

# Stellantis

| Sector    | Revenue    | Emissions                        | Pledge                  | Transparency | Integrity |
|-----------|------------|----------------------------------|-------------------------|--------------|-----------|
| Transport | € 149.4 bn | 451.3 MtCO <sub>2</sub> e (2022) | Carbon net zero by 2038 | Moderate     | Low       |

| 1. Tracking & disclosure of emissions |   |                           | Transparency & Integrity  |  |       |                                 |         |     |         |     |                  |      |                    |       |
|---------------------------------------|---|---------------------------|---|--|-------|---------------------------------|---------|-----|---------|-----|------------------|------|--------------------|-------|
| 451.3 MtCO <sub>2</sub> e in 2022     | <span style="color: green;">●</span>  | Subsidiaries are covered. |   |  |       |                                 |         |     |         |     |                  |      |                    |       |
| <b>Major emissions sources</b>        | Use of vehicles sold (88%, downstream S3, mostly exhaust emissions) and purchasing (9%, upstream S3). Significant decrease compared to 527 MtCO <sub>2</sub> e in 2021, driven by lower volumes, electrification and improved efficiency.                         |                           |   |  |       |                                 |         |     |         |     |                  |      |                    |       |
| <b>Disclosure</b>                     | First-time complete disclosure of S3 emissions, including a breakdown and 2021 data (previously only Europe reported). For S2, a location-based estimate is only disclosed in a footnote for 2022, while the lower market-based estimate is used for aggregation. |                           |   |  |       |                                 |         |     |         |     |                  |      |                    |       |
|                                       |   |                           | <table border="1"> <thead> <tr> <th>Scope</th> <th>Emissions (MtCO<sub>2</sub>e)</th> </tr> </thead> <tbody> <tr> <td>Scope 1</td> <td>1,5</td> </tr> <tr> <td>Scope 2</td> <td>2,6</td> </tr> <tr> <td>Scope 3 upstream</td> <td>40,2</td> </tr> <tr> <td>Scope 3 downstream</td> <td>407,0</td> </tr> </tbody> </table> |  | Scope | Emissions (MtCO <sub>2</sub> e) | Scope 1 | 1,5 | Scope 2 | 2,6 | Scope 3 upstream | 40,2 | Scope 3 downstream | 407,0 |
| Scope                                 | Emissions (MtCO <sub>2</sub> e)   |                           |   |  |       |                                 |         |     |         |     |                  |      |                    |       |
| Scope 1                               | 1,5   |                           |   |  |       |                                 |         |     |         |     |                  |      |                    |       |
| Scope 2                               | 2,6   |                           |   |  |       |                                 |         |     |         |     |                  |      |                    |       |
| Scope 3 upstream                      | 40,2  |                           |   |  |       |                                 |         |     |         |     |                  |      |                    |       |
| Scope 3 downstream                    | 407,0   |                           |   |  |       |                                 |         |     |         |     |                  |      |                    |       |

| 2. Setting emission reduction targets                             |   |   | Transparency | Integrity |
|---|---|---|--------------|-----------|
| <b>Headline target or pledge</b>                                  | Carbon net zero across whole value chain by 2038  |   |              |           |
| <b>Short- &amp; medium-term targets</b><br>(up to 2030)           | Overall: 50% intensity reduction by 2030 (below 2021)<br>- S1 & S2: 50% absolute reduction by 2025, 75% by 2030 (real estate and industrial sites)<br>- S3: 50% intensity reduction by 2030<br>- S3 upstream: 40% intensity reduction for BEVs by 2030<br>- EVs: 100% BEVs in EU and 50% BEVs in US by 2030 |   | High         | Moderate  |
| Scope coverage  | <span style="color: green;">1</span> <span style="color: green;">2</span> <span style="color: orange;">3</span>   | No overarching target to reduce absolute emissions. Major S3 emissions only covered by intensity target, thus not quantifiable. For 2025, complete 1.5°C alignment of ICE phase-out; for 2030, only for EU (44% of 2022 sales mix), not for other regions.          |              |           |
| Own emission reductions<br>(compared to full value chain in 2021) | <span style="color: green;">?</span><br>by 2030<br>(2021 baseline)  |   |              |           |
| <b>Long-term vision</b><br>(beyond 2030)                          | Overall: >90% intensity reduction by 2038 (below 2021, <10% offsetting)<br>- S1 & S2: >90% absolute reduction by 2038 (below 2021, <10% offsetting)<br>- EVs: 100% BEVs in US by 2038   |   | Moderate     | Moderate  |
| Scope coverage  | <span style="color: green;">1</span> <span style="color: green;">2</span> <span style="color: orange;">3</span>   | No overarching target to reduce absolute GHG emissions. Unclear if offsets max. 10% of 2021 emissions for whole company or per vehicle sold. 1.5°C-aligned phase-out dates for ICEs in EU and US (75% of 2022 sales mix), but no long-term goals for other regions. |              |           |
| Own emission reductions<br>(compared to full value chain in 2021) | <span style="color: green;">?</span><br>by 2050<br>(2021 baseline)  |   |              |           |

| 3. Reducing own emissions                |   | Transparency | Integrity |
|--|---|--------------|-----------|
| <b>Emissions reduction measures</b>      | Relevant measures for accelerated transition to electric mobility, but unclear whether measures are sufficient for a 1.5°C-aligned decarbonisation pathway. | Moderate     | Moderate  |
| <b>Renewable electricity procurement</b> | RE accounts for 27% of electricity consumption, of which 0.5% is from on-site installations. RE mainly stems from RECs as well as some PPAs.                | Low          | Low       |

| 4. Climate contributions & offsetting        |   | Transparency | Integrity |
|--|---|--------------|-----------|
| <b>Responsibility for unabated emissions</b> | No information identified on how the company takes responsibility for unabated emissions. Climate contributions with uncertain impact.  | Low          | Low       |
| Climate contributions                        | - Biodiversity/reforestation projects in Brazil. Details regarding the volume of finance not identified.  | Low          | ?         |
| Offsetting claims today                      | - <i>No offsetting claims identified.</i> Unlike last year, no more claim of carbon-neutral operations in its Goiana plant using carbon credit offsets.   | N/A          | N/A       |
| <b>Offsetting plans for the future</b>       | <10% of its 2021 emissions per vehicle may be offset to achieve net-zero carbon emissions by 2038. No information on criteria for use of offset credits identified. Stellantis has conducted an "in-depth screening of mature and emerging technologies". | Moderate     | ?         |

RATINGS **Transparency** refers to the disclosure of information. **Integrity** refers to the quality and credibility of the approach.  
**Overall** Average of sections 1-4 ■ High ■ Reasonable ■ Moderate ■ Low ■ Very Low;  
**Sections 1-4** Average of criteria in each section ■ ■ ■ ■ ■; **Rating criteria** See methodology for rating criteria ■ ■ ■ ■ ■.

Source: SEO Amsterdam Economics' interpretation of identified public documentation from Stellantis

## Stellantis

Stellantis is a multinational automotive company headquartered in Amsterdam that was formed in 2021 through a merger between PSA Group and Fiat Chrysler Automobiles (FCA). The automaker includes brands such as Fiat, Peugeot and Citroën. Stellantis commits to becoming carbon net zero across its value chain by 2038, offsetting less than 10 percent of its current emissions. The target is an intensity target per vehicle. The climate strategy focuses on electrifying its sales mix across the EU and US, but neglects other markets (25 percent of its current sales). Interim targets for 2025 and 2030 also include an absolute emission reduction across S1 and S2 (representing less than 1 percent of the value chain emissions).

**The disclosure of current emissions by Stellantis has improved since last year. Most importantly, S3 emissions are fully disclosed – also including markets outside of Europe – and a breakdown of major S3 categories from the GHG Protocol is provided.** Most S3 categories are not quantified in the CSR report as Stellantis (2023, p. 69) notes that these account for less than 1 percent of the total emissions, but a "detailed analysis is on-going". Contrary to previous reporting, when Stellantis only disclosed S3 emissions and thus the total emission per vehicle for Europe (37.9 tCO<sub>2e</sub>/vehicle in 2020), this year's emission intensity disclosure (77.1 tCO<sub>2e</sub>/vehicle in 2022 globally and 80.2 in 2021) seems in line with third-party estimates (61.9 tCO<sub>2e</sub>/vehicle in 2020; Bonaccorsi et al., 2022, pp. 15-16). Moreover, the CSR report now notes that S2 emissions are calculated using a market-based approach. However, while it is considered a good practice that Stellantis also publishes the location-based estimate in its reporting, it does so only in a footnote for 2022 and it uses the lower figure based on the market-based method to aggregate emissions. Companies should strive to publish both estimates annually and use the highest of the two to calculate total emissions (NCI, 2023b, p. 10).

**Stellantis (2023, p. 63) has a headline target "to become carbon net zero on the whole value chain by 2038, with single digit percent compensation of residual emissions versus 2021 level".** The underlying targets for 2038 are intensity targets to reduce the emission intensity per vehicle by at least 90 percent. It is unclear if further offsetting covers a maximum of 10 percent of total 2021 emissions for the whole company or of all residual emissions per vehicle in 2038. The headline target is supported by interim targets for 2025 and 2030. By 2030, Stellantis wants to have lowered the carbon intensity of its vehicles by 50 percent while reducing absolute S1 and S2 emissions by 75 percent. For 2025, the company aims to reduce these absolute emissions by 50 percent. Additionally, upstream S3 emissions per battery electric vehicle (BEV) should be 40 percent lower by 2030. Regarding the electrification of its car fleet, Stellantis (2023, pp. 62-63) aims at 14 and 34 percent of sales being BEVs by 2025 in the US and EU, respectively, and 50 and 100 percent by 2030. The US sales will be fully BEVs by 2038. BEV sales in 2022 account for 5 and 11 percent of sales in the US and EU, respectively (Stellantis, 2023, p. 62). Other markets, covering 25 percent of the current sales mix, are covered only by 2030 commitments with varying ambitions by Stellantis (2022b, pp. 41-44). In China and India, 60 and 50 percent of sales should be BEVs, respectively, but for Brazil the target is limited to 20 percent, for instance. While its short-term targets for 2025 are aligned with a 1.5°C sectoral pathway for the automotive industry, the later target year for sales in the US being fully BEV and the goals for the other markets are not. CAT (2020, p. 28), for example, notes that car sales in the US should be 95 to 100 percent EV by 2030 already, whereas for Brazil 45 to 95 percent of sales should be electric.

**Stellantis focuses mostly on a swift transition to electric mobility as part of its range of diverse reduction measures.** However, the company also invests in the exploration and development of other technologies, including

e-fuels, hydrogen-based fuel cells, and biofuels, which present uncertainties regarding their efficiency and sustainability. In order to facilitate the electrification of its vehicle fleet and reduce downstream S3 emissions, Stellantis implements various vehicle charging solutions. For instance, the company supports the establishment of a public fast-charging network that aims to deploy 35 thousand fast chargers across Europe and North America by 2030 (Stellantis, 2023, pp. 99-101). Additionally, Stellantis engages in research and development activities in an effort to reduce emissions during the vehicle's use phase, for example by enhancing fuel efficiency in its existing combustion-engine vehicle lines as well as exploring alternative fuels (like e-fuel produced using hydrogen). Importantly, such research should not delay the phase-out of combustion-engine vehicles.

**Currently, Stellantis' (2023, pp. 113-124) electricity consumption is 27 percent renewable and 55 percent decarbonised.** Of the renewable electricity used, only 0.5 percent comes from on-site installations, primarily from solar panels. Other renewable consumption is mainly procured through lower-quality RECs with limited additional renewable energy generation capacity as well as some higher-quality PPA's (Stellantis, 2023, p. 114). Stellantis (2023, pp. 62-63) has already achieved its 2025 target of 50 percent decarbonised electricity usage and aims to use 100 percent decarbonised electricity by 2030. Apart from detailed energy consumption per generation technology and region, Stellantis (2023, p. 124) could improve its disclosure transparency by detailing its current supply constructs and how the company plans to ensure high-quality procurement of renewable electricity towards 2030 and beyond.

**Contrary to last year's CSR report, Stellantis (2022a, p. 73, 2023) no longer mentions the Goiana plant in Brazil to be carbon-neutral by using carbon offsets.** Last year, NCI (2022) assessed these as lower-quality credits available on the voluntary carbon markets with unlikely or limited additional climate impact. Regarding the future potential for offsetting less than 10 percent of the 2021 emissions remaining by 2038, Stellantis does not provide details on the quality criteria for purchasing future carbon credits. The company does mention that it has "engaged an in-depth screening of mature emerging technologies [...] to assess the most reliable and impactful carbon removal and storage technologies" (Stellantis, 2023, p. 64). As was the case last year, the company's only climate contribution is a biodiversity and reforestation project in the Amazon forest, but again details regarding the volume of finance are not identified (Stellantis, 2023, p. 401).

**Sources:**

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## Stellantis

### Moderate Integrity assessment for short- and medium-term target(s) towards 2030

#### What do the short- and medium-term targets actually mean?

##### What are the targets for the short to medium term?

Overall emissions across the entire value chain (below 2021 levels)

- 50 percent vehicle intensity reduction by 2030

S1 and S2 emissions (below 2021 levels)

- 50 percent absolute reduction by 2025; 75 percent absolute reduction by 2030

S3 overall emissions (below 2021 levels):

- 50 percent vehicle intensity reduction by 2030

S3 upstream emissions for BEVs (below 2021 levels):

- 40 percent vehicle intensity reduction by 2030

EV in total sales mix per geographical market:

- 34 percent BEVs (PC) in EU by 2025; 100 percent BEVs (PC) in enlarged Europe (incl. EU) by 2030
- 14 percent BEVs (PC and LDT) in US by 2025; 50 percent BEVs (PC and LDT) in North America (incl. US) by 2030
- >25 percent LEVs in Middle East and Africa by 2030
- 20 percent LEVs in Brazil by 2030
- 50 percent BEVs in India and Asia Pacific by 2030
- 60 percent BEVs (PC) in China by 2030

Decarbonised electricity consumption:

- 50 percent by 2025; 100 percent by 2030

##### How do these targets equate to emission reductions across the value chain (compared to a 2019 baseline)?

The absolute emission reduction targets for S1 and S2 cover only a minor share of the total emissions. There is no overall target to reduce absolute emissions as the intensity targets are not quantifiable. Due to the recent formation of Stellantis in 2021, we cannot recalculate the targeted emission reductions compared to a 2019 base year.

##### Do these targets cover both the short term (within 5 years) and medium term (up to 2030)?

Stellantis sets several short-term targets within a five-year timeframe by 2025 that use similar outcome goals as the 2030 medium-term targets.

#### Do these emission reduction commitments align with a 1.5°C trajectory for the sector according to available literature?

Regarding the absolute emission level across all of Stellantis, no assessment is possible for its medium-term targets. Teske (2022, p. 333) finds that emissions across S1, S2 and S3 for the road transport industry should decrease by 34 percent by 2030 (versus 2019 levels). Specifically for S1 and S2, the 2030 milestone equals a reduction of 13 percent. Stellantis' goals for operational emission therefore seem aligned with this benchmark.

For 2025, the replacement of internal combustion engine (ICE) vehicle sales through the adoption of battery electric vehicles (BEVs) is completely aligned with a 1.5°C trajectory. For 2025, UNFCCC (2021b, p. 13) notes that 15 percent of global passenger cars and vans should be zero-emission vehicles (ZEVs). Given Stellantis' 2025 goals for the US and EU markets only, we estimate that 19 percent of global sales will be BEVs based on its current geographical sales mix. For 2030, when Stellantis (2022b, pp. 39-44) includes targets for other markets, we estimate that 66 percent of sales are targeted to be LEVs or BEVs based on current sales (and e.g. using the Brazil target for all of South America). Global benchmarks demand worldwide car sales to be 75 to 95 percent electric (CAT, 2020, p. 27; Boehm et al., 2022, p. 74). However, IEA (2021, p. 138) finds a 2030 requirement of 64 percent EV sales globally, which would align Stellantis with a 1.5°C trajectory. CAT (2020, p. 27) also details benchmarks for specific geographical markets, some of which Stellantis is aligned

with. For the EU, 95 to 100 percent of car sales should be electric by 2030, but CAT (2020) sets a similar 2030 objective for the US. Meanwhile, Stellantis aims to reach the 100 percent mark for the US by 2038. For Brazil, Stellantis' goal of 25 percent BEV sales by 2030 is well below the CAT (2020) milestone of 45 to 95 percent and the same is true for China (60 percent targeted versus 95 to 100 percent needed). We conclude that Stellantis short- and medium-term targets are partially aligned and that a further setting of absolute emission targets is deemed necessary to limit global warming to 1.5°C.

## **Moderate** Integrity assessment for long-term target(s) (post-2030)

### **What do the long-term targets actually mean?**

#### **What are the targets for the long term beyond 2030?**

Overall emissions across the entire value chain (below 2021 levels)

- >90 percent vehicle intensity reduction with <10 percent offsetting (presented as "carbon net zero") by 2038

EV in total sales mix per geographical market:

- 100 percent BEVs (PC and LDT) in US by 2038

#### **How do these targets equate to emission reductions across the value chain (compared to a 2019 baseline)?**

There is no overall target to reduce absolute emissions as the intensity targets are not quantifiable in terms of emissions levels to be reached.

### **Do these emission reduction commitments align with a 1.5°C trajectory for the sector according to available literature?**

Again, regarding the absolute emission level across all of Stellantis, no assessment is possible for its long-term targets. An ambition of reducing at least 90 percent of emissions with the rest being compensated by (high-quality) carbon credits would imply a deep reduction aligned with a 1.5°C trajectory, if not for being a vehicle intensity target and not an absolute reduction target. Teske (2022, p. 333) concludes that the road transport sector should limit full value chain emissions by 84 percent by 2040 and 100 percent by 2050.

Regarding its electric sales mix, Stellantis aims to sell only BEVs in the US and EU by 2038, which would imply a 75 percent share assuming constant sale shares across geographical markets (in 2022, the US and EU account for three quarters of sales). If we also include the 2030 targets for other geographical markets, almost 82 percent of Stellantis' sales would be electric. However, the global car manufacturing industry should exclusively sell electric vehicles by 2030-2035 to comply with 1.5°C-compatible decarbonisation milestones (CAT, 2020b, p. 27; IEA, 2021b, p. 138; UNFCCC, 2021b, p. 13; Boehm et al., 2022, p. 74). Stellantis does not explicitly commit to this specific benchmark for its entire vehicle fleet sold globally, apart from the EU by 2030 and the US by 2038. We conclude that Stellantis' long-term targets are partially aligned.