



World  
Energy  
Review  
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In **2022** the energy market, which was gradually recovering from Covid pandemic, experienced a **new discontinuity due to the Russian invasion of Ukraine**.

**The war had major ramifications on the global economy**, the drastic change in the monetary policies of Central Banks, the need to reconsider energy flows with the exclusion of Russia's oil and gas volumes.

In the World Energy Review (WER), now at its 22nd edition, the evolution of the main energy variables is depicted: oil, gas, new renewables and critical minerals. Specifically, in 2022, the following highlights emerge:

- **World Energy Mix** - World **primary energy consumption** grows at a rate close to 1% vs. 2021, confirming the almost unbroken trend of recent decades. In terms of composition, fossil fuels continue to cover about 80% of energy demand, an amount that has been essentially stable for 30 years. The share of renewables (solar and wind) in the energy mix grows, but their weight still remains limited, at just 3%.
- **Oil - Prices** up 43% y/y (Brent at 101.2 \$/b), amid continuing **demand** growth (+2.2 Mb/d) to 100 Mb/d, almost fully recovering from the pandemic-related loss (-0.7% vs 2019) with an equal contribution between OECD (+1.1 Mb/d) and non-OECD (+1.1 Mb/d). World oil **production** increases by 4.3 Mb/d, with growth concentrated in Gulf OPEC countries due to the unwinding of 2020 cuts. In terms of **crude quality**, a halt in the barrel lightening process is confirmed, with a slight decrease in the share of Light crudes in favor of Medium and Heavy crudes. **Net refining capacity** returns to grow in 2022 with the entry of new projects in the Middle East and China amounting to just under 2 Mb/d.
- **Gas - Prices** reach significantly high levels directly affecting downstream commodities, foremost among them electricity, with major impacts on consumers, governments, production systems, and the entire global economy. Thermal year 2021/22 begins with significantly reduced inventories and gas prices 7 times higher than on October 1, 2020. Europe compensates the shortfall in pipeline imports from Russia mainly by attracting additional **LNG** volumes, pays higher prices, and loses its traditional role as a global balancer by becoming the premium market capable of generating pressure on all major gas price indices. Global gas demand overall in 2022 falls by more than 1%, after a post-pandemic rebound in 2021 (~+5%), with divergent dynamics on a global scale: sharp braking in Europe, Russia, and Asia, only partially offset by growth in the US and Middle East.
- **Renewables** - Although installations have been growing exponentially in recent years, the share of solar and wind in the electricity generation mix has risen to just above 10%, compared with more than 60% generated by fossil fuels (including 36% of the total generated by coal).
- **Critical minerals (cobalt, copper, lithium, nickel, rare earths and silicon)** - They play a key role in some key transition-related technologies: batteries (cobalt, lithium and nickel), wind (rare earths) and solar (silicon). Most of them show significant growth in terms of production, also reflecting increased demand. Nickel and lithium mark the largest increase (over 20%).

Finally, it is worth mentioning how the new energy setup has also affected CO<sub>2</sub> emissions from fuel combustion, which spiked again (+1%, after the post covid recovery recorded in 2021), resulting from the increase in coal consumption.



**Claudio Descalzi**  
Chief Executive Officer and General Manager

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# Introduction



LIST OF COUNTRIES

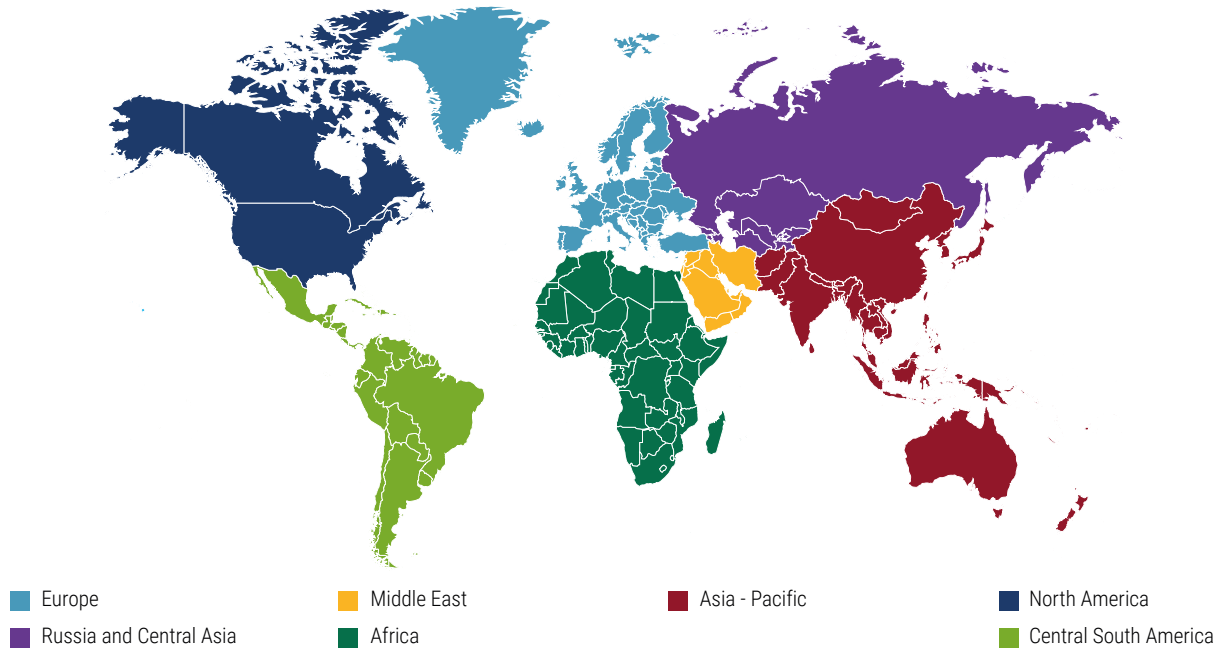


NOTES AND METHODS



WORLD ENERGY MIX

## List of Countries



### List of Countries:

- **Europe:** Albania, Austria, Belarus, Belgium, Bosnia Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Gibraltar, Greece, Hungary, Iceland, Ireland, Italy, Kosovo, Latvia, Lithuania, Luxembourg, Malta, Moldova, Montenegro, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye, Ukraine and United Kingdom.
- **Russia and Central Asia:** Russia, Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan.
- **Middle East:** Bahrain, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syria, United Arab Emirates and Yemen.
- **Africa:** Algeria, Angola, Benin, Cameroon, Chad, Congo, Côte d'Ivoire, Dem. Rep. Congo, Egypt, Equatorial Guinea, Ethiopia, Gabon, Ghana, Kenya, Libya, Madagascar, Mauritania, Morocco, Mozambique, Namibia, Niger, Nigeria, Rwanda, Senegal, Sierra Leone, Somalia, South Africa, South Sudan, Sudan, Tanzania, Tunisia, Uganda, Zambia and Zimbabwe.
- **Asia - Pacific:** Afghanistan, Australia, Bangladesh, Bhutan, Brunei, China, East Timor, Hong Kong, India, Indonesia, Japan, Malaysia, Mongolia, Myanmar, Nepal, New Zealand, North Korea, Pakistan, Papua New Guinea, Philippines, Singapore, South Korea, Sri Lanka, Taiwan, Thailand and Vietnam.
- **Americas:** North America and Central South America.
- **North America:** Canada and the United States.
- **Central South America:** Argentina, Barbados, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Curacao, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Suriname, Trinidad and Tobago, Uruguay and Venezuela.
- **European Union 27:** Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain and Sweden.
- **OECD:** Australia, Austria, Belgium, Canada, Chile, Colombia, Costa Rica, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Latvia, Lithuania, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovakia, Slovenia, South Korea, Spain, Sweden, Switzerland, Türkiye United Kingdom and United States.
- **OPEC:** Algeria, Angola, Congo, Equatorial Guinea, Gabon, Iran, Iraq, Kuwait, Libya, Nigeria, Saudi Arabia, United Arab Emirates and Venezuela.
- **MENA (Middle East and North Africa):** Bahrain, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syria, United Arab Emirates, Yemen and Algeria, Egypt, Libya, Morocco and Tunisia.

This Review adopts the most commonly used names for countries and not necessarily the official name.

The names used do not in any way indicate the opinion of Eni on the legal status of countries, territories, cities or areas mentioned. The term "country" is used to indicate, when necessary, also a territory or area. Borders between countries are indicated on the maps and do not imply judgement of any kind or the position of Eni with regard to current international disputes. This Review has been prepared by the Market Scenarios and Strategic Options Unit.

## Notes and Methods

### Oil

The sources of the data are: CME, DECC, EIA DOE, Enerdata, Energy Intelligence, ICE, ICIS Consulting, International Energy Agency, IHS Global Insight, Italian Ministry for Ecological Transition, JODI, Norwegian Petroleum Directorate, Oil & Gas Journal, OPEC, S&P Global Platts, Wood MacKenzie and other official sources.

In all the chapters of oil, in some countries figures may include oil from non conventional sources and others sources of supply.

The figures for “Reserves” refer to proven reserves as at 31<sup>st</sup> December. The figures for other chapters indicate annual averages.

Blank spaces in the tables indicate that the figure was not available, zero indicates a figure that is not significant (except for the chapters “Production Quality” where “zero” is used for both not available and not significant figures). Total may differ from the sum of the individual figures as a result of rounding up/down. Percentages have been calculated before rounding.

### Supply and Demand - Trade and Prices

The difference between the Consumption and the Production of oil is given by the change in stocks, the processing gains obtained in refining and the amount of biofuels which is not included in Production.

In all the chapters, the list of the “The world top 10...” is drawn up by ordering the countries on the basis of the last available year. In the chapters “Reserves/Production Ratio” and “Production/Consumption Ratio”, the list of the “The world top 10...” is drawn up by selecting the largest producers in the last available year and ordering them on the basis of the value of the reserves/production and production/consumption ratio. In the chapter “Per Capita Consumption”, the list of the world top is drawn up by selecting the largest consumers in the last available year and ordering them by the value of per capita consumption.

### Production Quality

In the chapter “Production Quality” figures for total oil production in each area or country do not coincide with the figures in the “Production” chapter of the Review. This is due to the exclusion of natural gas liquids and extra heavy crude from the figures for the first (except for Venezuela). Moreover, it has not been possible to allocate or define total production. In some countries the ‘Ultra Light’ category also includes, in total or in part, the production of condensates. For Canada the production includes syncrude.

API degree is used universally to express a crude’s relative density. The arbitrary formula used to obtain it is:  $API\ gravity = (141.5/SG\ at\ 60^{\circ}F) - 131.5$ , where SG is the specific gravity of the fluid. Lighter the crude, higher the API gravity. The API scale was designed so that most values would fall between 10 and 70 API gravity degrees. Fresh water has an API density of 10.

Atmospheric distillates yields are obtained according to TBP (True Boiling Point) technique, ASTM D2892 procedure. Figures are expressed in mass percentage.

For the definition of the qualitative parameters for single crudes, the data of “Eni-R&M downstream laboratories” have been used, wherever possible. Quality levels, indicating API gravity and sulphur content, are defined as follows.

#### Quality levels - API gravity and sulphur content

<b>Ultra Light</b>	API level equal to or greater than 50° and a low sulphur content
<b>Light &amp; Sweet</b>	API level equal to or greater than 35° and less than 50°, sulphur content less 0.5%
<b>Light &amp; Medium Sour</b>	API level equal to or greater than 35° and less than 50°, sulphur content equal to or greater than 0.5% and less than 1%
<b>Light &amp; Sour</b>	API level equal to or greater than 35° and less than 50°, sulphur content equal to or greater than 1%
<b>Medium &amp; Sweet</b>	API level equal to or greater than 26° and less than 35°, sulphur content less 0.5%
<b>Medium &amp; Medium Sour</b>	API level equal to or greater than 26° and less than 35°, sulphur content equal to or greater than 0.5% and less than 1%
<b>Medium &amp; Sour</b>	API level equal to or greater than 26° and less than 35°, sulphur content equal to or greater than 1%
<b>Heavy &amp; Sweet</b>	API level equal to or greater than 10° and less than 26°, sulphur content less 0.5%
<b>Heavy &amp; Medium Sour</b>	API level equal to or greater than 10° and less than 26°, sulphur content equal to or greater than 0.5% and less than 1%
<b>Heavy &amp; Sour</b>	API level equal to or greater than 10° and less than 26°, sulphur content equal to or greater than 1%

## Refining Industry

The "Refining Capacity" set of tabulations provides the following information:

- Refineries: includes asphalt and lube oriented units, when dedicated topping capacity is present. Condensate refineries are included.
- Primary Capacity: represents a pro rated annual average of available capacity, excluding turnarounds.
- Conversion Capacity (FCC eqv.): sum of conversion capacity, converted to "Catcracking (FCC) equivalent" capacity. "FCC equivalent" capacity equals 1; other conversion capacities can be higher or lower than 1 (the equivalent factors are reported below in the next table).
- Complexity Ratio - FCC eqv.: ratio of Conversion Capacity (converted to FCC equivalent) over Primary Capacity, calculated on a weight basis. The higher is the complexity index, the higher is the capability of a refinery to produce high equivalent quality and value products.
- Complexity Ratio - NCI (Nelson Complexity Index): is another measure of secondary conversion capacity in comparison to the primary distillation capacity. The units are rated in terms of their costs relative to the primary distillation unit. The higher is the index the higher is the capability of a refinery to produce high quality and value products.

The equivalent factors for the FCC equivalent calculation, reported below, change according to the type and the configuration of the conversion unit and are from ICIS Consulting. The factors for the Nelson calculation are standard factors, modified as necessary by Eni. Oxygenates and Aromatics are excluded.

Conversion type			Conversion type		
Alkylation	0.00	10.00	Hydrodesulf-diesel	0.00	2.50
Alkylation-hydrofluoric	0.00	10.00	Hydrodesulf-gasoline	0.00	2.50
Alkylation-sulfonic	0.00	10.00	Hydrodesulf-kero	0.00	2.50
Asphalt	0.25	1.50	Hydrodesulf-mid-distillates	0.00	2.50
Coking-delayed	1.35	6.00	Hydrodesulf-naphta	0.00	2.50
Coking-f/d	1.35	6.00	Hydrodesulf-residue	0.20	2.50
Coking-fluid	1.35	6.00	Hydrodesulf-gvgo	0.05	2.50
Coking-fxc	1.35	6.00	Isomerization-c4	0.00	15.00
Condensate distillation	0.00	1.00	Isomerization-In	0.00	15.00
Crude	0.00	1.00	Lube	0.50	60.00
Deasphalting	0.00	1.50	Polymerization	0.00	10.00
Deasphalting-c3	0.00	1.50	Reforming-aromax	0.00	5.00
Deasphalting-c4	0.00	1.50	Reforming-btx	0.00	5.00
Deep catcracking	1.10	6.00	Reforming-cc	0.00	5.00
Distillate dewaxing	0.10	85.00	Reforming-cyclic	0.00	5.00
Fluid cat-cracking	1.00	6.00	Reforming-lpg feed	0.00	5.00
Fluid catcracking-residue	1.90	6.00	Reforming-sr	0.00	5.00
Heavy residual gasification	1.30	12.00	Thermal cat-cracking	0.80	2.75
Hydrocracking-distillates	1.30	6.00	Thermal cracking	0.65	2.75
Hydrocracking-mild	0.30	6.00	Vacuum	0.00	2.00
Hydrocracking-residue	0.40	6.00	Visbreaking	0.25	2.75

## Natural Gas - Renewables

The sources of the data are: Cedigaz, DECC, EIA DOE, Enerdata, International Energy Agency (IEA), International Renewable Energy Agency (IRENA), IHS Global Insight, Italian Ministry for Ecological Transition, Norwegian Petroleum Directorate, Oil & Gas Journal, OPEC, Wood MacKenzie and other official sources.

Blank spaces in the tables indicate that the figure was not available, zero indicates a figure that is not significant (except for the two chapters "**Imports by Country of Origin**" and "**LNG Liquefaction and Regasification Capacity**" in the section "Natural Gas" and for the whole section "Renewables").

Total may differ from the sum of the individual figures as a result of rounding up/down.

Percentages have been calculated before rounding.

In all the chapters of natural gas, the figures of some countries may include natural gas from non conventional sources and others sources of supply.

The figures for "**Reserves**" of natural gas refer to proven reserves as at 31<sup>st</sup> December. The figures for other chapters indicate annual averages.

In the chapters "**Production**", "**Consumption**", "**Exports**" and "**Imports**" of natural gas, figures are assessed by using the same calorific value per cubic metre (40 MJ/cm, GCV), in order to make data among countries comparable.

In the chapter "**Production**" of natural gas, the figures concern traded production and do not include quantities of flared, dispersed or re-injected gas.

In the chapter "**Imports**" of natural gas, the figure reported as total imports for a single country may differ from the sum of "Imports by LNG and pipeline" for the same country, because of the different sources and different calorific attached to the cubic metre. The imports of liquefied natural gas cover only the dry marketable equivalent after regasification.

In all the chapters, the list of the "The world top 10 or 5..." is drawn up by ordering the countries on the basis of the last available year. In the chapters "**Reserves/Production Ratio**" and "**Production/Consumption Ratio**" of natural gas, the list of the "The world top 10..." is drawn up by selecting the largest producers in the last available year and ordering them on the basis of the value of the reserves/production and production/consumption ratio. In the chapter "**Per Capita Consumption**" of natural gas, the list of the world top is drawn up by selecting the largest consumers in the last available year and ordering them by the value of per capita consumption.

In the chapter "**Trade and Prices**" of natural gas, the annual averages of gas prices are calculated by taking into account the delivery period of the quotations.

## Critical Minerals

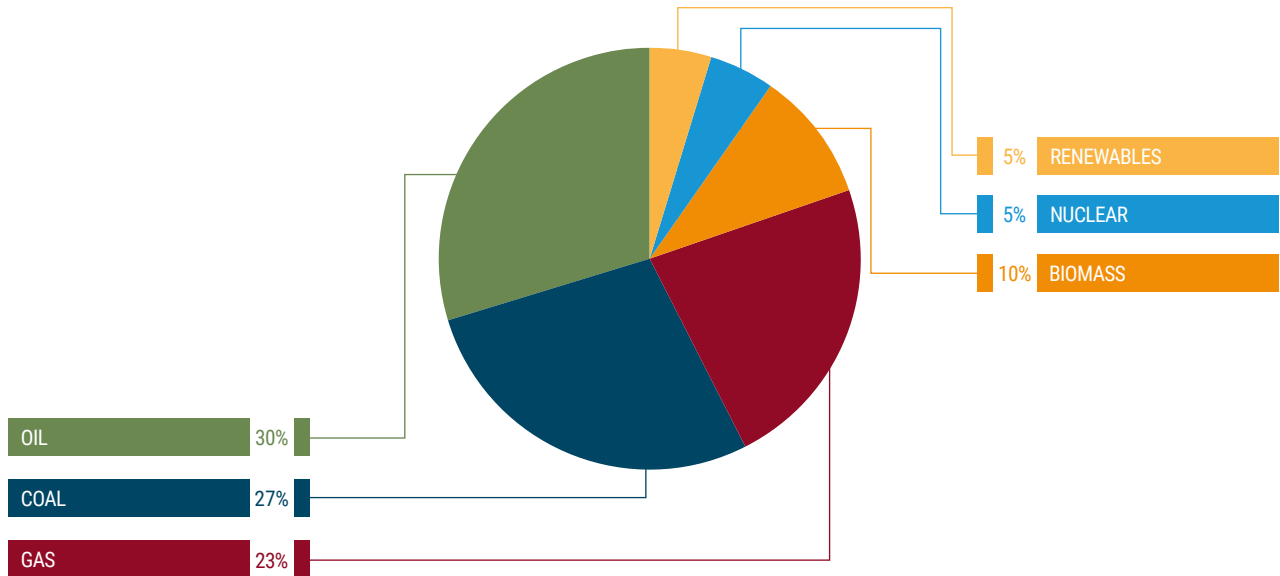
The source of the data is U.S. Geological Survey.

In all the chapters, the list of the "The world top 10..." is drawn up by ordering the countries on the basis of the last available year.

# World Energy Mix

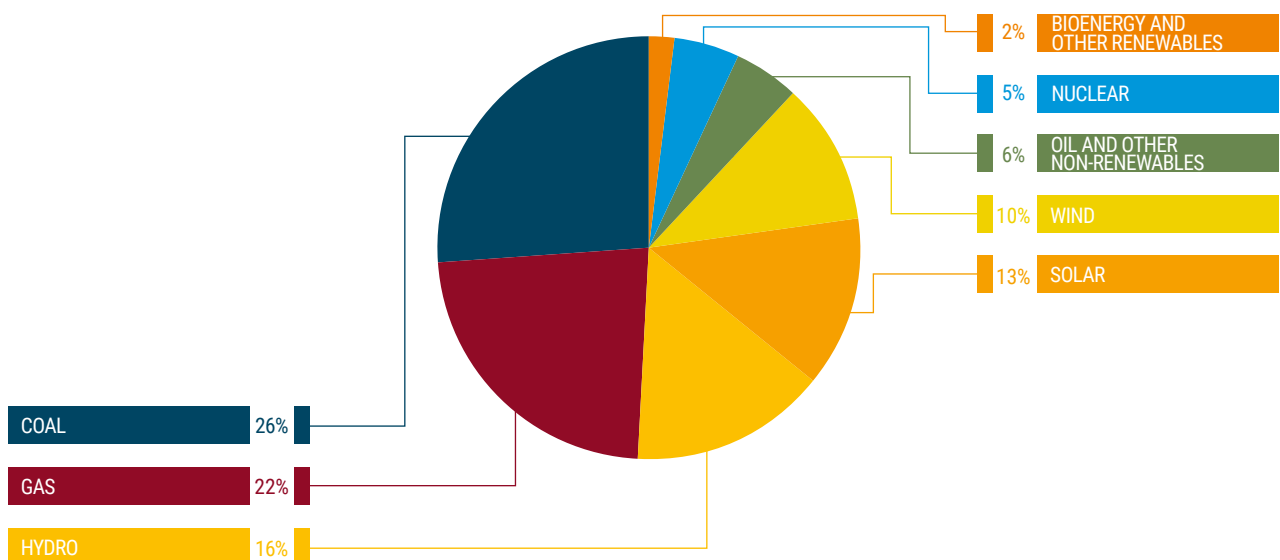
## World Energy Mix 2022<sup>(\*)</sup>

(~15 Gtoe)



## World Power Capacity Mix 2022<sup>(\*)</sup>

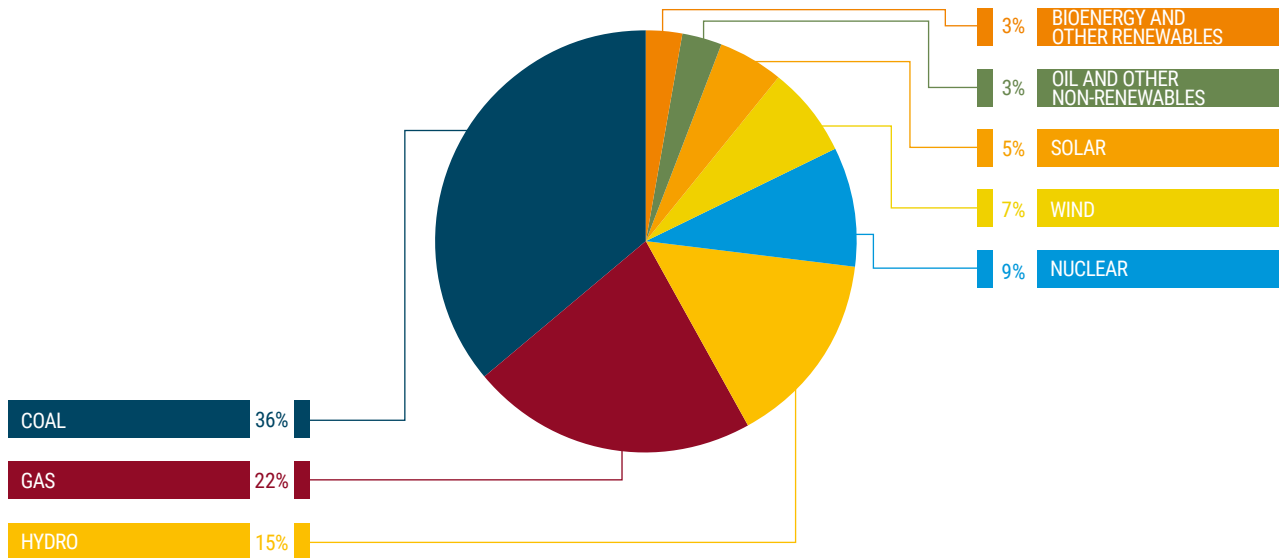
(~8600 GW)



<sup>(\*)</sup> Data source: IEA.

## World Power Generation Mix 2022<sup>(\*)</sup>

(~29000 TWh)



<sup>(\*)</sup> Data source: IEA.







# Oil - Supply and Demand

## RESERVES

Areas and Aggregates  
The World Top 10 Reserves Holders  
Countries

## PRODUCTION

Areas and Aggregates  
The World Top 10 Producers  
Countries  
The World Top 10 Natural Gas Liquids Producers

## RESERVES/PRODUCTION RATIO

Areas and Aggregates  
The World Top 10 Producers Ranked by Reserves/Production Ratio  
Countries

## CONSUMPTION

Areas and Aggregates  
The World Top 10 Consumers  
Countries

## PER CAPITA CONSUMPTION

Areas and Aggregates  
The World Top 10 Consumers Ranked by Per Capita Consumption Ratio  
Countries

## PRODUCTION/CONSUMPTION RATIO

Areas and Aggregates  
The World Top 10 Producers Ranked by Production/Consumption Ratio  
Countries

# Reserves

## Areas and Aggregates<sup>(\*)</sup>

(million barrels as at 31<sup>st</sup> December)

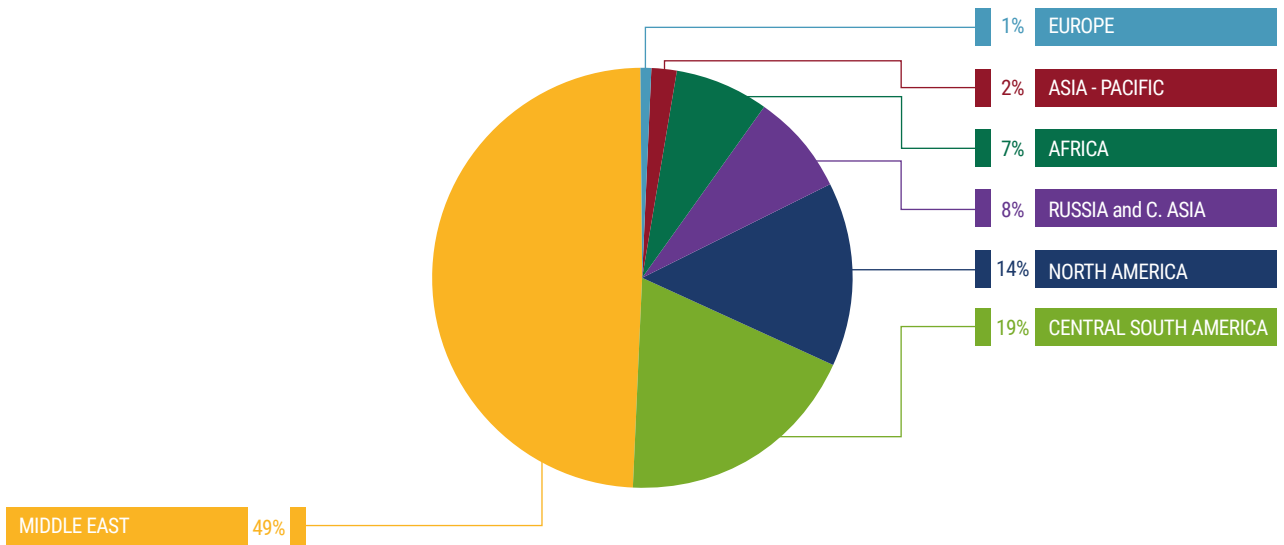
	2010	2015	2016	2017	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
Europe	13,929	13,591	13,003	14,116	14,802	14,522	13,733	12,977	12,971	0.0%	-0.6%
Russia and Central Asia	125,086	135,729	146,781	143,503	143,525	144,504	145,825	145,818	145,818	0.0%	1.3%
Middle East	793,605	802,663	807,544	804,563	803,169	863,343	865,330	869,535	871,535	0.2%	0.8%
Africa	126,950	127,335	127,652	126,535	124,575	123,234	122,493	117,721	117,672	0.0%	-0.6%
Asia - Pacific	47,464	47,900	48,095	48,040	46,602	46,846	45,534	44,898	45,122	0.5%	-0.4%
Americas	564,241	547,079	570,415	574,764	578,227	578,764	568,955	576,729	593,216	2.9%	0.4%
- North America	225,201	204,678	231,452	236,265	239,525	241,192	232,056	238,364	253,584	6.4%	1.0%
- Central South America	339,040	342,402	338,963	338,499	338,702	337,572	336,899	338,364	339,633	0.4%	0.0%
World	1,671,275	1,674,298	1,713,491	1,711,523	1,710,900	1,771,212	1,761,870	1,767,677	1,786,334	1.1%	0.6%
European Union 27	3,165	2,595	2,419	2,403	2,357	2,357	2,335	2,326	2,320	-0.3%	-2.6%
MENA	857,794	868,001	872,882	869,923	867,186	927,579	929,420	933,537	935,537	0.2%	0.7%
OECD	257,935	236,001	258,401	263,369	265,015	265,878	255,387	260,843	276,065	5.8%	0.6%
NON OECD	1,413,340	1,438,297	1,455,090	1,448,153	1,445,885	1,505,334	1,506,484	1,506,834	1,510,269	0.2%	0.6%
OPEC	1,165,844	1,180,767	1,187,345	1,183,674	1,182,528	1,241,281	1,242,377	1,241,819	1,243,523	0.1%	0.5%
NON OPEC	505,431	493,531	526,147	527,849	528,372	529,931	519,493	525,858	542,811	3.2%	0.6%

<sup>(\*)</sup> Data source: Eni's estimates on Enerdata *Global Energy Market & CO<sub>2</sub> Data* and other official data sources.

# Reserves

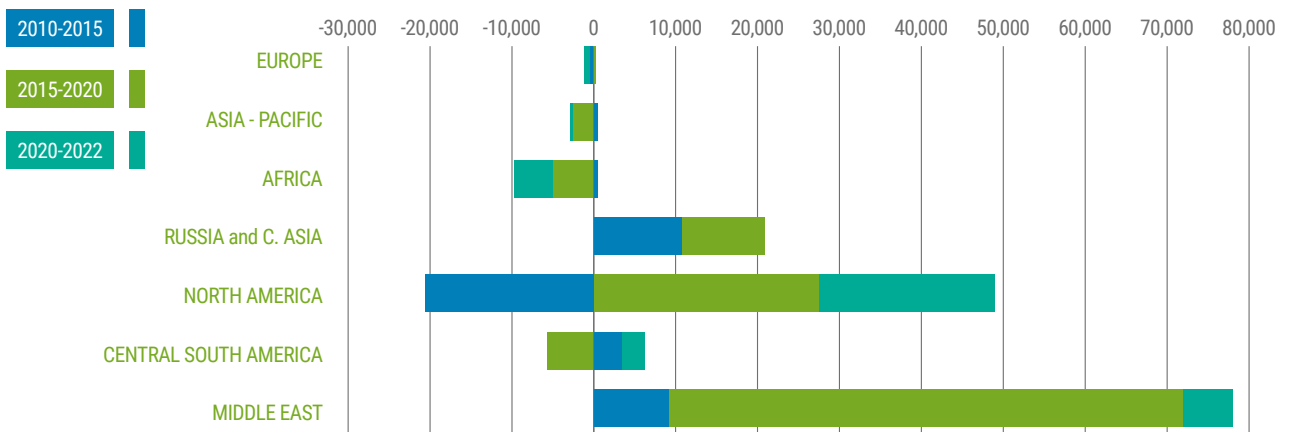
## World Oil Reserves (2022)

1,786,334 thousand barrels/day



## World Oil Reserves Growth (2010-2022)

115,059 thousand barrels/day



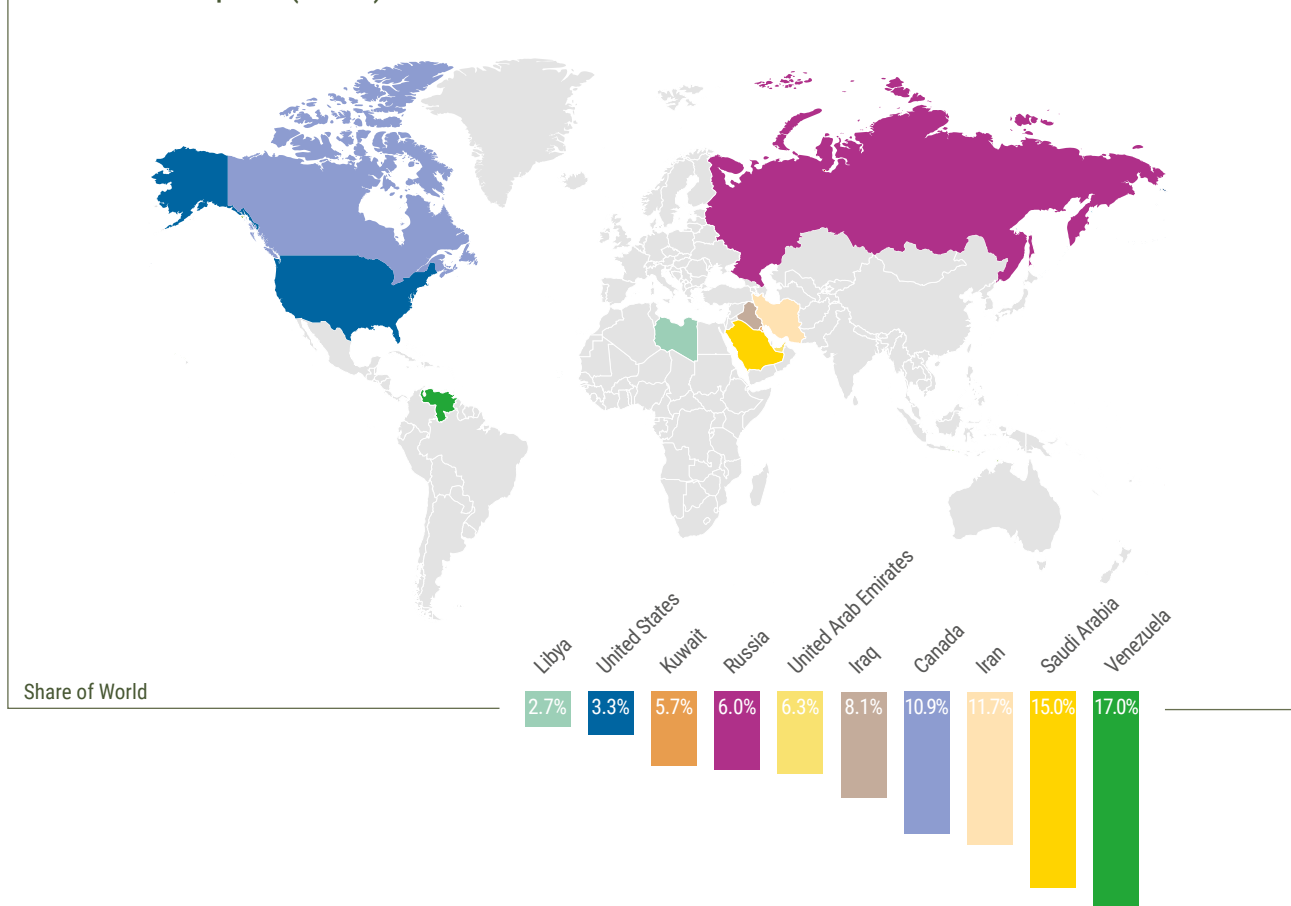
# Reserves

## The World Top 10 Reserves Holders<sup>(\*)</sup>

(million barrels as at 31<sup>st</sup> December)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
Venezuela	296,501	300,878	302,250	302,809	303,806	303,806	303,561	303,468	303,221	-0.1%	0.2%
Saudi Arabia	264,516	266,455	266,208	266,260	267,026	267,073	267,082	267,192	267,192	0.0%	0.1%
Iran	151,170	158,400	157,200	155,600	155,600	208,600	208,600	208,600	208,600	0.0%	2.7%
Canada	200,020	169,448	196,239	194,275	192,472	194,085	193,844	193,946	193,946	0.0%	-0.3%
Iraq	143,100	142,503	148,766	147,223	145,019	145,019	145,019	145,019	145,019	0.0%	0.1%
United Arab Emirates	97,800	97,800	97,800	97,800	97,800	105,000	107,000	111,000	113,000	1.8%	1.2%
Russia	76,876	97,703	108,755	105,478	105,500	106,471	107,799	107,799	107,799	0.0%	2.9%
Kuwait	101,500	101,500	101,500	101,500	101,500	101,500	101,500	101,500	101,500	0.0%	0.0%
United States	25,181	35,230	35,213	41,990	47,053	47,107	38,212	44,418	59,637	34.3%	7.4%
Libya	47,097	48,363	48,363	48,363	48,363	48,363	48,363	48,363	48,363	0.0%	0.2%
<b>The World Top 10</b>	<b>1,403,761</b>	<b>1,418,280</b>	<b>1,462,294</b>	<b>1,461,298</b>	<b>1,464,138</b>	<b>1,527,024</b>	<b>1,520,980</b>	<b>1,531,306</b>	<b>1,548,278</b>	<b>1.1%</b>	<b>0.8%</b>
Rest of the World	267,514	256,018	251,198	250,225	246,762	244,189	240,890	236,372	238,056	0.7%	-1.0%
<b>World</b>	<b>1,671,275</b>	<b>1,674,298</b>	<b>1,713,491</b>	<b>1,711,523</b>	<b>1,710,900</b>	<b>1,771,212</b>	<b>1,761,870</b>	<b>1,767,677</b>	<b>1,786,334</b>	<b>1.1%</b>	<b>0.6%</b>

## The World Top 10 (2022)



<sup>(\*)</sup> Data source: Eni's estimates on Enerdata *Global Energy Market & CO<sub>2</sub> Data* and other official data sources.

# Reserves

## Countries<sup>(\*)</sup>

(million barrels as at 31<sup>st</sup> December)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
Europe	13,929	13,591	13,003	14,116	14,802	14,522	13,733	12,977	12,971	0.0%	-0.6%
Albania	199	183	204	204	146	146	146	146	146	0.0%	-2.6%
Austria	44	51	51	44	44	37	37	37	37	0.0%	-1.5%
Belarus	183	197	197	197	197	197	197	197	197	0.0%	0.6%
Bulgaria	15	15	15	15	15	15	15	15	15	0.0%	0.0%
Croatia	73	66	73	73	73	73	73	73	73	0.0%	0.0%
Czech Republic	7	15	15	15	7	15	7	7	7	0.0%	0.0%
Denmark	927	540	438	438	423	423	416	423	423	0.0%	-6.3%
France	88	80	73	66	58	58	58	131	131	0.0%	3.4%
Germany	299	248	234	204	212	204	131	117	117	0.0%	-7.5%
Greece	7	7	7	7	7	7	7	7	7	0.0%	0.0%
Hungary	29	22	22	22	22	15	15	15	15	0.0%	-5.6%
Italy (**)	559	595	521	571	554	532	583	582	576	-1.0%	0.2%
Lithuania	15	15	15	15	15	15	15	15	15	0.0%	0.0%
Netherlands	307	110	110	80	73	117	139	73	73	0.0%	-11.3%
Norway	6,818	7,242	7,037	7,950	8,607	8,483	7,716	7,483	7,483	0.0%	0.8%
Poland	80	102	95	102	102	95	88	80	80	0.0%	0.0%
Romania	562	584	599	599	599	599	599	599	599	0.0%	0.5%
Serbia	80	80	80	80	80	80	80	80	80	0.0%	0.0%
Slovakia	7	7	7	7	7	7	7	7	7	0.0%	0.0%
Spain	146	139	146	146	146	146	146	146	146	0.0%	0.0%
Türkiye	314	358	358	387	321	365	365	365	365	0.0%	1.3%
Ukraine	365	394	394	394	394	394	394	394	394	0.0%	0.6%
United Kingdom	2,805	2,542	2,313	2,500	2,700	2,500	2,500	1,986	1,986	0.0%	-2.8%

<sup>(\*)</sup> Data source: Eni's estimates on Enerdata *Global Energy Market & CO<sub>2</sub> Data* and other official data sources.

<sup>(\*\*)</sup> The original data are from Italian Ministry of Environment and Energy Security. They have been converted by Eni considering 1 ton of oil equal to 7.3 barrels.

# Reserves

## Countries<sup>(\*)</sup>

(million barrels as at 31<sup>st</sup> December)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
<b>Russia and Central Asia</b>	<b>125,086</b>	<b>135,729</b>	<b>146,781</b>	<b>143,503</b>	<b>143,525</b>	<b>144,504</b>	<b>145,825</b>	<b>145,818</b>	<b>145,818</b>	<b>0.0%</b>	<b>1.3%</b>
Russia	76,876	97,703	108,755	105,478	105,500	106,471	107,799	107,799	107,799	0.0%	2.9%
Azerbaijan	6,950	6,950	6,950	6,950	6,950	6,950	6,950	6,950	6,950	0.0%	0.0%
Georgia	37	37	37	37	37	37	37	37	37	0.0%	0.0%
Kazakhstan	38,960	29,799	29,799	29,799	29,799	29,799	29,799	29,791	29,791	0.0%	-2.2%
Kyrgyzstan	37	37	37	37	37	37	37	37	37	0.0%	0.0%
Tajikistan	15	15	15	15	15	15	15	15	15	0.0%	0.0%
Turkmenistan	1,643	599	599	599	599	599	599	599	599	0.0%	-8.1%
Uzbekistan	569	591	591	591	591	599	591	591	591	0.0%	0.3%
<b>Middle East</b>	<b>793,605</b>	<b>802,663</b>	<b>807,544</b>	<b>804,563</b>	<b>803,169</b>	<b>863,343</b>	<b>865,330</b>	<b>869,535</b>	<b>871,535</b>	<b>0.2%</b>	<b>0.8%</b>
Bahrain	124	124	124	124	110	95	183	168	168	0.0%	2.6%
Iran	151,170	158,400	157,200	155,600	155,600	208,600	208,600	208,600	208,600	0.0%	2.7%
Iraq	143,100	142,503	148,766	147,223	145,019	145,019	145,019	145,019	145,019	0.0%	0.1%
Israel	4	15	15	15	15	15	15	15	15	0.0%	12.2%
Jordan	1	1	1	1	1	1	1	1	1	0.0%	0.0%
Kuwait	101,500	101,500	101,500	101,500	101,500	101,500	101,500	101,500	101,500	0.0%	0.0%
Oman	5,110	5,271	5,336	5,336	5,336	5,336	5,336	5,336	5,336	0.0%	0.4%
Qatar	25,382	25,244	25,244	25,244	25,244	25,244	25,244	25,244	25,244	0.0%	0.0%
Saudi Arabia	264,516	266,455	266,208	266,260	267,026	267,073	267,082	267,192	267,192	0.0%	0.1%
Syria	2,343	2,482	2,482	2,482	2,650	2,482	2,482	2,482	2,482	0.0%	0.5%
United Arab Emirates	97,800	97,800	97,800	97,800	97,800	105,000	107,000	111,000	113,000	1.8%	1.2%
Yemen	2,555	2,869	2,869	2,978	2,869	2,978	2,869	2,978	2,978	0.0%	1.3%

<sup>(\*)</sup> Data source: Eni's estimates on Enerdata *Global Energy Market & CO<sub>2</sub> Data* and other official data sources.

# Reserves

## Countries<sup>(\*)</sup>

(million barrels as at 31<sup>st</sup> December)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
Africa	126,950	127,335	127,652	126,535	124,575	123,234	122,493	117,721	117,672	0.0%	-0.6%
Algeria	12,200	12,200	12,200	12,200	12,200	12,200	12,200	12,200	12,200	0.0%	0.0%
Angola	9,055	9,524	9,523	8,384	8,160	7,783	7,231	2,516	2,550	1.4%	-10.0%
Benin	7	7	7	7	7	7	7	7	7	0.0%	0.0%
Cameroon	175	197	197	197	197	197	197	197	197	0.0%	1.0%
Chad	1,489	1,577	1,489	1,489	1,577	1,489	1,577	1,489	1,489	0.0%	0.0%
Congo	2,000	2,982	2,982	2,982	2,982	1,947	1,811	1,811	1,811	0.0%	-0.8%
Côte d'Ivoire	102	102	102	102	102	102	102	102	102	0.0%	0.0%
Dem. Rep. Congo	175	175	175	175	175	197	197	175	175	0.0%	0.0%
Egypt	4,468	4,373	4,373	4,373	3,051	3,278	3,124	3,015	3,015	0.0%	-3.2%
Equatorial Guinea	1,705	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	0.0%	-3.6%
Gabon	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	0.0%	0.0%
Ghana	657	657	657	657	657	657	657	657	657	0.0%	0.0%
Libya	47,097	48,363	48,363	48,363	48,363	48,363	48,363	48,363	48,363	0.0%	0.2%
Mauritania	102	22	22	22	22	22	22	22	22	0.0%	-12.0%
Morocco	1	1	1	1	1	1	1	1	1	0.0%	-0.8%
Mozambique	15	15	15	15	15	15	15	15	15	0.0%	0.0%
Niger	146	146	146	146	146	146	146	146	146	0.0%	
Nigeria	37,200	37,062	37,453	37,453	36,972	36,890	36,910	37,050	36,967	-0.2%	-0.1%
Sierra Leone	438	438	438	438	438	438	438	438	438	0.0%	
South Africa	15	15	15	15	15	15	15	15	15	0.0%	0.0%
South Sudan		3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	0.0%	
Sudan	6,482	1,475	1,489	1,489	1,489	1,489	1,475	1,475	1,475	0.0%	-11.6%
Tunisia	423	402	402	423	402	394	402	423	423	0.0%	0.0%
Uganda	997	1,004	1,004	1,004	1,004	1,004	1,004	1,004	1,004	0.0%	0.1%

<sup>(\*)</sup>Data source: Eni's estimates on Enerdata *Global Energy Market & CO<sub>2</sub> Data* and other official data sources.

# Reserves

## Countries<sup>(\*)</sup>

(million barrels as at 31<sup>st</sup> December)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
<b>Asia - Pacific</b>	<b>47,464</b>	<b>47,900</b>	<b>48,095</b>	<b>48,040</b>	<b>46,602</b>	<b>46,846</b>	<b>45,534</b>	<b>44,898</b>	<b>45,122</b>	<b>0.5%</b>	<b>-0.4%</b>
Afghanistan	88	88	88	88	88	88	88	88	88	0.0%	
Australia	4,052	3,957	3,957	3,971	2,460	2,453	1,789	1,621	1,621	0.0%	-7.4%
Bangladesh	29	29	29	29	29	29	29	29	29	0.0%	0.0%
Brunei	1,095	1,095	1,095	1,095	1,095	1,095	1,095	1,095	1,095	0.0%	0.0%
China	23,268	25,132	25,620	25,627	25,927	26,154	26,023	26,491	27,003	1.9%	1.2%
India	5,625	4,636	4,620	4,500	4,420	4,420	4,610	3,670	3,572	-2.7%	-3.7%
Indonesia	3,990	3,230	3,230	3,310	3,170	3,150	2,480	2,440	2,250	-7.8%	-4.7%
Japan	44	44	44	44	44	44	44	44	44	0.0%	0.0%
Malaysia	3,739	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600	0.0%	-0.3%
Mongolia	15	256	256	256	256	314	314	314	314	0.0%	29.1%
Myanmar	51	51	139	139	139	139	139	139	139	0.0%	8.7%
New Zealand	153	88	73	73	66	51	44	51	51	0.0%	-8.7%
Pakistan	285	350	350	329	343	336	533	533	533	0.0%	5.4%
Papua New Guinea	88	175	161	183	168	161	161	146	146	0.0%	4.3%
Philippines	139	139	102	102	102	139	139	139	139	0.0%	0.0%
Taiwan	2	2	2	2	2	2	2	2	2	0.0%	0.0%
Thailand	431	686	387	321	321	299	102	153	153	0.0%	-8.2%
Vietnam	4,373	4,344	4,344	4,373	4,373	4,373	4,344	4,344	4,344	0.0%	-0.1%
<b>Americas</b>	<b>564,241</b>	<b>547,079</b>	<b>570,415</b>	<b>574,764</b>	<b>578,227</b>	<b>578,764</b>	<b>568,955</b>	<b>576,729</b>	<b>593,216</b>	<b>2.9%</b>	<b>0.4%</b>
Argentina	2,520	2,394	2,380	2,146	2,000	2,000	2,497	2,467	2,467	0.0%	-0.2%
Barbados	2	3	2	2	3	2	2	2	2	0.0%	0.8%
Belize	7	7	7	7	7	7	7	7	7	0.0%	0.0%
Bolivia	445	212	212	212	190	241	241	241	241	0.0%	-5.0%
Brazil	13,987	13,034	12,666	12,835	13,239	12,713	11,925	13,243	14,750	11.4%	0.4%
Canada	200,020	169,448	196,239	194,275	192,472	194,085	193,844	193,946	193,946	0.0%	-0.3%
Chile	146	146	146	146	146	146	146	146	146	0.0%	0.0%
Colombia	1,891	1,986	1,643	1,650	1,767	1,949	2,022	1,810	1,810	0.0%	-0.4%
Cuba	124	124	124	124	124	124	124	124	124	0.0%	0.0%
Ecuador	7,206	8,273	8,273	8,273	8,273	8,273	8,273	8,273	8,273	0.0%	1.2%
Guatemala	80	95	88	102	146	124	88	95	95	0.0%	1.4%
Mexico	13,992	13,017	9,632	8,652	7,695	7,010	7,042	7,319	7,328	0.1%	-5.2%
Peru	1,234	1,409	1,219	1,219	978	891	642	840	840	0.0%	-3.2%
Suriname	80	102	80	80	88	88	88	88	88	0.0%	0.7%
Trinidad and Tobago	825	723	241	241	241	197	241	241	241	0.0%	-9.7%
United States	25,181	35,230	35,213	41,990	47,053	47,107	38,212	44,418	59,637	34.3%	7.4%
Venezuela	296,501	300,878	302,250	302,809	303,806	303,806	303,561	303,468	303,221	-0.1%	0.2%

<sup>(\*)</sup> Data source: Eni's estimates on Enerdata *Global Energy Market & CO<sub>2</sub> Data* and other official data sources.



# Production

## Areas and Aggregates<sup>(\*)</sup>

Crude and non conventional oil, natural gas liquids  
(thousand barrels/day)

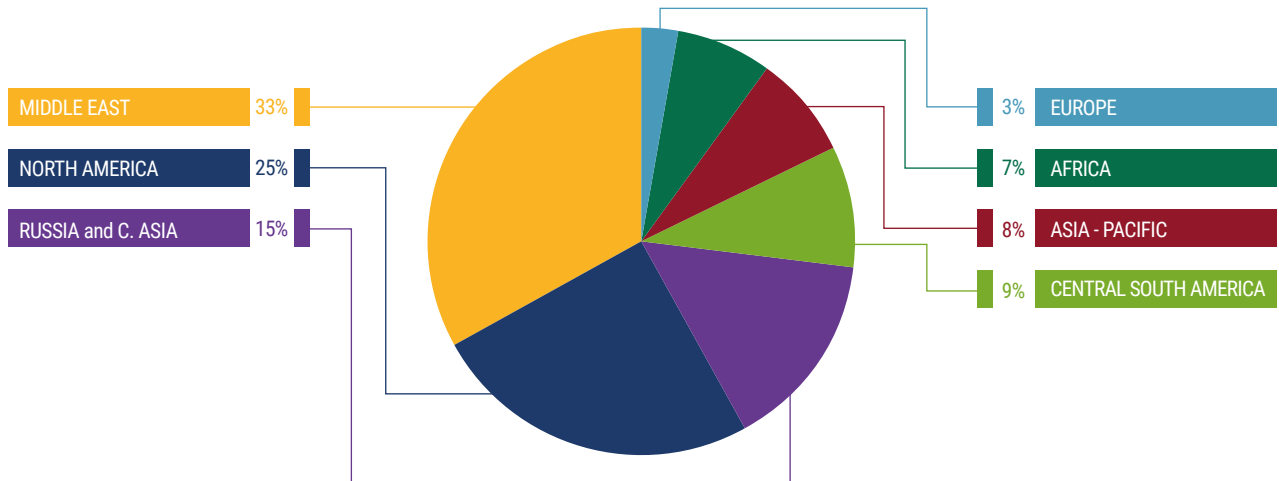
	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
Europe	4,401	3,707	3,733	3,690	3,672	3,575	3,787	3,588	3,303	-7.9%	-2.4%
Russia and Central Asia	13,414	13,949	14,123	14,233	14,488	14,554	13,409	13,679	13,853	1.3%	0.3%
Middle East	25,366	29,671	31,416	30,959	31,495	30,023	27,606	27,930	30,952	10.8%	1.7%
Africa	10,240	8,324	7,796	8,205	8,298	8,456	7,037	7,412	7,139	-3.7%	-3.0%
Asia - Pacific	8,376	8,316	7,997	7,779	7,648	7,699	7,511	7,428	7,367	-0.8%	-1.1%
Americas	21,407	27,827	27,037	27,703	29,521	31,085	29,765	30,272	32,030	5.8%	3.4%
- North America	11,073	17,385	17,044	18,204	20,809	22,833	21,919	22,351	23,607	5.6%	6.5%
- Central South America	10,333	10,442	9,993	9,499	8,712	8,253	7,846	7,920	8,423	6.3%	-1.7%
<b>World</b>	<b>83,205</b>	<b>91,794</b>	<b>92,101</b>	<b>92,569</b>	<b>95,123</b>	<b>95,393</b>	<b>89,117</b>	<b>90,308</b>	<b>94,645</b>	<b>4.8%</b>	<b>1.1%</b>
European Union 27	707	609	543	547	533	486	486	467	433	-7.3%	-4.0%
MENA	29,531	32,451	34,164	34,051	34,729	33,343	29,993	31,147	34,137	9.6%	1.2%
OECD	19,628	24,929	24,353	25,167	27,637	29,550	28,742	28,954	30,015	3.7%	3.6%
NON OECD	63,577	66,866	67,748	67,401	67,486	65,843	60,374	61,354	64,630	5.3%	0.1%
OPEC	33,309	36,030	37,097	36,821	36,788	34,961	30,810	31,588	34,357	8.8%	0.3%
NON OPEC	49,896	55,765	55,004	55,748	58,335	60,431	58,306	58,720	60,288	2.7%	1.6%

<sup>(\*)</sup> Data source: Eni's calculations on IEA (2023) *Monthly Oil Data Services* data. All rights reserved.

# Production

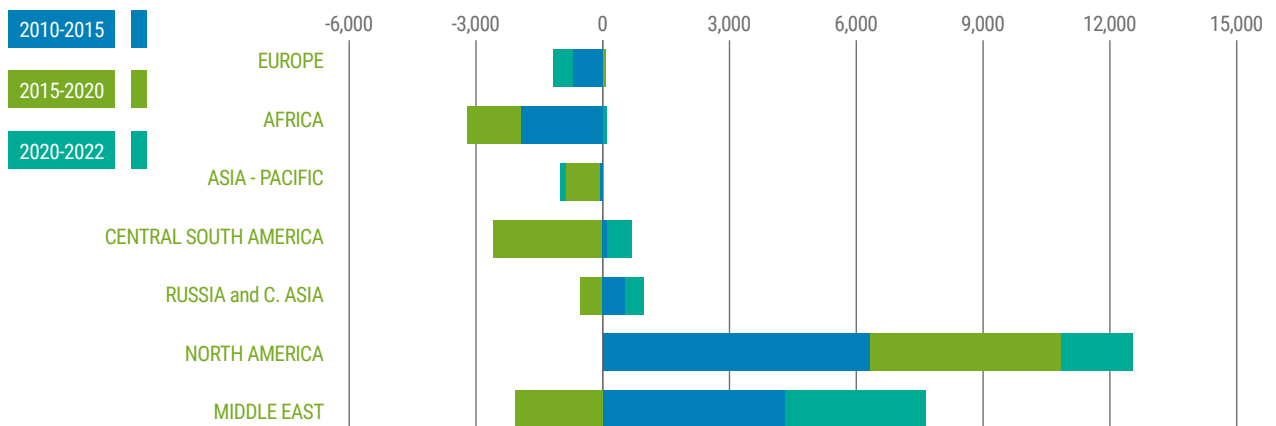
## World Oil Production (2022)

94,645 thousand barrels/day



## World Oil Production Growth (2010-2022)

11,441 thousand barrels/day



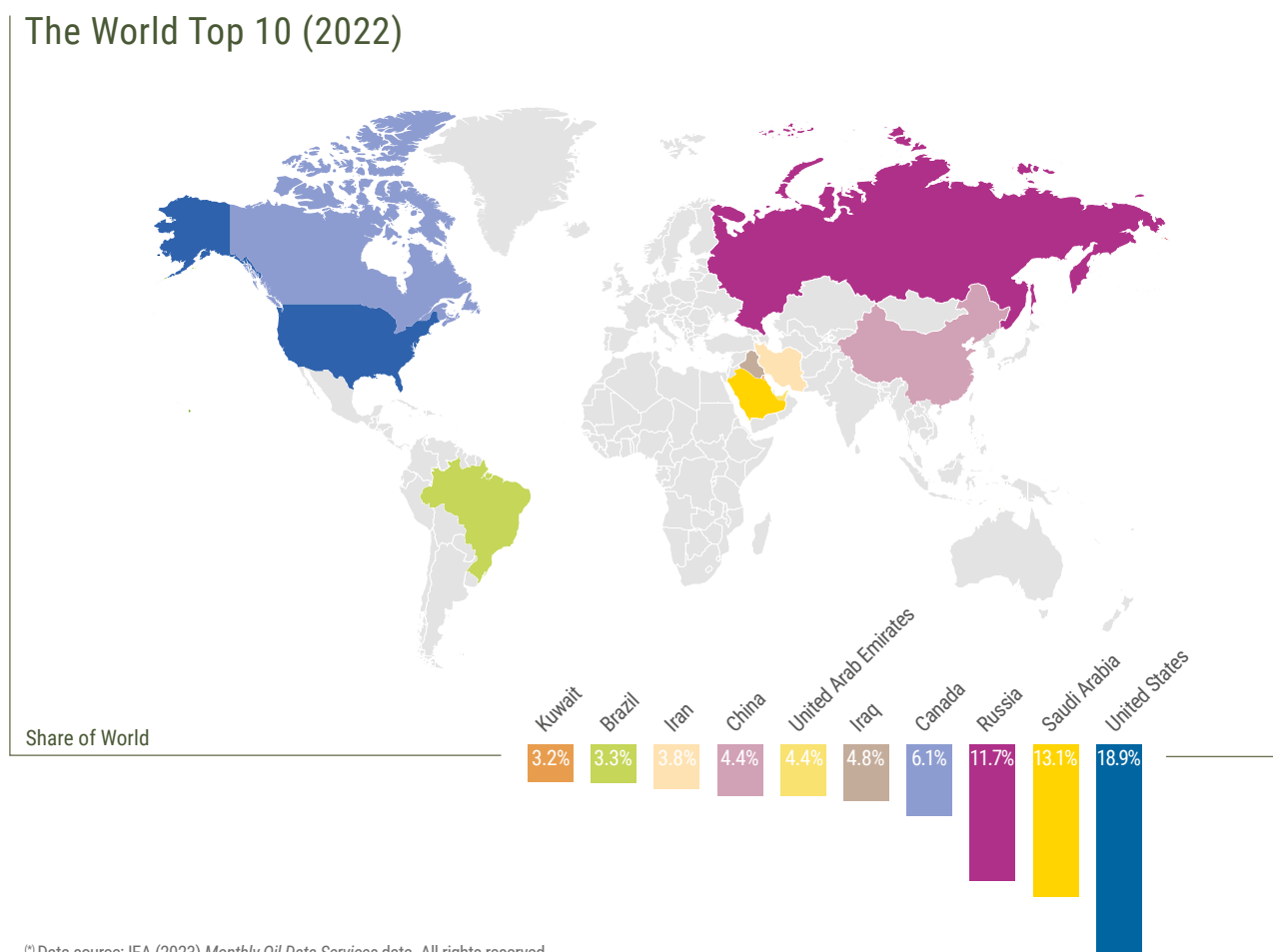
# Production

## The World Top 10 Producers<sup>(\*)</sup>

Crude and non conventional oil, natural gas liquids  
(thousand barrels/day)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
United States	7,615	12,849	12,429	13,214	15,401	17,222	16,570	16,759	17,850	6.5%	7.4%
Saudi Arabia	9,971	12,045	12,344	11,876	12,345	11,914	11,094	10,974	12,416	13.1%	1.8%
Russia	10,390	11,084	11,328	11,321	11,494	11,582	10,607	10,867	11,088	2.0%	0.5%
Canada	3,458	4,536	4,615	4,990	5,408	5,610	5,349	5,593	5,757	2.9%	4.3%
Iraq	2,430	4,078	4,503	4,563	4,663	4,812	4,148	4,132	4,554	10.2%	5.4%
United Arab Emirates	2,831	3,762	3,848	3,740	3,801	4,009	3,697	3,601	4,190	16.4%	3.3%
China	4,038	4,271	3,982	3,892	3,848	3,921	3,970	4,060	4,177	2.9%	0.3%
Iran	4,215	3,573	4,402	4,722	4,552	3,290	2,938	3,419	3,577	4.6%	-1.4%
Brazil	2,152	2,547	2,628	2,755	2,713	2,897	3,044	3,002	3,119	3.9%	3.1%
Kuwait	2,498	3,097	3,194	3,014	3,050	2,987	2,717	2,719	3,013	10.8%	1.6%
<b>The World Top 10</b>	<b>49,598</b>	<b>61,842</b>	<b>63,272</b>	<b>64,087</b>	<b>67,275</b>	<b>68,244</b>	<b>64,134</b>	<b>65,125</b>	<b>69,741</b>	<b>7.1%</b>	<b>2.9%</b>
Rest of the World	33,607	29,953	28,828	28,482	27,848	27,148	24,983	25,183	24,904	-1.1%	-2.5%
<b>World</b>	<b>83,205</b>	<b>91,794</b>	<b>92,101</b>	<b>92,569</b>	<b>95,123</b>	<b>95,393</b>	<b>89,117</b>	<b>90,308</b>	<b>94,645</b>	<b>4.8%</b>	<b>1.1%</b>

## The World Top 10 (2022)



<sup>(\*)</sup> Data source: IEA (2023) *Monthly Oil Data Services* data. All rights reserved.

# Production

## Countries<sup>(\*)</sup>

Crude and non conventional oil, natural gas liquids  
(thousand barrels/day)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
<b>Europe</b>	<b>4,401</b>	<b>3,707</b>	<b>3,733</b>	<b>3,690</b>	<b>3,672</b>	<b>3,575</b>	<b>3,787</b>	<b>3,588</b>	<b>3,303</b>	<b>-7.9%</b>	<b>-2.4%</b>
Albania	13	23	19	17	16	18	17	16	15	-6.8%	1.2%
Austria	21	17	15	14	13	13	11	11	10	-8.9%	-6.1%
Belarus	34	33	33	32	34	34	34	34	32	-6.5%	-0.6%
Bulgaria	1	1	1	1	1	1	1	1	1	0.0%	0.0%
Croatia	18	14	15	15	15	14	13	12	12	-3.5%	-3.3%
Czech Republic	5	7	5	7	6	5	6	6	5	-11.7%	-0.3%
Denmark	255	159	142	140	117	104	75	69	68	-1.9%	-10.4%
Estonia	10	16	14	18	22	23	23	22	21	-2.9%	6.3%
France	41	23	31	33	21	28	26	32	37	14.1%	-1.0%
Germany	72	66	68	67	67	58	73	62	59	-6.2%	-1.7%
Greece	2	1	3	3	4	3	2	2	1	-2.9%	-3.5%
Hungary	25	18	21	22	23	23	20	22	22	0.1%	-0.9%
Italy	97	131	95	97	109	89	112	110	94	-15.2%	-0.3%
Netherlands	33	36	24	24	23	18	20	18	11	-39.4%	-8.8%
Norway	2,138	1,948	1,995	1,969	1,850	1,758	2,041	2,050	1,899	-7.4%	-1.0%
Poland	24	28	21	24	32	30	29	27	24	-10.0%	0.0%
Portugal	1	0	1	0	0	0	0	0	0	-100.0%	-100.0%
Romania	89	82	78	74	73	73	71	68	64	-6.8%	-2.7%
Serbia	17	20	18	18	17	17	16	15	14	-6.8%	-1.5%
Slovakia	3	4	4	6	3	3	3	4	4	17.8%	3.1%
Spain	10	5	3	2	2	1	1	0	0	-83.9%	-40.7%
Türkiye	48	48	49	49	55	58	62	66	69	4.5%	3.1%
Ukraine	79	54	50	49	51	55	54	54	11	-79.5%	-15.0%
United Kingdom	1,365	972	1,026	1,009	1,116	1,150	1,076	885	830	-6.2%	-4.1%
	2010	2015	2016	2017	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
<b>Russia and Central Asia</b>	<b>13,414</b>	<b>13,949</b>	<b>14,123</b>	<b>14,233</b>	<b>14,488</b>	<b>14,554</b>	<b>13,409</b>	<b>13,679</b>	<b>13,853</b>	<b>1.3%</b>	<b>0.3%</b>
Russia	10,390	11,084	11,328	11,321	11,494	11,582	10,607	10,867	11,088	2.0%	0.5%
Azerbaijan	1,042	849	829	784	793	765	699	704	672	-4.5%	-3.6%
Georgia	1	1	0	0	0	0	0	0	0	-6.8%	-8.9%
Kazakhstan	1,694	1,694	1,669	1,848	1,937	1,942	1,836	1,846	1,820	-1.4%	0.6%
Kyrgyzstan	1	1	1	1	1	1	1	1	1	-6.8%	-2.7%
Tajikistan	0	0	0	0	0	0	0	0	0	-4.5%	7.2%
Turkmenistan	211	268	247	232	219	223	227	224	220	-1.6%	0.4%
Uzbekistan	75	52	48	46	43	40	38	36	51	39.6%	-3.2%

<sup>(\*)</sup> Data source: IEA (2023) *Monthly Oil Data Services* data. All rights reserved.

# Production

## Countries<sup>(\*)</sup>

Crude and non conventional oil, natural gas liquids  
(thousand barrels/day)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
<b>Middle East</b>	<b>25,366</b>	<b>29,671</b>	<b>31,416</b>	<b>30,959</b>	<b>31,495</b>	<b>30,023</b>	<b>27,606</b>	<b>27,930</b>	<b>30,952</b>	<b>10.8%</b>	<b>1.7%</b>
Bahrain	192	213	213	210	208	208	182	185	199	7.2%	0.3%
Iran	4,215	3,573	4,402	4,722	4,552	3,290	2,938	3,419	3,577	4.6%	-1.4%
Iraq	2,430	4,078	4,503	4,563	4,663	4,812	4,148	4,132	4,554	10.2%	5.4%
Kuwait	2,498	3,097	3,194	3,014	3,050	2,987	2,717	2,719	3,013	10.8%	1.6%
Oman	871	988	1,012	978	986	979	957	979	1,072	9.5%	1.7%
Qatar	1,668	1,856	1,859	1,787	1,800	1,724	1,771	1,822	1,837	0.8%	0.8%
Saudi Arabia	9,971	12,045	12,344	11,876	12,345	11,914	11,094	10,974	12,416	13.1%	1.8%
Syria	385	27	25	25	24	34	43	43	43	-1.6%	-16.7%
United Arab Emirates	2,831	3,762	3,848	3,740	3,801	4,009	3,697	3,601	4,190	16.4%	3.3%
Yemen	306	32	16	44	67	67	60	55	53	-3.6%	-13.6%
	2010	2015	2016	2017	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
<b>Africa</b>	<b>10,240</b>	<b>8,324</b>	<b>7,796</b>	<b>8,205</b>	<b>8,298</b>	<b>8,456</b>	<b>7,037</b>	<b>7,412</b>	<b>7,139</b>	<b>-3.7%</b>	<b>-3.0%</b>
Algeria	1,720	1,590	1,605	1,530	1,512	1,490	1,346	1,362	1,470	7.9%	-1.3%
Angola	1,800	1,796	1,743	1,701	1,543	1,449	1,328	1,178	1,192	1.3%	-3.4%
Cameroon	64	93	92	76	69	71	73	68	61	-9.5%	-0.4%
Chad	120	139	129	112	128	118	106	96	87	-8.9%	-2.6%
Congo	313	234	217	266	331	339	303	275	269	-2.4%	-1.3%
Côte d'Ivoire	39	26	32	40	33	36	28	28	27	-3.5%	-3.1%
Dem. Rep. Congo	22	21	19	24	23	23	22	21	20	-4.9%	-0.7%
Egypt	700	696	664	639	649	633	619	593	600	1.2%	-1.3%
Equatorial Guinea	311	276	231	212	208	196	190	180	162	-9.6%	-5.3%
Gabon	249	230	227	200	190	212	198	182	188	3.7%	-2.3%
Ghana	7	106	92	157	177	207	196	170	168	-0.7%	30.6%
Libya	1,661	437	426	877	1,029	1,159	384	1,225	1,079	-11.9%	-3.5%
Mauritania	9	5	4	3	0	0	0	0	0		-100.0%
Niger	0	15	14	15	16	15	14	12	11	-9.6%	
Nigeria	2,535	2,246	1,928	1,986	2,030	2,123	1,879	1,681	1,485	-11.7%	-4.4%
South Africa	141	106	103	106	102	104	88	91	83	-8.9%	-4.3%
South Sudan	0	148	137	147	144	172	165	153	141	-7.6%	
Sudan	465	105	81	67	71	69	61	62	60	-3.3%	-15.7%
Tunisia	84	55	53	46	43	40	37	38	36	-5.0%	-6.8%

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# Production

## Countries<sup>(\*)</sup>

Crude and non conventional oil, natural gas liquids  
(thousand barrels/day)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
<b>Asia - Pacific</b>	<b>8,376</b>	<b>8,316</b>	<b>7,997</b>	<b>7,779</b>	<b>7,648</b>	<b>7,699</b>	<b>7,511</b>	<b>7,428</b>	<b>7,367</b>	<b>-0.8%</b>	<b>-1.1%</b>
Australia	549	371	345	315	344	458	455	444	413	-7.1%	-2.4%
Bangladesh	7	8	11	12	12	11	11	10	10	-3.0%	3.2%
Brunei	169	127	121	113	111	121	110	108	93	-14.0%	-4.9%
China	4,038	4,271	3,982	3,892	3,848	3,921	3,970	4,060	4,177	2.9%	0.3%
East Timor	88	45	30	21	15	23	14	14	14	0.0%	-14.2%
India	880	872	852	861	845	803	750	728	704	-3.3%	-1.8%
Indonesia	991	817	866	824	798	772	734	683	632	-7.4%	-3.7%
Japan	18	12	11	12	10	11	10	10	9	-13.4%	-6.1%
Malaysia	717	701	737	729	723	670	604	566	562	-0.8%	-2.0%
Mongolia	6	24	22	20	19	18	18	17	16	-4.9%	8.5%
Myanmar	18	11	11	11	9	8	8	8	7	-3.0%	-7.1%
New Zealand	60	48	41	37	30	30	26	23	21	-10.6%	-8.4%
Pakistan	72	100	102	106	106	104	102	100	98	-2.4%	2.6%
Papua New Guinea	32	58	56	50	36	35	39	37	36	-3.5%	1.0%
Philippines	20	15	15	13	13	11	11	10	10	-3.0%	-5.5%
South Korea	21	22	24	25	29	28	34	37	38	2.9%	5.2%
Thailand	382	452	462	457	446	443	411	380	340	-10.5%	-1.0%
Vietnam	308	363	310	280	252	232	204	192	187	-2.8%	-4.1%
	2010	2015	2016	2017	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
<b>Americas</b>	<b>21,407</b>	<b>27,827</b>	<b>27,037</b>	<b>27,703</b>	<b>29,521</b>	<b>31,085</b>	<b>29,765</b>	<b>30,272</b>	<b>32,030</b>	<b>5.8%</b>	<b>3.4%</b>
Argentina	734	650	625	595	621	647	609	643	712	10.8%	-0.3%
Barbados	1	1	1	1	1	1	1	1	1	-4.9%	-5.5%
Bolivia	56	78	78	76	72	68	64	63	60	-5.4%	0.6%
Brazil	2,152	2,547	2,628	2,755	2,713	2,897	3,044	3,002	3,119	3.9%	3.1%
Canada	3,458	4,536	4,615	4,990	5,408	5,610	5,349	5,593	5,757	2.9%	4.3%
Chile	13	6	5	6	9	12	9	9	10	22.7%	-2.0%
Colombia	788	1,014	906	862	873	893	788	744	761	2.4%	-0.3%
Cuba	55	53	48	48	47	42	40	38	36	-5.6%	-3.6%
Ecuador	470	548	555	537	523	536	484	477	466	-2.3%	-0.1%
Guatemala	11	10	8	9	9	9	8	8	7	-9.5%	-3.8%
Guyana	0	0	0	0	0	1	70	110	274	149.8%	
Mexico	2,959	2,597	2,463	2,229	2,073	1,928	1,926	1,954	2,006	2.7%	-3.2%
Peru	156	150	134	133	133	140	125	121	118	-2.2%	-2.3%
Suriname	15	16	16	16	16	16	16	15	14	-4.9%	-0.5%
Trinidad and Tobago	148	109	97	99	87	82	76	77	77	0.6%	-5.3%
United States	7,615	12,849	12,429	13,214	15,401	17,222	16,570	16,759	17,850	6.5%	7.4%
Venezuela	2,775	2,665	2,429	2,133	1,534	982	587	661	762	15.2%	-10.2%

<sup>(\*)</sup> Data source: IEA (2023) *Monthly Oil Data Services* data. All rights reserved.

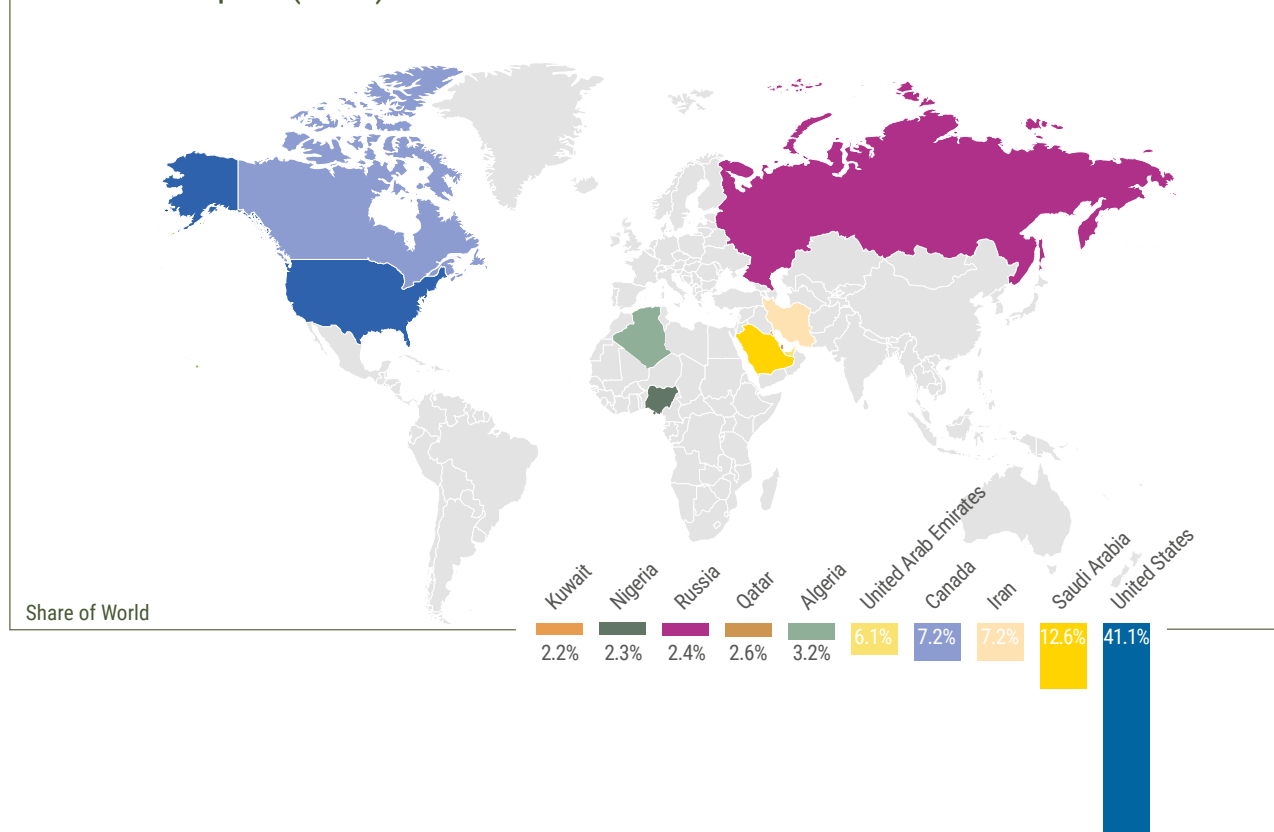
# Production

## The World Top 10 Natural Gas Liquids Producers<sup>(\*)</sup>

(thousand barrels/day)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
United States	2,074	3,342	3,509	3,783	4,369	4,825	5,175	5,425	5,881	8.4%	9.1%
Saudi Arabia	1,710	1,805	1,848	1,838	1,939	1,890	1,804	1,742	1,808	3.8%	0.5%
Canada	608	708	792	839	904	961	949	976	1,035	6.0%	4.5%
Iran	510	727	850	910	973	931	942	999	1,031	3.1%	6.0%
United Arab Emirates	520	816	798	807	803	832	831	842	871	3.4%	4.4%
Algeria	515	481	494	483	470	466	448	451	459	1.7%	-1.0%
Qatar	339	351	351	351	351	351	351	360	372	3.2%	0.8%
Russia	251	365	364	341	333	332	338	343	349	1.7%	2.8%
Nigeria	464	459	446	443	413	377	369	355	324	-8.7%	-2.9%
Kuwait	200	310	310	307	305	305	303	303	316	4.3%	3.9%
<b>The World Top 10</b>	<b>7,190</b>	<b>9,363</b>	<b>9,762</b>	<b>10,102</b>	<b>10,860</b>	<b>11,269</b>	<b>11,511</b>	<b>11,797</b>	<b>12,445</b>	<b>5.5%</b>	<b>4.7%</b>
Rest of the World	2,448	2,254	2,256	2,297	2,237	2,205	2,048	1,967	1,872	-4.8%	-2.2%
<b>World</b>	<b>9,638</b>	<b>11,617</b>	<b>12,018</b>	<b>12,399</b>	<b>13,097</b>	<b>13,474</b>	<b>13,558</b>	<b>13,764</b>	<b>14,317</b>	<b>4.0%</b>	<b>3.4%</b>

## The World Top 10 (2022)



<sup>(\*)</sup> Data source: IEA (2023) *Monthly Oil Data Services* data. All rights reserved.

# Reserves/Production Ratio

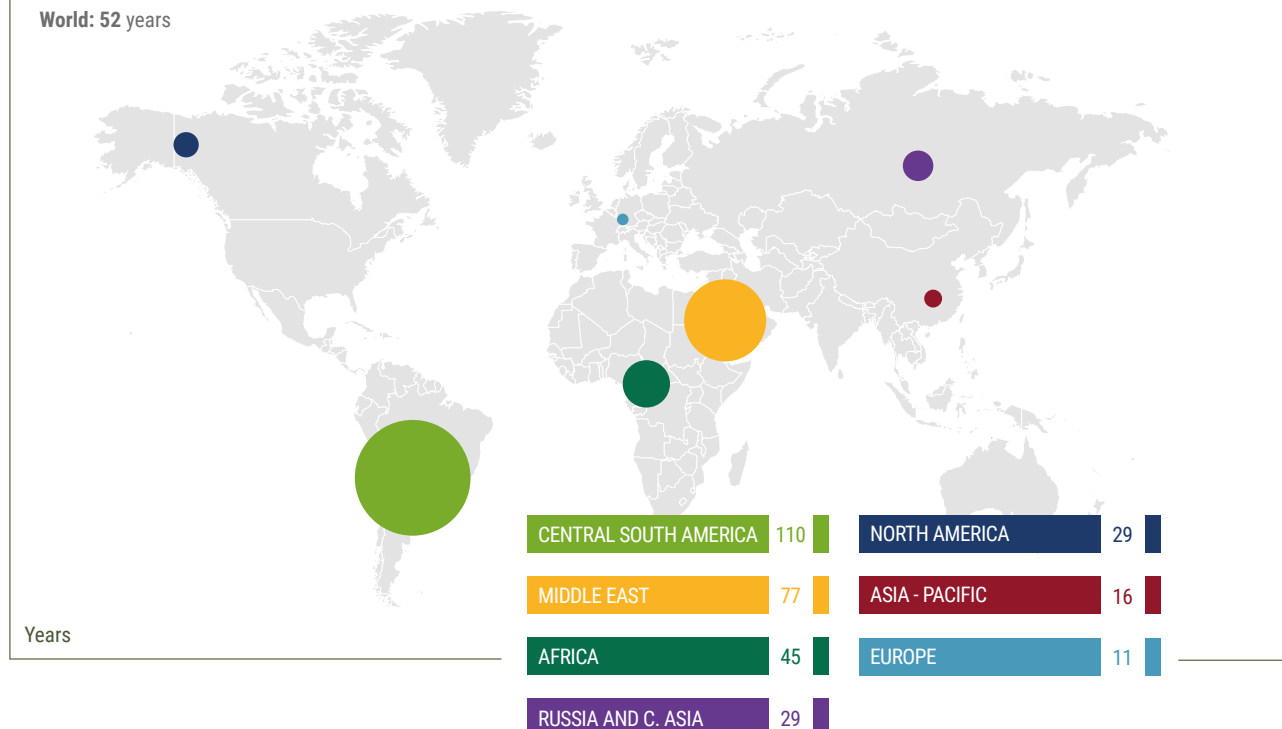
## Areas and Aggregates<sup>(\*)</sup>

(years)

	2010	2015	2016	2017	2018	2019	2020	2021	2022
Europe	10	11	11	11	12	12	10	10	11
Russia and Central Asia	31	28	28	28	27	27	30	29	29
Middle East	86	74	70	71	70	79	86	85	77
Africa	34	42	45	42	41	40	48	44	45
Asia - Pacific	13	13	16	16	17	17	17	16	16
Americas	69	54	55	55	52	49	50	52	51
- North America	49	33	33	32	29	26	26	29	29
- Central South America	90	90	93	98	107	112	118	117	110
World	55	50	50	50	49	50	53	54	52
European Union 27	12	12	12	12	12	13	13	14	15
MENA	80	73	70	70	68	76	85	82	75
OECD	33	26	26	26	24	22	22	25	25
NON OECD	62	59	59	59	59	63	68	67	64
OPEC	96	90	88	88	88	97	110	108	99
NON OPEC	28	24	25	25	24	23	23	24	25

## Reserves/Production Ratio (2022)

World: 52 years



<sup>(\*)</sup> Data source: Eni's calculations on Enerdata Global Energy Market & CO<sub>2</sub> Data, IEA (2023) Monthly Oil Data Services and other official data sources. All rights reserved.



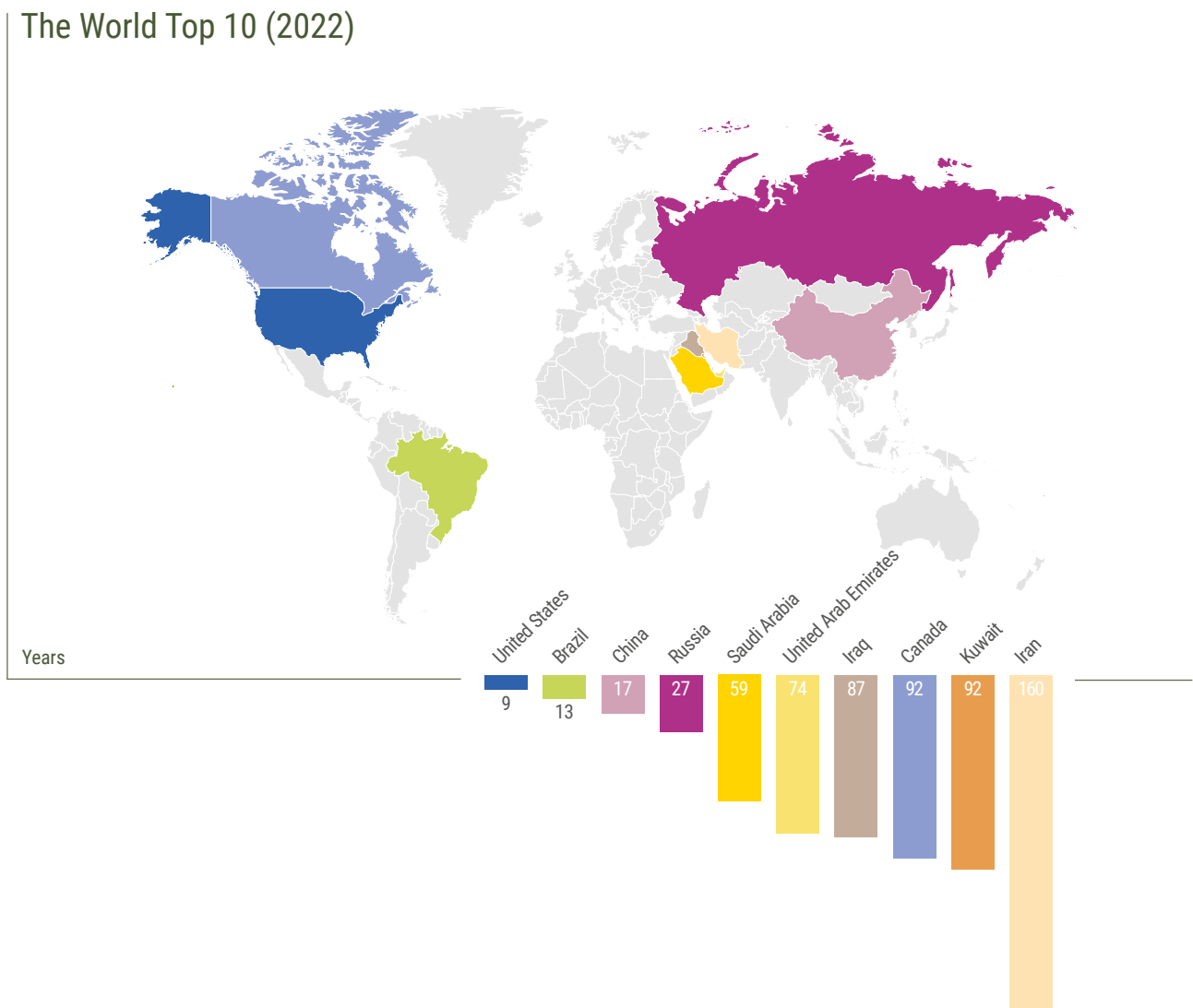
# Reserves/Production Ratio

## The World Top 10 Producers Ranked by Reserves/Production Ratio<sup>(\*)</sup>

(years)

	2010	2015	2016	2017	2018	2019	2020	2021	2022
Iran	98	121	98	90	94	174	194	167	160
Kuwait	111	90	87	92	91	93	102	102	92
Canada	139	104	101	94	86	83	86	95	92
Iraq	161	96	91	88	85	83	96	96	87
United Arab Emirates	95	71	70	72	70	72	79	84	74
Saudi Arabia	73	61	59	61	59	61	66	67	59
Russia	28	25	26	26	26	26	28	27	27
China	10	12	18	18	18	18	18	17	17
Brazil	18	14	13	13	13	12	11	12	13
United States	9	8	8	9	8	7	6	7	9

## The World Top 10 (2022)



<sup>(\*)</sup> Data source: Eni's calculations on Enerdata *Global Energy Market & CO<sub>2</sub> Data*, IEA (2023) *Monthly Oil Data Services* and other official data sources. All rights reserved.

# Reserves/Production Ratio

## Countries<sup>(\*)</sup>

(years)

	2010	2015	2016	2017	2018	2019	2020	2021	2022
Europe	10	11	11	11	12	12	10	10	11
Albania	42	22	29	33	25	22	23	25	27
Austria	6	8	9	8	9	8	9	9	10
Belarus	15	16	17	17	16	16	16	16	17
Bulgaria	40	40	40	40	40	40	40	40	40
Croatia	11	13	14	13	13	14	16	16	17
Czech Republic	4	6	7	5	3	8	4	4	4
Denmark	10	9	8	9	10	11	15	17	17
France	6	10	7	6	8	6	6	11	10
Germany	11	10	9	8	9	10	5	5	5
Greece	9	16	6	7	5	6	11	13	13
Hungary	3	3	3	3	3	2	2	2	2
Italy (**)	16	12	15	16	14	16	13	14	17
Netherlands	25	8	12	9	9	18	19	11	18
Norway	9	10	10	11	13	13	10	10	11
Poland	9	10	12	12	9	9	8	8	9
Romania	17	20	21	22	22	22	23	24	26
Serbia	13	11	12	12	13	13	13	14	16
Slovakia	7	4	5	3	6	7	6	5	5
Spain	40	80	140	166	222	491	729		
Türkiye	18	20	20	22	16	17	16	15	14
Ukraine	13	20	21	22	21	20	20	20	97
United Kingdom	11	12	10	10	9	8	6	6	7
	2010	2015	2016	2017	2018	2019	2020	2021	2022
Russia and Central Asia	31	28	28	28	27	27	30	29	29
Russia	28	25	26	26	26	26	28	27	27
Azerbaijan	18	22	23	24	24	25	27	27	28
Georgia	119	196							
Kazakhstan	63	48	49	44	42	42	44	44	45
Kyrgyzstan	110	82	91	101	111	123	132	142	152
Turkmenistan	21	6	7	7	7	7	7	7	7
Uzbekistan	21	31	34	35	38	41	43	45	32

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# Reserves/Production Ratio

## Countries<sup>(\*)</sup>

(years)

	2010	2015	2016	2017	2018	2019	2020	2021	2022
<b>Middle East</b>	<b>86</b>	<b>74</b>	<b>70</b>	<b>71</b>	<b>70</b>	<b>79</b>	<b>86</b>	<b>85</b>	<b>77</b>
Bahrain	2	2	2	2	1	1	3	2	2
Iran	98	121	98	90	94	174	194	167	160
Iraq	161	96	91	88	85	83	96	96	87
Kuwait	111	90	87	92	91	93	102	102	92
Oman	16	15	14	15	15	15	15	15	14
Qatar	41	37	37	39	38	40	39	38	37
Saudi Arabia	73	61	59	61	59	61	66	67	59
Syria	17	256	270	276	302	202	158	156	159
United Arab Emirates	95	71	70	72	70	72	79	84	74
Yemen	23	246	483	185	118	122	130	148	154
	2010	2015	2016	2017	2018	2019	2020	2021	2022
<b>Africa</b>	<b>34</b>	<b>42</b>	<b>45</b>	<b>42</b>	<b>41</b>	<b>40</b>	<b>48</b>	<b>44</b>	<b>45</b>
Algeria	19	21	21	22	22	22	25	25	23
Angola	14	15	15	14	14	15	15	6	6
Cameroon	7	6	6	7	8	8	7	8	9
Chad	34	31	32	36	34	35	41	43	47
Congo	18	35	38	31	25	16	16	18	18
Côte d'Ivoire	7	11	9	7	8	8	10	10	10
Dem. Rep. Congo	22	23	25	20	21	23	24	23	24
Egypt	17	17	18	19	13	14	14	14	14
Equatorial Guinea	15	11	13	14	15	15	16	17	19
Gabon	22	24	24	27	29	26	28	30	29
Ghana	263	17	20	11	10	9	9	11	11
Libya	78	303	311	151	129	114	345	108	123
Mauritania	30	13	14	18					
Niger		26	29	27	25	27	29	33	36
Nigeria	40	45	53	52	50	48	54	60	68
South Sudan		65	70	65	66	56	58	63	68
Sudan	38	39	50	61	57	59	66	66	68
Tunisia	14	20	21	25	25	27	30	31	32

<sup>(\*)</sup> Data source: Eni's calculations on Enerdata *Global Energy Market & CO<sub>2</sub> Data*, IEA (2023) *Monthly Oil Data Services* and other official data sources. All rights reserved.

# Reserves/Production Ratio

## Countries<sup>(\*)</sup>

(years)

	2010	2015	2016	2017	2018	2019	2020	2021	2022
<b>Asia - Pacific</b>	<b>13</b>	<b>13</b>	<b>16</b>	<b>16</b>	<b>17</b>	<b>17</b>	<b>17</b>	<b>16</b>	<b>16</b>
Australia	19	18	19	21	19	14	14	10	11
Bangladesh	11	10	7	7	7	7	7	8	8
Brunei	18	24	25	27	27	25	27	28	32
China	10	12	18	18	18	18	18	17	17
India	18	15	15	14	14	15	17	14	14
Indonesia	11	11	10	11	11	11	9	10	10
Japan	7	10	11	10	12	11	12	12	14
Malaysia	14	14	13	14	14	15	16	17	18
Mongolia	7	29	32	35	36	47	49	51	54
Myanmar	8	13	35	35	42	48	48	50	51
New Zealand	7	5	5	5	6	5	5	6	7
Pakistan	11	10	9	8	9	9	14	15	15
Papua New Guinea	8	8	8	10	13	12	11	11	11
Philippines	19	25	19	22	22	35	35	36	37
Thailand	3	4	2	2	2	2	1	1	1
Vietnam	39	33	39	43	48	52	59	62	64
	2010	2015	2016	2017	2018	2019	2020	2021	2022
<b>Americas</b>	<b>69</b>	<b>54</b>	<b>55</b>	<b>55</b>	<b>52</b>	<b>49</b>	<b>50</b>	<b>52</b>	<b>51</b>
Argentina	9	10	10	10	9	8	11	11	9
Barbados	5	10	10	9	11	11	10	10	11
Bolivia	22	7	7	8	7	10	10	10	11
Brazil	18	14	13	13	13	12	11	12	13
Canada	139	104	101	94	86	83	86	95	92
Chile	30	64	77	64	44	34	44	47	38
Colombia	7	5	5	5	6	6	7	7	7
Cuba	6	6	7	7	7	8	8	9	10
Ecuador	42	41	41	42	43	42	47	48	49
Guatemala	20	26	30	31	44	38	28	34	37
Mexico	13	14	11	11	10	10	10	10	10
Peru	22	26	25	25	20	17	14	19	20
Suriname	15	18	14	14	15	15	15	16	17
Trinidad and Tobago	15	18	7	7	8	7	9	9	9
United States	9	8	8	9	8	7	6	7	9
Venezuela	293	309	341	389	542	848	1,417	1,257	1,090

<sup>(\*)</sup> Data source: Eni's calculations on Enerdata *Global Energy Market & CO<sub>2</sub> Data*, IEA (2023) *Monthly Oil Data Services* and other official data sources. All rights reserved.

# Consumption

## Areas and Aggregates<sup>(\*)</sup>

(thousand barrels/day)

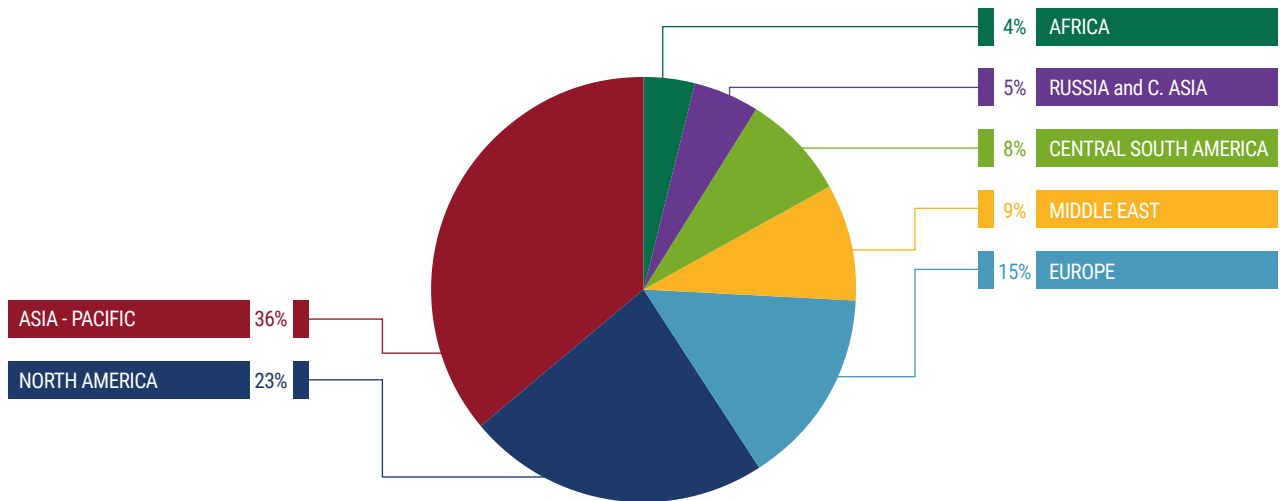
	2010	2015	2016	2017	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
Europe	15,921	14,976	15,188	15,576	15,485	15,502	13,518	14,307	14,624	2.2%	-0.7%
Russia and Central Asia	3,424	4,213	4,086	4,259	4,269	4,310	4,176	4,444	4,568	2.8%	2.4%
Middle East	7,986	9,115	9,045	9,156	9,111	9,076	8,285	8,704	9,292	6.8%	1.3%
Africa	3,544	4,114	4,068	4,104	4,117	4,135	3,773	4,012	4,198	4.6%	1.4%
Asia - Pacific	27,546	32,236	33,034	34,247	35,425	35,869	33,886	35,934	36,099	0.5%	2.3%
Americas	30,205	31,108	31,119	31,253	31,603	31,700	27,901	30,257	31,135	2.9%	0.3%
- North America	21,755	22,127	22,292	22,505	23,104	23,054	20,519	22,293	22,713	1.9%	0.4%
- Central South America	8,450	8,981	8,827	8,748	8,499	8,646	7,382	7,964	8,422	5.8%	0.0%
<b>World</b>	<b>88,626</b>	<b>95,762</b>	<b>96,540</b>	<b>98,595</b>	<b>100,010</b>	<b>100,592</b>	<b>91,539</b>	<b>97,658</b>	<b>99,916</b>	<b>2.3%</b>	<b>1.0%</b>
European Union 27	12,395	11,438	11,518	11,826	11,762	11,786	10,346	10,954	11,238	2.6%	-0.8%
MENA	9,678	10,941	10,808	10,881	10,791	10,711	9,811	10,373	11,105	7.1%	1.2%
OECD	47,365	46,906	47,334	47,858	48,088	48,089	42,402	45,235	46,385	2.5%	-0.2%
NON OECD	41,261	48,856	49,206	50,737	51,922	52,503	49,137	52,423	53,531	2.1%	2.2%
OPEC	8,563	9,848	9,659	9,617	9,457	9,418	8,514	8,964	9,463	5.6%	0.8%
NON OPEC	80,063	85,914	86,881	88,978	90,553	91,174	83,025	88,694	90,453	2.0%	1.0%

<sup>(\*)</sup> Data source: Eni's calculations on IEA (2023) *Monthly Oil Data Services* data. All rights reserved.

# Consumption

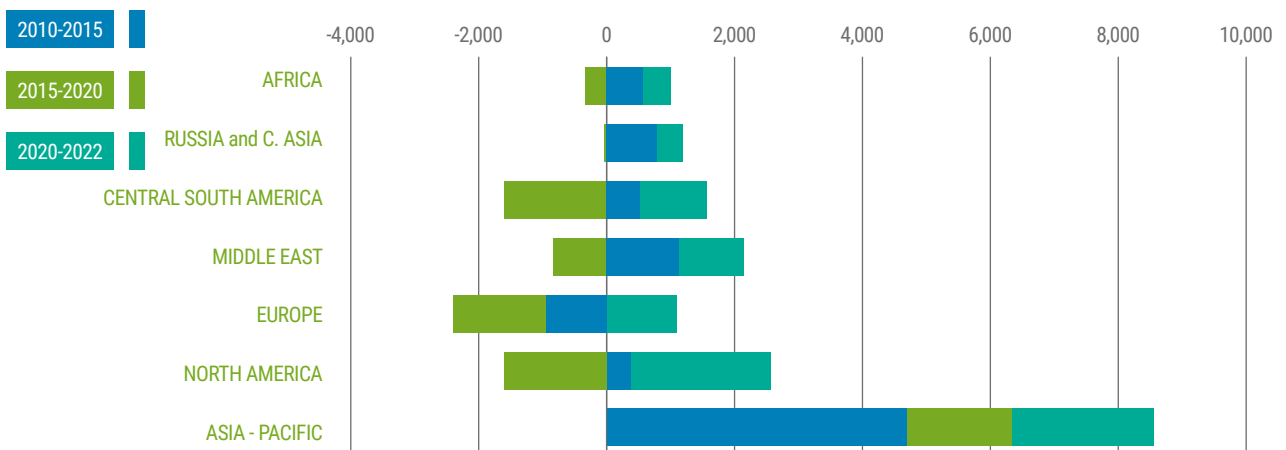
## World Oil Consumption (2022)

99,916 thousand barrels/day



## World Oil Consumption Growth (2010-2022)

11,290 thousand barrels/day



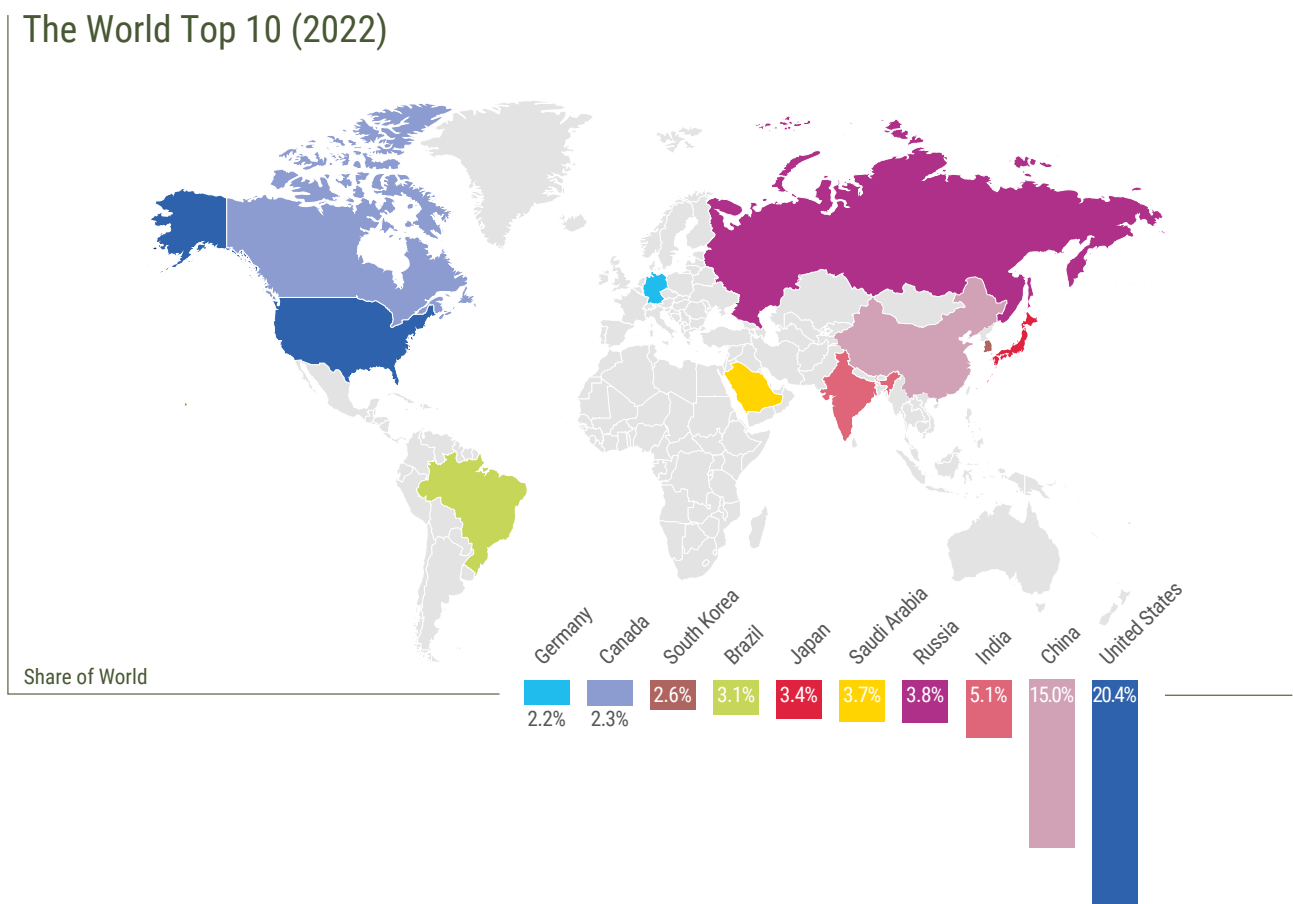
# Consumption

## The World Top 10 Consumers<sup>(\*)</sup>

(thousand barrels/day)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
United States	19,391	19,687	19,827	20,042	20,595	20,583	18,348	20,034	20,430	2.0%	0.4%
China	9,031	11,639	12,013	12,574	13,581	14,080	14,196	15,419	15,001	-2.7%	4.3%
India	3,366	4,288	4,493	4,762	4,927	4,963	4,582	4,765	5,145	8.0%	3.6%
Russia	2,828	3,472	3,308	3,496	3,494	3,568	3,421	3,655	3,760	2.9%	2.4%
Saudi Arabia	3,174	3,895	3,870	3,804	3,608	3,635	3,448	3,494	3,717	6.4%	1.3%
Japan	4,402	4,169	4,036	3,945	3,852	3,764	3,361	3,415	3,369	-1.3%	-2.2%
Brazil	2,779	3,193	3,006	3,045	2,979	3,082	2,866	3,006	3,067	2.0%	0.8%
South Korea	2,269	2,473	2,603	2,627	2,564	2,596	2,448	2,578	2,582	0.2%	1.1%
Canada	2,364	2,440	2,465	2,463	2,509	2,471	2,171	2,259	2,283	1.1%	-0.3%
Germany	2,467	2,368	2,383	2,450	2,327	2,355	2,148	2,126	2,171	2.1%	-1.1%
<b>The World Top 10</b>	<b>52,071</b>	<b>57,624</b>	<b>58,004</b>	<b>59,208</b>	<b>60,436</b>	<b>61,097</b>	<b>56,989</b>	<b>60,751</b>	<b>61,525</b>	<b>1.3%</b>	<b>1.4%</b>
Rest of the World	36,555	38,138	38,536	39,387	39,574	39,495	34,550	36,907	38,391	4.0%	0.4%
World	88,626	95,762	96,540	98,595	100,010	100,592	91,539	97,658	99,916	2.3%	1.0%

## The World Top 10 (2022)



<sup>(\*)</sup> Data source: IEA (2023) *Monthly Oil Data Services*. All rights reserved.

# Consumption

## Countries<sup>(\*)</sup>

(thousand barrels/day)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
Europe	15,921	14,976	15,188	15,576	15,485	15,502	13,518	14,307	14,624	2.2%	-0.7%
Albania	26	26	28	30	27	29	23	28	29	3.6%	0.9%
Austria	278	258	262	263	269	277	239	253	246	-2.8%	-1.0%
Belarus	151	139	137	137	151	146	147	152	145	-4.6%	-0.3%
Belgium	653	624	633	638	684	643	563	631	599	-5.1%	-0.7%
Bosnia Herzegovina	34	31	35	35	35	34	32	34	35	2.9%	0.2%
Bulgaria	84	95	96	98	100	104	95	99	101	2.0%	1.5%
Croatia	78	69	68	73	72	71	60	67	70	4.5%	-0.9%
Cyprus	57	48	52	53	53	53	45	51	52	2.0%	-0.8%
Czech Republic	202	196	180	214	217	219	192	212	218	2.8%	0.6%
Denmark	167	154	158	159	161	165	137	140	148	5.7%	-1.0%
Estonia	27	29	29	30	30	28	28	30	30	0.0%	0.9%
Finland	214	207	210	209	210	209	189	179	190	6.1%	-1.0%
France	1,817	1,747	1,709	1,737	1,686	1,689	1,428	1,548	1,535	-0.8%	-1.4%
Germany	2,467	2,368	2,383	2,450	2,327	2,355	2,148	2,126	2,171	2.1%	-1.1%
Gibraltar	83	74	75	84	82	84	84	84	84	0.0%	0.1%
Greece	370	295	296	303	300	310	251	268	301	12.3%	-1.7%
Hungary	149	155	154	167	179	180	168	183	180	-1.6%	1.6%
Iceland	15	17	19	21	23	20	13	14	19	35.7%	2.0%
Ireland	164	146	152	154	159	159	135	141	151	7.1%	-0.7%
Italy	1,544	1,274	1,237	1,244	1,272	1,255	1,032	1,185	1,223	3.2%	-1.9%
Kosovo	11	14	14	15	15	16	15	15	16	6.7%	3.2%
Latvia	37	37	38	38	35	40	35	37	37	0.0%	0.0%
Lithuania	56	57	62	64	68	68	64	66	66	0.0%	1.4%
Luxembourg	60	56	56	59	63	64	53	54	49	-9.3%	-1.7%
Malta	47	43	45	51	52	54	50	53	56	5.7%	1.5%
Moldova	17	18	19	20	21	21	20	21	21	0.0%	1.8%
Montenegro	7	6	7	8	8	9	7	8	8	0.0%	1.1%
Netherlands	985	932	935	943	929	904	861	850	881	3.6%	-0.9%
North Macedonia	18	20	22	21	21	22	21	21	20	-4.8%	0.9%
Norway	228	234	224	231	236	242	211	238	190	-20.2%	-1.5%
Poland	568	541	582	658	680	698	661	702	728	3.7%	2.1%
Portugal	274	237	237	242	231	249	203	208	241	15.9%	-1.1%
Romania	176	194	204	217	214	228	219	232	233	0.4%	2.4%
Serbia	81	71	77	77	76	78	72	78	80	2.6%	-0.1%
Slovakia	84	79	82	90	92	86	87	93	95	2.2%	1.0%
Slovenia	55	49	52	54	57	55	46	47	52	10.6%	-0.5%
Spain	1,441	1,247	1,290	1,297	1,332	1,328	1,089	1,188	1,286	8.2%	-0.9%
Sweden	341	301	316	321	290	295	268	311	299	-3.9%	-1.1%
Switzerland	261	227	228	225	222	220	180	185	191	3.2%	-2.6%
Türkiye	675	881	942	991	958	987	921	978	1,019	4.2%	3.5%
Ukraine	293	220	244	236	243	244	215	239	168	-29.7%	-4.5%
United Kingdom	1,626	1,560	1,599	1,619	1,605	1,564	1,211	1,258	1,361	8.2%	-1.5%

<sup>(\*)</sup> Data source: IEA (2023) *Monthly Oil Data Services*. All rights reserved.



# Consumption

## Countries<sup>(\*)</sup>

(thousand barrels/day)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
<b>Russia and Central Asia</b>	<b>3,424</b>	<b>4,213</b>	<b>4,086</b>	<b>4,259</b>	<b>4,269</b>	<b>4,310</b>	<b>4,176</b>	<b>4,444</b>	<b>4,568</b>	<b>2.8%</b>	<b>2.4%</b>
Russia	2,828	3,472	3,308	3,496	3,494	3,568	3,421	3,655	3,760	2.9%	2.4%
Armenia	9	7	7	8	8	10	13	13	14	7.7%	3.8%
Azerbaijan	74	96	96	102	103	110	101	105	109	3.8%	3.3%
Georgia	22	26	32	31	29	31	29	30	32	6.7%	3.2%
Kazakhstan	233	322	349	334	326	290	314	325	331	1.8%	3.0%
Kyrgyzstan	27	36	38	32	41	30	25	32	31	-3.1%	1.2%
Tajikistan	11	22	22	21	24	26	26	30	31	3.3%	9.0%
Turkmenistan	126	151	149	150	151	152	150	148	150	1.4%	1.5%
Uzbekistan	94	81	85	85	93	93	97	106	110	3.8%	1.3%
	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
<b>Middle East</b>	<b>7,986</b>	<b>9,115</b>	<b>9,045</b>	<b>9,156</b>	<b>9,111</b>	<b>9,076</b>	<b>8,285</b>	<b>8,704</b>	<b>9,292</b>	<b>6.8%</b>	<b>1.3%</b>
Bahrain	61	61	60	63	65	64	55	55	61	10.9%	0.0%
Iran	1,848	2,003	1,839	1,898	1,979	1,937	1,763	1,833	1,850	0.9%	0.0%
Iraq	565	606	655	689	713	754	619	707	829	17.3%	3.2%
Israel	251	217	221	238	232	235	210	219	244	11.4%	-0.2%
Jordan	102	134	110	124	111	108	88	99	105	6.1%	0.2%
Kuwait	450	448	439	438	438	415	385	419	428	2.1%	-0.4%
Lebanon	120	162	169	179	168	169	134	156	156	0.0%	2.2%
Oman	127	185	194	191	233	213	181	242	255	5.4%	6.0%
Qatar	173	287	305	337	357	358	296	306	351	14.7%	6.1%
Saudi Arabia	3,174	3,895	3,870	3,804	3,608	3,635	3,448	3,494	3,717	6.4%	1.3%
Syria	307	123	120	123	148	133	124	126	128	1.6%	-7.0%
United Arab Emirates	660	921	1,004	1,014	988	984	919	984	1,102	12.0%	4.4%
Yemen	148	73	59	58	71	71	63	64	66	3.1%	-6.5%

<sup>(\*)</sup> Data source: IEA (2023) *Monthly Oil Data Services*. All rights reserved.

# Consumption

## Countries<sup>(\*)</sup>

(thousand barrels/day)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
<b>Africa</b>	<b>3,544</b>	<b>4,114</b>	<b>4,068</b>	<b>4,104</b>	<b>4,117</b>	<b>4,135</b>	<b>3,773</b>	<b>4,012</b>	<b>4,198</b>	<b>4.6%</b>	<b>1.4%</b>
Algeria	351	447	430	425	437	446	436	451	480	6.4%	2.6%
Angola	99	154	135	119	117	127	98	118	121	2.5%	1.7%
Benin	35	36	45	45	51	50	55	54	56	3.7%	4.0%
Cameroon	34	39	39	38	40	39	37	37	39	5.4%	1.1%
Congo	12	15	14	12	12	12	11	11	12	9.1%	0.0%
Côte d'Ivoire	24	45	50	50	52	56	52	55	59	7.3%	7.8%
Dem. Rep. Congo	16	21	16	18	17	18	19	16	18	12.5%	1.0%
Egypt	763	858	829	773	716	652	619	676	773	14.3%	0.1%
Ethiopia	44	69	81	87	93	95	92	89	96	7.9%	6.7%
Gabon	19	22	23	15	15	15	14	14	15	7.1%	-2.0%
Ghana	71	85	94	92	101	103	98	105	110	4.8%	3.7%
Kenya	85	105	111	119	117	122	107	113	122	8.0%	3.1%
Libya	304	219	200	205	210	209	176	223	234	4.9%	-2.2%
Morocco	257	274	277	293	288	297	266	289	295	2.1%	1.2%
Mozambique	16	26	28	28	28	30	27	28	30	7.1%	5.4%
Nigeria	293	415	427	431	456	488	431	480	458	-4.6%	3.8%
Senegal	38	47	48	46	51	60	51	59	62	5.1%	4.2%
South Africa	587	637	607	663	648	621	533	567	578	1.9%	-0.1%
South Sudan	0	14	13	12	13	14	13	12	13	8.3%	
Sudan	114	122	137	141	141	143	132	133	135	1.5%	1.4%
Tanzania	88	102	98	104	103	103	94	93	83	-10.8%	-0.5%
Tunisia	33	52	51	53	54	64	62	64	67	4.7%	6.1%
Zambia	17	28	27	29	29	31	29	30	31	3.3%	5.1%
Zimbabwe	14	27	24	25	31	29	23	24	25	4.2%	5.0%
Others Africa	230	255	264	281	297	311	298	271	286	5.5%	1.8%

<sup>(\*)</sup> Data source: IEA (2023) *Monthly Oil Data Services*. All rights reserved.

# Consumption

## Countries<sup>(\*)</sup>

(thousand barrels/day)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
Asia - Pacific	27,546	32,236	33,034	34,247	35,425	35,869	33,886	35,934	36,099	0.5%	2.3%
Australia	1,045	1,123	1,114	1,164	1,183	1,166	999	1,020	1,079	5.8%	0.3%
Bangladesh	80	136	145	164	188	189	147	195	201	3.1%	8.0%
Brunei	16	17	15	15	17	21	24	62	63	1.6%	12.1%
China	9,031	11,639	12,013	12,574	13,581	14,080	14,196	15,419	15,001	-2.7%	4.3%
Hong Kong	415	371	384	433	438	412	287	262	219	-16.4%	-5.2%
India	3,366	4,288	4,493	4,762	4,927	4,963	4,582	4,765	5,145	8.0%	3.6%
Indonesia	1,406	1,683	1,594	1,703	1,858	1,833	1,659	1,729	1,774	2.6%	2.0%
Japan	4,402	4,169	4,036	3,945	3,852	3,764	3,361	3,415	3,369	-1.3%	-2.2%
Malaysia	586	688	709	731	712	752	667	704	785	11.5%	2.5%
Myanmar	24	74	89	141	143	148	139	121	130	7.4%	15.1%
Nepal	22	27	44	54	59	55	59	59	61	3.4%	8.9%
New Zealand	153	161	168	177	180	185	149	149	160	7.4%	0.4%
North Korea	17	18	20	18	18	19	19	18	18	0.0%	0.5%
Pakistan	400	526	577	575	462	445	427	500	487	-2.6%	1.7%
Philippines	314	401	430	461	467	478	399	445	471	5.8%	3.4%
Singapore	1,162	1,294	1,340	1,396	1,388	1,361	1,236	1,224	1,260	2.9%	0.7%
South Korea	2,269	2,473	2,603	2,627	2,564	2,596	2,448	2,578	2,582	0.2%	1.1%
Sri Lanka	88	105	136	135	127	134	110	123	79	-35.8%	-0.9%
Taiwan	1,047	1,046	1,051	1,037	1,041	987	945	990	911	-8.0%	-1.2%
Thailand	1,118	1,363	1,407	1,434	1,472	1,477	1,353	1,409	1,485	5.4%	2.4%
Vietnam	395	399	432	457	489	521	441	491	557	13.4%	2.9%
Others Asia - Pacific	190	235	234	244	259	283	239	256	262	2.3%	2.7%

<sup>(\*)</sup> Data source: IEA (2023) *Monthly Oil Data Services*. All rights reserved.

# Consumption

## Countries<sup>(\*)</sup>

(thousand barrels/day)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
<b>Americas</b>	<b>30,205</b>	<b>31,108</b>	<b>31,119</b>	<b>31,253</b>	<b>31,603</b>	<b>31,700</b>	<b>27,901</b>	<b>30,257</b>	<b>31,135</b>	<b>2.9%</b>	<b>0.3%</b>
Argentina	656	682	677	666	648	625	524	599	654	9.2%	0.0%
Bolivia	59	79	82	85	89	91	77	85	88	3.5%	3.4%
Brazil	2,779	3,193	3,006	3,045	2,979	3,082	2,866	3,006	3,067	2.0%	0.8%
Canada	2,364	2,440	2,465	2,463	2,509	2,471	2,171	2,259	2,283	1.1%	-0.3%
Chile	322	331	352	357	363	362	331	367	381	3.8%	1.4%
Colombia	266	338	372	346	349	373	323	357	375	5.0%	2.9%
Costa Rica	50	53	58	59	60	60	50	57	60	5.3%	1.5%
Cuba	182	183	168	168	167	151	152	157	157	0.0%	-1.2%
Curacao	69	78	73	66	60	54	44	53	52	-1.9%	-2.3%
Dominican Republic	123	133	142	133	145	152	118	151	160	6.0%	2.2%
Ecuador	235	268	256	253	274	270	223	255	262	2.7%	0.9%
El Salvador	45	50	50	46	51	59	46	56	58	3.6%	2.1%
Guatemala	70	89	92	93	100	109	101	109	112	2.8%	4.0%
Haiti	16	22	23	23	23	23	22	21	21	0.0%	2.3%
Honduras	46	60	57	54	49	56	50	55	56	1.8%	1.7%
Jamaica	51	52	56	53	60	61	38	56	58	3.6%	1.1%
Mexico	2,094	2,006	2,053	2,019	1,886	1,985	1,599	1,655	1,916	15.8%	-0.7%
Nicaragua	29	34	36	36	33	34	31	35	36	2.9%	1.8%
Panama	122	144	151	164	158	176	137	163	176	8.0%	3.1%
Paraguay	36	47	53	60	63	62	57	60	61	1.7%	4.5%
Peru	200	236	247	262	266	274	211	265	274	3.4%	2.7%
Trinidad and Tobago	43	46	47	44	37	31	26	27	29	7.4%	-3.2%
United States	19,391	19,687	19,827	20,042	20,595	20,583	18,348	20,034	20,430	2.0%	0.4%
Uruguay	51	52	51	49	52	54	49	53	56	5.7%	0.8%
Venezuela	788	703	623	567	484	396	214	230	217	-5.7%	-10.2%
Others Americas	118	102	102	100	103	106	93	92	96	4.3%	-1.7%

<sup>(\*)</sup> Data source: IEA (2023) *Monthly Oil Data Services*. All rights reserved.

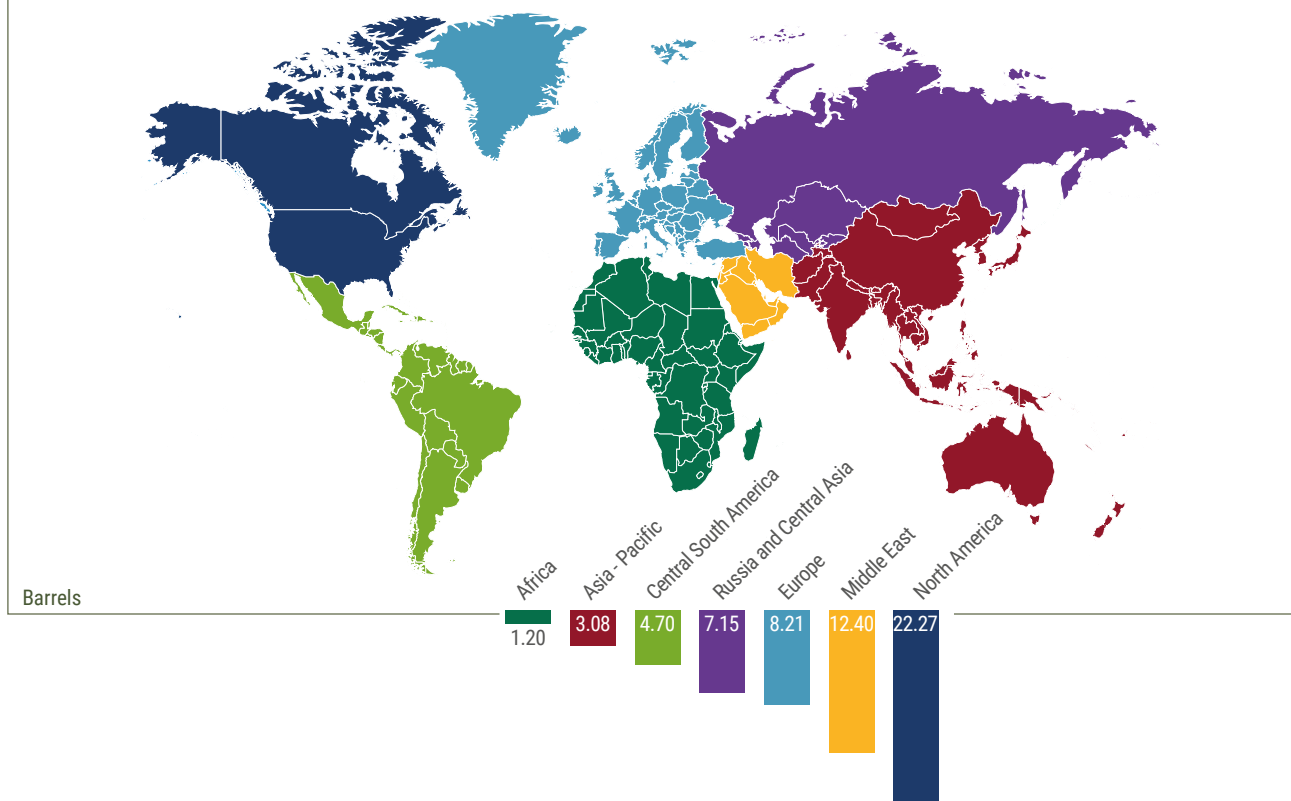
# Per Capita Consumption

## Areas and Aggregates<sup>(\*)</sup>

(barrels)

	2010	2015	2016	2017	2018	2019	2020	2021	2022
Europe	9.28	8.56	8.65	8.84	8.76	8.75	7.61	8.04	8.21
Russia and Central Asia	5.35	6.50	6.28	6.53	6.53	6.59	6.38	6.80	7.15
Middle East	13.27	13.60	13.23	13.16	12.86	12.58	11.34	11.78	12.40
Africa	1.36	1.40	1.35	1.33	1.30	1.27	1.13	1.18	1.20
Asia - Pacific	2.61	2.90	2.94	3.03	3.10	3.12	2.92	3.08	3.08
Americas	11.89	11.66	11.55	11.50	11.53	11.48	10.04	10.83	11.08
- North America	23.10	22.59	22.58	22.63	23.07	22.88	20.27	21.97	22.27
- Central South America	5.28	5.32	5.17	5.08	4.89	4.93	4.18	4.48	4.70
World	4.66	4.74	4.72	4.77	4.78	4.76	4.29	4.54	4.61
European Union 27	10.24	9.40	9.46	9.70	9.64	9.65	8.46	8.96	9.20
MENA	9.00	9.19	8.91	8.82	8.59	8.38	7.57	7.90	8.34
OECD	13.42	12.87	12.91	12.98	12.97	12.90	11.33	12.06	12.33
NON OECD	2.66	2.95	2.93	2.99	3.02	3.02	2.79	2.95	2.99
OPEC	7.62	7.78	7.46	7.28	7.02	6.86	6.10	6.32	6.55
NON OPEC	4.47	4.54	4.54	4.60	4.63	4.62	4.16	4.41	4.47

## Per Capita Consumption (2022)



<sup>(\*)</sup> Data source: Eni's calculations on IEA (2023) *Monthly Oil Data Services* and IHS Global Insight data. All rights reserved.

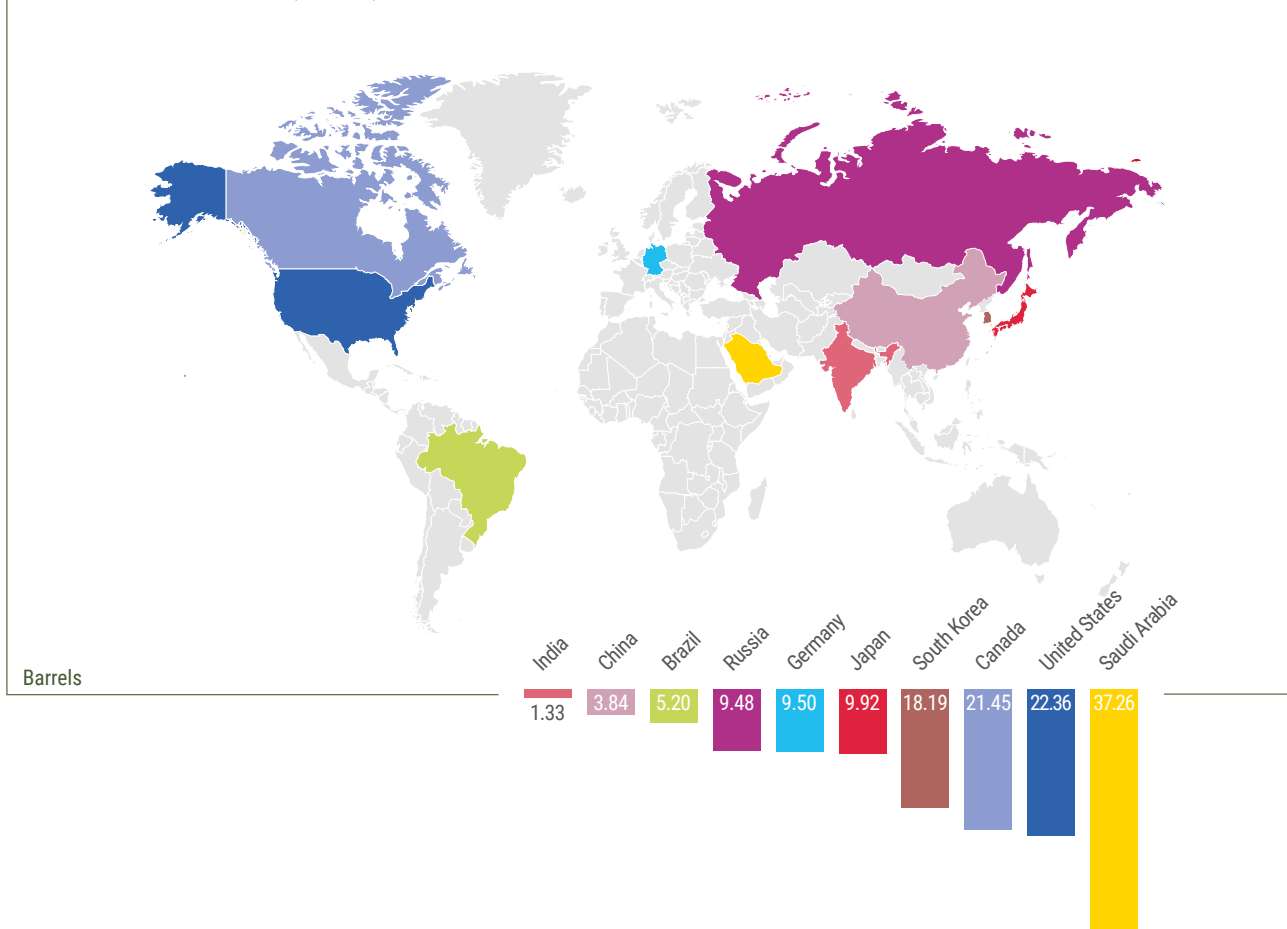
# Per Capita Consumption

## The World Top 10 Consumers Ranked by Per Capita Consumption Ratio<sup>(\*)</sup>

(barrels)

	2010	2015	2016	2017	2018	2019	2020	2021	2022
Saudi Arabia	39.39	43.41	42.27	40.61	37.61	37.03	34.96	35.47	37.26
United States	22.85	22.33	22.32	22.40	22.88	22.74	20.20	22.01	22.36
Canada	25.41	24.96	24.96	24.63	24.75	24.03	20.87	21.58	21.45
South Korea	16.97	17.70	18.52	18.61	18.11	18.29	17.23	18.15	18.19
Japan	12.54	11.96	11.60	11.37	11.14	10.92	9.79	10.00	9.92
Germany	11.07	10.53	10.56	10.82	10.25	10.34	9.41	9.30	9.50
Russia	7.21	8.76	8.32	8.77	8.76	8.94	8.57	9.19	9.48
Brazil	5.17	5.68	5.30	5.33	5.17	5.31	4.91	5.12	5.20
China	2.44	3.05	3.13	3.25	3.50	3.61	3.64	3.95	3.84
India	0.99	1.18	1.23	1.28	1.31	1.31	1.20	1.24	1.33

## The World Top 10 (2022)



<sup>(\*)</sup> Data source: Eni's calculations on IEA (2023) *Monthly Oil Data Services* and IHS Global Insight data. All rights reserved.

# Per Capita Consumption

## Countries<sup>(\*)</sup>

(barrels)

	2010	2015	2016	2017	2018	2019	2020	2021	2022
Europe	9.28	8.56	8.65	8.84	8.76	8.75	7.61	8.04	8.21
Albania	3.25	3.29	3.55	3.81	3.43	3.70	2.95	3.60	3.73
Austria	12.13	10.90	10.95	10.91	11.11	11.39	9.79	10.35	10.04
Belarus	5.66	5.23	5.15	5.15	5.68	5.51	5.57	5.79	5.55
Belgium	21.91	20.25	20.42	20.46	21.81	20.39	17.77	19.84	18.76
Bosnia Herzegovina	3.26	3.21	3.67	3.71	3.76	3.69	3.52	3.79	3.95
Bulgaria	4.13	4.82	4.90	5.04	5.18	5.42	4.99	5.24	5.39
Croatia	6.52	5.92	5.88	6.36	6.32	6.28	5.35	6.02	6.34
Cyprus	25.40	20.68	22.37	22.63	22.38	22.09	18.54	20.77	20.94
Czech Republic	7.00	6.75	6.19	7.34	7.43	7.48	6.54	7.22	7.41
Denmark	10.98	9.90	10.11	10.12	10.19	10.39	8.58	8.73	9.18
Estonia	7.40	8.05	8.04	8.30	8.28	7.71	7.70	8.26	8.28
Finland	14.56	13.79	13.95	13.85	13.90	13.82	12.48	11.80	12.52
France	10.62	9.99	9.75	9.88	9.57	9.57	8.08	8.76	8.67
Germany	11.07	10.53	10.56	10.82	10.25	10.34	9.41	9.30	9.50
Greece	12.24	9.96	10.05	10.34	10.30	10.70	8.72	9.36	10.58
Hungary	5.48	5.79	5.76	6.26	6.73	6.78	6.35	6.93	6.84
Iceland	17.20	18.74	20.66	22.31	23.79	20.23	12.94	13.80	18.60
Ireland	13.23	11.42	11.76	11.78	12.00	11.85	9.96	10.32	10.97
Italy	9.42	7.72	7.51	7.57	7.75	7.67	6.33	7.30	7.56
Kosovo	2.26	2.84	2.88	3.07	3.06	3.25	3.04	3.03	3.22
Latvia	6.43	6.78	7.03	7.10	6.60	7.62	6.73	7.21	7.30
Lithuania	6.51	7.02	7.71	8.04	8.63	8.71	8.28	8.64	8.76
Luxembourg	43.19	35.90	35.04	36.12	37.83	37.68	30.69	30.83	27.62
Malta	40.97	34.38	35.12	38.82	38.61	39.14	35.41	36.73	38.33
Moldova	2.16	2.31	2.46	2.63	2.81	2.85	2.76	2.95	3.00
Montenegro	4.12	3.52	4.11	4.69	4.69	5.28	4.11	4.72	4.69
Netherlands	21.64	19.96	19.93	20.00	19.62	19.00	18.03	17.73	18.31
North Macedonia	3.14	3.46	3.81	3.63	3.63	3.80	3.63	3.64	3.49
Norway	17.02	16.46	15.61	15.98	16.22	16.52	14.32	16.08	12.76
Poland	5.41	5.19	5.59	6.33	6.55	6.72	6.37	6.78	7.04
Portugal	9.45	8.35	8.37	8.57	8.19	8.83	7.19	7.38	8.56
Romania	3.14	3.55	3.76	4.03	4.00	4.30	4.16	4.43	4.47
Serbia	4.05	3.65	3.98	4.00	3.97	4.10	3.81	4.17	4.29
Slovakia	5.67	5.30	5.50	6.03	6.16	5.75	5.82	6.22	6.35
Slovenia	9.76	8.59	9.08	9.39	9.88	9.50	7.93	8.09	8.95
Spain	11.29	9.80	10.13	10.16	10.39	10.28	8.39	9.13	9.87
Sweden	13.27	11.15	11.59	11.65	10.42	10.49	9.43	10.84	10.35
Switzerland	12.18	10.00	9.94	9.72	9.52	9.36	7.61	7.77	7.98
Türkiye	3.37	4.04	4.24	4.41	4.22	4.32	4.00	4.21	4.36
Ukraine	2.34	1.79	1.99	1.93	2.00	2.01	1.79	2.00	1.60
United Kingdom	9.46	8.73	8.89	8.94	8.82	8.55	6.59	6.82	7.36

<sup>(\*)</sup> Data source: Eni's calculations on IEA (2023) *Monthly Oil Data Services* and IHS Global Insight data. All rights reserved.

# Per Capita Consumption

## Countries<sup>(\*)</sup>

(barrels)

	2010	2015	2016	2017	2018	2019	2020	2021	2022
<b>Russia and Central Asia</b>	<b>5.35</b>	<b>6.50</b>	<b>6.28</b>	<b>6.53</b>	<b>6.53</b>	<b>6.59</b>	<b>6.38</b>	<b>6.80</b>	<b>7.15</b>
Russia	7.21	8.76	8.32	8.77	8.76	8.94	8.57	9.19	9.48
Armenia	1.11	0.89	0.89	1.02	1.03	1.29	1.69	1.70	1.84
Azerbaijan	2.92	3.55	3.51	3.70	3.70	3.92	3.58	3.72	3.84
Georgia	2.09	2.52	3.10	3.00	2.81	3.00	2.81	2.91	3.12
Kazakhstan	5.11	6.59	7.05	6.66	6.42	5.64	6.04	6.18	6.23
Kyrgyzstan	1.80	2.22	2.30	1.91	2.40	1.73	1.42	1.79	1.71
Tajikistan	0.53	0.94	0.92	0.86	0.96	1.02	0.99	1.12	1.14
Turkmenistan	8.73	9.56	9.27	9.17	9.09	9.01	8.76	8.52	8.51
Uzbekistan	1.20	0.96	0.99	0.97	1.05	1.03	1.06	1.14	1.16
	2010	2015	2016	2017	2018	2019	2020	2021	2022
<b>Middle East</b>	<b>13.27</b>	<b>13.60</b>	<b>13.23</b>	<b>13.16</b>	<b>12.86</b>	<b>12.58</b>	<b>11.34</b>	<b>11.78</b>	<b>12.40</b>
Bahrain	18.35	16.35	15.54	15.78	15.95	15.63	13.59	13.72	15.12
Iran	8.95	8.94	8.06	8.20	8.44	8.17	7.37	7.61	7.63
Iraq	6.60	5.86	6.18	6.35	6.41	6.62	5.31	5.93	6.80
Israel	12.50	9.89	9.89	10.45	10.01	9.96	8.75	8.98	9.85
Jordan	5.37	5.15	4.03	4.43	3.87	3.68	2.94	3.24	3.40
Kuwait	55.80	41.83	39.58	38.76	37.03	34.11	32.23	35.98	36.60
Lebanon	8.77	9.24	9.86	10.69	10.30	10.67	8.64	10.18	10.37
Oman	16.08	16.11	16.10	15.35	18.48	16.89	14.54	19.54	20.34
Qatar	36.85	43.38	42.90	45.36	47.10	46.55	39.14	41.55	47.54
Saudi Arabia	39.39	43.41	42.27	40.61	37.61	37.03	34.96	35.47	37.26
Syria	5.02	2.34	2.31	2.36	2.79	2.42	2.18	2.16	2.11
United Arab Emirates	28.40	37.70	40.74	40.81	39.45	38.99	36.12	38.35	42.60
Yemen	2.18	0.93	0.74	0.70	0.84	0.82	0.71	0.71	0.71

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# Per Capita Consumption

## Countries<sup>(\*)</sup>

(barrels)

	2010	2015	2016	2017	2018	2019	2020	2021	2022
<b>Africa</b>	<b>1.36</b>	<b>1.40</b>	<b>1.35</b>	<b>1.33</b>	<b>1.30</b>	<b>1.27</b>	<b>1.13</b>	<b>1.18</b>	<b>1.20</b>
Algeria	3.57	4.13	3.89	3.77	3.80	3.81	3.66	3.73	3.90
Angola	1.55	2.00	1.69	1.44	1.37	1.43	1.07	1.25	1.24
Benin	1.35	1.20	1.46	1.42	1.56	1.48	1.59	1.52	1.53
Cameroon	0.62	0.62	0.60	0.57	0.58	0.55	0.51	0.50	0.51
Congo	0.99	1.08	0.99	0.82	0.80	0.79	0.70	0.69	0.73
Côte d'Ivoire	0.41	0.70	0.75	0.73	0.74	0.78	0.71	0.73	0.76
Dem. Rep. Congo	0.09	0.10	0.07	0.08	0.07	0.07	0.07	0.06	0.07
Egypt	3.19	3.20	3.03	2.77	2.52	2.25	2.10	2.26	2.54
Ethiopia	0.18	0.25	0.28	0.29	0.31	0.30	0.29	0.27	0.28
Gabon	4.05	3.96	4.02	2.56	2.50	2.44	2.23	2.18	2.29
Ghana	1.01	1.07	1.16	1.11	1.19	1.19	1.11	1.17	1.20
Kenya	0.75	0.82	0.85	0.89	0.85	0.87	0.75	0.78	0.82
Libya	17.09	12.91	11.62	11.73	11.83	11.61	9.65	12.08	12.54
Morocco	2.89	2.88	2.88	3.01	2.93	2.99	2.65	2.85	2.87
Mozambique	0.25	0.35	0.37	0.36	0.35	0.36	0.32	0.32	0.33
Nigeria	0.66	0.82	0.83	0.81	0.84	0.88	0.76	0.82	0.76
Senegal	1.11	1.19	1.19	1.11	1.20	1.37	1.13	1.28	1.31
South Africa	4.14	4.16	3.93	4.27	4.12	3.90	3.31	3.48	3.52
South Sudan	0.00	0.46	0.43	0.41	0.46	0.49	0.45	0.41	0.43
Sudan	0.96	1.15	1.26	1.27	1.24	1.23	1.11	1.10	1.09
Tanzania	0.71	0.71	0.66	0.67	0.65	0.63	0.56	0.53	0.46
Tunisia	2.95	3.22	3.06	3.21	3.15	3.12	2.82	2.77	2.45
Zambia	0.45	0.63	0.59	0.61	0.59	0.62	0.56	0.56	0.57
Zimbabwe	0.40	0.70	0.61	0.62	0.75	0.69	0.54	0.55	0.56

<sup>(\*)</sup> Data source: Eni's calculations on IEA (2023) *Monthly Oil Data Services* and IHS Global Insight data. All rights reserved.

## Per Capita Consumption

### Countries<sup>(\*)</sup>

(barrels)

	2010	2015	2016	2017	2018	2019	2020	2021	2022
Asia - Pacific	2.61	2.90	2.94	3.03	3.10	3.12	2.92	3.08	3.08
Australia	17.32	17.21	16.81	17.28	17.29	16.78	14.20	14.36	15.04
Bangladesh	0.20	0.31	0.33	0.37	0.42	0.42	0.32	0.42	0.43
Brunei	14.75	14.72	12.85	12.72	14.29	17.50	19.83	50.81	51.21
China	2.44	3.05	3.13	3.25	3.50	3.61	3.64	3.95	3.84
Hong Kong	21.24	18.30	18.85	21.18	21.37	20.06	13.97	12.76	10.67
India	0.99	1.18	1.23	1.28	1.31	1.31	1.20	1.24	1.33
Indonesia	2.10	2.37	2.22	2.35	2.54	2.48	2.23	2.31	2.35
Japan	12.54	11.96	11.60	11.37	11.14	10.92	9.79	10.00	9.92
Malaysia	7.45	8.08	8.21	8.34	8.02	8.37	7.33	7.65	8.44
Myanmar	0.18	0.52	0.63	0.98	0.99	1.02	0.95	0.82	0.88
Nepal	0.30	0.36	0.58	0.70	0.76	0.70	0.73	0.72	0.73
New Zealand	12.85	12.80	13.14	13.61	13.58	13.62	10.75	10.60	11.26
North Korea	0.25	0.26	0.29	0.26	0.26	0.27	0.27	0.25	0.25
Pakistan	0.75	0.91	0.99	0.97	0.77	0.73	0.69	0.79	0.75
Philippines	1.21	1.42	1.50	1.58	1.57	1.58	1.30	1.43	1.49
Singapore	82.14	83.59	85.63	88.39	87.13	84.68	76.34	75.20	76.96
South Korea	16.97	17.70	18.52	18.61	18.11	18.29	17.23	18.15	18.19
Sri Lanka	1.55	1.80	2.32	2.29	2.15	2.26	1.85	2.06	1.32
Taiwan	16.56	16.24	16.26	15.99	16.01	15.15	14.48	15.14	13.92
Thailand	5.98	7.08	7.27	7.38	7.55	7.56	6.91	7.18	7.56
Vietnam	1.65	1.58	1.69	1.77	1.88	1.99	1.67	1.84	2.07

<sup>(\*)</sup> Data source: Eni's calculations on IEA (2023) *Monthly Oil Data Services* and IHS Global Insight data. All rights reserved.

## Per Capita Consumption

### Countries<sup>(\*)</sup>

(barrels)

	2010	2015	2016	2017	2018	2019	2020	2021	2022
<b>Americas</b>	<b>11.89</b>	<b>11.66</b>	<b>11.55</b>	<b>11.50</b>	<b>11.53</b>	<b>11.48</b>	<b>10.04</b>	<b>10.83</b>	<b>11.08</b>
Argentina	5.83	5.75	5.66	5.52	5.33	5.10	4.25	4.83	5.25
Bolivia	2.11	2.60	2.66	2.71	2.80	2.82	2.35	2.57	2.63
Brazil	5.17	5.68	5.30	5.33	5.17	5.31	4.91	5.12	5.20
Canada	25.41	24.96	24.96	24.63	24.75	24.03	20.87	21.58	21.45
Chile	6.91	6.76	7.10	7.09	7.08	6.94	6.26	6.87	7.09
Colombia	2.17	2.62	2.85	2.61	2.59	2.71	2.31	2.53	2.64
Costa Rica	3.95	3.95	4.28	4.31	4.34	4.31	3.56	4.04	4.23
Cuba	5.88	5.89	5.41	5.41	5.38	4.87	4.91	5.09	5.11
Curacao	158.02	167.89	156.06	140.45	118.56	102.07	84.84	101.63	99.29
Dominican Republic	4.59	4.67	4.92	4.56	4.92	5.10	3.92	4.96	5.20
Ecuador	5.72	6.04	5.68	5.53	5.88	5.68	4.63	5.23	5.31
El Salvador	2.69	2.93	2.92	2.68	2.97	3.43	2.67	3.24	3.34
Guatemala	1.76	2.03	2.06	2.05	2.17	2.33	2.12	2.26	2.29
Haiti	0.59	0.76	0.78	0.77	0.76	0.75	0.71	0.67	0.66
Honduras	1.99	2.36	2.20	2.05	1.83	2.05	1.80	1.95	1.96
Jamaica	6.81	6.79	7.29	6.89	7.79	7.91	4.92	7.23	7.49
Mexico	6.79	6.09	6.17	6.00	5.55	5.79	4.63	4.77	5.48
Nicaragua	1.81	1.97	2.06	2.03	1.83	1.86	1.67	1.86	1.89
Panama	12.29	13.28	13.69	14.61	13.85	15.18	11.64	13.67	14.57
Paraguay	2.28	2.78	3.09	3.45	3.57	3.47	3.14	3.27	3.28
Peru	2.50	2.80	2.90	3.03	3.01	3.05	2.31	2.87	2.94
Trinidad and Tobago	11.13	11.50	11.68	10.86	8.98	7.44	6.25	6.46	6.91
United States	22.85	22.33	22.32	22.40	22.88	22.74	20.20	22.01	22.36
Uruguay	5.55	5.58	5.45	5.23	5.54	5.75	5.22	5.65	5.97
Venezuela	10.02	8.40	7.40	6.77	5.92	4.99	2.74	2.98	2.80

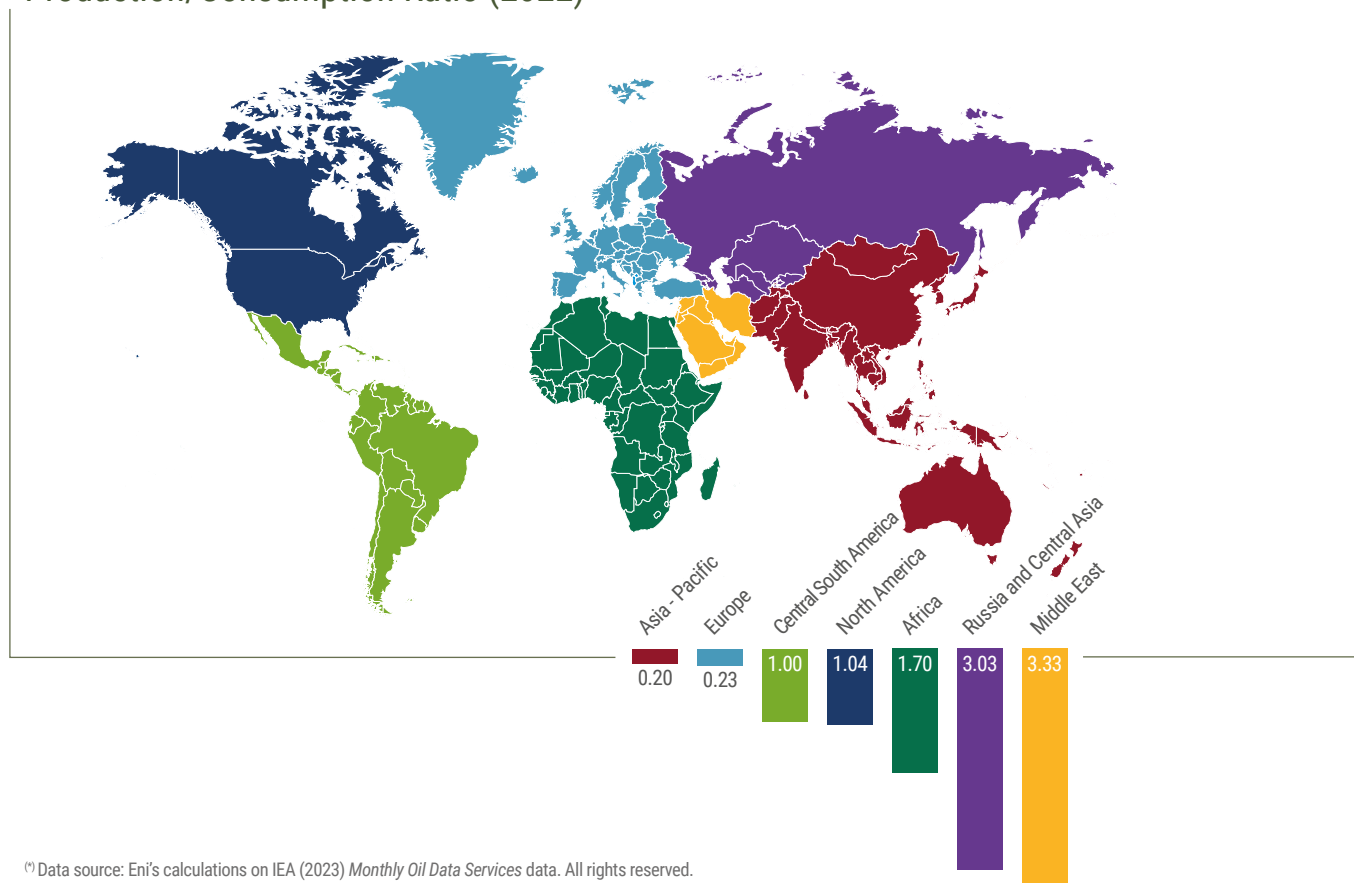
<sup>(\*)</sup> Data source: Eni's calculations on IEA (2023) *Monthly Oil Data Services* and IHS Global Insight data. All rights reserved.

# Production/Consumption Ratio

## Areas and Aggregates<sup>(\*)</sup>

	2010	2015	2016	2017	2018	2019	2020	2021	2022
Europe	0.28	0.25	0.25	0.24	0.24	0.23	0.28	0.25	0.23
Russia and Central Asia	3.92	3.31	3.46	3.34	3.39	3.38	3.21	3.08	3.03
Middle East	3.18	3.26	3.47	3.38	3.46	3.31	3.33	3.21	3.33
Africa	2.89	2.02	1.92	2.00	2.02	2.04	1.87	1.85	1.70
Asia - Pacific	0.30	0.26	0.24	0.23	0.22	0.21	0.22	0.21	0.20
Americas	0.71	0.89	0.87	0.89	0.93	0.98	1.07	1.00	1.03
- North America	0.51	0.79	0.76	0.81	0.90	0.99	1.07	1.00	1.04
- Central South America	1.22	1.16	1.13	1.09	1.03	0.95	1.06	0.99	1.00
World	0.94	0.96	0.95	0.94	0.95	0.95	0.97	0.92	0.95
European Union 27	0.06	0.05	0.05	0.05	0.05	0.04	0.05	0.04	0.04
MENA	3.05	2.97	3.16	3.13	3.22	3.11	3.06	3.00	3.07
OECD	0.41	0.53	0.51	0.53	0.57	0.61	0.68	0.64	0.65
NON OECD	1.54	1.37	1.38	1.33	1.30	1.25	1.23	1.17	1.21
OPEC	3.89	3.66	3.84	3.83	3.89	3.71	3.62	3.52	3.63
NON OPEC	0.62	0.65	0.63	0.63	0.64	0.66	0.70	0.66	0.67

## Production/Consumption Ratio (2022)



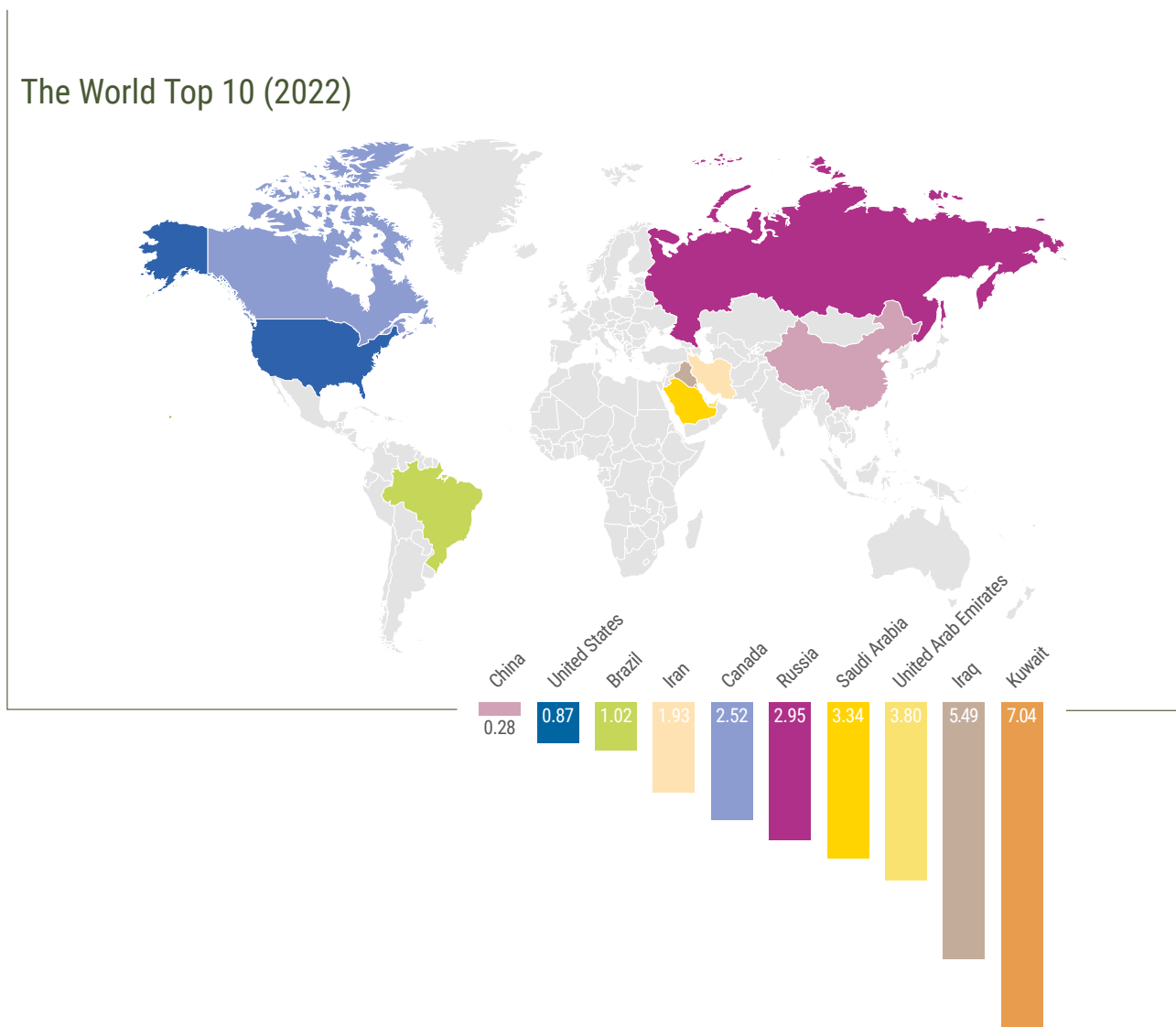
<sup>(\*)</sup> Data source: Eni's calculations on IEA (2023) *Monthly Oil Data Services* data. All rights reserved.

# Production/Consumption Ratio

The World Top 10 Producers Ranked by Production/Consumption Ratio<sup>(\*)</sup>

	2010	2015	2016	2017	2018	2019	2020	2021	2022
Kuwait	5.55	6.91	7.27	6.88	6.96	7.20	7.06	6.49	7.04
Iraq	4.30	6.73	6.88	6.62	6.54	6.38	6.70	5.84	5.49
United Arab Emirates	4.29	4.08	3.83	3.69	3.85	4.07	4.02	3.66	3.80
Saudi Arabia	3.14	3.09	3.19	3.12	3.42	3.28	3.22	3.14	3.34
Russia	3.67	3.19	3.42	3.24	3.29	3.25	3.10	2.97	2.95
Canada	1.46	1.86	1.87	2.03	2.16	2.27	2.46	2.48	2.52
Iran	2.28	1.78	2.39	2.49	2.30	1.70	1.67	1.87	1.93
Brazil	0.77	0.80	0.87	0.90	0.91	0.94	1.06	1.00	1.02
United States	0.39	0.65	0.63	0.66	0.75	0.84	0.90	0.84	0.87
China	0.45	0.37	0.33	0.31	0.28	0.28	0.28	0.26	0.28

The World Top 10 (2022)



<sup>(\*)</sup> Data source: Eni's calculations on IEA (2023) *Monthly Oil Data Services* data. All rights reserved.

# Production/Consumption Ratio

## Countries<sup>(\*)</sup>

	2010	2015	2016	2017	2018	2019	2020	2021	2022
Europe	0.28	0.25	0.25	0.24	0.24	0.23	0.28	0.25	0.23
Albania	0.50	0.88	0.68	0.57	0.59	0.62	0.75	0.57	0.52
Austria	0.08	0.07	0.06	0.05	0.05	0.05	0.05	0.04	0.04
Belarus	0.23	0.24	0.24	0.23	0.22	0.23	0.23	0.22	0.22
Bulgaria	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Croatia	0.23	0.20	0.22	0.20	0.21	0.20	0.21	0.18	0.17
Czech Republic	0.03	0.04	0.03	0.03	0.03	0.02	0.03	0.03	0.02
Denmark	1.53	1.03	0.90	0.88	0.73	0.63	0.54	0.49	0.46
Estonia	0.38	0.55	0.49	0.61	0.72	0.81	0.82	0.73	0.71
France	0.02	0.01	0.02	0.02	0.01	0.02	0.02	0.02	0.02
Germany	0.03	0.03	0.03	0.03	0.03	0.02	0.03	0.03	0.03
Greece	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.00
Hungary	0.17	0.12	0.14	0.13	0.13	0.13	0.12	0.12	0.12
Italy	0.06	0.10	0.08	0.08	0.09	0.07	0.11	0.09	0.08
Netherlands	0.03	0.04	0.03	0.03	0.02	0.02	0.02	0.02	0.01
Norway	9.38	8.32	8.90	8.52	7.84	7.27	9.67	8.61	9.99
Poland	0.04	0.05	0.04	0.04	0.05	0.04	0.04	0.04	0.03
Romania	0.50	0.42	0.38	0.34	0.34	0.32	0.32	0.30	0.27
Serbia	0.21	0.28	0.23	0.23	0.22	0.22	0.23	0.19	0.18
Slovakia	0.04	0.06	0.05	0.07	0.04	0.04	0.04	0.04	0.05
Spain	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Türkiye	0.07	0.05	0.05	0.05	0.06	0.06	0.07	0.07	0.07
Ukraine	0.27	0.25	0.21	0.21	0.21	0.23	0.25	0.23	0.07
United Kingdom	0.84	0.62	0.64	0.62	0.70	0.74	0.89	0.70	0.61
	2010	2015	2016	2017	2018	2019	2020	2021	2022
Russia and Central Asia	3.92	3.31	3.46	3.34	3.39	3.38	3.21	3.08	3.03
Russia	3.67	3.19	3.42	3.24	3.29	3.25	3.10	2.97	2.95
Azerbaijan	14.08	8.85	8.63	7.69	7.70	6.96	6.92	6.70	6.17
Georgia	0.04	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Kazakhstan	7.27	5.26	4.78	5.53	5.94	6.70	5.85	5.68	5.50
Kyrgyzstan	0.03	0.03	0.03	0.03	0.02	0.03	0.03	0.02	0.02
Tajikistan	0.02	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.01
Turkmenistan	1.67	1.78	1.66	1.55	1.45	1.47	1.52	1.51	1.47
Uzbekistan	0.80	0.64	0.56	0.54	0.46	0.43	0.39	0.34	0.46

<sup>(\*)</sup> Data source: Eni's calculations on IEA (2023) *Monthly Oil Data Services* data. All rights reserved.

# Production/Consumption Ratio

## Countries<sup>(\*)</sup>

	2010	2015	2016	2017	2018	2019	2020	2021	2022
<b>Middle East</b>	<b>3.18</b>	<b>3.26</b>	<b>3.47</b>	<b>3.38</b>	<b>3.46</b>	<b>3.31</b>	<b>3.33</b>	<b>3.21</b>	<b>3.33</b>
Bahrain	3.14	3.49	3.54	3.33	3.20	3.25	3.30	3.37	3.26
Iran	2.28	1.78	2.39	2.49	2.30	1.70	1.67	1.87	1.93
Iraq	4.30	6.73	6.88	6.62	6.54	6.38	6.70	5.84	5.49
Kuwait	5.55	6.91	7.27	6.88	6.96	7.20	7.06	6.49	7.04
Oman	6.86	5.34	5.22	5.12	4.23	4.59	5.29	4.04	4.20
Qatar	9.64	6.47	6.09	5.30	5.04	4.82	5.98	5.95	5.23
Saudi Arabia	3.14	3.09	3.19	3.12	3.42	3.28	3.22	3.14	3.34
Syria	1.25	0.22	0.21	0.20	0.16	0.25	0.35	0.35	0.33
United Arab Emirates	4.29	4.08	3.83	3.69	3.85	4.07	4.02	3.66	3.80
Yemen	2.07	0.44	0.28	0.76	0.94	0.94	0.96	0.86	0.80
	2010	2015	2016	2017	2018	2019	2020	2021	2022
<b>Africa</b>	<b>2.89</b>	<b>2.02</b>	<b>1.92</b>	<b>2.00</b>	<b>2.02</b>	<b>2.04</b>	<b>1.87</b>	<b>1.85</b>	<b>1.70</b>
Algeria	4.90	3.56	3.73	3.60	3.46	3.34	3.09	3.02	3.06
Angola	18.19	11.66	12.91	14.30	13.19	11.41	13.55	9.98	9.86
Cameroon	1.88	2.38	2.35	1.99	1.72	1.83	1.98	1.83	1.57
Congo	26.07	15.61	15.52	22.16	27.55	28.28	27.58	25.02	22.39
Côte d'Ivoire	1.63	0.58	0.64	0.80	0.63	0.65	0.54	0.50	0.45
Dem. Rep. Congo	1.38	1.00	1.19	1.33	1.35	1.28	1.17	1.33	1.12
Egypt	0.92	0.81	0.80	0.83	0.91	0.97	1.00	0.88	0.78
Gabon	13.11	10.44	9.87	13.36	12.66	14.17	14.16	12.97	12.56
Ghana	0.10	1.24	0.97	1.71	1.75	2.00	2.00	1.62	1.53
Libya	5.47	2.00	2.13	4.28	4.90	5.54	2.18	5.49	4.61
Nigeria	8.65	5.41	4.52	4.61	4.45	4.35	4.36	3.50	3.24
South Africa	0.24	0.17	0.17	0.16	0.16	0.17	0.16	0.16	0.14
South Sudan		10.55	10.51	12.27	11.10	12.25	12.66	12.71	10.85
Sudan	4.08	0.86	0.59	0.48	0.51	0.49	0.46	0.46	0.44
Tunisia	2.54	1.06	1.04	0.86	0.80	0.62	0.59	0.59	0.53

<sup>(\*)</sup> Data source: Eni's calculations on IEA (2023) *Monthly Oil Data Services* data. All rights reserved.

# Production/Consumption Ratio

## Countries<sup>(\*)</sup>

	2010	2015	2016	2017	2018	2019	2020	2021	2022
Asia - Pacific	0.30	0.26	0.24	0.23	0.22	0.21	0.22	0.21	0.20
Australia	0.53	0.33	0.31	0.27	0.29	0.39	0.46	0.44	0.38
Bangladesh	0.09	0.06	0.08	0.07	0.06	0.06	0.07	0.05	0.05
Brunei	10.57	7.46	8.06	7.54	6.56	5.76	4.59	1.74	1.47
China	0.45	0.37	0.33	0.31	0.28	0.28	0.28	0.26	0.28
India	0.26	0.20	0.19	0.18	0.17	0.16	0.16	0.15	0.14
Indonesia	0.70	0.49	0.54	0.48	0.43	0.42	0.44	0.39	0.36
Malaysia	1.22	1.02	1.04	1.00	1.02	0.89	0.91	0.80	0.72
Myanmar	0.75	0.15	0.12	0.08	0.06	0.05	0.06	0.06	0.06
New Zealand	0.39	0.30	0.24	0.21	0.17	0.16	0.18	0.16	0.13
Pakistan	0.18	0.19	0.18	0.18	0.23	0.23	0.24	0.20	0.20
Philippines	0.06	0.04	0.03	0.03	0.03	0.02	0.03	0.02	0.02
South Korea	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Thailand	0.34	0.33	0.33	0.32	0.30	0.30	0.30	0.27	0.23
Vietnam	0.78	0.91	0.72	0.61	0.52	0.45	0.46	0.39	0.34
	2010	2015	2016	2017	2018	2019	2020	2021	2022
Americas	0.71	0.89	0.87	0.89	0.93	0.98	1.07	1.00	1.03
Argentina	1.12	0.95	0.92	0.89	0.96	1.04	1.16	1.07	1.09
Bolivia	0.94	0.99	0.95	0.90	0.81	0.74	0.83	0.75	0.68
Brazil	0.77	0.80	0.87	0.90	0.91	0.94	1.06	1.00	1.02
Canada	1.46	1.86	1.87	2.03	2.16	2.27	2.46	2.48	2.52
Chile	0.04	0.02	0.01	0.02	0.02	0.03	0.03	0.02	0.03
Colombia	2.96	3.00	2.44	2.49	2.50	2.39	2.44	2.08	2.03
Cuba	0.30	0.29	0.29	0.29	0.28	0.28	0.27	0.24	0.23
Ecuador	2.00	2.04	2.17	2.12	1.91	1.98	2.17	1.87	1.78
Guatemala	0.16	0.11	0.09	0.10	0.09	0.08	0.08	0.07	0.06
Mexico	1.41	1.29	1.20	1.10	1.10	0.97	1.20	1.18	1.05
Peru	0.78	0.63	0.54	0.51	0.50	0.51	0.59	0.46	0.43
Trinidad and Tobago	3.45	2.36	2.06	2.24	2.36	2.65	2.92	2.84	2.66
United States	0.39	0.65	0.63	0.66	0.75	0.84	0.90	0.84	0.87
Venezuela	3.52	3.79	3.90	3.76	3.17	2.48	2.74	2.87	3.51

<sup>(\*)</sup> Data source: Eni's calculations on IEA (2023) *Monthly Oil Data Services* data. All rights reserved.









# Oil - Trade and Prices



## REGIONAL CRUDE BALANCES

Crude Surplus Deficit by Area



## EXPORTS

The World Top 10 Exporters  
Countries



## IMPORTS

The World Top 10 Importers  
Countries



## CRUDE FUTURE PRICES AND OPEN INTERESTS

# Regional Crude Balances

## Crude Surplus Deficit by Area<sup>(\*)</sup>

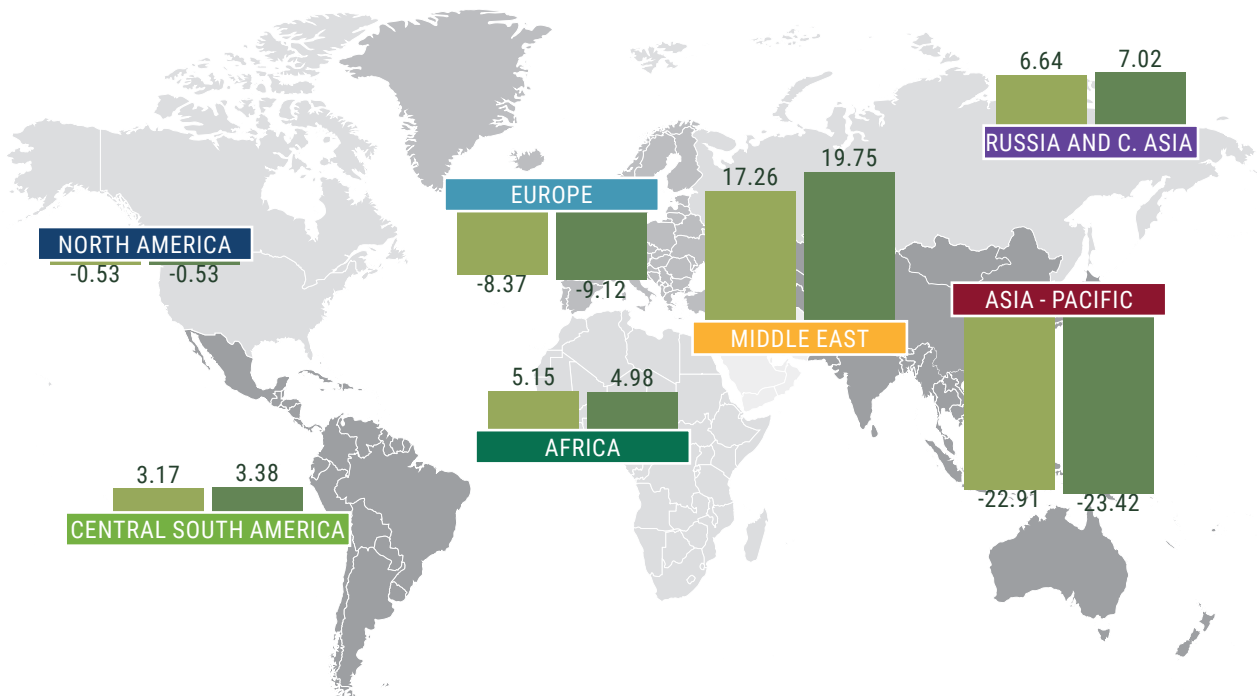
(thousand barrels/day)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
Europe	-9,446	-9,670	-9,528	-9,969	-9,721	-9,727	-7,984	-8,367	-9,118	-751	328
Russia and Central Asia	7,127	6,734	7,056	7,194	7,290	7,374	6,649	6,639	7,022	383	-105
Middle East	16,017	19,275	20,548	19,931	20,179	18,809	17,380	17,259	19,752	2,493	3,735
Africa	7,252	5,825	5,304	5,723	5,808	5,966	4,715	5,146	4,979	-168	-2,273
Asia - Pacific	-15,923	-19,188	-20,515	-21,658	-22,654	-23,141	-21,849	-22,907	-23,423	-516	-7,500
Americas	-4,639	-241	-644	-343	816	2,509	3,837	2,640	2,851	211	7,490
- North America	-8,161	-4,286	-4,695	-4,332	-2,709	-851	367	-528	-526	2	7,635
- Central South America	3,522	4,044	4,051	3,989	3,524	3,360	3,470	3,168	3,377	209	-145
World	387	2,735	2,221	877	1,717	1,789	2,747	411	2,063	1,652	1,676

## Crude Surplus Deficit by Area (2021 and 2022)

(million barrels/day)

2021 2022



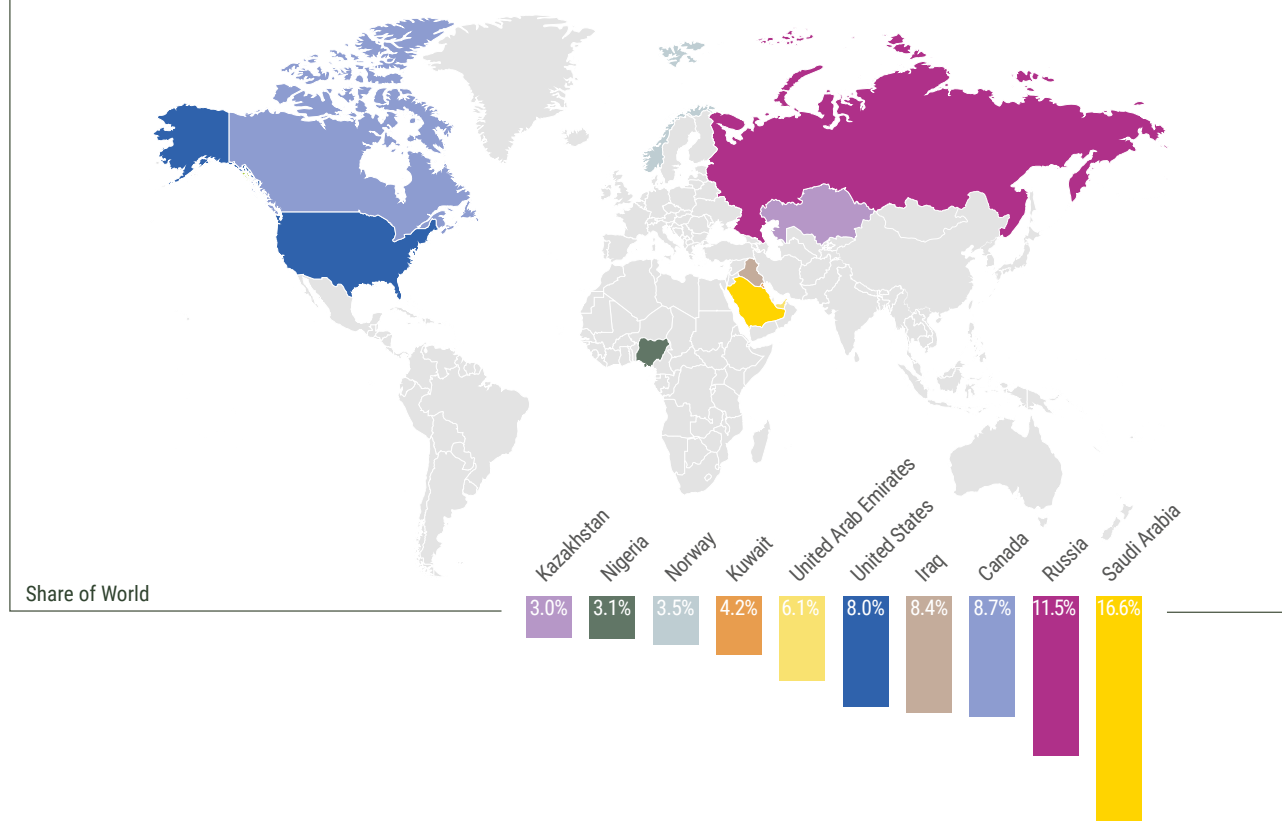
<sup>(\*)</sup> Data source: Eni's elaborations on IEA (2023) *Monthly Oil Data Service* and Wood Mackenzie data. All rights reserved.

# Exports

## The World Top 10 Exporters<sup>(\*)</sup>

Crude and non conventional oil (thousand barrels/day)	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
Saudi Arabia	6,644	7,163	7,463	6,968	7,372	7,038	6,659	6,227	7,364	18.2%	0.9%
Russia	4,912	4,937	5,105	5,092	5,246	5,398	4,739	4,699	5,095	8.4%	0.3%
Canada	1,948	3,029	3,104	3,318	3,651	3,778	3,639	3,757	3,841	2.2%	5.8%
Iraq	1,890	3,005	3,804	3,802	3,862	3,968	3,428	3,440	3,712	7.9%	5.8%
United States	42	452	514	1,103	1,977	2,937	3,133	2,937	3,556	21.1%	44.7%
United Arab Emirates	2,104	2,441	2,408	2,379	2,296	2,414	2,418	2,305	2,717	17.9%	2.2%
Kuwait	1,430	1,964	2,128	2,010	2,050	1,986	1,826	1,740	1,879	8.0%	2.3%
Norway	1,586	1,223	1,363	1,348	1,243	1,222	1,492	1,549	1,544	-0.3%	-0.2%
Nigeria	2,464	2,114	1,738	1,811	1,979	2,008	1,879	1,592	1,388	-12.8%	-4.7%
Kazakhstan	1,386	1,255	1,206	1,385	1,396	1,400	1,412	1,358	1,348	-0.8%	-0.2%
Rest of the World	17,430	14,798	15,458	15,729	15,058	13,416	11,743	12,053	11,787	-2.2%	-3.2%
World	41,836	42,382	44,291	44,945	46,130	45,566	42,369	41,658	44,231	6.2%	0.5%

## The World Top 10 (2022)



<sup>(\*)</sup> Data source: Eni's estimates on Enerdata *Global Energy Market & CO<sub>2</sub> Data*, IEA (2023) *Monthly Oil Data Services* and other official data sources. All rights reserved.

# Exports

## Countries<sup>(\*)</sup>

Crude and non conventional oil  
(thousand barrels/day)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
<b>Europe</b>											
Albania	9	18	16	9	11	11	11	10	15	51.4%	4.4%
Belarus	0	32	32	32	33	33	24	25	23	-6.5%	
Belgium	0	0	0	0	0	0	0	4	0	-95.3%	
Croatia	0	0	0	0	0	2	11	10	4	-56.2%	
Czech Republic	0	1	1	0	0	0	0	0	0		
Denmark	154	90	78	82	56	46	22	17	11	-32.9%	-19.4%
France	0	0	0	0	0	0	0	2	0		
Germany	14	7	2	0	0	2	0	0	2		-15.4%
Greece	17	2	3	3	4	5	2	1	0		
Hungary	0	2	1	3	8	3	4	3	2	-49.4%	
Ireland	2	0	0	6	0	1	4	2	1	-14.6%	-2.3%
Italy	6	14	12	15	10	0	4	3	11	222.5%	5.0%
Lithuania	2	1	1	1	1	1	1	1	0	-7.7%	-12.1%
Moldova	0	0	0	0	0	0	0	0	0	-100.0%	
Netherlands	10	6	7	8	9	8	8	6	0	-94.3%	-24.3%
Norway	1,586	1,223	1,363	1,348	1,243	1,222	1,492	1,549	1,544	-0.3%	-0.2%
Poland	4	5	4	4	6	5	4	4	4	0.6%	-1.2%
Romania	2	1	0	1	0	0	0	0	0	18.8%	-16.3%
Slovakia	0	1	0	1	0	0	0	0	0		
Sweden	0	0	0	16	0	6	1	21	0		
United Kingdom	733	589	616	686	810	827	721	598	535	-10.5%	-2.6%
Ukraine	0	0	0	2	0	0	2	2	0	-95.6%	

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# Exports

## Countries<sup>(\*)</sup>

Crude and non conventional oil  
(thousand barrels/day)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
<b>Russia and Central Asia</b>											
Russia	4,912	4,937	5,105	5,092	5,246	5,398	4,739	4,699	5,095	8.4%	0.3%
Azerbaijan	853	657	650	610	603	554	497	478	441	-7.7%	-5.3%
Georgia	1	3	0	0	0	0	0	0	0		
Kazakhstan	1,386	1,255	1,206	1,385	1,396	1,400	1,412	1,358	1,348	-0.8%	-0.2%
Kyrgyzstan	0	0	0	0	1	1	1	0	1		
Turkmenistan	26	69	50	34	21	16	14	19	5	-72.2%	-12.3%
	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
<b>Middle East</b>											
Bahrain	151	149	155	152	154	153	149	149	152	1.4%	0.0%
Iran	2,248	1,081	1,922	2,125	1,850	651	404	763	901	18.1%	-7.3%
Iraq	1,890	3,005	3,804	3,802	3,862	3,968	3,428	3,440	3,712	7.9%	5.8%
Kuwait	1,430	1,964	2,128	2,010	2,050	1,986	1,826	1,740	1,879	8.0%	2.3%
Oman	745	844	882	806	793	850	786	792	868	9.6%	1.3%
Qatar	650	580	576	527	523	576	543	536	540	0.7%	-1.5%
Saudi Arabia	6,644	7,163	7,463	6,968	7,372	7,038	6,659	6,227	7,364	18.2%	0.9%
Syria	163	0	0	0	0	0	0	0	0		
United Arab Emirates	2,104	2,441	2,408	2,379	2,296	2,414	2,418	2,305	2,717	17.9%	2.2%
Yemen	183	9	10	42	34	37	40	35	33	-3.6%	-13.2%

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# Exports

## Countries<sup>(\*)</sup>

Crude and non conventional oil  
(thousand barrels/day)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
<b>Africa</b>											
Algeria	709	642	669	633	571	584	439	446	477	6.9%	-3.2%
Angola	1,711	1,711	1,670	1,577	1,421	1,319	1,220	1,080	1,085	0.5%	-3.7%
Cameroon	56	84	86	69	57	65	73	70	46	-34.1%	-1.5%
Chad	123	130	116	102	115	121	126	128	87	-31.9%	-2.8%
Congo	288	227	254	261	307	309	282	251	243	-3.1%	-1.4%
Dem. Rep. Congo	22	21	20	24	23	23	22	22	20	-8.1%	-0.8%
Egypt	188	247	227	210	203	181	199	199	106	-46.6%	-4.6%
Equatorial Guinea	206	182	158	125	121	110	115	93	81	-13.0%	-7.5%
Gabon	225	206	205	188	174	207	196	181	185	2.0%	-1.6%
Ghana	0	104	85	163	177	203	193	158	159	0.1%	
Ivory Coast	38	27	30	37	30	35	27	22	27	22.1%	-2.9%
Libya	1,299	288	350	792	999	1,036	347	1,091	920	-15.7%	-2.8%
Mauritania	10	5	5	2	0	0	0	0	0		
Mozambique	1	0	0	0	0	0	0	0	1		-0.2%
Nigeria	2,464	2,114	1,738	1,811	1,979	2,008	1,879	1,592	1,388	-12.8%	-4.7%
South Africa	0	0	0	0	0	0	0	0	0		
South Sudan	0	148	137	147	144	168	156	140	128		
Sudan	387	1	0	1	0	0	0	0	3	1578.8%	-33.3%
Tunisia	77	38	37	33	28	33	25	29	25	-13.4%	-8.9%

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# Exports

## Countries<sup>(\*)</sup>

Crude and non conventional oil  
(thousand barrels/day)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
<b>Asia - Pacific</b>											
Australia	311	219	198	178	213	246	251	255	241	-5.3%	-2.1%
Brunei	148	116	105	98	92	107	72	76	39	-48.4%	-10.5%
China	61	57	59	97	53	16	33	52	41	-21.2%	-3.2%
Indonesia	323	315	344	281	208	73	88	122	43	-64.6%	-15.4%
Malaysia	345	323	334	301	302	251	251	171	170	-0.4%	-5.7%
Mongolia	6	22	22	21	17	18	11	11	10	-4.9%	4.9%
Myanmar	0	2	3	5	5	4	6	6	3	-44.5%	
New Zealand	47	39	30	26	21	22	18	13	13	2.1%	-9.9%
Pakistan	0	7	4	8	11	9	8	10	0		
Papua New Guinea	9	24	23	21	19	14	15	20	19	-3.5%	6.7%
Philippines	19	16	15	13	13	12	15	4	1	-64.5%	-19.7%
Singapore	9	15	15	16	15	14	12	12	12	0.6%	2.0%
Thailand	29	1	31	33	31	26	25	16	13	-16.7%	-6.3%
Vietnam	161	184	162	148	92	74	92	62	60	-3.0%	-7.9%
<b>Americas</b>											
Argentina	92	37	45	29	59	66	78	60	91	51.5%	-0.1%
Barbados	1	1	1	1	1	1	1	1	1	-46.7%	-4.1%
Belize	4	1	1	1	1	1	0	0	0		
Bolivia	0	1	0	0	0	0	0	0	0		
Brazil	632	737	847	1,042	1,078	1,228	1,371	1,252	1,273	1.7%	6.0%
Canada	1,948	3,029	3,104	3,318	3,651	3,778	3,639	3,757	3,841	2.2%	5.8%
Chile	0	0	0	0	0	0	1	0	1		
Colombia	501	790	626	630	597	573	556	473	503	6.5%	0.0%
Ecuador	336	412	389	365	355	375	346	322	307	-4.7%	-0.8%
Guatemala	10	9	7	8	6	5	4	3	7	126.0%	-3.2%
Guyana	0	0	0	0	0	0	73	114	274	140.8%	
Mexico	1,446	1,235	1,265	1,252	1,271	1,189	1,190	1,081	1,002	-7.3%	-3.0%
Peru	19	8	2	2	7	6	11	22	18	-19.1%	-0.5%
Trinidad and Tobago	45	31	28	27	22	58	56	59	62	4.1%	2.6%
United States	42	452	514	1,103	1,977	2,937	3,133	2,937	3,556	21.1%	44.7%
Venezuela	1,562	1,974	1,835	1,596	1,273	847	487	448	438	-2.2%	-10.1%

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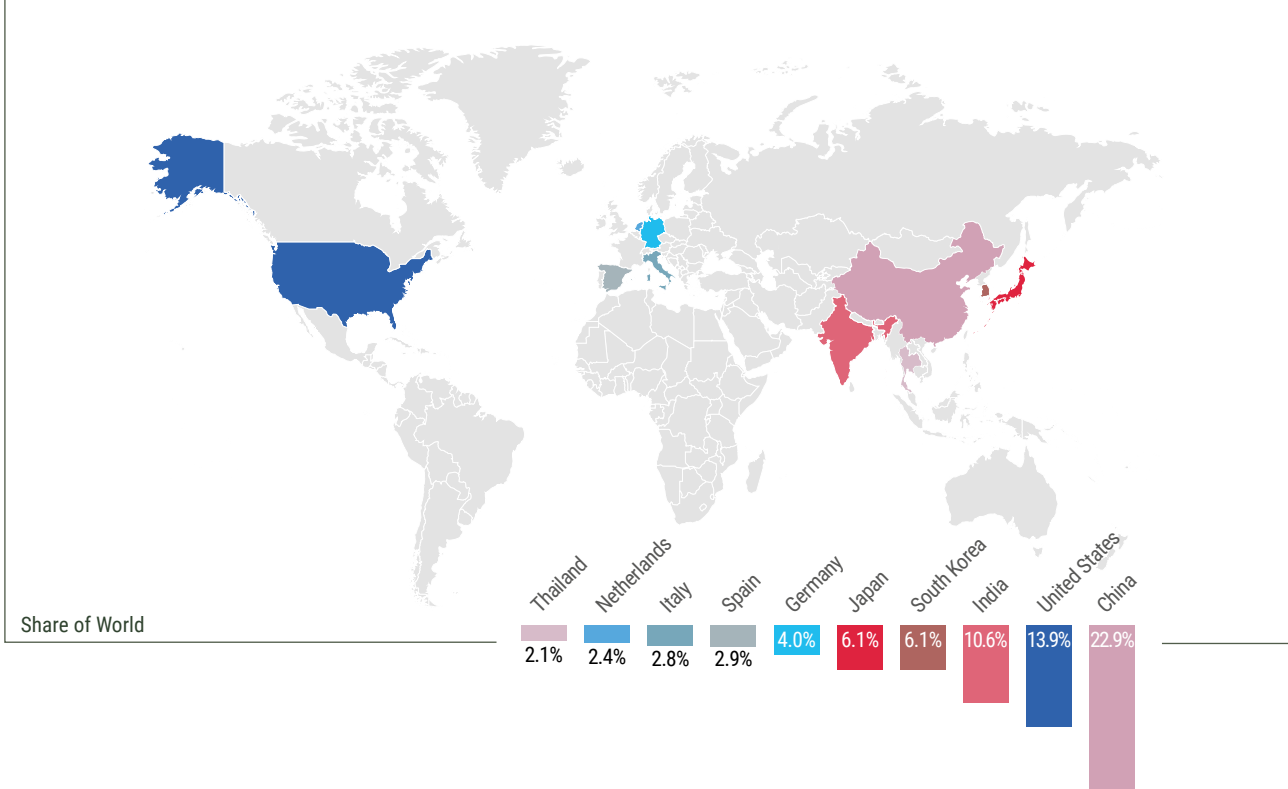
# Imports

## The World Top 10 Importers<sup>(\*)</sup>

Crude and non conventional oil  
(thousand barrels/day)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
China	4,767	6,728	7,641	8,412	9,263	10,141	10,870	10,287	10,189	-0.9%	6.5%
United States	9,690	7,507	7,792	7,805	7,654	6,703	5,824	6,043	6,193	2.5%	-3.7%
India	3,335	4,135	4,361	4,493	4,617	4,626	4,005	4,329	4,740	9.5%	3.0%
South Korea	2,355	2,755	2,905	3,012	3,006	2,896	2,642	2,588	2,733	5.6%	1.2%
Japan	3,436	3,203	3,137	3,158	2,995	2,953	2,416	2,455	2,701	10.0%	-2.0%
Germany	1,865	1,825	1,825	1,815	1,704	1,721	1,655	1,626	1,764	8.5%	-0.5%
Spain	1,049	1,295	1,283	1,319	1,352	1,326	1,097	1,123	1,272	13.2%	1.6%
Italy	1,570	1,251	1,218	1,327	1,241	1,263	1,007	1,134	1,248	10.0%	-1.9%
Netherlands	1,023	1,046	1,083	1,081	1,086	1,142	991	1,050	1,064	1.3%	0.3%
Thailand	849	891	878	927	980	873	881	892	944	5.8%	0.9%
Rest of the World	13,043	13,061	13,045	13,375	13,263	13,163	11,525	11,509	11,707	1.7%	-0.9%
World	42,981	43,697	45,169	46,724	47,160	46,808	42,912	43,037	44,556	3.5%	0.3%

## The World Top 10 (2022)



<sup>(\*)</sup> Data source: Eni's estimates on Enerdata *Global Energy Market & CO<sub>2</sub> Data*, IEA (2023) *Monthly Oil Data Services* and other official data sources. All rights reserved.

# Imports

## Countries<sup>(\*)</sup>

Crude and non conventional oil  
(thousand barrels/day)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
<b>Europe</b>											
Austria	135	162	147	144	167	172	149	151	103	-32.1%	-2.3%
Belarus	295	458	363	363	365	360	319	345	276	-19.9%	-0.5%
Belgium	668	642	637	682	660	690	547	574	554	-3.5%	-1.5%
Bosnia-Herzegovina	23	19	19	17	14	0	0	0	0		
Bulgaria	109	122	124	138	118	140	98	83	143	71.2%	2.3%
Croatia	72	47	51	57	60	41	40	36	30	-17.6%	-7.1%
Czech Republic	155	143	107	156	149	155	123	137	149	8.5%	-0.3%
Denmark	54	83	77	96	94	101	93	104	89	-14.0%	4.2%
Finland	215	203	221	237	236	236	209	159	183	14.6%	-1.4%
France	1,283	1,135	1,085	1,138	1,051	967	662	677	816	20.7%	-3.7%
Germany	1,865	1,825	1,825	1,815	1,704	1,721	1,655	1,626	1,764	8.5%	-0.5%
Greece	403	442	469	473	487	457	455	468	439	-6.3%	0.7%
Hungary	115	124	120	119	134	122	122	120	120	0.0%	0.3%
Ireland	61	73	64	64	60	52	62	61	63	2.6%	0.2%
Italy	1,570	1,251	1,218	1,327	1,241	1,263	1,007	1,134	1,248	10.0%	-1.9%
Lithuania	180	170	186	196	193	193	157	160	164	2.3%	-0.8%
Netherlands	1,023	1,046	1,083	1,081	1,086	1,142	991	1,050	1,064	1.3%	0.3%
North Macedonia	17	0	0	0	0	0	0	0	0		-100.0%
Norway	11	22	11	36	63	61	61	48	6	-87.6%	-5.2%
Poland	454	530	491	493	537	532	498	472	524	10.9%	1.2%
Portugal	220	282	269	284	252	225	211	187	201	7.5%	-0.7%
Romania	120	136	154	159	170	178	145	140	179	27.6%	3.4%
Serbia	38	37	45	50	55	48	52	55	62	13.7%	4.1%
Slovakia	109	118	117	112	109	103	113	109	109	-0.1%	0.0%
Spain	1,049	1,295	1,283	1,319	1,352	1,326	1,097	1,123	1,272	13.2%	1.6%
Sweden	397	402	394	397	398	341	372	360	375	4.1%	-0.5%
Switzerland	90	56	59	57	60	55	56	46	61	33.7%	-3.2%
Türkiye	339	501	499	515	419	622	587	628	670	6.6%	5.8%
United Kingdom	953	847	792	885	883	902	708	720	830	15.2%	-1.1%
Ukraine	155	5	10	18	14	16	25	31	10	-66.9%	-20.2%

<sup>(\*)</sup> Data source: Eni's estimates on Enerdata *Global Energy Market & CO<sub>2</sub> Data*, IEA (2023) *Monthly Oil Data Services* and other official data sources. All rights reserved.

# Imports

## Countries<sup>(\*)</sup>

Crude and non conventional oil  
(thousand barrels/day)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
<b>Russia and Central Asia</b>											
Russia	0	58	0	0	0	0	0	0	0		
Georgia	0	3	1	1	0	0	0	0	0		
Kazakhstan	120	1	0	1	0	1	0	0	0	30.0%	-43.4%
Kyrgyzstan	0	4	5	6	8	3	0	0	0		
Tajikistan	0	0	0	0	1	0	0	0	0		
Uzbekistan	13	17	22	21	24	13	14	16	18	13.0%	3.1%
<b>Middle East</b>											
Bahrain	235	216	210	220	220	223	177	180	215	19.5%	-0.7%
Iran	13	0	0	0	0	0	0	0	0		
Israel	221	234	207	234	231	246	222	239	239	0.0%	0.7%
Jordan	68	68	58	56	47	46	41	35	35	-0.4%	-5.4%
Syria	0	110	108	111	146	112	91	91	88	-2.3%	
United Arab Emirates	0	38	52	68	42	53	163	187	187	-0.1%	

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# Imports

## Countries<sup>(\*)</sup>

Crude and non conventional oil  
(thousand barrels/day)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
<b>Africa</b>											
Algeria	6	6	5	5	5	3	0	0	0		
Cameroon	34	28	30	20	11	6	0	0	0		
Egypt	73	64	119	120	106	226	253	320	171	-46.5%	7.3%
Ghana	33	6	29	5	4	17	14	1	0		
Ivory Coast	59	62	34	48	49	58	51	60	0		
Kenya	31	0	0	0	0	0	0	0	0		
Morocco	109	56	0	0	0	0	0	0	0		
Senegal	13	22	23	24	22	15	21	20	20	-2.3%	3.6%
South Africa	385	399	423	341	411	369	267	211	112	-47.1%	-9.8%
Sudan	0	6	18	14	14	14	13	9	10	11.1%	
Tunisia	4	19	19	13	11	3	17	26	20	-25.2%	14.5%
Zambia	13	13	10	10	12	14	6	1	1	-21.3%	-19.0%

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# Imports

## Countries<sup>(\*)</sup>

Crude and non conventional oil  
(thousand barrels/day)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
<b>Asia - Pacific</b>											
Afghanistan	0	2	2	2	4	2	1	1	1	-9.1%	
Australia	469	315	330	331	357	325	236	192	162	-15.7%	-8.5%
Bangladesh	26	22	27	24	22	24	26	29	25	-14.1%	-0.3%
Brunei	0	0	0	0	0	29	126	132	141	6.8%	
China	4,767	6,728	7,641	8,412	9,263	10,141	10,870	10,287	10,189	-0.9%	6.5%
India	3,335	4,135	4,361	4,493	4,617	4,626	4,005	4,329	4,740	9.5%	3.0%
Indonesia	284	384	415	396	352	250	223	292	293	0.3%	0.3%
Japan	3,436	3,203	3,137	3,158	2,995	2,953	2,416	2,455	2,701	10.0%	-2.0%
Malaysia	159	171	222	207	189	211	211	113	272	140.0%	4.6%
New Zealand	11	11	11	11	11	11	11	11	11	3.4%	0.3%
North Korea	98	102	106	110	99	103	79	68	16	-76.0%	-13.8%
Pakistan	136	177	177	211	183	137	134	143	163	14.4%	1.5%
Papua New Guinea	20	12	27	28	26	26	29	27	14	-49.1%	-2.9%
Philippines	182	213	215	212	235	166	90	81	119	45.8%	-3.5%
Singapore	896	976	1,042	1,156	1,129	1,074	929	949	835	-12.0%	-0.6%
Sri-Lanka	36	34	34	30	35	37	35	25	32	28.8%	-1.1%
South Korea	2,355	2,755	2,905	3,012	3,006	2,896	2,642	2,588	2,733	5.6%	1.2%
Taiwan	876	841	859	853	880	889	740	763	814	6.7%	-0.6%
Thailand	849	891	878	927	980	873	881	892	944	5.8%	0.9%
Vietnam	0	4	9	13	108	158	235	199	202	1.2%	

<sup>(\*)</sup> Data source: Eni's estimates on Enerdata *Global Energy Market & CO<sub>2</sub> Data*, IEA (2023) *Monthly Oil Data Services* and other official data sources. All rights reserved.

# Imports

## Countries<sup>(\*)</sup>

Crude and non conventional oil  
(thousand barrels/day)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
<b>Americas</b>											
Argentina	0	16	15	22	10	0	0	0	0		
Brazil	339	298	155	145	186	172	168	140	196	40.2%	-4.4%
Canada	770	570	806	822	759	922	720	703	742	5.5%	-0.3%
Chile	158	169	169	175	171	183	146	163	145	-11.1%	-0.7%
Colombia	0	0	0	0	0	0	1	6	6	4.6%	
Costa Rica	10	0	0	0	0	0	0	0	0		
Cuba	89	78	66	50	45	43	39	33	48	44.2%	-5.0%
Curacao	89	185	162	87	65	0	0	0	0		
Dominican Republic	27	16	23	20	25	24	10	23	16	-29.2%	-4.2%
El Salvador	15	0	0	0	0	0	0	0	0		
Jamaica	23	24	24	20	21	27	22	23	23	1.2%	0.0%
Mexico	0	0	0	0	4	0	0	0	0		
Nicaragua	15	15	12	14	13	11	11	14	8	-41.1%	-5.0%
Peru	97	87	107	128	115	107	42	62	67	8.9%	-3.0%
Trinidad and Tobago	68	78	101	88	63	0	0	0	0		
United States	9,690	7,507	7,792	7,805	7,654	6,703	5,824	6,043	6,193	2.5%	-3.7%
Uruguay	39	40	39	10	42	39	38	39	13	-66.2%	-8.5%
Venezuela	9	33	6	1	2	4	6	6	71		19.1%

<sup>(\*)</sup> Data source: Eni's estimates on Enerdata *Global Energy Market & CO<sub>2</sub> Data*, IEA (2023) *Monthly Oil Data Services* and other official data sources. All rights reserved.

# Crude Future Prices and Open Interests<sup>(\*)</sup>

## Crude Future Prices

(US\$/barrel)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
ICE Brent	80.3	53.6	45.1	54.7	71.7	64.2	43.2	70.9	99.0	39.6%	1.8%
CME WTI	79.6	48.8	43.5	50.9	64.9	57.0	39.3	68.1	94.3	38.5%	1.4%

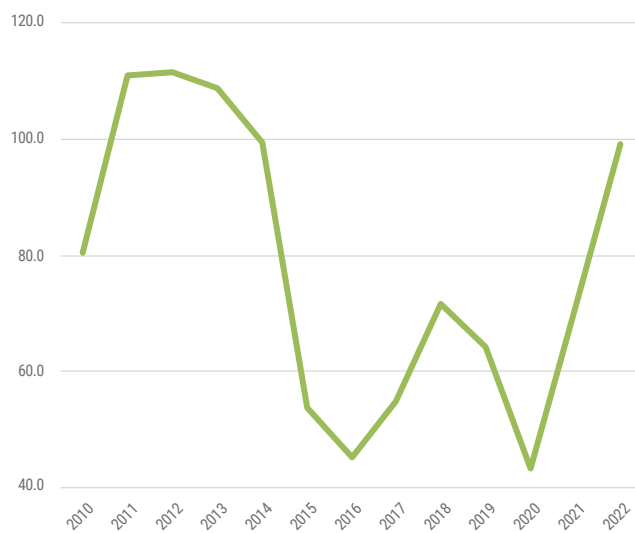
## Total Open Interests

(no. contracts - daily totals)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
ICE Brent	813,445	1,922,243	2,195,065	2,401,096	2,369,529	2,379,096	2,544,098	2,418,589	1,934,904	-20.0%	7.5%
CME WTI	1,341,531	1,679,710	1,818,925	2,282,425	2,378,026	2,077,109	2,126,738	2,265,907	1,677,461	-26.0%	1.9%

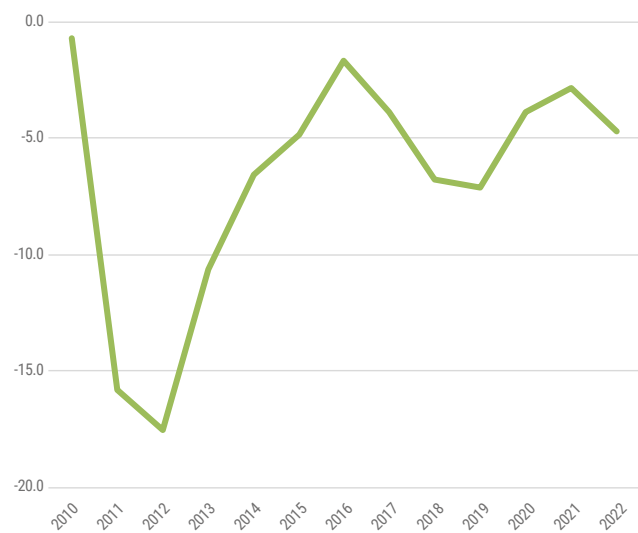
### ICE Brent Price 1 Month<sup>(\*)</sup>

(US\$/barrel)



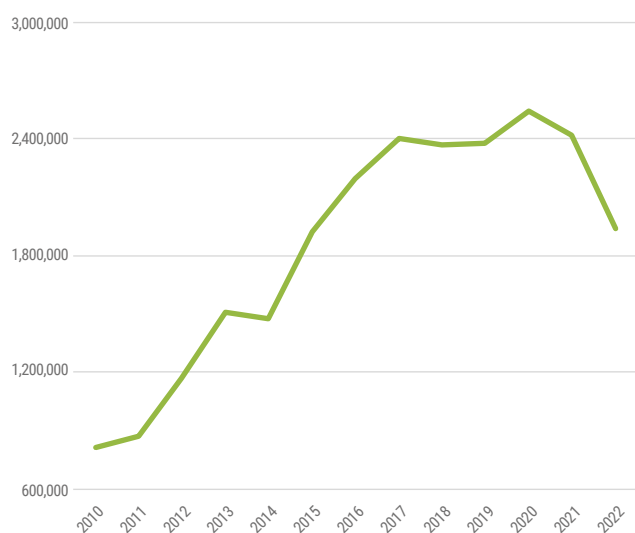
### WTI vs Brent 1 Month Differential<sup>(\*)</sup>

(US\$/barrel)



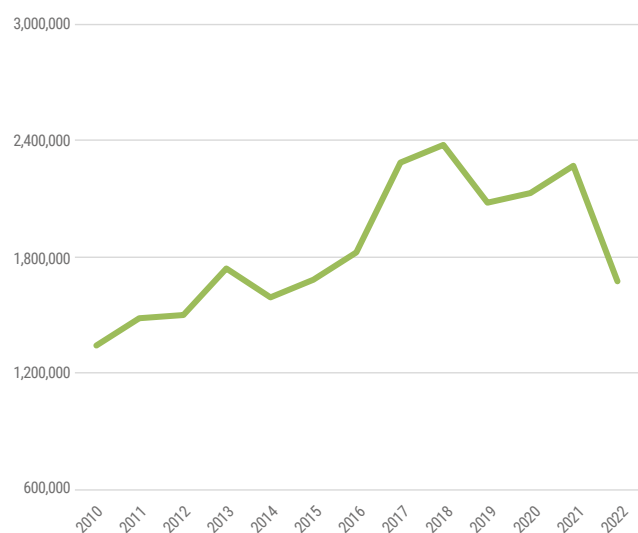
### ICE Brent Total Open Interests<sup>(\*)</sup>

(no. contracts - daily totals)



### CME WTI Total Open Interests<sup>(\*)</sup>

(no. contracts - daily totals)



<sup>(\*)</sup> Data source: ICE London and CME New York.









# Oil – Production Quality

## WORLD

Crude Production by Quality  
Crude Production by Gravity  
Crude Production by Sulphur Content  
Quality and Production Volume of Main Crudes

## EUROPE

Crude Production by Quality  
Quality and Production Volume of Main Crudes  
Countries

## RUSSIA AND CENTRAL ASIA

Crude Production by Quality  
Quality and Production Volume of Main Crudes  
Countries

## MIDDLE EAST

Crude Production by Quality  
Quality and Production Volume of Main Crudes  
Countries

## AFRICA

Crude Production by Quality  
Quality and Production Volume of Main Crudes  
Countries

## ASIA - PACIFIC

Crude Production by Quality  
Quality and Production Volume of Main Crudes  
Countries

## AMERICAS

Crude Production by Quality  
Quality and Production Volume of Main Crudes  
Countries

## World

### Crude Production by Quality (Gravity and Sulphur Content)<sup>(\*)</sup>

(thousand barrels/day)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Share of total	
										2010	2022
<b>World (A)</b>	<b>74,227</b>	<b>80,681</b>	<b>80,559</b>	<b>80,617</b>	<b>82,372</b>	<b>82,194</b>	<b>75,811</b>	<b>76,790</b>	<b>80,515</b>		
Ultra Light	2,345	2,825	2,794	2,745	2,752	2,767	2,668	2,628	2,563	3.2%	3.2%
Light & Sweet	13,437	15,087	14,553	14,804	16,845	18,116	16,292	16,385	16,447	18.1%	20.4%
Light & Medium Sour	3,642	3,736	3,598	3,813	3,889	3,814	3,335	3,264	3,620	4.9%	4.5%
Light & Sour	2,330	2,779	2,780	2,799	2,953	3,202	3,051	3,095	3,345	3.1%	4.2%
Medium & Sweet	8,438	9,202	8,405	8,690	8,258	8,671	8,687	8,715	8,696	11.4%	10.8%
Medium & Medium Sour	2,920	3,400	3,424	3,515	3,918	4,261	4,570	4,632	4,897	3.9%	6.1%
Medium & Sour	30,300	32,333	33,725	33,178	32,807	31,086	27,826	28,391	30,566	40.8%	38.0%
Heavy & Sweet	1,527	1,131	1,170	1,047	1,075	1,081	1,048	1,043	999	2.1%	1.2%
Heavy & Medium Sour	2,284	2,398	2,275	2,225	2,147	1,702	1,588	1,577	1,749	3.1%	2.2%
Heavy & Sour	5,793	7,122	7,227	7,208	7,142	6,923	6,210	6,526	7,138	7.8%	8.9%
Unassigned production: (B)	1,211	668	609	595	588	572	537	533	493	1.6%	0.6%
% Unassigned production (B/A)	1,6	0,8	0,8	0,7	0,7	0,7	0,7	0,7	0,6		

### Crude Production by Gravity<sup>(\*)</sup>

(thousand barrels/day)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Share of total	
										2010	2022
<b>World</b>	<b>74,227</b>	<b>80,681</b>	<b>80,559</b>	<b>80,617</b>	<b>82,372</b>	<b>82,194</b>	<b>75,811</b>	<b>76,790</b>	<b>80,515</b>		
Light	21,754	24,427	23,724	24,161	26,438	27,900	25,345	25,372	25,976	29.3%	32.3%
Medium	41,658	44,935	45,554	45,383	44,982	44,017	41,083	41,739	44,160	56.1%	54.8%
Heavy	9,604	10,651	10,672	10,479	10,363	9,705	8,846	9,145	9,887	12.9%	12.3%
Unassigned production	1,211	668	609	595	588	572	537	533	493	1.6%	0.6%

### Crude Production by Sulphur Content<sup>(\*)</sup>

(thousand barrels/day)

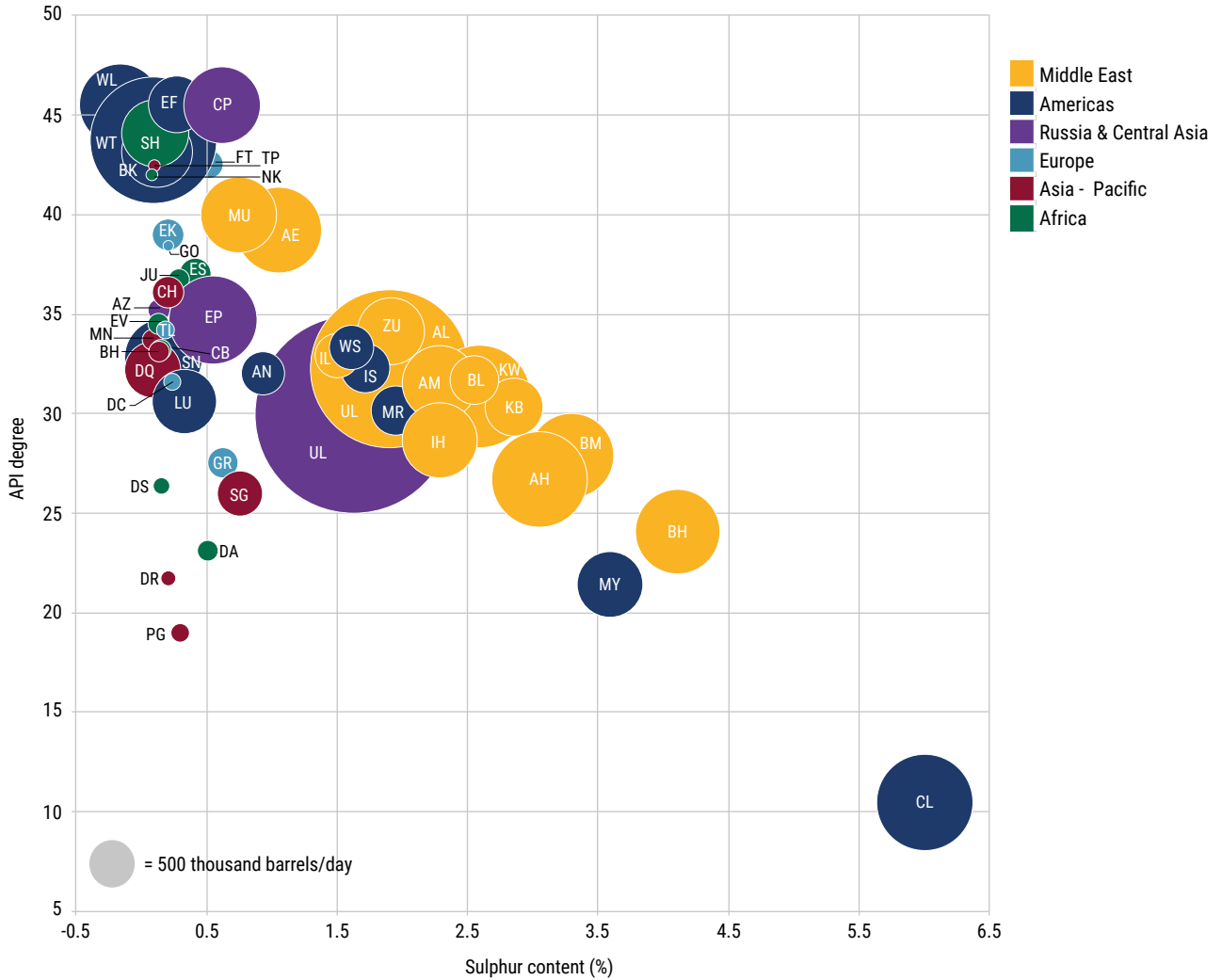
	2010	2015	2016	2017	2018	2019	2020	2021	2022	Share of total	
										2010	2022
<b>World</b>	<b>74,227</b>	<b>80,681</b>	<b>80,559</b>	<b>80,617</b>	<b>82,372</b>	<b>82,194</b>	<b>75,811</b>	<b>76,790</b>	<b>80,515</b>		
Sweet	25,746	28,245	26,921	27,286	28,929	30,636	28,695	28,771	28,705	34.7%	35.7%
Medium Sour	8,846	9,534	9,296	9,553	9,954	9,776	9,492	9,473	10,266	11.9%	12.8%
Sour	38,424	42,234	43,732	43,184	42,901	41,211	37,086	38,012	41,050	51.8%	51.0%
Unassigned production	1,211	668	609	595	588	572	537	533	493	1.6%	0.6%

<sup>(\*)</sup> Data source: Eni's elaborations on IEA (2023) *Monthly Oil Data Service* data. All rights reserved.

# World

## Quality and Production Volume of Main Crudes 2022<sup>(\*)</sup>

(thousand barrels/day)



AC Algerian C.te (Algeria)

AE Arab Extra L. (Saudi Arabia)

AH Arab Heavy (Saudi Arabia)

AL Arab Light (Saudi Arabia)

AM Arab Medium (Saudi Arabia)

AN Alaskan Nth. Sl. (U.S.A.)

AZ Azeri Light (Azerbaijan)

BH Bach Ho (Vietnam)

BH Basrah Heavy (Iraq)

BK Bakken Blend (U.S.A.)

BL Basrah Light (Iraq)

BM Basrah Medium (Iraq)

CB Cabinda (Angola)

CH Changqing (China)

CL Cold Lake (Canada)

CP CPC Blend (Kazakh-Russia)

DA Dalia (Angola)

DC DUC Blend (Denmark)

DQ Daqing (China)

DR Duri (Indonesia)

DS Dar Blend (Sudan)

EF Eagle Ford (U.S.A.)

EK Ekofisk (U.K., Norway)

EL El Sharara (Libya)

EP Espo (Russia)

ES Es Sider (Libya)

EV Escravos (Nigeria)

FT Forties (U.K.)

GO Goliat (Norway)

GR Grane (Norway)

IH Iran Heavy (Iran)

IL Iran Light (Iran)

IS Isthmus (Mexico)

JU Jubilee (Ghana)

KB Kirkuk Blend (Iraq)

KW Kuwait (Kuwait)

LU Lula (Brazil)

MN Minas (Indonesia)

MR Mars (U.S.A.)

MU Murban (U.A.E.)

MY Maya (Mexico)

NK N'Kossa (Congo)

PG Peng Lai (China)

SG Shengli (China)

SH Saharan B. (Algeria)

SN Syncrude (Canada)

TL Troll (Norway)

TP Tapis (Malaysia)

UL Urals (Russia)

WL West Texas Light (USA)

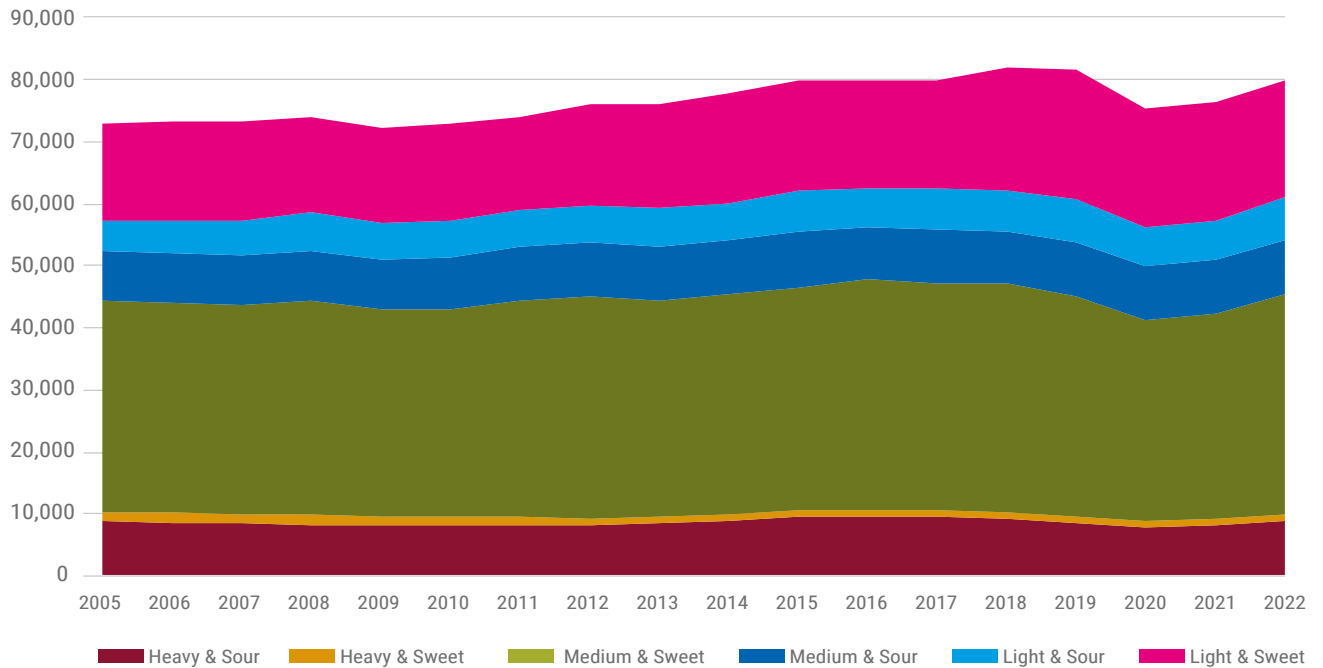
WT West Texas Int. (U.S.A.)

ZU Upper Zakum (U.A.E.)

## World

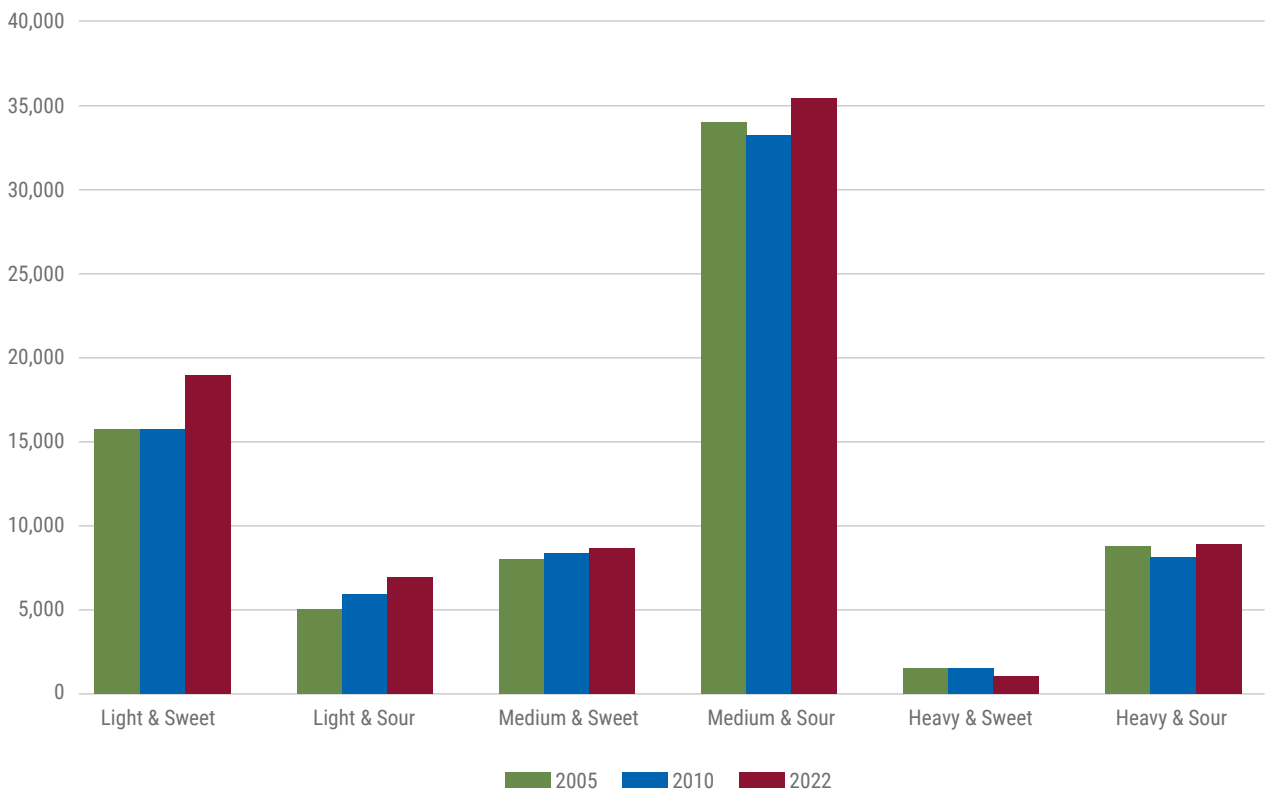
### Crude Production by Quality<sup>(\*)</sup>

(thousand barrels/day)



### Crude Production by Quality<sup>(\*)</sup>

(selected years, thousand barrels/day)



<sup>(\*)</sup> Data source: Eni's elaborations on IEA (2023) *Monthly Oil Data Service* data. All rights reserved.

## Europe

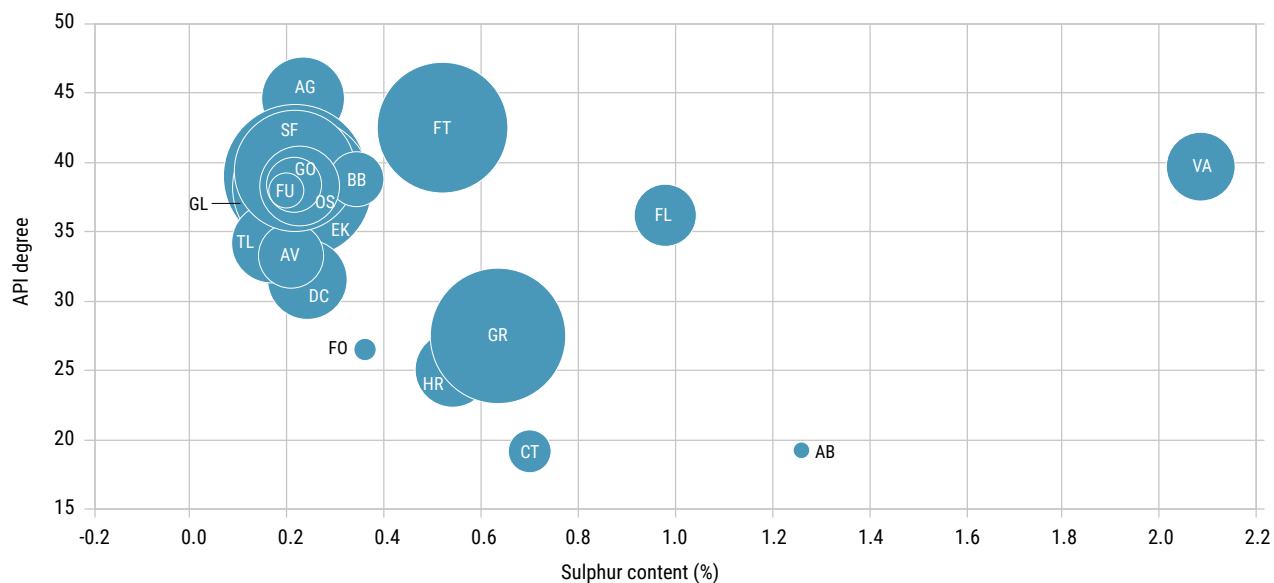
### Crude Production by Quality<sup>(\*)</sup>

(thousand barrels/day)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Share of total	
										2010	2022
<b>Europe (A)</b>	<b>3.862</b>	<b>3.162</b>	<b>3.173</b>	<b>3.110</b>	<b>3.102</b>	<b>3.045</b>	<b>3.247</b>	<b>3.126</b>	<b>2.911</b>		
Ultra Light	72	48	36	33	31	30	25	15	21	1,9%	0,7%
Light & Sweet	1.670	1.386	1.354	1.188	1.191	1.130	1.130	1.089	1.071	43,2%	36,8%
Light & Medium Sour	646	512	524	541	534	522	465	371	280	16,7%	9,6%
Light & Sour	68	77	51	62	75	63	58	52	47	1,8%	1,6%
Medium & Sweet	553	445	493	487	410	342	283	249	203	14,3%	7,0%
Medium & Medium Sour	86	79	75	72	71	393	717	790	798	2,2%	27,4%
Medium & Sour	29	15	6	0	0	0	0	0	0	0,8%	0,0%
Heavy & Sweet	85	39	43	69	132	158	149	140	134	2,2%	4,6%
Heavy & Medium Sour	276	199	249	332	325	80	75	76	69	7,1%	2,4%
Heavy & Sour	57	40	39	32	32	29	57	54	38	1,5%	1,3%
Unassigned production: (B)	319	322	304	294	301	298	290	291	250	8,3%	8,6%
% Unassigned production (B/A)	8,3	10,2	9,6	9,4	9,7	9,8	8,9	9,3	8,6		

### Quality and Production Volume of Main Crudes 2022<sup>(\*\*)</sup>

(thousand barrels/day)



AB Alba (U.K.)

AG Asgard (Norway)

AV Alvheim blend (Norway)

BB Brent Blend (U.K.)

CT Captain (U.K.)

DC DUC Blend (Denmark)

EK Ekofisk (U.K., Norway)

FL Flotta (U.K.)

FO Foinaven (U.K.)

FT Forties (U.K.)

FU Fulmar (U.K.)

GO Goliat (Norway)

GL Gullfaks (Norway)

GR Grane (Norway)

HR Heidrun (Norway)

OS Oseberg (Norway)

SF Statfjord (U.K., Norway)

TL Troll (Norway)

VA Val d'Agri Blend (Italy)

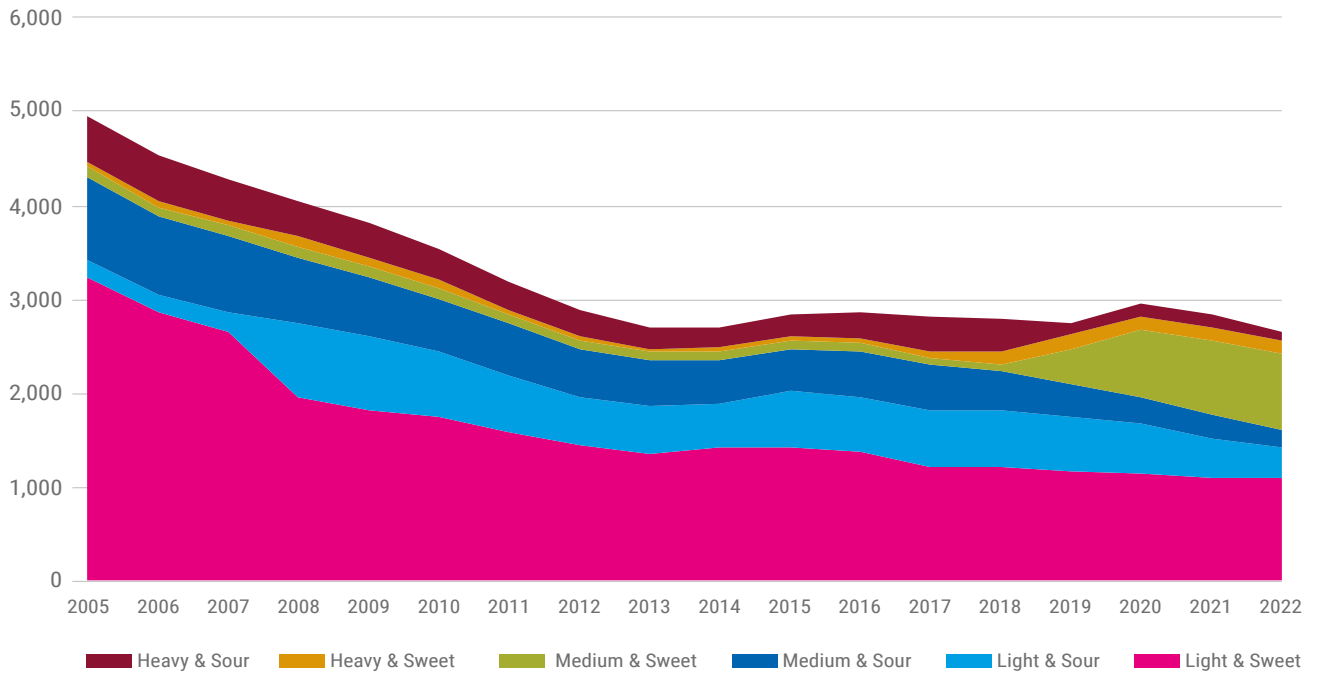
(\*) Data source: Eni's elaborations on IEA (2023) *Monthly Oil Data Service* data. All rights reserved.

(\*\*) Data source: Eni.

## Europe

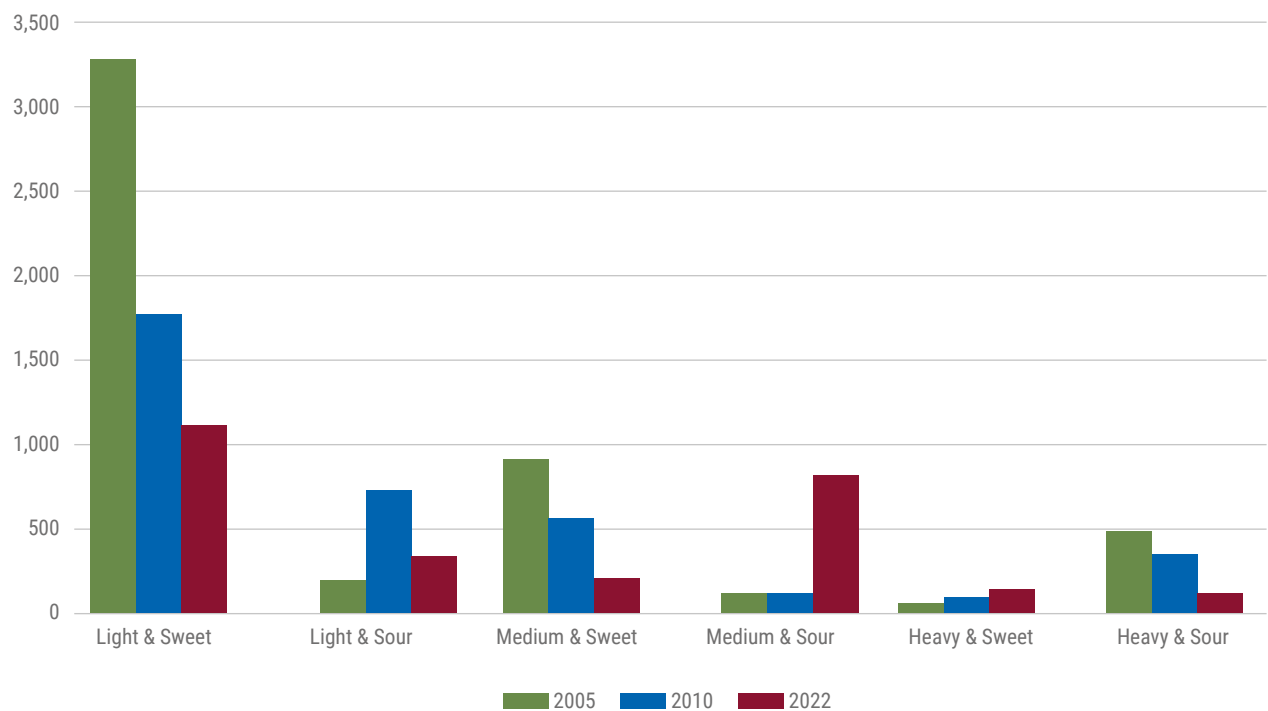
### Crude Production by Quality<sup>(\*)</sup>

(thousand barrels/day)



### Crude Production by Quality<sup>(\*)</sup>

(selected years, thousand barrels/day)



<sup>(\*)</sup> Data source: Eni's elaborations on IEA (2023) *Monthly Oil Data Service* data. All rights reserved.



# Europe

## Countries<sup>(\*)</sup>

(thousand barrels/day)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Share of total	
										2010	2022
<b>Denmark</b>	255	156	141	137	114	101	71	66	65		
Light & Sweet	24	9	9	7	5	4	3	3	2	9.5%	3.1%
Medium & Sweet	231	147	132	130	109	97	68	63	63	90.5%	96.9%
										Share of total	
	2010	2015	2016	2017	2018	2019	2020	2021	2022	2010	2022
<b>Italy</b>	96	100	71	78	90	78	102	97	84		
Light & Sweet	6	1	0	0	0	0	0	0	0	6.4%	0.2%
Light & Sour	68	77	51	62	75	63	58	52	47	71.3%	56.5%
Medium & Sour											
Heavy & Sour	21	23	20	16	14	14	44	45	36	22.3%	43.2%
										Share of total	
	2010	2015	2016	2017	2018	2019	2020	2021	2022	2010	2022
<b>Norway</b>	1,871	1,610	1,648	1,617	1,515	1,458	1,751	1,800	1,709		
Ultra Light	72	48	36	33	31	30	25	15	21	3.9%	1.2%
Light & Sweet	1,242	1,105	1,048	944	898	816	822	824	763	66.4%	44.6%
Light & Medium Sour	31	14	14	11	8	5	5	3	3	1.6%	0.1%
Medium & Sweet	275	266	319	326	278	232	201	178	136	14.7%	7.9%
Medium & Medium Sour						323	649	724	737		43.1%
Medium & Sour	29	15	6							1.6%	
Heavy & Medium Sour	222	162	225	304	300	52	49	55	50	11.9%	2.9%
										Share of total	
	2010	2015	2016	2017	2018	2019	2020	2021	2022	2010	2022
<b>Romania</b>	86	79	75	72	71	70	68	66	61		
Medium & Medium Sour	86	79	75	72	71	70	68	66	61	100.0%	100.0%
										Share of total	
	2010	2015	2016	2017	2018	2019	2020	2021	2022	2010	2022
<b>United Kingdom</b>	1,235	894	934	912	1,012	1,041	965	807	744		
Light & Sweet	398	272	296	238	287	309	304	262	307	32.2%	41.2%
Light & Medium Sour	616	499	510	530	526	517	460	367	277	49.8%	37.3%
Medium & Sweet	47	31	41	30	24	14	13	7	4	3.8%	0.6%
Medium & Sour											
Heavy & Sweet	85	39	43	69	132	158	149	140	134	6.8%	18.1%
Heavy & Medium Sour	54	36	24	29	26	28	26	20	20	4.4%	2.6%
Heavy & Sour	36	18	19	16	18	15	13	10	2	2.9%	0.3%

<sup>(\*)</sup> Data source: Eni's elaborations on IEA (2023) *Monthly Oil Data Service* data. All rights reserved.

## Russia and Central Asia

### Crude Production by Quality<sup>(\*)</sup>

(thousand barrels/day)

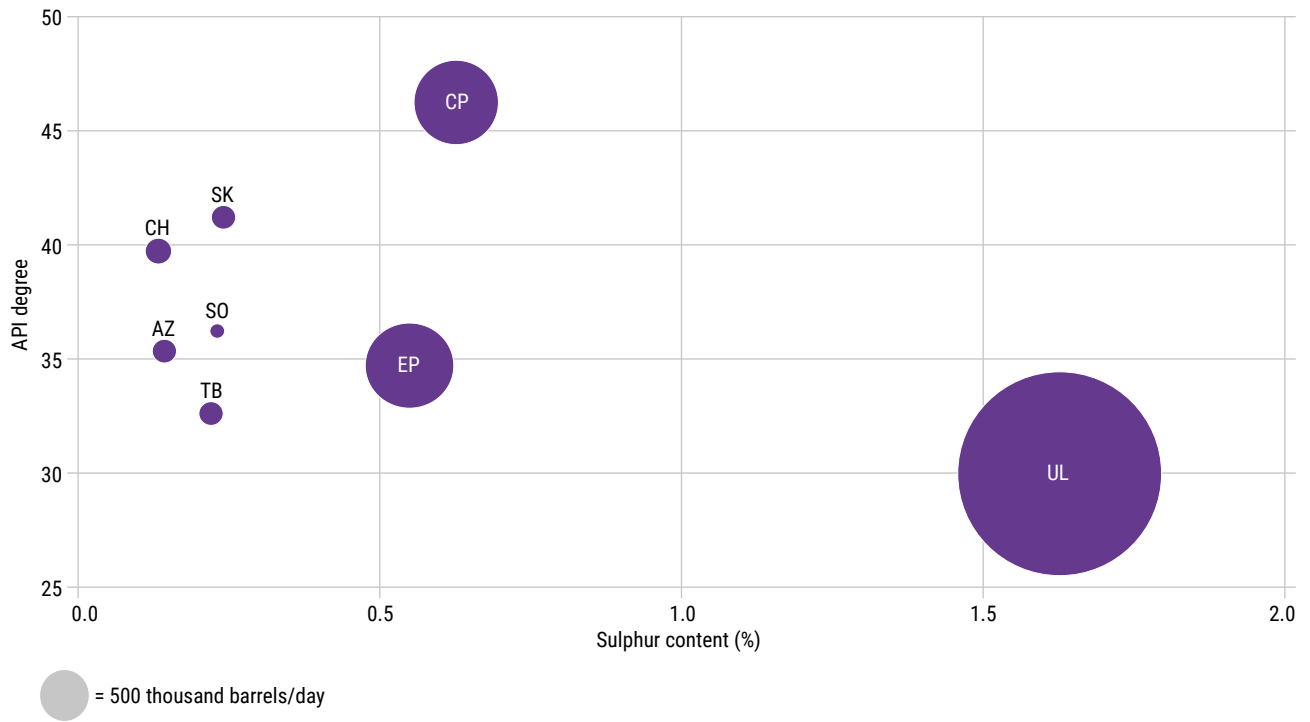
	2010	2015	2016	2017	2018	2019	2020	2021	2022	Share of total	
										2010	2022
<b>Russia and Central Asia (A)</b>	<b>13,162</b>	<b>13,583</b>	<b>13,757</b>	<b>13,891</b>	<b>14,154</b>	<b>14,221</b>	<b>13,070</b>	<b>13,335</b>	<b>13,487</b>		
Ultra Light	250	286	286	305	298	276	286	276	228	1.9%	1.7%
Light & Sweet	1,455	1,099	1,119	1,084	1,132	1,100	1,029	1,024	824	11.1%	6.1%
Light & Medium Sour	1,048	1,278	1,250	1,423	1,571	1,659	1,520	1,592	1,585	8.0%	11.8%
Light & Sour	45	20	21	22	29					0.3%	
Medium & Sweet	393	297	254	243	234	249	242	220	232	3.0%	1.7%
Medium & Medium Sour	617	1,301	1,313	1,404	1,589	1,663	1,667	1,675	1,880	4.7%	13.9%
Medium & Sour	9,352	9,301	9,513	9,408	9,300	9,273	8,325	8,545	8,736	71.1%	64.8%
Heavy & Sweet											
Heavy & Medium Sour											
Heavy & Sour											
Unassigned production (B)	2.0	1.7	1.6	1.4	1.8	1.6	1.6	1.5	1.4	0.0%	0.0%
% Unassigned production (B/A)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		

<sup>(\*)</sup> Data source: Eni's elaborations on IEA (2023) *Monthly Oil Data Service* data. All rights reserved.

# Russia and Central Asia

## Quality and Production Volume of Main Crudes 2022<sup>(\*)</sup>

(thousand barrels/day)



- AZ Azeri Light (Azerbaijan)
- CH Cheleken (Turkmenistan)
- CP CPC Blend (Kazakh-Russia)
- EP Espo (Russia)

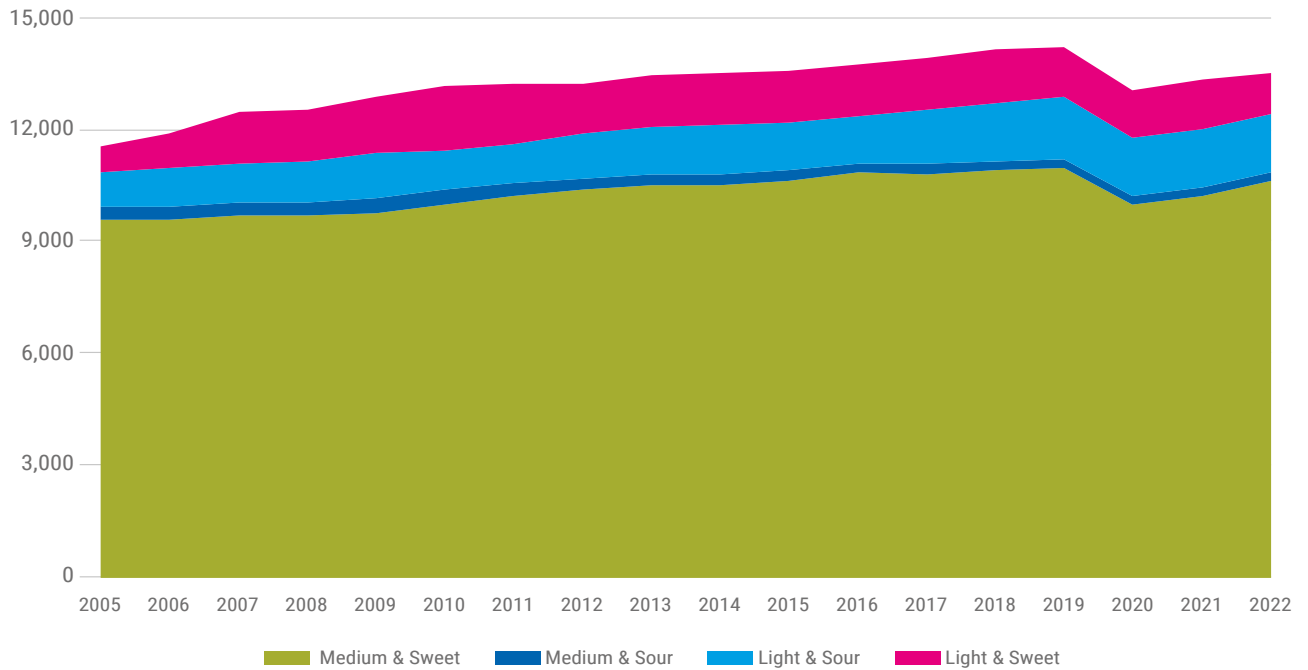
- SK Sakhalin Blend (Russia)
- SO Sokol
- TB Turkmenistan Blend (Turkmenistan)
- UL Urals (Russia)

<sup>(\*)</sup> Data source: Eni.

## Russia and Central Asia

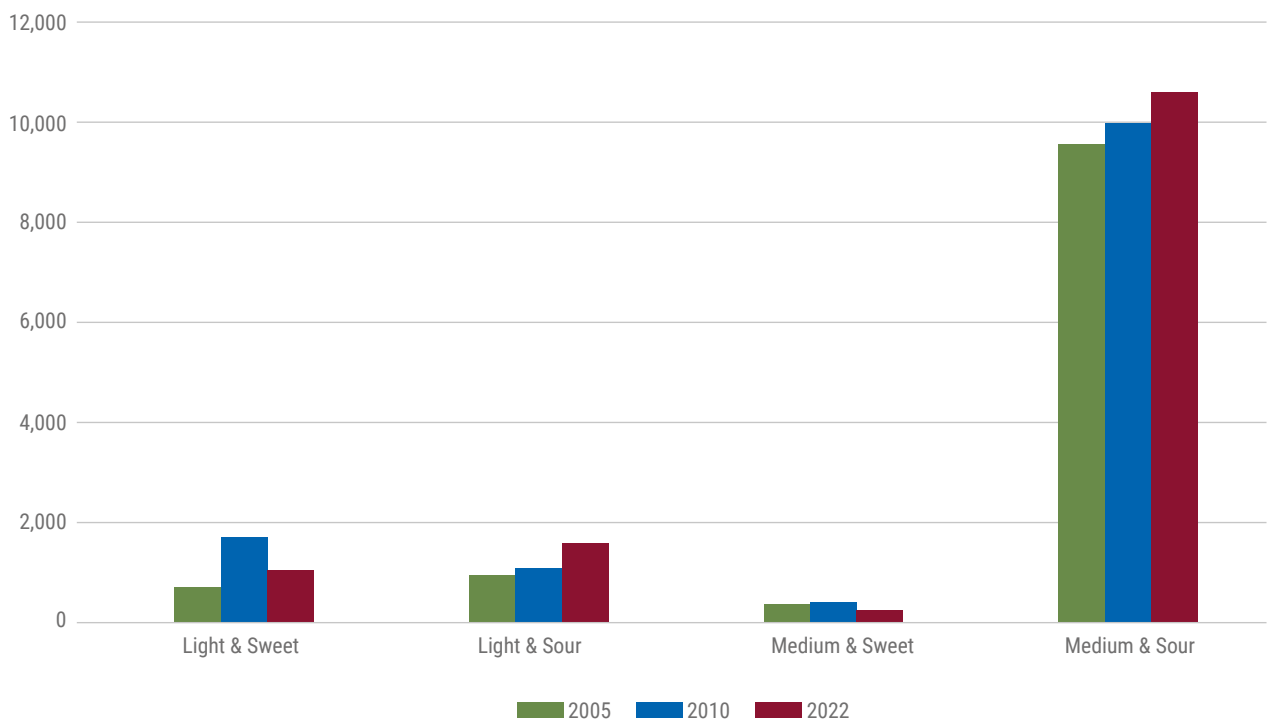
### Crude Production by Quality<sup>(\*)</sup>

(thousand barrels/day)



### Crude Production by Quality<sup>(\*)</sup>

(selected years, thousand barrels/day)



<sup>(\*)</sup> Data source: Eni's elaborations on IEA (2023) *Monthly Oil Data Service* data. All rights reserved.

## Russia and Central Asia

### Countries<sup>(\*)</sup>

(thousand barrels/day)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Share of total	
										2010	2022
<b>Russia</b>	10,139	10,719	10,964	10,980	11,161	11,251	10,269	10,524	10,740		
Light & Sweet	267	279	298	312	355	362	345	318	165	2.6%	1.5%
Light & Medium Sour	136	103	76	120	147	161	157	166	141	1.3%	1.3%
Medium & Sweet	96									1.0%	
Medium & Medium Sour	318	1,069	1,104	1,164	1,373	1,463	1,455	1,502	1,700	3.1%	15.8%
Medium & Sour	9,322	9,269	9,486	9,384	9,286	9,265	8,312	8,538	8,734	91.9%	81.3%
	2010	2015	2016	2017	2018	2019	2020	2021	2022	2010	2022
<b>Azerbaijan</b>	1,041	848	828	783	792	764	698	703	671		
Light & Sweet	900	710	703	660	668	639	575	590	550	86.4%	81.9%
Medium & Sweet	141	139	125	123	125	125	123	112	121	13.6%	18.1%
	2010	2015	2016	2017	2018	2019	2020	2021	2022	2010	2022
<b>Kazakhstan</b>	1,694	1,694	1,669	1,848	1,937	1,942	1,836	1,846	1,820		
Ultra Light	250	286	286	305	298	276	286	276	228	14.8%	12.5%
Light & Sweet	233									13.8%	
Light & Medium Sour	912	1,175	1,174	1,303	1,423	1,466	1,338	1,396	1,412	53.8%	77.6%
Medium & Medium Sour	299	233	209	240	216	200	212	174	180	17.6%	9.9%
	2010	2015	2016	2017	2018	2019	2020	2021	2022	2010	2022
<b>Turkmenistan</b>	211	268	247	232	219	223	227	224	220		
Light & Sweet	55	110	118	112	110	99	108	116	109	26.1%	49.6%
Medium & Sweet	156	158	129	120	109	124	119	108	111	73.9%	50.4%
	2010	2015	2016	2017	2018	2019	2020	2021	2022	2010	2022
<b>Uzbekistan</b>	75	52	48	46	43	40	38	36	34		
Light & Medium Sour						32	25	29	32		93.2%
Light & Sour	45	20	21	22	29					60.4%	
Medium & Sour	30	32	27	24	14	8	13	7	2	39.6%	6.8%

<sup>(\*)</sup> Data source: Eni's elaborations on IEA (2023) *Monthly Oil Data Service* data. All rights reserved.

## Middle East

### Crude Production by Quality<sup>(\*)</sup>

(thousand barrels/day)

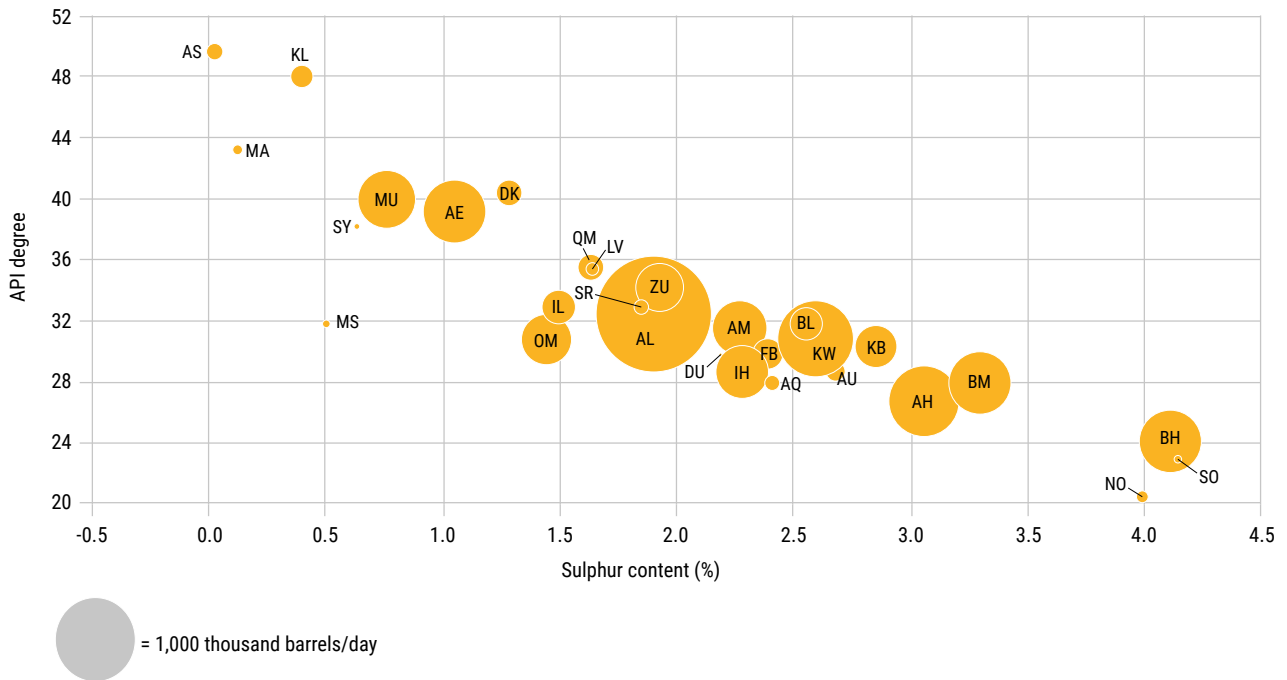
	2010	2015	2016	2017	2018	2019	2020	2021	2022	Share of total	
										2010	2022
<b>Middle East</b>	<b>21,831</b>	<b>25,329</b>	<b>26,915</b>	<b>26,424</b>	<b>26,781</b>	<b>25,364</b>	<b>23,023</b>	<b>23,315</b>	<b>26,179</b>		
Ultra Light	559	705	705	701	701	636	671	689	696	2.6%	2.7%
Light & Sweet	232	140	132	120	199	208	236	248	330	1.1%	1.3%
Light & Medium Sour	1,524	1,643	1,527	1,575	1,512	1,381	1,098	987	1,307	7.0%	5.0%
Light & Sour	2,149	2,626	2,687	2,697	2,831	3,123	2,979	3,030	3,284	9.8%	12.5%
Medium & Sweet											
Medium & Medium Sour	108	4	2	33	30	53	22	23	25	0.5%	0.1%
Medium & Sour	16,667	19,040	20,360	19,708	19,845	18,293	16,602	16,848	18,687	76.3%	71.4%
Heavy & Sweet											
Heavy & Medium Sour											
Heavy & Sour	592	1,171	1,502	1,590	1,663	1,670	1,415	1,490	1,850	2.7%	7.1%

<sup>(\*)</sup> Data source: Eni's elaborations on IEA (2023) *Monthly Oil Data Service* data. All rights reserved.

# Middle East

## Quality and Production Volume of Main Crudes 2022<sup>(\*)</sup>

(thousand barrels/day)



- AU Abu Safah (Bahrain)
- AE Arab Extra Light (Saudi Arabia)
- AH Arab Heavy (Saudi Arabia)
- AL Arab Light (Saudi Arabia)
- AM Arab Medium (Saudi Arabia)
- AQ Al Shaheen (Qatar)
- AS Arab Super Light (Saudi Arabia)
- BL Basrah Light (Iraq)
- BM Basrah Medium (Iraq)
- BH Basrah Heavy (Iraq)

- DU Dubai (U.A.E.)
- DK Dukham (Qatar)
- FB Foroozan Blend (Iran)
- IH Iran Heavy (Iran)
- IL Iran Light (Iran)
- KB Kirkuk Blend (Iraq)
- KW Kuwait (Kuwait)
- KL Kuwait Super Light (Kuwait)
- LV Lavan Blend (Iran)
- MA Marib (Yemen)

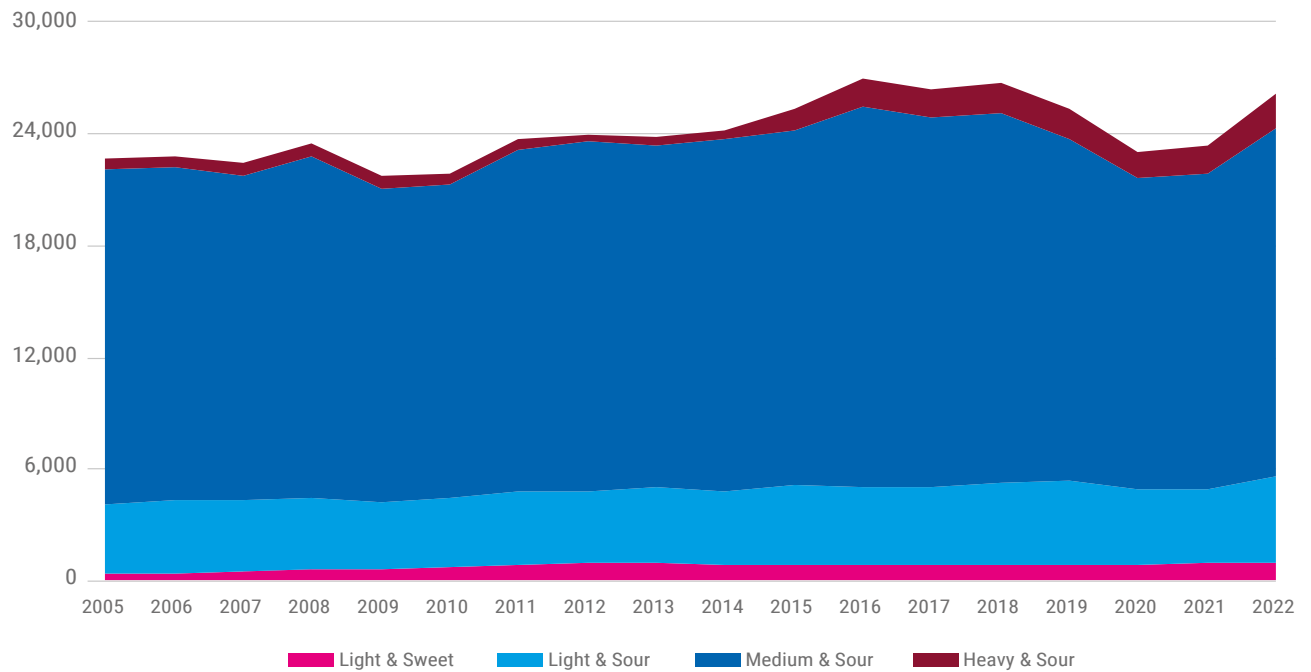
- MS Masila (Yemen)
- MU Murban (U.A.E.)
- NO Nowrooz (Iran)
- OM Oman (Oman)
- QM Qatar Marine (Qatar)
- SY Syrian Light (Syria)
- SO Souedieh (Syria)
- SR Sirri (Iran)
- ZU Upper Zakum (U.A.E.)

<sup>(\*)</sup> Data source: Eni.

## Middle East

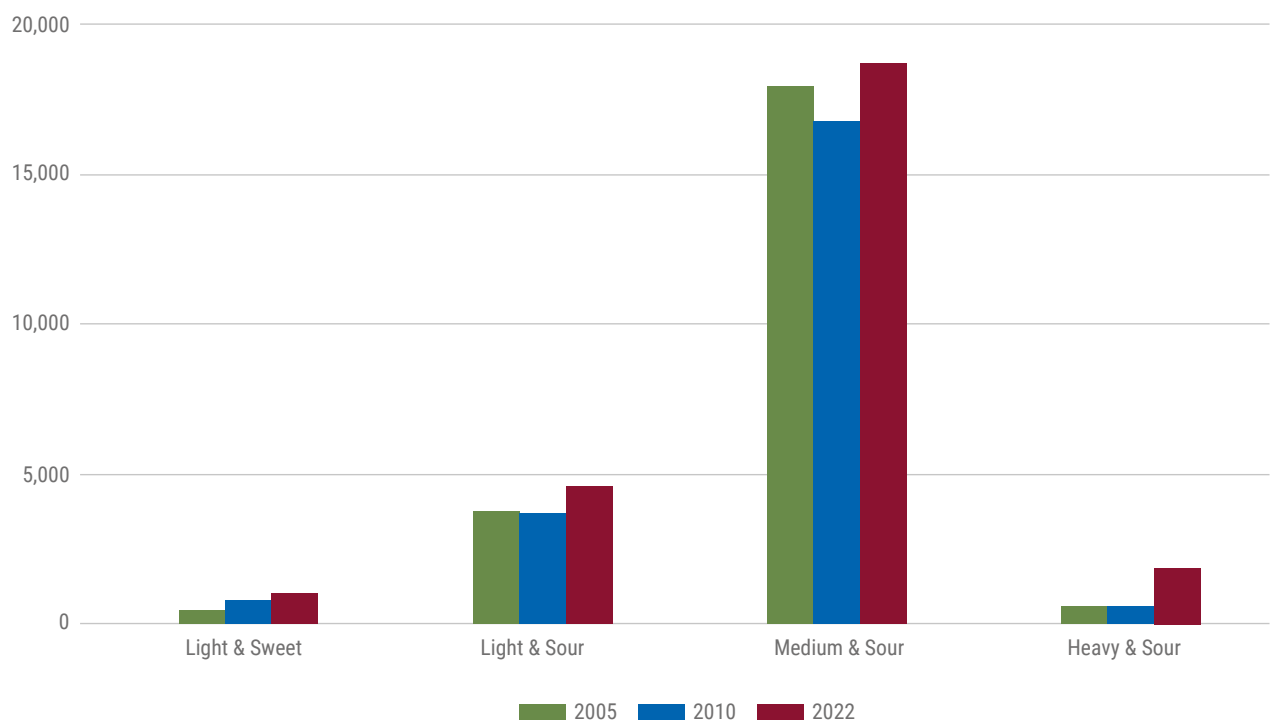
### Crude Production by Quality<sup>(\*)</sup>

(thousand barrels/day)



### Crude Production by Quality<sup>(\*)</sup>

(selected years, thousand barrels/day)



<sup>(\*)</sup> Data source: Eni's elaborations on IEA (2023) *Monthly Oil Data Service* data. All rights reserved.



## Middle East

### Countries<sup>(\*)</sup>

(thousand barrels/day)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Share of total	
										2010	2022
<b>Bahrain</b>	182	202	202	200	197	197	171	175	188		
<b>Medium &amp; Sour</b>	182	202	202	200	197	197	171	175	188	100.0%	100.0%
	2010	2015	2016	2017	2018	2019	2020	2021	2022	Share of total	
										2010	2022
<b>Iran</b>	3,705	2,846	3,552	3,812	3,578	2,359	1,997	2,420	2,546		
<b>Light &amp; Sour</b>				63	72	77	75	71	66		2.6%
<b>Medium &amp; Sour</b>	3,558	2,729	3,432	3,624	3,378	2,153	1,791	2,218	2,352	96.0%	92.4%
<b>Heavy &amp; Sour</b>	147	118	120	125	129	129	131	131	129	4.0%	5.0%
	2010	2015	2016	2017	2018	2019	2020	2021	2022	Share of total	
										2010	2022
<b>Iraq</b>	2,364	4,002	4,418	4,473	4,568	4,712	4,049	4,032	4,446		
<b>Medium &amp; Sour</b>	2,364	3,025	3,050	3,023	3,040	3,183	2,857	2,779	2,866	100.0%	64.5%
<b>Heavy &amp; Sour</b>		978	1,368	1,450	1,528	1,529	1,192	1,253	1,579		35.5%
	2010	2015	2016	2017	2018	2019	2020	2021	2022	Share of total	
										2010	2022
<b>Kuwait</b>	2,298	2,787	2,884	2,707	2,745	2,682	2,414	2,415	2,696		
<b>Light &amp; Sweet</b>					53	93	121	147	202		7.5%
<b>Medium &amp; Sour</b>	2,157	2,751	2,884	2,707	2,692	2,588	2,258	2,226	2,435	93.9%	90.3%
<b>Heavy &amp; Sour</b>	140	35					35	42	60	6.1%	2.2%
	2010	2015	2016	2017	2018	2019	2020	2021	2022	Share of total	
										2010	2022
<b>Oman</b>	865	982	1,004	971	978	971	949	971	1,064		
<b>Medium &amp; Sour</b>	865	982	1,004	971	978	971	949	971	1,064	100.0%	100.0%
	2010	2015	2016	2017	2018	2019	2020	2021	2022	Share of total	
										2010	2022
<b>Qatar</b>	1,297	1,356	1,355	1,310	1,308	1,231	1,274	1,303	1,306		
<b>Ultra Light</b>	559	705	705	701	701	636	671	689	696	43.1%	53.3%
<b>Light &amp; Sour</b>	627	553	521	518	516	506	512	522	517	48.3%	39.6%
<b>Medium &amp; Sour</b>	111	98	129	92	92	90	91	93	93	8.6%	7.1%

<sup>(\*)</sup> Data source: Eni's elaborations on IEA (2023) *Monthly Oil Data Service* data. All rights reserved.

## Middle East

### Countries<sup>(\*)</sup>

(thousand barrels/day)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Share of total	
										2010	2022
<b>Saudi Arabia</b>	8,177	10,160	10,416	9,958	10,326	9,943	9,210	9,152	10,528		
Light & Sweet	56	115	118	109	109	100	76	69	100	0.7%	0.9%
Light & Sour	1,101	1,331	1,397	1,459	1,526	1,598	1,515	1,535	1,641	13.5%	15.6%
Medium & Sour	6,879	8,677	8,902	8,390	8,691	8,245	7,584	7,505	8,727	84.1%	82.9%
Heavy & Sour	140	35					35	42	60	1.7%	0.6%
	2010	2015	2016	2017	2018	2019	2020	2021	2022	Share of total	
										2010	2022
<b>Syria</b>	350	19	17	17	16	25	33	33	33		
Light & Medium Sour	185	14	3	2	9	12	11	11	10	52.9%	31.8%
Heavy & Sour	165	5	14	15	7	12	22	22	22	47.1%	68.2%
	2010	2015	2016	2017	2018	2019	2020	2021	2022	Share of total	
										2010	2022
<b>United Arab Emirates</b>	2,311	2,946	3,050	2,932	2,998	3,177	2,865	2,759	3,319		
Light & Medium Sour	1,339	1,629	1,524	1,574	1,503	1,369	1,087	976	1,297	57.9%	39.1%
Light & Sour	421	742	769	658	718	942	877	901	1,061	18.2%	32.0%
Medium & Medium Sour											
Medium & Sour	551	576	757	701	777	866	901	881	961	23.9%	29.0%
	2010	2015	2016	2017	2018	2019	2020	2021	2022	Share of total	
										2010	2022
<b>Yemen</b>	284	28	16	44	67	67	60	55	53		
Light & Sweet	176	25	14	11	36	14	39	32	28	61.9%	53.1%
Medium & Medium Sour	108	4	2	33	30	53	22	23	25	38.1%	46.9%

<sup>(\*)</sup> Data source: Eni's elaborations on IEA (2023) *Monthly Oil Data Service* data. All rights reserved.

## Africa

### Crude Production by Quality<sup>(\*)</sup>

(thousand barrels/day)

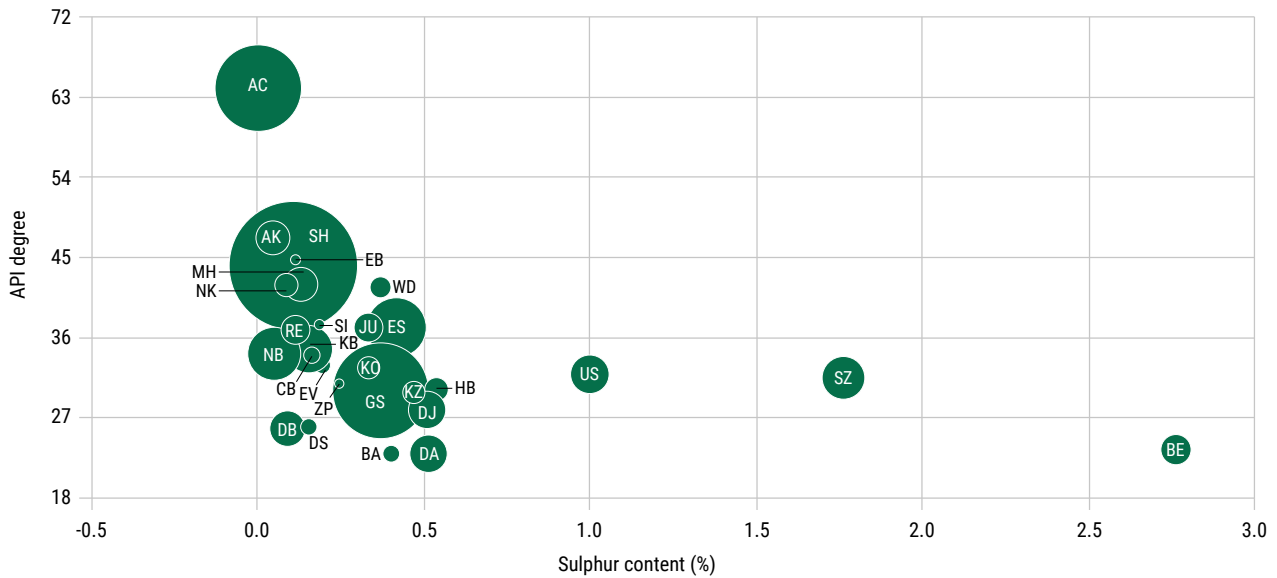
	2010	2015	2016	2017	2018	2019	2020	2021	2022	Share of total	
										2010	2022
<b>Africa (A)</b>	<b>9,893</b>	<b>8,086</b>	<b>7,562</b>	<b>7,930</b>	<b>8,029</b>	<b>8,163</b>	<b>6,803</b>	<b>7,125</b>	<b>6,854</b>		
Ultra Light	589	581	583	569	556	552	527	531	538	6.0%	7.9%
Light & Sweet	4,783	3,612	3,360	3,389	3,732	3,966	3,161	3,570	3,349	48.3%	48.9%
Light & Medium Sour	67		7	19	21	45	7	43	52	0.7%	0.8%
Light & Sour	33	24	21	18	18	16	13	14	14	0.3%	0.2%
Medium & Sweet	2,353	2,403	2,235	2,348	1,949	1,862	1,700	1,539	1,485	23.8%	21.7%
Medium & Medium Sour	177	324	287	245	482	424	419	375	355	1.8%	5.2%
Medium & Sour	677	532	595	891	830	901	640	749	762	6.8%	11.1%
Heavy & Sweet	482	316	274	175	182	178	153	144	135	4.9%	2.0%
Heavy & Medium Sour	52	179	177	182	173	133	99	81	89	0.5%	1.3%
Heavy & Sour	131	92		72	69	69	69	67	61	1.3%	0.9%
Unassigned production (B)	549	23	21	21	17	16	15	13	13	5.6%	0.2%
% unassigned production (B/A)	6	0	0	0	0	0	0	0	0		


<sup>(\*)</sup> Data source: Eni's elaborations on IEA (2023) *Monthly Oil Data Service* data. All rights reserved.

# Africa

## Quality and Production Volume of Main Crudes 2022<sup>(\*)</sup>

(thousand barrels/day)



 = 100 thousand barrels/day

AC Algerian Condensate (Algeria)

AK Agbami-Ekoli (Nigeria)

BA Baobab (Costa d'Avorio)

BE Belayim Blend (Egypt)

BN Bonny Light (Nigeria)

BS Nigerian Brass River (Nigeria)

CB Cabinda (Angola)

DA Dalia Camelia (Angola)

DB Doba Blend (Chad)

DJ Djeno (Congo)

DS Dar Blend (Sudan)

EB El Borma (Tunisia)

EL El Sharara (Libya)

ES Es Sider (Libya)

EV Escravos (Nigeria)

FD Forcados (Nigeria)

GP Greater Plutonio (Angola)

GS Girassol (Angola)

HB Hungo Blend (Angola)

JU Jubilee (Ghana)

KO Kole Blend (Cameroon)

KZ Kissanje Blend (Angola)

MH Mellitah (Libya)

NE Nemba (Nigeria)

NB Nile Blend (Sudan)

NK N'Kossa (Congo)

PZ Pazflor (Angola)

QI Qua Iboe (Nigeria)

RE Rabi Light (Gabon)

SH Saharan Blend (Algeria)

SI Sarir (Libya)

ST Saturno (Angola)

SZ Suez Blend (Egypt)

US Usan (Nigeria)

WD Western Desert (Egypt)

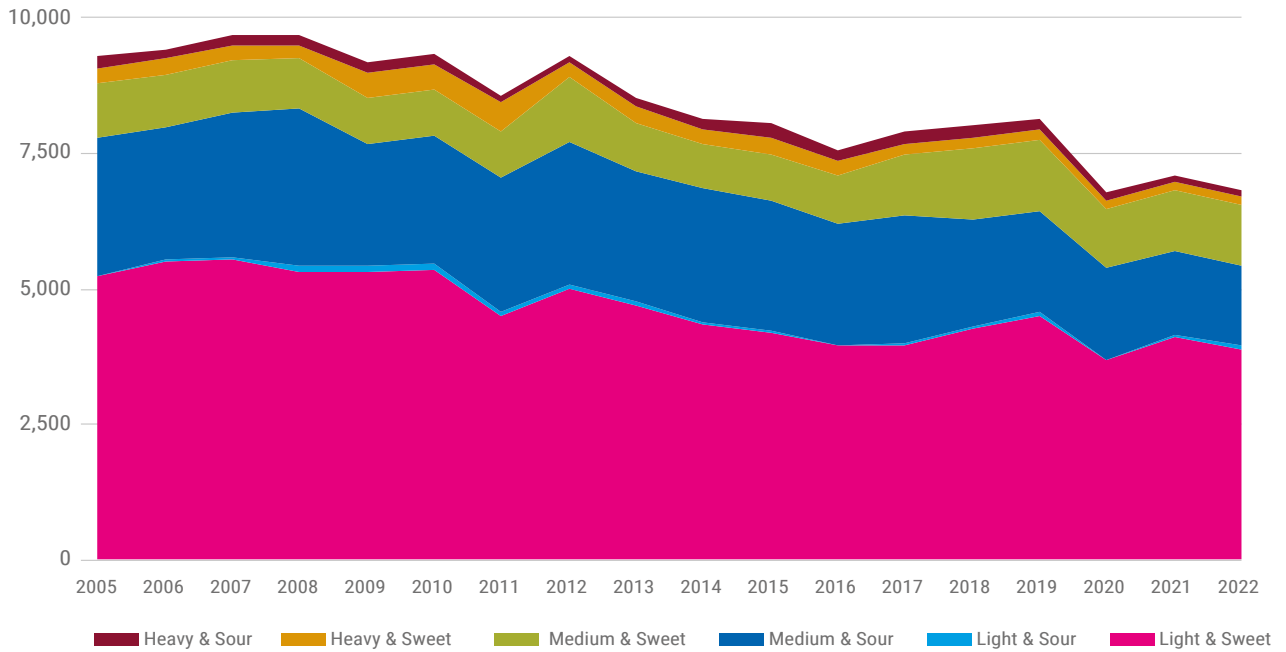
ZF Zafiro (Equatorial Guinea)

<sup>(\*)</sup> Data source: Eni.

# Africa

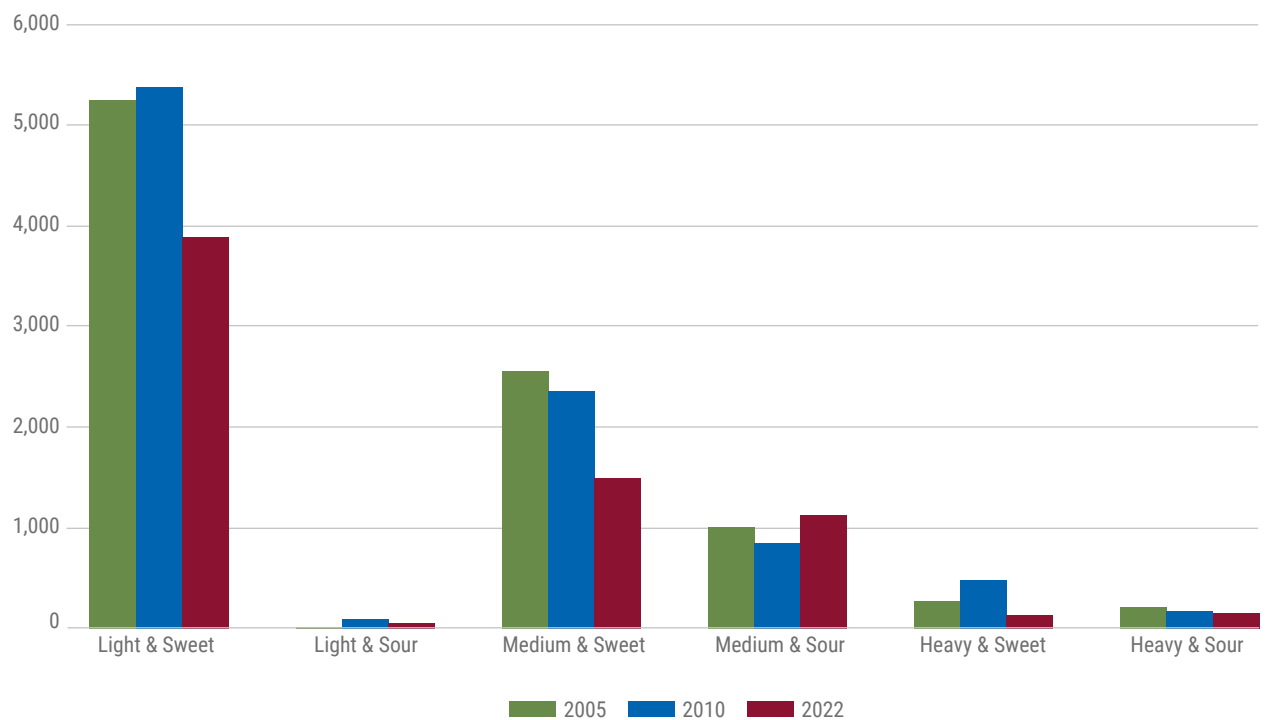
## Crude Production by Quality<sup>(\*)</sup>

(thousand barrels/day)



## Crude Production by Quality<sup>(\*)</sup>

(selected years, thousand barrels/day)



<sup>(\*)</sup>Data source: Eni's elaborations on IEA (2023) *Monthly Oil Data Service* data. All rights reserved.

# Africa

## Countries<sup>(\*)</sup>

(thousand barrels/day)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Share of total	
										2010	2022
<b>Algeria</b>	1,720	1,590	1,605	1,530	1,512	1,490	1,346	1,362	1,470		
Ultra Light	515	481	494	483	470	466	448	451	459	29.9%	31.2%
Light & Sweet	1,205	1,109	1,111	1,047	1,042	1,023	898	911	1,011	70.1%	68.8%
	2010	2015	2016	2017	2018	2019	2020	2021	2022	Share of total	
<b>Angola</b>	1,424	1,760	1,708	1,642	1,491	1,389	1,270	1,124	1,140		
Light & Sweet	356	248	245	203	169	143	135	125	75	25.0%	6.6%
Medium & Sweet	851	1,012	1,022	1,035	924	783	699	628	721	59.8%	63.3%
Medium & Medium Sour	165	321	264	223	225	329	338	290	255	11.6%	22.3%
Heavy & Sweet											
Heavy & Medium Sour	52	179	177	182	173	133	99	81	89	3.7%	7.8%
	2010	2015	2016	2017	2018	2019	2020	2021	2022	Share of total	
<b>Cameroon</b>	64	93	92	76	69	71	73	68	61		
Medium & Sweet	36	61	54	43	38	40	46	40	32	57.0%	52.9%
Heavy & Sweet	28	31	38	33	31	32	27	28	29	43.0%	47.1%
	2010	2015	2016	2017	2018	2019	2020	2021	2022	Share of total	
<b>Chad</b>	120	139	129	112	128	118	106	96	87		
Heavy & Sweet	120	139	129	112	128	118	106	96	87	100.0%	100.0%
	2010	2015	2016	2017	2018	2019	2020	2021	2022	Share of total	
<b>Congo</b>	306	227	210	259	324	332	297	268	262		
Light & Sweet	89	51	62	74	87	259	236	201	177	29.1%	67.7%
Medium & Sweet	217	176	148	185						70.9%	
Medium & Medium Sour					237	74	61	67	85		32.3%
	2010	2015	2016	2017	2018	2019	2020	2021	2022	Share of total	
<b>Cote d'Ivoire</b>	39	26	32	40	33	36	28	28	27		
Medium & Sweet	16	14	16	10	10	8	8	8	7	41.0%	28.0%
Heavy & Sweet	23	12	16	30	23	28	20	20	19	59.0%	72.0%

<sup>(\*)</sup> Data source: Eni's elaborations on IEA (2023) *Monthly Oil Data Service* data. All rights reserved.

# Africa

## Countries<sup>(\*)</sup>

(thousand barrels/day)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Share of total	
										2010	2022
<b>Dem. Rep. Congo</b>	22	21	19	24	23	23	22	21	20		
<b>Medium &amp; Sweet</b>	22	21	19	24	23	23	22	21	20	100.0%	100.0%
<b>Egypt</b>	664	660	629	605	617	601	587	561	568		
<b>Light &amp; Sweet</b>	202	234	219	31	38	40	39	30	28	30.4%	5.0%
<b>Medium &amp; Sour</b>	331	335	410	502	510	492	478	463	478	49.9%	84.3%
<b>Heavy &amp; Sour</b>	131	92		72	69	69	69	67	61	19.7%	10.8%
<b>Equatoria Guinea</b>	101	276	231	212	208	196	190	180	162		
<b>Ultra Light</b>	74	100	90	86	86	86	79	80	80	73.8%	49.2%
<b>Light &amp; Sweet</b>											
<b>Medium &amp; Sweet</b>	26	176	122	108	106	93	95	85	70	26.2%	43.0%
<b>Medium &amp; Medium Sour</b>			20	18	16	17	17	14	13		7.8%
<b>Gabon</b>	249	230	227	200	190	212	198	182	188		
<b>Light &amp; Sweet</b>	81					68	64	58	61	32.4%	32.2%
<b>Medium &amp; Sweet</b>	88	132	133	120	116	62	58	53	55	35.3%	29.0%
<b>Medium &amp; Sour</b>	80	98	94	81	74	82	77	70	73	32.3%	38.8%
<b>Ghana</b>	7	106	92	157	177	206	194	164	159		
<b>Light &amp; Sweet</b>	7	106	78	101	112	145	145	131	136	100.0%	86.1%
<b>Medium &amp; Sweet</b>			14	56	65	61	49	33	22		13.9%
<b>Libya</b>	1,550	402	391	827	971	1,087	354	1,146	995		
<b>Light &amp; Sweet</b>	1,217	307	298	504	708	719	266	892	737	78.5%	74.1%
<b>Light &amp; Medium Sour</b>	67		7	19	21	45	7	43	52	4.3%	5.2%
<b>Medium &amp; Sour</b>	265	95	86	305	243	323	81	211	206	17.1%	20.7%

<sup>(\*)</sup> Data source: Eni's elaborations on IEA (2023) *Monthly Oil Data Service* data. All rights reserved.

# Africa

## Countries<sup>(\*)</sup>

(thousand barrels/day)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Share of total	
										2010	2022
<b>Nigeria</b>	2,535	2,231	1,913	1,970	2,015	2,108	1,864	1,666	1,470		
Light & Sweet	1,592	1,539	1,332	1,416	1,562	1,556	1,366	1,209	1,114	62.8%	75.8%
Medium & Sweet	882	692	581	554	453	552	497	457	356	34.8%	24.2%
Heavy & Sweet	60										
										Share of total	
	2010	2015	2016	2017	2018	2019	2020	2021	2022	2010	2022
<b>Sudan</b>	465	253	218	215	216	241	226	214	201		
Medium & Sweet	214	119	126	215	216	241	226	214	201	46.0%	100.0%
Heavy & Sweet	251	134	92							54.0%	
										Share of total	
	2010	2015	2016	2017	2018	2019	2020	2021	2022	2010	2022
<b>Tunisia</b>	79	49	46	40	38	36	33	34	32		
Light & Sweet	34	18	16	14	13	12	12	13	11	43.2%	32.6%
Light & Sour	33	24	21	18	18	16	13	14	14	41.5%	43.7%
Medium & Medium Sour	12	3	4	4	4	3	4	4	3	15.3%	10.3%
Medium & Sour		4	5	4	4	4	4	4	4		13.4%

<sup>(\*)</sup> Data source: Eni's elaborations on IEA (2023) *Monthly Oil Data Service* data. All rights reserved.



## Asia - Pacific

### Crude Production by Quality<sup>(\*)</sup>

(thousand barrels/day)

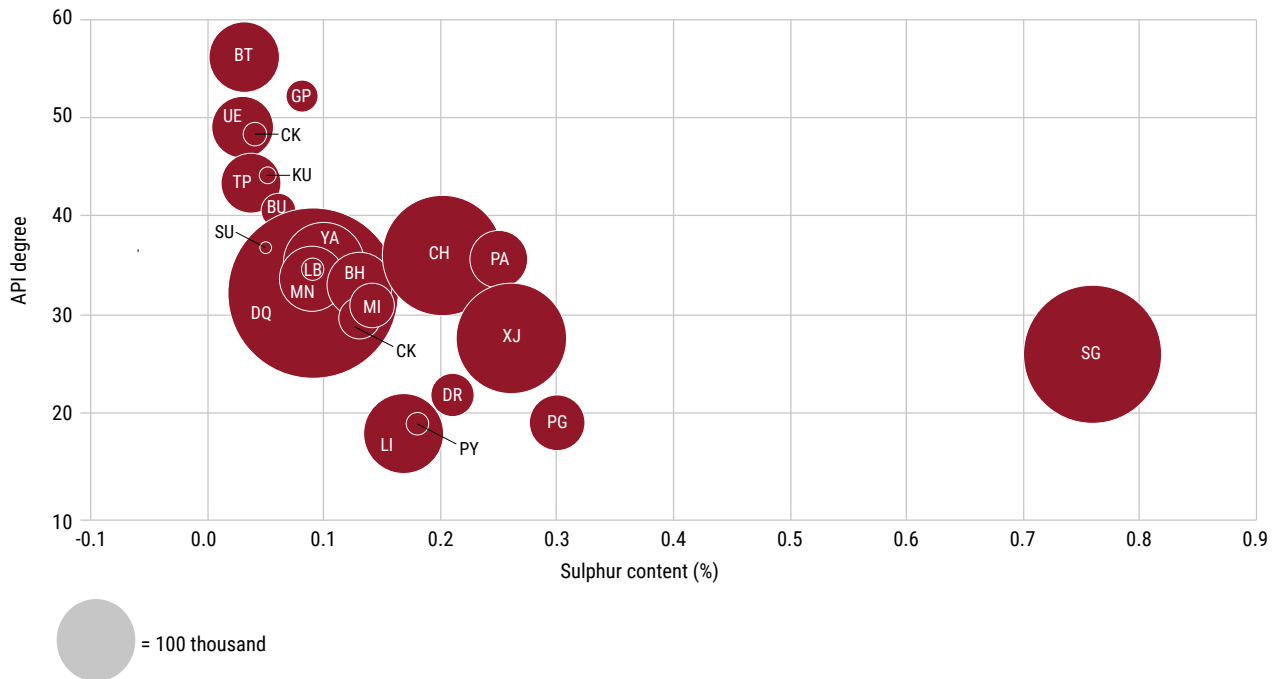
	2010	2015	2016	2017	2018	2019	2020	2021	2022	Share of total	
										2010	2022
Asia - Pacific (A)	7.836	7.729	7.375	7.106	6.923	6.929	6.766	6.702	6.654		
Ultra Light	709	545	514	529	560	617	551	544	496	9,0%	7,5%
Light & Sweet	2.376	2.281	2.716	2.666	2.639	2.578	2.382	2.083	1.969	30,3%	29,6%
Light & Medium Sour				24	23	31	30	31	31		0,5%
Light & Sour	35	32								0,4%	
Medium & Sweet	3.398	3.698	2.916	2.741	2.597	2.619	2.708	2.953	3.128	43,4%	47,0%
Medium & Medium Sour	554	547	480	472	471	453	453	450	447	7,1%	6,7%
Medium & Sour	56	62	86	59	58	56	56	57	58	0,7%	0,9%
Heavy & Sweet	659	509	612	568	531	535	545	546	488	8,4%	7,3%
Heavy & Medium Sour											
Heavy & Sour											
Unassigned production (B)	49	54	52	48	45	42	41	39	37	0,6%	0,6%
% Unassigned production (B/A)	1	1	1	1	1	1	1	1	1		

<sup>(\*)</sup> Data source: Eni's elaborations on IEA (2023) *Monthly Oil Data Service* data. All rights reserved.

## Asia - Pacific

### Quality and Production Volume of Main Crudes 2022<sup>(\*)</sup>

(thousand barrels/day)



BH Bach Ho (Vietnam)  
 BT Bintulu Condensate (Malaysia)  
 BU Brunei Light (Brunei)  
 CE Cepu (Indonesia)  
 CH Changqing (China)  
 CK Cossack (Australia)  
 CM Champion (Brunei)  
 DQ Daqing (China)

DR Duri (Indonesia)  
 GP Gippsland (Australia)  
 KU Kutubu Blend (Papua N. G.)  
 LB Labuan (Malaysia)  
 LI Liaohe (China)  
 MI Miri (Malaysia)  
 MN Minas (Indonesia)  
 PA Panyu (China)

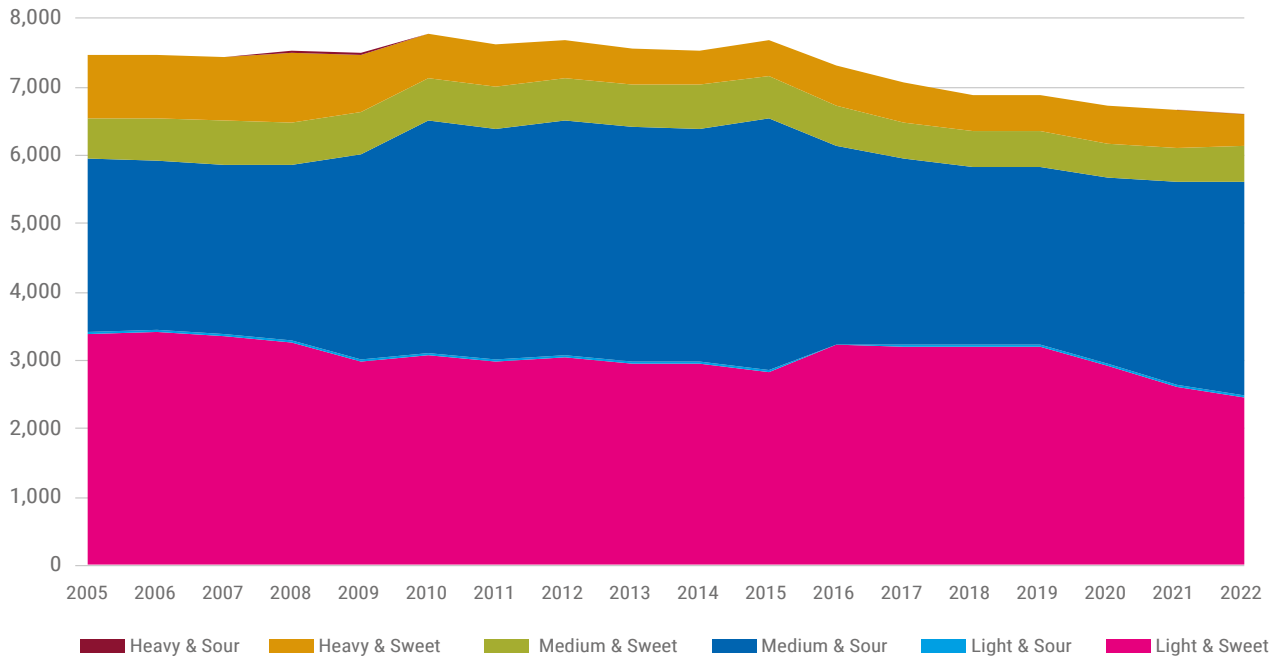
PG Peng Lai (China)  
 PY Pyrenees (Australia)  
 SG Shengli (China)  
 SU Su Tu Den (Vietnam)  
 TP Tapis (Malaysia)  
 XJ Xinjiang (China)  
 YA Yanchang (China)  
 UE UEPL (Pakistan)

<sup>(\*)</sup> Data source: Eni.

# Asia - Pacific

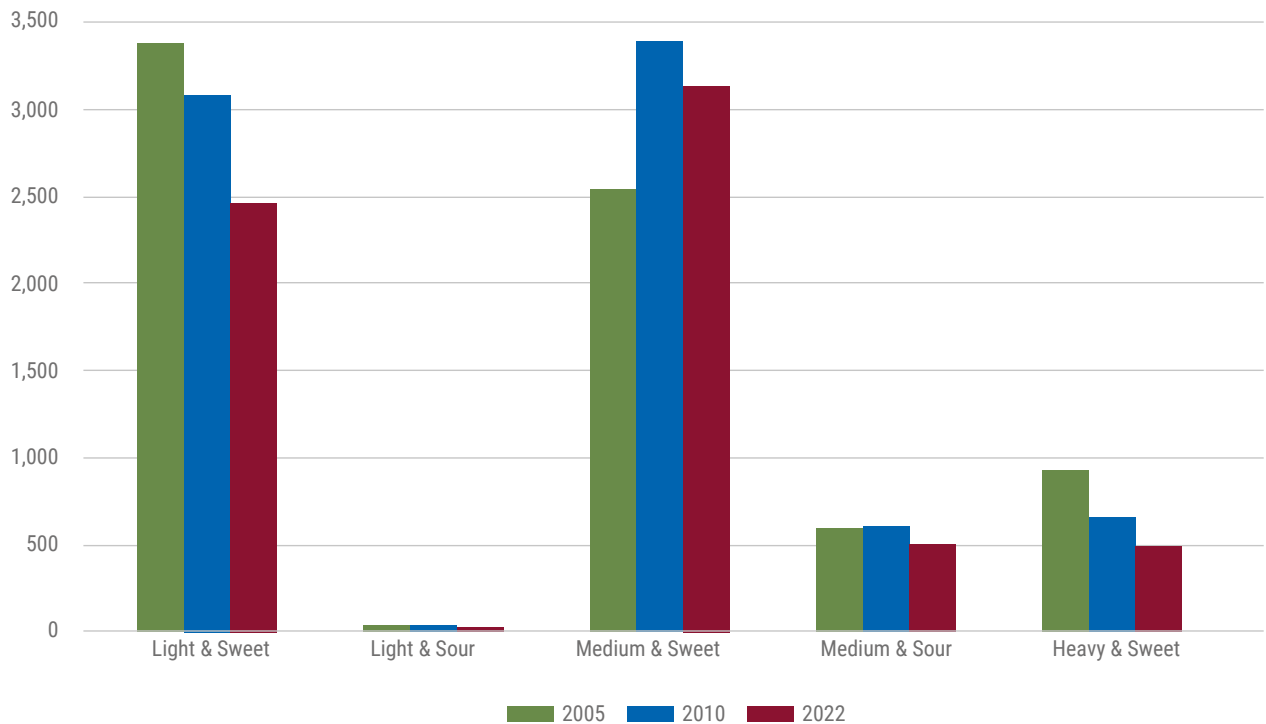
## Crude Production by Quality<sup>(\*)</sup>

(thousand barrels/day)



## Crude Production by Quality<sup>(\*)</sup>

(selected years, thousand barrels/day)



<sup>(\*)</sup>Data source: Eni's elaborations on IEA (2023) *Monthly Oil Data Service* data. All rights reserved.

## Asia - Pacific

### Countries<sup>(\*)</sup>

(thousand barrels/day)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Share of total	
										2010	2022
<b>Australia</b>	479	322	290	263	284	361	351	335	311		
Ultra Light	221	155	167	156	199	257	243	242	204	46.1%	65.7%
Light & Sweet	121	78	50	48	51	60	52	34	57	25.3%	18.4%
Heavy & Sweet	137	89	73	59	34	44	57	58	49	28.6%	15.8%
Heavy & Medium Sour											
	2010	2015	2016	2017	2018	2019	2020	2021	2022	Share of total	
										2010	2022
<b>Brunei</b>	169	127	121	113	111	121	110	108	93		
Ultra Light	16	11	12	13	12	11	10	8	8	9.5%	8.4%
Light & Sweet	111	19	19	53	18	74	65	62	47	65.9%	50.7%
Medium & Sweet	42	96	90	47	82	35	36	38	38	24.6%	40.9%
Heavy & Sweet											
	2010	2015	2016	2017	2018	2019	2020	2021	2022	Share of total	
										2010	2022
<b>China</b>	4,020	4,222	3,910	3,788	3,716	3,768	3,832	3,931	4,037		
Light & Sweet	318	273	711	705	790	812	756	601	585	7.9%	14.5%
Light & Medium Sour				24	23	31	30	31	31		0.8%
Light & Sour	35	32									0.9%
Medium & Sweet	2,759	3,040	2,221	2,118	1,963	1,995	2,111	2,365	2,524	68.6%	62.5%
Medium & Medium Sour	554	547	480	472	471	453	453	450	447	13.8%	11.1%
Medium & Sour	56	62	86	59	58	56	56	57	58	1.4%	1.4%
Heavy & Sweet	298	269	412	409	411	422	425	428	392	7.4%	9.7%
	2010	2015	2016	2017	2018	2019	2020	2021	2022	Share of total	
										2010	2022
<b>East Timor</b>	88	45	30	21	15	23	14	14	14		
Ultra light	88	45	30	21	15	23	14	14	14	100.0%	100.0%
	2010	2015	2016	2017	2018	2019	2020	2021	2022	Share of total	
										2010	2022
<b>India</b>	755	764	737	737	712	670	630	615	603		
Light & Sweet	657	676	651	647	623	585	549	534	519	87.1%	86.1%
Medium & Sweet	95	87	85	89	89	84	80	81	83	12.6%	13.7%
Heavy & Sweet	3	1	1	1	1	1	1	1	1	0.3%	0.2%

<sup>(\*)</sup> Data source: Eni's elaborations on IEA (2023) *Monthly Oil Data Service* data. All rights reserved.

## Asia - Pacific

### Countries<sup>(\*)</sup>

(thousand barrels/day)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Share of total	
										2010	2022
<b>Indonesia</b>	945	776	831	795	770	745	708	659	609		
Ultra Light	177	128	105	96	95	91	84	80	74	18.7%	12.2%
Light & Sweet	386	320	332	312	297	242	223	182	173	40.8%	28.5%
Medium & Sweet	161	178	269	289	293	345	338	338	315	17.0%	51.7%
Heavy & Sweet	221	150	126	98	86	68	63	59	47	23.4%	7.7%
										Share of total	
	2010	2015	2016	2017	2018	2019	2020	2021	2022	2010	2022
<b>Malaysia</b>	638	654	667	660	653	604	541	506	501		
Ultra Light	98	70	65	106	112	103	83	88	104	15.4%	20.7%
Light & Sweet	388	509	557	518	510	472	429	385	329	60.8%	65.6%
Medium & Sweet	152	75	45	36	31	30	29	32	69	23.8%	13.7%
										Share of total	
	2010	2015	2016	2017	2018	2019	2020	2021	2022	2010	2022
<b>New Zealand</b>	55	41	35	31	24	24	21	18	16		
Light & Sweet	38	29	25	23	18	18	15	13	11	70.1%	72.3%
Medium & Sweet	16	12	9	8	6	6	5	5	4	29.9%	27.7%
										Share of total	
	2010	2015	2016	2017	2018	2019	2020	2021	2022	2010	2022
<b>Pakistan</b>	65	86	88	89	88	86	84	82	80		
Light & Sweet	65	86	88	89	88	86	84	82	80	100.0%	100.0%
										Share of total	
	2010	2015	2016	2017	2018	2019	2020	2021	2022	2010	2022
<b>Papua New Guinea</b>	32	58	56	50	36	35	39	37	36		
Ultra Light	21	40	41	38	28	29	32	31	30	65.2%	83.6%
Light & Sweet	11	17	15	12	8	6	7	6	6	34.8%	16.4%
										Share of total	
	2010	2015	2016	2017	2018	2019	2020	2021	2022	2010	2022
<b>Thailand</b>	242	248	258	240	228	228	202	177	143		
Ultra Light	89	96	95	99	99	102	85	80	62	36.6%	42.9%
Light & Sweet	153	152	163	141	129	126	117	98	82	63.4%	57.1%
										Share of total	
	2010	2015	2016	2017	2018	2019	2020	2021	2022	2010	2022
<b>Vietnam</b>	299	332	301	271	241	221	193	181	176		
Light & Sweet	126	123	105	116	108	97	84	86	80	42.3%	45.5%
Medium & Sweet	173	209	196	154	133	124	108	95	96	57.7%	54.5%

<sup>(\*)</sup> Data source: Eni's elaborations on IEA (2023) *Monthly Oil Data Service* data. All rights reserved.

# Americas

## Crude Production by Quality<sup>(\*)</sup>

(thousand barrels/day)

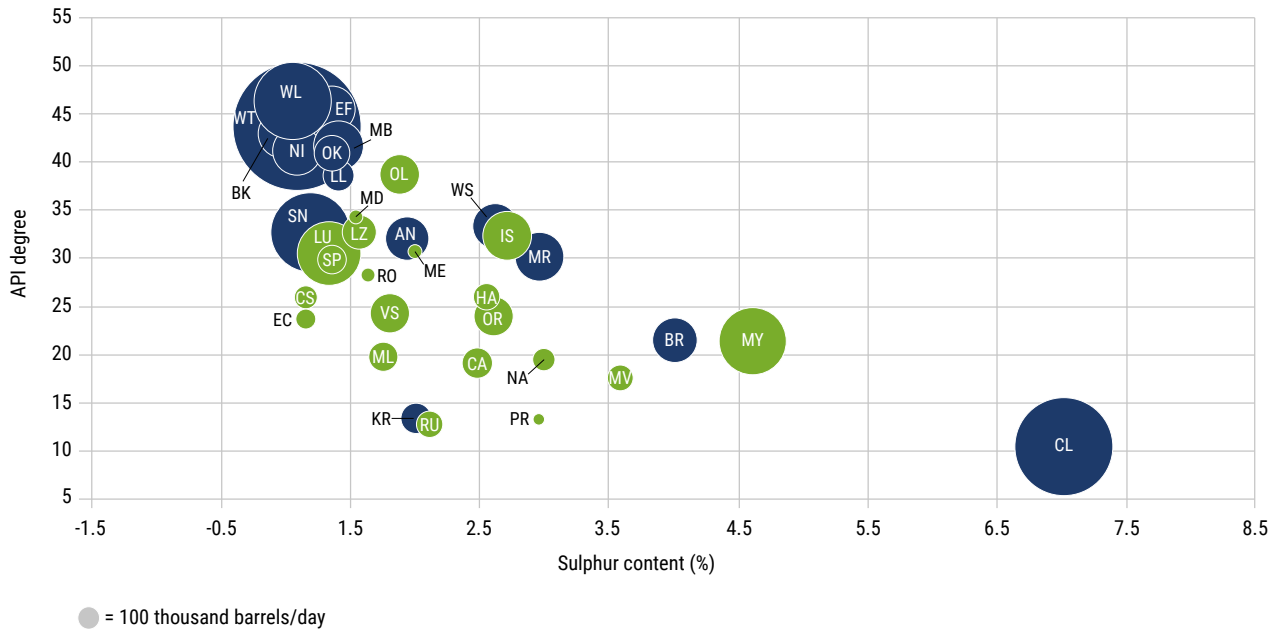
	2010	2015	2016	2017	2018	2019	2020	2021	2022	Share of total	
										2010	2022
<b>Americas (A)</b>	<b>17,644</b>	<b>22,793</b>	<b>21,777</b>	<b>22,157</b>	<b>23,381</b>	<b>24,472</b>	<b>22,902</b>	<b>23,185</b>	<b>24,429</b>		
Ultra Light	166	660	670	608	607	657	607	573	583	0.9%	2.4%
Light & Sweet	2,921	6,569	5,871	6,357	7,952	9,135	8,355	8,371	8,903	16.6%	36.4%
Light & Medium Sour	357	303	289	231	228	176	215	240	366	2.0%	1.5%
Light & Sour											
Medium & Sweet	1,740	2,359	2,508	2,870	3,067	3,599	3,755	3,755	3,648	9.9%	14.9%
Medium & Medium Sour	1,379	1,145	1,267	1,290	1,275	1,275	1,292	1,319	1,392	7.8%	5.7%
Medium & Sour	3,519	3,383	3,166	3,110	2,774	2,562	2,203	2,192	2,323	19.9%	9.5%
Heavy & Sweet	302	267	241	236	230	211	202	213	241	1.7%	1.0%
Heavy & Medium Sour	1,955	2,020	1,848	1,710	1,649	1,488	1,415	1,420	1,590	11.1%	6.5%
Heavy & Sour	5,013	5,820	5,686	5,514	5,377	5,155	4,668	4,914	5,189	28.4%	21.2%
Unassigned production (B)	292	267	231	231	224	214	191	188	192	1.7%	0.8%
% Unassigned production (B/A)	2	1	1	1	1	1	1	1	1		

<sup>(\*)</sup> Data source: Eni's elaborations on IEA (2023) *Monthly Oil Data Service* data. All rights reserved.

# Americas

## Quality and Production Volume of Main Crudes 2022<sup>(\*)</sup>

(thousand barrels/day)



AN Alaskan North Slope (U.S.A.)

BK Bakken Blend (U.S.A.)

BR Bow River (Canada)

CA Castilla (Colombia)

CL Cold Lake (Canada)

CN Cerro Negro (Venezuela)

CS Canadon Seco (Argentina)

EC Escalante (Argentina)

EF Eagle Ford (U.S.A.)

HA Hamaca (Venezuela)

SN Syncrude (Canada)

IS Isthmus (Mexico)

KR Kern River (U.S.A.)

LL Louisiana Light Sweet (U.S.A.)

LU Lula (Brazil)

MB Mixed Blend Sweet (Canada)

MD Medanito (Argentina)

ME Mesa (Venezuela)

ML Marlim (Brazil)

MR Mars (U.S.A.)

MV Merey (Venezuela)

MY Maya (Mexico)

NA Napo (Ecuador)

NI Niobrara (U.S.A.)

OK Oklahoma sweet (U.S.A.)

OL Olmeca (Mexico)

OR Oriente (Ecuador)

PE Petrocedeno (Venezuela)

PR Peregrino (Brazil)

PP Petrozuata (Venezuela)

RO Roncador (Brazil)

RU Rubiales (Colombia)

SP Sapinhoa (Brazil)

VS Vasconia (Colombia)

WL West Texas Light (USA)

WS West Texas Sour (U.S.A.)

WT West Texas Int. (U.S.A.)

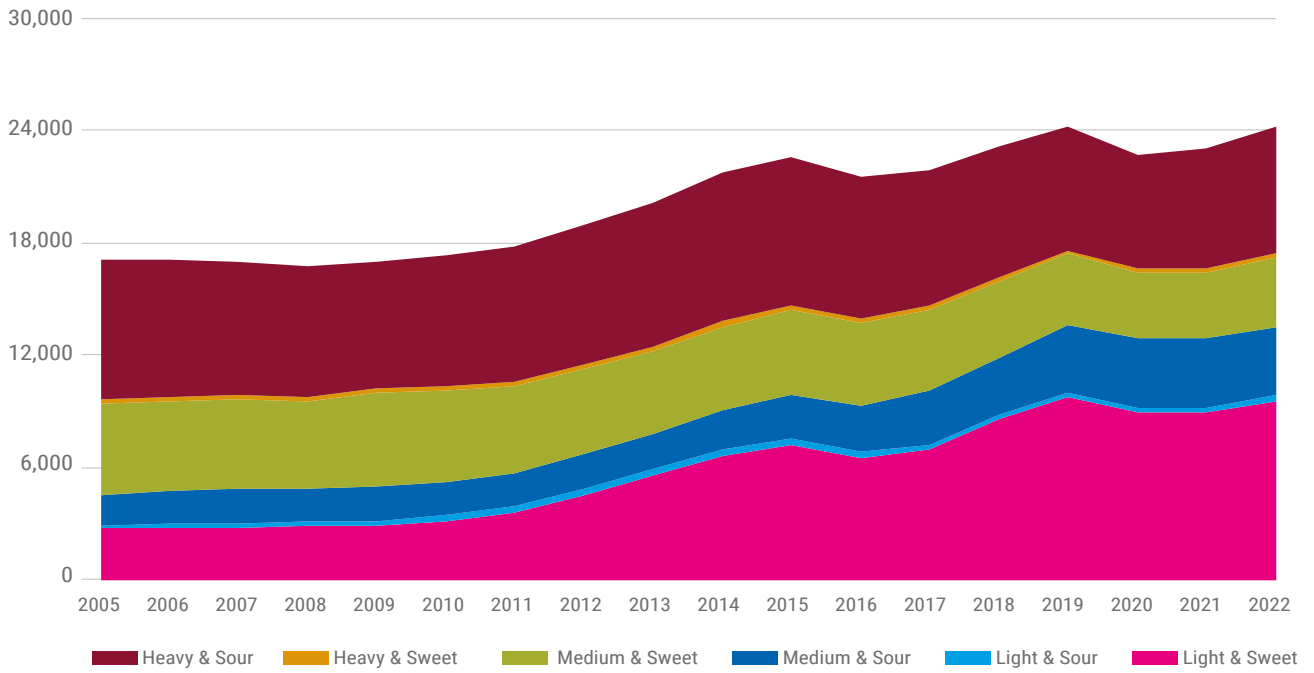
LZ Liza (Guyana)

<sup>(\*)</sup> Data source: Eni.

# Americas

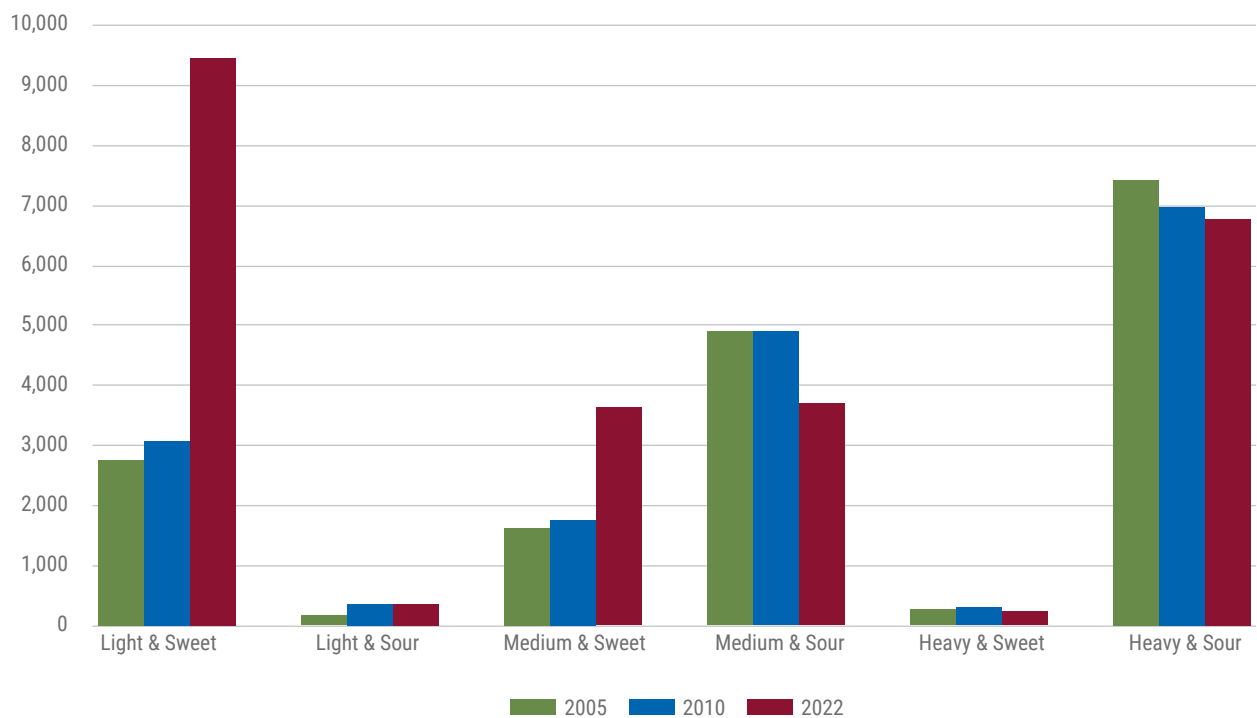
## Crude Production by Quality<sup>(\*)</sup>

(thousand barrels/day)



## Crude Production by Quality<sup>(\*)</sup>

(selected years, thousand barrels/day)



<sup>(\*)</sup> Data source: Eni's elaborations on IEA (2023) *Monthly Oil Data Service* data. All rights reserved.



# Americas

## Countries<sup>(\*)</sup>

(thousand barrels/day)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Share of total	
	2010	2015	2016	2017	2018	2019	2020	2021	2022	2010	2022
<b>Argentina</b>	589	532	511	480	489	509	480	513	582		
Ultra light	22	21	22	22	23	26	26	28	26	3.7%	4.5%
Light & Sweet	85	77	73	69	70	72	68	73	83	14.5%	14.3%
Medium & Sweet		21	27	35	55	92	114	160	237		40.6%
Medium & Medium Sour	256	210	193	171	155	149	113	82	41		7.1%
Heavy & Sweet	227	205	196	183	187	169	159	170	195	38.5%	33.4%
										Share of total	
	2010	2015	2016	2017	2018	2019	2020	2021	2022	2010	2022
<b>Brazil</b>	2,063	2,451	2,525	2,638	2,599	2,788	2,937	2,905	3,021		
Light & Sweet	4	6	6	4	3	3	8	0			
Light & Medium Sour	36	26	23	20	20	19	16	15	13	1.8%	2.3%
Medium & Sweet	96	567	814	1,048	1,178	1,514	1,760	1,731	1,646		282.6%
Medium & Medium Sour	264	164	154	142	124	191	181	169	163	12.8%	28.0%
Heavy & Sweet	75	62	45	52	43	42	42	43	47	3.6%	8.0%
Heavy & Medium Sour	1,568	1,543	1,412	1,295	1,160	949	901	932	1,111	76.0%	190.7%
Heavy & Sour	20	82	71	75	71	70	28	15	42	1.0%	7.3%
										Share of total	
	2010	2015	2016	2017	2018	2019	2020	2021	2022	2010	2022
<b>Canada</b>	2,850	3,828	3,823	4,151	4,504	4,649	4,400	4,616	4,722		
Light & Sweet	678	669	574	586	640	639	551	537	569	23.8%	12.1%
Medium & Sweet	1,047	1,197	1,193	1,333	1,399	1,525	1,507	1,523	1,408	36.7%	29.8%
Medium & Medium Sour		127	169	176	144	133	118	99	60		1.3%
Heavy & Medium Sour				2	62	112	141	139	139		3.0%
Heavy & Sour	1,125	1,836	1,887	2,054	2,259	2,240	2,083	2,318	2,546	39.5%	53.9%
<i>Memo: Syncrude production is included in Medium &amp; Sweet</i>	926	1,151	1,152	1,290	1,374	1,508	1,482	1,503	1,392	32.5%	293.0%
<i>Memo: bitumen production is included in Heavy &amp; Sour</i>	697	1,406	1,485	1,648	1,856	1,837	1,718	1,921	2,107	24.4%	374.4%
										Share of total	
	2010	2015	2016	2017	2018	2019	2020	2021	2022	2010	2022
<b>Colombia</b>	786	1,006	898	854	865	886	781	737	754		
Light & Sweet	15	5	5	4	3	2	2	1	1	2.0%	0.1%
Medium & Sweet	111	83								14.2%	
Medium & Medium Sour			73	69	68	69	62	61	66		8.7%
Heavy & Medium Sour	387	477	436	413	427	427	372	350	340	49.3%	45.1%
Heavy & Sour	272	440	384	367	368	387	345	324	348	34.6%	46.1%

<sup>(\*)</sup>Data source: Eni's elaborations on IEA (2023) *Monthly Oil Data Service* data. All rights reserved.

# Americas

## Countries<sup>(\*)</sup>

(thousand barrels/day)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Share of total	
										2010	2022
Guyana	0	0	0	0	0	1	70	110	274		
Medium & Medium Sour						1	70	110	274		100.0%
	2010	2015	2016	2017	2018	2019	2020	2021	2022	Share of total	
										2010	2022
Ecuador	466	541	549	531	517	531	479	472	461		
Heavy & Sour	466	541	549	531	517	531	479	472	461	100.0%	100.0%
	2010	2015	2016	2017	2018	2019	2020	2021	2022	Share of total	
										2010	2022
Mexico	2.578	2.267	2.154	1.948	1.831	1.705	1.716	1.780	1.836		
Light & Medium Sour	321	277	266	210	207	158	199	226	353	12.4%	19.2%
Medium & Sour	793	838	785	689	552	484	472	539	519	30.7%	28.3%
Heavy & Sour	1.465	1.152	1.103	1.049	1.072	1.064	1.046	1.016	965	56.8%	52.5%
	2010	2015	2016	2017	2018	2019	2020	2021	2022	Share of total	
										2010	2022
United States	5.484	9.442	8.847	9.359	10.953	12.315	11.318	11.254	11.884		
Ultra light	49	546	563	539	584	631	581	545	557	0.9%	4.7%
Light & Sweet	2.138	5.812	5.212	5.694	7.235	8.418	7.726	7.759	8.250	39.0%	69.4%
Medium & Sweet	371	382	376	363	373	432	373	340	359	6.8%	3.0%
Medium & Medium Sour	859	644	678	732	695	678	707	744	751	15.7%	6.3%
Medium & Sour	1.498	1.508	1.499	1.530	1.626	1.727	1.541	1.479	1.607	27.3%	13.5%
Heavy & Sour	569	549	518	501	439	429	388	386	360	10.4%	3.0%
	2010	2015	2016	2017	2018	2019	2020	2021	2022	Share of total	
										2010	2022
Venezuela	2.535	2.460	2.239	1.966	1.398	874	529	611	702		
Ultra light	96	94	86	48						3.8%	
Medium & Sweet	114	109	98	91	61	36				4.5%	
Medium & Medium Sour					90	53	40	54	37		5.3%
Medium & Sour	1.228	1.037	881	891	596	352	190	175	197	48.4%	28.1%
Heavy & Sour	1.097	1.220	1.173	936	651	433	299	383	468	43.3%	66.6%

<sup>(\*)</sup> Data source: Eni's elaborations on IEA (2023) *Monthly Oil Data Service* data. All rights reserved.







# Oil - Refining Industry



## REFINING CAPACITY

Areas and Aggregates

# Refining Capacity

## Areas and Aggregates<sup>(\*)</sup>

2005	Refineries (no.)	Primary Capacity (mmtons)	Primary Capacity (kbb/d)	Conversion Capacity (FCC eqv.) (mmtons)	Complexity Ratio	
					FCC eqv. (%)	NCI
Europe <sup>(**)</sup>	137	873	17,476	280	34%	8.7
Russia and Central Asia	61	370	7,438	63	17%	6.7
Middle East	47	361	7,319	61	17%	5.5
Africa	46	158	3,152	27	17%	5.6
Asia - Pacific	260	1,236	24,765	536	43%	7.3
Americas	253	1,358	27,174	862	63%	10.0
- North America	175	1,034	20,686	716	69%	11.2
- Central South America	78	324	6,488	146	45%	7.2
World	804	4,355	87,324	1,828	43%	8.2

2010	Refineries (no.)	Primary Capacity (mmtons)	Primary Capacity (kbb/d)	Conversion Capacity (FCC eqv.) (mmtons)	Complexity Ratio	
					FCC eqv. (%)	NCI
Europe <sup>(**)</sup>	128	840	16,812	290	37%	8.9
Russia and Central Asia	66	378	7,612	66	18%	6.9
Middle East	58	393	8,003	79	20%	6.0
Africa	46	159	3,189	28	17%	5.7
Asia - Pacific	298	1,485	29,792	783	53%	8.2
Americas	242	1,353	27,087	881	65%	10.6
- North America	167	1,034	20,688	729	70%	11.6
- Central South America	75	319	6,399	152	47%	7.4
World	838	4,609	92,495	2,127	47%	8.7

<sup>(\*)</sup> Data source: Eni's calculations on Icis Consulting data.

<sup>(\*\*)</sup> Belarus and Ukraine aren't included in Europe but in Russia and Central Asia.

# Refining Capacity

## Areas and Aggregates<sup>(\*)</sup>

2015	Refineries (no.)	Primary Capacity (mmtons)	Primary Capacity (kbbbl/d)	Conversion Capacity (FCC eqv.) (mmtons)	Complexity Ratio	
					FCC eqv. (%)	NCI
Europe <sup>(**)</sup>	113	772	15,443	293	41%	9.2
Russia and Central Asia	70	414	8,350	79	19%	7.0
Middle East	58	441	8,950	118	27%	6.8
Africa	48	159	3,195	32	20%	6.1
Asia - Pacific	323	1,715	34,424	1,021	59%	9.0
Americas	239	1,366	27,350	922	67%	10.9
- North America	164	1,070	21,417	777	73%	11.8
- Central South America	75	296	5,933	145	49%	7.7
World	851	4,867	97,712	2,464	51%	9.1

2022	Refineries (no.)	Primary Capacity (mmtons)	Primary Capacity (kbbbl/d)	Conversion Capacity (FCC eqv.) (mmtons)	Complexity Ratio	
					FCC eqv. (%)	NCI
Europe <sup>(**)</sup>	105	742	14,849	315	45%	9.4
Russia and Central Asia	72	435	8,760	140	32%	8.2
Middle East	65	544	11,122	159	29%	7.6
Africa	52	147	2,947	35	24%	6.3
Asia - Pacific	300	1,869	37,563	1,247	67%	10.2
Americas	227	1,351	27,079	904	67%	10.8
- North America	155	1,047	20,972	743	71%	11.7
- Central South America	72	305	6,107	161	53%	7.8
World	821	5,088	102,320	2,799	55%	9.7

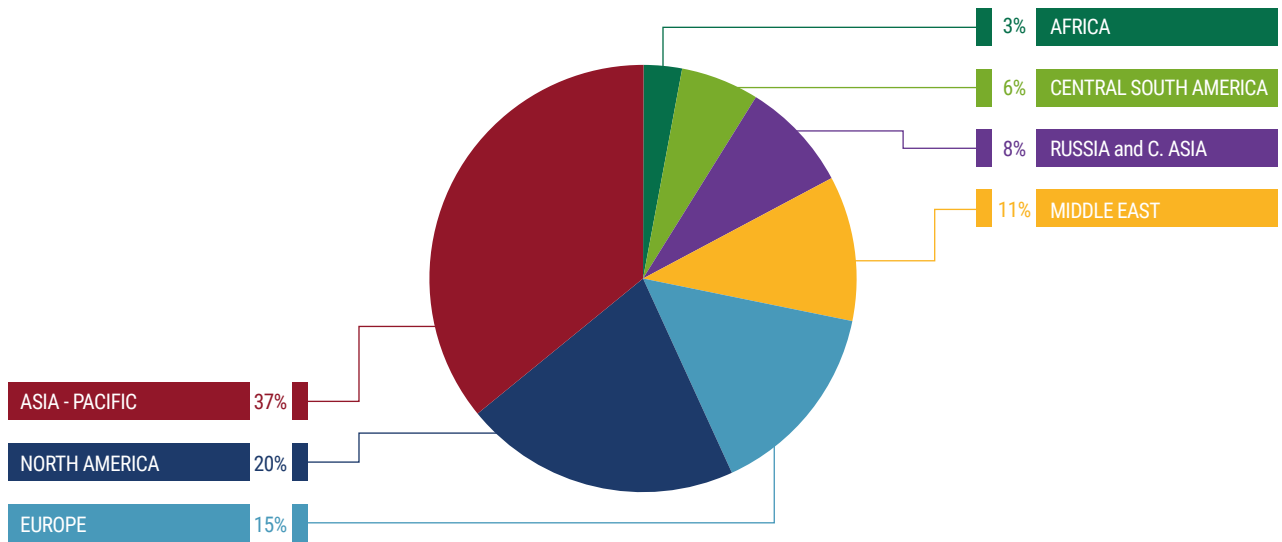
<sup>(\*)</sup> Data source: Eni's calculations on Icis Consulting data.

<sup>(\*\*)</sup> Belarus and Ukraine aren't included in Europe but in Russia and Central Asia.

# Refining Capacity

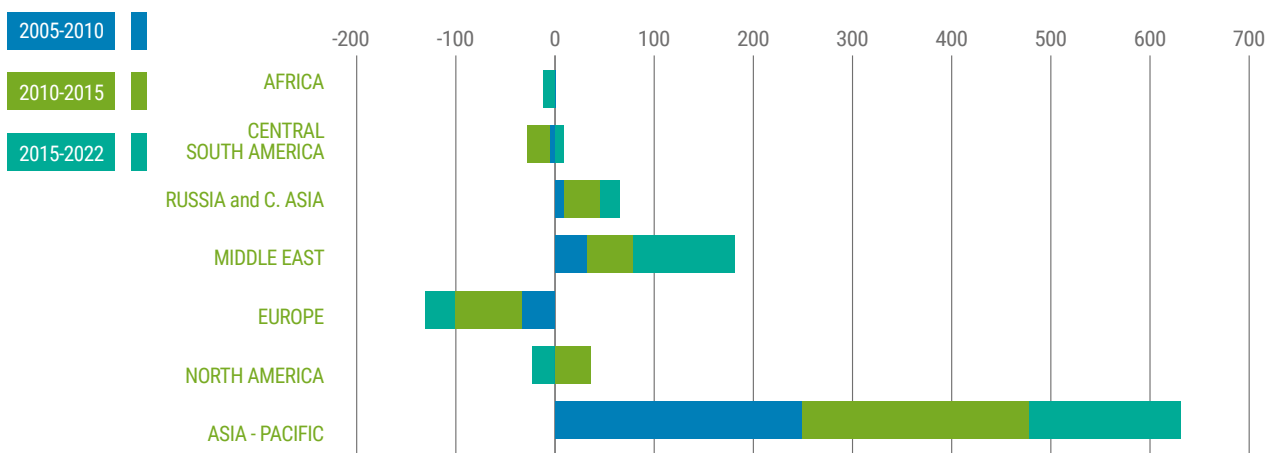
## World Primary Capacity (2022)

5,088 million tons



## World Primary Capacity Growth (2005-2022)

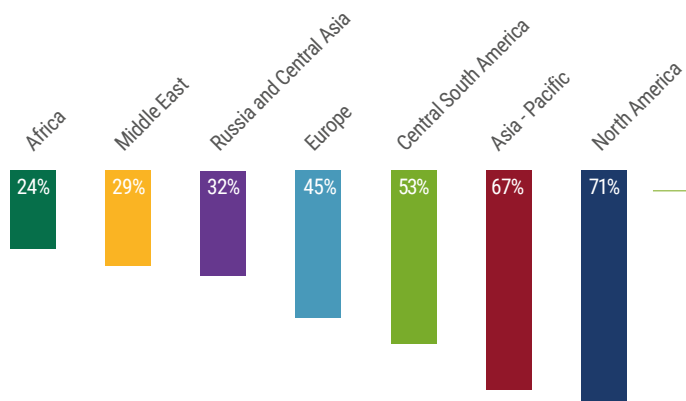
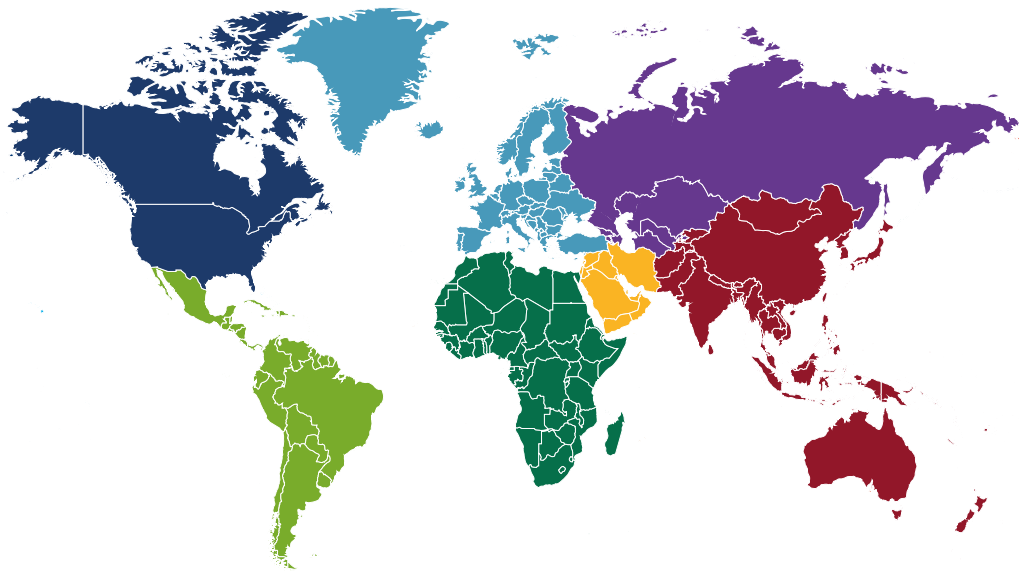
732 million tons





# Refining Capacity

2022 Complexity ratio (FCC eqv.%)





# Natural Gas - Supply and Demand

## RESERVES

Areas and Aggregates  
The World Top 10 Reserves Holders  
Countries

## PRODUCTION

Areas and Aggregates  
The World Top 10 Producers  
Countries

## RESERVES/PRODUCTION RATIO

Areas and Aggregates  
The World Top 10 Producers Ranked by Reserves/Production Ratio  
Countries

## CONSUMPTION

Areas and Aggregates  
The World Top 10 Consumers  
Countries

## PER CAPITA CONSUMPTION

Areas and Aggregates  
The World Top 10 Consumers Ranked by Per Capita Consumption Ratio  
Countries

## PRODUCTION/CONSUMPTION RATIO

Areas and Aggregates  
The World Top 10 Producers Ranked by Production/Consumption Ratio  
Countries

# Reserves

## Areas and Aggregates<sup>(\*)</sup>

(billion cubic metres as at 31<sup>st</sup> December)

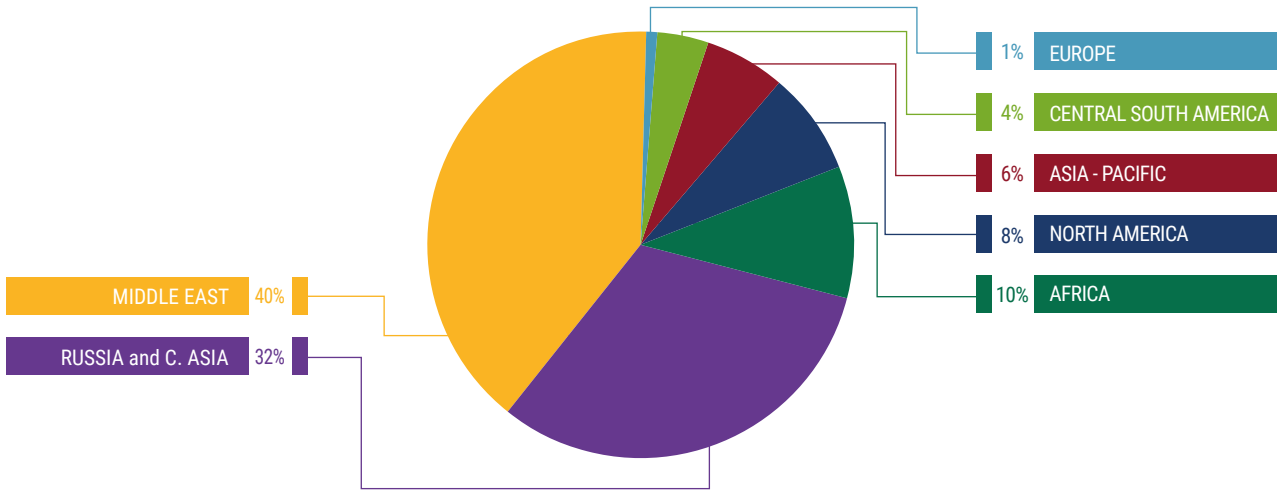
	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
Europe	6,038	4,449	4,205	4,068	3,450	3,306	3,119	2,989	2,987	-0.1%	-5.7%
Russia and Central Asia	62,753	67,519	67,930	68,230	67,655	67,650	66,324	66,325	66,325	0.0%	0.5%
Middle East	78,963	79,263	80,271	79,964	80,358	80,799	81,319	81,883	81,883	0.0%	0.3%
Africa	14,446	14,525	14,993	15,326	15,413	15,894	15,844	15,933	15,933	0.0%	0.8%
Asia - Pacific	15,525	15,222	14,808	14,529	13,140	12,492	12,406	12,157	12,157	0.0%	-2.0%
Americas	18,446	18,716	19,058	22,120	23,063	23,178	23,025	27,581	27,581	0.0%	3.4%
- North America	10,597	10,827	11,214	14,388	15,531	15,642	15,642	20,182	20,182	0.0%	5.5%
- Central South America	7,849	7,889	7,844	7,732	7,533	7,536	7,384	7,399	7,399	0.0%	-0.5%
<b>World</b>	<b>196,171</b>	<b>199,693</b>	<b>201,264</b>	<b>204,238</b>	<b>203,080</b>	<b>203,319</b>	<b>202,038</b>	<b>206,867</b>	<b>206,865</b>	<b>0.0%</b>	<b>0.4%</b>
European Union 27	1,771	1,248	1,135	1,075	577	519	452	439	436	-0.6%	-11.0%
MENA	87,240	87,424	88,566	88,259	88,653	89,082	89,602	90,166	90,166	0.0%	0.3%
OECD	20,096	18,644	18,985	22,038	22,590	22,256	21,959	26,353	26,350	0.0%	2.3%
NON OECD	176,075	181,050	182,279	182,200	180,490	181,064	180,079	180,515	180,515	0.0%	0.2%
OPEC	63,760	65,086	66,317	66,555	66,993	67,462	68,063	68,701	68,701	0.0%	0.6%
NON OPEC	132,411	134,607	134,947	137,683	136,088	135,857	133,975	138,166	138,164	0.0%	0.4%

<sup>(\*)</sup> Data source: Eni's estimates on Enerdata *Global Energy Market & CO<sub>2</sub> Data* and other official data sources.

# Reserves

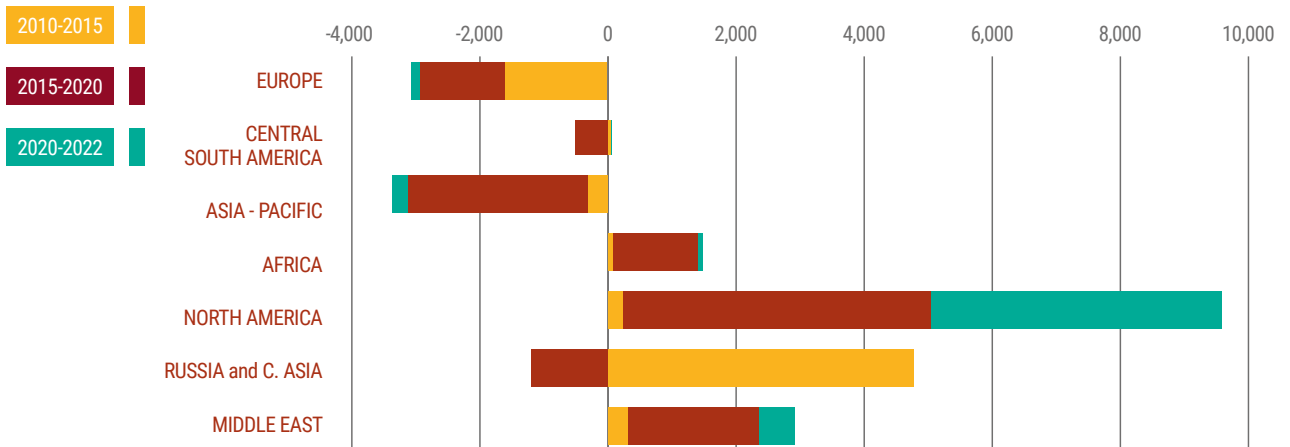
## World Natural Gas Reserves (2022)

206,865 billion cubic metres as at 31<sup>st</sup> December



## World Natural Gas Reserves Growth (2010-2022)

10,693 billion cubic metres as at 31<sup>st</sup> December



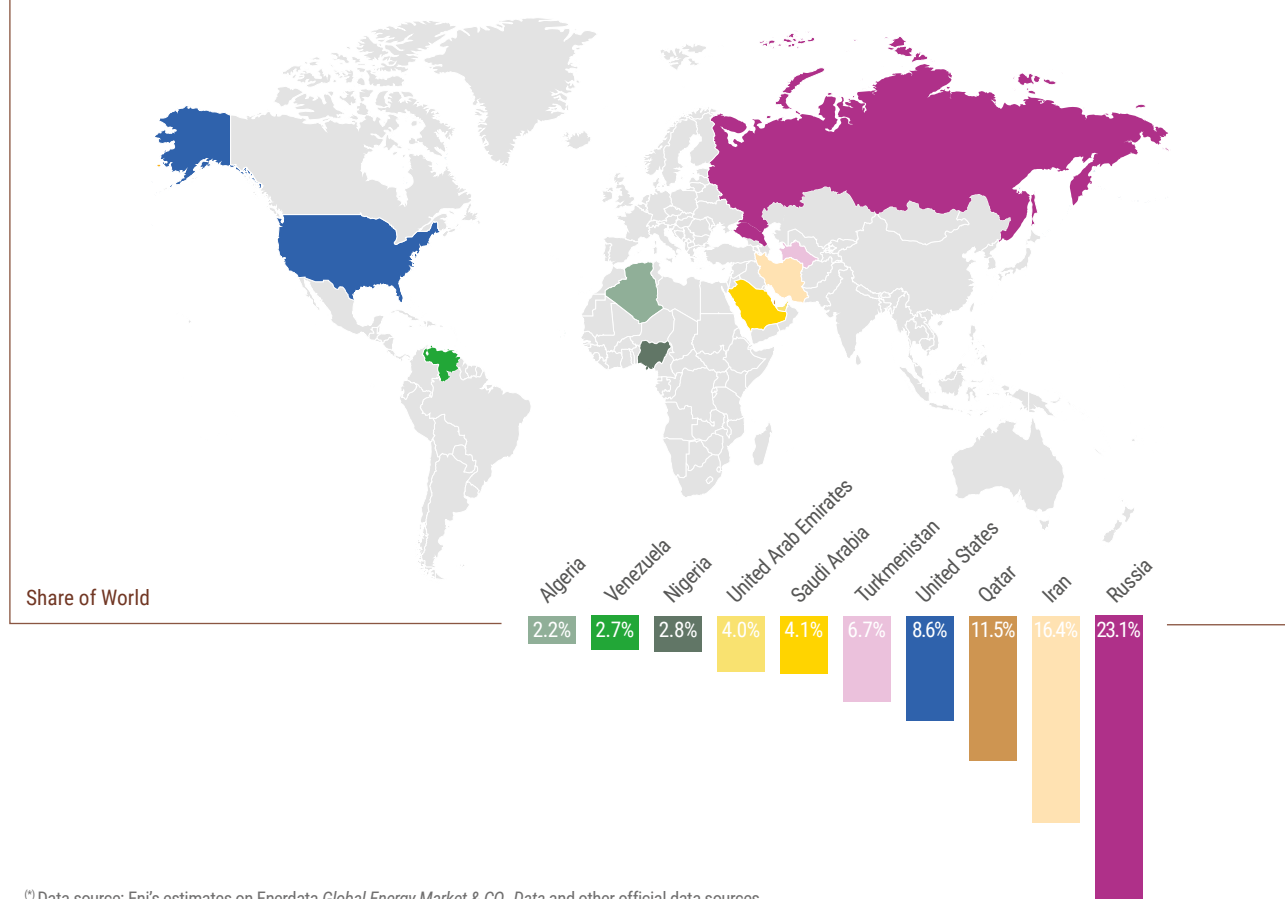
# Reserves

## The World Top 10 Reserves Holders<sup>(\*)</sup>

(billion cubic metres as at 31<sup>st</sup> December)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
Russia	46,000	50,205	50,617	50,508	49,571	49,084	47,759	47,759	47,759	0.0%	0.3%
Iran	33,090	33,500	33,721	33,810	33,899	33,988	33,988	33,988	33,988	0.0%	0.2%
Qatar	25,201	24,299	24,073	23,861	23,846	23,831	23,831	23,831	23,831	0.0%	-0.5%
United States	8,620	8,709	9,119	12,408	13,437	13,171	13,171	17,711	17,711	0.0%	6.2%
Turkmenistan	13,950	13,950	13,950	13,950	13,950	13,950	13,950	13,950	13,950	0.0%	0.0%
Saudi Arabia	8,016	8,588	8,619	8,715	9,069	9,423	8,437	8,507	8,507	0.0%	0.5%
United Arab Emirates	6,090	6,090	6,090	6,090	6,090	6,090	7,730	8,200	8,200	0.0%	2.5%
Nigeria	5,110	5,284	5,475	5,627	5,675	5,761	5,750	5,848	5,848	0.0%	1.1%
Venezuela	5,521	5,698	5,736	5,707	5,674	5,674	5,590	5,541	5,541	0.0%	0.0%
Algeria	4,504	4,504	4,504	4,504	4,504	4,504	4,504	4,504	4,504	0.0%	0.0%
<b>The World Top 10</b>	<b>156,102</b>	<b>160,827</b>	<b>161,904</b>	<b>165,180</b>	<b>165,715</b>	<b>165,476</b>	<b>164,710</b>	<b>169,839</b>	<b>169,839</b>	<b>0.0%</b>	<b>0.7%</b>
Rest of the World	40,069	38,866	39,360	39,058	37,365	37,843	37,329	37,028	37,026	0.0%	-0.7%
<b>World</b>	<b>196,171</b>	<b>199,693</b>	<b>201,264</b>	<b>204,238</b>	<b>203,080</b>	<b>203,319</b>	<b>202,038</b>	<b>206,867</b>	<b>206,865</b>	<b>0.0%</b>	<b>0.4%</b>

## The World Top 10 (2022)



<sup>(\*)</sup> Data source: Eni's estimates on Enerdata *Global Energy Market & CO<sub>2</sub> Data* and other official data sources.

# Reserves

## Countries<sup>(\*)</sup>

(billion cubic metres as at 31<sup>st</sup> December)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
Europe	6,038	4,449	4,205	4,068	3,450	3,306	3,119	2,989	2,987	-0.1%	-5.7%
Albania	0	0	0	0	1	1	1	1	1	0.0%	21.2%
Austria	15	9	8	8	7	6	5	5	5	0.0%	-8.0%
Belarus	1	1	1	1	1	1	1	1	1	0.0%	-5.6%
Bulgaria	5	4	4	4	4	4	4	4	4	0.0%	-1.6%
Croatia	25	11	10	9	6	6	5	4	4	0.0%	-13.6%
Czech Republic	4	3	3	3	3	3	3	3	3	0.0%	-1.4%
Denmark	101	80	77	72	69	66	65	63	63	0.0%	-3.9%
France	5	9	9	9	9	9	9	9	9	0.0%	4.7%
Germany	87	46	42	37	30	25	22	20	20	0.0%	-11.5%
Greece	1	1	1	1	1	1	1	1	1	0.0%	0.0%
Hungary	12	8,54	7	6	7	4	5	5	5	0.0%	-7.1%
Ireland	25	30	30	30	29	28	27	26	26	0.0%	0.4%
Italy(**)	66	49,1	38	45	48	46	45	40	37	-6.5%	-4.7%
Moldova	1	1	1	1	1	1	1	1	1	0.0%	-5.6%
Netherlands	1,236	825	740	695	196	147	92	93	93	0.0%	-19.4%
Norway	2,762	2,461	2,388	2,334	2,226	2,165	2,095	2,072	2,072	0.0%	-2.4%
Poland	71	61	58	56	73	85	85	84	84	0.0%	1.4%
Romania	110	103	99	92	87	81	77	74	74	0.0%	-3.3%
Serbia and Montenegro	8	6	6	6	5	5	5	5	5	0.0%	-4.8%
Slovakia	5	5	5	4	4	4	4	4	4	0.0%	-2.0%
Spain	3	3	3	3	3	3	3	3	3	0.0%	0.8%
Turkey	6	6	6	6	6	6	6	6	6	0.0%	0.0%
Ukraine	969	393	380	384	358	349	338	266	266	0.0%	-10.2%
United Kingdom	520	333	288	263	276	260	221	200	200	0.0%	-7.7%

<sup>(\*)</sup> Data source: Eni's estimates on Enerdata *Global Energy Market & CO<sub>2</sub> Data* and other official data sources.

<sup>(\*\*)</sup> Data source: Italian Ministry of Environment and Energy Security.

# Reserves

## Countries<sup>(\*)</sup>

(billion cubic metres as at 31<sup>st</sup> December)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
<b>Russia and Central Asia</b>	<b>62,753</b>	<b>67,519</b>	<b>67,930</b>	<b>68,230</b>	<b>67,655</b>	<b>67,650</b>	<b>66,324</b>	<b>66,325</b>	<b>66,325</b>	<b>0.0%</b>	<b>0.5%</b>
Russia	46,000	50,205	50,617	50,508	49,571	49,084	47,759	47,759	47,759	0.0%	0.3%
Azerbaijan	515	665	665	1,074	1,435	1,917	1,917	1,917	1,917	0.0%	11.6%
Georgia	1	1	1	1	1	1	1	1	1	0.0%	-5.6%
Kazakhstan	1,389	1,830	1,830	1,830	1,830	1,830	1,830	1,830	1,830	0.0%	2.3%
Kyrgyzstan	1	1	1	1	1	1	1	1	1	0.0%	-5.6%
Tajikistan	1	1	1	1	1	1	1	1	1	0.0%	-5.6%
Turkmenistan	13,950	13,950	13,950	13,950	13,950	13,950	13,950	13,950	13,950	0.0%	0.0%
Uzbekistan	896	867	867	867	867	867	867	867	867	0.0%	-0.3%
	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
<b>Middle East</b>	<b>78,963</b>	<b>79,263</b>	<b>80,271</b>	<b>79,964</b>	<b>80,358</b>	<b>80,799</b>	<b>81,319</b>	<b>81,883</b>	<b>81,883</b>	<b>0.0%</b>	<b>0.3%</b>
Bahrain	110	163	224	210	210	193	68	68	68	0.0%	-3.9%
Iran	33,090	33,500	33,721	33,810	33,899	33,988	33,988	33,988	33,988	0.0%	0.2%
Iraq	3,158	3,158	3,820	3,744	3,729	3,714	3,714	3,714	3,714	0.0%	1.4%
Israel	215	206	465	488	497	547	538	562	562	0.0%	8.3%
Jordan	6	6	6	6	6	6	6	6	6	0.0%	0.0%
Kuwait	1,784	1,784	1,784	1,784	1,784	1,784	1,784	1,784	1,784	0.0%	0.0%
Oman	520	705	705	705	677	674	673	673	673	0.0%	2.2%
Qatar	25,201	24,299	24,073	23,861	23,846	23,831	23,831	23,831	23,831	0.0%	-0.5%
Saudi Arabia	8,016	8,588	8,619	8,715	9,069	9,423	8,437	8,507	8,507	0.0%	0.5%
Syria	285	285	285	285	285	285	285	285	285	0.0%	0.0%
United Arab Emirates	6,090	6,090	6,090	6,090	6,090	6,090	7,730	8,200	8,200	0.0%	2.5%
Yemen	488	479	479	266	266	265	265	265	265	0.0%	-5.0%

<sup>(\*)</sup> Data source: Eni's estimates on Enerdata *Global Energy Market & CO<sub>2</sub> Data* and other official data sources.



# Reserves

## Countries<sup>(\*)</sup>

(billion cubic metres as at 31<sup>st</sup> December)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
<b>Africa</b>	<b>14,446</b>	<b>14,525</b>	<b>14,993</b>	<b>15,326</b>	<b>15,413</b>	<b>15,894</b>	<b>15,844</b>	<b>15,933</b>	<b>15,933</b>	<b>0.0%</b>	<b>0.8%</b>
Algeria	4,504	4,504	4,504	4,504	4,504	4,504	4,504	4,504	4,504	0.0%	0.0%
Angola	275	308	440	422	384	343	301	301	301	0.0%	0.8%
Benin	1	0	0	0	0	1	1	1	1	0.0%	0.0%
Cameroon	155	154	173	172	171	170	179	176	176	0.0%	1.1%
Chad	0	1	1	1	1	1	1	1	1	0.0%	
Congo	127	285	285	285	285	284	284	284	284	0.0%	6.9%
Côte d'Ivoire	27	22	21	20	18	18	18	18	18	0.0%	-3.3%
Dem. Rep. Congo	1	1	1	1	1	1	1	1	1	0.0%	0.0%
Egypt	2,210	2,086	2,221	2,221	2,221	2,209	2,209	2,209	2,209	0.0%	0.0%
Equatorial Guinea	82	54	47	42	42	39	39	39	39	0.0%	-6.0%
Ethiopia	25	25	25	25	35	25	25	25	25	0.0%	0.0%
Gabon	28	25	26	26	26	26	26	26	26	0.0%	-0.6%
Ghana	27	27	27	58	56	55	53	51	51	0.0%	5.4%
Libya	1,495	1,505	1,505	1,505	1,505	1,505	1,505	1,505	1,505	0.0%	0.1%
Madagascar	2	2	2	2	2	2	2	2	2	0.0%	0.0%
Mauritania	28	28	28	28	50	50	50	50	50	0.0%	5.0%
Morocco	3	1	1	1	1	1	1	1	1	0.0%	-8.7%
Mozambique	75	75	75	186	186	650	650	650	650	0.0%	19.7%
Namibia	62	0	0	62	62	62	62	62	62	0.0%	0.0%
Nigeria	5,110	5,284	5,475	5,627	5,675	5,761	5,750	5,848	5,848	0.0%	1.1%
Senegal	10	2	2	2	52	52	52	52	52	0.0%	14.7%
Somalia	0	6	6	6	6	6	6	6	6	0.0%	
South Africa	12	3	2	3	2	2	1	1	1	0.0%	-19.0%
Sudan	85	25	25	25	25	25	25	25	25	0.0%	-9.7%
Tanzania	37	37	37	40	40	39	35	31	31	0.0%	-1.4%
Tunisia	65	65	65	64	64	64	64	64	64	0.0%	-0.1%

<sup>(\*)</sup> Data source: Eni's estimates on Enerdata *Global Energy Market & CO<sub>2</sub> Data* and other official data sources.

# Reserves

## Countries<sup>(\*)</sup>

(billion cubic metres as at 31<sup>st</sup> December)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
<b>Asia - Pacific</b>	<b>15,525</b>	<b>15,222</b>	<b>14,808</b>	<b>14,529</b>	<b>13,140</b>	<b>12,492</b>	<b>12,406</b>	<b>12,157</b>	<b>12,157</b>	<b>0.0%</b>	<b>-2.0%</b>
Afghanistan	100	99	99	99	99	98	98	98	98	0.0%	-0.2%
Australia	3,759	3,205	3,193	3,193	3,193	2,846	2,716	2,587	2,587	0.0%	-3.1%
Bangladesh	354	385	365	337	325	300	284	264	264	0.0%	-2.4%
Brunei	301	258	252	240	246	240	233	228	228	0.0%	-2.3%
China	2,244	2,791	2,838	2,786	2,779	2,834	2,922	2,893	2,893	0.0%	2.1%
India	1,098	1,252	1,227	1,284	1,340	1,381	1,372	1,373	1,373	0.0%	1.9%
Indonesia	3,068	2,865	2,841	2,745	1,408	1,233	1,118	1,063	1,063	0.0%	-8.5%
Japan	37	31	29	28	27	26	24	23	23	0.0%	-3.8%
Malaysia	2,507	2,842	2,470	2,346	2,290	2,213	2,206	2,172	2,172	0.0%	-1.2%
Myanmar	522	282	273	265	256	248	240	232	232	0.0%	-6.5%
New Zealand	52	56	50	51	53	53	55	50	50	0.0%	-0.3%
Pakistan	617	467	479	502	499	446	612	656	656	0.0%	0.5%
Papua New Guinea	263	216	238	226	217	205	192	204	204	0.0%	-2.1%
Philippines	68	53	51	40	38	35	32	30	30	0.0%	-6.5%
South Korea	3	3	3	3	3	3	3	3	3	0.0%	-0.7%
Taiwan	4	3	3	3	3	3	2	2	2	0.0%	-6.6%
Thailand	300	207	193	181	171	138	112	97	97	0.0%	-9.0%
Vietnam	228	207	203	199	195	190	186	182	182	0.0%	-1.9%
<b>Americas</b>	<b>18,446</b>	<b>18,716</b>	<b>19,058</b>	<b>22,120</b>	<b>23,063</b>	<b>23,178</b>	<b>23,025</b>	<b>27,581</b>	<b>27,581</b>	<b>0.0%</b>	<b>3.4%</b>
Argentina	359	350	337	355	372	400	376	392	392	0.0%	0.7%
Barbados	2	2	0	1	1	1	1	1	1	0.0%	-5.6%
Bolivia	281	305	310	303	201	200	192	183	183	0.0%	-3.5%
Brazil	417	429	378	370	368	365	338	379	379	0.0%	-0.8%
Canada	1,977	2,118	2,095	1,980	2,094	2,471	2,471	2,471	2,471	0.0%	1.9%
Chile	8	6	5	5	4	8	8	10	10	0.0%	1.5%
Colombia	153	123	114	110	107	90	83	90	90	0.0%	-4.3%
Cuba	14	9	8	8	8	8	8	7	7	0.0%	-5.5%
Ecuador	7	11	11	11	11	11	10	9	9	0.0%	2.2%
Mexico	353	257	208	199	188	183	201	211	211	0.0%	-4.2%
Peru	353	399	456	365	300	300	287	287	287	0.0%	-1.7%
Trinidad and Tobago	381	300	281	298	298	298	289	289	289	0.0%	-2.3%
United States	8,620	8,709	9,119	12,408	13,437	13,171	13,171	17,711	17,711	0.0%	6.2%
Venezuela	5,521	5,698	5,736	5,707	5,674	5,674	5,590	5,541	5,541	0.0%	0.0%

<sup>(\*)</sup> Data source: Eni's estimates on Enerdata *Global Energy Market & CO<sub>2</sub> Data* and other official data sources.

# Production

## Areas and Aggregates<sup>(\*)</sup>

(billion cubic metres)

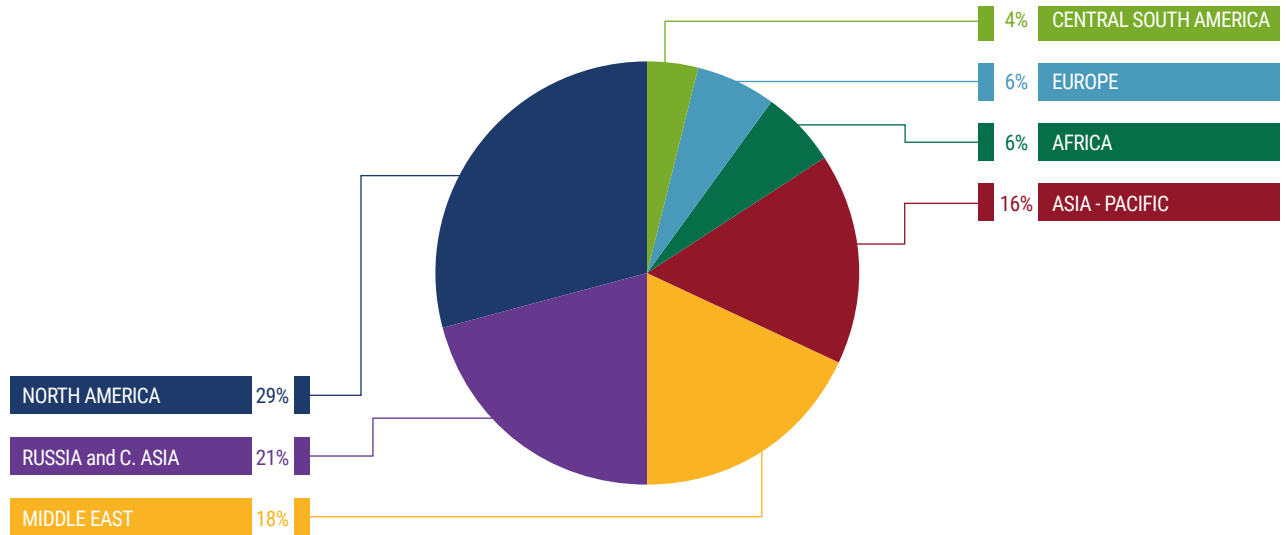
	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
Europe	314.63	262.87	262.55	265.09	253.85	237.25	220.84	212.94	224.90	5.6%	-2.8%
Russia and Central Asia	772.12	781.46	798.68	854.22	901.76	931.35	871.93	947.32	862.90	-8.9%	0.9%
Middle East	458.21	575.08	598.68	614.59	610.70	649.29	670.00	689.37	714.90	3.7%	3.8%
Africa	202.74	201.65	216.56	237.77	247.00	244.65	225.81	252.56	244.01	-3.4%	1.6%
Asia - Pacific	471.83	521.57	537.68	562.18	595.79	624.82	627.34	645.61	667.32	3.4%	2.9%
Americas	932.46	1,116.63	1,116.58	1,136.64	1,214.28	1,316.16	1,283.52	1,316.88	1,368.95	4.0%	3.3%
- North America	725.96	902.28	908.93	932.28	1,011.11	1,114.96	1,096.46	1,131.87	1,180.84	4.3%	4.1%
- Central South America	206.50	214.35	207.66	204.36	203.17	201.20	187.07	185.01	188.11	1.7%	-0.8%
<b>World</b>	<b>3,151.98</b>	<b>3,459.25</b>	<b>3,530.73</b>	<b>3,670.48</b>	<b>3,823.39</b>	<b>4,003.51</b>	<b>3,899.44</b>	<b>4,064.67</b>	<b>4,082.97</b>	<b>0.5%</b>	<b>2.2%</b>
European Union 27	127.35	84.18	83.08	77.37	68.89	60.62	47.84	44.32	41.40	-6.6%	-8.9%
MENA	615.48	716.39	754.67	784.46	787.78	822.70	823.05	873.02	891.78	2.1%	3.1%
OECD	1,135.34	1,270.37	1,286.13	1,329.79	1,413.17	1,520.54	1,507.91	1,533.65	1,608.28	4.9%	2.9%
NON OECD	2,016.64	2,188.88	2,244.60	2,340.69	2,410.23	2,482.97	2,391.54	2,531.01	2,474.69	-2.2%	1.7%
OPEC	435.74	518.84	554.24	581.06	569.36	589.90	589.03	619.80	634.34	2.3%	3.2%
NON OPEC	2,716.24	2,940.41	2,976.49	3,089.42	3,254.04	3,413.61	3,310.41	3,444.87	3,448.64	0.1%	2.0%

<sup>(\*)</sup> Data source: Eni's calculations. The original data are from IEA (2023) *Extended Balances* and, for Italy, from Italian Ministry of Environment and Energy Security. All rights reserved. Data have been converted by Eni using a unified gross calorific value of 40 MJ/cm.

# Production

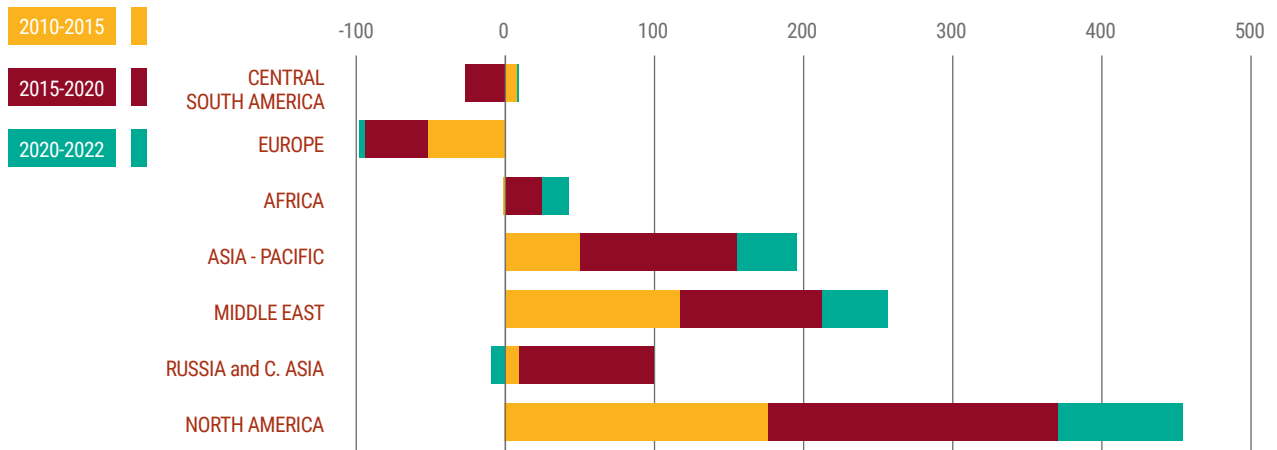
## Areas and Aggregates<sup>(\*)</sup>

4,082.97 billion cubic metres



## World Natural Gas Production Growth (2010-2022)

930.99 billion cubic metres



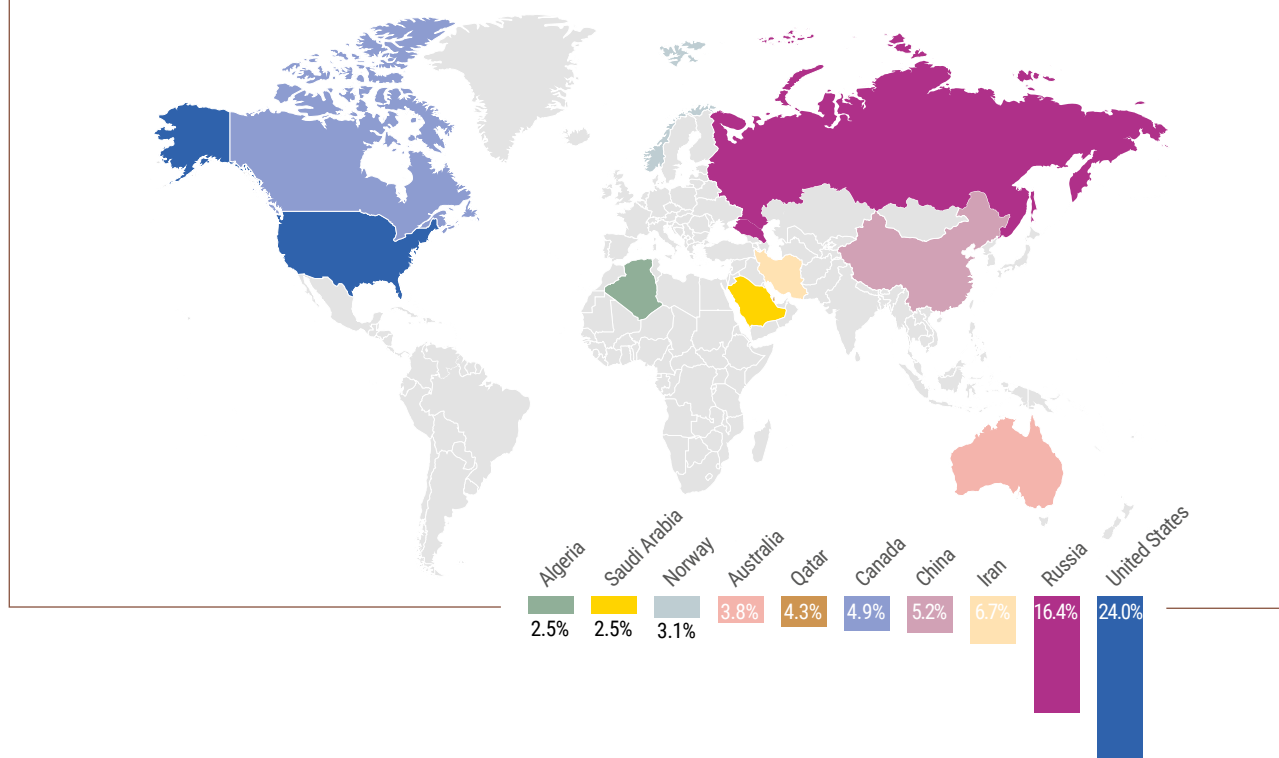
# Production

## The World Top 10 Producers<sup>(\*)</sup>

(billion cubic metres)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
United States	575.44	740.45	729.57	746.27	819.16	930.32	916.23	944.57	981.48	3.9%	4.5%
Russia	628.20	609.79	626.16	675.65	705.49	734.42	690.08	758.60	668.89	-11.8%	0.5%
Iran	141.56	181.12	196.62	214.69	210.23	234.98	252.87	260.46	273.92	5.2%	5.7%
China	93.23	131.01	133.21	144.08	155.88	171.47	187.35	202.04	214.10	6.0%	7.2%
Canada	150.52	161.83	179.36	186.01	191.95	184.64	180.22	187.30	199.36	6.4%	2.4%
Qatar	124.79	170.76	172.95	172.33	171.40	173.48	172.58	174.13	175.65	0.9%	2.9%
Australia	51.73	67.66	80.40	102.67	117.69	137.22	148.03	142.78	153.15	7.3%	9.5%
Norway	110.24	119.68	119.05	126.90	124.17	117.32	114.02	117.24	126.99	8.3%	1.2%
Saudi Arabia	69.66	82.89	86.25	90.72	92.00	93.27	93.85	95.86	100.57	4.9%	3.1%
Algeria	83.70	83.06	93.69	95.17	96.10	88.98	83.89	103.72	100.17	-3.4%	1.5%
<b>The World Top 10</b>	<b>2,029.08</b>	<b>2,348.26</b>	<b>2,417.26</b>	<b>2,554.49</b>	<b>2,684.07</b>	<b>2,866.09</b>	<b>2,839.13</b>	<b>2,986.70</b>	<b>2,994.27</b>	<b>0.3%</b>	<b>3.3%</b>
Rest of the World	1,122.91	1,111.00	1,113.47	1,116.00	1,139.32	1,137.42	1,060.32	1,077.97	1,088.71	1.0%	-0.3%
World	3,151.98	3,459.25	3,530.73	3,670.48	3,823.39	4,003.51	3,899.44	4,064.67	4,082.97	0.5%	2.2%

## The World Top 10 (2022)



<sup>(\*)</sup> Data source: the original data are from IEA (2023) *Extended Balances*. All rights reserved. Data have been converted by Eni using a unified gross calorific value of 40 MJ/cm.

# Production

## Countries<sup>(\*)</sup>

(billion cubic metres)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
Europe	314.63	262.87	262.55	265.09	253.85	237.24	220.83	212.93	224.89	5.6%	-2.8%
Albania	0.01	0.03	0.04	0.04	0.04	0.07	0.05	0.05	0.04	-14.2%	10.4%
Austria	1.62	1.21	1.13	1.21	1.00	0.90	0.74	0.66	0.60	-9.5%	-8.0%
Belarus	0.16	0.17	0.16	0.14	0.15	0.15	0.15	0.15	0.15	0.0%	-0.2%
Bulgaria	0.07	0.10	0.09	0.08	0.03	0.04	0.06	0.03	0.02	-40.2%	-10.4%
Croatia	2.58	1.71	1.59	1.43	1.18	0.99	0.82	0.73	0.76	5.2%	-9.6%
Czech Republic	0.23	0.24	0.21	0.22	0.21	0.20	0.19	0.19	0.21	10.7%	-0.7%
Denmark	8.54	4.82	4.71	5.06	4.31	3.22	1.39	1.47	1.45	-1.5%	-13.7%
France	0.75	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.02	-11.0%	-25.9%
Germany	12.92	7.37	7.62	7.01	5.48	5.09	4.69	4.60	5.10	10.9%	-7.5%
Greece	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	-100.0%	-100.0%
Hungary	2.60	1.59	1.66	1.64	1.71	1.54	1.54	1.37	1.36	-0.9%	-5.3%
Ireland	0.27	0.13	2.89	3.31	3.20	2.49	1.92	1.47	1.35	-8.0%	14.3%
Italy	8.01	6.45	5.51	5.27	5.18	4.62	3.82	3.18	2.96	-7.1%	-8.0%
Netherlands	75.27	45.88	44.29	37.94	32.48	27.73	20.08	18.05	14.87	-17.6%	-12.6%
Norway	110.24	119.68	119.05	126.90	124.17	117.32	114.02	117.24	126.99	8.3%	1.2%
Poland	4.29	4.28	4.13	4.08	4.03	3.99	3.95	3.88	3.80	-2.1%	-1.0%
Romania	10.02	10.22	9.05	9.91	9.86	9.53	8.51	8.55	8.79	2.8%	-1.1%
Serbia	0.36	0.53	0.48	0.45	0.42	0.41	0.38	0.34	0.31	-9.0%	-1.3%
Slovakia	0.10	0.09	0.09	0.14	0.09	0.12	0.06	0.06	0.05	-4.9%	-5.2%
Slovenia	0.01	0.00	0.00	0.01	0.02	0.01	0.01	0.01	0.00	-14.8%	-3.9%
Spain	0.05	0.06	0.06	0.03	0.09	0.14	0.05	0.04	0.03	-13.4%	-3.4%
Türkiye	0.65	0.36	0.35	0.34	0.41	0.45	0.42	0.38	0.36	-3.7%	-4.8%
Ukraine	17.95	17.26	17.64	17.99	19.17	18.98	18.44	17.70	17.52	-1.0%	-0.2%
United Kingdom	57.90	40.66	41.74	41.85	40.60	39.26	39.55	32.76	38.13	16.4%	-3.4%

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# Production

## Countries<sup>(\*)</sup>

(billion cubic metres)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
<b>Russia and Central Asia</b>	<b>772.12</b>	<b>781.46</b>	<b>798.68</b>	<b>854.22</b>	<b>901.76</b>	<b>931.35</b>	<b>871.93</b>	<b>947.32</b>	<b>862.90</b>	<b>-8.9%</b>	<b>0.9%</b>
Russia	628.20	609.79	626.16	675.65	705.49	734.42	690.08	758.60	668.89	-11.8%	0.5%
Azerbaijan	16.27	18.78	18.28	17.76	18.76	23.94	25.86	31.81	34.14	7.3%	6.4%
Georgia	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	-15.9%	6.6%
Kazakhstan	28.62	27.14	30.93	36.38	39.18	33.50	30.61	26.70	26.30	-1.5%	-0.7%
Kyrgyzstan	0.02	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.03	34.6%	1.6%
Tajikistan	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.2%	-25.0%
Turkmenistan	42.91	79.28	75.56	76.25	79.98	82.12	78.34	79.35	84.81	6.9%	5.8%
Uzbekistan	56.07	46.41	47.71	48.15	58.32	57.34	47.01	50.82	48.71	-4.1%	-1.2%
	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
<b>Middle East</b>	<b>458.21</b>	<b>575.08</b>	<b>598.68</b>	<b>614.59</b>	<b>610.70</b>	<b>649.29</b>	<b>670.00</b>	<b>689.37</b>	<b>714.90</b>	<b>3.7%</b>	<b>3.8%</b>
Bahrain	12.29	14.15	13.99	14.01	14.18	15.66	15.76	16.04	15.80	-1.5%	2.1%
Iran	141.56	181.12	196.62	214.69	210.23	234.98	252.87	260.46	273.92	5.2%	5.7%
Iraq	4.87	6.60	8.95	10.12	10.57	10.96	7.00	9.11	9.47	4.0%	5.7%
Israel	3.11	6.90	7.68	8.11	8.39	8.41	14.67	18.33	20.42	11.4%	17.0%
Jordan	0.16	0.12	0.10	0.10	0.09	0.10	0.15	0.18	0.18	0.0%	1.0%
Kuwait	11.14	16.06	16.24	16.05	17.01	18.57	20.43	20.18	21.27	5.4%	5.5%
Oman	27.64	32.89	33.58	33.72	38.09	38.53	37.78	40.49	42.77	5.7%	3.7%
Qatar	124.79	170.76	172.95	172.33	171.40	173.48	172.58	174.13	175.65	0.9%	2.9%
Saudi Arabia	69.66	82.89	86.25	90.72	92.00	93.27	93.85	95.86	100.57	4.9%	3.1%
Syria	8.43	4.05	3.53	3.49	3.47	3.33	2.92	3.11	2.90	-6.6%	-8.5%
United Arab Emirates	48.31	56.69	58.27	50.95	45.19	51.90	51.87	51.29	51.74	0.9%	0.6%
Yemen	6.26	2.86	0.50	0.30	0.10	0.10	0.13	0.20	0.20	0.0%	-24.9%

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# Production

## Countries<sup>(\*)</sup>

(billion cubic metres)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
<b>Africa</b>	<b>202.72</b>	<b>201.65</b>	<b>216.56</b>	<b>237.77</b>	<b>247.00</b>	<b>244.65</b>	<b>225.81</b>	<b>252.56</b>	<b>244.01</b>	<b>-3.4%</b>	<b>1.6%</b>
Algeria	83.70	83.06	93.69	95.17	96.10	88.98	83.89	103.72	100.17	-3.4%	1.5%
Angola	0.70	0.73	1.62	5.51	6.17	6.46	7.17	5.78	5.26	-8.9%	18.3%
Cameroon	0.30	0.48	0.51	0.57	1.52	2.24	2.26	2.21	2.46	11.1%	19.1%
Congo	0.10	0.50	0.57	0.60	0.68	0.96	1.00	1.03	1.06	2.1%	21.9%
Côte d'Ivoire	1.54	1.96	1.97	2.19	2.03	2.16	2.22	2.35	2.50	6.0%	4.1%
Egypt	53.97	36.39	40.45	50.33	59.58	66.08	59.27	67.54	64.26	-4.9%	1.5%
Equatorial Guinea	6.21	7.07	7.48	7.83	7.36	5.92	5.72	6.69	7.70	15.0%	1.8%
Gabon	0.31	0.52	0.52	0.46	0.50	0.44	0.47	0.43	0.43	0.0%	2.7%
Ghana	0.00	0.70	0.62	0.89	0.86	1.56	2.51	2.91	3.11	6.9%	
Libya	15.97	18.85	19.14	21.81	18.94	16.06	7.55	9.70	9.93	2.4%	-3.9%
Morocco	0.05	0.08	0.07	0.07	0.08	0.09	0.09	0.10	0.07	-29.9%	2.2%
Mozambique	3.12	4.74	4.83	4.79	4.80	4.76	4.63	4.69	4.67	-0.4%	3.4%
Nigeria	30.91	41.50	40.09	42.85	43.42	43.87	44.14	41.01	37.80	-7.8%	1.7%
Senegal	0.02	0.02	0.02	0.02	0.01	0.02	0.02	0.01	0.01	0.0%	-10.0%
South Africa	1.47	1.12	1.02	0.82	0.98	1.12	1.07	0.04	0.00	-89.6%	-39.1%
Tanzania	0.75	1.00	1.30	1.38	1.60	1.72	1.54	1.75	2.13	21.7%	9.1%
Tunisia	3.58	2.93	2.64	2.49	2.38	2.20	2.25	2.58	2.45	-5.2%	-3.1%
<b>Asia - Pacific</b>	<b>471.83</b>	<b>521.57</b>	<b>537.68</b>	<b>562.18</b>	<b>595.79</b>	<b>624.82</b>	<b>627.34</b>	<b>645.61</b>	<b>667.32</b>	<b>3.4%</b>	<b>2.9%</b>
Australia	51.73	67.66	80.40	102.67	117.69	137.22	148.03	142.78	153.15	7.3%	9.5%
Bangladesh	19.28	24.88	27.18	27.19	27.12	26.94	24.73	25.02	25.64	2.5%	2.4%
Brunei	11.94	10.95	10.56	11.57	12.39	10.67	10.36	9.46	8.78	-7.1%	-2.5%
China	93.23	131.01	133.21	144.08	155.88	171.47	187.35	202.04	214.10	6.0%	7.2%
India	49.97	30.35	30.08	30.94	31.25	29.50	27.09	32.30	33.58	4.0%	-3.3%
Indonesia	87.00	76.16	75.08	72.70	72.80	67.58	59.54	59.29	57.70	-2.7%	-3.4%
Japan	3.73	2.76	2.85	2.98	2.62	2.43	2.26	2.23	2.17	-2.7%	-4.4%
Malaysia	59.32	67.27	66.56	65.23	68.80	71.46	64.51	70.40	74.94	6.5%	2.0%
Myanmar	11.83	17.18	18.61	18.55	17.08	17.49	16.93	17.35	16.92	-2.5%	3.0%
New Zealand	4.48	4.70	4.92	4.86	4.31	4.64	4.53	3.96	3.58	-9.6%	-1.9%
Pakistan	31.38	28.21	26.15	22.03	28.37	26.01	27.62	28.78	28.15	-2.2%	-0.9%
Philippines	3.55	3.34	3.83	3.78	4.22	4.25	3.85	3.30	3.00	-9.1%	-1.4%
South Korea	0.56	0.20	0.16	0.36	0.30	0.25	0.19	0.06	0.00	-100.0%	-100.0%
Taiwan	0.31	0.39	0.33	0.27	0.20	0.17	0.11	0.11	0.10	-14.3%	-9.1%
Thailand	28.76	30.00	29.42	27.47	26.59	27.22	23.69	23.22	20.33	-12.4%	-2.8%
Vietnam	9.45	9.19	10.48	9.60	9.61	9.93	8.61	7.34	7.22	-1.5%	-2.2%
Others Asia Pacific	5.29	17.32	17.86	17.90	16.55	17.58	17.95	17.96	17.95	0.0%	10.7%

<sup>(\*)</sup> Data source: the original data are from IEA (2023) *Extended Balances*. All rights reserved. Data have been converted by Eni using a unified gross calorific value of 40 MJ/cm.



# Production

## Countries<sup>(\*)</sup>

(billion cubic metres)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
<b>Americas</b>	<b>932.46</b>	<b>1,116.63</b>	<b>1,116.58</b>	<b>1,136.64</b>	<b>1,214.28</b>	<b>1,316.16</b>	<b>1,283.52</b>	<b>1,316.88</b>	<b>1,368.95</b>	<b>4.0%</b>	<b>3.3%</b>
Argentina	40.25	38.86	39.91	40.54	41.58	43.33	39.74	40.28	43.07	6.9%	0.6%
Bolivia	14.30	21.02	20.06	19.46	18.11	15.79	15.22	15.67	14.17	-9.6%	-0.1%
Brazil	15.34	24.42	24.66	27.90	25.79	27.00	25.12	25.27	23.57	-6.7%	3.6%
Canada	150.52	161.83	179.36	186.01	191.95	184.64	180.22	187.30	199.36	6.4%	2.4%
Chile	1.80	0.98	1.18	1.20	1.22	1.49	1.14	1.17	1.17	0.0%	-3.6%
Colombia	10.96	12.07	11.14	11.41	11.90	12.16	11.83	11.02	11.02	0.0%	0.0%
Cuba	0.99	1.15	1.10	0.97	0.90	0.88	0.83	0.60	0.60	0.0%	-4.1%
Ecuador	0.49	0.65	0.70	0.63	0.55	0.48	0.41	0.42	0.44	3.3%	-1.0%
Mexico	49.52	39.97	35.39	30.90	32.62	31.89	36.35	36.85	38.64	4.9%	-2.0%
Peru	8.87	14.76	16.34	14.54	14.29	15.08	13.54	13.55	13.75	1.5%	3.7%
Trinidad and Tobago	41.67	37.20	32.37	32.49	35.00	35.55	29.80	25.64	26.66	4.0%	-3.7%
United States	575.44	740.45	729.57	746.27	819.16	930.32	916.23	944.57	981.48	3.9%	4.5%
Venezuela	22.28	23.24	24.78	24.30	21.19	17.52	13.07	14.53	15.01	3.3%	-3.2%
Others Americas	0.02	0.02	0.02	0.02	0.03	0.02	0.01	0.01	0.01	0.0%	-5.8%

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# Reserves/Production Ratio

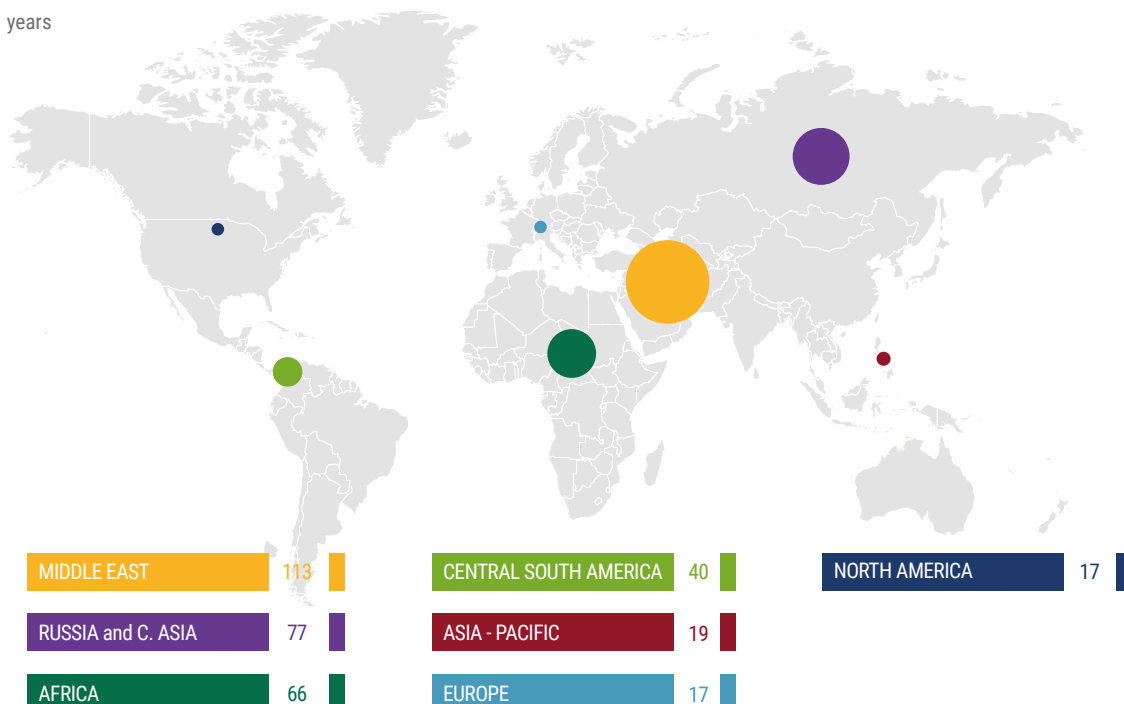
## Areas and Aggregates<sup>(\*)</sup>

(years)

	2010	2015	2016	2017	2018	2019	2020	2021	2022
Europe	19	19	18	17	16	16	17	18	17
Russia and Central Asia	81	86	69	80	75	73	76	70	77
Middle East	172	138	134	130	132	124	120	117	113
Africa	71	72	70	64	62	65	70	63	66
Asia - Pacific	33	30	28	26	22	20	20	19	19
Americas	20	17	17	19	19	18	18	18	20
- North America	15	12	12	15	15	14	14	14	17
- Central South America	38	37	38	38	37	37	40	41	40
World	62	58	54	56	53	51	52	50	51
European Union 27	14	15	14	14	8	9	10	11	11
MENA	142	122	117	113	113	108	108	102	100
OECD	18	15	15	17	16	15	15	14	16
NON OECD	87	83	76	78	75	73	75	71	73
OPEC	146	125	120	115	118	114	115	109	107
NON OPEC	49	46	41	45	42	40	41	39	40

## Reserves/Production Ratio (2022)

World: 51 years



<sup>(\*)</sup> Data source: Eni's calculations on Enerdata *Global Energy & CO<sub>2</sub> Data*, IEA (2023) *Extended Balances* and other official data sources. All rights reserved.

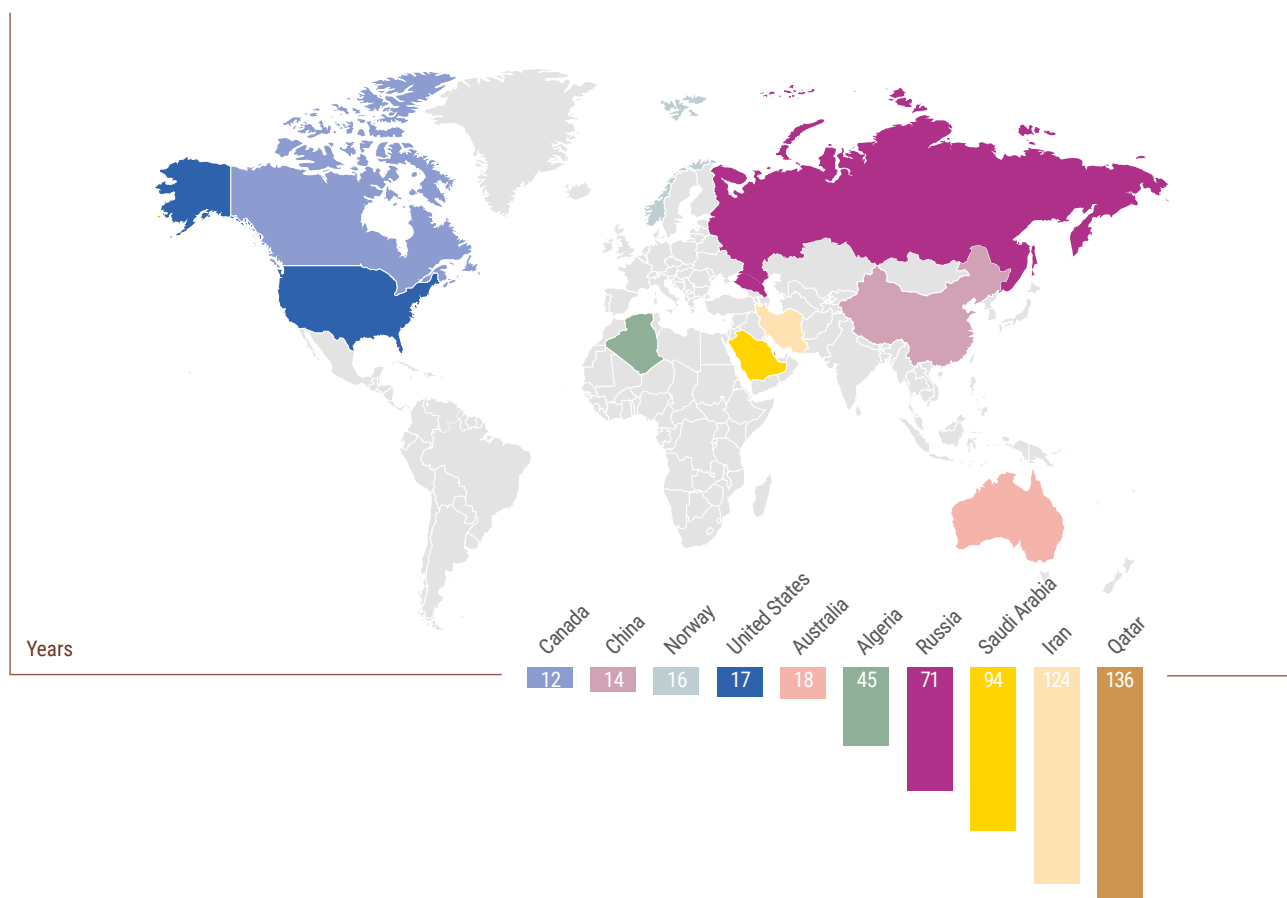
# Reserves/Production Ratio

## The World Top 10 Producers Ranked by Reserves/Production Ratio<sup>(\*)</sup>

(years)

	2010	2015	2016	2017	2018	2019	2020	2021	2022
Qatar	202	142	139	138	139	137	138	137	136
Iran	234	185	172	157	161	145	134	130	124
Saudi Arabia	115	104	100	96	99	101	100	98	94
Russia	73	82	81	75	70	67	69	63	71
Algeria	54	54	48	47	47	51	54	43	45
Australia	73	47	40	31	27	21	18	19	18
United States	15	12	12	17	16	14	14	14	17
Norway	25	21	20	18	18	18	18	18	16
China	24	21	21	19	18	17	16	14	14
Canada	13	13	12	11	11	13	14	13	12

## The World Top 10 (2022)



<sup>(\*)</sup> Data source: Eni's calculations on Enerdata *Global Energy & CO<sub>2</sub> Data*, IEA (2023) *Extended Balances* and other official data sources. All rights reserved.

# Reserves/Production Ratio

## Countries<sup>(\*)</sup>

(years)

	2010	2015	2016	2017	2018	2019	2020	2021	2022
Europe	19	19	18	17	16	16	17	18	17
Albania	7	3	2	2	27	15	21	19	23
Austria	9	7	7	6	7	7	7	8	9
Belarus	6	3	3	3	3	3	3	3	3
Bulgaria	73	45	48	55	127	112	76	137	229
Croatia	10	7	6	6	5	6	6	7	6
Czech Republic	13	14	16	15	16	17	17	17	15
Denmark	12	17	16	14	16	21	47	44	43
France	7	391	416	529	965	521	480	374	377
Germany	7	6	6	5	5	5	5	5	3
Greece	113	183	90	95	68	90	129	212	
Hungary	5	5	4	4	4	3	3	4	4
Ireland	92	229	10	9	9	11	14	18	20
Italy	8	8	7	8	9	10	12	14	14
Netherlands	16	18	17	18	6	5	5	6	7
Norway	25	21	20	18	18	18	18	18	16
Poland	17	14	14	14	18	21	22	22	23
Romania	11	10	11	9	9	8	9	9	9
Serbia and Montenegro	23	12	12	12	12	12	13	14	16
Slovakia	51	51	51	32	49	36	66	74	78
Slovenia	143	333	201	0	0	0	188	198	233
Spain	56	55	61	122	38	24	66	81	93
Türkiye	9	17	18	18	15	13	14	16	17
Ukraine	54	55	54	53	50	50	52	54	54
United Kingdom	9	8	7	6	7	7	6	8	6

<sup>(\*)</sup> Data source: Eni's calculations on Enerdata *Global Energy & CO<sub>2</sub> Data*, IEA (2023) *Extended Balances* and other official data sources. All rights reserved.

<sup>(\*\*)</sup> The original data are from Italian Ministry of Environment and Energy Security and IEA (2023) *Extended Balances*. All rights reserved.

## Reserves/Production Ratio

### Countries<sup>(\*)</sup>

(years)

	2010	2015	2016	2017	2018	2019	2020	2021	2022
<b>Russia and Central Asia</b>	<b>81</b>	<b>86</b>	<b>69</b>	<b>80</b>	<b>75</b>	<b>73</b>	<b>76</b>	<b>70</b>	<b>77</b>
Russia	73	82	81	75	70	67	69	63	71
Azerbaijan	32	35	36	60	77	80	74	60	56
Georgia	159	46	79	60	50	52	56	31	37
Kazakhstan	49	67	59	50	47	55	60	69	70
Kyrgyzstan	45	17	19	21	20	23	25	25	19
Tajikistan	46	128	164	443	826	826	823	722	723
Turkmenistan	325	176	18	183	174	170	178	176	164
Uzbekistan	16	19	18	18	15	15	18	17	18
	2010	2015	2016	2017	2018	2019	2020	2021	2022
<b>Middle East</b>	<b>172</b>	<b>138</b>	<b>134</b>	<b>130</b>	<b>132</b>	<b>124</b>	<b>120</b>	<b>117</b>	<b>113</b>
Bahrain	9	12	16	15	15	12	5	5	5
Iran	234	185	172	157	161	145	134	130	124
Iraq	648	478	427	370	353	339	530	408	392
Israel	69	30	61	60	59	65	37	29	26
Jordan	38	51	60	62	66	62	41	34	34
Kuwait	160	111	110	111	105	96	87	88	84
Oman	19	21	21	21	18	17	18	17	16
Qatar	202	142	139	138	139	137	138	137	136
Saudi Arabia	115	104	100	96	99	101	100	98	94
Syria	34	70	81	82	82	86	98	92	98
United Arab Emirates	126	107	105	120	135	117	117	119	125
Yemen	78	168	956	885	2,654	2,644	2,034	1,322	1,322

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# Reserves/Production Ratio

## Countries<sup>(\*)</sup>

(years)

	2010	2015	2016	2017	2018	2019	2020	2021	2022
<b>Africa</b>	<b>71</b>	<b>72</b>	<b>70</b>	<b>64</b>	<b>62</b>	<b>65</b>	<b>70</b>	<b>63</b>	<b>66</b>
Algeria	54	54	48	47	47	51	54	43	45
Angola	441	421	271	77	62	53	48	59	65
Cameroon	514	321	337	301	113	76	79	81	73
Congo	1,295	571	499	474	417	296	284	275	269
Côte d'Ivoire	18	11	11	9	9	8	8	8	7
Egypt	41	57	55	44	37	33	37	33	34
Equatorial Guinea	13	8	6	5	6	7	7	6	5
Gabon	90	48	49	56	52	59	55	61	61
Ghana		39	44	65	65	35	21	18	17
Libya	94	80	79	69	79	94	199	155	152
Morocco	57	13	14	14	13	11	12	10	15
Mozambique	24	16	16	39	39	137	140	139	139
Nigeria	165	127	137	131	131	131	131	140	155
Senegal	402	85	91	84	1,731	2,958	3,203	7,360	7,362
South Africa	8	2	2	3	2	2	1	26	253
Tanzania	49	37	28	29	25	23	23	20	16
Tunisia	18	22	25	26	27	29	28	25	26
	2010	2015	2016	2017	2018	2019	2020	2021	2022
<b>Asia - Pacific</b>	<b>33</b>	<b>30</b>	<b>28</b>	<b>26</b>	<b>22</b>	<b>20</b>	<b>20</b>	<b>19</b>	<b>19</b>
Australia	73	47	40	31	27	21	18	19	18
Bangladesh	18	15	13	12	12	11	11	11	11
Brunei	25	24	24	21	20	23	23	25	27
China	24	21	21	19	18	17	16	14	14
India	24	43	43	42	43	47	51	42	41
Indonesia	35	38	38	38	19	18	20	20	20
Japan	10	11	10	9	10	11	11	11	11
Malaysia	39	42	37	36	33	31	34	31	29
Myanmar	61	28	20	19	20	17	17	17	17
New Zealand	12	12	10	11	12	11	12	14	15
Pakistan	20	17	18	23	18	17	16	15	15
Philippines	24	21	18	15	13	12	13	15	17
South Korea	5	15	19	8	10	12	15	49	
Taiwan	12	7	8	10	13	15	15	15	17
Thailand	10	7	7	7	6	5	5	5	5
Vietnam	24	23	19	21	20	19	22	25	26

<sup>(\*)</sup> Data source: Eni's calculations on Enerdata *Global Energy & CO<sub>2</sub> Data*, IEA (2023) *Extended Balances* and other official data sources. All rights reserved.

## Reserves/Production Ratio

### Countries<sup>(\*)</sup>

(years)

	2010	2015	2016	2017	2018	2019	2020	2021	2022
Americas	20	17	17	19	19	18	18	18	20
Argentina	9	9	8	9	9	9	10	10	10
Bolivia	20	15	15	16	11	13	13	12	14
Brazil	27	18	15	13	14	14	14	14	17
Canada	13	13	12	11	11	13	14	13	12
Chile	5	6	4	4	4	5	7	7	7
Colombia	14	10	10	10	9	7	7	8	8
Cuba	14	8	7	8	9	9	9	13	13
Ecuador	14	17	16	17	20	22	25	24	23
Mexico	7	6	6	6	6	6	6	5	5
Peru	40	27	28	25	21	20	22	22	23
Trinidad and Tobago	9	8	9	9	9	8	9	11	10
United States	15	12	12	17	16	14	14	14	17
Venezuela	248	245	232	235	268	324	434	390	375

<sup>(\*)</sup> Data source: Eni's calculations on Enerdata *Global Energy & CO<sub>2</sub> Data*, IEA (2023) *Extended Balances* and other official data sources. All rights reserved.

# Consumption

## Areas and Aggregates<sup>(\*)</sup>

(billion cubic metres)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
Europe	658.52	526.21	552.48	576.34	567.89	569.89	557.30	594.04	528.84	-11.0%	-1.8%
Russia and Central Asia	549.35	506.98	520.83	538.29	602.97	594.98	585.67	640.61	621.94	-2.9%	1.0%
Middle East	361.50	454.99	475.70	491.76	484.72	518.20	543.03	555.77	573.86	3.3%	3.9%
Africa	102.57	132.54	142.28	154.80	161.40	160.82	150.46	163.51	164.19	0.4%	4.0%
Asia - Pacific	565.17	684.63	709.33	737.19	792.73	819.32	833.65	886.61	867.53	-2.2%	3.6%
Americas	942.12	1,097.27	1,121.35	1,116.78	1,188.34	1,239.94	1,192.80	1,217.58	1,250.76	2.7%	2.4%
- North America	734.75	851.24	879.75	878.32	942.88	1,000.04	966.82	976.67	1,021.55	4.6%	2.8%
- Central South America	207.37	246.02	241.60	238.47	245.46	239.90	225.97	240.91	229.21	-4.9%	0.8%
<b>World</b>	<b>3,179.22</b>	<b>3,402.62</b>	<b>3,521.96</b>	<b>3,615.16</b>	<b>3,798.04</b>	<b>3,903.15</b>	<b>3,862.90</b>	<b>4,058.12</b>	<b>4,007.11</b>	<b>-1.3%</b>	<b>1.9%</b>
European Union 27	421.92	344.28	364.37	384.78	377.57	389.53	379.72	398.97	348.48	-12.7%	-1.6%
MENA	443.55	556.94	586.07	615.30	612.29	644.21	657.38	681.55	699.27	2.6%	3.9%
OECD	1,548.57	1,612.39	1,672.11	1,690.20	1,757.10	1,816.89	1,779.38	1,824.46	1,802.09	-1.2%	1.3%
NON OECD	1,630.65	1,790.22	1,849.86	1,924.96	2,040.95	2,086.26	2,083.53	2,233.66	2,205.02	-1.3%	2.5%
OPEC	358.72	455.24	481.27	496.78	486.46	512.22	522.78	541.77	561.70	3.7%	3.8%
NON OPEC	2,820.49	2,947.38	3,040.69	3,118.38	3,311.58	3,390.93	3,340.12	3,516.34	3,445.41	-2.0%	1.7%

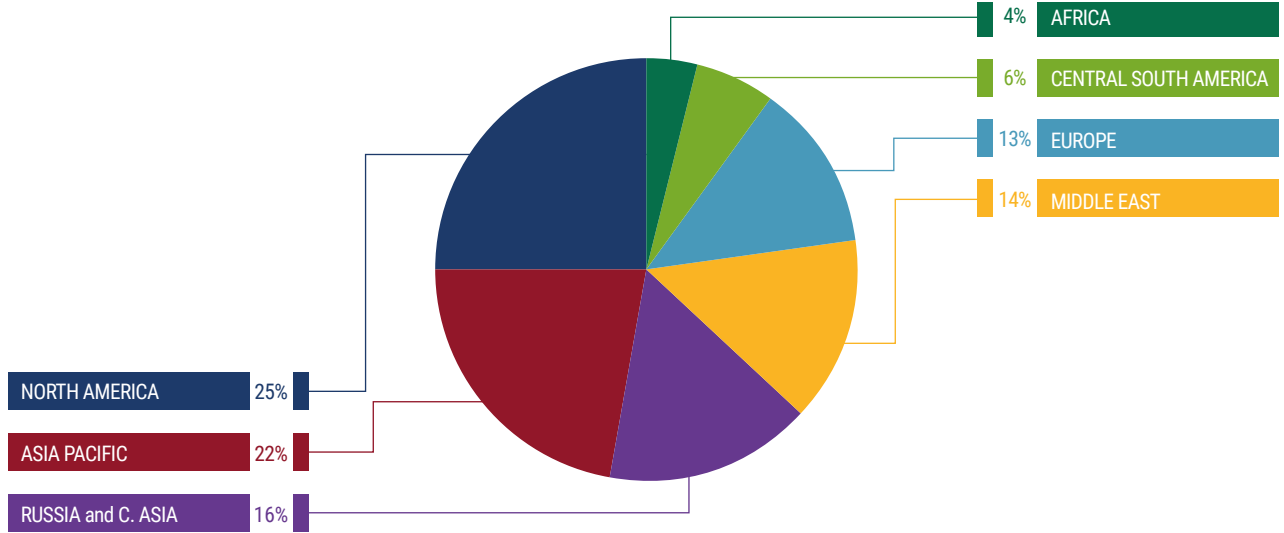
<sup>(\*)</sup> Data source: Eni's calculations. The original data are from IEA (2023) *Extended Balances* and, for Italy, from Italian Ministry of Environment and Energy Security. All rights reserved. Data have been converted by Eni using a unified gross calorific value of 40 MJ/cm.



# Consumption

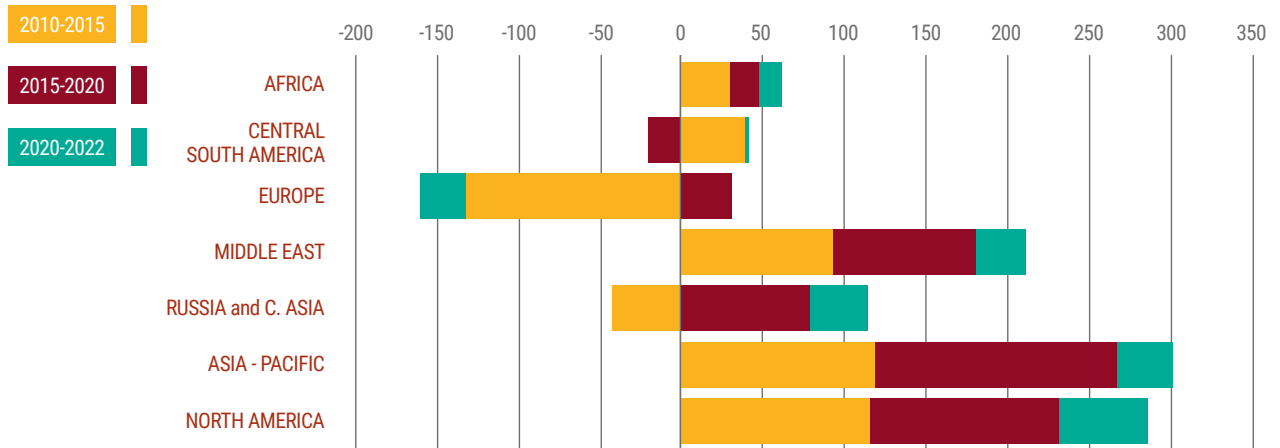
## World Natural Gas Consumption (2022)

4,007.11 billion cubic metres



## World Natural Gas Consumption Growth (2010-2022)

827.90 billion cubic metres



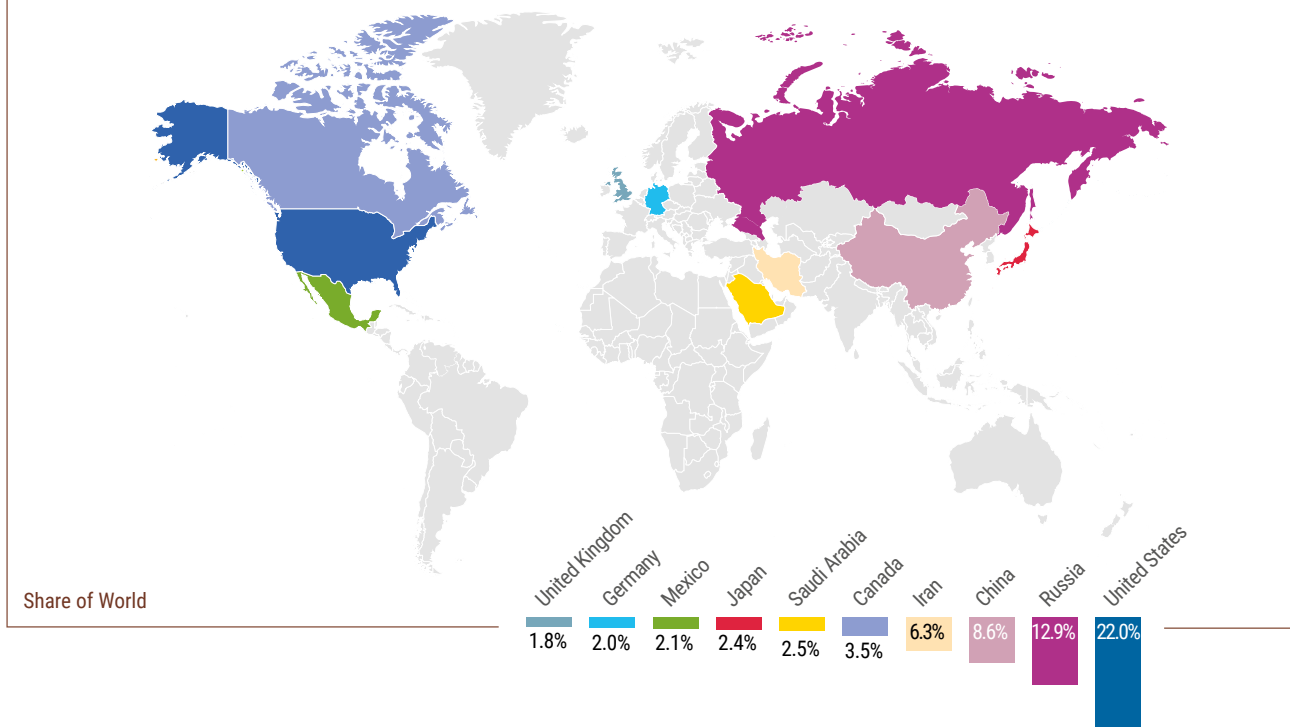
# Consumption

## The World Top 10 Consumers<sup>(\*)</sup>

(billion cubic metres)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
United States	646.72	751.89	759.30	748.90	807.08	863.29	836.24	840.96	881.09	4.8%	2.6%
Russia	446.06	423.63	431.84	447.71	497.85	486.17	479.32	531.85	515.71	-3.0%	1.2%
China	103.95	184.44	198.61	227.01	265.92	288.63	308.37	347.82	344.45	-1.0%	10.5%
Iran	142.06	180.63	193.48	205.47	198.63	218.18	236.48	241.93	253.64	4.8%	4.9%
Canada	88.03	99.36	120.44	129.42	135.80	136.75	130.58	135.71	140.46	3.5%	4.0%
Saudi Arabia	69.66	82.89	86.25	90.72	92.00	93.27	93.85	95.86	100.57	4.9%	3.1%
Japan	100.02	116.83	119.71	116.29	111.40	106.99	107.18	100.86	95.97	-4.9%	-0.3%
Mexico	63.08	75.20	76.97	72.80	84.12	79.84	81.80	84.28	84.09	-0.2%	2.4%
Germany	88.28	75.77	81.79	87.62	85.54	87.95	86.76	94.40	78.60	-16.7%	-1.0%
United Kingdom	98.64	71.97	80.41	78.24	77.60	76.46	72.09	76.53	70.72	-7.6%	-2.7%
<b>The World Top 10</b>	<b>1,846.50</b>	<b>2,062.61</b>	<b>2,148.81</b>	<b>2,204.18</b>	<b>2,355.94</b>	<b>2,437.53</b>	<b>2,432.67</b>	<b>2,550.18</b>	<b>2,565.30</b>	<b>0.6%</b>	<b>2.8%</b>
Rest of the World	1,332.72	1,340.01	1,373.15	1,410.98	1,442.10	1,465.61	1,430.23	1,507.93	1,441.81	-4.4%	0.7%
<b>World</b>	<b>3,179.22</b>	<b>3,402.62</b>	<b>3,521.96</b>	<b>3,615.16</b>	<b>3,798.04</b>	<b>3,903.15</b>	<b>3,862.90</b>	<b>4,058.12</b>	<b>4,007.11</b>	<b>-1.3%</b>	<b>1.9%</b>

## The World Top 10 (2022)



<sup>(\*)</sup> Data source: the original data are from IEA (2023) *Extended Balances*. All rights reserved. Data have been converted by Eni using a unified gross calorific value of 40 MJ/cm.

# Consumption

## Countries<sup>(\*)</sup>

(billion cubic metres)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
Europe	658.52	526.21	552.48	576.34	567.89	569.89	557.30	594.04	528.84	-11.0%	-1.8%
Albania	0.01	0.03	0.04	0.04	0.04	0.07	0.05	0.05	0.04	-14.2%	10.4%
Austria	9.45	8.03	8.42	9.04	8.56	8.93	8.51	8.99	7.88	-12.4%	-1.5%
Belarus	21.06	18.41	18.30	18.73	19.87	18.99	17.54	17.93	16.95	-5.4%	-1.8%
Belgium	19.48	16.22	16.55	16.91	17.45	17.67	17.59	17.66	14.98	-15.2%	-2.2%
Bosnia Herzegovina	0.23	0.21	0.21	0.23	0.23	0.22	0.20	0.24	0.23	-4.0%	0.0%
Bulgaria	2.68	3.02	3.12	3.21	3.04	2.84	2.93	3.30	2.71	-18.1%	0.1%
Croatia	3.06	2.42	2.52	2.90	2.67	2.80	2.94	2.83	2.59	-8.3%	-1.4%
Czech Republic	9.38	7.54	8.16	8.37	7.93	8.32	8.46	9.07	7.38	-18.7%	-2.0%
Denmark	5.14	3.32	3.35	3.20	3.11	2.94	2.46	2.25	1.67	-25.5%	-8.9%
Estonia	0.65	0.45	0.50	0.47	0.48	0.44	0.40	0.46	0.34	-25.7%	-5.3%
Finland	4.46	2.60	2.39	2.25	2.53	2.47	2.46	2.47	1.23	-50.4%	-10.2%
France	49.56	40.75	44.53	44.77	42.84	43.66	40.58	43.04	38.37	-10.8%	-2.1%
Germany	88.28	75.77	81.79	87.62	85.54	87.95	86.76	94.40	78.60	-16.7%	-1.0%
Greece	3.76	3.11	4.06	4.89	4.79	5.22	5.73	6.34	5.12	-19.2%	2.6%
Hungary	11.42	8.71	9.34	9.93	9.62	9.84	10.19	10.81	9.18	-15.1%	-1.8%
Ireland	5.47	4.37	4.94	5.02	5.22	5.30	5.30	5.09	5.19	1.9%	-0.4%
Italy	79.15	64.32	67.55	71.58	69.21	70.93	67.79	72.76	70.16	-3.6%	-1.0%
Latvia	1.70	1.28	1.29	1.15	1.36	1.28	1.06	1.12	0.80	-28.2%	-6.0%
Lithuania	2.90	2.40	2.14	2.23	2.07	2.17	2.29	2.18	1.55	-28.9%	-5.1%
Luxembourg	1.39	0.89	0.82	0.81	0.80	0.80	0.72	0.78	0.61	-21.5%	-6.6%
Malta	0.00	0.00	0.00	0.28	0.34	0.36	0.37	0.37	0.38	1.3%	
Moldova	2.69	2.48	2.50	2.30	2.49	2.55	2.54	2.76	2.10	-24.0%	-2.0%
Netherlands	46.60	33.30	34.93	36.25	35.74	37.27	36.56	35.06	27.14	-22.6%	-4.4%
North Macedonia	0.11	0.13	0.20	0.26	0.24	0.28	0.33	0.41	0.27	-35.1%	7.6%
Norway	7.42	7.21	6.48	5.79	6.41	5.79	5.28	5.83	7.26	24.4%	-0.2%
Poland	14.89	16.02	17.02	17.96	18.75	18.87	19.90	21.20	17.50	-17.5%	1.4%
Portugal	5.22	4.71	5.03	6.30	5.84	6.14	6.03	5.76	5.58	-3.1%	0.6%
Romania	12.55	10.37	10.49	11.18	11.45	10.67	11.15	11.45	9.83	-14.2%	-2.0%
Serbia	2.16	2.04	2.20	2.46	2.48	2.32	2.31	2.78	2.74	-1.6%	2.0%
Slovakia	5.82	4.51	4.53	4.81	4.74	4.75	4.75	5.29	5.20	-1.8%	-0.9%
Slovenia	1.00	0.77	0.82	0.86	0.84	0.86	0.86	0.90	0.79	-11.8%	-1.9%
Spain	36.20	28.54	29.12	31.71	31.50	35.93	32.48	34.21	32.96	-3.7%	-0.8%
Sweden	1.70	0.84	0.95	1.07	1.16	1.10	1.46	1.17	0.75	-35.9%	-6.6%
Switzerland	3.50	3.32	3.48	3.50	3.32	3.41	3.31	3.60	2.95	-18.2%	-1.4%
Türkiye	36.51	45.80	44.50	51.44	47.70	43.08	46.19	57.12	52.10	-8.8%	3.0%
Ukraine	64.26	30.33	29.77	28.56	29.93	27.19	27.73	27.80	24.99	-10.1%	-7.6%
United Kingdom	98.64	71.97	80.41	78.24	77.60	76.46	72.09	76.53	70.72	-7.6%	-2.7%

<sup>(\*)</sup> Data source: the original data are from IEA (2023) *Extended Balances* and, for Italy, from Italian Ministry of Environment and Energy Security. All rights reserved. Data have been converted by Eni using a unified gross calorific value of 40 MJ/cm.

# Consumption

## Countries<sup>(\*)</sup>

(billion cubic metres)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
<b>Russia and Central Asia</b>	<b>549.35</b>	<b>506.98</b>	<b>520.83</b>	<b>538.29</b>	<b>602.97</b>	<b>594.98</b>	<b>585.67</b>	<b>640.61</b>	<b>621.94</b>	<b>-2.9%</b>	<b>1.0%</b>
Russia	446.06	423.63	431.84	447.71	497.85	486.17	479.32	531.85	515.71	-3.0%	1.2%
Armenia	1.50	2.25	2.15	2.27	2.38	2.48	2.49	2.72	2.93	7.7%	5.7%
Azerbaijan	9.13	11.15	10.93	10.62	10.82	12.26	12.37	12.82	12.10	-5.6%	2.4%
Georgia	1.18	2.41	2.27	2.39	2.38	2.70	2.70	2.80	3.03	8.1%	8.2%
Kazakhstan	25.95	12.34	16.64	16.28	21.66	23.40	23.46	19.73	20.14	2.1%	-2.1%
Kyrgyzstan	0.29	0.27	0.28	0.30	0.33	0.31	0.33	0.39	0.43	11.0%	3.5%
Tajikistan	0.19	0.00	0.00	0.00	0.06	0.23	0.23	0.24	0.24	0.3%	2.0%
Turkmenistan	20.17	19.64	19.58	19.58	19.58	20.47	21.27	21.27	22.04	3.6%	0.7%
Uzbekistan	44.88	35.30	37.14	39.16	47.93	46.95	43.50	48.79	45.32	-7.1%	0.1%
	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
<b>Middle East</b>	<b>361.50</b>	<b>454.99</b>	<b>475.70</b>	<b>491.76</b>	<b>484.72</b>	<b>518.20</b>	<b>543.03</b>	<b>555.77</b>	<b>573.86</b>	<b>3.3%</b>	<b>3.9%</b>
Bahrain	12.29	14.15	13.99	14.01	14.18	15.66	15.76	16.04	15.80	-1.5%	2.1%
Iran	142.06	180.63	193.48	205.47	198.63	218.18	236.48	241.93	253.64	4.8%	4.9%
Iraq	4.87	6.60	8.95	11.50	14.62	16.77	17.84	18.36	18.72	2.0%	11.9%
Israel	5.12	7.01	7.97	8.48	8.98	8.95	11.27	11.73	11.34	-3.4%	6.8%
Jordan	2.66	2.26	3.94	4.08	4.00	3.92	3.74	3.63	3.92	8.0%	3.3%
Kuwait	13.79	19.86	20.97	21.31	21.74	23.51	26.27	27.49	29.32	6.6%	6.5%
Lebanon	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		-100.0%
Oman	17.33	24.52	24.62	24.14	26.48	26.60	26.08	28.11	28.61	1.8%	4.3%
Qatar	26.03	42.54	41.06	44.26	44.29	44.43	44.12	45.97	46.43	1.0%	4.9%
Saudi Arabia	69.66	82.89	86.25	90.72	92.00	93.27	93.85	95.86	100.57	4.9%	3.1%
Syria	9.08	4.05	3.53	3.49	3.47	3.33	2.92	3.11	2.90	-6.6%	-9.1%
United Arab Emirates	57.39	69.53	70.43	64.00	56.24	63.47	64.57	63.33	62.42	-1.5%	0.7%
Yemen	0.95	0.96	0.50	0.30	0.10	0.10	0.13	0.20	0.20	0.0%	-12.2%

<sup>(\*)</sup> Data source: the original data are from IEA (2023) *Extended Balances*. All rights reserved. Data have been converted by Eni using a unified gross calorific value of 40 MJ/cm.

# Consumption

## Countries<sup>(\*)</sup>

(billion cubic metres)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
<b>Africa</b>	<b>102.57</b>	<b>132.54</b>	<b>142.28</b>	<b>154.80</b>	<b>161.40</b>	<b>160.82</b>	<b>150.46</b>	<b>163.51</b>	<b>164.19</b>	<b>0.0%</b>	<b>4.0%</b>
Algeria	27.12	40.03	40.31	41.75	45.24	46.67	44.86	49.31	50.45	2.3%	5.3%
Angola	0.70	0.73	0.76	0.80	1.10	1.24	1.26	1.25	1.33	6.3%	5.5%
Cameroon	0.30	0.48	0.51	0.57	0.74	0.67	0.86	0.71	0.82	14.5%	8.6%
Congo	0.10	0.50	0.57	0.60	0.68	0.96	1.00	1.03	1.06	2.1%	21.9%
Côte d'Ivoire	1.54	1.96	1.97	2.19	2.03	2.16	2.22	2.35	2.50	6.0%	4.1%
Dem. Rep. Congo	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		-100.0%
Egypt	41.65	42.77	48.22	56.84	60.20	61.25	59.28	62.48	61.34	-1.8%	3.3%
Equatorial Guinea	1.50	1.78	2.17	1.95	2.40	1.71	1.90	2.24	2.57	15.0%	4.6%
Gabon	0.31	0.52	0.52	0.46	0.50	0.44	0.47	0.43	0.43	0.0%	2.7%
Ghana	0.41	1.24	0.72	1.20	1.53	2.17	3.15	3.41	3.61	5.9%	19.8%
Libya	6.71	12.10	14.58	17.44	14.67	10.65	3.28	6.63	6.97	5.1%	0.3%
Morocco	0.66	1.18	1.20	1.19	1.07	1.02	0.79	0.79	0.22	-71.8%	-8.7%
Mozambique	0.08	0.86	0.91	0.82	0.82	0.88	0.84	0.92	0.90	-1.9%	22.5%
Nigeria	10.26	16.49	17.50	16.47	17.45	17.84	17.94	19.37	19.21	-0.8%	5.4%
Senegal	0.02	0.02	0.02	0.02	0.01	0.02	0.02	0.01	0.01	0.0%	-9.8%
South Africa	4.51	4.99	4.94	4.79	4.95	5.00	4.90	4.26	4.23	-0.8%	-0.5%
Tanzania	0.75	1.00	1.30	1.38	1.60	1.72	1.54	1.75	2.13	21.7%	9.1%
Tunisia	5.91	5.88	6.06	6.32	6.39	6.43	6.14	6.57	6.42	-2.3%	0.7%

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# Consumption

## Countries<sup>(\*)</sup>

(billion cubic metres)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
Asia - Pacific	565.17	684.63	709.33	737.19	792.73	819.32	833.65	886.61	867.53	-2.2%	3.6%
Australia	31.84	38.45	35.46	36.46	37.87	39.52	43.25	42.49	40.67	-4.3%	2.1%
Bangladesh	19.28	24.88	27.18	27.19	27.12	30.19	30.41	31.07	30.62	-1.4%	3.9%
Brunei	3.11	2.49	2.71	3.43	3.45	3.03	2.71	2.71	3.05	12.7%	-0.2%
China	103.95	184.44	198.61	227.01	265.92	288.63	308.37	347.82	344.45	-1.0%	10.5%
Hong Kong	3.64	3.09	3.17	3.16	3.06	3.16	5.01	4.89	5.18	6.0%	3.0%
India	63.27	52.48	55.80	59.34	60.95	64.53	61.16	64.05	60.80	-5.1%	-0.3%
Indonesia	45.15	44.04	45.46	45.06	45.28	45.60	39.66	39.42	38.65	-2.0%	-1.3%
Japan	100.02	116.83	119.71	116.29	111.40	106.99	107.18	100.86	95.97	-4.9%	-0.3%
Malaysia	36.28	43.66	41.59	37.46	45.11	45.62	42.56	49.60	51.18	3.2%	2.9%
Myanmar	1.49	3.52	4.10	4.23	3.76	3.08	3.54	3.99	3.62	-9.4%	7.6%
New Zealand	4.34	4.76	4.90	4.94	4.48	4.65	4.51	3.86	3.57	-7.6%	-1.6%
Pakistan	31.40	30.89	31.05	30.28	36.87	34.57	37.15	41.13	37.96	-7.7%	1.6%
Philippines	3.55	3.34	3.83	3.78	4.22	4.25	3.85	3.30	3.00	-9.1%	-1.4%
Singapore	7.55	9.94	10.19	10.24	10.46	10.62	10.73	11.12	10.92	-1.8%	3.1%
South Korea	44.93	45.76	48.05	50.26	55.27	56.84	57.55	63.26	61.70	-2.5%	2.7%
Taiwan	17.13	22.35	23.36	25.69	25.93	25.55	27.59	30.02	31.10	3.6%	5.1%
Thailand	38.34	43.90	42.96	41.88	41.30	41.78	38.67	39.01	37.20	-4.6%	-0.3%
Vietnam	9.45	9.19	10.48	9.60	9.61	9.93	8.61	7.34	7.22	-1.5%	-2.2%
Others Asia Pacific	0.44	0.63	0.72	0.90	0.68	0.77	1.13	0.66	0.66	0.1%	3.5%

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# Consumption

## Countries<sup>(\*)</sup>

(billion cubic metres)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
<b>Americas</b>	<b>942.12</b>	<b>1.097.27</b>	<b>1.121.35</b>	<b>1.116.78</b>	<b>1.188.34</b>	<b>1.239.94</b>	<b>1.192.80</b>	<b>1.217.58</b>	<b>1.250.76</b>	<b>2.7%</b>	<b>2.4%</b>
Argentina	43.26	49.89	50.47	51.55	50.62	49.71	46.57	47.42	46.51	-1.9%	0.6%
Bolivia	2.89	3.88	4.33	4.39	4.42	4.13	3.36	3.82	4.15	8.7%	3.1%
Brazil	28.28	43.25	36.67	38.87	36.63	37.04	34.96	42.72	32.56	-23.8%	1.2%
Canada	88.03	99.36	120.44	129.42	135.80	136.75	130.58	135.71	140.46	3.5%	4.0%
Chile	5.20	4.63	5.06	5.05	5.07	6.12	5.61	6.14	6.14	0.0%	1.4%
Colombia	9.57	11.74	11.15	11.42	11.92	12.31	12.17	11.06	11.06	0.0%	1.2%
Cuba	0.99	1.15	1.10	0.97	0.90	0.88	0.83	0.60	0.60	0.0%	-4.1%
Dominican Republic	0.79	1.09	1.03	1.18	1.18	1.42	1.50	1.84	1.83	-0.1%	7.3%
Ecuador	0.49	0.65	0.70	0.63	0.55	0.48	0.41	0.42	0.44	3.3%	-1.0%
Jamaica	0.00	0.00	0.03	0.19	0.23	0.27	0.67	0.69	0.69	0.4%	
Mexico	63.08	75.20	76.97	72.80	84.12	79.84	81.80	84.28	84.09	-0.2%	2.4%
Panama	0.00	0.00	0.00	0.00	0.26	0.80	0.43	0.52	0.52	-0.1%	
Peru	6.39	9.17	9.65	8.16	8.44	8.85	7.44	8.75	7.90	-9.7%	1.8%
Trinidad and Tobago	21.35	20.16	17.89	17.57	18.18	18.51	15.75	16.62	16.20	-2.5%	-2.3%
United States	646.72	751.89	759.30	748.90	807.08	863.29	836.24	840.96	881.09	4.8%	2.6%
Uruguay	0.07	0.05	0.06	0.07	0.06	0.09	0.07	0.08	0.08	0.3%	0.5%
Venezuela	24.23	23.60	24.78	24.30	21.19	17.52	13.07	14.53	15.01	3.3%	-3.9%
Others Americas	0.77	1.55	1.71	1.30	1.69	1.92	1.35	1.42	1.42	0.0%	5.2%

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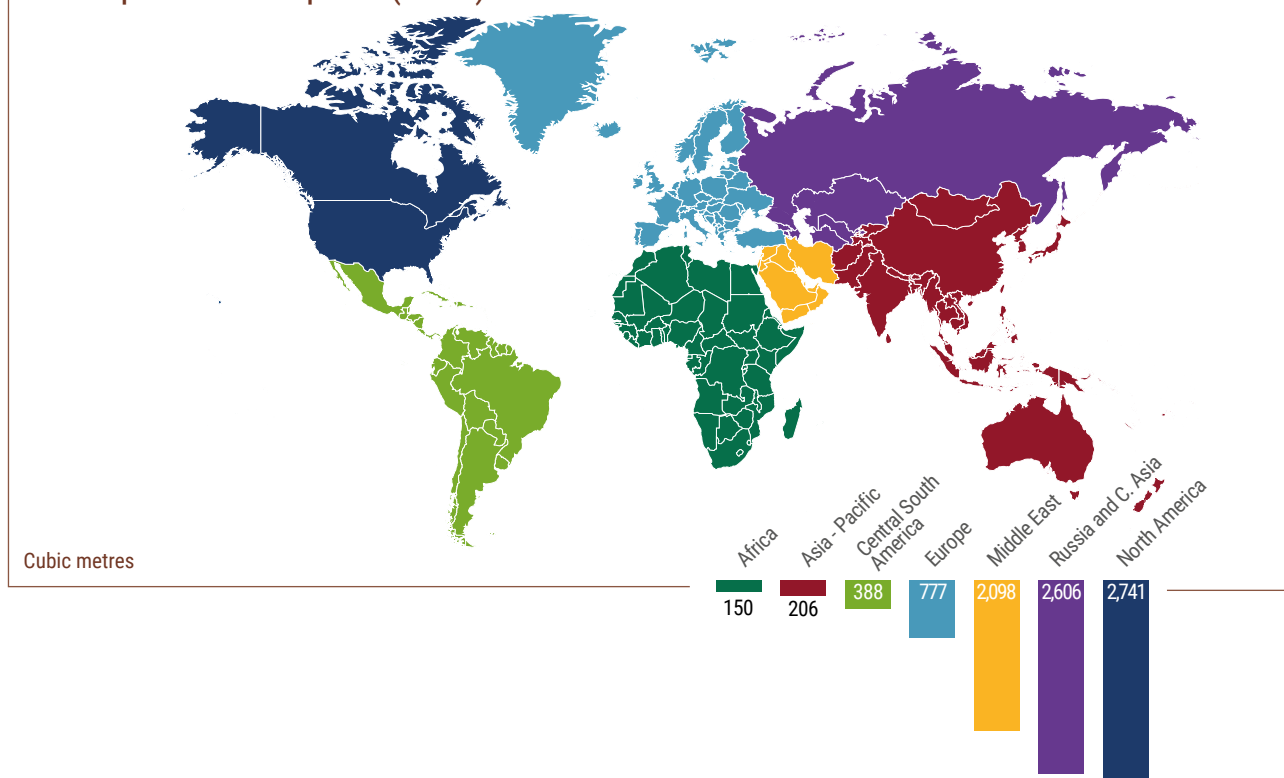
# Per Capita Consumption

## Areas and Aggregates<sup>(\*)</sup>

(cubic metres)

	2010	2015	2016	2017	2018	2019	2020	2021	2022
Europe	990	778	815	848	833	835	815	869	777
Russia and Central Asia	2,465	2,203	2,246	2,306	2,568	2,520	2,469	2,693	2,606
Middle East	1,646	1,859	1,907	1,937	1,875	1,968	2,036	2,061	2,098
Africa	126	144	150	160	162	158	144	153	150
Asia - Pacific	149	172	176	182	194	199	201	212	206
Americas	1,074	1,194	1,210	1,195	1,261	1,306	1,249	1,269	1,296
- North America	2,135	2,380	2,440	2,418	2,578	2,717	2,614	2,635	2,741
- Central South America	408	452	438	428	435	420	391	413	388
World	483	488	499	507	527	536	526	548	538
European Union 27	840	679	717	756	741	763	743	780	681
MENA	1,130	1,282	1,324	1,366	1,335	1,381	1,390	1,422	1,439
OECD	1,206	1,217	1,254	1,260	1,303	1,340	1,308	1,338	1,317
NON OECD	308	317	323	333	349	352	348	370	362
OPEC	875	985	1,019	1,030	989	1,023	1,026	1,046	1,065
NON OPEC	457	452	462	469	493	500	489	511	497

## Per Capita Consumption (2022)



<sup>(\*)</sup> Data source: Eni's calculations on IEA (2023) *Extended Balances*, Italian Ministry of Environment and Energy Security and IHS Global Insight data. All rights reserved.



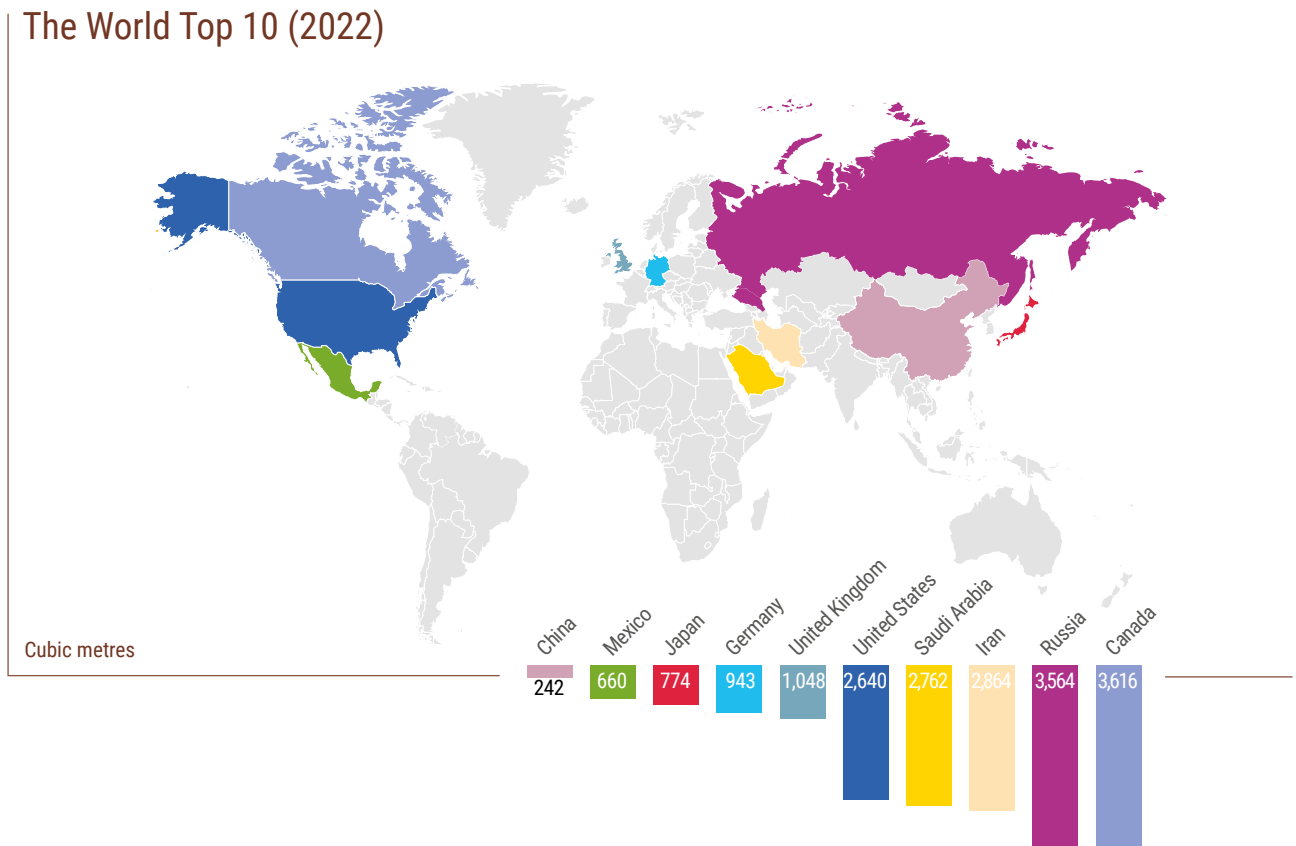
# Per Capita Consumption

## The World Top 10 Consumers Ranked by Per Capita Consumption<sup>(\*)</sup>

(cubic metres)

	2010	2015	2016	2017	2018	2019	2020	2021	2022
Canada	2,592	2,785	3,341	3,546	3,670	3,643	3,438	3,552	3,616
Russia	3,114	2,928	2,976	3,078	3,418	3,336	3,292	3,665	3,564
Iran	1,885	2,208	2,322	2,431	2,320	2,520	2,709	2,752	2,864
Saudi Arabia	2,369	2,531	2,581	2,653	2,627	2,603	2,607	2,666	2,762
United States	2,085	2,335	2,340	2,292	2,455	2,612	2,520	2,529	2,640
United Kingdom	1,572	1,103	1,225	1,184	1,168	1,145	1,075	1,137	1,048
Germany	1,085	923	993	1,060	1,032	1,058	1,041	1,132	943
Japan	781	918	943	918	882	851	856	809	774
Mexico	561	626	633	593	678	638	649	665	660
China	77	132	142	161	188	203	216	244	242

## The World Top 10 (2022)



<sup>(\*)</sup>Data source: Eni's calculations on IEA (2023) *Extended Balances* and IHS Global Insight data. All rights reserved.

# Per Capita Consumption

## Countries<sup>(\*)</sup>

(cubic metres)

	2010	2015	2016	2017	2018	2019	2020	2021	2022
Europe	990	778	815	848	833	835	815	869	777
Albania	5	11	14	15	13	23	17	18	16
Austria	1,130	930	964	1,028	969	1,005	956	1,008	881
Belarus	2,164	1,898	1,885	1,929	2,049	1,963	1,821	1,872	1,778
Belgium	1,790	1,442	1,462	1,485	1,524	1,535	1,521	1,521	1,285
Bosnia Herzegovina	61	59	62	68	68	65	60	73	71
Bulgaria	360	419	437	452	431	406	421	479	395
Croatia	701	569	598	692	641	678	717	696	643
Czech Republic	891	711	768	787	744	779	790	845	687
Denmark	926	585	587	557	539	508	422	384	285
Estonia	491	345	378	358	364	334	305	346	258
Finland	832	475	436	408	458	448	444	447	221
France	794	639	696	698	666	678	629	667	594
Germany	1,085	923	993	1,060	1,032	1,058	1,041	1,132	943
Greece	341	288	378	457	450	494	545	607	493
Hungary	1,150	891	957	1,021	991	1,016	1,055	1,122	955
Ireland	1,209	937	1,047	1,051	1,080	1,083	1,071	1,021	1,032
Italy	1,323	1,068	1,124	1,193	1,156	1,188	1,139	1,228	1,188
Latvia	809	641	656	591	702	670	558	598	435
Lithuania	923	811	730	769	718	761	813	783	564
Luxembourg	2,744	1,571	1,414	1,352	1,308	1,283	1,146	1,218	945
Malta	0	0	0	586	693	707	718	705	705
Moldova	937	871	885	827	911	949	962	1,064	823
Netherlands	2,804	1,954	2,040	2,107	2,068	2,147	2,097	2,003	1,545
North Macedonia	53	62	97	125	115	134	154	196	128
Norway	1,518	1,389	1,237	1,098	1,206	1,083	982	1,079	1,336
Poland	389	421	448	473	495	498	526	561	464
Portugal	493	455	487	611	568	597	585	560	544
Romania	613	520	530	569	587	551	580	599	516
Serbia	296	287	312	351	355	334	335	407	403
Slovakia	1,077	830	832	883	870	871	871	969	952
Slovenia	488	371	392	409	400	405	404	425	375
Spain	777	615	627	681	673	762	686	720	693
Sweden	182	85	96	106	115	107	141	112	71
Switzerland	447	401	416	414	390	397	384	415	337
Türkiye	499	575	549	627	576	516	549	674	610
Ukraine	1,407	674	664	639	673	615	632	639	629
United Kingdom	1,572	1,103	1,225	1,184	1,168	1,145	1,075	1,137	1,048

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# Per Capita Consumption

## Countries<sup>(\*)</sup>

(cubic metres)

	2010	2015	2016	2017	2018	2019	2020	2021	2022
<b>Russia and Central Asia</b>	<b>2,465</b>	<b>2,203</b>	<b>2,246</b>	<b>2,306</b>	<b>2,568</b>	<b>2,520</b>	<b>2,469</b>	<b>2,693</b>	<b>2,606</b>
Russia	3,114	2,928	2,976	3,078	3,418	3,336	3,292	3,665	3,564
Armenia	510	782	751	795	838	881	888	975	1,055
Azerbaijan	988	1,130	1,096	1,054	1,065	1,198	1,202	1,243	1,168
Georgia	308	640	602	634	631	715	718	746	810
Kazakhstan	1,561	692	921	889	1,168	1,248	1,236	1,028	1,038
Kyrgyzstan	52	45	46	48	52	50	51	60	65
Tajikistan	25	0	0	0	6	24	24	24	24
Turkmenistan	3,828	3,406	3,336	3,280	3,228	3,323	3,403	3,354	3,427
Uzbekistan	1,568	1,140	1,181	1,226	1,477	1,424	1,298	1,432	1,309
	2010	2015	2016	2017	2018	2019	2020	2021	2022
<b>Middle East</b>	<b>1,646</b>	<b>1,859</b>	<b>1,907</b>	<b>1,937</b>	<b>1,875</b>	<b>1,968</b>	<b>2,036</b>	<b>2,061</b>	<b>2,098</b>
Bahrain	10,128	10,385	9,926	9,617	9,531	10,483	10,664	10,962	10,731
Iran	1,885	2,208	2,322	2,431	2,320	2,520	2,709	2,752	2,864
Iraq	156	175	231	290	360	403	419	422	421
Israel	699	875	977	1,021	1,062	1,040	1,287	1,318	1,254
Jordan	384	238	396	400	382	367	342	325	347
Kuwait	4,686	5,080	5,179	5,166	5,035	5,294	6,024	6,469	6,868
Lebanon	49	0	0	0	0	0	0	0	0
Oman	6,015	5,850	5,597	5,315	5,756	5,779	5,741	6,218	6,251
Qatar	15,190	17,617	15,821	16,320	16,007	15,828	15,984	17,102	17,228
Saudi Arabia	2,369	2,531	2,581	2,653	2,627	2,603	2,607	2,666	2,762
Syria	406	211	186	184	179	166	141	146	131
United Arab Emirates	6,767	7,797	7,831	7,058	6,153	6,890	6,952	6,763	6,611
Yemen	38	34	17	10	3	3	4	6	6

<sup>(\*)</sup> Data source: Eni's calculations on IEA (2023) *Extended Balances* and IHS Global Insight data. All rights reserved.

# Per Capita Consumption

## Countries<sup>(\*)</sup>

(cubic metres)

	2010	2015	2016	2017	2018	2019	2020	2021	2022
<b>Africa</b>	<b>126</b>	<b>144</b>	<b>150</b>	<b>160</b>	<b>162</b>	<b>158</b>	<b>144</b>	<b>153</b>	<b>150</b>
Algeria	756	1,012	999	1,015	1,079	1,093	1,032	1,116	1,124
Angola	30	26	26	26	35	38	38	36	37
Cameroon	15	21	22	23	30	26	33	26	29
Congo	22	99	110	113	126	172	175	177	177
Côte d'Ivoire	73	83	81	88	80	83	83	86	89
Dem. Rep. Congo	0	0	0	0	0	0	0	0	0
Egypt	477	438	483	558	580	580	552	572	553
Equatorial Guinea	1,371	1,319	1,554	1,345	1,599	1,103	1,189	1,368	1,534
Gabon	183	256	249	214	228	195	206	183	179
Ghana	16	43	25	40	49	69	98	104	108
Libya	1,033	1,954	2,321	2,734	2,264	1,621	492	985	1,023
Morocco	20	34	34	34	30	28	22	21	6
Mozambique	3	32	33	29	28	29	27	29	27
Nigeria	64	90	93	85	88	88	86	91	88
Senegal	2	2	1	2	1	1	1	0	0
South Africa	87	89	88	85	86	86	83	72	71
Tanzania	17	19	24	24	27	29	25	28	33
Tunisia	543	509	518	535	536	533	505	536	519

<sup>(\*)</sup>Data source: Eni's calculations on IEA (2023) *Extended Balances* and IHS Global Insight data. All rights reserved.

## Per Capita Consumption

### Countries<sup>(\*)</sup>

(cubic metres)

	2010	2015	2016	2017	2018	2019	2020	2021	2022
Asia - Pacific	149	172	176	182	194	199	201	212	206
Australia	1,446	1,614	1,465	1,483	1,516	1,559	1,685	1,639	1,553
Bangladesh	130	158	170	168	166	182	182	183	179
Brunei	7,862	5,898	6,371	7,964	7,936	6,928	6,132	6,085	6,801
China	77	132	142	161	188	203	216	244	242
Hong Kong	511	417	426	423	409	421	668	652	692
India	51	40	42	44	45	47	44	46	43
Indonesia	185	170	174	170	170	169	146	144	140
Japan	781	918	943	918	882	851	856	809	774
Malaysia	1,263	1,405	1,319	1,172	1,392	1,391	1,282	1,477	1,508
Myanmar	30	68	79	81	71	58	66	74	67
New Zealand	998	1,036	1,049	1,040	925	939	892	752	688
Pakistan	161	146	145	140	168	155	164	178	161
Philippines	37	32	37	35	39	38	34	29	26
Singapore	1,462	1,759	1,783	1,777	1,799	1,810	1,816	1,872	1,828
South Korea	921	897	936	976	1,070	1,097	1,110	1,221	1,191
Taiwan	742	951	990	1,086	1,093	1,074	1,158	1,258	1,302
Thailand	562	625	608	591	581	586	541	545	519
Vietnam	108	100	112	102	101	104	89	75	74
Others Asia Pacific	11	13	15	18	13	14	21	12	12

<sup>(\*)</sup>Data source: Eni's calculations on IEA (2023) *Extended Balances* and IHS Global Insight data. All rights reserved.

# Per Capita Consumption

## Countries<sup>(\*)</sup>

(cubic metres)

	2010	2015	2016	2017	2018	2019	2020	2021	2022
<b>Americas</b>	<b>1,074</b>	<b>1,194</b>	<b>1,210</b>	<b>1,195</b>	<b>1,261</b>	<b>1,306</b>	<b>1,249</b>	<b>1,269</b>	<b>1,296</b>
Argentina	1,053	1,153	1,156	1,170	1,140	1,111	1,034	1,047	1,022
Bolivia	282	350	384	383	381	350	281	316	340
Brazil	144	211	177	186	174	175	164	199	151
Canada	2,592	2,785	3,341	3,546	3,670	3,643	3,438	3,552	3,616
Chile	306	259	280	275	271	322	291	315	313
Colombia	214	249	234	236	242	245	239	215	213
Cuba	88	101	97	86	79	78	73	54	54
Dominican Republic	80	105	98	111	109	130	136	165	163
Ecuador	33	40	43	38	32	28	23	24	24
Jamaica	0	0	11	69	83	96	237	244	245
Mexico	561	626	633	593	678	638	649	665	660
Panama	0	0	0	0	62	190	101	119	117
Peru	219	299	310	258	262	270	223	259	232
Trinidad and Tobago	15,137	13,805	12,176	11,884	12,083	12,176	10,378	10,895	10,582
United States	2,085	2,335	2,340	2,292	2,455	2,612	2,520	2,529	2,640
Uruguay	22	16	18	20	19	27	20	23	23
Venezuela	844	773	806	795	711	605	459	515	530
Others Americas	127	285	319	244	319	363	255	269	268

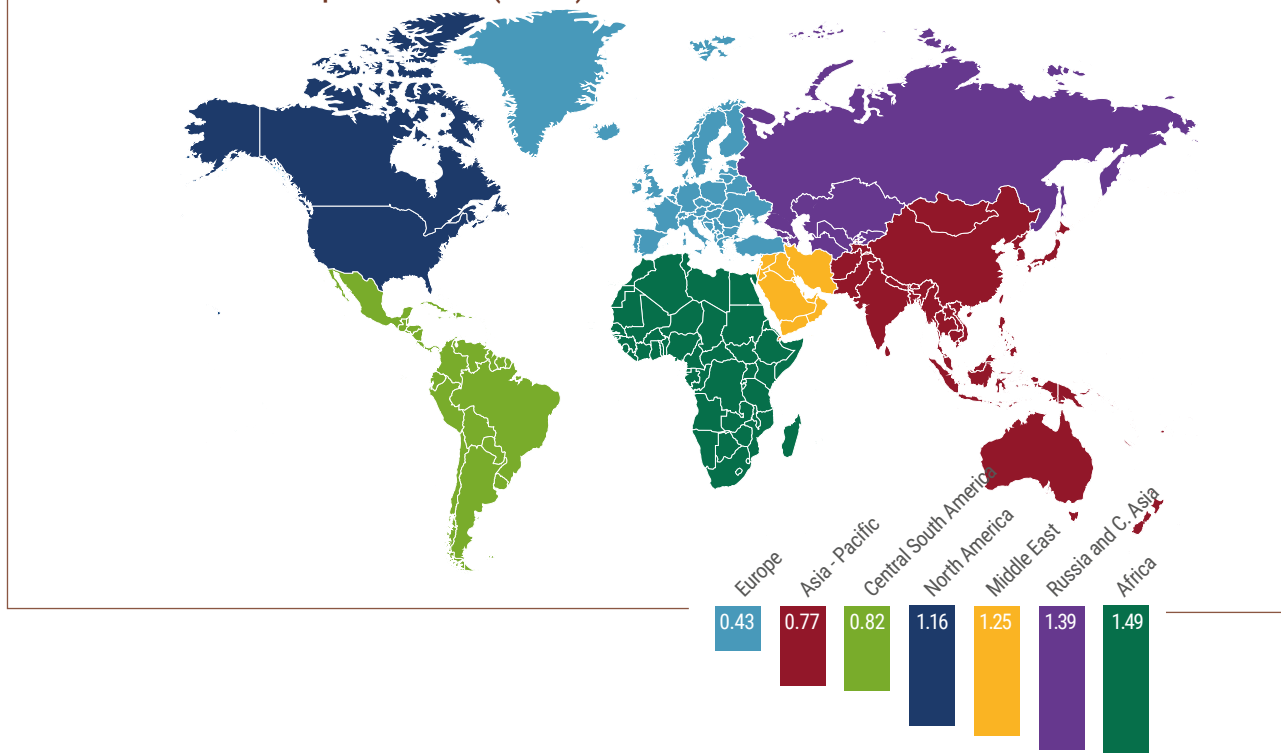
<sup>(\*)</sup>Data source: Eni's calculations on IEA (2023) *Extended Balances* and IHS Global Insight data. All rights reserved.

# Production/Consumption Ratio

## Areas and Aggregates<sup>(\*)</sup>

	2010	2015	2016	2017	2018	2019	2020	2021	2022
Europe	0.48	0.50	0.48	0.46	0.45	0.42	0.40	0.36	0.43
Russia and Central Asia	1.41	1.54	1.53	1.59	1.50	1.57	1.49	1.48	1.39
Middle East	1.27	1.26	1.26	1.25	1.26	1.25	1.23	1.24	1.25
Africa	1.98	1.52	1.52	1.54	1.53	1.52	1.50	1.54	1.49
Asia - Pacific	0.83	0.76	0.76	0.76	0.75	0.76	0.75	0.73	0.77
Americas	0.99	1.02	1.00	1.02	1.02	1.06	1.08	1.08	1.09
- North America	0.99	1.06	1.03	1.06	1.07	1.11	1.13	1.16	1.16
- Central South America	1.00	0.87	0.86	0.86	0.83	0.84	0.83	0.77	0.82
World	0.99	1.02	1.00	1.02	1.01	1.03	1.01	1.00	1.02
European Union 27	0.30	0.24	0.23	0.20	0.18	0.16	0.13	0.11	0.12
MENA	1.39	1.29	1.29	1.27	1.29	1.28	1.25	1.28	1.28
OECD	0.73	0.79	0.77	0.79	0.80	0.84	0.85	0.84	0.89
NON OECD	1.24	1.22	1.21	1.22	1.18	1.19	1.15	1.13	1.12
OPEC	1.21	1.14	1.15	1.17	1.17	1.15	1.13	1.14	1.13
NON OPEC	0.96	1.00	0.98	0.99	0.98	1.01	0.99	0.98	1.00

## Production/Consumption Ratio (2022)



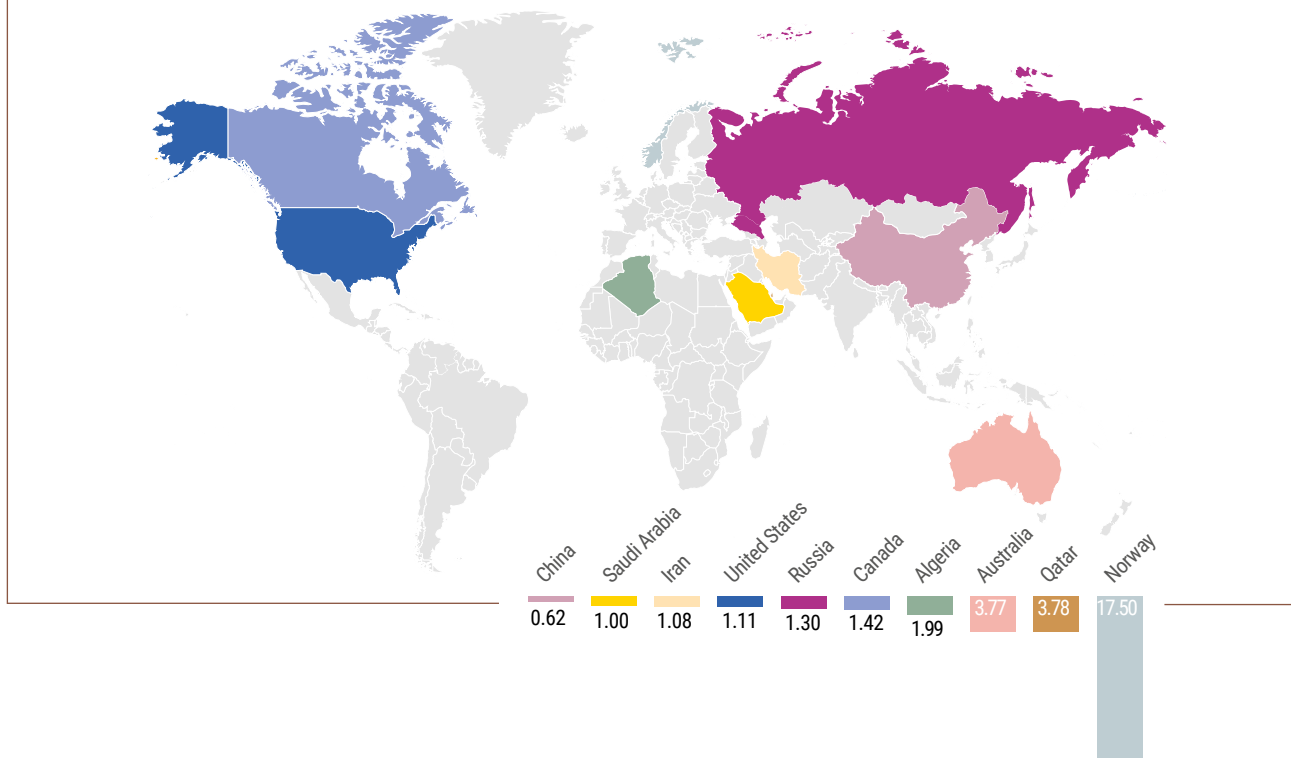
<sup>(\*)</sup> Data source: Eni's calculations on IEA (2023) *Extended Balances* and, for Italy, on Ministry for Ecological Transition data. All rights reserved.

# Production/Consumption Ratio

## The World Top 10 Producers Ranked by Production/Consumption Ratio<sup>(\*)</sup>

	2010	2015	2016	2017	2018	2019	2020	2021	2022
Norway	14.85	16.60	18.38	21.90	19.38	20.25	21.58	20.10	17.50
Qatar	4.79	4.01	4.21	3.89	3.87	3.90	3.91	3.79	3.78
Australia	1.62	1.76	2.27	2.82	3.11	3.47	3.42	3.36	3.77
Algeria	3.09	2.08	2.32	2.28	2.12	1.91	1.87	2.10	1.99
Canada	1.71	1.63	1.49	1.44	1.41	1.35	1.38	1.38	1.42
Russia	1.41	1.44	1.45	1.51	1.42	1.51	1.44	1.43	1.30
United States	0.89	0.98	0.96	1.00	1.01	1.08	1.10	1.12	1.11
Iran	1.00	1.00	1.02	1.04	1.06	1.08	1.07	1.08	1.08
Saudi Arabia	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
China	0.90	0.71	0.67	0.63	0.59	0.59	0.61	0.58	0.62

## The World Top 10 (2022)



<sup>(\*)</sup> Data source: Eni's calculations on IEA (2023) *Extended Balances* data. All rights reserved.



# Production/Consumption Ratio

## Countries<sup>(\*)</sup>

	2010	2015	2016	2017	2018	2019	2020	2021	2022
Europe	0.48	0.50	0.48	0.46	0.45	0.42	0.40	0.36	0.43
Albania	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Austria	0.17	0.15	0.13	0.13	0.12	0.10	0.09	0.07	0.08
Belarus	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Bulgaria	0.03	0.03	0.03	0.02	0.01	0.01	0.02	0.01	0.01
Croatia	0.84	0.71	0.63	0.49	0.44	0.35	0.28	0.26	0.29
Czech Republic	0.02	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.03
Denmark	1.66	1.45	1.41	1.58	1.38	1.09	0.56	0.65	0.86
France	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Germany	0.15	0.10	0.09	0.08	0.06	0.06	0.05	0.05	0.06
Greece	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hungary	0.23	0.18	0.18	0.17	0.18	0.16	0.15	0.13	0.15
Ireland	0.05	0.03	0.59	0.66	0.61	0.47	0.36	0.29	0.26
Italy	0.10	0.10	0.08	0.07	0.07	0.07	0.06	0.04	0.04
Netherlands	1.62	1.38	1.27	1.05	0.91	0.74	0.55	0.51	0.55
Norway	14.85	16.60	18.38	21.90	19.38	20.25	21.58	20.10	17.50
Poland	0.29	0.27	0.24	0.23	0.22	0.21	0.20	0.18	0.22
Romania	0.80	0.99	0.86	0.89	0.86	0.89	0.76	0.75	0.89
Serbia	0.17	0.26	0.22	0.18	0.17	0.18	0.16	0.12	0.11
Slovakia	0.02	0.02	0.02	0.03	0.02	0.03	0.01	0.01	0.01
Slovenia	0.01	0.00	0.01	0.01	0.02	0.01	0.01	0.01	0.01
Spain	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Türkiye	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Ukraine	0.28	0.57	0.59	0.63	0.64	0.70	0.66	0.64	0.70
United Kingdom	0.59	0.56	0.52	0.53	0.52	0.51	0.55	0.43	0.54

<sup>(\*)</sup> Data source: Eni's calculations on IEA (2023) *Extended Balances* and, for Italy, on Italian Ministry of Environment and Energy Security. All rights reserved.

# Production/Consumption Ratio

## Countries<sup>(\*)</sup>

	2010	2015	2016	2017	2018	2019	2020	2021	2022
<b>Russia and Central Asia</b>	<b>1.41</b>	<b>1.54</b>	<b>1.53</b>	<b>1.59</b>	<b>1.50</b>	<b>1.57</b>	<b>1.49</b>	<b>1.48</b>	<b>1.39</b>
Russia	1.41	1.44	1.45	1.51	1.42	1.51	1.44	1.43	1.30
Azerbaijan	1.78	1.69	1.67	1.67	1.73	1.95	2.09	2.48	2.82
Georgia	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
Kazakhstan	1.10	2.20	1.86	2.23	1.81	1.43	1.30	1.35	1.31
Kyrgyzstan	0.08	0.11	0.09	0.08	0.08	0.07	0.06	0.05	0.06
Tajikistan	0.12	1.00	1.00	1.00	0.01	0.00	0.00	0.00	0.00
Turkmenistan	2.13	4.04	3.86	3.89	4.09	4.01	3.68	3.73	3.85
Uzbekistan	1.25	1.31	1.28	1.23	1.22	1.22	1.08	1.04	1.07

	2010	2015	2016	2017	2018	2019	2020	2021	2022
<b>Middle East</b>	<b>1.27</b>	<b>1.26</b>	<b>1.26</b>	<b>1.25</b>	<b>1.26</b>	<b>1.25</b>	<b>1.23</b>	<b>1.24</b>	<b>1.25</b>
Bahrain	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Iran	1.00	1.00	1.02	1.04	1.06	1.08	1.07	1.08	1.08
Iraq	1.00	1.00	1.00	0.88	0.72	0.65	0.39	0.50	0.51
Israel	0.61	0.98	0.96	0.96	0.93	0.94	1.30	1.56	1.80
Jordan	0.06	0.05	0.03	0.02	0.02	0.02	0.04	0.05	0.05
Kuwait	0.81	0.81	0.77	0.75	0.78	0.79	0.78	0.73	0.73
Oman	1.59	1.34	1.36	1.40	1.44	1.45	1.45	1.44	1.50
Qatar	4.79	4.01	4.21	3.89	3.87	3.90	3.91	3.79	3.78
Saudi Arabia	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Syria	0.93	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
United Arab Emirates	0.84	0.82	0.83	0.80	0.80	0.82	0.80	0.81	0.83
Yemen	6.57	2.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00

<sup>(\*)</sup>Data source: Eni's calculations on IEA (2023) *Extended Balances* data. All rights reserved.

## Production/Consumption Ratio

### Countries<sup>(\*)</sup>

	2010	2015	2016	2017	2018	2019	2020	2021	2022
<b>Africa</b>	<b>1.98</b>	<b>1.52</b>	<b>1.52</b>	<b>1.54</b>	<b>1.53</b>	<b>1.52</b>	<b>1.50</b>	<b>1.54</b>	<b>1.49</b>
Algeria	3.09	2.08	2.32	2.28	2.12	1.91	1.87	2.10	1.99
Angola	1.00	1.00	2.14	6.90	5.59	5.23	5.68	4.61	3.95
Cameroon	1.00	1.00	1.00	1.00	2.05	3.32	2.62	3.11	3.02
Congo	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Côte d'Ivoire	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Egypt	1.30	0.85	0.84	0.89	0.99	1.08	1.00	1.08	1.05
Equatorial Guinea	4.14	3.98	3.44	4.01	3.06	3.46	3.02	2.99	3.00
Gabon	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ghana	0.00	0.56	0.85	0.74	0.56	0.72	0.80	0.86	0.86
Libya	2.38	1.56	1.31	1.25	1.29	1.51	2.30	1.46	1.42
Morocco	0.08	0.07	0.06	0.06	0.07	0.09	0.11	0.12	0.31
Mozambique	39.54	5.48	5.30	5.85	5.84	5.41	5.49	5.12	5.20
Nigeria	3.01	2.52	2.29	2.60	2.49	2.46	2.46	2.12	1.97
Senegal	1.02	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
South Africa	0.33	0.22	0.21	0.17	0.20	0.22	0.22	0.01	0.00
Tanzania	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Tunisia	0.61	0.50	0.44	0.39	0.37	0.34	0.37	0.39	0.38

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## Production/Consumption Ratio

### Countries<sup>(\*)</sup>

	2010	2015	2016	2017	2018	2019	2020	2021	2022
Asia - Pacific	0.83	0.76	0.76	0.76	0.75	0.76	0.75	0.73	0.77
Australia	1.62	1.76	2.27	2.82	3.11	3.47	3.42	3.36	3.77
Bangladesh	1.00	1.00	1.00	1.00	1.00	0.89	0.81	0.81	0.84
Brunei	3.84	4.40	3.89	3.38	3.60	3.51	3.83	3.49	2.88
China	0.90	0.71	0.67	0.63	0.59	0.59	0.61	0.58	0.62
India	0.79	0.58	0.54	0.52	0.51	0.46	0.44	0.50	0.55
Indonesia	1.93	1.73	1.65	1.61	1.61	1.48	1.50	1.50	1.49
Japan	0.04	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02
Malaysia	1.64	1.54	1.60	1.74	1.53	1.57	1.52	1.42	1.46
Myanmar	7.92	4.87	4.53	4.39	4.54	5.68	4.78	4.35	4.68
New Zealand	1.03	0.99	1.00	0.98	0.96	1.00	1.00	1.03	1.00
Pakistan	1.00	0.91	0.84	0.73	0.77	0.75	0.74	0.70	0.74
Philippines	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
South Korea	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00
Taiwan	0.02	0.02	0.01	0.01	0.01	0.01	0.00	0.00	0.00
Thailand	0.75	0.68	0.68	0.66	0.64	0.65	0.61	0.60	0.55
Vietnam	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Others Asia Pacific	12.04	27.66	24.78	19.98	24.42	22.93	15.88	27.09	27.07

<sup>(\*)</sup> Data source: Eni's calculations on IEA (2023) *Extended Balances* data. All rights reserved.

## Production/Consumption Ratio

### Countries<sup>(\*)</sup>

	2010	2015	2016	2017	2018	2019	2020	2021	2022
Americas	0.99	1.02	1.00	1.02	1.02	1.06	1.08	1.08	1.09
Argentina	0.93	0.78	0.79	0.79	0.82	0.87	0.85	0.85	0.93
Bolivia	4.96	5.41	4.63	4.44	4.09	3.83	4.53	4.10	3.41
Brazil	0.54	0.56	0.67	0.72	0.70	0.73	0.72	0.59	0.72
Canada	1.71	1.63	1.49	1.44	1.41	1.35	1.38	1.38	1.42
Chile	0.35	0.21	0.23	0.24	0.24	0.24	0.20	0.19	0.19
Colombia	1.15	1.03	1.00	1.00	1.00	0.99	0.97	1.00	1.00
Cuba	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ecuador	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Mexico	0.79	0.53	0.46	0.42	0.39	0.40	0.44	0.44	0.46
Peru	1.39	1.61	1.69	1.78	1.69	1.70	1.82	1.55	1.74
Trinidad and Tobago	1.95	1.85	1.81	1.85	1.93	1.92	1.89	1.54	1.65
United States	0.89	0.98	0.96	1.00	1.01	1.08	1.10	1.12	1.11
Venezuela	0.92	0.98	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Others Americas	0.03	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01

<sup>(\*)</sup> Data source: Eni's calculations on IEA (2023) *Extended Balances* data. All rights reserved.



# Natural Gas - Trade and Prices

## EXPORTS

The World Top 10 Exporters  
Countries

## IMPORTS

The World Top 10 Importers  
Countries

Imports by Country of Origin - Pipeline and LNG 2022

Imports by Country of Origin - Pipeline 2022

Imports by Country of Origin - LNG 2022

## TRADED GAS

## LNG - LIQUEFACTION AND REGASIFICATION CAPACITY

Liquefaction Capacity - Countries

Regasification Capacity - Countries

## NATURAL GAS BALANCE - ITALY

## NATURAL GAS PRICES

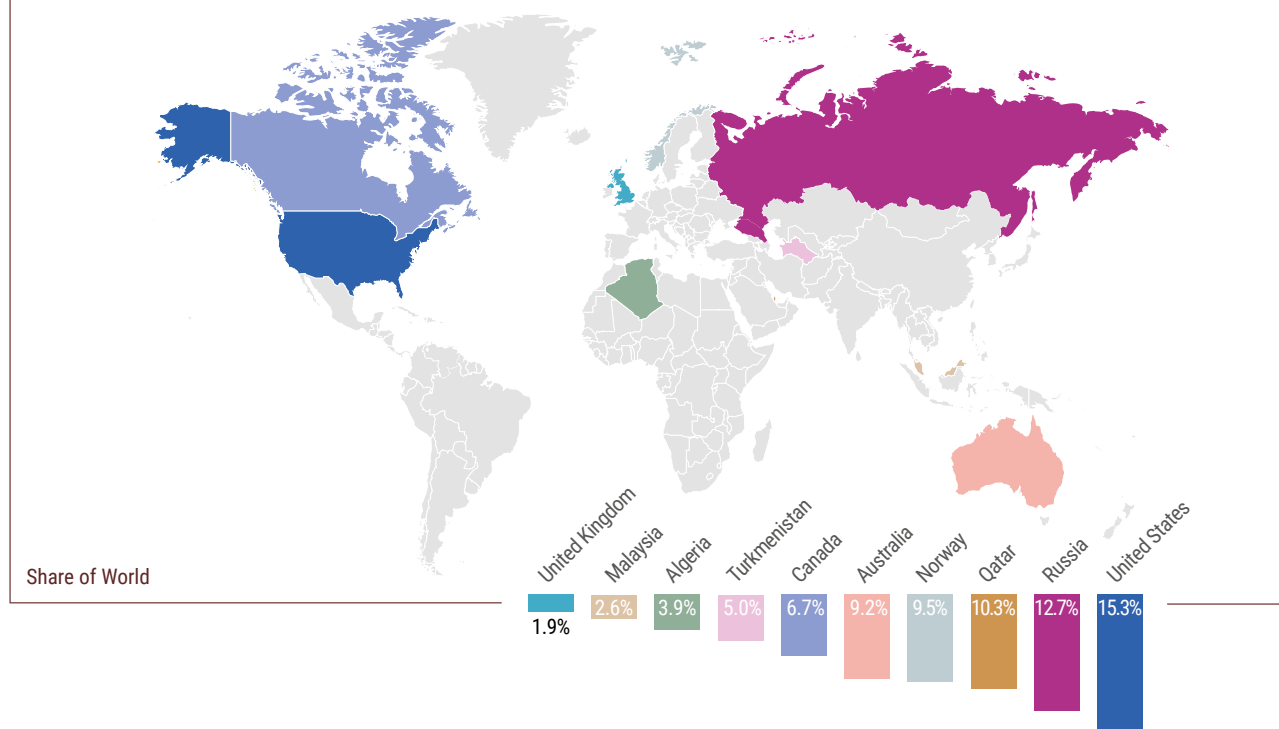
# Exports

## The World Top 10 Exporters<sup>(\*)</sup>

(billion cubic metres)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
United States	30,42	47,33	61,26	86,57	98,58	127,49	144,53	185,48	192,37	3.7%	16.6%
Russia	179,31	191,86	203,66	218,13	234,27	248,35	228,22	231,71	159,83	-31.0%	-1.0%
Qatar	98,76	128,23	131,89	128,07	127,11	129,04	128,45	128,15	129,21	0.8%	2.3%
Norway	102,90	112,52	112,54	120,94	117,77	111,55	108,71	111,36	119,76	7.5%	1.3%
Australia	24,33	34,15	50,60	71,45	84,50	102,39	108,46	106,02	115,94	9.4%	13.9%
Canada	92,05	76,37	82,63	83,47	78,21	74,79	69,65	78,13	84,50	8.2%	-0.7%
Turkmenistan	22,74	59,64	55,98	56,67	60,41	61,66	57,07	58,08	62,78	8.1%	8.8%
Algeria	56,58	43,03	53,38	53,42	50,86	42,31	39,03	54,41	49,71	-8.6%	-1.1%
Malaysia	31,20	32,70	32,91	35,91	31,78	34,31	31,79	30,15	33,12	9.8%	0.5%
United Kingdom	15,14	13,80	10,30	11,20	7,46	8,14	9,53	6,81	23,42	243.8%	3.7%
<b>The World Top 10</b>	<b>653,43</b>	<b>739,64</b>	<b>795,16</b>	<b>865,83</b>	<b>890,94</b>	<b>940,03</b>	<b>925,44</b>	<b>990,30</b>	<b>970,64</b>	<b>-2.0%</b>	<b>3.4%</b>
Rest of the World	295,67	314,19	298,36	295,14	268,74	278,50	251,45	249,56	289,29	15.9%	-0.2%
<b>World</b>	<b>949,10</b>	<b>1.053,82</b>	<b>1.093,53</b>	<b>1.160,97</b>	<b>1.159,68</b>	<b>1.218,54</b>	<b>1.176,90</b>	<b>1.239,86</b>	<b>1.259,94</b>	<b>1.6%</b>	<b>2.4%</b>

## The World Top 10 (2022)



<sup>(\*)</sup> Data source: the original data are from IEA (2023) *Extended Balances*. All rights reserved. Data have been converted by Eni using a unified gross calorific value of 40 MJ/cm.



# Exports

## Countries<sup>(\*)</sup>

(billion cubic metres)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
<b>Europe</b>											
Austria	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	3,70		
Belgium	3,20	1,66	0,67	0,31	1,33	4,35	3,37	2,94	9,35	218.2%	9.3%
Bulgaria	0,00	0,00	0,00	0,03	0,01	0,01	0,01	0,00	0,00		
Croatia	0,46	0,35	0,38	0,19	0,11	0,07	0,05	0,12	1,09	785.3%	7.5%
Czech Republic	0,15	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		-100.0%
Denmark	3,67	2,29	2,21	2,33	1,60	1,37	1,66	1,79	2,21	23.5%	-4.1%
France	2,97	3,46	1,68	4,09	3,75	9,48	8,45	5,58	11,40	104.2%	11.8%
Germany	19,95	31,68	22,48	31,29	0,00	0,00	0,00	0,20	5,50		-10.2%
Greece	0,00	0,00	0,00	0,00	0,00	0,02	0,03	0,02	0,48		
Hungary	0,22	0,53	0,00	0,00	0,00	0,00	0,00	0,00	0,00		-100.0%
Italy	0,13	0,21	0,20	0,26	0,38	0,31	0,30	1,47	4,39	199.0%	33.7%
Lithuania	0,00	0,09	0,04	0,20	0,18	0,50	0,50	0,13	1,87		
Netherlands	49,61	46,12	49,71	21,76	20,70	20,15	13,89	14,07	14,88	5.8%	-9.6%
Norway	102,90	112,52	112,54	120,94	117,77	111,55	108,71	111,36	119,76	7.5%	1.3%
Poland	0,04	0,05	0,83	1,18	0,66	1,28	1,35	0,11	0,55	403.1%	23.5%
Romania	0,00	0,00	0,00	0,02	0,03	0,01	0,13	0,69	0,91	32.2%	
Slovakia	0,00	0,00	0,00	0,00	0,00	0,00	0,00	1,31	1,70	29.6%	
Slovenia	0,00	0,00	0,00	0,00	0,01	0,00	0,00	0,00	0,00		
Spain	1,17	5,12	4,03	2,91	3,29	1,14	1,19	3,06	6,13	100.4%	14.8%
Sweden	0,00	0,00	0,00	0,01	0,02	0,03	0,03	0,06	0,01	-82.1%	
Türkiye	0,62	0,60	0,65	0,60	0,64	0,73	0,55	0,37	1,80	391.0%	9.3%
Ukraine	0,01	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		-100.0%
United Kingdom	15,14	13,80	10,30	11,20	7,46	8,14	9,53	6,81	23,42	243.8%	3.7%

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Data have been converted by Eni using a unified gross calorific value of 40 MJ/cm.

# Exports

## Countries<sup>(\*)</sup>

(billion cubic metres)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
<b>Russia and Central Asia</b>											
Russia	179,31	191,86	203,66	218,13	234,27	248,35	228,22	231,71	159,83	-31.0%	-1.0%
Azerbaijan	6,04	7,95	7,86	8,65	9,68	11,55	13,51	18,63	22,10	18.6%	11.4%
Georgia	0,00	0,10	0,00	0,00	0,00	0,00	0,00	0,00	0,00		
Kazakhstan	6,08	20,11	21,50	26,22	26,79	26,25	20,33	9,84	8,39	-14.7%	2.7%
Turkmenistan	22,74	59,64	55,98	56,67	60,41	61,66	57,07	58,08	62,78	8.1%	8.8%
Uzbekistan	11,05	10,19	9,93	8,70	11,55	11,55	2,88	5,15	5,32	3.3%	-5.9%
<b>Middle East</b>											
Iran	8,35	8,92	8,92	13,01	13,68	17,19	16,69	18,78	20,53	9.3%	7.8%
Israel	0,00	0,00	0,00	0,06	0,10	0,18	4,04	6,78	9,13	34.6%	
Jordan	0,00	0,00	0,80	1,06	0,29	0,29	0,29	0,29	0,29	0.0%	
Oman	12,27	10,42	11,00	11,62	13,68	14,00	13,35	13,93	15,72	12.9%	2.1%
Qatar	98,76	128,23	131,89	128,07	127,11	129,04	128,45	128,15	129,21	0.8%	2.3%
United Arab Emirates	7,45	7,05	7,12	6,70	7,00	7,17	6,32	7,00	6,49	-7.3%	-1.1%
Yemen	5,30	1,89	0,00	0,00	0,00	0,00	0,00	0,00	0,00		-100.0%
<b>Africa</b>											
Algeria	56,58	43,03	53,38	53,42	50,86	42,31	39,03	54,41	49,71	-8.6%	-1.1%
Angola	0,00	0,00	0,86	4,71	5,06	5,22	5,91	4,52	3,93	-13.1%	
Cameroon	0,00	0,00	0,00	0,00	0,78	1,57	1,40	1,50	1,64	9.5%	
Egypt	12,33	0,24	1,31	1,12	2,28	4,83	2,03	8,97	9,27	3.3%	-2.3%
Equatorial Guinea	4,71	5,29	5,31	5,87	4,96	4,21	3,82	4,46	5,13	15.0%	0.7%
Libya	9,26	6,75	4,56	4,37	4,27	5,41	4,27	3,07	2,96	-3.5%	-9.1%
Mozambique	3,04	3,87	3,92	3,97	3,98	3,88	3,79	3,77	3,77	0.0%	1.8%
Nigeria	20,65	25,01	22,59	26,37	25,96	26,03	26,20	21,64	18,59	-14.1%	-0.9%

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# Exports

## Countries<sup>(\*)</sup>

(billion cubic metres)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
<b>Asia - Pacific</b>											
Australia	24,33	34,15	50,60	71,45	84,50	102,39	108,46	106,02	115,94	9.4%	13.9%
Brunei	8,83	8,36	7,88	8,23	8,91	7,62	7,65	6,75	5,73	-15.1%	-3.5%
China	3,92	3,16	3,29	3,44	3,27	3,50	5,02	5,37	5,67	5.6%	3.1%
Indonesia	41,85	32,13	29,62	27,64	27,52	21,98	19,88	19,87	19,05	-4.1%	-6.3%
Malaysia	31,20	32,70	32,91	35,91	31,78	34,31	31,79	30,15	33,12	9.8%	0.5%
Myanmar	10,34	13,66	14,51	14,31	13,32	14,41	13,39	13,36	13,30	-0.5%	2.1%
Vietnam	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		
Others Asia Pacific	5,00	16,69	17,15	17,17	15,96	16,94	16,89	17,38	17,37	0.0%	10.9%
<b>Americas</b>											
Argentina	0,46	0,09	0,06	0,08	0,43	0,27	0,18	0,85	2,54	373.5%	5.8%
Bolivia	11,41	17,14	15,74	15,08	13,68	11,66	11,86	11,85	10,02	-0.1%	0.3%
Canada	92,05	76,37	82,63	83,47	78,21	74,79	69,65	78,13	84,50	12.2%	-1.5%
Chile	0,00	0,00	0,35	0,21	0,16	0,00	0,00	0,00	0,00		
Colombia	1,39	0,33	0,00	0,00	0,00	0,00	0,00	0,00	0,00		-100.0%
Dominican Republic	0,00	0,00	0,00	0,04	0,03	0,04	0,06	0,06	0,06	-8.5%	
Mexico	0,92	0,03	0,03	0,02	0,01	0,01	0,01	0,01	0,01	-16.9%	-35.1%
Peru	2,48	5,58	6,69	6,37	5,84	6,23	6,10	4,80	5,85	-21.3%	6.2%
Trinidad and Tobago	20,33	17,05	14,48	14,92	16,82	17,04	14,05	9,02	10,46	-35.8%	-7.1%
United States	30,42	47,33	61,26	86,57	98,58	127,49	144,53	185,48	192,37	28.3%	17.9%

<sup>(\*)</sup> Data source: the original data are from IEA (2023) *Extended Balances*. All rights reserved. Data have been converted by Eni using a unified gross calorific value of 40 MJ/cm.

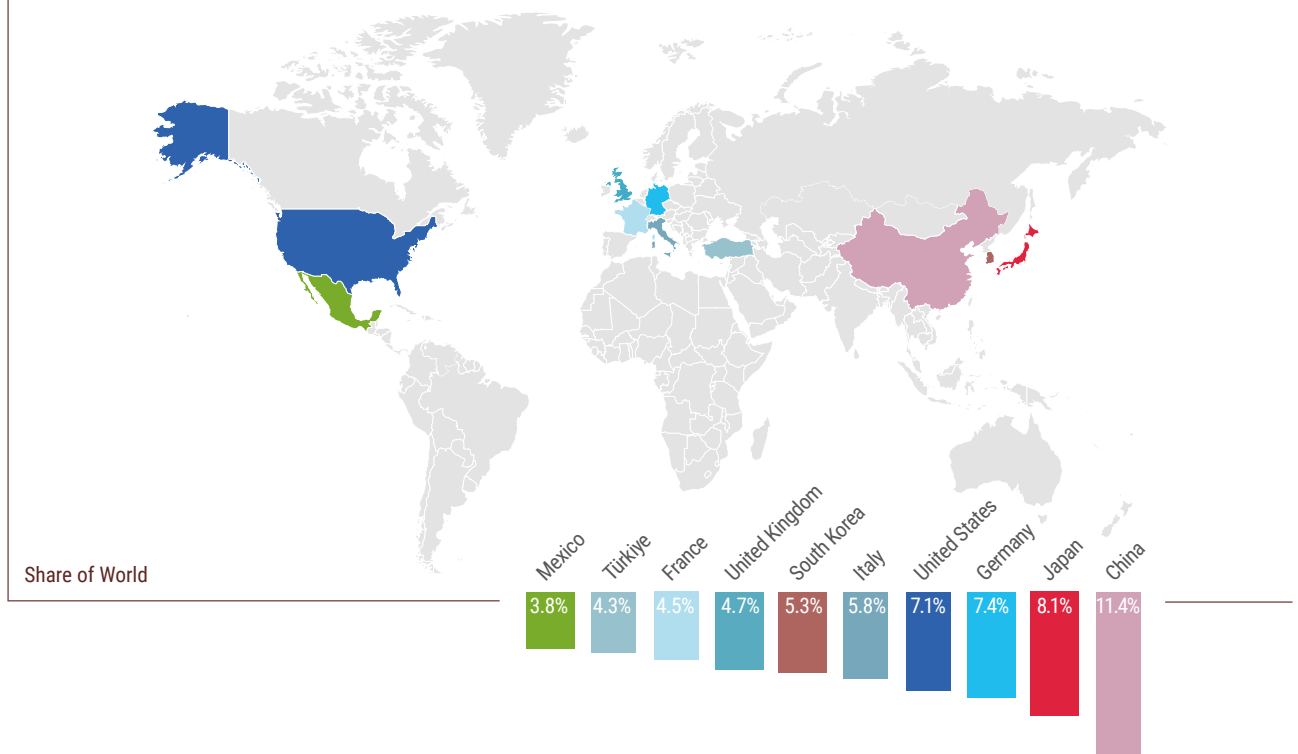
# Imports

## The World Top 10 Importers<sup>(\*)</sup>

(billion cubic metres)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
China	14,64	56,58	68,69	86,37	113,31	120,66	126,04	151,15	136,03	-10.0%	20.4%
Japan	96,12	113,79	115,39	114,22	110,16	104,64	104,47	97,77	96,52	-1.3%	0.0%
Germany	91,65	99,92	94,92	111,35	82,03	88,01	77,31	78,60	87,69	11.6%	-0.4%
United States	101,09	73,15	80,88	81,88	77,63	73,74	68,63	78,29	84,32	7.7%	-1.5%
Italy	71,77	58,36	62,18	66,34	64,65	67,69	63,24	69,53	69,14	-0.6%	-0.3%
South Korea	45,69	45,29	46,06	50,74	57,74	56,05	55,89	63,66	63,28	-0.6%	2.8%
United Kingdom	54,56	44,59	47,42	46,53	46,54	46,01	43,04	50,47	55,65	10.2%	0.2%
France	48,98	43,61	45,76	47,97	48,60	55,10	46,89	46,96	53,27	13.4%	0.7%
Türkiye	36,42	46,38	44,39	52,90	48,15	43,29	46,08	56,21	51,30	-8.7%	2.9%
Mexico	14,70	35,09	41,35	41,53	51,17	47,71	45,26	47,07	45,09	-4.2%	9.8%
<b>The World Top 10</b>	<b>575,64</b>	<b>616,75</b>	<b>647,04</b>	<b>699,83</b>	<b>699,98</b>	<b>702,89</b>	<b>676,85</b>	<b>739,71</b>	<b>742,28</b>	<b>0.3%</b>	<b>2.1%</b>
Rest of the World	380,16	401,67	411,89	420,89	420,17	459,39	448,04	456,15	447,38	-1.9%	1.4%
<b>World</b>	<b>955,80</b>	<b>1.018,42</b>	<b>1.058,92</b>	<b>1.120,72</b>	<b>1.120,15</b>	<b>1.162,27</b>	<b>1.124,89</b>	<b>1.195,87</b>	<b>1.189,66</b>	<b>-0.5%</b>	<b>1.8%</b>

## The World Top 10 (2022)



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# Imports

## Countries<sup>(\*)</sup>

(billion cubic metres)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
<b>Europe</b>											
Austria	7,11	5,83	7,24	8,16	7,55	10,97	6,25	4,59	11,76	156.4%	4.3%
Belarus	20,83	18,14	18,00	18,36	19,63	18,84	17,42	17,78	16,80	-5.5%	-1.8%
Belgium	22,73	17,77	17,31	16,96	18,89	22,35	20,81	20,58	24,45	18.8%	0.6%
Bosnia Herzegovina	0,23	0,21	0,21	0,23	0,23	0,22	0,20	0,24	0,23	-4.0%	0.0%
Bulgaria	2,48	2,93	3,02	3,17	3,01	2,86	2,83	3,18	2,87	-9.8%	1.2%
Croatia	1,01	1,01	1,22	1,75	1,53	1,93	2,07	2,23	3,09	38.9%	9.8%
Czech Republic	8,11	7,17	7,81	8,53	7,68	9,14	7,28	8,35	8,36	0.1%	0.3%
Denmark	0,16	0,69	0,71	0,54	0,40	1,16	2,58	2,41	2,68	11.0%	26.6%
Estonia	0,65	0,45	0,50	0,47	0,48	0,47	0,43	0,49	0,40	-16.8%	-3.9%
Finland	4,46	2,60	2,39	2,23	2,53	2,49	2,46	2,47	1,27	-48.6%	-10.0%
France	48,98	43,61	45,76	47,97	48,60	55,10	46,89	46,96	53,27	13.4%	0.7%
Germany	91,65	99,92	94,92	111,35	82,03	88,01	77,31	78,60	87,69	11.6%	-0.4%
Greece	3,76	3,11	4,03	4,91	4,82	5,18	5,80	6,31	5,68	-10.0%	3.5%
Hungary	9,20	6,60	7,36	9,56	7,50	11,34	7,71	7,27	9,11	25.4%	-0.1%
Ireland	5,21	4,21	1,98	1,64	2,02	2,81	3,38	3,62	3,83	5.9%	-2.5%
Italy	71,77	58,36	62,18	66,34	64,65	67,69	63,24	69,53	69,14	-0.6%	-0.3%
Latvia	1,05	1,26	1,07	1,18	1,34	1,28	1,06	1,12	0,80	-28.4%	-2.2%
Lithuania	2,89	2,49	2,20	2,42	2,22	2,67	2,77	2,33	3,44	47.9%	1.5%
Luxembourg	1,39	0,89	0,82	0,81	0,80	0,80	0,72	0,78	0,61	-21.5%	-6.6%
Malta	0,00	0,00	0,00	0,30	0,37	0,37	0,36	0,38	0,38	-2.1%	
Moldova	2,69	2,48	2,50	2,30	2,49	2,55	2,54	2,76	2,16	-22.0%	-1.8%
Netherlands	21,46	33,91	38,26	20,19	26,05	29,95	30,41	25,90	21,40	-17.4%	0.0%
North Macedonia	0,11	0,13	0,20	0,26	0,24	0,28	0,32	0,41	0,27	-35.0%	7.6%
Norway	0,01	0,00	0,00	0,00	0,01	0,03	0,03	0,16	0,07	-57.4%	22.4%
Poland	10,36	11,62	14,17	15,15	15,21	16,82	16,83	17,83	14,76	-17.2%	3.0%
Portugal	5,24	4,73	4,96	6,32	5,90	6,14	5,99	5,77	5,81	0.7%	0.9%
Romania	2,11	0,19	1,37	1,11	1,41	2,48	1,99	3,30	2,75	-16.6%	2.2%
Serbia	1,82	1,61	1,66	2,02	2,04	2,10	1,84	2,19	2,62	19.6%	3.1%
Slovakia	5,82	4,29	4,21	5,08	4,25	6,49	4,19	4,97	9,00	81.2%	3.7%
Slovenia	1,00	0,77	0,82	0,85	0,84	0,85	0,85	0,90	0,79	-11.8%	-1.9%
Spain	37,16	32,78	32,79	35,04	35,23	37,65	32,87	37,41	40,16	7.4%	0.6%
Sweden	1,70	0,84	0,95	1,10	1,21	1,14	1,51	1,25	0,76	-39.0%	-6.5%
Switzerland	3,50	3,32	3,48	3,50	3,32	3,41	3,31	3,60	2,95	-18.2%	-1.4%
Türkiye	36,42	46,38	44,39	52,90	48,15	43,29	46,08	56,21	51,30	-8.7%	2.9%
Ukraine	34,38	15,46	10,24	13,10	9,84	11,06	8,59	7,42	7,47	0.7%	-11.9%
United Kingdom	54,56	44,59	47,42	46,53	46,54	46,01	43,04	50,47	55,65	10.2%	0.2%

<sup>(\*)</sup> Data source: the original data are from IEA (2023) *Extended Balances* and, for Italy, from Italian Ministry of Environment and Energy Security. All rights reserved. Data have been converted by Eni using a unified gross calorific value of 40 MJ/cm.

# Imports

## Countries<sup>(\*)</sup>

(billion cubic metres)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
<b>Russia and Central Asia</b>											
Russia	4,07	8,41	8,54	8,39	8,97	8,71	8,59	7,80	6,65	-14.7%	4.2%
Armenia	1,59	2,28	2,15	2,29	2,36	2,47	2,50	2,71	2,93	8.1%	5.2%
Azerbaijan	0,00	0,00	0,29	2,06	1,76	0,00	0,00	0,00	0,00		
Georgia	1,17	2,50	2,26	2,38	2,37	2,69	2,70	2,79	3,02	8.3%	8.2%
Kazakhstan	3,43	5,45	6,82	6,42	9,70	16,18	12,77	2,33	2,23	-4.3%	-3.5%
Kyrgyzstan	0,27	0,24	0,25	0,27	0,30	0,29	0,31	0,37	0,41	9.7%	3.6%
Tajikistan	0,17	0,00	0,00	0,00	0,05	0,23	0,23	0,24	0,24	0.3%	3.0%
Uzbekistan	0,02	0,07	0,07	0,00	0,00	0,00	0,00	1,93	1,93	0.0%	45.5%
<b>Middle East</b>											
Iran	8,85	8,43	5,77	3,80	2,08	0,39	0,31	0,25	0,25	-0.1%	-25.7%
Iraq	0,00	0,00	0,00	1,38	4,05	5,80	10,84	9,25	9,25	0.0%	
Israel	2,01	0,11	0,30	0,43	0,70	0,72	0,64	0,19	0,05	-72.4%	-26.2%
Jordan	2,50	2,14	4,64	5,05	4,20	4,12	3,88	3,74	4,03	7.8%	4.0%
Kuwait	2,65	3,79	4,72	5,25	4,73	4,94	5,84	7,31	8,04	10.0%	9.7%
Lebanon	0,25	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		-100.0%
Oman	1,97	2,06	2,04	2,04	2,07	2,07	1,66	1,55	1,55	0.0%	-2.0%
Syria	0,65	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		-100.0%
United Arab Emirates	16,54	19,88	19,28	19,75	18,05	18,73	19,02	19,04	17,16	-9.9%	0.3%
<b>Africa</b>											
Egypt	0,00	6,62	9,08	7,64	2,91	0,00	2,04	3,90	6,34	62.5%	
Ghana	0,41	0,54	0,11	0,31	0,67	0,61	0,64	0,49	0,49	0.0%	1.5%
Morocco	0,61	1,10	1,13	1,12	1,00	0,93	0,70	0,69	0,15	-77.7%	-10.8%
South Africa	3,04	3,87	3,92	3,97	3,98	3,88	3,83	4,22	4,22	0.0%	2.8%
Tunisia	2,34	2,95	3,41	3,83	4,01	4,22	3,89	3,99	3,97	-0.4%	4.5%

<sup>(\*)</sup>Data source: the original data are from IEA (2023) *Extended Balances*. All rights reserved. Data have been converted by Eni using a unified gross calorific value of 40 MJ/cm.

# Imports

## Countries<sup>(\*)</sup>

(billion cubic metres)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
<b>Asia - Pacific</b>											
Australia	4,44	5,02	5,66	5,16	4,66	5,05	4,49	5,19	3,80	-26.7%	-1.3%
Bangladesh	0,00	0,00	0,00	0,00	0,00	3,25	5,69	6,05	4,98	-17.6%	
China	14,64	56,58	68,69	86,37	113,31	120,66	126,04	151,15	136,03	-10.0%	20.4%
Hong Kong	3,64	3,09	3,17	3,16	3,06	3,16	5,01	4,89	5,18	6.0%	3.0%
India	13,30	22,14	25,72	28,40	29,70	35,03	34,08	31,75	27,22	-14.3%	6.1%
Japan	96,12	113,79	115,39	114,22	110,16	104,64	104,47	97,77	96,52	-1.3%	0.0%
Malaysia	8,16	9,09	7,94	8,14	8,09	8,47	9,84	9,36	9,35	0.0%	1.1%
Myanmar	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		
Pakistan	0,00	2,66	4,92	8,28	9,85	9,19	10,96	12,36	9,81	-20.6%	
Singapore	7,55	9,89	10,13	10,33	10,42	10,62	10,69	11,12	10,92	-1.8%	3.1%
South Korea	45,69	45,29	46,06	50,74	57,74	56,05	55,89	63,66	63,28	-0.6%	2.8%
Taiwan	16,89	22,04	22,96	25,55	26,09	25,67	27,54	30,21	31,00	2.6%	5.2%
Thailand	9,58	13,91	13,54	14,41	14,71	14,56	14,99	15,78	16,87	6.9%	4.8%
Others Asia Pacific	0,15	0,00	0,01	0,17	0,09	0,13	0,07	0,08	0,08	0.4%	-4.9%
	2010	2015	2016	2017	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
<b>Americas</b>											
Argentina	3,47	11,12	10,63	11,07	9,49	6,63	7,03	7,98	5,97	-25.2%	4.6%
Brazil	12,94	18,84	12,00	10,97	10,84	10,03	9,84	17,25	8,98	-47.9%	-3.0%
Canada	21,78	19,25	21,84	24,77	22,76	25,45	23,22	23,77	23,96	0.8%	0.8%
Chile	3,50	3,64	4,25	4,08	4,02	4,69	4,42	4,95	4,95	0.0%	2.9%
Colombia	0,00	0,00	0,01	0,01	0,01	0,15	0,34	0,04	0,04	0.0%	
Dominican Republic	0,79	1,11	1,02	1,22	1,19	1,46	1,56	1,89	1,89	0.0%	7.5%
Jamaica	0,00	0,00	0,03	0,19	0,23	0,24	0,67	0,69	0,69	0.0%	
Mexico	14,70	35,09	41,35	41,53	51,17	47,71	45,26	47,07	45,09	-4.2%	9.8%
Panama	0,00	0,00	0,00	0,00	0,26	0,80	0,43	0,52	0,52	-0.1%	
United States	101,09	73,15	80,88	81,88	77,63	73,74	68,63	78,29	84,32	7.7%	-1.5%
Uruguay	0,07	0,05	0,06	0,07	0,06	0,09	0,07	0,08	0,08	0.3%	0.5%
Venezuela	1,95	0,36	0,00	0,00	0,00	0,00	0,00	0,00	0,00		-100.0%
Others Americas	0,75	1,53	1,69	1,28	1,66	1,90	1,34	1,41	1,41	0.0%	5.4%

<sup>(\*)</sup>Data source: the original data are from IEA (2023) *Extended Balances*. All rights reserved. Data have been converted by Eni using a unified gross calorific value of 40 MJ/cm.







## Natural Gas - Imports by Country of Origin - Pipeline 2022

(billion cubic metres)

	EUROPE																																		
Importers	Exporters																																		
	Austria	Belgium	Belarus	Bosnia-Herzegovina	Bulgaria	Croatia	Czech Republic	Denmark	Estonia	Finland	France	Germany	Greece	Hungary	Ireland	Italy	Latvia	Lithuania	Luxembourg	North Macedonia	Moldova	Netherlands	Poland	Portugal	Romania	Serbia	Slovakia	Slovenia	Spain	Sweden	Switzerland	Türkiye	Ukraine	United Kingdom	
Europe																																			
Austria					0.01																0.00							0.76						0.33	
Belgium											0.08	14.93							0.14			2.28							0.00					0.05	
Bulgaria																									2.11										
Croatia															0.03																				
Czech Republic																							0.32											0.48	
Denmark	0.07																		0.00			0.54	0.68						0.59						
Estonia									0.63							0.01																			
France	0.56											0.21							0.10			1.39						1.69	0.68				0.02		
Germany								1.99			0.15												4.39							2.07			0.52		
Greece					0.77																0.10				0.00										
Hungary					0.10																		0.03	0.44										0.63	
Italy																												0.00		0.13					
Latvia									0.32																										
Lithuania																0.62							0.56												
Netherlands	2.16										2.15	14.62				0.37		0.00												0.22		0.25	0.11		
Norway	9.40							0.79			11.34	27.68			6.22	0.21				0.21		7.82						0.22					30.74		
Moldova																										0.02									
Portugal																													0.42						
Slovakia																							0.03											0.21	
Slovenia					0.39											0.02																			
Spain											1.07																								
Türkiye													0.22																						
Ukraine																					0.00		0.07		0.02										
United Kingdom	1.48																		0.14			5.18												0.08	
Russia and C. Asia																																			
Azerbaijan					0.55						1.13					10.33																8.70			
Kazakhstan																																			
Russia	0.19	18.11	0.24	1.21				0.04	0.44	3.33	25.93	0.82	8.85		13.99	0.19	0.28	0.00	0.28	2.45	2.68	2.93			0.38	2.83	2.39	0.07			21.38				
Turkmenistan																																			
Uzbekistan																																			
Middle East																																			
Iran																																		9.40	
Israel																																			
Qatar																																			
Africa																																			
Algeria																23.44																8.98			
Libya																3.12																			
Nigeria																																			
Asia-Pacific																																			
China																																			
Indonesia																																			
Malaysia																																			
Myanmar																																			
Americas																																			
Argentina																																			
Bolivia																																			
Canada																																			
Mexico																																			
United States																																			
Non-specified/Others	12.19				0.00		8.61				5.03	0.95		0.47	3.85		0.01		0.00					0.10					3.80				4.80		
TOTAL BY COUNTRY	12.2	13.9	18.1	0.2	2.5	0.5	8.6	2.8	0.4	1.1	23.2	84.3	2.2	9.3	3.8	57.5	0.8	0.3	0.6	0.3	2.5	19.9	9.0	0.1	3.0	2.8	6.2	0.8	11.3	0.6	3.1	39.5	7.3	30.9	

<sup>(\*)</sup> Data source: IEA (2023) *Natural Gas Information*. All rights reserved.



## Natural Gas - Imports by Country of Origin - LNG 2022

(billion cubic metres)

		EUROPE																	
Importers ▶	Exporters ▼	Belgium	Bulgaria	Croatia	France	Finland	Greece	Italy	Lithuania	Malta	Netherlands	Norway	Poland	Portugal	Spain	Sweden	Türkiye	United Kingdom	Others Europe
<b>Europe</b>																			
Belgium				0.00								0.00	0.00			0.01			
France													0.00		0.00		0.20		
Finland												0.00				0.01			
Germany													0.00						
Gibraltar											0.00				0.02				
Lithuania						0.01							0.02						0.08
Netherlands												0.01	0.01		0.00	0.02			
Norway		0.03			1.10		0.19		0.90		0.60				0.14	0.05		0.25	
Spain							0.04	0.42				0.00						0.08	0.08
Sweden												0.01							
United Kingdom																			
<b>Russia and C. Asia</b>																			
Russia		2.74			5.11	0.23	0.18	0.19			3.69	0.04	0.05	0.30	4.98	0.06	0.19	0.49	
<b>Middle East</b>																			
Oman							0.09	0.09			0.00				0.52		0.11	0.03	
Qatar		5.80		0.09	2.24			7.29			0.39		2.30		1.37		0.09	7.74	
United Arab Emirates																			
<b>Africa</b>																			
Algeria		0.19			4.54		0.48	2.54			0.12				0.40		5.26	0.58	
Angola		0.09						0.09			2.67				0.28		0.10	0.63	
Cameroon		0.10					0.01				0.51				0.28				
Egypt		0.09		0.29		0.02	0.45	0.69			0.79		0.09		1.34		2.23	0.11	
Equatorial Guinea		0.08						0.36			0.29			0.10	0.53		0.09		
Mozambique															0.05				
Nigeria				0.02	1.12		0.26	0.19			0.21		0.18	2.92	5.59		0.82	0.51	
<b>Asia-Pacific</b>																			
Australia											0.16				0.01				
Brunei																			
China								0.09											
Indonesia							0.01								0.01		0.09		
Malaysia															0.01				
Papua New Guinea																			
Singapore																			
South Korea															0.01				
<b>Americas</b>																			
Argentina																			
Jamaica											0.01								
Peru															0.17			2.20	
Trinidad and Tobago				0.01				0.22		0.26	0.94		0.10	0.38	1.21		0.36	0.18	
United States		1.94	0.39	2.12	13.71		1.86	2.92	2.37	0.12	8.57		3.43	2.00	11.46	0.00	5.64	12.78	0.49
Non-specified/Others		0.20			4.44						0.26		0.00	0.00				0.07	0.00
<b>TOTAL BY COUNTRY</b>		<b>11.3</b>	<b>0.4</b>	<b>2.5</b>	<b>32.3</b>	<b>0.3</b>	<b>3.6</b>	<b>15.1</b>	<b>3.3</b>	<b>0.4</b>	<b>19.2</b>	<b>0.1</b>	<b>6.2</b>	<b>5.7</b>	<b>28.4</b>	<b>0.2</b>	<b>15.2</b>	<b>25.6</b>	<b>0.6</b>

(\*) Data source: IEA (2023) *Natural Gas Information*. All rights reserved.

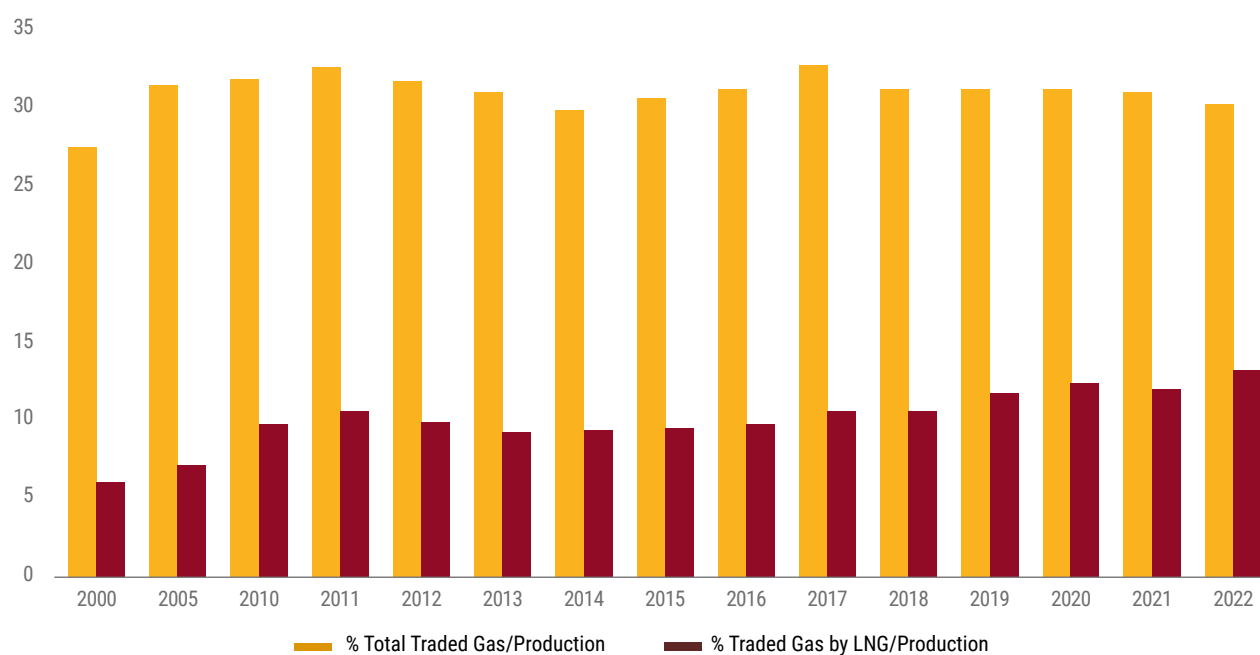
MIDDLE EAST					ASIA - PACIFIC									AMERICAS									TOTAL BY COUNTRY	
Egypt	Israel	Jordan	Kuwait	United Arab Emirates	Bangladesh	China	India	Japan	Malaysia	Pakistan	Singapore	South Korea	Taiwan	Thailand	Argentina	Brazil	Canada	Chile	Dominican Republic	Jamaica	United States	Others Americas		
												0.35												0.4
														0.11										0.3
																								0.0
																								0.0
																								0.0
																								0.1
																								0.1
																0.09		0.06						3.3
						0.02										0.04								0.7
																0.13								0.0
																								0.1
																								41.0
																								15.1
		0.15			1.04	1.19	1.16	3.27		0.07		6.38	0.08	0.88										107.3
		3.81	0.84		4.10	21.41	10.84	3.88		9.02	0.58	13.02	8.90	3.09	0.05	0.44								5.8
						0.16	3.30	1.28		0.12		0.49	0.30	0.16										5.8
																								14.9
		0.07				0.09	0.19	0.17		0.10		0.08			0.09									6.7
		0.27					2.28			0.03	0.07			0.10					0.09					1.5
		0.06					0.41					0.10												1.5
		0.06				0.46	0.13	0.26	0.01	0.12	0.07	0.78		0.19										8.2
		0.06				0.48	0.54	0.16			0.10	0.24		0.09	0.20			0.35						3.7
																								0.0
																								20.2
		2.03				0.63	2.90	1.13		0.17		0.71	0.40	0.42		0.02								20.2
																								107.5
		0.10				33.53	0.82	40.27	2.91		3.51	15.28	9.12	1.83				0.01						6.6
						0.44	0.07	4.14	1.05			0.25	0.30	0.38										0.1
																								14.3
						4.53		3.45		0.05	0.13	4.13	1.73	0.14										37.1
						10.24		16.42		0.02		7.14	1.20	2.13										11.7
						3.42		5.09	0.05			0.78	2.35	0.04										0.0
																0.01								0.0
																								0.0
																								0.0
																								4.0
						0.27		0.24				0.77	0.20				0.15							10.1
						0.55	0.50	0.08			0.08	0.15		0.71	0.05	0.11	0.10	0.58	0.65	0.69	0.67	1.48		10.1
		0.06		1.62		2.74	2.50	5.30		0.09	0.65	7.64	3.02	0.74	1.90	2.41	0.00	2.77	1.44	0.04		0.46		103.2
																								11.6
		0.05		0.50	0.23			0.15	5.30	0.19						0.01					0.05	0.13		11.6
		0.1	0.1	0.5	0.8	5.1	89.2	26.3	93.8	9.3	10.0	5.3	60.7	29.6	11.0	2.4	3.2	0.3	3.7	2.2	0.7	0.7	2.1	535.6

## Traded Gas

	Traded Gas by LNG/ Total Traded Gas (%)	Traded Gas by Pipeline/ Total Traded Gas (%)	Total Traded Gas/ Production (%)	Traded Gas by LNG/ Production (%)	Traded Gas by Pipeline/ Production (%)
2000	22	78	27	6	21
2005	23	77	31	7	24
2010	31	69	31	10	22
2011	32	68	32	10	22
2012	31	69	31	10	22
2013	30	70	31	9	22
2014	32	68	29	9	20
2015	31	69	30	9	21
2016	31	69	31	10	21
2017	32	68	32	11	22
2018	34	66	31	11	20
2019	38	62	31	12	19
2020	40	60	31	12	18
2021	39	61	31	12	19
2022	44	56	30	13	17

## Total Traded Gas on Production

(percentage)



# LNG - Liquefaction and Regasification Capacity

## Liquefaction Capacity - Countries<sup>(\*)</sup>

(billion cubic metres)

	2010	2015	2016	2017	2018	2019	2020	2021	2022
<b>Europe</b>	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
Norway	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
<b>Russia and Central Asia</b>	13.0	15.0	15.0	15.7	26.3	38.2	38.3	39.1	40.2
Russia	13.0	15.0	15.0	15.7	26.3	38.2	38.3	39.1	40.2
<b>Middle East</b>	113.2	136.5	136.5	136.5	136.5	136.5	136.5	137.0	137.7
Oman	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.7	15.3
Qatar	83.4	105.6	105.6	105.6	105.6	105.6	105.6	105.7	105.6
United Arab Emirates	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
Yemen	8.0	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1
<b>Africa</b>	82.3	85.5	85.5	85.5	87.5	88.8	84.7	90.9	92.2
Algeria	27.9	33.0	33.0	33.0	33.0	33.0	28.9	28.9	28.9
Angola		7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1
Cameroon					2.0	3.3	3.3	3.2	3.3
Egypt	16.6	9.8	9.8	9.8	9.8	9.8	9.8	16.0	16.6
Equatorial Guinea	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
Libya	2.2								
Mozambique									0.8
Nigeria	30.1	30.1	30.1	30.1	30.1	30.1	30.1	30.1	30.1
<b>Asia - Pacific</b>	114.1	126.8	155.4	180.7	195.0	209.6	211.6	213.3	213.6
Australia	28.2	45.1	70.5	91.0	104.0	121.3	123.4	123.4	123.3
Brunei	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
Indonesia	42.6	27.0	28.9	28.9	28.9	25.2	25.2	25.2	25.2
Malaysia	33.7	34.9	36.2	41.0	41.4	41.4	41.4	43.1	43.4
Papua New Guinea		10.1	10.1	10.1	10.9	11.9	11.9	11.9	11.9
<b>Americas</b>	26.0	28.7	36.8	51.1	62.1	86.2	123.3	128.8	143.0
Argentina						0.4	0.5		
Peru	3.3	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Trinidad and Tobago	20.6	20.6	20.7	20.7	20.7	20.7	20.7	16.3	16.3
United States	2.0	2.0	10.1	24.4	35.4	59.1	96.1	106.5	120.6
<b>World</b>	354.2	398.1	434.8	475.1	512.9	564.7	600.1	614.6	632.2

<sup>(\*)</sup> Nominal Capacity. Data source: Wood Mackenzie LNG Tool .

# LNG - Liquefaction and Regasification Capacity

## Regasification Capacity - Countries<sup>(\*)</sup>

(billion cubic metres)

	2010	2015	2016	2017	2018	2019	2020	2021	2022
<b>Europe</b>	172.4	198.1	210.3	223.5	230.2	239.3	235.7	246.8	256.4
Belgium	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1
Croatia								2.6	2.8
Finland						0.3	0.5	0.5	0.5
France	22.2	19.5	25.8	32.6	32.6	32.6	32.7	34.1	33.8
Germany									0.03
Greece	5.4	5.4	5.4	5.4	5.4	6.7	6.7	6.7	6.9
Italy	11.5	15.3	15.3	15.3	15.3	15.3	15.3	15.3	16.3
Lithuania		3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
Malta			0.1	0.6	0.6	0.6	0.6	0.6	0.6
Netherlands		12.0	12.0	12.0	12.0	12.0	12.0	12.0	14.1
Poland		0.3	5.0	5.0	5.0	5.0	5.0	5.0	6.2
Portugal	5.6	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3
Spain	62.4	63.6	63.6	63.6	63.6	63.6	63.6	63.6	63.6
Türkiye	12.3	12.3	12.5	18.4	25.1	32.6	28.6	34.6	38.8
United Kingdom	43.9	48.6	49.6	49.6	49.6	49.6	49.6	50.8	51.7
<b>Russia and Central Asia</b>						3.6	3.7	3.7	3.7
Russia						3.6	3.7	3.7	3.7
<b>Middle East</b>	5.5	18.5	27.6	30.7	30.7	30.7	30.7	38.0	56.4
Bahrain								0.1	8.3
Israel		2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.3
Jordan		4.5	7.4	7.4	7.4	7.4	7.4	7.4	7.4
Kuwait	5.2	6.6	6.6	6.6	6.6	6.6	6.6	13.9	24.5
United Arab Emirates	0.3	4.7	10.9	14.0	14.0	14.0	14.0	14.0	14.0
<b>Africa</b>		6.0	10.3	10.3	9.3	5.2	5.2	5.2	6.8
Egypt		6.0	10.3	10.3	9.3	5.2	5.2	5.2	5.2
Mozambique									1.3
Senegal								0.1	0.3
<b>Asia - Pacific</b>	428.1	564.5	586.6	622.1	659.2	682.7	705.3	746.4	777.5
Bangladesh					3.9	8.7	10.3	10.3	10.3
China	17.5	61.9	69.9	82.3	92.0	100.2	111.3	135.0	148.8
India	18.4	34.1	36.3	41.5	41.8	48.2	57.2	64.3	65.6
Indonesia		11.3	12.4	12.5	12.5	12.5	12.5	15.0	15.8
Japan	258.6	283.2	288.1	290.4	294.5	294.7	294.8	299.1	300.6
Malaysia		5.2	5.2	6.0	10.0	10.0	10.0	10.0	10.0
Myanmar							0.7	1.4	1.4
Pakistan		4.6	6.1	6.6	12.3	12.3	12.3	12.3	12.3
Singapore		8.2	8.2	8.2	15.1	15.1	15.1	15.1	15.1
South Korea	115.1	128.8	131.2	138.4	139.2	139.5	139.5	142.2	145.1
Taiwan	18.5	20.4	22.3	23.2	24.3	25.9	25.9	25.9	25.9
Thailand		6.8	6.8	13.1	13.7	15.7	15.7	15.7	26.0
Vietnam									0.7
<b>Americas</b>	188.9	243.7	244.9	249.0	252.1	260.3	269.7	277.8	280.0
Argentina	4.1	11.3	11.3	11.3	11.3	13.4	13.4	13.4	13.4
Brazil	7.7	14.9	14.9	14.9	14.9	16.8	25.1	32.8	33.1
Canada	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3
Chile	5.3	7.3	7.5	7.5	7.5	7.5	7.5	7.5	7.5
Colombia			0.7	4.1	4.1	4.1	4.1	4.1	4.1
Dominican Republic	2.6	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
El Salvador									1.7
Jamaica			0.4	1.0	3.4	5.8	5.8	5.8	5.8
Mexico	15.5	20.7	20.7	20.7	20.7	20.7	20.7	20.9	21.2
Panama					0.8	2.4	2.4	2.4	2.4
United States (**)	143.4	175.3	175.3	175.3	175.3	175.4	176.5	176.7	176.7
<b>World</b>	794.9	1.030.7	1.079.8	1.135.6	1.181.5	1.221.8	1.250.2	1.317.9	1.380.7

(\*) Data source: Wood Mackenzie LNG Tool.

(\*\*) The United States includes Puerto Rico.

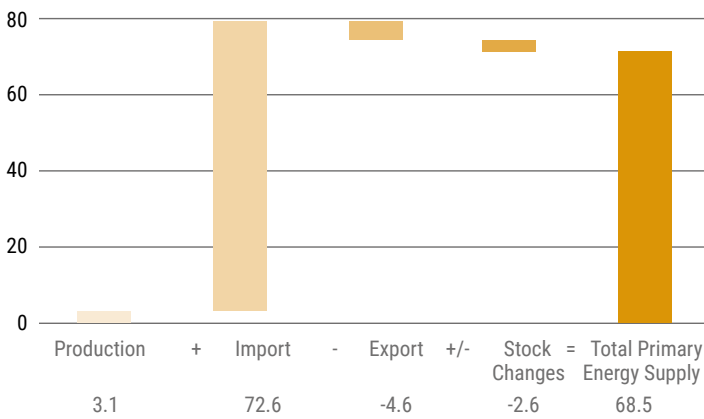


# Natural Gas Balance - Italy<sup>(\*)</sup>

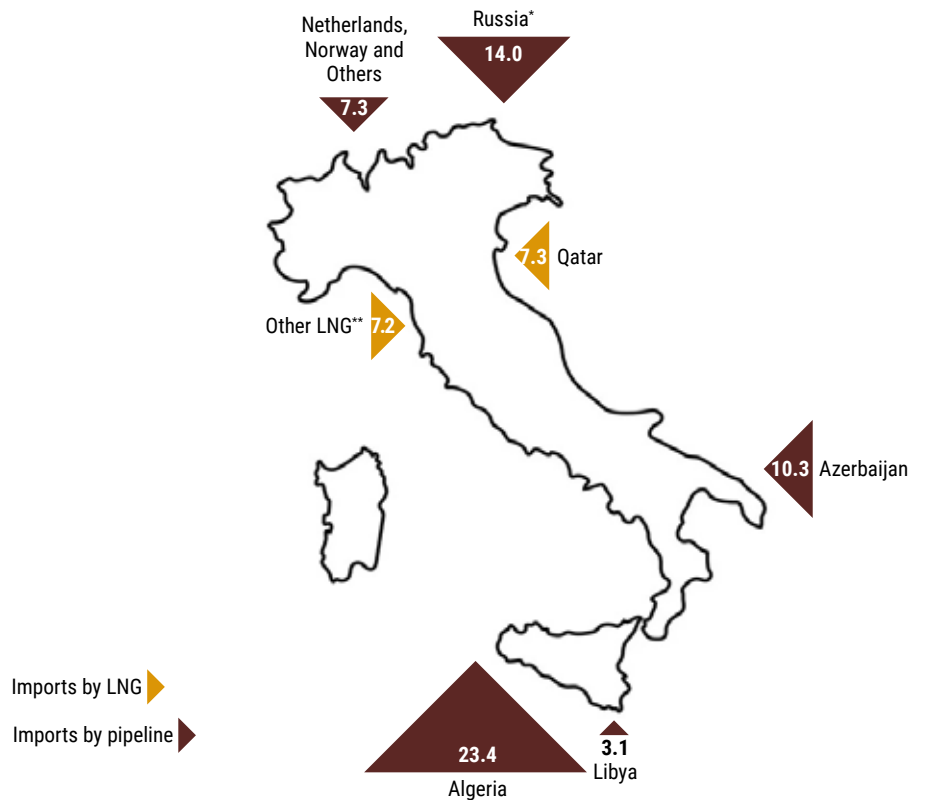
(billion cubic metres)

	2010	2015	2016	2017	2018	2019	2020	2021	2022
Production	8.4	6.8	5.8	5.5	5.4	4.9	4.0	3.3	3.1
Imports	75.4	61.3	65.3	69.7	67.9	71.1	66.4	73.0	72.6
Exports	-0.1	-0.2	-0.2	-0.3	-0.4	-0.3	-0.3	-1.5	-4.6
Stock Changes	-0.5	-0.3	0.1	0.2	-0.3	-1.1	1.1	1.6	-2.6
<b>Total Primary Energy Supply</b>	<b>83.1</b>	<b>67.5</b>	<b>70.9</b>	<b>75.2</b>	<b>72.7</b>	<b>74.5</b>	<b>71.2</b>	<b>76.4</b>	<b>68.5</b>

## 2022



## Imports 2022<sup>(\*\*)</sup>



<sup>(\*)</sup> Data source: Italian Ministry of Environment and Energy Security. Gas volumes are quoted in Italian calorific value of 38.1 MJ/cm.

<sup>(\*\*)</sup> Data source: Eni's elaborations on Italian Ministry of Environment and Energy Security data.

# Natural Gas Prices

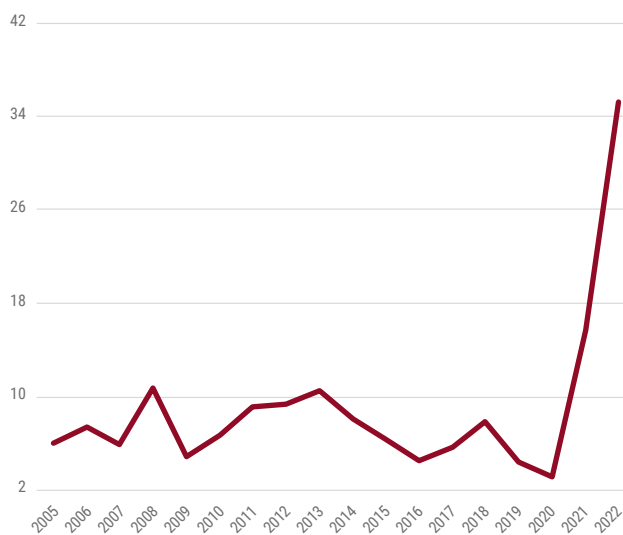
## Natural Gas Prices

(\$/Mbtu)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
TTF	6.7	6.4	4.5	5.7	7.9	4.5	3.2	15.7	37.1	136.1%	15.3%
Henry Hub	4.4	2.6	2.5	3.0	3.2	2.6	2.0	3.9	6.5	66.2%	3.3%
Japan	7.4	7.8	5.6	6.9	9.9	5.9	3.8	15.1	34.5	128.5%	13.7%

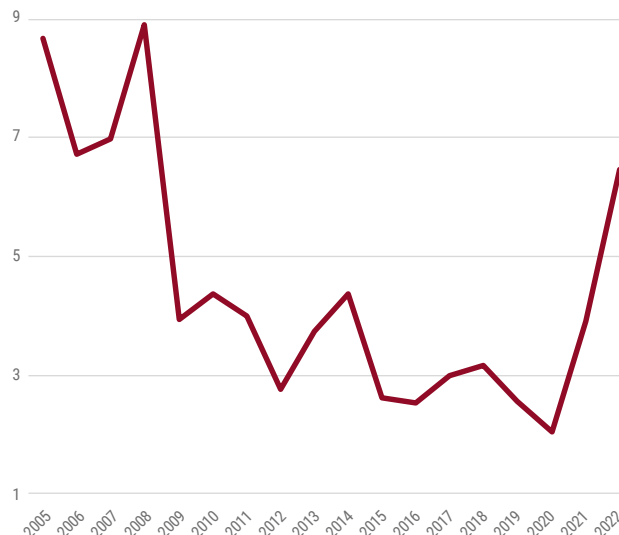
### TTF

(\$/Mbtu)



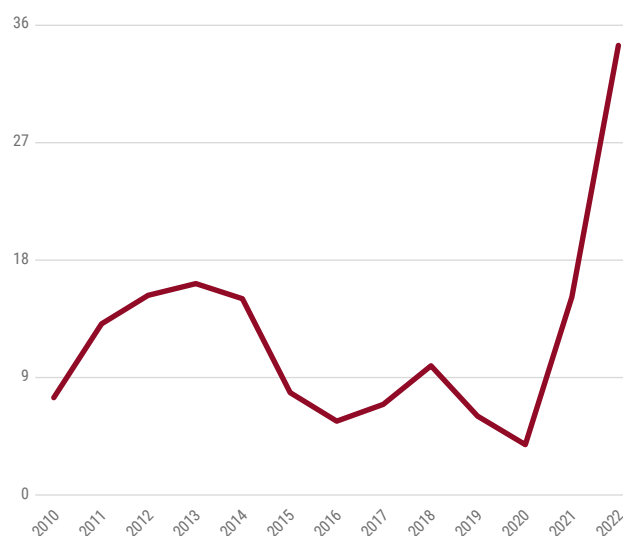
### Henry Hub

(\$/Mbtu)



### Japan(\*)

(\$/Mbtu)



(\*) Data source: Wood Mackenzie and EIA DOE.







# Renewables



## SOLAR RESOURCES MAP



## SOLAR PHOTOVOLTAIC POWER CAPACITY

Areas and Aggregates

The World Top 10

Countries



## SOLAR PHOTOVOLTAIC POWER GENERATION

Areas and Aggregates

The World Top 10

Countries



## WIND RESOURCES MAP



## WIND POWER CAPACITY

Areas and Aggregates

The World Top 10

Countries



## WIND POWER GENERATION

Areas and Aggregates

The World Top 10

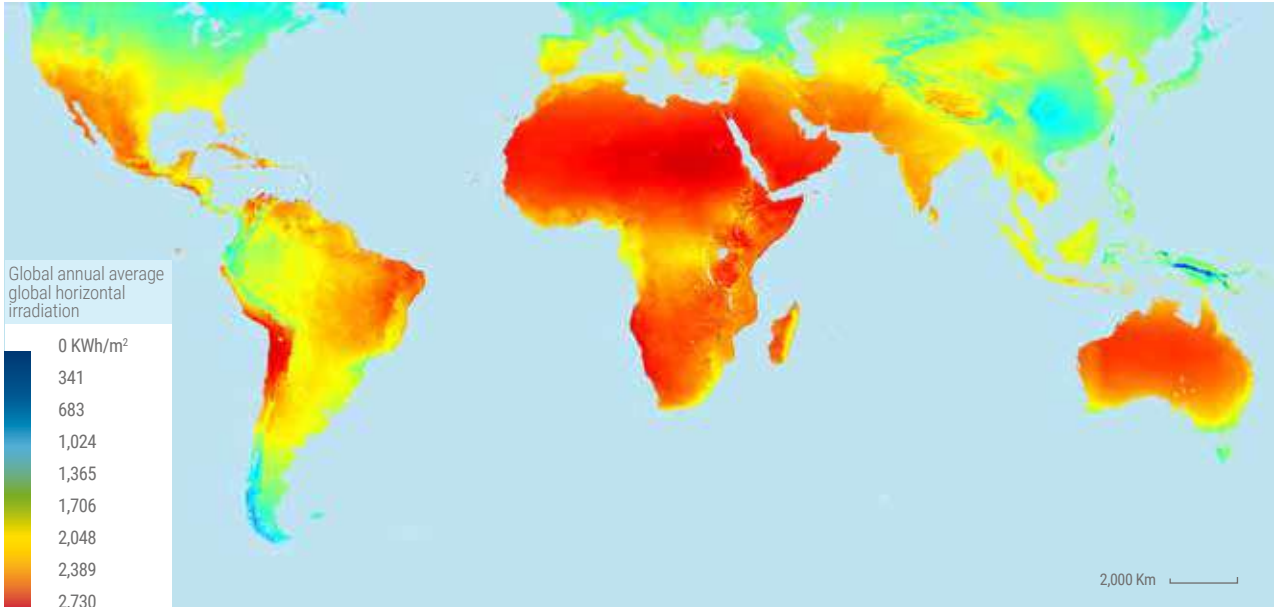
Countries



## BIOFUELS PRODUCTION

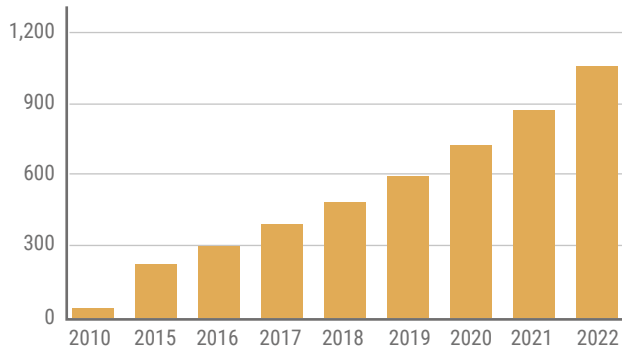
## Solar Resources Map (Global Horizontal Irradiance)<sup>(\*)</sup>

(W/m<sup>2</sup>/day)



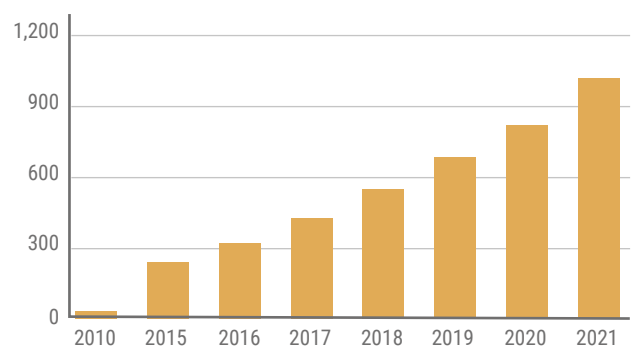
### Solar Power Capacity

(GW)



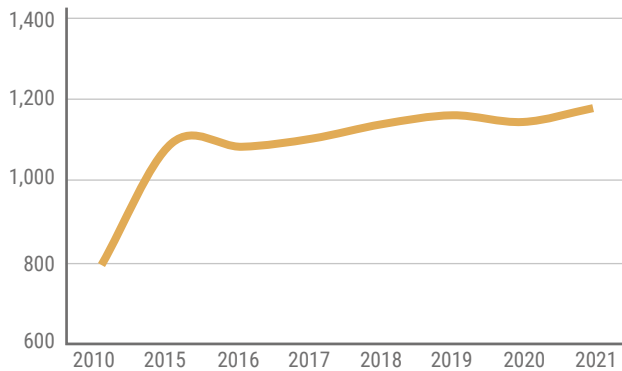
### Solar Power Generation

(TWh)

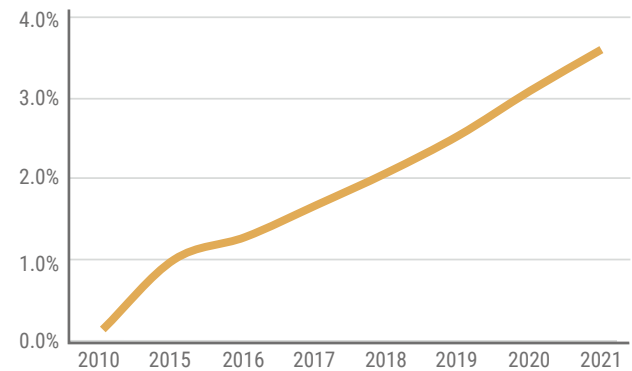


### Capacity Factor

(hours per year - world average)



### Share of Solar PV on Total Generation



<sup>(\*)</sup> IRENA: Global Atlas, Map data: VAISALA, 2022.

# Solar Photovoltaic Power Capacity

## Areas and Aggregates<sup>(\*)</sup>

(MW)

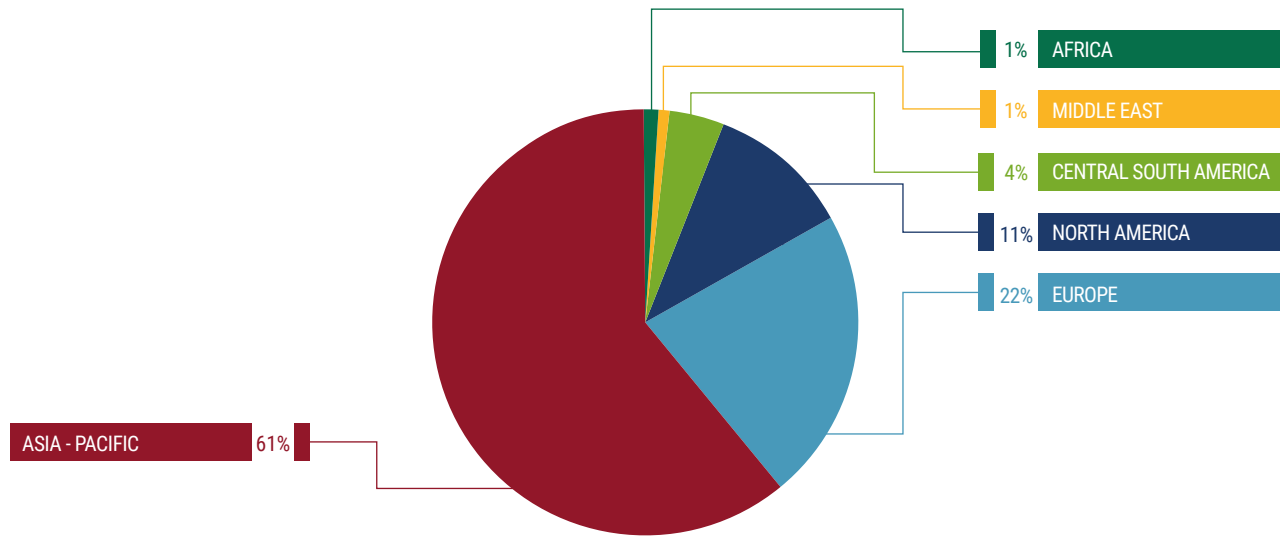
	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
Europe	30,124	97,538	104,691	113,404	124,346	146,052	167,245	196,005	232,383	18.6%	18.6%
Russia and Central Asia	0	124	162	319	801	1,879	2,433	3,015	3,524	16.9%	117.8%
Middle East	85	994	1,489	2,118	3,313	5,837	7,269	9,516	12,795	34.5%	51.9%
Africa	174	1,887	3,001	4,648	7,110	8,403	9,748	10,543	11,415	8.3%	41.7%
Asia - Pacific	6,629	96,450	147,208	219,448	287,838	348,260	433,863	516,096	632,053	22.5%	46.2%
Americas	3,299	27,222	39,785	51,344	63,356	78,999	100,986	130,852	162,860	24.5%	38.4%
- North America	3,158	24,998	36,341	44,944	53,324	63,156	78,302	98,465	116,861	18.7%	35.1%
- Central South America	141	2,224	3,444	6,400	10,032	15,843	22,684	32,387	45,999	42.0%	61.9%
<b>World</b>	<b>40,311</b>	<b>224,215</b>	<b>296,336</b>	<b>391,280</b>	<b>486,764</b>	<b>589,429</b>	<b>721,546</b>	<b>866,027</b>	<b>1,055,029</b>	<b>21.8%</b>	<b>31.3%</b>
European Union 27	29,883	85,386	89,195	93,927	101,753	117,904	136,176	161,879	194,830	20.4%	16.9%
MENA	119	1,129	1,898	2,752	4,744	8,167	9,650	11,997	15,452	28.8%	50.0%
OECD	38,703	164,732	193,676	221,580	255,335	301,704	357,478	424,437	493,529	16.3%	23.6%
NON OECD	1,608	59,484	102,660	169,700	231,429	287,725	364,067	441,590	561,501	27.2%	62.9%
OPEC	19	191	490	959	1,346	2,781	3,278	4,324	5,098	17.9%	59.0%
NON OPEC	40,292	224,024	295,846	390,321	485,417	586,649	718,268	861,703	1,049,932	21.8%	31.2%

<sup>(\*)</sup> Data source: Eni's calculations on IRENA (2023), *Renewable Energy Statistics 2023*, International Renewable Energy Agency, Abu Dhabi, data.

# Solar Photovoltaic Power Capacity

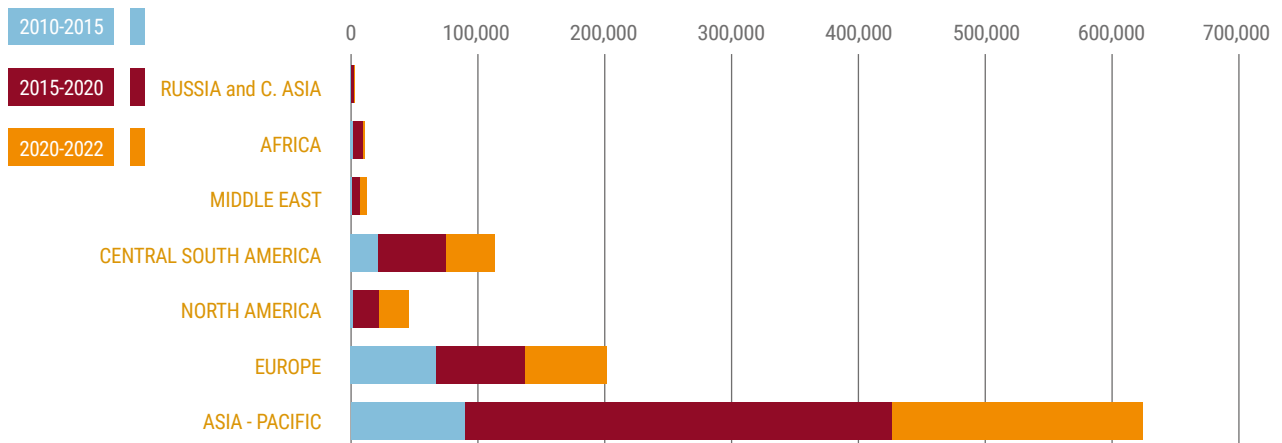
## World Solar Photovoltaic Power Capacity (2022)

1,055,029 MW



## World Solar Photovoltaic Power Capacity Growth (2010-2022)

1,014,718 MW





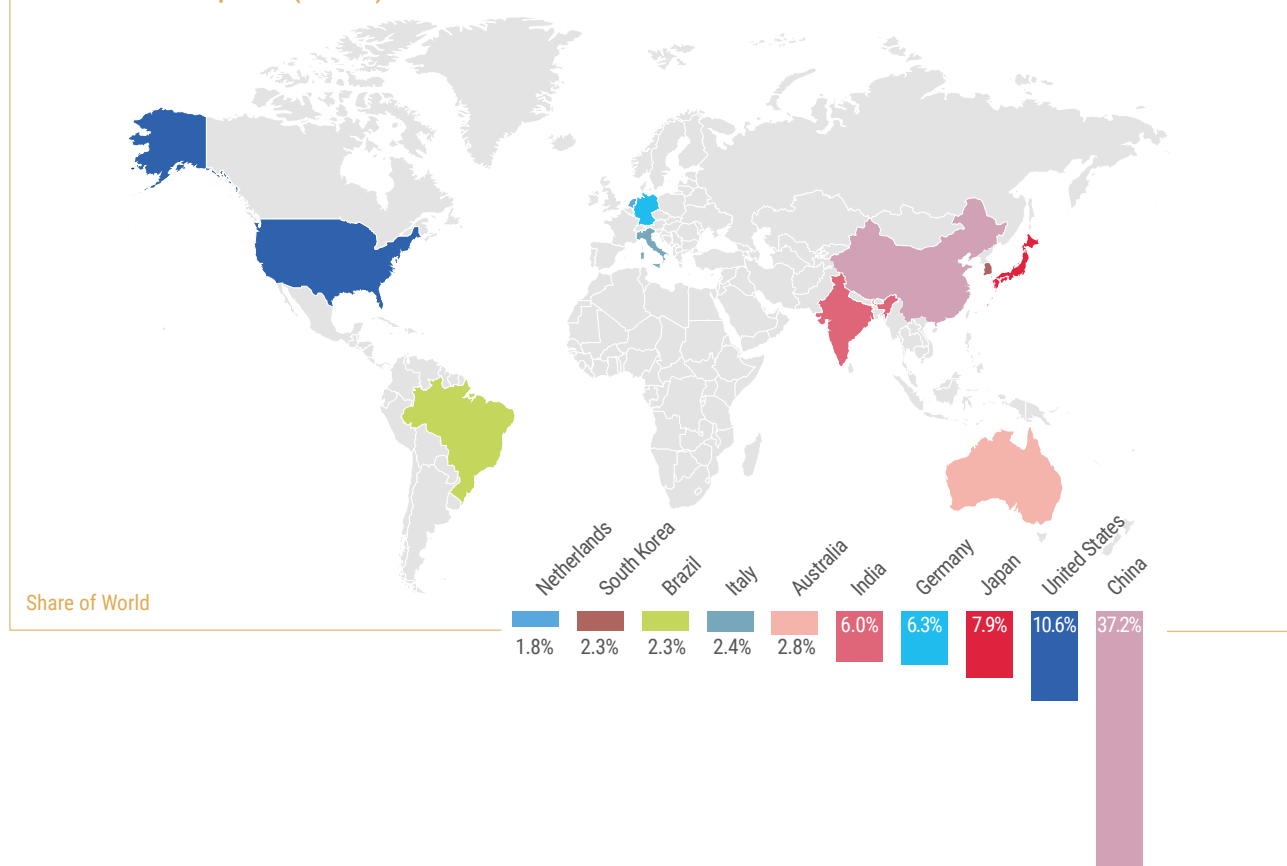
# Solar Photovoltaic Power Capacity

## The World Top 10<sup>(\*)</sup>

(MW)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
China	1,022	43,538	77,788	130,801	175,016	204,575	253,418	306,403	392,436	28.1%	64.2%
United States	2,909	22,479	33,676	42,012	50,229	59,829	74,693	93,911	111,535	18.8%	35.5%
Japan	3,618	34,150	42,040	49,500	56,162	63,192	71,868	78,413	83,055	5.9%	29.8%
Germany	18,004	39,222	40,677	42,291	45,156	48,912	53,669	59,371	66,662	12.3%	11.5%
India	69	5,368	9,654	17,928	27,156	34,908	39,089	49,388	62,850	27.3%	76.5%
Australia	1,088	5,943	6,686	7,288	11,362	16,144	20,835	25,754	29,676	15.2%	31.7%
Italy	3,592	18,901	19,283	19,682	20,108	20,865	21,650	22,594	25,077	11.0%	17.6%
Brazil	1	46	128	1,207	2,435	4,635	8,291	14,197	24,079	69.6%	134.9%
South Korea	650	3,845	4,882	6,435	8,921	12,717	17,323	21,264	24,078	13.2%	35.1%
Netherlands	90	1,526	2,135	2,911	4,608	7,226	11,108	14,911	18,849	26.4%	56.1%
<b>The World Top 10</b>	<b>31,042</b>	<b>175,018</b>	<b>236,948</b>	<b>320,055</b>	<b>401,153</b>	<b>473,003</b>	<b>571,944</b>	<b>686,206</b>	<b>838,296</b>	<b>22.2%</b>	<b>31.6%</b>
Rest of the World	9,269	49,197	59,388	71,225	85,611	116,426	149,601	179,821	216,733	20.5%	30.0%
<b>World</b>	<b>40,311</b>	<b>224,215</b>	<b>296,336</b>	<b>391,280</b>	<b>486,764</b>	<b>589,429</b>	<b>721,546</b>	<b>866,027</b>	<b>1,055,029</b>	<b>21.8%</b>	<b>31.3%</b>

## The World Top 10 (2022)



<sup>(\*)</sup> Data source: Eni's calculations on IRENA (2023), *Renewable Energy Statistics 2023*, International Renewable Energy Agency, Abu Dhabi, data.

# Solar Photovoltaic Power Capacity

## Countries<sup>(\*)</sup>

(MW)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
Europe	30,124	97,538	104,691	113,404	124,346	146,052	167,245	196,005	232,383	18.6%	18.6%
Albania	0	1	1	1	1	14	21	23	29	24.3%	42.7%
Austria	89	937	1,096	1,269	1,455	1,702	2,043	2,783	3,548	27.5%	36.0%
Belarus		6	47	80	154	154	160	163	273	66.8%	
Belgium	1,007	3,132	3,329	3,621	4,000	4,637	5,573	6,012	6,898	14.7%	17.4%
Bosnia Herzegovina	0	8	14	16	18	22	35	57	107	90.2%	63.2%
Bulgaria	25	1,028	1,030	1,031	1,033	1,044	1,100	1,275	1,948	52.8%	43.8%
Croatia	0	48	56	60	68	85	109	138	182	31.8%	70.6%
Cyprus	7	76	84	110	118	151	229	315	431	37.0%	41.0%
Czech Republic	1,727	2,075	2,068	2,075	2,081	2,111	2,172	2,246	2,627	17.0%	3.6%
Denmark	7	782	851	906	998	1,080	1,304	1,704	3,122	83.2%	66.3%
Estonia	0	7	10	15	32	121	208	395	535	35.5%	104.5%
Finland	7	17	39	82	140	222	318	425	591	39.0%	44.7%
France	1,044	7,138	7,702	8,610	9,672	10,808	12,056	14,810	17,410	17.6%	26.4%
Germany	18,004	39,222	40,677	42,291	45,156	48,912	53,669	59,371	66,662	12.3%	11.5%
Greece	202	2,604	2,604	2,606	2,652	2,834	3,288	4,277	5,557	29.9%	31.8%
Hungary	2	172	235	344	728	1,400	2,131	2,968	2,988	0.7%	83.9%
Iceland		3	4	4	5	7	7	7	7	0.0%	
Ireland	1	2	6	17	32	57	90	135	135	0.0%	55.2%
Italy	3,592	18,901	19,283	19,682	20,108	20,865	21,650	22,594	25,077	11.0%	17.6%
Kosovo		0	2	7	7	10	10	14	20	39.6%	
Latvia			1	1	2	3	5	7	56	684.8%	
Lithuania	0	69	70	74	82	103	164	255	568	122.7%	105.5%
Luxembourg	29	116	122	128	131	160	187	277	319	15.2%	22.0%
Malta	1	75	94	112	132	155	188	206	221	7.5%	59.8%
Moldova		1	2	2	3	5	4	14	60	316.6%	
Montenegro							3	3	22	763.8%	
Netherlands	90	1,526	2,135	2,911	4,608	7,226	11,108	14,911	18,849	26.4%	56.1%
North Macedonia		17	17	17	17	17	85	85	85	0.0%	
Norway	9	15	27	45	68	120	160	205	321	56.5%	34.6%
Poland		108	187	287	562	1,539	3,955	7,416	11,167	50.6%	
Portugal	134	447	513	579	667	901	1,100	1,646	2,536	54.1%	27.8%
Romania	0	1,326	1,372	1,374	1,386	1,398	1,383	1,394	1,414	1.4%	121.8%
Serbia	3	16	17	18	21	23	31	52	137	164.3%	36.4%
Slovakia	19	533	533	528	472	590	535	537	537	0.0%	32.1%
Slovenia	12	238	233	247	247	278	370	461	632	37.1%	39.1%
Spain	3,873	4,704	4,713	4,723	4,764	8,807	10,136	13,715	18,214	32.8%	13.8%
Sweden	11	104	153	244	428	714	1,107	1,606	2,606	62.3%	57.7%
Switzerland	125	1,394	1,664	1,906	2,173	2,498	2,973	3,655	4,340	18.7%	34.4%
Türkiye	6	249	833	3,421	5,063	5,995	6,667	7,816	9,425	20.6%	85.4%
Ukraine	3	841	955	1,200	2,003	5,936	7,331	8,062	8,062	0.0%	96.1%
United Kingdom	95	9,601	11,914	12,760	13,059	13,345	13,579	13,965	14,660	5.0%	52.2%
Others Europe		0	0	0	1	2	3	5	5	0.0%	

<sup>(\*)</sup> Data source: Eni's calculations on IRENA (2023), *Renewable Energy Statistics 2023*, International Renewable Energy Agency, Abu Dhabi, data.

# Solar Photovoltaic Power Capacity

## Countries<sup>(\*)</sup>

(MW)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
<b>Russia and Central Asia</b>	0	124	162	319	801	1,879	2,433	3,015	3,524	16.9%	117.8%
Russia	0	61	76	225	535	1,276	1,428	1,661	1,816	9.3%	174.3%
Armenia			1	2	17	21	51	146	235	61.0%	
Azerbaijan	0	5	25	28	35	33	35	48	51	6.3%	53.4%
Georgia			0	1	1	3	5	18	23	27.2%	
Kazakhstan		57	57	59	209	542	912	1,038	1,146	10.5%	
Tajikistan							0	0	0	0.0%	
Uzbekistan		1	2	3	4	4	4	104	253	144.0%	
<b>Middle East</b>	85	994	1,489	2,118	3,313	5,837	7,269	9,516	12,795	34.5%	51.9%
Bahrain	0	5	6	6	6	9	10	11	12	3.1%	94.4%
Iran	0	9	43	184	286	346	430	456	539	18.3%	82.7%
Iraq		37	37	37	37	37	37	37	42	12.1%	
Israel	70	790	900	1,000	1,340	1,890	2,410	3,349	4,169	24.5%	40.6%
Jordan	0	6	287	397	700	1,186	1,448	1,521	1,914	25.9%	166.4%
Kuwait		3	21	21	32	33	33	33	33	0.0%	
Lebanon	0	11	24	37	55	76	90	190	440	131.7%	82.0%
Oman		2	2	8	26	26	129	155	655	322.4%	
Qatar		4	5	5	5	5	5	5	805		
Saudi Arabia	2	24	24	34	34	59	59	389	390	0.1%	53.1%
Syria				0	1	2	12	33	60	81.8%	
United Arab Emirates	11	31	35	253	500	1,835	2,232	2,902	3,288	13.3%	61.0%
Yemen	1	60	80	100	250	250	257	257	257	0.0%	58.7%
Others Middle East		12	25	35	40	82	117	178	192	7.9%	

(\*) Data source: Eni's calculations on IRENA (2023), *Renewable Energy Statistics 2023*, International Renewable Energy Agency, Abu Dhabi, data.

# Solar Photovoltaic Power Capacity

## Countries<sup>(\*)</sup>

(MW)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
<b>Africa</b>	<b>174</b>	<b>1,887</b>	<b>3,001</b>	<b>4,648</b>	<b>7,110</b>	<b>8,403</b>	<b>9,748</b>	<b>10,543</b>	<b>11,415</b>	<b>8.3%</b>	<b>41.7%</b>
Algeria		66	305	398	423	423	423	423	435	2.8%	
Angola		0	0	0	0	1	1	1	285		
Benin		1	3	3	3	3	3	3	28	850.3%	
Cameroon	1	7	9	12	14	14	14	14	14	0.0%	24.8%
Chad	0	0	0	0	0	0	1	1	1	0.0%	63.4%
Congo		0	0	0	0	0	1	1	1	0.0%	
Côte d'Ivoire		0	0	1	2	4	6	8	8	0.0%	
Dem. Rep. Congo		1	3	5	20	20	20	20	20	0.0%	
Egypt	15	16	39	160	744	1,627	1,623	1,643	1,704	3.7%	48.3%
Equatorial Guinea			0	0	0	0	0	0	0,18	0.0%	
Ethiopia	0	10	14	12	12	12	20	21	21	0.0%	73.7%
Gabon		0	0	0	0	0	1	1	1	0.0%	
Ghana		34	38	44	71	82	106	110	110	0.0%	
Kenya	0	31	36	46	106	127	147	217	307	41.2%	84.6%
Libya	4	5	5	5	5	5	5	6	6	0.0%	4.6%
Madagascar	2	9	11	13	33	33	33	33	33	0.0%	29.3%
Mauritania		18	35	35	87	88	88	88	89	1.7%	
Morocco	14	20	22	24	194	194	234	314	314	0.0%	29.9%
Mozambique		10	13	16	16	56	61	64	108	68.8%	
Namibia	4	21	36	75	99	151	151	151	176	16.5%	36.5%
Niger	2	7	8	9	27	27	27	27	62	129.4%	32.6%
Nigeria	0	10	14	19	23	35	50	69	73	5.8%	
Rwanda	0	11	12	17	22	25	25	25	25	0.0%	46.9%
Senegal	3	9	38	109	150	173	173	240	263	9.6%	44.0%
Sierra Leone	0	0	0	4	4	4	4	4	9	113.3%	46.8%
Somalia		0	5	7	7	7	16	24	47	99.8%	
South Africa	2	1,253	1,976	3,151	4,405	4,408	5,494	5,816	5,826	0.2%	94.6%
South Sudan		0	0	0	1	1	1	1	14		
Sudan	2	20	26	36	59	80	117	136	190	39.7%	44.6%
Tanzania	0	13	12	13	17	15	15	15	15	0.0%	67.6%
Tunisia	2	28	38	47	64	80	95	95	197	107.7%	47.8%
Uganda	15	22	24	44	67	78	88	90	94	3.4%	16.5%
Zambia		0	0	0	1	96	96	96	96	0.0%	
Zimbabwe	0	3	3	5	9	12	14	28	41	47.6%	128.8%
Others Africa	108	262	274	336	422	519	592	758	801	5.7%	18.2%

<sup>(\*)</sup> Data source: Eni's calculations on IRENA (2023), *Renewable Energy Statistics 2023*, International Renewable Energy Agency, Abu Dhabi, data.

# Solar Photovoltaic Power Capacity

## Countries<sup>(\*)</sup>

(MW)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
Asia - Pacific	6,629	96,450	147,208	219,448	287,838	348,260	433,863	516,096	632,053	22.5%	46.2%
Afghanistan	0	19	20	22	22	31	31	31	33	6.6%	61.7%
Australia	1,088	5,943	6,686	7,288	11,362	16,144	20,835	25,754	29,676	15.2%	31.7%
Bangladesh	32	196	165	217	240	280	343	506	563	11.3%	26.9%
Bhutan	0	0	0	0	0	0	0	0	0	0.0%	4.3%
Brunei	1	1	1	1	1	1	1	5	5	0.6%	12.4%
China	1,022	43,538	77,788	130,801	175,016	204,575	253,418	306,403	392,436	28.1%	64.2%
East Timor	0	1	1	0	0	0	0	0	0	27.4%	10.4%
Hong Kong				1	1	89	91	95	185	93.8%	
India	69	5,368	9,654	17,928	27,156	34,908	39,089	49,388	62,850	27.3%	76.5%
Indonesia	15	79	88	97	65	155	185	225	313	39.0%	29.1%
Japan	3,618	34,150	42,040	49,500	56,162	63,192	71,868	78,413	83,055	5.9%	29.8%
Malaysia	1	266	344	394	545	894	1,483	1,787	1,933	8.2%	97.6%
Mongolia	5	5	15	48	64	89	95	95	95	0.0%	28.7%
Myanmar	0	21	32	44	48	88	84	80	103	28.5%	58.9%
Nepal	4	13	14	55	55	54	70	97	117	20.9%	31.7%
New Zealand	3	37	53	71	91	115	144	191	257	34.3%	44.9%
North Korea	1	23	32	35	38	42	42	52	52	0.0%	39.5%
Pakistan	9	266	590	655	680	755	854	1,077	1,243	15.4%	50.4%
Papua New Guinea	0	1	1	1	1	3	3	4	4	6.6%	22.5%
Philippines	2	173	784	908	917	980	1,056	1,375	1,623	18.0%	74.6%
Singapore	3	46	97	116	161	272	333	487	572	17.4%	54.9%
South Korea	650	3,845	4,882	6,435	8,921	12,717	17,323	21,264	24,078	13.2%	35.1%
Sri Lanka	7	37	80	156	231	351	431	624	714	14.4%	47.1%
Taiwan	35	884	1,245	1,768	2,738	4,150	5,817	7,700	9,724	26.3%	60.0%
Thailand	49	1,420	2,446	2,697	2,962	2,983	2,983	3,060	3,060	0.0%	41.2%
Vietnam	5	5	5	8	105	4,994	16,661	16,661	18,475	10.9%	100.0%
Others Asia - Pacific	10	114	145	200	254	398	622	722	887	23.0%	44.8%

<sup>(\*)</sup> Data source: Eni's calculations on IRENA (2023), *Renewable Energy Statistics 2023*, International Renewable Energy Agency, Abu Dhabi, data.

# Solar Photovoltaic Power Capacity

## Countries<sup>(\*)</sup>

(MW)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
<b>Americas</b>	<b>3,299</b>	<b>27,222</b>	<b>39,785</b>	<b>51,344</b>	<b>63,356</b>	<b>78,999</b>	<b>100,986</b>	<b>130,852</b>	<b>162,860</b>	<b>24.5%</b>	<b>38.4%</b>
Argentina	2	11	11	11	194	443	766	1,073	1,108	3.2%	71.3%
Barbados	1	3	15	16	17	33	49	64	69	7.8%	42.3%
Belize	0	0	0	1	1	7	7	7	7	0.0%	108.0%
Bolivia	3	6	6	11	70	120	120	170	171	0.2%	40.1%
Brazil	1	46	128	1,207	2,435	4,635	8,291	14,197	24,079	69.6%	134.9%
Canada	249	2,519	2,665	2,932	3,095	3,327	3,609	4,554	5,326	16.9%	29.1%
Chile		576	1,125	1,809	2,137	2,654	3,205	4,360	6,142	40.9%	
Colombia	1	1	2	11	13	26	86	204	491	141.0%	64.3%
Costa Rica	1	9	14	20	33	48	57	74	74	0.0%	49.5%
Cuba		24	37	65	128	159	217	246	258	4.9%	
Curacao	0	10	11	11	12	12	13	13	13	0.0%	68.6%
Dominican Republic		27	76	109	201	328	402	616	777	26.2%	
Ecuador	0	26	26	26	27	28	28	28	29	3.6%	83.2%
El Salvador	0	11	12	110	167	446	485	543	553	1.9%	119.6%
Guatemala	1	93	93	101	101	101	101	101	105	3.5%	53.7%
Guyana	0	4	4	6	6	8	8	8	8	0.0%	38.1%
Haiti	1	2	2	3	3	3	3	3	3	0.0%	14.2%
Honduras	4	396	412	455	515	518	525	529	529	0.0%	51.1%
Jamaica	1	7	28	56	56	93	93	93	93	0.1%	45.8%
Mexico	30	287	633	1,126	2,567	4,727	6,695	8,163	9,339	14.4%	61.4%
Nicaragua		1	1	14	14	16	16	16	16	0.0%	
Panama	2	49	93	147	188	219	229	465	551	18.5%	60.6%
Paraguay	0	0	0	0	0	0	0	0	1	677.3%	80.1%
Peru	13	135	146	298	324	335	335	332	332	0.0%	31.4%
Suriname	0	6	7	8	8	8	9	9	12	29.1%	43.3%
Trinidad and Tobago	3	4	4	4	4	4	4	4	4	0.0%	3.1%
United States	2,909	22,479	33,676	42,012	50,229	59,829	74,693	93,911	111,535	18.8%	35.5%
Uruguay	0	64	89	243	248	253	258	266	279	4.8%	88.0%
Venezuela	2	5	5	5	4	5	5	5	5	0.0%	9.0%
Others Americas	78	420	464	531	560	614	679	797	951	19.4%	23.2%

<sup>(\*)</sup> Data source: Eni's calculations on IRENA (2023), *Renewable Energy Statistics 2023*, International Renewable Energy Agency, Abu Dhabi, data.

# Solar Photovoltaic Power Generation

## Areas and Aggregates<sup>(\*)</sup>

(GWh)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)**	CAGR (2022-2010)**
Europe	22,599	104,631	108,810	118,970	131,954	145,278	172,992	194,604		12.5%	21.6%
Russia and Central Asia		459	634	758	1,162	2,215	3,696	4,203		13.7%	
Middle East	95	1,428	2,376	3,439	5,101	9,916	13,449	16,640		23.7%	59.9%
Africa	350	2,623	3,805	5,254	7,024	10,969	12,721	14,321		12.6%	40.1%
Asia - Pacific	5,554	98,023	149,607	223,789	309,972	391,941	467,635	588,026		25.7%	52.8%
Americas	3,406	37,740	55,894	79,641	99,279	123,914	155,209	202,646		30.6%	45.0%
- North America	3,318	34,986	50,663	71,285	85,351	98,359	120,692	154,196	192,337	24.7%	40.3%
- Central South America	88	2,754	5,231	8,356	13,928	25,555	34,517	48,450		40.4%	77.5%
<b>World</b>	<b>32,004</b>	<b>244,904</b>	<b>321,126</b>	<b>431,851</b>	<b>554,492</b>	<b>684,233</b>	<b>825,702</b>	<b>1,020,440</b>		<b>23.6%</b>	<b>37.0%</b>
European Union 27	22,465	95,264	95,458	102,051	108,200	118,202	140,127	158,588	205,108	29.3%	20.2%
MENA	308	1,728	3,161	4,690	7,619	15,669	19,790	23,165		17.1%	48.1%
OECD	30,708	181,914	217,176	262,525	302,524	350,367	422,700	503,659	620,013	23.1%	28.5%
NON OECD	1,296	62,990	103,950	169,326	251,968	333,866	403,002	516,781		28.2%	72.4%
OPEC	30	266	303	1,327	2,147	5,232	7,100	8,193		15.4%	66.5%
NON OPEC	31,974	244,638	320,823	430,524	552,345	679,001	818,602	1,012,247		23.7%	36.9%

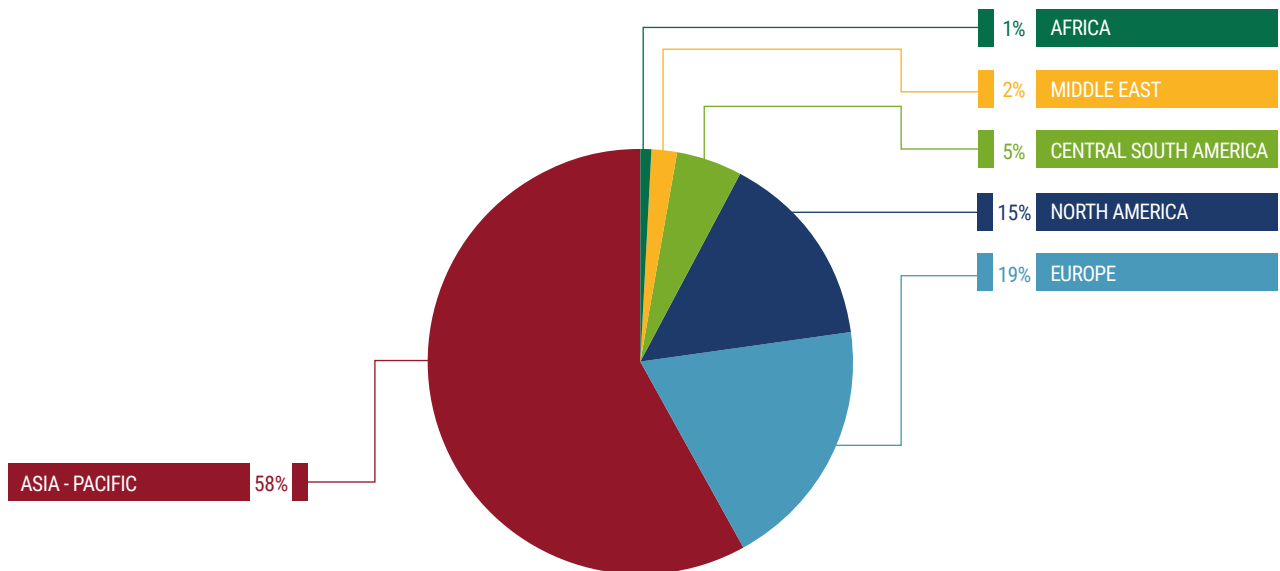
<sup>(\*)</sup> Data source: Eni's calculations on IEA (2023) *Extended Balances* data. All rights reserved.

<sup>(\*\*)</sup> When 2022 data is missing, the figure refers to the latest available years.

# Solar Photovoltaic Power Generation

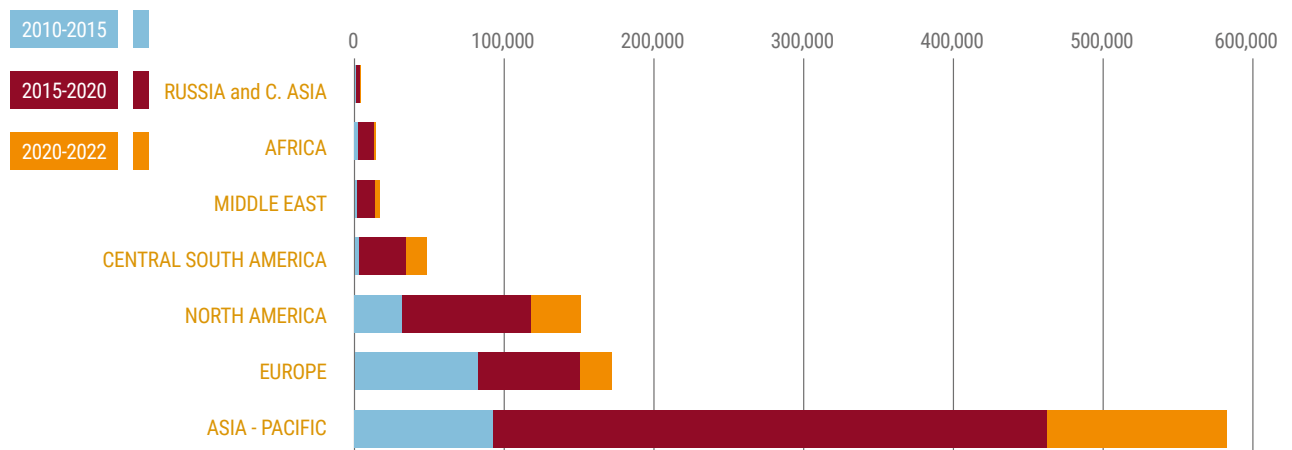
## World Solar Photovoltaic Power Generation (2021)

1,020,440 GWh



## World Solar Photovoltaic Power Generation Growth (2010-2021)

988,436 GWh





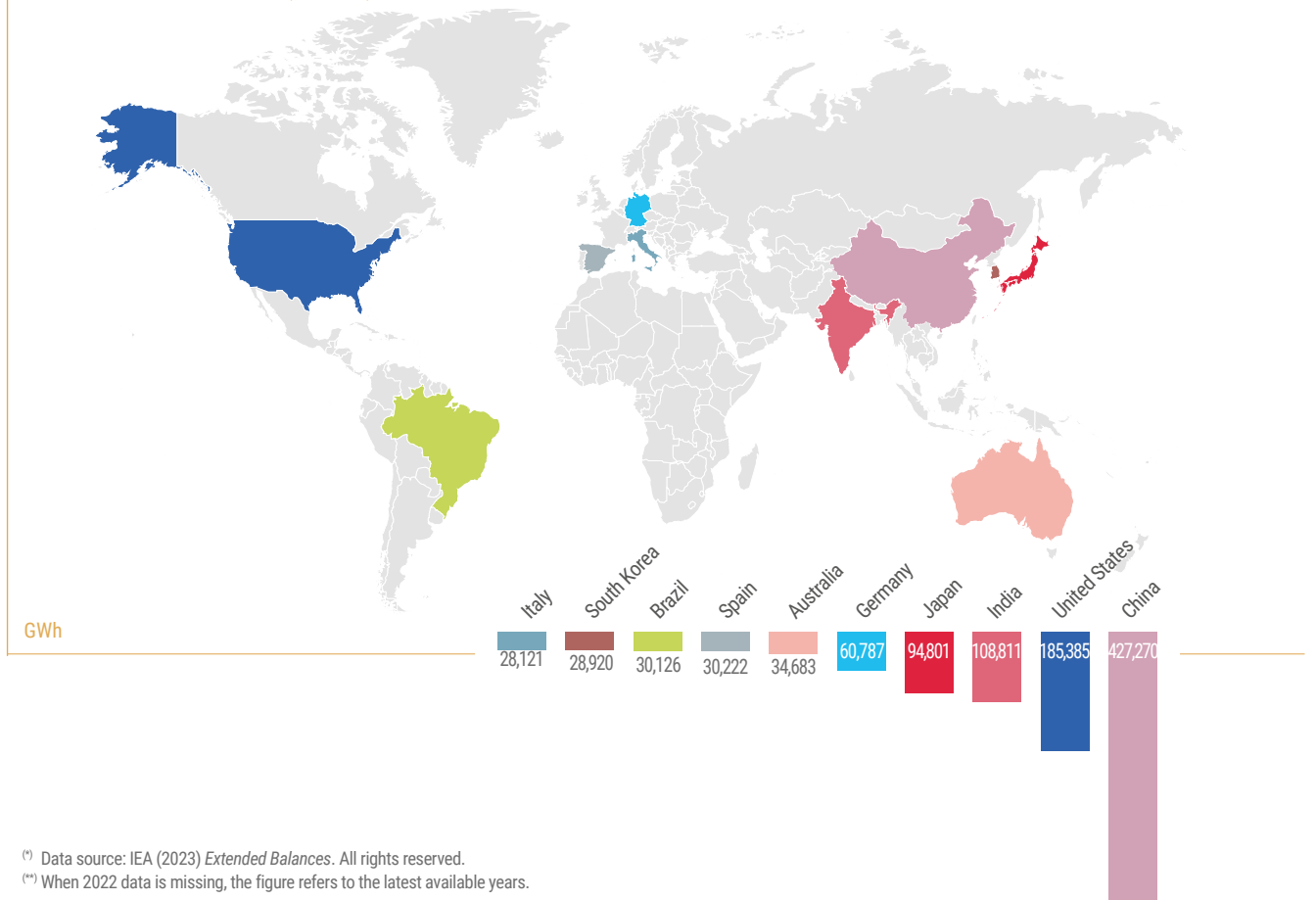
# Solar Photovoltaic Power Generation

## The World Top 10<sup>(\*)</sup>

(GWh)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)**	CAGR (2022-2010)**
China	699	39,500	66,500	117,800	176,900	224,300	260,500	327,000	427,270	30.7%	70.7%
United States	3,063	32,091	46,633	67,393	81,244	93,944	115,902	148,153	185,385	25.1%	40.8%
India	54	10,401	18,867	26,331	40,358	51,387	62,042	75,566	108,811	44.0%	88.5%
Japan	3,543	34,803	45,761	55,069	62,668	69,382	79,087	86,094	94,801	10.1%	31.5%
Germany	11,729	38,726	38,098	39,401	43,459	44,383	49,496	49,340	60,787	23.2%	14.7%
Australia	386	5,019	6,205	8,066	9,925	14,842	21,028	27,712	34,683	25.2%	45.5%
Spain	6,425	8,266	8,064	8,514	7,877	9,420	15,675	21,922	30,222	37.9%	13.8%
Brazil		59	85	832	3,461	6,655	10,748	16,752	30,126	79.8%	
South Korea	772	3,975	5,123	7,056	9,208	12,996	17,967	23,395	28,920	23.6%	35.2%
Italy	1,906	22,942	22,104	24,378	22,654	23,689	24,942	25,039	28,121	12.3%	25.1%
<b>The World Top 10</b>	<b>28,577</b>	<b>195,782</b>	<b>257,440</b>	<b>354,840</b>	<b>457,754</b>	<b>550,998</b>	<b>657,387</b>	<b>800,973</b>	<b>1,029,126</b>	<b>28.5%</b>	<b>34.8%</b>
Rest of the World	3,427	49,122	63,686	77,011	96,738	133,235	168,315	219,467		30.4%	46.0%
<b>World</b>	<b>32,004</b>	<b>244,904</b>	<b>321,126</b>	<b>431,851</b>	<b>554,492</b>	<b>684,233</b>	<b>825,702</b>	<b>1,020,440</b>		<b>23.6%</b>	<b>37.0%</b>

## The World Top 10 (2022)



(\*) Data source: IEA (2023) *Extended Balances*. All rights reserved.

(\*\*) When 2022 data is missing, the figure refers to the latest available years.

# Solar Photovoltaic Power Generation

## Countries<sup>(\*)</sup>

(GWh)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Δ y/y (2022-2021)**	CAGR (2022-2010)**
Europe	22,599	104,631	108,810	118,970	131,954	145,278	172,992	194,604		12.5%	21.6%
Albania				1	1	22	32	41	43	4.9%	
Austria	89	937	1,096	1,269	1,455	1,702	2,043	2,783	3,792	36.3%	36.7%
Belarus		8	28	89	177	181	176	172		-2.3%	
Belgium	560	3,057	3,095	3,308	3,903	4,253	5,112	5,618	7,062	25.7%	23.5%
Bosnia Herzegovina			24	21	21	30	45	72	117	62.5%	
Bulgaria	15	1,382	1,388	1,403	1,343	1,417	1,469	1,467	1,884	28.4%	49.6%
Croatia		57	66	79	75	83	96	149	152	2.0%	
Cyprus	7	127	146	172	199	218	296	468	606	29.5%	45.0%
Czech Republic	616	2,264	2,131	2,199	2,365	2,337	2,338	2,316	2,614	12.9%	12.8%
Denmark	6	604	744	751	953	963	1,181	1,309	2,203	68.3%	63.6%
Estonia			10	14	31	74	245	354	560	58.2%	
Finland	5	11	22	49	90	147	218	298	380	27.5%	43.5%
France	620	7,754	8,660	9,587	10,925	12,330	13,459	15,732	20,607	31.0%	33.9%
Germany	11,729	38,726	38,098	39,401	43,459	44,383	49,496	49,340	60,787	23.2%	14.7%
Gibraltar											
Greece	158	3,900	3,930	3,991	3,791	4,429	4,447	5,251	6,955	32.5%	37.1%
Hungary	1	141	244	349	629	1,497	2,459	3,796	4,682	23.3%	102.2%
Iceland											
Ireland		4	6	12	22	40	62	93	116	24.7%	
Italy	1,906	22,942	22,104	24,378	22,654	23,689	24,942	25,039	28,121	12.3%	25.1%
Kosovo				1	2	11	12	16	14	-12.5%	
Latvia					1	3	5	7	41	485.7%	
Lithuania		73	66	68	87	91	129	191	342	79.1%	
Luxembourg	21	104	100	108	119	130	161	180	230	27.8%	22.1%
Malta	1	95	128	162	190	195	237	256	289	12.9%	60.4%
Moldova		2	2	2	3	3	4	10	30	200.0%	
Montenegro							2	3	3	0.0%	
Netherlands	56	1,108	1,602	2,204	3,708	5,399	8,568	11,495	16,827	46.4%	60.9%
North Macedonia		23	24	24	23	23	24	25	33	32.0%	
Norway					2	13	136	175	241	37.7%	
Poland		57	124	165	300	711	1,958	3,934	8,136	106.8%	
Portugal	211	796	871	992	1,006	1,342	1,716	2,237	3,471	55.2%	26.3%
Romania		1,982	1,820	1,856	1,771	1,778	1,733	1,703	1,771	4.0%	
Serbia		11	12	13	13	14	13	14	16	14.3%	
Slovakia	17	506	533	506	585	589	663	671	650	-3.1%	35.5%
Slovenia	13	274	267	284	255	303	368	453	645	42.4%	38.5%
Spain	6,425	8,266	8,064	8,514	7,877	9,420	15,675	21,922	30,222	37.9%	13.8%
Sweden	9	97	143	230	407	679	1,051	1,526	1,963	28.6%	56.6%
Switzerland	94	1,119	1,333	1,683	1,945	2,178	2,599	2,842	3,684	29.6%	35.8%
Türkiye		194	1,043	2,889	7,800	9,250	10,950	13,943	15,226	9.2%	
Ukraine		477	491	739	1,099	2,933	5,969	6,565		10.0%	
United Kingdom	40	7,533	10,395	11,457	12,668	12,418	12,903	12,138	13,921	14.7%	62.9%

(\*) Data source: Eni's calculations on IEA (2023) *Extended Balances* data. All rights reserved.

(\*\*) When 2022 data is missing, the figure refers to the latest available years.

# Solar Photovoltaic Power Generation

## Countries<sup>(\*)</sup>

(GWh)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)**	CAGR (2022-2010)**
<b>Russia and Central Asia</b>		459	634	758	1,162	2,215	3,696	4,203		13.7%	
Russia		335	462	558	720	1,279	2,022	2,225		10.0%	
Armenia		1	1	3	19	61	137	294		114.6%	
Azerbaijan		5	35	37	39	44	47	55	61	10.9%	
Kazakhstan		118	136	160	384	831	1,490	1,629		9.3%	
Tajikistan								1			

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)**	CAGR (2022-2010)**
<b>Middle East</b>	95	1,428	2,376	3,439	5,101	9,916	13,449	16,640		23.7%	59.9%
Bahrain					8	10	10	12		20.0%	
Iran		1	4	86	340	673	584	619		6.0%	
Iraq		57	57	57	57	57	57	57		0.0%	
Israel	70	1,115	1,544	1,511	1,574	2,609	3,525	4,574	6,578	43.8%	46.0%
Jordan		2	422	908	1,426	2,059	2,521	3,290		30.5%	
Kuwait		5	9	13	20	20	20	20		0.0%	
Lebanon	1	17	37	56	86	121	141	306		117.0%	68.3%
Oman		4	4	16	16	17	211	261		23.7%	
Saudi Arabia	4	46	46	65	65	320	779	805		3.3%	62.0%
United Arab Emirates	18	56	55	488	965	3,426	4,933	5,982		21.3%	69.5%
Yemen	2	116	155	194	484	484	490	490		0.0%	64.9%
Others Middle East		9	43	45	60	120	178	224		25.8%	

(\*) Data source: Eni's calculations on IEA (2023) *Extended Balances* data. All rights reserved.

(\*\*) When 2022 data is missing, the figure refers to the latest available years.

# Solar Photovoltaic Power Generation

## Countries<sup>(\*)</sup>

(GWh)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)**	CAGR (2022-2010)**
<b>Africa</b>	<b>350</b>	<b>2,623</b>	<b>3,805</b>	<b>5,254</b>	<b>7,024</b>	<b>10,969</b>	<b>12,721</b>	<b>14,321</b>		<b>12.6%</b>	<b>40.1%</b>
Algeria		58	87	572	655	675	665	640		-3.8%	
Benin		5	5	5	5	8	7	17	17	0.0%	
Cameroon	1	10	12	16	20	20	45	46		2.2%	41.6%
Congo		1	1	1	1	1	1	1		0.0%	
Côte d'Ivoire	2	5	5	7	7	11	18	18	18	0.0%	0.0%
Dem. Rep. Congo		1	5	7	28	28	30	30		0.0%	
Egypt	206	168	580	537	1,525	4,430	4,945	4,875	4,635	-4.9%	-3.2%
Ethiopia		18	21	22	20	20	32	34		6.3%	
Gabon		2	2	2	2	2	2	2		0.0%	
Ghana		3	27	28	33	51	57	128		124.6%	
Kenya	3	50	60	73	90	92	88	167	384	129.9%	108.9%
Libya	6	8	8	8	8	8	8	9		12.5%	12.5%
Madagascar					15	32	34	36		5.9%	
Morocco		1	1	1	156	395	390	534	425	-20.4%	
Mozambique		1	2	2	1	31	70	69		-1.4%	
Namibia	7	39	57	108	233	362	408	476	497	4.4%	10.4%
Niger	3	4	5	10	13	24	24	24		0.0%	0.0%
Nigeria		25	27	28	28	41	42	49		16.7%	
Rwanda		15	21	16	16	18	18	18		0.0%	
Senegal	3	4	6	91	252	329	385	539	842	56.2%	47.9%
South Africa		1,946	2,509	3,249	3,212	3,255	4,071	5,001	4,777	-4.5%	
South Sudan		2	2	3	10	11	11	17		54.5%	
Tanzania		23	33	40	47	42	47	47	47	0.0%	
Tunisia	1	65	109	133	174	245	333	467	322	-31.0%	-1.7%
Uganda	22	32	39	62	71	117	122	125		2.5%	18.7%
Zambia						118	150	148	143	-3.4%	
Zimbabwe							24	18	29	61.1%	
Others Africa	96	137	181	233	402	603	694	786		13.3%	13.3%

(\*) Data source: Eni's calculations on IEA (2023) *Extended Balances* data. All rights reserved.

(\*\*) When 2022 data is missing, the figure refers to the latest available years.

# Solar Photovoltaic Power Generation

## Countries<sup>(\*)</sup>

(GWh)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)**	CAGR (2022-2010)**
Asia - Pacific	5,554	98,023	149,607	223,789	309,972	391,941	467,635	588,026		25.7%	52.8%
Australia	386	5,019	6,205	8,066	9,925	14,842	21,028	27,712	34,683	25.2%	45.5%
Bangladesh		210	233	268	291	347	413	477	534	11.9%	
Brunei		2	1	2	2	2	2	4		100.0%	
China	699	39,500	66,500	117,800	176,900	224,300	260,500	327,000	427,270	30.7%	70.7%
Hong Kong	1	4	4	6	6	17	54	92		70.4%	50.8%
India	54	10,401	18,867	26,331	40,358	51,387	62,042	75,566	108,811	44.0%	88.5%
Indonesia	1	5	21	29	90	118	171	193	444	130.1%	66.2%
Japan	3,543	34,803	45,761	55,069	62,668	69,382	79,087	86,094	94,801	10.1%	31.5%
Malaysia		273	310	330	573	1,404	2,044	2,027		-0.8%	
Mongolia	8	8	8	27	59	117	117	165		41.0%	31.7%
Myanmar		7	11	9	10	19	18	17		-5.6%	
Nepal	6	19	19	78	75	73	96	133		38.5%	32.5%
New Zealand	4	37	57	77	100	128	160	207	259	25.1%	41.6%
North Korea	1	29	41	45	49	53	53	66		24.5%	46.4%
Pakistan		207	630	768	629	705	712	897		26.0%	
Philippines	1	139	1,097	1,201	1,249	1,246	1,373	1,470		7.1%	94.1%
Singapore	5	68	145	174	243	411	502	735	1,236	68.2%	58.3%
South Korea	772	3,975	5,123	7,056	9,208	12,996	17,967	23,395	28,920	23.6%	35.2%
Sri Lanka	17	21	23	141	117	117	118	156		32.2%	22.3%
Taiwan	22	850	1,109	1,667	2,712	4,016	6,075	7,969		31.2%	70.9%
Thailand	20	2,378	3,377	4,543	4,537	5,146	5,031	5,015	5,015	0.0%	58.5%
Vietnam					22	4,818	9,575	27,791		190.2%	
Others Asia-Pacific	14	68	65	102	149	297	497	845		70.0%	45.2%

<sup>(\*)</sup> Data source: Eni's calculations on IEA (2023) *Extended Balances* data. All rights reserved.

<sup>(\*\*)</sup> When 2022 data is missing, the figure refers to the latest available years.

# Solar Photovoltaic Power Generation

## Countries<sup>(\*)</sup>

(GWh)

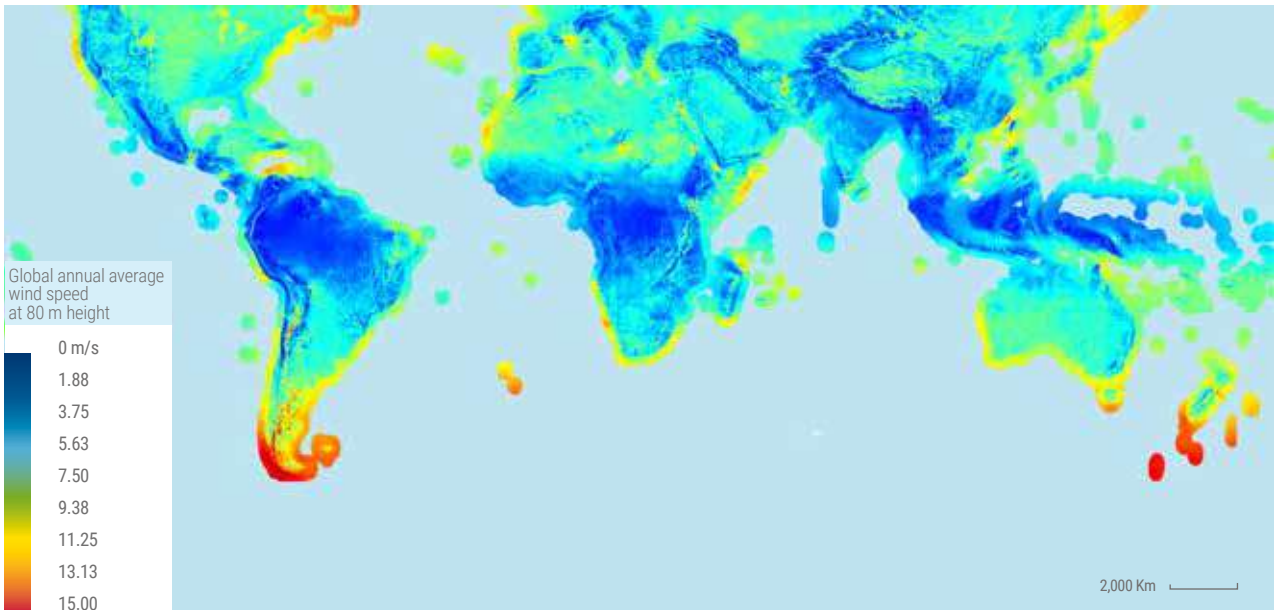
	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)**	CAGR (2022-2010)**
<b>Americas</b>	<b>3,406</b>	<b>37,740</b>	<b>55,894</b>	<b>79,641</b>	<b>99,279</b>	<b>123,914</b>	<b>155,209</b>	<b>202,646</b>		<b>38.3%</b>	<b>45.0%</b>
Argentina		15	14	16	108	800	1,345	2,203	2,941	33.5%	
Bolivia		5	6	6	127	188	332	351	351	0.0%	
Brazil		59	85	832	3,461	6,655	10,748	16,752	30,126	79.8%	
Canada	255	2,895	4,030	3,892	4,107	4,415	4,790	6,043	6,952	15.0%	31.7%
Chile		1,261	2,639	3,915	5,218	6,419	7,971	10,411	14,156	36.0%	
Colombia	8	9	9	14	21	137	201	335	335	0.0%	36.5%
Costa Rica		3	30	40	59	68	70	82	82	0.0%	
Cuba		29	39	58	149	223	233	237		1.7%	
Curaçao		17	19	20	20	25	27	27		0.0%	
Dominican Republic		32	75	139	230	280	312	358		14.7%	
Ecuador		36	39	37	38	38	38	37		-2.6%	
El Salvador		7	24	164	285	490	902	1,076	1,032	-4.1%	
Guatemala		150	193	199	205	232	219	227		3.7%	
Guyana		5	5	7	11	18	12	13		8.3%	
Haiti		2	2	3	3	3	3	3		0.0%	
Honduras	2	441	917	965	1,044	1,176	1,113	1,140		2.4%	78.0%
Jamaica			15	44	46	90	124	132		6.5%	
Mexico	31	239	464	1,084	1,363	7,057	9,115	13,010	14,384	10.6%	66.8%
Nicaragua		2	2	14	24	26	26	27		3.8%	
Panama		16	71	156	233	295	317	586		84.9%	
Peru		230	241	287	750	779	794	802		1.0%	
Suriname		9	9	9	11	11	12	12		0.0%	
Trinidad and Tobago	4	6	6	6	6	6	6	6		0.0%	3.8%
United States	3,063	32,091	46,633	67,393	81,244	93,944	115,902	148,153	185,385	25.1%	40.8%
Uruguay		49	151	269	414	424	462	483	502	3.9%	
Venezuela	2	7	7	7	6	9	9	9		0.0%	14.7%
Others Americas	41	125	169	65	96	106	126	131		4.0%	11.1%

(\*) Data source: Eni's calculations on IEA (2023) *Extended Balances* data. All rights reserved.

(\*\*) When 2022 data is missing, the figure refers to the latest available years.

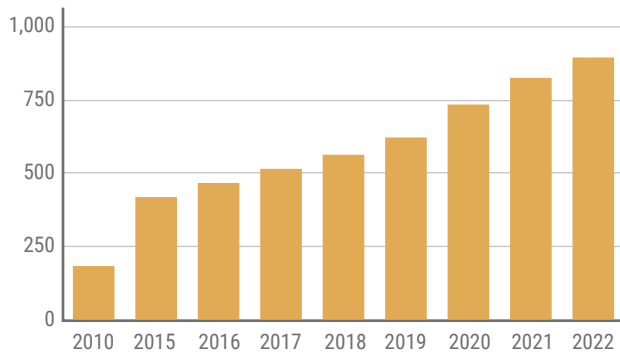
### Wind Resources Map (Average Wind Speed at 80 m height)<sup>(\*)</sup>

(m/s)



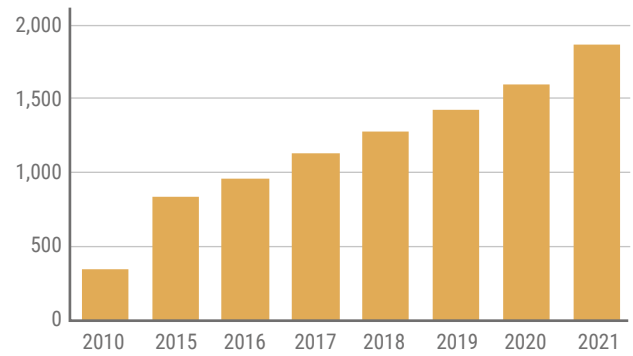
### Wind Power Capacity

(GW)



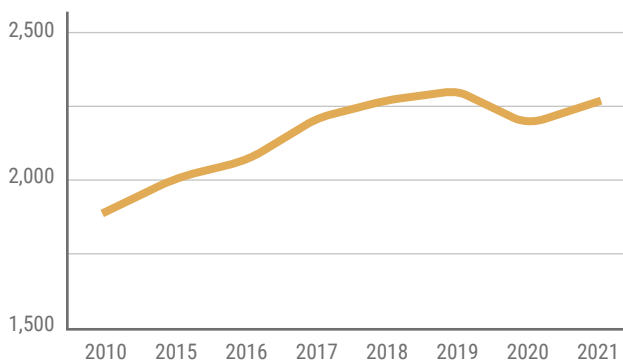
### Wind Power Generation

(TWh)

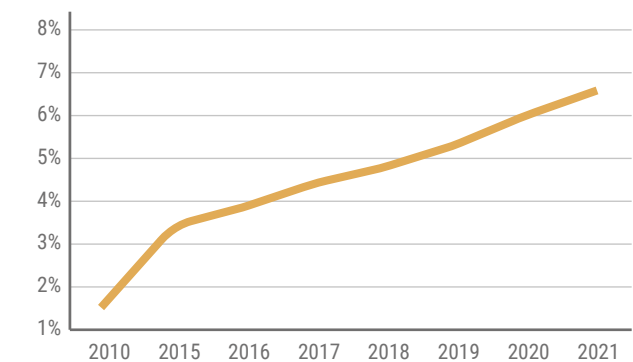


### Capacity Factor

(hours per year - world average)



### Share of Wind on Total Power Generation



<sup>(\*)</sup> IRENA: Global Atlas, Map data: VAISALA, 2022.

# Wind Power Capacity

## Areas and Aggregates<sup>(\*)</sup>

(MW)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
Europe	86,240	147,518	161,478	177,132	188,793	203,701	216,715	232,652	251,681	8.2%	9.3%
Russia and Central Asia	15	93	148	163	263	476	1,522	2,730	3,424	25.5%	57.6%
Middle East	104	286	423	494	609	775	923	1,029	1,053	2.4%	21.3%
Africa	865	3,320	3,831	4,578	5,472	5,529	6,515	7,370	7,687	4.3%	20.0%
Asia - Pacific	48,538	166,655	189,112	211,052	236,124	266,010	342,525	395,593	435,899	10.2%	20.1%
Americas	45,329	98,549	112,021	121,663	132,604	146,289	165,364	186,289	199,112	6.9%	13.1%
- North America	43,317	83,981	93,475	100,081	107,482	117,056	132,300	147,323	156,157	6.0%	11.3%
- Central South America	2,012	14,568	18,546	21,582	25,121	29,233	33,064	38,967	42,955	10.2%	29.1%
<b>World</b>	<b>181,090</b>	<b>416,421</b>	<b>467,013</b>	<b>515,082</b>	<b>563,864</b>	<b>622,779</b>	<b>733,564</b>	<b>825,663</b>	<b>898,856</b>	<b>8.9%</b>	<b>14.3%</b>
European Union 27	78,937	127,174	137,975	148,912	157,211	167,140	177,059	188,371	203,457	8.0%	8.2%
MENA	933	2,088	2,330	2,521	3,219	3,387	3,993	4,395	4,509	2.6%	14.0%
OECD	134,330	239,498	264,664	288,620	308,791	336,755	368,338	400,503	429,399	7.2%	10.2%
NON OECD	46,761	176,924	202,349	226,462	255,072	286,024	365,226	425,160	469,456	10.4%	21.2%
OPEC	95	306	342	413	445	446	472	474	506	6.7%	15.0%
NON OPEC	180,995	416,115	466,671	514,670	563,418	622,333	733,092	825,189	898,350	8.9%	14.3%

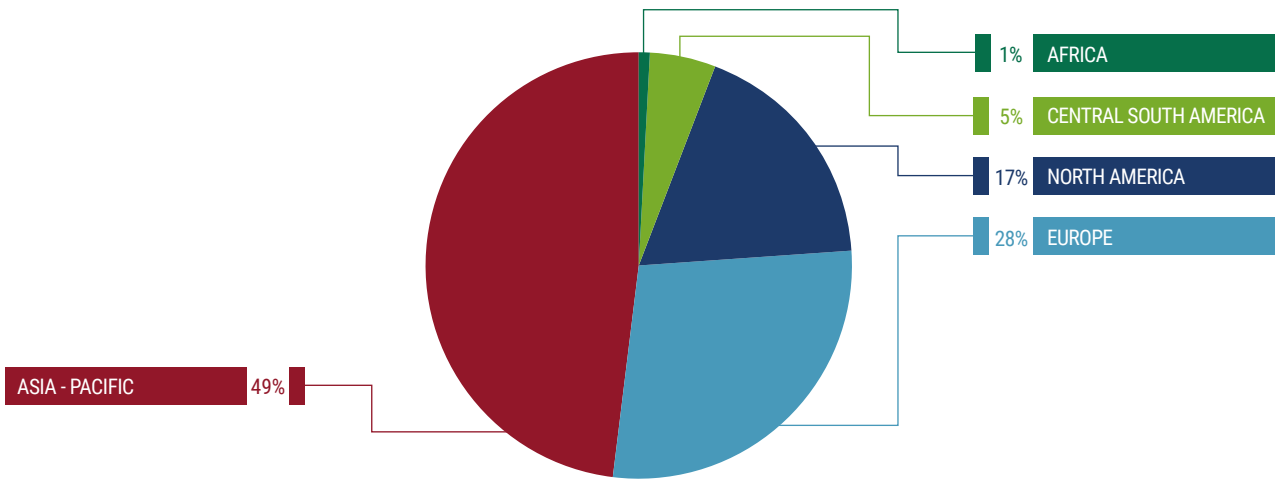
<sup>(\*)</sup>Data source: Eni's calculations on IRENA (2023), *Renewable Energy Statistics 2023*, International Renewable Energy Agency, Abu Dhabi, data.



# Wind Power Capacity

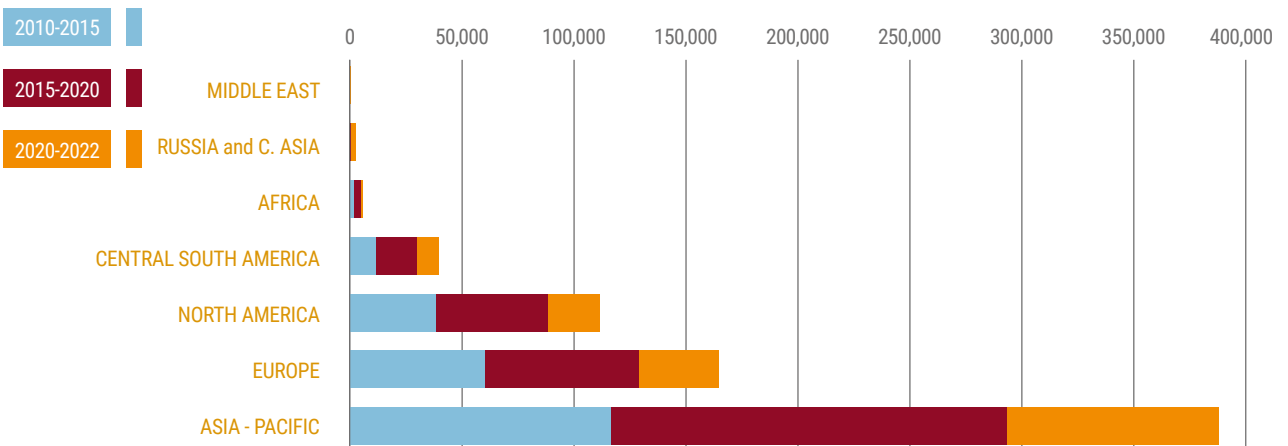
## World Wind Power Capacity (2022)

898,856 MW



## World Wind Power Capacity Growth (2010-2022)

717,766 MW



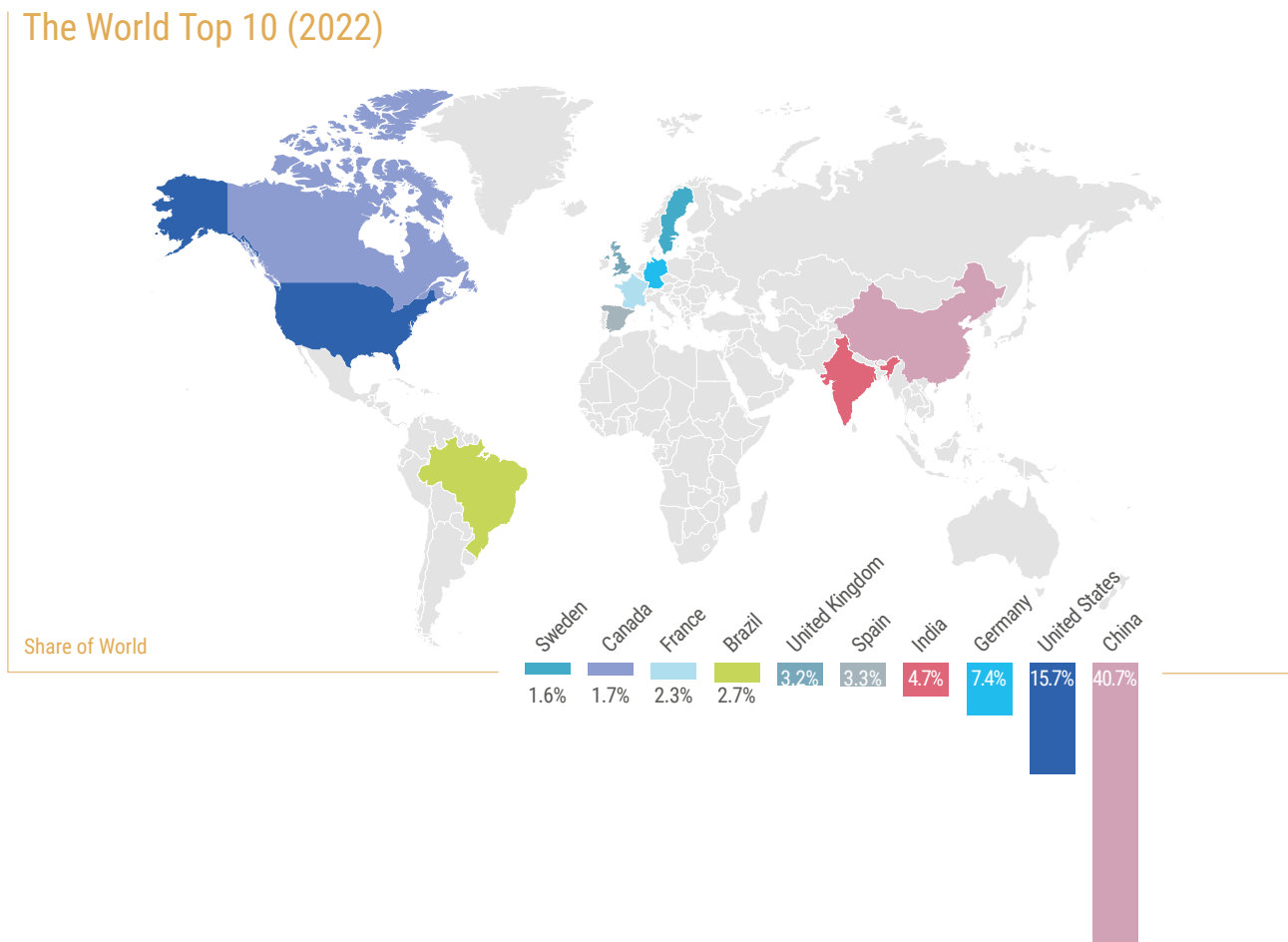
# Wind Power Capacity

## The World Top 10<sup>(\*)</sup>

(MW)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)	CAGR (2022-2010)
China	29,633	131,048	148,517	164,374	184,665	209,582	282,113	328,973	365,964	11.2%	23.3%
United States	39,350	72,767	81,502	87,831	94,666	103,836	118,664	133,019	140,862	5.9%	11.2%
Germany	26,903	44,580	49,435	55,580	58,721	60,742	62,201	63,833	66,294	3.9%	7.8%
India	13,184	25,088	28,700	32,848	35,288	37,505	38,559	40,067	41,930	4.6%	10.1%
Spain	20,693	22,943	22,990	23,124	23,405	25,590	26,819	27,908	29,308	5.0%	2.9%
United Kingdom	5,421	14,305	16,126	19,585	21,606	23,887	24,458	25,747	28,760	11.7%	14.9%
Brazil	927	7,633	10,129	12,304	14,843	15,438	17,198	21,161	24,163	14.2%	31.2%
France	5,912	10,298	11,567	13,499	14,900	16,427	17,514	18,740	21,120	12.7%	11.2%
Canada	3,967	11,214	11,973	12,250	12,816	13,220	13,636	14,304	15,295	6.9%	11.9%
Sweden	2,017	5,819	6,435	6,611	7,300	8,681	9,976	12,116	14,557	20.1%	17.9%
<b>The World Top 10</b>	<b>148,007</b>	<b>345,695</b>	<b>387,374</b>	<b>428,008</b>	<b>468,210</b>	<b>514,908</b>	<b>611,137</b>	<b>685,868</b>	<b>748,253</b>	<b>9.1%</b>	<b>14.5%</b>
Rest of the World	33,083	70,726	79,639	87,074	95,653	107,871	122,427	139,795	150,603	7.7%	13.5%
<b>World</b>	<b>181,090</b>	<b>416,421</b>	<b>467,013</b>	<b>515,082</b>	<b>563,864</b>	<b>622,779</b>	<b>733,564</b>	<b>825,663</b>	<b>898,856</b>	<b>8.9%</b>	<b>14.3%</b>

## The World Top 10 (2022)



<sup>(\*)</sup> Data source: Eni's calculations on IRENA (2023), *Renewable Energy Statistics 2023*, International Renewable Energy Agency, Abu Dhabi, data.

# Wind Power Capacity

## Countries<sup>(\*)</sup>

(MW)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
Europe	86,240	147,518	161,478	177,132	188,793	203,701	216,715	232,652	251,681	8.2%	9.3%
Austria	1,016	2,489	2,730	2,887	3,133	3,224	3,226	3,408	3,736	9.6%	11.5%
Belarus	2	22	62	84	92	112	112	112	120	7.4%	41.3%
Belgium	912	2,181	2,334	2,779	3,305	3,864	4,673	4,948	5,251	6.1%	15.7%
Bosnia Herzegovina		0	0	0	51	87	87	135	135	0.0%	
Bulgaria	488	699	699	698	699	703	703	704	704	0.0%	3.1%
Croatia	79	418	483	576	586	646	801	987	1,043	5.7%	24.0%
Cyprus	82	158	158	158	158	158	158	158	158	0.0%	5.6%
Czech Republic	213	281	282	308	316	339	339	339	339	0.0%	4.0%
Denmark	3,802	5,077	5,245	5,489	6,123	6,111	6,267	7,021	7,088	1.0%	5.3%
Estonia	108	300	310	312	310	316	317	315	315	0.0%	9.3%
Finland	197	1,005	1,565	2,044	2,041	2,284	2,586	3,257	5,614	72.4%	32.2%
France	5,912	10,298	11,567	13,499	14,900	16,427	17,514	18,740	21,120	12.7%	11.2%
Germany	26,903	44,580	49,435	55,580	58,721	60,742	62,201	63,833	66,294	3.9%	7.8%
Greece	1,298	2,091	2,370	2,624	2,877	3,589	4,119	4,649	4,879	4.9%	11.7%
Hungary	293	329	329	329	329	323	323	324	324	0.0%	0.8%
Iceland		3	3	2	2	2	2	2	2	0.0%	
Ireland	1,390	2,451	2,802	3,319	3,674	4,126	4,307	4,339	4,619	6.5%	10.5%
Italy	5,794	9,137	9,384	9,737	10,230	10,679	10,871	11,254	11,780	4.7%	6.1%
Kosovo	1	1	1	34	34	34	34	139	139	0.0%	50.8%
Latvia	30	68	70	77	78	78	78	77	136	76.5%	13.4%
Lithuania	133	436	509	518	533	534	540	671	814	21.3%	16.3%
Luxembourg	44	64	120	120	123	136	153	136	165	21.3%	11.7%
Malta		0	0	0	0	0	0	0	0	0.0%	
Moldova		1	2	9	33	35	41	67	115	71.8%	
Montenegro				72	72	118	118	118	118	0.0%	
Netherlands	2,237	3,391	4,257	4,202	4,393	4,484	6,648	7,769	8,747	12.6%	12.0%
North Macedonia		37	37	37	37	37	37	37	37	0.0%	
Norway	425	867	883	1,207	1,710	2,914	4,030	5,049	5,134	1.7%	23.1%
Poland	1,108	4,886	5,747	5,759	5,766	5,838	6,298	6,967	7,987	14.6%	17.9%
Portugal	3,796	4,937	5,124	5,124	5,172	5,223	5,122	5,427	5,455	0.5%	3.1%
Romania	389	3,130	3,025	3,030	3,032	3,038	3,013	3,015	3,015	0.0%	18.6%
Serbia		10	17	25	227	398	398	398	398	0.0%	
Slovakia	3	3	3	4	3	4	4	4	4	0.0%	2.4%
Slovenia		3	3	3	3	3	3	3	3	0.0%	
Spain	20,693	22,943	22,990	23,124	23,405	25,590	26,819	27,908	29,308	5.0%	2.9%
Sweden	2,017	5,819	6,435	6,611	7,300	8,681	9,976	12,116	14,557	20.1%	17.9%
Switzerland	42	60	75	75	75	75	87	87	87	0.0%	6.3%
Türkiye	1,320	4,503	5,751	6,516	7,005	7,591	8,832	10,607	11,396	7.4%	19.7%
Ukraine	88	514	526	553	621	1,258	1,402	1,761	1,761	0.0%	28.4%
United Kingdom	5,421	14,305	16,126	19,585	21,606	23,887	24,458	25,747	28,760	11.7%	14.9%
Others Europe	4	20	20	20	16	13	19	23	23	0.0%	15.2%

<sup>(\*)</sup> Data source: Eni's calculations on IRENA (2023), *Renewable Energy Statistics 2023*, International Renewable Energy Agency, Abu Dhabi, data.

# Wind Power Capacity

## Countries<sup>(\*)</sup>

(MW)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
<b>Russia and Central Asia</b>	<b>15</b>	<b>93</b>	<b>148</b>	<b>163</b>	<b>263</b>	<b>476</b>	<b>1,522</b>	<b>2,730</b>	<b>3,424</b>	<b>25.5%</b>	<b>57.6%</b>
Russia	10	11	11	11	52	102	945	1,955	2,218	13.5%	56.9%
Armenia	3	3	3	3	3	3	3	3	3	0.0%	0.9%
Azerbaijan	2	8	16	16	66	66	66	66	66	0.0%	33.8%
Georgia			20	20	20	21	21	21	29	38.1%	
Kazakhstan		72	98	112	121	284	486	684	1,108	62.0%	
Uzbekistan				1	1	1	1	1	1	0.0%	
<b>Middle East</b>	<b>104</b>	<b>286</b>	<b>423</b>	<b>494</b>	<b>609</b>	<b>775</b>	<b>923</b>	<b>1,029</b>	<b>1,053</b>	<b>2.4%</b>	<b>21.3%</b>
Bahrain	1	1	1	1	1	1	1	1	1	8.8%	0.7%
Iran	95	153	191	259	282	305	308	310	342	10.3%	11.3%
Israel	6	6	27	27	27	27	27	27	27	0.0%	13.4%
Jordan	1	118	198	198	280	373	518	622	614	-1.2%	66.0%
Kuwait		2	2	2	12	12	12	12	12	0.0%	
Lebanon		3	3	3	3	3	3	3	3	0.0%	
Oman						50	50	50	50	0.0%	
Saudi Arabia				3	3	3	3	3	3	0.0%	
Syria	1	1	1	1	1	1	1	1	1	0.0%	0.0%
United Arab Emirates		2						0	0		
<b>Africa</b>	<b>865</b>	<b>3,320</b>	<b>3,831</b>	<b>4,578</b>	<b>5,472</b>	<b>5,529</b>	<b>6,515</b>	<b>7,370</b>	<b>7,687</b>	<b>4.3%</b>	<b>20.0%</b>
Algeria		10	10	10	10	10	10	10	10	0.0%	
Chad			1	1	1	1	1	1	1	0.0%	
Egypt	555	755	755	755	1,130	1,132	1,380	1,640	1,643	0.2%	9.5%
Ethiopia		324	324	324	324	324	324	324	404	24.7%	
Ghana		0	0	0	0	0	0	0	0	0.0%	
Kenya	6	26	26	26	336	336	336	436	436	0.0%	43.6%
Madagascar	0	0	0	0	0	0	0	0	0	0.0%	0.2%
Mauritania		34	34	34	34	34	34	34	34	0.0%	
Morocco	221	797	902	1,022	1,225	1,225	1,435	1,471	1,558	5.9%	17.7%
Namibia	0	0	0	5	5	5	5	5	5	0.0%	30.2%
Senegal						55	159	159	159	0.0%	
Somalia		3	3	4	4	4	4	4	4	0.0%	
South Africa	10	1,079	1,473	2,094	2,094	2,094	2,516	2,956	3,103	5.0%	61.1%
Tanzania							2	2	2	0.0%	
Tunisia	54	240	240	240	245	245	245	245	245	0.0%	13.5%
Others Africa	19	51	62	62	63	63	63	83	83	0.0%	13.1%

<sup>(\*)</sup> Data source: Eni's calculations on IRENA (2023), *Renewable Energy Statistics 2023*, International Renewable Energy Agency, Abu Dhabi, data.

# Wind Power Capacity

## Countries<sup>(\*)</sup>

(MW)	2010	2015	2016	2017	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
Asia-Pacific	48,538	166,655	189,112	211,052	236,124	266,010	342,525	395,593	435,899	10.2%	20.1%
Afghanistan		0	0	0	0	0	0	0	0	0.0%	
Australia	1,864	4,181	4,324	5,407	6,409	7,881	10,207	10,555	10,555	0.0%	15.5%
Bangladesh	2	3	3	3	3	3	3	3	3	0.0%	3.6%
Bhutan		1	1	1	1	1	1	1	1	0.0%	
China	29,633	131,048	148,517	164,374	184,665	209,582	282,113	328,973	365,964	11.2%	23.3%
Hong Kong				1	1	1	1	1	1	-0.4%	
India	13,184	25,088	28,700	32,848	35,288	37,505	38,559	40,067	41,930	4.6%	10.1%
Indonesia	0	1	1	1	144	154	154	154	154	0.0%	66.5%
Japan	2,294	2,809	3,205	3,483	3,498	3,952	4,120	4,262	4,372	2.6%	5.5%
Mongolia	1	51	51	101	156	156	156	156	156	0.0%	57.4%
Myanmar		0	0	0	0	0	0	0	0	0.0%	
Nepal		0	0	0	0	0	0	0	0	0.0%	
New Zealand	540	689	690	690	690	690	690	913	913	0.0%	4.5%
North Korea	0	0	0	1	1	1	1	1	1	0.0%	9.6%
Pakistan	6	308	591	789	1,186	1,236	1,236	1,335	1,435	7.5%	57.8%
Philippines	33	427	427	427	427	443	443	443	443	0.0%	24.2%
Singapore				0	0	0	0	0	0	0.0%	
South Korea	382	847	1,067	1,215	1,420	1,494	1,645	1,724	1,908	10.7%	14.3%
Sri Lanka	34	131	131	131	128	128	179	252	252	0.0%	18.2%
Taiwan	476	647	682	692	713	845	937	1,033	1,581	53.0%	10.5%
Thailand	6	234	507	628	1,103	1,507	1,507	1,545	1,545	0.0%	59.7%
Vietnam	31	136	160	205	237	375	518	4,118	4,628	12.4%	51.8%
Others Asia - Pacific	52	54	54	54	55	56	56	56	56	0.0%	0.6%

<sup>(\*)</sup> Data source: Eni's calculations on IRENA (2023), *Renewable Energy Statistics 2023*, International Renewable Energy Agency, Abu Dhabi, data.

# Wind Power Capacity

## Countries<sup>(\*)</sup>

(MW)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
<b>Americas</b>	<b>45,329</b>	<b>98,549</b>	<b>112,021</b>	<b>121,663</b>	<b>132,604</b>	<b>146,289</b>	<b>165,364</b>	<b>186,289</b>	<b>199,112</b>	<b>6,9%</b>	<b>13,1%</b>
Argentina	28	187	187	227	750	1,609	2,624	3,292	3,310	0,5%	48,9%
Barbados	0	0	0	0	0	0	0	0	1		32,4%
Belize	0	0	0	0	0	0	0	0	0	0,0%	0,0%
Bolivia	0	3	27	27	27	27	27	128	131	2,8%	81,9%
Brazil	927	7,633	10,129	12,304	14,843	15,438	17,198	21,161	24,163	14,2%	31,2%
Canada	3,967	11,214	11,973	12,250	12,816	13,220	13,636	14,304	15,295	6,9%	11,9%
Chile	163	910	1,039	1,305	1,524	1,620	2,149	3,137	3,830	22,1%	30,1%
Colombia	18	18	18	18	18	18	18	18	18	0,0%	0,0%
Costa Rica	120	278	319	378	408	411	394	390	390	0,0%	10,4%
Cuba	7	12	12	12	12	12	12	12	12	0,0%	4,1%
Curacao	12	30	30	47	47	47	47	47	47	0,0%	11,9%
Dominican Republic		85	135	135	183	370	370	370	417	12,6%	
Ecuador	2	21	21	21	21	21	21	21	21	0,0%	19,9%
El Salvador							36	54	54	0,0%	
Guatemala		76	76	76	107	107	107	107	107	0,0%	
Guyana	0	0	0	0	0	0	0	0	0	0,0%	16,7%
Haiti					0	0	0	0	0	0,0%	
Honduras		156	179	229	229	239	239	239	239	0,0%	
Jamaica	39	39	102	102	102	102	102	102	102	0,0%	8,4%
Mexico	519	3,271	4,051	4,180	4,180	6,541	6,995	7,155	7,313	2,2%	24,7%
Nicaragua	63	186	186	186	186	186	186	186	186	0,0%	9,5%
Panama		253	270	270	270	270	270	270	336	24,4%	
Peru	1	240	240	240	372	372	409	409	409	0,0%	70,0%
Trinidad and Tobago		0	0	0	0	0	0	0	0	0,0%	
United States	39,350	72,767	81,502	87,831	94,666	103,836	118,664	133,019	140,862	5,9%	11,2%
Uruguay	41	857	1,211	1,513	1,513	1,516	1,516	1,516	1,516	0,0%	35,2%
Venezuela		138	138	138	138	116	138	138	138	0,0%	
Other Americas	72	174	173	173	189	209	204	213	213	0,0%	9,5%

<sup>(\*)</sup> Data source: Eni's calculations on IRENA (2023), *Renewable Energy Statistics 2023*, International Renewable Energy Agency, Abu Dhabi, data.

# Wind Power Generation

## Areas and Aggregates<sup>(\*)</sup>

(GWh)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)**	CAGR (2022-2010)**
Europe	154,012	319,000	322,893	384,196	403,086	462,242	513,583	499,982		-2.6%	11.3%
Russia and Central Asia	12	288	457	592	862	1,231	2,459	5,233		112.8%	73.8%
Middle East	174	362	660	967	1,447	1,718	2,371	2,972		25.3%	29.4%
Africa	2,372	8,563	10,471	11,559	15,277	18,519	19,558	23,355		19.4%	23.1%
Asia - Pacific	77,065	245,693	312,613	382,517	467,887	518,843	580,412	788,274		35.8%	23.5%
Americas	108,569	260,090	315,948	355,049	387,872	426,452	482,330	544,253		12.8%	15.8%
- North America	103,872	219,956	260,401	288,760	309,302	331,073	377,579	417,567		10.6%	13.5%
- Central South America	4,697	40,134	55,547	66,289	78,570	95,379	104,751	126,686		20.9%	34.9%
<b>World</b>	<b>342,204</b>	<b>833,996</b>	<b>963,042</b>	<b>1,134,880</b>	<b>1,276,431</b>	<b>1,429,005</b>	<b>1,600,713</b>	<b>1,864,069</b>		<b>16.5%</b>	<b>16.7%</b>
European Union 27	139,841	263,204	266,816	312,314	320,616	367,117	397,799	386,868	421,115	8.9%	9.6%
MENA	2,470	5,406	6,356	6,793	8,792	11,184	12,693	14,767		16.3%	17.7%
OECD	270,173	560,958	609,285	700,069	747,027	833,729	937,302	972,259	1,094,458	12.6%	12.4%
NON OECD	72,031	273,038	353,757	434,811	529,404	595,276	663,411	891,810		34.4%	25.7%
OPEC	163	335,00	373	428	655	750,00	883	1,297		46.9%	20.7%
NON OPEC	342,041	833,661	962,669	1,134,452	1,275,776	1,428,255	1,599,830	1,862,772		16.4%	16.7%

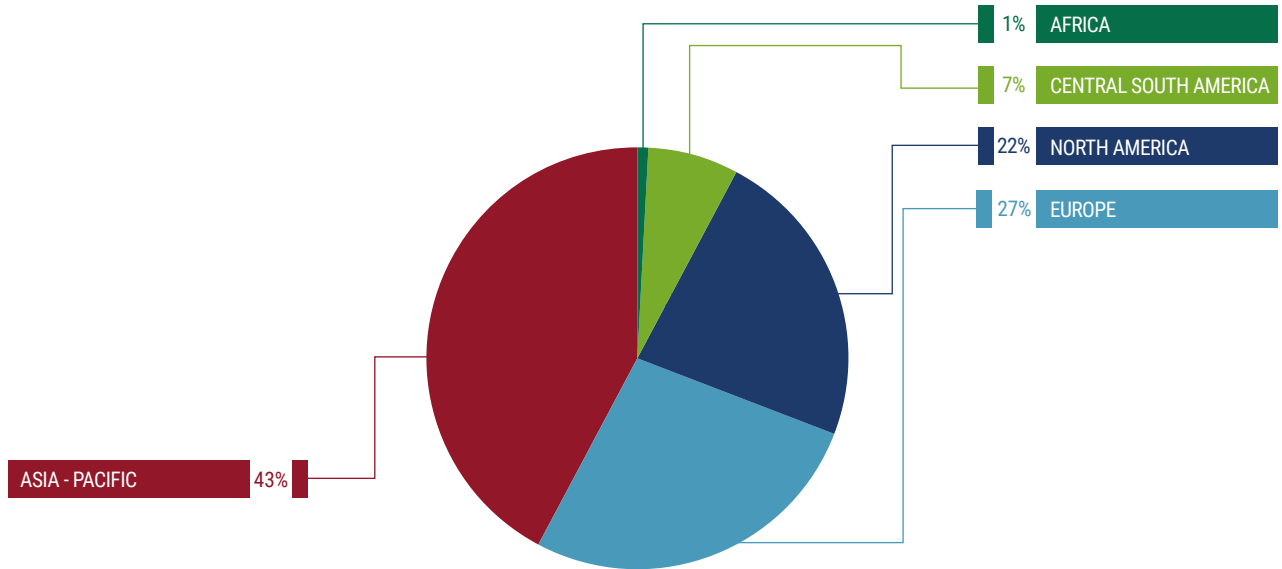
<sup>(\*)</sup> Data source: Eni's calculations on IEA (2023) *Extended Balances* data. All rights reserved.

<sup>(\*\*)</sup> When 2022 data is missing, the figure refers to the latest available years.

# Wind Power Generation

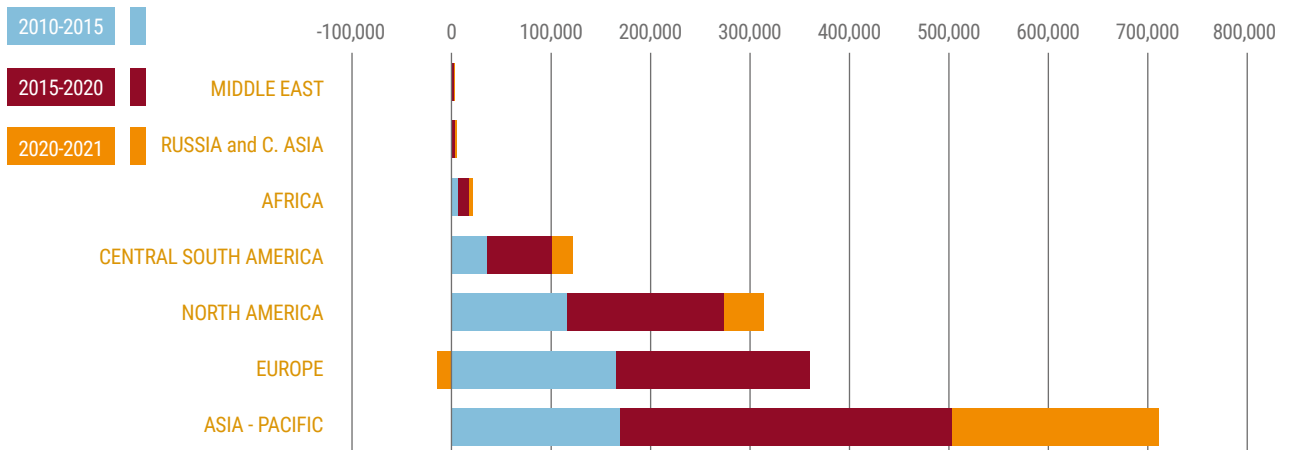
## World Wind Power Generation (2021)

1,864,069 GWh



## World Wind Power Generation Growth (2010-2021)

1,521,865 GWh





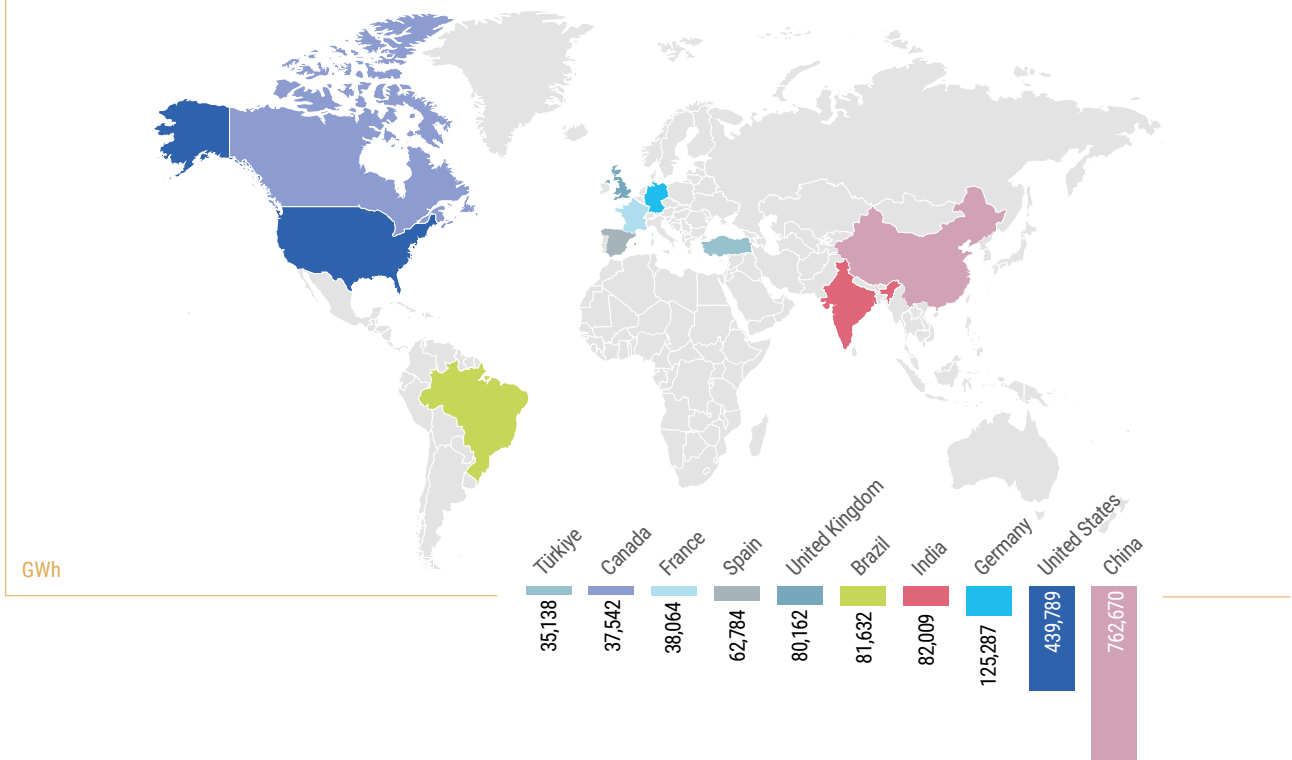
# Wind Power Generation

## The World Top 10<sup>(\*)</sup>

(GWh)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)**	CAGR (2022-2010)**
China	44,622	185,766	237,070	297,230	365,971	406,032	466,474	656,102	762,670	16.2%	26.7%
United States	95,148	192,992	229,471	257,249	275,834	298,200	341,818	382,814	439,789	14.9%	13.6%
Germany	38,547	80,624	79,924	105,693	109,951	125,894	132,102	114,647	125,287	9.3%	10.3%
India	19,657	35,075	48,281	54,994	65,710	70,949	67,308	77,140	82,009	6.3%	12.6%
Brazil	2,177	21,626	33,488	42,373	48,475	55,986	57,051	72,286	81,632	12.9%	35.3%
United Kingdom	10,286	40,275	37,159	49,641	56,685	63,835	75,615	64,662	80,162	24.0%	18.7%
Spain	44,271	49,325	48,905	49,127	50,896	55,647	56,444	62,061	62,784	1.2%	3.0%
France	9,945	21,421	21,381	24,609	28,599	34,722	39,861	36,831	38,064	3.3%	11.8%
Canada	8,724	26,964	30,930	31,511	33,468	32,873	35,761	34,753	37,542	8.0%	12.9%
Türkiye	2,916	11,652	15,517	17,904	19,949	21,731	24,828	31,437	35,138	11.8%	23.1%
<b>The World Top 10</b>	<b>276,293</b>	<b>665,720</b>	<b>782,126</b>	<b>930,331</b>	<b>1,055,538</b>	<b>1,165,869</b>	<b>1,297,262</b>	<b>1,532,733</b>	<b>1,745,077</b>	<b>13.9%</b>	<b>16.6%</b>
<b>Rest of the World</b>	<b>65,911</b>	<b>168,276</b>	<b>180,916</b>	<b>204,549</b>	<b>220,893</b>	<b>263,136</b>	<b>303,451</b>	<b>331,336</b>		<b>9.2%</b>	<b>15.8%</b>
<b>World</b>	<b>342,204</b>	<b>833,996</b>	<b>963,042</b>	<b>1,134,880</b>	<b>1,276,431</b>	<b>1,429,005</b>	<b>1,600,713</b>	<b>1,864,069</b>		<b>16.5%</b>	<b>16.7%</b>

## The World Top 10 (2022)



(\*) Data source: Eni's calculations on IEA (2023) *Extended Balances* data. All rights reserved.

(\*\*) When 2022 data is missing, the figure refers to the latest available years.

# Wind Power Generation

## Countries<sup>(\*)</sup>

(GWh)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)**	CAGR (2022-2010)**
Europe	154,012	319,000	322,893	384,196	403,086	462,242	513,583	499,982		-2.6%	11.3%
Austria	2,064	4,840	5,235	6,572	6,030	7,450	6,792	6,740	7,245	7.5%	11.0%
Belarus	1	26	75	97	99	178	194	168		-13.4%	59.3%
Belgium	1,292	5,574	5,420	6,521	7,574	9,755	12,819	11,998	11,971	-0.2%	20.4%
Bosnia Herzegovina					103	254	262	382	392	2.6%	
Bulgaria	681	1,452	1,425	1,504	1,318	1,317	1,477	1,434	1,487	3.7%	6.7%
Croatia	139	796	1,014	1,204	1,335	1,467	1,721	2,062	2,138	3.7%	25.6%
Cyprus	31	222	227	211	221	239	240	246	224	-8.9%	17.9%
Czech Republic	335	573	497	591	609	700	699	602	641	6.5%	5.6%
Denmark	7,809	14,133	12,782	14,780	13,902	16,150	16,330	16,054	18,874	17.6%	7.6%
Estonia	277	715	594	723	636	687	844	733	668	-8.9%	7.6%
Finland	294	2,327	3,068	4,795	5,839	6,025	8,256	8,507	12,022	41.3%	36.2%
France	9,945	21,421	21,381	24,609	28,599	34,722	39,861	36,831	38,064	3.3%	11.8%
Germany	38,547	80,624	79,924	105,693	109,951	125,894	132,102	114,647	125,287	9.3%	10.3%
Greece	2,714	4,621	5,146	5,537	6,300	7,266	9,310	10,483	10,879	3.8%	12.3%
Hungary	534	693	684	758	607	729	655	664	610	-8.1%	1.1%
Iceland		11	9	8	4	7	7	6	6	0.0%	
Ireland	2,815	6,573	6,147	7,444	8,640	10,019	11,549	9,776	11,224	14.8%	12.2%
Italy	9,126	14,844	17,689	17,742	17,716	20,202	18,762	20,927	20,558	-1.8%	7.0%
Kosovo	1				30	91	90	126	363	188.1%	63.4%
Latvia	49	147	128	150	122	154	177	141	190	34.8%	12.0%
Lithuania	224	810	1,136	1,364	1,144	1,499	1,552	1,362	1,512	11.0%	17.2%
Luxembourg	55	102	101	235	255	281	351	314	328	4.5%	16.0%
Moldova		2	3	7	23	43	51	77	139	80.5%	
Montenegro				97	143	295	315	320	325	1.6%	
Netherlands	3,994	7,550	8,170	10,569	10,549	11,508	15,278	18,005	21,624	20.1%	15.1%
North Macedonia		121	109	110	97	102	117	103	108	4.9%	
Norway	879	2,515	2,116	2,854	3,877	5,525	9,913	11,769	14,810	25.8%	26.5%
Poland	1,664	10,858	12,588	14,909	12,799	15,107	15,800	16,234	19,451	19.8%	22.7%
Portugal	9,182	11,607	12,474	12,248	12,617	13,667	12,299	13,216	13,266	0.4%	3.1%
Romania	306	7,063	6,590	7,407	6,322	6,773	6,945	6,576	6,971	6.0%	29.8%
Serbia			26	48	150	898	976	1,085	960	-11.5%	
Slovakia	6	6	6	6	6	6	4	5	3	-40.0%	-5.6%
Slovenia		6	6	6	6	6	6	6	6	0.0%	
Spain	44,271	49,325	48,905	49,127	50,896	55,647	56,444	62,061	62,784	1.2%	3.0%
Sweden	3,487	16,322	15,479	17,609	16,623	19,847	27,526	27,244	33,088	21.5%	20.6%
Switzerland	37	110	109	133	122	146	145	146	150	2.7%	12.4%
Türkiye	2,916	11,652	15,517	17,904	19,949	21,731	24,828	31,437	35,138	11.8%	23.1%
Ukraine	51	1,084	954	983	1,188	2,020	3,271	2,833		-13.4%	44.1%
United Kingdom	10,286	40,275	37,159	49,641	56,685	63,835	75,615	64,662	80,162	24.0%	18.7%

(\*) Data source: Eni's calculations on IEA (2023) *Extended Balances* data. All rights reserved.

(\*\*) When 2022 data is missing, the figure refers to the latest available years.

# Wind Power Generation

## Countries<sup>(\*)</sup>

(GWh)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)**	CAGR (2022-2010)**
<b>Russia and Central Asia</b>	<b>12</b>	<b>288</b>	<b>457</b>	<b>592</b>	<b>862</b>	<b>1,231</b>	<b>2,459</b>	<b>5,233</b>		<b>112.8%</b>	<b>73.8%</b>
Russia	4	148	148	140	232	331	1,241	3,311		166.8%	84.2%
Armenia	7	3	2	2	2	3	2	1		-50.0%	-16.2%
Azerbaijan	1	5	23	22	83	105	96	91	83	-8.8%	44.5%
Georgia			9	88	84	85	91	83	87	4.8%	
Kazakhstan		132	275	340	461	707	1,029	1,747		69.8%	
	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)**	CAGR (2022-2010)**
<b>Middle East</b>	<b>174</b>	<b>362</b>	<b>660</b>	<b>967</b>	<b>1,447</b>	<b>1,718</b>	<b>2,371</b>	<b>2,972</b>		<b>25.3%</b>	<b>29.4%</b>
Bahrain					1	1	1	1		0.0%	
Iran	163	221	250	307	518	616	754	759		0.7%	15.0%
Israel	8	7	7	180	183	190	204	178	178	0.0%	29.5%
Jordan	3	121	391	449	707	875	1,379	1,596		15.7%	76.9%
Kuwait		6	6	25	38	36	33	29		-12.1%	
Lebanon		6	6	6							
Saudi Arabia								409			
United Arab Emirates		1									
	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)**	CAGR (2022-2010)**
<b>Africa</b>	<b>2,372</b>	<b>8,563</b>	<b>10,471</b>	<b>11,559</b>	<b>15,277</b>	<b>18,519</b>	<b>19,558</b>	<b>23,355</b>		<b>19.4%</b>	<b>23.1%</b>
Algeria		19	29	8	11	10	8	12		50.0%	
Egypt	1,498	2,058	2,200	2,334	3,018	4,233	5,257	6,251	6,280	0.5%	12.7%
Ethiopia		759	782	533	848	609	818	561		-31.4%	
Kenya	17	60	56	61	375	1,563	1,331	1,985	2,143	8.0%	49.6%
Morocco	659	2,519	3,000	3,035	3,863	4,723	4,592	5,107	5,356	4.9%	19.1%
Namibia	1	1	1	5	18	18	22	22	22	0.0%	29.4%
Senegal						23	217	400	735	83.8%	
South Africa	34	2,500	3,700	4,924	6,467	6,624	6,611	8,356	9,689	16.0%	60.2%
Tunisia	139	448	474	449	453	500	465	425	322	-24.2%	7.3%
Others Africa	24	199	229	210	224	216	237	236		-0.4%	23.1%

<sup>(\*)</sup> Data source: Eni's calculations on IEA (2023) *Extended Balances* data. All rights reserved.

<sup>(\*\*)</sup> When 2022 data is missing, the figure refers to the latest available years.

# Wind Power Generation

## Countries<sup>(\*)</sup>

(GWh)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)**	CAGR (2022-2010)**
Asia-Pacific	77,065	245,693	312,613	382,517	467,887	518,843	580,412	788,274		35.8%	23.5%
Australia	5,052	11,467	12,199	12,597	15,164	17,712	20,396	24,535	29,108	18.6%	15.7%
Bangladesh		6	6	6	6	6	6	6	6	0.0%	
China	44,622	185,766	237,070	297,230	365,971	406,032	466,474	656,102	762,670	16.2%	26.7%
Hong Kong	1	1	1	1	1	1	1	1		0.0%	0.0%
India	19,657	35,075	48,281	54,994	65,710	70,949	67,308	77,140	82,009	6.3%	12.6%
Indonesia	4	4	6	6	190	484	475	437	354	-19.0%	45.3%
Japan	4,016	5,580	6,166	6,490	7,481	7,617	8,970	9,428	9,603	1.9%	7.5%
Mongolia	1	154	154	136	301	476	476	581		22.1%	78.4%
Nepal							1	1		0.0%	
New Zealand	1,637	2,364	2,341	2,091	2,068	2,255	2,305	2,642	2,865	8.4%	4.8%
Pakistan		786	1,326	2,101	3,161	2,882	2,900	3,133		8.0%	
Philippines	62	748	975	1,094	1,153	1,042	1,026	1,270		23.8%	31.6%
South Korea	817	1,342	1,683	2,169	2,465	2,681	3,151	3,182	3,374	6.0%	12.5%
Sri Lanka	53	343	345	365	325	348	350	653		86.6%	25.6%
Taiwan	1,026	1,526	1,458	1,722	1,707	1,892	2,309	2,209		-4.3%	7.2%
Thailand		329	345	1,110	1,641	3,670	3,220	3,552	3,056	-14.0%	
Vietnam	50	124	201	350	487	724	982	3,344		240.5%	46.5%
Others Asia-Pacific	67	78	56	55	56	72	62	58		-6.5%	-1.3%

(\*) Data source: Eni's calculations on IEA (2023) *Extended Balances* data. All rights reserved.

(\*\*) When 2022 data is missing, the figure refers to the latest available years.

# Wind Power Generation

## Countries<sup>(\*)</sup>

(GWh)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	$\Delta$ y/y (2022-2021)**	CAGR (2022-2010)**
<b>Americas</b>	<b>108,569</b>	<b>260,090</b>	<b>315,948</b>	<b>355,049</b>	<b>387,872</b>	<b>426,452</b>	<b>482,330</b>	<b>544,253</b>		<b>12.8%</b>	<b>15.8%</b>
Argentina	25	593	548	612	1,413	4,997	9,412	12,940	14,168	9.5%	69.6%
Bolivia		12	35	60	59	70	64	120	441	267.5%	
Brazil	2,177	21,626	33,488	42,373	48,475	55,986	57,051	72,286	81,632	12.9%	35.3%
Canada	8,724	26,964	30,930	31,511	33,468	32,873	35,761	34,753	37,542	8.0%	12.9%
Chile	332	2,115	2,449	3,521	3,588	4,897	5,602	7,628	8,869	16.3%	31.5%
Colombia	39	68	51	3	43	63	10	60	60	0.0%	3.7%
Costa Rica	359	1,080	1,147	1,288	1,799	1,796	1,459	1,573	1,573	0.0%	13.1%
Cuba	12	21	21	23	19	27	28	28		0.0%	8.0%
Curaçao	63	124	130	169	234	208	191	197		3.1%	10.9%
Dominican Republic		290	323	390	497	789	1,139	1,231		8.1%	
Ecuador	3	99	84	73	80	86	77	62		-19.5%	31.7%
Guatemala		107	215	218	320	331	313	324		3.5%	
Honduras		665	583	578	929	818	707	775		9.6%	
Jamaica	53	125	207	289	302	272	280	264		-5.7%	15.7%
Mexico	1,239	8,745	10,378	10,442	12,877	16,880	19,702	20,896	20,936	0.2%	26.6%
Nicaragua	163	865	729	635	801	730	550	656		19.3%	13.5%
Panama		419	625	491	588	725	584	530		-9.2%	
Peru	1	595	1,063	1,073	1,502	1,654	1,813	1,821		0.4%	97.9%
United States	95,148	192,992	229,471	257,249	275,834	298,200	341,818	382,814	439,789	14.9%	13.6%
Uruguay	70	2,065	2,994	3,774	4,732	4,752	5,476	4,991	4,783	-4.2%	42.2%
Venezuela		88	88	88	88	88	88	88		0.0%	
Others Americas	161	432	389	189	224	210	205	216		5.4%	2.7%

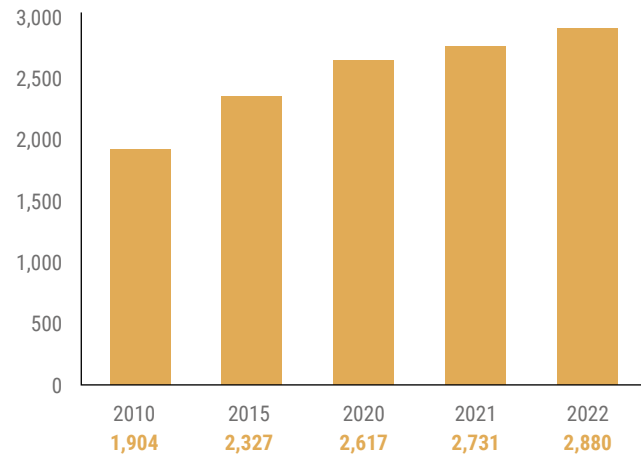
(\*) Data source: Eni's calculations on IEA (2023) *Extended Balances* data. All rights reserved.

(\*\*) When 2022 data is missing, the figure refers to the latest available years.

# Biofuels Production

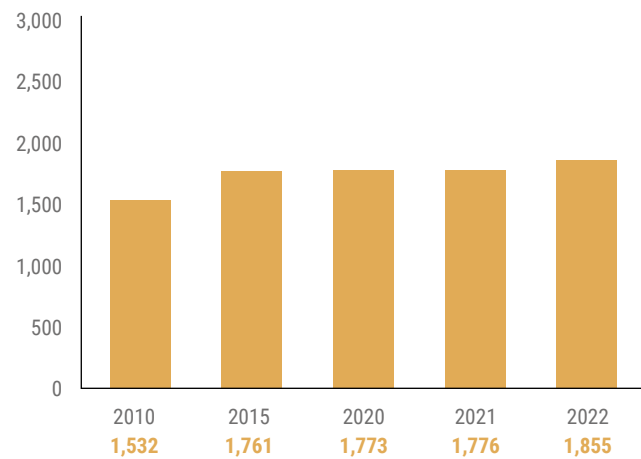
## Total Biofuels<sup>(\*)</sup>

(thousand barrels/day)



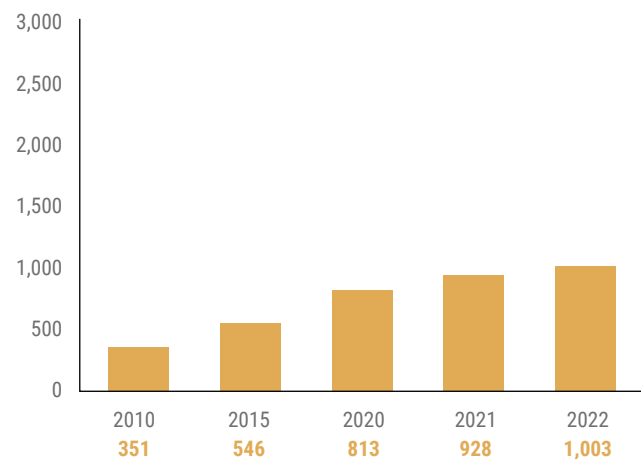
## Biogasoline<sup>(\*)</sup>

(thousand barrels/day)



## Biodiesel<sup>(\*)</sup>

(thousand barrels/day)



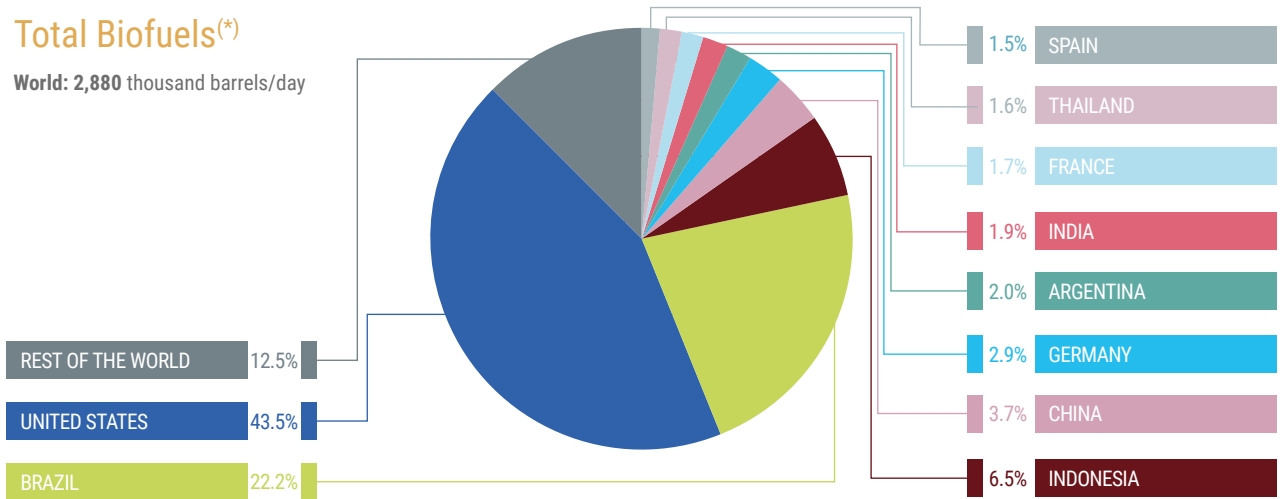
<sup>(\*)</sup> Data source: IEA (2023) *Extended Balances* and EIA DOE. All rights reserved.

Total Biofuels include biogasoline (also ethanol used pure in Brazil "Hydrous"), biodiesel and other liquid biofuels.

# Biofuels Production

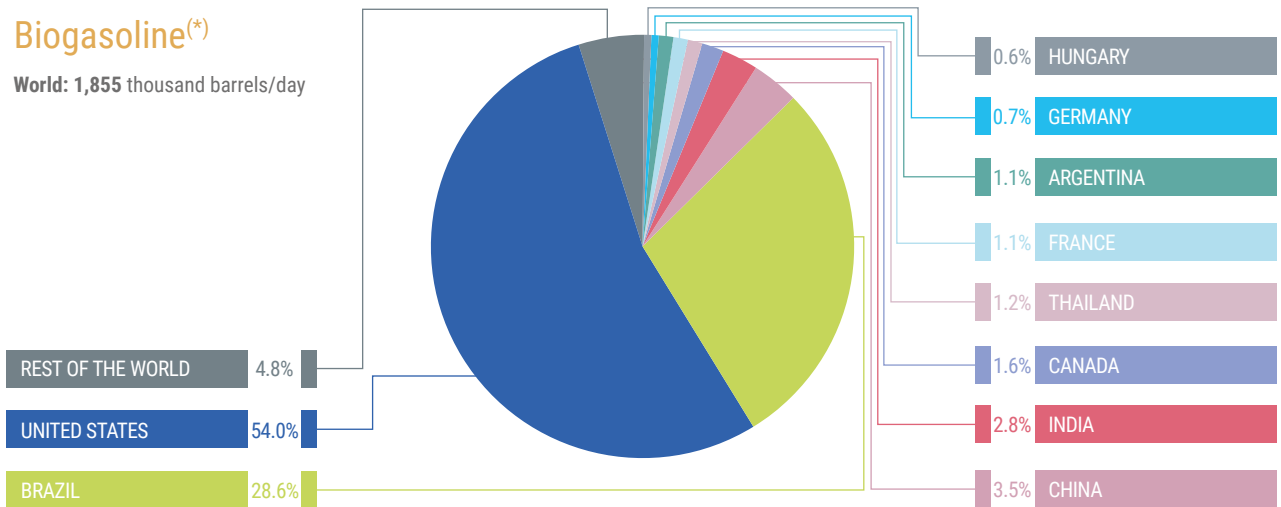
## Total Biofuels<sup>(\*)</sup>

World: 2,880 thousand barrels/day



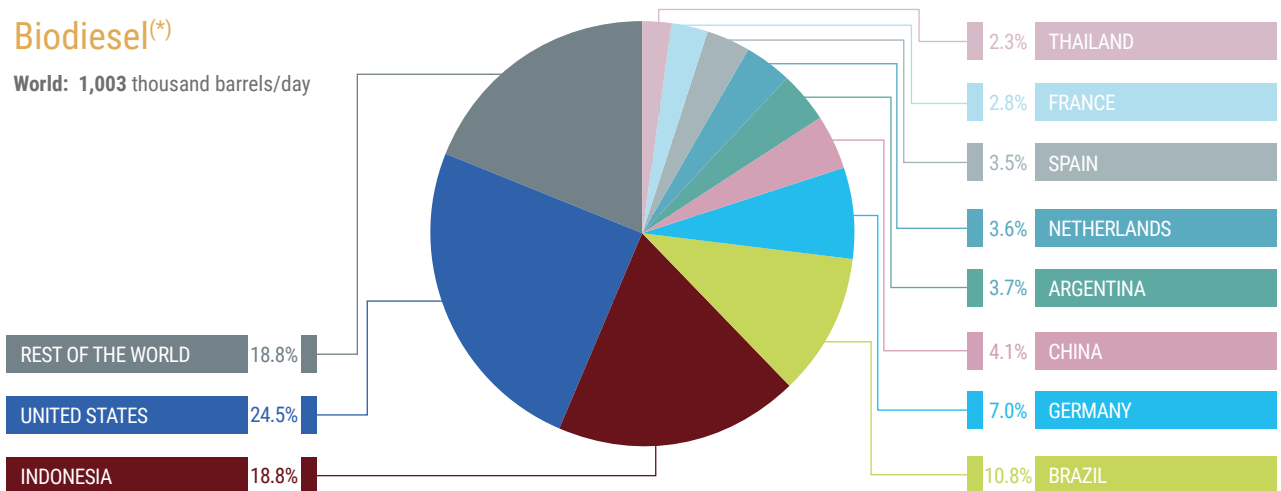
## Biogasoline<sup>(\*)</sup>

World: 1,855 thousand barrels/day



## Biodiesel<sup>(\*)</sup>

World: 1,003 thousand barrels/day



<sup>(\*)</sup> Data source: IEA (2023) *Extended Balances* and EIA DOE. All rights reserved.  
Total Biofuels include biogasoline (also ethanol used pure in Brazil "Hydrous"), biodiesel and other liquid biofuels.





# Critical Minerals

## ▶ COBALT

### RESERVES

Countries

The World Top 10

World Cobalt Reserves

### PRODUCTION

Countries

The World Top 10

World Cobalt Production

## ▶ COPPER

### RESERVES

Countries

The World Top 10

World Copper Reserves

### PRODUCTION

Countries

The World Top 10

World Copper Production

## ▶ LITHIUM

### RESERVES

Countries

The World Top 9

World Lithium Reserves

### PRODUCTION

Countries

The World Top 8

World Lithium Production

## ▶ NICKEL

### RESERVES

Countries

The World Top 9

World Nickel Reserves

### PRODUCTION

Countries

The World Top 9

World Nickel Production

## RARE EARTHS

### RESERVES

Countries

The World Top 10

World Rare Earths Reserves

### PRODUCTION

Countries

The World Top 9

World Rare Earths Production

## ▶ SILICON

### PRODUCTION

Countries

The World Top 10

World Silicon Production

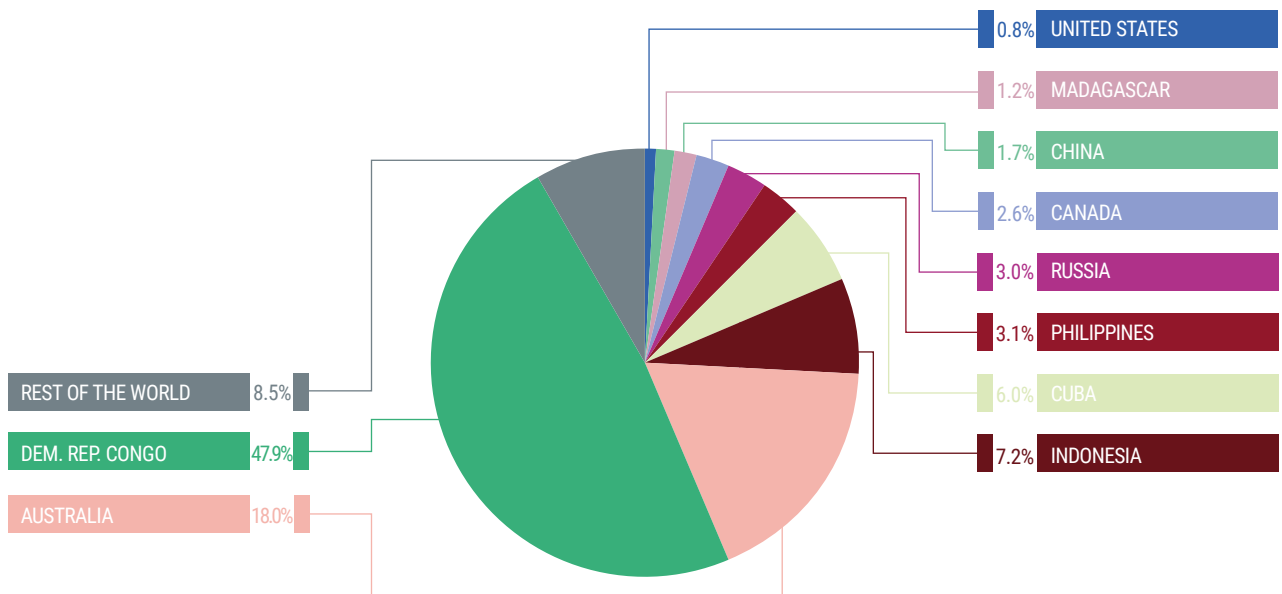
# Cobalt - Reserves

## Countries<sup>(\*)</sup>

(tons)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
Australia	1,400,000	1,100,000	1,000,000	1,200,000	1,200,000	1,200,000	1,400,000	1,400,000	1,500,000	7.1%	0.6%
Brazil	89,000	78,000									-100.0%
Canada	150,000	240,000	270,000	250,000	250,000	230,000	220,000	220,000	220,000	0.0%	3.2%
China	80,000	80,000	80,000		80,000	80,000	80,000	80,000	140,000	75.0%	4.8%
Cuba	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	0.0%	0.0%
Dem. Rep. Congo	3,400,000	3,400,000	3,400,000	3,500,000	3,400,000	3,600,000	3,600,000	3,500,000	4,000,000	14.3%	1.4%
Indonesia								600,000	600,000	0.0%	
Madagascar		130,000	130,000	150,000	140,000	120,000	100,000	100,000	100,000	0.0%	
Morocco	20,000				17,000	18,000	14,000	13,000	13,000	0.0%	-3.5%
New Caledonia	370,000	200,000	64,000								-100.0%
Papua New Guinea				51,000	56,000	56,000	51,000	47,000	47,000	0.0%	
Philippines		250,000	290,000	280,000	280,000	260,000	260,000	260,000	260,000	0.0%	
Russia	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	0.0%	0.0%
South Africa		31,000	29,000	29,000	24,000	50,000	40,000				
Türkiye									36,000		
United States	33,000	23,000	21,000	23,000	38,000	55,000	53,000	69,000	69,000	0.0%	6.3%
Zambia	270,000	270,000	270,000	270,000							-100.0%
Others	740,000	610,000	690,000	560,000	640,000	570,000	560,000	610,000	610,000	0.0%	-1.6%
<b>World (rounded)</b>	<b>7,300,000</b>	<b>7,100,000</b>	<b>7,000,000</b>	<b>7,100,000</b>	<b>6,900,000</b>	<b>7,000,000</b>	<b>7,100,000</b>	<b>7,600,000</b>	<b>8,300,000</b>	<b>9.2%</b>	<b>1.1%</b>

## The World Top 10 (2022)

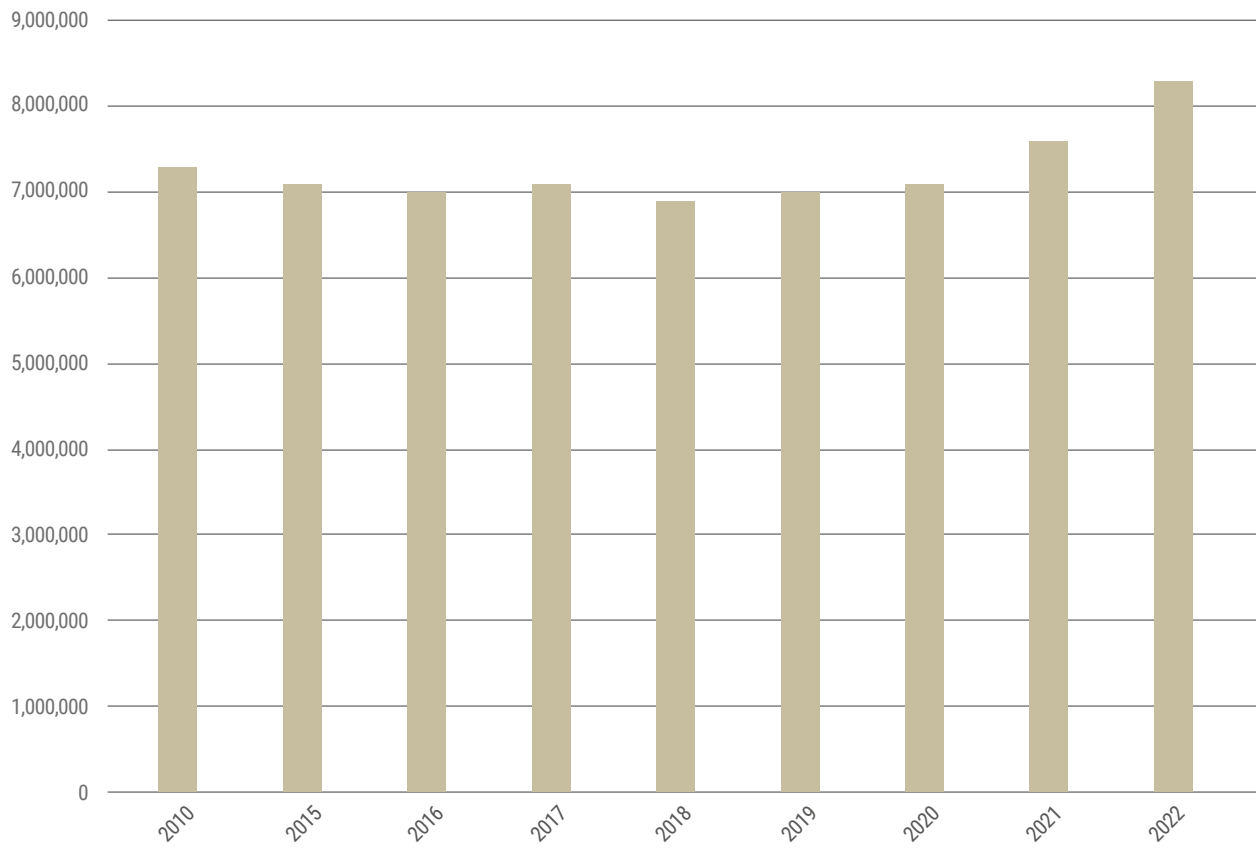


<sup>(\*)</sup> Data source: U.S. Geological Survey.

# Cobalt - Reserves

## World Cobalt Reserves

(tons)



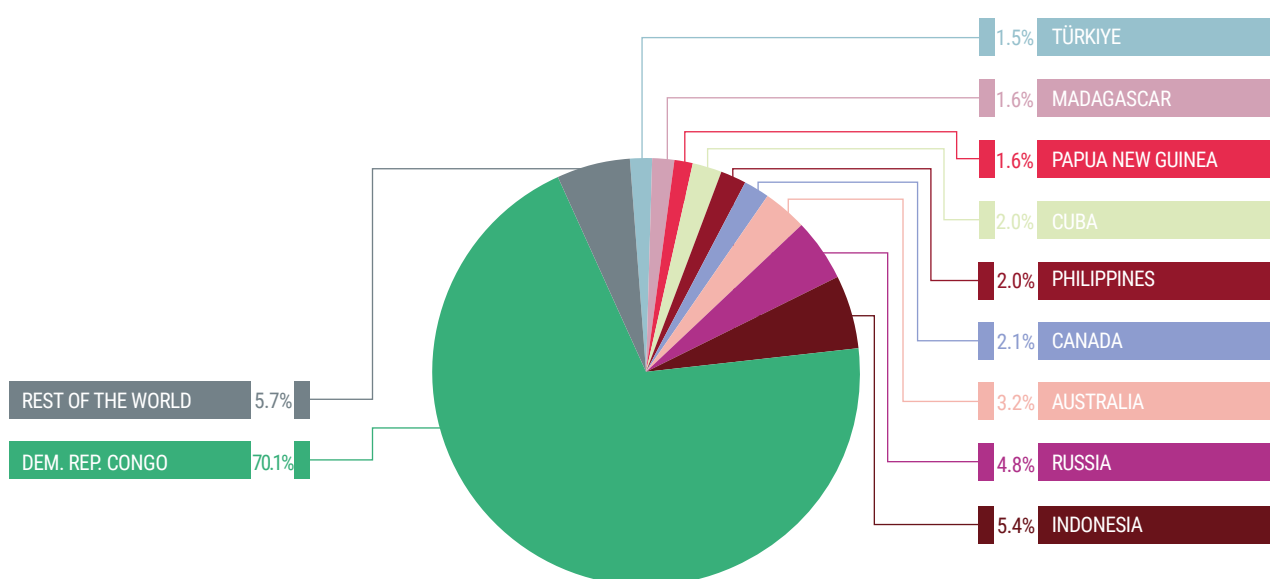
# Cobalt - Production

## Countries<sup>(\*)</sup>

(tons)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
Australia	3,850	6,000	5,500	5,030	4,880	5,740	5,630	5,295	5,900	11.4%	3.6%
Brazil	1,600										-100.0%
Canada	4,600	6,900	4,250	3,870	3,520	3,340	3,690	4,361	3,900	-10.6%	-1.4%
China	6,500	7,700		3,100	2,000	2,500	2,200	2,200	2,200	0.0%	-8.6%
Cuba	47,400	63,000	64,000	73,000	104,000	100,000	98,000	119,000	130,000	9.2%	8.8%
Dem. Rep. Congo	3,600	4,300	4,200	5,000	3,500	3,800	3,800	4,000	3,800	-5.0%	0.5%
Indonesia							1,100	2,700	10,000	270.4%	
Madagascar		3,700	3,800	3,500	3,300	3,400	850	2,800	3,000	7.1%	
Morocco	2,200			2,200	2,100	2,300	2,300	2,300	2,300	0.0%	0.4%
New Caledonia	1,000	3,680	3,390		2,100						-100.0%
Papua New Guinea			2,190	3,310	3,280	2,910	2,940	2,953	3,000	1.6%	
Philippines		4,300	4,100	4,600	4,600	5,100	4,500	3,600	3,800	5.6%	
Russia	6,200	6,200	5,500	5,900	6,100	6,300	9,000	8,000	8,900	11.3%	3.1%
South Africa		3,000	2,300	2,300	2,300	2,100					
Türkiye								2,400	2,700		
United States		760	690	640	490	500	600	650	800	23.1%	
Zambia	5,700	4,600	3,000								-100.0%
Others	6,800	11,600	7,600	7,650	5,540	6,320	7,640	4,567	5,200	13.9%	-2.2%
<b>World (rounded)</b>	<b>89,500</b>	<b>126,000</b>	<b>111,000</b>	<b>120,000</b>	<b>148,000</b>	<b>144,000</b>	<b>142,000</b>	<b>165,000</b>	<b>190,000</b>	<b>15.2%</b>	<b>6.5%</b>

## The World Top 10 (2022)

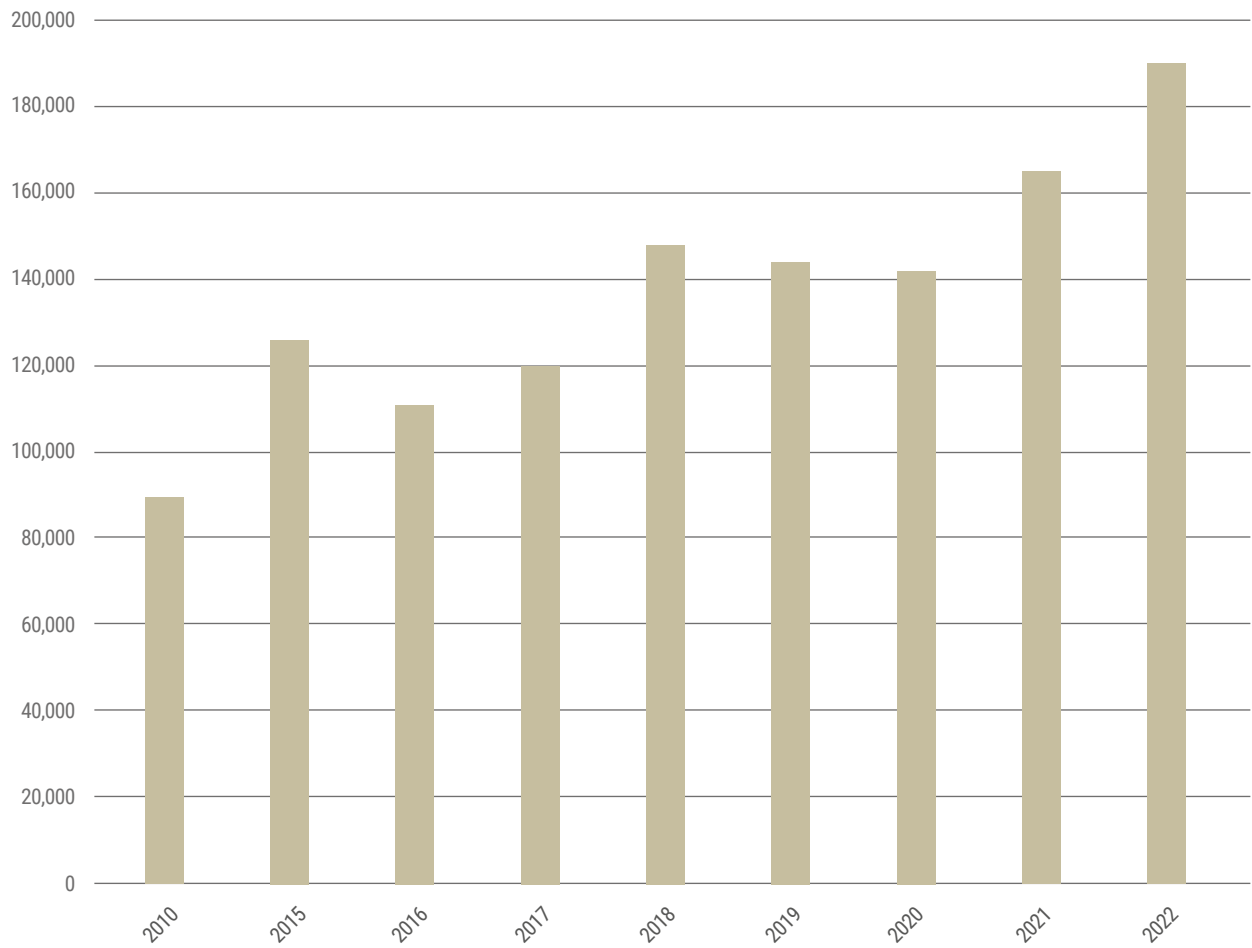


<sup>(\*)</sup> Data source: U.S. Geological Survey.

# Cobalt - Production

## World Cobalt Production

(tons)



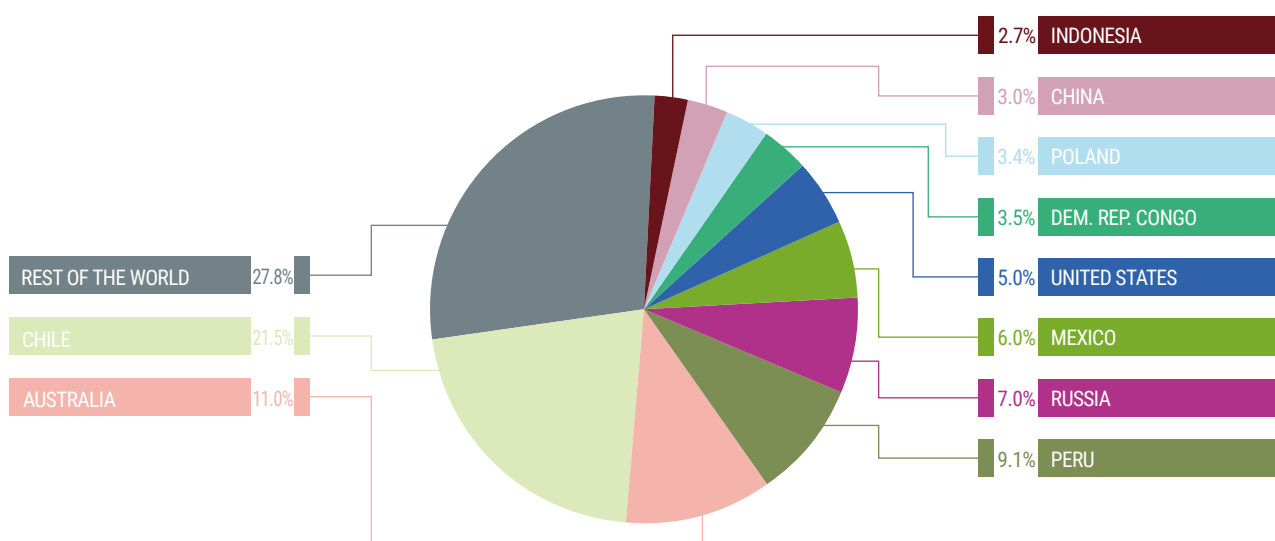
# Copper - Reserves

## Countries<sup>(\*)</sup>

(thousand tons)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
Australia	80,000	88,000	89,000	88,000	88,000	87,000	88,000	93,000	97,000	4.3%	1.6%
Canada	8,000	11,000	11,000	11,000			9,000	9,800	7,600	-22.4%	-0.4%
Chile	150,000	210,000	210,000	170,000	170,000	200,000	200,000	200,000	190,000	-5.0%	2.0%
China	30,000	30,000	28,000	27,000	26,000	26,000	26,000	26,000	27,000	3.8%	-0.9%
Dem, Rep, Congo		20,000	20,000	20,000	20,000	19,000	19,000	31,000	31,000	0.0%	
Germany							2,000				
Indonesia	30,000			26,000	51,000	28,000		24,000	24,000	0.0%	-1.8%
Kazakhstan	18,000					20,000	20,000	20,000	20,000	0.0%	0.9%
Mexico	38,000	46,000	46,000	46,000	50,000	53,000	53,000	53,000	53,000	0.0%	2.8%
Peru	90,000	82,000	81,000	81,000	83,000	87,000	92,000	77,000	81,000	5.2%	-0.9%
Poland	26,000						32,000	31,000	30,000	-3.2%	1.2%
Russia	30,000	30,000	30,000		61,000	61,000	61,000	62,000	62,000	0.0%	6.2%
United States	35,000	33,000	35,000	45,000	48,000	51,000	48,000	48,000	44,000	-8.3%	1.9%
Zambia	20,000	20,000	20,000	20,000	19,000	19,000	21,000	21,000	19,000	-9.5%	-0.4%
Others	80,000	150,000	150,000	260,000	210,000	220,000	200,000	180,000	200,000	11.1%	7.9%
<b>World (rounded)</b>	<b>630,000</b>	<b>720,000</b>	<b>720,000</b>	<b>790,000</b>	<b>830,000</b>	<b>870,000</b>	<b>870,000</b>	<b>880,000</b>	<b>890,000</b>	<b>1.1%</b>	<b>2.9%</b>

## The World Top 10 (2022)

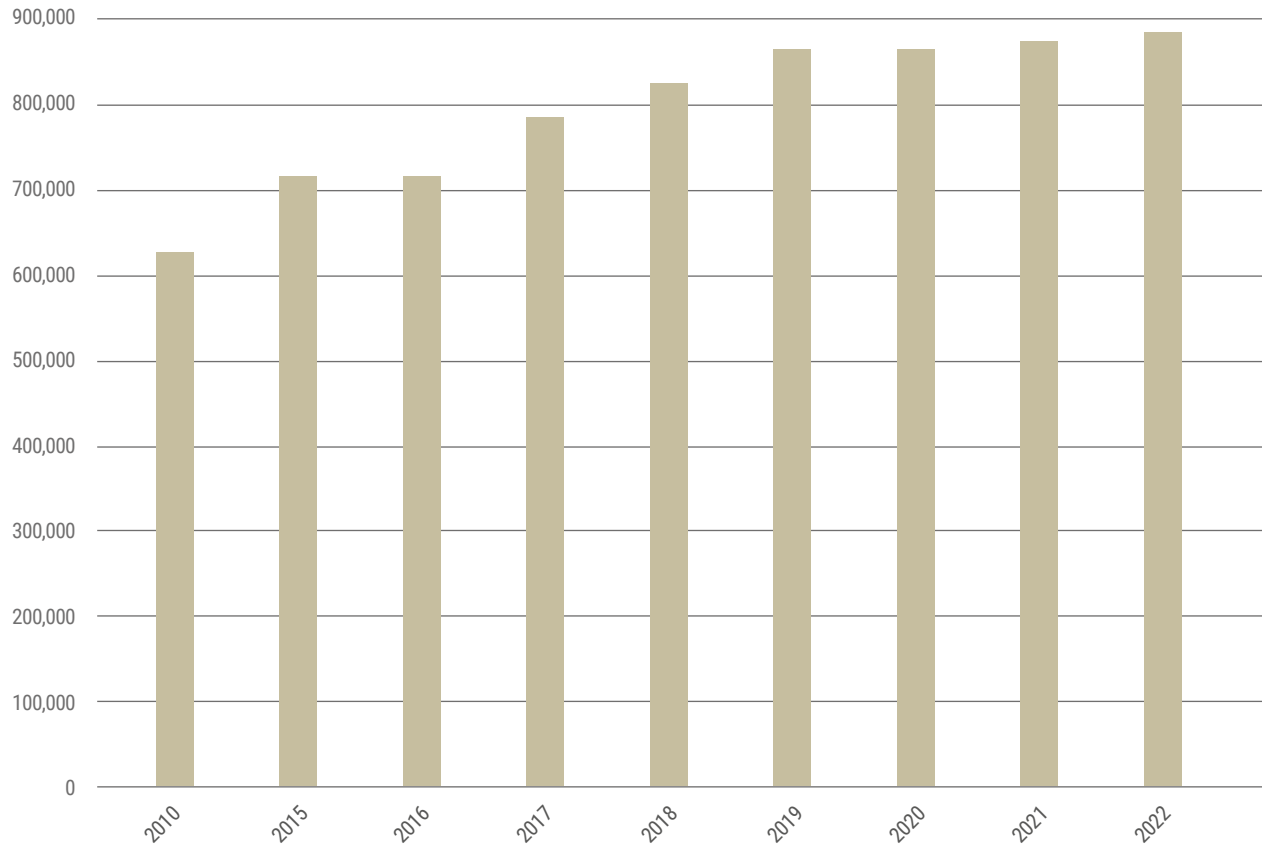


<sup>(\*)</sup> Data source: U.S. Geological Survey.

# Copper - Reserves

## World Copper Reserves

(thousand tons)



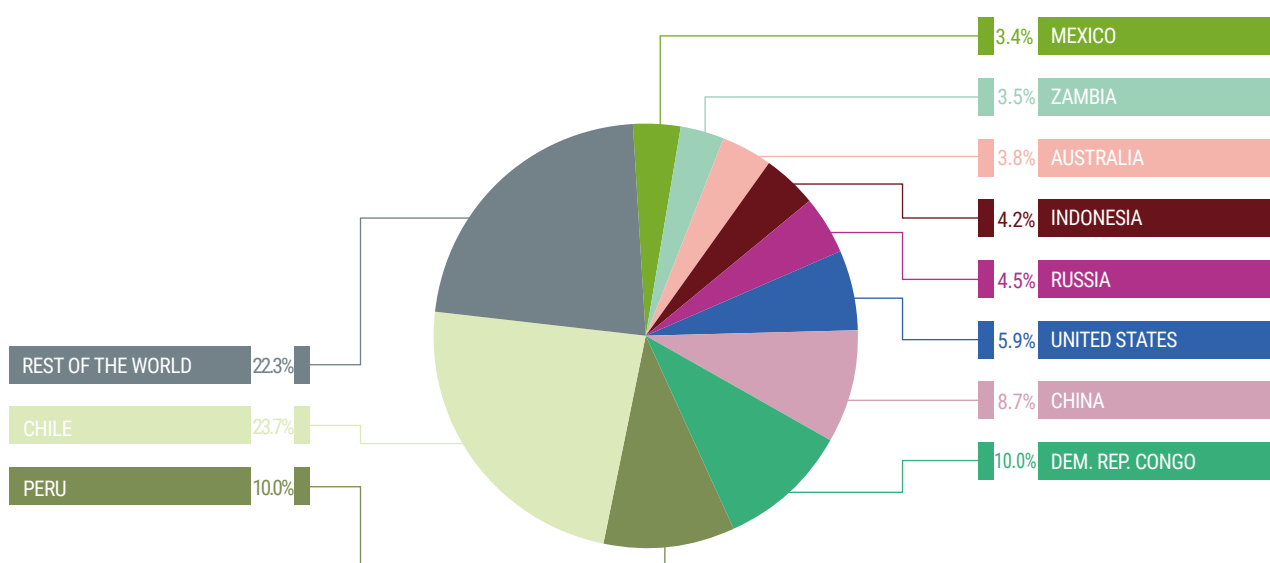
# Copper - Production

## Countries<sup>(\*)</sup>

(thousand tons)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
Australia	870	971	948	860	920	934	885	813	830	2.1%	-0.4%
Canada	525	697	708			573	585	550	530	-3.6%	0.1%
Chile	5,420	5,760	5,550	5,500	5,830	5,790	5,730	5,620	5,200	-7.5%	-0.3%
China	1,190	1,710	1,900	1,710	1,590	1,680	1,720	1,910	1,900	-0.5%	4.0%
Dem. Rep. Congo	343	1,020	846	1,090	1,230	1,290	1,600	1,740	2,200	26.4%	16.8%
Indonesia	872		727	622	651		505	731	920	25.9%	0.4%
Kazakhstan	380				603	562	552	510	580	13.7%	3.6%
Mexico	260	594	752	742	751	715	733	734	740	0.8%	9.1%
Peru	1,250	1,700	2,350	2,450	2,400	2,460	2,150	2,300	2,200	-4.3%	4.8%
Poland	425					399	393	391	390	-0.3%	-0.7%
Russia	703	732		705	751	801	810	940	1,000	6.4%	3.0%
United States	1,110	1,380	1,430	1,260	1,220	1,260	1,200	1,230	1,300	5.7%	1.3%
Zambia	690	712	763	794	854	797	853	842	770	-8.6%	0.9%
Others	1,900	3,800	4,160	4,250	3,540	3,100	2,840	2,850	3,400	19.3%	5.0%
<b>World (rounded)</b>	<b>15,900</b>	<b>19,100</b>	<b>20,100</b>	<b>20,000</b>	<b>20,400</b>	<b>20,400</b>	<b>20,600</b>	<b>21,200</b>	<b>22,000</b>	<b>3.8%</b>	<b>2.7%</b>

## The World Top 10 (2022)



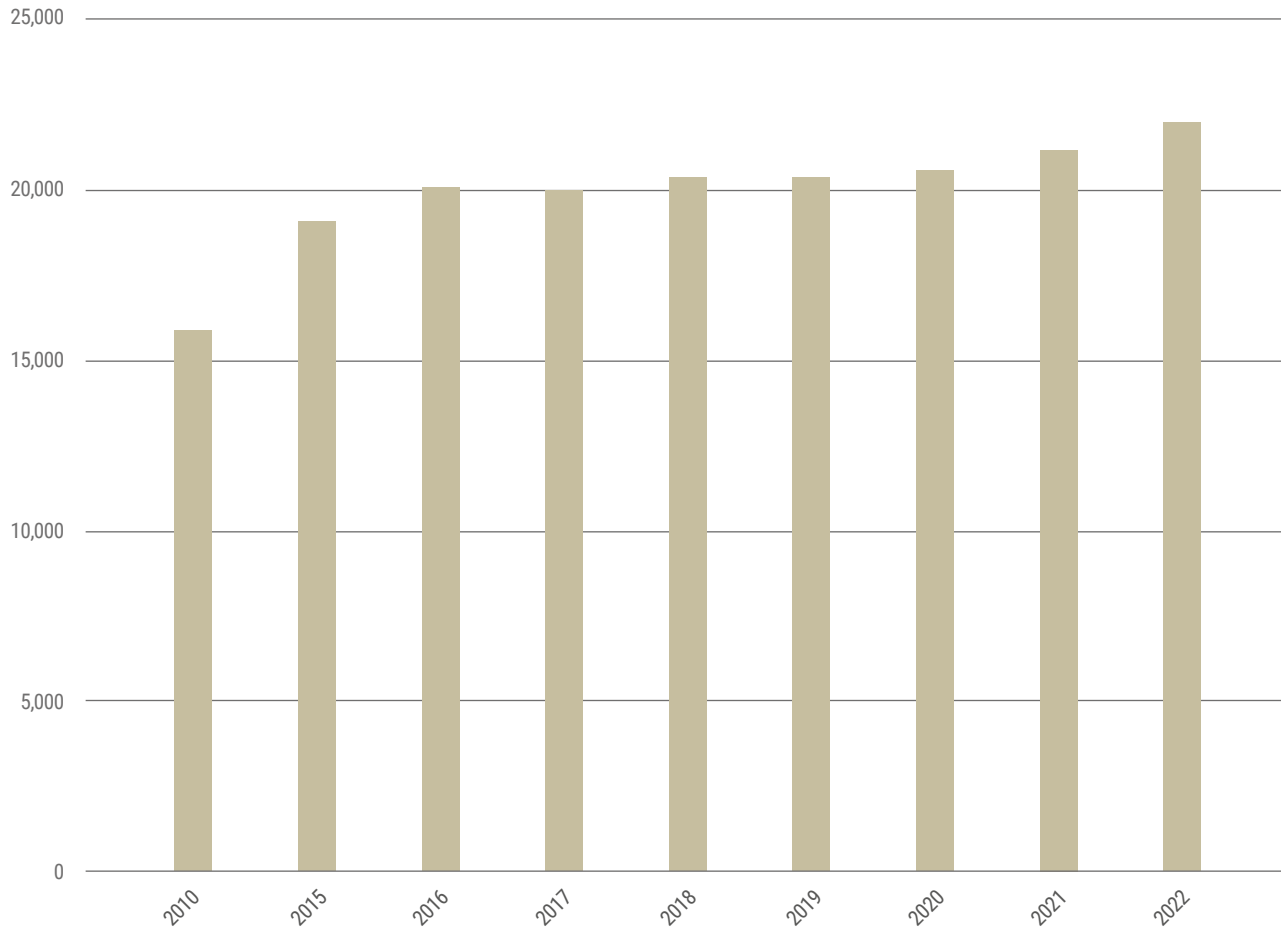
<sup>(\*)</sup> Data source: U.S. Geological Survey.



# Copper - Production

## World Copper Production

(thousand tons)



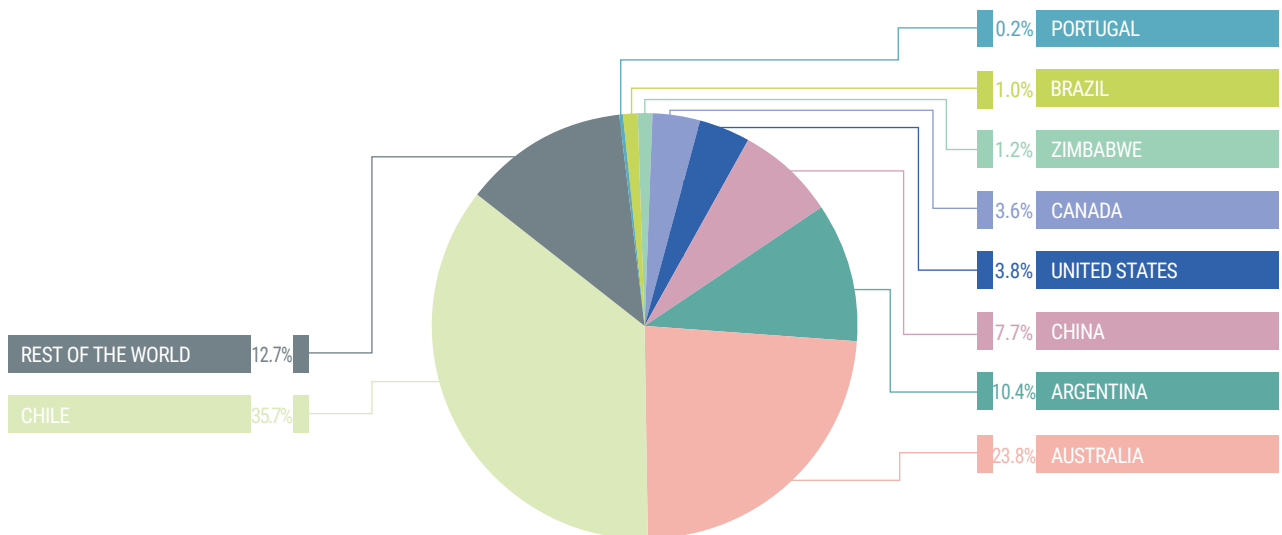
# Lithium - Reserves

## Countries<sup>(\*)</sup>

(tons)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
Argentina	850,000	2,000,000	2,000,000	2,000,000	2,000,000	1,700,000	1,900,000	2,200,000	2,700,000	22.7%	10.1%
Australia	580,000	1,500,000	1,600,000	2,700,000	2,700,000	2,800,000	4,700,000	5,700,000	6,200,000	8.8%	21.8%
Brazil	64,000	48,000	48,000	48,000	54,000	95,000	95,000	95,000	250,000	163.2%	12.0%
Canada						370,000	530,000		930,000		
Chile	7,500,000	7,500,000	7,500,000	7,500,000	8,000,000	8,600,000	9,200,000	9,200,000	9,300,000	1.1%	1.8%
China	3,500,000	3,200,000	3,200,000	3,200,000	1,000,000	1,000,000	1,500,000	1,500,000	2,000,000	33.3%	-4.6%
Portugal	10,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	0.0%	16.1%
United States	38,000	38,000	38,000	35,000	35,000	630,000	750,000	750,000	1,000,000	33.3%	31.3%
Zimbabwe	23,000	23,000	23,000	23,000	70,000	230,000	220,000	220,000	310,000	40.9%	24.2%
Others						1,100,000	2,100,000	2,700,000	3,300,000	22.2%	
<b>World (rounded)</b>	<b>13,000,000</b>	<b>14,000,000</b>	<b>14,000,000</b>	<b>16,000,000</b>	<b>14,000,000</b>	<b>17,000,000</b>	<b>21,000,000</b>	<b>22,000,000</b>	<b>26,000,000</b>	<b>18.2%</b>	<b>5.9%</b>

## The World Top 9 (2022)

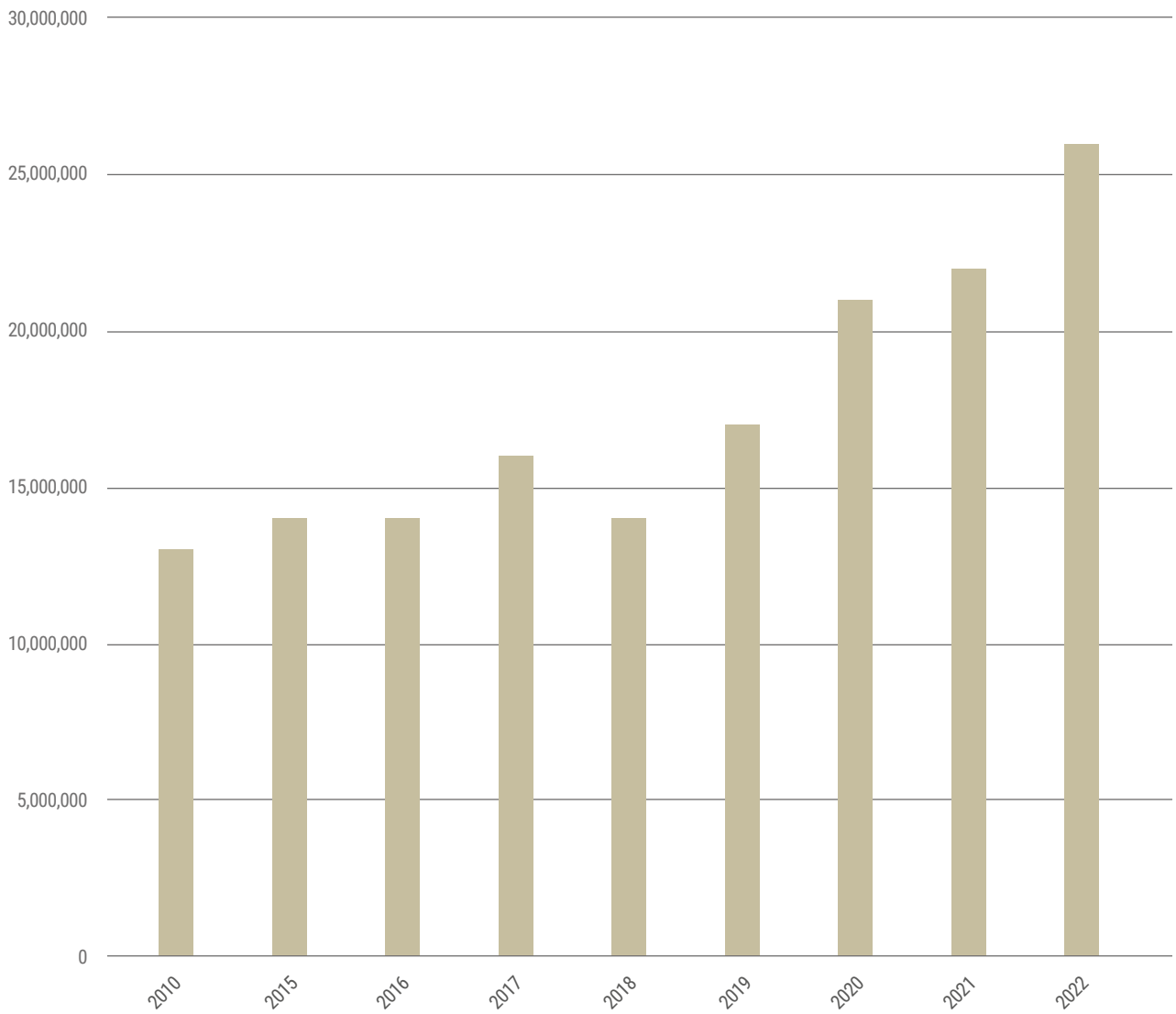


<sup>(\*)</sup> Data source: U.S. Geological Survey.

# Lithium - Reserves

## World Lithium Reserves

(tons)



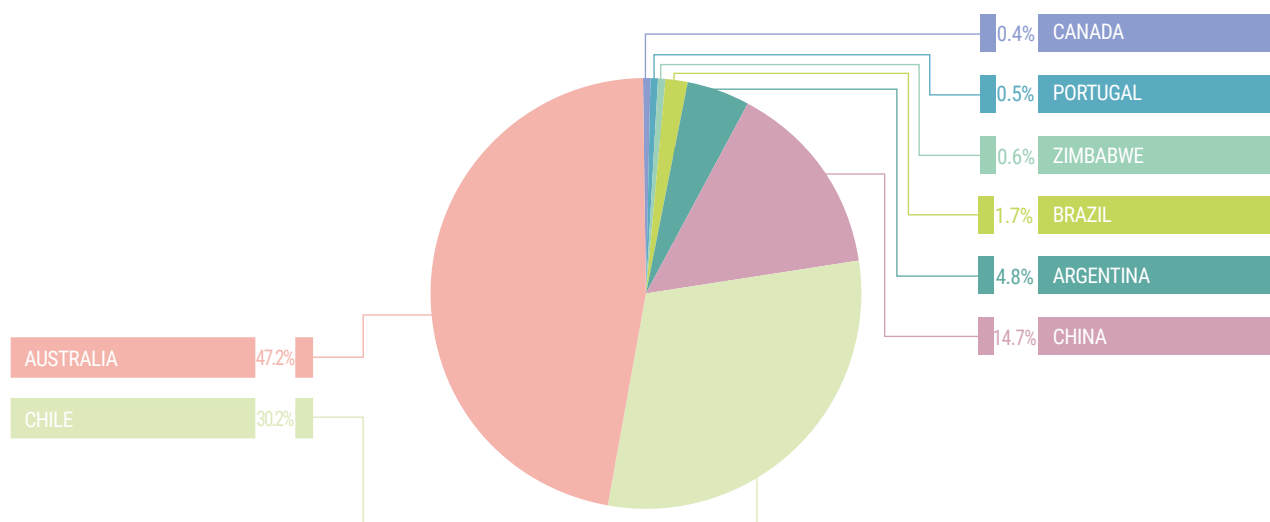
# Lithium - Production

## Countries<sup>(\*)</sup>

(tons)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
Argentina	2,950	3,600	5,800	5,700	6,400	6,300	5,900	5,970	6,200	3.9%	6.4%
Australia	9,260	14,100	14,000	40,000	58,800	45,000	39,700	55,300	61,000	10.3%	17.0%
Brazil	160	200	200	200	300	2,400	1,420	1,700	2,200	29.4%	24.4%
Canada					2,400	200			500		
Chile	10,510	10,500	14,300	14,200	17,000	19,300	21,500	28,300	39,000	37.8%	11.5%
China	3,950	2,000	2,300	6,800	7,100	10,800	13,300	14,000	19,000	35.7%	14.0%
Namibia					500						
Portugal	800	200	400	800	800	900	348	900	600	-33.3%	-2.4%
Zimbabwe	470	900	1,000	800	1,600	1,200	417	710	800	12.7%	4.5%
World (rounded)	28,100	31,500	38,000	69,000	95,000	86,000	82,500	107,000	130,000	21.5%	13.6%

## The World Top 8 (2022)

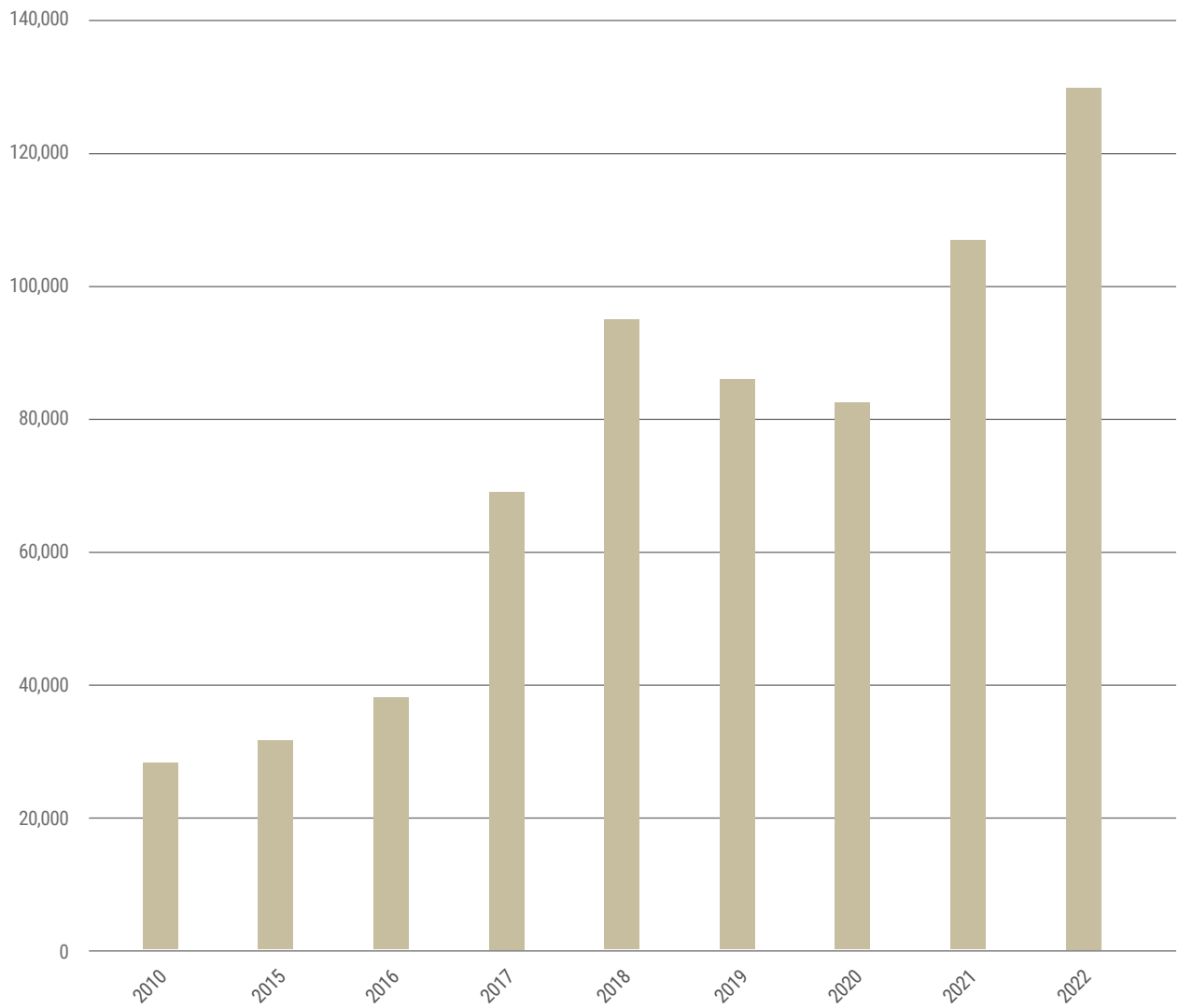


<sup>(\*)</sup> Data source: U.S. Geological Survey.

# Lithium - Production

## World Lithium Production

(tons)



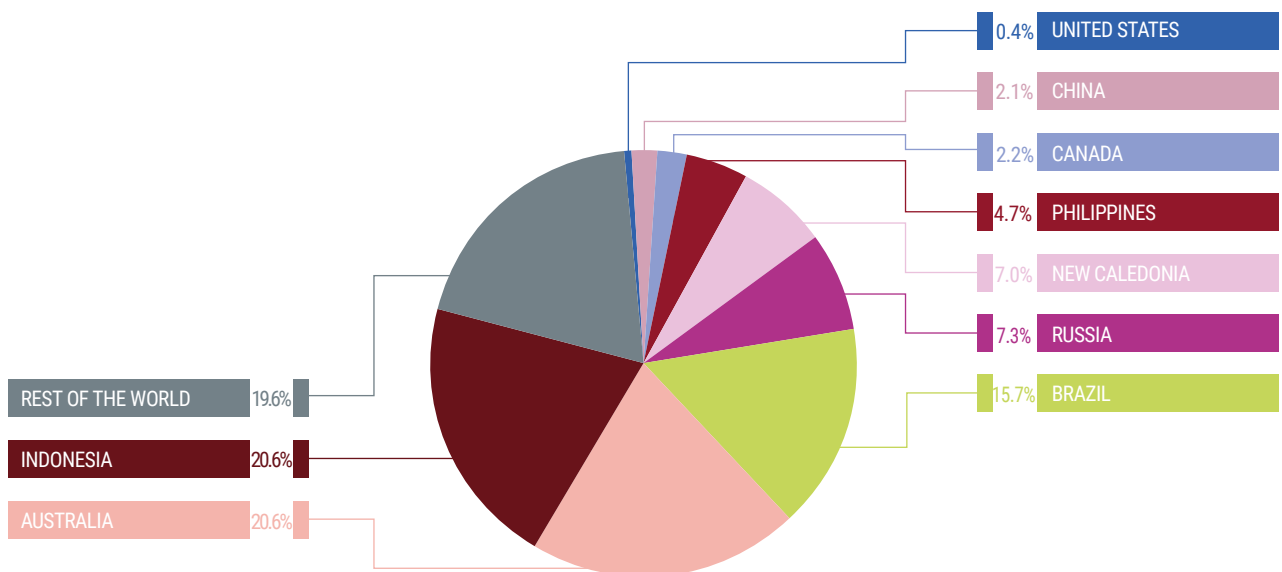
# Nickel - Reserves

## Countries<sup>(\*)</sup>

(tons)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
Australia	24,000,000	19,000,000	19,000,000	19,000,000	19,000,000	20,000,000	20,000,000	21,000,000	21,000,000	0.0%	-1.1%
Botswana	490,000										-100.0%
Brazil	8,700,000	10,000,000	10,000,000	12,000,000	11,000,000	11,000,000	16,000,000	16,000,000	16,000,000	0.0%	5.2%
Canada	3,800,000	2,900,000	2,900,000	2,700,000	2,700,000	2,600,000	2,800,000	2,000,000	2,200,000	10.0%	-4.5%
China	3,000,000	3,000,000	2,500,000	2,900,000	2,800,000	2,800,000	2,800,000	2,800,000	2,100,000		-2.9%
Colombia	1,600,000	1,100,000	1,100,000	1,100,000	440,000						-100.0%
Cuba	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000				-100.0%
Dominican Republic	960,000										-100.0%
Guatemala		1,800,000	1,800,000	1,800,000	1,800,000						
Indonesia	3,900,000	4,500,000	4,500,000	4,500,000	21,000,000	21,000,000	21,000,000	21,000,000	21,000,000	0.0%	15.1%
Madagascar	1,300,000	1,600,000	1,600,000	1,600,000	1,600,000						-100.0%
New Caledonia	7,100,000	8,400,000	6,700,000						7,100,000		0.0%
Philippines		3,100,000	4,800,000	4,800,000	4,800,000	4,800,000	4,800,000	4,800,000	4,800,000	0.0%	
Russia	6,000,000	7,900,000	7,600,000	7,600,000	7,600,000	6,900,000	6,900,000	7,500,000	7,500,000	0.0%	1.9%
South Africa	3,700,000	3,700,000	3,700,000	3,700,000	3,700,000						-100.0%
United States		160,000	160,000	130,000	110,000	110,000	100,000	340,000	370,000	8.8%	
Venezuela	490,000										-100.0%
Others	4,500,000	6,500,000	6,500,000	6,500,000	6,500,000	14,000,000	14,000,000	20,000,000	20,000,000	0.0%	13.2%
<b>World (rounded)</b>	<b>76,000,000</b>	<b>79,000,000</b>	<b>78,000,000</b>	<b>74,000,000</b>	<b>89,000,000</b>	<b>89,000,000</b>	<b>94,000,000</b>	<b>95,000,000</b>	<b>100,000,000</b>	<b>5.3%</b>	<b>2.3%</b>

## The World Top 9 (2022)

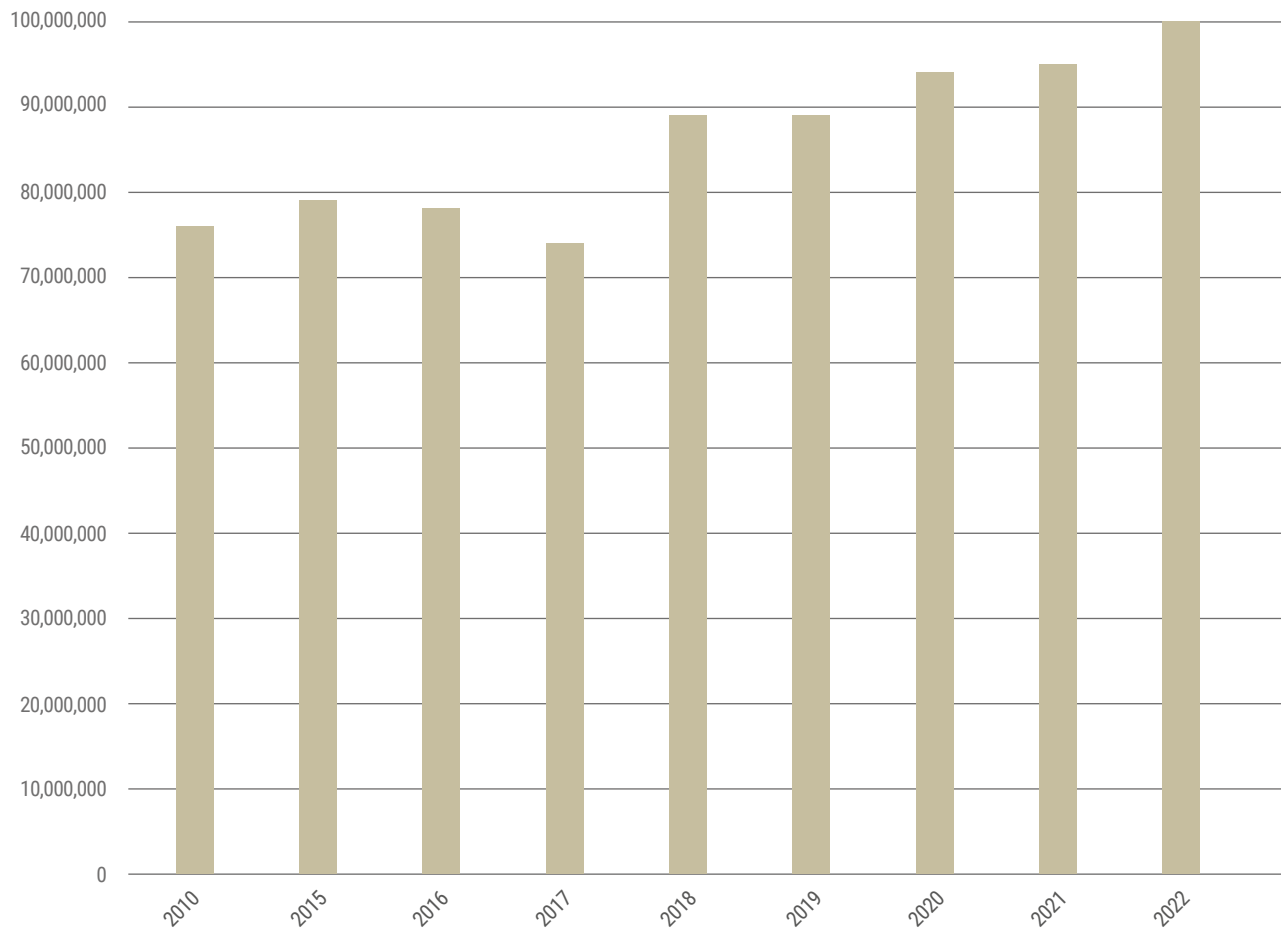


<sup>(\*)</sup> Data source: U.S. Geological Survey.

# Nickel - Reserves

## World Nickel Reserves

(tons)



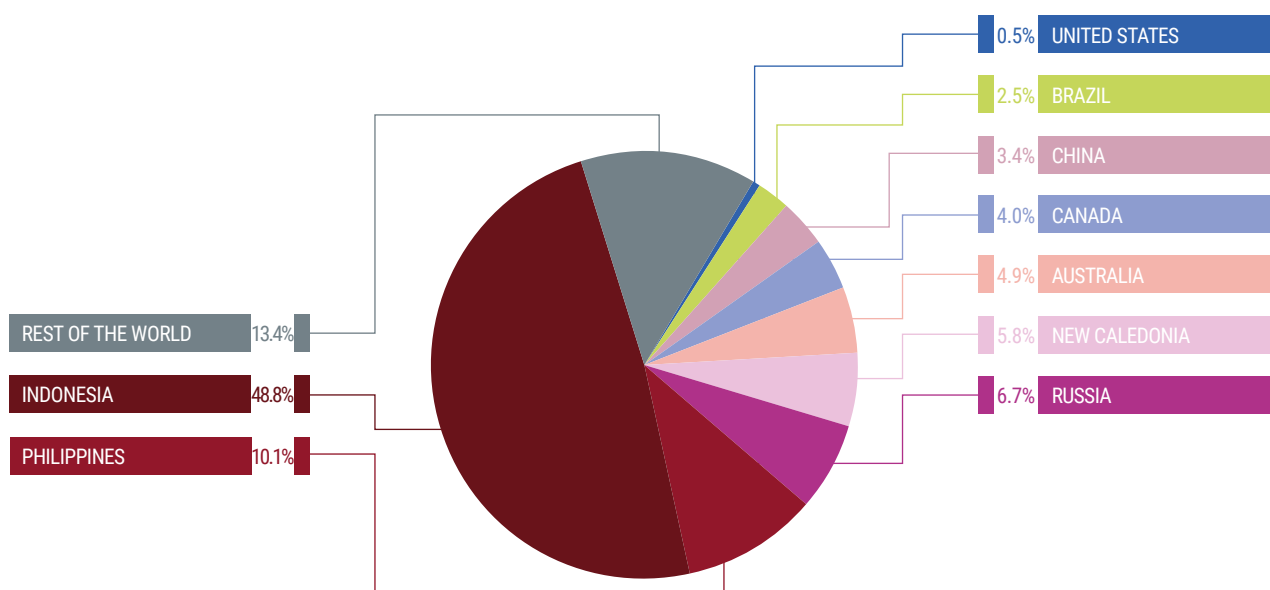
# Nickel - Production

## Countries<sup>(\*)</sup>

(tons)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
Australia	170,000	222,000	204,000	179,000	170,000	159,000	169,000	151,000	160,000	6.0%	-0.5%
Botswana	28,000										-100.0%
Brazil	59,100	160,000	160,000	78,600	74,400	60,600	77,100	76,000	83,000	9.2%	2.9%
Canada	158,000	235,000	236,000	214,000	176,000	181,000	167,000	134,000	130,000	-3.0%	-1.6%
China	79,000	92,900	98,000	103,000	110,000	120,000	120,000	109,000	110,000	0.9%	2.8%
Colombia	72,000	40,400	41,600	45,500							-100.0%
Cuba	70,000	56,400	51,600	52,800	51,000	49,200					-100.0%
Dominican Republic						56,900					
Finland				34,600							
Guatemala		52,400	54,000	53,700							
Indonesia	232,000	130,000	199,000	345,000	606,000	853,000	771,000	1,040,000	1,600,000	53.8%	17.5%
Madagascar	15,000	45,000	49,000	41,700							-100.0%
New Caledonia	130,000	186,000	207,000	215,000	216,000	208,000	200,000	186,000	190,000	2.2%	3.2%
Philippines	173,000	554,000	347,000	366,000	345,000	323,000	334,000	387,000	330,000	-14.7%	5.5%
Russia	269,000	269,000	222,000	214,000	272,000	279,000	283,000	205,000	220,000	7.3%	-1.7%
South Africa	40,000	56,700	49,000	48,400							-100.0%
United States		27,200	24,100	22,100	17,800	13,500	16,700	18,400	18,000	-2.2%	
Others	99,000	157,000	150,000	146,000	366,000	310,000	373,000	429,000	440,000	2.6%	13.2%
<b>World (rounded)</b>	<b>1,590,000</b>	<b>2,280,000</b>	<b>2,090,000</b>	<b>2,160,000</b>	<b>2,400,000</b>	<b>2,610,000</b>	<b>2,510,000</b>	<b>2,730,000</b>	<b>3,300,000</b>	<b>20.9%</b>	<b>6.3%</b>

## The World Top 9 (2022)



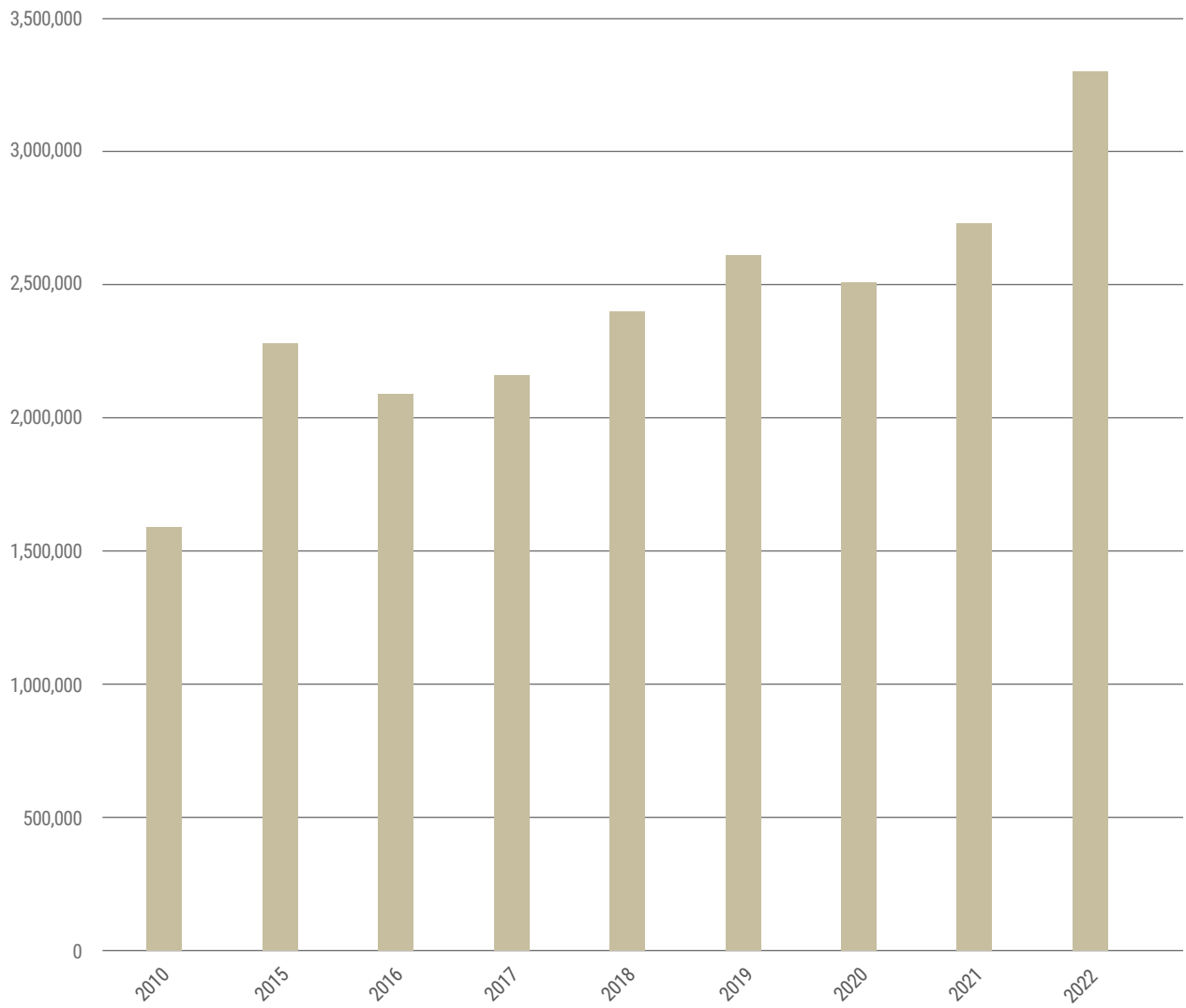
<sup>(\*)</sup> Data source: U.S. Geological Survey.



# Nickel - Production

## World Nickel Production

(tons)



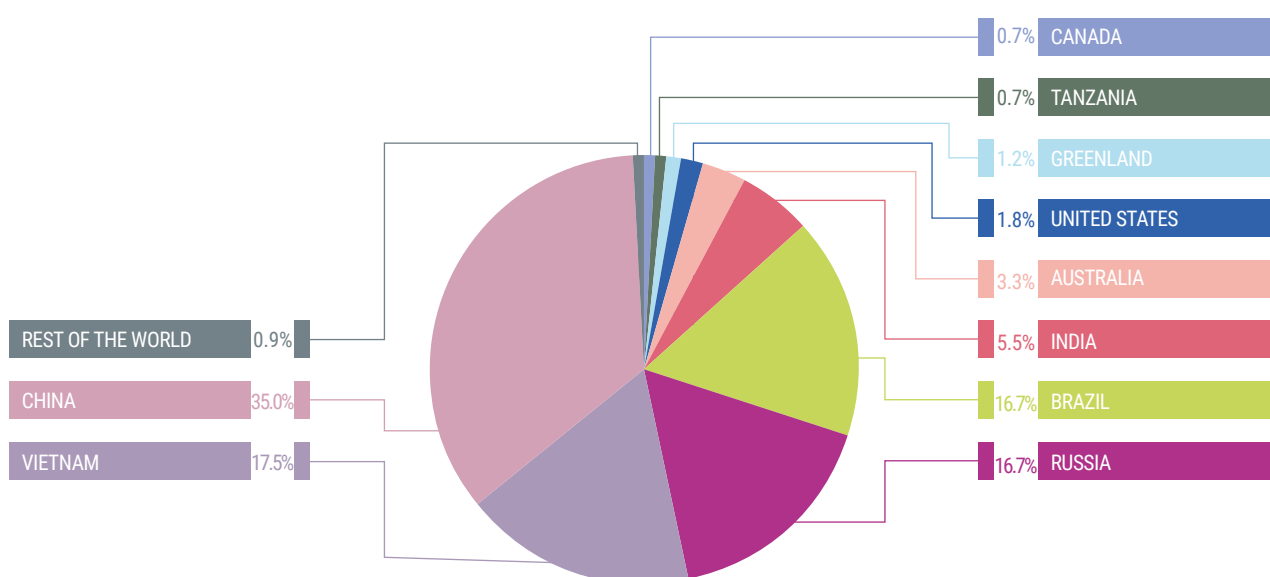
## Rare Earths - Reserves

### Countries<sup>(\*)</sup>

(tons)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
Australia	1,600,000	3,200,000	3,400,000	3,400,000	3,400,000	3,300,000	4,100,000	4,000,000	4,200,000	5.0%	8.4%
Brazil	48,000	22,000,000	22,000,000	22,000,000	22,000,000	22,000,000	21,000,000	21,000,000	21,000,000	0.0%	66.0%
Canada			830,000	830,000		830,000	830,000	830,000	830,000	0.0%	
China	55,000,000	55,000,000	44,000,000	44,000,000	44,000,000	44,000,000	44,000,000	44,000,000	44,000,000	0.0%	-1.8%
Commonwealth of Independent States <sup>**</sup>	19,000,000										-100.0%
Greenland			1,500,000	1,500,000		1,500,000	1,500,000	1,500,000	1,500,000	0.0%	
India	3,100,000	3,100,000	6,900,000	6,900,000	6,900,000	6,900,000	6,900,000	6,900,000	6,900,000	0.0%	6.9%
Malawi			136,000	140,000							
Malaysia	30,000	30,000	30,000	30,000	30,000						-100.0%
Russia			18,000,000	18,000,000	12,000,000	12,000,000	12,000,000	21,000,000	21,000,000	0.0%	
South Africa			860,000	860,000		790,000	790,000	790,000	790,000	0.0%	
Tanzania								890,000	890,000	0.0%	
United States	13,000,000	1,800,000	1,400,000	1,400,000	1,400,000	1,400,000	1,500,000	1,800,000	2,300,000	27.8%	-13.4%
Vietnam			22,000,000	22,000,000	22,000,000	22,000,000	22,000,000	22,000,000	22,000,000	0.0%	
Others	22,000,000	41,000,000			4,400,000	310,000	310,000	280,000	280,000	0.0%	-30.5%
<b>World (rounded)</b>	<b>110,000,000</b>	<b>130,000,000</b>	<b>120,000,000</b>	<b>120,000,000</b>	<b>120,000,000</b>	<b>120,000,000</b>	<b>120,000,000</b>	<b>120,000,000</b>	<b>130,000,000</b>	<b>8.3%</b>	<b>1.4%</b>

### The World Top 10 (2022)



(\*) Data source: U.S. Geological Survey.

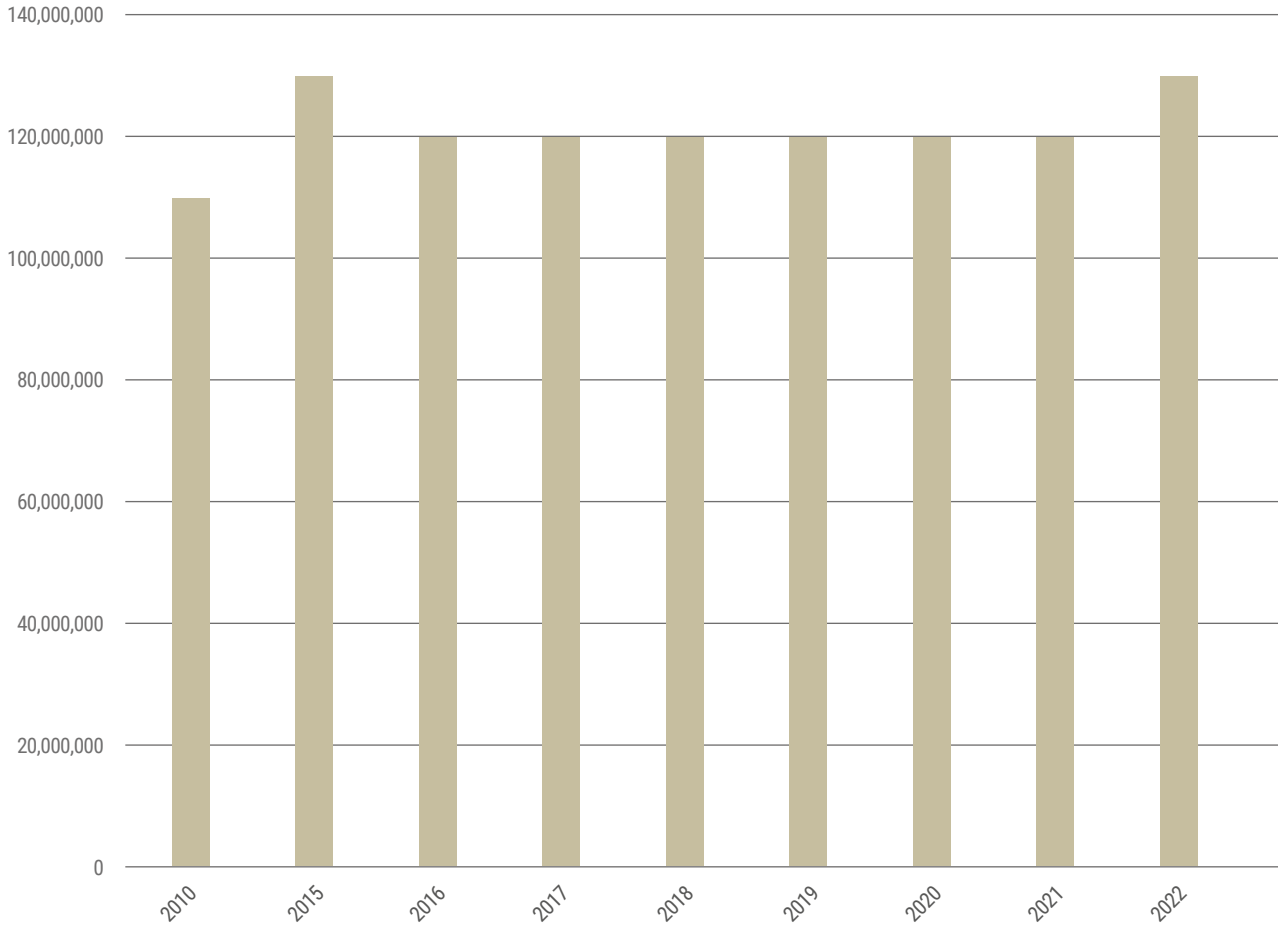
(\*\*) The aggregate includes the following states according to international definitions: Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine and Uzbekistan.

However, some of these countries may not produce rare earths.

# Rare Earths - Reserves

## World Rare Earths Reserves

(tons)



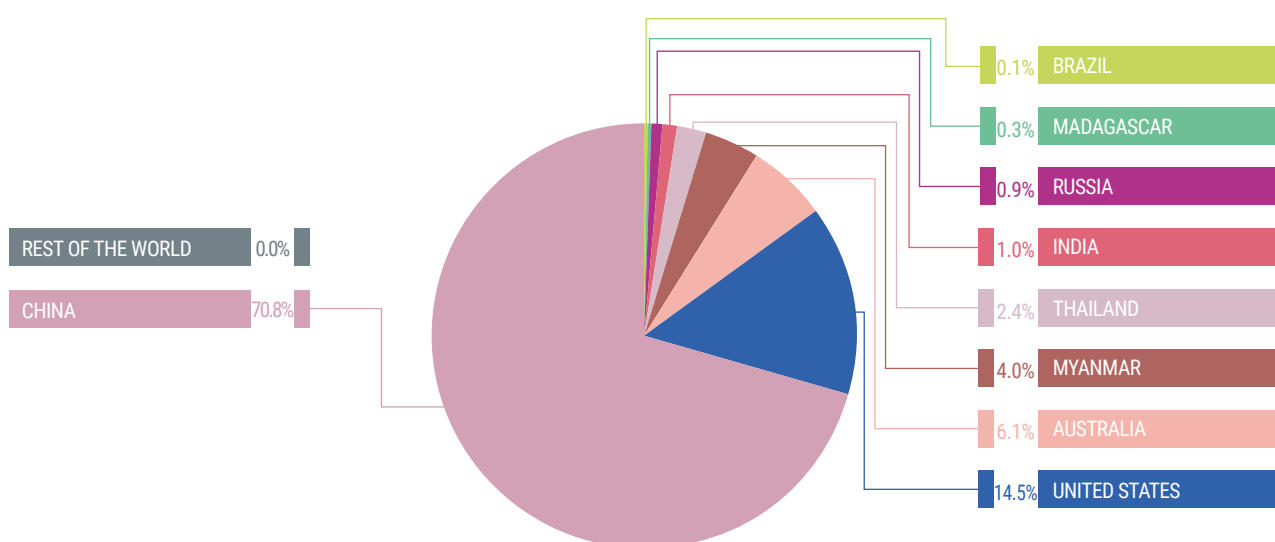
## Rare Earths - Production

### Countries<sup>(\*)</sup>

(tons)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
Australia		12,000	15,000	19,000	21,000	20,000	21,000	24,000	18,000	-25.0%	
Brazil	550	880	2,200	1,700	1,100	710	600	500	80	-84.0%	-14.8%
Burundi					630	200	300	200		-100.0%	
China	130,000	105,000	105,000	105,000	120,000	132,000	140,000	168,000	210,000	25.0%	4.1%
India	2,800	1,700	1,500	1,800	2,900	2,900	2,900	2,900	2,900	0.0%	0.3%
Madagascar					2,000	4,000	2,800	6,800	960	-85.9%	
Malaysia	30	500	300	180							-100.0%
Myanmar					19,000	25,000	31,000	35,000	12,000	-65.7%	
Russia		2,800	2,800	2,600	2,700	2,700	2,700	2,600	2,600	0.0%	
Thailand		760	1,600	1,300	1,000	1,900	3,600	8,200	7,100	-13.4%	
United States		5,900			18,000	28,000	39,000	42,000	43,000	2.4%	
Vietnam		250	220	200	920	1,300	700	400		-100.0%	
Others					60	66	100	60	80	33.3%	
<b>World (rounded)</b>	<b>133,000</b>	<b>130,000</b>	<b>129,000</b>	<b>132,000</b>	<b>190,000</b>	<b>220,000</b>	<b>240,000</b>	<b>290,000</b>	<b>300,000</b>	<b>3.4%</b>	<b>7.0%</b>

### The World Top 9 (2022)

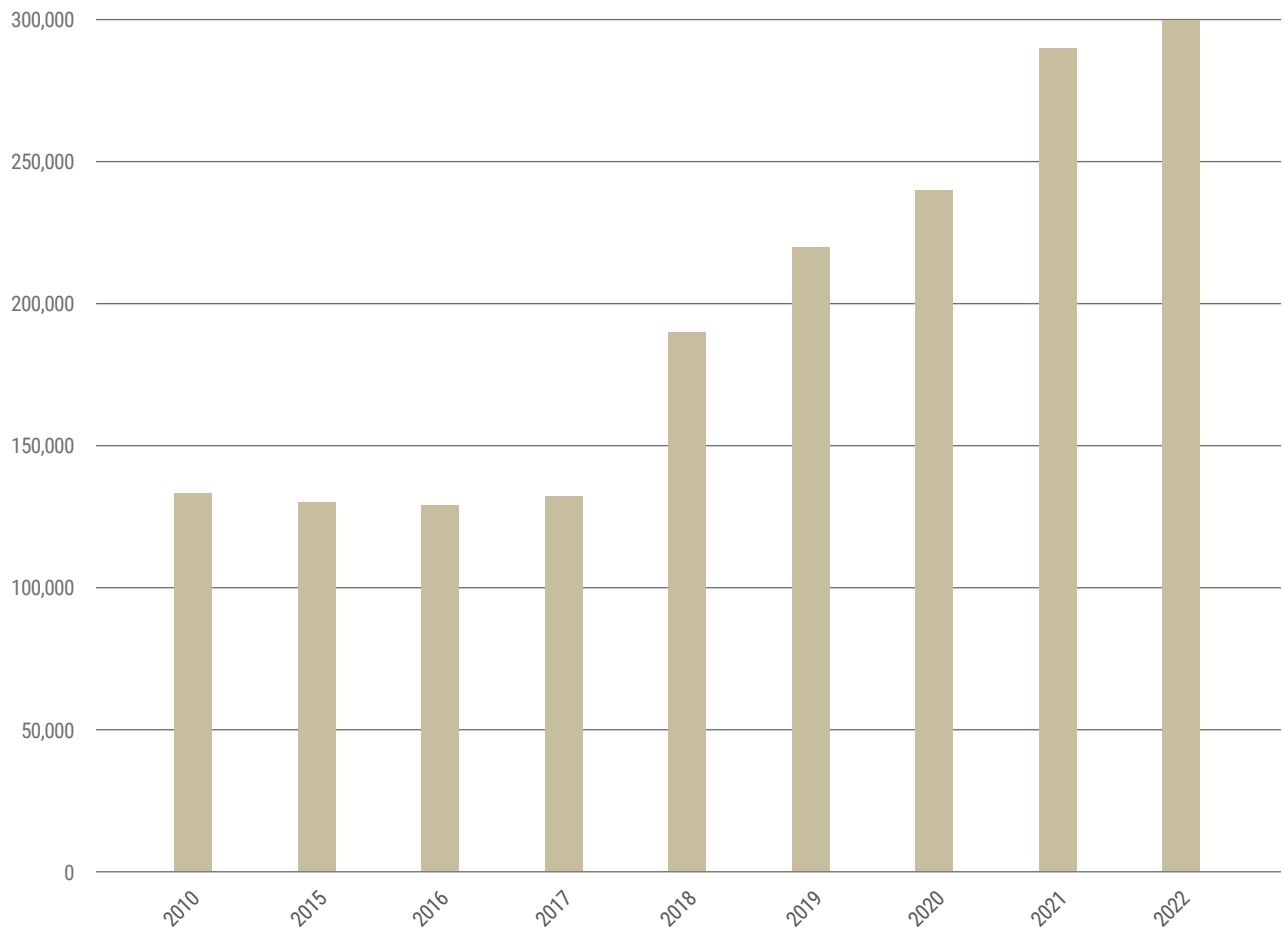


<sup>(\*)</sup> Data source: U.S. Geological Survey.

# Rare Earths - Production

## World Rare Earths Production

(tons)



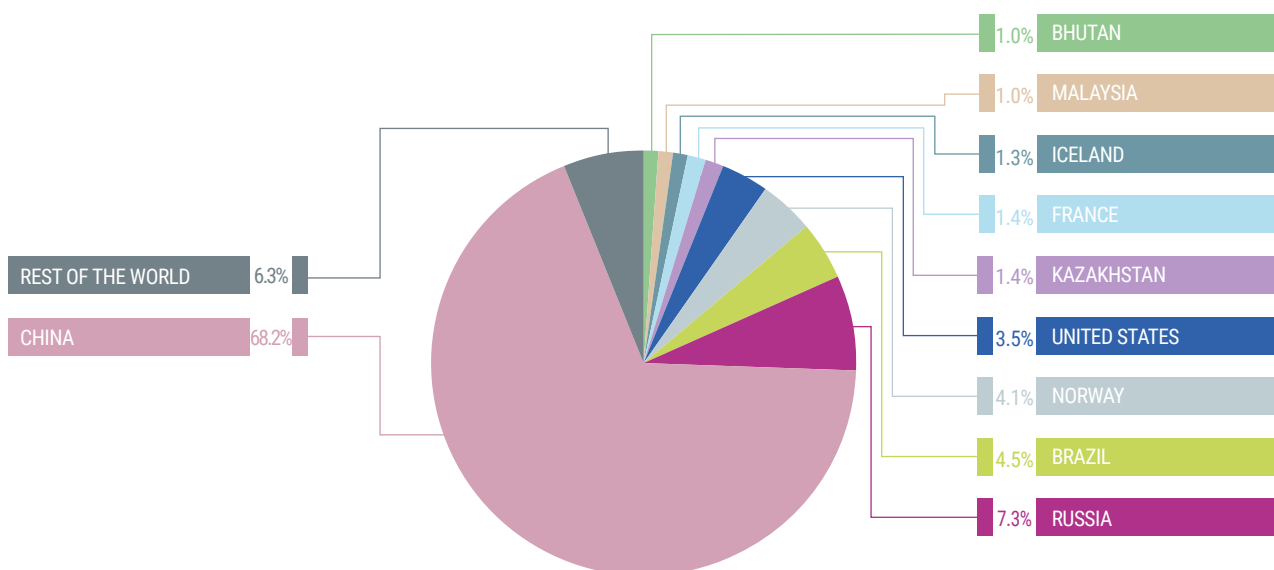
# Silicon - Production

## Countries<sup>(\*)</sup>

(thousand metric tons)

	2010	2015	2016	2017	2018	2019	2020	2021	2022	Δ y/y (2022-2021)	CAGR (2022-2010)
Australia							42	50	50	0.0%	
Bhutan		78	69	55	90	90	67	85	85	0.0%	
Brazil	224	117	110	170	220	340	404	389	400	2.8%	5.0%
Canada	52	54	51	54	57	57	47	49	49	0.0%	-0.2%
China	4,920	5,000	5,000	4,000	4,800	5,700	5,600	6,400	6,000	-6.3%	1.9%
France	127	121	120	126	140	130	112	127	120	-5.5%	-2.6%
Germany								63	63	0.0%	
Iceland	74	75	79	76	83	88	103	111	110	-0.9%	2.9%
India	66	60	59	59	57	60	59	59	59	0.0%	-1.2%
Kazakhstan							67	122	120	-1.6%	
Malaysia		68	82	113	140	150	109	85	92	8.2%	
Norway	303	375	380	375	370	375	345	362	360	-0.6%	1.4%
Poland					43		42	49	49	0.0%	
Russia	643	747	750	670	600	610	576	644	640	-0.6%	0.0%
South Africa	137	84	85	65		96					-100.0%
Spain		81	81	69	69	66	55	60	57	-5.0%	
Ukraine	127	59	66	60	49	63	40	49	19	-61.2%	-14.6%
Venezuela	50										-100.0%
United States	176	411	384	415	430	310	277	313	310	-1.0%	4.8%
Others	394	300	310	274	290	278	175	128	210	64.1%	-5.1%
<b>World (rounded)</b>	<b>7,290</b>	<b>7,630</b>	<b>7,600</b>	<b>6,580</b>	<b>7,400</b>	<b>8,410</b>	<b>8,120</b>	<b>9,150</b>	<b>8,800</b>	<b>-3.8%</b>	<b>1.6%</b>

## The World Top 10 (2022)

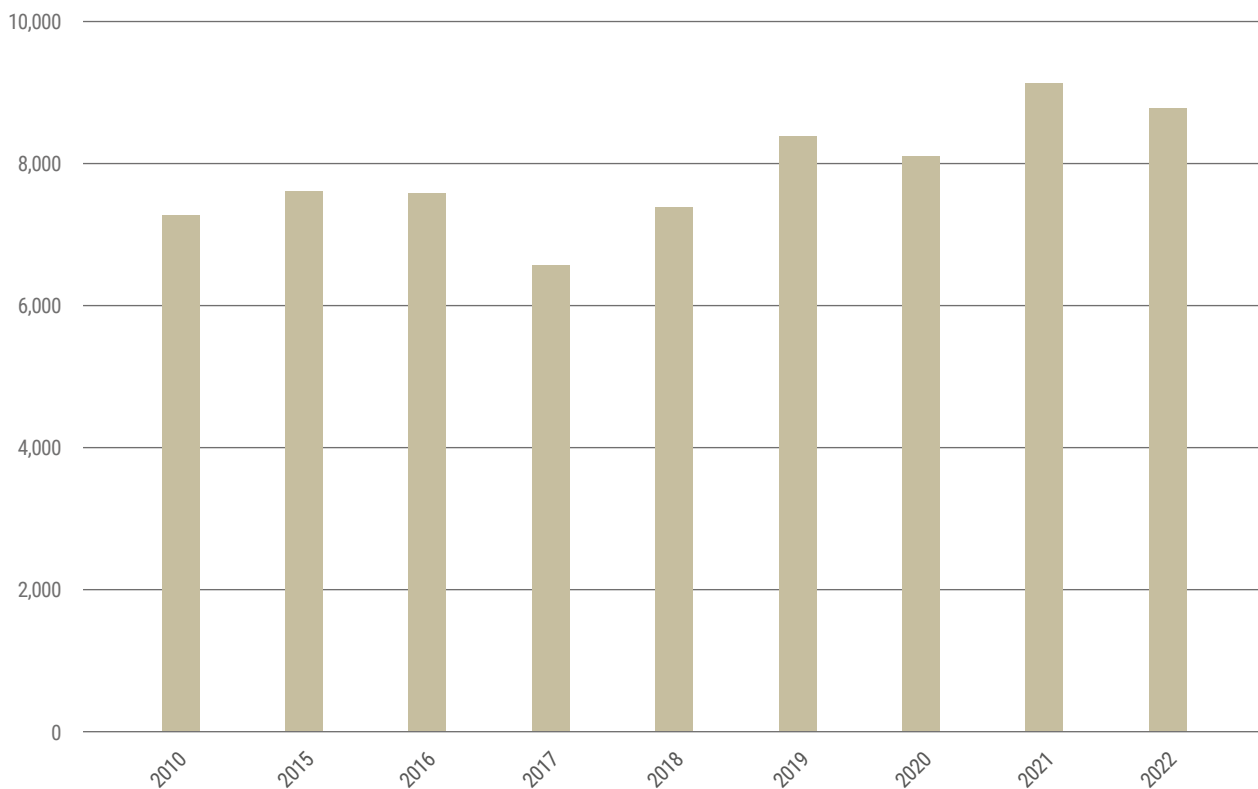


<sup>(\*)</sup> Data source: U.S. Geological Survey.

# Silicon - Production

## World Silicon Production

(tons)





# Eni SpA

## Headquarters

Piazzale Enrico Mattei, 1 - Rome - Italy

Capital Stock: € 4,005,358,876.00 fully paid up

Rome Companies

Register Tax Identification Number 00484960588

## Branches

Via Emilia, 1 - San Donato Milanese (MI) - Italy

## Web site

[eni.com](http://eni.com)

## Produced by

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