

An Alenia Aeronautica and EADS joint venture

ATR

# The ATR -600 Series

The most

**ECO**NOMICAL  
LOGICAL

**way to fly**  
short-haul connections

Low Fuel  
Consumption



Low Emissions  
Low Noise



**LOW  
COST**



The  
ATR -600 SERIES



*«**B**eing a small part of a serious problem, there is still a serious challenge to do even better»*

**IATA's Vision**

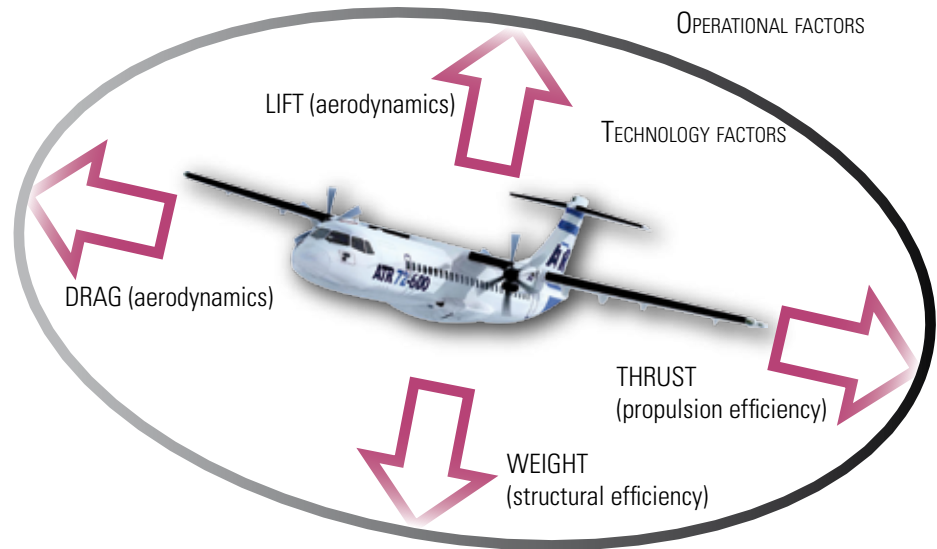
Giovanni Bisignani  
Director General & CEO



**FU<sup>(e)</sup>LLY**  
**PROFITABLE**



# ATR, Designed for Economics

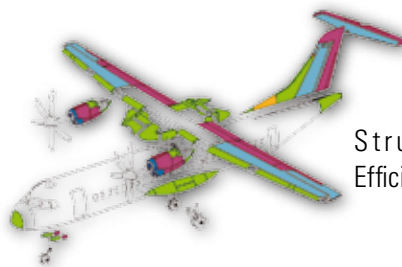


## Technology to reduce fuel consumption

The highest **composite** utilisation in a regional aircraft >>

### Light structure >>

Low fuel consumption leading to low weight-related charges



Structural Efficiency



Advanced Aerodynamics

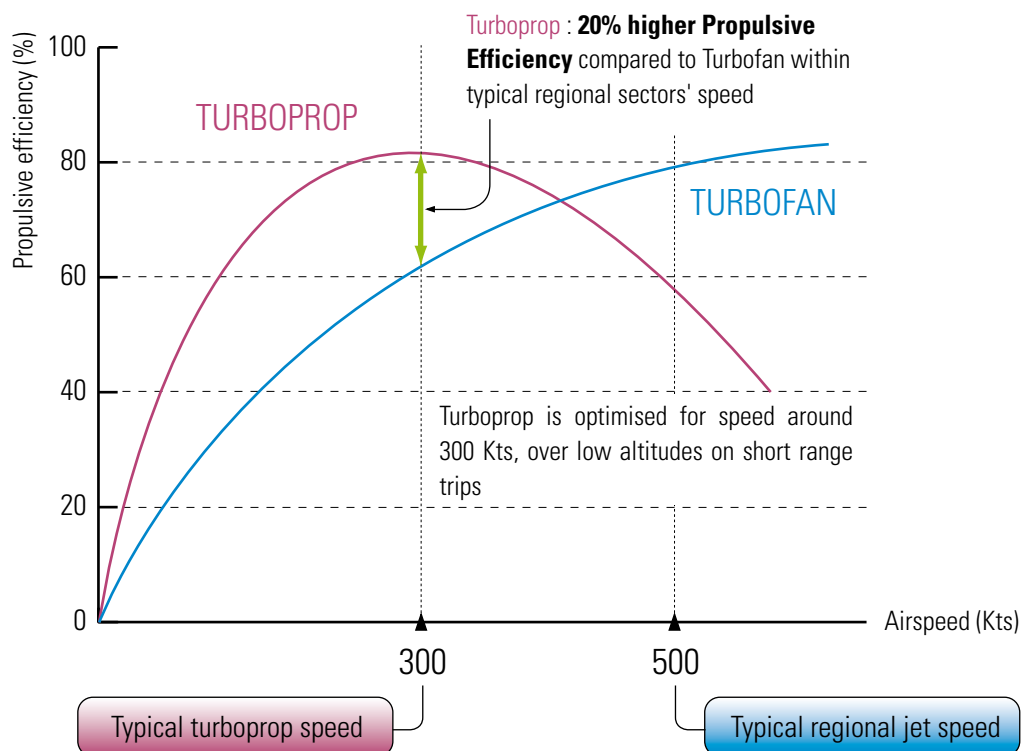
Best trade-off between fuel burn and speed



High tech engines and propellers, advanced aerodynamics, low drag airframe, structural efficiency and the resulting level of fuel savings have prompted many operators to select turbo-props, ATR especially, above all others. The proven level of low fuel consumption is a primary concern for airlines eager to lower cash operating cost and wishing to be environmental frien-



# *Propulsive Efficiency*





# Light is beautiful !

## *The tangible impacts of low structural weights on :*

### *Fuel consumption*

MTOW : 23 T



MTOW : 29.5T



> + 200 Kg per trip\*  
> + 360, 000 Kg per  
year per aircraft\*

\* : Quantifiable effect of Structural Efficiency on fuel consumption only

### *Taxes*

MTOW : 23 T



244 Euros

MTOW : 29.5 T



277 Euros  
(+14%)

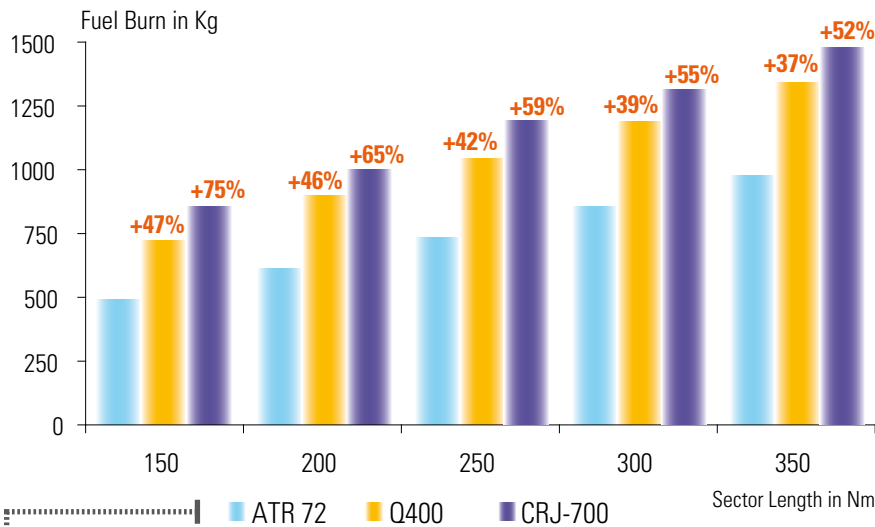
300 Nm stage, 1,800  
flights per year

300 Nm sector, Ger-  
many (Eurocontrol  
formula)

With an utilisation of 1,800 flights / year, low structural weights lead to

**80,000 \$ / year / aircraft of savings on en-route charges**

# ATR 72 : The most fuel-efficient aircraft in the regional market



**Fuel Economy on 250 Nm = 42%**

- Lighter structure
- Optimized speed
- Well-suited engine

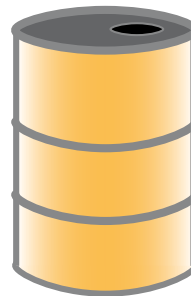
Significantly **LESS** fuel consumption

735 Kg  
(247 US gal)



**ATR 72**

1,043 kg  
(351 US gal)



**Q400**

Whatever your regional sector length,

>>>>>> **the ATR 72 is by far more fuel efficient**



# ATR POPULARITY



● ***Turboprops are the natural hedge against high fuel prices***



With airlines increasingly focused on slashing operating costs and with soaring fuel prices,

**the only profitable way to fly short connections is with turboprops**





**ECO**  
**LOGICAL**



# Contributing to a Sustainable Air Transport Development

Aviation transports some two billion passengers annually and 40% of interregional exports of goods by value.

Air transport industry generates a total of 29 millions jobs globally.

Global aviation contributes at 2% of global CO<sub>2</sub> emissions and supports 8% of the world economic activity in terms of GDP.

**W**hile aviation's total emissions are modest compared with other sectors, they are not expected to decrease in the coming years.

If the impact of air transport on the envi-

ronment is to be minimised, the industry must continuously devote adequate resources to improve its environmental performance. It has a duty to fully exploit the best available technology.

## ● ***Latest Generation Turboprops***

Environmental friendliness

- ▶ Low emissions
- ▶ Low fuel burn
- ▶ Low airfield noise

**ATR : promoting the concept of **SUSTAINABLE AVIATION** to ensure an **OPTIMAL BALANCE** between economic growth, social benefits and environmental responsibility.**



# ATR : The «Green» Star of Air Transport

**Advanced** propulsion technology

+

**Optimum** designed high-lift systems

+

**efficient** aerodynamics

+

**Light** structure

=

**LESS**

**Fuel consumption**

**Gaseous emissions**

**Airport nuisances**

Reduced environmental impact

Matching International Standards

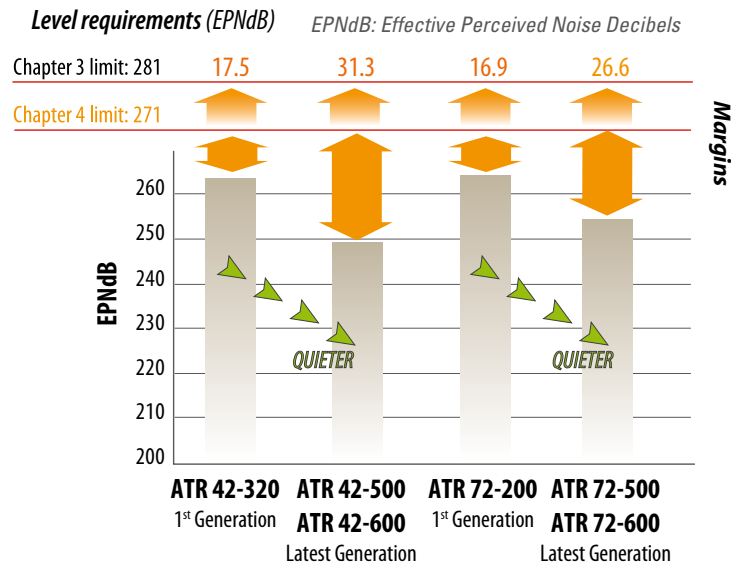
Meeting ICAO noise requirements  
with ample margins



**ATR**'s aim is to  
reinforce  
its contribution to ensure  
a sustainable future for  
the aviation industry, to  
reconcile the foreseen  
additional growth in the  
air transport industry with  
the absolute necessity of  
reducing its environmental  
impact.



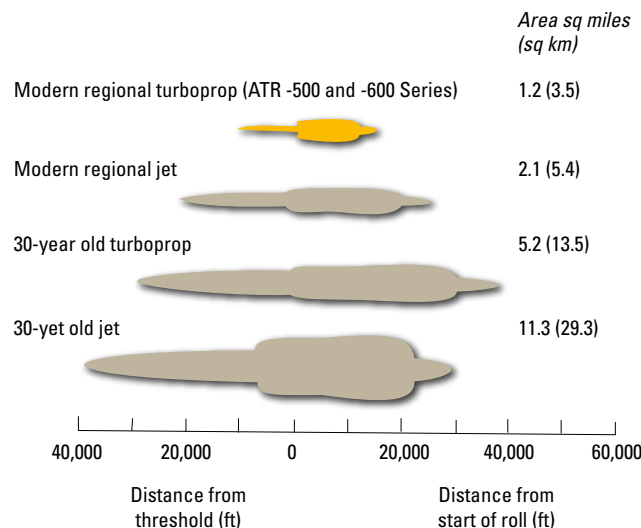
# ATR's Quiet Neighbours for the Environment



**Large margins vs ICAO Ch 4 regulations and more stringent future airport restrictions**

## *The benefits of the new technology*

*Comparative noise footprints - 90 EPNdB*

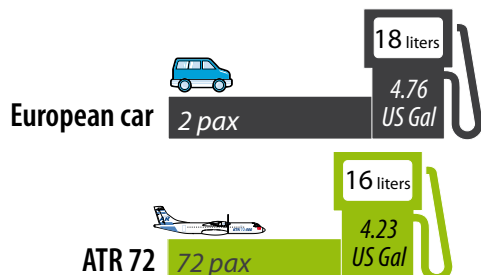


**ATR : Welcome visitors at the smaller city airports and regional hubs with minimum environmental impact..**

**ATR -500 /-600 Series is one of the quietest in the industry**



# Comparing with other transport modes

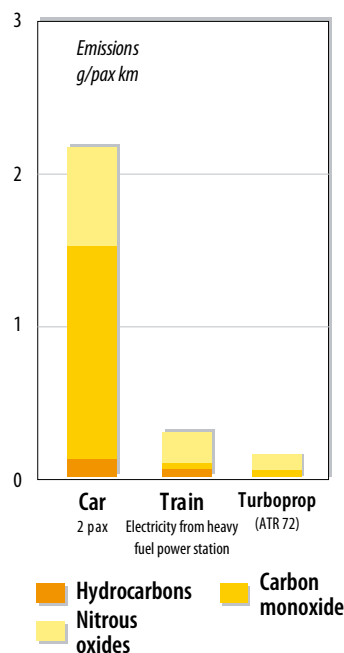


On a 200 Nm sector, the ATR 72-600 fuel consumption per passenger is up to 11% lower than a typical European car.

## Gaseous Emissions Spectrum

ATR gaseous emissions per pax in terms of CO (Carbon Monoxide) are 15 times less than a car and comparable to the train.

As far as the Nitrous Oxides are concerned, the ATR is 3 times less pollutant than a car and 40% less than a train.



200 Nm (370 Km) typical sector - 65% Load Factor

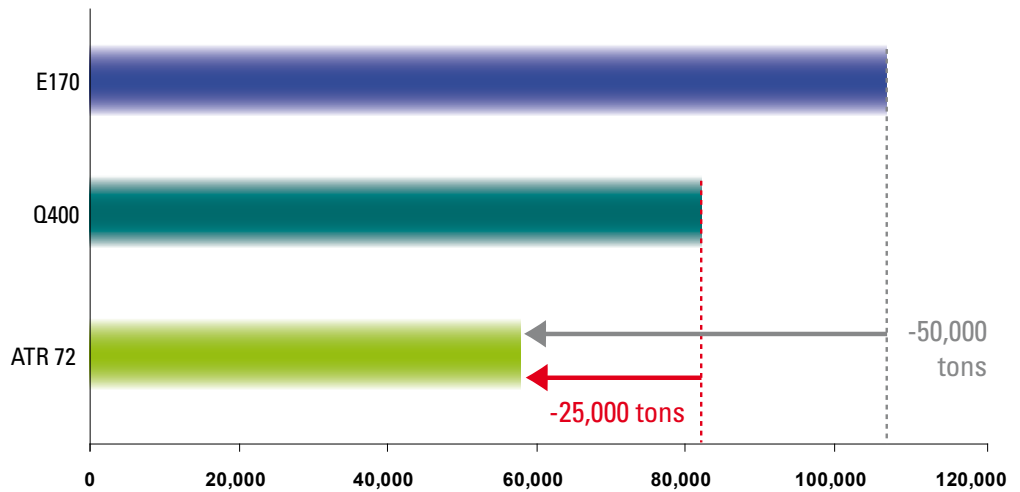


**ATR is significantly cleaner and contributes to sustainable air transport development**

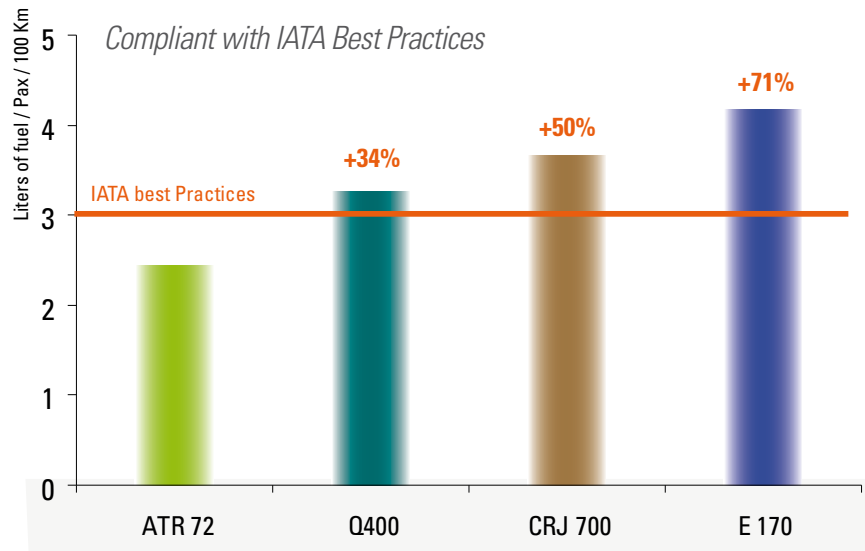


# ATR Yearly CO2 saving - 10 aircraft fleet\*

\* 2,500 cycles / year / aircraft. Average sector of 250 Nm (460 Km)



Typical Cruise  
97% MTOW



Source : IATA WATS 2006

**ATR 72 the only aircraft compliant with IATA Best Practises**



**ECO**  
**NOMICAL**



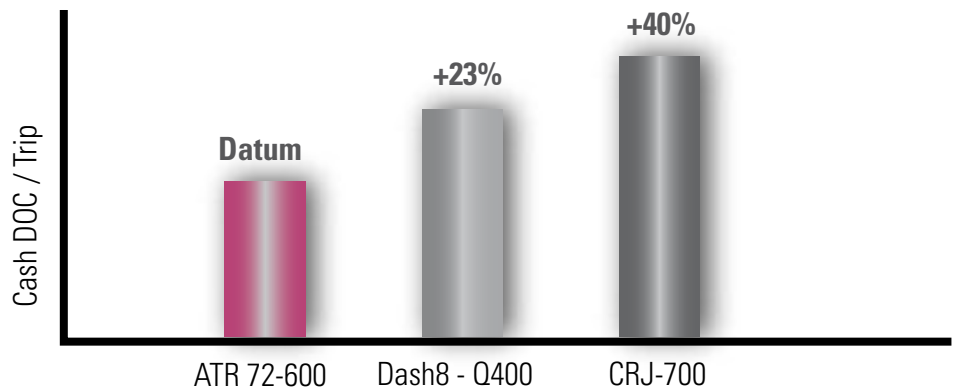
# ATR : The Low-Cost Reference for The Regional Market





## ● ***Turboprops are unrivalled on short-haul sectors...***



ATR 72-600 features exceptionally low operating costs when compared to similar sized turboprop and regional jet competitors on typical regional sectors.

Sector : 250 Nm (460 Km)



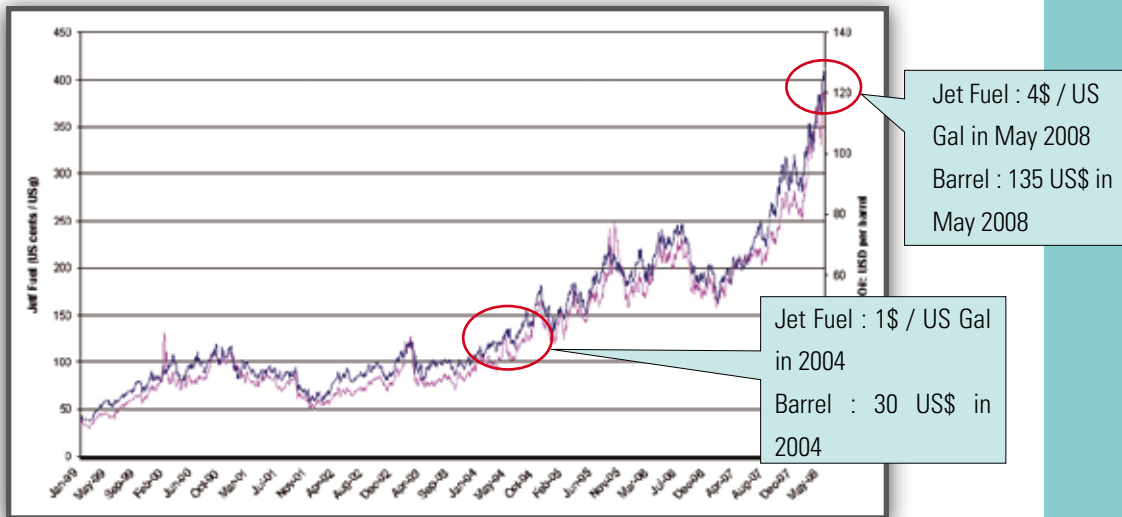
-  Lower engine and airframe maintenance costs, simpler systems, better reliability, better accessibility, less expensive to maintain engine components.
-  Significantly lower airport and en-route charges, linked to MTOW.
-  Exceptionally lower fuel costs.
-  Speed adapted to efficient, low-cost regional operation.





# High fuel prices will drive demand for low-cost per seat aircraft

## **Oil and Jet Fuel costs : multiplied by four in 4 years**



>>>> **Fuel efficiency is increasingly important**

## **The «cost of speed» on regional connections is being carefully monitored by airlines**

*Dash8 - Q400 extra fuel costs 1 Million US\$ / year / aircraft*

Extra fuel cost generated by DASH8 - Q400 :

Fuel Price	Extra US\$ / trip / aircraft	Extra US\$ / trip / aircraft
3\$ / US Gal	311	777,000
3.5\$ / US Gal	363	907,000
4\$ / US Gal	415	1,037,000

**For 10 aircraft fleet over 10 years, this pays the initial capital cost of 5 ATR 72s.**

Sector length : 250 Nm (460 Km) ; Yearly utilisation : 2,500 Cycles



# Flying clean, burning lean, polluting less...

ATR is actively cooperating with its large base of 140 operators to recommend and suggest measures and initiatives to be adapted for efficient operation in the current environment of high fuel prices.

Investigating all the means to lower fuel consumption, by :

- > Better Pre-Flight Procedures
- > Efficient In-Flight Procedures

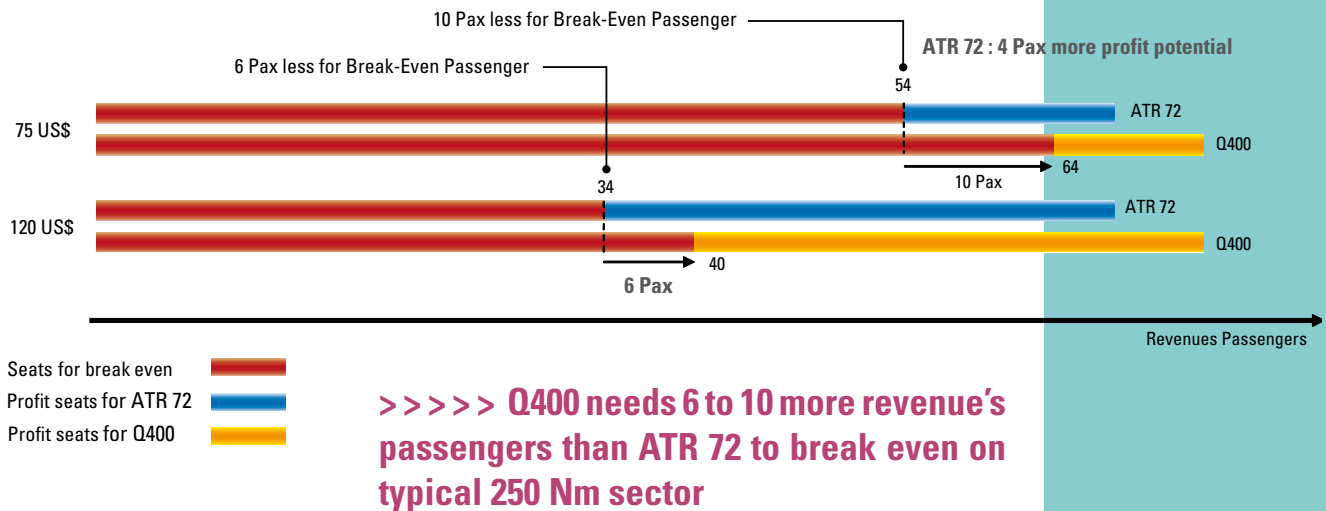
(optimising LF, Center of Gravity, fuel tankering, the most efficient routing, adapted descent techniques, monitoring weight issues and aircraft performance, ...)



These recommendations can easily generate :

**10 Kg to 15 Kg of fuel savings per flight, or 35,000 US\$ to 45,000 US\$ savings and 60 Tons to 100 Tons of CO2 savings per year per aircraft.**

# ATR 72-600 : Better Economics = Superior Profitability



## Break Even Load Factor

Ticket Yield	ATR 72	Q400	Pax Difference
75 US\$	79%	87%	Q400 needs 10 more Pax
120 US\$	49%	54%	Q400 needs 6 more Pax

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LOGICAL

**way to fly**

short-haul connections



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**ATR**



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