total final energy use)																		
Space Heating																		
· · · ·	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Inatural Gas	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coal & Coal Products Combus. Renewables & Waste	PJ PJ	0	0	0	0	0	0	0	0	0	0 0	0	0	0	0	0	0	0
Heat	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electricity	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	10																	
Space Cooling	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
epace coomig	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coal & Coal Products	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Combus. Renewables & Waste	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heat	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electricity	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lighting																		
	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		~		~														
Other Energy Us	se i	n Sei	rvice	es Se	ector	0	0	0	0	0	0	0	0	0	0	0	0	0
Natural Gas	PJ I	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coal & Coal Products	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Combus. Renewables & Waste	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heat	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electricity	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Energy Use in Services Sector																		
Oil & Petroleum Products	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Natural Gas	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coal & Coal Products	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Combus. Renewables & Waste	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heat	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electricity	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C END OF SERVICES SECTOR																		

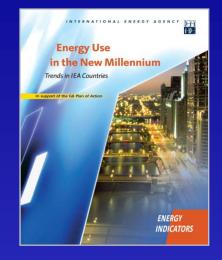
Image: Diffusion, stocks and average consumptionImage: Off selected appliances

RESIDENTIA		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2
Appliances Diffusion (as a percenta	age of occu	upied dwelling		~	.													
Refrigerators	%			/	0	0	0	0	0	0	0	0	0	0	0	0	0	
Freezers	%				0	0	0	0	0	0	0	0	0	0	0	0	0	
Refrigerator/Freezer Combination	0/.				0	0	0	0	0	0	0	0	0	0		Z	O	
Dish Washers						0	0	0	0	0	0	0	0	0		Eim	0	
Clothes Washers					0	0	0	0			-	0	0	0			0	
Clothes Dryers	/0				0	0	0	0			000		0	0	16		0	
Room Air Conditioners					0	0	0	0					0	0			0	
Central Air Conditioners					0	0	0	0			~		0	0		· • · ·	0	
Television	%				0	0	0	0					0	0	0	U	0	
PC	%				0	0	0	0					0	0	0	0	0	
Appliances Stock (only within occup			-	-	-	-								-	-	-	-	
Refrigerators -	10 ⁶	0	0	0	0	0	0	0					0	0	0	0	0	
Freezers	10 ⁶	0	0	•	- 6		0						0	0	0	0	0	
Refrigerator/Freezer Combinations	10 ⁶	0	0			וצ	0						0	0	0	0	0	
Dish Washers	408	0	0				0							0	0	0	0	
Clothes Washers		C O			5	N	0							0	0	0	0	
Clothes Dryers							0	0	0	0	0	0	0	0	0	0	0	
Room Air Conditioners	U	0					0	0	0	0	0	0	0	0	0	0	0	
Central Air Conditioners		0				1	0	0	0	0	0	0	0	n		0	0	
Television	10 ⁶	0					0	0	0	0	0	0			7 (O	
PC	10 ⁶	0	0					- 0	0		0	0	_ [] [0	
	10												_ [] [11-(イン		
Appliances, unit energy consump	tion per y	ear (average	for appliar	ices in stoc	k)] 🔪			
Refrigerators	÷	0	0	0	0	0	0	0		0	0	0	-L'-	-	- /		0	
Freezers		0	0	0	0	0	0	0	0	U	0	0		5	2		0	
Refrigerator/Freezer Combinations		0	0	0	0	0	0		0	0	0	0		IIII	Ĩ,		0	
Dish Washers		0	0	0	0	0				0	0	0					0	
Clothes Washers		0	0	0	0	0				0	0	0			J	1	0	
Clothes Dryers	2	0	0	0	0	0				0	0	0	0				0	
Room Air Conditioners		0	0	0	0	0			4	0	0	0	0				0	
Central Air Conditioners	2	0	0	0	0	0				0	0	0	0			_ _	0	
Television	₹	0	0	0	0	0				0	0	0	0	0	0	0	0	
PC		0	0	0	0	0			J	0	0	0	0	0	0	0	0	



Payback on Investment...





Published in 2004 14 IEA countries Last year: 1998 (Y-6) Published in 2007 20 IEA countries Last year: 2004 (Y-3)

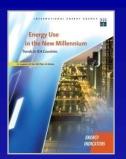


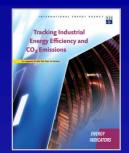


Despite all the efforts there is a risk of widening and worrying gap between the interest for indicators and the resources allocated to collect proper supporting data

The 3ls vs. the 3Ds

For instance, 149 participants in the meeting on efficiency goals





Increasing Interest for Indicators

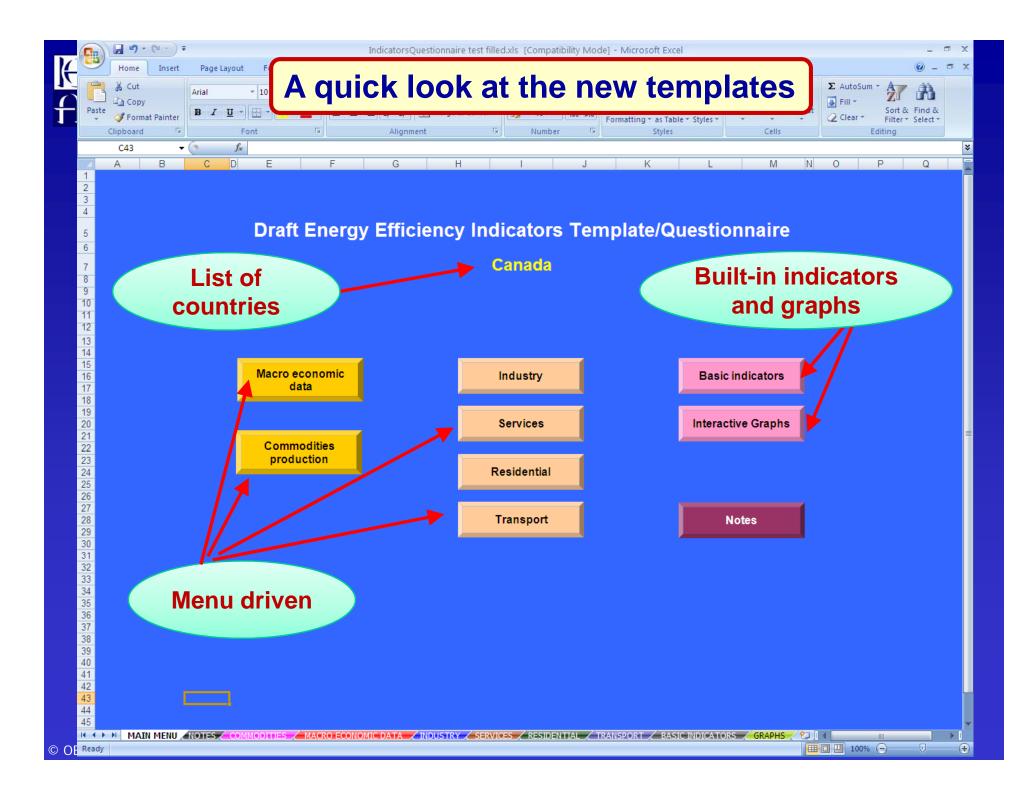
Statistics and statisticians are at the basis of the pyramid and constitute the foundation for any sound analysis and policy

Dramatic Decrease in Data resources

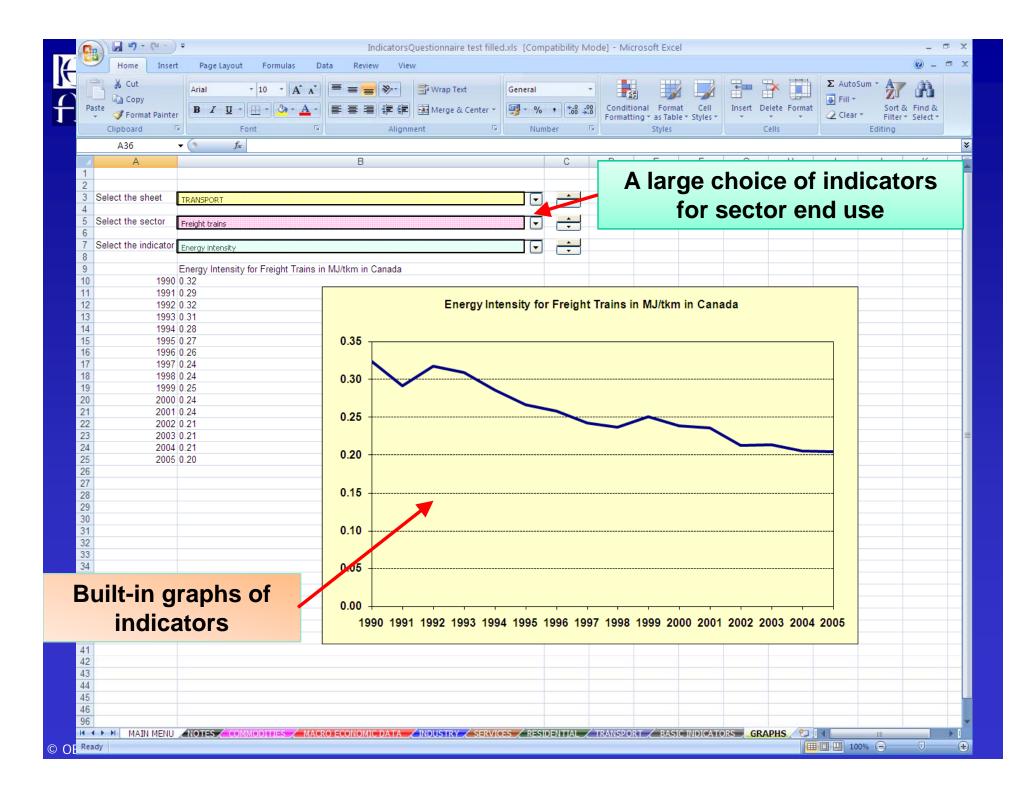


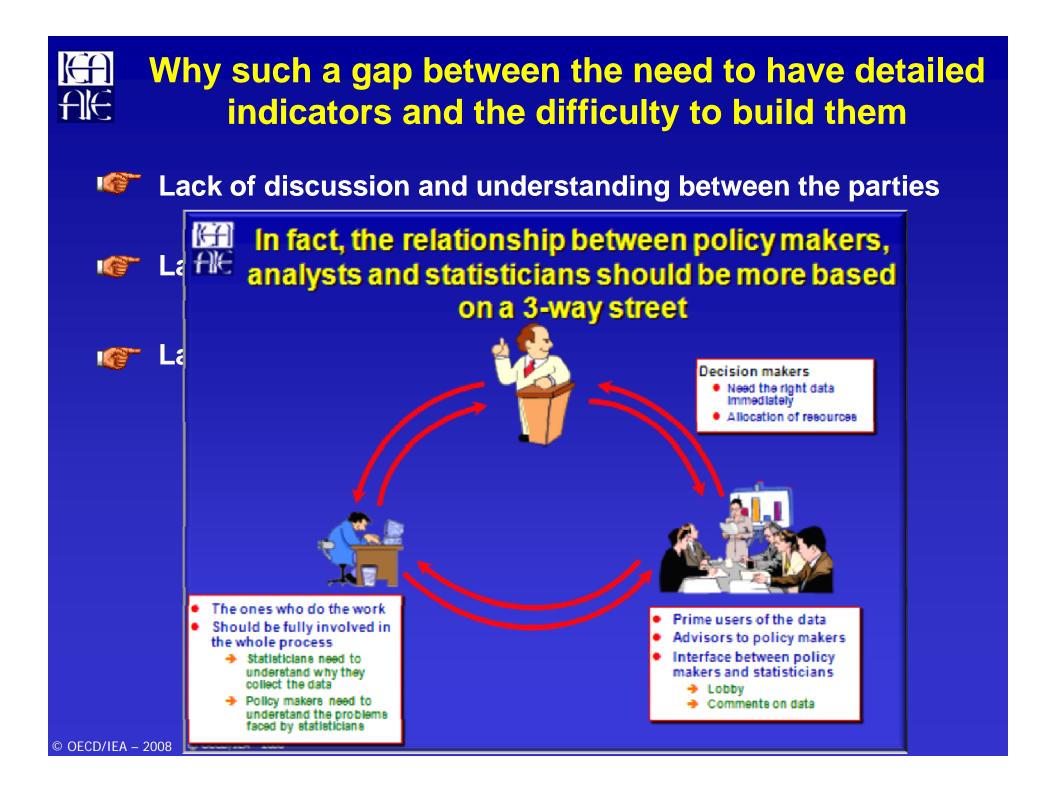
So, an urgent need to fill the gap by collecting and providing proper data to analysts

- The initial templates could constitute a good common tool to collect the data
- Once again, priority was given to cooperation
 - A two-day retreat with the EU-ODYSSEE people to see how questionnaires could be harmonised
 - Cooperation with APEC
 - Meeting with LBNL to check consistency
 - Further workshop with industry association (WBCSD)
- The templates/questionnaire have been revised to take into consideration comments and be more userfriendly

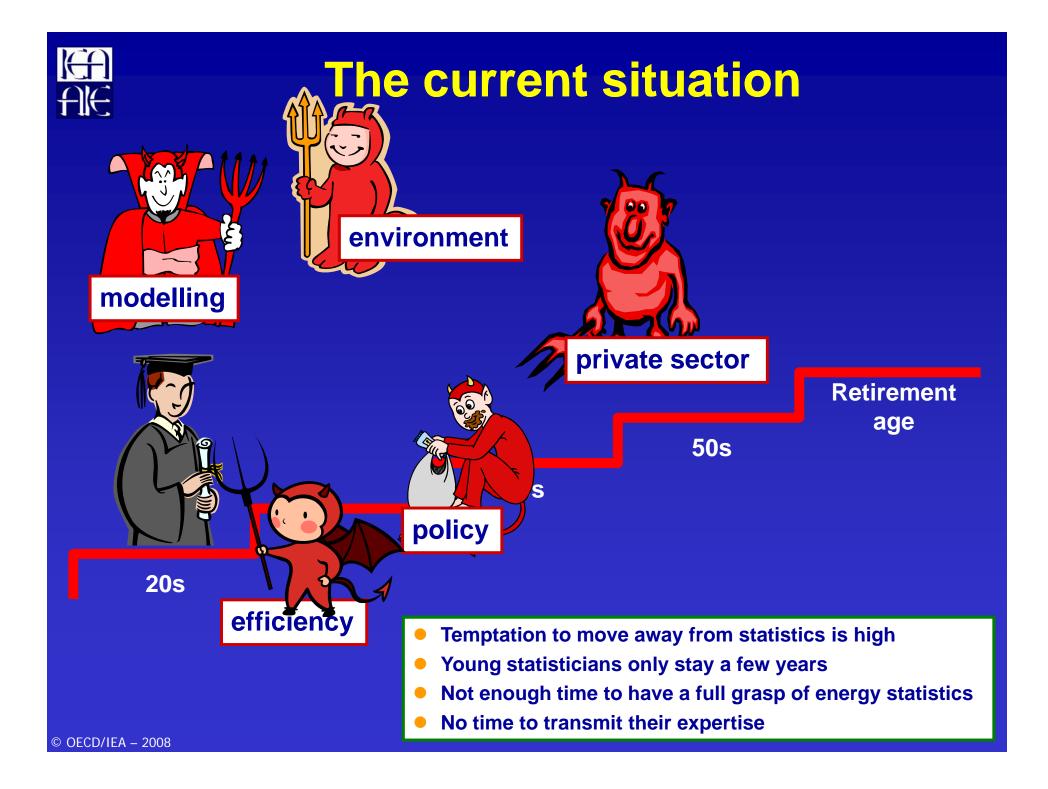


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2		AB	С	AC	AD	AE	AF	AG	А						
-	1	DEOIDENITIAL		1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
-	2	RESIDENTIAL	_												
	4														
	5	Total Energy Use in Residential Sector (IEA balances	s) For infor	r											
-	6	Oil & Petroleum Products	PJ	146.29	166.02	154.39	132.89	133.55	137.98	127.11	122.79	128.80	112.57	100.75	0
-	7 8	Natural Gas Coal & Coal Products	PJ PJ	567.27	626.19 2.16	583.09	519.85 1.67	548.17 1.58	580.17	540.72 1.26	576.03 1.02	602.79	585.80 1.05	581.77 1.05	0
	9	Combus. Renewables & Waste	PJ	72.71	73.11	74.77	75.95	76.61	76.78	76.91	77.06	77.20	77.32	85,42	0
	10	Heat	PJ	0	0	0	0	0	0	0	0	0	0	0.01	0
	11	Electricity	PJ PJ	473.88	486.98	484.25	465.64	479.91	497.73	504.96	513.62	532.86	543.62	543.65	0
	12 13	Other Total	PJ PJ	0	0	0 1 298.38	0 1 196.00	0 1 239.82	1 294.18	0	1 2 0.50	0	0	0 1 312.65	0
]															
	5	Space Heating													
		pace nearing		130.57 409.44	148.21 461.44	136.91 416.01	115.03 357.45	117.41 384.90	120.32 419.37	109.7	106.30 415.50	111.97 439.26	98.89 425.94	88.18 418.01	0
	21	Coal & Coal Products	PJ	405.44	401.44	410.01	0	0	413.37	332 20	413.30	435.20	423.54	410.01	0
	22	Combus. Renewables & Waste	PJ	64.43	64.29	71.37	60.81	65.68	73.80	68.36	72.46	76.33	77.47	76.31	0
	23	Heat	PJ	0	0	0	0	0	0	0	0	0	0	0	0
-	24 25	Electricity Other	PJ PJ	159.22	170.21 0	167.24	143.09	152.27	169.92	161.38	172.56 0	187.30	192.54	185.73 0	0
ŀ				763.66	844.15	791.53	676.39	720.26	783.41	720.64	766.82	814.85	794.84	768.22	0
]	C	Space Cooling													
	C	pare counny				_	_					_	_		
ł	31	Natural Gas	PJ	0	0	0	0	0	0	0	0	0	0	0	0
	32	Coal & Coal Products	PJ	0	0	0	0	0	0	0	0	0	0	0	0
	33	Combus. Renewables & Waste	PJ	0	0	0	0	0	0	0	0	0	0	0	0
-	34	Heat	PJ	0	0	0	0	0	0	0	0	0	0	0	0
-	35 36	Electricity Other	PJ PJ	15.82	12.32	12.91	19.71	23.19	15.64	25.40	31.09	24.27	19.25	36.53 0	0
	37	Total	PJ	15.82	12.32	12.91	19.71	23.19	15.64	25.40	31.09	24.27	19.25	36.53	0
]	1/														
	V	Vater Heating		16.52	18.32	17.84	18.15	18.61	17.77	17.72	16,19	16.49	13.61	12.49	0
	42	Natural Gas	РJ	154.60	161.06	163.31	158.48	159.43	156.86	155.45	156.33	158.99	155.48	159.00	0
	43	Coal & Coal Products	PJ	0	0	0	0	0	0	0	0	0	0	0	0
	44	Combus. Renewables & Waste	PJ	1.10	1.35	1.55	1.72	1.92	2.11	2.15	2.14	2.10	2.11	2.16	0
-	45 46	Heat Electricity	PJ PJ	57.57	0 57.99	0 56.98	0 56.55	0 56.08	0 56.50	0 56.49	0 55.50	0 56.51	0 57.30	0 55.43	0
	40	Other	PJ	0	0	0	0	00.00	0	00.49	00.00	0	57.50 0	00.43	0
	10	Tatal	D1	229.78	238.71	239.67	234.89	236.05	233.24	231.81	230.15	234.08	228.50	229.08	0
	ſ	Cooking													
	L	JUUKING		0	0	0	0	0	0	0	0	0	0	0	0
		Natural Gas	PJ	2.37	2.79	2.88	v	3.00	3.13	3.25	3.40	3.92	3.55	3.94	0











Why such a gap between the need to have detailed indicators and the difficulty to build them

Lack of discussion and understanding between the parties

Lack of resources

Lack of expertise and experience

On 21-22 January 2009, the IEA will organise a workshop to bring around the same table policy makers and energy analysts in charge of energy efficiency indicators as well as statisticians. The workshop is opened to both OECD and selected non-OECD countries.

The objective is to highlight gaps and barriers in building and using energy efficiency indicators and to hear from successful countries solutions and best practices. Another objective is to discuss the role of organisations in helping countries building the expertise and capacity to work on indicators.

There is an urgent need to act and react

- The Nobel Prize for Peace has been attributed to work on what the state of the planet could be in the next decades. In March, the OECD published another alarming report
- However, we do not even know the current situation very well
- There is a global consensus from and for Governments to urgently take a series of measures to promote efficiency
- In order to optimise and prioritise these actions, there is first an obvious need to have an accurate view of the energy consumption in all sectors
- Of course, there is a cost associated to collecting and processing the necessary data. But non optimum decisions often lead to costs which are often much higher.
- A 1\$/bl reduction in the price of oil is equivalent to "saving" of 85 M\$ per day. A lot of money for collecting proper data which should lead to reduce the tension on the oil market and therefore price of oil.

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There is an urgent need to act and react (cont.)

- The 145US\$/bl sent a clear signal to consumers to do more on energy efficiency (even if prices have now dramatically decreased).
- Energy efficiency was at the centre of the discussion of the last IEA Ministerial meeting; it will also be one of the focuses of the discussions at the next G8 and G20 Summits in Hokkaido-Toyako.
- There is no one single silver bullet to establish sound energy efficiency policies. However, having a solid understanding of who consumes what is a prerequisite for any plan of actions. So the importance of having a detailed and timely database.
- Priorities vary from countries to countries (heating in some countries, biomass or rural electrification in others)
- A universal template should allow all countries to chose what to collect. The current template could be a starting point which needs to be enriched by inputs from many other organisations.
- As for the JODI initiative, cooperation between organisations is the main driver and their participation is essential for using the momentum and pulling their member countries with them.

Thank you

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