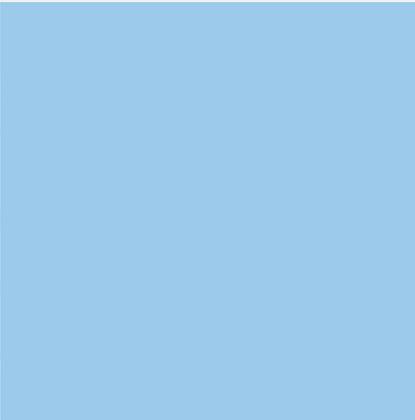
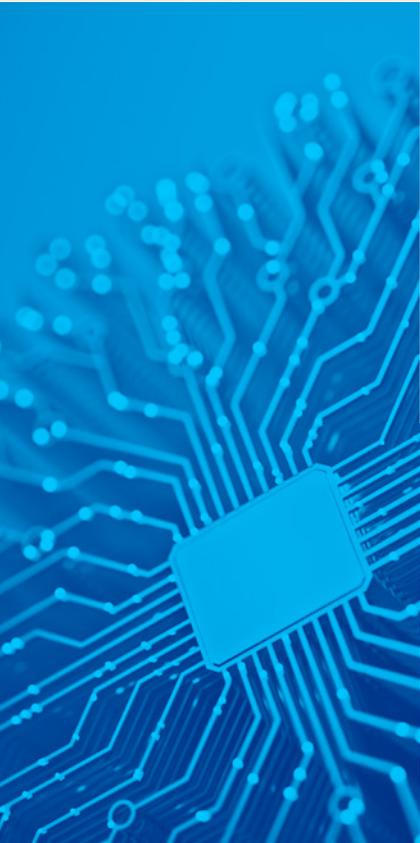


Global Report 2021

A business, financial and sustainability overview

amadeus



Global Report 2021

A business, financial and sustainability overview

The objective of this Global Report is to provide a comprehensive and transparent view of Amadeus' activities, operations and performance during 2021. We have taken into consideration a broad perspective, including economic, social and environmental matters.



The PDF version of this report is designed to be accessible to all users.

It is compliant with Level AA of the current European standard EN-301549, the Web Content Accessibility Guidelines (WCAG 2.1), and the PDF/UA standard.



For a more interactive reading of this report, visit the online version at amadeus.com/global-report-2021



April, 2022

Message from the Chairman of the Board

I am deeply honored to have been elected as the Chairman of the Board of Amadeus, a company that has been a trusted partner in the travel industry for more than 30 years. I want to express my appreciation to José Antonio Tazón, who served Amadeus as Chairman of the Board since 2009. His 18 years as CEO were marked by steady company growth, geographical expansion and business diversification, placing Amadeus in a privileged position.

Today we are living in particularly challenging times, in and beyond the travel industry. It is precisely in these moments when our true values as a company, our culture and our determination to make the travel industry better stand out from any other consideration. Confronting this moment of truth, we have achieved significant milestones. First, we put in place several measures to protect our workforce from the risks of the pandemic. Some of these measures are still in place, and we are transitioning to a new situation to which we are adapting. Second, we safeguarded our financial liquidity and our capacity to invest in new business opportunities. Importantly, we are firmly holding course, supporting our customers as a matter of priority.

As we look toward the longer term, we need to acknowledge and adapt to a market outlook that changes faster than ever and that requires active involvement in areas beyond the traditional business boundaries. The pandemic has exposed previously underestimated vulnerabilities of the travel industry. In this context, attention and concerns over travel industry sustainability have reached unprecedented levels, and it is unlikely they will diminish in the foreseeable future.

Amadeus is intensifying our initiatives under our three-pillar sustainability strategy. First, we are responsible for our own impact. The use of market-based mechanisms to reduce our company greenhouse gas emissions and the migration to the cloud are examples of how we are becoming more efficient and addressing the impact of our operations. Second, we are committed to supporting our customers in their own sustainability journey. In 2021 we created a new transversal unit to reinforce and further develop our sustainability

“

Amadeus has proudly been a multicultural, diverse and respectful organization since its beginnings.

”

value proposition for customers. Finally, acknowledging the global challenge of sustainability, we realize that little can be achieved in isolation. We are strengthening our collaborative approach and working with industry stakeholders to address common sustainability goals. Our global reach, advanced technology and travel industry expertise are valuable assets that help the travel industry in its progress.

Amadeus has proudly been a multicultural, diverse and respectful organization since its beginnings. We are profoundly concerned about the war in Ukraine and we see great acts of solidarity and support across the company both at personal and professional levels, showing tremendous courage, dedication and focus. Our teams across the business have been in constant contact with local employees to help as best we can. Meanwhile, our teams in the region have worked their hardest to ensure business continuity and serve our customers despite the tremendous difficulties. Thank you to everyone who is working tirelessly to navigate this humanitarian tragedy.

Amadeus has proven over the years that we can adapt to market circumstances and customer demands, contributing to making travel more efficient and delivering value to our stakeholders. In this report you will find comprehensive information about our business and the most important milestones of 2021. I hope you find it informative and of interest.



William Connelly
Chairman of the Board, Amadeus



April, 2022

Message from the President & CEO

Two years on from the beginning of the Covid-19 pandemic, our world faces another crisis. At the time of writing, a humanitarian tragedy is unfolding in Ukraine, with lives lost and millions of people seeking refuge due to the Russian military invasion of Ukraine. Our first focus has of course been on the safety and wellbeing of our colleagues and their families in Ukraine, and we can be proud that the Amadeus community worldwide is making a heartfelt, impactful effort to support those affected by the war. We can only hope that a peaceful resolution is found as soon as possible.

As governments work towards finding a way to end this conflict, the travel sector continues to feel the impact of these crises. And over the past two years I've been struck by the ability of our industry to join forces to face uncertainty.

During the pandemic, as global travel came to a standstill, the creativity and commitment of our industry to adapt and evolve was impressive. Delivering on changing traveler needs, developing identification and health certification solutions, rolling out biometrics, building new travel experiences, all helped to re-ignite global travel as restrictions lifted. Now once again, we see travel players taking a stand and making bold decisions to address both the ethical and commercial challenges this conflict is creating.

It is this same mindset of resolve and commitment that will ensure our industry continues to pursue and drive sustainable growth. And it is against this backdrop that I would like to reflect on last year's performance.

Throughout 2021, we all witnessed once more the resilience of the industry and the vital role that travel plays in all our lives. Despite the different waves of the pandemic, and the near constant uncertainty throughout the year, travel volumes both in terms of travel agencies air bookings and passengers boarded continued

“

Throughout 2021, we all witnessed once more the resilience of the industry and the vital role that travel plays in all our lives.

”

to recover and grow quarter over quarter and across regions. And although we are still below 2019 levels, the sustained upward trend in volumes makes us cautiously optimistic for the future.

Our Airport IT and Hospitality businesses also showed improvement, confirming the positive momentum for our offering in these areas, and the continued customer trust in our solutions. This support was crucial last year, as we signed landmark deals across our entire portfolio, from air distribution to airlines, hotels, airports and more. Indeed, Marriott contracted our Amadeus Central Reservation System, Etihad signed up for our Passenger Processing System and renewed its distribution agreement with us; and we helped Narita Airport introduce Japan's first end-to-end biometric boarding process.

Together, the positive volume trends and our focus on strengthening the business contributed to our financial results last year, which showed important progress from 2020. Beyond solid improvements in revenue and EBITDA, we closed the year with solid free cash flow generation. This is critical to continue investing and pursuing growth opportunities. Greater digitalization and changing traveler expectations are unlocking tremendous opportunities for the travel industry and will contribute, I am sure, to a more seamless, safe and sustainable travel experience.

To help us achieve this ambition, we are in the process of moving our operations entirely to the cloud to gain more flexibility, speed and versatility. Microsoft is our partner in this endeavour, and together, we are also working on ambitious innovation projects. As we continue building a vibrant ecosystem of partners, with IBM and Accenture among them, we want to unlock new business opportunities, accelerate our time-to-market and speed up innovation.

Technology and innovation continue to be at the heart of what makes Amadeus successful, and are the key to anticipating and fulfilling our customers' needs. We have traditionally dedicated an important proportion of our annual revenue to R&D investment and, despite the impact of Covid-19, our strong commitment to R&D remains and in 2021, we invested €787 million in R&D.

I have always considered that our teams are our greatest asset; as a software company, we have always relied on the creativity and innovation skills of our engineers, as well as on the trust our commercial teams are able to build with our customers. That will always be the case. But the pandemic and humanitarian crisis in Ukraine have also highlighted the outstanding work and the incredible dedication our entire workforce has shown towards our own company, our customers and communities. Their unwavering commitment has been and continues to be an incredible source of pride for me and my colleagues on the Amadeus Executive Committee.

Of course, the pandemic has also brought new expectations for the workforce of the future. That is why we have embraced hybrid working worldwide, and many other measures you will read about throughout this Global Report. We want to continue to be a caring and supportive company; one that appeals to existing and future employees. And we remain committed to the United Nations Global Compact initiative and fully support its principles on human rights, labor, environment and anti-corruption.

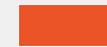
Throughout these turbulent times, it is also important to me to thank our shareholders for their ongoing support. We also deeply value the trust our customers place in our technology and expertise.

So as we look towards the future in these times of geopolitical uncertainty, it is clear to me that travel continues to be a force for good, as it breaks down barriers and powers progress by connecting people and cultures.

Luis Maroto

President & CEO, Amadeus

Table of contents



Chapter 1 Amadeus profile and corporate performance

▶ Corporate performance	9
▶ Travel industry outlook	11
▶ Amadeus profile	17
▶ Rebuilding travel	25

Following global reporting trends and best practices we have included these marks throughout this Global Report.

GRI 000



GRI Disclosure Label. Indicates that a GRI Standards disclosure is reported on the page where the label has been placed.

Further information provided in another section.

These icons highlight Amadeus' specific actions that contribute to key UN Sustainable Development Goals.



1. No poverty



2. Zero hunger



3. Good health and well-being



4. Quality education



5. Gender equality



6. Clean water and sanitation



7. Affordable and clean energy



8. Decent work and economic growth



9. Industry, innovation and infrastructure



10. Reduced inequalities



11. Sustainable cities and communities



12. Responsible consumption and production



13. Climate action



14. Life below water



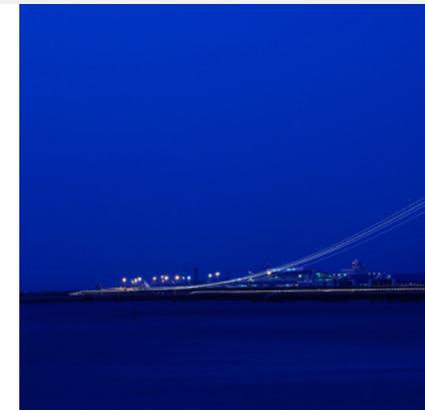
15. Life on land



16. Peace, justice and strong institutions



17. Partnerships for the goals





Chapter 2
Business areas

- ▶ Air Distribution 27
- ▶ Air IT solutions 37
- ▶ Hospitality and transversal solutions 49

Chapter 3
Technology and innovation 61



Chapter 4
Amadeus people and culture 75

Chapter 5
Social responsibility 85

Chapter 6
Environmental sustainability 93

Chapter 7
Corporate governance 107



Chapter 8
Materiality and stakeholder engagement 127

Chapter 9
Amadeus industry affairs 135

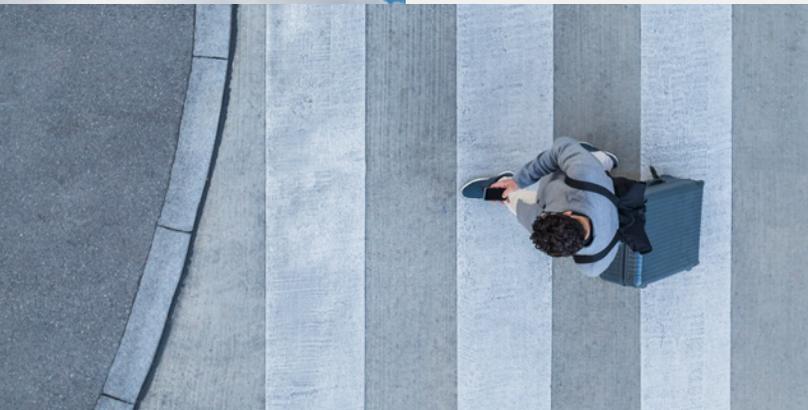
Chapter 10
Shareholders and financial institutions 145



Annex 1
About this report 151

Annex 2
Quantitative Information and GRI Content Index 155

Annex 3
Glossary 175



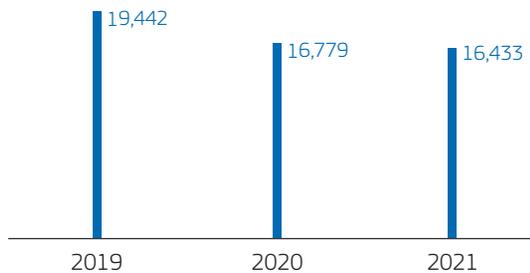


Amadeus profile and corporate performance



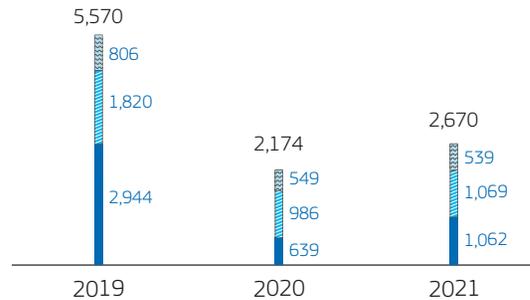
GRI 102-7, 102-8 | GRI 103-1, 103-2, 103-3 (Solvency and economic performance)

Total workforce (figures in FTEs)*



* Scope: All fully owned Amadeus companies. Figures in full-time equivalents (FTEs) as of December 31. FTE is the headcount converted to a full-time basis, e.g. an employee working part-time covering 80% of a full time schedule is considered 0.8 FTE.

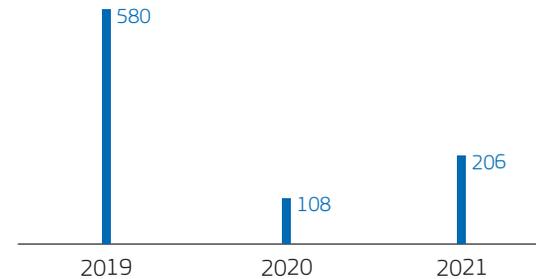
Revenue breakdown* (figures in € million)



● Air Distribution ● Air IT ● Hospitality and transversal solutions

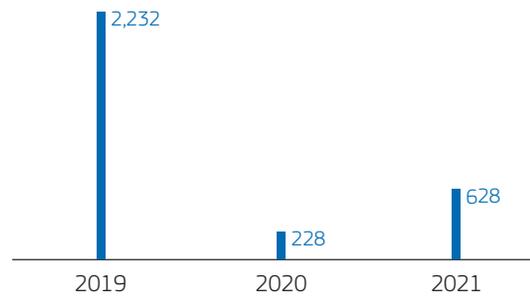
* Figures are presented under the new segment reporting scheme, implemented in Q3 2021.

Travel agency air bookings* (figures in millions)

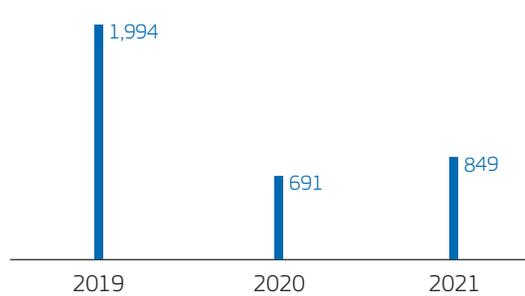


* Air bookings processed by travel agencies using Amadeus distribution platforms.

EBITDA¹ (figures in € million)

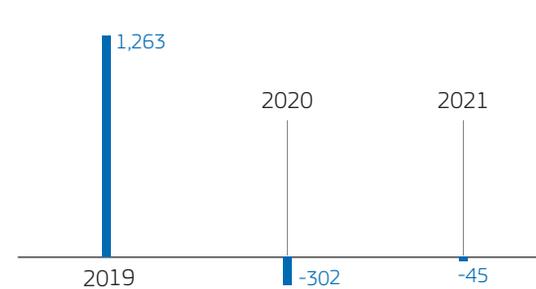


Passengers boarded* (figures in millions)

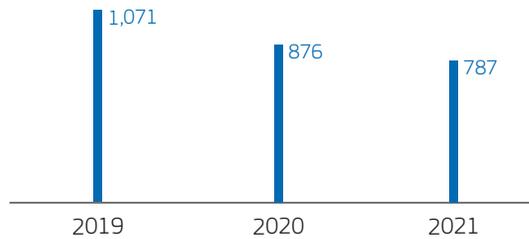


* Actual passengers boarded onto flights operated by airlines using at least the Amadeus Altéa[®] Reservation and Inventory modules or Navitaire New Skies[®].

Adjusted profit^{1,2} (figures in € million)

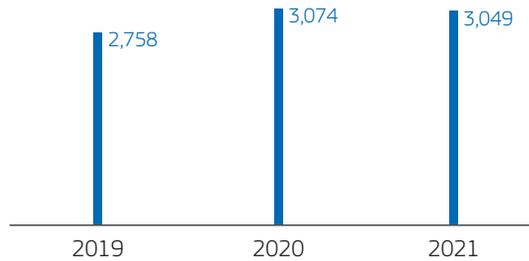


R&D investment* (figures in € million)



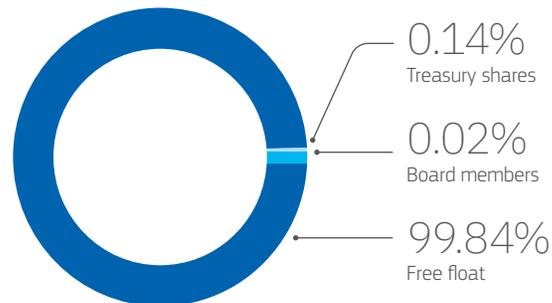
* Gross R&D investment.

Net debt evolution* (figures in € million)



* Net financial debt as defined by our credit facility agreements.

Amadeus share structure



Throughout 2021, and despite different waves of the COVID-19 pandemic impacting travel, we saw continued recovery in volume performance, with encouraging positive trends in both air bookings and passengers boarded, across many regions. We remained focused on strengthening our business and continued investing for the future. On the commercial front, we made important progress and signed landmark agreements which reinforce our competitive position.

Travel agency air bookings

Amadeus' total travel agency air bookings declined by 64.4% in 2021 compared to 2019 (compared to 2020, they increased by 91.9%). The best performing region in the year was North America, with a 44.3% decrease versus 2019 levels (in the fourth quarter, bookings in this region were only 19.9% below 2019 levels). It was encouraging to see that Asia-Pacific, the worst performing region in booking volumes since the start of the pandemic, delivered in the fourth quarter its most notable quarterly performance progress to date.

Passengers boarded

Passengers boarded (PBs) in 2021 declined by 57.4% compared to 2019 (compared to 2020, they increased by 22.9%). Our best performing region in the year was North America, which was only 20.1% below 2019 in PB volume. In the fourth quarter several regions reported large improvements in performance from the previous quarter, such as Western Europe, Asia-Pacific and Middle East and Africa.

Revenue

Revenue grew 22.8% compared to 2020, although it still decreased by 52.1% in comparison to 2019. Air Distribution revenue grew 66.1% compared to 2020 and represents a 63.9% decrease vs. 2019, driven by the reduction in air booking volumes. Air IT Solutions revenue grew 8.5% from 2020, albeit still a decrease of 41.2% versus 2019. As happened with our distribution revenue per booking, during 2021 our revenue per passenger boarded was higher than in 2019, supported by the evolution of several revenue lines not linked to PBs. Hospitality & Other Solutions revenue (comprising Hospitality and Payments) contracted by 33.2% compared to 2019.

R&D investment

Gross R&D investment declined by 10% compared to 2020. We have traditionally dedicated an important proportion of our annual revenue to R&D investment and in 2021 we have maintained a strong commitment, although COVID-19 has meant we have had to further prioritize our most strategic projects and postpone other initiatives. Some of the most relevant projects include shift to cloud services and next-generation technologies, further development of our hospitality modular and combined central reservation system, New Distribution Capability industrialization, enhanced shopping, retailing and merchandizing tools and customer implementations.

EBITDA¹ and adjusted profit^{1,2}

EBITDA amounted to €627.6 million, a 175.5% improvement versus 2020, albeit it still represents a 71.9% drop compared to 2019. EBITDA evolution, relative to 2019, was driven by a 70.1% decrease in Air Distribution contribution, a 48.0% contraction in Air IT Solutions contribution, a 41.8% reduction in Hospitality & Other Solutions contribution and a 13.1% decline in indirect costs, driven by cost efficiency measures. We reduced our adjusted annual loss² to €44.7 million, from a -€302.4 million in 2020.

Net debt

The main changes to our debt in 2021 included the issuance in February of €500 million Floating Rate Note, cancellation in August of €500 million bonds issued on November, 2015, and decrease in the use of the Multi-Currency European Commercial Paper program by a net amount of €622 million.

- 2021 and 2020 figures adjusted to exclude costs, amounting to €28.6 million (€19.8 million post tax) in 2021, and €169.1 million (€120.9 million post tax) in 2020, related to the implementation of the cost saving program announced in 2020. Figures for 2019 include TravelClick's related acquisition costs.
- Excluding after-tax impact of the following items: (i) accounting effects derived from PPA exercises and impairment losses, (ii) non-operating exchange gains (losses) and (iii) other non-operating, non-recurring effects.

Travel industry outlook



Overall travel volumes

In 2019, before the COVID-19 crisis, the contribution of travel and tourism to the world economy was estimated at USD 8.9 trillion, or more than 10% of the global GDP, supporting 330 million jobs (1 in 10 globally),¹ and at that time air traffic measured in terms of revenue passenger kilometers (RPKs) was expected to grow at an average of 4.6% per annum over the next 20 years.²

While the airline industry in the past has fully recovered from demand-side shocks (SARS, global economic recessions, terrorist attacks) in 6 to 18 months, the impact of the COVID-19 crisis on travel and tourism has been unprecedented in depth and duration.³ As such, the estimated contribution from travel and tourism to the world economy declined by 49% from 2019 to 2020, versus a 3.7% decline of the global economy.⁴

Aviation has been even more affected, and the industry has been facing the worst crisis since the beginning of commercial aviation after World War II. Several airlines have gone out of business, while others have survived only due to government bailouts. This is reflected in the decline in air travel of 66%⁵ in 2020.

However, our industry has consistently overcome downturns throughout its history. In 2021 and 2022 the industry is expected to partially recover, with the gap in air traffic versus 2019 narrowing to -60% and -39% respectively,⁵ and in the long term, air traffic is expected to recover annual growth rates of 4%.⁶

¹ World Travel & Tourism Council (WTTTC) (June 2020). *Global Economic Impact & Trends 2020*.

² Boeing (2019). *Commercial Market Outlook 2019–2038*.

³ International Air Transport Association (IATA) (October 2021). [“COVID-19: Airline Industry Outlook”](#)

⁴ World Travel & Tourism Council (WTTTC) (June 2021). *Global Economic Impact & Trends 2021*.

⁵ International Air Transport Association (IATA) (October 2021). [“Economic Performance of the Airline Industry”](#)

⁶ Boeing (2021). *Commercial Market Outlook 2021–2040* (4% growth rate compared to 2019 traffic).

Regional development

Developments in the travel sector are expected to be very uneven across different regions of the world. Before the pandemic, growth in the travel industry was expected to be particularly strong in Asia-Pacific and in the Middle East and Africa, with direct travel and tourism GDP projected to grow at compound annual rates in the order of 4–5% per annum. The rest of the world was expected to grow at slower rates, but above 2.5% for any region.⁷ Although impacted by the COVID-19 crisis, overall we expect these trends to hold true in the long term.

Looking specifically at air traffic, over the long term, Asia-Pacific, Latin America and Africa are expected to grow faster than other regions. The Middle East is expected to grow in line with the overall growth of 4% per annum, and Europe and North America will grow at a slower pace.⁸

As a consequence of these regional growth differentials, the center of gravity in the travel world will continue to shift from west to east, with Asia-Pacific being the major growth catalyst.

Amadeus is well positioned to capitalize on this Asia-Pacific growth. We have a wide local presence and a workforce of more than 4,300 people in the region, representing 26% of our total workforce. ↪ We also have a strong market position in our Distribution business and many important airline customers in our Airline IT business.

Trends and events affecting the global travel industry

Some important trends and events affecting the travel industry include health crises, geopolitical events, economic growth levels, hybrid working, capacity constraints and sustainability issues.

Health crises

Until the world was hit by the COVID-19 pandemic, health crises like SARS, MERS and Ebola had only regional impact on travel volumes during a relatively short period

⁷ World Travel & Tourism Council (WTTTC) (March 2019). *Travel & Tourism Economic Impact 2019 World*.

⁸ Boeing (2021). *Commercial Market Outlook 2021–2040*.

↪ See p. 76 “Workforce by region.”

of time.⁹ COVID-19 is of a completely different order of magnitude, geographically spreading around the whole world and having a much stronger impact on travel.

Restoring travelers' confidence is now the first priority for the industry and for governments. This requires coordinated efforts to implement practical changes in established procedures following the recommendations of public health authorities to ensure passengers' health. Beyond the evolution of the pandemic and the speed at which vaccination takes place, the economic recovery and the international coordination of travel-related measures are essential to restoring traveler confidence.

Governments, trade industry associations, travel players and IT companies have launched a wide range of initiatives to address the impact of COVID-19 on travel demand—such as “travel bubbles,” contactless solutions for use at check-in, rapid testing, health pass solutions or insurance against COVID-19-related events.

Amadeus is playing an important role, with initiatives such as our Safe Travel Ecosystem.^C The use of the word “ecosystem” is deliberate. We recognize that succeeding in winning back the hearts and minds of travelers—restoring confidence and removing barriers to travel—will only come about through unprecedented collaboration. No one organization can make this happen alone. We also believe in the vital role of technology as an enabler of safe travel. Touchless, biometrics and contactless solutions are all areas where technology can make a positive difference to the traveler journey.

We believe travel industry recovery needs to be a joint effort by all stakeholders. For instance, we're engaging with our airline, airport and hospitality customers as well as with new players like test centers and digital health information aggregators to connect and digitalize evidence of testing and approval to travel information into our passenger handling and guest management solutions.

⁹ Global Rescue and World Travel & Tourism Council (WTTC) (October 2019). *Crisis Readiness*.

^C See p. 57, 'Safe travel.'

Geopolitics

Geopolitical and security events in certain parts of the world are affecting travel significantly.

Political tensions and an increased level of protectionism are affecting travel negatively. Indeed, before the COVID-19 crisis, in 2018 the International Air Transport Association (IATA) projected significant differences in the growth of air travel over the next 20 years under a base case scenario (“Constant Policy”: 3.5% growth p.a.) and two extreme scenarios (“Reverse Globalization”: 2.4% p.a.; “Maximum Liberalization”: 5.5% p.a.).¹⁰ In terms of number of passengers in 2037, this shows a difference of a factor of almost two between the best- and worst-case scenarios.

Amadeus is deeply concerned about the humanitarian crisis unfolding in Ukraine. Our teams across the business, whether in People & Culture, Business Resilience or Business Units, have been in constant contact with local employees to help as best we can. Meanwhile our teams in the region have worked their hardest to ensure business continuity and to serve our customers despite the escalating situation. But we do emphasize that the first priority is the safety of our people and their families.

At the same time, threats of terrorism are leading to restrictions on travel, increased security and border control and administrative burden on the traveler. This, coupled with a reduced appetite for travel, can have a dampening effect on demand. Nonetheless, history has shown that security issues tend to affect only specific countries or regions and are generally short-lived. In addition, Amadeus' broad geographical diversification helps to limit the impact of such issues on our business. Technology has provided solutions for security issues in the past, and this is likely to continue, presenting further opportunities for large travel IT providers with the required scale and reach such as Amadeus.

Economic growth

Economic growth levels correlate closely with travel industry growth over the long term,¹¹ although this general correlation varies substantially over time and geographical region.

¹⁰ International Air Transport Association (IATA) (October 24, 2018). [“IATA Forecast Predicts 8.2 Billion Air Travelers in 2037.”](#)

¹¹ International Air Transport Association (IATA) (February 8, 2019). [“Air travel GDP Multiplier Falls Sharply Back to its 20-Year Median.”](#)

In the short- to mid-term, as the COVID-19 pandemic has had an unbalanced economic impact on countries and citizens, and as the recovery out of the crisis is likely to be uneven,^{12,13} during this period the relationship between GDP and travel industry growth may be different from what has been observed historically. However, demand for travel is resilient, and people across the world still need to travel to see friends and family, carry out business in person and enjoy new destinations.

Technological solutions can help achieving a frictionless travel experience, contributing to a faster recovery of travel demand.

Hybrid working

The COVID-19 pandemic and related lockdowns have led to new ways of working. Hybrid working models combining working from home with working from the office have become the new norm, and options to work from anywhere are becoming more and more common for many businesses. We're seeing a greater proportion of working time now taking place out of the office, and these flexible work dynamics have unleashed new trends and practices, such as the combination of periods of work immediately preceded or followed by vacations ("workcation").

With recovery in sight, businesses will see an increase in time spent at the office. However, we don't expect pre-pandemic working models to come back. The purpose of the office has changed—it's now a place to come together, collaborate and socialize. Spaces are prioritized for the face-to-face interactions missed when working from home or asynchronously.

Off the back of these new behaviors, we expect to see new drivers of travel for business. Those who work from home, sometimes in remote locations, will now see their business trips focused around coming into the office or another central location to foster in-person connections with their teams.

Capacity constraints

Growth in travel is leading to strains on travel infrastructure, and in particular on airports. In summer 2019, 204 airports were designated Level 3 slot-coordinated facilities, meaning that they did not have the runway, ramp or gate capacity to handle

¹² World Bank Group (June 2021). *Global Economics Prospects*.

¹³ International Air Transport Association (IATA) (October 2021). "[COVID-19: Airline Industry Outlook](#)."

all of the flights that carriers would like to operate.¹⁴ At the time, it was also expected that there could be another 100 slot-constrained airports declared in the next 10 years because airport infrastructure development wasn't keeping up with traffic growth.¹⁵

While the COVID-19 pandemic has considerably reduced passenger numbers, during the recovery of the industry capacity constraint issues might be exacerbated by the need for airports to safeguard passengers and comply with new national and global health standards, which will in turn increase the chance of crowded terminals, queues and bottlenecks.

Social distancing measures alone will slash airport capacity, and airports that operated close to their saturation capacity before the COVID-19 crisis can expect to reach their maximum saturation capacity at just 60–75% of their pre-COVID-19 peaks.¹⁶

As technology can facilitate more efficient use of these scarce resources, the industry will need to invest in IT systems. For example, while traditional check-in systems direct passengers to the check-in hall, where they interact with agents to obtain a boarding pass or drop off their luggage, with technology from companies like Amadeus, airports can position fixed or portable check-in and bag drop stations at multiple locations inside or outside the terminal, minimizing congestion.

Sustainability

The travel and tourism sector faces sustainability challenges such as overcrowded destinations, income inequalities and human-induced climate variability. The climate issue in particular has received much more attention over recent years. In 2019 air traffic accounted for 2% of all human-induced carbon dioxide emissions,¹⁷ and social movements like "flight-shaming" have attracted attention at unprecedented speed and intensity. We expect a more specific and stricter legal framework to emerge on these and other issues, which could have a negative impact on travel volumes in the short term. The industry needs to respond with fact-based information and action.

¹⁴ International Air Transport Association (IATA) (October 2021). "[Worldwide Airport Slots](#)" (factsheet).

¹⁵ Steve Creedy (June 2, 2019). "[IATA: Capacity Crunch to Hit Another 100 Airports](#)," AirlineRatings.

¹⁶ Airport Research Center (ARC) (2020). "[Study: Impact Assessment of COVID-19 Measures on Airport Operations and Capacity](#)."

¹⁷ Air Transport Action Group (ATAG) (September 2020). "[Facts & Figures](#)."

In regard to aviation, however, the industry is determined to grow sustainably, committing to achieving net-zero carbon emissions by 2050¹⁸ and to working together to achieve the commitments reached at the 26th Conference of the Parties to the United Nations Framework Convention on Climate Change (“COP26”).¹⁹ As such, many airlines have taken an active role in addressing this issue, via different initiatives. For example, EasyJet is offsetting 100% of its emissions by supporting projects that protect against deforestation, plant trees or drive the uptake of renewable energy.²⁰ Also, Delta,²¹ Lufthansa²² and IAG,²³ and even airports such as Gatwick,²⁴ are purchasing sustainable aviation fuels (SAFs) to reduce flight carbon emissions. Some others are going even further: JetBlue²⁵ and Alaska Airlines²⁶ are using their venture funds to invest in sustainable travel start-ups, while some others like Lufthansa are developing their own solutions such as compensation platforms.²⁷

In the journey toward the industry becoming more sustainable, technology from IT companies can contribute to the more efficient use of infrastructure and energy and the reduction of carbon emissions. For Amadeus, our contribution can be made principally in two ways. Firstly, we have an agreement with the UN International Civil Aviation Organization (ICAO) to use their carbon emissions calculator in our distribution platforms. Raising awareness among the millions of travelers processed through our platforms about the emissions released as a consequence of their trips helps them to make informed travel purchasing decisions, factoring in the

¹⁸ International Air Transport Association (IATA) (October 4, 2021). “[Net-Zero Carbon Emissions by 2050](#).” Press Release No. 66.

¹⁹ International Air Transport Association (IATA) (November 12, 2021). “[International Aviation Climate Ambition Reflects Airlines’ Net-Zero Goal](#).”

²⁰ EasyJet (2021). “[Leading the Industry on Sustainable Travel](#).”

²¹ Austin Tannenbaum (October 1, 2021). “[Delta Purchases More than \\$1 Billion Worth of Sustainable Aviation Fuel](#).” Environment + Energy Leader.

²² Lufthansa Group (October 4, 2021). “[From Test Tube to Barrel—Lufthansa Invests in First Industrially Produced Carbon-Neutral, Electricity-Based Kerosene Made in Germany](#).”

²³ Laura Sanicola (November 10, 2021). “[Southwest, IAG Agree to Buy Sustainable Aviation Fuel Made from Wood Waste](#).” Reuters.

²⁴ Future Travel Experience (October 2021). “[Gatwick Airport to Use Sustainable Aviation Fuel for EasyJet Flights](#).”

²⁵ Aviation Pros (April 23, 2021). “[JetBlue Technology Ventures Invests in Universal Hydrogen to Support the Airline’s Ambitious Sustainability Strategy](#).”

²⁶ Aria Alamalhodaie (October 18, 2021). “[Alaska Airlines Launches New Venture Arm, with First Investment in UP.Partners’ \\$230M Fund](#).”

²⁷ Linda Fox (July 7, 2021). “[Lufthansa Unveils Travel Sustainability Marketplace Squake](#).” PhocusWire.

sustainability component and eventually facilitating further mitigation measures like carbon offsetting. Secondly, we develop IT solutions that improve the operational and environmental efficiency of our customers. For example, using large volumes of data and sophisticated algorithms, our Departure Control Flight Management module helps airlines optimize aircraft trim (among other things), delivering as a consequence the reduction of fuel used and emissions released.↪

The need for technology to support the evolution of the travel industry

The evolution and growth of the travel industry is highly dependent on technology.

For travel providers to succeed in today’s world, a strong focus is required not only on cost efficiencies but also on revenue maximization, as well as brand and customer loyalty. In this context, technology also plays an important role in enhancing a wide variety of core operations for travel providers. Amadeus has IT offerings for a wide range of travel providers, including airlines, hotels and airports.↪

The travel ecosystem consists of countless providers—such as airlines, hotels, railways, car rental companies and destination services providers—as well as countless travel sellers. Technology is powering the ecosystem by connecting all these travel stakeholders, allowing travelers to search for and book the optimal journey, consisting perhaps of several travel services (e.g. air, hotel and car). Amadeus plays an important role in powering this ecosystem via our Distribution business, which connects travel providers with travel sellers all over the world.↪

Cloud

Cloud is a disruptive technological change. Recent evolution and development of cloud technology means the public cloud can now deliver service levels and standards comparable to or even better than those Amadeus offers through our proprietary infrastructure.

It also means that the public cloud is the optimal technology to achieve our vision of an open end-to-end travel platform. We’ve therefore decided to accelerate the move

↪ See p. 96, “Environmental sustainability value proposition.”

↪ See p. 37, “Air IT solutions.”

↪ See p. 27, “Air Distribution.”

of our systems and services to the public cloud, and to this end we've entered into a strategic partnership with Microsoft.

Moving to the cloud comes with several benefits for Amadeus. From a technology point of view, we will:

- ▶ Improve further our resiliency
- ▶ Enable new innovations and create new business opportunities
- ▶ Deliver global support with local proximity to our customers
- ▶ Speed up the delivery of our services and technology

It'll also bring benefits from a business point of view:

- ▶ By partnering with a third-party public cloud provider, we'll unlock new business opportunities, contributing to a new phase of growth for Amadeus.
- ▶ We'll be able to increase flexibility and scale our operational capacity up or down and adjust it as needed given market and demand conditions.
- ▶ We'll be able to leverage the innovation and economies of scale of the public cloud providers and establish more flexible and competitive cost structures, while increasing our capabilities to address changing customer requirements.

Our customers will also enjoy different benefits, such as:

- ▶ Better performance and lower latency when we can process their data closer to their location
- ▶ Flexibility to better handle unplanned traffic peaks
- ▶ Better resiliency thanks to our improved business continuity and higher availability. We'll also be able to offer improved disaster-recovery capabilities
- ▶ Increased innovation thanks to continuous integration and development of new technologies

- ▶ Higher security standards, thanks to the enhanced security controls and functionality available in the cloud

Our partnership with Microsoft is not just about accelerating our journey to the cloud. It's also about unleashing the next wave of innovation in the travel industry. The goal is to take advantage of the possibilities that cloud technology offers, and work together with Microsoft and the entire travel industry to transform travel.↪

Recent and emerging technologies that can improve the travel experience

The inconveniences and friction sometimes linked to travel can be a significant impediment in the evolution of the travel industry. However, recent and emerging technologies could help all actors deliver a frictionless experience, either by reducing hassle for the traveler directly (e.g. by allowing check-in for a flight at the hotel, or removing the need to present physical IDs) or indirectly (e.g. by reducing the impact from a disruption). With the friction now exacerbated by the COVID-19 crisis, the pandemic will accelerate the use of these technologies.

Key technologies in this arena include digital identity and biometrics and artificial intelligence (AI).

Digital identity and biometrics

A digital traveler identity is a highly contextual, variable set of personal data, or attributes. It may comprise our basic passport number and data but also medical or biometric data, and is uniquely tied to a specific journey or booking number. The most crucial concept that digital traveler identity enables is perhaps contactless travel, which, fueled by the pandemic, has the potential to dramatically transform the way we travel and help deliver a greatly improved travel experience.

Contactless technologies can be applied even before the air traveler reaches the airport terminal. Both baggage and travelers can now be checked in from home, hotel or workplace. And as social distancing remains in place, "off-airport check-in" will be crucial to maintaining a smooth flow of passengers through the terminal. Technology exists today that enables a passenger, via digital traveler identity, simply to use their face as a token and proceed to an airport lounge or boarding gate without the need to interact with physical interfaces or present identification documents.

↪ See p. 73, 'Co-innovation with our business partners.'

Even upon arrival at the destination, the contactless concept can still be applied. We're likely to see homestays, hotels and attractions such as museums and theme parks adopt low-touch (minimum contact) solutions. Digital check-in/check-out, digital room keys and apps for controlling on-property and beyond-property experiences and services are all being explored and implemented by the hospitality industry.

At Amadeus we provide contactless solutions for all touchpoints in the airport, from check-in to baggage drop, passenger verification and boarding.

Artificial intelligence

Artificial intelligence (AI) has the potential to be applied across all steps of the journey. At Amadeus we have research teams of AI specialists and data scientists implementing these various use cases.

When considering future travel, specifically in terms of the complexity of choices and uncertainties that travelers face, AI can be used to enhance recommendations based on a detailed understanding of travelers' needs and requirements. For example, our Amadeus Master Pricer and Flex Pricer suites of products,²⁸ apply AI in flight searches to deliver the most relevant results to users.

To maximize total revenue from ticket sales, airlines need to determine the optimal price for all potential flight itineraries and all future departure dates up to a year in advance. This is a complex optimization problem for which airlines rely on revenue management systems (RMSs) powered by advanced forecasting methodologies. The science of RMSs has evolved radically over the years to employ the latest scientific advancements, and today, AI heavily influences RMS forecasting and optimization methodologies. Our work in this field has won multiple awards and recognitions,²⁹ and is frequently cited in peer-reviewed journals.

Once the traveler has booked a flight, our Amadeus Ancillary Dynamic Pricing solution, another AI-powered component, is able to provide even more personalized offer recommendations—what products to offer (e.g. extra bags and extra legroom), to which traveler, at which price.

²⁸ Amadeus' air search solutions for airlines and retail and online travel agencies.

²⁹ For example from the Airline Group of the International Federation of Operational Research Societies (AGIFORS), a professional society dedicated to the advancement and application of operational research within the airline industry.

To optimize fuel use and reduce greenhouse gas emissions, airlines and ground-handling companies need to forecast the total weight of the aircraft so they can assess the precise quantity of fuel required. In this regard, as an enhancement to our Amadeus Altéa Departure Control – Flight Management solution, we use AI to predict the amount and weight of passenger luggage based on historical passenger data (e.g. leisure/business or number of travelers traveling together) and flight data (e.g. day of week or origin/destination). This results in additional benefits such as reduced economic costs. ↪

At the airport, the performance of the self-service bag drop systems is a key factor in the efficiency of the passenger terminal. The size and shape of a bag determines whether a bag can pass smoothly on the conveyor belt. With an almost infinite variation in the size and shape of bags, we make use of AI to determine whether a bag is suitable to pass via standard conveyors or whether it should be directed to the odd-size baggage check-in conveyors, or adjusted/removed by the passenger.

When traveling, AI can also be applied to reduce the impact of disruptions. Managing changes and disruptions dynamically will be aided by the application of AI. By providing fast and high-quality decision support for reallocation of flights and passengers, AI can help smooth operations for the airlines and ground handlers while removing anxiety for the traveler.³⁰

For the hospitality sector, an important factor in driving bookings is attractive descriptions of individual properties (e.g. location, points of interest, amenities, etc.) across languages. We use AI to generate smart and personalized descriptions based on input from many sources, thereby helping our travel agent customers to efficiently increase bookings.

The potential for use of AI in travel is immense, and we continue to invest in research and innovation in this area.

Amadeus supports travel industry growth with significant investment in technology, and we've invested €786.5 million in R&D in 2021. We remain leaders in R&D investment in the travel industry and rank fourth-largest R&D investor in the software industry in Europe.³¹

↪ See p. 96, "Environmental sustainability value proposition."

³⁰ Our solution within this area is Amadeus Schedule Recovery.

³¹ Joint Research Centre (European Commission) (December 2021). "[The 2021 EU Industrial R&D Investment Scoreboard.](#)"

Amadeus profile



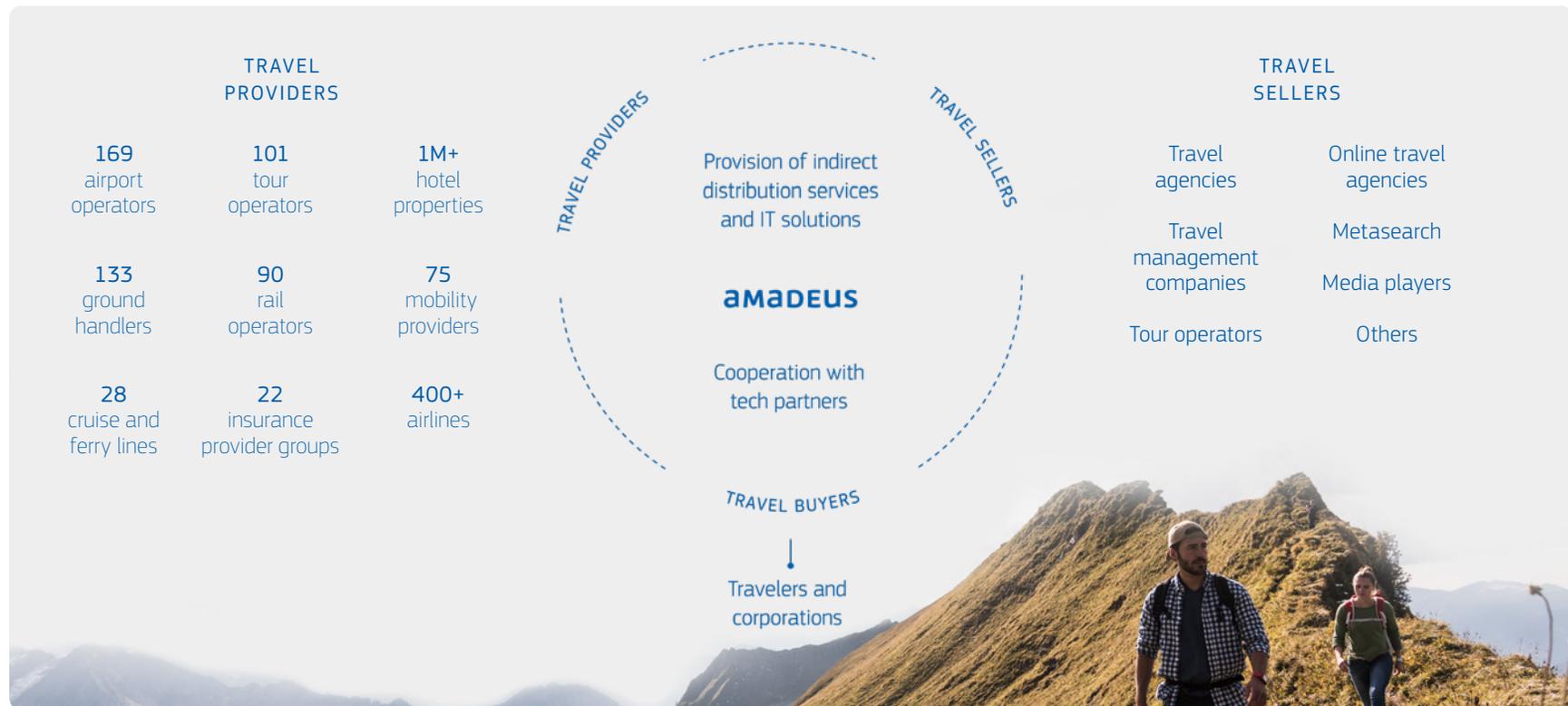
At the heart of travel

Travel fulfills our need to explore the world—to see new places, meet new people and be near to what’s important to us. It also powers progress: travel builds economies, broadens cultures and creates connections between societies. The travel industry is dynamic, powerful and fast-moving, and one of the world’s largest business sectors.

Technology has always been critical to developing global travel. Travelers today expect to always be connected. Mobile devices, artificial intelligence and data analytics are giving people more ideas, options and control over their journeys, and they expect personalized experiences. To keep up with these changes, the industry must continue to innovate in a way that is sustainable and responsible.

Amadeus sits at the crossroads of travel and technology. We’re passionate in our pursuit of better technology to make better journeys. We connect travelers to the journeys they want, and we power the solutions that keep the world of travel moving.

Amadeus at the heart of travel



Who we are

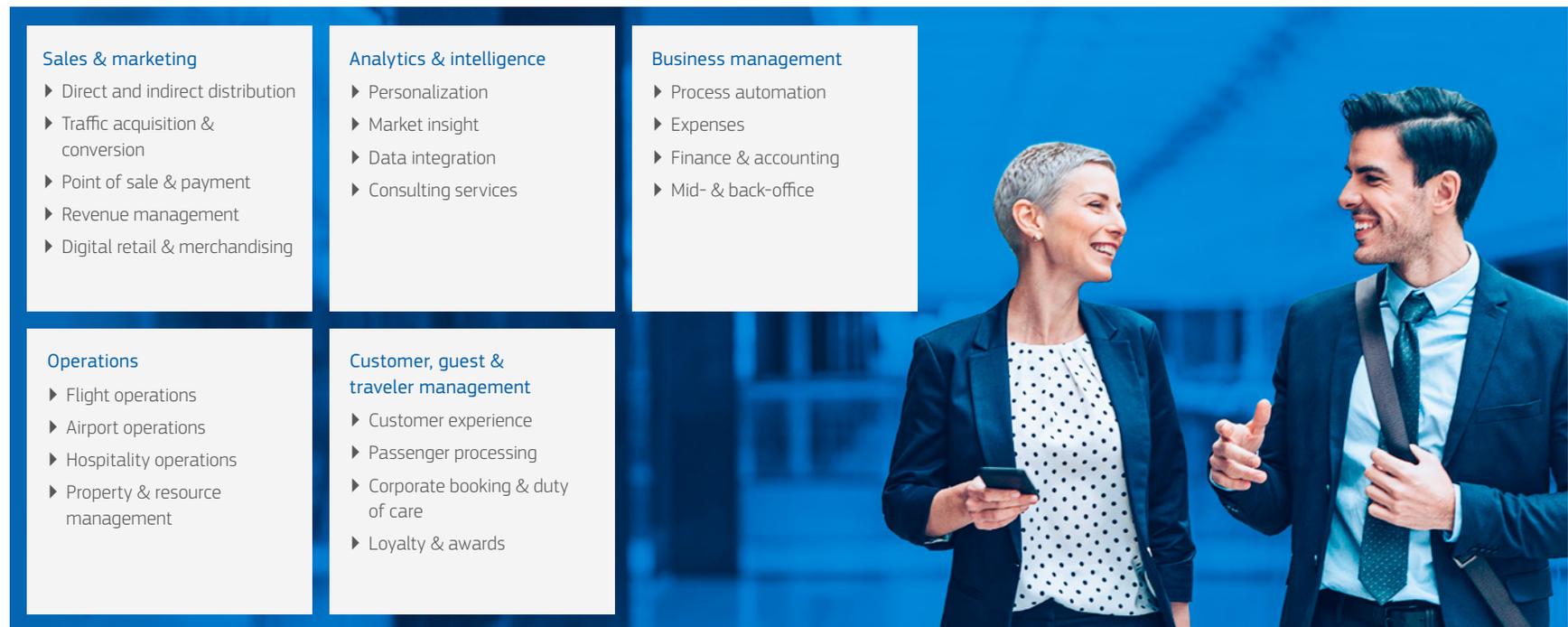
Amadeus is a technology company dedicated to the travel industry. Amadeus corporate headquarters are in Madrid. We have a truly global team of more than 16,000 professionals serving customers in more than 190 countries. We've built a commercial and operational network all over the globe, which is key for our value proposition, and we're committed to helping global travel make a positive impact on communities around the world.

We operate under a transaction-based business model linked to global travel volumes. We're a publicly listed company and part of the Spanish IBEX 35 Index, which includes the biggest, most liquid companies in the Spanish stock market.

What we do

Amadeus offers cutting-edge technology solutions that help travel industry stakeholders succeed. We connect travel players and make personalized journeys happen.

We invest hundreds of millions of euros each year in research and development.↪ We design our solutions around our customers' needs as well as the needs of their customers—the travelers. At all stages of the travel experience—from inspiration to shopping, booking, on-trip and post-trip—our solutions help deliver better service to travelers.



↪ See p. 10, "Corporate performance."



We help travel providers package and deliver their content across both direct and indirect (travel agency) channels. Our customer management solutions help them manage and enhance the customer experience, from first contact to check-out and beyond.

For example, for airlines, this means improving passenger processing capabilities. We've developed solutions to make sure that flights take off on time, every bag is tracked and every disruption is dealt with as effectively as possible. ↪

For corporations, this means providing staff with improved self-booking and duty of care solutions.↪ We offer solutions built to automate processes and handle all essential mid- and back-office tasks—hassle-free. These give corporate travel and finance managers greater control across all travel programs. Our dedicated finance and accounting tools can also help our corporate customers with managing travel information and making strategic travel decisions.

We also provide solutions to help the hospitality sector manage properties and resources more efficiently. Our technology and insight help our customers develop tailored content and promotions that enhance the guest experience. We also help optimize the delivery of that experience to increase guest loyalty. We offer analytics and intelligence solutions built to help anticipate trends, adapt to market shifts and monitor performance. This means travelers get more than just a great travel experience—they get one designed to meet their individual preferences, needs and expectations.↪

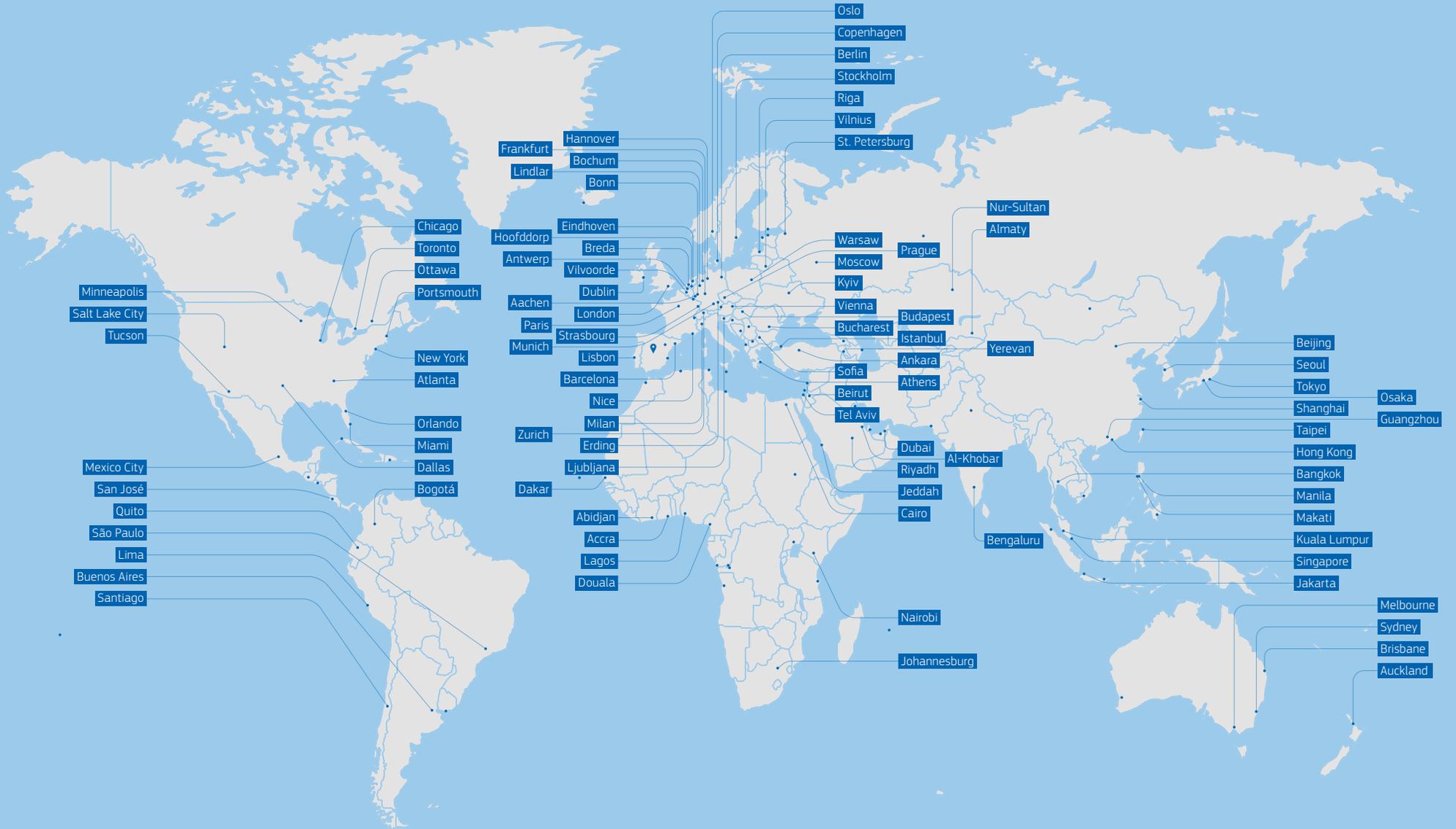
We also offer industry-leading consultancy services to help transform travel businesses for the better.

↪ See p. 39, "Amadeus operations suite."

↪ See p. 31, "Corporations."

↪ See p. 49, "Hospitality."

I Amadeus' presence in the world



100+ offices around the world

190+ markets

Headquarters Madrid 

Sites marked only with a dot on the map represent smaller Amadeus sites, branches, companies non-wholly owned by Amadeus and distributors.

The customers we serve

We build technology solutions that serve every part of the global travel ecosystem: airlines, airports, hotels, railways, search engines, travel agencies, tour operators and other travel players. We help them run their businesses and improve the travel experience all over the world. And we continue to innovate, bringing more products and services to market as quickly as possible, so we can deliver on customer expectations and respond to industry challenges.

Amadeus sits at the heart of every journey, connecting travel providers, buyers and sellers.

Where we've come from—our history and key milestones

Amadeus was founded in 1987 by four airlines: Air France, Iberia, Lufthansa and SAS. From our origins supporting airline distribution and then IT, we gradually expanded our capabilities to serve customers across the entire travel industry. Three decades later, Amadeus is one of the world's largest technology providers for travel and tourism.

Over the years, we've broadened our scope, launching our Airline IT business in 2000 and building on that with the acquisition of Navitaire in 2016 to expand our portfolio for low-cost carriers.

We accelerated our move into the hotel IT sector with the acquisition of Newmarket in 2014 and TravelClick in 2018, confirming our strong commitment to the hospitality industry and broadening our product portfolio, know-how and global presence. In a highly fragmented market, Amadeus now has the people and the technology to help all hoteliers to deliver a great experience for their guests.

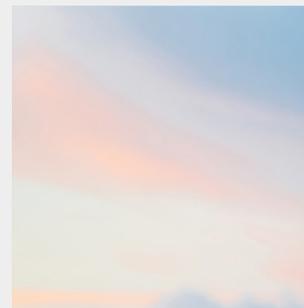
We've also expanded our portfolio to include merchandising, revenue management, travel intelligence and travel and expense management, harnessing the potential of cloud computing, mobile applications and big data for our customers.

We've also diversified our operations into other businesses linked to the travel industry such as airport IT and payments, and we're exploring new opportunities through our innovation teams. Throughout our history, investment in research and development has been integral to our company culture.

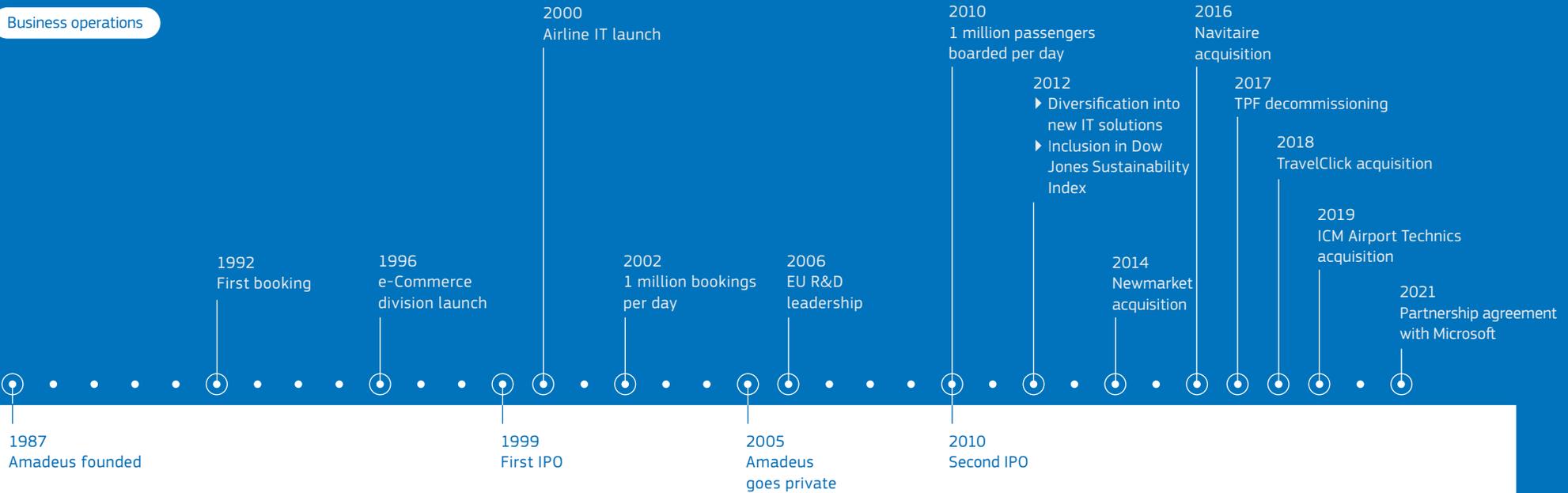
Our customers



Our history and key milestones



Business operations



Ownership

Where we're going

Today's travelers want a more personalized way to travel. They want to search for experiences that are unique to them. They also expect their journeys to be one single, smooth experience—from thinking of where to go, to getting to their destination, to arriving back home. At Amadeus, we believe that this desire for connectivity will continue to grow—across all modes of transport, experiences and devices. And travelers will also want their travel providers to make a positive impact on society and the environment, both locally and globally.

We're investing in these opportunities and exploring new models that will drive our own and our customers' growth, experimenting with technologies that'll make travel more rewarding for all of us. We're working in a more agile way; we're making processes leaner; we're building new and better ways to collaborate. And we're using new structures and systems to catalyze cooperation across teams, functions and geographies—within Amadeus and with our customers.

I Recognition and awards

We are committed to investing in innovation and collaboration, promoting sustainable business practices, advancing the travel industry and giving back to society. In 2021 respected organizations all over the globe recognized our efforts and achievements in these areas.

 <p>Member of Dow Jones Sustainability Indices Powered by the S&P Global CSA</p> <p>DJSI Europe and World indices</p>	 <p>top EUROPE EMPLOYER 2021 CERTIFIED EXCELLENCE IN EMPLOYEE CONDITIONS</p> <p>Top Employer Europe Top Employer Institute</p>	 <p>The Beat READERS' CHOICE AWARDS MOST ADMIRED TRAVEL TECHNOLOGY COMPANY</p> <p>Most Admired Travel Technology Company The Beat Readers' Choice Awards</p>
 <p>Irish Travel Trade AWARDS 2021</p> <p>Best Technology Provider Irish Travel Trade Network</p>	 <p>FT DIVERSITY LEADERS 2021</p> <p>Diversity Leader Financial Times</p>	 <p>TRAVEL WEEKLY GLOBE TRAVEL AWARDS 2021 WINNER H</p> <p>Best Technology Provider Globe Travel Awards</p>
 <p>AMADEUS MOST INNOVATIVE TRAVEL TECHNOLOGY BRAND Europe 2020 AWARD</p> <p>Most Innovative Travel Technology Brand Global Brands Magazine</p>	 <p>CDP DRIVING SUSTAINABLE ECONOMIES</p> <p>CDP CDP measures the comprehensiveness of environmental practices. Amadeus received a score of B in the latest edition (scores range from A to D-).</p>	 <p>FTSE4Good</p> <p>FTSE4Good FTSE4Good Index measures companies' ESG performance. Amadeus is a constituent in FTSE4Good with a score of 3.7 (max. 5) and a percentile rank of 79.</p>

I Amadeus' Executive Committee



Wolfgang Krips

Senior Vice President,
Corporate Strategy

Francisco Pérez-Lozao

Senior Vice President,
Hospitality

Jackson Pek

Senior Vice President,
General Counsel

Sabine Hansen Peck

Senior Vice President,
People, Culture,
Communications & Brand

Luis Maroto

President & CEO

Till Streichert

Chief Financial Officer

Christophe Bousquet

Chief Technology Officer,
Senior Vice President,
Airlines R&D

Decius Valmorbidia

Senior Vice President,
Travel Unit

Mr. Tomas López Fernebrand, Senior Vice President, General Counsel and Corporate Secretary, left Amadeus at the end of 2021.

Rebuilding travel

The future of our industry at stake. We need a reinforced spirit of collaboration and intentional reimagining to rebuild the travel industry and make it more resilient. Amadeus is committed to collaborating with industry partners to design safer travel experiences that inspire trust and restore demand. The current challenge the travel sector faces is a shared one, which is why it'll require a community response.

As a starting point, here are the three things we believe could serve as a foundation as we rebuild travel.

Traveler confidence is key

We know many people want to travel—the real question is how soon will they feel confident enough to explore new horizons? A survey conducted by Amadeus among 9,074 consumers across nine markets and published in October, shows the appetite to travel is high: 77% of travelers want to travel in the next year.

At the same time, it reveals that greater clarity on restrictions and guidelines will be key to unlocking increased traveler confidence. Over a third (35%) of travelers said the current international guidelines around where and how to travel are confusing, making them less likely to book business and/or leisure travel.

Restoring traveler trust and confidence quickly and consistently will be key to kick-starting the industry's recovery. Understanding new traveler expectations and adapting to their changing demands and perceptions around cleanliness, sanitation and social distancing will be key to rebooting the travel industry.

Some ideas to regain traveler trust and increase demand include building greater flexibility in travel and addressing fears around financial penalties and disruption up front; packaging safer journeys that respond to traveler needs and expectations; and showing travel in action, so people know what to expect and are reassured that they're traveling in a smooth and safe way.

Therefore, Amadeus has developed the Safe Travel Ecosystem, a global program designed to help the industry overcome some of the challenges above by delivering the technology required and fostering the industry collaboration needed to

accelerate recovery. Personalization will continue as a trend, but safety, hygiene and personal attitudes to risk will shape travelers' behavior more than ever before.↔

Technology and innovation are critical to driving growth

We've never had to adapt so quickly in such a dramatically changing environment, but we've also never been so prepared to tackle things head on. With access to flexible, scalable and cloud-enabled technology, travel companies can deploy new services quickly without time-consuming reconfiguration of legacy systems. Data-led artificial intelligence, biometrics and touchless technology can support the industry to deliver on traveler needs with operational speed and commercial readiness.

When the participants of our survey were asked which technology would increase confidence in traveling in the next 12 months, their answers show that mobile solutions continue to be the most popular, and preferred technologies include:

- ▶ Mobile applications that provide on-trip notifications and alerts (44%)
- ▶ Self-service check-in (41%)
- ▶ Contactless mobile payments (e.g. Apple or Google Pay, PayPal, Venmo) (41%)
- ▶ Automated and flexible cancellation policies (40%)

Amadeus has a wealth of innovative technology solutions that allow us to think out of the box. For example, we've added new capabilities to Amadeus Traveler ID, a secure platform for our travel provider customers, that connects, digitalizes and automates traveler identification and document validation across the traveler journey, while meeting regulatory requirements. This platform connects the health certification touchpoints end to end, integrating multiple stakeholders involved in the process and providing a secure and frictionless way for passengers to show that they have the health documentation needed to travel.

Amadeus is integrating Traveler ID with multiple health information aggregators such as IBM's Digital Health Pass, CommonPass and ICC AOKpass to enable travelers to retrieve digital records through the provider of their choice, without leaving the airline website, mobile or app.

↔ See p. 11, 'Health crises.'

For airlines and airports, our Traveler ID solution can be integrated directly into their own digital channels. It sits natively within their IT systems, meaning travelers don't need to be redirected to unfamiliar third-party apps in order to verify their health documentation. It can be used by the passenger either before departure or while at the airport, when checking in at the airline desk, at a self-service kiosk or at a bag drop desk. This new capability, which is agnostic for any airline passenger service system, can easily be integrated into airline systems as a stand-alone option without having to contract the full Traveler ID platform.

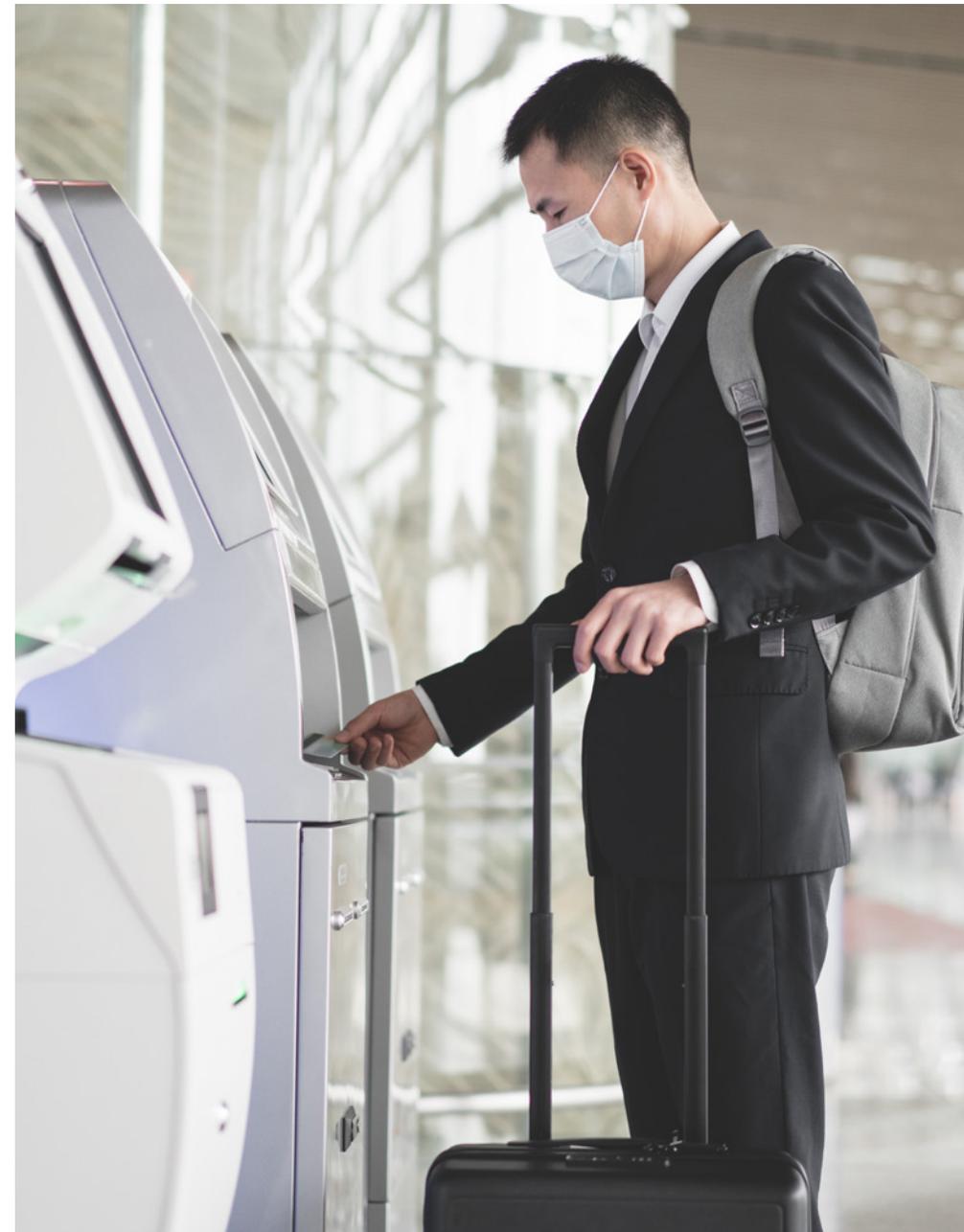
We need public-private partnerships on a global scale

According to our survey mentioned in the previous page, 93% of travelers would be willing to provide personal data for the effective use of digital health passports or certificates, and almost half (48%) of business travelers would be willing to provide their health data to visit a conference or event, while 36% of leisure travelers would be willing to do so for an excursion or activity at a destination.

Following on from above, some of the questions that need to be discussed are: how can we balance privacy with the need for information and data? How can health and immunity certificates and standardized test-and-trace procedures help facilitate travel and reopen destinations?

Other topics that need to be tackled are how we can ensure that the recovery of travel and tourism has a positive social, environmental and economic impact on all tourism destinations. And how we can use this opportunity to rebuild travel better than before.

None of these issues can or should be addressed in a vacuum. A renewed travel industry will require widespread collaboration between governments, travel companies, entrepreneurs and public authorities. It's time for the world's best creative thinkers to figure out how we can work together to open up travel. If we want to rebuild a more resilient travel industry that benefits all sectors of society, all stakeholders need a seat at the table and a willingness to collaborate.



Chapter 2



Business areas



GRI 102-2 GRI 103-1, 103-2, 103-3 (Operational excellence & system availability)

Air Distribution



Amadeus' Distribution business is two-sided. On one side we have travel providers: airlines, hotels, car rental operators, railways, cruise lines, etc. And on the other we have travel sellers (both retail and business), online travel companies and buyers like corporations.

Through our platform, travel providers get efficient global market reach and can sell their offer more effectively. Our travel seller customers access the content of

connected travel providers through that same platform. That way they can search, plan and book complete travel experiences for travelers.

We know one size doesn't fit all, and we recognize that the value of travel distribution comes with the flexibility to serve our customers and their travelers in the way that best addresses their needs. Our goal is to help our customers grow with solutions that are tailored to how they want to do business and serve travelers.

Amadeus' Air Distribution unit supports a wide range of travel agencies, online travel companies and corporations so they can deliver value to their travelers by innovating in content, technology and new business models. We give our customers everything they need to increase traveler confidence, reshape their offer, rebuild their profitability, and improve their digital presence and retailing capabilities.

Our technology and services encompass the full travel experience, from the moment of inspiration and search to full travel planning, post-trip evaluation, social sharing and expense management for business travelers. Our portfolio includes integrated front-, mid- and back-office solutions, as well as self-booking and expense management tools.

In 2021 we continued our technological evolution and worked closely with our travel seller, online travel and corporate customers to explore new ways to recover and to deliver on the needs of travelers for a fully personalized experience across their entire journey.

Air content

The travel industry is constantly looking for new ways to enhance travel retailing. Brands such as Uber, Netflix and Amazon have set high expectations on consumers, who are used to an omnichannel experience that allows them to easily search, find, compare and access the products and services relevant to them.

Travelers are part of a wider ecosystem where their rapidly changing needs are addressed thanks to ever-sophisticated technologies. For travel providers, this trend, fueled by the COVID-19 crisis, is driving the industry to accelerate its digital transformation and enable more efficient retailing.

The Amadeus Travel Platform is at the core of this transformation and is the backbone of our world-leading travel distribution solutions. Based on fully open systems that harness the intelligent use of data, it provides a modern end-to-end retailing platform specially designed to address the distribution goals of all travel players.

Additionally, the explosion of content and the increase in distribution options available to travel providers have made content aggregation even more important for all our partners and travel buyers. Having the ability to access all types of content, together with all the functionalities that modern travel retailers depend on, is critical to responding to the needs of today's travelers.

Our travel platform brings together all relevant content—including air, accommodation, rail, mobility, insurance and destination content—from any technology source (EDIFACT,¹

¹ Electronic Data Interchange for Administration, Commerce and Transport—an international standard for electronic data interchange developed by the United Nations.

NDC² and other APIs³). This gives travel sellers unlimited possibilities for proposing and efficiently servicing the widest range of travel offers.

In parallel, the platform offers our travel providers the ability to distribute their products efficiently using their preferred technology and distribution mix. And the platform enhances their retailing capabilities and sales opportunities by giving access to the largest global network of travel sellers through multiple channels and touchpoints.

The Amadeus Travel Platform gives travel sellers access to the content of more than 400 airlines (including over 130 low-cost and hybrid carriers), the ancillary services of more than 150 carriers and the fare families⁴ of more than 100 airlines. To travel providers, it gives worldwide reach and the economies of scale of a community distribution platform fostering functional evolution and continuous innovation.

2021: the path to NDC industrialization

The International Air Transportation Association (IATA)'s New Distribution Capability (NDC) further supports the goal of enhanced retailing. It helps airlines stay closer to the end traveler, help them better tailor their offers and seize more upselling opportunities, as well as quickly react to possible shifts in consumer trends. In other words, it's a key component of a transformation process that is set to increase airline revenues and modernize the traveler shopping experience.

In 2021 Amadeus continued the massive deployment of its NDC-enabled solutions for travel sellers. More than 20 airlines are either live, in pilot mode or under implementation in the Amadeus Travel Platform, and over the course of 2022 all our travel sellers worldwide will be NDC-ready with Amadeus and therefore ready to partner with airlines in an exciting new era for airline distribution.

All our distribution solutions include not only shopping and booking capabilities, but also post-booking servicing functionalities and full end-to-end integration in

² New Distribution Capability—a program launched by the International Air Transport Association (IATA) for the development and market adoption of a new XML-based data transmission standard (NDC Standard) between airlines and travel agencies.

³ Application Programming Interface—a language that enables communication between computer programs.

⁴ Fare families are groups of fares with different sets of benefits/restrictions.

the travel seller's ecosystem. This means Amadeus travel sellers can compare and manage all content in the same way in one merged display. Amadeus takes care of the complexity of normalizing all content and flows so travel sellers and buyers can search, book and manage different airlines' NDC and other content in the same way.

In many respects, 2021 has been the year of scale as airlines have started to offer new differentiated product bundles and price points, with travel sellers across the world starting to make live NDC bookings with tools that provide easier access to airline offers. Technology partners like Amadeus are offering scalable solutions that will contribute to the industrialization of NDC, and we're committed to making NDC work across the industry and enhanced retailing a reality. [↪](#)

Travel sellers

Two years into the pandemic, travel sellers across the world continued to demonstrate their resiliency as the world began to move again. Likewise, we continued to deliver highly relevant technology innovation, air and beyond-air content, and value-added industry partnerships—all geared toward enabling leisure and business travel sellers to reboot and recharge their business.

The Amadeus Safe Travel Ecosystem product suite, with solutions ranging from real-time updated COVID-19 maps to travel regulations, risk-level data and in-trip safety measures, has allowed our travel sellers to support their customers in navigating the uncharted waters of the ongoing pandemic, while increasing traveler confidence and enhancing the overall travel experience.

As some travel agencies reopened, many of them faced staffing challenges, all the while handling immense administrative workloads as a result of continuous changes in flight schedules and travel plans. Thanks to a robust collection of automation tools from Amadeus in areas such as ticket reissuance and refund, fare optimization and queue management, travel sellers of all sizes were able to reduce time spent on administrative work and instead identify every opportunity to generate incremental revenues.

In 2021, NDC activation reached a breakthrough. Together with our partners, we accelerated the NDC momentum despite the pandemic and began to roll out NDC-sourced content globally in Amadeus Selling Platform Connect. Today thousands of

[↪ See p. 62, "Leadership in travel technology."](#)

travel sellers worldwide can book and service NDC-sourced content end-to-end in their usual booking environments, comparing it side-by-side with other content—cementing Amadeus' position at the forefront of NDC development.

Travel sellers continued to benefit from the expansion of our Amadeus Travel Platform, with a broad selection of content of all types and categories to support travelers' growing need for choice.

We added 13 new car rental providers to our platform and increased our offering of pre-booked transfers to cover close to 1,800 cities across the globe.

On the hospitality side, we secured a distribution agreement with Shiji Group, which grants travel sellers across the world access to new hospitality content in the growth market of China. Additionally, we expanded Amadeus Value Hotels, our accommodation merchant program, where agents define their own margins, into 15 new markets, including the US and Australia. [↪](#)

We also continued to grow our cruise footprint beyond North America with the launch of Amadeus Cruise Portal in Puerto Rico, the United Kingdom and Ireland, and signed global distribution agreements with six new cruise lines.

And with the scalable technology and breadth of beyond-air content available for travel sellers in our platform, key global players such as Expedia Group, Egencia and Lufthansa City Center International could continue providing the choice and transparency required to deliver a personalized and frictionless booking experience for each traveler.

Getting the world moving again is a collaborative effort. Amadeus' unique position at the heart of the travel ecosystem enabled us to further enhance relationships and partnerships to help our customers diversify and expand both their business and ours.

Together with IATA, we offered industry solutions to access NDC-sourced content for non-IATA agencies.

And thanks to our partnership with online travel agency Hopper, we could offer our customers access to innovative fintech solutions that would allow travelers to book their travels with less fear of economic risks and more confidence.

[↪ See p. 49, "Hospitality."](#)

At Amadeus, travel technology is our passion, and we embrace technology as a key driving force in the recovery of travel. We continue making strategic investments in research and development, and we're listening carefully to what our travel seller partners tell us about the tech tools that will further fuel their success.

We were therefore honored to be selected Most Admired Technology Company by The Beat's readers for the third consecutive year, as well as to be nominated for Best Technology Provider by the Travel Weekly Globe Awards in the United Kingdom.

We plan to further invest in the strategic initiatives that will power safer, more sustainable journeys. As a result, customers large and small are counting on Amadeus as their partner of choice in diversifying and expanding their business for a stronger recovery in 2022 and beyond.

Online travel companies

Important trends related to COVID-19 are impacting the online travel space. The general growth in online presence and digital retailing channels during the pandemic has extended to online travel for inspiration and booking as we started to see the first signs of recovery across all regions. Recovery in global air bookings throughout the year were supported by a steady increase of bookings in the online channel, with an 83.4% increase in comparison with 2020.

Our online travel customers are focused on reacting quickly to capture opportunities in target markets as travel restrictions are lifted, to support recovery and beyond. This includes a focus on domestic leisure travel, adapting to shorter booking times, responding to the new Safe Travel needs of travelers, flexibility to capture pent-up demand from markets recovering at different speeds and consolidation to enter new markets or expand business lines.

Our commitment to online travel players spans from global online travel agencies like Expedia Group, Trip.com and Booking Holdings, to multinational companies like Fareportal, eDreams ODIGEO, Etraveli, Despegar and Travix. We also work with regional and local online travel agencies and start-ups, including PerfectStay, Hopper and Traveloka. And we partner with metasearch providers specializing in online travel like KAYAK, Skyscanner and Wego, as well as major digital players like Google and Fliggy and new entrants like Rappi.

Our portfolio investment areas focus on innovating and working closely with our online travel partners to leverage these opportunities and support growth and profitability as we look ahead to recovery and entering a new era in online travel:

- ▶ We're evolving from our traditional retail model focused on travel search and booking to helping our customers grow conversions and monetize at the inspiration stage of travel shopping. This includes new advertising models and search capabilities.
- ▶ We're investing in NDC to answer the specific needs of our online travel customers to enhance their air retailing and support their long-term success, while also growing our global content offer.
- ▶ We're integrating automation, new technologies like machine learning and consultancy supported by our data and analytics offer to help optimize our customers' efficiency and performance.

We're also working with new digital players who see the potential of online travel and want to monetize their consumer base by bringing them new services. We're helping these new entrants take this step into the world of travel—from travel advertising or data sharing to selling a full range of travel services powered by Amadeus technology together with some of our most trusted online customers and business partners.



Through our expanded agreement with Amadeus, we can continue innovating and testing new features without it impacting our users or our airline partners for an overall improved flight search experience.

” Ko Baryames, Chief Technology Officer

KAYAK

“

I'm really proud to see what we have today thanks to the help, support, knowledge and dedicated teams of Amadeus to help us drive this new solution that will change the distribution landscape.

” **Laila Ben Salah, Vice President Industry Relations & Air**
Travix

“

We're thrilled to have Amadeus' support in offering new solutions to the travel industry that serve a spectrum of customer needs focused on choice and flexibility.

” **Dakota Smith, Chief Strategy Officer**
Hopper

Corporations

Travel is an essential part of how we do business. After the extraordinary circumstances brought on by the COVID-19 pandemic, business travel is returning. Its evolution is determined among other factors by corporations' drive to accelerate their digital transformation and the technology requirements of business travelers to get business done, as safely and efficiently as possible.

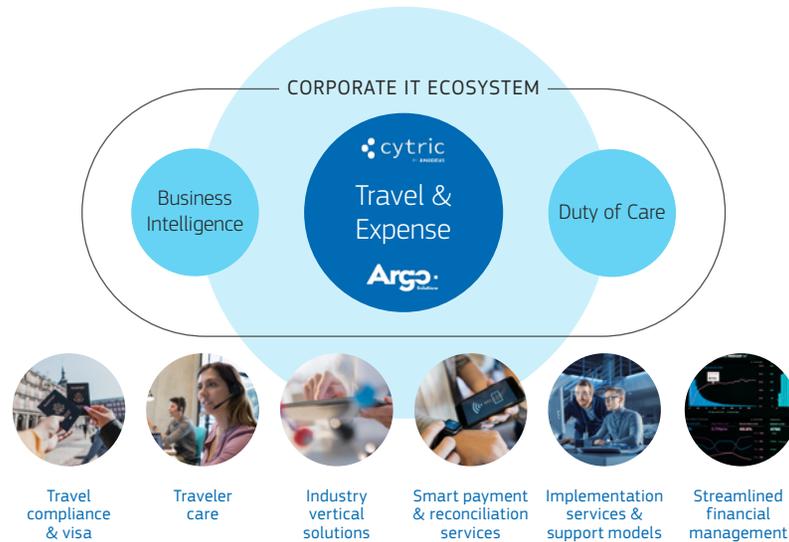
According to a 2021 survey commissioned by Amadeus and run by Censuswide, 72% of business travelers are eager to travel, and they do have clear tech requests, with mobile apps and contactless mobile payments ranking highest.

Cytric by Amadeus is a true integrated Online Booking Tool (OBT) and Expense Management System (EMS), Duty of Care, Payments and other solutions offered in conjunction with partners. With increased focus on working more efficiently, Cytric opens up a world of possibilities with smart connectivity, linking business travel and expense (T&E) management for travelers. Our experts and our technology make this happen behind the scenes, with unrivaled content, superior policy management, an open platform, a 360-degree user experience and continuous innovation.

I Business travelers' tech requests



Our strategic portfolio approach covers the corporate IT ecosystem



In an Amadeus-commissioned study carried out in 2021 about rebuilding business travel with modern payment and expense,⁵ travelers shared their frustrations with how expense is managed today, translating into 2.4 hours on managing their expenses per trip, waiting up to 3.6 weeks to get reimbursed and finding themselves USD 460 out of pocket on average per year due to lost receipts.

This and other feedback have helped us shape our vision for our end-to-end platform. We offer a best-in-class user experience incorporating booking, payment and expense. Our new user interface, including a full mobile expense flow, makes T&E reporting easy for business travelers, with certified receipt scanning, e-receipts and automated expense report creation. Traveler pain points are removed with virtual payments pre-trip and on-trip, invoice digitalization and reconciliation.

In 2021 many leading global brands from diverse industries have signed up to join our customer ranks, and we've also grown and extended our relationships with customers like Bosch, Mitsubishi Fuso, Eberspächer, INEOS, Volkswagen and VistaJet, partnering with them in their global expansion.

⁵ This data was compiled from the responses of 1,400 business travelers to a survey run in January 2021, with 200 replies from each of these 7 markets: the United Kingdom, France, Spain, Germany, the US, Japan and India.

“

We renewed our confidence in Amadeus as we trust their ability in helping us to further digitize and standardize our travel and expense processes globally thanks to Amadeus Cytric and be thus ready for the future. Due to our close cooperation with Amadeus and their extensive knowledge, we are indeed implementing a more effective way of booking travel and creating expense reports, reducing the workload for our employees and simplifying the procedures, which result in faster payments and increased employees' satisfaction.

” **Maria Peter-Nick, Global Travel Manager**

Volkswagen AG

“

Deploying Cytric Expense across China and Hong Kong operations has helped our finance employees move from a mix of manual expense processing and using different in-house tools in different markets to one platform that is uniform across the region. As a tried and tested solution, it helped not only reduce manual workloads but also decrease the time needed to work on processing expenses.

” **YongKap Lee, Head of Reporting & Accounting Asia**

INEOS Styrolution

On the partner side, we work with different players within and outside the travel industry to build the smartest corporate travel ecosystem in the world.

We partner with global, regional and local travel management companies, complementing their portfolio of services for corporations with modern travel & expense technology.

In addition, we're enabling collaboration and connecting people by simplifying corporate travel. For example, we're embedding Cytric into Microsoft's everyday work environment so that corporations can provide their workforce with an immersive and frictionless experience while achieving policy compliance and higher return on investment from business travel and meetings.

We also joined forces with key service partners such as business travel consultancies Arago, Areka, Axys Odyssey, Conovum, lement, expenseBrain and Numiga, expanding our market and segment reach.

During 2021 Amadeus completed the acquisition of i:FAO AG and rebranded our Cytric platform, allowing us to further strengthen our value proposition to customers and partners. Amadeus is committed to helping corporations around the world modernize their travel & expense technology, digitally transform their organizations and provide innovative tools to help bring back traveler confidence as we rebuild travel.

Customer experience

Customer service

Amadeus Customer Service provides vital expert knowledge, skills and support to travel sellers, shaping our customer services around them to deliver the personalized, high-quality experience that travelers are demanding.

We accompany our customers along every step of the journey, delivering peace of mind in their service experience and enabling them to maximize the benefits of Amadeus solutions. Our customers need swift incident resolution, the right learning at the right time and instant access to how-to information, expertise and technical support—all with zero disruption and delivered through their preferred channel.

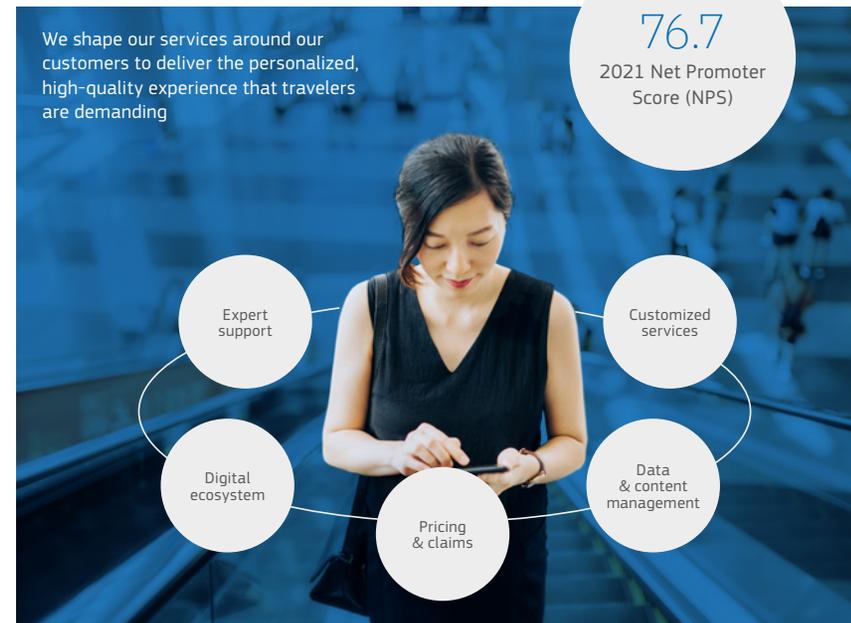
In 2021 we remained fully engaged in this mission, ensuring full business continuity while still 80% of staff were working from home. This has been possible due to the sophisticated contact center solutions we've deployed and our continued drive toward the digitalization of our customer services, including in 2021 the full deployment of our chatbot solution in 10 languages across 155 markets, enabling us to increase the channels available to our customers.

We also reduced the overall turnaround time for pricing claims to seven days. This was possible thanks to our airline pricing rules and dispute resolution consulting services for travel agencies, as well as our follow-the-sun⁶ footprint and key automation initiatives that allowed us to manage 12% of claims automatically in 2021.

⁶ Our Follow-the-sun organization provides seamless 24-hour coverage, 7 days a week and refers to the geographical spread of our customer service locations covering all working time zones in the world.

To further deliver on our mission to provide the best customer service experience, we've also successfully insourced some support activities previously handled by third-party companies, allowing Amadeus to regain full control over the customer touchpoints and experience received. Our customer service NPS⁷ of 76.7 in 2021 is testimony to our focus on customer satisfaction.

Customer service Shaped around our customers



⁷ Net Promoter Score (NPS) is a widely used measure of customer loyalty. It is the percentage of customers rating their likelihood to recommend a company, a product, or a service to a friend or colleague. NPS ranges between -100 (all respondents are "detractors") and +100 (all respondents are "promoters"). A positive score is desirable and, for a B2B company a score above +25 is a frequent target.

Voice of the customer

We continue to enrich our Voice of the Customer practices to proactively capture, process and react to customer feedback.

In 2021 we focused on analyzing data, qualitative feedback and trends to understand changing customer behavior and expectations, especially in the wake of the pandemic. The insights were bolstered by leveraging analytic tools to understand the sentiments and feelings behind the responses. The findings and pain points were fed back to Amadeus top management and to the customer-facing teams so they could plan appropriate next steps.

During 2021 we sent out our yearly relationship survey to all our customers and also organized customer journey mapping sessions and in-depth interviews with our key customers. These activities helped us stay connected with the day-to-day challenges of our industry.

We received a total of 11,584 responses to our relationship survey and we recorded an NPS of +49.4. This score is a significant increase from the last recorded NPS of +36.7.⁸ This is proof of the hard work put in by all our Customer Service teams to ensure that customers are at the center of what we do.

However, it's important to note that the high scores were also due to changing customer perceptions post-pandemic. Customers have acknowledged and appreciated the way we've handled the crisis and supported them through these difficult times, which is partly reflected in the high NPS score.

We've also incorporated more transactional-based surveys to capture instant feedback for our services and customer support. As an example, we've measured and analyzed more than 40,000 survey responses after solution delivery, customer support and training delivery. We've also enabled mechanisms to collect feedback about our flagship products.

In 2022 we'll continue to focus our efforts on customer centricity by building an exceptional experience for our customers. Additionally, we will keep investing

in enabling more channels to capture our customers' feedback and ideas. As an example, we've recently added a direct feedback channel on our website (amadeus.com).

	Previous measurement	2021 measurement
Relational NPS	36.7 (measured in 2018 and 2019)	49.4
Customer service NPS	74.6 (measured in 2020)	76.7

⁸ The last recorded NPS was taken as an aggregate of data from 2018 and 2019 for accurate comparison.

Amadeus travel agency air bookings

In 2021 Amadeus' travel agency air bookings decreased by 64.4% compared to 2019. In the fourth quarter of 2021, they declined by 49.2% compared to the same period in 2019. This represents an improvement over the 58.5% air booking reduction we reported in the third quarter of 2021. During the fourth quarter, air bookings showed steady month-on-month improvements until December, when the rise of COVID-19 cases globally linked to the Omicron variant led to a deterioration in bookings evolution. This proved to be a temporary set-back in our recovery path as in January 2022 we started to see once again an improvement in volume performance.

The best performing region in the year was North America, which now is 44.3% below 2019 levels (in the fourth quarter, bookings in this region were only 19.9% below 2019 levels). It was encouraging to see that Asia-Pacific, the worst performing region in booking volumes since the start of the pandemic, delivered in the fourth quarter its most notable performance progress to date.

Amadeus travel agency air bookings by region

Change vs. same period of 2019	Jan-Mar 2021	Apr-Jun 2021	Jul-Sep 2021	Oct-Dec 2021	Full year 2021
North America	(67.9%)	(48.9%)	(33.2%)	(19.9%)	(44.3%)
Western Europe	(89.3%)	(76.6%)	(66.4%)	(58.4%)	(73.9%)
Middle East and Africa	(67.4%)	(61.0%)	(50.0%)	(39.9%)	(55.0%)
Central, Eastern and Southern Europe	(67.6%)	(55.5%)	(50.7%)	(50.0%)	(56.1%)
Latin America	(70.5%)	(61.4%)	(51.8%)	(37.0%)	(55.3%)
Asia-Pacific	(88.6%)	(86.8%)	(84.7%)	(75.1%)	(84.1%)
Total	(79.2%)	(67.6%)	(58.5%)	(49.2%)	(64.4%)

Key Air Distribution highlights in 2021



During 2021, we signed

77

new contracts or renewals of distribution agreements, which will broaden the scope of the content available in the Amadeus Travel Platform.

As part of a broader distribution and IT deal, we renewed and expanded our partnership with Avianca to include NDC-enabled content in addition to Avianca's existing content for Amadeus travel sellers.

Etihad Airways agreed to make its full range of NDC offers available to Amadeus travel sellers.

We renewed and expanded our agreements with several travel agencies, including Viajes El Corte Inglés, IAG7 Viajes and Munckhof. Our expanded agreements will allow these agencies to access NDC-enabled content via the Amadeus Travel Platform.

We announced an NDC agreement with Cathay Pacific starting in the first quarter of 2022 in several markets.

United Airlines renewed its distribution agreement with Amadeus, which now includes new NDC-enabled content. Qantas' NDC offers are also available through the Amadeus Travel Platform for testing with pilot agents.

By end of 2021, we have more than 20 airlines signed for the distribution of NDC content.

China's Trip.com Group in Shanghai, parent company of leading online travel brands Trip.com, Ctrip, Skyscanner and Qunar, will adopt our Amadeus Custom Search solution as part of its boutique shopping engine to deliver the best customer experience.

ezTravel, Taiwan's largest online travel agency (OTA), will implement Amadeus Travel API.

We renewed our multi-year technology deal with China's Tongcheng Travel, one of the major online travel agencies in China.

We reached a new global distribution agreement with Delta Air Lines, which will grant Amadeus-connected travel sellers access to the full range of Delta's products.

We entered into a new distribution agreement with Emirates. Thanks to this expanded partnership, Emirates' NDC-enabled content will be integrated into the Amadeus Travel Platform. Also, all of Emirates' non-NDC content became available without a surcharge for all Amadeus-connected travel sellers as of February 2022.

Amadeus and American Airlines announced the completion of the full end-to-end workflow integration of NDC technology for points of sale in North America by early 2022. The airline's European points of sale were integrated in 2021.



Air IT solutions



Medium-low impact

Amadeus technology optimizes the core operations of full-service carriers—with our Altéa solutions,— low-cost carriers—with our Navitaire proposition—and solutions for core airport operations. We work with our airline and airport customers and their partners to simplify and accelerate business processes, innovate and optimize business operations, including:

- ▶ Network planning
- ▶ Retailing and merchandising
- ▶ Revenue optimization
- ▶ Digital health document verification
- ▶ Biometric solutions
- ▶ Disruption management

We also provide airlines with business consulting and process optimization services. Our open platform adapts to airlines' evolving business models and expansion into new markets, services and partnerships.

Through Amadeus, airlines can collaborate with the airline alliance in which they participate, codeshare⁹ and work with other strategic partners to maximize sales and provide excellent service in the traveler's preferred channel. Airports can adapt to any situation with agility and confidence using flexible airport technology.

⁹ In a codeshare agreement two or more airlines market the same flight under their own flight number. The flight is operated by one airline—the operating carrier—while seats are sold for the flight by all cooperating airlines —the marketing carriers.

Supporting airlines' business as they continue on their path to recovery

The airline industry is gradually recovering from COVID-19 but facing a long-term loss of two years' growth. Global demand is recovering steadily compared to pre-crisis (2019) levels, and passenger load factor¹⁰ is expected to reach 75% in 2022. Ongoing vaccination programs worldwide, governments reopening borders and improvement in traveler sentiment will allow us to progress toward recovery. These developments should help us navigate the current situation and translate into a more consistent and robust recovery.

In 2021 Amadeus launched new initiatives to support travel industry recovery. One such initiative was Safe Travel, whose objective is to restore traveler confidence and remove barriers to travel caused by COVID-19 measures adopted by many countries. As part of the Safe Travel ecosystem, we added health capabilities to our Amadeus Traveler ID solution to speed up the passenger verification process and give airlines, airports and, most importantly, travelers peace of mind and freedom to enjoy their journey.↪ We also launched new biometric boarding solutions at airports, simplifying processes and helping our customers comply with social distancing rules.

Driving the airline industry's retailing transformation

In 2021 Amadeus became the first IT provider to receive dual certification from the International Air Transport Association (IATA)'s new Airline Retailing Maturity (ARM) index for airlines and travel sellers. Our inclusion in this registry proves our commitment to helping airlines and their value chain partners toward the shared goal of modern airline retailing.

As the industry embarks on its retailing transformation, with IATA's objective of 100% Offers and Orders by 2030,¹¹ Amadeus will invest in providing the platform and solutions to support airlines through that transformation. We plan to invest in

¹⁰ Passenger load factor, or load factor, measures the capacity utilization of public transport services like airlines, passenger railways and intercity bus services. It's generally used to assess how efficiently a transport provider fills seats and generates fare revenue.

↪ See p. 57, "Safe travel."

¹¹ International Air Transport Association (IATA) (October 2021). *Airline Retailing: An Industry Vision for Offers and Orders*.

modular and open capabilities in a cloud-native platform environment so airlines can define simpler business processes based on offers and orders and benefit from a platform environment. This way, airlines can easily integrate the cloud native platform into their ecosystem, extend their products and innovate faster. We'll contribute to leading the industry standards, enabling the retailing transformation on the exhaustive end-to-end flow for airlines, and catering for a smooth transition in line with each airline's pace.

Collaboration with other players is more important than ever to address the industry's challenges and allow us to innovate faster. In February 2021, we launched the Amadeus and Microsoft global strategic partnership to use cloud technology to create smoother travel experiences in the future. We work together with Microsoft in three specific areas:

- ▶ Accelerating the move of Amadeus' technical platform to the public cloud. Amadeus will increase flexibility to scale our operational capacity based on market and demand conditions. [↪](#)
- ▶ Focusing on joint innovation and product development to deliver cutting-edge travel solutions offering more relevant and sophisticated end-user experiences.
- ▶ Fostering collaboration across the entire travel industry to create new hyper-personalized services and an industry offer tailored to the unique needs of the travel ecosystem.

We actively pursue collaborations with key industry players to bring benefits to our airline customers, anticipating airlines' requirements. As a business partner to airlines, we adapt to their needs by working with their partners of choice to support their business model and improve their bottom line. Amadeus is working with 25 partners and we've signed deals with over 20 airlines.

With touchless travel evolving from a technological trend to a necessity, Amadeus has signed two partners making significant advances in this field. BAGTAG wants to replace traditional luggage tags with reusable electronic devices using e-paper easily prepared and attached to suitcases by travelers. And iCoupon's touchless solution allows airlines to automatically apply credit to the barcode in passengers' boarding passes for compensation for delays or cancellations.

[↪ See p. 73, 'Co-innovation with our business partners.'](#)

Moreover, to automatically compensate for disrupted flights, Amadeus has partnered with Qwiksilver Solutions, whose gift cards can be integrated into an airline's booking flow to boost customer satisfaction, preserve cash flow and ultimately generate revenues.

Amadeus Airline Platform

The Amadeus Airline Platform is an open, data-driven portfolio of solutions designed for airlines to work with partners and other third parties, enabling simpler business processes and modern retailing. The platform also gives access to capabilities such as ready-to-use services, developer toolkits, partner apps, and extensions that enable innovation and agility to deliver great traveler experiences faster.

All Amadeus airline solutions are designed to be platform-enabled, following our principles: simple, agile, open. Our portfolio includes:

1. Amadeus Digital Experience Suite

Amadeus Digital Experience Suite provides an open and flexible platform where airlines, third-party providers and Amadeus can connect and develop and share technology to innovate and differentiate the airline's business on any digital touchpoint and with a high speed to market.

2. Amadeus Offer Suite

Amadeus Offer Suite supports airlines' retailing transformation so they can easily sell the best offer (whether seat selection, flights, ancillary services or additional merchandising) and determine the best time and place to make the offers and at the optimal price to maximize their profitability. All offers can seamlessly be pushed to the customer through all airline touchpoints using digital or New Distribution Capability (NDC)¹² solutions.

3. Amadeus Order Suite

Amadeus Order Suite helps airlines seamlessly take orders, receive payments and settle accounts to earn revenue faster, in line with their retailing transformation. The suite leverages our industry expertise, our IATA Airline Retailing Maturity (ARM) index-certified retailing capabilities and our order management system capabilities.

¹² Travel industry standard for the distribution and retailing of flight content.

4. Amadeus Operations Suite

Today, airlines need to optimize their operational efficiency to deliver seamless travel experiences. With the help of the Amadeus Operations Suite, airlines can achieve operational excellence when managing customer and flight departures; and quickly and efficiently re-accommodate customers in disruptions.

5. Amadeus Customer Loyalty Suite

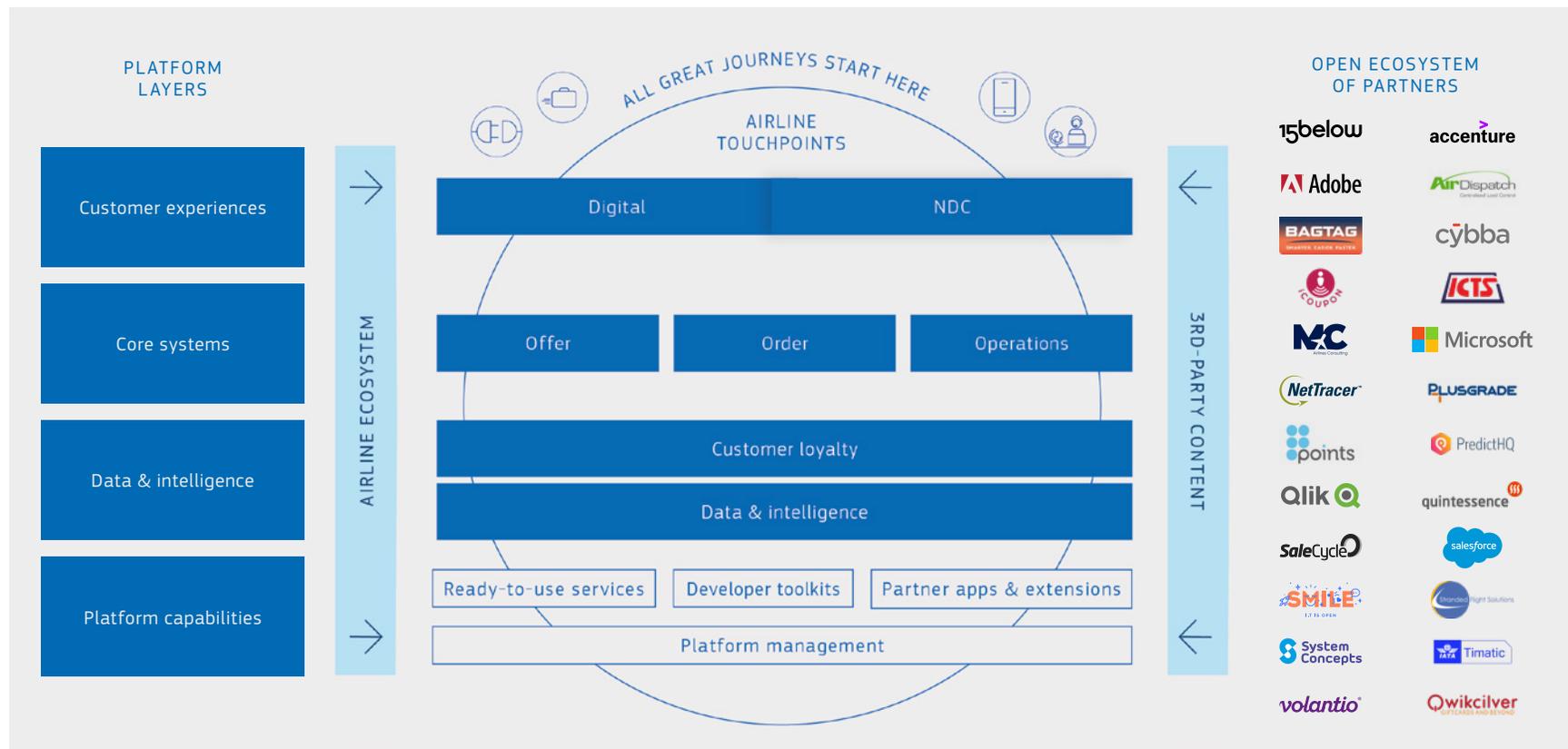
Travelers expect value when they engage with airlines' loyalty programs. Our data-led solutions help airlines understand their travelers' needs to create personalized interactions that resonate throughout their journeys. With the Amadeus Customer

Loyalty Suite, we make it easy to develop partnerships. Airlines can monetize their currencies and maximize their reward mechanisms to build profitable relationships with their members anytime and through any channel.

6. Amadeus Data & Intelligence Suite

Big data is going real-time. Processing and analyzing this data continue to be a challenge. Detecting and extracting insightful, meaningful information allows increased performance and more efficient operations. Amadeus Data & Intelligence Suite helps airlines transform their data into actions that deliver value.

I Amadeus Airline Platform





Singapore Airlines and Scoot simplify partnership models with NDC and ONE Order

Challenge

Singapore Airlines and its low-cost carrier subsidiary Scoot needed to simplify their end-to-end operability and interline¹⁴ sales to deliver a transparent customer experience.

How did Amadeus and Navitaire support the airlines?

Singapore Airlines, Scoot, the Accounting Centre of China Aviation, Amadeus and Navitaire conducted a live pilot using NDC and ONE Order standards. The pilot was performed with real passengers and live bookings and aimed to simplify and enhance interlining and interoperability between the full-service carrier and the low-cost carrier, hosted in Amadeus Altéa and Navitaire New Skies. The new retailing concepts helped the two carriers accomplish seamless interoperability throughout shopping, pricing, order management, delivery and accounting processes.

Results

This was the first successful live pilot using NDC and ONE Order messaging, and IATA has recognized it as an official ONE Order and Future of Interline pilot. It delivered a seamless passenger experience, including a single customer reference, a single payment and seamless delivery and check-in. It also proved that airlines from different business models, such as low-cost and full-service carriers, can work together in a much simpler way using NDC and ONE Order.

¹⁴ Interline refers to a commercial agreement between airlines to handle passengers traveling on itineraries that require more than one flight and more than one airline. As opposed to codesharing, interlining implies there is more than one operating carrier.



Southwest Airlines significantly increases demand forecast accuracy

Challenge

The pandemic has required new scheduling techniques to be developed, as airlines could no longer rely primarily on historical schedules. Southwest recognized the urgent need ahead of demand recovery to rethink how to rebuild its network and forecast customer behavior patterns and demand without using historical passenger traffic data.

How did Amadeus support the airline?

In 2020 Southwest took on the challenge of identifying and increasing scheduling and revenue opportunities with new routes where travel demand was beginning to build. The airline decided to set aside multiple forecasting tools and adopt Amadeus SkyCAST. Amadeus calibrated SkyCAST for Southwest using a combination of historical and recent actual data to align the forecast engine parameters with the new reality.

Results

Amadeus helped Southwest improve its market size estimation process and define a framework to predict market sizes more dynamically with a unique scientific approach leading to higher accuracy. This customized calibration of SkyCAST improved the accuracy of its forecasting and resulted in a 30% improvement when predicting market share and a 50% improvement when predicting leg traffic at all levels.

Air France empowers its disrupted passengers with self-servicing capabilities

Challenge

Even before the COVID-19 crisis, managing disruptions smoothly was a priority for Air France. In 2020 the airline decided to adopt a more customer-centric approach during disruption and put its customers' needs at the heart of the re-accommodation process.

How did Amadeus support the airline?

Air France worked closely with Amadeus during the COVID-19 crisis to implement Amadeus Self Re-accommodation. This self-service solution allowed the airline to enhance disruption management further by empowering its travelers to choose the best rebooking option as soon as an alternative is offered.

Today, the airline can instantly notify passengers about a disruption and invite them to go online to:

- ▶ Acknowledge the rebooking done by Air France
- ▶ View and compare alternative flights
- ▶ Quickly rebook their trip

Results

Amadeus Self Re-accommodation has allowed Air France to strengthen its capabilities for disrupted passengers, enabling a complete rebooking process via a responsive website and following the airline's disruption policy. In four months, more than 580,000 disrupted passengers were notified via the tool, and 89% of the disrupted passengers who successfully used the self-service option found that the information and next steps were clear.

By fully automating the re-accommodation process, Air France can:

- ▶ Enhance customer satisfaction
- ▶ Increase operational efficiency
- ▶ Accelerate the disruption recovery time
- ▶ Estimate no-shows and take consequent actions

Customer experience for airlines

Committed to excellent customer service and support

Once an airline joins Amadeus, we work to ensure successful onboarding and offer various learning and support services to simplify, personalize and continuously improve our customers' experience. Our customers benefit from:

- ▶ **Our standard implementation services:** Airlines put a lot of trust in us when they adopt our technology solutions into the heart of their business. Our skilled experts guide our customers through the implementation of Amadeus solutions, ensuring a smooth and successful onboarding to operational mode.
- ▶ **Our learning services:** We deliver innovative and flexible learning services and documentation on Amadeus solutions in various formats, including instructor-led and self-paced, either online or offline.
- ▶ **Our 24/7 support services:**
 - ▶ Proactive: monitoring systems and preventing situations from developing
 - ▶ Automated: processing specific requests for fast and consistent resolution
 - ▶ Digitalized: such as our Amanda chatbot, based on natural language and artificial intelligence, or our Airline Expert Community, a peer-to-peer online forum on Amadeus solutions
 - ▶ Personal: thanks to a strong local, regional and global presence with a team of over 200 industry experts.
- ▶ We provide three levels of expertise to handle incidents and issues:
 - ▶ Level 1: First-contact helpdesk support that airlines can provide in-house or outsource to us
 - ▶ Level 2: Specialized support delivered globally by Amadeus experts
 - ▶ Level 3: Expert support on complex issues provided promptly by Amadeus experts in R&D, product and content management, security and operations.

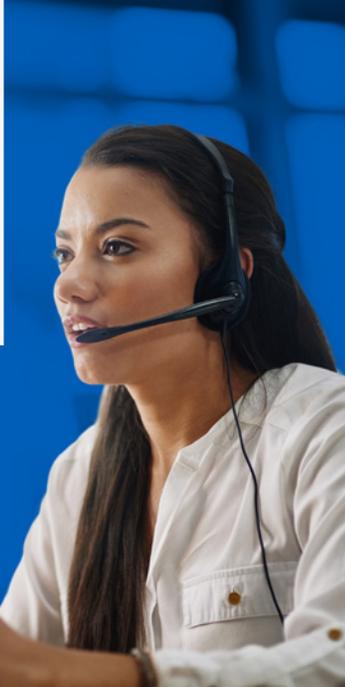
- ▶ **Our content management and security services:** In addition to providing Level 3 support, we ensure the quality of the data fed into the Amadeus system from external data providers, such as IATA or the Airline Tariff Publishing Company (ATPCO), and that the data is available to our airline customers 24/7.

Solving airline challenges with the full value of our experience and solutions

Amadeus offers professional services integrated into the customer value chain. We mobilize experts worldwide to orchestrate and align capacity to meet airlines' requirements, solve their challenges, turn fixed costs into variable and simplify their operations, allowing them to focus on day-to-day business. Our services include:

- ▶ **Data and business consulting services:** Supported by data, we help airlines understand how to achieve excellent customer experience, streamline their organization and processes, maximize revenues and minimize costs.
- ▶ **Functional and technical consulting:** We help airlines activate the features most useful to their needs, optimize usage and secure the best return on investment.
- ▶ **Learning services:** We guide airlines to acquire, maintain and increase their staff skills and knowledge by leveraging our instructors' unique expertise with customized content.
- ▶ **Tailored software services:** We adapt our solutions to each airline. Whatever the requirements, we help airlines stand out, covering the full development cycle.

Amadeus Service Hub, our customers' service portal

<p>Our customer service portal gives customers access to:</p>	<p>Amadeus support & knowledge</p> <p>A wide range of self-service tools and a continuously updated knowledge base including various types of content</p>		<p>Amadeus Learning Universe</p> <p>Various Amadeus e-learning and instructor-led sessions, including dashboards to track learning goals</p>	
<p>Amadeus Airline Expert Community</p> <p>The community where experts connect, share and exchange knowledge on Amadeus products and services</p>		<p>Amanda</p> <p>The chatbot that provides airlines with quick, concise and immediate information on Amadeus solutions</p>		

- ▶ **Digital services:** Supported by data, we help airlines with the design, optimization and development of their digital experience, for the most efficient and innovative end-to-end solutions.
- ▶ **Outsourcing and on-behalf services:** We help airlines make their costs variable and maximize efficiency by undertaking activities on their behalf, allowing airlines to focus their assets on core business. We put the expertise and knowledge of our solutions to the airlines' benefit.
- ▶ **Competency center:** We offer any possible combination of our professional services to easily adapt to an airline's needs, with a dedicated framework to orchestrate the delivery.

Transforming customer feedback into actionable insights: Voice of the Customer program

Our Voice of the Customer program monitors customer loyalty and satisfaction across all stages of our airline customers' relationship with Amadeus. The program's main purpose is to transform customer feedback into actionable insights that teams across Amadeus will use to improve our performance. This helps us continually revisit our way of doing things and focus on our customers' priorities.

Our approach to gathering feedback includes a range of interviews and surveys focusing on our customers' overall experience of working with Amadeus, their specific interactions on the customer journey and their experience using our products.

Our main measure of customer loyalty is the Net Promoter Score (NPS),¹⁵ for which we set targets at the beginning of the year.

In 2021 we measured NPS again after a pause in 2020 due to the COVID-19 crisis. For airlines, 1,100 contacts from more than 200 airlines responded to our 2021 Relationship Survey, and we achieved an overall NPS for airlines of +28, a 20-point increase on our score from 2019 (+8).

¹⁵ A widely used measure of customer loyalty. It's the percentage of customers rating their likelihood of recommending a company, a product or a service to a friend or colleague. NPS ranges between -100 (all respondents are "detractors") and +100 (all respondents are "promoters"). A positive score is desirable and, for a B2B company a score above +25 is a frequent target.

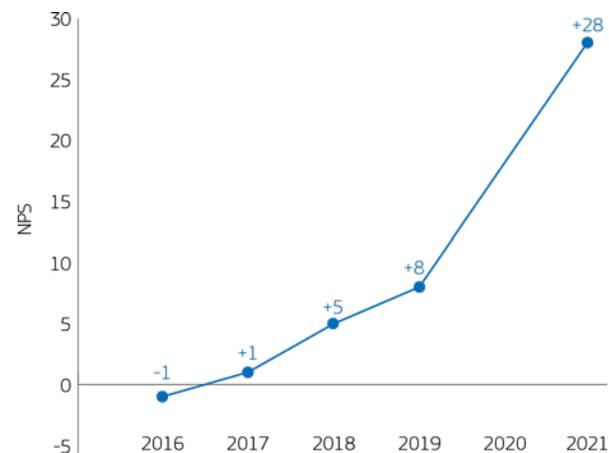
Respondents highlighted a closer relationship to Amadeus since the COVID-19 pandemic and have been pleased with Amadeus' ability to embrace change and support them through the crisis. In addition, Amadeus' strategic vision, innovation, open ecosystem and move to NDC have all resonated positively with our customers.

In the area of airports, our NPS remains stable at +36 compared to +38 in 2019 and +37 in 2018.

We also measure NPS through our transactional surveys. For airlines, we achieved an NPS for incident management of +50, an 11-point increase from 2020 (+39), thanks to initiatives such as the introduction of the Service Account Manager role, automated production of incident logs and the inclusion of residual impact information in the Amadeus Critical Incident Center. We also launched transactional surveys for work orders (+60 NPS, Nov YTD), learning services (+77 NPS, Nov YTD) and professional services (+48 NPS, Nov YTD). For airports, we launched transactional surveys for incident management (+48 NPS, Nov YTD) and work orders (+69 NPS, Nov YTD).

We ensure that customer feedback is actioned, and a community of Voice of the Customer champions spread globally across our locations is accountable for sharing results and driving action in each team and region. We encourage customers to actively participate in the design of our action plans, keeping them informed regularly of the progress made.

Evolution of Amadeus NPS for airlines



Evolution of passengers boarded

Amadeus' 2021 passengers boarded (PBs) increased 22.9% from 2020. Compared to 2019, they decreased by 57.4%, which resulted from:

- ▶ The severe impact of the COVID-19 pandemic. Our best performing region in the year was North America, which was only 20.1% below 2019 in PB volume. In the fourth quarter several regions reported large improvements in performance from the previous quarter, such as Western Europe, Asia-Pacific and Middle East and Africa.
- ▶ The positive impact of customers' implementations. At the close of December, 210 customers had contracted one of either of the Amadeus Passenger Service Systems (Altéa or New Skies) and 200 customers had implemented one of them.

Airport IT

At Amadeus, we believe that the most successful airports will be those able to swiftly adapt operations, costs and commercial models. Our proposition for the airport industry targets these objectives. We remove the constraints of legacy solutions and provide the flexibility of modern cloud technology. We work on solutions for passenger services and core airport operations, both made stronger with seamless data exchange.

Passenger services

Amadeus is partnering with airports to help them rapidly scale handling capacity up or down, serve passengers at the airport or off-airport and make their experiences contactless. We believe in the value of cloud solutions that provide better connectivity between airports and their airline customers, reduce complexity and speed up the deployment of innovations at the airport—such as payments or biometrics.

Passengers boarded by region

Change vs. same period of 2019	Jan-Mar 2021	Apr-Jun 2021	Jul-Sep 2021	Oct-Dec 2021	Full year 2021
Western Europe	(88.0%)	(81.5%)	(49.6%)	(39.1%)	(63.4%)
North America	(46.0%)	(19.8%)	(6.2%)	(12.4%)	(20.1%)
Asia-Pacific	(74.4%)	(81.0%)	(80.4%)	(65.2%)	(75.1%)
Central, Eastern and Southern Europe	(55.3%)	(48.6%)	(22.7%)	(22.9%)	(35.6%)
Latin America	(47.8%)	(47.2%)	(37.1%)	(34.4%)	(41.5%)
Middle East and Africa	(67.3%)	(67.5%)	(52.2%)	(37.4%)	(56.0%)
Total	(70.8%)	(67.7%)	(50.7%)	(42.5%)	(57.4%)

Amadeus Flow

Amadeus provides airports with a wide range of technology capabilities, including a single cloud solution to service passengers with Amadeus Flow—the culmination of our 10-year strategic investment to reinvent airport technology in the cloud. We've successfully brought together all the elements needed to unlock the potential of their terminals. This isn't just about products and services, it's about business innovation.

Amadeus Flow helps airports deliver a more agile and better-connected experience for passengers inside and outside terminals, from check-in to boarding. Flow is modular, comprising the hardware, software and services an airport needs to deliver at all touchpoints, and is already powering more than 100 airports worldwide, with outstanding results.

Many airports moved to the cloud with Amadeus Flow in 2021, including Finavia, which migrated 11 airports across Finland and Cambodia Airports implementing Flow at their 3 international airports.



We're moving to an open cloud platform with Amadeus, and that means we can roll out new innovations far more easily, without lengthy certification cycles or on-site IT projects. We're now well placed to add innovations like contactless payments quickly and easily without the need for Finavia to become a systems integrator. Airports are digitally transforming, and I believe COVID-19 marks a tipping point where our industry goes cloud.

” Leyla Akgez-Laakso, Chief Information Officer
Finavia



Passengers expect a smooth experience, and moving to the cloud with Amadeus means we can deliver that now and into the future. Sharing our long-term vision, Amadeus is the right partner to take care of this complexity behind the scenes so we can easily deploy innovations that place our customers, passengers and airlines at the very heart of our airport model.

” Hervé Bonin, General Manager, Phnom Penh Int'l Airport
Cambodia Airports

Amadeus Biometric Solutions

One of the most important and timely components of Flow is Amadeus Biometric Solutions, which quickly and easily identifies passengers at any airport checkpoint using facial recognition.

Today, many airports are designed around decades-old processes that require passengers to continually present paper documents: first at check-in, again when using bag drop, then at pre-security gates, again at security, at the lounge and finally when boarding. Small delays caused by repeated document handling checks performed at each touchpoint can quickly escalate into heavy congestion. Biometrics are being used to automate airport passenger processing, and Amadeus is at the forefront of these automated solutions.

Biometrics can significantly reduce this friction in a passenger's airport journey by combining their itinerary information with a unique identifier so the traveler can identify themselves by face recognition. Biometric solutions automate the services provided to the passenger and allow the traveler to proceed quickly and smoothly through the airport without agent intervention.

Amadeus Biometrics solutions experienced a breakthrough in 2021. For example, we now power Japan's first end-to-end biometric passenger experience at Narita International Airport, where passengers can move from check-in to boarding without providing travel documents.

“

Everyone at Narita Airport is proud to have delivered Japan's first end-to-end biometric departure process. Our passengers will benefit from a low-touch, automated experience that increases safety and convenience. Biometric technology is an incredibly powerful tool and key in addressing the challenges posed by COVID-19.

” **Masato Kitagawa,**
Manager Mechanical Systems Engineering Department
 Narita International Airport

Airport operations

Many airports continue to recognize the importance of operational efficiency and the ability to effectively optimize the use of fixed resources like parking stands, gates and desks. The automation of processes related to core airport operations can drastically improve overall asset utilization. Combined with a single source of data, airports can plan more effectively too. Our Amadeus Airport Management Systems are designed to support more efficient airport operations.

During 2021 Memphis International Airport in the US adopted key components of our Airport Management Systems to support its transition to an “origin and destination” airport where many different airlines, including full-service and low-cost carriers, operate. The application of our Airport Management Systems helps the airport boost aeronautical revenues by offering a more attractive and modern operational environment for its airline partners.

“

Our modernization project will reinvent the travel experience for the Memphis passenger, and welcome millions of travelers to our great city. This technology will be a key part of our modernization and our operations moving forward.

” **Scott A. Brockman, President and CEO**
 Memphis International Airport



Key Air IT solutions highlights in 2021

At the close of the year,

210

customers had contracted

200

customers had implemented the Amadeus Passenger Service Systems (either Altéa or New Skies).

Hawaiian Airlines selected Amadeus as its next-generation technology partner. Implementation of the Amadeus Altéa PSS suite began in the first quarter of 2022.

In the US, Missoula Montana Airport contracted ACUS, while Louis Armstrong Airport, Sacramento International Airport, Kansas City International Airport and Houston Airport Systems will implement Amadeus' biometric technology. Syracuse Hancock International Airport contracted for ACUS. Pittsburgh International Airport signed for the deployment of Amadeus Flight Information Display System. Memphis International Airport signed for Airport Operational Data Base, Resource Management System and PropWorks.

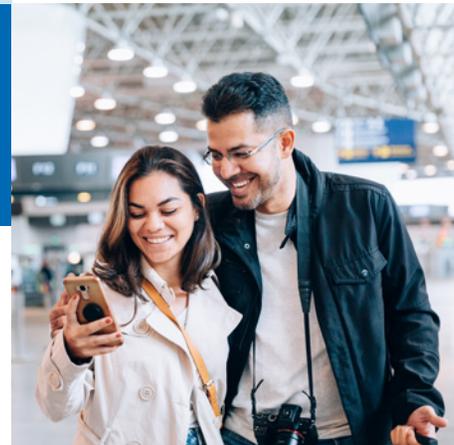
Etihad Airways has signed a landmark multi-year agreement to embark on a major digital transformation. Etihad Airways will implement the full Amadeus Altéa PSS suite, web booking, revenue management capabilities and merchandizing, data management and passenger servicing solutions, as well as the Amadeus Digital Experience suite.



Avianca renewed and expanded its PSS agreement, deploying Amadeus Passenger Recovery to further optimize and automate disruption management.

Saudia contracted for Passenger Recovery, while Air Algerie signed up for several solutions from our Airline IT portfolio.

Uzbekistan Airways contracted for the full suite of Altéa PSS and some additional solutions.



Ultra Air contracted New Skies for its reservation and retailing platforms, along with its integrated day-of-departure, Digital Experience Suite, NDC Gateway, Ancillary Revenue Optimization, revenue accounting and loyalty solutions.

LOT Polish Airlines and Amadeus signed a multi-year deal that will see the airline maximize the benefits of the Amadeus Airline Platform and add a range of new IT solutions on top of its existing PSS.

Vistara contracted the Amadeus Network Revenue Management solution.

We signed a deal with Sylt airlines club to provide ACUS at the Sylt island's airport in Germany.

Finavia, which runs 11 airports in Finland, chose Amadeus Flow. Cologne-Bonn Airport selected our cloud based Common Use Platform (ACUS). Sofia Airport (Bulgaria) and Prague Airport (Czech Republic) contracted Altéa Departure Control for Ground Handlers during last year.

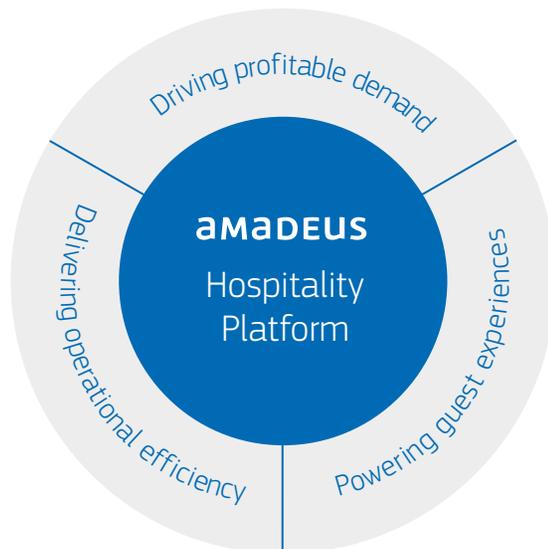
We introduced Japan's first end-to-end biometric boarding process thanks to our partnership with Narita Airport and NEC.

Heathrow Airport (UK) contracted 215 self-service check-in kiosks from ICM Airport Technics, an Amadeus company.

Hospitality and transversal solutions

Hospitality

Overall hospitality industry performance is improving with cautious optimism thanks to widespread vaccine availability, shifting travel regulations and increasing traveler confidence. The impact of COVID-19 and new variants caused a ripple effect across global regions in 2021. With worldwide vaccinations increasing, hotel occupancy continued to rebound significantly as the year progressed. Worldwide, occupancy reached a high of 60% in October which represents 82% of pre-pandemic occupancy, according to Amadeus' Demand360® business intelligence data. These figures vary by market and have largely been driven by domestic leisure travelers, although corporate and group travel is beginning to pick up.



Uncertainty around travel and the introduction of a largely remote workforce influenced travel behavior in 2021. Hoteliers faced unprecedented challenges and had to pivot business strategies continuously, whether to attract new audiences, launch new promotions or introduce enhanced cleaning protocols. In addition, a short booking window of just 0 to 7 days in most cases, paired with historic labor shortages, made it challenging to accurately forecast revenue or staffing.

COVID-19 has forced hospitality professionals to re-examine their business with technology at the forefront. Modern, innovative solutions are critical to resolve needs and areas of improvement, as well as reduce costs and deepen market insights. In a highly competitive landscape with fluctuating market demands, hoteliers are looking for new ways to differentiate themselves from their competitive set.¹⁶ In response to the pandemic, we've reacted quickly to introduce new functionality to many of our solutions to support hotelier needs.

Our longstanding customer relationships and knowledge of the industry power our purpose to drive profitable demand, increase operational efficiency and improve the guest experience across the hospitality ecosystem.

Adapting to industry needs and innovating for the future

At Amadeus, we're not just making tactical or incremental updates to our technology stack. We're truly transforming the hospitality technology space. In a historically fragmented industry full of stand-alone solutions, we're bringing business-critical information together in one central repository, enabling hoteliers to gain a comprehensive view of their business. The Amadeus Hospitality Platform is an integrated ecosystem connecting supply and demand to benefit both travelers and accommodation sellers alike. It provides open, scalable architecture that eliminates data silos and streamlines systems to create better end-to-end-travel experiences.

With the next-generation Amadeus Central Reservations System (ACRS) at its core, enterprise customers gain a holistic view of their organization to optimize operations and provide personalized guest experiences through attribute-based selling. By monetizing different guest room and non-guest room attributes specific to a hotel property, this enables true merchandizing and allows travelers to personalize their stay.

¹⁶ A competitive set (or CompSet) consists of the hotels within one's own market area that are most closely comparable in terms of quality, price and market.

Built and launched in collaboration with InterContinental Hotels Group, further validation of ACRS capabilities is demonstrated with Marriott International's agreement to bring this transformative technology to the world's largest hotel chain.

“

It will make the breadth of Marriott's travel offerings available to customers, giving them more choices to personalize their experience when they book travel with us.

” **Drew Pinto, Global Officer of Distribution, Revenue Strategy, Engagement Centers & Global Sales**

Marriott International

Delivering on the vision of a single view of guest information and hotel inventory, the integration of ACRS with the Amadeus Property Management System (APMS) is helping hoteliers unlock a consolidated view of availability, rates, inventory and guest profile data in the platform with the added value of eliminating the operational costs, system inefficiencies and synchronization complexities experienced today with separate solutions. Based on customer and market feedback, work is also underway to add incremental connectivity to solutions across the rest of the Amadeus hospitality portfolio, beginning with sales and catering.

To serve the broader market, including independents and small to mid-tier hotel chains, we're continuing to leverage the strength and connectivity of Amadeus' iHotelier® Central Reservations System to drive demand and value for this customer segment. iHotelier also serves as the foundation of the Amadeus Integrated Booking Suite, a unique bundled offering including guest management and web capabilities, for a truly unparalleled hotel e-commerce platform.

The ongoing convergence and integration of solutions across the Amadeus Hospitality Platform also means that ultimately, we'll be able to extend this model of managing hotel business and meet the needs of properties of all sizes.

Confirming our strategy and the integrated product offering, Flemings Hotels, a chain in Germany and Austria, signed on for the Amadeus Demand Generation Suite—a combination of business intelligence and media solutions combined with the Amadeus Integrated Booking Suite to convert lookers into bookers while driving guest engagement, satisfaction and loyalty.

To enhance our industry-leading business intelligence suite, we introduced Agency360+® to provide the widest and most detailed array of leisure and business travel insights beyond Global Distribution System (GDS) channels. Now in one streamlined user experience, hoteliers can gain a better understanding of their forward-looking leisure and corporate business bookings at their property, in their competitive set and in their market.

To Demand360 we've added two years of historical market data to complement the industry's most robust forward-looking, on-the-books reservation data. The combined 36 months view of industry performance provides hoteliers the only solution that helps them uncover new trends in their market based on actual booking data, enabling them to build strategic recovery plans and capture emerging travel demand like never before.

The world's largest hotel chains are increasingly recognizing the value of these solutions, with major names such as Wyndham Hotels & Resorts, The Leading Hotels of the World, and Event Hospitality & Entertainment Limited all signing for various Amadeus business intelligence solutions in 2021.

“

Making the most effective business decisions requires that our teams have access to comprehensive market performance data. With extensive historical and forward-looking booking information, the depth of insight available in Demand360 enables us to optimize pricing and distribution strategies, helping maximize revenue for our franchisees.

” **Vikram Pradhan, Global Vice President, Global Revenue Management**

Wyndham Hotels & Resorts

Another area of travel highly dependent on quality data is marketing. In 2021 we worked with hotels and destination marketing organizations (DMOs) all over the world to deliver cross-channel media campaigns to the right audiences at the right time with great success. Whether it's through metasearch, display ads, GDS advertising, search keywords or retargeting, we've helped names such as Tenerife Tourism Corporation, ProColombia, and Grupo Posadas achieve more bookings and a higher return on investment.



With our strategic alliance with Amadeus, we continue to work on targeted, segmented and intelligent promotion, through digital tools and based on the reactivation and growth of international tourism to Colombia. Accessing this information has allowed us to identify, based on our offer in experiences and destinations, the interest of travelers to visit our country.

” Flavia Santoro, President

ProColombia

Using targeted, data-driven marketing initiatives, hoteliers and DMOs alike can expand their reach to target their most valuable traveler segments. Our unique offering provides hoteliers and DMOs with an omnichannel marketing strategy to attract travelers; data science to identify the right moment, channel and message to reach the traveler; and unique attribution capabilities to measure a clear return on ad spend.

Another critical strategy to maximize bookings is having a strong channel mix, which is why distribution remained a significant growth area for us in 2021. Driven by market recovery but also by the expansion of Amadeus' capabilities and partnerships, we continued to grow our supply with an increase in available shopping options and richer content for our travel buyers, thanks, in part, to new accommodation content agreements with China's leading hotel information systems player, Shiji.

We continue to diversify our distribution model, moving beyond hotel rooms to mobility and on-site destination experience options to further support leisure travel. With the launch of our Amadeus Hotels for Leisure offer, we're ensuring hotels and accommodations providers get maximum visibility in new channels as well as greater control over content and pricing. For travel agents comparing multiple options, the result is fast, easy access to a wide variety of leisure content.

Seamless payments and insurance options are also high on the priority list for pandemic-era travelers, which is why Amadeus Hotel Billback provides payment reconciliation support to simplify the exchange of cash between hotels and travel sellers.

Our growing partnership with travel app Hopper expands our insurance portfolio, allowing any user of the Amadeus Travel Platform—airlines, online travel agencies,

travel agents, etc.—to offer flexible travel options like “cancel for any reason” or “price freeze.” This increases average order value, improves profit margins and drives customer satisfaction, as travelers can book with more confidence. The partnership also extends the reach of Amadeus' global car rental content, with more car rental companies available to Hopper's customers worldwide.

As travel resumed and people chose road trips for their getaways in 2021, offering car content was critical to meet demand. We built on our strategic partnership with the online travel shopping company Expedia Group to give customers more options to search and book their preferred car vendors on Expedia Group sites.

Turning to the on-property experience, hotel operations, labor shortages and traveler cleanliness expectations have been front and center during COVID-19. Amadeus Service Optimization solutions are built to help properties streamline and automate processes to improve staff productivity. In 2021 Amadeus' leading hotel operations automation solution HotSOS was redesigned with dynamic operational dashboards to help hotels do more with less and alleviate the pressures of labor shortages. The new experience makes it easier for teams to analyze key reporting and data points, labor output metrics and guest amenity requests. Its intuitive look and feel also enables faster employee onboarding and contains training materials for improved staff retention and engagement.

Group business is also showing signs of improvement. To our industry-leading sales and catering software we've added socially distant meeting and event diagramming to keep guests safe and ease concerns of returning to in-person events. We also expanded our partnership with Cvent, an events management technology provider, to further automate bookings for small meetings and events. The agreement enables hotels using Amadeus Sales & Event Management to establish unique business rules to define which function space availability can be viewed by planners, enabling them to seamlessly book available inventory, at any time, without a traditional request for proposal (RFP). This speeds up the process significantly for planners while allowing venues to maximize this important segment of their group business revenue.

Measuring feedback from our valued customers

The Hospitality Voice of the Customer (VoC) transactional survey program provides key insight into our customers' experiences with team members across both Customer/Technical Support and Customer Delivery. The program currently consists of seven surveys tailored toward interactions with our project managers, consultants, trainers, installers, solution adoption team and support agents, and measures the impact of e-learning through webinars and the online learning tools.

Throughout 2021, our teams focused on standardizing our approach to evaluating customer sentiment regarding delivery of these services. Our former TravelClick survey program was migrated into the broader Hospitality measurement tools, allowing our teams to centrally monitor our customers' experiences and react to any feedback quickly and ensure a positive outcome.

Metrics for our VoC transactional surveys for 2021 are as follows:

Customer & technical support (Closed support cases)

- ▶ Invitations: 16,234
- ▶ Response rate: 11.8%
- ▶ NPS: 59.7

Customer Delivery (completed projects since June 2021)

- ▶ Invitations: 3,998
- ▶ Response rate: 16.0%
- ▶ NPS: 79.1

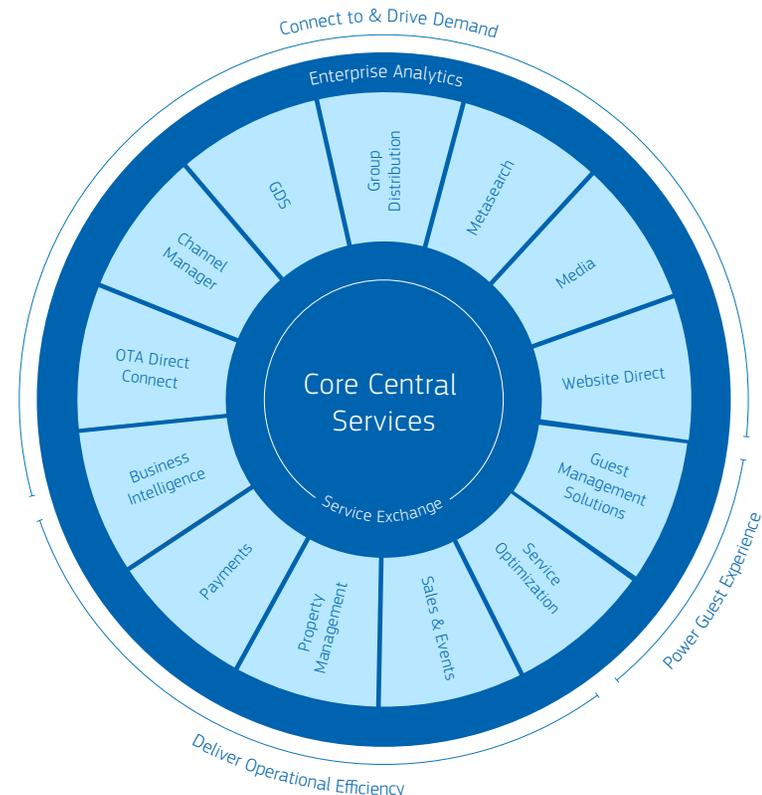
In addition to the migration of the former survey program, 2021 allowed an expansion of the program with the rollout of the Education and Training surveys for webinars, recording trainings and e-learning. This survey is embedded in the Amadeus Learning University (Valamis) and allows the team to capture real time feedback as a user completes or attends a variety of learning forums. To complement this feedback, the Solution Adoption program partnered with enterprise customers to request feedback post deployment of a product to ensure the hotels

are utilizing their installed products to the full capability that aligns with that hotel's needs. Although in its infancy, this feedback will be crucial in reducing cases to Customer Support after a deployment as well as identifying customers that may be at risk of canceling for lack of use of the product.

Building on our vision and path forward for hospitality

In a time when customers need reliable support from their technology provider, we're helping them reduce operational complexity with connected portfolio bundles and enhancements to existing solutions. This approach enables us to build trusted relationships and win enterprise deals that position us as the hospitality industry's leading technology provider.

Amadeus Hospitality Platform



Amadeus' dedicated Hospitality team comprises more than 2,700 professionals servicing more than 52,000 unique properties in over 175 countries. They help Amadeus stand out from the competition by delivering the industry's most comprehensive hospitality portfolio, supported by our growing technology ecosystem of more than 1,200 partnerships, to meet the needs of properties of all sizes.

At Amadeus, we believe our Hospitality business will grow exponentially as we continue to deliver value to the industry with ongoing investment in our solutions and our vision of an integrated hospitality platform. This is the key to long-term success for an industry weighed down by outdated, fragmented systems that prevent hoteliers from gaining a holistic view of their business. Our mission to empower hoteliers to drive profitable demand, increase operational efficiency and improve the guest experience resonates with our customers now and will continue for years to come.

Payments

The fast pace of change in the payments space poses challenges for travel players, who have to deal with new payment regulations, changing traveler preferences and the significant impact of other major events on industry payment processes. In the complex world of payments, Amadeus aims to simplify the picture.

At Amadeus, we have the chance to seize emerging opportunities in the payments industry by combining our company's knowledge and technological innovation to support travel players and disrupt legacy ways of processing payments.

Leveraging our unique position in the travel industry, which allows us to understand customer needs in depth, our focus is to deliver frictionless payments experiences for businesses and travelers.

Our payments business serves every part of the travel ecosystem, streamlining how our customers both get paid and pay out to their suppliers.

Our Payer Services business

Our Payer Services business helps travel companies make B2B payments a strategic priority. The way travel companies, such as travel sellers, pay out to suppliers such as airlines and hotels requires continued digitalization to improve efficiency, reduce costs and deliver greater value across the B2B supply chain in travel.

Today, travel sellers still rely largely on industry settlement schemes to pay airlines, with long settlement cycles and little to no protection should one party default or go bankrupt. Other widely used methods include traditional plastic cards or lodge cards, which are used for large volumes of bookings without the ability to switch to the best payment method based on the specific circumstances.

We've been working with our customers to optimize the way they pay out to suppliers. Our flagship Amadeus B2B Wallet solution provides travel sellers with access to a wide selection of different virtual cards including debit, pre-paid and credit options issued by leading financial services partners. B2B Wallet also contains a powerful decision engine so the best payment method can be selected for each specific booking, and due to the digital nature of virtual cards, it greatly reduces historic challenges associated with payment reconciliation, compliance and fraud.

Find out more about the benefits of virtual cards for the travel industry in our [report](#).

B2B Wallet is underpinned by our relationship with Mastercard. During 2021 we announced an extended global collaboration to help broaden access to virtual card payments across the travel ecosystem. Through this relationship, Amadeus and Mastercard continue to provide flexible, secure and efficient ways to make and receive payments.

This extended relationship includes virtual payment technology offered through the Mastercard Wholesale Program. The program is a solution specifically designed for the travel industry, utilizing virtual card technology to help enhance payment protection and increase visibility for transactions between travel agencies and their suppliers.

During 2021 we also expanded the geographic availability of B2B Wallet through a partnership with Apiso, the Middle East's leading embedded B2B payments provider. The agreement means Amadeus can use a wide range of local payment methods from financial services providers in the Middle East, so we can serve travel sellers in the region.

The Middle East travel agency Dadabhai is already benefiting from B2B Wallet, with the solution helping to underpin a payment strategy focused on reducing costs as a response to the COVID-19 pandemic. Bank guarantee charges were the main source of high costs for Dadabhai, with the traditional industry settlement scheme requiring very frequent guarantee payments, against a backdrop of very limited travel bookings.

With B2B Wallet powered by Apiso, Dadabhai has been able to reduce the costs of bank guarantees by 35% by paying suppliers, such as airlines, with virtual cards. By doing so, and because banks don't require guarantees for virtual cards, the agency was able to unlock the funds that would have been used for these bank guarantees and invest in other areas of the business to help drive growth.

“

This solution has been extremely helpful to our company during a challenging year for the travel industry. We have offices across the region and our collective bank guarantee costs were very large. The success of the Amadeus B2B Wallet powered by Apiso has given us good incentive to continue to invest in our payments strategy. We plan to reduce bank guarantees by 50% in the next year. Wherever we have an option to use virtual cards to maximize our revenues, we will do so.

” **Nitin Menon, Executive Director**
Dadabhai Travel

Despite the advantages of modern B2B payment methods for all players in travel, accepting virtual cards traditionally incurs higher costs, which slowed down the pace of digitalization. Amadeus B2B Wallet Partner Pay, powered by Mastercard virtual cards, is a solution specifically designed to overcome this challenge, as it allows travel agencies to pay airlines within a bespoke ecosystem, lowering significantly the overall cost of acceptance due to efficiencies created throughout the payment chain.

We continued to gain traction with major airlines from across the world during 2021 and Partner Pay was awarded Best B2B Payments Program at the prestigious Emerging Payments Awards in October.

Our Merchant Services and Payments Innovation businesses

Our Merchant Services business helps travel companies such as airlines, hotels, travel sellers and airports accept a wide range of payment methods through direct channels such as websites, call centers and physical points of sale, for example the hotel front desk or airline check-in counter/kiosk at the airport.

Today, travelers still face significant friction when paying for travel at different stages of the trip. Amadeus is present at booking, pre-trip, at the airport, in-flight, at the hotel and post-trip, often providing the underlying technology that handles these transactions, which puts us in a unique position to take on the challenge of designing a frictionless end-to-end payment experience.

In 2021 we published [our vision](#) for how different travel companies can digitalize payments across the traveler's entire trip to reduce friction, improve conversion and deliver an outstanding experience.

Amadeus is combining innovations across the payments technology stack—such as tokenization, modern authentication techniques, QR codes, pay by link, digital wallets and simplified digital check-out flows—to help our customers consistently remove payment friction.

At the same time, an often-overlooked component of the airline digital experience is foreign exchange (FX). [Our research in 2021](#) showed how this can be a missed opportunity for airlines and how, by providing multi-currency pricing (MCP) solutions, they can improve the user experience and thus boost their sales. MCP allows travelers to select their preferred currency to settle the payment at any point of the booking experience, granting them the choice and transparency they look for when buying their flight tickets.

Amadeus offers MCP solutions that help merchants take control of currency conversion by allowing them to do international business in local currencies. Adding to the existing Currency Converter solutions, we launched our in-house Amadeus FX Box. This offers a personalized experience to travelers, as well as provides airlines with direct revenue opportunities for transactions that were previously handled by financial intermediaries. In August 2021 Philippine Airlines became the first carrier to deploy MCP through FX Box.



By working with Amadeus we've made it easier for international travelers to book our flights in currencies they understand. Enhancing the traveler's payment options with FX Box provides transparency and improves the experience of our travelers. Making travel simpler and easier through digital innovations is a key priority for PAL as we prepare to add more flights and welcome an increased number of international travelers on our nonstop flights within Asia, to North America, the UK and the Middle East.

Wilson H. Go, Chief Information Officer

Philippine Airlines

Supporting airlines to easily accept payments in a modern way at the airport is increasingly important to reducing traveler stress, increasing convenience and supporting ancillary revenue merchandising strategies. In March, Amadeus signed a transformational agreement to move 11 airports across Finland served by Finavia,

the national company responsible for maintaining and developing Finland's airport network, to our cloud solution for passenger processing, Amadeus Flow.[↪](#) As part of this agreement, 600 check-in desks will be equipped with our Amadeus Airport Pay solution so passengers can pay for additional services like upgrades, bags and meals quickly and easily with a variety of payment methods.



We're moving to an open cloud platform with Amadeus and that means we can roll out new innovations far more easily, without lengthy certification cycles or on-site IT projects. We're now well placed to add innovations like contactless payments quickly and easily without the need for Finavia to become a systems integrator.

Leyla Akgez-Laakso, Chief Information Officer

Finavia

In addition to helping travel companies provide a frictionless payment experience at multiple touchpoints across the trip, our Merchant Services business provides the powerful tools needed to understand and manage complex payments flows across the world.

Our Amadeus Xchange Payment Platform (XPP) continued to be rolled out to our customers, providing them with a single portal to better analyze, monitor and control their payment flows. XPP is transformational for how travel companies manage complex, multi-market payment set-ups. It has won Most Disruptive Payment Technology award at the Payments Awards and was shortlisted for Best Merchant Payments Innovation of the Year at the influential Merchant Payment Ecosystem Awards. Today, more than 90 airlines rely on Amadeus' XPP for gateway services like fraud management, card authorization and 3D Secure screening.



[Listen](#) to what Amazonas airline had to say about their experience with XPP.

[↪](#) See p. 46, "Amadeus Flow."

During 2021 we continued to support our customers with the ongoing complexities resulting from the COVID-19 pandemic. For example, our partnership with PayPal offers an alternative payment method to airlines using our platform. This means airlines can decide to offer PayPal to travelers through their websites across global markets with transaction references, helping to ease reconciliation.

Thanks to our Amadeus Agent Pay innovation, travelers can also choose to pay with PayPal at the airline's call center or even in face-to-face environments, with a secure payment link provided by the agent. But the onset of the pandemic brought new challenges, for which PayPal's service is uniquely suited. Thanks to changes made by PayPal, our airline customers were able to gain more time to settle disputes by issuing vouchers to travelers.

In 2021 we also consulted with our airline customers and led industry discussions on how payments innovation could reduce risk for travelers and encourage more bookings during the ongoing recovery from COVID-19. This resulted in our report and suggestion that airlines consider the potential of flexible payment options like [“pay when you fly.”](#) With this approach, airlines take a modest deposit at the time of booking and travelers pay the outstanding balance a couple of days before travel, without the need to enter into a credit agreement. This simple change greatly reduces risk for the traveler during periods of uncertainty because they're less exposed to the risk of bigger reimbursements, helping to stimulate demand for air travel.

Our customer service

Delivering exceptional service to all our customers and a state-of-the-art customer experience is a priority for us.

Our global Customer Care teams have experts in the different regions to offer customers round-the-clock support. They engage with customers regularly to troubleshoot any issues and regularly monitor the performance of our payment platform, advocating for the customers in all decisions.

These measures and our ongoing investment in customer service were clearly reflected in the 2021 Payment Survey, where the Airline Merchant Customer Care team achieved an average satisfaction score of 9 out of 10.

The service provided to our travel seller customers is equally driven by their satisfaction, listening to their feedback, and acting on it. Based on the results of our 2021 Voice of the Customer program, where we've seen a positive evolution in both response rates and Net Promoter Score, the team will keep focusing on the recognized benefits of the Amadeus B2B Wallet—such as the integration with GDS and multi-currency availability—and increasing its adaptability to customers' evolving ways of working.

Our ecosystems approach



Digitalization is not just about new technology. It fundamentally transforms how we collaborate, manage firms and organize value creation. Amadeus has taken the lead in this process. Their ecosystem initiatives will enable a new, sustainable future for travel, tourism and beyond.

” **Dr. Torsten Schmid,**

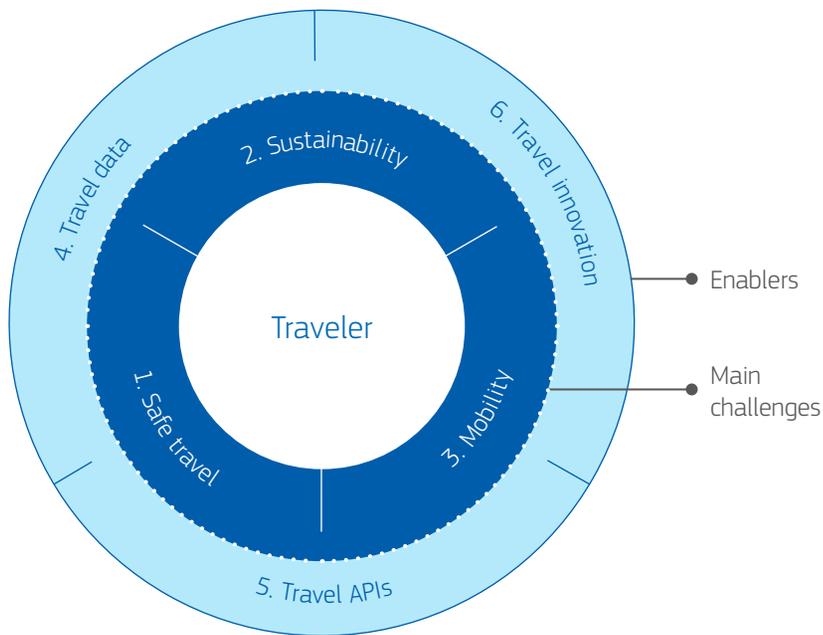
University of St. Gallen, Switzerland

From new health-centric travel processes, to joining up all modes of transport for a consistent experience, to reducing travel's carbon footprint, our industry faces huge and complex challenges. These issues can't be solved by any one company alone, and they impact the entire traveler journey, meaning a collaborative and open approach is required to address them.

These challenges demand a new approach, away from the siloed views of the past. We're calling this new paradigm “Ecosystem to Traveler” (E2T). Discovering, addressing and fulfilling core human needs is an ecosystem's ultimate goal, and an E2T approach recognizes the importance of consistently putting the needs of travelers front and center.

Our transversal Ecosystem unit has been designed with the E2T philosophy at its core, as we work in partnership with others on our shared goal of addressing the big industry challenges. In 2021 we experienced a breakthrough in accelerating our vision, with the creation of six global ecosystem initiatives focused on an open and collaborative approach to shape the future of travel.

I Global Ecosystem Initiatives



Our ecosystems approach is addressing the triple challenge of safe travel, sustainability and mobility

1. Safe travel



With the outbreak of COVID-19, Amadeus immediately kicked off a new way of working across the industry and with other relevant players like governments or IT suppliers in a very open and collaborative way. The new ecosystem is open to any partner and solution that helps to create a frictionless end-to-end journey for the traveler. Amadeus is an innovative and inspiring partner and we highly value our close cooperation.

” Carmen Duecker, CEO

BWH Hotel Group Central Europe GmbH

102-2 Activities, brands, products, and services



The digital transformation brings added security and convenience to travelers at all touchpoints along the customer journey by combining innovative digital solutions such as traveler IDs, contact-free check-in and biometrics. The Amadeus Safe Travel Ecosystem is an example of the kind of digital initiative that is aiding the recovery of inbound tourism to Germany.

” Petra Hedorfer, CEO

German National Tourist Board

Our Safe Travel Ecosystem is our global program to unite travel industry stakeholders in rebuilding traveler trust and confidence. Our vision is to build a safe and secure travel environment where every traveler has access to the technologies and information they need.

Aligned with the objectives above, the past year saw landmark partnerships forged with airline customers such as Lufthansa, Norwegian Air Shuttle and Air Europa, as well as Amadeus partners such as Star Alliance and IBM.

A key achievement has been the addition of new capabilities to Amadeus Traveler ID, our secure platform that connects health certification touchpoints with digital face recognition end-to-end. It integrates multiple stakeholders and brings efficiency and automation into airline processes, saving millions of hours of queuing of travelers. With 15 airlines in production in 2021, starting with the pilot airline Air Europa in April 2021 we managed to verify more than 4.6 million documents with Traveler ID for Safe Travel.

Delivering the capability for airlines and other providers to smoothly check health documentation in response to COVID-19 has involved Amadeus, airlines, airports, technology partners, testing labs and governments. Facilitating such industry-wide capabilities in a matter of months underlines the power of a collaborative ecosystem.

Looking forward, our mission is to continue working closely with the relevant authorities and industry partners to set standards, coordinate requirements and strengthen a safe travel ecosystem that can regain traveler trust and speed the recovery of travel.

See p. 137, 'Safe travel: working toward a sustainable travel recovery.'

See p. 72, 'Traveler ID.'

See p. 143, 'Participation in industry initiatives.'

2. Sustainability

We recognize that sustainability is a systemic issue for our industry. Only by taking a strategic and collaborative approach can we make the changes we need in our industry and beyond, as well as equipping travelers with the information they need to decide to choose more sustainable travel options.

Our Sustainability Ecosystem is our global initiative that has been created to encourage industry-wide progress as the industry works toward its net zero targets by 2050, securing the long-term growth and prosperity of our industry.↪ Our approach is three-fold: to transform our own business, support our customers and change our industry. Whether that's by ensuring we accelerate our progress toward becoming carbon neutral by 2030; enabling our customers to reduce their carbon footprint through the application of smart technologies; or working with industry bodies such as IATA, the United Nations and the International Civil Aviation Organization, we're committed to being at the forefront of change.

3. Mobility

Travelers now demand door-to-door mobility solutions that are both digitally accessible and fully personalized. Our Mobility Ecosystem is working to create a more digitalized mobility framework that ensures travelers can access more connected end-to-end experiences. This initiative is designed to offer a one-stop shop solution underpinned by an open platform to integrate, mix, expose, consume and service any relevant mobility offer facilitating the traveler's choice via any existing or emerging channel.

In short, people should be able to search, shop and book an entire journey no matter how many different modes of transport are involved. Travelers also demand a consistent level of service across this entire journey and our vision is to help facilitate the business and technology collaboration necessary to make this a reality.

In 2021 we blended air, high-speed rail and related mobility content, and that's just the start. Moving forward, we'll look at onboarding various mobility models—from intramodal, intermodal and multimodal travel, to Mobility-as-a-Service (MaaS) and urban mobility.

↪ See p. 94, "Strategy."

Ecosystems harness the power of data, APIs and innovation

4. Travel data

Historically the travel industry's data has been generally siloed, hard to access and unable to support the rapid innovation and collaboration that's needed to overcome global challenges like mobility and integrated journeys. Our Travel Data Ecosystem is working to transform the travel industry's use of data.

This includes supporting the development of travel's first "data mesh," or the transformation of currently siloed data so that it's standardized and accessible within an agreed governance framework, helping customers and third parties to combine different data types and maximize the value of travel data. This opens a whole new world of possibilities. By bringing data together from travel sellers, airlines, airports, rail companies, cars and hotels, we can apply machine learning at scale for more joined-up and automated travel experiences.

Our goal is to enable companies within the sector and beyond to benefit from insights gained from the data Amadeus holds. These insights support critical investment, risk, marketing, product and operational decision-making, the outcomes of which contribute to a better and more resilient industry.

In 2021 our open data vision, underpinned by our global strategic partnership with Microsoft ↪, saw the move to Microsoft Azure, which will revolutionize our software development cycles and data capabilities and is a cornerstone of future innovation.

↪ See p. 73, "Co-innovation with our business partners."

5. Travel APIs



Riskline cares for travelers through human verification of risk assessments and technology. Our partnership with Amadeus has given us the opportunity to bring this mission to a larger audience and to take a collaborative and innovative approach to keep travelers safe and informed. Amadeus ecosystems connect the world, uniting industry partners like ourselves together so we can all work towards a common goal of moving travel forward together, stronger and with as little friction as possible.

” Kennet Nordlien, CEO & Founder

Riskline

We recognize that innovation is born through collaboration. And only by making the industry's data assets openly available can we unleash the creativity of our partners. That's why our Travel API Ecosystem was formed—to open Amadeus' data assets, allowing anybody to connect to the richest information and data in the travel industry with the goal of accelerating innovation.

In particular, the Amadeus Tech Hub offers easily consumable APIs that provide everyone with the opportunity to access Amadeus or partner capabilities to innovate, as well as a wide range of well-documented APIs in areas like booking and search data, which developers can begin using in minutes. We're also building partnerships that make APIs and data from third parties available, turning the Tech Hub into a one-stop shop of travel APIs for developers.

6. Travel innovation

Our Travel Innovation Ecosystem has been working to extend an ecosystem of co-innovation both internally with Amadeus staff and externally with customers, partners and industry bodies.↪ The initiative encompasses five core areas:

- ▶ Amadeus Nexwave
- ▶ Amadeus Ventures
- ▶ Amadeus Tech Hub

↪ See p. 72, "Innovation for industry recovery and business growth."

- ▶ Partner Innovation
- ▶ Customer Co-Innovation

Innovation is the cornerstone of sustained economic growth and prosperity. It fosters competitive advantage for the industry and enables the flexibility to respond to change, discover new opportunities and pave the way for the evolution of a travel industry that puts the customer first.

Key Hospitality and transversal solutions highlights in 2021



Marriott International signed an agreement to deploy the Amadeus Central Reservations System (ACRS) to modernize Marriott's reservation infrastructure in the coming years. Marriott also contracted Amadeus Demand360 during the year.

THE Park Hotels, a pioneer in the concept of luxury boutique hotels in India, and a user of Amadeus' Guest Management Solutions, contracted Amadeus' iHotelier Central Reservations System.

Hoteis Real Portugal, with 13 properties located in Porto, Lisbon and the Algarve, contracted for Amadeus Sales and Event Management.

Wyndham Hotels & Resorts contracted Amadeus Demand360 to gain a broader view of market performance across its organization, which includes 22 brands across nearly 9,000 hotels in 95 countries.



Lore Group, with properties across Europe and the United States, signed for Amadeus Digital Media, while luxury chain Sun Siyam contracted our Guest Management Solutions.

Shanghai-based CTrip Corporate Travel of the Trip.com Group renewed in August a multi-year strategic partnership with Amadeus to gain access to extensive hospitality content.

We expanded our partnerships with the travel agencies VEI, IAG7 and Munckhof, to include Amadeus Value Hotels, for extended hotel content and Amadeus B2B Wallet for faster, automated reconciliation and payment processing.

We expanded our global collaboration with Mastercard for five years. Through this relationship, Amadeus will support innovative payment offerings across the travel industry through its B2B Wallet using the Mastercard Wholesale Program.

In August, Philippine Airlines became the first carrier to deploy multi-currency pricing through Amadeus' innovative FX Box platform.

Swire Properties Hotel Management, based in Hong Kong; Siyam World, an all-inclusive resort in Maldives; and Millennium New York, all signed for Amadeus Digital Media in 2021.

HEI Hotels, which owns and manages over 80 full-service, upper-upscale and luxury hotels and resorts throughout the United States, signed for Amadeus Demand360.

Langham Hospitality Group, a global hotel company with more than 30 properties located in major cities over four continents, contracted Amadeus Sales and Event Management and Amadeus Service Optimization.

Chapter 3



Technology and innovation

GRI 103-1, 103-2, 103-3 (R&D management)

Leadership in travel technology



The travel industry's reliance on technology is accelerating, with multiple channels and methods to interact with travelers and manage services. The ongoing challenges in 2021 have continued to drive technology advances with a major impact on travelers such as touchless passenger handling and a safe travel ecosystem that will allow a gradual and more resilient return to pre-pandemic travel volumes.↪ For example, most travel providers use sophisticated methods for merchandising their

↪ See p. 37, 'Air IT solutions'; p. 56, 'Our ecosystems approach.'

products, evolving toward fully personalized offers covering all parts of a trip. This customization requires an understanding of traveler behavior that is achieved through the analysis of large amounts of data. Artificial intelligence and advanced cloud-based data analytics are starting to play a critical role for providers and distributors to stay ahead in this very competitive industry.

As the wave of technology innovation continues to rise, we're observing a trend of consolidation together with a strong flow of new entrants. This includes both start-up companies that can quickly build niche functionalities, and major technology companies expanding their existing portfolio of solutions into travel.

In this dynamic context, Amadeus enjoys a privileged position. We offer a large portfolio of travel-dedicated applications to the travel industry actors globally. This means that our platforms handle a rich set of functionalities, huge amounts of information and

historical data reflecting all kinds of travel situations, with an up-to-date view on the trends in the industry.

We maintain and develop our technical leadership through a unique combination of capabilities:

- ▶ Our engineering organization has deep knowledge and field expertise of all aspects of travel. This knowledge is the basis for our solutions and services.
- ▶ Extremely high-performance transaction processing under stringent system availability, security and performance requirements. All our applications evolve while ensuring a continuous service to our customers. In 2021 we processed over 100,000 user transactions per second at peak time in our main data center.
- ▶ Rapid response time for all functionalities from any point of access in the world, serving hundreds of thousands of simultaneous users, and a greater number of travelers connecting to the websites of our customers. This network of travel professionals and consumers forms one of the largest web ecosystems worldwide in terms of traffic.
- ▶ The management of very large databases with full transactional integrity, an essential factor in travel reservations. In 2021 we continued the deployment of our applications over multiple data centers and public cloud.
- ▶ A true omnichannel approach, servicing all functionalities from a wide range of devices and interaction methods, such as agent desktops, websites, kiosks, cell phones, tablets and chatbots, as well as system-to-system integration via various application programming interfaces (APIs). Whatever the channel, our customers are all accessing common data records and processing them from a single set of community applications. Business rules enable our customers to carefully customize their services to meet traveler expectations.
- ▶ A combination of intellectual property rights (notably copyright, know-how, patents, trademarks and domain names) and appropriate intellectual property provisions in transactional agreements to protect our innovations. We also contribute to the development of open-source communities in the context of our partnerships with major IT vendors.

These capabilities and assets combined with very close collaboration between our engineering and commercial organizations are critical to maintain Amadeus' position at the forefront of the travel technology industry.

A current example of our leadership role in travel technology is how we're driving forward across the industry the International Air Transport Association (IATA)'s New Distribution Capability (NDC)—as an IT provider and aggregator. Amadeus is the very first system provider to be dually registered through IATA and its Airline Retailing Maturity (ARM) index as both an Airline System Provider and Seller System Provider. These designations are in recognition of our cutting-edge technology and leadership on NDC. They reflect our commitment to collaborating with our airline partners to push travel retailing capabilities, as well as our ability to help travel sellers sell and service NDC airline content. At Amadeus, we're pushing toward richer, more tailored and more relevant travel offers in our industry, which will help speed up its recovery from the pandemic.

We believe that NDC must focus first and foremost on end customers' needs. Travelers today want simplicity, transparency and personalization. NDC facilitates this by allowing improved access to personalized offers and services, in real time. A new world of inspiration and possibilities is being opened by NDC, based on increased recognition and understanding of each traveler when the offer is being made.

NDC isn't a revolution. It's an evolution that's already happening. It's a transformation involving all industry stakeholders. It's one of the biggest changes the industry has seen in a long time, and Amadeus is taking an active role here. We're delivering a fully end-to-end integration of content via NDC connectivity, with a focus on providing omnichannel servicing through highly scalable and high-performing solutions in line with the strategic objectives of both airlines and travel sellers.

NDC is the foundation for a broader industry vision toward other initiatives such as ONE Order, Dynamic Offers and One ID. We're committed to developing these standards and initiatives by working hand in hand with industry partners and our airline and travel seller customers to drive this change.

Amadeus research and thought leadership papers



Frictionless Travel Payment



The Future of Business Travel



Achieving Flexible Sales Through Merchandising



Rebuild Travel Digital Health Survey



Rebuilding Travel Together



Safer, Easier and Better



Rebuilding Hospitality



Accelerating the Virtual Road to Recovery



Suggestions for NDC Adoption at Scale



9 Questions Airport Leaders Should Consider When Getting Started with Biometrics



Pay When You Fly



VAT Recovery



Return to Travel



NDC 2021 and the Path to Industrialization



Towards a Frictionless Future for Travel Payments



Future-Proofing the Move to Order Management for Airlines



Building the Biometric Airport



Rebuild Travel Survey



MCP Report 2021



Journey to Cloud Planet



Rebuilding Business Travel



Business Travelers & Remote Workers

A business-oriented technology organization



In 2021 we consolidated our transversal organization, Amadeus Technology Platforms & Shared Capabilities (TEC), with a clear vision regarding the role of our Chief Technology Officer. This entity is responsible for providing the Platform-as-a-Service (PaaS) capabilities to the business domains so they can develop their applications.

The Amadeus engineering community is responsible for the development cycle, from design to delivery, as well as the operational coverage of our applications in production. Engineers' roles encompass product specification, software development, quality assurance, operational deployment/management and project management. During 2021 Amadeus reorganized the engineering community by embedding engineers directly in the business units to focus our priorities on what brings value to our customers, while building a formal community structure for engineers to continuously share best practices and knowledge.

The TEC organization combines core technology capabilities and provides secure and stable platforms upon which customer solutions are built. These platforms include the core airline reservation, pricing and shopping applications that are common across Amadeus' main business solutions (our Global Distribution System and our airline IT products). TEC also provides executive governance, quality management, development tools and Agile or traditional project methodologies across all businesses and customer segments.

These shared capabilities have the objective of enabling the engineering units to adapt to new realities, foster excellence and stay ahead of competition. They also help promote alignment, sharing and fast decision-making and execution, based on pragmatic technology choices. To reach these goals, we're implementing an open platform model, accelerating our move to the cloud and actively developing an effective engineering unit with strong technical leadership.

The TEC organization leads Amadeus' technical research, whose goal is to understand traveler behavior and create a smarter, seamless and more sustainable

travel experience, leveraging digital data, computation power and artificial intelligence (AI). To that aim, we have an active academic collaboration program with several PhDs (e.g. on topics like price prediction or understanding customers' online behavior for searching and booking), as well as internal exploration (e.g. hardware acceleration,¹ or APIs embedding AI in flight delay and travel recommendations processes).

Recruitment for Amadeus' engineering teams is oriented toward incorporating a wide range of expertise and international cultures. Staff mobility, short- or long-term, is encouraged between both business expertise domains and geographical locations. Since 2015, Amadeus has promoted the expert career path to recognize the value of deep business or technical knowledge. So far, more than 180 people have been appointed as experts and specialists in all our critical functional and technical domains. Amadeus also offers numerous internships to top international schools, with formal recognition of their contribution in the form of an annual intern contest.

Investing in our people leadership remains a strong focus, and at the same time we're developing our individual contributors' career paths. Whether individual contributor, expert or people manager, we've created bridges between the different jobs taking into consideration the roles within the Agile/SAFe context. To adapt to IT market practices and to value IT skills that are a must for our engineering community, we've extended our Principal Engineer Ladder up to director level, and we continually review and revise role descriptions especially in highly dynamic areas such as security and data management.

¹ Hardware acceleration. Using specific physical processor computation capabilities to execute a dedicated task faster than a regular computer could do.

Technology centers worldwide

The Amadeus engineering community is organized as a network of technology centers across the world. These are composed of groups of engineers able to autonomously develop and maintain our solutions across the globe. The engineers based in these centers are either part of cross-site teams working on globally used products or provide local specialization. The localization is based on either technical expertise or deep local market knowledge relevant to our customers.

In 2021 we've been consolidating our technology organization resource levels and locations. To focus on our customers, we're operating dedicated technology teams in the same locations as key customers, for example in our Dallas, Dubai, Tokyo, Seoul and Sydney sites.

All technology sites work closely together, and our projects and product development processes are increasingly distributed over several regions. Nice (France) and Bengaluru (India) are the largest technology centers, with single-site and global teams developing solutions for all our business units, as well as the TEC organization developing the core platforms and technology. We're always investigating new locations such as Istanbul (Turkey), Bogotá (Colombia) or Sofia (Bulgaria) for new opportunities to bring in great technology talent.

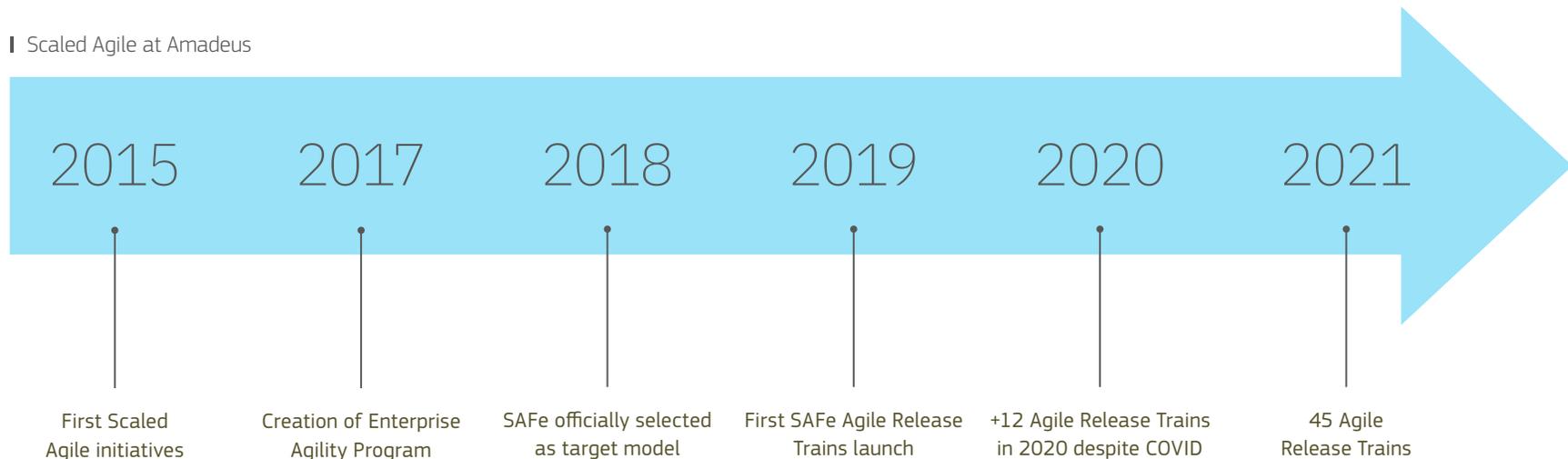
Our operations group based in Erding (Germany) develops the operational tools and deploys the infrastructure in our data centers. It also governs Amadeus' growing public cloud deployments. In addition, it has full responsibility for operational support based on a follow-the-sun model, with dedicated specialist support groups in Australia, Germany, India, the United Kingdom and the United States. This distribution over strategic locations in different time zones ensures that round-the-clock service is guaranteed with the fastest response to any customer incident. We will be progressively moving the applications from the Erding Data Center to the public cloud.

State-of-the-art development methodology

Early in 2014 we started introducing Agile methodology into our software development activities.

Agile is a set of practices and collaboration tools mapping all phases of software development in frequent iterations (sprints) managed by small teams, instead of sequencing the specifications, coding, testing and delivery with a large organization. This methodology is now widely used in modern IT companies.

I Scaled Agile at Amadeus



Cutting product development into smaller chunks gives better control over the progress of a project, and, very importantly, ensures the convergence between functional specifications and customer requirements. It's also instrumental in leveraging the high modularity of our systems, allowing the applications delivered to our customers to share and reuse functionalities and technical components.

Since 2018, we've been embracing the industry-standard SAFe methodology (Scaled Agile Framework). SAFe promotes collaboration and alignment for a very large number of Agile teams along the whole production cycle, from the product requirements stage to delivery. As it's a standard, it makes it easier to collaborate with customers and technology partners, and we even include customers directly in our Agile cycle. SAFe has been adopted as the global methodology for the whole Amadeus organization, including our commercial activities.

In 2021 we accelerated the SAFe transformation, reaching 45 Agile Release Trains (ARTs).² More than 3,500 people are now working in the SAFe framework across all the business domains.

There is a clear focus on the value development cycle, connecting commercial functions more efficiently to the whole software development cycle, aligning strategy to execution and maintaining extremely high levels of quality. For Amadeus, this is a very beneficial investment, as we manage a large volume of features and functional evolutions for a wide range of customers.

This year we also strengthened our implementation of Continuous Integration/Continuous Delivery (CI/CD). CI/CD is a set of best practices and tools used to automate and monitor the software production cycle, from programming to delivery. We've now extended this and adopted Lean Portfolio Management practices. These practices align strategy and execution by applying Lean and systems thinking approaches, improving arbitration of priorities and budget allocation. A large proportion of our applications are now covered by CI/CD, leading to noticeable improvements in the overall delivery time of projects.

The last element of the software development cycle, which is actual deployment to production and operational management, has been addressed since 2018 by promoting and maturing a DevOps approach. DevOps is both a type of organization

² As defined by Scaled Agile, Inc., Agile Release Trains align teams to a shared business and technology mission. Each is a virtual organization (typically 50–125 people) that plans, commits, develops and deploys together.

mixing development and operational skills, and a set of practices, procedures and tools covering application management in a production environment.

An effective cloud-based architecture

Cloud-based architectures encompass a set of design practices and concrete technical implementations all aiming to provide the highest levels of flexibility, reliability, resilience, scalability and performance for very large systems. They promote an explicit separation and abstraction of the application, platform and infrastructure layers.³

The core concepts are based on redundancy, isolation and operational monitoring of components in a distributed architecture, providing built-in scalability and intrinsic tolerance to system failure. Applications are containerized and can easily be deployed over any compliant infrastructure.

These features provide a powerful solution to resilience and capacity management. Applications need only be up and running in one physical location to be available, and there are few limitations to adding (or reducing) the number of machines in each location where applications are executed. For business applications, this translates into the ability to handle extremely large volumes of data and processing with quasi-continuous system availability.

Amadeus' cloud model is flexible enough to support different types of applications. Applications that weren't initially designed for cloud deployment can be migrated with some adaptations but may only benefit from a subset of the advantages in this set-up. Designing applications specifically for the cloud allows us to maximize their value, whether it's the optimization of infrastructure costs, scalability, agility to deploy evolutions quickly or the optimization of operational costs through powerful automation. The cloud native world, which is fostering small computing units called microservices, is also maximizing the reuse of components across applications.

As part of creating Amadeus' cloud native application design, we've made considerable progress in the use of an event-based communication model

³ These layers are often referred to as SaaS (Software-as-a-Service), PaaS (Platform-as-a-Service) and IaaS (Infrastructure-as-a-Service).

between application components, called Realtime Stream Processing. This means that on top of an application component being able to explicitly call another to execute a use case, the application is also equipped with a nervous system of events, and any application component can react to any event in the whole platform. This enables powerful plug-and-play capabilities and offers great flexibility to implement service evolutions.

We've continued to increase the capability of our internal cloud platform and to deploy applications on it. This enables seamless integration of new cloud native applications with applications hosted on our traditional platform. The cloud native platform also simplifies the evolution of our traditional applications into a hybrid model to allow them to migrate smoothly to modern designs. The cloud native design also enables us to integrate new managed services available directly in the public cloud from the cloud providers and other third parties.

In 2021 Amadeus entered into a partnership with Microsoft. At the core of this relationship is Microsoft Azure, the primary cloud hosting provider for Amadeus systems. Building on this agreement, Amadeus has launched a major cross-company program with the goal of moving many of our core customer-facing systems into Azure over the next few years.

This year we incorporated the latest standards, technology and recommendations into our public cloud security design. We've also further automated our systems based on infrastructure as code and application blueprints. These improvements have established the foundation for large-scale migration to the public cloud, applying different models that ensure critical services are highly resilient and continue to run under any circumstance.

To mention a few specific achievements this year:

- ▶ We conducted a production test real-world run of our Altéa Departure Control – Flight Management system running Azure as a proof of concept for the first wave of full Altéa application migrations to come.
- ▶ We migrated our Airport Common Use Service (ACUS) regional systems in the United States and Asia to Azure.
- ▶ We migrated our first Airline customer using our Navitaire New Skies passenger service system into Azure in Europe.

We may not re-engineer all our applications to be cloud native as we relocate them to the public cloud over the next few years. However, our technical strategy is to ensure that any new project—or any new feature developed for an existing application—can be done in a cloud native way.

With our investment in cloud-based architectures, Amadeus will be in the best position to propose advanced solutions to the entire travel industry and even beyond from a common core of services and data platforms.

Distributed operations and data centers

Medium-low impact



As Amadeus starts its cloud migration journey, data center operations continue to be a critical element of our strategy. Beyond cutting-edge functionality and features, capabilities such as continuous availability, sub-second response times and flexibility of deployment are becoming mission-critical business features for our customers. Response time is seen as a critical factor to adoption and conversion. Our customers need advanced security for safeguarding travelers' personal and financial data, to build trust with their users and partners.

We deliver our services to customers from many locations—a combination of our private Amadeus Data Center, private clouds in remote locations and public clouds such as Microsoft Azure, Amazon Web Services, Google Compute Engine and Salesforce.

This distributed operations approach delivers native redundancy of systems and dynamic capacity with on-demand models, supporting our commitment to high performance and, when applicable, regulatory constraints by moving our systems close to the customer location or in a designated country.

In 2021 Amadeus continued to invest in the Amadeus Data Center as a key asset of this strategy. It's one of the largest data processing centers dedicated to the travel industry. It's designed with embedded redundancy, using a concept of independent fire cells,⁴ and has the capacity to host a significant number of servers, supporting

one of the highest rates of transactions in the industry. As a key element of Amadeus' strategy, we always maintain full oversight of all operations, irrespective of the nature and location of the physical server infrastructure. This is crucial for Amadeus because of our end-to-end responsibility vis-à-vis our customers. It also ensures we can execute required changes to our technical or operational frameworks without external dependencies or constraints.

Green IT and energy efficiency



Amadeus has always been focused on the energy efficiency of all its operations.↪

In 2021 Amadeus continued to look beyond this and into innovative approaches to computing in order to reduce the power needed to deliver our services. These investigations included using AI techniques to reduce the processing and energy required to search for suitable flights for a customer. Migrating to RISC-based processors⁵ for compute-intensive applications, this can provide a 40% reduction in resources and energy. We plan to expand this kind of initiatives under our green software engineering program.

For the Amadeus Data Center, we received Energy-Efficient Enterprise certification from TÜV SÜD for the first time in 2010 (the certification was renewed in 2012, 2015, 2018 and 2021 and is valid until December 2024) for its power supply, IT equipment and cooling and climate control processes, as well as its procurement, installation and de-installation procedures.

We also extended our Amadeus Data Center certification to EN 50600, the EU standard for data centers that is even broader in scope and more difficult to achieve.

⁴ Fire cells are sections of the Data Center building that are fully isolated for electrical power, cooling, networking and cabling. This is like having multiple data centers in one big data center.

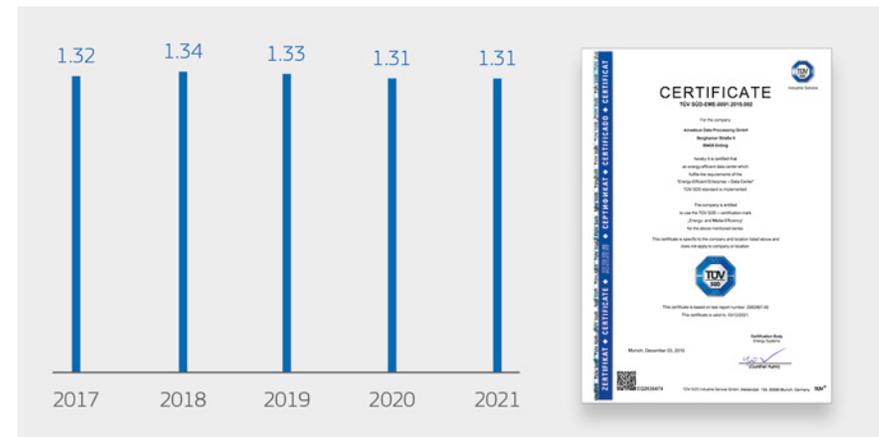
↪ See p. 94, "Environmental efficiency of Amadeus operations."

⁵ A type of microprocessor that executes computing tasks with the simplest instructions in the shortest amount of time possible.

In 2019 we achieved carbon neutrality at the Amadeus Data Center thanks to the use of Guarantees of Origin of renewable energy, which we kept using in 2021. This initiative has had a large positive impact on overall company emissions.↪

Our ongoing investments in the Amadeus Data Center have also resulted in the continued reduction of the annual Power Usage Effectiveness (PUE)⁶ ratio from 1.49 in 2009 (when this value first began to be closely monitored) to 1.31 in 2021. According to the latest annual Uptime Institute⁷ survey, the average PUE ratio for a data center in 2020 was 1.57.

Data Center Power Usage Effectiveness and energy efficiency certification



↪ See p. 96, "Data processing and software development."

⁶ A common metric used to measure the energy efficiency of data centers. The closer to 1 the PUE, the more efficient the data center is.

⁷ The *Uptime Institute Journal* was founded in 2013 to promote the thought leadership, innovation and proven methodologies of various disciplines and professions within the global data center industry.



Security



Security is at the heart of Amadeus' systems in terms of application design and operations. Under the supervision of our Chief Information Security Officer organization, we continuously keep up to date with advanced security standards and IT industry best practices, securing our data, our products and our people, responding to incidents and achieving security compliance (e.g. ISO 27001 certification or SSAE 16 compliance).

We've been a member of the Aviation Information Sharing and Analysis Center (A-ISAC) since 2017, testament to our continued efforts to increase our customers' trust and to implement best practices.

Amadeus has taken the necessary steps to comply with the General Data Protection Regulation (GDPR) introduced in May 2018 by the European Union regarding data privacy. We continually assess the compliance of all our systems and processes pertaining to personal private information with the support of specialized consulting firms. Any areas of improvement that are identified are actively addressed.

In December 2020 Amadeus renewed its certification for the Payment Card Industry Data Security Standard (PCI DSS) Level 1, the highest level for card processors. This standard pertains to the management of credit card payments with the highest measures of data protection.

Our ISO 27001 certification, the most internationally recognized security certification related to the management of information security, was renewed in September 2021.

From a global operations and technology perspective, Amadeus relies on an independent Security Operations Center (SOC) to monitor the security status of the services we provide to customers 24/7. This service also helps us understand emerging technical threats and invest in the most appropriate technology to mitigate new risks. The SOC covers the application development process, the Data Center infrastructure, employees' office activities and cloud services.

All Amadeus staff, regardless of function and location, receive continuous training on security and data confidentiality best practices. For technology divisions, this is complemented by dedicated sessions on application security, based on state-of-the-art practices known as secure development lifecycle (SDL) and on defense-in-depth⁸ for the protection of IT infrastructure.

With the adoption of new and disruptive technologies such as social networks, mobile, big data, cloud deployment and connected objects, Amadeus must protect its systems and customers from new types of vulnerabilities, cyberattacks and fraud. In 2021 we continued to deploy new tools and services to enhance our proactive capabilities for the detection of potential incidents and our ability to respond to new fraud practices as they emerge.

From open API to a platform-enabled strategy

Amadeus was the first Global Distribution System to introduce a structured API back in 2000 that later evolved to XML and web services. Today we expose more than 1,000 services out of our central applications, not counting the APIs exposed for the web front-ends and mobile applications. Our APIs power a large ecosystem of travel actors and are becoming a value-adding business in themselves, enhancing Amadeus' position as the reference source for travel services.

Amadeus' open API concept objective is to promote the business dimension of our APIs. Opening Amadeus functionality for collaboration with third-party services facilitates the creation of new generations of solutions. We can enhance our own services, leveraging our past investments, and customers can complement our services with their own custom development.

Amadeus for Developers is an open API program for start-ups, developers and non-travel businesses that enables users to directly access essential functionalities via simple online sign-up and freemium pricing.

In 2021 the program added seven new APIs to the Self-Service catalog, including two APIs from third-party partners like Riskline. This expanded open API catalog drove a

⁸ An information assurance approach that provides multiple layers of security.

large increase in visitors to the Amadeus developer portal and resulted in thousands of new developer accounts.

Amadeus goes beyond the open API model with our platform strategy, for example the [Amadeus Airline Platform](#).[↪] The concept of platforms is general to the industry and practiced by major players such as Adobe and Salesforce.

In 2020 we set out our vision and plan to extend this platform to a Platform-as-a-Service (PaaS), which we started to build in 2021 leveraging the characteristics of cloud environments (see previous section "An effective cloud-based architecture"). Our Technology Hub is the portal to this platform, giving access to a catalog of data, machine learning capabilities, microservices and more, where all travel players (travel providers and travel sellers), as well as third-party partners, can autonomously access Amadeus' functionality to build their own independent new services or complement Amadeus services. This is possible thanks to the characteristics of our open platform:

- ▶ **Open development**, enabling internal and external developers to create extensions and plugins for existing applications and to create new applications for integration with existing ones. This applies to both front-end (user interface) and back-end (microservice) developments using either traditional programming languages or advanced no/low-code logics.⁹
- ▶ **Open data**, enabling data sharing between Amadeus applications and external applications speaking the same "language" and allowing Amadeus data to be complemented with customer or partner data.
- ▶ **Open integration**, providing native integration with external platforms (Salesforce, Adobe, etc.), pooling Amadeus and partner functionalities for a seamless experience.

The personalized retargeting solution (allowing for the display of ads tailored to the user's needs based on their online behavior and purchase intentions) that we created with Adobe in 2021 was built leveraging these capabilities. The solution provides

[↪] See p. 38, "Amadeus Airline Platform."

⁹ A low-code development platform (LCDP) uses a graphical user interface instead of traditional hand-coded computer programming. This means faster delivery of apps as well as a wider range of contributors, not just skilled coders.

platform-to-platform connectors to exchange data between airline systems and the Adobe Experience Platform so the airline can send the right message at the right time to the end consumer.

Advanced data analytics and business intelligence



Our customers' expectations regarding offers and sales systems are very high. They don't want raw data, but insightful information on behaviors and patterns that can help them create the right offer to the right customers and boost sales conversion. They want to turn data into knowledge, and then use it to trigger actions in real time. This is what we call data-enriched transactions.

Amadeus has long been building data management applications offering our customers a comprehensive view of their travelers and the travel business environment. This entails capturing and analyzing a large amount of information about the traveler and the context in which they interact with the system—before, during and after a trip. Such massive amounts of information, often referred to as “big data,” must be stored, mined and transformed into meaningful parameters that can later be injected into real-time transactions.

To support this growing need for data-driven applications, we're moving to a cloud-based big data platform. We're taking this opportunity to embrace a new paradigm called “data mesh,” based on the following principles:

- ▶ Each domain should consider the data it produces as a product. This is a shift left on the way to exposing data to internal and external consumers, as producers are now in charge of making their data ready to use.
- ▶ Domain-driven data architecture: each domain is a node in the data mesh, serves other domains with its data and pulls required data from other domains.
- ▶ Each domain should follow the Open Data principle. To ensure interoperability between systems, we need to speak the same language, called Open Data. Each data domain is in charge of defining the Open Data for the data sets it's in

charge of. For instance, an open booking is the generic representation of a booking whatever the channel, Global Distribution System, etc. that issued this booking.

These principles create a trusted data exchange network. Combining this with the data processing and AI capabilities available today will create plenty of opportunities for innovation and AI democratization, improving the range of our product offering. Our data mesh will form the foundation for many new data initiatives for Amadeus, our partners and customers, and will maximize the value of our data.

Our framework is used for all functional domains and customer types, and internally we use the data framework to capture and monitor the large volumes of technical data coming from the operation of our systems.

Our global data platform is capable of handling exceptionally large volumes of data, enabling predictive analytics, even on unstructured data. The results of these analyses are fed into our transactional applications to create data-driven services.

Our framework includes powerful data analytics techniques, some in real time that are based on supervised and unsupervised machine learning, including deep learning algorithms coming from the AI domain. Current examples of the direct application of AI techniques include:

- ▶ Flight management to improve fuel load and optimize cargo
- ▶ Schedule recovery to rebook passengers affected by delayed or canceled flights
- ▶ Shopping and low-fare search products to minimize central processing unit (CPU) utilization
- ▶ Ancillaries dynamic pricing to maximize the revenue generated from ancillary services sales

Beyond the improvement of operational efficiency or improved revenue generation, these applications of machine learning help Amadeus and our customers become more energy-efficient and environmentally friendly.↩

↩ See p. 96, “Environmental sustainability value proposition.”

We believe that our global approach to data and analytics is the basis for a positive feedback loop: the more data, the more relevant the pattern analysis, in turn feeding back transactions with contextual information and generating more data.

Innovation for industry recovery and business growth



To support the industry in its recovery from the pandemic, to provide our customers with the best solutions, to offer travelers the best experience and to identify new areas of growth, Amadeus continues to put a strong focus on innovation, adapting our organization, building on our partnerships and leveraging our technological capabilities.

To reduce uncertainty and improve our competitiveness, it's more important than ever to follow a structured incubation process and apply best practices in innovation management.

We need to be data-driven, make decisions based on facts, build light Minimum Viable Products (MVPs) that can be put in the hands of real users as quickly as possible and release product improvements rapidly through short cycles based on immediate market learning.

The objective is to ensure we design solutions that solve a real need for our customers and increase our likelihood of success. These principles are applied in our internal innovation programs as well as with our business partners in strategic alliances.

Nexwave, the Amadeus business incubator focusing on traveler experience

Rebuilding traveler confidence and trust in these challenging times requires us all to think imaginatively about how the industry needs to renew and recover. The mission of [Nexwave](#), the Amadeus business incubator, is to find, trial and manage the next generation—or next wave—of Amadeus businesses that we believe have the potential to transform the traveler experience.

In 2021 we accelerated the delivery of our four innovation projects:

1. **Traveler Servicing Solutions:** A digital companion that understands the context of the traveler, and is able to proactively push relevant information and services at the right time through the right channel. We successfully tested it with our B2C solution [Feasy](#), and we've been using what we learned to enrich our B2C flagship product CheckMyTrip. In 2021 we've been offering this AI capability to our customers, as a service called Amadeus Hey! They can benefit from our capabilities to enrich their own channels and offer this push and recommendation mechanism to their travelers via our APIs.
2. **Traveler ID:** A platform enabling travel companies to digitalize and automate the verification of traveler identity and documentation across the journey. Due to airlines' urgent need to streamline passenger processing and restore self-service check-in, we proposed a solution to digitalize the verification of COVID-19 documentation. Amadeus Traveler ID is fully integrated into airlines' own channels and with the departure control system that enables the automation. With 15 airlines in production in 2021 we managed to verify more than 4.6 million documents.
3. **Amadeus Discover:** A B2B platform to aggregate and distribute tour and activity providers through new distribution channels. In 2021 we joined forces with the major French public investment bank Banque des Territoires and the data exchange platform Dawex to create Alentour, which distributes Amadeus Discover in France.
4. **Traveler Centric Platform:** This platform, designed together with Microsoft, aims to serve any actor in the travel industry who wants to leverage data and insights to better understand travelers and provide contextualized options. In 2021 we observed good traction with hotels seeing the benefits of this platform to better serve their loyal guests with personalized services.

Last but not least, when it comes to breaking the silos, we decided to “walk the talk” and created the Travel Innovation Club with other industry players and partners. Together we decided to identify new innovation areas across our respective verticals. In 2021 the club welcomed 20 members.

↪ [See p. 57, "Safe travel."](#)

Co-innovation with our business partners

Microsoft

Our partnership with Microsoft isn't just about accelerating our journey to the cloud. It's also about unleashing the next wave of innovation in the travel industry. We want our customers and partners to be able to develop truly engaging solutions on top of our technology.

We're co-developing initiatives across all Amadeus business units in areas like:

- ▶ Making data available and easily usable to all players. Adding Microsoft Azure AI capabilities, we're continuing our work in perfecting a data mesh where different businesses can access each other's data to maximize its value.
- ▶ Making search a personal experience. We're exploring the potential of enhancing search flexibility, in terms of how the traveler searches, what is included within their search parameters and what is delivered to them.
- ▶ Reimagining the corporate travel experience. Amadeus' move to Azure enables business travel and expense to be connected into the day-to-day digital workplace, better supporting new ways of working.

IBM

IBM and Amadeus have entered a strategic alliance with the objective of combining our deep travel industry expertise with the technical competencies and vertical industry experience of IBM to connect the travel and transportation ecosystem.

The first result of the alliance is the integration of the IBM Digital Health Pass into our Traveler ID health credentials verification solution.

Accenture

Building on our long-standing collaboration with Accenture, which had a focus on end-to-end airline solutions, both companies have agreed to broaden this collaboration to the entire travel sector, and to elevate it to the level of a strategic alliance.

Under the new set-up, we'll be combining Accenture's expertise, global footprint and portfolio of services and solutions with Amadeus' offerings, to support our customers in their digital transformation.

Amadeus Ventures and Startup Universe

Amadeus Ventures is our corporate investment program established in 2014 to identify potential start-ups standing at the intersection of travel and technology. It has two main objectives: to establish a pipeline of business opportunities that can contribute to the future growth of Amadeus, and to support the ecosystem development of Amadeus' business units.

Investment criteria of the program include both financial considerations and the possibilities of strategic collaborations where Amadeus as a market-leading global technology company can add value as a minority shareholder. The program not only tracks venture capital financial performance, but also actively facilitates commercial collaborations and co-marketing among our customers and Amadeus.

Our Ventures team regularly talks to more than 300 start-ups, and 17 investments have been made under the program in the United States, Israel and Europe, in areas such as travel data exchanges, VAT refund and identity management.

To further foster visibility and interactions between established players and start-ups, [Amadeus Startup Universe](#) was established in 2018 as a catalogue featuring start-ups and scale-ups worth promoting in our industry. Through increased exposure to new ideas from start-ups, we seek to contribute to the innovation effort of our industry by exploring emerging technology through field testing in real situations together with our customers in all travel verticals.

Our relationship with the academic world

Amadeus maintains close relationships with the academic world through formal partnerships with universities and research institutes (e.g. INRIA, EURECOM, Université Côte d'Azur, MIT and ETH Zürich). This cooperation is leveraged for research projects including doctorates and postdoctorates. In 2019 our main site in Nice became a founding partner of 3IA Côte d'Azur, one of the four Interdisciplinary Institutes of Artificial Intelligence that were created in France in 2019. Amadeus is also a founding member of the Industrial Council of Artificial Intelligence Research

(ICAIR), where various companies and AI research labs exchange views on common issues related to the use of AI in their respective industries.

Leveraging technology to power innovation

Beyond internal expertise and partnering with industry actors and universities, innovation requires a proper platform and development environment, to access data for fueling new use cases and to combine functionalities for fast prototyping internally and with our partners.

Our technology strategy and the characteristics of our open platform accessible through our Technology Hub answer this need, making it possible to share a catalog of open data and microservices across internal applications and with third parties, exposed via our open API and enriched with machine learning capabilities. This open development environment allows internal or external developers to easily develop extensions or plugins for existing applications.



Chapter 4



Amadeus people and culture

GRI 103-1, 103-2, 103-3 (Talent attraction & retention)

Amadeus' people are our greatest competitive advantage, and they're critical to the success of our strategy. The role of our People, Culture, Communications & Brand (PCCB) team is to make sure that we recruit and retain the best talent so we can deliver the best to our customers.

Our goal is to build an inclusive culture in which diversity is valued. We provide an environment that appreciates each individual and gives them the best possible opportunity to have a productive, stimulating and enjoyable career.

Our PCCB team provides a wide variety of services and processes to make this possible, from imaginative rewards and benefits, to tailored learning and development programs, to international mobility opportunities.

They also manage our brand, corporate marketing and communications.

Our brand comes alive in all we do, not just through our external website and interactions but also through our progressive office design. Our office buildings have a collaborative space design to facilitate the dynamic deployment of teams, both on site and across sites. A key element of our brand reputation is how we communicate externally and internally. Our social media channels enjoy one of the largest followings in the industry, and we keep employees informed of what's happening in the company through relevant storytelling and regular live webcasts with management.

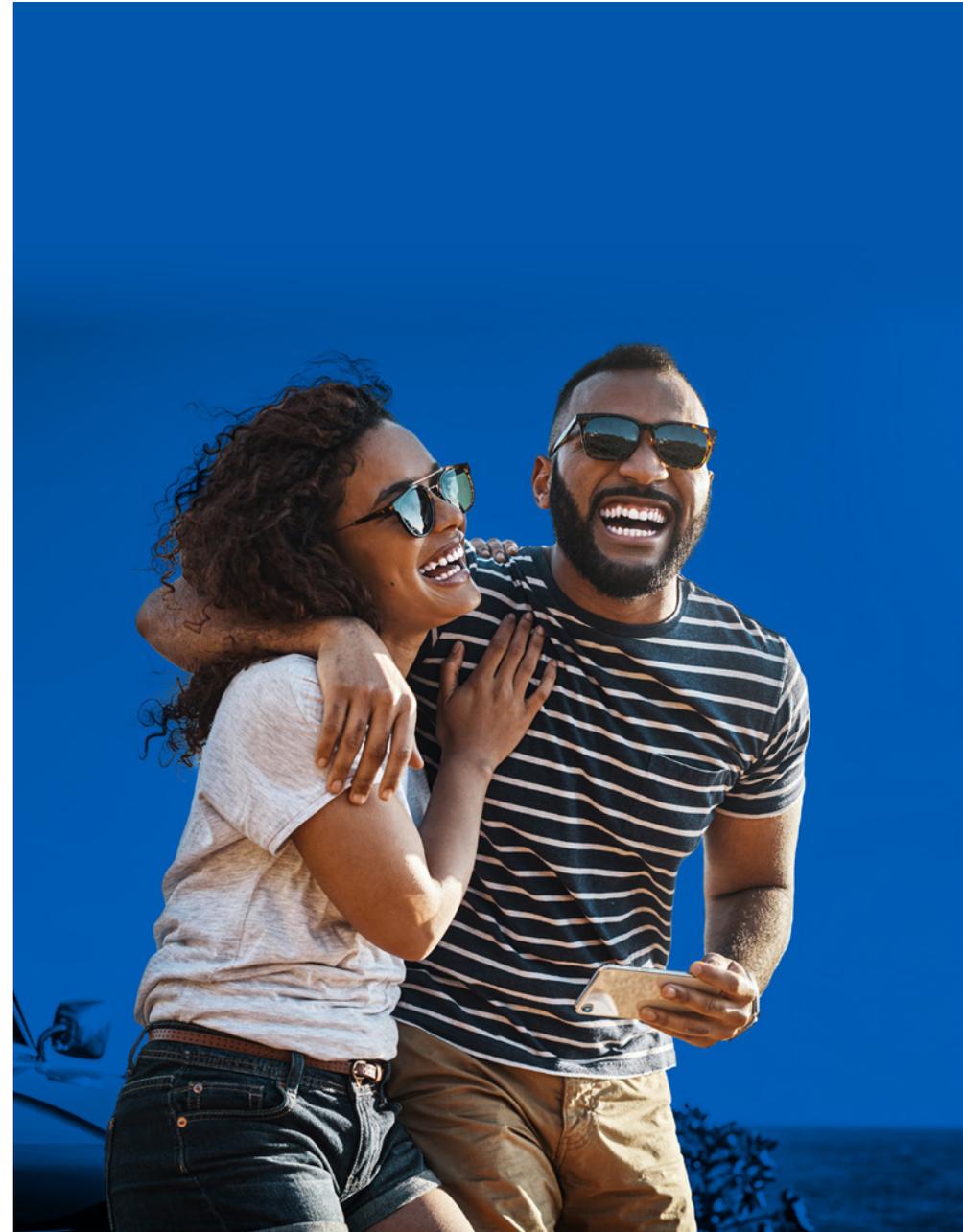
Workforce by type of contract (FTEs)*

	2019	2020	2021
Permanent staff	17,263	16,135	15,621
External manpower	1,862	527	678
Temporary staff	317	117	134
Total	19,442	16,779	16,433

Workforce by region (FTEs)*

	2019	2020	2021
Europe	11,035	9,490	8,854
Asia-Pacific	4,297	4,021	4,344
North America	3,137	2,473	2,266
South America	529	497	621
Middle East and Africa	444	298	348
Total	19,442	16,779	16,433

* Scope: All fully owned Amadeus companies. Figures in full-time equivalents (FTEs) as of December 31. FTE is the headcount converted to a full-time basis, e.g. an employee working part-time covering 80% of a full-time schedule is considered 0.8 FTE.



Talent



Talent and performance management

Our people and culture remain one of our fundamental pillars, and one on which we rely to endure turbulent times and ensure our business continuity.

In 2021 we focused our efforts on evolving some of our key people processes. One area we looked at very closely is how we approach, assess and manage employee performance.

We implemented an enhanced performance management process that's simple, more transparent and fully flexible for our employees. Constructive feedback is one powerful tool we're leveraging through our IT systems, and to better equip our employees we designed a dedicated feedback learning path with curated content from expert providers.

In 2021 we also continued with our good talent practices, driving formal conversations with our leaders to assess the talent map of their organizations.

Amadeus' scores on Glassdoor in 2021



Talent attraction and recruitment

Our Talent Acquisition (TA) team is crucial to the success of our recruitment strategy and our business sustainability. To be successful, we continue to focus our efforts across the following three strategic pillars.

Strengthening our employer brand

To increase the reach and visibility of our employer brand, we launched a global campaign across our corporate social media channels to engage with talent, provide insight into life at Amadeus and promote exciting opportunities with us. All global campaigns featured the tagline "Be part of a better journey for everyone" to highlight the connection between the impact of our work and Amadeus' mission.

Broadening our talent pools

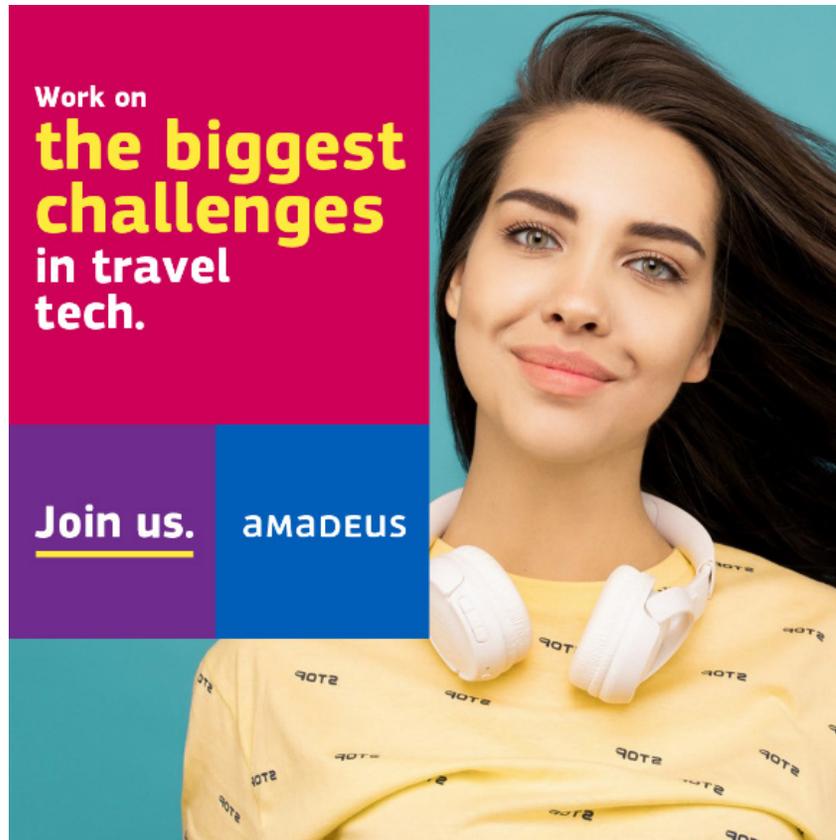
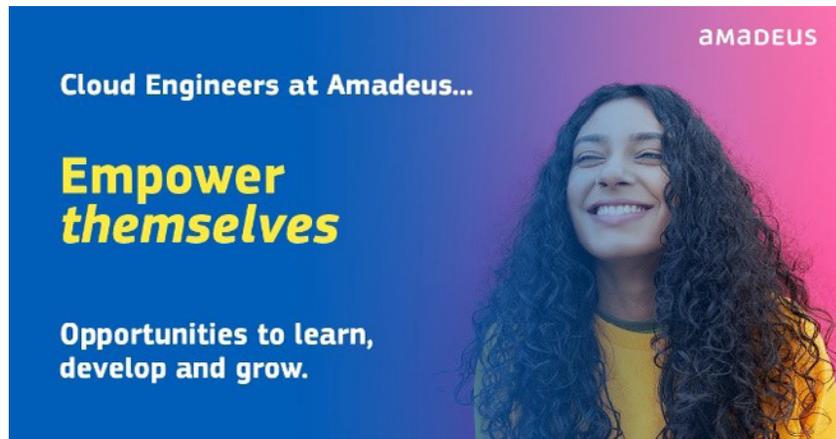
We're using market-leading recruitment tools to access and reach diverse talent pools. This means we're able to run campaigns targeted at key profiles required for business success, as well as provide a personalized experience for candidates.

Enhancing our candidates' experience

Virtual recruitment is here to stay, but we recognize that the human touch is still vital in our recruitment process. We've adapted our competency-based interview training for virtual delivery, adapting to the new situations hiring managers, recruiters and candidates can expect.

With our communities we continue to develop new ideas and ways of working to ensure candidates have a positive experience with us.





We've continued upskilling our TA advisers and hiring managers (the Amadeus Recruitment Academy), ensuring they have access to the tools, frameworks and best practices of our knowledge community. This has proved an important factor in adapting to the new reality.

During 2021 our communities of experts played a key role in adopting global initiatives and creating end-to-end virtual recruitment processes while providing the best possible candidate experience.

Learning and development

Mentoring

During 2021 mentoring continued to be one of our most successful tools for developing employees. We delivered specific training sessions to upskill the participating mentors

We also continued to offer a variety of functional, local and regional mentoring programs across Amadeus covering different profiles and development needs—from technical to leadership roles, from junior to senior profiles.

Leadership promotion—processes and development

During 2021 we worked on improving our promotion processes. A systematic approach along with standard methodology has increased the quality of feedback given to candidates, in turn helping them speed up their development.

General learning and development opportunities

Amadeus' employees benefit from over 2,500 blended learning opportunities, including face-to-face, virtual and online training sessions on soft and hard skills. Additionally, they have access to a large number of courses through external learning platforms, such as LinkedIn Learning, Pluralsight, Linux Academy and Microsoft's Enterprise Skills Initiative. Development programs for employees and managers at all levels are offered across the entire organization, spanning all businesses and geographical locations. Some highlights include:

- ▶ An effortless learning experience
Our aim is to provide an easy-to-access and always-on learning environment that

offers a high variety of relevant learning opportunities. That's why we rolled out several online learning platforms such as LinkedIn Learning, Pluralsight and Linux Academy. All these user-friendly learning platforms offer state-of-the-art courses to enhance the development of specific skills. The Global Learning Hub on our intranet also provides access to learning offerings from all parts of the business.

- ▶ **Functional learning pages on our intranet**
The SAFe and the Cloud learning hubs offer a wide variety of learning activities to further develop the skills and enhance the capabilities of our employees in alignment with Amadeus' strategic priorities.
- ▶ **Customized learning programs for business units**
Customized learning programs such as SAIL, targeted at commercial teams with the goal of upskilling them by improving their IT competencies, the CUS Academy and the CIT Campus, targeted at our people in Travel Channels and Corporate IT Customer Service, were created in alignment with Amadeus' business goals and organizational leadership and were integrated into the development planning and career development programs of the company's respective business units.
- ▶ **Leadership development programs and learning paths**
Our managers play a key role in enabling our teams to drive the future of travel. Our aim is to equip them with the skills and capabilities needed to be successful in the future workplace. We therefore developed six leadership and management learning paths for managers and senior managers in LinkedIn Learning and are currently in the process of reviewing and redesigning the leadership development programs for our assistant directors and directors.
- ▶ **Internal trainers community**
Our internal trainers play a key role in developing the knowledge and skills of our employees and in meeting Amadeus' current and future business objectives. This year we established a dedicated space on our internal communications platform, Neo, with processes, recommendations, tips and tricks, targeted learning offerings, a learning path in LinkedIn Learning and a recognition process.
- ▶ **Knowledge management role in Success Factors**
This newly created role enables knowledge managers in the business units to train our employees in Amadeus business understanding or in Amadeus products and solutions using our corporate learning management system (Success Factors).

Diversity and inclusion



Amadeus' culture promotes respect, fairness, equal opportunity and dignity for everybody, and allows our people to be the best version of themselves. We accept and respect differences between and within cultures and acknowledge and endorse differences based on gender, age, race, ethnicity, beliefs, sexual orientation and disabilities, as well as diversity of thoughts and experiences. Some of the achievements in 2021 include:

- ▶ Talent acquisition practices, promotion processes and assessment tools are reviewed to ensure that they provide equal opportunities for persons from all backgrounds.
- ▶ Global rollout of inclusion e-learning course around the world, and development of diversity and inclusion learning paths consisting of multiple training courses have been rolled out in several regions.
- ▶ Improved communication to employees on diversity and inclusion topics via the creation of local and regional pages on the company intranet.
- ▶ Amadeus was once again recognized on the *Financial Times* Diversity Leaders list in 2021.

Women

The Amadeus Women Network (AWN) has grown this year, with a new group launching to cover offices in German-speaking countries. The different AWN chapters around the world have also run mentoring programs and held networking activities with company leadership and with external leaders.

The AWN also organized a global online event to celebrate Women's Day, which included a debate with women leaders from across the industry on the impact of the pandemic on women in the workplace.

Amadeus also helped promote professional development for girls and young women by visiting schools and providing volunteer mentors for girls through programs like

Capital Filles in France or by participating in New Horizons South Florida's Women in Tech program.

LGBT+

New chapters of Amadeus Proud, our employee resource group for LGBT+ employees and allies, were launched in Nice and Bengaluru.

These new chapters were welcomed to the community during the global online Pride event in June, which highlighted the importance of an inclusive culture. Other activities throughout the year included a panel on microaggressions, various networking opportunities and an awareness event on World AIDS Day.

Amadeus, a founding member, was elected to continue on the Board of REDI (Red Empresarial por la Diversidad e Inclusión LGBTI), which promotes best practices in the workplace for LGBTI diversity and inclusion.

People with disabilities

Amadeus has participated in school outreach programs to mentor students with disabilities and promote employment. We've also built internal awareness of the importance of inclusion through awareness sessions, coaching and our annual internal Digital Accessibility Forum to promote inclusive and accessible software development.

Amadeus speakers Denis Lacroix and Magali Viano gave a keynote address at the 10th "Dialogues de l'inclusion et de la RSE" hosted by the French Ministry of the Economy, Finance and Recovery. Amadeus teams also participated in [Defi Sport Entreprises Handi-Valides](#) and [Sport2Job Marseille](#) to support inclusion and employment of people with disabilities.

Engaging our people

Engagement

During 2021 we ran two waves of our Engagement Survey, a tool that helps us assess the opinion of our people to ensure Amadeus continues to be a great place to work. The second of them was launched in December, with the following results:

- ▶ Participation was strong, with 74% of our people taking the time to respond to the survey.
- ▶ The engagement and satisfaction scores were both 4.16 (out of a maximum of 5), which shows that our people are deeply connected with the company and with each other.
- ▶ The Net Promoter Score (NPS) was +27, considered to be good.

Results of engagement survey (second wave 2021)



Amadeus Live

2018 saw our first company-wide broadcast, Amadeus Live. The purpose of this broadcast is to strengthen our people's sense of belonging and connect every employee with the strategy of the company.

The format allows us to align the entire company on strategic topics in a single day, across the globe. The topics vary from business to people to culture and anything in between. According to a survey conducted by Gartner, Amadeus Live has become the third most valued channel of internal communications for our people. In 2021 we held two new editions of Amadeus Live, with a total audience of 17,850 people. On average, 54.3% of our employees watched each of the editions.

Strengthening our culture—the Amadeus Way

Amadeus' culture is our strongest asset and our foundation for sustainable success in a volatile and uncertain environment. To keep our culture relevant, we've developed six questions that guide our day-to-day decisions, big or small:

1. What would you say if you were our customer?
2. How do I show ownership of my decisions?
3. What's the risk? Too big? Too small?
4. Can we do this faster, better, simpler?
5. How can I learn and share with my colleagues or others?
6. Is this good for Amadeus?

Enterprise Agility

Amadeus is a company built on Agile principles and behaviors. We foster a strong culture of feedback and transparency along with a mindset of continuous improvement.

Our Enterprise Agility initiative aims to increase speed and responsiveness to customer needs by optimizing the way we work across our business and by capitalizing on existing initiatives.

We've implemented various Agile methodologies in the past, mostly among engineering teams, but our ambition is to transform the way we all work, no matter in what area—commercial, engineering or support.

Since 2019 we've been rolling out SAFe methodology as an industry standard to implement Agile at scale. SAFe is an enabler to engage end-to-end stakeholders in creating value for our customers. By continuously enhancing our processes and structure, we're building a stronger and more Agile company culture and leadership style.

We drive Scaled Agile implementations through:

- ▶ Organizing the design of Scaled Agile organizations
- ▶ Offering robust Agile training to all employees through e-learning, classroom and certified courses
- ▶ Creating Scaled Agile roles and Agile coaches
- ▶ Driving Scaled Agile group engagement measurement
- ▶ Upskilling a pool of internal SAFe experts to enable SAFe transformations

Remuneration

To be a successful company, we know we need to attract and retain the best people in the business. One of the ways we do that is by offering competitive rewards to our employees around the world.

We benchmark salaries regularly to make sure we're competitive against the market.

In 2021, despite the difficult circumstances, we saw tremendous commitment from Amadeus employees, often going beyond the call of duty. Amadeus decided to reward employees with a special payment in recognition of this remarkable collective contribution. The payment was especially intended to recognize all those employees who went above and beyond to deliver in 2020, often under unusually high pressure with exceptionally heavy workloads in times of great uncertainty.

In addition to typical benefits such as retirement plans and health insurance, we offer different stock-based incentives that help align the interests of our employees with those of our shareholders and create a sense of ownership. A standard part of our compensation programs for leadership teams, in 2021 we extended our equity programs to even more employees, introducing the Advanced Equity Plan as a recurrent new equity offering for our middle management layers.

The Advanced Equity Plan helps us reward and retain best-in-class talent as they progress in their careers at Amadeus, by making our remuneration compensation offering even more competitive. Despite the challenging economic circumstances, Amadeus is committed to recognizing our top talent, and we believe that programs like this strongly back up this statement.

Mobility

Our products and services create a business need for our employees to work internationally. We've developed international assignment policies to effectively manage these international transfers while allowing our employees to pursue exciting career opportunities.

As in 2020, due to the impact of the global health crisis, often restricting the possibilities of cross-border transfers, during 2021 we continued to see the same reduction in the number of international mobility cases. Nevertheless, we registered around 110 temporary movements and permanent transfers.

Hybrid Working Model

At Amadeus, we started reviewing our workplace guidelines in 2019 to address talent retention and attraction, employee performance and cost and space optimization. The pandemic accelerated our plans of moving to a permanent hybrid working model, and in 2021 we started the gradual implementation site by site via local policies and guidelines adapted to local legislation, business practice, infrastructure and other existing policies.

Our goal is to balance business needs with flexibility for each employee to work at their best—giving employees more options to combine Working From Home (WFH) with Working From the Office (WFO). Flexibility is a must both for employees and for the company.

Technology plays a key role as the enabler of a hybrid setup and for employees to stay connected. This means new sets of equipment, guidelines and support based on concepts of flexibility, collaboration, unassigned desks, diverse space types and multiple ways of working.

In this new model, the office becomes the place for socialization and collaboration, including a wider variety of settings as the proportion of space allocated to individual work is reduced. Space allocated to other settings varies according to the needs of the different communities.

We launched a workplace survey to ascertain employee WFH intentions and tool and office space preferences, taking this feedback into account as we refined local

policies and guidelines. Besides the financial savings, the benefits of this new global hybrid model are a new global employee experience, a more flexible hybrid setup and a stronger focus on collaboration and innovation.

Corporate marketing and communications

Corporate marketing

In 2020 Amadeus restructured its marketing and communications operations. To support our global market presence, we established a Corporate Marketing organization, whose key responsibility is to execute externally facing programs to drive company awareness, engagement, conversion and retention among our stakeholders.

Through the Corporate Marketing and Communications teams, we bring together, strengthen and consolidate our collective marketing and communications resources company-wide. This new model ensures effective regional and local execution of business unit marketing strategies to support our customer-segment-focused operating model.

Corporate Marketing is working in close collaboration with Amadeus' business units to deliver:

- ▶ Digital marketing including website operations, online advertising, customer engagement and analytics
- ▶ Brand and design services to support our unique identity in the industry
- ▶ Regional marketing programs across Europe, the Middle East and Africa, North, Central and South America, and Asia-Pacific
- ▶ Marketing operations to define our people, processes and tools and create a global structure for Amadeus

Corporate Marketing has been a critical element in unifying and simplifying our marketing efforts, especially in these times of change and industry-wide challenges.

In 2021 the Amadeus Corporate Marketing team prioritized customer focus. Our operations were digitally led communication to keep our stakeholders up to date with all things happening in the industry. We also launched new products on the marketplace to support our customers in managing new requirements and regulations as a result of the pandemic.

Amadeus' operational marketing continued to include business line marketing teams working on customer segments while corporate marketing executed the programs at scale across the globe and channels. This structure allowed us to stay relevant to customer needs and deliver commercial communication in a cost-efficient fashion.

Our marketing kept transforming through improvements in people, processes and platforms. These included data and tool unification, targeted marketing programs, digitalization and marketing automation.

Key programs delivered:

- ▶ Customer feedback collection, analysis and response continued across all segments with our Voice of the Customer program, which allows us to understand which customer needs are being met and which areas we can improve on.
- ▶ Amadeus brand management and simplified tools to support internal and external stakeholder engagement. We also further strengthened our visual identity across all businesses and segments.
- ▶ Our creative design services helped our business deliver multiple programs to engage with our stakeholders in the industry.
- ▶ On the digital marketing side we launched a new partner portal, a unified marketing automation database and various programs on our website and data analytics field.
- ▶ Our regional and local teams have been driving our customer engagement in events and webinars, delivering machine translation-led services and customer-specific programs to help our customers' understanding of Amadeus offering.

Our marketing was rewarded globally by the Adobe Workfront with a Lion Award for Operational Excellence, and we continue to evolve our operations to stay a world-class marketing organization.

Corporate communications

Summary and overview

Amadeus' Corporate Communications team promotes and protects the company's reputation externally. Using powerful storytelling techniques and ideas, they bring to life and simplify the often complex world of B2B technology.

At Amadeus, we believe that while content needs to be consistent, it must also be appropriate and relevant to various audiences who want news, information and opinions in different ways and by different means.

Social media presence and channels in numbers

In 2021 the Amadeus Insights section, which includes blogs, media alerts, white papers, presentations, case studies, press releases, infographics and research reports, attracted over half a million visits, while our social media followers grew to 419,747 primarily on LinkedIn, Twitter, Instagram and Facebook. Find us online at [amadeus.com/blog](https://www.amadeus.com/blog) and on the main social networks as Amadeus IT Group.

Internal communications

We have a culture of open, transparent and inclusive employee communications. Our goal is to help our people connect what they do individually with the company vision and strategy. We want to make them more engaged in their day-to-day work and build a sense of belonging to one global team.

Good communication drives performance: we inform our employees about our business strategy, our customers, the market and technology landscape, and key events both external and internal. We work to make relevant resources and information accessible through a variety of channels. We build a sense of belonging by sharing stories that unite us as a global workforce with common values. And we work to empower our employees at all times by encouraging greater exchange, input and dialogue.

Each and every employee makes a unique contribution to Amadeus' goals. We take pride in delivering better journeys, in helping our customers be successful, in innovating, and in giving back to our communities and society. This is brought to life by the personal experiences, perspectives and stories shared on a daily basis with colleagues around the world.

In 2019 we launched our new internal communications platform, Neo. With Neo, we can connect personal, social and collaborative tools into one experience. Our people can quickly access the information, tools and news they need on a day-to-day basis as well as key information for employees. It's also where they can connect with people everywhere in Amadeus.

When designing Neo, we knew it had to be employee-centric, so we built it on the Microsoft SharePoint platform. Using the same technology, we're now using Office 365 across the company, which means our people can enjoy a completely integrated experience across our whole suite of collaboration tools, making their lives much easier.

Neo also provides a personalized experience: it's customized based on the employee's unit, their location and the topics that interest them. The platform is also more social, so our people can talk more easily.

People and culture awards

 <p>Happy Trainees ChooseMyCompany Office: Nice</p>	 <p>Top Employer Europe Top Employer Institute Europe</p>	 <p>Top Employer Top Employer Institute Office: Erding</p>
 <p>Top Employer Top Employer Institute Office: Nice</p>	 <p>Top Employer Top Employer Institute Office: United Kingdom</p>	 <p>Top Employer Top Employer Institute Office: Poland</p>
 <p>Top Employer Top Employer Institute Office: Madrid</p>	 <p>Top Employer Top Employer Institute Office: Bangkok</p>	 <p>Top Employer Top Employer Institute Office: Singapore</p>
 <p>Top Employer Top Employer Institute Office: Bangalore</p>	 <p>Leading Employer Leading Employers Office: Bad Homburg</p>	



Social responsibility

GRI 103-1, 103-2, 103-3 (Relationship with local communities and social responsibility)

GRI 203-2

Building a responsible, inclusive and sustainable future for all



Medium-low impact

Our corporate social responsibility (CSR) purpose is to bring our people and technology together to help build a responsible, inclusive and sustainable travel and tourism industry. Travel can bring significant socio-economic benefits for local communities. It has a direct impact on the long-term sustainability of destinations. This is why we focus on initiatives that contribute to the responsible development of travel and tourism through:

1. Maximizing the positive contribution that travel and tourism makes to society by engaging local stakeholders and creating opportunities for communities around the world through education and socio-economic development initiatives.
2. Minimizing the potentially adverse impact of tourism on specific destinations by protecting biodiversity, cultural heritage and community spirit.

We continue to prioritize the rebuilding of our industry and our communities to enable the faster recovery of the global economy after the pandemic. We've consolidated four strategic global programs designed to meet our CSR purpose and social goals:

- ▶ **Social Innovation Powers Good:** Delivering positive social impact through product and service innovation
- ▶ **Powering Good with Partners:** Joining forces with our stakeholders in

collaborative initiatives to co-generate solutions with a positive social impact for our industry and our communities

- ▶ **Skills to Empower Good:** Facilitating specialized free education to promote talent and address unemployment within the travel and tourism industry
- ▶ **Empowering Communities:** Fostering employee engagement to strengthen local communities and help them protect their natural and cultural heritage

To increase our positive impact, we promote a collaborative approach to CSR. Amadeus occupies a unique position in the industry and partners with customers, intergovernmental/non-profit organizations, educational institutions and public and private sector leaders to amplify the multiplier effect of our CSR projects.

We also have an active role in networks such as the United Nations Global Compact, Business for Societal Impact (B4SI), Fundación SERES and the Global Travel and Tourism Partnership (GTTP).



Our CSR achievements in 2021

In 2021 we continued to consolidate our long-term CSR strategy to support the recovery of the travel and tourism industry. Our aim was to streamline our efforts towards strengthening our positive social impact worldwide. We focused on implementing our CSR vision through our four strategic programs, to support our communities and help the travel and tourism sector recover in a responsible, inclusive and sustainable way.

In 2021 CSR activities were rolled out in 71 sites (47 countries), where over 80% of staff are based. We worked with organizations to form long-term partnerships

and collaborated on strategic projects that can have a greater impact on our beneficiaries.

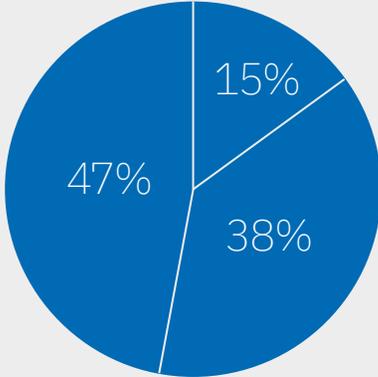
Creating positive impact through social innovation is at the heart of what we do, and we worked with our partners throughout 2021 to leverage what makes us unique—our people and technology—to power good and to bring outcomes that make a difference. To name a few highlights:

- ▶ We continued to contribute to protect travelers' health and safety through initiatives like Amadeus Traveler ID for Safe Travel, which facilitated the verification of COVID-19 documents.
- ▶ We ran the first edition of the Amadeus Scholarship Program, aimed at increasing the employability of students in the travel and tourism industry.
- ▶ We created the [Travel4Impact network](#) for SMEs to increase their capabilities in sustainability and digitalization.
- ▶ We hosted our annual Global Amadeus Volunteer Day, engaging over 2,400 employees in supporting their local communities and protecting their habitats.

Examples of social KPIs achieved in 2021

	2019	2020	2021
STAFF INVOLVED IN PROJECTS	6,996	2,942	3,492
PEOPLE TRAINED IN THE COMMUNITY	1,380	15,738	16,730
NGOS SUPPORTED	83	74	87
EDUCATIONAL INSTITUTIONS SUPPORTED	114	170	167

Amadeus' social commitment in 2021: contributing to local development through technology, people and global travel*

WHAT WE'VE INVESTED IN THE COMMUNITY		WHAT WE'VE ACHIEVED AS AN OUTCOME			
2.28M+ total value of community investment	34,808 hours dedicated by staff	3,492 staff took part in activities	146 total number of projects	71 sites	16,730 people trained in the community
		300 institutions empowered and supported	1.4M+ direct beneficiaries	47 countries	
EXAMPLES OF HOW WE'VE MADE A DIFFERENCE					
AMADEUS SCHOLARSHIP PROGRAM			AMADEUS VOLUNTEER DAY		
Of the surveyed students:			Of the surveyed volunteers:		
 <p>15% responded that the program helped them understand areas where they could improve their knowledge</p> <p>38% responded that they've improved their ability to use Amadeus technology and feel prepared to apply this knowledge in future work opportunities</p> <p>47% responded that they've improved their ability to use Amadeus technology and increased their employability</p>			 <p>73% responded that they've improved their awareness of wider social issues</p>		 <p>85% reported an improved sense of well-being or happiness</p>

* Amadeus follows the B4SI (Business for Societal Impact) methodology for community investment calculation.

Social Innovation Powers Good



This program promotes Amadeus innovation in product and service development with a social purpose. We work jointly with all internal teams, supporting and showcasing business initiatives that can help address social challenges and contribute to achieving UN Sustainable Development Goals (SDGs).

Our social innovation efforts continued to focus on SDG 3 and the protection of travelers' health and safety. We also helped to rebuild travel and make it better than before by promoting the generation of ideas and the development of solutions that may help to rebuild our industry and our communities in the wake of the pandemic in a more inclusive and sustainable way.

Technology for the protection of travelers' health and safety

Amadeus Traveler ID for Safe Travel [↪](#) was developed in 2021, facilitating the verification of COVID-19 documents and processes to protect the health and safety of travelers. More than 1,000 Amadeus employees volunteered to train the algorithm, and the solution has verified more than 4.6 million documents.

Additionally, digital travel assistants like [Feasy](#) and [CheckMyTrip](#) push relevant and contextualized trip information and services for free to travelers all along their journey via their mobile phone. In 2021 both solutions have provided accurate information about the travel rules of destinations to protect the health and safety of travelers and help them navigate the uncertainties of travel. Over 4 million people are registered on these platforms and have benefited from these digital assistance services.

[↪](#) See p. 57, 'Safe travel.'

Promoting more inclusive and sustainable travel through our technology

Part of the social innovation process is the promotion of the right environment for new ideas to emerge. This year Amadeus worked to facilitate the participation of our employees in the generation of innovative ideas to help solve the current social and environmental challenges of our industry. Our Airline Innovation Week on Sustainability challenged employees to identify solutions that would lead to the reduction of airlines' environmental impact through leveraging the capabilities of the Altéa Suite, Amadeus' airline platform. This initiative aimed to raise the internal awareness of our employees on the sustainability of the industry and invited them to be part of the solution. Additionally, Amadeus in Bangalore held an "ideathon" that called for employees to participate in teams to submit ideas on different themes, one of which was sustainability and CSR.

Amadeus has also promoted inclusive and responsible travel through developing new solutions or supporting social entrepreneurs. For example, [Amadeus Discover](#), formerly known as Amadeus Sherpa, enables tourism activity providers at destinations to gain more visibility with travelers and increase their bookings. Amadeus Discover facilitates access to a global distribution platform for SMEs and promotes local socio-economic development [↪](#). Additionally, sustainability and accessibility in travel have become key topics within [Amadeus for Startups](#), which connects Amadeus to the start-up ecosystem.

Powering Good with Partners



This program looks at joining forces with our stakeholders through collaborative initiatives to co-generate solutions that have a multiplier effect and increase our collective positive social impact. As the world starts recovering, we continue to work together with our partners to further support our industry and communities.

[↪](#) See p. 72, 'Amadeus Discover.'

Partnering with our stakeholders to increase the positive impact of travel and tourism SMEs and start-ups

To rebuild travel we need to also rebuild our communities, supporting the people and organizations that rely on travel to survive and thrive. By engaging proactively with industry and community stakeholders, we can build together a travel ecosystem that is more responsible, inclusive and sustainable.

In partnership with IE University, an internationally recognized business university, and with the collaboration of the World Tourism Organization (UNWTO) and other industry associations, in 2021 we implemented in Spain the first edition of the Travel4Impact network for SMEs to improve the competitiveness and positive social and environmental impact of small businesses within the travel and tourism ecosystem. This project aims at helping to rebuild our society and our industry through the creation and strengthening of a network of travel and tourism microbusinesses that see digitalization and sustainability as key elements of their value proposition.

“

The challenges we face require new ways of engaging with one another. Systemic change calls for collective action. Amadeus and IE University stand together to mobilize our many stakeholders to generate a sustainable future that doesn't leave anyone behind.

” **Concepción Galdón, Director**

IE Center for Social Innovation & Sustainability, IE University

As part of our ongoing contribution to start-up competitions and acceleration programs, we participated in the evaluation and selection of winning start-ups as jury member for UNWTO's global SDG start-up competition. We also supported the event organizers and mentored the winning start-ups. Joining forces with UNWTO represents a great opportunity to harness the innovative power of entrepreneurs for sustainable development.

Partnering with customers and NGOs to promote travel as a force for good

Within our efforts to rebuild travel, Amadeus recognizes that a sustainable recovery that safeguards our planet and our future prosperity needs to be central to the decisions we make. To make a commitment to the [United Nations Decade on Ecosystem Restoration](#), Amadeus has partnered with Saving The Amazon, an international grassroots organization, to plant over 16,000 trees in the Amazon rainforest and to benefit the local indigenous communities.

“

Through working together with Amadeus, we support native communities and protect their natural habitats. Not only is this the best strategy to combat the climate crisis and defend our biodiversity, it is also a manifestation of love and trust in the ancestral knowledge of these communities.

” **Daniel Gutiérrez Patiño, CEO & Founder**

Saving The Amazon

Since 2013, we've worked together with United Nations Children's Fund (UNICEF) to maximize its impact and reach. An example of this ongoing collaboration is Click for Change, an initiative powered by the Amadeus Donation Engine that gathers micro-donations for UNICEF from people buying travel online. Since 2013, almost USD 3.5 million has been donated by travelers purchasing travel products and services on our partners' websites. UNICEF channels these funds into multi-country programs that give thousands of children a fair start in life through education, health care and emergency response programs. [↪](#)

[↪](#) See p. 144, 'Innovation and technology to harness the power of travel for good with UNICEF'.

Skills to Empower Good



This program provides free access to specialized training in travel and tourism for students and professionals in need of upskilling, contributing to the recovery of the industry while addressing unemployment globally.

Supporting travel and tourism professionals with free access to specialized training

In 2021 we offered our learning services for free to travel and tourism professionals, focusing on increasing their readiness and upskilling. We had more than 110,000 registrations to our free training courses and webinars aimed at industry professionals—many of them either furloughed or with unemployed status. Moreover, Amadeus Payments Academy continued in 2021 with its Level 1 on Payment Fundamentals module open to the public and available for free, helping to improve general knowledge of travel payments and empower people in their current jobs or when looking for new opportunities.

Increasing employability through public-private partnerships

Recognizing that the skills gap is an issue for all travel providers, this program seeks to partner with educational institutional and industry stakeholders to transfer our knowledge and expertise beyond Amadeus and promote inclusiveness in the local communities where we operate, through facilitating educational and employment opportunities in the travel and tourism industry.

In 2021 we ran the first edition of the Amadeus Scholarship Program. Working in partnership with 12 vocational training schools throughout Spain, selected students had the opportunity to access Amadeus e-learning modules for free and be certified as Amadeus users at the professional level. The program increased their employability and their preparedness for the job market.

Moreover, Amadeus has been actively involved with the GTTP for over 20 years. This unique educational program introduces secondary school students to the travel and tourism industry and its career opportunities. Since its launch in 1996, close to 3 million students have participated in the GTTP program.

Empowering Communities

Medium-low impact



This program focuses on engaging our employees in supporting social initiatives with a positive impact on the local communities where we operate. This year, our employees' engagement centered on rebuilding travel better than before by rebuilding their local habitats and communities through volunteering, fundraising and active citizenship initiatives.

Rebuilding travel through rebuilding our communities and habitats

Throughout the year, Amadeus helped local communities by identifying their needs under the continued challenges of the pandemic. Amadeus sites participated in collection drives to benefit the local community and offered online basic technology training as well as career consultation. Amadeus in Bangalore supported several initiatives for COVID-19 relief, including contributing to France's solidarity mission to enable a shipment of medical oxygen generator plants to Indian hospitals. And Amadeus in Miami donated laptops to the Leaders Through Education Program by the Kiwanis of Little Havana Foundation, while our Hong Kong site organized a virtual sightseeing tour for schoolchildren.

Global Amadeus Volunteer Day

In this edition of our Global Amadeus Volunteer Day, over 2,400 employees volunteered their time and talents to help their local communities through virtual, remote and face-to-face activities. Building on last year's success, Amadeus participated in mentoring students from tourism schools in various countries. Our Madrid headquarters organized a volunteering week, championed by our senior leaders that encouraged employee participation. Amadeus in Nice leveraged its employees' technological expertise and organized a hackathon related to sustainability. And other sites supported their communities through meeting their local needs for funds and resources. Amadeus volunteers worldwide showed their commitment to helping their local communities recover with positive action.



← From Costa Rica to the US, and Japan to South Africa, 2,400+ Amadeus employees around the world participated in a great variety of virtual and face-to-face activities.



← Many Amadeus sites participated in green activities during Amadeus Volunteer Day such as planting trees and cleanups, extending the impact of Green is the New Blue.



← In Nice, employees participated in various green workshops, learning to take care of the community and the environment.



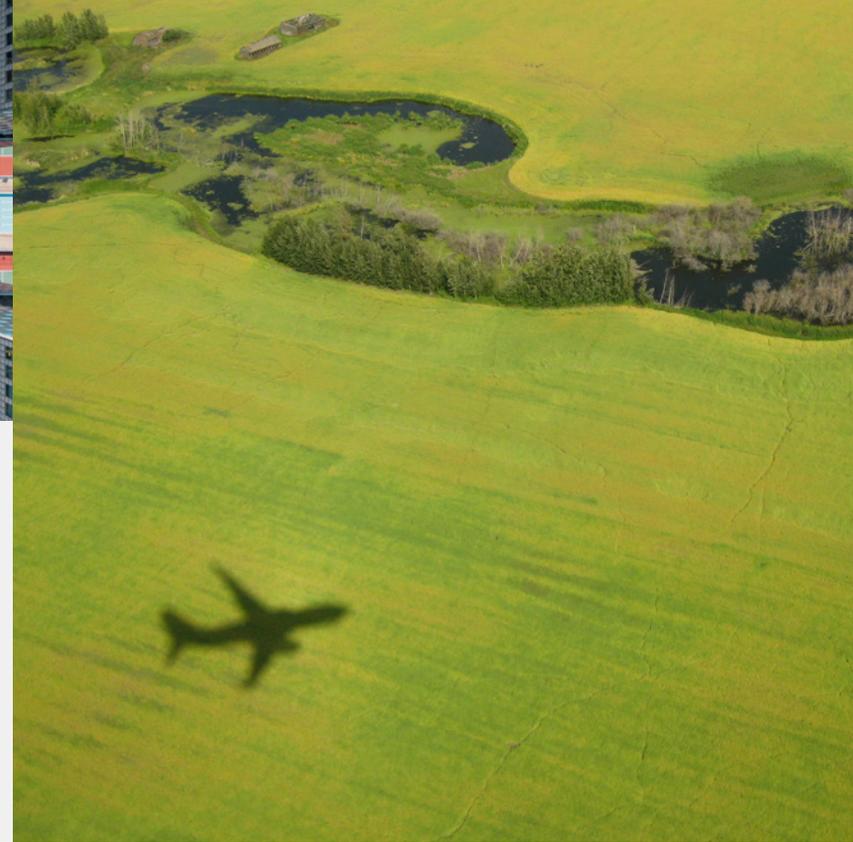
← One of the activities in Madrid was the restoration of a natural area by protecting trees and planting seeds.

Green is the New Blue

Green is the New Blue was launched in 2019 as an internal engagement campaign to enable our people to share their ideas on how to promote a greener future. This year, we challenged employees to pledge one green action they will take on the launch of the UN Decade on Ecosystem Restoration. Thousands of our people took part and shared their contribution to help rebuild communities and habitats. The internal campaign was coupled with our partnership with Saving The Amazon to plant an Amadeus forest in the Amazon.

Amadeus' Green is the New Blue
Working toward rebuilding local communities and habitats

<p>Number of employees reached</p> <p>8,000+</p>	<p>Number of trees planted in the #AmadeusForest</p> <p>16,000+</p>		
<p>Types of eco actions implemented by employees</p>			<p>Social impact on indigenous communities</p>
<ul style="list-style-type: none"> ▶ Being creative and repurposing ▶ Cleanups ▶ Green eating habits ▶ Being resource-wise ▶ Greener commute ▶ Planting trees, growing gardens ▶ Protecting insects ▶ Recycling and composting ▶ Reducing single-use items ▶ Greener digital routines 		<p>Generated employment opportunities & additional income for 6 indigenous communities in the Colombian Amazon: Timbó Río, Wacuraba, Tayazú, Makayuka, Tucandira and Cucura.</p>	
		<p>#GreenistheNewBlue</p>	
			



Environmental sustainability

Environmental sustainability and climate action have become crucial, gaining increased attention during recent years, especially in the travel industry. The COVID-19 pandemic has revealed that the vulnerability of the industry was previously underestimated and stressed the importance of a consistent and holistic approach to sustainability.

The travel and tourism industry needs to contribute to the objective of the Paris Agreement to keep the global average temperature rise below 1.5–2 degrees Celsius compared to pre-industrial levels. To achieve this target, fundamental changes are required in the sector, as well as cooperation among institutions to provide global solutions.

Amadeus is involved in the travel experience of millions of passengers daily. We are an important player in the travel and tourism industry, and acknowledge our

responsibility to contribute to the fight against climate change. We have been reinforcing our environmental sustainability strategy, which is based on three pillars: (1) Responsibility: addressing the environmental efficiency of our operations; (2) Commitment: supporting our customers with our sustainability value proposition; and (3) Collaboration: with industry stakeholders in joint sustainability initiatives.

Amadeus is a Task Force on Climate-Related Financial Disclosures (TCFD) supporter since 2021 and follows its reporting recommendations in this chapter. In addition to climate disclosures, we include in this chapter our overall environmental strategy and initiatives.

Governance

Amadeus' Board of Directors is the highest representative, administrative and controlling body of the company. Among its responsibilities lie risk management, which includes transition and physical risks related to climate change. The Board also reviews and approves Amadeus environmental, social and governance (ESG) storyline, which includes the company's environmental strategy. The Audit Committee of the Board supervises compliance with the ESG strategy and related policies including the environmental management policy and environmental performance. This process is carried out at least once a year.

During 2021 the interest and concerns about ESG topics has significantly increased among our stakeholders and internal business units, requiring a reinforced company-transversal approach. This is one of the main reasons why, since February 2022, the President & CEO assumed direct responsibility over ESG topics, with a dedicated ESG team assuming a governance role over company-wide ESG initiatives.

The analysis of risks and opportunities related to climate change is led by the Amadeus Sustainability team, who monitors climate change impacts on a regular basis, and at least once a year. To ensure identification of major risks, the analysis is reviewed in close cooperation with the Corporate Risk Management unit. Amadeus' Corporate Risk Management unit is responsible for centralizing and monitoring risks. This unit produces the Corporate Risk Map, considering global risks such as economic, environmental, geopolitical, societal and technological risks.

Although Amadeus' operations imply a relatively low environmental impact, we are involved in an energy- and emissions-intensive industry. We acknowledge and act on our responsibility to contribute, with our technology and reach, to a more sustainable and carbon-neutral travel industry, working in cooperation with industry partners.

Strategy

Amadeus' overall environmental strategy, which is applicable specifically to climate change, is based on the following three pillars.

1. Environmental efficiency of Amadeus operations



The first step in addressing environmental sustainability is to understand the environmental impact of our operations and to nurture a company culture that reduces environmental impact as much as possible.

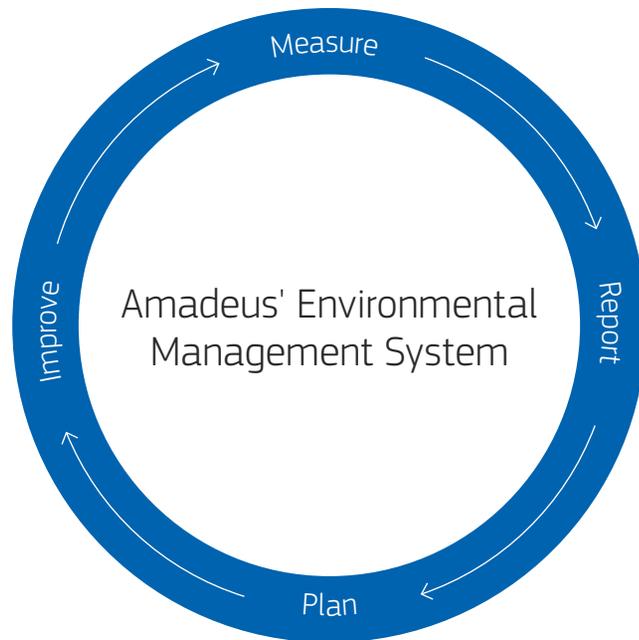
We've been monitoring the environmental impact of Amadeus operations since 2009. The main sources of such impact are the use of office buildings across the world and the operations of the Amadeus Data Center.

At our Data Center, the Infrastructure Management Team works toward the continuous improvement of the energy efficiency of this critical installation. Our initiatives in this area are based on recommendations from external consultants and on our own experts' analyses.

Elsewhere, the Building & Facilities teams at local level are responsible for the optimization of the use of resources at our office buildings. Technical teams also contribute to this task, providing key performance indicators related to the use of resources.

Amadeus' Environmental Management System

Amadeus' Environmental Management System (EMS) is the tool we use to measure, report and identify best practices, as well as continuously improve the environmental performance of our operations. It was implemented in 2009 and its scope and precision have been regularly enhanced to be in line with the evolution of the company and external reporting guidelines.



Material aspects of the EMS

We identified five material environmental elements:

- ▶ **Energy use:** The most important component of our energy use is electricity. We measure electricity consumption at the Data Center and at our office buildings separately.
- ▶ **CO₂ emissions:** We follow the Greenhouse Gas Protocol (GHGP)¹ standards to report CO₂ emissions.

¹ The Greenhouse Gas Protocol is the most widely used international accounting tool for government and businesses to understand, quantify and manage greenhouse gas emissions. The GHGP classifies emissions into three scopes. Scope 1: direct greenhouse gas emissions from sources owned by the company; Scope 2: indirect greenhouse gas emissions from electricity use; and Scope 3: emissions released by third parties as a consequence of the use of their services, such as emissions from travel providers for business travel.

- ▶ **Paper consumption:** We use badge-based printing devices to calculate the amount of paper we use. These automated systems permit precise monitoring and facilitate the identification of areas for improvement.
- ▶ **Water use:** The use of water at Amadeus is divided into three categories: general use at office buildings, irrigation of green spaces and cooling of IT equipment.
- ▶ **Waste generation:** We generate waste at our premises from kitchens and general office use. The recycling and waste management companies providing services to Amadeus are the main sources of information for reporting this element. Waste generated by extraordinary activities, like works done in buildings, is generally measured, but reported separately from regular waste for comparability reasons.

Geographical scope of the EMS

Amadeus has more than 100 offices across the world. Some of these workplaces are small and it becomes inefficient to measure and report the impact of all of them in a direct manner. Therefore, we have adopted a more efficient and pragmatic approach by which we report direct measurements in 14 of our largest sites (which represent 68% of the total Amadeus workforce worldwide) and then make an estimation of the impact of the remaining sites, based on the average consumption factors of the 14 sites. This methodology was implemented in 2018, broadening the scope of our reporting to 100% of our sites, and has been externally validated.

The 14 sites² included in the direct reporting of the EMS are:

1. Nice, France
2. Bengaluru, India
3. Miami, FL, United States
4. Erding, Germany
5. Madrid, Spain
6. London, United Kingdom

² The most recent additions to the EMS are our premises in Portsmouth (US) in 2019 and San José (Costa Rica) in 2021. In 2021 Waltham was removed from the EMS due to the closure of the office and Madrid ACO is being reported jointly with Madrid headquarters, as both entities are located in the same building.

7. Bad Homburg, Germany
8. Bangkok, Thailand
9. Sydney, Australia
10. Paris, France
11. Singapore
12. Manila, Philippines
13. Portsmouth, NH, United States
14. San José, Costa Rica

Data processing and software development

The energy use at our Data Center is the single most important element of Amadeus' environmental impact, representing more than half of Amadeus' total energy use worldwide. Our strategy to minimize the environmental impact of our data processing and software development includes the following principal elements:

- ▶ **Energy efficiency.** Monitor and continuously improve the energy efficiency of our Data Center. We use industry-standard metrics like Power Usage Effectiveness (PUE)³ and Data Center certifications like EN 50600.
- ▶ **Progressive move to the cloud.** This allows more flexibility, scalability and use of more modern and efficient infrastructure, reducing overall environmental impact per transaction processed.
- ▶ **Sustainable software engineering initiatives.** This includes continuous improvement in the use of energy and hardware through a systematic process of engagement with our developers, measuring performance, identifying areas for improvement and driving change.
- ▶ **Use of market-based mechanisms** to reduce greenhouse gas emissions that we couldn't eliminate with the initiatives above. This includes the use of carbon offsetting and of Guarantees of Origin⁴ of renewable energy. These

³ The Power Usage Effectiveness is a common metric used to measure the energy efficiency of data centers. The closer to 1 the PUE, the more efficient the data center is.

⁴ A Guarantee of Origin is a EU green label that guarantees that electricity has been produced from renewable sources. Guarantees of Origin are traded as a commodity.

mechanisms helped to comply with our company-wide carbon-neutral growth policy set in 2016. Moreover, thanks to the use of Guarantees of Origin, the Amadeus Data Center is a carbon-neutral facility since 2019, and we have reduced our CO₂ emissions company-wide (Scope 2) by 75% compared with 2018.

2. Environmental sustainability value proposition



Amadeus invested €786.5 million in R&D projects in 2021. ↪ We develop technology solutions that help to improve the operational efficiency of customers, and this improved operational efficiency is linked in many cases to environmental efficiency improvements. The environmental benefits of Amadeus solutions expand to a wide range of stakeholders in the industry, including airlines, airports, travelers and cities.

We embrace a holistic approach, with the ambition to provide environmental improvements at the five stages of the travel cycle.

▶ Inspiration

Using advanced algorithms that estimate demand and analyze risk of disruptions, Amadeus Sky suite helps airlines to make fundamental decisions related to airline networks, flight frequencies and equipment, reducing the use of resources (fuel, aircraft, airport infrastructure, etc.) per passenger flown.

Information on estimated CO₂ emissions per passenger flight is included in some of Amadeus' distribution platforms. The source of information for the estimations of emissions is the ICAO⁵ carbon calculator.

▶ Booking

During the booking phase, some Amadeus solutions offer the possibility of obtaining CO₂ emissions estimations for different itineraries. Travelers can then incorporate CO₂ emissions as an additional element into their booking decision-making process, together with traditional parameters like schedules, availability and fares.

↪ See p. 10, "Corporate performance."

⁵ ICAO: International Civil Aviation Organisation. ICAO is the United Nations agency in charge of civil aviation.

► Pre-trip

Amadeus Airport Sequence Manager permits improved planning of aircraft movements at airports' runways and provides a sophisticated aircraft slot assignment, helping airports and airlines to reduce their environmental impact by minimizing the amount of time that aircraft spend taxiing on the runway. If such solutions were to be implemented at the major airports of the European Civil Aviation Conference, the European Union estimates savings of over €120 million in fuel costs and a reduction of more than 250,000 tons of CO₂ emissions.⁶

Amadeus Airport Common Use Service helps to reduce energy consumption at airport buildings by reducing the amount of IT infrastructure required at airports.

► On-trip

Amadeus Altéa Departure Control-Flight Management helps airlines accurately estimate the fuel needed for a specific flight, using sophisticated algorithms and historic data. The precise estimation of the aircraft's weight before the fuel is loaded (zero-fuel weight) permits significant savings in fuel burn, emissions and economic costs. In this respect, a study carried out by Amadeus in conjunction with its customer Finnair analyzed more than 40,000 flights and concluded that a mid-sized carrier can save a minimum of 100 tons of fuel and more than 315 tons of CO₂ emissions per year. Assuming that a similar level of savings is achieved by all our customers using the same flight management solution, the amount of CO₂ emissions thus reduced would exceed the total emissions associated with Amadeus' operations (Scopes 1 and 2).

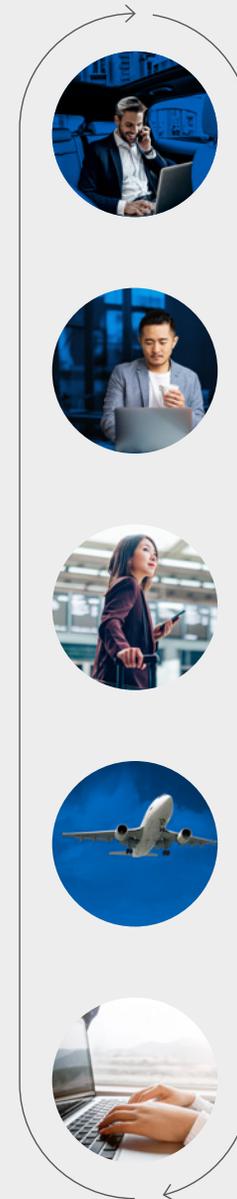
Amadeus Schedule Recovery helps airlines make rapid decisions in moments of operational disruption. It enables them to improve operational efficiency and customer service while minimizing negative environmental impact by finding optimum solutions for each disruption.

► Post-trip

There is an increased demand from corporations for solutions that help measure travel-related emissions. Some of Amadeus' solutions offer the possibility of obtaining post-trip CO₂ emissions reports aggregated at different levels and times. We are working on the expansion in scope and features of such solutions.

⁶ Eurocontrol (European Organization for the Safety of Air Navigation) (2008). *Airport CDM Cost-Benefit Analysis*.

Environmental benefits of Amadeus solutions
at the five stages of the travel cycle



Inspiration

Distribution platforms
CO₂ display
Amadeus Sky suite
Network planning

Booking

Distribution platforms
CO₂ benchmark

Pre-trip

Amadeus Airport Sequence Manager

Helps to decrease the amount of time aircraft spend on the runway, reducing fuel, emissions, noise and local pollution

Amadeus Airport Common Use Service

Helps to reduce the need for local IT equipment and energy costs by leveraging cloud technology

On-trip

Amadeus Schedule Recovery

Helps airlines to make efficient decisions in times of disruption

Amadeus Altéa Departure Control-Flight Management

Accurate estimations of aircraft weight permit fuel and emissions reductions

Post-trip

Corporate booking tools

CO₂ post-trip reporting

3. Collaboration in industry environmental initiatives



Long-term industry sustainability requires that all industry stakeholders work together toward this common objective. For this reason, the third pillar of our environmental sustainability strategy is to identify and engage in collaborative environmental sustainability projects. This is becoming increasingly relevant in the context of growing traveler concern on sustainability topics.

In order to raise awareness of aviation carbon emissions, and to support the use of a common methodology to estimate carbon emissions per passenger and encourage mitigation actions, Amadeus and ICAO have a long-term agreement in place whereby Amadeus uses ICAO’s carbon calculator on our distribution platforms, providing travelers with information about greenhouse gas emissions released during their trips. ICAO’s carbon calculator brings the benefits of global reach, commercial neutrality and legitimacy to represent the aviation industry.

Our agreement with ICAO has also encouraged the development of local initiatives to support the use of ICAO’s carbon calculator and the offsetting of travel-related emissions. This includes the development of mid- and back-office solutions that include post-trip carbon reporting, as well as facilitating access to carbon offsetting schemes. We are also working with other partners to display the environmental impact to travelers in a way that can be easy to understand.

During 2021 we continued our cooperation with institutions like the World Travel and Tourism Council (WTTC) and the European Union Aviation Safety Agency (EASA).

We also participate in the sustainable artificial intelligence program within the Industrial Council of Artificial Intelligence Research (ICAIR) in the South of France.



Climate change-related risks & opportunities

For Amadeus, climate change-related risks identified are mainly linked to travel demand. This is due in part to the fact that incremental environmental costs imply increased economic costs, and this leads to a reduced demand for travel. Besides, travelers, in order to avoid negative environmental impacts, might look for alternatives to traveling.

The table on the following page details the main risks related to climate change that may affect Amadeus' business.

I Climate change-related risks for Amadeus

Climate change-related risks	Description
Physical risks	
Physical risks affecting the communities where we operate	By operating in over 190 countries worldwide, Amadeus is exposed to local extreme weather events affecting any of the communities where we operate, our providers and/or customers, or our operations.
Physical risks affecting our travel providers and/or customers	
Physical risks affecting Amadeus operations	
Transition risks	
Regulatory risks - carbon reporting-related regulations	Increasingly, new regulations are being approved involving mandatory reporting on climate change topics.
Regulatory risks - regulations imposing charges and/or emission reductions	Since travel industry is global by nature, implementation of regional emissions limitations could create some competitive and political disruptions.
Reputational risks	This risk is related to the increasing public awareness and concern about climate change and our commitment to implement environmentally friendly operations.
Technology risks	Sustainability needs to be included in our IT solutions value proposition to maintain and increase our competitiveness in the market.
Market risks	Increasing concern from travelers and our own workforce on our initiatives against climate change.

Climate change-related opportunities for Amadeus are linked to the development of IT solutions that help to inform travelers about sustainable travel options and to help travel providers improve the environmental efficiency of their operations. These solutions can improve customer conversion, loyalty and market reputation. Identified climate change-related opportunities are detailed in the table below.

I Climate change-related opportunities for Amadeus

Type of opportunity	Solution/functionality	Description
New products and services	Display	Providing the traveler an estimation of the emissions released in a journey at the time of booking.
	Compare	Comparing emissions from different itineraries or means of transport.
	Reporting	Compiling all emissions released in business trips by an organization.
	Offsetting	Including the possibility to offset carbon emissions released on a journey. The concept may be expanded to the use of sustainable fuels and carbon capture from the atmosphere.
Competitive advantages	Departure Control System Flight Management module	Use of sophisticated algorithms and historical data to help estimate the fuel per flight, reducing overall fuel consumption.
	Airport Sequence Manager	Helps to reduce the time aircraft spend on the runway, entailing reductions in fuel consumption, CO ₂ emissions, local pollution and noise, and increasing efficiency at airports and traveler satisfaction.
	Airport Common Use Service	Helps to reduce the need for local IT equipment and energy costs by leveraging cloud technology.
	Amadeus Sky suite	Facilitates airline network planning with sophisticated algorithms to estimate travel demand, helping to optimize the use of resources, including fuel and related emissions.
	Amadeus Schedule Recovery	Helps airlines make efficient decisions in times of disruptions.

Risk management

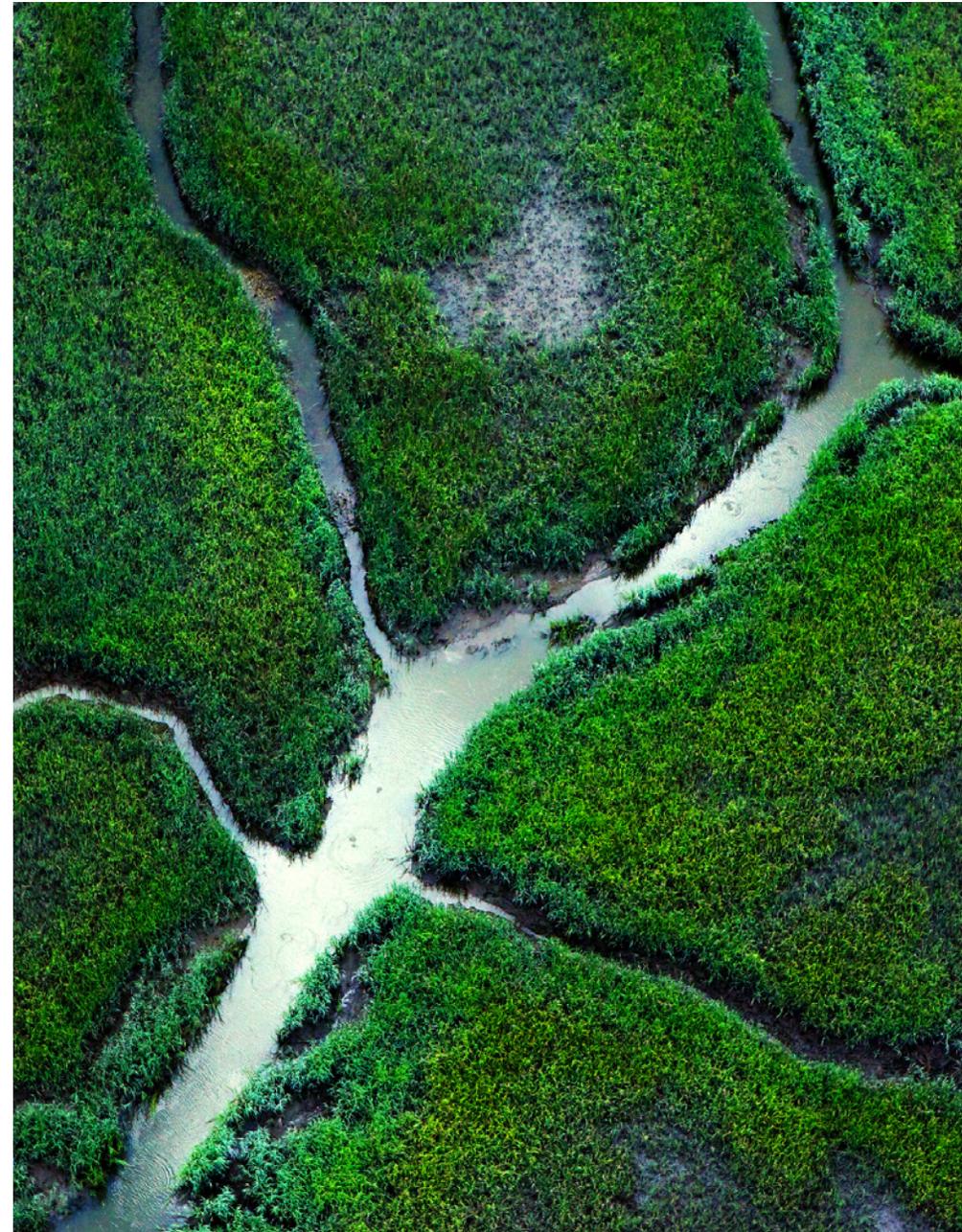
Amadeus uses the Three Lines of Defense Model to ensure strong governance and risk management practices. ↪ This model, endorsed by the Board of Directors and the Executive Committee, allows Amadeus to coordinate all support and assurance functions to appropriately manage risk.

Climate change-related risks are embedded in Amadeus' corporate risk management. Our commitment to the environment is integrated in our Code of Ethics and Business Conduct (1st Line), and emerging risks such as those related to climate change are considered in our Corporate Risk Map (2nd Line).

The Corporate Risk Management unit develops and revises Amadeus' Corporate Risk Map, working together with the owner responsible for each of the risks. Amadeus' Sustainability team is responsible for identifying and reporting climate change-related risks, supervised by the President & CEO.

Every risk identified is assessed according to its impact and probability and classified into a four-level scale for each criterion. Following the risk assessment, specific prevention and mitigation measures are defined. Detailed information of this analysis is included in the table "Management and assessment of climate change-related risks" on page 158.

↪ See p. 119, "Corporate risk management."



Metrics and objectives

Through the Environmental Management System (EMS), Amadeus manages KPIs regarding the environmental impact of our operations. There are 12 main indicators identified:

1. Electricity consumption at the Data Center
2. Electricity consumption per transaction processed at the Data Center
3. Electricity consumption across all Amadeus sites worldwide
4. Electricity per employee across all Amadeus sites worldwide
5. Paper consumption across all Amadeus sites worldwide
6. Paper consumption per employee across all Amadeus sites worldwide
7. CO₂ emissions (Scopes 1 and 2) across all Amadeus sites worldwide
8. CO₂ emissions per employee (Scopes 1 and 2) across all Amadeus sites worldwide
9. Water consumption across all Amadeus sites worldwide
10. Water consumption per employee across all Amadeus sites worldwide
11. Waste generated across all Amadeus sites worldwide
12. Waste per employee across all Amadeus sites worldwide

These indicators have been monitored since 2009, therefore allowing the possibility to use historical data records to analyze trends and define targets.

Amadeus reports greenhouse gas (GHG) emissions following the Greenhouse Gas Protocol (GHGP) standards:

- ▶ In Scope 1 we include emissions from natural gas and diesel. Fossil fuels at Amadeus are used mainly for heating purposes and to guarantee an uninterrupted power supply at the Data Center, through the use of a large generator.

GRI 103-1, 103-2, 103-3 (Carbon emissions and climate change)

- ▶ In Scope 2 we include emissions linked to the use of electricity⁷ at our office buildings worldwide and at the Data Center.
- ▶ In Scope 3 we include emissions from paper consumption and from business travel. We gather information about business trips from our travel agency provider and we use the International Civil Aviation Organization (ICAO) carbon calculator to estimate emissions per passenger.

The following table shows the GHG emissions in tons of CO₂ equivalent, broken down into Scopes 1, 2 and 3.

CO ₂ emissions (t)	2019	2020	2021	Target 2050
Scope 1. Direct emissions	1,849	1,380	1,961	0
Scope 2. Indirect emissions from purchased electricity	18,213	13,688	11,767	0
Scope 3. Indirect emissions from other sources	7,424	2,886	366	
CO ₂ emissions (Scopes 1 and 2) per employee	1.03	0.86	0.86	0

The increase in our Scope 1 emissions is due to the safety measures implemented in our offices against COVID-19, which didn't allow for the recirculation of air and led to a drastic increase in natural gas consumed.

Our Scope 3 emissions have significantly decreased compared to previous years. This is mainly due to travel restrictions during the reporting year and the limitations on business travel imposed at Amadeus, restricting trips to customer visits only.

In relation to climate change, we have set the long-term objectives of:

- ▶ Carbon neutral growth since 2016, with the baseline year of 2015.

⁷ The conversion factors applied, i.e. the amount of CO₂ emitted per kWh used, are obtained from the latest updated averages for each country, published by the International Energy Agency in its data set IEA Emissions Factors 2021 (updated September 2021).

- ▶ In line with the objectives of the Paris Agreement on climate change, we have set a target of zero emissions by 2050, with the ambition to achieve this by 2030, since the 2050 objective is too long-term for Amadeus, and as a way to guarantee early action and reduced uncertainties. To achieve this objective, we've been applying energy efficiency measures and have been using market instruments such as Guarantees of Origin of renewable energy since 2019.

Environmental targets and performance in 2021

Targets

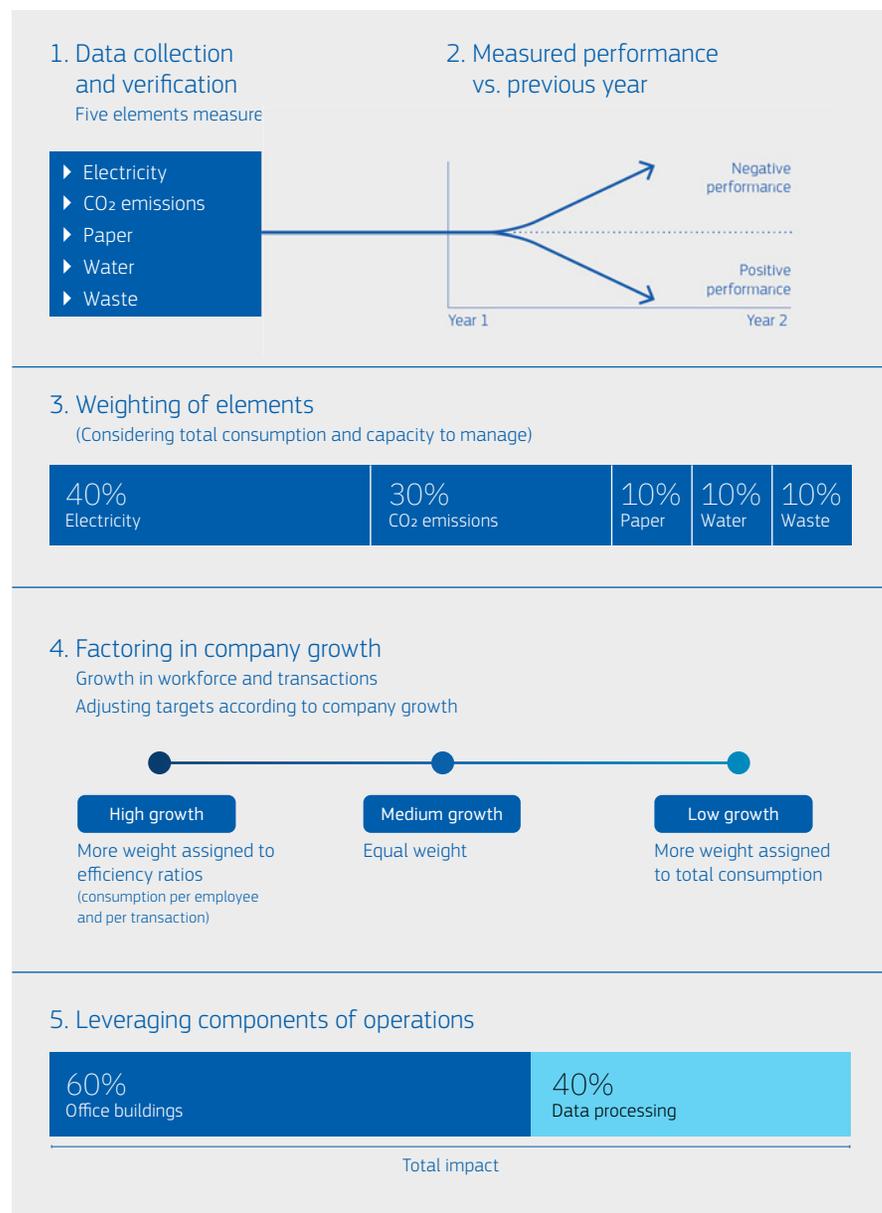
Amadeus has developed a tailored methodology to condense in a single figure our environmental performance compared with the previous year.

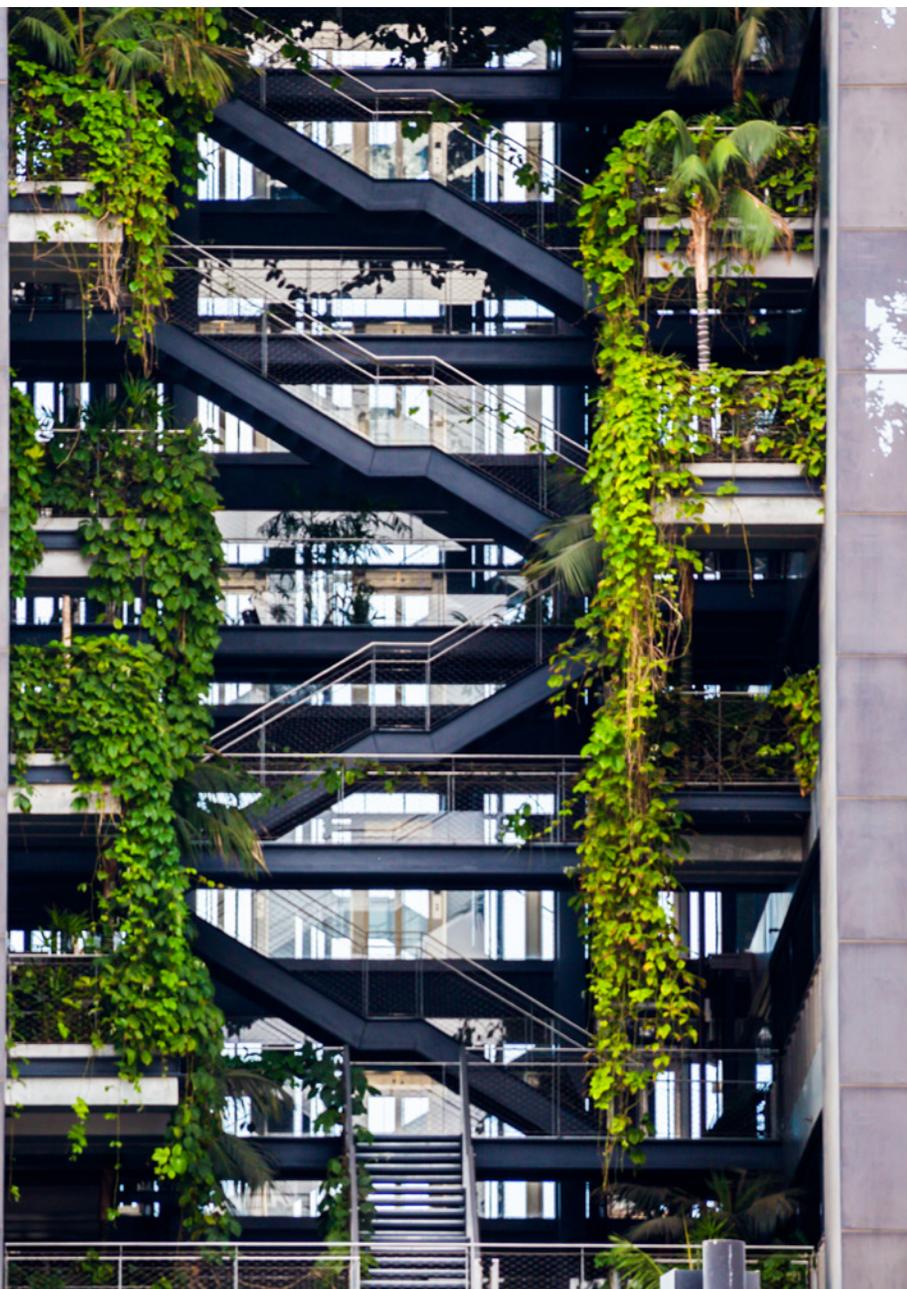
The process and methodology, summarized in the graph on the right, consist of (1) the collection of more than 300 single data elements, (2) the evaluation of performance versus the previous year, (3) the weighting of the five elements included in the EMS, (4) factoring in company growth to balance the relevance of efficiency versus absolute targets and (5) leveraging the components of our operations, i.e. Data Center operations versus office buildings.

As explained in the publicly available document [Amadeus Environmental Objectives and Performance 2021](#), the methodology above is designed for annual growth (or decline) scenarios between 1% and approximately 25%, both in terms of number of employees and number of transactions processed by Amadeus. While the number of employees fell in 2021 by 9%, the number of transactions had an increase of 56%. Accordingly, the results achieved in reduced environmental impact of 11% in offices, 29% in the Data Center and 18% overall cannot be used without considering the exceptional year that 2021 was in terms of increased transactions. For this reason, we've focused on some of the principal elements of our overall impact to better reflect our performance in this very particular year.

Environmental performance 2021

On the following page, we include a summary of the most relevant environmental targets and our performance in 2021.





| Main environmental targets and results 2021

Description	Target 2021	Units	Performance 2021	Units	Change
Total electricity consumption office buildings	46.9	GWh	44.0	GWh	-6%
Total electricity consumption Data Center	63.5	GWh	61.5	GWh	-3%
Electricity per employee	2,665	kWh	2,742	kWh	3%
CO ₂ emissions Scopes 1+2	15,069	t CO ₂	13,729	t CO ₂	-9%

The highlights of the environmental performance of Amadeus operations in 2021 are:

- ▶ A decrease in electricity use in our offices, mainly due to the implementation of the new hybrid working model globally, which improved the overall efficiency of the use of electricity.
- ▶ The electricity consumption per employee has slightly increased compared to 2020 figures, but it's still below 2019 levels (-9%).
- ▶ A decrease in overall CO₂ emissions, due mainly to a reduction in Scope 2 emissions that is linked to the continuous use of Guarantees of Origin of renewable energy at our Data Center to maintain our CO₂ emissions under control. And improved emission factors in the main countries where we operate.
- ▶ A decrease in energy use at the Data Center, despite a significant increase in the number of transactions processed. This is due mainly to efficiency gains and the progressive migration to the cloud.
- ▶ A significant reduction in the use of paper and water, as well as in waste generated. This was achieved despite the fact that in 2021 the number of employees working from the office increased, compared to a good part of 2020. The water reduction was quantitatively less relevant due to the necessary maintenance of gardens even if the offices were closed.

Examples of best practices at office buildings

<h3>Electricity consumption</h3> <ul style="list-style-type: none"> ▶ Switches connected to movement detection control systems. ▶ Replacing incandescent bulbs with LEDs. ▶ Inclusion of energy performance clauses in our contracts with vendors like in Nice. ▶ Automatically switching off lights at certain hours. ▶ Use of renewable energy in sites like our Data Center in Germany (through the use of Guarantees of Origin) and our offices in Manila. ▶ Thorough planning of areas covered by specific light switches. ▶ Renovating our office buildings to make them more energy efficient. ▶ Implementing photovoltaic cells on roofs. 	<h3>CO₂ emissions reduction</h3> <ul style="list-style-type: none"> ▶ Use of Guarantees of Origin of renewable energy for the Data Center, saving 21,780 t of CO₂ in 2021. ▶ Shared transport facilities at our largest sites like Bengaluru, with an estimated reduction of more than 600 t of CO₂ annually. Our office in Nice provides a shuttle service between the main sites to reduce our CO₂ footprint and traffic congestion. ▶ Purchasing carbon-neutral products and services from vendors. ▶ Awareness campaigns to promote frugal consumption of energy. 	<h3>Paper consumption</h3> <ul style="list-style-type: none"> ▶ Global implementation of badge-based printing systems that reduce paper wasted and help to raise awareness about paper consumption, in addition to other benefits like improved confidentiality. Based on statistics of more than 14,000 users, we found that more than 6% of print jobs sent to the printers end up being deleted, saving a significant amount of paper. ▶ Setting all printer defaults to black-and-white, double-sided printing. ▶ Using recycled paper when possible. ▶ Sending used paper for recycling. ▶ Broad implementation of electronic signatures for contracts, reducing significantly the paper copies printed, courier usage and overall time taken to review and sign documents. ▶ Global marketing efforts to reduce paper use in advertising, using digital means instead. ▶ Initiatives like activity-based working* in some of our sites like our Sydney office, reducing overall use of resources, including paper. 	<h3>Water use</h3> <ul style="list-style-type: none"> ▶ Implementing motion sensor taps, water flow regulators and aerators in bathrooms to optimize consumption. ▶ Using drip irrigation systems and plants with low water consumption. ▶ Using water-efficient dishwashers in kitchens. ▶ Implementing leak detection units to reduce water loss. ▶ In Singapore, our office building includes a condenser system to avoid water waste in the cooling system due to condensation. Amadeus buildings in some sites like Sydney harvest rainwater from the rooftop for various uses. 	<h3>Waste generation and circular economy</h3> <ul style="list-style-type: none"> ▶ Implementing a proper infrastructure to promote classification of waste. ▶ Replacing individual workstation bins with common area bins to reduce waste. ▶ Elimination of the use of plastic as much as possible. Vending machines are replacing plastic cups with individual ceramic mugs. ▶ Working with vendors that collect waste to improve its measurement and management. ▶ Donating and recycling office furniture and electronic equipment. ▶ Decrease the number of desk phones by more than 12,000 during 2021
<p>At our London site, the LED lighting system regulates the intensity of artificial light according to the natural light available, and the photovoltaic panels on the roof have produced more than 83,000 kWh in 2021.</p> 				

* Activity-based working (ABW) is based on an office set-up that allows employees to choose from a variety of office settings according to the nature of what they are doing, combined with a workplace experience that empowers them to use those spaces throughout the day. In ABW, the individual ownership of a workstation is replaced by a more flexible set-up.

Environmental performance at the Amadeus Data Center and move to the cloud

Energy efficiency is a priority at the Data Center. The measures taken to improve performance were selected from a combination of internal analysis by our experts and reviews and recommendations from external consultants. In this respect, the Amadeus Data Center has maintained since 2010 the Energy-Efficient certification from TÜV SÜD for its power supply, cooling and climate control processes and IT equipment, as well as its procurement, installation and de-installation procedures, following a thorough analysis of our infrastructure. The certification has been subsequently renewed in 2012, 2015, 2018 and 2021. The current certification is valid until the end of 2024. Amadeus has also extended the Data Center certification to EN 50600, the EU standard for data centers that is even broader in scope and more demanding.

In 2021 we have finalized the renewal of the emergency generators in the Data Center. The new units are fuel-optimized and therefore consume less fuel than the old units, which also has the effect of reducing CO₂ emissions. The savings compared to the old generators are ~ 92.0 = L /h (per operating hour at 100% load).

Examples of other recent measures taken to improve our energy efficiency and reduce CO₂ emissions, finalized in 2020, include the renewal of our low-voltage distribution units and the implementation of more efficient cooling machines that reduce the energy required to cool servers and also optimize the use of water.

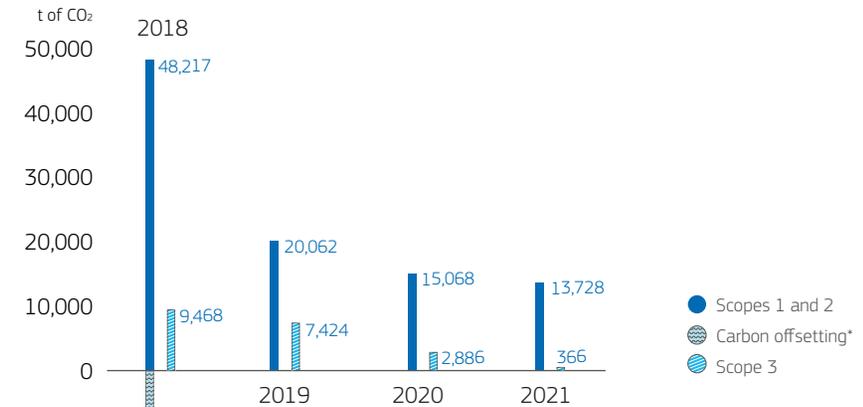
The Data Center's Power Usage Effectiveness (PUE) in 2021 was 1.31.⁸ ↪

In February 2021 Amadeus and Microsoft entered into a global strategic partnership that includes the acceleration of the move of Amadeus' technical platforms to the public cloud, leveraging Microsoft Azure technology for even greater agility and resiliency. The move to the cloud is expected to improve Amadeus' operations environmental performance in various ways, including improved data center efficiency using advanced data center infrastructure designs, being able to manage peak loads in a more efficient way, given the flexibility provided by the large-scale IT infrastructure provided by the cloud and reducing wasted computing resources, through and improved alignment of demand and server capacity, among others.

⁸ Our long-term target for 2025 is to achieve a PUE of 1.32, improving linearly from the 2018 PUE of 1.34. The objective for 2021 was therefore a PUE of 1.331.

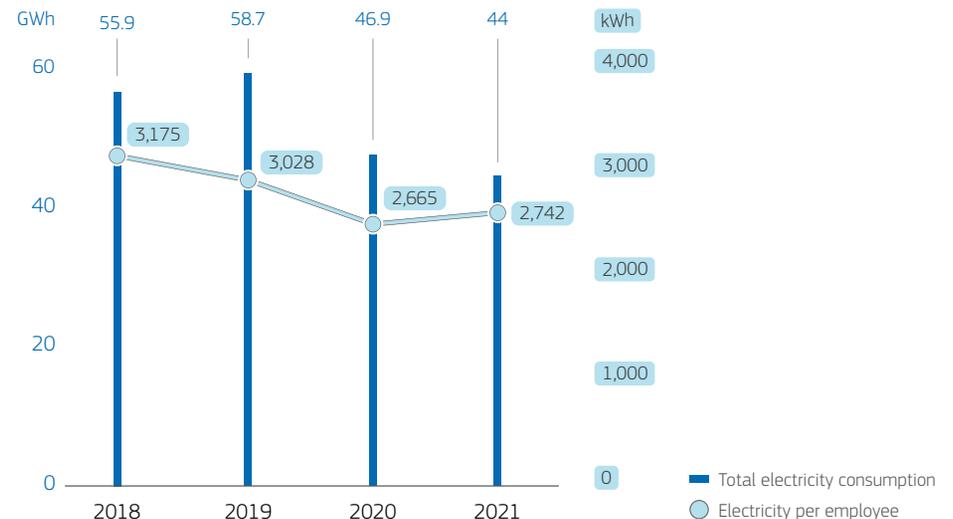
↪ See p. 68, "Green IT and energy efficiency."

CO₂ emissions



* From 2016 until 2018, we invested in Clean Development Mechanism projects in India to offset the emissions that we couldn't avoid, to reach the target of our company-wide carbon-neutral growth policy set in 2016. In 2018 we offset 16,410 tons of CO₂ with Certified Emissions Reductions from these projects.

Electricity



Amadeus' sustainability credentials

Sustainability indices provide feedback on our performance and help us identify areas for improvement in ESG areas. They are also a valuable benchmark to assess how Amadeus compares to other companies and industries on ESG performance. ↪

For the tenth consecutive year, Amadeus has been included in the Dow Jones Sustainability Indices (DJSI) both in the World and Europe categories. DJSI evaluates sustainability performance very comprehensively, including economic/governance, environmental and social dimensions. One of the most remarkable scores achieved in the DJSI results announced in November 2021 was environmental reporting, where Amadeus achieved the maximum score of 100 points. Our climate strategy received 95 points.

Amadeus also participated in CDP Climate Change in 2021 and obtained a score of B.

Amadeus has also been included for the eighth consecutive year in the FTSE4Good Sustainability Index. The FTSE4Good Index Series includes companies that reflect strong ESG risk management practices.

The *Financial Times*, in its May 18, 2021 issue, included Amadeus in its inaugural list of [Europe's Climate Leaders 2021](#). The list is made up of the 300 companies that achieved the greatest reduction in their GHG emissions intensity⁹ between 2014 and 2019. Amadeus' inclusion in the list further exposes our positive sustainability credentials and confirms the success of our climate strategy.

We believe transparent and clear non-financial information reporting is a fundamental step for long-term sustainability and we have reinforced our commitment in this direction.

↪ See p. 23, 'Recognition and awards.'

⁹ Emissions intensity is defined as tons of emissions of CO₂ per €1 million of revenue.



Member of
**Dow Jones
 Sustainability Indices**
 Powered by the S&P Global CSA



Corporate governance

GRI 102-18, 102-24, 102-26 | GRI 103-1, 103-2, 103-3 (Compliance, governance & business ethics)

Corporate governance structure and policies

Amadeus upholds the highest levels of corporate governance, which helps us maintain our market leadership and our reputation as a trusted partner for customers, suppliers and other stakeholders. Our corporate governance policies and procedures are designed to help us achieve our objectives and protect the interests of our shareholders.

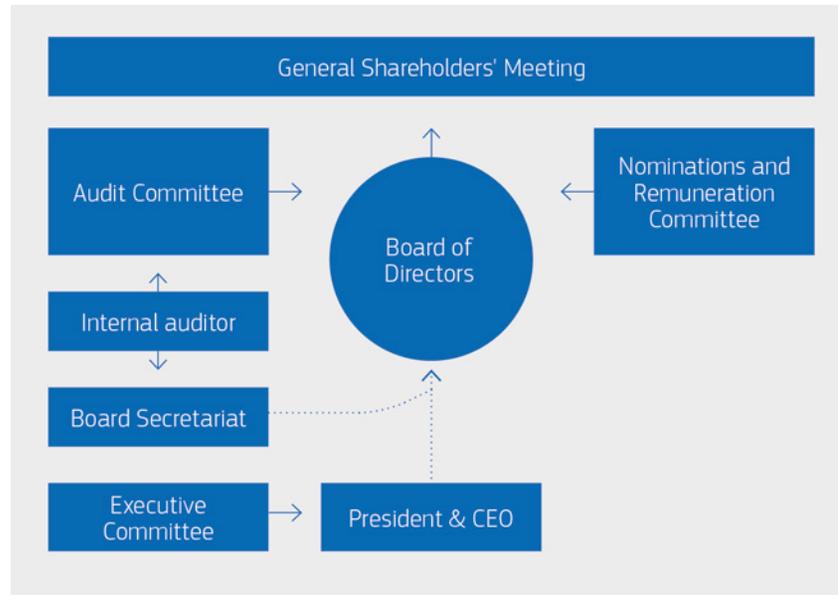
Amadeus' main legal documents relating to corporate governance were drawn up when the company was listed on the Spanish stock market in April 2010. These documents are periodically revised to reflect regulatory changes, including the

amendments to the Spanish Capital Companies Act (Ley de Sociedades de Capital) and the new mercantile framework resulting from these, the European Union's Market Abuse Regulation, and recommendations from the Spanish Good Governance Code of Listed Companies.

These documents comprise:

- ▶ Company bylaws
- ▶ Regulations of the Board of Directors
- ▶ Regulations of the General Shareholders' Meeting
- ▶ Internal rules of conduct relating to the securities market

I Amadeus' corporate governance structure



The following documents, among others, have been approved by Amadeus' various governing bodies and complement and integrate the company's general corporate governance policy:

- ▶ Corporate Tax Policy
- ▶ Regulations of the Audit Committee
- ▶ Corporate Crime-Prevention Policy
- ▶ Policy Regarding Communication of Economic-Financial, non-Financial and Corporate Information and Regarding Communication and Contact with Shareholders, Institutional Investors and Proxy Advisors
- ▶ Directors' Selection Policy
- ▶ Directors' Remuneration Policy (2022–2024)

General Shareholders' Meeting

The General Shareholders' Meeting is the highest body representing Amadeus' share capital. It exercises its powers exclusively in the spheres of corporate law and the company's bylaws. According to these, shareholders must meet at least once a year, within the first six months, to debate and adopt agreements concerning their most important economic and legal duties. These include, among others:

- ▶ Appointment of Board members
- ▶ Review and approval of the annual accounts
- ▶ Appropriation of results
- ▶ Appointment of external auditors
- ▶ Authorization for the acquisition of treasury stock
- ▶ Supervision of the Board's activities

Both Spanish law and the company's bylaws give the General Shareholders' Meeting the exclusive power of adopting other important agreements, such as bylaw modifications, bond issues and mergers.

The Spanish Capital Companies Act gives further significant powers to the General Shareholders' Meeting, which is now the competent body responsible for discussing and agreeing to any purchase, sale or contribution of essential assets from or to another Amadeus Group company, as well as for approving transactions between related parties when exceeding certain thresholds.

The General Shareholders' Meeting may also decide on business transactions amounting to the liquidation of the company, as well as on the Board of Director's Remuneration Policy.

Board of Directors



Medium-low impact

The Board of Directors is Amadeus' highest representative, administrative, managerial and controlling body. It sets out the company's general guidelines and economic objectives (financial and non-financial) and carries out the company's strategy (steering and implementation of company policies), supervision activities (management control) and communication functions (liaising with shareholders).

The Spanish Capital Companies Act also gives further powers to the Board of Directors, some of which are non-delegable (for listed companies). In this regard, the Board of Directors is the responsible body for policies on, among others:

- ▶ Corporate social responsibility
- ▶ Dividends
- ▶ Risk management and control (including fiscal risks)
- ▶ Corporate governance
- ▶ Tax strategy
- ▶ Related party transactions (other than those reserved for the General Shareholders' Meeting), with delegation faculties under certain circumstances

Members of the Board of Directors are appointed by resolution of the General Shareholders' Meeting for an initial period of three years. After this, they can be re-elected for additional periods of one year, with no limit.

Amadeus has had a Directors' Selection Policy in place since 2016 that has been updated in 2022 with the June 2020 recommendations from the Spanish Good Governance Code of Listed Companies. This selection process looks at a range of factors, including but not restricted to:

- ▶ The business's current strategy
- ▶ The Board's composition, especially its members' industry, functional and geographic experience
- ▶ The Board's diversity, especially but not limited to gender diversity

Amadeus recognizes and embraces the benefits of having a diverse Board, and sees increasing diversity of knowledge, experience and gender at Board level as an essential element in continually improving the Board's effectiveness. A truly diverse Board will include and make good use of differences in its directors' skills, regional and industry experience, background, race, gender and other distinctions. These will be considered in determining the optimum composition of the Board and will be balanced appropriately. All Board appointments are made on merit in terms of skills, experience, independence and knowledge that can contribute to the Board's effectiveness.

The Directors' Selection Policy aimed for at least 30% of the Board's seats to be held by women by the year 2020. The Nominations and Remuneration Committee considered the achievement of this more likely throughout the year 2021, as part of an orderly process of Board succession.

In this regard, the Nominations and Remuneration Committee, at its meeting of December 15, 2020, proposed to the Board, for submission later to the General Shareholders' Meeting held in June 2021, that at least one female candidate take a position on the Board of Directors.

As a result, the Nominations and Remuneration Committee, at its meeting of April 14, 2021, nominated to the Board of Directors Mrs. Jana Eggers and Mrs. Amanda Mesler as independent Board members. This was approved by the General Shareholders' Meeting of June 17, 2021.

With these appointments the percentage of women on the Board has increased at year end to 41.66% (without taking into consideration a vacancy at year end). As per the new Directors Selection Policy (updated in 2022), a new target of 40% has been set up by the end of 2022, in accordance with the recommendations of the Good Governance Code of Listed Companies, updated in June 2020.

I Composition of the Board of Directors

Name or corporate name of director	Position on the Board	Date of first appointment	Nature	Position on the committees	
				Audit Committee	Nominations and Remuneration Committee
Mr. William Connelly	Chairman	06/20/2019	Independent		
Mr. Francesco Loredan	Vice Chairman	02/21/2005	Other external		Member
Mr. Luis Maroto	President & CEO	06/26/2014	Executive		
Mrs. Xiaoqun Clever	Director	06/19/2020	Independent		
Mrs. Jana Eggers	Director	06/17/2021	Independent		
Dame Clara Furse	Director	04/29/2010	Independent	Member	Chairman
Mrs. Pilar García	Director	12/15/2017	Independent	Member	
Mr. Stephan Gemkow	Director	06/21/2018	Independent	Member	
Mr. Peter Kuerpick	Director	06/21/2018	Independent		Member
Mrs. Amanda Mesler	Director	06/17/2021	Independent	Member	Member
Mr. Josep Piqué	Director	06/20/2019	Independent		
Mr. David Webster	Director	05/06/2010	Independent	Chairman	Member
Mr. Tomas López Fernebrand	Secretary (non-director)	01/18/2006			
Mr. Jacinto Esclapés	Vice Secretary (non-director)	01/18/2006			

The vacancy created by Mr. Nicolas Huss' resignation in July 2021 has been covered by Mrs. Eriikka Söderström, who was appointed Independent Director by co-optation method as per the resolution of the Board of Directors of February 24, 2022.

The Board of Directors agreed to put in place a renewal succession plan initiated in 2017, which has resulted in the incorporation of ten new members since then. This renewal process has reduced the average tenure of each member to six years, and we expect this figure to increase in the following years.

Mr. William Connelly
Chairman



Mr. William Connelly is an Economics graduate from Georgetown University. He is currently non-executive Chairman of the Supervisory Board of Aegon NV. He is also an independent director of Société Générale Group and Singular Bank SAU.

He held various management positions at ING Group NV from 1995, until he became the ING Bank Management Board member responsible for wholesale banking in 2011 until 2016. At ING he was also Chief Executive Officer of Real Estate from 2009 to 2015. He started his career from 1980 to 1990 with Chase Manhattan Bank, before joining Baring Brothers & Co. Ltd. from 1990 to 1995.

He has broad financial services experience in corporate finance, financial markets, real estate and lending.

He joined Amadeus' Board of Directors on June 20, 2019 and he is the Chairman of the Board since June 2021.

Mr. Francesco Loredan
Vice Chairman



Mr. Loredan is an Economics graduate from the London School of Economics and holds a Master's in Business Administration from INSEAD. He worked as a credit officer for Bank of America-BAL in Milan and as a management consultant with the Boston Consulting Group in Paris and Milan. In 1989 he joined BC Partners, where he was Managing Partner and Co-Chairman until December 2014. Currently he is Director of Oneiros Investments SA (private equity), Vice-Chairman of White Bridge Investments group of companies (private equity), and a director of some of its portfolio investments (QC Terme SRL—Spas and Wellness facilities operator, Nutkao SRL—chocolate spreads manufacturer, Akeron—software for the sales force). He is also a Director of Spring SA

(private equity) and a Director of Pictet Alternative Advisors, UK Ltd (private equity/hedge funds).

He joined Amadeus' Board of Directors on February 21, 2005, and is Vice Chairman of the Board since June 2021.

Mr. Luis Maroto Camino
President and
Chief Executive Officer



Mr. Maroto became Amadeus' President and Chief Executive Officer on January 1, 2011.

From 2009 to 2010 he was Amadeus' Deputy Chief Executive Officer, responsible for the company's strategy as well as the finance, internal audit, legal and human resources functions.

He was instrumental in Amadeus' return to the stock market with the company's successful IPO in April 2010.

He joined Amadeus in 2000 as Director, Marketing Finance. In that role, he supported Amadeus' commercial organization throughout its international expansion and consolidation.

He was promoted in 2003 to Chief Financial Officer, taking responsibility for the global Amadeus finance organization.

Prior to joining Amadeus, he held several managerial positions at Bertelsmann Group. In 2019 he also became a director of Dufry AG (global travel retailer).

A Spanish citizen, he holds a Law degree from the Complutense University of Madrid, a Master's in Business Administration from the IESE Business School in Barcelona and further postgraduate qualifications from Harvard Business School and Stanford.

He joined Amadeus' Board of Directors as Executive Director on June 26, 2014 and was appointed *Consejero Delegado* on October 16, 2014.

Mrs. Xiaoqun Clever
Director



Ms. Clever holds an Executive MBA from the University of West Florida and a diploma in Computer Science and International Marketing from the Karlsruhe Institute of Technology (Germany). She has also studied Computer Science Technology at the University TsingHua (Beijing, China) and graduated from the Global Leadership Development Program of INSEAD.

Ms. Clever has over 20 years' experience in the area of software engineering, big data, cyber security and digitalization. Born in China, she has held various senior management positions in international corporations. Among others, Ms. Clever has spent sixteen years at SAP SE (from 1997 to 2013) in various positions, including Chief Operating Officer of Technology & Innovation, Senior Vice-President of Design & New Applications and Executive Vice-President & President of Labs in China.

Since 2014, Ms. Clever was driving digitalization in the media industry as Chief Technology Officer of ProSiebenSat.1 Media SE, a German media company (2014-2015) and Chief Technology & Data Officer and member of the Group Executive Board at Ringier AG, an international media group based in Zurich, Switzerland (from January 2016 to February 2019).

Ms. Clever is an independent Director of Cpggemini SE, BHP Group (BHP Group Limited & BHP Group Plc) and a member of the Supervisory Board of Infineon Technologies AG.

She joined Amadeus' Board of Directors on June 19, 2020.

Mrs. Jana Eggers
Director



Mrs. Eggers holds a degree in mathematics and computer studies from Hendrix College (USA). She also studied computer science at Rensselaer Polytechnic Institute (USA).

She is currently the CEO of Nara Logics, a neuroscience-based artificial intelligence company.

She began her professional career at Los Alamos National Laboratory modeling electron transfer in conducting polymers using high-performance computing and artificial intelligence. After Los Alamos, she attended graduate school in computer science, and then left research to join the business world in 1994.

Her roles always intermix engineering, product management, and business development. She has held technical and leadership roles at start-ups, like

PTCG (supply chain optimization) and Apps.com (online applications), who have been bought by large enterprises, American Airlines Sabre Group and Intuit, respectively. Both acquisitions led to senior roles at the acquiring companies. Another small start-up she joined was Lycos, which grew to be an internet search leader. Her career has taken her to Europe twice: to open the European operations for supply chain optimization for Sabre Group, and as CEO of Germany-based, sprd.net AG, one of the first mass-customization platforms on the Web.

She's a noted expert in artificial intelligence, software product management, and enterprise innovation.

She joined Amadeus' Board of Directors on June 17th, 2021.

Dame Clara Furse
Director



Dame Clara Furse graduated from the London School of Economics with a degree in Economics in 1979. She is the Chairman of HSBC UK, the ring-fenced bank of HSBC Group. She is also a non-executive director of Vodafone Group PLC. In March 2021 she became Chairman of the UK Voluntary Carbon Markets Forum, establishing a group that aims to operationalize a global, high integrity market for voluntary carbon offsets - an essential component of an accelerated and economically productive transition to net zero.

She was an external member of the Bank of England's Financial Policy Committee, joining the new statutory body and macroprudential regulator in 2013 and standing down in 2016. She was a non-executive director of Nomura Holdings from 2010 to 2017. From 2011 to 2017, she was also

on the board of the UK's Department for Work and Pensions and latterly its lead independent director.

From 2001 to 2009 she was Chief Executive of the London Stock Exchange, a FTSE 100 company. During this period she was also a non-executive director of Euroclear PLC, LCH Cleamnet Group Ltd. and Fortis SA, and a member of the Shanghai International Financial Advisory Council. From 2009 to 2013 she was a non-executive director of Legal & General Group.

She joined Amadeus' Board of Directors on April 29, 2010.

Mrs. Pilar García Ceballos-Zúñiga
Director



Mrs. García is a Law graduate of the University of Madrid, CEU San Pablo, and holds a Master's in Business Administration from the Open University, Milton Keynes, United Kingdom. She is an experienced executive with a long history in the field of technology, working in multinational environments and focusing on technological innovation and organizational effectiveness.

She was a leader at IBM Corporation for more than 25 years, during 12 of which she held high-level responsibilities in its European headquarters and across the world. She was Executive Vice President of IBM Global Digital Services, Cloud and Security, based in New York, in her last leadership position until 2016.

She was General Manager in Spain of INSA (currently ViewNext) and General Manager of Softinsa in Portugal for five years, a services company specialized in application development and infrastructure services.

She served as member of the Steering Committee of IBM Spain and Portugal, IBM Southwest Europe and INSA, leading IBM's global committees for the management and transformation of strategic and commercial areas, as well as internal process optimization.

She is currently President of the Board of Trustees for the Caja de Extremadura Banking Foundation, Vice President of the Association of Spanish Foundations since June 2019, and a director of Renta4.

She joined Amadeus' Board of Directors on December 15, 2017.

Mr. Stephan Gemkow
Director



Mr. Gemkow holds a degree in Business Administration from Paderborn University. He began his professional career as a consultant for BDO Deutsche Warentreuhand AG in 1988, before joining Deutsche Lufthansa AG in 1990, where he held various management positions in the sales, finance and human resources areas. He served as member of the Group Executive Board (Chief Financial Officer) at Deutsche Lufthansa AG until mid-2012. He then became Chief Executive Officer of Franz Haniel & Cie., a globally active family-owned portfolio management company based in Germany, until 2019. He sat on Amadeus' Board of Directors from 2006 to 2013 as a proprietary director representing Lufthansa. He was a Director of JetBlue Airways Corp. until April 2020.

He is a director of Flughafen Zürich AG (airport sector) and a director of Airbus SE (aerospace industry) since April 2020. Since May 2021 he serves as Senior Advisor for the BNP Paribas Group in Germany.

He joined Amadeus' Board of Directors on June 21, 2018.

Mr. Peter Kuerpick
Director



Mr. Kuerpick holds a doctorate in Theoretical Physics from the University of Kassel and has conducted postdoctoral research at Kansas State University and the University of Tennessee, Knoxville. He also holds a Master's in Environmental Sciences from the University of Kassel, and a Corporate Master's in Business Administration from INSEAD.

Mr. Kuerpick is Senior Vice President at EPAM Systems in Berlin. In a dual role he is both responsible for the German entity of EPAM and global CTO Enterprise Software. He joined EPAM Systems from Bain Capital where he oversaw the adoption of latest IT strategies in the Bain Capital portfolio companies in the role of a Technology Operating Partner. Previously, he has held numerous technology leadership roles at HERE Technologies,

Unify, Software AG and SAP, where he was instrumental in the conception and development of SAP NetWeaver. He joined Amadeus' Board of Directors on June 21, 2018.

Mrs. Amanda Mesler
Director



Mrs. Amanda Mesler holds an MBA from the University of North Carolina.

Mrs. Mesler began her career as a Business Analyst for Kierulff Electronics in 1985 and then joined Exide Electronics in 1986 as a Buyer. She moved to General Electric in 1988 where she was the Asian Pacific Market Development Manager. From 1994, Mrs. Mesler held numerous executive leadership positions at the Partner level at Bearingpoint (formally KPMG Consulting), EDS and SYSCO. In 2007, she became the CEO for North America at Logica, and moved to the UK to join the Executive Committee and Operating Board of the Global company. In 2015, she worked at Microsoft as General Manager of Central and Eastern Europe, leaving Microsoft in 2018. She then served as CEO for Earthport Plc, a cross-border payments company, who were acquired by Visa in 2019.

Mrs. Mesler is a business and commercial savvy executive with over 30 years of experience, having held leadership positions as CEO, COO, Chief Client Officer and a Corporate Strategy Officer as well as serving as a Non-Executive Board Director of four companies.

She currently sits on the board of National Grid since 2018, Minna Technologies since 2022 and sat on the Board of Directors of Pace, plc as Non-Executive Director from 2012 to 2015 and on the Board of Directors of Insect Technology Group, as a Non-Executive Director until January 2021.

She was the CEO of Cashflows Europe, Ltd. since September 2019 until August 2021.

She has had a truly global experience, working across all continents, including responsibility for teams in more than 40 countries. She has strong technology and Fintech experience at the executive level.

Since 2009, she has been a member of the Young Presidents' Organization and International Women's Forum.

She joined Amadeus' Board of Directors on June 17th, 2021.

Mr. Josep Piqué
Director



Mr. Piqué holds a degree in Economics and Business Studies as well as a Law degree from the University of Barcelona. He has been lecturing in Economic Theory since 1984. He also worked as economist in the Studies Service Department of La Caixa from 1984 to 1985.

On the public stage of Spain, he has been Minister of Industry and Energy (1996–2000), a government spokesman (1998–2000), Minister of Foreign Affairs (2000–2002) and Minister of Science and Technology (2002–2003). He has also been a deputy and member of the Spanish parliament.

He was Chairman and Chief Executive Officer of Ercros Group from 1992 to 1996, Chairman of Vueling from 2007 to 2013, Director of Airbus Group from 2011 to 2014, Vice Chairman and Chief Executive Officer of OHL Group from 2013 to 2016 and an independent director of Aena from

2017 to 2019. Currently he is the Chairman of ITP Aero, an independent director of SEAT SA and an independent director of Atrys Health S.A., among others.

In the field of civil society, he is member of the Board of Trustees of several foundations and associations. He is the President of the Spanish–Japanese Forum and Foundation, CITpax (Toledo International Center for Peace), Honorary Ambassador of the Republic of Korea and the Iberian–American Business Foundation. He is Vice President of the Círculo de Empresarios (business forum) and was President of the Círculo de Economía (economics forum). He is also CEO and Publisher of Política Exterior.

He joined Amadeus' Board of Directors on June 20, 2019.

Mr. David Webster
Director



Mr. Webster is a Law graduate from the University of Glasgow and qualified as a solicitor in 1968. He began his career in finance as a manager of the corporate finance division of Samuel Montagu & Co. Ltd. From 1973 to 1976, as Finance Director, he developed Oriel Foods, which was sold to RCA Corporation. In 1977 he co-founded Safeway (formerly Argyll Group), a FTSE 100 company, of which he was Finance Director and latterly, from 1997 to 2004, Executive Chairman. He was a non-executive director of Reed International PLC from 1992, Reed Elsevier PLC and Elsevier NV from 1999, as well as Chairman of Reed Elsevier from 1998 to 1999, retiring from all three Boards in 2002.

He has been a director in numerous business sectors and has a wide range of experience in the hotel industry in particular. For nine years he was non-executive Chairman of InterContinental Hotels Group PLC until 2012. He was non-executive Chairman of Makinson Cowell Ltd. until 2013 and a non-executive director of Temple Bar Investment Trust PLC until 2017. He is also non-executive Chairman of Telum Media Group Pte. Ltd. and Vuma Ltd., as well as a member of the Appeals Committee of the Panel on Takeovers and Mergers in London.

He joined Amadeus' Board of Directors on May 6, 2010.

Both Mrs. Jana Eggers and Mrs. Amanda Mesler were elected for a period of three years by decision of the General Shareholders' Meeting on June 17, 2021, to cover the vacancy created by Mr. José Antonio Tazón and Mr. Pierre-Henri Gourgeon, whose terms of office expired. The decision was submitted by the Board of Directors, upon proposal by the Nominations and Remuneration Committee.

In line with Article 35 of the bylaws of the company (term of office), the following directors were re-elected for an additional one-year term in the last Ordinary General Shareholders' Meeting of June 17, 2021:

- ▶ Mr. Luis Maroto
- ▶ Dame Clara Furse
- ▶ Mrs. Pilar García Ceballos-Zúñiga
- ▶ Mr. Francesco Loredan
- ▶ Mr. David Webster
- ▶ Mr. Nicolas Huss
- ▶ Mr. Peter Kuerpick
- ▶ Mr. Stephan Gemkow

The independent Director Mr. Nicolas Huss resigned as Amadeus' Director effective as of July 15, 2021, creating a vacancy in the Board. This vacancy was covered by Mrs. Eriikka Söderström, who was appointed Independent Director by cooptation method as per the resolution of the Board of Directors of February 24, 2022.

Their re-election or replacement (together with those of Mr. William Connelly and Mr. Josep Piqué), in line with the Directors' Selection Policy and as approved by the Board of Directors on February 24, 2022, and upon proposal by the Nominations and Remuneration Committee, will also have to be submitted for decision to the General Shareholders' Meeting in June 2022.

The financial expertise, broad management skills and dedication of the independent directors, as well as the industry knowledge of the other external directors, have contributed significantly toward the quality and efficiency of the Board's operations and committees.

Having the Amadeus Chief Executive Officer as an Executive Director of the Board of Directors reinforces the communication channel between the Board and the company's management team. This has been key in making the Board's decision-making process more efficient.

During fiscal year 2021, seven Board meetings were held, with attendance by all Board members whether in person, remotely or by proxy with specific voting instructions.

The former Chairman of the Board of Directors, Mr. José Antonio Tazón, attended all Board meetings until his retirement in June 2021. The new Chairman of the Board, Mr. William Connelly, and Amadeus Group's Chief Executive Officer, Mr. Luis Maroto (Executive Director), attended all Board meetings.

The Board of Directors, at the meeting held on December 16, 2021, with the positive endorsement of the Nominations and Remuneration Committee, appointed Mr. Jacinto Esclapés Díaz as Secretary of the Board of Directors, effective January 1, 2022, replacing Mr. Tomas López Fernebrand. Mrs. Ana Gómez Ruiz, Associate Director, Head of Corporate, was appointed Vice Secretary of the Board of Directors, effective January 1, 2022, replacing the incoming Secretary Mr. Jacinto Esclapés Díaz.

Remuneration policy

With respect to remuneration for the Chairman and non-executive directors, Amadeus offers competitive fees to fit the required time commitment and responsibilities. As part of the Directors' Remuneration Policy, every two years the Nominations and Remuneration Committee reviews the non-executive director fee data of comparable companies in the main European indices, including the IBEX 35.

In accordance with the Directors' Remuneration Policy (2022–2024), we've agreed to continue with remuneration based on a fixed amount for membership of the Board and of the various Board committees. We've also agreed not to implement any other complementary remuneration formula.

The policy on Board remuneration doesn't include variable remuneration based on profits or attendance fees, nor contributions to pension plans or severance agreements in case of termination of functions. No provision is made for remunerating external directors through stock awards, stock options or instruments linked to share value.

The Executive Director receives an annual base salary, payable monthly, for the performance of executive duties for the company. The purpose of this element is to reflect the market value of the role, attract talent and reward skills and experience. The total remuneration package of the Executive Director (Chief Executive Officer) consists primarily of: (1) a base salary; (2) short-term variable remuneration; (3) long-term variable remuneration; and (4) other remuneration (Board fees, benefits and pension).

The Directors' Remuneration Policy (2022–2024) was approved by the Ordinary General Shareholders' Meeting of June 17, 2021, with a favorable vote of 88.339%.

The corresponding Annual Report 2020 on the Remuneration of Directors of Listed Companies was not endorsed by the Ordinary General Shareholders' Meeting of June 17, 2021, as it only received a favorable vote of 38.242% (advisory vote).

Since then, significant measures have been adopted by the Nominations and Remuneration Committee in order to provide our stakeholders with a clearer, more transparent and more comprehensive understanding of our approach to the Directors' remuneration.

Audit Committee



The powers vested in the Audit Committee by the Spanish Capital Companies Act, as well as the recommendations of the Spanish Good Governance Code of Listed Companies, gives the Audit Committee a role that makes it more than just an advisory body to the Board of Directors on certain key matters.

The Board of Directors' Meeting held on June 17, 2021, approved the amendment of, among others, Article 42 of the corporate bylaws concerning the Audit Committee. Additionally, the Audit Committee, at its meeting held on November 4, 2021, endorsed the amendment of the Regulations of the Audit Committee pursuant to the amendment of the Spanish Capital Companies Act by Act 5/2021 of April 12, subsequently approved by the Board of Directors in the meeting held on December 16, 2021.

The main function of this committee is to provide support to the Board of Directors in its oversight duties. This includes, for example, the periodic review of financial statements and of the effectiveness of internal control and risk management systems as a whole, embracing both financial and non-financial risks (including operational, technological, legal, social, environmental, political and reputational risks, or those related to corruption), so that major risks are duly identified, managed and disclosed. The Audit Committee receives regular updates on corporate compliance, including corporate policies relating to bribery and corruption, the corporate crime prevention program, fraud, insider trading and speaking up. It is also updated regularly on privacy and security matters.

The Audit Committee also provides support to the Board of Directors regarding compliance with all laws, regulations and internal rules affecting Amadeus, monitoring compliance with the policies and rules of the company in the environmental, social and governance area (ESG) and internal rules of conduct. It monitors compliance with the applicable rules at a national and international level and supervises the preparation and integrity of the company's financial and non-financial information in line with regulatory requirements and the proper application of accounting principles. It also hierarchically oversees the internal audit function.

The Audit Committee meets periodically, as convened by its Chairman. For this purpose, the Board Secretariat prepares an agenda for approval by the Committee Chairman, which is sent to all participants in advance of the meeting, together with the relevant documentation for each agenda item. Apart from the Audit Committee members, certain members of the Amadeus management team may also attend the meetings with prior invitation from the Committee Chairman.

The external auditors, Ernst & Young, represented by the partners in charge of Amadeus' audit, attend the meetings twice a year, unless their ad hoc attendance is required by the Committee Chairman. Minutes are drawn up by the Secretary of the Board (acting as Secretary of the Committee) on the conclusions reached at each meeting, which are included as an agenda item in the next Board of Directors' Meeting, at which the Committee Chairman reports to the full Board on the most relevant points addressed and any recommendations relating to (1) the external audit (for the annual and half-year financial statements), (2) the internal audit and (3) risk management.

In 2021 the Audit Committee prepared the mandatory annual report on its activities for the fiscal year 2020, covering, among others, the following areas:

- ▶ Rules and regulations
- ▶ Composition
- ▶ Operational activity
- ▶ Items discussed during fiscal year 2020 (external audit, internal audit, risk management and other items)
- ▶ Related party transactions
- ▶ Independence of the external auditor
- ▶ Functional and performance assessment
- ▶ Incidents and proposals for improving the company's rules of governance

The Audit Committee currently consists of five independent Board members.

Following the Technical Guide 3/2017 of the Comisión Nacional del Mercado de Valores (CNMV) on audit committees at public-interest entities, a new set of rules and regulations was adopted by the Board of Directors in December 2018, effective January 2019.

The Board of Directors' Meeting held on December 16, 2021, with prior endorsement from the Audit Committee, resolved to amend the Regulations of the Audit Committee to adapt their content to the June 2020 recommendations of the Spanish Good Governance Code of Listed Companies. Additionally, the Audit Committee, at its meeting held on November 4, 2021, endorsed a new amendment of its regulations pursuant to the amendment of the Spanish Capital Companies Act by Act 5/2021 of April 12, subsequently approved by the Board of Directors in the meeting held on December 16, 2021.

The Regulations of the Audit Committee address the following areas:

1. Introduction
2. Composition
3. Requirements for appointment
4. Operating rules
5. Responsibilities and duties:

- ▶ Oversight of financial and non-financial reporting
- ▶ Supervision of risk management and control
- ▶ Supervision of internal audit
- ▶ Contact with the statutory auditor
- ▶ Environmental, social and governance (ESG)

6. Engagement of experts and other resources

7. Annual report

Nominations and Remuneration Committee



This committee is made up of five external Board members and evaluates the competence, knowledge and experience required of members of the Board of Directors. It also:

- ▶ Proposes independent directors for appointment to the Board of Directors
- ▶ Produces the report on non-independent members' appointment to the Board
- ▶ Reports to the Board of Directors on matters of gender diversity
- ▶ Proposes to the Board of Directors the system and amount of the annual remuneration of its directors, as well as the remuneration policy of the members of the Executive Committee
- ▶ Formulates and reviews the remuneration programs for senior management
- ▶ Monitors compliance with the remuneration policies
- ▶ Assists the Board in compiling the report on the Directors' Remuneration Policy and submits to the Board any other reports on compensation specified in the Regulations of the Board of Directors

The Board of Directors' Meeting held on December 16, 2021, agreed to the modification of, among others, the corresponding Article 36 of the Regulations of the

Board of Directors concerning the Nominations and Remuneration Committee, to adapt its content to the June 2020 recommendations of the Spanish Good Governance Code of Listed Companies. Accordingly, the Ordinary General Shareholders' Meeting held on June 17, 2021, approved the amendment of, among others, Article 43 of the corporate bylaws concerning the Nominations and Remuneration Committee. A new amendment of Article 36 of the Regulations of the Board of Directors was approved by the Board of Directors in the meeting held on December 16, 2021.

The Nominations and Remuneration Committee meets periodically, as convened by its Chairman. For this purpose, the Board Secretariat prepares an agenda for approval by the Committee Chairman, which is sent to all participants in advance of the meeting together with the relevant documentation for each agenda item. Apart from the Nominations and Remuneration Committee members, certain members of the Amadeus management team may attend the meetings with prior invitation from the Committee Chairman.

In 2021 the Nominations and Remuneration Committee prepared the mandatory annual report on its operations for fiscal year 2020, covering the following areas:

- ▶ Competencies and duties
- ▶ Composition
- ▶ Operational activity
- ▶ Matters addressed during fiscal year 2020 (compensation, corporate, nomination and other)
- ▶ Nature of directorship (independent, other external, Executive Director)
- ▶ Composition of the Board of Directors
- ▶ Gender diversity of the Board of Directors
- ▶ Self-evaluation of the Board of Directors (declarative and self-assessment sections)
- ▶ List of companies in which the Board members also serve as directors and/or executive managers
- ▶ Verification of compliance with the Directors' Selection Policy

In addition, the Nominations and Remuneration Committee produced the Remuneration Policy of the Board of Directors, together with the Annual Report 2020 on the Remuneration of Directors of Listed Companies.

The Directors' Selection Policy was approved on April 21, 2016 and it was updated in February 2022 in line with the June 2020 recommendations from the Spanish Good Governance Code of Listed Companies). In line with this policy, the Board of Directors is committed to ensuring that its composition is diverse and balanced. Having a wide range of views offered in Board debates fosters well-informed decision-making in the interests of the company and all stakeholders.

Mrs. Amanda Mesler and Mrs. Jana Eggert were appointed Board members in 2021 in line with the Directors' Selection Policy.

The Nominations and Remuneration Committee will publish an analysis of the Board's needs in line with the Directors' Selection Policy at the same time that the General Shareholders' Meeting is called in 2022. At this time, the appointment or re-election of directors will be submitted.

Minutes are drawn up by the Secretary of the Board (acting as Secretary of the Committee) on the conclusions obtained at each meeting and are included as an agenda item for the next Board of Directors' Meeting. At this time, the Committee Chairman reports to the full Board on the most relevant points addressed and presents any recommendations for approval.

Amadeus' Management Executive Committee

Amadeus' Management Executive Committee is led by the company's Chief Executive Officer (*Consejero Delegado*) and comprises the senior management leaders.↪

This governance structure is designed to foster direct communication between Amadeus' business and its governing bodies through the *Consejero Delegado* to facilitate effective decision-making.

At the end of 2021 Mr. Tomas López Fernebrand, Senior Vice President, General Counsel and Corporate Secretary, left Amadeus, and Mr. Jackson Pek, new General Counsel, joined the Management Executive Committee effective January 1, 2022, succeeding Mr. Tomas López Fernebrand.

↪ See p. 24, 'Amadeus' Executive Committee.'

Corporate risk management

Throughout 2021 we've continued to foster effective coordination of assurance activities across Amadeus, leveraging our updated Three Lines of Defense Model (or "Three Lines Model") as part of our commitment to strong governance and risk management practices.

Three lines model



- ↑ Accountability, reporting
- ↓ Delegation, direction, resources, oversight
- ↔ Alignment, communication, coordination, collaboration

¹ Roles of the Board of Directors.
² Roles typically but no exclusively present within the following functions: Corporate Risk Management, Corporate Compliance, CISO, Data Privacy, Legal, Group Internal Control, People & Culture. These functions can also have 1st Line roles, and provide direction and oversight on 1st Line roles.
³ Roles of Group Internal Audit.
⁴ External auditors, regulators, etc.

Three Lines Model

1st Line: executive management, management and staff



Amadeus' commitment to integrity and transparency begins with our own staff. Amadeus employees adhere to the ethical standards set forth in the Amadeus Code of Ethics and Business Conduct and related policies. We don't see this code and our core policies purely as a "rule book," but as a mutual agreement across the company to promote positive behaviors that add value to our business and ensure the company is governed by the highest standards of integrity. The areas covered in the code are:

- ▶ Commitment to the environment
- ▶ Avoiding conflicts of interest and conducting business ethically
- ▶ Protecting personal data and confidentiality
- ▶ Handling relations with third parties and the media in a sensitive manner
- ▶ Handling company property, equipment and installations with care

All employees must receive mandatory training for the Code of Ethics and Business Conduct, as well as other policies relating to bribery and corruption, fraud, insider trading and speaking up.

Our Human Rights Policy asserts our commitment to international human rights. Accordingly, we expect all our suppliers and business partners to uphold internationally recognized standards regarding working conditions and the dignified treatment of employees.

Human rights form part of Amadeus' risk analysis framework. We evaluate the risks of infringing on the following rights:

- ▶ Non-discrimination (based on color, sex, language, religion, political opinion, social origin, property, birth or other status)

- ▶ Collective bargaining
- ▶ Freedom of association
- ▶ Fair wages
- ▶ No child labor or forced labor
- ▶ Adequately healthy and safe working conditions

Although such risks fall relatively low on our Corporate Risk Map, we have a series of mitigating and monitoring actions to manage them, both internally and with our suppliers and business partners.

Our mergers and acquisitions procedures also include due diligence on risks related to human rights.

Our Integration team ensures that Amadeus' policies are effectively implemented into newly integrated companies. And our Speak Up Policy encourages employees to report any breach of the Code of Ethics and Business Conduct, including potential human rights violations.

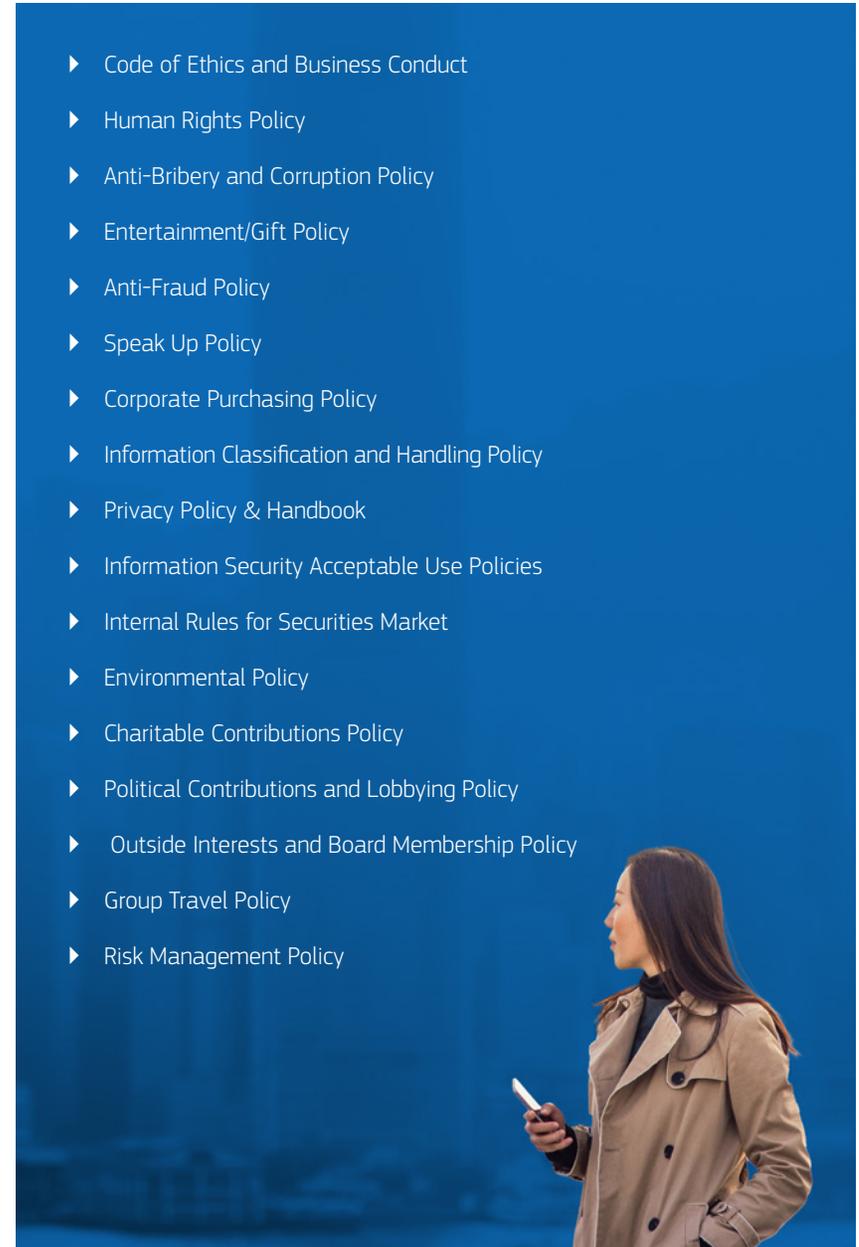
During 2021 no significant breaches of the Code of Ethics and Business Conduct were reported.

The set of corporate policies listed on the right applies globally to Amadeus. These policies are supported by processes that undergo regular internal and external quality reviews to ensure regulatory compliance and application of best practices. In addition to corporate policies, there are additional policies and processes more oriented to specific units or people in the various Amadeus sites.

The Amadeus Ethics Committee provides means for employees to seek advice on whether certain activities are considered ethical or lawful according to our corporate policies. The Ethics Committee is also responsible for dealing with reports of any unethical or unlawful behavior.

I Amadeus policies

- ▶ Code of Ethics and Business Conduct
- ▶ Human Rights Policy
- ▶ Anti-Bribery and Corruption Policy
- ▶ Entertainment/Gift Policy
- ▶ Anti-Fraud Policy
- ▶ Speak Up Policy
- ▶ Corporate Purchasing Policy
- ▶ Information Classification and Handling Policy
- ▶ Privacy Policy & Handbook
- ▶ Information Security Acceptable Use Policies
- ▶ Internal Rules for Securities Market
- ▶ Environmental Policy
- ▶ Charitable Contributions Policy
- ▶ Political Contributions and Lobbying Policy
- ▶ Outside Interests and Board Membership Policy
- ▶ Group Travel Policy
- ▶ Risk Management Policy





2nd Line: internal governance functions



Control activities are embedded in all areas of the company. Major control activities are carried out from units such as Corporate Risk Management, Corporate Compliance, Corporate Security, Group Privacy, Corporate Legal, Corporate Finance and People & Culture.

Risk management and controls

The Corporate Risk Management unit is responsible for centralizing the continuous monitoring of major risks that could affect the activities and objectives of Amadeus and its companies.

Amadeus acknowledges the importance of managing risks that impact the effective achievement of our business objectives, and of providing an adequate level of assurance for shareholders, customers, employees and other stakeholders. To this end, Amadeus' management has endorsed an Enterprise Risk Management Framework to identify the main risks to the Group and the appropriate control and information systems for their periodic monitoring. We've developed our risk management framework based on the principles set out in COSO II and ISO 31000 (risk management) to ensure that risks are identified, analyzed, evaluated, managed and controlled in a systematic way and within the established risk levels.

Our Risk Management Policy sets out the basic principles of the framework and focuses on:

- ▶ Achieving the company's long-term objectives in line with its established strategic plan
- ▶ Contributing the maximum level of assurance to shareholders and customers to defend their respective interests
- ▶ Protecting the company's earnings
- ▶ Protecting the company's image and reputation
- ▶ Guaranteeing corporate stability and financial strength over time

The Corporate Risk Management unit develops Amadeus' Corporate Risk Map and establishes control and monitoring procedures for identified risks in conjunction with the owner responsible for each risk. The risks ascertained from this analysis, as well as monitoring measures, are reported on a regular basis to the Risk Steering Committee, the Audit Committee and the Board of Directors. The ultimate aim of the Corporate Risk Map is to provide visibility on significant risks and facilitate effective risk management. Risk analysis is a fundamental element of the company's decision-making processes, both within the governing bodies and in the management of the business as a whole.

The Corporate Risk Map also considers the global risks identified each year by the World Economic Forum¹— many of them accelerated by the impact of COVID-19 pandemic, such as economic, technological, geopolitical, environmental or societal risks.

We also reflect in the Corporate Risk Map emerging risks, defined as new risks or risks that are already known but difficult to identify and whose implications are difficult to assess and quantify. These are risks that could prevent Amadeus from achieving its strategic objectives and that are expected to have a long-term impact on our business. They may evolve over time from weak signals to clear tendencies with a high potential for danger.

For example, public health risks have long been underestimated, and the COVID-19 crisis has increased the level of uncertainty in our markets on two different horizons. The recovery path of the travel industry remains largely unclear, and the future state of the industry will be potentially impacted by structural changes that are not yet visible. Heavier regulations, security requirements, travel restrictions, quarantines, government controls and other macroeconomic risks add more friction to travel. Amadeus has been and would be significantly impacted by the consequences of any new health crisis peak, which could lead to a decrease in travel volumes with a potential reduction of more than 10% in our revenues. To mitigate this risk, Amadeus is constantly monitoring its travel volumes, travelers' behavior, IATA's forecast or COVID-19 related information. Amadeus is also developing recovery scenarios based on latest industry forecasts and our own figures.

To this health crisis, we have to add the geopolitical crisis as a consequence of the Russia-Ukraine war, which impacts Amadeus due to its presence in this region. This conflict could lead to slower growth or to a significant decrease in travel volumes.

¹World Economic Forum (2021). *Global Risks Report 2021, 16th Edition*.

Amadeus and our customers are impacted by higher inflation, fueled by energy prices, and increased levels of uncertainty. The current situation will likely lead into a deep economic recession, with Europe being the most impacted region. Amadeus actively monitors the evolution of key countries to anticipate potential risks, in order to react as quickly as possible. We're also actively involved in industry associations to align on how to jointly address the effects of the geopolitical crisis.

This uncertainty triggers changes in habits, such as the sharp increase in video conferencing or the spread of hybrid working models, that can have a long-term impact in business travel volumes, potentially causing a significant financial impact on our company.

Cyber risk is another area of concern and one that will continue to grow, especially after pandemic lockdowns have accelerated the shift to digitalization and remote working. Cyberattacks are becoming increasingly sophisticated, especially with emerging technology, and the rise of newer cryptocurrencies has made ransomware attacks more lucrative by providing more hard-to-track ways to transfer ransom payments. An incident such as a ransomware attack on our systems could have significant operational consequences for our travel customers. We manage this type of threat not only by strengthening our access controls and incident response plans but also through comprehensive security awareness programs, among other measures.

Climate change mitigation is also on our radar, and it will require intensified action in our three-pillar strategy, i.e., internally, reducing our footprint, supporting our customers to reduce their emissions and working collaboratively with industry stakeholders in emissions reductions initiatives.

On the social plane, there are events and responses that are difficult to predict, for example social movements such as "flight shaming," the increasing use of social networks and the general concern regarding travel industry sustainability in the wake of the COVID-19 pandemic. To mitigate these risks, Amadeus helps raise environmental awareness and reduce emissions, for example by including the display of CO₂ emissions in our booking platforms or the development of IT solutions that can help airlines improve their environmental performance.↔

The latest version of the Corporate Risk Map defines the most critical risks relating to

↔ See p. 96, "Environmental sustainability value proposition."

Amadeus' operations and objectives, including:

- ▶ Strategic risks related to the pandemic, to the macroeconomic and geopolitical environment or to trends in travel and tourism in the context of a slow recovery or increasing competition
- ▶ Operational risks derived from IT service failures or caused by cybersecurity breaches
- ▶ Other operational risks that could affect the efficiency of business processes and services
- ▶ Risks related to human resources, such as the inability to attract talent and highly skilled resources or the increasing talent attrition
- ▶ Security and compliance risks
- ▶ Legal and compliance risks related to the potential breaches of regulations

Some of these risks have evolved from the previous Corporate Risk Map, while others have been newly identified. The impact of the COVID-19 pandemic has demonstrated the interconnected nature of risks. Unprecedented lockdowns all over the world have directly impacted the travel industry, and the increased reliance on technology as a result of these lockdowns has led to an increase in cyber risk.

After identification and evaluation of major risks, risk owners assigned to each risk propose a specific risk response. The progress achieved through mitigation measures and the evolution of key risks are submitted to the Risk Steering Committee for review and consideration, together with any proposed action plan for necessary measures or further actions.

Due to its transversal and dynamic character, this process identifies new risks that affect Amadeus arising from changes in the environment or the revision of objectives and strategies.

In the current business environment, with its increasing stakeholder demand for transparency, ethics and social responsibility, reputational risk management is becoming increasingly relevant. Therefore, assessing the reputational impact of a particular risk has been embedded into our methodology.

Similarly, cybersecurity risks are managed through a security risk framework driven by our Corporate Information Security Office, which is also integrated into the Corporate Risk Map.

In addition to managing risks, Amadeus focuses on ensuring compliance with data privacy regulations, including the EU's General Data Protection Regulation (GDPR). Our activities also extend to existing certification standards such as PCI DSS (credit cards), SOC 1 and SOC 2 (computer controls) and ISO 27001 (cybersecurity).

Amadeus is exposed to risks that could significantly disrupt key internal services as well as IT services we provide to customers. To ensure minimal disruption in such catastrophic events, we've implemented a Business Resilience Program designed to protect our people, assets and infrastructure, and minimize the potential impact to acceptable limits. The pandemic crisis has proven the importance and readiness of our business continuity strategy in minimizing any business disruption.

Finally, through our training and awareness plan we aim to ensure that all employees understand and apply best practices on ethical behavior, security and privacy.

The Corporate Risk Management unit works closely with the following committees:

- ▶ The Ethics Committee, which provides guidance on ethical behavior and compliance issues. This committee also addresses any concerns that employees may have and assists in the implementation of the Code of Ethics and Business Conduct. Promoting integrity, transparency and ethical conduct in all our operations is very important to us, and we have a zero-tolerance approach to prohibited practices, both in our internal affairs and external operations.
- ▶ The Risk Steering Committee, which is a decision-making body empowered by the Executive Committee to provide oversight and guidance on risk management activities and issues across Amadeus, including risk assessment and prioritization, risk mitigation strategies and responses.

Both the Ethics Committee and the Risk Steering Committee meet several times a year.

Regional security offices

Extended security awareness and control to all Amadeus regions and subsidiaries



Security Operations Center

Ensures that:

- ▶ All security policies and security architecture standards are properly monitored and controlled.
- ▶ Amadeus is protected against known threats and attacks.
- ▶ Security incidents are handled with proper communication.
- ▶ Security incidents are investigated and contained.
- ▶ Artificial intelligence is used to identify vulnerabilities.
- ▶ User behavior analytics are used to provide us with actionable insights by identifying patterns of traffic caused by user behaviors both normal and malicious.

- ▶ **ISO 27001 certification**
ISO 27001 Level 3 certification at Amadeus corporate level
- ▶ **SSDLC***
Ensures the implementation of secure software development methodologies according to SSDLC standards
- ▶ **Security normative framework**
Implements policies and framework used to assess security risks, as well as mitigation plans
- ▶ **Data leak prevention**
Ensures that critical information in any format does not leak out to unauthorized persons/destinations
- ▶ **Access control**
Ensures that only authorized persons have access to confidential information on a need-to-know and need-to-handle basis
- ▶ **PCI DSS** compliance**
Ensures that Amadeus is PCI DSS compliant and that we are prepared for changes in PCI DSS compliance requirements
- ▶ **Security by design**
Ensures that security is observed from the beginning of every new product and project
- ▶ **Security awareness**
Creates and follows up on employee security awareness

Amadeus Corporate Information Security Office

Amadeus continuously reviews and improves its processes to keep ahead of upcoming threats, ensuring that technical controls are considered and implemented, and that our people are aware of our policies, controls and processes to avoid or minimize the impact of these threats. We follow the ISO 27001 cybersecurity standard, including:

- ▶ Corporate security objectives and controls set by our Corporate Information Security Office
- ▶ Our Security Risk Map, which prioritizes the implementation of mitigation measures
- ▶ A maturity assessment carried out by a third party to identify security gaps, which are also monitored and followed in our Corporate Security Program

All these activities are monitored and controlled by our Corporate Security Program (SHIELD).

From a global operations and technology perspective, Amadeus has established an independent Security Operations Center to monitor at all times the security status of the services we provide to customers. This service also helps us understand emerging technical threats and invest in the most appropriate technology to mitigate new risks.

Amadeus is a member of the Aviation Information Sharing and Analysis Center (A-ISAC), showing our continuous commitment to increasing our customers' trust and the sharing of best practice.

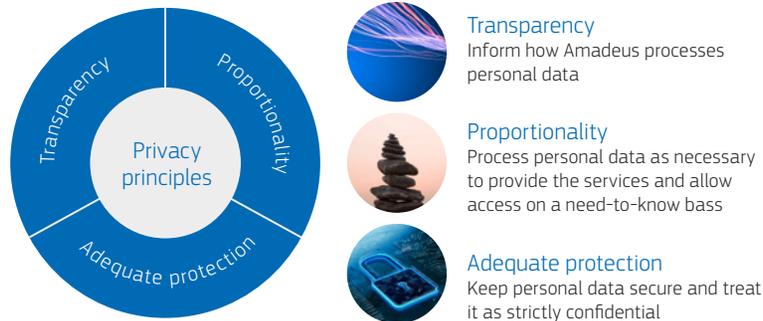
* SSDLC: Secure Software Development Life Cycle.

** PCI DSS: Payment Card Industry Data Security Standard.

Amadeus Group Privacy Office

Privacy is of paramount importance for Amadeus. We protect the fundamental right to privacy in any activity involving the processing of personal data from travelers but also from employees, candidates, business partners and visitors. For that purpose, Amadeus' Group Privacy Office, led by the Chief Privacy Officer, is responsible to establish and oversee our Privacy Program. We have recently reviewed our corporate Privacy Policy, applicable to all our activities and endorsed by top management, establishing our Privacy Governance and privacy objectives. The Chief Privacy Officer is supported by a privacy organization and business privacy specialists appointed at each business unit and corporate function responsible for the implementation of the requirements established by the Group Privacy Office. Compliance with our Privacy Policy and more generally with the Group Privacy Office requirements is monitored via dedicated audits performed on a regular basis. Noncompliance with the Privacy Policy will be subject to the same disciplinary actions as all other relevant policies in the organization. One of the key requirements established is our Privacy by Design process, to ensure processes involving personal data are designed following Amadeus' privacy principles.

Amadeus privacy principles



Embedded within Amadeus' privacy principles are guidelines and standards from the EU's GDPR, the Organisation for Economic Co-operation and Development (OECD), the United Nations, the Asia-Pacific Economic Cooperation (APEC) Privacy Framework and the International Organization for Standardization (ISO), enabling application in all affiliates and ensuring value to all our customers worldwide.

Developing products and services with Amadeus' privacy principles baked in at the start contributes to the protection of privacy within the travel industry and generates trust with our customers. In addition, our robust process to review and address

information requests from authorities or law enforcement agencies ensures the appropriate balance between our legal obligations, our contractual commitments and the right to privacy of individuals.

We actively monitor changes to applicable privacy laws and regulations to ensure that our privacy principles, processes, practices and organization are updated as required.

Amadeus Corporate Compliance and Business Ethics

Amadeus and its executive management are committed to successful company growth in compliance with the highest standards of business ethics, as outlined in the Code of Ethics and Business Conduct, Anti-Bribery & Corruption, Corporate Crime Prevention and Anti-Fraud global policies. Reports of misconduct may be submitted using safe mechanisms that respect the rights of whistleblowers, as set out in the Amadeus Speak-Up Policy. Corporate Compliance designs and delivers a global mandatory compliance and business ethics training for the whole workforce. Eligible vendors and third parties undergo a risk-based compliance due diligence, ensuring that equivalent compliance and business ethics standards to those of Amadeus are applied by them. Amadeus runs a yearly Corporate Crime Prevention Program, monitoring extensive corporate crime and corruption-related risks as defined in the Spanish Criminal Code, such as those related to fraud, bribery, IP, privacy, security, investor protection or money laundering, ensuring appropriate controls are in place to detect and prevent them.

3rd Line: Group Internal Audit



Amadeus' Group Internal Audit:

- ▶ Supports the Audit Committee in monitoring the effectiveness of the company's internal control and risk management systems.
- ▶ Provides independent and objective assurance and consulting services designed to add value and improve Amadeus' operations. It helps accomplish our goals by using a systematic, disciplined approach to evaluate and improve the effectiveness of governance, risk management and control processes. This includes the potential for fraud and how the organization manages fraud risk.
- ▶ Covers all companies, businesses and processes majority-owned or

controlled by Amadeus. Every year, Group Internal Audit performs a thorough background and risk assessment exercise to verify and update our audit priorities. This considers, among others:

- ▶ The Group's strategic objectives and projects
- ▶ The Corporate Risk Map
- ▶ Internal/external challenges and enablers identified through interviews with senior management and major control functions
- ▶ Magnitudes and the geographical footprint of the Group's entities and activities
- ▶ Audit cycles

The output leads to the formalization and approval by the Audit Committee of a yearly internal audit plan.

The legal entities included in Group Internal Audit reviews during 2021² represented more than 50% of the total Amadeus workforce. The main risks identified during internal auditing are reported to senior management and the Audit Committee, and their status is periodically updated until resolution or acceptance by the governing bodies.

As an optimum complement to its independent reviews, Group Internal Audit holds periodic coordination meetings with the main control, business and technology units.

The purpose, mission, reporting lines, independence and objectivity, scope of activities, resources, responsibilities and authority of Group Internal Audit are set by the Audit Committee to ensure that it has sufficient means to carry out its duties. To further ensure Group Internal Audit's objectivity, its staff have no direct operational responsibility or authority over any of the activities audited. Accordingly, internal auditors don't implement internal controls, develop procedures, install systems, prepare records or engage in any other activity that may impair their judgment.

Group Internal Audit is governed according to the mandatory elements of the Institute of Internal Auditors' (IIA) International Professional Practices Framework (IPPF). This includes its Core Principles, its definition of Internal Auditing, its International Standards and its Code of Ethics.

Group Internal Audit also runs a Quality Assurance and Improvement Program that combines ongoing monitoring with periodic internal and external assessments. The program includes the evaluation of Group Internal Audit's conformance with the IPPF. It also assesses the efficiency and effectiveness of Group Internal Audit and identifies opportunities for continuous improvement.

² Including internal audit and advisory reviews, and the assessment of the design and effectiveness of Amadeus' Internal Control over Financial Reporting (ICFR) and Corporate Crime Prevention (CCP) models.



Materiality and stakeholder engagement

Materiality analysis

Materiality analysis helps Amadeus understand our impact and our stakeholders' concerns and how to meet their expectations.

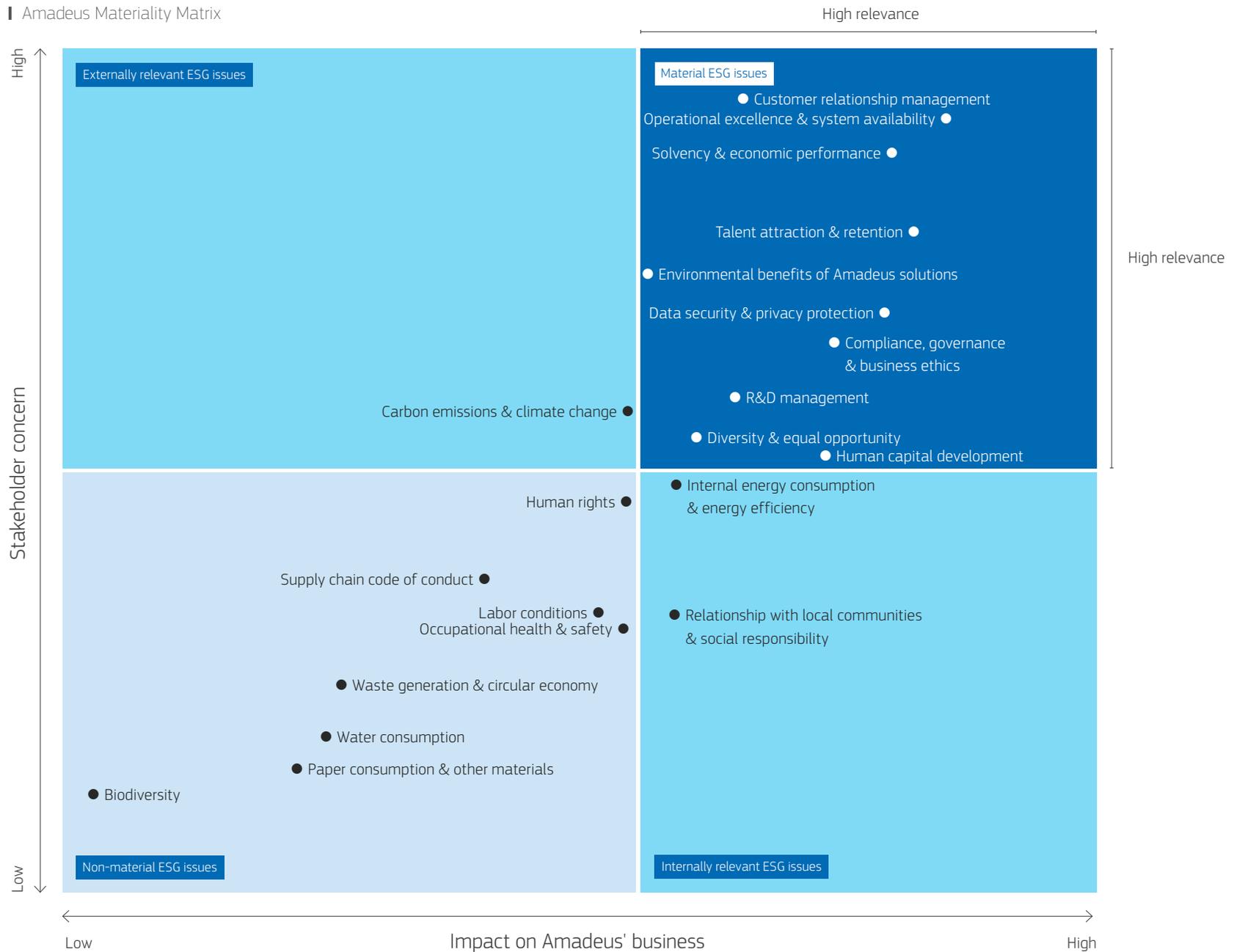
In 2019 we carried out an update of our materiality analysis and in 2020 it was also updated to factor in the effects of the COVID-19 pandemic. The materiality update has been led by external consultants (Mazars). Based on the environmental, social and governance (ESG) issues identified, the 2020 update consisted of the following phases:

1. **Update of the external assessment.** We identified changes in the concerns of our stakeholders, such as investors, society or industry associations.

2. **Update of the internal assessment.** The consultants interviewed members of our management to identify how the significance of each ESG issue changed in 2020 due to the impact of the pandemic.
3. **Prioritization and materiality matrix generation.** The results of the previous phases were aggregated to create the materiality matrix on the following page. This matrix has two axes representing two dimensions of ESG issues: (1) their relevance to Amadeus and (2) their influence on our stakeholders' assessments and decisions. Material issues are those that exceed the average scores on both axes, while issues exceeding average scores on only one of them are considered externally or internally relevant.¹

¹ External prioritization averages 50.1 points while internal prioritization averages 65.0 out of 100.

Amadeus Materiality Matrix



The materiality matrix is reviewed annually and an assessment is carried out to decide whether an update is necessary.

According to the 2020 ESG materiality analysis update, industry associations are increasingly concerned about how Amadeus can provide technology to deliver more sustainable travel solutions; and society is more concerned about the economic impact of the COVID-19 pandemic. Our employees show increasing concern regarding talent attraction and retention, while customers highlight aspects like customer relationship management, operational excellence and system availability. Additionally, the most important ESG issue for our shareholders is compliance, governance and business ethics, and regulators are concerned about diversity, data security and privacy protection.

Amadeus' contribution to the Sustainable Development Goals

The United Nations has outlined 17 Sustainable Development Goals (SDGs) for Member States and businesses to strive toward by 2030. The SDGs represent a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity. The 17 goals balance the three dimensions of sustainable development: economic, social and environmental.

The SDGs represent a global standard and common language that facilitates targeted collaboration among a wide diversity of partners. In this respect, the SDGs help identify the best opportunities for and maximize everyone's contribution toward sustainable development.

Based on the results of our materiality analysis (described in the previous section), in 2020 external experts updated our impact in relation to the SDGs. That assessment considered the input of Amadeus' top management regarding our contribution to each SDG. This exercise has served to identify those areas with the highest potential for action by Amadeus. Thus, the relationship between our material issues and the SDGs' targets, quantified according to the level of our contribution, has led us to prioritize SDGs 4, 5, 7, 8, 9, 10, 13, 16 and 17.

Our technological innovation has tremendous potential to make a positive contribution to SDGs 8 and 9. As a travel technology company, we invest in IT solutions that help

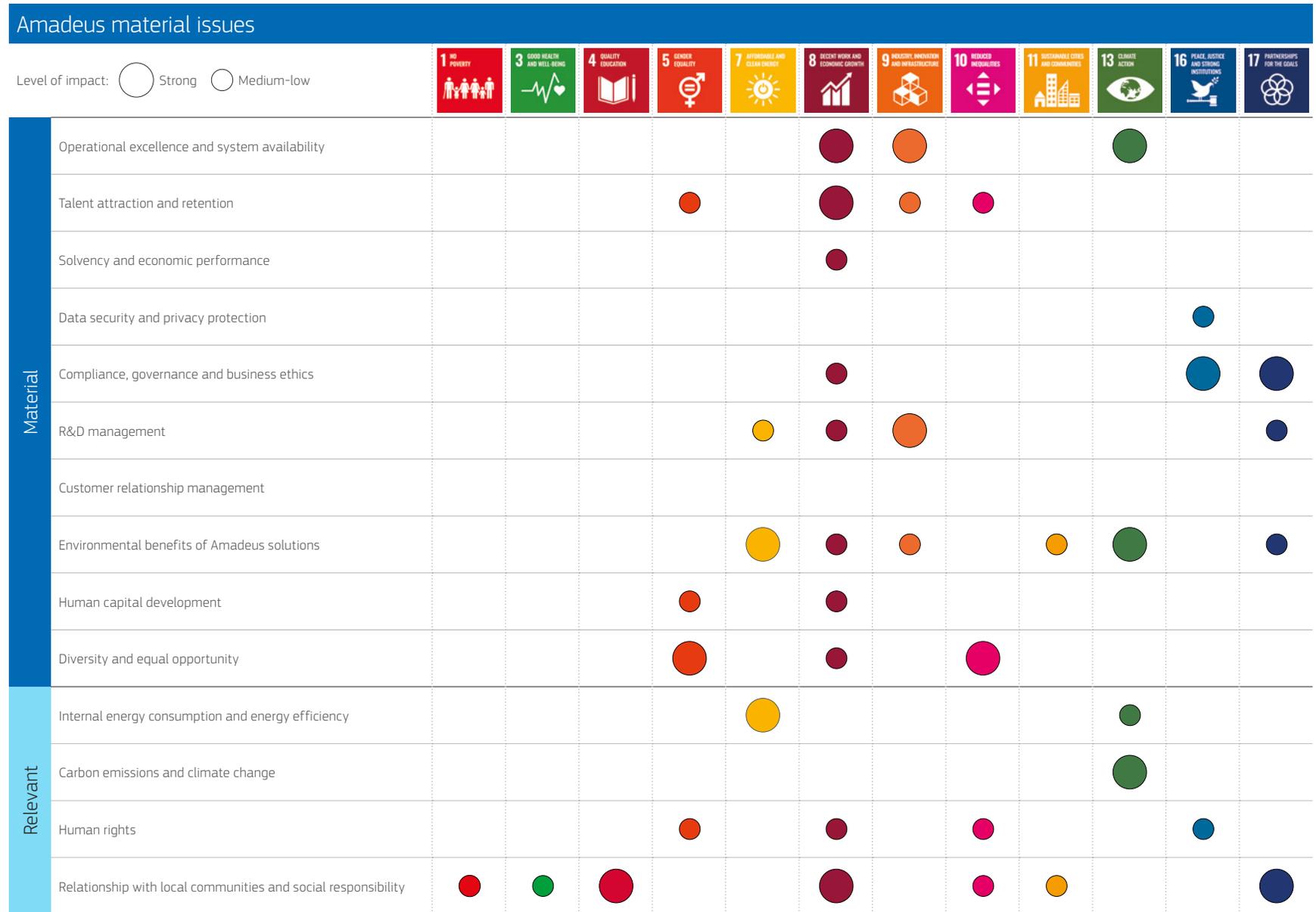
make the travel industry more sustainable over the long term. The travel industry has a significant environmental impact, and we need to address this impact by finding ways to travel more sustainably, thus contributing also to SDG 13.

As a global company, we create social and economic value. From the point of view of corporate governance, finance and labor practices, we aim to increase our positive impact on society. In this way, we contribute to goals that are directly linked to people's welfare (SDGs 4, 5, 8 and 10) in aspects such as standards of living, working conditions, education, economic growth and social equality.

The goals that include targets on transparent institutions and multi-stakeholder partnerships (SDGs 16 and 17) tie in very well with our profile as a global company that connects all kinds of players in the travel industry. We need to join forces with other stakeholders and share different perspectives, working together with the common goal of long-term sustainability and transparency in the industry.

The following table summarizes our contribution to the goals per material issue, based on the analysis of our initiatives and projects. Besides our main contributions to the SDGs mentioned above, we've also contributed indirectly or with less intensity to SDGs 1, 3 and 11. In addition, we've identified our specific actions toward these goals and have highlighted them with an SDG icon along the different sections of the Global Report.

Amadeus' contribution to the Sustainable Development Goals



Approach to stakeholder engagement

At Amadeus, we want to make sure that all our stakeholders have easy access to up-to-date information about the company. The following are the main publications reporting our activities, which help ensure clear communication and transparency:

- ▶ Amadeus Global Report
- ▶ Consolidated Annual Accounts and Directors' Report (including Non-Financial Information Statement)
- ▶ Annual Report on Corporate Governance of Listed Stock Corporations
- ▶ Annual Report on the Remuneration of Directors of Listed Companies
- ▶ Quarterly financial results announcements
- ▶ Blog posts on global, regional and local Amadeus websites
- ▶ Social media updates on LinkedIn, Facebook, Twitter, Instagram and YouTube

In addition to these publications and the specific approaches to stakeholder engagement described throughout this report,↔ we maintain dialogue with our stakeholders on a regular basis depending on need, and at least once a year.

Appropriate engagement with our stakeholders allows us to understand their chief concerns and what they expect from us. In the following table we describe the main communication channels for each of our stakeholders.

↔ See p. 27, "Business areas;" p. 75, "Amadeus people and culture;" p. 85, "Social responsibility;" p. 93, "Environmental sustainability;" p. 135, "Amadeus industry affairs;" and p. 145, "Shareholders and financial institutions."

Stakeholder	Communication channel
Employees and external candidates	<ul style="list-style-type: none"> ▶ Direct engagement through local, regional and global Amadeus People & Culture teams ▶ Engagement surveys across all sites ▶ Collective bargaining agreements ▶ Employee Box email ▶ Intranet and internal weekly newsletter ▶ Participation in external events to showcase our expertise and attract new talent, covered by our social media channels ▶ https://jobs.amadeus.com/
Shareholders	<ul style="list-style-type: none"> ▶ Direct engagement through Investor Relations team and periodic reports ▶ Roadshows and conferences ▶ Investor Relations Inbox ▶ https://corporate.amadeus.com/ (specific pages for investors)
Customers	<ul style="list-style-type: none"> ▶ Regular press releases announcing new solutions, deals and other important news ▶ Guest blog posts in which our customers offer their view on the industry and how they collaborate with us ▶ Direct engagement through local, regional and global sales channels as well as customer management teams around the world ▶ Voice of the Customer Program ▶ Local and global customer support centers ▶ Customer-focused events showcasing our offerings and expertise and working on how to better collaborate with our customers, covered by our corporate blog and social media channels
Suppliers	<ul style="list-style-type: none"> ▶ Direct contact through the Amadeus Corporate Purchasing department as well as internal units and local teams across offices worldwide ▶ Social responsibility and environmental surveys
Industry associations	<ul style="list-style-type: none"> ▶ Direct engagement through participation in main industry associations ▶ Blog posts, bylines and other media engagements through which Amadeus offers its views on trending industry matters
Governments, authorities and regulatory bodies	<ul style="list-style-type: none"> ▶ Direct contact through the Industry Affairs team and local Amadeus general managers ▶ Participation in related meetings and events ▶ https://corporate.amadeus.com/ (specific pages for industry affairs)
Society and the environment	<ul style="list-style-type: none"> ▶ Direct engagement through multi-stakeholder panels ▶ Industry Affairs Box email ▶ Collaboration on joint social responsibility and sustainability initiatives ▶ Blog posts showcasing our engagement in these areas ▶ https://corporate.amadeus.com/en/sustainability

Some examples of Amadeus' engagement with our stakeholders include:

- ▶ Active collaboration with more than 30 private sector and trade industry stakeholders in travel and tourism.
- ▶ Involvement in corporate social responsibility activities in 47 countries.
- ▶ In 2021, 300 institutions empowered and supported through our Corporate Social Responsibility (CSR) programs.
- ▶ A 2021 survey on rebuilding business travel with modern payment and expense, with responses from 1,400 business travelers in seven countries: France, Germany, India, Japan, Spain, the United Kingdom and the United States.
- ▶ Customer service Net Promoter Score for Air Distribution customers of 76.7 and relational NPS of 49.4.
- ▶ The second wave of our engagement survey, with responses from 74% of our people, resulting in engagement and satisfaction scores of 4.16 out of a maximum of 5.
- ▶ An average of 54.3% of our employees watching the two editions of Amadeus Live, which is the third most valued channel of internal communications according to a survey conducted by Gartner.
- ▶ The Investor Relations team attending 33 conferences and roadshows during 2021.

Relationship with vendors

Most of our external vendors fall under any of the following categories:

- ▶ Consulting and marketing services
- ▶ Hardware vendors
- ▶ Software vendors
- ▶ Data communication vendors

From a supply chain perspective, our principal activity is related to online transaction processing and technology development. In this context, Amadeus' exposure to third-party vendors that may not comply with minimal social or environmental requirements is relatively low.

The majority of spend is concentrated on a limited number of vendors, mainly hardware producers (servers) and consultancy companies. Generally, Amadeus has a stable situation in terms of vendor concentration. The top 50 Amadeus vendors represent almost 54% of the total spend.

The Amadeus Corporate Purchasing Policy aims at ensuring that all employees involved in the procurement of goods and services factor in social and environmental responsibility aspects in their purchasing decisions. An organization of local, regional and global purchasing teams oversees the operations on the supply chain side and deals with both internal stakeholders and vendors.

All vendors must be fully committed to comply with all appropriate laws and regulations in all countries and jurisdictions in which they operate. The scope of these laws and regulations include health and safety, labor relations, human rights and discrimination, insider trading, taxation, data privacy, competition and anti-trust, the environment, public tenders and anti-bribery. We expect vendors to be guided by the highest ethical standards and to be firmly committed to excellence in the fields of corporate governance, social responsibility and environmental sustainability. In order to verify vendors' commitments to sustainability, we apply the following measures:

- ▶ At least strategic vendors for each Amadeus company will have to explicitly adhere in writing to the Amadeus Code of Ethics and Business Conduct (CEBC)

extract for vendors. If any of those vendors have their own documented CEBC (which Amadeus has the right to ask for and/or audit) and it's demonstrated to be at least as strict as Amadeus', they may adhere to their own, with confirmation in writing. If the vendor is not in agreement with this wording, it's the vendor's responsibility to explicitly state if they're not adhering to the CEBC and why. In this case, the Purchasing department together with the Risk and Compliance department will decide how to move forward in each specific case. In 2021 vendors representing 47% of our turnover have signed our CEBC.

- ▶ We favor vendors that are committed to environmental and social responsibility practices, such as having an environmental policy in place, demonstrating compliance with environmental regulations and prioritizing goods aligned with circular economy principles.
- ▶ We avoid relationships with vendors that don't comply with the following principles:
 - ▶ Respect for human rights.
 - ▶ Prevention of forced and child labor.
 - ▶ Non-discrimination recruitment practices.
 - ▶ Prevention of unfair low-wage labor.
 - ▶ Respect for employees' right to freedom of association.
 - ▶ Healthy and safe working conditions for employees.
 - ▶ Observation of all related local and international laws and regulations.

Vendor qualification policy

The Amadeus vendor qualification process helps identify candidates for strategic relationships, facilitates communication with potential vendors and ensures new suppliers meet quality, management and safety standards.

Amadeus' vendor qualification procedure provides a holistic view of our entire global supply base by:

- ▶ Identifying approved and preferred vendors for the products and services we want to buy
- ▶ Better understanding the potential risks of buying products or services in all geographies
- ▶ Encouraging improvements in supplier standards

The qualification process applied to any new Amadeus vendor is twofold: (1) for the provision of any kind of service to Amadeus and (2) for the provision of one specific type of service, such as business continuity or IT security.

Supervision systems and audits, and their results

The evaluation of supervision systems of our vendors is carried out by audits, both internal (by Amadeus' Group Internal Audit) and external (by third parties to Amadeus).

The selection of activities to be reviewed by Amadeus' Group Internal Audit is mostly risk-based and has to be formally approved by the Group Audit Committee. Through our engagements, we assess the adequacy and the effectiveness of the internal controls within the organization. This includes, whenever deemed relevant, the effectiveness of the controls over outsourced activities.

On an ad hoc basis according to our risk-based approach, Group Internal Audit can also directly assess the activity at selected vendors, both at the Group and local entity levels.

Amadeus' vendor risk management approach is multidisciplinary and includes areas such as privacy, cybersecurity, business continuity, IT controls, compliance and legal. This allows us evaluate and monitor vendor performance and risk.

In relation to climate change, we ask our vendors to provide their sustainability strategy or to comply with the requirements of Amadeus' environmental policy. We believe that the systematic implementation of this approach helps to increasingly raise awareness in the industry about the importance of reducing greenhouse gas emissions overall and it also helps us identify potential risks and areas for improvement.

As part of Amadeus' new vendor-creation process, vendors above a threshold of €10,000 yearly spend need to fill in a sustainability questionnaire. The questionnaire includes issues related to human rights, discrimination and environmental policies. If vendors don't meet our sustainability standards, they're rejected. Almost 1,000 vendors have already completed this process, which will gradually be deployed internationally.

The process described above is already implemented at Amadeus IT Group in Spain, Amadeus SAS in France, Amadeus Data Processing GmbH in Germany and Amadeus Software Labs in India, as well as our North American offices, covering more than 80% of our relationships with vendors.

In 2021 the Corporate Compliance and Purchasing teams have integrated automated compliance due diligence tools into the vendor-creation process. Compliance due diligence is performed on eligible vendors before the business relationship begins, so risks can be appropriately mitigated during contractual negotiations.↪

In 2021 Amadeus didn't identify any significant environmental or social impact in the supply chain.

↪ See p. 125, "Amadeus Corporate Compliance and Business Ethics."





Amadeus industry affairs



Amadeus' industry leadership comes with the responsibility of working with other stakeholders in the interest of the travel industry at large. We therefore engage regularly with governments, public entities, trade associations and other institutions globally.

During 2021 the travel and tourism industry had to manage the impact of the COVID-19 crisis. The sector united forces in an unprecedented collaborative approach with the mission of limiting the negative impact of the crisis on the economic fabric of the industry and to set a solid foundation to help restart a sector of strategic importance to the economies of many countries. For the industry to recover sustainably, governments and private stakeholders worldwide are working together to restore its activity, improve its efficiency, reduce its carbon footprint and resume its role as a catalyst of inclusive economic growth.

This new context required a joint effort by the industry, including a strong public-private dialogue to ensure that government and public measures were proportionate and helped restore certainty among travelers. This required ongoing exchange and communication among stakeholders to define and update a joint industry position that could guide policy decisions. Amadeus has taken a proactive and driving role in these efforts, promoting initiatives for the benefit of the industry such as our Safe Travel Ecosystem initiative, in which we have encouraged dialogue and action from different parties to help support the recovery of the industry through our people, knowledge and technology.

I Our approach to industry engagement



We see travel technology as playing a key role in an increasingly digitalized travel and tourism marketplace, which means Amadeus has an important role to play as a facilitator for the global teamwork needed to shape and safeguard a sustainable travel industry. Digitalization is a key element of the industry's recovery to meet the demands of travelers for a seamless and contactless journey. It's also essential to provide real-time information to the travelers either indirectly through the travel agent channel or directly through travel apps.

Amadeus' Industry and Regulatory Affairs unit continues to work with stakeholders—public and private—across the global travel industry to build a common agenda based on the principles of transparency, fair competition, consumer choice and respect for society. This commitment to a reinforced public-private collaboration encompassing all the stakeholders in our industry, including governments and trade associations, has led to a better management of the crisis and to a better-informed decision-making process for the policies needed to restart the travel sector.



Sharing our insight and balanced perspective with public stakeholders



Medium-low impact

We believe in transparency and choice in a fair and competitive marketplace that serves consumers' best interests.

Amadeus contributes to regulatory reviews in the transport, tourism and technology sectors and provides input for relevant policy and industry initiatives.

The travel and tourism industry, as well as the digital sector, are complex, so we're proud to be asked to contribute to consultations, research studies and workshops sponsored by national and regional public stakeholders. We share our experience, insight and balanced perspective, always supported by evidence and fact-based analysis.

This year, the European Commission has been reviewing existing policies and regulations and implementing new ones in areas of strategic importance to Amadeus. Our Industry and Regulatory Affairs unit has strongly engaged with the European Commission and also at Member State level to provide input and analyses on the best policies and regulations to tackle the challenges in our industry. These are some of the main issues on which we've been actively engaged:

1. The European Commission has been very active in setting guiding principles as we navigate the COVID-19 crisis. We're strongly supporting the EU Digital COVID Certificate, a new health standard to help speed up the recovery of the travel sector, harmonize protocols to control safety and limit the implementation of travel restrictions.
2. The European Commission has identified the digitalization of travel as a key pillar for a greener and more resilient European tourism industry. Amadeus has been asked for advisory input in the definition of a strategic direction and policies to realize that vision.

3. Amadeus has provided input for the Transport unit of the European Commission in their definition of the new Sustainable and Smart Mobility Strategy. We're also participating actively in consultations and assessments conducted by this unit in relation to regulatory review processes for aviation, rail and multimodal travel. In particular, we fully support the strategic importance of a truly European seamless multimodal smart transport system that the commission is encouraging to promote competition and consumer choice.
4. The European Digital Strategy brings new opportunities for the travel industry in terms of artificial intelligence, cloud technologies and data sharing. Amadeus participates in industry and public-private collaborative initiatives to promote the development of those technologies that have important applications in the travel and tourism sector.

Below are initiatives in which we've actively participated during the year.

Safe travel: working toward a sustainable travel recovery

Safe travel can become a reality only if the industry works together.

Throughout last year our Industry and Regulatory Affairs unit has been reaching out to governments across the globe, the European Commission and industry associations such as the World Travel and Tourism Council (WTTC), EU Travel Tech and the Good Health Pass Collaborative to:

- ▶ Explore the most optimal ways to remove mobility barriers
- ▶ Discuss how we can take a targeted approach without compromising the necessary health measures
- ▶ Define standards and coordinate requirements
- ▶ Digitalize the verification procedures so we can reduce complexity and long queues at airports

And we believe that this collaborative approach at industry level to convey the same message to governments contributed, among others, to proposals for policy changes by the European Commission, such as moving toward a traveler risk-based approach rather than a country-to-country approach.

While the fight against the COVID-19 pandemic continues, we'll continue to monitor what's happening at a global level, reaching out to the different players and using technology to ensure that more unified solutions are in place for the benefit of the global industry.

Supporting the digitalization of SMEs in travel and tourism

SMEs are at the heart of the structure of the travel and tourism sector. And yet they've been the most heavily hit by the COVID crisis. The acceleration of the digitalization process already underway before the crisis is today an opportunity to support their recovery. Policymakers have identified the digitalization of SMEs as a key objective in restoring the economic activity of travel and protecting this sector.

Amadeus currently works with a wide number of SMEs: travel agents, hotels and Destination Management Organizations (DMOs), among others. We've been working with industry stakeholders to set up projects targeting (i) the digitalization of SMEs operating in national and local tourism destinations jointly with DMOs and (ii) small and medium-sized hotels. The objective is to help them compete in an increasingly digitalized environment while protecting their efficiencies through innovative technology, business intelligence and upskilling.

In France, Amadeus has partnered with the state-owned financial institution Caisse des Dépôts et Consignations (CDC) to launch in 2021 a new company, Alentour, which distributes local tours and activities through indirect channels, namely DMOs and hotels.

In Spain, Amadeus is working with SMEs at tourism destinations and SME hotels to help them use our innovative solutions to sell and distribute better, operate more efficiently and personalize their offer and services to attract a more targeted demand. This is being done in cooperation with trade associations, DMOs and public stakeholders.

Promoting transparency and fair competition in the air travel and distribution market

In 2021 Amadeus has continued to work closely with the European Commission and the European Parliament in an advisory capacity to offer balanced, fact-based views on how best to develop the complex and challenging aviation marketplace. The air travel distribution market is currently facing some threats to transparency, fair competition and consumer choice. New non-neutral players and the commercial strategies of certain incumbents challenge the open and competitive air distribution market that the Global Distribution Systems offer. This development affects primarily the ability of SME players to compete in the market, as well as consumers' ability to make the best purchasing choices in the absence of transparent comparison.

Throughout the year, Amadeus has been especially active in responding to requests for information and support for policy initiatives relating to airline and digital distribution issues in the aviation sector. In this context, the regulatory review of the Code of Conduct for Computerized Reservation Systems (Regulation (EC) No. 80/2009) is of utmost importance as well as the Air Services Regulation (Regulation (EC) No. 1008/2008) and the European Commission's Proposal for a Regulation for Multimodal Digital Mobility Services. Amadeus provided balanced views on the need to ensure a level playing field in the air ticket distribution markets by safeguarding transparency, neutrality, fair competition and consumer choice.

A European digital champion supporting the global agenda on innovation, digitalization and digital sovereignty

In 2021 Amadeus has been actively engaging with the EU and the Member States on cloud-related projects and digital sovereignty issues:

- ▶ Amadeus is one of the 22 founding members of Gaia-X, the sovereign cloud project initiated by Germany and France, and we've been actively contributing to the creation of the Spanish hub. Amadeus is also holding the Chair of the Gaia-X Data Space Business Committee.
- ▶ Amadeus, in collaboration with other travel industry players, is leading EONA-X, the mobility, travel and tourism data space that will make it possible to share data and cloud-based solutions following the Gaia-X principles, and ultimately enable a smooth and seamless travel experience.

- ▶ Amadeus has engaged with the French, Spanish and German governments on the Important Project of Common European Interest for Next Generation Cloud Infrastructure and Services (IPCEI-CIS) by presenting different projects relating to data exchange platforms in France, multi-cloud cybersecurity in Spain and industry use cases in Germany. Amadeus participated in the EU presentation event and has been selected to lead one of the IPCEI's workstreams relating to data exchange platforms.
- ▶ Amadeus has worked with the European Commission to define the roadmap of the European Alliance for Industrial Data, Cloud and Edge. Following this preliminary work, we'll be joining the alliance.

Bringing expertise and technology to build a digital, sustainable and multimodal transport system

In 2021 Amadeus continued to support the public sector and the industry in establishing a smart and efficient transport system through innovation. Amadeus thus supports the development of seamless transport multimodality that favors greener passenger transport and contributes to the digitalization of the industry.

In the EU, Amadeus has responded to the European Commission's Sustainable and Smart Mobility Strategy and has called for political willingness to make a multimodal payment and booking system a reality.

As evidenced by a number of technology R&D projects co-funded by the European Commission in which Amadeus has participated, Europe has the technology to create such a system. However, it's lacking regulation that includes data sharing obligations on transport providers. Without it, multimodal travel will remain a political objective.

In the COVID-19 era, multimodal travel could also be a great stimulus for the whole European travel ecosystem and would contribute to a greener and more digital industry. The European Commission's Proposal for a Regulation for Multimodal Digital Mobility Services represents an opportunity to promote a more favorable and integrated policy environment to ensure effective access to relevant data and to include relevant modes of transport (aviation, railway and others) to promote competition and consumer choice.

Engaging private sector and trade industry stakeholders



In the vast landscape of different private sector and trade industry stakeholders in travel and tourism, Amadeus engages with selected players in an open and constructive dialogue on industry issues.

We collaborate with our own trade associations and partner with our airline and travel agency customer organizations to work toward common public policy goals. As an active partner, our door is always open, and we maintain strong and close relationships with institutional stakeholders, consumer advocates and many other travel and tourism associations across the globe.

Travel technology associations championing fair competition and transparency

At the travel technology industry level, Amadeus is represented through its memberships with EU Travel Tech (EUTT), the US Travel Technology Association (Travel Tech) and the Asia Travel Technology Industry Association (ATTIA). These three associations represent the neutral indirect distribution¹ industry on regulatory and industry matters in the EU, the US and Asia respectively.

Since the outset of the COVID-19 crisis, EUTT has been very active in liaising with governments and industry stakeholders alike to voice the impact of the pandemic on the travel and tourism industry and propose solutions for the recovery of the sector. In many discussions, EUTT has assumed an industry leadership role, participating in conferences, seminars and webinars, while safeguarding Amadeus' interests. Amadeus is currently chairing the association.

¹ Indirect distribution refers to air tickets sold outside of airline's own ticket channels, for example through travel agencies.

EUTT has also been particularly active in engaging on key issues related to the Code of Conduct for Computerized Reservation Systems (Regulation (EC) No. 80/2009), the Air Services Regulation (regulation (EC) No. 1008/2008) and the European Commission's Proposal for a Regulation for Multimodal Digital Mobility Services. EUTT promotes the adoption of policies that support the principles of transparency, consumer choice, fair competition, non-discrimination in the access to data and a level playing field.

These are principles that have duly protected European consumers and fostered competition in the airline and transport distribution marketplace in previous decades.

In 2021 EUTT has also worked on the EU digital agenda and key forthcoming regulations such as the Digital Markets Act and the Data Governance Act to ensure that precise criteria are set to target the appropriate stakeholders.

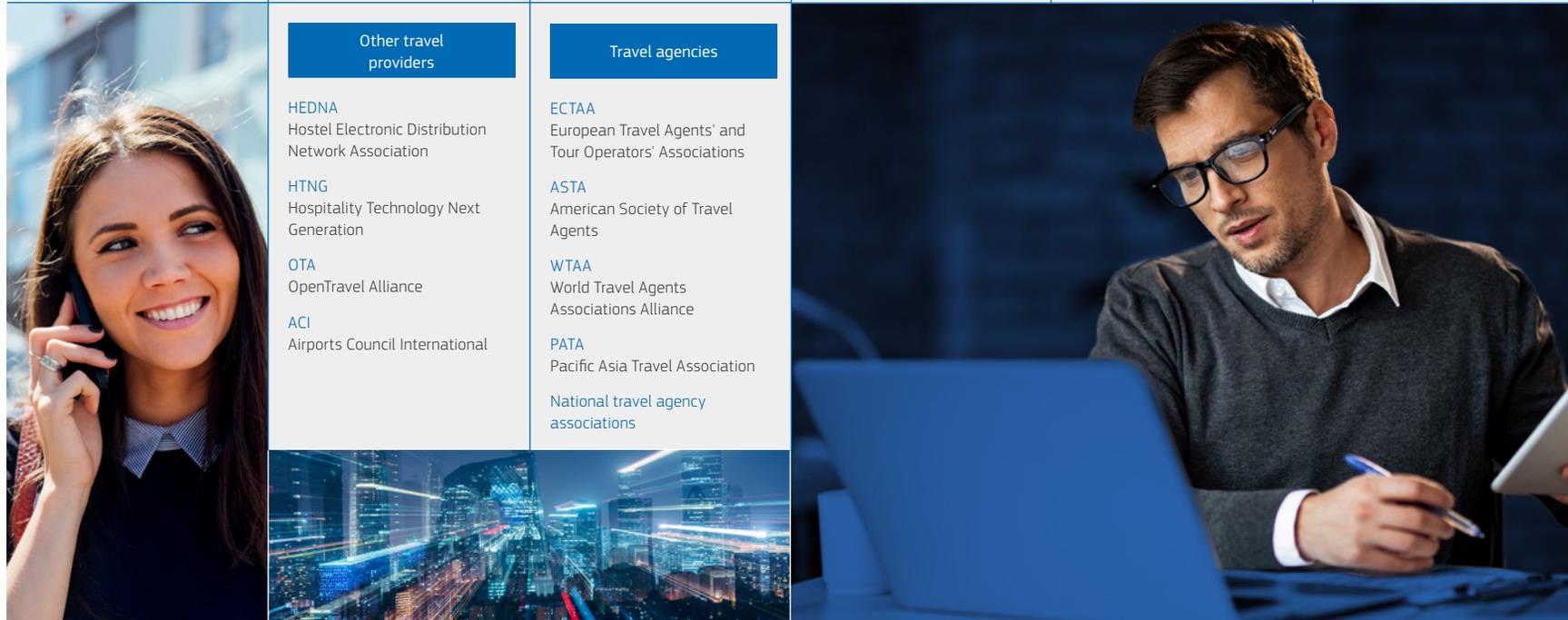
In North America, Travel Tech advocates for policies that promote fair competition, industry standardization and improved transparency for consumers. Amadeus currently holds the position of Chair at Travel Tech, who in 2021 worked with Airlines for America (A4A), the International Air Transport Association (IATA), the American Society of Travel Agents (ASTA) and numerous other industry groups to formally request from the US government immediate COVID-19 relief funding for all key stakeholders.

In Asia, Amadeus decided to join the Asia Travel Technology Industry Association (ATTIA). ATTIA was founded in 2020 with the short-term aim of building capacity to engage stakeholders in the region by 2021. In 2021 ATTIA produced a first entry in the Travel Recovery Thought Leadership Series: "The Future of Travel in APAC." ATTIA was also instrumental in conducting in-person and online webinars that led to a round table with regional travel experts on Asia-Pacific's recovery from the pandemic, and an open letter to Asia-Pacific's governments on market-opening issues.



Mapping of Amadeus stakeholders in the private sector and travel industry

Travel technology Industry and regulatory development	Travel industry Economic growth and sustainable development of travel			Institutional Social, technological and business development through strong institutional relationships	
<p>EU Travel Tech European Technology and Travel Services Association (ETTSA)</p> <p>Travel Tech US Travel Technology Association (TTA)</p> <p>ATTIA Asia Travel Technology Association</p>	<p>Airlines</p> <p>IATA International Air Transport Association</p> <p>ERA European Regions Airline Association</p> <p>A4E Airlines for Europe</p> <p>ALTA Latin America and Caribbean Air Transport Association</p>	<p>Consumers</p> <p>EPF European Passengers' Federation</p> <p>BEUC Bureau Européen des Unions de Consommateurs</p> <p>EDF European Disability Forum</p> <p>National consumer organizations</p>	<p>Corporations</p> <p>GBTA Global Business Travel Association</p> <p>National business travel associations</p>	<p>Travel and tourism associations</p> <p>UNWTO United Nations World Tourism Organization</p> <p>ETC European Travel Commission</p> <p>WTC World Travel and Tourism Council</p> <p>ICAO International Civil Aviation Organization</p>	<p>Other</p> <p>UNFCCC United Nation Framework Convention on Climate Change</p> <p>OECD Organisation for Economic Co-operation and Development</p> <p>Chambers of commerce</p>



Working with trade associations on common agendas



Amadeus builds strong relationships with industry trade associations that represent the interests of our customers and other stakeholders in the travel sector.

Promoting universal and business model–neutral standards with industry associations

Amadeus is a long-time strategic partner of IATA, and we engage actively with the airline community in the development of industry standards.

We share advice and knowledge relating to Amadeus' areas of expertise through IATA's various working groups, advisory forums (New Distribution Capacity [NDC], Passenger Distribution Management Group Advisory Forum [PDMG AF] and Transparency in Payments [TIP]) and think tanks (Airline Industry Retailing [AIR], ONE Order, One ID and Simplifying the Business [StB]).

Our active engagement in the development of new industry standards is needed to ensure that IATA's standards² do three things:

- ▶ Modernize the global airline industry infrastructure moving to digital
- ▶ Enhance the efficiency of the airline distribution value chain
- ▶ Take into account the needs and requirements of all stakeholders

Amadeus and industry stakeholders promote standards that are non-discriminatory in nature, developed without favoring any one player or business model over another.

To ensure broad industry engagement, Amadeus is also a member of the Airline Distribution Stakeholder Forum (ADSF), an open forum comprising trade associations in indirect airline distribution, including travel agencies.

² T2RL (2019). *Technology—Innovation and Standardisation in the Airline Industry*.

During 2021 ADSF and the Distribution Industry Standards Working Group (DISWG) convened regularly and directly engaged with IATA on developments of the agency's accreditation models, settlement systems (NewGen ISS) and proposed industry standards on payments (TIP).

The continued efforts of ADSF and DISWG have demonstrated the benefits of broader industry collaboration on standardization processes. These groups and forums have consolidated the views of experts from the indirect distribution industry on how standards should be developed for optimal impact and wider adoption in the marketplace while serving the needs of all stakeholders. This year, given the challenges faced by the travel industry in relation to COVID-19, these groups and forums have been leveraged to pull together all stakeholders and work together to drive industry recovery efforts.

Close collaboration to bring value to the travel agency community

The travel agency community is an important partner for Amadeus to develop common industry initiatives related to key policy areas. This year, we've been particularly active in minimizing the impact of the COVID-19 crisis on the industry and in providing new tools and guidance to get real-time health information thanks to our Safe Travel Ecosystem initiative. Our strong commitment to multimodality will also bring new capabilities to the travel agency community.

Amadeus works closely with the travel agency community across the world, represented by the World Travel Agents Associations Alliance (WTAAA), of which the European Travel Agents' and Tour Operators' Associations (ECTAA) and the American Society of Travel Agents (ASTA) are the most important members.

As an allied member of ECTAA, we work together in areas of common interest relating to air travel distribution, strategic guidance on the development of industry standards and the establishment of a sustainable tourism sector.

We also partner directly with travel agency associations at both regional and national level in the rest of the world. These organizations are important advocates for the travel industry, and support transparency, fair competition and the development of a sustainable travel and tourism sector.



Participation in industry initiatives



As a trusted adviser willing to share insights and views, Amadeus is invited to participate in many sector initiatives across the world. We actively participate where we can make a meaningful contribution.

This engagement allows us to increase our visibility and build new relationships with government and industry representatives globally, while simultaneously enhancing Amadeus' profile as a leading and innovative technology partner for the travel and tourism industry.

Public-private sector partnerships transforming the industry

In the tourism sector, we work closely with the United Nations World Tourism Organization (UNWTO), of which Amadeus is an affiliate member.

During 2021 we continued our partnership with UNWTO to promote digital transformation and innovation in the tourism industry. We are one of the few key international partners of the new UNWTO Digital Futures Program that is targeting SMEs in the tourism sector.

Amadeus is also a full member of the World Travel and Tourism Council (WTTC) in support of the broader travel and tourism industry. In 2021 Amadeus engaged in working groups and industry dialogue to drive key concepts such as:

- ▶ Interoperable and consumer-centric industry standards
- ▶ Open and transparent collaboration frameworks in support of security and travel facilitation
- ▶ Leveraging digital technologies and biometrics
- ▶ Coordinated restart of travel and tourism internationally

Pioneering an innovative approach to build a robust and sustainable travel and tourism industry in South Africa

Amadeus continued to work with South Africa's Department of Trade, Industry and Competition and Department of Tourism to support the growing needs of the country's travel and tourism industry.

This effort further consolidated an innovative industry alliance and strategic programs in South Africa's travel and tourism sectors. The alliance aims to drive inclusive and transformational growth using a new data-driven digital platform that supports South Africa's objective to build, promote and commercialize an expanded tourism offering. It can also curate and analyze tourism data for valuable insights into the services and business needs of industry players, to better service the needs of visitors.

Travel and tourism is South Africa's third most important economic sector. With a special emphasis on the skills that the travel industry requires, and the use of digital and virtual training facilities, the active involvement of the industry in one of our related industry training programs demonstrated that targeted skills training in close collaboration with business can lead to employability for young South Africans.

The academy has also brought industry-related skills and technology solutions to boost SMEs in the tourism sector across the country. After 2 years of operation, 7 skills-building projects have reached 800 beneficiaries, half of them new professionals and the other half SMEs serving the travel and tourism sector. All seven projects were carefully selected and piloted with businesses in the South African travel and tourism industry.

In 2021 a second key pillar of the digital platform, an SME booking and business solution, has also started to be rolled out to small businesses operating in the sector, to boost their digital presence and accessibility to market.

Innovation and technology to harness the power of travel for good with UNICEF

In 2012 Amadeus partnered with the United Nations Children's Fund (UNICEF) to set the foundation, using technology, for a wide collaboration of global travel industry players to crowdsource funds for children's projects around the world. Through the Amadeus' online donation tool Click for Change, travelers can easily donate to UNICEF projects while booking their journeys.

To date, over USD 3 million has been raised to support UNICEF's health and education programs.

Shareholders and financial institutions

Amadeus Investor Relations' mission and activity

Amadeus Investor Relations' mission is to maintain an open dialogue and build long-term relationships based on credibility and trust with its financial community, including investors, research analysts and the regulator of the Spanish stock market, the Comisión Nacional del Mercado de Valores (CNMV).

The Investor Relations function, which is part of the Finance function, aims to increase awareness about Amadeus and to ensure stakeholders are informed on relevant company or industry news and our operational and financial performance. We aim to communicate effectively and proactively, in a consistent and timely manner.

Our communication policy was defined in compliance with the best practices and recommendations of good governance that are applicable to listed companies. It is based on the following principles:

- ▶ Responsibility, diligence and transparency of information disclosure
- ▶ Equal treatment of stakeholders and protection of their rights and interests
- ▶ Cooperation with shareholders

We use different channels of communication to reach our financial community, including supervisory bodies, such as the CNMV in Spain. These entities immediately distribute the key information through their websites, which is simultaneously posted on our corporate website. We also use our corporate website, quarterly earnings market calls, corporate event-driven market calls, the Annual General Shareholders' Meeting and Investor Day events to channel information to shareholders, as well as an extensive investor relations program. During 2021, this included:

- ▶ Participation in investor conferences and roadshows, mostly virtual due to travel restrictions, but still allowing us to connect with many investors all over the world

- ▶ A high number of individual investor conference calls
- ▶ Meetings and ongoing communication with the research analysts covering the Amadeus stock, of which there were 30 at the end of 2021

Through Amadeus' Investor Relations function we encourage a two-way relationship with the financial community. As well as providing our stakeholders with pertinent and relevant information, we also collect and consolidate valuable feedback, which is considered in the decision-making processes of our top management.

For the tenth year in a row Amadeus has earned the prestigious recognition of being included in the Dow Jones Sustainability Indices (DJSI), in both the Europe and World indices. ↪ The Dow Jones Sustainability Indices are made up of global sustainability leaders based on economic, environmental and social criteria. This success has been the result of our commitment to developing a sustainable business that brings long-term rewards to all our stakeholders and places emphasis on the careful management of resources.

The stock market in 2021

2021 was a solid year for financial markets, with double-digit growth across most of the European and US stock indices. While the COVID-19 global pandemic continued to cause volatility, equity markets grew on the back of economic growth, vaccine rollouts and sustained, supportive monetary policy.

Equity capital markets' performance in 2021



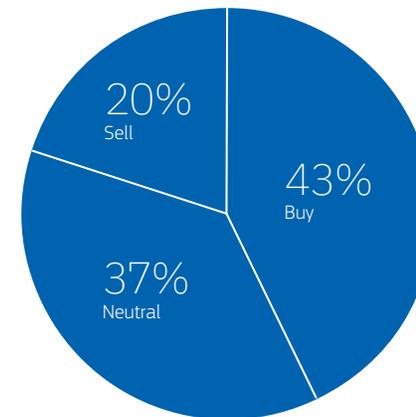
↪ See p. 106, 'Amadeus sustainability credentials.'

Amadeus' share performance

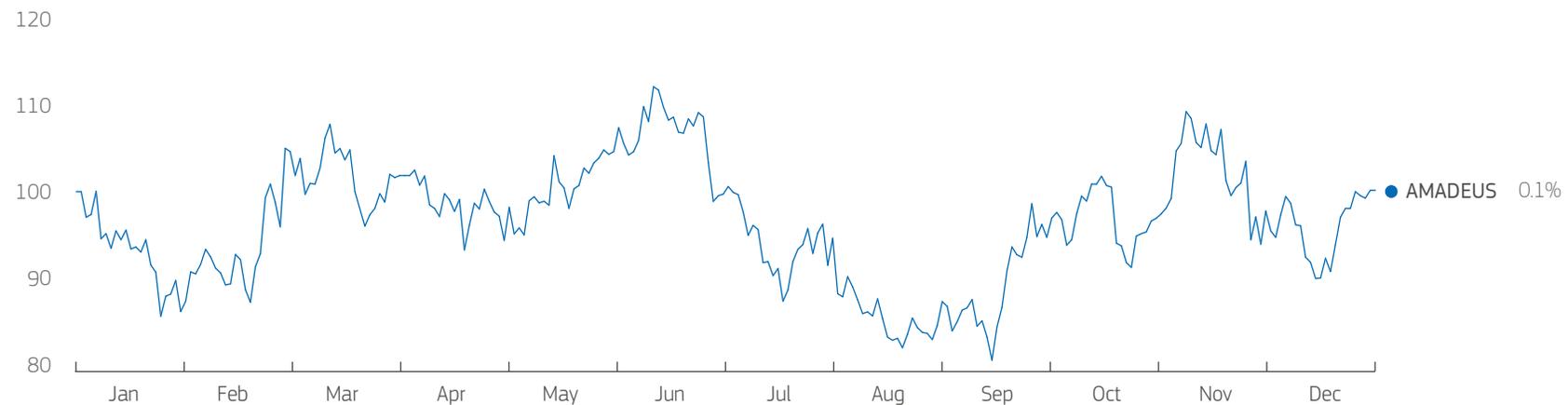
Amadeus' share price increased by 0.1% in 2021, underperforming the IBEX 35 and other stock indices, which are more diversified against the COVID-19 pandemic when compared to companies in the travel industry. Our maximum share price during 2021 was €65.70 on June 11. We closed the year at €59.64.

Our market capitalization at December 31, 2021, was €26,868 million. The average daily trading volume was 1.1 million shares, for a total traded volume of €16.1 billion for the year. The proportion of our stock in free float reached 99.84% at year-end.

Analysts' recommendations at year-end 2021



Amadeus' share performance in 2021





Amadeus key trading data for the year

	2020	2021
Change in share price (%)	(18.2%)	0.1%
Maximum share price (figures in €)	78.60	65.70
Minimum share price (figures in €)	35.22	49.69
Weighted average share price (figures in €)*	52.81	57.75
Average daily volume (number of shares)	1,822,988	1,094,420
Average daily volume (figures in € thousand)	97,248	62,801
Annual volume (figures in € thousand)	24,992,845	16,139,783

* Excluding cross trades.

Amadeus key trading data at year-end

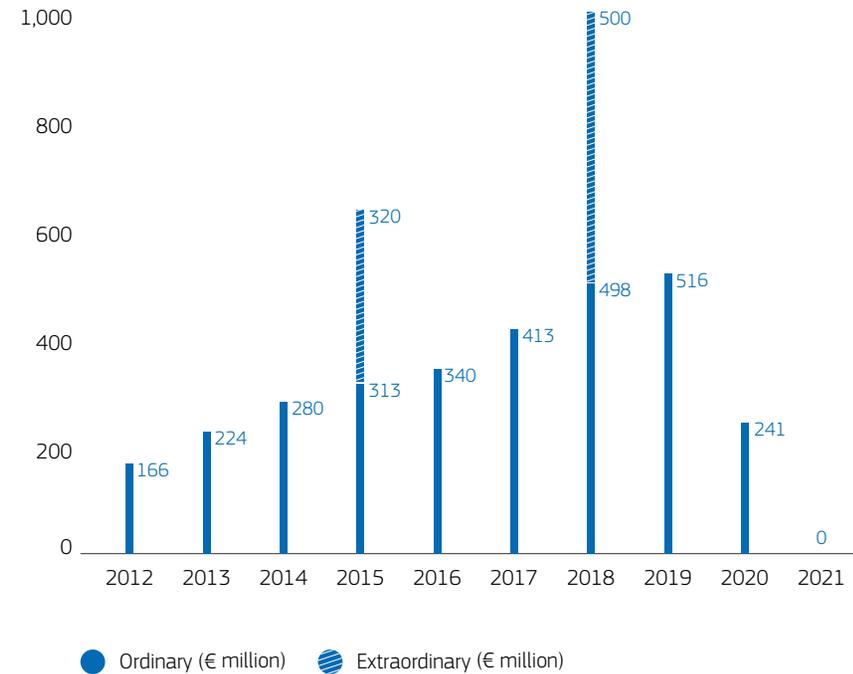
	2020	2021
Number of shares issued at Dec 31	450,499,205	450,499,205
Share price at Dec 31 (figures in €)	59.56	59.64
Market capitalization at Dec 31 (figures in € million)	26,832	26,868
Adjusted earnings per share, full year (figures in €)	(0.68)	(0.10)

Shareholder remuneration

Amadeus operates a solid and resilient business model that generates strong free cash flow, allowing for continued and sustained investment in R&D and innovation as well as shareholder remuneration, while maintaining a flexible financial capital structure. Driven by Amadeus' business and financial expansion, ordinary dividends paid grew consistently every year since Amadeus' initial public offering (IPO) in 2010, at an average annual rate of 18% from 2011 to 2019. Amadeus complemented this with share repurchase programs in 2015 and 2018.

From 2020, Amadeus' financial performance has been impacted by the COVID-19 pandemic, and for the first time since its IPO, Amadeus reported losses in 2020 and 2021. As a consequence, in 2020 the ordinary dividend paid declined with respect to 2019 (as part of the measures in response to the pandemic, Amadeus canceled the payment of the complementary dividend). Considering the 2020 and 2021 financial results due to the COVID-19 pandemic, Amadeus' Board of Directors agreed to not distribute dividends pertaining to the 2020 and 2021 financial years.

Amadeus shareholder remuneration



Financial institutions

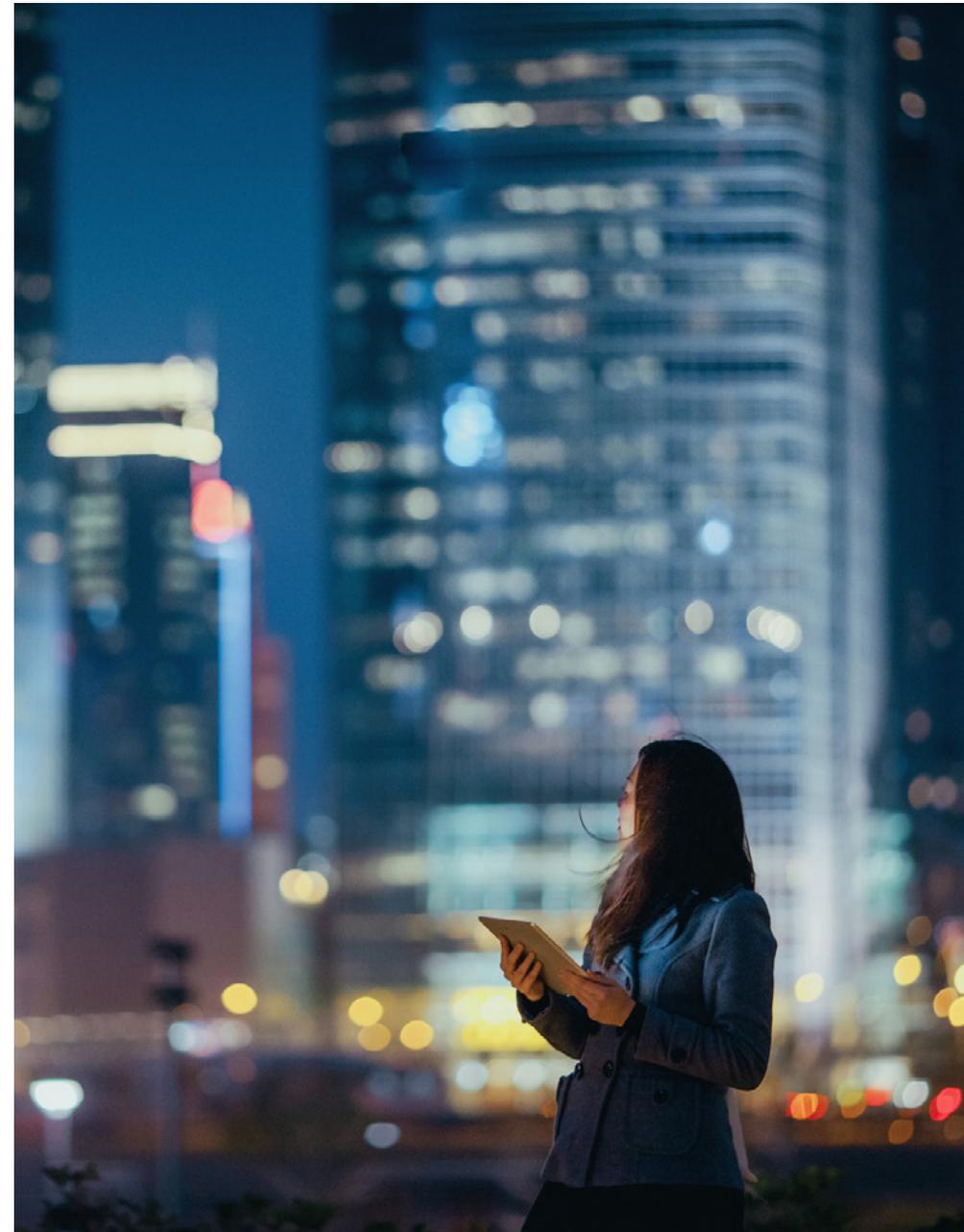
Net financial debt, as per our credit facility agreements' terms, amounted to €3,048.7 million at December 31, 2021.

The main changes to our debt in 2021 were:

- ▶ On February 9, 2021, Amadeus issued a €500 million floating-rate note with a two-year term and an optional redemption for the issuer within 374 days after the issuance date. The notes have a variable three-month Euribor interest rate plus 65 basis points rate and an issue price of 100.101% of its nominal value.
- ▶ On August 17, 2021, Amadeus canceled €500 million bonds issued on November 17, 2015, with maturity on November 17, 2021.
- ▶ The decrease in the use of the multi-currency Euro Commercial Paper (ECP) program by a net amount of €622.0 million.
- ▶ The repayment of €47.5 million related to our European Investment Bank (EIB) loan, as scheduled.

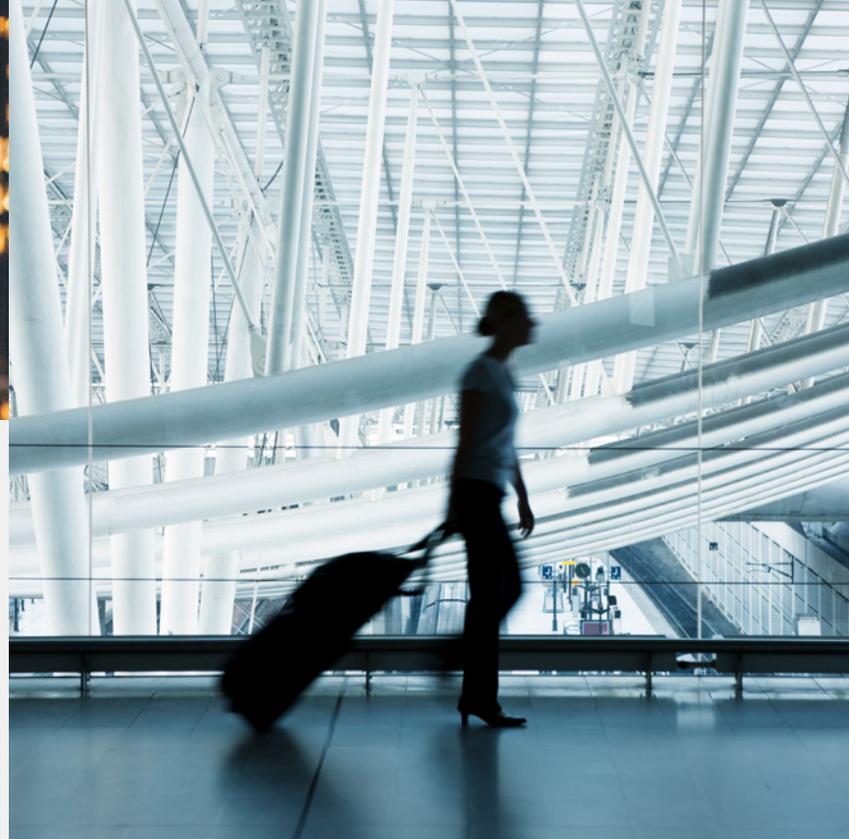
On April 27, 2018, Amadeus executed a €1,000 million European revolving credit facility, with maturity in April 2025, to be used for working capital requirements and general corporate purposes. This facility remained undrawn at December 31, 2021.

On January 11, 2022, Amadeus exercised its right (call option) to redeem on February 18, 2022, the outstanding notes issued on February 9, 2021 (with a maturity date of February 9, 2023) for a principal amount of €500 million. At the same time, Amadeus issued a €500 million floating-rate note with a two-year term (January 25, 2024) and an optional redemption for the issuer within 373 days after the issuance date (February 2, 2023). The notes have a floating three-month Euribor plus 60 basis points interest rate and an issue price of 100.103% of its nominal value.





Annex 1



About this report

GRI 102-46



Objectives, scope and limitations of the Amadeus Global Report

Non-financial reporting is becoming increasingly relevant. In recent years, we perceive a growing interest from industry stakeholders and regulators in non-financial information as a fundamental component of corporate reporting.

The Amadeus Global Report has the following objectives:

1. To comply with market requirements and best practice expectations regarding the transparent reporting of Environmental, Social and Governance (ESG) information. The Report is published in accordance with the GRI Sustainability Reporting Standards and it integrates financial and non-financial information. In this edition, we have also followed the reporting standards of the Task force on Climate-related Financial Disclosures (TCFD) and included a mapping of Sustainability Accounting Standards Board (SASB) standards to our GRI reporting.
2. To provide input to external stakeholders interested in our sustainability practices and performance, including sustainability indices and the UN Global Compact.

3. To serve as a source of information for any internal or external party wanting to know more about Amadeus, for example in induction programs. The data and information included in the Report has been validated internally and externally.
4. To highlight Amadeus' sustainability and social initiatives, which are not included in other public Amadeus documents.

The reporting scope of the Amadeus Global Report includes the entire Amadeus Group unless otherwise indicated. This document focuses on our activities in 2021. For comparability purposes, we include historical data for KPIs that facilitate comparison over time.

In terms of the data-gathering process, we considered the materiality of the information on the one hand and the effort of collecting the data on the other. In cases where data is limited, this is specified in the corresponding section.

The materiality analysis has served to define what must be reported in more detail, as well as the information to include in the GRI Content Index.↪ From that starting point, we report not only on our material issues but also on the main topics identified as either externally or internally relevant ↪, namely carbon emissions, energy consumption, social responsibility and human rights.

Additionally, current regulation and key sustainability ratings require that we report specific non-material issues. Therefore, for the purpose of improving overall transparency, we've included the GRI Standards on:

- ▶ Materials (paper consumption)
- ▶ Water usage
- ▶ Waste
- ▶ Social and environmental assessments of suppliers
- ▶ Occupational health and safety

↪ See p. 163, "GRI Content Index."

↪ See p. 127, "Materiality analysis."

Amadeus complies with the legal reporting obligations of EU Directive 2014/95 on disclosure of non-financial and diversity information, and its transposition into Spanish regulation (Law 22/2015 of July 2, modified in Law 11/2018 of December 18) and EU Taxonomy reporting as per EU Regulation 2020/852 in our [Non-financial Information Statement](#). Therefore, the scope of the Global Report does not include the reporting obligations under the above-mentioned regulations.

Methodology

Reporting principles

We define the content and structure of the Amadeus Global Report based on the aforementioned objectives. From that starting point, we build the document in line with reporting frameworks, reporting standards and legal requirements presented hereafter.

Reporting frameworks

▶ International Integrated Reporting Council

This report brings together information about Amadeus' "capitals"¹ into a single corporate document. We explain how Amadeus' strategy leads to the creation of value. In line with the <IR> concept of connectivity, we report the activities of our various units by using cross-references to point readers to other sections for more detailed information.

▶ UN Global Compact

The United Nations Global Compact is a call for organizations to align their strategies and operations with 10 universal principles on human rights, labor standards, the environment and anti-corruption. Amadeus has been a participant of the UN Global Compact since 2018 and is committed to integrating the 10 principles into our strategy, culture and day-to-day operations. This report has been prepared in accordance with these principles.

¹ As the International Integrated Reporting Council explains in its International <IR> Framework, "capitals" are stocks of value that are affected or transformed by the activities and outputs of an organization. The framework categorizes them as financial capital, manufactured capital, intellectual capital, human capital, social/relationship capital and natural capital.

▶ UN Sustainable Development Goals

Since 2018, the Global Report has included an analysis on what our value is in meeting the UN Sustainable Development Goals (SDGs).↪ This analysis has helped us identify how our business growth has a positive impact on the protection of the environment and on social development.



▶ Task Force on Climate-related Financial Disclosures (TCFD)

In 2017, the task force established by the Financial Stability Board issued standardized climate-related financial disclosure recommendations structured into four thematic areas: governance, strategy, risk management, and metrics and targets. Amadeus is aligned to this framework and presents climate-related information in this report following these recommendations.

▶ Business for Societal Impact Framework (B4SI)

This framework is a measurement standard for understanding the impact of initiatives on business and society. Through this approach, organizations can benchmark initiatives and strategically evaluate the contribution they make to the community. Amadeus has followed this methodology of community investment calculation since 2019.

Reporting standards

▶ Global Reporting Initiative (GRI)

The GRI reporting framework is the main point of reference for defining the minimum topics and metrics to include in the Global Report. We select the GRI Sustainability Reporting Standards in line with our materiality analysis in order to report our impact on the economy, the environment and society.

This report has been prepared in accordance with the GRI Standards: Core option. For the GRI Content Index Service, GRI Services reviewed the GRI content index and ensured that it was clearly presented and the references for all disclosures included aligned with the appropriate sections in the body of the report.

↪ See p. 129, "Amadeus contribution to the Sustainable Development Goals."

▶ Greenhouse Gas Protocol (GHG Protocol)

The GHG Protocol Corporate Accounting and Reporting Standard, being the most widely used international accounting tool, establishes guidance and requirements for the development of a GHG emissions inventory in organizations. This standard, applied by Amadeus, considers direct GHG emissions (Scope 1) as emissions from sources owned or controlled by the company. On the other hand, indirect GHG emissions (Scopes 2 & 3) are those emissions resulting from the company's activities, but which occur at sources owned or controlled by a third party. Scope 2 refers to the use of electricity and Scope 3 to the emissions released by company's providers in the activities related to the delivery of their services.

External verification

▶ Third-party verification

The external assurance of the report by an independent organization (Ernst & Young) ensures the reliability of the quantitative and qualitative material issues listed in the GRI Content Index in Annex 2.

Production process overview

The Global Report's production process is led by the ESG team at the CEO office.

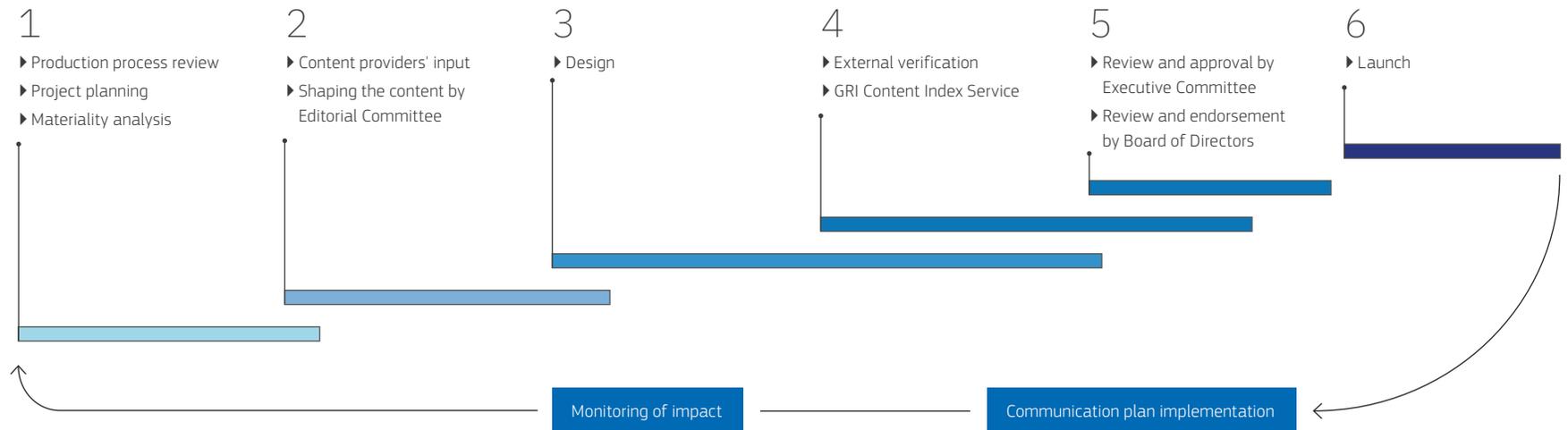
As non-financial information is increasing in relevance, the process to build the Amadeus Global Report is becoming more complex. The graph on the next page provides an overview of the different stages in this process, involving close to 100 contributors worldwide. In line with the GRI reporting principles, we constantly aim to improve the report's balance, comparability, accuracy, timeliness, clarity and reliability.²

² The principles for defining report quality according to the GRI Standards are explained at globalreporting.org/standards.

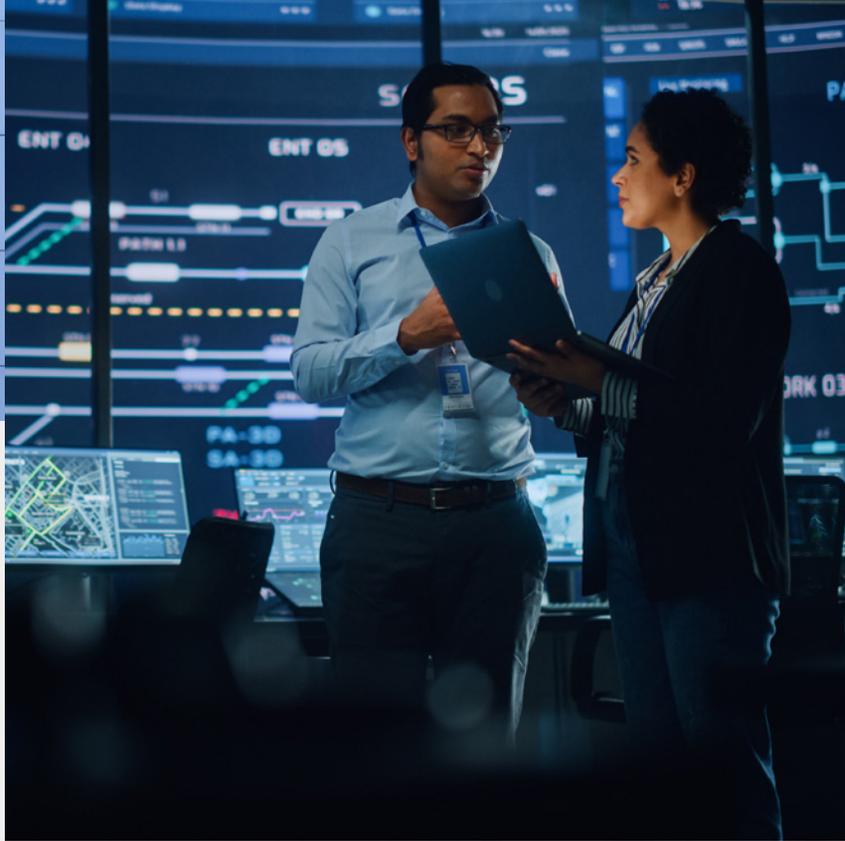
The Amadeus Global Report Editorial Committee plays a key role in shaping the content of the Report. Its main mission is to agree on the strategic overview of the content. This transversal team is composed of heads of key units at corporate level: Communications, Branding, Industry Affairs, Strategy, Investor Relations and CEO Office.

The Amadeus Executive Committee reviews and approves the Global Report. Once the document is endorsed by the Board of Directors, it's released globally through internal and external communication campaigns.

Production process of the Amadeus Global Report



Annex 2



Quantitative information and GRI Content Index

GRI 201-1



Direct economic value generated and distributed*

Distributed economic value
(figures in € million)

	2021
Operating costs	731
Employee wages and benefits	1,340.1
Payments to providers of capital**	86.6
Payments to governments	45.1
	2,202.8

Generated economic value
(figures in € million)

	2021
Net sales	2,670
Financial incomes	9.5
Sales of assets	0
	2,679.5

* As defined by the Global Reporting Initiative (GRI Standards disclosure 201-1).

** All financial payments made to providers of the organization's capital (interests and dividends paid).

Tables related to environmental sustainability¹



Energy consumption

	2019	2020	2021*
Electricity consumption Amadeus sites** (GJ)	211,484	168,761	158,377
Number of employees	19,402	17,593	16,042
Electricity consumption per employee (GJ)	10.9	9.6	9.9
Electricity consumption Amadeus Data Center (GJ)	242,590	228,611	221,446
Number of transactions processed at the Data Center (millions)	1,907	473	737
Electricity required per 1 million transactions (GJ)	127.2	483.4	300.4
Total electricity consumption top Amadeus sites and Data Center (GJ)	454,074	397,372	379,823
Natural gas (GJ)	25,662	22,234	33,760
Diesel oil (GJ)	7,271	3,076	2,769
Total energy consumption top Amadeus sites and Data Center (GJ)	487,007	422,683	416,352

* Targets and results are described and explained on pages 102-103.

** Does not include the Amadeus Data Center.

Types of fuel used for electricity generation in 2021 (GJ)*

	Coal	Fuel oil	Natural gas	Biofuel	Waste	Other**	Total
Amadeus sites worldwide (excluding the Data Center)	89,401	6,600	63,106	8,719	3,014	96,758	267,597
Data Center***	0	0	0	0	0	221,446	221,446

* All figures expressed in gigajoules equivalent, obtained from the energy mix data of each country and the energy-transformation efficiency factor for each type of energy source.

** Other: nuclear, hydro, geothermal, photovoltaic, solar thermal, wind and tidal power.

*** In 2021 we purchased Guarantees of Origin (GOs) of renewable energy from hydropower plants in Northern Europe for all electricity used at the Data Center. Without considering the use of GOs, the energy mix for the Data Center would result in the following split, calculated as per the German energy mix: coal: 201,340; fuel oil: 4,855; natural gas: 84,587; biofuel: 42,628; waste: 12,007; other: 98,860; total: 444,277.

¹ Scope: total Amadeus sites worldwide. Figures have been calculated considering the direct reporting of the sites included in the EMS plus the estimation of the rest of the sites. This estimation is based on the average consumption reported by the EMS sites. For environmental reporting, given the fact that resource consumption takes place throughout the year, we use average FTEs in the year.

CO₂ emissions*(all figures in t of CO₂ unless otherwise indicated)*

	2019	2020	2021	Target 2021
Scope 1. Direct emissions (fossil fuels)	1,849	1,380	1,961	1,380
Scope 2. Indirect emissions from purchased electricity*	18,213	13,688	11,767	13,688
Scope 3. Indirect emissions from other sources**	7,424	2,886	366	2,886
CO ₂ emissions (Scopes 1 and 2) per employee	1.03	0.86	0.86	0.86
Natural gas (m ³)	668,071	578,834	878,897	578,834
Diesel oil (L)	188,317	79,675	71,707	79,675

* Scope 2 emissions are calculated applying a conversion factor, i.e. the amount grams of CO₂ emitted per kWh, to the electricity used per site. The conversion factors are obtained from the latest updated averages for each country, published by the International Energy Agency in its data set IEA Emissions Factors 2021 (updated September 2021). We apply the specific country conversion factors to the 14 EMS sites, and for the rest of Amadeus sites we use the World average.

** The reported figure in 2019 includes emissions from air travel (11 sites) and from the total Amadeus paper used, estimated from the 15 sites included in the direct reporting of the EMS. In 2020 the scope of air travel emissions includes 12 sites and in 2021 we have increased it to 13 sites.

GRI 305-1, 305-2, 305-3, 305-4, 306-3, 303-5, 301-1

Paper consumption

	2019	2020	2021	Target 2021
Paper consumption (kg)	66,988	22,307	14,440	22,307
Number of employees	19,402	17,593	16,042	-
Paper consumption per employee (A4 sheets per working day)	3.14	1.15	0.82	1.15

Water consumption and waste generation

	2019	2020	2021	Target 2021
Water consumption (m ³)	248,641	152,105	130,707	152,105
Total estimated waste (kg)*	427,722	184,034	164,644	184,034

* For comparability purposes, the figures for waste do not include obsolete equipment or hazardous waste. Total obsolete equipment in 2021 was 24,022 kg and total hazardous waste was 982 kg. The percentage of obsolete equipment and hazardous waste that was sent for recycling in 2021 was 99% and 86%, respectively. For non-hazardous waste, 58% is the estimated average percentage of waste that was sent for recycling in the sites included in our direct reporting.

I Management and assessment of climate change-related risks

Climate change-related risk	Management	Assessment
Physical risks		
Physical risks affecting the communities where we operate	Our global presence helps us to diversify our risk. Amadeus has built a global team to coordinate social responsibility responses to cope with adverse events occurring in the markets where we operate.	Probability: Very high Impact: Minor
Physical risks affecting our travel providers and/or customers	Our 24-hour follow-the sun customer service is ready to provide extra support if needed.	Probability: Medium Impact: Moderate
Physical risks affecting Amadeus operations	<p>For events affecting any of our offices, mitigation is facilitated with communication technology, allowing us to maintain uninterrupted operations.</p> <p>The most significant risk is related to events affecting the regular operations of our Data Center in Erding (Germany). To manage this risk, the design of the Data Center included resilience measures, such as reinforced concrete insulation and redundant water and power supplies.</p> <p>Besides, business continuity strategies have been implemented to minimize, among other things, the effects of local weather extreme events.</p>	Probability: Low Impact: Catastrophic
Transition risks		
Regulatory risks - carbon reporting-related regulations	<p>These regulations can affect Amadeus directly or indirectly, since our customers could ask us to help them comply with new regulations.</p> <p>These regulations do not represent a relevant risk for Amadeus, unless they become too complex and heterogeneous. For this reason, we are implementing active dialogue with EU representatives to raise awareness about the importance of a homogeneous international approach to carbon emissions reporting.</p>	Probability: Low Impact: Moderate
Regulatory risks - regulations imposing charges and/or emission reductions	<p>Due to the geographical diversification of Amadeus business, this risk could have a limited effect.</p> <p>Amadeus maintains close relationships with regulatory bodies in the EU and US and remains alert to relevant changes.</p>	Probability: Medium Impact: Minor
Reputational risks	<p>Companies are expected to comply with all industry environmental standards and monitor its environmental performance.</p> <p>Amadeus' Environmental Management System (EMS) and our participation in sustainability indices allow us to transparently report our environmental performance.</p>	Probability: Low Impact: Moderate
Technology risks	Environmental performance is becoming an important element in overall operational performance. We need to make sure our IT solutions help customers improve their environmental performance	Probability: Medium Impact: Moderate
Market risks	<p>Travelers are increasingly demanding information on sustainable travel options. We are working to improve our content on sustainable travel options and providing tools to inform travelers on environmental information of trips.</p> <p>Optimizing the environmental performance of operations is also important to attract and/or retain the talent of younger generations. Our EMS provide the basis for the continuous environmental performance improvement of our operations.</p>	Probability: Medium Impact: Moderate

Tables related to human resources information¹



Diversity in the workforce

Workforce by employment contract by region in 2021

	Permanent	Temporary
Europe	8,483	85
Asia-Pacific	4,224	45
North America	2,175	-
South America	596	-
Middle East & Africa	324	4
Total	15,802	134

Gender diversity by employment type and contract in 2021

	Employment type		Employment contract	
	Full-time	Part-time	Permanent	Temporary
Male	9,580	178	9,684	74
Female	5,602	576	6,118	60
Total	15,182	754	15,802	134

	VPs and directors			Senior managers and managers			Staff		
	2019	2020	2021	2019	2020	2021	2019	2020	2021
Total workforce	193	206	206	4,087	4,142	5,033	13,509	12,202	10,697
By age range									
<30	0	0	0	13	9	26	3,036	2,296	2,368
30-50	81	82	80	2,945	2,913	3,547	8,540	8,046	6,756
>50	112	124	126	1,129	1,220	1,460	1,933	1,860	1,573
By gender									
Male	155	164	162	2,742	2,784	3,326	7,986	7,179	6,270
Female	38	42	44	1,345	1,358	1,707	5,523	5,023	4,427

¹ Figures in headcounts as of December 31. Scope: all employees in controlled companies.

I Governance bodies

	2019	2020	2021
Percentage by age range			
<30	0%	0%	0%
30-50	0%	8%	0%
>50	100%	92%	100%
Percentage by gender			
Male	85%	77%	58%
Female	15%	23%	42%
Percentage by nationality			
Other than Spanish	54%	69%	75%

I Employees with disabilities

	2019	2020	2021
Total	193	217	219

Training in 2021

I Average hours of training in 2021

	Male	Female	Total
Employee category			
SVPs, EVPs and VPs	5.22	8.10	5.46
Directors	7.16	8.81	7.53
Associate directors	10.06	11.57	10.42
Senior managers	11.34	29.56	16.88
Managers	15.46	13.96	14.94
Staff	15.84	14.13	15.15

I Global anti-corruption training in 2021*

	Total
Number of FTEs trained**	13,395
Percentage of FTEs trained***	82%
Number of training hours	6,698

* The mandatory anti-corruption training includes: the Code of Ethics and Business Conduct, Anti-Bribery & Corruption, Gifts & Entertainment, Anti-Fraud, Internal Rules for Securities Market and complaint mechanisms. In 2021 all training has been conducted online. Breakdown by region is as follows: 2,703 employees in APAC (Asia-Pacific), 6,277 employees in EMEA (Europe, Middle East and Africa) and 2,298 employees in the Americas (North America and South America); 2,117 FTEs have not been assigned to any region.

** During 2021 we have not conducted separate anti-corruption training for top management. Members of top management take the mandatory anti-corruption training.

*** Figures include average FTEs, internal and external, in 2021.

Employees hires and turnover

	Employee hires				Employee turnover			
	2019	2020	2021	% of total headcount	2019	2020	2021	% of total headcount
Total headcount	2,420	827	2,358	14.8%	1,950	2,078	2,987	18.74%
By region								
Europe	1,061	281	704	8.2%	888	891	1,507	17.59%
Asia-Pacific	836	420	1,196	28.0%	557	525	887	20.78%
North America	432	72	227	10.4%	407	553	465	21.38%
South America	68	46	220	36.9%	71	52	89	14.93%
Middle East and Africa	23	8	11	3.4%	27	57	39	11.89%
By gender								
Male	1,537	556	1,535	15.7%	1,199	1,299	1,918	19.66%
Female	883	271	823	13.3%	751	779	1,069	17.30%
By age range								
<30	1,147	404	1,238	51.7%	593	525	608	25.40%
30-50	1,173	391	1,036	10.0%	1,117	1,187	1,825	17.58%
>50	100	32	84	2.7%	240	366	554	17.54%

Work-related injuries in 2021

	Europe		Asia-Pacific		North America		South America		Middle East and Africa		Total
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
Type of injury											
Neck or back	4	-	-	-	-	-	-	-	-	-	4
Bone	1	-	-	-	-	-	-	-	-	-	1
Soft tissue	2	-	-	-	-	-	-	-	1	-	3
Burns	3	2	-	-	-	-	-	-	-	-	5
RMI	-	-	-	-	-	-	-	-	-	-	0
Other	9	8	-	-	-	-	-	-	-	-	17
Total injuries	19	10	0	0	0	0	0	0	1	0	30
Injury rate	1.87	1.61	0.00	0.00	0.00	0.00	0.00	0.00	2.09	0.00	0.98
Occupational diseases rate	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lost day rate	0.23	1.00	0.00	0.00	0.00	0.00	1.07	0.72	0.00	0.00	0.32
Absentee rate	1.57	3.32	0.30	0.66	0.00	0.00	0.85	0.57	3.69	0.97	1.41
Work-related fatalities	0	0	0	0	0	0	0	0	0	0	0

Collective bargaining agreements

	2019	2020	2021
Percentage of employees covered by collective agreements	47%	48%	46%

GRI Content Index*

Material topics

Other topics reported, internally or externally relevant

Other topics reported

GRI

CONTENT INDEX SERVICE

2022

GRI Standard	Disclosure	Page number(s) / direct answer(s)	Omission(s)	SASB-equivalent standard
GRI 101	Foundation 2016			
GRI 102	General disclosures 2016			
Organizational profile	102-1 Name of the organization	Amadeus IT Group, SA		
	102-2 Activities, brands, products and services	p. 11; 17-19; 27-35; 45; 62; 68; 156		TC-SI-000,A TC-SI-000,B TC-SI-000,C
	102-3 Location of headquarters	p. 18; 20		
	102-4 Location of operations	p. 18; 20		
	102-5 Ownership and legal form	p. 10; 18; 21		
	102-6 Markets served	p. 20-21		
	102-7 Scale of the organization	p. 9-10		
	102-8 Information on employees and other workers	p. 9; 76; 159		
	102-9 Supply chain	p. 132-133		
	102-10 Significant changes to the organization and its supply chain	No significant changes identified.		
	102-11 Precautionary Principle or approach	p. 119-126		
	102-12 External initiatives	p. 84; 86; 138-140		
	102-13 Membership of associations	p. 69; 138-144		
	Strategy	102-14 Statement from senior decision-maker	p. 3-6	
102-15 Key impacts, risks, and opportunities		p. 11-14; 98-100;122-123		
Ethics and Integrity	102-16 Values, principles, standards, and norms of behavior	p. 119-120		
	102-17 Mechanisms for advice and concerns about ethics	p. 119-120		

* For the GRI Content Index Service, GRI Services reviewed that the GRI content index is clearly presented and the references for all disclosures included align with the appropriate sections in the body of the report.

GRI Standard	Disclosure	Page number(s) / direct answer(s)	Omission(s)	SASB-equivalent standard
Governance	102-18 Governance structure	p. 107-118		
	102-22 Composition of the highest governance body and its committees	p. 24;109-114		
	102-23 Chair of the highest governance body	p. 110-111		
	102-24 Nominating and selecting the highest governance body	p. 107-108; 117-118		
	102-26 Role of highest governance body in setting purpose, values, and strategy	p. 107-109		
	102-30 Effectiveness of risk management processes	p. 119; 121-123; 125		
	102-32 Highest governance body's role in sustainability reporting	p. 153-154		
	102-35 Remuneration policies	p. 115-116; 117-118		
Stakeholder engagement	102-40 List of stakeholder groups	p. 131		
	102-41 Collective bargaining agreements	p. 162		
	102-42 Identifying and selecting stakeholders	p. 131-132; 137-138		
	102-43 Approach to stakeholder engagement	p. 131-132		
	102-44 Key topics and concerns raised	p. 128-129		

GRI Standard	Disclosure	Page number(s) / direct answer(s)	Omission(s)	SASB-equivalent standard
Reporting practice	102-45 Entities included in the consolidated financial statements	Amadeus Consolidated Annual Accounts 2021. Appendix: Summary of the consolidated companies and joint ventures and associates (p. 74-83)		
	102-46 Defining report content and topic Boundaries	p. 151-154		
	102-47 List of material topics	p. 128		
	102-48 Restatements of information	There have not been any re-statements of information provided in previous reports.		
	102-49 Changes in reporting	There have not been any significant changes from previous reporting periods.		
	102-50 Reporting period	2021		
	102-51 Date of most recent report	2021 (information regarding 2020)		
	102-52 Reporting cycle	Annual		
	102-53 Contact point for questions regarding the report	p. 168		
	102-54 Claims of reporting in accordance with the GRI Standards	p. 153		
	102-55 GRI content index	p. 163-173		
	102-56 External assurance	p. 174		
Operational excellence & system availability				
GRI 103 Management Approach 2016	103-1 Explanation of the material topic and its Boundary	p. 27-33; 37-40; 49-56; 62; 66		
	103-2 The management approach and its components	p. 27-33; 37-40; 49-56; 62; 66		TC-SI-550a.1 TC-SI-550a.2
	103-3 Evaluation of the management approach	p. 27-33; 37-40; 49-56; 62; 66		
Solvency and economic performance				
GRI 103 Management Approach 2016	103-1 Explanation of the material topic and its Boundary	p. 9-10		
	103-2 The management approach and its components	p. 9-10		
	103-3 Evaluation of the management approach	p. 9-10		
GRI 201 Economic performance 2016	201-1 Direct economic value generated and distributed	p. 155		

GRI Standard	Disclosure	Page number(s) / direct answer(s)	Omission(s)	SASB-equivalent standard
GRI 207 Tax 2019	207-1 Approach to tax	p. 108-109 and Amadeus Tax strategy		
	207-2 Tax governance, control and risk management	p. 108-109; 116-117 and Amadeus Tax strategy		
	207-3 Stakeholder engagement and management of concerns related to tax	p. 128-129; 131-132		
	207-4 Country-by-country reporting	<ul style="list-style-type: none"> ▶ 207-4a, b-vi, b-viii. Amadeus non-financial information 2021 (p. 59-61) ▶ 207-4b-i. Amadeus annual accounts 2021 (p. 65-80) ▶ 207-4b-ii. p. 18-19 ▶ 207-4b-iii. Amadeus non-financial information 2021 (p. 38) ▶ 207-c The time period covered by the information provided is January 1st, 2021 to December 31st, 2021 	Confidentiality constraints. The information not disclosed (207-4b-iv, b-v, b-vii, b-ix and b-x) is considered confidential as it depicts critical strategic business information that would therefore leave Amadeus in a competitive disadvantage. Nonetheless, we are analyzing the additional requirements and preparing our systems to eventually obtain and report the information in the future.	

Talent Attraction & Retention

GRI 103 Management Approach 2016	103-1 Explanation of the material topic and its Boundary	p. 75; 77; 79-81		
	103-2 The management approach and its components	p. 75; 77; 79-81		TC-SI-330a.2
	103-3 Evaluation of the management approach	p. 75; 77; 79-81		
GRI 401 Employment 2016	401-1 New employee hires and employee turnover	p. 161		

Customer Relationship Management

GRI 103 Management Approach 2016	103-1 Explanation of the material topic and its Boundary	p. 21; 33-34; 42-44; 56		
	103-2 The management approach and its components	p. 21; 33-34; 42-44; 56		
	103-3 Evaluation of the management approach	p. 21; 33-34; 42-44; 56		

GRI Standard	Disclosure	Page number(s) / direct answer(s)	Omission(s)	SASB-equivalent standard
Data security & privacy protection				
GRI 103 Management Approach 2016	103-1 Explanation of the material topic and its Boundary	p. 69-70; 120;124-125		TC-SI-220a.1
	103-2 The management approach and its components	p. 69-70; 120;124-125		TC-SI-220a.2 TC-SI-220a.4
	103-3 Evaluation of the management approach	p. 69-70; 120;124-125		TC-SI-220a.5 TC-SI-230a.2
GRI 418 Customer privacy 2016	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data.	In 2021 there was no complaint concerning breaches of customer data privacy and/or losses of customer data.		
Compliance, Governance & Business Ethics				
GRI 103 Management Approach 2016	103-1 Explanation of the material topic and its Boundary	p. 107-109; 119-126		
	103-2 The management approach and its components	p. 107-109; 119-126		
	103-3 Evaluation of the management approach	p. 107-109; 119-126		
GRI 205 Anti-corruption 2016	205-1 Operations assessed for risks related to corruption	p. 119-126		
	205-2 Communication and training about anti-corruption policies and procedures	p. 160		
	205-3 Confirmed incidents of corruption and actions taken	In 2021 Amadeus didn't identify any significant incident of corruption.		
GRI 206 Anti-competitive behavior 2016	206-1 Legal actions for anti-competitive behaviour, anti-trust, and monopoly practices	On 19 July 2021, the EU Commission (DG COMP) closed an investigation into Amadeus in the airline ticket distribution sector. The Commission has reached the conclusion that the evidence collected is not sufficiently conclusive to justify pursuing the investigation further. Other than the above, there were no legal actions in the past 3 years for anticompetitive behavior, anti-trust and monopoly practices.		
GRI 307 Environmental compliance 2016	307-1 Non-compliance with environmental laws and regulations	In 2021 there was not imposed on the Group either a penalty for incidents or breaches or a significant fine on environmental issues.		
GRI 415 Public policy 2016	415-1 Political contributions	Amadeus does not make contributions to political parties.		

GRI Standard	Disclosure	Page number(s) / direct answer(s)	Omission(s)	SASB-equivalent standard
GRI 419 Socioeconomic compliance 2016	419-1 Non-compliance with laws and regulations in the social and economic area	In 2021 there was not imposed on the Group either a penalty for incidents or breaches or a significant fine on social issues.		TC-SI-520a.1
Environmental benefits of Amadeus solutions				
GRI 103 Management Approach 2016	103-1 Explanation of the material topic and its Boundary	p. 96-97		
	103-2 The management approach and its components	p. 96-97		
	103-3 Evaluation of the management approach	p. 96-97		
Human Capital Development				
GRI 103 Management Approach 2016	103-1 Explanation of the material topic and its Boundary	p. 78-79		
	103-2 The management approach and its components	p. 78-79		
	103-3 Evaluation of the management approach	p. 78-79		
GRI 404 Training and education 2016	404-1 Average hours of training per year per employee	p. 160		
	404-2 Programs for upgrading employee skills and transition assistance programs	p. 78-79		
R&D Management				
GRI 103 Management Approach 2016	103-1 Explanation of the material topic and its Boundary	p. 61-62		
	103-2 The management approach and its components	p. 61-62		
	103-3 Evaluation of the management approach	p. 61-62		
Diversity and equal opportunity				
GRI 103 Management Approach 2016	103-1 Explanation of the material topic and its Boundary	p. 79-80		
	103-2 The management approach and its components	p. 79-80		
	103-3 Evaluation of the management approach	p. 79-80		
GRI 405 Diversity and equal opportunity 2016	405-1 Diversity of governance bodies and employees	p. 159-160		TC-SI-330a.3 TC-SI-330a.1

GRI Standard	Disclosure	Page number(s) / direct answer(s)	Omission(s)	SASB-equivalent standard
Carbon emissions and climate change				
GRI 103 Management Approach 2016	103-1 Explanation of the material topic and its Boundary	p. 94-102		
	103-2 The management approach and its components	p. 94-102		
	103-3 Evaluation of the management approach	p. 94-102		
GRI 201 Economic performance 2016	201-2 Financial implications and other risks and opportunities due to climate change	p. 98-99;158		
GRI 305 Emissions 2016	305-1 Direct (Scope 1) GHG emissions	p. 157		
	305-2 Energy indirect (Scope 2) GHG emissions	p. 157		
	305-3 Other indirect (Scope 3) GHG emissions	p. 157		
	305-4 GHG emissions intensity	p. 157		
	305-5 Reduction of GHG emissions	p. 102-104; 156		
Internal energy consumption & energy efficiency				
GRI 103 Management Approach 2016	103-1 Explanation of the material topic and its Boundary	p. 94-96; 102-104		
	103-2 The management approach and its components	p. 94-96; 102-104		TC-SI-130a.3
	103-3 Evaluation of the management approach	p. 94-96; 102-104		
GRI 302 Energy 2016	302-1 Energy consumption within the organization	p. 156		TC-SI-130a.1
	302-2 Energy consumption outside of the organization	In 2021 energy consumption outside of the organization has been 4,523 GJ.		
	302-3 Energy intensity	p. 156		
	302-4 Reduction of energy consumption	p. 103		
	302-5 Reductions in energy requirements of products and services	p. 68		
Relationship with local communities and social responsibility				
GRI 103 Management Approach 2016	103-1 Explanation of the material topic and its Boundary	p. 85-92		
	103-2 The management approach and its components	p. 85-92		
	103-3 Evaluation of the management approach	p. 85-92		

GRI Standard	Disclosure	Page number(s) / direct answer(s)	Omission(s)	SASB-equivalent standard
GRI 413 Local communities 2016	413-1 Operations with local community engagement, impact assessments, and development programs	p. 86-87		
GRI 203 Indirect economic impacts 2016	203-2 Significant indirect economic impacts	p. 85-86		
Human Rights				
GRI 103 Management Approach 2016	103-1 Explanation of the material topic and its Boundary	p. 119-120		
	103-2 The management approach and its components	p. 119-120		
	103-3 Evaluation of the management approach	p. 119-120		
GRI 412 Human Rights Assessment 2016	412-1 Operations that have been subject to human rights reviews or impact assessments		<p>Amadeus has conducted a risk assessment of Human Rights in a selected number of countries based on the following criteria: (i) according to Human Rights standards, or (ii) because of the importance in the operations for Amadeus, especially in terms of reputational impact.</p> <p>The assessment considers how each of these human rights are rated in terms of probability and impact from 1 (lowest) to 4 (highest), and how each of these Amadeus companies comply with their employees, as well as how these companies' providers and suppliers comply with their own employees. The risk assessment performed in 2021 covers more than 70% of Amadeus operations in terms of number of employees (Internal and external).</p> <p>The results obtained from this assessment show that the probability for these risks to materialize in these countries is not material.</p> <p>Amadeus has adopted a Global Human Rights Policy applicable to all its Group companies to ensure that Human Rights are respected. People & Culture are primarily responsible for ensuring compliance with this policy during the recruitment processes. Reports of non-compliance can also be reported through the Speak-up channel and to date, no instances of non-compliance have been reported. Eligible providers and partners are subject to due diligence to ensure that they have adequate Human Rights policies in place, particularly for those providers and partners of its main group companies. We plan to expand this to all other group companies over time.</p>	
	412-2 Employee training on human rights policies or procedures	p. 160		

GRI Standard	Disclosure	Page number(s) / direct answer(s)	Omission(s)	SASB-equivalent standard
Occupational Health & Safety				
GRI 103 Management Approach 2016	103-1 Explanation of the material topic and its Boundary	p. 119-120		
	103-2 The management approach and its components	p. 119-120		
	103-3 Evaluation of the management approach	p. 119-120		
GRI 403 Occupational health and safety 2018	403-1 Occupational health and safety management system		Amadeus' Health and Safety Policy requires that each of its companies or legal entities develops and approves a Health and Safety policy. Programs and procedures in line with this policy are developed and implemented at local level following the approval of the General Manager/Site Manager.	
	403-2 Hazard identification, risk assessment, and incident investigation	p. 12; 120		
	403-3 Occupational health services	p. 120		
	403-4 Worker participation, consultation, and communication on occupational health and safety	p. 83-84; 131		
	403-5 Worker training on occupational health and safety	p. 78-79		
	403-6 Promotion of worker health	p. 81; 120		
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	p. 132		
	403-9 Work-related injuries	p. 162		
Supply Chain Code of Conduct				
GRI 103 Management Approach 2016	103-1 Explanation of the material topic and its Boundary	p. 132		
	103-2 The management approach and its components	p. 132		
	103-3 Evaluation of the management approach	p. 132		
GRI 308 Supplier Environmental Assessment 2016	308-1 New suppliers that were screened using environmental criteria	p. 134		
	308-2 Negative environmental impacts in the supply chain and actions taken	p. 134		
GRI 414 Supplier Social Assessment 2016	414-1 New suppliers that were screened using social criteria	p. 134		
	414-2 Negative social impacts in the supply chain and actions taken	p. 134		

GRI Standard	Disclosure	Page number(s) / direct answer(s)	Omission(s)	SASB-equivalent standard
Waste generation and circular economy				
GRI 103 Management Approach 2016	103-1 Explanation of the material topic and its Boundary	p. 102-104		
	103-2 The management approach and its components+B158C160	p. 102-104		
	103-3 Evaluation of the management approach	p. 102-104		
GRI 306 Waste 2020	306-1 Waste generation and significant waste-related impacts	Waste generation is one of the five elements monitored in our Environmental Management System. Nonetheless waste has not been identified in our materiality analysis as a material topic since, as an IT provider, Amadeus does not generate significant amounts of waste.		
	306-2 Management of significant waste-related impacts	p. 104		
	306-3 Waste generated	p. 157		
	306-4 Waste diverted from disposal	From the main 14 sites in our EMS direct reporting, the total obsolete equipment in 2021 was 24 tons, of which a 99% (23.8 tons) was sent to recycling; total hazardous waste was 1 ton, while 86% (0.8 tons) was sent to recycling. The non-hazardous waste in the sites included in our direct reporting was 108 tons, and 58% (62.8 tons) is the estimated average percentage of waste that was sent to recycling. Overall, the estimated percentage of waste sent to recycling in 2021 was 65.6% (87 out of 133 tons).		
	306-5 Waste directed to disposal	From the main 14 sites in our EMS direct reporting, the total obsolete equipment in 2021 was 24 tons, of which a 1% (0.2 tons) was directed to disposal; total hazardous waste was 1 ton, while 14% (0.1 tons) was directed to disposal. The non-hazardous waste in the sites included in our direct reporting was 108 tons, and 42% (45.5 tons) is the estimated average percentage of waste that was directed to disposal. Overall, the estimated percentage of waste directed to disposal in 2021 was 34.4% (46 out of 133 tons).		

GRI Standard	Disclosure	Page number(s) / direct answer(s)	Omission(s)	SASB-equivalent standard
Water consumption				
GRI 103 Management Approach 2016	103-1 Explanation of the material topic and its Boundary	p. 102-104		
	103-2 The management approach and its components	p. 102-104		
	103-3 Evaluation of the management approach	p. 102-104		
GRI 303 Water and effluents 2018	303-1 Interactions with water as a shared resource	p. 95; 102-104		
	303-2 Management of water discharge-related impacts	p. 95; 102		
	303-5 Water consumption	p. 157		TC-SI-130a.2
Paper consumption and other materials				
GRI 103 Management Approach 2016	103-1 Explanation of the material topic and its Boundary	p. 102-104		
	103-2 The management approach and its components	p. 102-104		
	103-3 Evaluation of the management approach	p. 102-104		
GRI 301 Materials 2016	301-1 Materials used by weight or volume	p. 157		



Ernst & Young, S.L.
Torre Azca
Calle de Raimundo Fernández Villaverde, 65
28003 Madrid
España

Tel: 915 727 200
Fax: 915 727 238
ey.com

INDEPENDENT REVIEW REPORT OF THE AMADEUS GLOBAL REPORT 2021 OF AMADEUS IT GROUP, S.A. AND SUBSIDIARIES

To the Management of Amadeus IT Group, S.A. and Subsidiaries:

Scope

As commissioned by the Management of Amadeus IT Group, S.A. and Subsidiaries (hereinafter, Amadeus), we have carried out the review of the 2021 Amadeus Global Report. This information has been prepared in accordance with GRI Sustainability Reporting Standards (GRI Standards) core option, as detailed in "Annex 1. About this report."

The scope considered by Amadeus for the preparation of the Report is defined in "Annex 1. About this report."

The preparation of the attached report, as well as its content, is the responsibility of the Management of Amadeus, which is also responsible for defining, adapting and maintaining the management and internal control systems from which the information is obtained. Our responsibility is to issue an independent report based on the procedures applied in our review.

Criteria

Our review was carried out based on:

- The guidelines for reviewing Corporate Responsibility Reports, issued by the Spanish Official Register of Auditors of Accounts (ICJCE).
- Standard ISAE 3000, Assurance Engagements Other than Audits or Reviews of Historical Financial Information, issued by the International Auditing and Assurance Standard Board (IAASB) of the International Federation of Accountants (IFAC), with a limited assurance scope.

Applied procedures

Our review consisted in requesting information from the Sustainability Department and the various business units participating in the preparation of the Amadeus Global Report 2021, applying processes and analytical procedures, and sampling review tests as described in the general terms below:

- Interviews with the staff in charge of the preparation of the sustainability information in order to gain a deep understanding of how the objectives and sustainability policies are considered, set into practice, and integrated within Amadeus's global strategy.
- Reviewing the processes for the compilation and validation of the information presented in Amadeus Global Report 2021.
- Checking the processes held by Amadeus in order to define the material aspects and stakeholder participation.
- Reviewing the adaptation of the structure and content of the 2021 Amadeus Global Report, as indicated in the GRI Sustainability Reporting Standards of the Global Reporting Initiative, in accordance with the core option.

- Checking selected samples of the quantitative and qualitative information of the contents included in the 2021 Amadeus Global Report, as well as their adequate compilation from data supplied by information sources. The review tests have been defined to provide the aforementioned assurance levels.
- Checking that the financial information included in the Report has been audited by independent third parties.

These procedures have been applied to the contents in "Annex 2. Quantitative information and GRI Content Index," with the aforementioned scope.

The scope of our review is considerably lower than a reasonable assurance report. Therefore, the degree of assurance is also less extensive. This report in no case should be considered as an audit report.

Independence and quality control

We have complied with the requirements of independence and the other ethical requirements of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants (IESBA, for its acronym in English).

Our firm applies the International Standard on Quality Control 1 (ISQC 1) and maintains, as a result, a global quality control system that includes documented policies and procedures related to compliance with ethical requirements, professional standards, and legal and regulatory provisions.

Our work has been performed by a team of sustainability experts with a wide experience in reviewing this type of information.

Conclusions

As a result of our limited review, we conclude that no matter came to our attention that would indicate that the 2021 Amadeus Global Report has not been prepared, in all material respects, according to the GRI Standards sustainability reporting framework, which includes the data reliability, the adequacy of the information presented and the absence of significant deviations and omissions.

This report has been prepared solely for the management of Amadeus, in accordance with the terms set out in our engagement letter.

This report corresponds to the distinctive seal nº 01/22/06846 issued by the Institute of Chartered Accountants of Spain

ERNST & YOUNG, S.L.



Alberto Castilla Vida

April 8th, 2022

Glossary



Agile Release Trains:

As defined by Scaled Agile, Inc., Agile Release Trains (ARTs) align teams to a shared business and technology mission. Each is a virtual organization (typically 50–125 people) that plans, commits, develops and deploys together.

Amadeus air travel agency bookings:

Air bookings processed by travel agencies using Amadeus' distribution platform.

Ancillary services:

Additional services provided to customers beyond the ticket. Typical examples of airline ancillary services include extra baggage, priority seating, catering on board, etc.

API:

Application programming interface, a language that enables communication between computer programs.

Competitive set:

A competitive set or CompSet consists of the hotels within one's own market area that are most closely comparable in terms of quality, price and market.

CRS:

Computer Reservation System, a computer network containing travel-related information such as schedules, availability, fares and other services, which enables automated travel-related transactions between travel providers and travel agents.

Emissions intensity:

Tons of emissions of CO₂ per €1 million of revenue.

Fare families:

Groups of fares with different sets of benefits/restrictions.

GDS:

A Global Distribution System, a computer network containing travel-related information such as schedules, availability, fares and related services, which also enables automated travel-related transactions between travel providers and travel agents. In addition to providing a Computer Reservation System (see CRS entry above), GDSs offer travel-related content to a broad range of agents worldwide, making global reach an important element of their value proposition.

Greenhouse Gas Protocol:

The Greenhouse Gas Protocol is the most widely used international accounting tool for government and businesses to understand, quantify and manage greenhouse gas emissions. The GHGP classifies emissions into three scopes. Scope 1: direct greenhouse gas emissions from sources owned by the company; Scope 2: indirect greenhouse gas emissions from electricity use; and Scope 3: emissions released by third parties as a consequence of the use of their services, such as emissions from travel providers for business travel.

Guarantee of Origin:

A EU green label that guarantees that electricity has been produced from renewable sources. Guarantees of Origin are traded as a commodity.

Hardware acceleration:

Using specific physical processor computation capabilities to execute a dedicated task faster than a regular computer could do.

IATA:

International Air Transport Association, the trade association for the world's airlines, representing 265 airlines or 83% of total air traffic. IATA supports many areas of aviation activity and helps formulate industry policy on critical aviation issues.

IFRS:

International Financial Reporting Standards. The IFRS® Foundation is a not-for-profit international organization responsible for developing a single set of high-quality global accounting standards, known as IFRS Standards.

Interline:

A commercial agreement between airlines to handle passengers traveling on itineraries that require more than one flight and more than one airline. As opposed to codesharing, interlining implies there is more than one operating carrier.

International Integrated Reporting Council:

A global coalition of regulators, investors, companies, standard setters, accounting professionals and non-governmental organizations sharing the view that communication about value creation should be the next step in the evolution of corporate reporting.

IT transaction:

A single message received from a user that requires one or more responses to be sent. A user can be a person or a computer system.

KPI:

Key performance indicator.

Low-code development platform:

A low-code development platform (LCDP) uses a graphical user interface instead of traditional hand-coded computer programming. This means faster delivery of apps as well as a wider range of contributors, not just skilled coders.

NDC:

NDC refers to New Distribution Capability, a program launched by IATA for the development and market adoption of a new XML-based data transmission standard (NDC Standard) between airlines and travel agencies. IATA establishes various levels of NDC certification, depending on the NDC capabilities.

NPS:

Net Promoter Score, a widely used measure of customer loyalty. It is the percentage of customers rating their likelihood to recommend a company, a product, or a service to a friend or colleague. NPS ranges between -100 (all respondents are "detractors") and +100 (all respondents are "promoters"). A positive score is desirable and, for a B2B company a score above +25 is a frequent target.

Open systems:

In computing and informatics, a class of systems built using open source software standards that offer a high level of portability and independence from the hardware platforms on which they operate, especially in contrast to the more entrenched mainframes that were once common in the travel industry.

Passenger load factor:

Also referred to as load factor, measures the capacity utilization of public transport services like airlines, passenger railways and intercity bus services. It's generally used to assess how efficiently a transport provider fills seats and generates fare revenue.

Passengers boarded:

Actual passengers boarded onto flights operated by airlines using at least the Amadeus Altéa Reservation and Inventory modules or Navitaire New Skies.

PCI DSS:

Payment Card Industry Data Security Standard, a proprietary information security standard for organizations that handle branded credit cards from major card brands. Mandated by the card brands and run by the Payment Card Industry Security Standards Council, the standard was created to increase controls around cardholder data to reduce credit card fraud.

PNR:

Passenger Name Record, a record of passengers' travel requirements containing all the necessary information to enable reservations to be processed and controlled by the booking and participating travel provider. Each PNR must contain the following five mandatory items or "elements": name element (passenger name), itinerary element (booking), contact element (a telephone number), ticketing element (arrangement for issuing a ticket) and received from element (name of the person who made the booking).

PPA:

Purchase price allocation.

Property Management System:

A computerized system that facilitates the management of hotel properties.

PSS:

Passenger Service System, a series of mission-critical systems used by airlines. The PSS usually comprises a Reservation System, an Inventory System and a Departure Control System (DCS).

PUE:

Power Usage Effectiveness, a common metric used to measure the energy efficiency of data centers. It is equal to Total Facility Power/IT Equipment Power. The closer to 1 the PUE, the more efficient the data center is.

Transactions processed at the Amadeus Data Center:

Basic operations linked directly to Amadeus' business, such as bookings or processed passengers boarded.

Travel agency air booking industry:

Total volume of travel agency air bookings processed by the global CRSs. It excludes air bookings made directly through in-house airline systems or single country operators, the latter primarily in China, Japan and Russia, which together combined represent an important part of the industry.



This report includes pictures of people taken at public industry or specific Amadeus events attended by media representatives and communications departments that make use of several types of graphical material, including pictures of attendees to the event. By entering the event premises, they consented to authorizing Amadeus to photography and its release, publication, exhibition or reproduction to be used for internal communication, or for any other fair and lawful purpose related to any of the businesses of Amadeus, inclusion on websites or the cloud.

They can have access to, correct, delete and object to the processing of personal data and they may exercise this right at any time by writing to the following email address: sustainability@amadeus.com.



amadeus

Amadeus IT Group S.A.
C/ Salvador de Madariaga, 1
28027 - Madrid, Spain
Phone: +34 91 582 0100
sustainability@amadeus.com
www.amadeus.com

© Amadeus IT Group and its affiliates and subsidiaries

