A Brief Introduction to JODI & the JODI-Oil Data Collection
Outline

- Background & Main Objectives
- Questionnaires
- Available data & Umbrella Definitions
- The JODI Oil Database
- Abbreviations & Acronyms
- JODI Oil Data Performance Assessment
Background on the Joint Organisations Data Initiative (JODI)

- The Joint Organisations Data Initiative (JODI) is a concrete outcome of the producer-consumer dialogue. In 2001, six pioneering organisations (APEC, Eurostat, IEA, OLADE, OPEC and UNSD) answered the call by Energy Ministers at the 7th IEF Ministerial in 2000 in Riyadh to address the issue of the lack of data transparency in oil markets, seen as a cause of excessive price fluctuations, and established the Joint Oil Data Exercise (JODE).

- The Initiative was established as a permanent mechanism in 2003 and JODI, the "Joint Oil Data Initiative" was born. Following endorsement by Ministers, the IEF Secretariat assumed the role and responsibility as the co-ordinator of Jodi in January 2005.

- The JODI Oil Database was publicly released in 2005 and has been enhanced with additional data in 2009.

- The JODI partners’ successful establishment of oil data provision architecture inspired IEF Ministers to call for an extension of the Initiative to cover natural gas (JODI-Gas).

- To accommodate progress on these new challenges beyond oil data transparency, the seven Jodi partner organisations have now re-branded Jodi as the Joint Organisations Data Initiative (JODI).

- The JODI Gas Database was publicly released in 2014.
JODI Main Objectives

• The JODI provides a reliable, freely accessible and comprehensive database of energy statistics unlike any other in the world. Through the use of official national data, which can be difficult if not impossible to access through alternative avenues, JODI offers a fair assessment of global oil consumption and production on a monthly basis.

• Data uncertainty can be detrimental to fair market operations. By improving data transparency, undue price volatility can be moderated, increasing investor confidence and contributing to greater stability in energy markets worldwide.

• JODI, as databases and broader collaborative, is instrumental to the pursuit of complete energy data transparency.
JODI Oil Questionnaires & Submission

• Deadline for submission is the 25th of each month.

• Countries submit their data to the organisation(s) they belong to in the unit of their choice (barrels, tons or litres). Information about definitions of flows/products is available on the JODI website. The JODI Manuals can be downloaded from the JODI website and provides additional information about the methodology and definitions used in JODI.

• The extended JODI-Oil questionnaire

• After a two year trial period, the seven JODI partner organisations implemented an extended JODI Oil questionnaire following endorsement by the 7th International JODI-Oil Conference in Quito. This extended format gives a more complete picture of the market and allows for a more accurate supply / demand assessment.

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<th>Crude Oil</th>
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<td>Refinery Intake</td>
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LPG  | Gasoline | Kerosene | Gas/Diesel Oil | Fuel Oil | Total Oil

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The Extended JODI Oil Questionnaire
The Extended JODI Oil Questionnaire

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<th>Crude Oil</th>
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Available Data in the JODI Oil Database & Umbrella Definitions

Flows

• **Production**
  Marketed production, after removal of impurities but including quantities consumed by the producer in the production process.

• **From Other Sources**
  Inputs of additives, biofuels and other hydrocarbons that are produced from non-oil sources such as: coal, natural gas or renewables.

• **Imports/Exports**
  Goods having physically crossed the international boundaries, excluding transit trade, international marine and aviation bunkers.

• **Products Transferred/Backflows**
  Sum of Products transferred and Backflows from the petrochemical industry.

• **Stock Changes**
  Closing minus opening level. Positive number corresponds to stock build, negative number corresponds to stock draw.

• **Statistical Difference**
  Differences between observed supply flows and Refinery intake or Demand.

• **Refinery Intake**
  Observed refinery throughputs.
Available Data in the JODI Oil Database & Umbrella Definitions

**Flows (2)**

- **Refinery Output**
  Gross output (including refinery fuel).

- **Receipts**
  Primary product receipts (quantities of oil used directly without processing in a refinery) + recycled products. Receipts for Other oil products include direct use of crude oil and NGL.

- **Products transferred**
  Imported petroleum products which are reclassified as feedstocks for further processing in the refinery, without delivery to final consumers.

- **Interproduct transfers**
  Reclassification of products, because their specification has changed, or because they are blended into another product: a negative indicates a product that will be reclassified, a positive shows a reclassified product. Interproduct transfers for Other oil products include interproduct transfers of Crude oil and NGL.

- **Demand**
  Deliveries or sales to the inland market (domestic consumption) plus Refinery Fuel plus International Marine and Aviation Bunkers. Demand for Other oil products includes direct use of Crude oil, NGL, and Other.
Available Data in the JODI Oil Database & Umbrella Definitions

**Products**

• **Crude Oil**
  Including lease condensate - excluding NGL.

• **NGL**
  Liquid or liquefied hydrocarbons recovered from gas separation plants and gas processing facilities.

• **Other**
  Refinery feedstocks + additives/oxygenates + other hydrocarbons.

• **Total**
  Sum of categories (1) to (3) Total = Crude oil + NGL + Other.

• **LPG**
  Comprises propane and butane.

• **Naphtha**
  Comprises naphtha used as feedstocks for producing high octane gasoline and also as feedstock for the chemical/petrochemical industries.

• **Motor and aviation gasoline**
  Comprises motor gasoline and aviation gasoline.
Available Data in the JODI Oil Database & Umbrella Definitions

Products (2)

• **Kerosenes:**
  Comprises kerosene type jet fuel and other kerosene.

• **of which: Kerosene type jet fuel:**
  Aviation fuel used for aviation turbine power units. This amount is a subset of the amount reported under Kerosenes.

• **Gas/diesel oil:**
  For automotive and other purposes.

• **Fuel oil:**
  Heavy residual oil / boiler oil, including bunker oil.

• **Other oil products:**
  Refinery gas, ethane, petroleum coke, lubricants, white spirit & SPB, bitumen, paraffin waxes and other oil products.

• **Total oil products:**
  Sum of categories (5) to (12) excluding (9). Demand for Total products includes direct use of Crude oil, NGL and Other
The JODI Oil Database

Data Downloads

Complete data series for all products, flows and countries, from January 2002 to one month-old can be downloaded, for free, in .mt (Beyond 20/20), .csv and .txt formats.

List of short names and their corresponding full names in the JODI-Oil World Database

- Download the extended csv - primary the extended csv - secondary
  (last column displays the colour codes: 1 for blue, 2 for yellow and 3 for white)
- Download the extended mt
- JODI-Oil monthly data availability by country (in Excel file)

Extended JODI-Oil World Database is available with data (in B20/20 mt file) starting from January 2009.
(to read .mt file you need to install first the Beyond 20/20 Browser).
Download & install the B2020 browser from the JODI website
Abbreviations & Acronyms in JODI

- APEC.............................Asia Pacific Economic Cooperation
- API gravity..................American Petroleum Institute gravity
- ARA..............................Amsterdam - Rotterdam - Antwerp
- b/d................................barrels per day
- bbl..................................barrel
- bcm...............................billion cubic meters
- BFOE.............................Barrel of Fuel Oil Equivalent
- BTU/lb..........................British Thermal Unit per pound
- CFBP............................Comité Français du Butane et du Propane
- cSt.................................centistoke
- EBV...............................German Oil Storage Association
- Eurostat..........................Statistical Office of the European Communities
- Gcal..............................Giga calories
- GWh...............................Giga Watt hour
- IATA.............................International Air Transport Association
- IEA...............................International Energy Agency
Abbreviations & Acronyms in JODI

- IEF.................................International Energy Forum
- J..........................................Joule
- JODI.................................Joint Organisations Data Initiative
- kg/l.................................kilogrammes per litre
- kg/m3...............................kilogrammes per cubic meter
- LNG.................................Liquefied Natural Gas
- LPG.................................Liquefied Petroleum Gas
- M-1................................Read as M minus one: the month previous to the current month
- M-2................................Read as M minus two: two months previous to the current month
- MOS.................................Monthly Oil Statistics
- Mtoe.................................Million tonnes of oil equivalent
- NATO.................................North Atlantic Treaty Organisation
- NGL.................................Natural Gas Liquids
- NPD.................................Norwegian Petroleum Directorate
- OLADE..............................Latin-American Energy Organisation
- OPEC.................................Organisation of Petroleum Exporting Countries
- RON.................................Research Octane Number
Abbreviations & Acronyms in JODI

- SBP.................................Industrial Spirit
- SEATO............................South East Asia Treaty Organisation
- SI Units.............................Système International d’Unités
- SPR.................................Strategic Petroleum Reserve
- TJ....................................Tera Joule
- toe...................................tonnes of oil equivalent
- UFIP.................................Union Française des Industries Pétrolières
- ULCC...............................Ultra Large Crude Carrier
- UNSD..............................United Nations Statistics Division
The assessment was carried out on different levels:

• Comparability of the JODI data with other sources: monthly data from national and secondary sources has been assessed.

• JODI data have also been compared with annual data (when available) in order to check whether the levels and trend over the years could be confirmed.

• When no other sources were available for comparison with the JODI data, internal consistency and balance check have been carried out.

✓ Examples of internal consistency checks: the sum of all the reported products with reported figure for Total Products is compared. When both, closing and stock changes data have been submitted, the consistency of the reported changes with the calculated ones is compared.

✓ Example of balance check: the JODI Questionnaire does not collect full balance information, however some basic checks for reasonableness can be carried out e.g. supply + import - export + stock change should have a relation with demand.

Colour Coding

Blue: A blue background indicates that results of the assessment show reasonable levels of comparability

Yellow: A yellow background indicates that the metadata should be consulted

White: A white background indicates that data has not been assessed
**Sustainability**

Sustainability measures the number of [JODI-Oil questionnaires](#) received from each participating country or economy over the assessment period (six months) and within the agreed submission deadlines. A Good rating (smiley face), is earned when a country or economy submits JODI questionnaire responses for all six months in the period.

- "good" if the 6 questionnaires have been submitted 🌟
- "fair" if 4 or 5 questionnaires have been submitted 😊
- "less reliable" when less than 4 questionnaires have been submitted 😞
JODI-Oil Data Performance Assessments

**Timeliness**

Timeliness evaluates whether or not data has been received within two months of the end of each reference month in accordance with the data submission deadlines established by the JODI Partner Organisations. A smiley face is awarded if all six submissions within a given assessment period were received by the agreed deadlines.

"good" when all 6 submissions during the assessment period have been received within two months of the end of the reference month relevant to each submission ☺

"fair" when 4 or 5 submissions have been received on time 😐

"less reliable" when less than 4 submissions have been received on time 😞
Completeness

Completeness tracks the number of data points submitted out of the maximum in the JODI Questionnaire. To earn a smiley face, each country or economy must submit more than 90% of its data related to production, demand and stock changes.

"good" when more than 90% of the data are given for production, stock change/closing and demand 😊

"fair" when between 60% and 90% of the data are given 😐

"less reliable" when less than 60% of the data are given 😞
Thank You