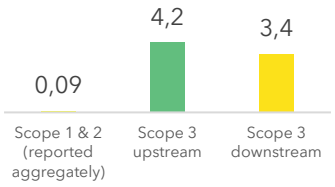
BAM Group

Sector	Revenue	Emissions	Pledge	Transparency	Integrity
Construction	€ 7.3 bn (2022)	7.7 $MtCO_2$ (2022, partly 2021)	80% S1+S2 intensity reduction by 2026; 50% S3 absolute reduction by 2030	Moderate	Moderate

1. Tracking & disclosure of emissions

		Transparency & Integrity
7.7 $MtCO_2$ in 2022 (partly 2021)	Subsidiaries are covered.	
Major emissions sources	Most emissions from purchased goods and services (49%) and use of sold products (44%; buildings built by BAM).	
Disclosure	Limited public-facing documentation: S1 and S2 reported aggregately and only S3 employee travels disclosed. BAM does publish its CDP disclosure, providing further historical data, breakdowns and methodological explanations.	

2. Setting emission reduction targets

		Transparency	Integrity
Headline target or pledge	80% S1 and S2 revenue intensity reduction by 2026; 50% S3 absolute reduction by 2030		
Short- & medium-term targets (up to 2030)	- S1 & S2: 50% CO2 revenue intensity reduction by 2023 and 80% by 2026 (vs 2015) - S3: 50% absolute CO2 reduction by 2030 (vs 2019)		
Scope coverage	1 2 3	High	Moderate
Own emission reductions (compared to full value chain in 2019)	**<49%** by 2030		
	Absolute S3 emission reduction in line with global 1.5°C benchmarks, but overall no full alignment with sectoral benchmarks.		
Long-term vision (beyond 2030)	Ambition to be net zero and to have a net-positive impact on climate and resources by 2050		
Scope coverage	1 2 3	Low	Low
Own emission reductions (compared to full value chain in 2019)	**?** by 2050		
	Unclear vision as scope coverage and exact meaning of net zero and net positive not detailed.		

3. Reducing own emissions

		Transparency	Integrity
Emissions reduction measures	BAM presents several emission reduction measures that pertain to all emission scopes. However, the provided information lacks sufficient detail, making it challenging to assess the significance of those plans.	Low	Low
Renewable electricity procurement	Currently 65% RE consumption (aiming for 100%). Most information is from BAM's CDP disclosure. RE in the Netherlands (44% of total) relies on RECs from Dutch wind power (no such disclosure for other countries).	Moderate	Low

4. Climate contributions & offsetting

		Transparency	Integrity
Responsibility for unabated emissions	No information identified on how the company takes clear responsibility for unabated emissions.	Poor	Poor
Climate contributions	*- No clear climate contributions identified.* Mostly focused on addressing biodiversity loss.	N/A	Poor
Offsetting claims today	*- No current offsetting claims identified.* BAM does not offset any carbon emissions from its footprint.	N/A	N/A
Offsetting plans for the future	BAM does not allow offsetting to meet its S1 and S2 intensity or S3 absolute reduction targets. No information on its long-term 'net-zero' ambition.	Moderate	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 BAM Group

BAM Group

Royal BAM Group N.V. is a major construction company, mainly operating in the Netherlands, Belgium, the UK and Germany. The company has prominent interim targets up to 2030, including revenue intensity targets for S1 and S2 and an absolute reduction target for S3. BAM prioritises short- and medium-term decarbonisation targets. However, it recognises the importance of considering longer-term ambitions to limit global warming to 1.5°C. Currently, BAM is exploring the expansion of targets to include as part of its 'net zero' and 'climate and resources net positive' ambition, but this is not part of the current climate plans yet.

The disclosure of emissions by BAM is limited in its public-facing annual reports, but the CDP disclosures – also shared on its website – clearly detail the most important factors. The 2022 annual report only discloses S1 and S2 emissions aggregately (which does include a breakdown per country and activity), whilst also not publishing any S3 emissions except for minor employee travel emissions (7 $ktCO_2$; BAM Group, 2022a, p. 45). Nevertheless, the CDP disclosure does state broken-down emissions across the full value chain including both S2 estimation methods and methodological considerations concerning all S3 categories (BAM Group, 2022b). Also, S1 and S2 emissions are broken down separately by country, business division, and business activity. However, the annual report of BAM (2022a, p. 207) uses the lower estimate, applying a market-based approach for aggregation, which is considered a bad practice (see the Methodology by NCI, 2022b, Section 1.1.1). Furthermore, the company should improve its transparency by disclosing similar information in its public-facing documentation. The company aims to improve the quality of the measurement of other S3 categories before disclosing these emissions in its annual report (BAM Group, 2022a, p. 46).

BAM has set ambitious targets as part of its medium-term sustainability strategy, including an absolute 50 percent reduction across its S3 emissions. While the S3 target is aligned with global benchmarks to limit global warming to 1.5°C, its stated S1 and S2 goals are relative to its revenues. BAM aims to reduce the revenue intensity by 50 percent by 2023 and by 80 percent by 2026 as compared to 2015 levels. In its latest CDP disclosure, BAM (2022b, C4.1b) notes that – with a 48 percent reduction in 2022 – it is already close to reaching its 2030 targets, which is at least in part due to higher revenues driven by inflation. Further details are required to assess the extent of BAM's ambitious actions against all relevant emission sources. BAM has introduced new key performance indicators (KPIs) and targets in its 2022 sustainability strategy. However, as the baseline measurements for these targets will be developed in 2023, the progress towards these targets is not reported in the current year's report.

While BAM is actively implementing its short- and medium-term climate strategy, its long-term climate ambition is not clearly defined at this time. Currently, BAM's long-term ambitions vary from "net zero" to a "net-positive impact on climate and resources". BAM recognises the urgency of reducing CO_2 emissions and believes that immediate action is crucial to address the pressing challenges of climate change. By focusing on short- and medium-term decarbonisation targets, BAM aims to make tangible progress in reducing its carbon footprint and mitigating the impact of its operations on the environment. While short-term targets are essential, BAM acknowledges the need to align its reduction plans with the longer-term energy transition required to limit global warming to below 1.5°C. The company is exploring the addition of long-term net-zero ambitions and plans to announce them in the coming years (BAM Group, 2022a).

BAM is actively implementing various measures to reduce CO_2 emissions in S1 and S2, but the use of hydrotreated vegetable oil (HVO) is debatable as highlighted by the Methodology (NCI, 2022b, Section 3.2.1). BAM recognises that the replacement of fossil fuels by biofuels has sparked a great deal of debate in recent years. The discussion is focused on proving the true sustainability of apparently lower-carbon biobased fuels. BAM has given careful consideration to the use of HVO and remains satisfied that it is a necessary and suitable transition fuel to reduce emissions. It highlights that the use of HVO has more than doubled in 2022 compared to 2021, saving approximately 8 $ktCO_2$ emissions (BAM Group, 2022a, p. 45). Although BAM only uses certified HVO, which does not contain palm oil, the biofuel may still be related to competition over land for food production, water use, impacts on ecosystems, and land use change (Clarke et al., 2022, p. 39). On a more positive note, BAM has also reduced its diesel use at construction sites by establishing early-stage grid connections and electrifying equipment. One of the main efforts to reduce CO_2 emissions is a move towards the procurement of 100 percent renewable electricity at all offices, facilities and project sites. Additionally, BAM has been electrifying its company car fleet and has introduced electrically powered equipment such as an asphalt spreader, a foundation drill rig, and mobile excavators.

While BAM has set ambitious targets and is actively implementing measures to reduce CO_2 emissions, further clarity and transparency are needed in some areas. Specifically, BAM's reporting lacks detailed information on S3 emission reduction measures, such as which specific emissions sources the company aims to address. This lack of specificity makes it challenging to assess the extent of BAM's actions. Additionally, while BAM's focus on short- and medium-term targets is commendable, a clear long-term climate ambition is still lacking.

Sources:

BAM Group (2022a). Annual report 2022: Building a sustainable tomorrow. Retrieved from https://www.bam.com/en/investors/annual-reports

BAM Group (2022b). CDP Climate Change 2022. *Carbon Disclosure Project*. Retrieved from https://www.bam.com/nl/duurzaam/onze-duurzaamheidsstrategie and https://www.cdp.net/en/responses/23119/Royal-BAM-Group-nv

BAM Group (n.d.). Reducing scope 1 and 2 footprint (direct operations). *Sustainability*. Retrieved from https://www.bam.com/en/sustainability/decarbonisation/scope-1-and-2-footprint

Clarke, L. et al. (2022). 'Energy Systems', in Climate Change 2022: Mitigation of Climate Change - Working Group III contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Intergovernmental Panel on Climate Change (IPCC). Available at: https://report.ipcc.ch/ar6wg3/pdf/IPCC_AR6_WGIII_FinalDraft_FullReport.pdf

European Commission (n.d.). Nearly zero-energy buildings. Retrieved from https://energy.ec.europa.eu/topics/energy-efficiency/energy-efficient-buildings/nearly-zero-energy-buildings_en

IEA (2021) Net Zero by 2050: A Roadmap for the Global Energy Sector. International Energy Agency. Retrieved from https://www.iea.org/reports/net-zero-by-2050

BAM Group

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?

S1 and S2 CO_2 emissions:

- 50 percent intensity reduction in terms of revenue by 2023 (2015 baseline), no offsetting
- 80 percent intensity reduction in terms of revenue by 2026 (2015 baseline), no offsetting

S3 CO_2 emissions:

- 50 percent absolute reduction by 2030 (2019 baseline)

Furthermore, BAM aims to "have an aggregated net-positive biodiversity impact" by 2030, a 75 percent waste reduction by 2030 (2015 baseline), and 100 percent renewable electricity consumption by 2030 (although the target year is not mentioned in BAM's own reporting).

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

BAM's medium-term target for 2030 equals an emissions reduction across the whole value chain of approximately 49 percent below a 2019 baseline level. For S1 and S2, the company only specifies intensity targets. Therefore, absolute emissions reductions can be calculated only for S3 (98 percent of all full value chain emissions).

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

BAM commits to earlier short-term targets for its S1 and S2 emissions, by 2023 and 2026. However, the only absolute emission reduction goal for S3 targets 2030 without providing further interim ambitions.

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

Global benchmarks: The short- and medium-term targets are aligned with global efforts required to limit global warming to 1.5°C. Global benchmarks demand a 48 percent reduction of CO_2 and a 43 percent reduction of GHG emissions.

Sector-level benchmarks: Existing literature contains a limited number of specific milestones for the construction sector to align itself with a 1.5°C trajectory. Teske (2022, p. 332) concludes that global emissions for S1 and S2 for the 'construction of buildings' should reduce by 39 and 61 percent by 2025 and 2030, respectively. No benchmark for S3 emissions is provided. For the more general sector 'buildings', Teske (2022 p. 332) finds that absolute S3 emissions may in fact *increase* with 16 percent by 2025 as compared to 2019, but should nonetheless decrease by almost 5 percent by 2030 relative to the same 2019 levels. For sectoral emissions across all scopes (including S1 and S2), emissions are required to decrease by 37 percent by 2025 and subsequently by 69 percent by 2030 (compared to 2019 levels).

Most benchmarks for the construction sector detail the share of buildings to be, for example, net zero. On a global scale, established milestones indicate that all newly constructed buildings from 2030 onwards should have (net)zero carbon emissions during their use phase (IEA, 2021, p. 20; UNFCCC, 2021a, p. 11). This milestone holds particular significance for BAM and its operations within the EU, as the European Commission (2021) intends to enforce the requirement of zero-emission buildings (ZEB) for all new constructions within the EU starting from 2030. Furthermore, these new buildings should aim for a minimum reduction of 40 percent in embodied CO_2 compared to current construction practices (UNFCCC, 2021a, p. 11). Achieving this reduction can involve strategies such as transitioning to zero-emission steel or reducing the overall amount of cement used during the construction phase. BAM does not state any such targets, whilst at the same time aiming for revenue intensity targets across S1 and S2. In its most recent CDP disclosure, BAM (2021b, C4.1b) notes, for example, that the company "is already close to reaching its 2030 reduction target, and likely to meet it more quickly than anticipated. The reduction is mainly caused by an

increased revenue (partly due to inflation)". This shows that reaching such a target does not (necessarily) implies the actual limiting of global warming.

Low 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?

Ambition to "be net zero" and "have a net-positive impact on climate and resources by 2050".

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

No assessment possible. BAM does not detail any specific reduction emissions targets – neither at an absolute nor at an intensity level – and does not specify to what extent all scopes and underlying categories are covered.

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

No assessment possible. BAM does not explain why it believes that its 2050 ambition is aligned with a 1.5°C trajectory.