



CIRIUM



# The On-Time Performance Review

Recognizing the most on-time  
airlines and airports

## About the On-Time Performance Review

For over a decade, Cirium's On-Time Performance (OTP) Awards have tracked, analyzed and recognized the hard work of airlines that deliver on their promise to transport passengers to their destinations on time. They have taught us and our clients how critical meeting published schedules can be for – not just for travelers, but the entire travel industry ecosystem.

As the world's leading authority on airline on-time performance excellence, Cirium is taking the topic to new heights with the relaunch of the OTP Awards as the **On-Time Performance Review**. In addition to providing results for the top 10 performing airlines in regional and global categories, it now includes airports.

The new **On-Time Performance Review** will give savvy travelers the knowledge they need to make smart booking decisions. However, the benefits extend far beyond mere marketing. Winning a place in the rankings inspires airlines and airports to become more innovative in managing their operations. It also motivates staff to go the extra mile to improve the overall traveler experience. All of which contributes to driving a better traveler experience and increasing profitability.

With performance graphs to show flight volumes versus on-time performance, along with other useful parameters, the **On-Time Performance Review** and its associated awards represent an accurate and independent benchmark of customer service quality and operational excellence. The results help airlines and airports to identify global travel trends, geographies, routes, and airports that may require operational focus. The details also enable them to understand a host of other important factors, from relative performance against competitors, to whether partners and codeshare flights are supporting or hindering performance.

Individually, these are important insights. Together, they are an invaluable asset when it comes to fine-tuning schedules to maximize efficiency and boost the bottom line.

### Definition of on-time performance:



A flight is on-time if the aircraft arrives at the gate **less than 15 minutes** of the scheduled arrival time.



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“The On-Time Performance Review is incredibly competitive and acknowledge only the best of the best around the world.”

— James Hetzel, Head of Product, Airline Operations at Cirium

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“Cirium has a strict definition of what we consider a ‘covered flight.’ It must include data fields, such as estimated departure, actual departure, departure dates and arrival gates.”

— Nathan Downs, Data Scientist at Cirium

## Why trust these rankings

Our mission is to maintain integrity throughout the data collection process to achieve a single source of truth. Data can only be regarded as high quality if it achieves a “quality balance.” That means ensuring the highest possible levels of accuracy, timeliness and coverage, given the limitations of the air travel industry and the information available.

An experienced and dedicated team turns data into trusted information, following best practices for collecting and verifying data and cleaning it in real-time. Logic, processes and protections are in place to corroborate the information gathered from more than 120,000 operated flights per day.

Sophisticated tools and statistics confirm information and throw out outliers. Multisource verification fills in gaps in single data sources. In cases of conflict, advanced algorithms identify the most reasonable data points, using powerful software to crosscheck information and determine whether something is logically consistent. In addition, team members with in-depth industry understanding weigh the validity of a data point and the trust-worthiness of a source.

Cirium has a strict definition of what we consider a “covered flight”. It must include data fields, such as estimated departure, actual departure, departure dates and arrival gates. We process about 15 million updates per day, which is almost 18 times more than the industry average. Constantly watching and sampling data from a flight helps ensure we are one of the first to know when changes occur, so we notice any deviations faster.



**600**  
global sources



**15 million**  
updates processed  
per day



**120,000**  
operated flights  
per day



**18x**  
more than the  
industry average

# Taking Flight

Understanding the industry standard for airline and airport on-time performance



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## DATA

We determine finalists and winners by examining flight status and arrival data from over 600 global sources.

- Data includes published schedules, government agencies, civil aviation authorities, airlines, airports, and major airline reservation systems
- Priority is given to the most reliable and timely sources
- Our team implements corroborative analysis to “grade” and prioritize each source, using in-house tools configured to use the most reliable sources in each situation
- We collect flight status data for over 500 airlines around the world.

Assigning tracking coverage thresholds to award categorizations requires careful consideration of the nature of airline operations and their underlying statistical performance.

Categorization enables airlines to be optimally compared with their peers based on their size, seat capacity and breadth of their networks.

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## REVIEWING AIRLINES

Airlines are selected based on a combination of factors, including:

### Scheduled Flights

A minimum threshold of the total number of scheduled flights is used in each category.

### Available Seat Kilometers (ASKs)

The number of seats available multiplied by the number of kilometers flown are a key part of our evaluation of category criteria. This captures the total flight passenger capacity of an airline in kilometers.

### Geography

An airline's home country is used to determine the geography of the carrier.

### Tracking

An airline must meet our minimum tracking coverage threshold to be included in a given category. To ensure complete transparency, we include the tracking coverage for each airline.

### Capacity and Route Network

A combination of estimated seat capacity of all scheduled flights and the extent of an airlines route network were used as factors in classifying an airline as a global or major by region.

Our categories for the review are grouped into three areas: Global, Major by region, and Low Cost Carriers. An award is also given for Network and Mainline operations in each category except Low Cost Carriers.

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## REVIEWING AIRPORTS

Each month Cirium reviews the total number of flights in a given month (approximately 3 million) for every airport in an ordered list, then looks at where the percentile demarcations fall. For the annual OTP review, we take the total number of flights in a given year for every airport.

Airports are selected based on a combination of factors, including:

### Global

- Top 10% by total flights served in a month
- Actual gate departure coverage 80% or better
- Must serve at least 3 regions (inclusive of its own)

### Large

- Top 25% by total flights served in a month
- Actual gate departure coverage 80% or better
- Note: this category can include airports in the global airport category

### Medium Airport

- Between 50th and 75th percentile by total flights served in a month
- Actual gate departure coverage 80% or better

### Small Airport

- Between 25th and 50th percentile by total flights served in a month
- Actual gate departure coverage 80% or better



## MAINLINE AND NETWORK

We split the Global and Major Airline by Region categories into mainline and network to improve the accuracy of the review based on our industry knowledge that it is often challenging for airlines to maintain top-tier on-time performance across all their codeshare relationships.

“Network” is defined as a system of flights that are flown by a major airline and include the flights that are marketed by the airline but are operated by a separate airline partner. Most large, full-service airlines have these types of regional partnerships, where as many as 8-10 carriers operate flights on their behalf.

Many airlines want to be recognized only by their own operational performance, not the performance of their regional airline partners. In many cases, the winner is the same for both categories; however, in some cases, they could be different.



## EVALUATION

An independent evaluation board reviews the selection criteria and categories

- Includes industry thought leaders and international travel media experts
- Each board member serves a two-year term
- Ensures the evaluation process remains fair and unbiased
- Provides confidence in results
- Enables airlines and airports to benchmark their performance



## MAXIMIZING THE VALUE OF THE ANNUAL OTP REVIEW

Becoming a finalist in the Cirium On-Time Performance Review is a major accomplishment.

You can capitalize on your success and create business value in the following ways:

Share the news with your team

- Tell clients and prospects
- Publish a press release
- Blog about it
- Display it on your website
- Share it on social media
- Incorporate into their social profile header
- Mention it in your sales Material
- Develop signage in your building
- Use it in your email signature

Our categories for the review are grouped into three areas: Global, Major by region, and Low Cost Carriers. An award is also given for Network and Mainline operations in each category except Low Cost Carriers.



## Global Airlines

For the Global Airlines category, we apply a more stringent threshold than in any other category because this group should reflect the top performers worldwide. As a result, we consider the top 10% of all airlines by size in terms of the number of flights, seats, and available seat kilometers (ASK). It must serve a minimum of three regions—with their home region counting as one of the three—and operate an average of at least one round-trip per day to, from, or within the given region. A minimum coverage threshold of 90% must be met to be considered for this category.



## Major Airlines by Region

For Major Airlines by Region, we consider varying percentages of flights, seats and ASKs per region to better reflect the actual landscape of the different regions of the world. For example:

### ASIA PACIFIC



Top 20% by flights, seats, and ASK,  
with an 80% coverage requirement

### EUROPE



Top 20% by flights, seats, and ASK,  
with an 80% coverage requirement

### LATIN AMERICA



Top 50% by flights, seats, and ASK,  
with an 80% coverage requirement

### MIDDLE EAST & AFRICA



Top 50% by flights, seats, and ASK,  
with an 80% coverage requirement

### NORTH AMERICA



Top 15% by flights, seats, and ASK,  
with an 80% coverage requirement



## The Low Costs Carrier (LCC)

For the Low Cost Carrier category, we consider the top 90% of airlines by flights, seats and ASKs that are industry recognized and/or self-identified as low cost carriers. A minimum coverage threshold of 80% must be met to be considered for this category.

## ACCURATE AND UNBIASED INSIGHT

Now effectively in its 11th year, the annual **On-Time Performance Review** is extremely competitive. What makes our performance data unique is the analysis that turns raw information into meaningful insights. Cirium has the most experienced analytics team in the industry, and advanced algorithms developed and perfected over many years to yield the best results. We also have a team of passionate people with aviation expertise, many of whom have been in the business for over 20+ years.

However, as the industry's most experienced provider of this kind of information, we have an obligation to be reliable and accountable when compiling the annual "index." To assure airlines, airports and passengers that it the information is accurate and unbiased, Cirium has created an independent Advisory Board, comprising a cadre of respected industry professionals, to offer guidance and direction. They ensure that our data is interpreted correctly and consistently adheres to our clearly defined metrics.

Cirium **On-Time Performance Review** Advisory Board members include:



**Luis Felipe de Oliveira**

Executive Director & CEO

ALTA (The Latin American & Caribbean Air Transport Association)

Luis Felipe de Oliveira has led the Latin American and Caribbean Air Transport Association (ALTA) since October 2017. A chemical engineer by training, he has decades of technical experience in the field of aviation fuel. Before joining ALTA, he was Vice President of Supply Development for Latin America and Caribbean at World Fuel Services, and before then he spent 10 years at IATA,

leading fuel and airport campaigns with governments, oil companies, fuel service providers and airports for the Americas, Africa and the Middle East. Since May 2019, he has served as a Board Member of the HERMES Air Transport Organisation.



**Henry H. Harteveltdt**

President

Travel Industry Analyst Atmosphere Research Group

Henry Harteveltdt is one of the travel industry's most respected analysts. He started the Atmosphere Research Group - a San Francisco-based independent, objective travel industry market research and strategic advisory firm - in 2011, following a nearly-12 year career as Forrester Research's global head of travel

research. Before becoming an analyst, Henry spent more than 15 years in marketing, product, planning, PR, and distribution roles at a variety of leading travel firms, including Continental Airlines, Fairmont Hotel Management Company, and GetThere.



**Dr Mario Hardy**

Chief Executive Officer

Pacific Asia Travel Association (PATA)

Dr Mario Hardy has been the Chief Executive Officer of the Pacific Asia Travel Association (PATA) since 2014. He is also a past Chairman of the Board of Trustees of the PATA Foundation - a non-profit organization with a focus on the protection of the environment, the conservation of culture and heritage, and support for education.

With 30 years of specialist, aviation businesses experience, focusing on data analytics and technology, he serves on the advisory boards of the Global Tourism Economic Forum, the Global Tourism Resilience Centre, Hong Kong Polytechnic University Hospitality and Tourism School, Guilin Tourism University and the Middle East Travel and Tourism Development Network Centre. He was honored as a "Global Ambassador of Peace Through Tourism" by the International Institute for Peace Through Tourism.



**Mike Malik**  
Chief Marketing Officer  
Cirium

Mike Malik is the Chief Marketing Officer for Cirium and joined the company in 2018. He rebranded the company from FlightGlobal and brought together other brands the company had acquired in the last decade under one umbrella brand.

Mike has been in the airline and aviation industry throughout his career and has held several executive level positions. Mike was Chief Commercial Officer for UBM Aviation, President of Aloha Air Cargo & Aloha Tech Ops, and Chief Information Officer for Aloha Airlines. He was also one of the founding team members of Maxjet Airways, where he was Chief Marketing and Information Officer. Prior to this, he was President and CEO of Shepherd Systems, an airline sales force automation and business intelligence company. He spent 9 years at

Sabre and completed postings in London and then Hong Kong where he was Vice President Asia Pacific. Whilst in Hong Kong, he was a special consultant to the executive management team of Cathay Pacific Airways.

As an executive consultant to several airlines, Mike has assisted them in deploying new software technology into their operations. This included Lufthansa for day-of-operations control, Swissair for pricing, and Cathay Pacific Airways for revenue management, crew management, and maintenance operations.

Mike is currently an advisory board member to Aerobrand, an airline branding and design company that just completed the rebranding of Lufthansa Airlines in 2018.



**Jeremy Bowen**  
CEO  
Cirium

Jeremy Bowen is the CEO of Cirium, the smart data and advanced analytics company that enables the wider travel industry to keep the world in motion.

Cirium is part of global information-based analytics company RELX PLC.

Jeremy joined Cirium in January 2018 as the VP Global Head of Sales, for what was at the time, the data and analytics business within FlightGlobal. In this role Jeremy was responsible for all sales activity and customer engagement. The company has since been rebranded as Cirium in February this year after significantly growing its portfolio with the acquisitions of Diio, FlightStats, Ascend and Innovata.

Previous to this role, Jeremy led all sales activity for RELX's businesses Accuity and Fircosoft for eight years within EMEA and APAC. Prior to that spending 15 years with data insights company Dun & Bradstreet in leadership positions in the UK, Australia and New Zealand.

<b>AIRLINE CODE</b>	The IATA code for the airline. For the International and Major Airline categories, this is the code of the Marketing Airline. For the Low Cost category, either the operating code or the marketing code is used.
<b>ON-TIME RANKING</b>	For each list of airlines, on-time arrival performance is ranked where a rank of 1 equates to the best performance.
<b>COVERAGE</b>	The percentage of published flights for which we have an actual arrival gate time against which we can measure a flight's performance versus its schedule.
<b>TOTAL FLIGHTS</b>	The number of scheduled flight operations during the month where each flight operation is a single segment flight consisting of one origin and one destination.
<b>SEATS (MILLIONS)</b>	The estimated seat capacity of all scheduled flights
<b>AVAILABLE SEAT KILOMETERS (ASK)</b>	The number of seats available multiplied by the number of kilometers flown.
<b>TRACKED FLIGHTS</b>	The percentage of published flights for which Cirium tracked an actual gate arrival time, cancelation or diversion.
<b>BLOCK TIME</b>	Referred to as B0. The percentage of flights that were completed within their scheduled time.
<b>COMP. FACTOR</b>	Completion factor which is the percentage of tracked flights that were completed (e.g., not canceled)
<b>ON-TIME DEPARTURE</b>	The percentage of completed flights that departed the gate on-time where on-time is defined as less than 15 minutes of scheduled gate departure time.
<b>ON-TIME ARRIVAL</b>	The percentage of completed flights that arrived at the gate on-time where on-time is defined as less than 15 minutes of scheduled gate arrival time. The On-time Arrival Ranking is used to determine the winner in each category.
<b>AVG. DEP. DELAY</b>	The average departure delay, in minutes, for all delayed flights. The delay minutes for on-time flights are not included in this calculation.
<b>AVG. ARRIVAL DELAY</b>	The average arrival delay, in minutes, for all flights with delays 15 minutes or greater. The delay minutes for on-time flights are not included in this calculation.
<b>AVG. DELAY WHEN LATE</b>	The total number of minutes a flight was delayed past the scheduled time on average.
<b>MAINLINE</b>	A system of flights that are operated by a major airline and does not include airline partners
<b>NETWORK</b>	A system of flights that are flown by a major airline and include the flights that are marketed by the airline but are operated by a separate airline partner



## Share your data

Our customers literally keep the world moving by putting Cirium's knowledge and technology at the center of their business decision making processes. You can help the aviation and travel industry and, ultimately, yourself by sharing your business data with us. Because, the more high-quality data we can add to the mix, the more accurately it will reflect where the industry has come from, and where it is going.

### Make Sure Your Airline is Considered for the Awards!

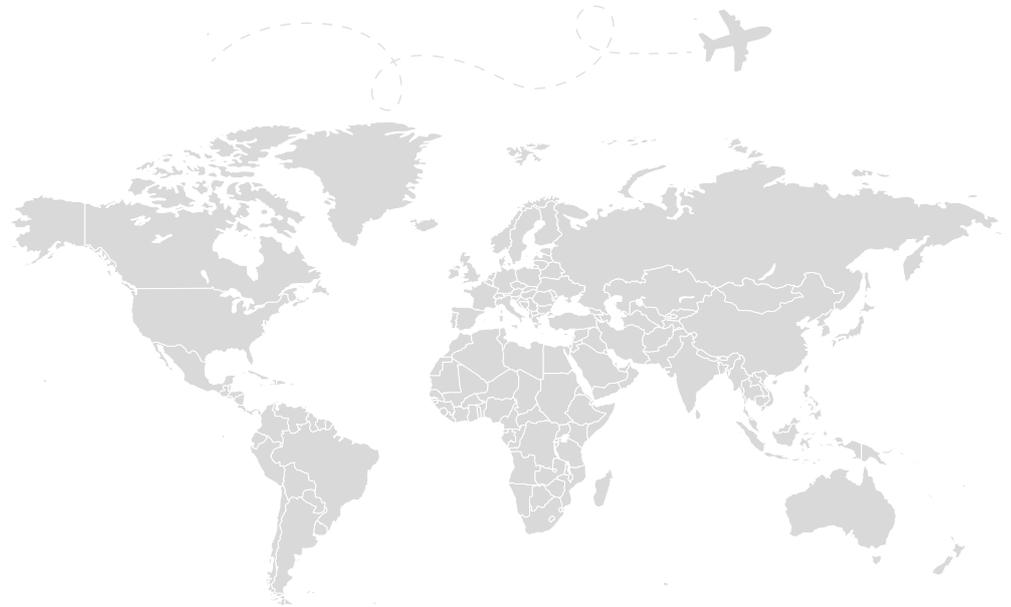


Email us to ensure we have your airline's data feed at [helpdesk@cirium.com](mailto:helpdesk@cirium.com)

## Stay tuned for the next On-Time Performance Review

The results of the review are published each year in early January. In addition to naming the winners and finalists in each category, we also provide a complementary analysis report that allows anyone to take a deeper dive into the performance of the airlines we considered. In the tool, you can compare airlines by geographic region, global carriers, major carriers, and other performance metrics.

Log on to [www.cirium.com](http://www.cirium.com) for more information.



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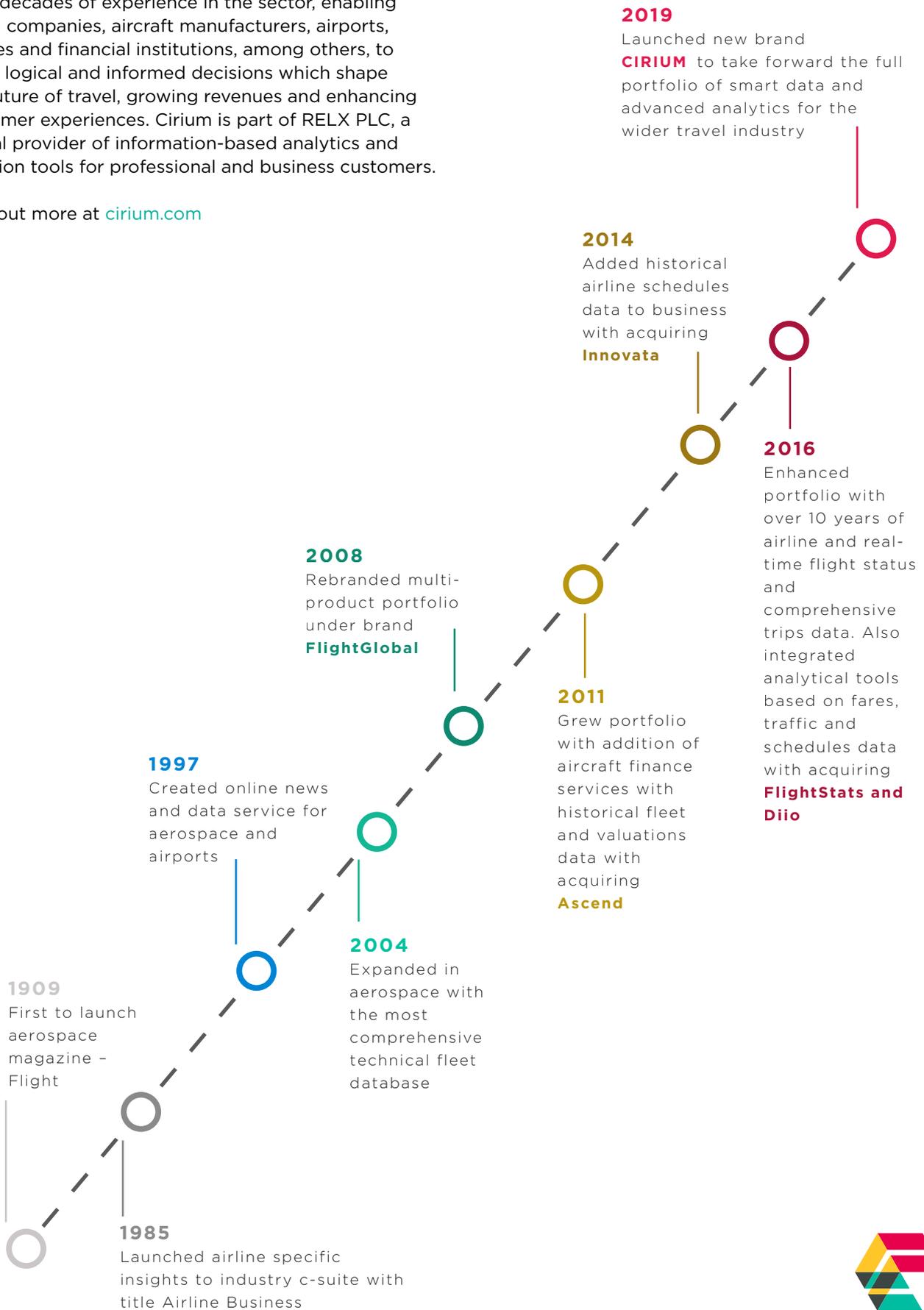
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# About Cirium

Cirium brings together powerful data and analytics to keep the world in motion. Delivering insight, built from decades of experience in the sector, enabling travel companies, aircraft manufacturers, airports, airlines and financial institutions, among others, to make logical and informed decisions which shape the future of travel, growing revenues and enhancing customer experiences. Cirium is part of RELX PLC, a global provider of information-based analytics and decision tools for professional and business customers.

Find out more at [cirium.com](http://cirium.com)



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