Jodi

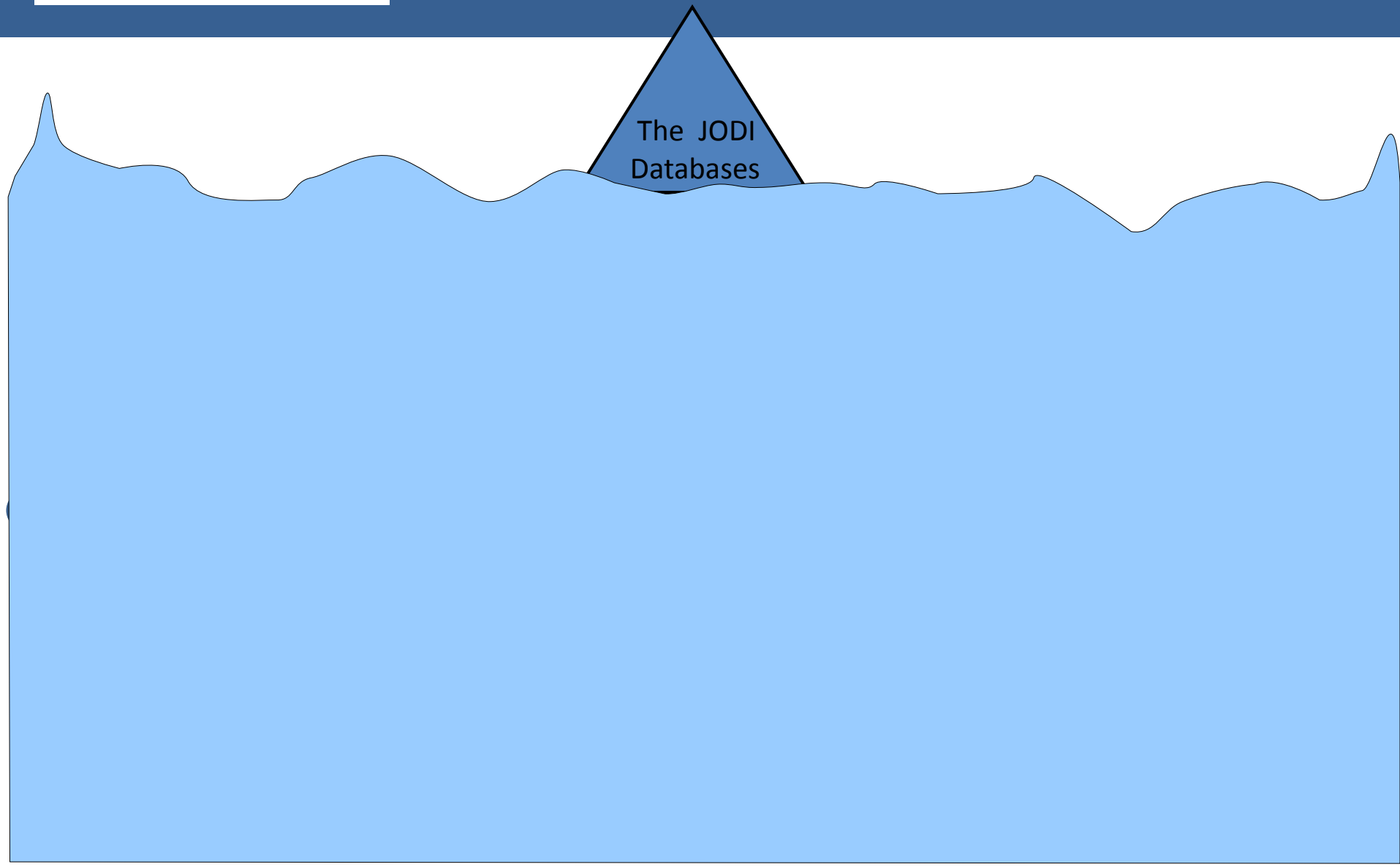
12TH INTERNATIONAL CONFERENCE | 8 - 10 APRIL 2016, NEW DELHI, INDIA
Hosted by Government of India with the support of Joint Organisations Data Initiative (JODI) Partners

The Journey of JODI

History to Present

Jean-Yves Garnier
Independent Consultant

JODI is much more than a database

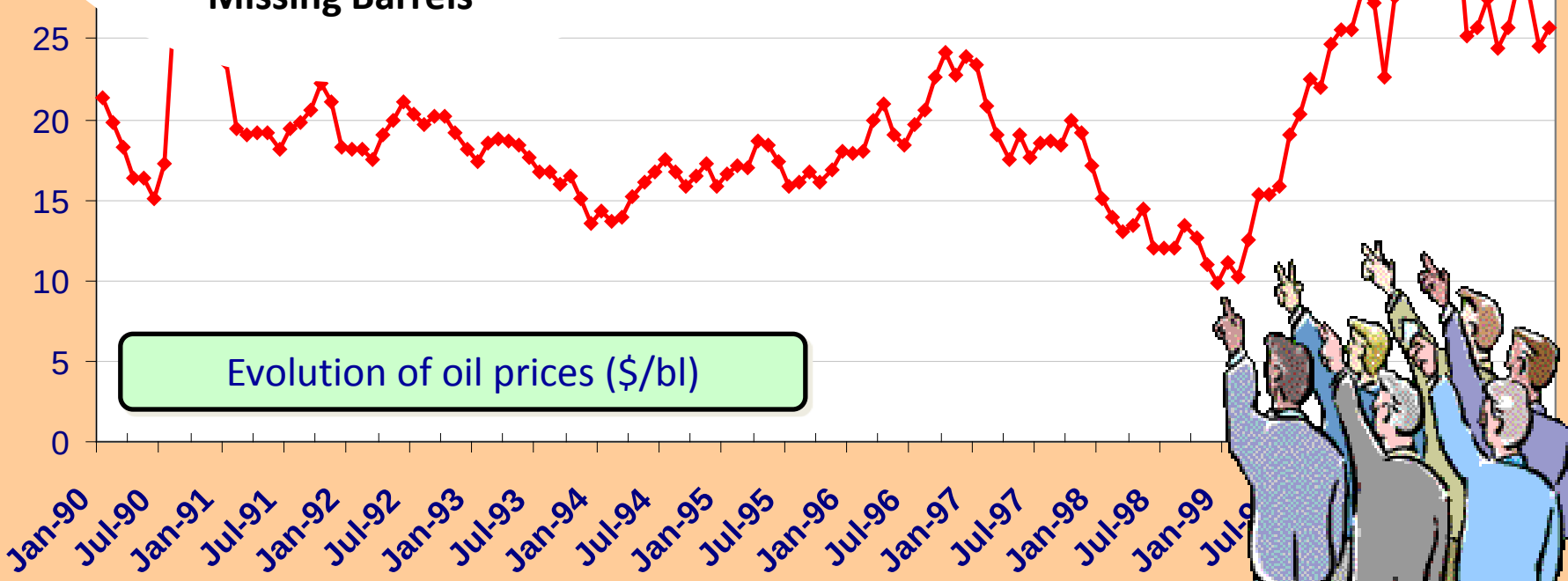


How everything started

Oil price volatility at the end of the 90s

Missing Barrels

Blame on statistics?



Evolution of oil prices ($/bl)

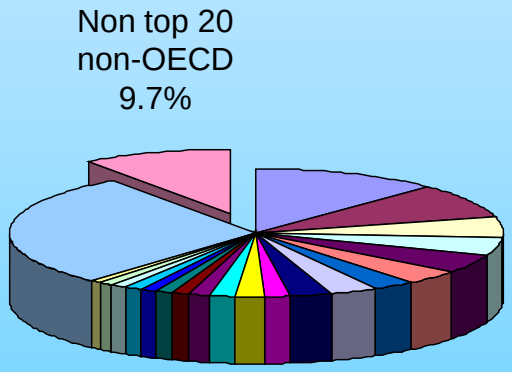
World Oil Market Data

“Better Data for Better Markets”

Madrid, July 14-15, 2000

Can Data Quality be Improved?

Which Players are Concerned?

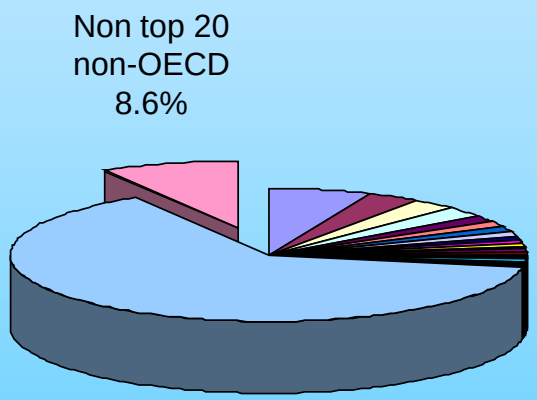


Shares in world oil production

Crude Oil and NGL Production

	Share(%)	OPEC	APEC	OLADE	OECD
Saudi Arabia	12.4	✓			
Russia	8.8		✓		
Iran	5.1	✓			
Venezuela	4.7	✓		✓	
China	4.6		✓		
Iraq	3.6	✓			
UAE	2.9	✓			
Nigeria	2.9	✓			
Kuwait	2.8	✓			
Libya	1.9	✓			
Indonesia	1.8	✓	✓		
Algeria	1.7	✓			
Oman	1.3				
Colombia	1.2			✓	
Egypt	1.2				
India	1.1				
Angola	1.1				
Malaysia	1.1		✓		
Qatar	0.9	✓			
Kazakhstan	0.9				
OECD	28.6				✓
Total	90.3				

Which Players are Concerned?



Shares in world oil demand

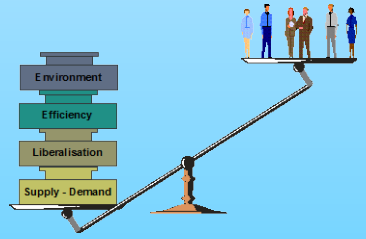
Oil Demand

	Share(%)	OPEC	APEC	OLADE	OECD
China	6.4		✓		
Russia	3.3		✓		
India	2.7				
Brazil	2.6			✓	
Saudi Arabia	1.7	✓			
Iran	1.4	✓			
Indonesia	1.3	✓	✓		
Chinese Taipei	1.1		✓		
Thailand	0.9		✓		
Singapore	0.8		✓		
Egypt	0.8				
Venezuela	0.7	✓		✓	
Malaysia	0.7		✓		
Argentina	0.6			✓	
South Africa	0.6				
Iraq	0.6	✓			
Pakistan	0.5				
Ukraine	0.5				
UAE	0.4	✓			
Libya	0.3	✓			
OECD	63.4				✓
Total	91.4				

Five Points to Conclude

Is “speedy data” better than “late data”?
Is “no data” better than “wrong data”?

Statistics is not an exact science
One should always be cautious when using data



Growing imbalance between needs and resources

More players, less resources allocated to statistics
Risk of lower quality and greater uncertainty

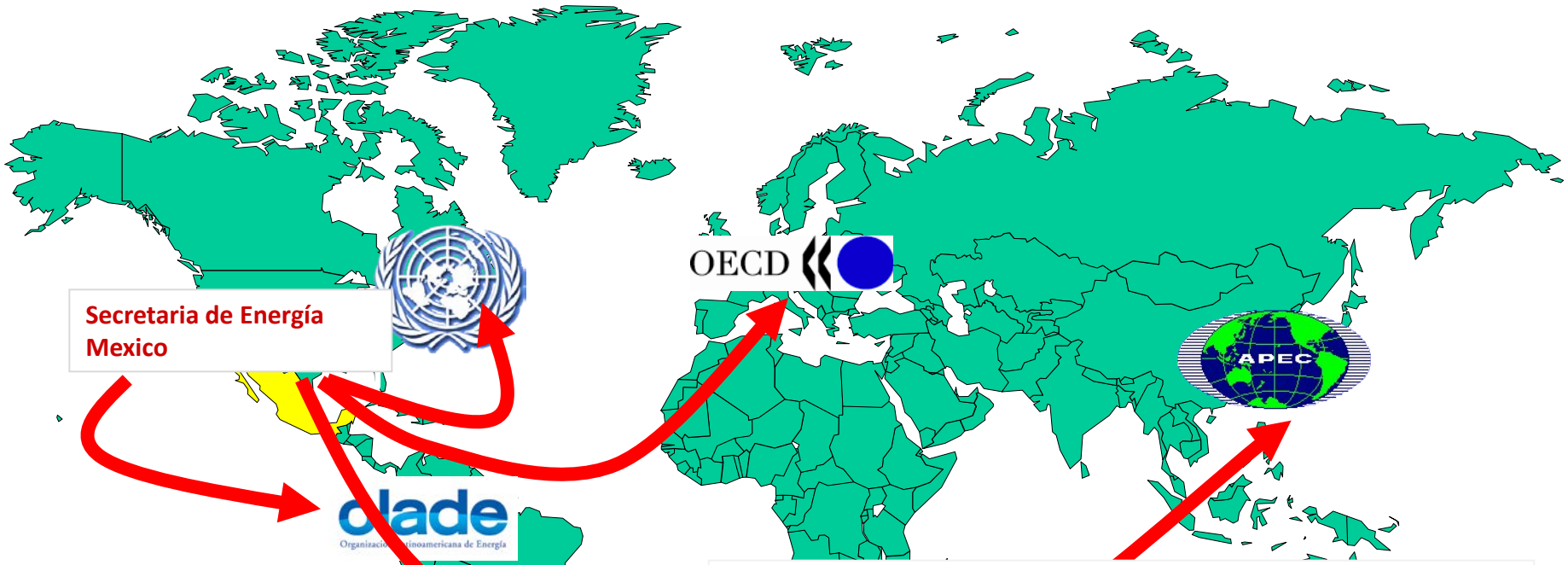
Need for more co-operation
Meeting on comparison and harmonisation of statistics with a special focus on oil

From a concept to an exercise

A preparatory meeting on 13-14 November 2000

Who collects what and at what frequency
Are definitions comparable?
What can be done to improve the situation

Are definitions/units comparable?



5% gap

Crude Oil Production for Mexico (in kbd)

	1995	1996	1997	1998
APEC	2653	2903	3087	3134
IEA	2741	2872	3062	3109
OLADE	2722	2969	3022	3070
OPEC	2618	2858	3022	3071
UN	2834	2977	3166	3210

Both a technical and a political call

Technical

Heads of Statistics in Paris, 13-14 Nov 2000

Paris
13-14 Nov. 2000

- There are many problems with definitions, units, methodology
- Organisation can solve some of the problems
- Involvement of countries is essential

Political

Ministers at the 7th IEF Meeting

Riyadh
17-19 Nov. 2000

"Co-operation among relevant international organisations, as well as the participating countries, in improving and timely accessing to energy data is important for market assessment and transparency."

Bangkok
2-3 April 2001

Decision taken to launch a 6-month exercise (JODE)

Agreement on a "simple" questionnaire

JOINT APEC/EUROSTAT/OECD-IEA/OLADE/OPEC/UN DATA EXERCISE

A simple format (42 data points)

Country: _____

Month: _____

Unit: _____

		Crude Oil
P		
Imports		
Exports		
Stocks	Closing	
	Change	
Refinery Intake		

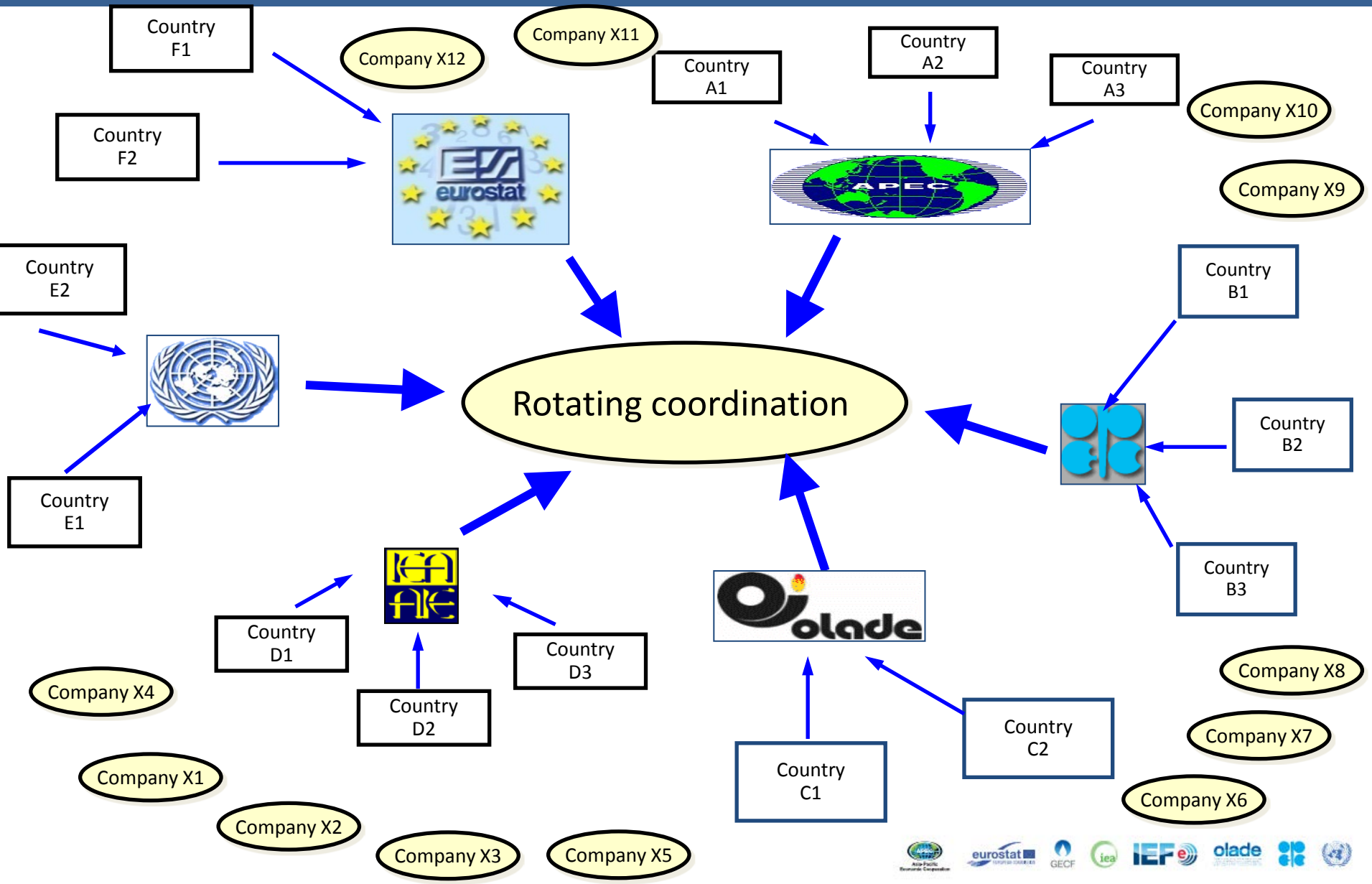
		Petroleum Products					
		LPG	Gasoline	Kerosene	Gas/Diesel Oil	Fuel Oil	Total Oil
ry Output							
Imports							
Exports							
Stocks	Closing						
	Change						
Demand							

month -1 & month -2

Choice of units left to organisations

Simple definitions

A flexible reporting mechanism

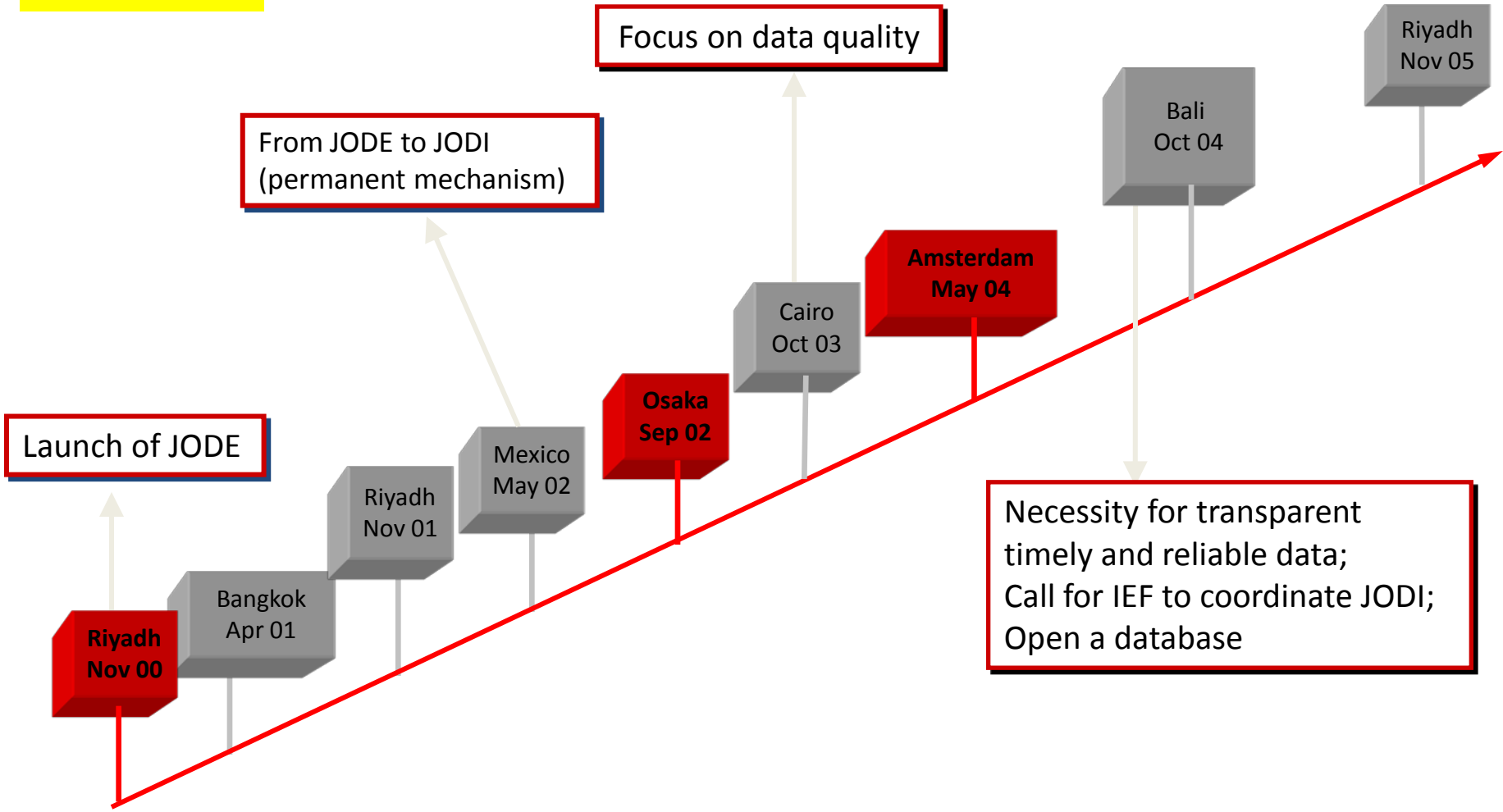


From an exercise to a permanent mechanism

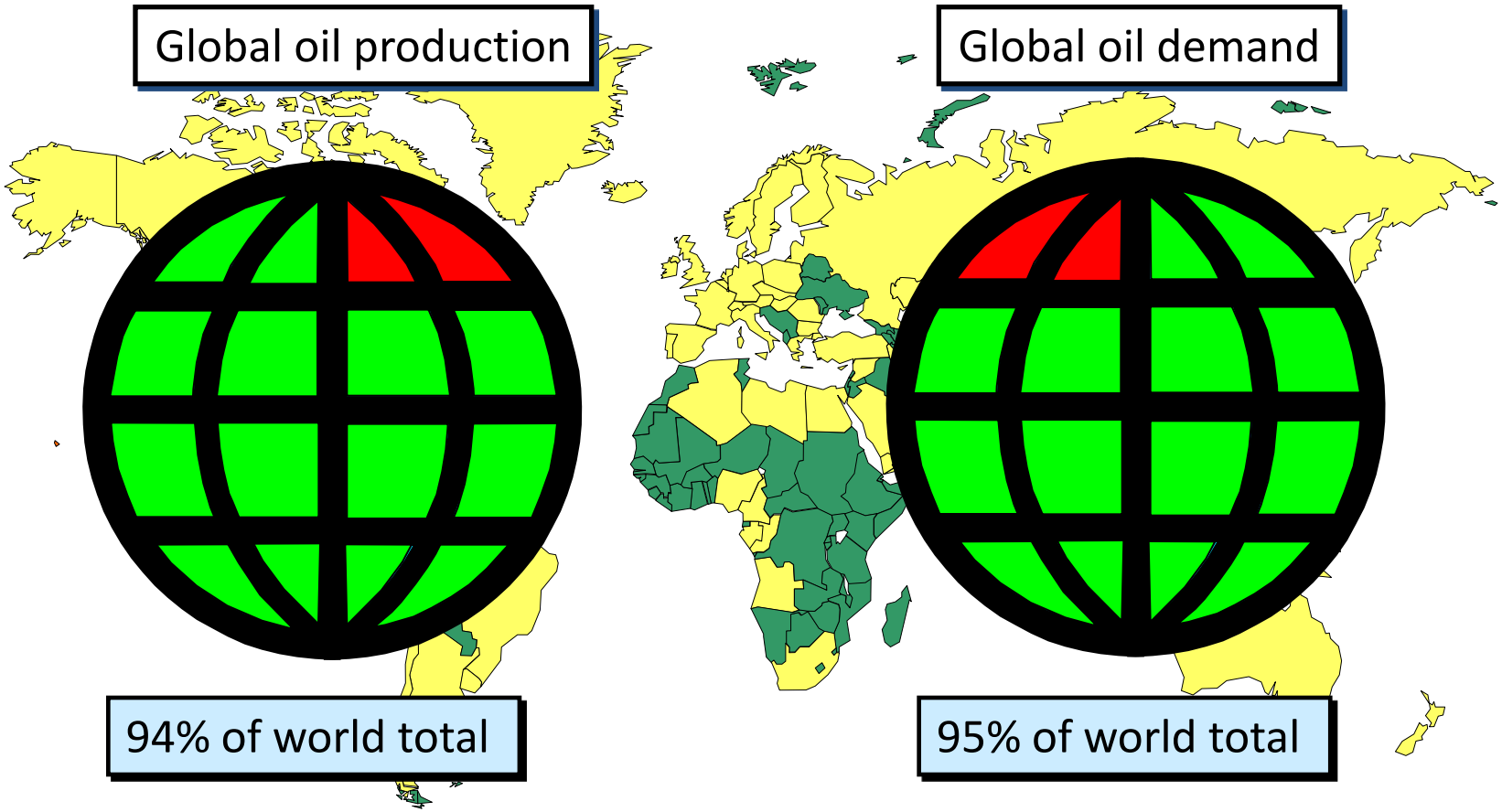
From JODE to JODI

The IEF took over the coordination and the organisations faced political pressure to release the database

2001 - 2005



The exercise met a great success and was several times extended



Decision was then taken to move from an exercise to a permanent reporting mechanism

A basic database was then created but not publicly opened

Beyond 20/20 Professional Browser - [Joint Oil Data Initiative Global data (Read-only)]

File Edit View Dimension Item Window Help

Product

Unit: Thousand Barrels per day (kb/d) | Product: Crude Oil | Balance: Production

TIME / Country	Nov2003	Dec2003	Jan2004	Feb2004	Mar2004	Apr2004	May2004	Jun2004	Jul2004
Algeria	0	0	1,316	1,278	1,263	1,254	1,258	1,276	1,270
Angola	0	0	0	0	0	0	0	0	0
Argentina	0	0	0	0	0	0	0	0	0
Australia	480	481	468	457	432	429	413	452	0
Brazil	1,481	1,481	1,457	1,452	1,480	1,449	1,421	1,482	0
Canada	2,043	2,056	1,978	2,018	2,012	2,009	1,992	2,070	2,034
China	3,395	3,097	3,450	3,483	3,401	3,445	3,480	3,516	0
Colombia	532	519	525	523	518	535	535	533	0
Egypt (Arab Rep.)	702	682	676	673	676	653	671	659	0
India	689	694	698	701	693	706	692	690	688
Indonesia	1,110	1,106	0	1,107	1,102	1,097	0	1,093	1,092
Iran (Islamic Rep.)	3,724	3,741	3,676	3,753	0	3,613	3,660	3,683	3,725
Iraq	[illegible]	[illegible]	0	0	0	0	0	0	0
Kazak[illegible]	[illegible]	[illegible]	0	[illegible]	977	993	974	0	984
Kuwait	[illegible]	[illegible]	2,066	2,036	2,026	2,130	2,100	2,200	0
Libya	[illegible]	[illegible]	1,460	[illegible]	[illegible]	[illegible]	1,574	1,626	1,661
Malaysia	819	859	851	[illegible]	[illegible]	[illegible]	822	0	0
Mexico	3,385	3,462	3,424	[illegible]	[illegible]	[illegible]	3,409	3,452	3,377
Nigeria	2,319	[illegible]	2,397	[illegible]	[illegible]	[illegible]	2,290	2,307	0
Norway	3,008	3,123	3,159	[illegible]	[illegible]	[illegible]	3,017	3,000	3,039
Oman	804	807	0	0	0	0	0	0	0
Qatar	0	0	0	0	0	0	0	0	0
Russian Federation	8,509	8,519	8,543	8,599	8,662	8,730	8,804	8,975	0
Saudi Arabia	8,045	8,333	8,038	8,121	7,987	7,774	8,695	9,365	9,491
Syria (Arab Rep.)	0	0	0	0	0	0	0	0	0
United Arab Emirates	2,124	2,198	2,283	2,305	2,184	2,[illegible]	[illegible]	[illegible]	[illegible]
United Kingdom	1,969	2,028	2,006	1,876	2,007	1[illegible]	[illegible]	[illegible]	[illegible]
United States of America	5,637	5,629	5,644	5,584	5,622	5[illegible]	[illegible]	[illegible]	[illegible]
Venezuela	2,698	2,455	0	0	0	[illegible]	[illegible]	[illegible]	[illegible]
Yemen	3,266	3,326	3,268	3,196	403	[illegible]	[illegible]	[illegible]	[illegible]
Total Top 30 Production	60,013	57,962	57,383	57,213	51,484	54,849	55,843	49,930	35,894

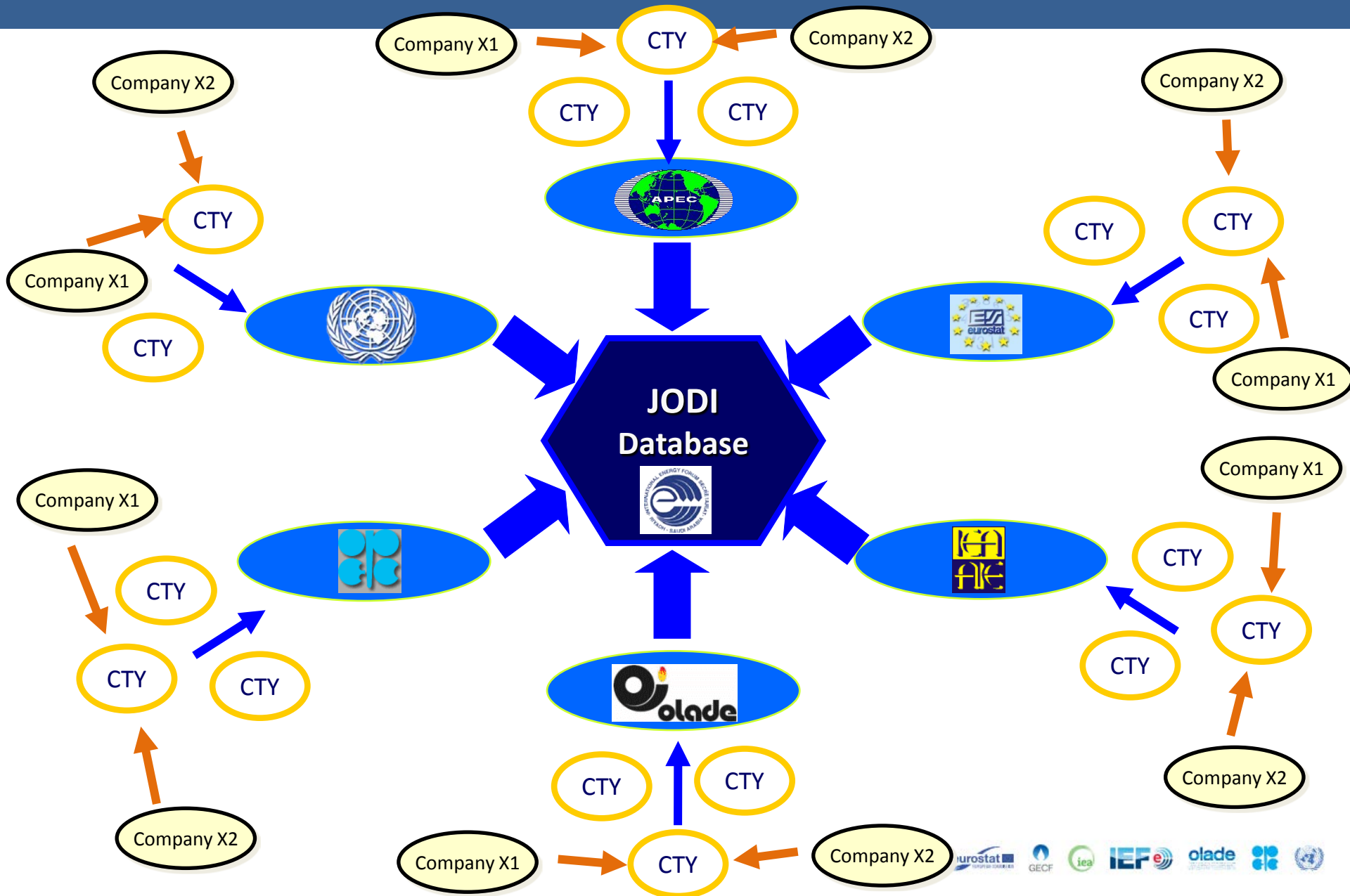
Breaks in data series

Missing values

No colour cells

For Help, press F1 | 7/7 | Crude Oil

The new and current reporting mechanism



Metadata data, Information and Data quality checks were added

Beyond 20/20 WDS - Table View - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address http://iefs-cmnn/WDS/TableViewer/tableView.aspx

Beyond 20/20 WEB DATA SERVER — English — Powered by Beyond 20/20

Reports | Joint Oil Data Initiative Global data | Help

Actions

OTHER: Unit - Thousand Barrels (kbbl) | Product - Total Products | Balance - Demand

TIME / Country	Jul2004	Aug2004	Sep2004	Oct2004	Nov2004	Dec2004	Jan2005	Feb2005	Mar2005	Apr2005	May2005	Jun2005	Jul2005	Aug2005
Hong Kong China	9,978	9,737	9,818	8,795	10,067	10,087	10,810	8,426	8,513	8,279	9,435	8,322	8,320	8,917
Hungary	3,902	4,018	4,047	4,388	4,316	4,482	3,750	3,518	4,105	4,120	4,526	4,279	4,627	4,120
Iceland	645	1,118	533	510	630	105	653	345	615	263	548	518	698	0
India	71,116	61,773	67,294	70,736	68,626	78,457	71,314	67,096	77,376	65,649	70,127	68,086	64,537	67,088
Indonesia	38,037	36,270	0	37,603	36,810	0	37,820	0	35,650	36,360	37,696	34,290	31,093	0
Iran (Islamic Rep.)	33,294	37,262	35,340	35,340	35,700	37,603	38,068	36,960	43,33[illegible]	35,310	36,828	0	40,424	41,819
Iraq	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ireland	4,762	4,790	5,191	5,473	4,881	[illegible],670	5,121	5,339	5,9[illegible]5	4,952	4,938	5,530	4,649	5,241
Italy	59,715	52,889	57,379	58,602	54,046	58,187	52,416	51,878	56,[illegible]86	52,613	51,936	52,205	55,036	51,041
Jamaica	1,188	1,123	995	1,170	1,204	124	[illegible]	[illegible]	[illegible]	[illegible]	0	0	0	0
Japan	160,497	166,360	151,021	161,008	158,607	187,922	183[illegible]	[illegible]	[illegible]	[illegible]	144,998	154,802	157,841	158,375
Kazakhstan	0	0	0	0	0	0	[illegible]	[illegible]	[illegible]	[illegible]	0	0	0	0
Korea	61,557	65,631	64,743	69,214	69,713	78,656	78,[illegible]	[illegible]	[illegible]	[illegible]	63,426	64,135	61,557	65,600
Kuwait	10,230	11,067	8,640	8,928	7,710	8,029	6,820	6,272	7,440	7,620	9,486	10,560	11,377	12,183
Latvia	704	837	829	1,048	1,024	1,384	1,196	1,298	1,243	1,353	1,306	1,181	1,134	1,212
Libya	5,983	6,293	5,550	6,634	6,660	6,386	7,533	6,356	7,285	7,080	7,00[illegible]	6,780	0	0
Lithuania	1,775	1,947	1,939	1,837	1,697	1,861	1,533	1,548	1,736	1,689	1,775	1,767	1,814	1,986

Quality checks

Done — Local intranet

The public launch took place on 19 November 2005

The launch of the database opened appetite for more data and for a similar initiative on natural gas

A call for a full oil balance

		Crude Oil
Production		
Imports		
Exports		
Stocks	Closing	
	Change	
Refinery Intake		

		Petroleum Products					
		LPG	Gasoline	Kerosene	Gas/Diesel Oil	Fuel Oil	Total Oil
Refinery Output							
Imports							
Exports							
Stocks	Closing						
	Change						
Demand							

NGL
Naphtha
Product transfers
Statistical Difference

Country _____

Month _____

		Crude Oil	NGL	Other	Total
Production					
From Other sources					
Imports					
Exports					
Product Transfers/Backflows					
Direct Use					
Stocks	Closing				
	Change				
Statistical Difference					
Refinery Intake					

				Kerosene		Dies		Products	Products
Refinery Output									
Receipts									
Imports									
Exports									
Products Transfers									
Inter Products Transfers									
Stocks	Closing								
	Change								
Statistical Difference									
Demand									

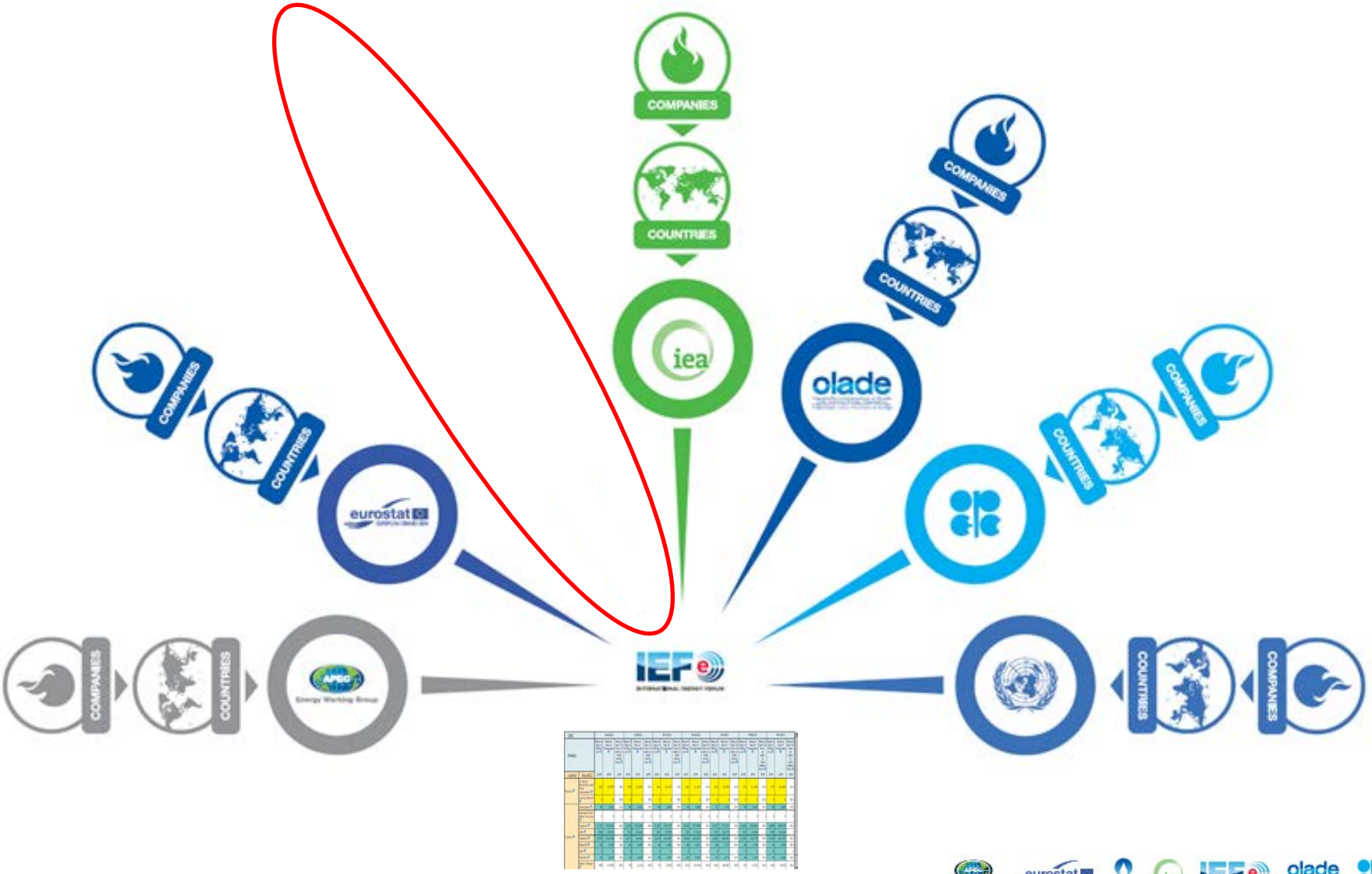
Other = Refinery Feedstocks+ Additives + Other Hydrocarbons

Receipts = Primary Product Receipts + Recycled Products
Other Products= Refinery gas + Ethane + Petroleum Coke + ... Par... + Other Petroleum Products

Total = 128 cells or 86 new cells
= New Cells'

Released at the IEF Ministerial in Kuwait March 2012

A call for duplicating the work on gas



A gas database was prepared and launched

Released at the IEF Ministerial in Moscow May 2014

TIME		Sep2012			Oct2012			Nov2012			Dec2012			Jan2013			Feb2013			Mar2013		
Product		Natural Gas in Million			Natural Gas in Terajoules		Natural Gas (in form of LNG) in 1000 metric tons	Natural Gas in Million m3	Natural Gas in Terajoules	Natural Gas (in form of LNG) in 1000 metric tons	Natural Gas in Million m3	Natural Gas in Terajoules	Natural Gas (in form of LNG) in 1000 metric tons	Natural Gas in Million m3	Natural Gas in Terajoules	Natural Gas (in form of LNG) in 1000 metric tons	Natural Gas in Million m3	Natural Gas in Terajoules	Natural Gas (in form of LNG) in 1000 metric tons	Natural Gas in Million m3	Natural Gas in Terajoules	Natural Gas (in form of LNG) in 1000 metric tons
Country																						
Tunisia	of w Electricity and Heat Generation	330	13,[illegible]	N/A	299	12,581	N/A	264	11,107	N/A	264	11,107	N/A	294	12,384	N/A	274	11,496	N/A	279	11,698	N/A
	Closing Stocks	0	0	N/A	0	0	N/A	0	0												0	N/A
Turkey	Production	47	1,812	N/A	68	2,622	N/A	44	1,686												6	N/A
	Receipts from Other Sources	0	0	0	0	0	0	0	0												0	0
	Imports	3,747	143,510	N/A	3,214	123,090	N/A	4,025	154,173												8	N/A
	LNG	694	26,572	0	743	28,460	0	881	33,750												8	0
	Pipeline	3,053	116,938	N/A	2,471	94,630	N/A	3,144	120,423												0	N/A
	Exports	53	2,013	N/A	64	2,453	N/A	38	1,461												6	N/A
	LNG	0	0	0	0	0	0	0	0												0	0
	Pipeline	53	2,013	N/A	64	2,453	N/A	38	1,461												6	N/A
	Stock Change	380	14,583	N/A	56	2,116	N/A	76	2,943												0	N/A

A need to change logos and names to keep track of development

Joint Oil Data Initiative

Organisations: APEC, Eurostat, IEF, IEA, OLADE, OPEC, UNSD, (GECF for gas)

JODI: Much more than a database…

Draw the attention on statistics issues

Raise the profile of statistics and statisticians

Improve oil/gas data coverage

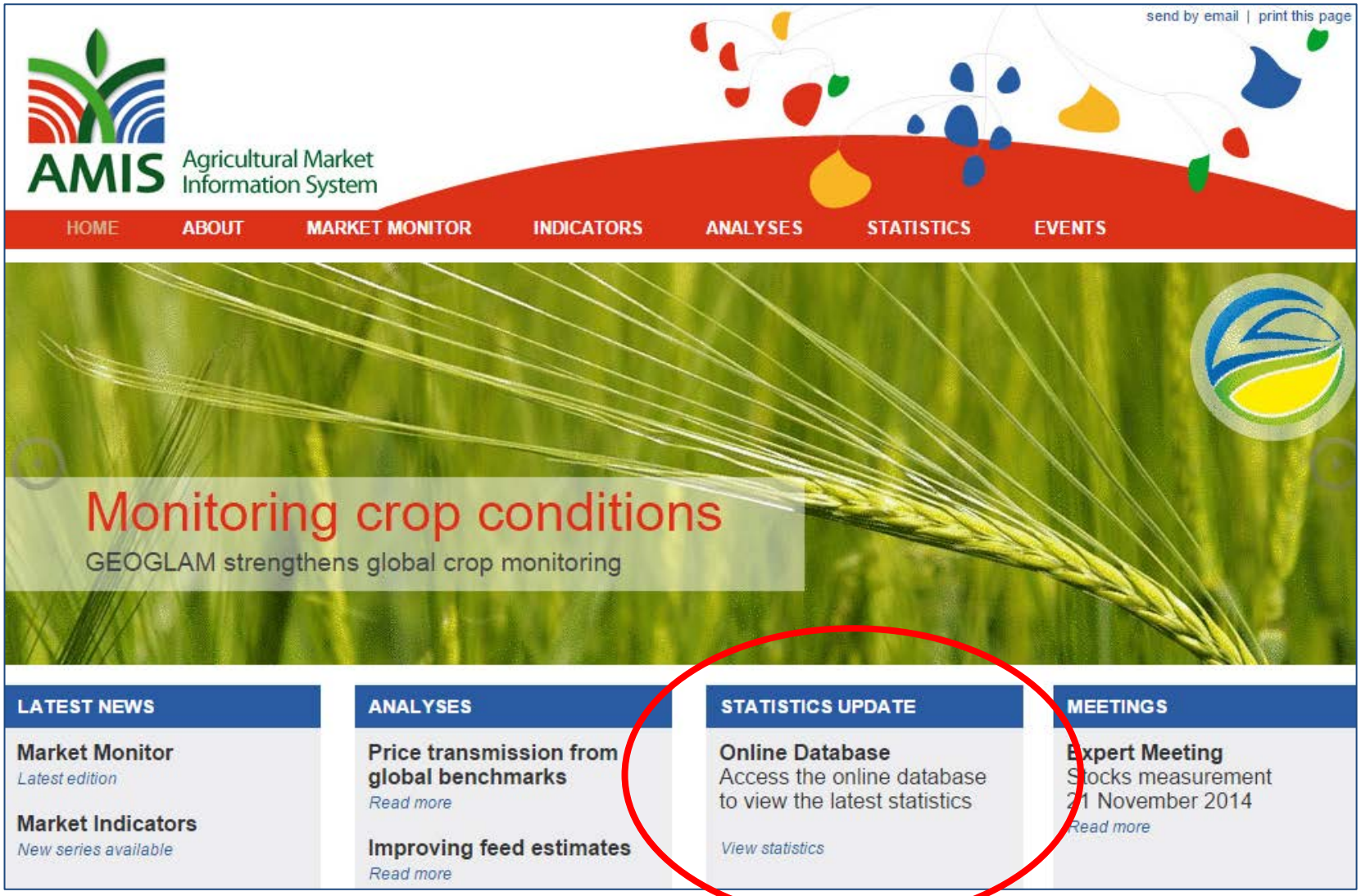
Improve timeliness

Improve overall oil/gas data transparency

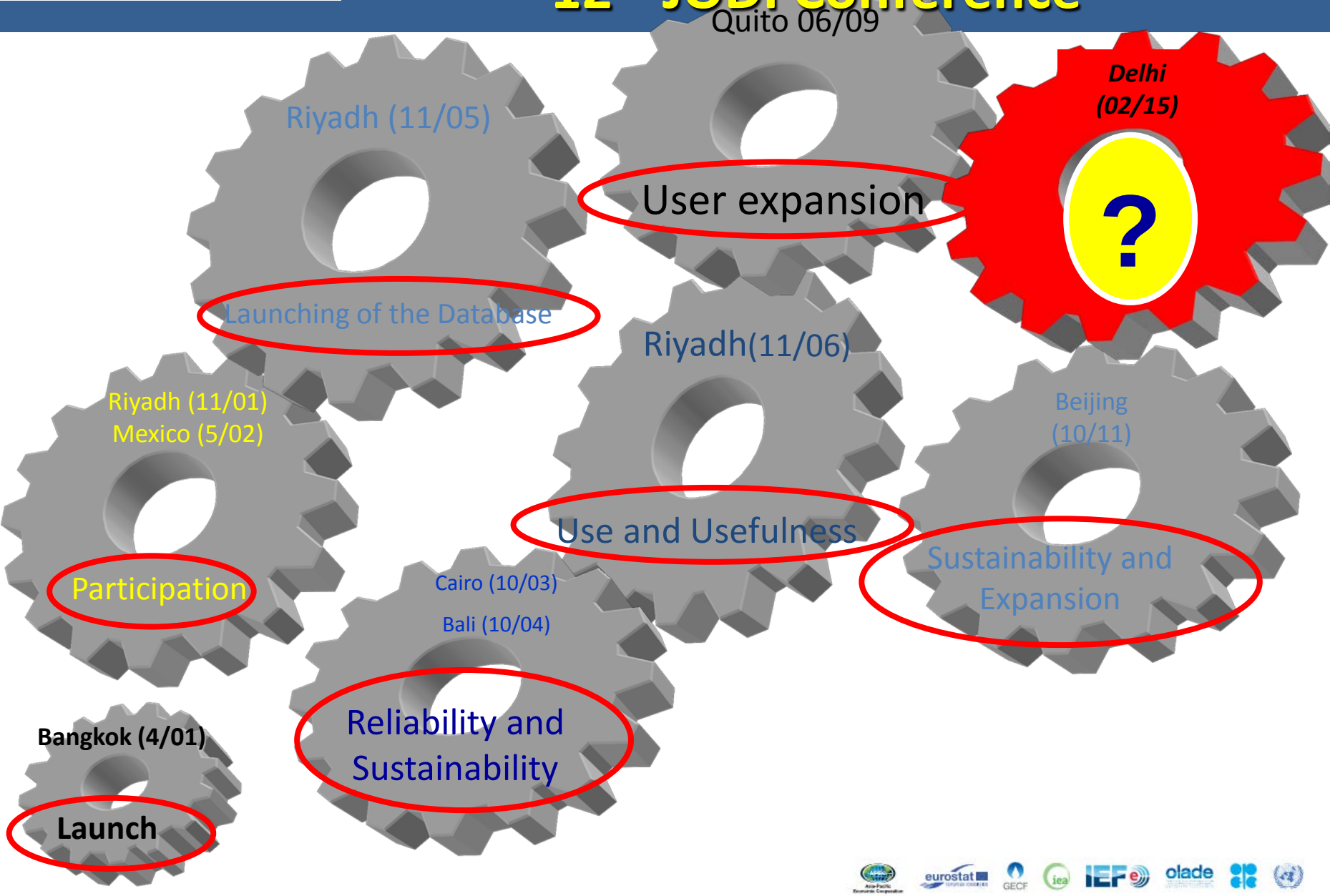
Strengthen cooperation between organisations

Initiate the definition harmonisation process

AMIS: a child of JODI



What will be the outcomes of the 12th JODI Conference



Achieve 100% transparency (issues on stocks)

Improve data quality

Complete time series

Make JODI a database for all public and not only for grownups

Bring gas to same level as oil

Make the databases better known and used

It is only when bases are solid one can look for further development

JODI has certainly improved transparency

JODI has certainly improved transparency
However to achieve full transparency…

It is up to each company, country and organization to decide and act.

Thank you.