Because we live in a world of rapid changes, hard competition and demanding business environments, knowledge and intelligence about the future are essential for all airport planning and investments.

It is more important than ever to establish the best possible basis for making informed and solid decisions and to understand the associated risks.

For many years, Ramboll has advised airports about airport planning and investments based on professional forecasting techniques. We have developed this expertise further in our

**AIRCAST**

forecasting methodology, which we now make available to you. Our expertise and forecasting tools will improve your decision-making with regard to investment plans, capacity dimensioning, traffic planning and financial planning.

That will be the benefit of choosing the Ramboll forecasting technique compared to other forecasting methods.

The demand for air traffic

The international aviation sector is a growing sector. All international forecasts point to an average growth rate of 4-5% per year in the coming decades but with considerable variations between the different regions of the world. The highest growth rates will occur in Asia, the Middle East and South America, whilst the growth rates in Europe and North America will be lower.

Changes in air traffic volume and structure

Not only the traffic volume, but also the structure of international and particularly intercontinental air traffic services, will change. Low-fare carriers will penetrate the market further and Asian and Middle Eastern carriers will establish new intercontinental hub- and route structures.

The competition will be fierce and the markets will be turbulent with rapid structural changes.

**Forecasting is essential for professional airport planning**

Airport management will be challenged by these volatile market conditions when new airport investments are planned, and when revenues and costs for the coming years are budgeted. Operational planning and capacity dimensioning of airside, landside and terminals also requires a solid basis for decision-making.

Professional traffic forecasting will help you improve the quality of your decisions and the evaluation of impacts from changes in the demand and market conditions.

Simulations and thorough risk assessments can also be carried out to assess the financial implications of new airport investments.

The forecasting model

Ramboll’s aviation team offers in-depth understanding and knowledge of international aviation markets and structures as well as the variables influencing demand in the different market segments.

Depending on the actual airport and markets, our forecasting model is developed from dependent and independent variables using different tailor-made econometric models.

The independent variables will for example include GDP, tourism development, FDIs, capacity constraints, new routes and route structures, increased competition and other factors of importance for the development of air traffic volume.

![Graph showing passenger traffic growth](source: Airports Council International)
Passenger and cargo forecasts
Our first-order forecast includes the annual volumes of passengers, cargo and mail. The passenger forecast is often broken down into main market segments such as point-to-point traffic, transfer traffic, domestic traffic, international and intercontinental traffic.

The cargo forecast is split into normal cargo, mail cargo, express mail cargo and special cargo.

Special forecasts will for example include pilgrimage traffic, worker traffic, Public Service Obligation traffic etc.

The first-order forecast is important for the overall capacity dimensioning of the airport and for revenue and cost budgeting.

Movement forecasts
In continuation of passenger forecasts, we provide aircraft movement forecasts which are important for aeronautical revenues and overall capacity dimensioning. The movement forecast will depend on passenger volumes and the mix of different aircraft types and load/cabin factors.

Ramboll has in-depth knowledge of these input parameters, which will secure an accurate aircraft movement forecast for airside capacity dimensioning.

Peak forecasts
The most important type of forecast for short-term airport dimensioning is the peak forecast which is broken down into monthly, weekly and daily peak hours. This forecast is essential for capacity dimensioning of the airside systems, the aircraft stands and gates, the terminal and landside facilities.

The basis for the peak hour forecast is the overall passenger forecast, the flight schedules and turn-around times for the airport and airlines in question.

Sensitivity analysis
No forecast is 100% accurate. The forecast quality depends on the reliability of the input data, which may not precisely describe actual future development. Therefore, we normally offer a sensitivity analysis to assess the effects of changes in the most important input parameters.

Special forecasts
In addition to the described forecasting services, we also provide special forecasting related to for example:
• Future use of different check-in procedures
• Baggage volumes in peak hours
• Haj-traffic
• General Aviation traffic.

### Overview of forecasting methodology

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CONTACT
Our aviation forecasting services are already well known amongst airports, Air Navigation Service Providers, financial institutions and investors. We would like to welcome you as our client and strengthen the basis for your airport development strategies, operational and financial planning.

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