

Operating and Financial Review

The following discussion should be considered together with our unaudited financial information included with this review and the periodic reports we file with the Securities and Exchange Commission, including the section contained in our Annual Report on Form 20-F for the fiscal year ended December 31, 2022, “Item 5. Operating and Financial Review and Prospects.” Certain information and disclosures normally included in consolidated financial statements prepared in accordance with U.S. Generally Accepted Accounting Principles (“U.S. GAAP”) have been omitted from this review. The unaudited information included with this review is derived from our preliminary internal financial reports and is subject to revision based on the completion of our year-end processes necessary to finalize our audited financial statements as of and for the year ended December 31, 2023.

As used herein, references to “we,” “us,” the “company,” or “trivago,” or similar terms shall mean trivago N.V. and, as the context requires, its subsidiaries.

Overview

trivago is a global hotel and accommodation search platform. We are focused on reshaping the way travelers search for and compare different types of accommodations, such as hotels, vacation rentals and apartments, while enabling our advertisers to grow their businesses by providing them with access to a broad audience of travelers via our websites and apps. Our platform allows travelers to make informed decisions by personalizing their search for accommodations and providing them with access to a deep supply of relevant information and prices. As of December 31, 2023, we offered access to more than 5.0 million hotels and other types of accommodation in over 190 countries, including over 3.8 million units of alternative accommodation, such as vacation rentals and apartments.

Our search platform forms the core of our user experience and can be accessed globally via 53 localized websites and apps available in 31 languages. Our users initially search via a text-based search function, which supports searches across a broad range of criteria. This leads through to a listings page that displays search results and allows for further refinement based on more nuanced filters. Additionally, we enhance our users’ experience by giving them the option to display their search results in listing or map formats. Users can search our platform on desktop and mobile devices, and benefit from a familiar user interface, resulting in a consistent user experience.

Financial Summary & Operating Metrics (€ millions, unless otherwise stated)

	Three months ended December 31,			Twelve months ended December 31,		
	2023	2022	Δ Y/Y	2023	2022	Δ Y/Y
Total revenue	91.7	104.9	(13)%	485.0	535.0	(9)%
Referral Revenue	88.8	101.4	(12)%	476.8	521.8	(9)%
Return on Advertising Spend	155.4%	180.4%	(25.0) ppts	147.6%	164.4%	(16.8) ppts
Net income/(loss)	2.5	10.4	(76)%	(164.5)	(127.2)	29%
Adjusted EBITDA ⁽¹⁾	7.3	22.6	(68)%	54.1	107.5	(50)%

⁽¹⁾ “Adjusted EBITDA” is a non-GAAP measure. Please see “Definitions of Non-GAAP Measures” and “Tabular Reconciliations for Non-GAAP Measures” on pages 19 to 20 herein for explanations and reconciliations of non-GAAP measures used throughout this review.

Recent Trends

In the fourth quarter of 2023, we continued to observe lower levels of monetization compared to the same prior year period when we had benefited from a strong auction in our marketplace, as well as foreign exchange headwinds which negatively impacted our financial performance. We continued to observe average booking values¹ normalize during the fourth quarter towards prior year levels, which continue to exceed 2019 levels. Higher levels of competition in performance marketing channels continued to negatively impact our results which resulted in traffic volume declines, particularly in our Developed Europe and Americas segments. These declines were partly offset by increased traffic volumes in our Rest of World segment.

For the full year 2023, net loss was €164.5 million, mainly driven by the impairment charges recorded in the third quarter of 2023 totaling €196.1 million, driven by adjustments made to our profitability outlook arising from the announced strategy shift to long-term growth, share price decline and uncertainty in our operating environment and in the overall economic environment. We achieved an Adjusted EBITDA of €54.1 million for the full year 2023.

Outlook

Beginning in mid-December, we launched globally our new campaigns which featured our new logo and refreshed visual identity as part of our new marketing strategy. As we review early results of these campaigns and further optimize our advertising strategy, we continue to expect higher levels of Advertising Spend and stable operating expenditures other than Advertising Spend, compared to 2023.

We continue to believe that, as we increase our brand marketing efforts throughout 2024 and in the coming years as part of our multi-year strategy, this will have a long-term positive impact on the volume of direct traffic to our platform. As we re-invest our profits into our marketing strategy to fuel revenue growth in the medium-term, we continue to expect Adjusted EBITDA² to be close to breakeven for 2024.

¹ Average booking value is the average amount our advertisers obtain from referrals as a result of hotels and other accommodation booked on their sites. We estimate this amount from data voluntarily provided to us by certain advertisers.

² "Adjusted EBITDA" is a non-GAAP measure. Please see "Definitions of Non-GAAP Measures" and "Tabular Reconciliations for Non-GAAP Measures" on pages 19 to 20 herein for explanations and reconciliations of non-GAAP measures used throughout this review.

Revenue

Referral Revenue & Other Revenue

We match our users' searches with large numbers of hotel and other accommodation offers through our auction platform, which we call our marketplace. With our marketplace, we provide advertisers a competitive forum to access user traffic by facilitating a vast quantity of auctions on any particular day. Advertisers submit hotel room and other accommodation rates and participate in our marketplace primarily by making bids for each user click on an advertised rate for a hotel or other accommodation on a cost-per-click, or CPC, basis. We also offer the option for our advertisers to participate in our marketplace on a cost-per-acquisition, or CPA, basis.

We earn substantially all of our revenue when users of our websites and apps click on hotel and accommodation offers or advertisements in our search results and are referred to one of our advertisers. We call this our Referral Revenue.

Management has identified three reportable segments, which correspond to our three operating segments: Americas, Developed Europe and Rest of World (RoW). Our Americas segment is comprised of Argentina, Brazil, Canada, Chile, Colombia, Ecuador, Mexico, Peru, the United States and Uruguay. Our Developed Europe segment is comprised of Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom. Our RoW segment is comprised of all other countries. In the fourth quarter of 2023, the most significant countries by revenue in that segment were Japan, Turkey, Australia, Hong Kong and New Zealand.

We also earn revenue by offering our advertisers business-to-business (B2B) solutions, such as white label services, data product offerings, and subscription fees earned from advertisers for the trivago Business Studio PRO Package. These revenues do not represent a significant portion of our total revenue.

Referral Revenue by Segment & Other Revenue (€ millions)

	Three months ended December 31,				Twelve months ended December 31,			
	2023	2022	Δ €	Δ %	2023	2022	Δ €	Δ % Y/Y
Americas	€ 33.3	€ 41.8	(8.5)	(20)%	€ 176.4	€ 216.4	(40.0)	(19)%
Developed Europe	37.6	43.9	(6.3)	(14)%	215.7	237.7	(22.0)	(9)%
Rest of World	17.9	15.7	2.2	14%	84.7	67.7	17.0	25%
Total Referral Revenue	€ 88.8	€ 101.4	(12.6)	(12)%	€ 476.8	€ 521.8	(45.0)	(9)%
Other revenue	2.9	3.4	(0.5)	(15)%	8.2	13.2	(5.0)	(38)%
Total revenue	€ 91.7	€ 104.9	(13.2)	(13)%	€ 485.0	€ 535.0	(50.0)	(9)%

Note: Some figures may not add up due to rounding.

In the fourth quarter of 2023, total revenue decreased by €13.2 million, or 13%, to €91.7 million compared to the same period in 2022. In the twelve months ended December 31, 2023, total revenue decreased by €50.0 million, or 9%, to €485.0 million compared to the same period in 2022.

Americas

In the fourth quarter of 2023, Referral Revenue decreased by €8.5 million to €33.3 million, compared to the same period in 2022. The decrease was primarily driven by softer bidding dynamics on our platform compared to the same period in 2022 when we had benefited from a strong auction. The decrease was further driven by lower traffic volumes from increased competition in performance marketing channels, and by a negative foreign exchange rate impact due to the weakening of the U.S. dollar against the euro compared to the same period in 2022.

In the twelve months ended December 31, 2023, Referral Revenue decreased by €40.0 million to €176.4 million compared to the same period in 2022. The decrease was primarily driven by lower traffic volumes from increased competition in performance marketing channels, softer bidding dynamics on our platform compared to the same period in 2022, when we had benefited from a strong auction, and a negative foreign exchange rate impact due to the weakening of the U.S. dollar against the euro. These were partly offset by higher average booking values compared to the same period in 2022.

Developed Europe

In the fourth quarter of 2023, Referral Revenue decreased by €6.3 million to €37.6 million compared to the same period in 2022. The decrease was primarily driven by softer bidding dynamics on our platform compared to the same period in 2022 when we had benefited from a strong auction. The decrease was partly offset by higher average booking values and by better booking conversion compared to the same period in 2022.

In the twelve months ended December 31, 2023, Referral Revenue decreased by €22.0 million to €215.7 million, compared to the same period in 2022. The decrease was primarily driven by softer bidding dynamics on our platform compared to the same period in 2022 when we had benefited from a strong auction, and by lower traffic volumes from increased competition in performance marketing channels. The decrease was partly offset by better booking conversion and higher average booking values compared to the same period in 2022.

Rest of World

In the fourth quarter of 2023, Referral Revenue increased by €2.2 million to €17.9 million, compared to the same period in 2022. The increase was driven by higher traffic volumes, particularly in Japan and Turkey, due to the continued increase in travel demand combined with increased marketing investments, and was further driven by better booking conversion compared to the same period in 2022. The increase was partly offset by softer bidding dynamics on our platform and a negative foreign exchange rate impact primarily due to the weakening of the Japanese Yen against the euro compared to the same period in 2022.

In the twelve months ended December 31, 2023, Referral Revenue increased by €17.0 million to €84.7 million, compared to the same period in 2022. The increase was driven by higher average booking values, better booking conversion, and an increase in traffic volumes, particularly in Japan. The increase was partly offset by a negative foreign exchange rate impact primarily due to the weakening of the Japanese Yen against the euro, and by a reduction in traffic volumes mostly in Central Eastern Europe compared to the same period in 2022.

Other Revenue

Other revenue decreased by €0.5 million, or 15%, during the fourth quarter of 2023, and by €5.0 million or 38%, during the twelve months ended December 31, 2023 compared to the same period in 2022, mainly due to our decision in the second quarter of 2022 to discontinue some of our B2B products such as display ads.

Advertiser Concentration

We generate the majority of our Referral Revenue from online travel agencies, or OTAs. For brands affiliated with Expedia Group, including Brand Expedia, Hotels.com, Orbitz, Travelocity, Hotwire, Wotif, Vrbo and ebookers, the share of our Referral Revenue was 34% and 36% in the fourth quarter of 2023 and in the twelve months ended December 31, 2023, respectively, compared to 37% and 33% in the same periods in 2022. For brands affiliated with Booking Holdings, including Booking.com, Agoda and

priceline.com, the share of our Referral Revenue was 43% in the fourth quarter of 2023 and for the twelve months ended December 31, 2023, compared to 46% and 49% in the same periods in 2022.

Return on Advertising Spend (ROAS)

We track the ratio of our Referral Revenue to our Advertising Spend, or ROAS. We believe that ROAS is an indicator of the efficiency of our advertising and it is our primary operating metric. The following table sets forth the ROAS for our reportable segments:

ROAS by Segment (in %)

	Three months ended December 31,			Twelve months ended December 31,		
	2023	2022	Δ ppts	2023	2022	Δ ppts
ROAS						
Americas	173.4%	191.8%	(18.4) ppts	148.3%	164.4%	(16.1) ppts
Developed Europe	152.7%	170.1%	(17.4) ppts	146.0%	158.6%	(12.6) ppts
Rest of World	134.5%	182.3%	(47.8) ppts	150.1%	188.8%	(38.7) ppts
Consolidated ROAS	155.4%	180.4%	(25.0) ppts	147.6%	164.4%	(16.8) ppts

In the fourth quarter of 2023, consolidated ROAS decreased by 25.0 ppts to 155.4%, compared to the same period in 2022. The decrease in ROAS was driven by a decrease of 18.4 ppts, 17.4 ppts and 47.8 ppts in Americas, Developed Europe and RoW, respectively, compared to the same period in 2022. In the twelve months ended December 31, 2023, consolidated ROAS decreased by 16.8 ppts to 147.6%, which was driven by a decrease of 16.1 ppts, 12.6 ppts and 38.7 ppts in Americas, Developed Europe and RoW, respectively, compared to the same period in 2022.

Americas

In the fourth quarter of 2023, ROAS decreased to 173.4%, as the relative decrease in Referral Revenue was greater than the relative decrease in Advertising Spend, compared to the same period in 2022. Advertising Spend decreased by €2.6 million to €19.2 million in the fourth quarter of 2023, compared to the same period in 2022, mainly due to adjustments made to our performance marketing activities to maintain our ROAS targets, which were partly offset by increased brand investments. Contribution decreased by €5.9 million to €14.1 million in the fourth quarter of 2023 compared to the same period in 2022.

In the twelve months ended December 31, 2023, ROAS decreased to 148.3%, as the relative decrease in Referral Revenue was greater than the relative decrease in Advertising Spend, compared to the same period in 2022. Advertising Spend decreased by €12.6 million to €119.0 million in the twelve months ended December 31, 2023, compared to the same period in 2022, mainly due to adjustments made to our performance marketing activities to maintain our ROAS targets. Contribution decreased by €27.4 million to €57.4 million in the twelve months ended December 31, 2023 compared to the same period in 2022.

Developed Europe

In the fourth quarter of 2023, ROAS decreased to 152.7%, as the relative decrease in Referral Revenue was greater than the relative decrease in Advertising Spend compared to the same period in 2022. Advertising Spend decreased by €1.2 million to €24.6 million, compared to the same period in 2022, mainly due to adjustments made to our performance marketing activities to maintain our ROAS targets, which were partly offset by increased brand investments. Contribution decreased by €5.1 million to €13.0 million in the fourth quarter of 2023 compared to the same period in 2022.

In the twelve months ended December 31, 2023, ROAS decreased to 146.0%, as the relative decrease in Referral Revenue was greater than the relative decrease in Advertising Spend, compared to the same period in 2022. Advertising Spend decreased by €2.1 million to €147.7 million in the twelve months ended December 31, 2023, compared to the same period in 2022, mainly due to adjustments made to our performance marketing activities to maintain our ROAS targets, which were partly offset by increased brand investments. Contribution decreased by €19.9 million to €68.0 million in the twelve months ended December 31, 2023 compared to the same period in 2022.

Rest of World

In the fourth quarter of 2023, ROAS decreased to 134.5%, as the relative increase in Advertising Spend was greater than the relative increase in Referral Revenue compared to the same period in 2022. Advertising Spend increased by €4.8 million to €13.4 million in the fourth quarter of 2023, compared to the same period in 2022. The increase in marketing activities, particularly in Japan, was mainly driven by the increase in travel demand. Contribution decreased by €2.5 million to €4.6 million in the fourth quarter of 2023 compared to the same period in 2022.

In the twelve months ended December 31, 2023, ROAS decreased to 150.1%, as the relative increase in Advertising Spend was greater than the relative increase in Referral Revenue, compared to the same period in 2022. Advertising Spend increased by €20.6 million to €56.5 million in the twelve months ended December 31, 2023, compared to the same period in 2022, mainly driven by a significant increase in marketing activities due to the recovery of travel demand, particularly in Japan. Contribution decreased by €3.5 million to €28.3 million in the twelve months ended December 31, 2023, compared to the same period in 2022.

Expenses

Expenses by cost category (€ millions)

	Costs and expenses			As a % of revenue		
	Three months ended December 31,			Three months ended December 31,		
	2023	2022	Δ %	2023	2022	Δ in ppts
Cost of revenue	€ 2.8	€ 3.5	(20)%	3 %	3 %	— %
<i>of which share-based compensation</i>	0.0	0.0	— %			
Selling and marketing	63.7	61.5	4 %	69 %	59 %	10 %
<i>of which share-based compensation</i>	0.1	0.1	— %			
Technology and content	12.1	12.4	(2)%	13 %	12 %	1 %
<i>of which share-based compensation</i>	0.4	0.7	(43)%			
General and administrative	8.6	9.7	(11)%	9 %	9 %	— %
<i>of which share-based compensation</i>	0.7	2.8	(75)%			
Amortization of intangible assets	0.0	0.0	— %	0 %	0 %	— %
Total costs and expenses	€ 87.3	€ 87.1	— %	95%	83 %	12 %

Note: Some figures may not add up due to rounding.

	Costs and Expenses			As a % of Revenue		
	Twelve months ended December 31,			Twelve months ended December 31,		
	2023	2022	Δ % Y/Y	2023	2022	Δ in ppts
Cost of revenue	€ 12.0	€ 12.7	(6)%	2 %	2 %	— %
<i>of which share-based compensation</i>	0.1	0.2	(50)%			
Selling and marketing	345.6	342.0	1%	71 %	64 %	7 %
<i>of which share-based compensation</i>	0.5	0.7	(29)%			
Technology and content	49.0	54.9	(11)%	10 %	10 %	— %
<i>of which share-based compensation</i>	1.7	3.0	(43)%			
General and administrative	38.7	60.9	(36)%	8 %	11 %	(3)%
<i>of which share-based compensation</i>	7.2	11.4	(37)%			
Amortization of intangible assets	0.1	0.1	— %	0 %	0 %	— %
Impairment of intangible assets and goodwill	196.1	184.6	6%	40%	35 %	5 %
Total costs and expenses	€ 641.6	€ 655.3	(2)%	132%	122 %	10 %

Note: Some figures may not add up due to rounding.

Cost of revenue

In the fourth quarter of 2023, cost of revenue decreased by €0.7 million, or 20%, to €2.8 million, and decreased by €0.7 million, or 6%, to €12.0 million in the twelve months ended December 31, 2023, compared to the same period in 2022, mainly due to lower data center and cloud-related service provider costs.

Selling and marketing

In the fourth quarter of 2023, selling and marketing expense increased by €2.2 million, or 4%, to €63.7 million compared to the same period in 2022, of which €57.2 million, or 90%, was Advertising Spend. In the twelve months ended December 31, 2023, selling and marketing expense increased by €3.6 million, or 1%, to €345.6 million compared to the same period in 2022, of which €323.2 million, or 94%, was Advertising Spend.

Advertising Spend

In the fourth quarter of 2023, Advertising Spend increased by €4.8 million to €13.4 million in Rest of World, while it decreased by €2.6 million and €1.2 million to €19.2 million and €24.6 million in Americas and Developed Europe, respectively, compared to the same period in 2022. The overall increase in Advertising Spend was driven by increased brand investments, which were partly offset by lower performance marketing spend. For a more detailed discussion of changes in Advertising Spend by segment, see "*Return on Advertising Spend (ROAS)*" above.

In the twelve months ended December 31, 2023, Advertising Spend increased by €20.6 million to €56.5 million in Rest of World, while it decreased by €12.6 million and €2.1 million to €119.0 million and €147.7 million in Americas and Developed Europe, respectively, compared to the same period in 2022. The overall increase in Advertising Spend was driven by higher brand investments and was partly offset by lower performance marketing spend. For a more detailed discussion of changes in Advertising Spend by segment, see "*Return on Advertising Spend (ROAS)*" above.

Other selling and marketing expense

In the fourth quarter of 2023, other selling and marketing expense increased by €1.2 million, or 23%, to €6.5 million, and decreased by €2.3 million, or 9%, to €22.4 million in the twelve months ended December 31, 2023, compared to the same period in 2022.

The increase in the fourth quarter of 2023 was mainly due to higher television advertisement production costs and higher personnel costs mainly driven by an increase in compensation costs compared to the same period in 2022. These were partly offset by lower expenses incurred in 2023 to acquire traffic.

The decrease in the twelve months ended December 31, 2023 was primarily driven by lower expenses incurred to acquire traffic, and lower personnel costs from a lower headcount following the discontinuation of certain products and projects in the prior year and as a result of an internal reorganization of existing teams to achieve efficiencies in 2022. The decrease was further driven by cancellation fees incurred in the prior year for contracts related to discontinued products, and was partly offset by higher television advertisement production costs.

Technology and content

In the fourth quarter of 2023, technology and content expense decreased by €0.3 million, or 2%, to €12.1 million, and decreased by €5.9 million, or 11%, to €49.0 million in the twelve months ended December 31, 2023, compared to the same period in 2022.

The decrease in the fourth quarter of 2023 was primarily due to lower personnel costs from a lower headcount following an internal reorganization of existing teams to achieve efficiencies through attrition and headcount reductions as a result of the discontinuation of certain products and projects in 2022. The decrease was further driven by lower share-based compensation expense, and was partly offset by the non-recurrence of a campus utilities accrual released in the fourth quarter of 2022, and higher cloud-related service provider costs compared to the same period in 2022.

The decrease in the twelve months ended December 31, 2023 was primarily due to lower personnel costs from a lower headcount and lower severance payments compared to the same period in 2022. The

decrease was further driven by lower share-based compensation expense and lower depreciation expense due to lower underlying capitalized software and software development cost assets that are typically depreciated over a three year useful life. The non-recurrence of an impairment of capitalized software assets related to discontinued products and projects recognized in the prior year further contributed to the decrease in technology and content expense. These were partly offset by higher cloud-related service provider costs and continuous investments to improve our platform.

General and administrative

In the fourth quarter of 2023, general and administrative expense decreased by €1.1 million, or 11%, to €8.6 million, and decreased by €22.2 million, or 36%, to €38.7 million in the twelve months ended December 31, 2023, compared to the same period in 2022.

The decrease in the fourth quarter of 2023 was mostly due to lower share-based compensation expense and lower expected credit losses on trade receivables. These were partly offset by higher personnel costs mainly from higher severance payments compared to the same period in 2022 and American Depositary Share (ADS) cancellation fees incurred in connection with our equity restructuring completed in the fourth quarter of 2023.

The decrease in the twelve months ended December 31, 2023, was mainly driven by the non-recurrence of the incremental expense of €20.7 million during 2022 in relation to the proceeding brought by the Australian Competition and Consumer Commission (ACCC) against us. The decrease was further driven by lower share-based compensation and insurance expenses, and was partly offset by higher personnel costs due to an increase in compensation costs compared to the same period in 2022, and ADS cancellation fees incurred in connection with our equity restructuring completed in 2023.

Amortization of intangible assets

Amortization of intangible assets was €34 thousand in both the fourth quarter of 2023 and 2022, and was €0.1 million in both the twelve months ended December 31, 2023 and 2022, as we amortize intangible assets acquired through the weekengo GmbH acquisition.

Impairment of intangible assets and goodwill

As a result of our annual goodwill impairment test performed in the third quarter of 2023, we recorded impairment charges of €95.5 million and €86.5 million on our Developed Europe and Americas reporting unit goodwill balances, respectively, as well as an impairment charge of €14.2 million on our indefinite-lived intangible assets. The impairment was the result of adjustments made to our profitability outlook arising from the announced strategy shift to long-term growth, share price decline and uncertainty in our operating environment and the overall economic environment.

We performed a quantitative goodwill impairment analysis in both the second and third quarters of 2022 as a result of deteriorating macroeconomic conditions, including rising interest rates, increased inflation and more uncertainty in the overall economic environment. As a result, we recorded a cumulative impairment charge of €80.0 million on our indefinite-lived intangible assets and a goodwill impairment charge of €104.6 million on our Developed Europe reporting unit.

Income taxes, net income/(loss) and Adjusted EBITDA⁽¹⁾ (€ millions)

	Three months ended December 31,			Twelve months ended December 31,		
	2023	2022	Δ €	2023	2022	Δ €
Operating income/(loss)	€ 4.4	€ 17.8	(13.4)	€ (156.6)	€ (120.3)	(36.3)
Other income/(expense)						
Interest expense	(0.0)	(0.0)	—	(0.0)	(0.1)	0.1
Interest income	1.1	0.4	0.7	5.2	0.6	4.6
Other, net	(0.1)	(1.2)	1.1	(0.5)	(0.5)	0.0
Total other income/(expense), net	€ 0.9	€ (0.8)	1.7	€ 4.7	€ 0.0	4.7
Income/(loss) before income taxes	5.4	16.9	(11.5)	(151.9)	(120.2)	(31.7)
Expense for income taxes	2.8	6.4	(3.6)	12.4	6.6	5.8
Income/(loss) before equity method investment	€ 2.5	€ 10.5	(8.0)	€ (164.3)	€ (126.8)	(37.5)
Loss from equity method investment	(0.0)	(0.1)	0.1	(0.2)	(0.4)	0.2
Net income/(loss)	€ 2.5	€ 10.4	(7.9)	€ (164.5)	€ (127.2)	(37.3)
Adjusted EBITDA⁽¹⁾	€ 7.3	€ 22.6	(15.3)	€ 54.1	€ 107.5	(53.4)

Note: Some figures may not add up due to rounding.

⁽¹⁾ "Adjusted EBITDA" is a non-GAAP measure. Please see "Definitions of Non-GAAP Measures" and "Tabular Reconciliations for Non-GAAP Measures" on pages 19 to 20 herein for explanations and reconciliations of non-GAAP measures used throughout this review.

Income taxes

Income tax expense was €2.8 million in the fourth quarter of 2023, compared to income tax expense of €6.4 million in the same period in 2022. The total weighted average tax rate was 31.2%, which was mainly driven by the German statutory tax rate of approximately 31.2%. Our effective tax rate for the fourth quarter of 2023 was 52.5%, compared to 37.9% in the same period in 2022. The difference between the weighted average tax rate of 31.2% and the effective tax rate of 52.5% in the fourth quarter of 2023 is primarily attributable to share-based compensation expense, which is non-deductible for tax purposes.

Income tax expense was €12.4 million in the twelve months ended December 31, 2023, compared to €6.6 million in the twelve months ended December 31, 2022. Our effective tax rate for the twelve months ended December 31, 2023 was (8.2)%, compared to (5.5)% in the same period in 2022. The difference between the weighted average tax rate 31.2% and the effective tax rate of (8.2)% for the twelve months ended December 31, 2023 is primarily attributable to the goodwill impairment and share-based compensation expense, which are non-deductible for tax purposes.

An uncertain tax position in connection with unrecognized tax benefits relating to the deductibility of expenses amounted to €8.6 million as of December 31, 2023. A liability for these tax benefits is presented under other long-term liabilities in the unaudited condensed consolidated balance sheet.

Net Income/(loss) and Adjusted EBITDA

Net income in the fourth quarter of 2023 was €2.5 million compared to €10.4 million in the same period in 2022. Net loss in the twelve months ended December 31, 2023 was €164.5 million compared to €127.2 million in the same period in 2022.

The decrease in the fourth quarter of 2023 was mainly driven by lower revenues mostly due to lower monetization and negative foreign exchange effects compared to the same period in 2022.

The larger loss in the twelve months ended December 31, 2023 was driven by lower revenues mainly due to lower monetization, lower traffic volumes, and negative foreign exchange effects compared to the same period in 2022. This larger loss was further driven by the higher impairment of indefinite-lived intangible assets and goodwill totaling €196.1 million compared to €184.6 million recorded in the same period 2022. This was partly offset by the non-recurrence of the incremental expense of €20.7 million recorded in prior year in relation to the proceeding brought by the ACCC against us.

Adjusted EBITDA decreased by €15.3 million to €7.3 million in the fourth quarter of 2023 mainly driven by lower revenues of €13.2 million.

In the twelve months ended December 31, 2023, Adjusted EBITDA decreased by €53.4 million to €54.1 million driven by lower revenues of €50.0 million and lower ROAS compared to the same period in 2022.

We incurred €0.5 million of ADS cancellation fees connected to the equity restructuring completed in the fourth quarter of 2023. As the equity restructuring was a result of the payment of the one-time extraordinary dividend, these fees were excluded when calculating Adjusted EBITDA in 2023.

The decision of the Australian Federal Court in the prior year had a significant negative impact of €20.7 million on our operating expenses for the twelve months ended December 31, 2022. Due to the size and unusual nature of the accrual relating to the judgement of the Australian Federal Court and its distorting effect on the understanding of our underlying business developments, it was excluded when calculating Adjusted EBITDA in 2022.

Balance sheet and cash flows

Total cash, cash equivalents and restricted cash were €102.2 million as of December 31, 2023, compared to €248.9 million as of December 31, 2022. The decrease of €146.7 million during the twelve months ended December 31, 2023, was mainly driven by €190.4 million cash used in financing activities, partly offset by cash provided by operating activities of €27.8 million and cash provided by investing activities of €16.3 million.

Cash used in financing activities for the twelve months ended December 31, 2023, was primarily driven by the one-time extraordinary dividend paid to shareholders in the fourth quarter of 2023 totaling €184.4 million and payments totaling €6.4 million related to withholding taxes on net share settlements of equity awards.

Cash provided by operating activities for the twelve months ended December 31, 2023, was primarily driven by the adjustment of non-cash items totaling €208.2 million included in the period net loss of €164.5 million, partly offset by an overall negative change in operating assets and liabilities of €15.9 million.

Non-cash items reconciled from net loss include the intangible assets and goodwill impairment loss of €196.1 million which also resulted in the reduction of the net intangible assets balance and the elimination of the goodwill balance as of December 31, 2023, share-based compensation of €9.5 million, and depreciation of €4.4 million. These were partly offset by a reduction of deferred income taxes of €3.5 million.

The change in operating assets and liabilities was primarily driven by negative changes in net taxes payable/receivable of €16.5 million, an increase in prepaid expenses and other assets of €3.6 million, and a decrease in accounts payable of €2.4 million. These negative changes were partly offset by a decrease in accounts receivable of €6.7 million due to lower revenues in the fourth quarter of 2023 compared to the fourth quarter of 2022.

Cash provided by investing activities during the twelve months ended December 31, 2023, was primarily driven by proceeds from sales and maturities of investments of €45.0 million. This was partly offset by the purchase of an investment of €25.2 million and cash outflows of €3.5 million related to capital expenditures, including internal-use software and website development.

In September 2023 the 20,000,000 Class A shares classified as treasury stock acquired from Peter Vinnemeier, one of our founders, in 2022 were retired. As a result, the treasury stock balance of €19.9 million was eliminated.

Our current ratio decreased from 7.1 as of December 31, 2022 to 5.2 as of December 31, 2023, as the relative decrease in our current assets was higher than the relative decrease in our current liabilities. The decrease in our current assets was largely due to the payment of the one-time extraordinary dividend in the fourth quarter of 2023.

trivago N.V. Condensed consolidated balance sheets
(€ thousands, except per share amounts) (unaudited)

ASSETS	As of December 31, 2023	As of December 31, 2022
Current assets:		
Cash and cash equivalents	€ 101,847	€ 248,584
Restricted cash	342	342
Accounts receivable, net of allowance for credit losses of €936 and €418, respectively	23,613	25,679
Accounts receivable, related party	19,094	24,432
Short-term investments	25,225	45,000
Tax receivable	6,774	498
Prepaid expenses and other current assets	11,032	8,669
Total current assets	187,927	353,204
Property and equipment, net	10,079	13,075
Operating lease right-of-use assets	42,273	45,028
Investments and other assets	9,176	8,409
Intangible assets, net	75,614	89,949
Goodwill	—	181,927
TOTAL ASSETS	€ 325,069	€ 691,592
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	€ 17,930	€ 19,941
Income taxes payable	2,087	12,325
Deferred revenue	1,176	1,689
Payroll liabilities	2,619	2,454
Accrued expenses and other current liabilities	9,874	8,675
Operating lease liability	2,301	4,538
Total current liabilities	35,987	49,622
Operating lease liability	38,434	40,729
Deferred income taxes	26,549	30,050
Other long-term liabilities	9,075	9,455
Stockholders' equity:		
Class A common stock, €0.06 par value - 700,000,000 shares authorized Shares issued: 110,919,270 and 124,305,225, respectively Shares outstanding: 110,919,270 and 104,305,225, respectively	6,655	7,458
Class B common stock, €0.60 par value - 320,000,000 shares authorized, 237,476,895 and 237,476,895 shares issued and outstanding, respectively	142,486	142,486
Treasury stock at cost - Class A shares, nil and 20,000,000 shares, respectively	—	(19,960)
Reserves	681,333	863,987
Contribution from Parent	122,307	122,307
Accumulated other comprehensive income	75	54
Accumulated deficit	(737,832)	(554,596)
Total stockholders' equity	215,024	561,736
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	€ 325,069	€ 691,592

trivago N.V. Condensed consolidated statements of operations

(€ thousands, except per share amounts) (unaudited)

	Three months ended December 31,		Twelve months ended December 31,	
	2023	2022	2023	2022
Revenue	€ 61,235	€ 67,473	€ 312,559	€ 361,697
Revenue from related party	30,462	37,416	172,472	173,307
Total revenue	91,697	104,889	485,031	535,004
Costs and expenses:				
Cost of revenue, including related party, excluding amortization ⁽¹⁾	2,748	3,492	11,971	12,691
Selling and marketing, including related party ⁽¹⁾⁽²⁾⁽³⁾	63,725	61,533	345,639	342,024
Technology and content, including related party ⁽¹⁾⁽²⁾⁽³⁾	12,143	12,421	49,020	54,921
General and administrative, including related party ⁽¹⁾⁽²⁾⁽³⁾	8,636	9,650	38,726	60,852
Amortization of intangible assets ⁽²⁾	34	34	135	136
Impairment of intangible assets and goodwill	—	—	196,127	184,642
Operating income/(loss)	4,411	17,759	(156,587)	(120,262)
Other income/(expense)				
Interest expense	(5)	(5)	(12)	(51)
Interest income	1,087	407	5,213	622
Other, net	(141)	(1,240)	(478)	(556)
Total other income/(expense), net	941	(838)	4,723	15
Income/(loss) before income taxes	5,352	16,921	(151,864)	(120,247)
Expense for income taxes	2,810	6,412	12,391	6,570
Income/(loss) before equity method investment	2,542	10,509	(164,255)	(126,817)
Loss from equity method investment	(48)	(88)	(221)	(401)
Net income/(loss)	€ 2,494	€ 10,421	€ (164,476)	€ (127,218)
Earnings per share available to common stockholders:				
Basic	€ 0.01	€ 0.03	€ (0.48)	€ (0.36)
Diluted	0.01	0.03	(0.48)	(0.36)
Shares used in computing earnings per share:				
Basic	345,538	350,401	344,937	357,551
Diluted	348,469	357,177	344,937	357,551

	Three months ended December 31,		Twelve months ended December 31,	
	2023	2022	2023	2022
(1) Includes share-based compensation as follows:				
Cost of revenue	€ 38	€ 48	€ 146	€ 198
Selling and marketing	136	145	463	737
Technology and content	401	655	1,728	2,969
General and administrative	699	2,756	7,168	11,438
(2) Includes amortization as follows:				
Amortization of internal use software costs included in selling and marketing	€ —	€ —	€ —	€ 8
Amortization of internal use software and website development costs included in technology and content	805	815	3,085	4,019
Amortization of internal use software costs included in general and administrative	—	—	—	104
Amortization of acquired technology included in amortization of intangible assets	34	34	135	136
(3) Includes related party expense as follows:				
Selling and marketing	€ 26	€ 4	€ 94	€ 97
Technology and content	407	429	1,618	541
General and administrative	39	—	63	1

trivago N.V. Condensed consolidated statements of cash flows
(€ thousands) (unaudited)

	Three months ended December 31,		Twelve months ended December 31,	
	2023	2022	2023	2022
Operating activities:				
Net income/(loss)	€ 2,494	€ 10,421	€ (164,476)	€ (127,218)
Adjustments to reconcile net income/(loss) to net cash provided by:				
Depreciation (property and equipment and internal-use software and website development)	1,115	1,213	4,421	5,996
Amortization of intangible assets	34	34	135	136
Goodwill and intangible assets impairment loss	—	—	196,127	184,642
Impairment of long-lived assets including internal-use software and website development	—	—	—	893
Share-based compensation	1,274	3,604	9,505	15,342
Deferred income taxes	1,128	(746)	(3,501)	(19,734)
Foreign exchange loss	145	1,251	632	228
Expected credit (gains)/losses, net	(284)	139	640	228
Gain on disposal of fixed assets	(1)	(4)	(18)	(6)
Loss from equity method investment	48	88	221	401
Changes in operating assets and liabilities:				
Accounts receivable, including related party	25,241	26,302	6,691	(10,114)
Prepaid expenses and other assets	194	1,978	(3,565)	1,557
Accounts payable	(8,932)	(10,051)	(2,389)	5,291
Payroll liabilities	(759)	(1,185)	(935)	(835)
Accrued expenses and other liabilities	(117)	(994)	1,358	(677)
Deferred revenue	(97)	(289)	(513)	(485)
Taxes payable/receivable, net	(6,062)	2,255	(16,532)	10,623
Net cash provided by operating activities	€ 15,421	€ 34,016	€ 27,801	€ 66,268
Investing activities:				
Purchase of investments	(25,225)	—	(25,225)	(50,000)
Proceeds from sales and maturities of investments	—	5,000	45,000	5,000
Capital expenditures, including internal-use software and website development	(897)	(645)	(3,514)	(3,976)
Investment in equity-method investees	—	—	—	(5,951)
Proceeds from sale of fixed assets	2	5	28	17
Net cash provided by/(used in) investing activities	€ (26,120)	€ 4,360	€ 16,289	€ (54,910)
Financing activities:				
Proceeds from exercise of option awards	140	28	365	118
Payment of withholding taxes on net share settlements of equity awards	(2,017)	—	(6,380)	—
Repayment of other non-current liabilities	(10)	(13)	(46)	(112)
Purchases of treasury stock	—	(19,328)	—	(19,627)
Dividend paid to shareholders	(184,381)	—	(184,381)	—
Net cash used in financing activities	€ (186,268)	€ (19,313)	€ (190,442)	€ (19,621)
Effect of exchange rate changes on cash	(143)	(1,949)	(385)	470
Net increase/(decrease) in cash, cash equivalents and restricted cash	€ (197,110)	€ 17,114	€ (146,737)	€ (7,793)
Cash, cash equivalents and restricted cash at beginning of the period	299,299	231,812	248,926	256,719
Cash, cash equivalents and restricted cash at end of the period	€ 102,189	€ 248,926	€ 102,189	€ 248,926
Supplemental cash flow information:				
Cash paid for interest	€ 5	€ 5	€ 12	€ 51
Cash received for interest	1,782	270	5,271	397
Cash paid for taxes, net of (refunds)	7,731	4,891	32,895	9,436

Earnings Per Share and Ownership of the Company

Basic and diluted earnings per share of common stock are computed by dividing net income/(loss) by the weighted average number of Class A and Class B shares outstanding during the period.

The following table presents our basic and diluted earnings per share:

	Three months ended December 31,		Twelve months ended December 31,	
	2023	2022	2023	2022
Numerator (€ thousands)				
Net income/(loss)	€ 2,494	€ 10,421	€(164,476)	€(127,218)
Denominator (in thousands)				
Weighted average number of common shares:				
Basic	345,538	350,401	344,937	357,551
Diluted	348,469	357,177	344,937	357,551
Net income/(loss) per share:				
Basic ⁽¹⁾	€ 0.01	€ 0.03	€ (0.48)	€ (0.36)
Diluted ⁽²⁾	€ 0.01	€ 0.03	€ (0.48)	€ (0.36)

(1) Basic net income/(loss) per common share is computed by dividing net income/(loss) by basic weighted average common shares outstanding.

(2) Diluted net income/(loss) per common share is computed by dividing net income/(loss) by the diluted weighted average common shares outstanding, which has been adjusted to include potentially dilutive securities. Diluted net income/(loss) per common share for the twelve-month periods ended December 31, 2023 and December 31, 2022 do not include the effects of the exercise of then-outstanding stock options as the inclusion of these instruments would have been anti-dilutive.

The split between Class A and Class B shares of trivago N.V. as of December 31, 2023 is as follows:

	Class A shares	Class B shares	Total
Number of shares	110,919,270	237,476,895	348,396,165
Shares in %	32 %	68 %	100 %

trivago N.V. Key Metrics

- The following metrics are intended as a supplement to the financial information found in this review and the financial statements included in our filings with the Securities and Exchange Commission ("SEC"). In the event of discrepancies between amounts in these tables and our historical financial statements, readers should rely on our filings with the SEC and our most recent financial statements filed with the SEC.
- We intend to periodically review and refine the definition, methodology and appropriateness of each of our supplemental metrics. As a result, metrics are subject to removal and/or change, and such changes could be material.
- These metrics do not include adjustments for one-time items, acquisitions, foreign exchange or other adjustments.
- Some numbers may not add up due to rounding.

	Three months ended December 31,		Twelve months ended December 31,	
	2023	2022	2023	2022
ROAS by segment				
Americas	173.4%	191.8%	148.3%	164.4%
Developed Europe	152.7%	170.1%	146.0%	158.6%
Rest of World	134.5%	182.3%	150.1%	188.8%
Consolidated ROAS	155.4%	180.4%	147.6%	164.4%

Notes & Definitions:

Current Ratio: The current ratio is used to measure the company's ability to pay off its short-term liabilities with its current assets and is an important measure of liquidity. The current ratio is calculated by dividing the company's total current assets by the company's total current liabilities.

Referral Revenue: We use the term "referral" to describe each time a visitor to one of our websites or apps clicks on a hotel offer or advertisement in our search results and is referred to one of our advertisers. We charge our advertisers for each referral on a cost-per-click (CPC) or cost-per-acquisition (CPA) basis.

ROAS: The ratio of our Referral Revenue to our Advertising Spend in a given period, or **Return On Advertising Spend**. We invest in multiple marketing channels, such as: TV; out-of-home advertising; search engine marketing; display advertising campaigns on advertising networks, affiliate websites, social networking sites and email marketing; online video; mobile app marketing and content marketing; sponsorship and endorsement.

Definitions of Non-GAAP Measures

Adjusted EBITDA:

We define Adjusted EBITDA as net income/(loss) adjusted for:

- income/(loss) from equity method investment,
- expense/(benefit) for income taxes,
- total other (income)/expense, net,
- depreciation of property and equipment and amortization of intangible assets,
- impairment of, and gains and losses on disposals of, property and equipment,
- impairment of intangible assets and goodwill,
- share-based compensation, and
- certain other items, including restructuring, ADS cancellation fees, and significant legal settlements and court-ordered penalties, such as the penalty imposed by the Australian Federal Court in the proceeding brought by the ACCC against us.

From time to time, we may exclude from Adjusted EBITDA the impact of certain events, gains, losses or other charges (such as restructuring charges, significant legal settlements and court-ordered penalties) that affect the period-to-period comparability of our operating performance.

Adjusted EBITDA is a non-GAAP financial measure. A "non-GAAP financial measure" refers to a numerical measure of a company's historical or future financial performance, financial position, or cash flows that excludes (or includes) amounts that are included in (or excluded from) the most directly comparable measure calculated and presented in accordance with U.S. GAAP in such company's financial statements. We present this non-GAAP financial measure because it is used by management to evaluate our operating performance, formulate business plans, and make strategic decisions on capital allocation. We also believe that this non-GAAP financial measure provides useful information to investors and others in understanding and evaluating our operating performance and consolidated results of operations in the same manner as our management, and the exclusion of certain expenses in calculating Adjusted EBITDA can provide a useful measure in comparing financial results between periods as these costs may vary independent of core business performance. Our use of Adjusted EBITDA has limitations as an analytical tool, and you should not consider it in isolation or as a substitute for analysis of our results reported in accordance with U.S. GAAP, including net income/loss. Some of these limitations are:

- Adjusted EBITDA does not reflect our cash expenditures or future requirements for capital expenditures or contractual commitments;

- Adjusted EBITDA does not reflect changes in, or cash requirements for, our working capital needs;
- Adjusted EBITDA does not reflect expenses, such as restructuring and other related reorganization costs;
- Although depreciation, amortization and impairments are non-cash charges, the assets being depreciated, amortized or impaired may have to be replaced in the future, and Adjusted EBITDA does not reflect cash capital expenditure requirements for such replacements or for new capital expenditure requirements; and
- Other companies, including companies in our own industry, may calculate Adjusted EBITDA differently than we do, limiting its usefulness as a comparative measure.

We are not able to provide a reconciliation of our Adjusted EBITDA outlook to net income/(loss), the comparable GAAP measure, because certain items that are excluded from Adjusted EBITDA cannot be reasonably predicted or are not in our control. In particular, we are unable to forecast the timing or magnitude of share-based compensation, interest, taxes, depreciation, amortization, impairments, restructuring related costs and/or significant legal settlements and court-ordered penalties without unreasonable efforts, and these items could significantly impact, either individually or in the aggregate, net income/(loss) in the future.

Tabular Reconciliations for Non-GAAP Measures

Adjusted EBITDA (€ millions)

	Three months ended December 31,		Twelve months ended December 31,	
	2023	2022	2023	2022
Net income/(loss)	€ 2.5	€ 10.4	€ (164.5)	€ (127.2)
Loss from equity method investment	(0.0)	(0.1)	(0.2)	(0.4)
Income/(loss) before equity method investment	€ 2.5	€ 10.5	€ (164.3)	€ (126.8)
Expense for income taxes	2.8	6.4	12.4	6.6
Income/(loss) before income taxes	€ 5.4	€ 16.9	€ (151.9)	€ (120.2)
Add/(less):				
Interest expense	0.0	0.0	0.0	0.1
Interest income	(1.1)	(0.4)	(5.2)	(0.6)
Other, net	0.1	1.2	0.5	0.5
Operating income/(loss)	€ 4.4	€ 17.8	€ (156.6)	€ (120.3)
Depreciation of property and equipment and amortization of intangible assets	1.1	1.2	4.6	6.1
Impairment of, and gains and losses on disposals of, property and equipment	0.0	0.0	0.0	0.9
Impairment of intangible assets and goodwill	—	—	196.1	184.6
Share-based compensation	1.3	3.6	9.5	15.3
Certain other items, including restructuring, ADS cancellation fees, significant legal settlements and court-ordered penalties ⁽¹⁾	0.5	—	0.5	20.7
Adjusted EBITDA	€ 7.3	€ 22.6	€ 54.1	€ 107.5

Note: Some figures may not add up due to rounding.

⁽¹⁾ The €0.5 million presented within the certain other items line in the tabular reconciliation for the year ended December 31, 2023 is attributable to the ADS cancellation fees incurred in connection with our equity restructuring completed in the fourth quarter of 2023. As the equity restructuring was the result of the payment of the one-time extraordinary dividend, these fees were excluded when calculating Adjusted EBITDA in 2023.

Safe Harbor Statement Under the Private Securities Litigation Reform Act of 1995

This review contains “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995. These statements are not guarantees of future performance. These forward-looking statements are based on management’s expectations as of the date of this review and assumptions which are inherently subject to uncertainties, risks and changes in circumstances that are difficult to predict. The use of words such as “will,” “intend” and “expect,” among others, generally identify forward-looking statements. However, these words are not the exclusive means of identifying such statements. In addition, any statements that refer to expectations, projections or other characterizations of future events or circumstances are forward-looking statements and may include statements relating to future revenue, expenses, margins, profitability, net income / (loss), earnings per share and other measures of results of operations and the prospects for future growth of trivago N.V.’s business. Actual results and the timing and outcome of events may differ materially from those expressed or implied in the forward-looking statements for a variety of reasons, including, among others:

- the extent to which our strategy of increasing brand marketing investments positively impacts the volume of direct traffic to our platform and grows our revenue in future periods without reducing our profits or incurring losses;
- the continuing negative impact of having almost completely ceased television advertising in 2020 and only having resumed such advertising at reduced levels in recent years on our ability to grow our revenue;
- our reliance on search engines, particularly Google, whose search results can be affected by a number of factors, many of which are not in our control;
- the promotion by Google of its own product and services that compete directly with our accommodation search;
- our continued dependence on a small number of advertisers for our revenue and adverse impacts that could result from their reduced spending or changes in their cost-per-click, or CPC, bidding strategy;
- our ability to generate referrals, customers, bookings or revenue and profit for our advertisers on a basis they deem to be cost-effective;
- factors that contribute to our period-over-period volatility in our financial condition and result of operations;
- the potential negative impact of a worsening of the economic outlook and inflation on consumer discretionary spending;
- any further impairment of intangible assets;
- geopolitical and diplomatic tensions, instabilities and conflicts, including war, civil unrest, terrorist activity, sanctions or other geopolitical events or escalations of hostilities, such as the war in Ukraine and the ongoing conflict affecting the Middle Eastern region;
- increasing competition in our industry;
- our ability to innovate and provide tools and services that are useful to our users and advertisers;
- our business model's dependence on consumer preferences for traditional hotel-based accommodation;
- our dependence on relationships with third parties to provide us with content;
- changes to and our compliance with applicable laws, rules and regulations;
- the impact of any legal and regulatory proceedings to which we are or may become subject; and
- potential disruptions in the operation of our systems, security breaches and data protection.

as well as other risks and uncertainties detailed in our public filings with the SEC, including trivago's Annual Report on Form 20-F for the fiscal year ended December 31, 2022, as such risks and uncertainties may be updated from time to time. Except as required by law, we undertake no obligation to update any forward-looking or other statements in this review, whether as a result of new information, future events or otherwise.