



**9th European Corporate Aviation Summit
Athens 5 November 2021**

Panel: Trading business aircraft in Europe

**Aircraft Selection:
The Importance of Finding the
Best Fit for the Actual Needs**



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Why buy a business aircraft?

- Enhance travel flexibility
- Reduce total travel time
- Get a better and more comfortable service
 - Privacy and possibility to work
 - Minimize health challenges
- Avoid airlines and charter reduced availability





business aircraft: a wide choice



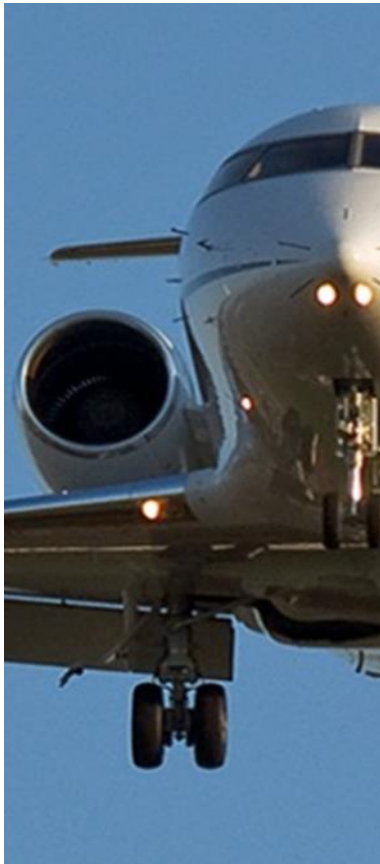
business aircraft categories

Category	Typical Pax	Range (km)	Sample models	
Single engine turboprops	4-9	1,700-3,300	PC-12, Caravan, TBM 900	
Twin Engine turboprops	4-10	1,800-3,300	King Air, Avanti	
Very Light Jets (VLJ)	5-8	1,400-3,000	Phenom 100, Mustang, Hondajet	

business aircraft categories

Light Jets	6-10	1,600-5,000	Citations, Phenom 300, Learjets, Hawker 400	
Mid Size Jets	6-10	1,750-7,500	Challenger 300/350, Citation Latitude and Sovereign, Legacy 450/500 Gulfstream 280, Hawker 800	
Large, Long Range Jets	8-19	3,600-14,500	Challenger 605/650, Legacy 600/650, Falcons, Globals, Gulfstreams etc.	
Airliner Business Jets	10->90	7,000-20,000	based on existing airliner models, grant a large space which can be configured in several different ways	

business aircraft models, prices and costs



Including turboprops and variants the choice of a business aircraft can be done among over:

300 models from more than 30 manufacturers

The price of a business aircraft depends greatly on model, usage, vintage and other factors but, in general, may range

from less than 1 million USD to over 75 million USD

The lower prices may apply to aged used turboprops or VLJ while the highers are for a brand new, ultra long range and large aircraft. Specifically converted airliners may have much higher prices.

For the same mileage flown, different models have a

yearly costs, excluding depreciation, from 680k\$ to 2,5M\$

aircraft selection



The importance of finding the best fit for the actual needs

Very often the aircraft to purchase, or its features, are selected on non rationale elements like:

- **Pilot suggestion**
- **Friend having such type**
- **Interior features**
- **Size**
- **Brand reputation**

It's easy to understand that, given the magnitude of acquisition and operating costs,

**the selection has to be taken
carefully and on objective parameters**

aircraft selection

Although frequently considered as a luxury item, just like superyachts and supercars, a business jet, even if highly customized and expensive, lacks some of their main features like:

unique design or size

possibility to display

kind of usage

but offers the only chance to quickly travel on long distances

therefore

a business jet is mainly a mean of transportation



main parameters for aircraft selection



As a business aircraft is a mean of transportation it has to be selected for the most probable and frequent utilization.

The main parameters to be considered in order to establish the models that would better fit the buyer requirements are:

Passengers capacity and cabin size

Travel distance and range

Runway length requirement

once the suitable models are defined the other parameters to narrow the list of options are:

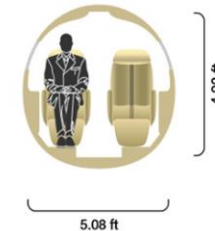
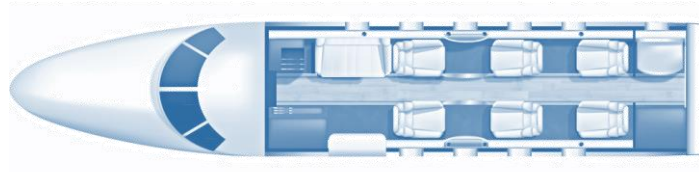
Vintage

Budget

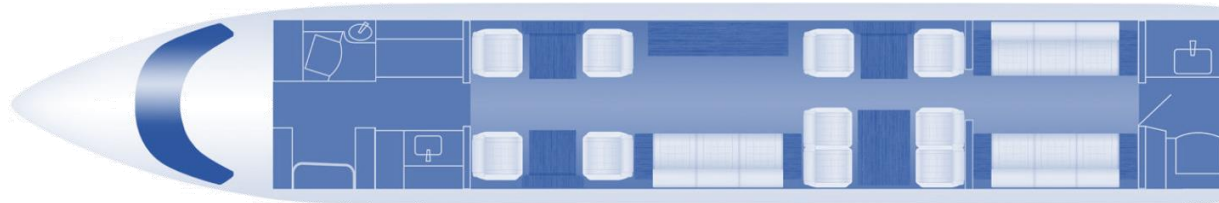
main parameters for aircraft selection

Passenger capacity and cabin size

Embraer Phenom 300



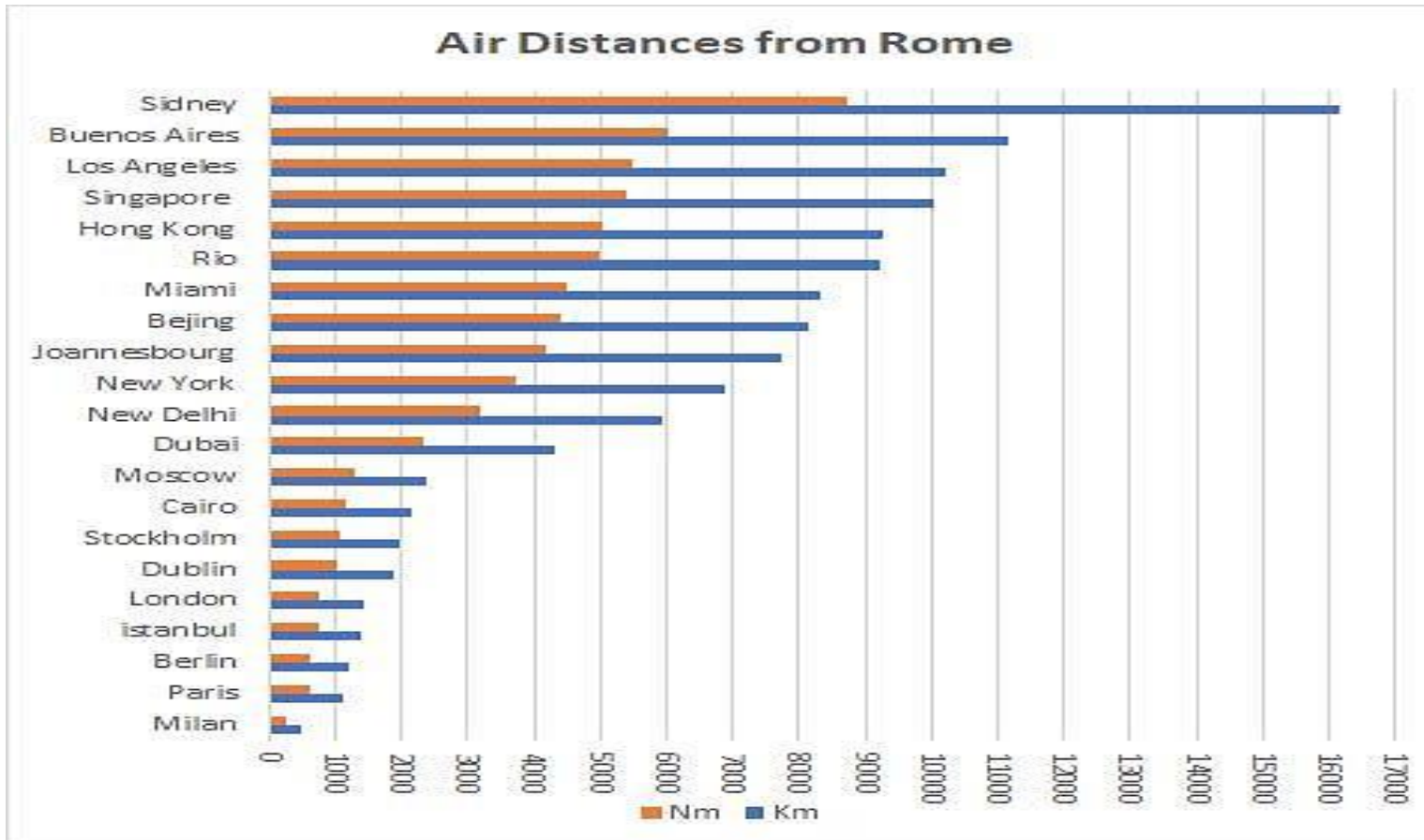
Gulfstream G650



Typical passenger capacity of business aircraft is:
5 to 9 seats for light jets (up to about 3000 nm of range)
10 to 19 seats for larger, longer range aircraft

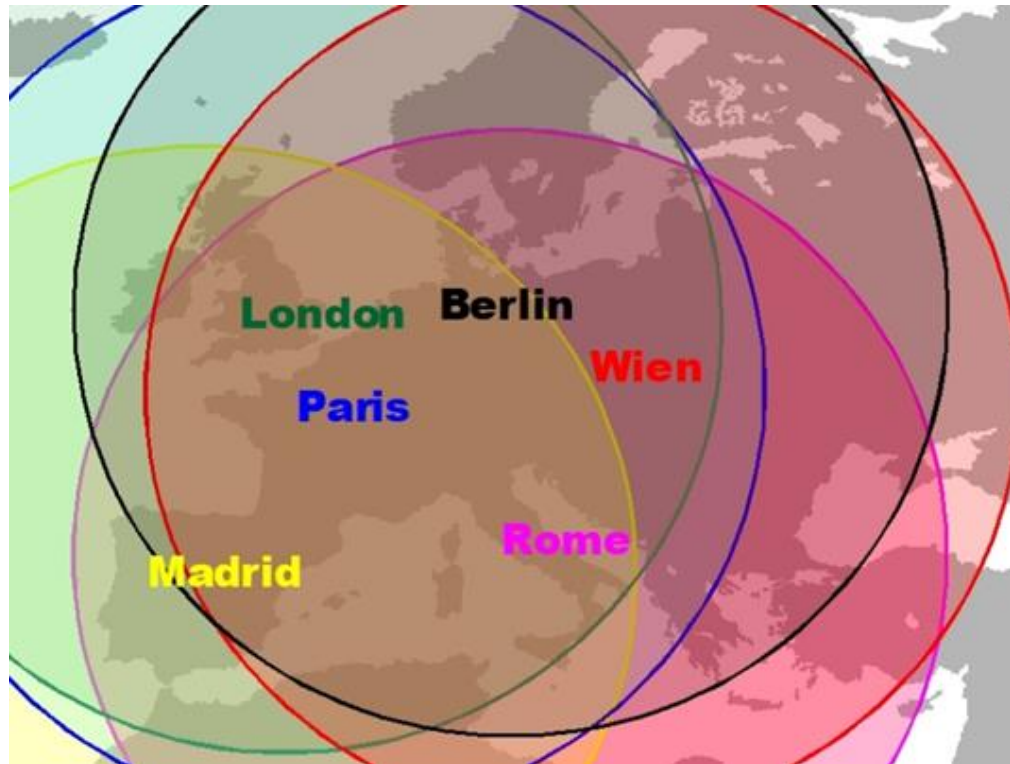
main parameters for aircraft selection

Travel distance



main parameters for aircraft selection

Travel distance and range



With a range of 2000 Km (1080 nm) it's possible to fly from almost any main city in Europe, to any other place in EU

main parameters for aircraft selection

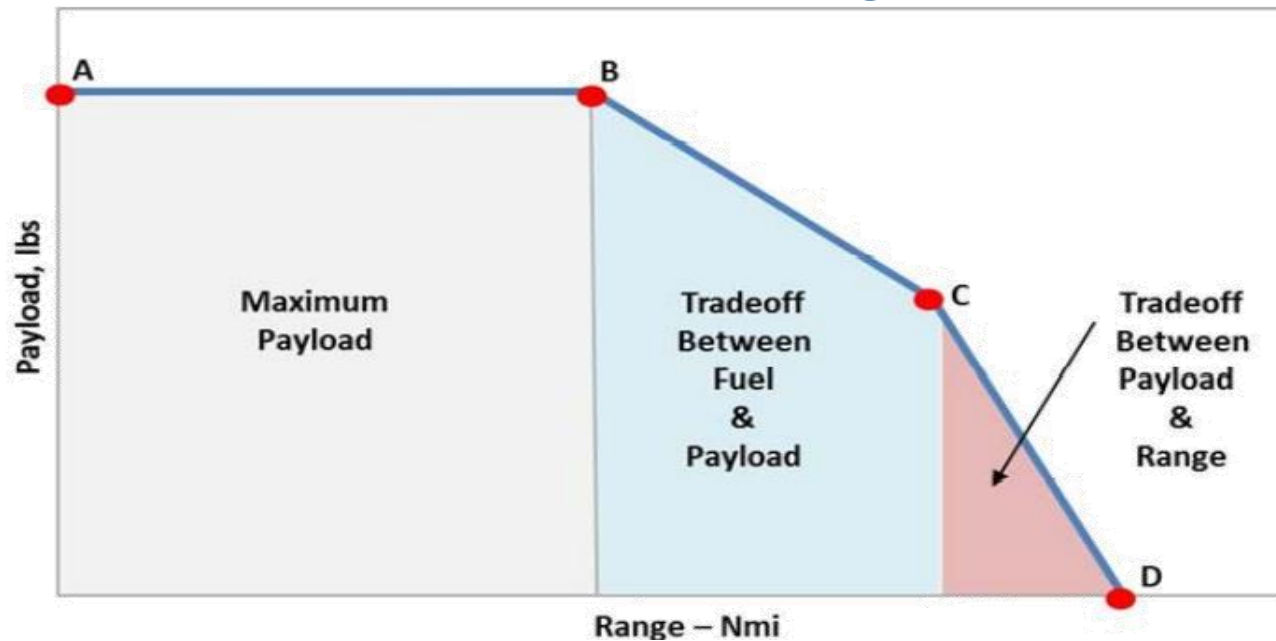
Long range



**The chart shows the destinations reachable from Rome
with aircraft range from 3000 to 7000 nm**

main parameters for aircraft selection

Actual usable range



The maximum range of any aircraft cannot actually be used in normal operations. For longer range the payload and therefore number of passengers needs to be reduced. Business jets ranges are often compared on the assumption of 4 passengers on board.

main parameters for aircraft selection

Runway length requirement

The take off field length of a business jet may vary

from less than 1000 to 2000 meters or more

The selection has to be taken on the basis of the available field length at the aircraft base and at the locations which are expected to be visited more frequently

An aircraft requiring a longer runway may need to land in an airport which is further from the final destination



main parameters for aircraft selection

Vintage

A business aircraft is, in average, flying around 400 FH per year which is 6-7 times less than an airliner.

The total utilization of the aircraft remains pretty low after several years and does not pose technical limitations to the continued use of the aircraft.

Business aircraft are normally maintained in excellent conditions also thanks to the «by the hour» maintenance program provided by the manufacturers.

The only possible constrains of aircraft vintage are therefore related to

- Possible general limitations from the local CAA for import of used aircraft
- Obsolescence of electronics for Avionic, Entertainment, Connectivity etc.



main parameters for aircraft selection

Budget - Cost of acquisition

The budget of course depends on the financial capability of the buyer and the main purpose of acquisition (i.e. corporate vs. private use).

For a defined budget there could be various options for the same model or alternative models satisfying the other parameters but with different prices.

For example the G550 (in production since 2003) may cost between 12 and 40M\$ depending on status and YOM or 8 passengers can travel on the same route of about 3000 nm on a Challenger 300 of 2011 (around 9,5M\$) or a Praetor 500 of 2019 (about 15 M\$)



main parameters for aircraft selection

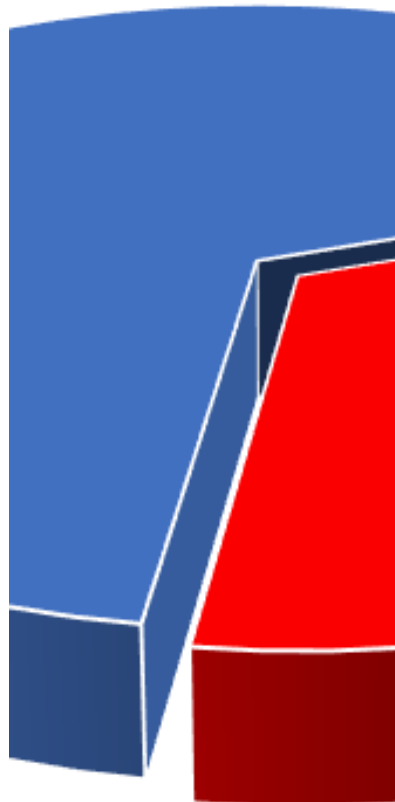
Budget - Cost of Operations

The cost of operations is the sum of fixed amounts which have to be spent regardless of the aircraft utilization (i.e. crew salaries, insurance, hangarage etc.) and variable costs which are instead depending on the flight hours flown (i.e. fuel, maintenance, catering, etc.)

For the same amount of nautical miles flown in the year, the total cost of operations, including fixed and variable costs, but excluding depreciation, may vary for different aircraft types by 3,6 times. Sample figures are:

from 680k\$ (Eclipse 550) to 2,5M\$ (G700)

The saving of buying a cheaper aircraft may be quickly offset by its higher cost of operations



- Direct Costs
- Fixed Costs

other parameters for aircraft selection

Once the most appropriate aircraft models have been selected on the basis of the main parameters, the decision of the specific aircraft to purchase can be affected also by the following:

- Model popularity
- Financiability
- Aircraft configuration
- Avionics
- Paint scheme
- Maintenance Programs
- Compliance with CAA
- Jurisdiction for legal and fiscal purposes
- New technical requirements or regulations becoming effective

As seen, there are several factors to be duly evaluated for a proper selection of the aircraft, and it is therefore advisable to

**use the services of real experts
even if well paid, will pay back a number of times their cost**



a business jet deal



Once the selection of the specific aircraft has been completed the following steps are required to finalize the purchase:

- Signature of a Letter of Intent (LOI)
- Basic inspection of the aircraft
- Negotiation and signature of the Purchase Agreement
- Pre-buy inspection and aircraft acceptance
- Title and money transfers between seller and buyer
- Aircraft delivery to buyer

each of the steps may have several different variations and specific constrains that, in effect, make

each one a unique deal

The role of a qualified broker is essential to guide the parties into the process and ensure that all aspects have been taken in due consideration and be managed properly.



THANK YOU

for additional details or contacts
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