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The Hague, February 17, 2023

In accordance with Law of 23 December 2016, on market abuse, Repsol International Finance B.V. (the “**Company**”) is filing the attached information on oil and gas exploration and production activities of Repsol, S.A., the Guarantor of the Company’s Euro 10,000,000,000 Guaranteed Euro Medium Term Note Programme.

This information was filed yesterday by Repsol, S.A. with the Spanish Securities Market Commission (*Comisión Nacional del Mercado de Valores*).

* * *

2022

REPSOL Group

Information
on oil and gas
exploration
and production
activities

*Translation of a report
originally issued in Spanish.
In the event of a discrepancy,
the Spanish language
version prevails*



The Repsol Commitment
Net Zero Emissions
by 2050



REPSOL

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(1) About this report

This document contains information on the Repsol Group's oil and gas exploration and production activities. This unaudited information is published on an annual basis and is prepared in accordance with the criteria contained in Topic 932 of the "Financial Accounting Standards Boards" (FASB), that are generally applied in the oil and gas industry.

This information includes, in relation to the Repsol Group's oil and gas exploration and production activities:

- **Information on acreage.**
- **Exploration and development activities.**
- **Production of oil and gas.**
- **Net proved reserves**, which represent the estimate volume of proved developed and undeveloped reserves of oil and gas.
- **Future net cash flows**, which represents an estimate of standardized measure of discounted future net cash flows relating to proved oil and gas reserves, as well as the changes with respect to those presented for the previous year
- **Results of oil and gas exploration and production activities**, including revenue and expenses directly associated to the oil and gas exploration and production activities.
- **Investments** in oil and gas exploration and production activities, both accumulated, which shows capitalized historical costs (capitalized cost), and for the period, which represent the amounts capitalized during the year, including the dismantling obligations (cost incurred).

The financial information included in this document is consistent with that stated in the Group financial statements and management report (accessible at www.repsol.com), but there might be some differences due to the fact that the information included in the current document is presented in accordance with US GAAP (Topic 932 FASB) and the Group's official financial information is presented accordingly to International Financial Reporting Standards endorsed by the European Union (IFRS-UE).

Repsol Group estimates its proved reserves according to the standards established by the "SPE/WPC/AAPG/SPEE/SEG/SPWLA/EAGE Petroleum Resources Management System", generally referred to by its acronym "SPE-PRMS (SPE-Society of Petroleum Engineers)". The information here contained refers to the last three years (2022, 2021 and 2020).

In the Exploration and Production segment, an agreement was signed in September with EIG (through its subsidiary Breakwater Energy Holdings, S.Å R.L.) for the sale of a 25% stake in Repsol's hydrocarbon Exploration and Production business for a share price of \$3.35 billion (subject to customary closing adjustments in this type of transaction). This deal values the E&P business at \$19 billion. The transaction is expected to be close in the first quarter of the year, as the regulatory approvals and corporate reorganization of the business have been completed. Additionally, divestments in Malaysia, Ecuador, Russia and Greece and the sale of part of Canada's assets have been completed in 2022.

(2) Information on acreage

The following tables disclose details of Repsol's acreage and exploration and development activities by geographical region:

- **Developed and undeveloped acreage:** developed acreage consists of surface area that contains productive wells, while undeveloped acreage encompasses surface area that does not contain productive wells or in which these are not capable of producing hydrocarbons.

| (km ²) | Developed & undeveloped acreage | | | | | | | | | | | |
|---------------------------|---------------------------------|--------------------|----------------------|--------------------|--------------------------|--------------------|----------------------------|--------------------|----------------------|--------------------|----------------------|--------------------|
| | 2022 | | | | 2021 | | | | 2020 | | | |
| | Developed | | Undeveloped | | Developed ⁽³⁾ | | Undeveloped ⁽⁴⁾ | | Developed | | Undeveloped | |
| | Gross ⁽¹⁾ | Net ⁽²⁾ | Gross ⁽¹⁾ | Net ⁽²⁾ | Gross ⁽¹⁾ | Net ⁽²⁾ | Gross ⁽¹⁾ | Net ⁽²⁾ | Gross ⁽¹⁾ | Net ⁽²⁾ | Gross ⁽¹⁾ | Net ⁽²⁾ |
| Europe | 1,573 | 489 | 2,867 | 1,440 | 1,588 | 499 | 9,535 | 4,773 | 1,924 | 594 | 27,495 | 11,922 |
| Norway | 469 | 73 | 1,594 | 521 | 478 | 80 | 1,594 | 521 | 741 | 177 | 3,294 | 1,200 |
| United Kingdom | 1,082 | 399 | 428 | 138 | 1,087 | 402 | 425 | 136 | 1,161 | 400 | 424 | 135 |
| Rest of Europe | 22 | 17 | 844 | 780 | 22 | 17 | 7,515 | 4,116 | 22 | 17 | 23,778 | 10,587 |
| Latin America | 2,915 | 688 | 60,064 | 28,088 | 2,960 | 704 | 62,434 | 28,500 | 2,962 | 704 | 67,556 | 30,805 |
| Brazil | 838 | 80 | 6,790 | 3,796 | 838 | 80 | 7,163 | 3,492 | 838 | 80 | 7,861 | 3,575 |
| Colombia | 268 | 77 | 39,470 | 19,429 | 268 | 77 | 39,470 | 19,429 | 268 | 77 | 43,430 | 21,426 |
| Peru | 238 | 48 | 1,456 | 245 | 238 | 48 | 1,456 | 245 | 238 | 48 | 1,456 | 245 |
| Trinidad & Tobago | 152 | 45 | 2,794 | 838 | 152 | 45 | 2,794 | 838 | 153 | 45 | 2,793 | 838 |
| Venezuela | 806 | 192 | 2,185 | 661 | 806 | 192 | 2,185 | 661 | 806 | 192 | 2,185 | 661 |
| Rest of Latin America | 615 | 247 | 7,370 | 3,119 | 660 | 263 | 9,367 | 3,835 | 661 | 263 | 9,831 | 4,059 |
| North America | 3,180 | 2,219 | 18,415 | 7,912 | 3,420 | 2,414 | 19,756 | 8,815 | 3,433 | 2,444 | 19,843 | 9,033 |
| Canada | 2,070 | 1,331 | 4,735 | 762 | 2,422 | 1,604 | 5,937 | 2,446 | 1,621 | 1,621 | 6,222 | 1,930 |
| United States | 1,109 | 888 | 4,560 | 2,628 | 998 | 810 | 4,166 | 2,322 | 987 | 823 | 3,968 | 2,261 |
| Rest of North America | - | - | 9,120 | 4,522 | - | - | 9,653 | 4,842 | - | - | 9,653 | 4,842 |
| Africa | 2,777 | 816 | 17,065 | 4,642 | 2,777 | 763 | 17,065 | 4,696 | 4,246 | 1,095 | 26,965 | 8,355 |
| Asia & Oceania | 2,562 | 970 | 10,531 | 6,598 | 3,937 | 1,553 | 65,346 | 52,160 | 4,342 | 1,738 | 119,591 | 87,116 |
| Indonesia | 2,555 | 968 | 10,078 | 6,278 | 2,555 | 968 | 10,614 | 6,707 | 2,594 | 979 | 15,878 | 10,021 |
| Malaysia | - | - | - | - | 1,293 | 526 | 1,004 | 351 | 1,293 | 526 | 1,004 | 351 |
| Russia | - | - | - | - | - | - | 3,519 | 1,760 | 47 | 23 | 5,020 | 3,046 |
| Rest of Asia and Oceania | 7 | 2 | 453 | 320 | 89 | 59 | 50,208 | 43,341 | 408 | 211 | 97,689 | 73,698 |
| Total | 13,006 | 5,183 | 108,942 | 48,680 | 14,682 | 5,933 | 174,135 | 98,944 | 16,908 | 6,576 | 261,450 | 147,230 |

- (1) Gross acreage is the area in which Repsol owns an interest.
- (2) Net acreage is the total of the fractional interest in the gross acreage position.
- (3) Includes 599 km² net from blocks in Ecuador, Malaysia and Vietnam sold in January 2022.
- (4) Includes 5,916 km² net from blocks in Ecuador, Greece, Russia, Malaysia and Vietnam sold in January 2022.

- **Acreage under development/production and exploration:** acreage under development consist of surface area occupied by blocks under development and/or production, while acreage under exploration is surface area occupied by assets in the exploration phase.

| (km ²) | Acreage in development or Exploration | | | | | | | | | | | |
|---------------------------|---------------------------------------|--------------------|----------------------|--------------------|----------------------------|--------------------|----------------------------|--------------------|----------------------|--------------------|----------------------|--------------------|
| | 2022 | | | | 2021 | | | | 2020 | | | |
| | Development | | Exploration | | Development ⁽³⁾ | | Exploration ⁽⁴⁾ | | Development | | Exploration | |
| | Gross ⁽¹⁾ | Net ⁽²⁾ | Gross ⁽¹⁾ | Net ⁽²⁾ | Gross ⁽¹⁾ | Net ⁽²⁾ | Gross ⁽¹⁾ | Net ⁽²⁾ | Gross ⁽¹⁾ | Net ⁽²⁾ | Gross ⁽¹⁾ | Net ⁽²⁾ |
| Europe | 2,729 | 1,087 | 1,711 | 842 | 2,729 | 1,092 | 8,393 | 4,180 | 4,687 | 1,841 | 24,733 | 10,675 |
| Norway | 838 | 227 | 1,225 | 368 | 847 | 233 | 1,225 | 368 | 2,810 | 1,009 | 1,225 | 368 |
| United Kingdom | 1,491 | 529 | 20 | 9 | 1,482 | 528 | 31 | 10 | 1,477 | 501 | 108 | 34 |
| Rest of Europe | 400 | 331 | 466 | 466 | 400 | 331 | 7,137 | 3,802 | 400 | 331 | 23,400 | 10,273 |
| Latin America | 14,062 | 4,046 | 48,917 | 24,731 | 15,450 | 4,531 | 49,944 | 24,673 | 15,411 | 4,528 | 55,107 | 26,981 |
| Brazil | 1,691 | 250 | 5,937 | 3,625 | 1,691 | 250 | 6,310 | 3,321 | 1,691 | 250 | 7,008 | 3,405 |
| Colombia | 1,432 | 211 | 38,305 | 19,295 | 1,432 | 211 | 38,305 | 19,295 | 1,393 | 208 | 42,305 | 21,295 |
| Peru | 1,693 | 292 | - | - | 1,693 | 292 | - | - | 1,693 | 292 | - | - |
| Trinidad & Tobago | 2,945 | 884 | - | - | 2,945 | 884 | - | - | 2,945 | 884 | - | - |
| Venezuela | 2,990 | 853 | - | - | 2,990 | 853 | - | - | 2,990 | 853 | - | - |
| Rest of Latin America | 3,310 | 1,555 | 4,675 | 1,810 | 4,698 | 2,041 | 5,329 | 2,056 | 4,698 | 2,041 | 5,794 | 2,281 |
| North America | 5,435 | 3,749 | 16,160 | 6,382 | 6,471 | 4,550 | 16,705 | 6,679 | 6,738 | 4,835 | 16,538 | 6,643 |
| Canada | 2,901 | 1,887 | 3,904 | 206 | 4,439 | 3,039 | 3,920 | 217 | 4,704 | 3,296 | 3,964 | 255 |
| United States | 2,534 | 1,862 | 3,136 | 1,654 | 2,032 | 1,511 | 3,131 | 1,621 | 2,034 | 1,539 | 2,921 | 1,545 |
| Rest of North America | - | - | 9,120 | 4,522 | - | - | 9,653 | 4,842 | - | - | 9,653 | 4,842 |
| Africa | 11,153 | 2,326 | 8,689 | 3,132 | 11,153 | 2,326 | 8,689 | 3,132 | 12,622 | 2,605 | 18,589 | 6,845 |
| Asia & Oceania | 2,478 | 1,048 | 10,614 | 6,520 | 4,857 | 1,983 | 64,425 | 51,730 | 5,739 | 2,362 | 118,194 | 86,492 |
| Indonesia | 2,018 | 727 | 10,614 | 6,520 | 2,018 | 727 | 11,151 | 6,949 | 2,018 | 727 | 16,454 | 10,273 |
| Malaysia | - | - | - | - | 2,297 | 877 | - | - | 2,297 | 877 | - | - |
| Russia | - | - | - | - | - | - | 3,519 | 1,760 | 357 | 174 | 4,711 | 2,895 |
| Rest of Asia and Oceania | 460 | 322 | - | - | 542 | 379 | 49,756 | 43,021 | 1,067 | 584 | 97,029 | 73,325 |
| Total | 35,856 | 12,256 | 86,092 | 41,607 | 40,660 | 14,483 | 148,157 | 90,393 | 45,196 | 16,171 | 233,161 | 137,635 |

- (1) Gross acreage surface area is the area in which Repsol owns an interest.
- (2) Net acreage is the total of the fractional interest in the gross acreage position.
- (3) Includes 1,420 km² net from blocks in Ecuador, Malaysia and Vietnam sold in January 2022.
- (4) Includes 5,095 km² net from blocks in Russia and Greece sold in January 2022.

(3) Production

The next table shows the productions in volume and the number of Repsol's productive wells by geographic area:

| | Net Production of liquids and natural gas by area | | | | | | | | | Productive wells by area | | | | | |
|---------------------------|---------------------------------------------------|-----------|-----------|-------------------|------------|------------|--------------|------------|------------|--------------------------|--------------|--------------|--------------|--------------|--------------|
| | Liquids (Mbbbl) | | | Natural gas (bcf) | | | Total (Mboe) | | | Oil | | | Gas | | |
| | 2022 | 2021 | 2020 | 2022 | 2021 | 2020 | 2022 | 2021 | 2020 | 2022 | 2021 | 2020 | 2022 | 2021 | 2020 |
| Europe | 11 | 10 | 14 | 30 | 30 | 29 | 16 | 16 | 19 | 184 | 187 | 230 | 13 | 15 | 11 |
| Norway | 4 | 4 | 5 | 25 | 26 | 24 | 9 | 9 | 9 | 33 | 27 | 66 | 11 | 13 | 8 |
| United Kingdom | 7 | 6 | 9 | 5 | 4 | 5 | 7 | 7 | 10 | 151 | 160 | 157 | 2 | 2 | 2 |
| Rest of Europe | - | 0 | 0 | - | 0 | 0 | - | 0 | 0 | - | - | 7 | - | - | 1 |
| Latin America | 27 | 29 | 30 | 381 | 382 | 440 | 95 | 97 | 108 | 711 | 717 | 741 | 224 | 207 | 207 |
| Brazil | 14 | 14 | 14 | 9 | 9 | 8 | 15 | 16 | 16 | 30 | 29 | 29 | - | - | - |
| Colombia | 4 | 3 | 3 | - | - | 1 | 4 | 3 | 3 | 484 | 458 | 446 | - | - | - |
| Peru | 4 | 4 | 5 | 70 | 56 | 68 | 17 | 14 | 17 | - | - | - | 28 | 28 | 28 |
| Trinidad & Tobago | 0 | 1 | 1 | 142 | 140 | 189 | 26 | 26 | 34 | 3 | 1 | 1 | 55 | 45 | 45 |
| Venezuela | 3 | 2 | 2 | 104 | 103 | 93 | 21 | 21 | 18 | 117 | 135 | 81 | 30 | 31 | 31 |
| Rest of Latin America | 2 | 4 | 5 | 57 | 74 | 80 | 12 | 17 | 19 | 77 | 94 | 184 | 111 | 103 | 103 |
| North America | 17 | 16 | 20 | 250 | 224 | 294 | 62 | 56 | 72 | 974 | 1,852 | 1,943 | 1,877 | 1,975 | 2,228 |
| Canada | 4 | 5 | 6 | 43 | 51 | 59 | 11 | 14 | 16 | 57 | 986 | 1,083 | 1,182 | 1,289 | 1,549 |
| United States | 13 | 11 | 14 | 207 | 174 | 234 | 50 | 42 | 56 | 917 | 866 | 860 | 695 | 686 | 679 |
| Rest of North America | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Africa | 12 | 15 | 7 | 16 | 26 | 34 | 15 | 20 | 13 | 383 | 377 | 387 | 25 | 22 | 93 |
| Asia & Oceania | 1 | 5 | 9 | 71 | 87 | 90 | 13 | 20 | 25 | 2 | 84 | 669 | 33 | 62 | 61 |
| Indonesia | 0 | 0 | 0 | 70 | 73 | 71 | 13 | 13 | 13 | 2 | 2 | 4 | 33 | 30 | 28 |
| Malaysia | 0 | 2 | 4 | 1 | 14 | 18 | 0 | 5 | 7 | - | 79 | 81 | - | 31 | 32 |
| Russia | - | 1 | 3 | - | - | - | - | 1 | 3 | - | - | 542 | - | - | - |
| Rest of Asia and Oceania | 0 | 1 | 1 | - | 1 | 2 | 0 | 1 | 2 | - | 3 | 42 | - | 1 | 1 |
| Total | 67 | 75 | 79 | 748 | 750 | 887 | 201 | 209 | 237 | 2,254 | 3,217 | 3,970 | 2,172 | 2,281 | 2,600 |

(4) Exploration and development activities

The following tables show Repsol's completed exploratory and developed wells by geographical region:

| | Exploration wells completed and in progress ⁽¹⁾ | | | | | | | | | | | | | | |
|---------------------------|------------------------------------------------------------|------|------|----------|------|------|------------------|------|------|-----------------|------|------|-------------|------|------|
| | Positive | | | Negative | | | Under evaluation | | | Total completed | | | In progress | | |
| | 2022 | 2021 | 2020 | 2022 | 2021 | 2020 | 2022 | 2021 | 2020 | 2022 | 2021 | 2020 | 2022 | 2021 | 2020 |
| Europe | - | - | - | - | 1 | - | - | - | - | - | 1 | - | - | - | - |
| Norway | - | - | - | - | 1 | - | - | - | - | - | 1 | - | - | - | - |
| United Kingdom | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Rest of Europe | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Latin America | 2 | 1 | 1 | 4 | - | - | - | - | - | 6 | 1 | 1 | 1 | 1 | 1 |
| Brazil | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Colombia | 2 | - | 1 | 2 | - | - | - | - | - | 4 | - | 1 | 1 | - | - |
| Peru | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Trinidad & Tobago | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Venezuela | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Rest of Latin America | - | 1 | - | 2 | - | - | - | - | - | 2 | 1 | - | - | 1 | 1 |
| North America | - | 1 | 5 | 1 | 1 | 1 | - | - | - | 1 | 2 | 6 | - | - | - |
| Canada | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| United States | - | 1 | 3 | 1 | - | - | - | - | - | 1 | 1 | 3 | - | - | - |
| Rest of North America | - | - | 2 | - | 1 | 1 | - | - | - | - | 1 | 3 | - | - | - |
| Africa | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Asia & Oceania | - | - | - | 1 | - | - | - | - | - | 1 | - | - | - | - | - |
| Indonesia | - | - | - | 1 | - | - | - | - | - | 1 | - | - | - | - | - |
| Malaysia | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Russia | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Rest of Asia and Oceania | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 2 | 2 | 6 | 6 | 2 | 1 | - | - | - | 8 | 4 | 7 | 1 | 1 | 1 |

(1) Excluding appraisal wells (3 completed in 2022, 2 completed positive and 1 completed negative; 2 completed in 2021, 2 completed positives and 1 in progress; and 2 completed in 2020, 1 completed positive and 1 completed in evaluation, and 1 in progress).

| | Completed development wells ⁽¹⁾ | | | | | | | | | | | |
|---------------------------|--------------------------------------------|------|------|----------|------|------|---------------|------|------|-------|------|------|
| | Positive | | | Negative | | | In evaluation | | | Total | | |
| | 2022 | 2021 | 2020 | 2022 | 2021 | 2020 | 2022 | 2021 | 2020 | 2022 | 2021 | 2020 |
| Europe | 11 | 8 | 4 | 1 | - | - | 2 | 1 | - | 14 | 9 | 4 |
| Norway | 7 | 6 | 4 | - | - | - | 2 | 1 | - | 9 | 7 | 4 |
| United Kingdom | 4 | 2 | - | 1 | - | - | - | - | - | 5 | 2 | - |
| Rest of Europe | - | - | - | - | - | - | - | - | - | - | - | - |
| Latin America | 24 | 12 | 15 | 4 | - | 1 | 1 | 3 | 1 | 29 | 15 | 17 |
| Brazil | - | - | 3 | - | - | - | - | 1 | 1 | - | 1 | 4 |
| Colombia | 18 | 9 | 9 | 4 | - | - | - | 1 | - | 22 | 10 | 9 |
| Peru | - | - | - | - | - | - | - | - | - | - | - | - |
| Trinidad & Tobago | - | 3 | - | - | - | - | - | - | - | - | 3 | - |
| Venezuela | - | - | - | - | - | - | - | - | - | - | - | - |
| Rest of Latin America | 6 | - | 3 | - | - | 1 | 1 | 1 | - | 7 | 1 | 4 |
| North America | 78 | 19 | 18 | 1 | - | - | 1 | - | - | 80 | 19 | 18 |
| Canada | - | - | 1 | - | - | - | 1 | - | - | 1 | - | 1 |
| United States | 78 | 19 | 17 | 1 | - | - | - | - | - | 79 | 19 | 17 |
| Africa | 14 | - | 6 | - | - | - | - | - | - | 14 | - | 6 |
| Asia & Oceania | 1 | 3 | 12 | - | - | 1 | - | 1 | - | 1 | 4 | 13 |
| Indonesia | 1 | 3 | - | - | - | - | - | 1 | - | 1 | 4 | - |
| Malaysia | - | - | 5 | - | - | - | - | - | - | - | - | 5 |
| Russia | - | - | 5 | - | - | 1 | - | - | - | - | - | 6 |
| Rest of Asia and Oceania | - | - | 2 | - | - | - | - | - | - | - | - | 2 |
| Total | 128 | 42 | 55 | 6 | - | 2 | 4 | 5 | 1 | 138 | 47 | 58 |

(1) Excluding pilot wells for development concept (1 in 2021, positive).

(5) Net proved oil and gas reserves

The tables below reflect the net developed and undeveloped proved reserves of crude oil, condensates, natural gas liquids and natural gas, including the volume of reserves equivalent to the financial income obtained under certain production-sharing contracts and service contracts in force as of December 31, 2022, 2021 and 2020, and the variations therein.

Repsol applies the criteria established by the Society of Petroleum Engineers' Petroleum Resource Management System (SPE/WPC/AAPG/SPEE/SEG/SPWLA/EAGE) to estimate its proved and unproved reserves of oil and gas. See Note 3.5.1 "Calculating the recoverable amount of the assets" of the 2022 Consolidated Financial Statements.

In accordance with these rules, proved oil and gas reserves are those quantities of crude oil, condensates, natural gas liquids and natural gas, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be commercially recoverable – from a given date forward, from known reservoirs, and under existing economic conditions, operating methods, and government regulations – prior to the time at which contracts providing the right to operate expire, regardless of whether deterministic or probabilistic methods are used for the estimation. The project to extract the hydrocarbons must have commenced or the operator must be reasonable certain that it will commence the project within a reasonable time.

In determining net reserves, we exclude from our reported reserves royalties due to others, whether payable in cash or in kind, where the royalty owner has a direct interest in the underlying production and is able to make lifting and sales arrangements independently. By contrast, to the extent that royalty payments required to be made to a third party, whether payable in cash or in kind, are a financial obligation, or are substantially equivalent to a production or severance tax, the related reserves are not excluded from our reported reserves despite the fact that such payments are referred to as "royalties" under local rules. Repsol follows the same methodology in reporting our production amounts.

All of Repsol's oil and gas reserves have been estimated by the company's petroleum engineers.

To control the quality of reserves booked, Repsol has established a process that is integrated into Repsol's internal control system. The process to manage reserves booking is centrally controlled by the Reserve Control Direction which is independent from the upstream activities and it is overseen by the Audit and Control Committee of the Repsol's Board. Furthermore, the volumes booked are submitted to third party engineers for a reserves audit on a periodic basis (at least 95% of the reserves are externally audited on a three years cycle).

For those areas submitted to third party audit, Repsol's proved reserves figures have to be within 7% of the third party reserves audit figures for Repsol to declare that the reserves information meets the third party reserves audit standards. In the event that the difference is greater than 7% tolerance, Repsol reestimates its proved reserves to achieve this tolerance level or discloses the third party reserves audit figures. In 2022, Repsol commissioned an external audit for various areas of South America and North America.

Estimates of developed and undeveloped proved reserves of crude oil, condensate and natural gas liquids:

| <i>Millions of barrels</i> | | | | | | | | |
|---------------------------------------------------------------|--------------|---------------|------------------|-------------|----------------------|------------------------|---------------|-------------------------|
| | <u>Total</u> | <u>Europe</u> | <u>Venezuela</u> | <u>Peru</u> | <u>United States</u> | <u>Rest of America</u> | <u>Africa</u> | <u>Asia and Oceania</u> |
| Fully-consolidated entities | | | | | | | | |
| Reserves at December 31st, 2019 ⁽¹⁾ | 415 | 35 | - | 84 | 114 | 74 | 90 | 17 |
| Revisions of previous estimates | 15 | (1) | - | (3) | - | (9) | 23 | 4 |
| Improved recovery | 4 | - | - | - | 2 | 2 | - | - |
| Extensions and discoveries | (6) | - | - | - | (6) | - | - | - |
| Purchases of minerals in place | - | - | - | - | - | - | - | - |
| Sales of minerals in place | - | - | - | - | - | - | - | - |
| Production ⁽¹⁾ | (47) | (5) | - | (5) | (14) | (11) | (7) | (6) |
| Reserves at December 31st, 2020 ⁽¹⁾ | 381 | 30 | - | 77 | 96 | 57 | 107 | 15 |
| Revisions of previous estimates | 36 | 2 | - | - | 16 | 1 | 17 | 1 |
| Improved recovery | 1 | - | - | - | - | 1 | - | - |
| Extensions and discoveries | 51 | - | - | - | 50 | 1 | - | - |
| Purchases of minerals in place | - | - | - | - | - | - | - | - |
| Sales of minerals in place | (6) | - | - | - | - | - | (4) | (2) |
| Production ⁽¹⁾ | (48) | (4) | - | (4) | (11) | (10) | (15) | (3) |
| Reserves at December 31st, 2021 ⁽¹⁾⁽²⁾ | 414 | 27 | - | 72 | 151 | 49 | 105 | 10 |
| Revisions of previous estimates | 19 | (3) | - | (4) | 9 | 11 | 6 | - |
| Improved recovery | 10 | - | - | - | - | 10 | - | - |
| Extensions and discoveries | 122 | - | - | - | 122 | - | - | - |
| Purchases of minerals in place | - | - | - | - | - | - | - | - |
| Sales of minerals in place | (27) | - | - | - | - | (18) | - | (9) |
| Production ⁽¹⁾ | (42) | (4) | - | (4) | (13) | (7) | (12) | (1) |
| Reserves at December 31st, 2022 ⁽¹⁾ | 496 | 19 | - | 63 | 269 | 45 | 99 | 1 |
| <i>Millions of barrels</i> | | | | | | | | |
| | <u>Total</u> | <u>Europe</u> | <u>Venezuela</u> | <u>Peru</u> | <u>United States</u> | <u>Rest of America</u> | <u>Africa</u> | <u>Asia and Oceania</u> |
| Equity-accounted investees | | | | | | | | |
| Reserves at December 31st, 2019 ⁽¹⁾ | 205 | 35 | 37 | - | - | 107 | - | 26 |
| Revisions of previous estimates | 23 | 11 | (8) | - | - | 23 | - | (3) |
| Improved recovery | - | - | - | - | - | - | - | - |
| Extensions and discoveries | 1 | - | - | - | - | - | - | 1 |
| Purchases of minerals in place | - | - | - | - | - | - | - | - |
| Sales of minerals in place | - | - | - | - | - | - | - | - |
| Production ⁽¹⁾ | (32) | (9) | (2) | - | - | (18) | - | (3) |
| Reserves at December 31st, 2020 ⁽¹⁾ | 196 | 37 | 28 | - | - | 112 | - | 20 |
| Revisions of previous estimates | 4 | (1) | - | - | - | 6 | - | - |
| Improved recovery | - | - | - | - | - | - | - | - |
| Extensions and discoveries | - | - | - | - | - | - | - | - |
| Purchases of minerals in place | - | - | - | - | - | - | - | - |
| Sales of minerals in place | (19) | - | - | - | - | - | - | (19) |
| Production ⁽¹⁾ | (27) | (6) | (2) | - | - | (17) | - | (1) |
| Reserves at December 31st, 2021 ⁽¹⁾⁽²⁾ | 155 | 30 | 25 | - | - | 101 | - | - |
| Revisions of previous estimates | 8 | (1) | 2 | - | - | 7 | - | - |
| Improved recovery | - | - | - | - | - | - | - | - |
| Extensions and discoveries | - | - | - | - | - | - | - | - |
| Purchases of minerals in place | - | - | - | - | - | - | - | - |
| Sales of minerals in place | - | - | - | - | - | - | - | - |
| Production ⁽¹⁾ | (25) | (7) | (3) | - | - | (16) | - | - |
| Reserves at December 31st, 2022 ⁽¹⁾ | 138 | 22 | 24 | - | - | 92 | - | - |
| Total fully-consolidated and equity-accounted entities | 635 | 41 | 24 | 63 | 269 | 137 | 99 | 1 |

Estimates of developed proved reserves of crude oil, condensate and natural gas liquids:

Millions of barrels

| | Total | Europe | Venezuela | Peru | United States | Rest of America | Africa | Asia and Oceania |
|-------------------------------|------------|-----------|-----------|-----------|---------------|-----------------|-----------|------------------|
| At December 31st, 2019 | 436 | 42 | 30 | 56 | 60 | 151 | 66 | 31 |
| Fully-consolidated entities | 264 | 10 | - | 56 | 60 | 59 | 66 | 13 |
| Equity-accounted investees | 171 | 32 | 30 | - | - | 92 | - | 18 |
| At December 31st, 2020 | 392 | 39 | 27 | 50 | 30 | 141 | 77 | 27 |
| Fully-consolidated entities | 217 | 6 | - | 50 | 30 | 41 | 77 | 12 |
| Equity-accounted investees | 175 | 33 | 27 | - | - | 100 | - | 15 |
| At December 31st, 2021 | 353 | 24 | 24 | 52 | 47 | 131 | 67 | 8 |
| Fully-consolidated entities | 212 | 4 | - | 52 | 47 | 34 | 67 | 8 |
| Equity-accounted investees | 141 | 20 | 24 | - | - | 97 | - | - |
| At December 31st, 2022 | 322 | 32 | 23 | 46 | 53 | 104 | 62 | 1 |
| Fully-consolidated entities | 191 | 12 | - | 46 | 53 | 16 | 62 | 1 |
| Equity-accounted investees | 131 | 20 | 23 | - | - | 88 | - | - |

Note: The aggregated changes in reserves and total reserves at December 31 may differ from the individual values shown because the calculations use more precise figures than those shown in the table.

- (1) Total net proved developed and undeveloped reserves at December 31, 2022, 2021, 2020 and 2019 include an estimated volume of approximately 27, 29, 46 and 47 million barrels of oil equivalent, respectively, corresponding to royalty payments which, as described above, constitute a financial obligation or are substantially equivalent to a production or equivalent tax. Net production 2022, 2021, 2020 and 2019 includes an estimated volume of 3, 3, 4 and 5 million barrels of oil equivalent, respectively, in connection with such payments.
- (2) Total net proved reserves at December 31, 2021 include a volume of 10 million barrels of oil equivalent corresponding to assets classified as held for sale under IFRS-UE.

Estimates of developed and undeveloped proved reserves of natural Gas:

Thousand Millions of Standard Cubic Feet

| | Total | Europe | Venezuela | Peru | United States | Rest of America | Africa | Asia and Oceania |
|---------------------------------------------------------------|--------------|---------------|------------------|--------------|----------------------|------------------------|---------------|-------------------------|
| Fully-consolidated entities | | | | | | | | |
| Reserves at December 31st, 2019 ⁽¹⁾ | 5,248 | 90 | 20 | 1,609 | 2,251 | 701 | 206 | 371 |
| Revisions of previous estimates | (175) | 5 | 3 | (74) | 67 | (183) | 21 | (13) |
| Improved recovery | - | - | - | - | - | - | - | - |
| Extensions and discoveries | (115) | - | - | - | (115) | - | - | - |
| Purchases of minerals in place | - | - | - | - | - | - | - | - |
| Sales of minerals in place | - | - | - | - | - | - | - | - |
| Production ⁽¹⁾ | (556) | (25) | (3) | (68) | (234) | (102) | (34) | (90) |
| Reserves at December 31st, 2020 ⁽¹⁾ | 4,403 | 71 | 21 | 1,467 | 1,969 | 415 | 193 | 267 |
| Revisions of previous estimates | 104 | 13 | 1 | - | (74) | 29 | (6) | 140 |
| Improved recovery | - | - | - | - | - | - | - | - |
| Extensions and discoveries | 1,221 | - | - | - | 1,217 | 4 | - | - |
| Purchases of minerals in place | - | - | - | - | - | - | - | - |
| Sales of minerals in place | (57) | - | - | - | - | - | (55) | (2) |
| Production ⁽¹⁾ | (465) | (26) | (4) | (56) | (174) | (92) | (26) | (87) |
| Reserves at December 31st, 2021 ⁽¹⁾⁽²⁾ | 5,206 | 58 | 18 | 1,411 | 2,938 | 356 | 106 | 318 |
| Revisions of previous estimates | 8 | 25 | 1 | (104) | 67 | 31 | (1) | (10) |
| Improved recovery | - | - | - | - | - | - | - | - |
| Extensions and discoveries | (5) | - | - | - | (5) | - | - | - |
| Purchases of minerals in place | 378 | - | - | - | 378 | - | - | - |
| Sales of minerals in place | (66) | - | - | - | - | (23) | - | (43) |
| Production ⁽¹⁾ | (468) | (25) | (3) | (70) | (207) | (75) | (16) | (71) |
| Reserves at December 31st, 2022 ⁽¹⁾ | 5,053 | 58 | 16 | 1,237 | 3,170 | 289 | 89 | 194 |
| <i>Thousand Millions of Standard Cubic Feet</i> | | | | | | | | |
| | Total | Europe | Venezuela | Peru | United States | Rest of America | Africa | Asia and Oceania |
| Equity-accounted investees | | | | | | | | |
| Reserves at December 31st, 2019 ⁽¹⁾ | 3,282 | 11 | 1,843 | - | - | 1,428 | - | - |
| Revisions of previous estimates | (192) | 5 | (198) | - | - | 1 | - | - |
| Improved recovery | - | - | - | - | - | - | - | - |
| Extensions and discoveries | - | - | - | - | - | - | - | - |
| Purchases of minerals in place | - | - | - | - | - | - | - | - |
| Sales of minerals in place | - | - | - | - | - | - | - | - |
| Production ⁽¹⁾ | (331) | (5) | (91) | - | - | (236) | - | - |
| Reserves at December 31st, 2020 ⁽¹⁾ | 2,759 | 12 | 1,554 | - | - | 1,194 | - | - |
| Revisions of previous estimates | (133) | 5 | 34 | - | - | (173) | - | - |
| Improved recovery | - | - | - | - | - | - | - | - |
| Extensions and discoveries | 10 | - | - | - | - | 10 | - | - |
| Purchases of minerals in place | - | - | - | - | - | - | - | - |
| Sales of minerals in place | - | - | - | - | - | - | - | - |
| Production ⁽¹⁾ | (285) | (4) | (99) | - | - | (182) | - | - |
| Reserves at December 31st, 2021 ⁽¹⁾⁽²⁾ | 2,351 | 13 | 1,489 | - | - | 849 | - | - |
| Revisions of previous estimates | 30 | 5 | 65 | - | - | (40) | - | - |
| Improved recovery | - | - | - | - | - | - | - | - |
| Extensions and discoveries | - | - | - | - | - | - | - | - |
| Purchases of minerals in place | - | - | - | - | - | - | - | - |
| Sales of minerals in place | - | - | - | - | - | - | - | - |
| Production ⁽¹⁾ | (280) | (5) | (100) | - | - | (175) | - | - |
| Reserves at December 31st, 2022 ⁽¹⁾ | 2,102 | 14 | 1,454 | - | - | 634 | - | - |
| Total fully-consolidated and equity-accounted entities | 7,155 | 72 | 1,469 | 1,237 | 3,170 | 923 | 89 | 194 |

Estimates of developed proved reserves of natural gas:

Thousand Millions of Standard Cubic Feet

| | Total | Europe | Venezuela | Peru | United States | Rest of America | Africa | Asia and Oceania |
|-------------------------------|--------------|---------------|------------------|--------------|----------------------|------------------------|---------------|-------------------------|
| At December 31st, 2019 | 6,054 | 92 | 1,617 | 1,012 | 1,411 | 1,456 | 152 | 315 |
| Fully-consolidated entities | 3,615 | 80 | 20 | 1,012 | 1,411 | 625 | 152 | 315 |
| Equity-accounted investees | 2,439 | 11 | 1,597 | - | - | 831 | - | - |
| At December 31st, 2020 | 5,112 | 75 | 1,415 | 914 | 1,226 | 1,081 | 143 | 257 |
| Fully-consolidated entities | 3,022 | 64 | 21 | 914 | 1,226 | 397 | 143 | 257 |
| Equity-accounted investees | 2,090 | 11 | 1,394 | - | - | 684 | - | - |
| At December 31st, 2021 | 4,684 | 67 | 1,348 | 1,000 | 1,082 | 844 | 60 | 282 |
| Fully-consolidated entities | 2,837 | 54 | 18 | 1,000 | 1,082 | 340 | 60 | 282 |
| Equity-accounted investees | 1,847 | 13 | 1,330 | - | - | 504 | - | - |
| At December 31st, 2022 | 4,402 | 65 | 1,377 | 884 | 1,249 | 604 | 51 | 172 |
| Fully-consolidated entities | 2,708 | 52 | 16 | 884 | 1,249 | 284 | 51 | 172 |
| Equity-accounted investees | 1,694 | 13 | 1,361 | - | - | 320 | - | - |

Notes: The aggregated changes in reserves and total reserves at December 31 may differ from the individual values shown because the calculations use more precise figures than those shown in the table.

- (1) Total net proved developed and undeveloped reserves at December 31, 2022, 2021, 2020 and 2019 include an estimated volume of approximately 657, 717, 781 and 907 billion cubic feet of gas, respectively, corresponding to royalty payments which, as described above, constitute a financial obligation or are substantially equivalent to a production or equivalent tax. Net production in 2022, 2021, 2020 and 2019 includes an estimated volume of 56, 53, 64 and 70 billion cubic feet of gas, respectively, in connection with such payments.
- (2) Total net proved reserves at December 31, 2021 include a volume of 44 billion cubic feet of gas corresponding to assets classified as held for sale under IFRS-UE.

Estimates of developed and undeveloped proved reserves of crude oil, condensate, natural gas liquids and natural gas:

Millions of Barrels of Oil Equivalent

| | Total | Europe | Venezuela | Peru | United States | Rest of America | Africa | Asia and Oceania |
|----------------------------------------------------------|--------------|-----------|-----------|------------|---------------|-----------------|------------|------------------|
| Fully-consolidated entities | | | | | | | | |
| Reserves at December 31st, 2019 ⁽¹⁾ | 1,350 | 51 | 4 | 371 | 515 | 199 | 127 | 83 |
| Revisions of previous estimates | (16) | - | 1 | (16) | 12 | (42) | 27 | 2 |
| Improved recovery | 4 | - | - | - | 2 | 2 | - | - |
| Extensions and discoveries | (27) | - | - | - | (27) | - | - | - |
| Purchases of minerals in place | - | - | - | - | - | - | - | - |
| Sales of minerals in place | - | - | - | - | - | - | - | - |
| Production ⁽¹⁾ | (146) | (9) | - | (17) | (56) | (29) | (13) | (22) |
| Reserves at December 31st, 2020 ⁽¹⁾ | 1,165 | 42 | 4 | 338 | 447 | 131 | 141 | 62 |
| Revisions of previous estimates | 55 | 4 | - | - | 3 | 6 | 16 | 26 |
| Improved recovery | 1 | - | - | - | - | 1 | - | - |
| Extensions and discoveries | 268 | - | - | - | 267 | 1 | - | - |
| Purchases of minerals in place | - | - | - | - | - | - | - | - |
| Sales of minerals in place | (16) | - | - | - | - | - | (14) | (2) |
| Production ⁽¹⁾ | (131) | (9) | (1) | (14) | (42) | (27) | (20) | (19) |
| Reserves at December 31st, 2021 ⁽¹⁾⁽²⁾ | 1,341 | 37 | 3 | 324 | 674 | 112 | 124 | 67 |
| Revisions of previous estimates | 20 | 1 | - | (23) | 20 | 17 | 6 | (2) |
| Improved recovery | 10 | - | - | - | - | 10 | - | - |
| Extensions and discoveries | 121 | - | - | - | 121 | - | - | - |
| Purchases of minerals in place | 67 | - | - | - | 67 | - | - | - |
| Sales of minerals in place | (39) | - | - | - | - | (22) | - | (17) |
| Production ⁽¹⁾ | (125) | (9) | (1) | (17) | (50) | (21) | (15) | (13) |
| Reserves at December 31st, 2022 ⁽¹⁾ | 1,396 | 29 | 3 | 284 | 833 | 97 | 115 | 36 |

Millions of Barrels of Oil Equivalent

| | Total | Europe | Venezuela | Peru | United States | Rest of America | Africa | Asia and Oceania |
|---------------------------------------------------------------|--------------|-----------|------------|------------|---------------|-----------------|------------|------------------|
| Equity-accounted investees | | | | | | | | |
| Reserves at December 31st, 2019 ⁽¹⁾ | 789 | 37 | 366 | - | - | 361 | - | 26 |
| Revisions of previous estimates | (12) | 12 | (43) | - | - | 23 | - | (3) |
| Improved recovery | - | - | - | - | - | - | - | - |
| Extensions and discoveries | 1 | - | - | - | - | - | - | 1 |
| Purchases of minerals in place | - | - | - | - | - | - | - | - |
| Sales of minerals in place | - | - | - | - | - | - | - | - |
| Production ⁽¹⁾ | (91) | (10) | (18) | - | - | (60) | - | (3) |
| Reserves at December 31st, 2020 ⁽¹⁾ | 687 | 39 | 304 | - | - | 324 | - | 20 |
| Revisions of previous estimates | (19) | - | 6 | - | - | (25) | - | - |
| Improved recovery | - | - | - | - | - | - | - | - |
| Extensions and discoveries | 2 | - | - | - | - | 2 | - | - |
| Purchases of minerals in place | - | - | - | - | - | - | - | - |
| Sales of minerals in place | (19) | - | - | - | - | - | - | (19) |
| Production ⁽¹⁾ | (78) | (7) | (20) | - | - | (50) | - | (1) |
| Reserves at December 31st, 2021 ⁽¹⁾⁽²⁾ | 574 | 32 | 290 | - | - | 252 | - | - |
| Revisions of previous estimates | 14 | - | 13 | - | - | - | - | - |
| Improved recovery | - | - | - | - | - | - | - | - |
| Extensions and discoveries | - | - | - | - | - | - | - | - |
| Purchases of minerals in place | - | - | - | - | - | - | - | - |
| Sales of minerals in place | - | - | - | - | - | - | - | - |
| Production ⁽¹⁾ | (75) | (7) | (20) | - | - | (47) | - | - |
| Reserves at December 31st, 2022 ⁽¹⁾ | 513 | 25 | 283 | - | - | 205 | - | - |
| Total fully-consolidated and equity-accounted entities | 1,909 | 54 | 286 | 284 | 833 | 302 | 115 | 36 |

Estimates of developed proved reserves of crude oil, condensate, natural gas liquids and natural gas:

Millions of Barrels of Oil Equivalent

| | Total | Europe | Venezuela | Peru | United States | Rest of America | Africa | Asia and Oceania |
|-------------------------------|--------------|---------------|------------------|-------------|----------------------|------------------------|---------------|-------------------------|
| At December 31st, 2019 | 1,514 | 58 | 318 | 236 | 312 | 410 | 93 | 87 |
| Fully-consolidated entities | 908 | 24 | 4 | 236 | 312 | 170 | 93 | 69 |
| Equity-accounted investees | 606 | 34 | 315 | - | - | 240 | - | 18 |
| At December 31st, 2020 | 1,303 | 52 | 279 | 213 | 249 | 334 | 103 | 73 |
| Fully-consolidated entities | 756 | 17 | 4 | 213 | 249 | 112 | 103 | 58 |
| Equity-accounted investees | 547 | 35 | 275 | - | - | 222 | - | 15 |
| At December 31st, 2021 | 1,188 | 37 | 264 | 231 | 240 | 281 | 78 | 58 |
| Fully-consolidated entities | 717 | 14 | 3 | 231 | 240 | 94 | 78 | 58 |
| Equity-accounted investees | 471 | 23 | 261 | - | - | 187 | - | - |
| At December 31st, 2022 | 1,107 | 44 | 268 | 204 | 276 | 212 | 71 | 32 |
| Fully-consolidated entities | 673 | 21 | 3 | 204 | 276 | 67 | 71 | 32 |
| Equity-accounted investees | 434 | 23 | 265 | - | - | 145 | - | - |

Notes: The aggregated changes in reserves and total reserves at December 31 may differ from the individual values shown because the calculations use more precise figures than those shown in the table.

- (1) Total net proved developed and undeveloped reserves at December 31, 2022, 2021, 2020 and 2019 include an estimated volume of approximately 144, 157, 186 and 208 million barrels of oil equivalent, respectively, corresponding to royalty payments which, as described above, constitute a financial obligation or are substantially equivalent to a production or equivalent tax. Net production in 2022, 2021, 2020 and 2019 includes an estimated volume of 13, 13, 15 and 17 million barrels of oil equivalent, respectively, in connection with such payments.
- (2) Total net proved reserves at December 31, 2021 include a volume of 18 million barrels of oil equivalent corresponding to assets classified as held for sale under IFRS-UE.

(6) Standardized future cash flows

Standardized measure of discounted future net cash flows and changes therein relating to proved oil and gas reserves

Projected net cash flows were estimated in accordance with the criteria established by the “SPE/WPC/AAPG/SPEE/SEG/SPWLA/EAGE Petroleum Resources Management System, commonly referred to by its acronym, SPE-PRMS (SPE standing for the Society of Petroleum Engineers)”. Oil and gas prices and other financial assumptions regarding the outlook for costs reflect the Company's best estimates for the purposes of valuing its assets (See Note 3.5.1 of the 2022 Consolidated Financial Statements). These assumptions are applied to estimated future production in respect of its proved oil and gas reserves as of the most recent reporting date, less estimated future development and production costs (based on current costs) in respect of these same proved reserves, all of which assuming that prevailing economic conditions are sustained.

Future production costs were estimated on based on the cost structure at the end of the year and are projected on the basis of the above-mentioned assumptions. Future development costs were calculated on the basis of technical studies conducted by Repsol and by the operators holding joint title with Repsol. The taxes projected for each of the future years were determined under the contractual and tax regime prevailing at the end of the year. The rate used to discount the future net revenues was 10%.

The present value of the future net cash flows estimated on the basis of the aforementioned assumptions is not intended to be interpreted, and should not be interpreted, as the fair value of the Group’s oil and gas reserves. An estimation of the fair value of these reserves should also include the future exploitation of reserves not yet classified as proved reserves and costs and a discount rate which represents the time value of money at the calculation date and the uncertainties inherent to estimating the reserves.

The following table shows the present value of the future net revenues relating to proved oil and gas reserves, calculated on the basis of the aforementioned assumptions.

Millions of euros
At December 31st 2020

| | Total | Europe | Venezuela | Peru | United States | Rest of America | Africa | Asia and Oceania |
|--------------------------------------------------------|--------------|--------------|--------------|--------------|---------------|-----------------|--------------|------------------|
| Fully-consolidated entities | | | | | | | | |
| Future cash inflows | 28,124 | 1,828 | 52 | 5,867 | 8,997 | 2,752 | 6,593 | 2,035 |
| Future production costs | (11,988) | (1,121) | (30) | (2,787) | (4,999) | (1,397) | (994) | (660) |
| Future development and abandonment costs | (5,370) | (1,128) | (1) | (549) | (1,800) | (981) | (623) | (288) |
| Future income tax expenses | (3,857) | 491 | (8) | (748) | (6) | (110) | (3,083) | (393) |
| Future net cash flows after taxes | 6,909 | 70 | 13 | 1,783 | 2,192 | 264 | 1,893 | 694 |
| 10% annual discount for estimated timing of cash flows | (2,339) | (55) | (5) | (1,075) | (775) | 348 | (679) | (98) |
| Discounted future net cash flows | 4,570 | 15 | 8 | 708 | 1,417 | 612 | 1,214 | 596 |
| Equity-accounted investees | | | | | | | | |
| Future cash inflows | 18,796 | 2,007 | 7,440 | - | - | 8,345 | - | 1,004 |
| Future production costs | (8,120) | (1,474) | (2,284) | - | - | (3,507) | - | (855) |
| Future development and abandonment costs | (3,807) | (2,225) | (204) | - | - | (1,303) | - | (75) |
| Future income tax expenses | (1,792) | 751 | (1,844) | - | - | (682) | - | (17) |
| Future net cash flows after taxes | 5,077 | (941) | 3,108 | - | - | 2,853 | - | 57 |
| 10% annual discount for estimated timing of cash flows | (1,887) | 659 | (1,634) | - | - | (895) | - | (17) |
| Discounted future net cash flows | 3,190 | (282) | 1,474 | - | - | 1,958 | - | 40 |
| Total discounted future net cash flows | 7,760 | (267) | 1,482 | 708 | 1,417 | 2,570 | 1,214 | 636 |

Translation of a report originally issued in Spanish.
In the event of a discrepancy, the Spanish language version prevails.

Millions of euros
At December 31st 2021

| | Total | Europe | Venezuela | Peru | United States | Rest of America | Africa | Asia and Oceania |
|--------------------------------------------------------|---------------|----------------|--------------|--------------|---------------|-----------------|--------------|------------------|
| Fully-consolidated entities | | | | | | | | |
| Future cash inflows | 39,106 | 2,251 | 28 | 7,454 | 16,590 | 2,992 | 7,495 | 2,296 |
| Future production costs | (14,714) | (1,074) | (26) | (3,062) | (7,086) | (1,792) | (932) | (742) |
| Future development and abandonment costs | (6,986) | (921) | (2) | (675) | (3,479) | (1,130) | (562) | (217) |
| Future income tax expenses | (5,629) | (35) | (3) | (1,175) | (114) | (147) | (3,732) | (423) |
| Future net cash flows after taxes | 11,777 | 221 | (3) | 2,542 | 5,911 | (77) | 2,269 | 914 |
| 10% annual discount for estimated timing of cash flows | (4,314) | (66) | - | (1,264) | (2,649) | 603 | (769) | (169) |
| Discounted future net cash flows | 7,463 | 155 | (3) | 1,278 | 3,262 | 526 | 1,500 | 745 |
| Equity-accounted investees | | | | | | | | |
| Future cash inflows | 19,147 | 2,027 | 7,722 | - | - | 9,398 | - | - |
| Future production costs | (8,574) | (1,629) | (2,319) | - | - | (4,626) | - | - |
| Future development and abandonment costs | (4,192) | (2,478) | (223) | - | - | (1,491) | - | - |
| Future income tax expenses | (1,975) | 854 | (1,919) | - | - | (910) | - | - |
| Future net cash flows after taxes | 4,406 | (1,226) | 3,261 | - | - | 2,371 | - | - |
| 10% annual discount for estimated timing of cash flows | (1,474) | 808 | (1,608) | - | - | (674) | - | - |
| Discounted future net cash flows | 2,932 | (418) | 1,653 | - | - | 1,697 | - | - |
| Total discounted future net cash flows | 10,395 | (263) | 1,650 | 1,278 | 3,262 | 2,223 | 1,500 | 745 |

Millions of euros
At December 31st 2022

| | Total | Europe | Venezuela | Peru | United States | Rest of America | Africa | Asia and Oceania |
|--------------------------------------------------------|---------------|----------------|--------------|--------------|---------------|-----------------|--------------|------------------|
| Fully-consolidated entities | | | | | | | | |
| Future cash inflows | 54,118 | 2,630 | 26 | 9,772 | 29,012 | 3,353 | 7,993 | 1,332 |
| Future production costs | (19,633) | (679) | (23) | (3,627) | (12,310) | (1,620) | (1,004) | (370) |
| Future development and abandonment costs | (10,139) | (882) | (1) | (826) | (6,868) | (974) | (508) | (80) |
| Future income tax expenses | (8,207) | (848) | (3) | (1,743) | (745) | (494) | (4,055) | (319) |
| Future net cash flows after taxes | 16,139 | 221 | (1) | 3,576 | 9,089 | 265 | 2,426 | 563 |
| 10% annual discount for estimated timing of cash flows | (6,285) | 31 | - | (1,409) | (4,277) | 244 | (762) | (112) |
| Discounted future net cash flows | 9,854 | 252 | (1) | 2,167 | 4,812 | 509 | 1,664 | 451 |
| Equity-accounted investees | | | | | | | | |
| Future cash inflows | 16,985 | 1,923 | 5,813 | - | - | 9,249 | - | - |
| Future production costs | (7,266) | (1,301) | (1,910) | - | - | (4,055) | - | - |
| Future development and abandonment costs | (4,422) | (2,595) | (266) | - | - | (1,561) | - | - |
| Future income tax expenses | (1,703) | 764 | (1,410) | - | - | (1,057) | - | - |
| Future net cash flows after taxes | 3,594 | (1,209) | 2,227 | - | - | 2,576 | - | - |
| 10% annual discount for estimated timing of cash flows | (649) | 729 | (932) | - | - | (446) | - | - |
| Discounted future net cash flows | 2,945 | (480) | 1,295 | - | - | 2,130 | - | - |
| Total discounted future net cash flows | 12,799 | (228) | 1,294 | 2,167 | 4,812 | 2,639 | 1,664 | 451 |

Changes in Standardized measure of discounted future net cash flows relating to proved oil and gas reserves

The detail of the changes in the standardized measure of discounted future net cash flows for 2020, 2021 and 2022 as follows:

Changes in the standardized measure of discounted future net cash flows

Millions of euros

| | Total | Europe | Venezuela | Peru | United States | Rest of America | Africa | Asia and Oceania |
|-----------------------------------------------------------------------------------------|----------------|--------------|-------------|--------------|---------------|-----------------|--------------|------------------|
| Fully-consolidated entities | | | | | | | | |
| Balance at December 31st, 2019 | 6,540 | 246 | 9 | 827 | 2,305 | 690 | 1,328 | 1,135 |
| Changes due to sale or transfer prices of future production costs | (2,603) | (162) | (4) | (61) | (861) | (770) | (513) | (232) |
| Changes in future development costs | 129 | (128) | 4 | 1 | 221 | 2 | 101 | (72) |
| Oil and gas sales and transfers in the period | (2,801) | (369) | (6) | (107) | (666) | (216) | (812) | (625) |
| Net changes due to extensions, discoveries and improvements in the recovery of reserves | 378 | - | - | - | 355 | 23 | - | - |
| Net changes due to purchases/sales of assets | - | - | - | - | - | - | - | - |
| Net changes due to revisions in quantity estimates | 1,300 | 5 | 2 | (64) | (350) | 733 | 974 | - |
| Previously estimated development costs incurred in the year | 693 | 150 | 1 | 37 | 211 | 117 | 77 | 100 |
| Effect of discounting to a different date and exchange rate effect | 61 | 3 | - | 11 | 41 | 1 | (10) | 15 |
| Other non-specific changes | - | - | - | - | - | - | - | - |
| Changes in income tax | 873 | 270 | 2 | 64 | 161 | 32 | 69 | 275 |
| Net change | (1,970) | (231) | (1) | (119) | (888) | (78) | (114) | (539) |
| Balance at December 31st, 2020 | 4,570 | 15 | 8 | 708 | 1,417 | 612 | 1,214 | 596 |
| Changes due to sale or transfer prices of future production costs | 2,214 | 346 | (13) | 694 | 1,024 | (76) | 225 | 14 |
| Changes in future development costs | (284) | 135 | (1) | (33) | (334) | (118) | 3 | 64 |
| Oil and gas sales and transfers in the period | (1,532) | (33) | (3) | (92) | (292) | (151) | (555) | (406) |
| Net changes due to extensions, discoveries and improvements in the recovery of reserves | 1,181 | - | - | - | 1,164 | 17 | - | - |
| Net changes due to purchases/sales of assets | 64 | (4) | - | - | - | - | 58 | 10 |
| Net changes due to revisions in quantity estimates | 945 | 70 | - | 64 | (149) | 105 | 554 | 301 |
| Previously estimated development costs incurred in the year | 455 | 192 | - | 23 | 105 | 55 | 32 | 48 |
| Effect of discounting to a different date and exchange rate effect | 892 | 15 | 1 | 149 | 318 | 99 | 216 | 94 |
| Other non-specific changes | - | - | - | - | - | - | - | - |
| Changes in income tax | (1,042) | (581) | 5 | (235) | 9 | (17) | (247) | 24 |
| Net change | 2,893 | 140 | (11) | 570 | 1,845 | (86) | 286 | 149 |
| Balance at December 31st, 2021 | 7,463 | 155 | (3) | 1,278 | 3,262 | 526 | 1,500 | 745 |
| Changes due to sale or transfer prices of future production costs | 3,686 | 900 | (2) | 1,565 | 605 | 203 | 365 | 50 |
| Changes in future development costs | (843) | 6 | - | (117) | (625) | (96) | 19 | (30) |
| Oil and gas sales and transfers in the period | (3,334) | (675) | 1 | (385) | (835) | (219) | (849) | (372) |
| Net changes due to extensions, discoveries and improvements in the recovery of reserves | 1,126 | - | - | - | 913 | 213 | - | - |
| Net changes due to purchases/sales of assets | 154 | - | - | - | 333 | 13 | - | (192) |
| Net changes due to revisions in quantity estimates | 534 | 200 | 2 | (24) | 122 | (82) | 268 | 48 |
| Previously estimated development costs incurred in the year | 1,171 | 199 | 1 | 36 | 753 | 94 | 79 | 9 |
| Effect of discounting to a different date and exchange rate effect | 1,085 | (4) | - | 180 | 521 | 78 | 221 | 89 |
| Other non-specific changes | - | - | - | - | - | - | - | - |
| Changes in income tax | (1,188) | (529) | - | (366) | (237) | (221) | 61 | 104 |
| Net change | 2,391 | 97 | 2 | 889 | 1,550 | (17) | 164 | (294) |
| Balance at December 31st, 2022 | 9,854 | 252 | (1) | 2,167 | 4,812 | 509 | 1,664 | 451 |

Millions of euros

| | Total | Europe | Venezuela | Peru | United States | Rest of America | Africa | Asia and Oceania |
|-----------------------------------------------------------------------------------------|----------------|--------------|--------------|--------------|---------------|-----------------|--------------|------------------|
| Equity-accounted investees | | | | | | | | |
| Balance at December 31st, 2019 | 4,599 | 100 | 2,002 | - | - | 2,309 | - | 188 |
| Changes due to sale or transfer prices of future production costs | (943) | (151) | (274) | - | - | (310) | - | (208) |
| Changes in future development costs | (66) | (33) | 74 | - | - | (100) | - | (7) |
| Oil and gas sales and transfers in the period | (1,317) | (271) | (211) | - | - | (785) | - | (50) |
| Net changes due to extensions, discoveries and improvements in the recovery of reserves | 5 | - | - | - | - | - | - | 5 |
| Net changes due to purchases/sales of assets | - | - | - | - | - | - | - | - |
| Net changes due to revisions in quantity estimates | (278) | (277) | (565) | - | - | 516 | - | 48 |
| Previously estimated development costs incurred in the year | 385 | 96 | 2 | - | - | 272 | - | 15 |
| Effect of discounting to a different date and exchange rate effect | 64 | 10 | 41 | - | - | 4 | - | 9 |
| Other non-specific changes | - | - | - | - | - | - | - | - |
| Changes in income tax | 741 | 244 | 405 | - | - | 52 | - | 40 |
| Net change | (1,409) | (382) | (528) | - | - | (351) | - | (148) |
| Balance at December 31st, 2020 | 3,190 | (282) | 1,474 | - | - | 1,958 | - | 40 |
| Changes due to sale or transfer prices of future production costs | (76) | 26 | (10) | - | - | (92) | - | - |
| Changes in future development costs | (399) | (99) | (7) | - | - | (293) | - | - |
| Oil and gas sales and transfers in the period | (839) | (111) | (166) | - | - | (540) | - | (22) |
| Net changes due to extensions, discoveries and improvements in the recovery of reserves | (2) | - | - | - | - | (2) | - | - |
| Net changes due to purchases/sales of assets | (33) | (13) | - | - | - | - | - | (20) |
| Net changes due to revisions in quantity estimates | 296 | (5) | 31 | - | - | 270 | - | - |
| Previously estimated development costs incurred in the year | 342 | 124 | 5 | - | - | 213 | - | - |
| Effect of discounting to a different date and exchange rate effect | 522 | (66) | 268 | - | - | 318 | - | 2 |
| Other non-specific changes | - | - | - | - | - | - | - | - |
| Changes in income tax | (69) | 8 | 58 | - | - | (135) | - | - |
| Net change | (258) | (136) | 179 | - | - | (261) | - | (40) |
| Balance at December 31st, 2021 | 2,932 | (418) | 1,653 | - | - | 1,697 | - | - |
| Changes due to sale or transfer prices of future production costs | (324) | 163 | (922) | - | - | 435 | - | - |
| Changes in future development costs | (83) | (97) | (34) | - | - | 48 | - | - |
| Oil and gas sales and transfers in the period | (1,279) | (212) | (276) | - | - | (791) | - | - |
| Net changes due to extensions, discoveries and improvements in the recovery of reserves | - | - | - | - | - | - | - | - |
| Net changes due to purchases/sales of assets | - | - | - | - | - | - | - | - |
| Net changes due to revisions in quantity estimates | 908 | 220 | 279 | - | - | 409 | - | - |
| Previously estimated development costs incurred in the year | 421 | 200 | 7 | - | - | 214 | - | - |
| Effect of discounting to a different date and exchange rate effect | 425 | (83) | 270 | - | - | 238 | - | - |
| Other non-specific changes | - | - | - | - | - | - | - | - |
| Changes in income tax | (55) | (253) | 318 | - | - | (120) | - | - |
| Net change | 13 | (62) | (358) | - | - | 433 | - | - |
| Balance at December 31st, 2022 | 2,945 | (480) | 1,295 | - | - | 2,130 | - | - |
| Total fully-consolidated and equity-accounted entities | 12,799 | (228) | 1,294 | 2,167 | 4,812 | 2,639 | 1,664 | 451 |

(7) Results of oil and gas exploration and production activities

The following table shows the revenues and expenses associated directly with the Group's oil and gas exploration and production activities. It does not include any allocation of the finance costs or general expenses, except for the accretion expense, and, therefore, is not necessarily indicative of the contribution to consolidated net profit of the oil and gas activities.

Millions of euros

| At December 31st 2020 | Total | Europe | Venezuela | Peru | United States | Rest of America | Africa | Asia and Oceania |
|---------------------------------------------------------------|----------------|----------------|------------|------------|------------------|--------------------|-------------|---------------------|
| Fully-consolidated entities | | | | | | | | |
| Income | | | | | | | | |
| Sales to non-Group companies | 409 | 6 | - | 6 | 198 | 55 | 144 | - |
| Sales between business segments and to Group Companies | 2,174 | 221 | 7 | 223 | 545 | 323 | 205 | 650 |
| Total income | 2,583 | 227 | 7 | 229 | 743 | 378 | 349 | 650 |
| Production costs | (876) | (109) | (3) | (62) | (278) | (226) | (72) | (126) |
| Production taxes | (73) | - | (1) | (41) | (4) | - | (22) | (5) |
| Exploration expenses ⁽¹⁾ | (253) | (105) | - | (1) | (9) | (50) | (24) | (64) |
| Other operating expenses | (468) | (108) | - | (31) | (203) | - | (40) | (86) |
| Depreciation and amortisation charge ⁽²⁾ | (3,017) | (796) | 3 | (47) | (553) | (735) | (213) | (676) |
| Profit (Loss) before taxes and charges | (2,104) | (891) | 6 | 47 | (304) | (633) | (22) | (307) |
| Taxes and charges ⁽³⁾ | 226 | 53 | 3 | (15) | 60 | 77 | (47) | 95 |
| Results of oil and gas production activities | (1,878) | (838) | 9 | 32 | (244) | (556) | (69) | (212) |
| Equity-accounted investees | | | | | | | | |
| Income | | | | | | | | |
| Sales to non-Group companies | 359 | 28 | - | - | - | 331 | - | - |
| Sales between business segments and to Group Companies | 1,249 | 302 | 324 | - | - | 527 | - | 96 |
| Total income | 1,608 | 330 | 324 | - | - | 858 | - | 96 |
| Production costs | (453) | (201) | (21) | - | - | (217) | - | (14) |
| Production taxes | (223) | - | (53) | - | - | (131) | - | (39) |
| Exploration expenses ⁽¹⁾ | (110) | - | - | - | - | (46) | - | (64) |
| Other operating expenses | (61) | (14) | (77) | - | - | 35 | - | (5) |
| Depreciation and amortisation charge ⁽²⁾ | (1,634) | (494) | (128) | - | - | (932) | - | (80) |
| Profit (Loss) before taxes and charges | (873) | (379) | 45 | - | - | (433) | - | (106) |
| Taxes and charges ⁽³⁾ | 149 | 125 | 3 | - | - | 14 | - | 7 |
| Results of oil and gas production activities | (724) | (254) | 48 | - | - | (419) | - | (99) |
| Total results of oil and gas activities ⁽⁴⁾ | (2,602) | (1,092) | 57 | 32 | (244) | (975) | (69) | (311) |

Millions of euros

At December 31st
2021

| | Total | Europe | Venezuela | Peru | United States | Rest of America | Africa | Asia and Oceania |
|---------------------------------------------------------------|--------------|--------------|-------------|------------|---------------|-----------------|------------|------------------|
| Fully-consolidated entities | | | | | | | | |
| Income | | | | | | | | |
| Sales to non-Group companies | 770 | 6 | - | 5 | 364 | 42 | 353 | - |
| Sales between business segments and to Group Companies | 3,679 | 593 | 2 | 548 | 695 | 528 | 601 | 712 |
| Total income | 4,449 | 599 | 2 | 553 | 1,059 | 570 | 954 | 712 |
| Production costs | (811) | (139) | (1) | (60) | (225) | (200) | (61) | (125) |
| Production taxes | (181) | - | - | (107) | (7) | - | (51) | (16) |
| Exploration expenses ⁽¹⁾ | (367) | (59) | - | (1) | (248) | (54) | (1) | (4) |
| Other operating expenses | (677) | (320) | (19) | (73) | (165) | (42) | 6 | (64) |
| Depreciation and amortisation charge ⁽²⁾ | (896) | (176) | - | (37) | (150) | (253) | (71) | (209) |
| Profit (Loss) before taxes and charges | 1,517 | (95) | (18) | 275 | 264 | 21 | 776 | 294 |
| Taxes and charges ⁽⁵⁾ | (941) | (199) | (3) | (90) | (66) | (103) | (336) | (144) |
| Results of oil and gas production activities | 576 | (294) | (21) | 185 | 198 | (82) | 440 | 150 |
| Equity-accounted investees | | | | | | | | |
| Income | | | | | | | | |
| Sales to non-Group companies | 553 | 101 | - | - | - | 452 | - | - |
| Sales between business segments and to Group Companies | 1,798 | 352 | 411 | - | - | 983 | - | 52 |
| Total income | 2,351 | 453 | 411 | - | - | 1,435 | - | 52 |
| Production costs | (487) | (253) | (32) | - | - | (198) | - | (4) |
| Production taxes | (361) | - | (64) | - | - | (266) | - | (31) |
| Exploration expenses ⁽¹⁾ | 12 | - | - | - | - | (15) | - | 27 |
| Other operating expenses | (232) | (28) | (143) | - | - | (60) | - | (1) |
| Depreciation and amortisation charge ⁽²⁾ | (856) | (281) | (42) | - | - | (532) | - | (1) |
| Profit (Loss) before taxes and charges | 427 | (109) | 130 | - | - | 364 | - | 42 |
| Taxes and charges ⁽³⁾ | (98) | 54 | 22 | - | - | (155) | - | (19) |
| Results of oil and gas production activities | 329 | (55) | 152 | - | - | 209 | - | 23 |
| Total results of oil and gas activities ⁽⁴⁾ | 905 | (349) | 131 | 185 | 198 | 127 | 440 | 173 |

Millions of euros

At December 31st
2022

| | Total | Europe | Venezuela | Peru | United States | Rest of America | Africa | Asia and Oceania |
|---------------------------------------------------------------|--------------|--------------|--------------|--------------|---------------|-----------------|--------------|------------------|
| Fully-consolidated entities | | | | | | | | |
| Income | | | | | | | | |
| Sales to non-Group companies | 4,665 | 1,121 | 2 | 999 | 433 | 675 | 845 | 590 |
| Sales between business segments and to Group Companies | 2,283 | 82 | - | 8 | 1,717 | - | 476 | - |
| Total income | 6,948 | 1,203 | 2 | 1,007 | 2,150 | 675 | 1,321 | 590 |
| Production costs | (936) | (173) | (18) | (83) | (332) | (209) | (72) | (49) |
| Production taxes | (263) | - | - | (182) | (25) | - | (56) | - |
| Exploration expenses ⁽¹⁾ | (452) | (34) | - | (1) | (79) | (147) | - | (191) |
| Other operating expenses | (773) | (69) | (152) | (120) | (383) | (2) | (8) | (39) |
| Depreciation and amortisation charge ⁽²⁾ | (1,124) | (269) | (1) | (55) | (199) | (217) | (120) | (263) |
| Profit (Loss) before taxes and charges | 3,400 | 658 | (169) | 566 | 1,132 | 100 | 1,065 | 48 |
| Taxes and charges ⁽⁵⁾ | (2,158) | (642) | 6 | (195) | (317) | (117) | (814) | (79) |
| Results of oil and gas production activities | 1,242 | 16 | (163) | 371 | 815 | (17) | 251 | (31) |
| Equity-accounted investees | | | | | | | | |
| Income | | | | | | | | |
| Sales to non-Group companies | 2,820 | 472 | 580 | - | - | 1,768 | - | - |
| Sales between business segments and to Group Companies | 943 | 188 | - | - | - | 755 | - | - |
| Total income | 3,763 | 660 | 580 | - | - | 2,523 | - | - |
| Production costs | (532) | (281) | (24) | - | - | (227) | - | - |
| Production taxes | (534) | - | (81) | - | - | (453) | - | - |
| Exploration expenses ⁽¹⁾ | (23) | (3) | - | - | - | (16) | - | (4) |
| Other operating expenses | (343) | (24) | (203) | - | - | (116) | - | - |
| Depreciation and amortisation charge ⁽²⁾ | (607) | 21 | 24 | - | - | (652) | - | - |
| Profit (Loss) before taxes and charges | 1,724 | 373 | 296 | - | - | 1,059 | - | (4) |
| Taxes and charges ⁽³⁾ | (617) | (90) | (115) | - | - | (412) | - | - |
| Results of oil and gas production activities | 1,107 | 283 | 181 | - | - | 647 | - | (4) |
| Total results of oil and gas activities ⁽⁴⁾ | 2,349 | 299 | 18 | 371 | 815 | 630 | 251 | (35) |

(1) Exploration expenses include charges for the impairment of exploration assets of €138, €188 and €192 million in 2022, 2021 and 2020, respectively (see Note 20 to the 2022 and 2020 Financial Statements and Note 21 to the 2021 Financial Statements).

(2) Depreciation and amortization charge and provisions" includes the net impairment of production assets and development and provisions for onerous charges, as well as impairment of goodwill amounting to €229, €337 and €2,919 million in 2022, 2021 and 2020, respectively (see Note 20 to the 2022 and 2020 Financial Statements and Note 21 to the 2021 Financial Statements).

(3) The income tax expense includes the impairment of tax assets recognized in 2022 and 2020 amounting to €286 and €75 million (see Note 20 to the 2022 and 2020 Financial Statements).

(4) Results generated for divestments are not included. In addition, it does not include the results recorded because of the procedure initiated by Addax Petroleum UK Limited y Sinopec International Petroleum Exploration and Production Corporation (see Note 15 to the Financial Statements).

(8) Investments

Investments of the year (cost incurred)

The costs incurred represent amounts capitalised during the year relating to acquisitions of properties and for exploration and development activities, including dismantling costs.

Millions of euros
At December 31st 2020

| | Total | Europe | Venezuela | Peru | United States | Rest of America | Africa | Asia and Oceania |
|------------------------------------|--------------|------------|------------|-----------|---------------|-----------------|-----------|------------------|
| Fully-consolidated entities | | | | | | | | |
| Acquisition of proved properties | 193 | - | - | - | 193 | - | - | - |
| Acquisition of unproved properties | - | - | - | - | - | - | - | - |
| Exploration costs | 261 | 27 | - | - | 105 | 94 | 3 | 32 |
| Development costs | 482 | 221 | (4) | 40 | 128 | 21 | 8 | 68 |
| Costs incurred | 936 | 248 | (4) | 40 | 426 | 115 | 11 | 100 |
| Equity-accounted investees | | | | | | | | |
| Acquisition of proved properties | - | - | - | - | - | - | - | - |
| Acquisition of unproved properties | - | - | - | - | - | - | - | - |
| Exploration costs | 35 | - | - | - | - | 23 | - | 12 |
| Development costs | 397 | 67 | 2 | - | - | 324 | - | 4 |
| Costs incurred | 432 | 67 | 2 | - | - | 347 | - | 16 |
| Total costs incurred | 1,368 | 315 | (2) | 40 | 426 | 462 | 11 | 116 |

Millions of euros
At December 31st 2021

| | Total | Europe | Venezuela | Peru | United States | Rest of America | Africa | Asia and Oceania |
|------------------------------------|--------------|------------|-------------|-----------|---------------|-----------------|-----------|------------------|
| Fully-consolidated entities | | | | | | | | |
| Acquisition of proved properties | - | - | - | - | - | - | - | - |
| Acquisition of unproved properties | - | - | - | - | - | - | - | - |
| Exploration costs | 222 | 24 | - | - | 112 | 59 | 1 | 26 |
| Development costs | 844 | 323 | (1) | 67 | 314 | 75 | 38 | 28 |
| Costs incurred | 1,066 | 347 | (1) | 67 | 426 | 134 | 39 | 54 |
| Equity-accounted investees | | | | | | | | |
| Acquisition of proved properties | 3 | 3 | - | - | - | - | - | - |
| Acquisition of unproved properties | - | - | - | - | - | - | - | - |
| Exploration costs | 26 | - | - | - | - | 23 | - | 3 |
| Development costs | 316 | 116 | (31) | - | - | 230 | - | 1 |
| Costs incurred | 345 | 119 | (31) | - | - | 253 | - | 4 |
| Total costs incurred | 1,411 | 466 | (32) | 67 | 426 | 387 | 39 | 58 |

Millions of euros
At December 31st 2022

| | <u>Total</u> | <u>Europe</u> | <u>Venezuela</u> | <u>Peru</u> | <u>United States</u> | <u>Rest of America</u> | <u>Africa</u> | <u>Asia and Oceania</u> |
|------------------------------------|--------------|---------------|------------------|-------------|----------------------|------------------------|---------------|-------------------------|
| Fully-consolidated entities | | | | | | | | |
| Acquisition of proved properties | 213 | - | - | - | 213 | - | - | - |
| Acquisition of unproved properties | - | - | - | - | - | - | - | - |
| Exploration costs | 214 | (4) | - | - | 124 | 53 | 1 | 40 |
| Development costs | 1,460 | 126 | - | 52 | 1,183 | 56 | 43 | - |
| Costs incurred | 1,887 | 122 | - | 52 | 1,520 | 109 | 44 | 40 |
| Equity-accounted investees | | | | | | | | |
| Acquisition of proved properties | - | - | - | - | - | - | - | - |
| Acquisition of unproved properties | - | - | - | - | - | - | - | - |
| Exploration costs | 18 | - | - | - | - | 18 | - | - |
| Development costs | 82 | (74) | - | - | 34 | 122 | - | - |
| Costs incurred | 100 | (74) | - | - | 34 | 140 | - | - |
| Total costs incurred | 1,987 | 48 | - | 52 | 1,554 | 249 | 44 | 40 |

Accumulated investments (capitalised costs)

Capitalised costs represent the historical costs capitalised related to oil and gas exploration and production activities, including auxiliary equipment and facilities, and the related accumulated depreciation and accumulated impairment losses.

Millions of euros
At December 31st 2020

| | Total | Europe | Venezuela | Peru | United States | Rest of America | Africa | Asia and Oceania |
|------------------------------------------------------|---------------|--------------|--------------|--------------|---------------|-----------------|--------------|------------------|
| Fully-consolidated entities | | | | | | | | |
| Capitalised costs of proved oil and gas properties | 19,142 | 1,008 | 66 | 460 | 7,924 | 4,991 | 1,628 | 3,065 |
| Capitalised costs of unproved oil and gas properties | 1,734 | 32 | - | 0 | 1,195 | 377 | 1 | 129 |
| Total capitalised costs | 20,876 | 1,040 | 66 | 460 | 9,119 | 5,368 | 1,629 | 3,194 |
| Auxiliary equipment and facilities | 5,174 | 863 | 26 | 702 | 1,246 | 856 | 1,074 | 407 |
| Total capitalised costs | 26,050 | 1,903 | 92 | 1,162 | 10,365 | 6,224 | 2,703 | 3,601 |
| Accumulated depreciation and impairment losses | (15,951) | (1,213) | (90) | (380) | (5,448) | (4,480) | (1,972) | (2,368) |
| Net amount | 10,099 | 690 | 2 | 782 | 4,917 | 1,744 | 731 | 1,233 |
| Equity-accounted investees | | | | | | | | |
| Capitalised costs of proved oil and gas properties | 9,938 | 1,963 | 1,454 | - | - | 6,346 | - | 175 |
| Capitalised costs of unproved oil and gas properties | 582 | - | - | - | - | 586 | - | (4) |
| Total capitalised costs | 10,520 | 1,963 | 1,454 | - | - | 6,932 | - | 171 |
| Auxiliary equipment and facilities | 3,980 | 456 | 790 | - | - | 2,732 | - | 2 |
| Total capitalised costs | 14,500 | 2,419 | 2,244 | - | - | 9,664 | - | 173 |
| Accumulated depreciation and impairment losses | (9,703) | (1,514) | (1,846) | - | - | (6,207) | - | (136) |
| Net amount | 4,797 | 905 | 398 | - | - | 3,457 | - | 37 |
| Total Net amounts | 14,896 | 1,595 | 400 | 782 | 4,917 | 5,201 | 731 | 1,270 |

Millions of euros
At December 31st 2021

| | Total | Europe | Venezuela | Peru | United States | Rest of America | Africa | Asia and Oceania |
|------------------------------------------------------|---------------|--------------|--------------|--------------|---------------|-----------------|--------------|------------------|
| Fully-consolidated entities | | | | | | | | |
| Capitalised costs of proved oil and gas properties | 20,694 | 920 | 71 | 559 | 8,836 | 5,492 | 1,702 | 3,114 |
| Capitalised costs of unproved oil and gas properties | 1,744 | 20 | - | (1) | 1,166 | 397 | (1) | 163 |
| Total capitalised costs | 22,438 | 940 | 71 | 558 | 10,002 | 5,889 | 1,701 | 3,277 |
| Auxiliary equipment and facilities | 5,951 | 1,190 | 28 | 768 | 1,467 | 899 | 1,183 | 416 |
| Total capitalised costs | 28,389 | 2,130 | 99 | 1,326 | 11,469 | 6,788 | 2,884 | 3,693 |
| Accumulated depreciation and impairment losses | (17,587) | (1,209) | (97) | (446) | (6,043) | (5,044) | (2,178) | (2,570) |
| Net amount | 10,802 | 921 | 2 | 880 | 5,426 | 1,744 | 706 | 1,123 |
| Equity-accounted investees | | | | | | | | |
| Capitalised costs of proved oil and gas properties | 10,890 | 2,189 | 1,508 | - | - | 7,193 | - | - |
| Capitalised costs of unproved oil and gas properties | 685 | - | - | - | - | 661 | - | 24 |
| Total capitalised costs | 11,575 | 2,189 | 1,508 | - | - | 7,854 | - | 24 |
| Auxiliary equipment and facilities | 4,193 | 541 | 840 | - | - | 2,810 | - | 2 |
| Total capitalised costs | 15,768 | 2,730 | 2,348 | - | - | 10,664 | - | 26 |
| Accumulated depreciation and impairment losses | (11,117) | (1,889) | (2,030) | - | - | (7,198) | - | - |
| Net amount | 4,651 | 841 | 318 | - | - | 3,466 | - | 26 |
| Total Net amounts ⁽¹⁾ | 15,453 | 1,762 | 320 | 880 | 5,426 | 5,210 | 706 | 1,149 |

Millions of euros
At December 31st 2022

| | Total | Europe | Venezuela | Peru | United States | Rest of America | Africa | Asia and Oceania |
|------------------------------------------------------|---------------|--------------|--------------|--------------|---------------|-----------------|--------------|------------------|
| Fully-consolidated entities | | | | | | | | |
| Capitalised costs of proved oil and gas properties | 21,293 | 1,007 | 76 | 625 | 11,811 | 3,377 | 1,835 | 2,562 |
| Capitalised costs of unproved oil and gas properties | 606 | 4 | - | 0 | 188 | 381 | (1) | 34 |
| | 21,899 | 1,011 | 76 | 625 | 11,999 | 3,758 | 1,834 | 2,596 |
| Auxiliary equipment and facilities | 5,828 | 1,191 | 29 | 828 | 1,798 | 514 | 1,270 | 198 |
| Total capitalised costs | 27,727 | 2,202 | 105 | 1,453 | 13,797 | 4,272 | 3,104 | 2,794 |
| Accumulated depreciation and impairment losses | (16,143) | (1,422) | (102) | (521) | (6,560) | (2,906) | (2,419) | (2,213) |
| Net amount | 11,584 | 780 | 3 | 932 | 7,237 | 1,366 | 685 | 581 |
| Equity-accounted investees | | | | | | | | |
| Capitalised costs of proved oil and gas properties | 11,263 | 2,133 | 1,600 | - | - | 7,530 | - | - |
| Capitalised costs of unproved oil and gas properties | 687 | - | - | - | - | 687 | - | - |
| | 11,950 | 2,133 | 1,600 | - | - | 8,217 | - | - |
| Auxiliary equipment and facilities | 4,628 | 689 | 880 | - | 34 | 3,025 | - | - |
| Total capitalised costs | 16,578 | 2,822 | 2,480 | - | 34 | 11,242 | - | - |
| Accumulated depreciation and impairment losses | (12,028) | (2,072) | (1,971) | - | - | (7,985) | - | - |
| Net amount | 4,550 | 750 | 509 | - | 34 | 3,257 | - | - |
| Total Net amounts | 16,134 | 1,530 | 512 | 932 | 7,271 | 4,623 | 685 | 581 |

(1) In 2021, includes assets classified as held for sale amounting €257 million.

The information in this document is published pursuant to the provision of article 226 of the Spanish Securities Market Law.