L.E.K.

Vliegwiel Twente Maatschappij i.o.

Twente Airport

Demand analysis and evaluation

April 2008

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Executive summary (1 of 8)

- Vliegwiel Twente Maatschappij i.o. ("VTM") is evaluating the potential uses of the former military airport in Twente and, as part of this evaluation, is assessing the possibility of developing a commercial passenger airport at the site

- L.E.K. Consulting (International) Limited ("L.E.K.") has been asked by VTM to assist in this assessment by preparing demand and cash flow forecasts for a commercial passenger airport operation at the site

- Our approach, agreed with VTM, has been to construct scenarios with consistent assumptions for the interactions between three key requirements: (1) the operating "model" for the airport and its requirements to be economically viable; (2) the "supply" of seats, routes and frequencies by the types of airlines who would be assumed to be flying there; and (3) the potential "demand" that can be generated from outbound and inbound passengers who would find such an airport an attractive proposition

- In determining our conclusions, we have assessed a wide range of data sources, including previous studies for VTM, information available to Ministerie van Verkeer en Waterstaat, and publicly-available sources, and we have held discussions with airlines and other airports. These data are nonetheless limited compared to the evidence base that we would expect to be required to support an investment case, including (but not only) information on passenger trips through airports other than Amsterdam Schiphol and surveys of travel behaviours, attitudes and preferences of people living within a reasonable catchment area of Twente airport. In addition, the study has been undertaken with limited time and resources. The analyses presented in this report are intended to provide a valuable input into VTM's decision-making process, but are necessarily preliminary and cannot be relied upon for investment purposes

Executive summary (2 of 8)

- The cash flow model estimates the economics of the development and operation of the airport, based on the revenues received from airlines and passengers, and the associated operating and investment costs

- We have based the model inputs for costs (to the airport) and charges (to airlines and passengers) on prior work undertaken for VTM, and have assessed the reasonableness of these assumptions, where possible, by reference to observed benchmarks at other airports

- Overall, we conclude that the estimated cost and revenue assumptions are plausible but possibly optimistic
  - the estimated costs are plausible, but are at the low end of comparisons with other airports; a focus on running the airport with low costs will be beneficial to the economic prospects of the operation but is likely to require careful management
  - the estimated aeronautical charges are relatively low compared with comparisons, but in line with nearby Münster/Osnabrück, which correctly reflects the competitive situation which would exist and the requirement to attract airlines to the airport as it develops and grows
  - the estimated non-aeronautical revenues (retail and car parking income) are also plausible, but potentially overstate the opportunities to attract these additional passenger expenditures, particularly during the initial phases of airport development when the retail offer is likely to be limited
  - validation of the achievability of the cost structure and assumed charges would be a key area where further work would be required to support an investment case

Executive summary (3 of 8)

- We have used the cash flow model to assess the required level of demand for the airport to break even economically
  - this break-even analysis is sensitive to the assumed relationships between airline services and the (net) aeronautical and other passenger revenues received
  - it is common industry practice for airports to seek to attract airlines by discounting fees and/or offering support for marketing costs; we have made assumptions on the level of these discounts based on the traffic mix expected in each scenario
  - from an investment perspective, the break-even analysis is also dependent on the level of required investment and the expected rate of return required by the investors in the business; we have considered a range for this required return

- This analysis indicates that investment break-even (positive NPV) requires passenger numbers in 2020 to reach between c.1.8m with a required return at the public sector end of the range, and c.3.0m or higher for more entrepreneurial investment criteria
  - annual breakeven on profit before interest and tax charges is reached at around 0.9-1.0m passengers, and positive EBITDA (approximately, the cash flow before interest, annual investment capex and tax) is reached at around 0.6-0.7m passengers

Executive summary (4 of 8)

- The demand model has been designed to forecast the impact on existing demand caused by the (potential) introduction of operations at Twente airport (based on a number of scenarios), and specifically to assess the interaction between the numbers of flights offered, the demand attracted to them and the resulting load factors (the proportion of flown seats that are occupied) on the flights, a key determinant of airline profitability
  - it should be understood that the model is specifically designed for this analysis and is not intended as a general-purpose model of the airports in the region
  - it should be also noted that the model is not calibrated against potential passengers' preferences or observed behaviours as these data are not available; validation of the implied passenger choices would be a key area where further work would be required to support an investment case
  - however, the results of the model accord well to the observed demand levels at the existing airports before assessing the introduction of services at Twente airport (without being calibrated so to do), and the resulting demand shifts in response to services at Twente appear intuitive and reasonable
- Given the inevitable uncertainties in the inputs and assumptions used in the model, it is important to judge the results in the light of the sensitivity of the model outputs to changes in its key assumptions; we have assessed these sensitivities, and we have also simulated the distribution and range of possible outputs by estimating the uncertainties in those inputs
  - while the range of possible outcomes is wide, reflecting these uncertainties, the implication of the sensitivity and simulation analyses is that the overall conclusions with regard to economic viability appear to be robust, i.e., there are few combinations of assumptions that lead to overall conclusions different to the base case

Executive summary (5 of 8)

- We have constructed a base case scenario based on a replication of the development of Bristol (UK) International Airport, i.e., a mix of typical short-haul scheduled services, led by a strong low-cost offer, served by typical 737/A320-type aircraft

- The analysis of this base case scenario leads to the conclusion that it is not possible, for any level of assumed services, to reach load factors on these flights that would make them economically viable
  - This implies that no airline would run services from the airport on a sustainable basis
  - this conclusion results from the combination of the high level of nearby airport competition, the relatively small catchment area of the airport due to its transport links (especially North/South access by road), and the relatively low population in this area
  - the success of Bristol airport, in comparison, can be shown to be due to its nearby population being larger, travelling more frequently by air, and having fewer alternative options in terms of other nearby airports offering a good range of service frequencies

- We have considered the potential for other operational models targeted to attract different traffic mixes
  - focusing only on serving low-cost carriers (e.g., Weeze) similarly fails to achieve viable load factors
  - attracting charter airlines would appear to be possible, but the demand from the nearby population is not sufficient to support the airport's costs
  - focusing on business passengers with services on smaller regional jets (e.g., VLM services at Rotterdam) which under certain assumptions could sustain profitable flights but would remain economically unviable for the airport

Executive summary (6 of 8)

- However, there is the potential that the development of national aviation policy could generate a scenario that results in a forecast of viable demand at Twente airport and, in particular, we have considered the possible consequences of restrictions on the development of Amsterdam Schiphol airport
  - if Schiphol is constrained at 480,000 air-traffic movements p.a., and the mooted development of Lelystad airport does not take place, then, as the general demand for air travel grows over time, a proportion of the demand that would be attracted to Schiphol, but could not be served from there, would be attracted to Twente instead
  - in one modelled scenario this reached c.2.6m pax in 2020. however, although this is above the breakeven passenger numbers for typical public-sector returns, it is still well below the breakeven point based on the returns an entrepreneurial investor may require

Executive summary (7 of 8)

- During the course of our study, a number of other potential sources of revenue and/or demand have been suggested, which we have briefly considered
  - basing an MRO (aircraft maintenance, repair and overhaul) service provider at the airport – initial research indicates that airport revenues from such operations tend to be small and demand for additional facilities in North-West Europe is limited
  - a cargo-focused airport – would face significant competition from the large European cargo hubs, but could benefit from the growth in airfreight if a major airfreight operator establishes a base at Twente, e.g., because there are no restrictions on night flights
  - a general aviation (GA) focused airport – would attract some traffic (as Twente has in the past), in particular if Leystad is developed into a LCC airport and displaces business aviation. However, initial research indicates that few European GA airports are economically viable without public subsidy
  - basing a 'careport' specialist medical facility in close proximity to the airport to synergistically drive demand for services at both sites – while this depends on the existence of a viable airport, the incremental demand would benefit a marginal case like the regional jets scenario
  - improving access to the site through new rail access infrastructure – current guidelines applied by ProRail/NS would require established passenger volumes at the airport to justify investment
  - re-basing military operations at the site and sharing costs – depending on the cost sharing arrangements, this could allow viable commercial operations (as at Eindhoven and Newquay in the UK), but is subject to public-policy decisions

Executive summary (8 of 8)

- Overall therefore this study indicates that it is unlikely that a viable and sustainable commercial operation could be developed at Twente, due to the relatively high levels of nearby airport competition and the relatively low levels of nearby demand for air travel. This conclusion is reinforced by the fact that the cost and revenue assumptions based on prior work may be at the optimistic end of the spectrum
  - whether the development of a passenger airport on the site is an appropriate course of action is therefore dependent on the estimated broader socio-economic benefits that the airport could bring to the region and the (net) value available from alternative uses of the land after the existing contents have been removed

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Agenda

- Introduction
- Current situation at Twente airport
- Airport growth and development
- Economic feasibility requirements
- Demand potential
- Conclusions
- Appendices

Introduction

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- L.E.K. Consulting (International) Limited ("L.E.K.") has been asked by VTM to assist in this assessment by preparing demand and cash flow forecasts for a commercial airport operation at the site

- Specifically, L.E.K. has focused on:
  - outlining the drivers of airport growth and development;
  - setting out the underlying requirements for the commercial viability of an airport;
  - analysing the identified demand for air travel in the region; and
  - drawing the implications of the above for the feasibility of Twente airport

- The study was carried out within the limitations of the time, resources and data available. It is intended to be a valuable input into VTM's decision-making process, but neither the report nor the underlying models may be relied upon for investment purposes

In the course of our work we have conducted 20 interviews and reviewed a variety of relevant secondary sources

Interviews

Airlines

- Flybe
- Sterling
- easyJet
- Jet2
- ArkeFly (TUI NL)
- [Scheduled: OAD]

Government

- City of Weeze
- District of Kleeve
- Verkeer en Waterstaat

Airports

- Schiphol
- Eelde
- Bristol
- Exeter
- Newquay
- Dortmund
- Dresden
- Düsseldorf
- Münster/Osnabrück

Others

- Nederlandse Spoorwegen
- Chamber of Commerce, Enschede

Secondary Sources

- CAA
- ADV
- BAA
- DfT
- ONS
- Eurocontrol
- ACI
- Airport websites
- Airport annual reports
- Twente Index 2007
- Factiva

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The proposed site for Twente airport is a disused military airbase, with some aeronautical infrastructure still in place

Source: Wikipedia; Enschede Twente airport

- The site (432 ha in total (excluding Zuidkamp and Prins Bernhard Park) and 228 ha airport) has retained some aeronautical infrastructure after the withdrawal of the Royal Dutch Airforce in 2007
  - two runways
  - some navigational aids
  - air traffic control tower
  - terminal
  - several taxi ways
  - fire brigade accommodation and two trucks
  - and several hangars
- With the end of military operations and consequent removal of navigational and safety equipment, Twente is no longer an operational airport
  - ad hoc flights with special permission are still possible
  - the military operating certificate is no longer valid and the site does not currently meet the requirements for a civil one

Four non-exclusive options have been proposed for the use of the site. Our work focuses on option four: Commercial Airport

Option 1: Nature Reserve

- The area would be reserved for nature, i.e. the area would be 're-fitted' to the natural ecological environment of the Twente landscape
- This will be in close collaboration with the airport to support the 'landing in the landscape' philosophy and in this way help increase the attractiveness of the location

Option 2: Extensive Recreational Area (leisure)

- Emphasis is on low intensity recreational usage. This includes types of recreation whereby the landscape is experienced in an intensive way but with relatively few buildings, facilities and people per square km
- A mix of intensive and 'extensive' recreation would be made available in close collaboration with the airport to increase the attractiveness of the location as a whole

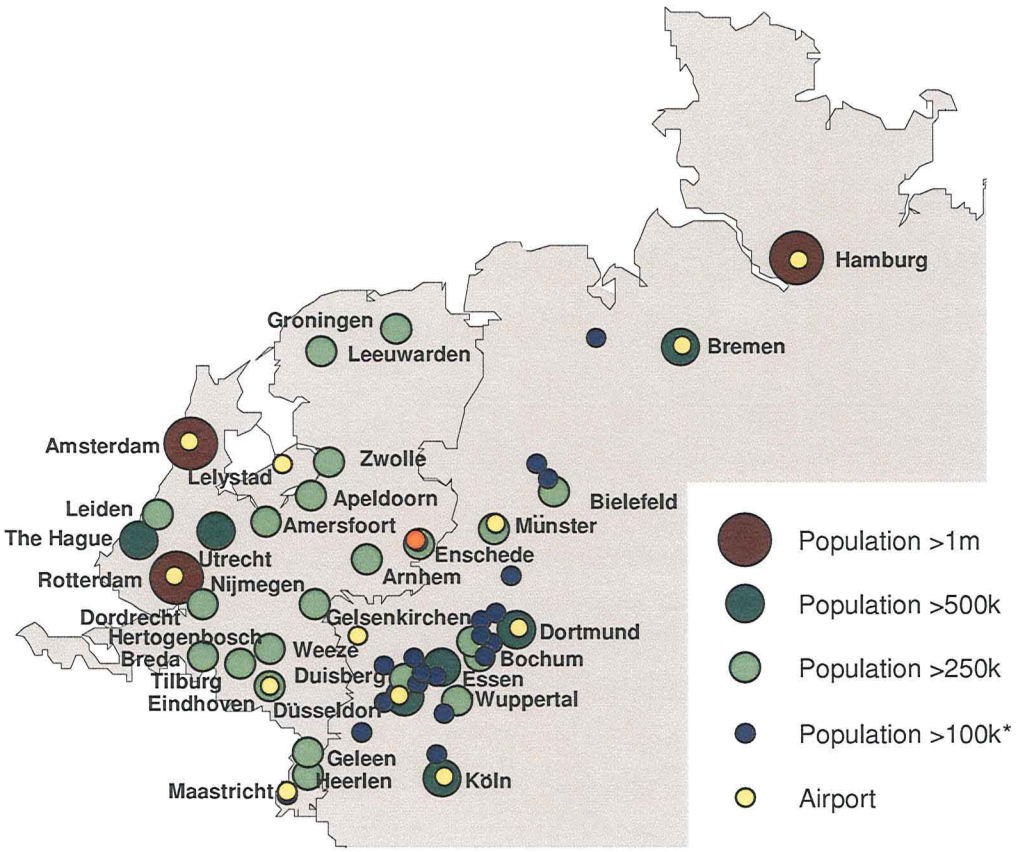
Option 3: Airport Business Park

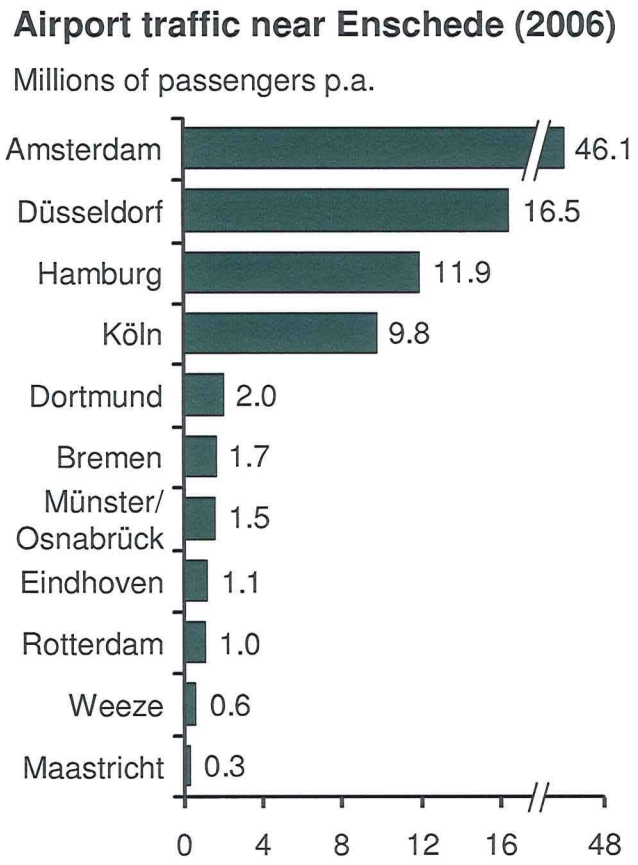
- The Airport Business Park (ABP) could be developed in close collaboration with the airport
- The business park will distinguish itself from other business parks in the area by fulfilling the need for spatial requirements by companies that are related to the airport and it will contribute to local economic development

Option 4: Commercial Airport

- The possibility of developing and growing a commercial airport at the former military base of Twente Airport

ENS is in a relatively sparsely populated region of NW Europe. The broader Netherlands - NW Germany region is well served by existing airports

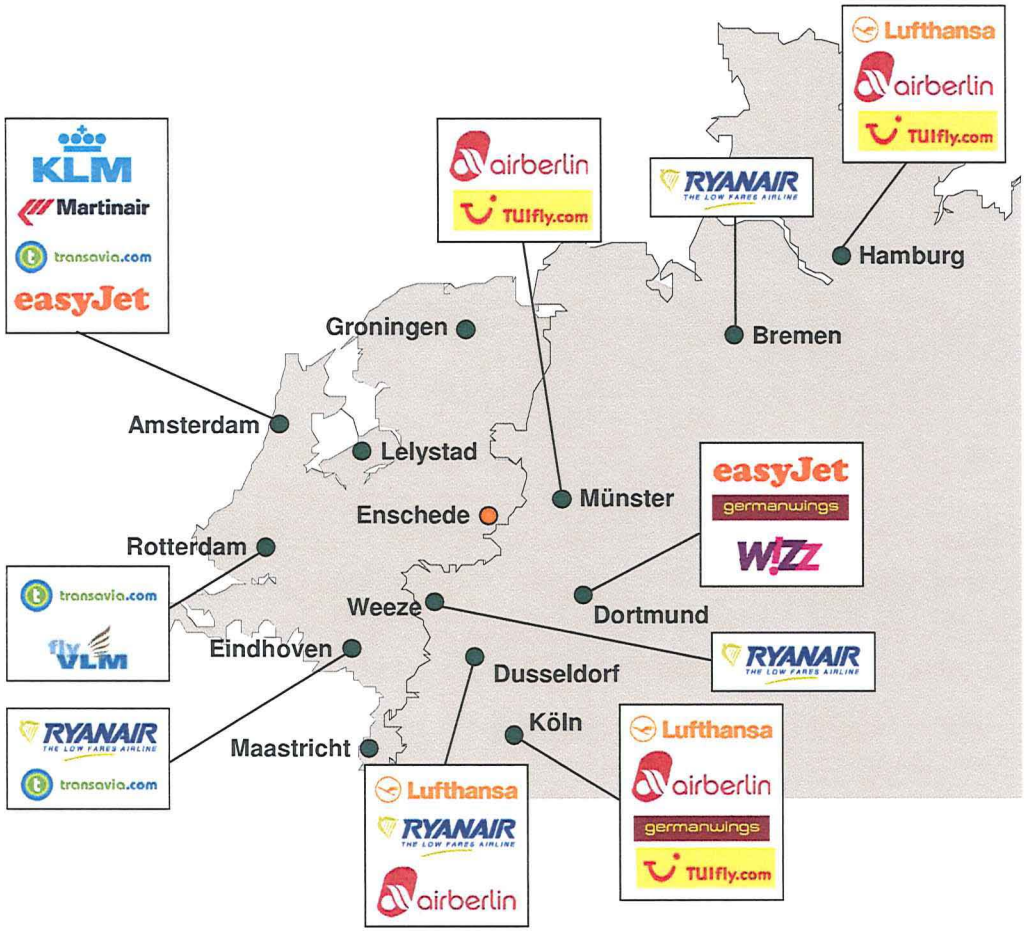




Notes: *Unlabelled cities with populations between 100 and 250k are Krefeld, Halle, Oberhausen, Hagen, Hamm, Herne, Mülheim, Osnabrück, Solingen, Leverkusen, Oldenburg, Neuss, Recklinghausen, Bottrop, Remscheid, Moers, Gladbach, Witten

Source: Statistisches Bundesamt Deutschland; Statline.cbs.nl; German Airports Association

Airlines forming bases at airports can provide the basis for route development at that location



- A "base" for an airline is usually an airport where
  - One or more aircraft normally return to at the end of the day
  - Crews members have their permanent residence
  - By implication, a relatively large number of routes originate
- Recent new base openings in the region
  - Ryanair at Weeze
  - Ryanair at Bremen
  - Transavia at Eindhoven

Source: Airport websites; Airline websites

While the land and the remaining airport infrastructure are of some value to an aeronautical user, investment is required to start operations

Relevant assets in place

- Land
- Runway of 2800x45m, paved
- Small terminal, in use until recently
- Runway and taxiway, lighting, still functional
- Some buildings, notably hangars formerly used for fighter jets
- Noise protection in the surrounding areas

Investment required for airport operations (selection)

- Navigational and guidance equipment
- Meteorological equipment
- Layout changes, e.g. to create required safety clearings, allow access of larger aircraft and optimise land use
- Surface changes to meet safety requirements
- Fire protection beyond the building (e.g. communications equipment, vehicle maintenance, etc.)

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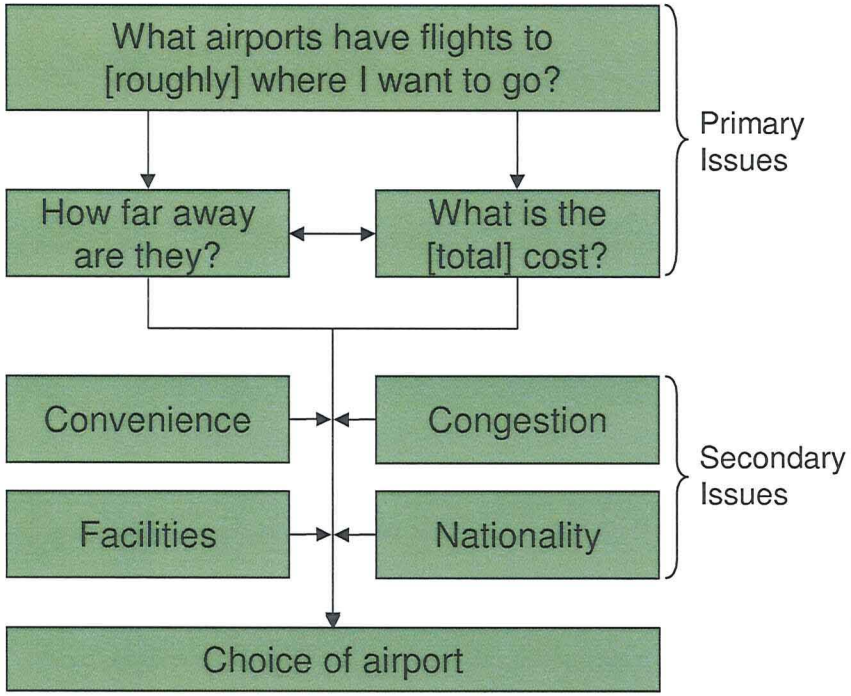
From the passenger perspective, the choice of airport is driven by the flight offer, cost and convenience

Simplified passenger decision process



- For a new airport, possible lack of awareness on the part of potential passengers is a key hurdle to be included in the "shortlist", especially if the airline is new to the area. Marketing of new routes is therefore a critical factor

  "…(on the continent) we would have to spend a lot on marketing and advertising … it needs to happen on a big scale …"
  Flybe

- Increasingly, passengers start with "where can I go from my local airport(s)?". While this stimulates demand, the key driver of airport choice remains the route offer

  "… I think that passengers see first whether their destination is offered by their local airport and then consider price …"
  Münster/Osnabrück Airport

  "…I think that for passengers the most important criteria is whether the right routes are offered, followed by proximity of the airport and ticket price …"
  Dresden Airport

  "… Passengers mainly choose airports where the destination they are looking for is offered, and airports that are nearby and easily accessible …"
  Dortmund Airport

- The trade-off between cost and proximity means that a low-cost offer can extend the catchment area of an airport considerably

  "…In the past passengers have been willing to travel ridiculous distances for a cheaper air fare, without taking into consideration the 'hidden' costs in terms of fuel and their time …"
  Exeter Airport

Source: L.E.K. interviews

From the airline perspective, route decisions are driven by the underlying characteristics of demand and the support provided by airports

Drivers of route profitability

- Demand must be sufficient to support an attractive frequency (min. 3-4 times per week for leisure destinations). Underlying demand depends upon
  - population in catchment area
  - travel habits (inc. popularity of destination)
  - competition
- Higher yielding (e.g. business) passengers enable viable routes at lower levels of demand but typically require higher frequencies
- Lower airport costs can make a route viable through
  - a lower break-even load factor and/or
  - higher demand stimulated by lower fares

The higher the level and yield of underlying demand, the higher airport costs can be

Route start-up dynamics

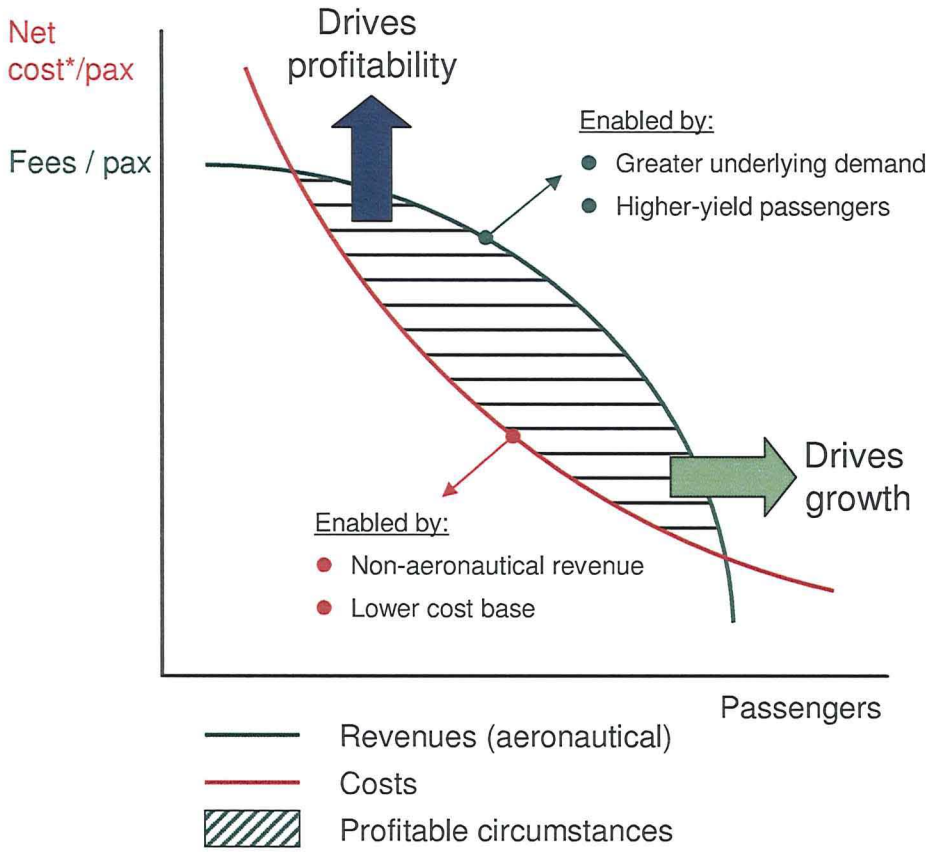
- During a start-up phase, frequencies must be offered while awareness is still building up. As a result, routes are unprofitable at the beginning, as demand is low and marketing costs high
- Airports are expected to share some of this initial cost, in the form of both lower airport fees and a contribution to marketing
- If a route is not profitable after around one year, airlines normally discontinue it

A new route is a risky investment for both airline and airport

Source: L.E.K. interviews

From the airport perspective, there is a trade-off between lowering fees to attract airlines and passengers, and driving profitability

Illustrative profitability trade-off for an airport

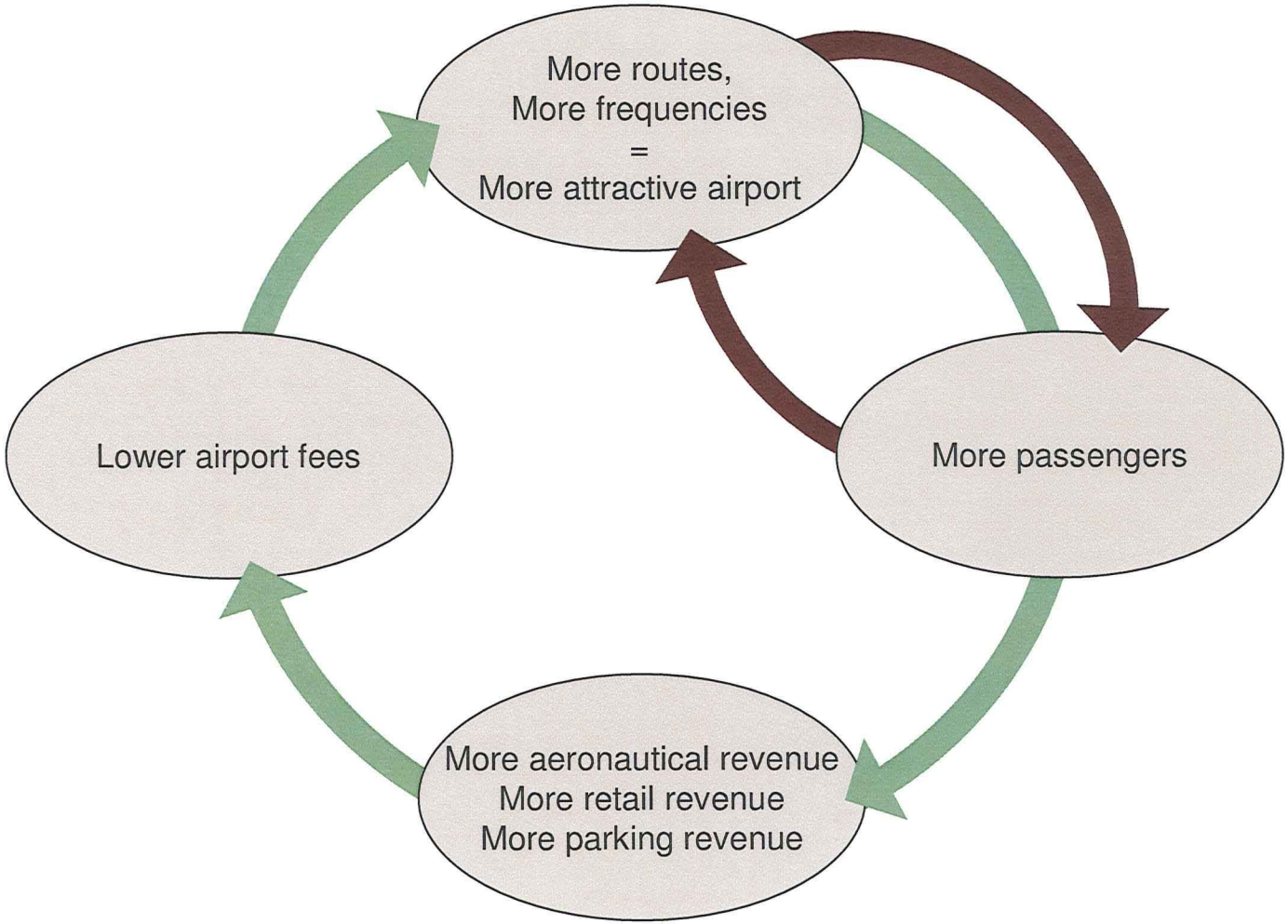


- The trade-off between airport fees and number of passengers is driven by route profitability
  - greater underlying demand (e.g., less competition) would make more routes profitable at any given level of fees, enabling higher frequencies and greater airport attractiveness
  - higher yield passengers similarly lower the break-even factor and also enable higher frequencies
- Ancillary revenue and a low cost base enable profitable airport operations at lower fee levels and thus a larger number of viable frequencies
  - Ancillary revenues may include parking, retail or other airport-related services

"… The fastest growing airports out there "buy demand" by giving away their services to airlines and hoping other revenues will make up the shortfall …"
Münster/Osnabrück Airport

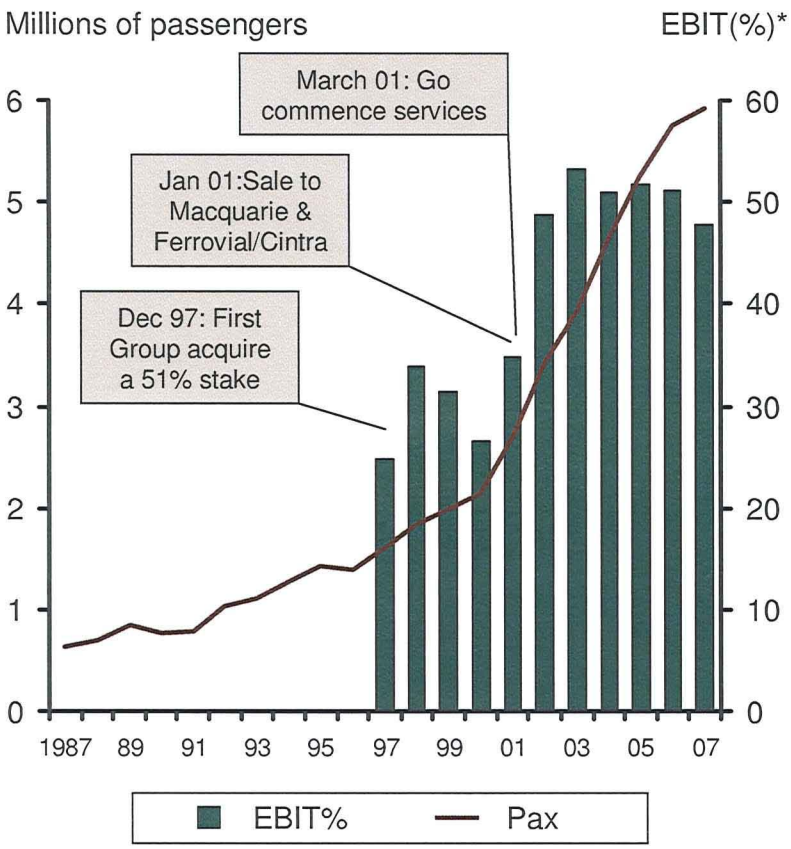
Note: *Total cost less non-aeronautical revenue

In the right circumstances, airport success can be self-reinforcing in a number of ways



Bristol Airport has managed this "virtuous circle" successfully to become a growing and profitable operation

Bristol Airport – passengers and profits



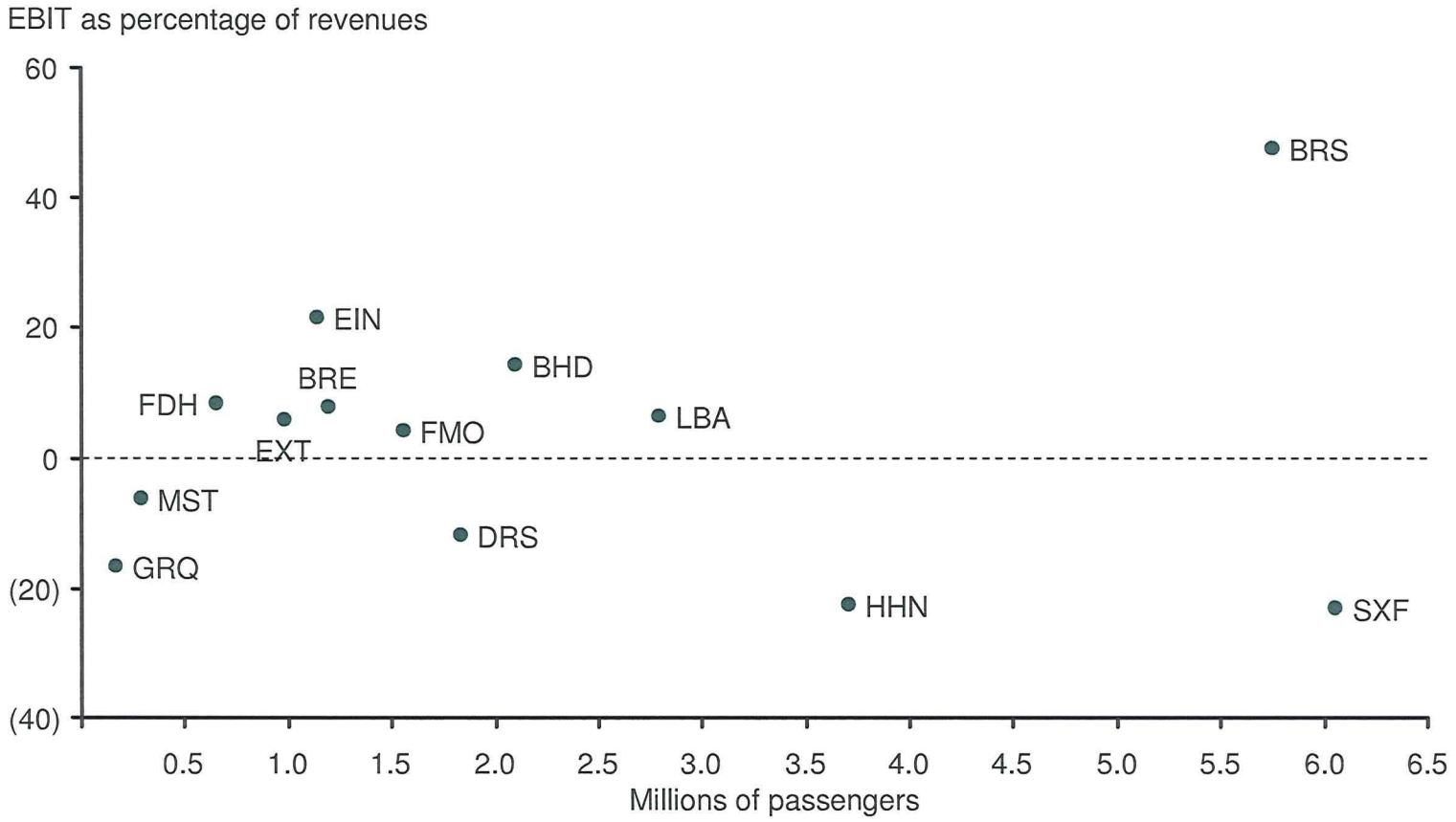
Bristol Airport: key success factors

- A large, diversified and relatively affluent catchment area
  - c.7m people live within 2 hours' drive
  - the local economy has grown by 5.3% p.a. over the past 10 years**, (the third highest rate of growth in the UK, behind London and the South East)
  - c.70% of passengers come from areas with no other airport within 1 hour drive
- An extensive and varied offer of destinations and frequency
  - 25 airlines
  - 122 destinations, served on average 6 times weekly
- An extensive retail offer provides a key revenue stream
  - c.20% of the terminal is retail space
  - 15 shops, 10 catering outlets and bars

Notes: *1998-2003, Financial year ending 31st March (eg. 2003: 1st April 2003 – 31st March 2004); Calendar year from 2004 onwards; **based on ONS GVA statistics for the South West
Source: Amadeus; Companies House; Company Website; Press; CAA; ONS; L.E.K. interviews;

By contrast, many regional airports across Europe are marginally profitable or loss-making in spite of having attracted a large number of passengers

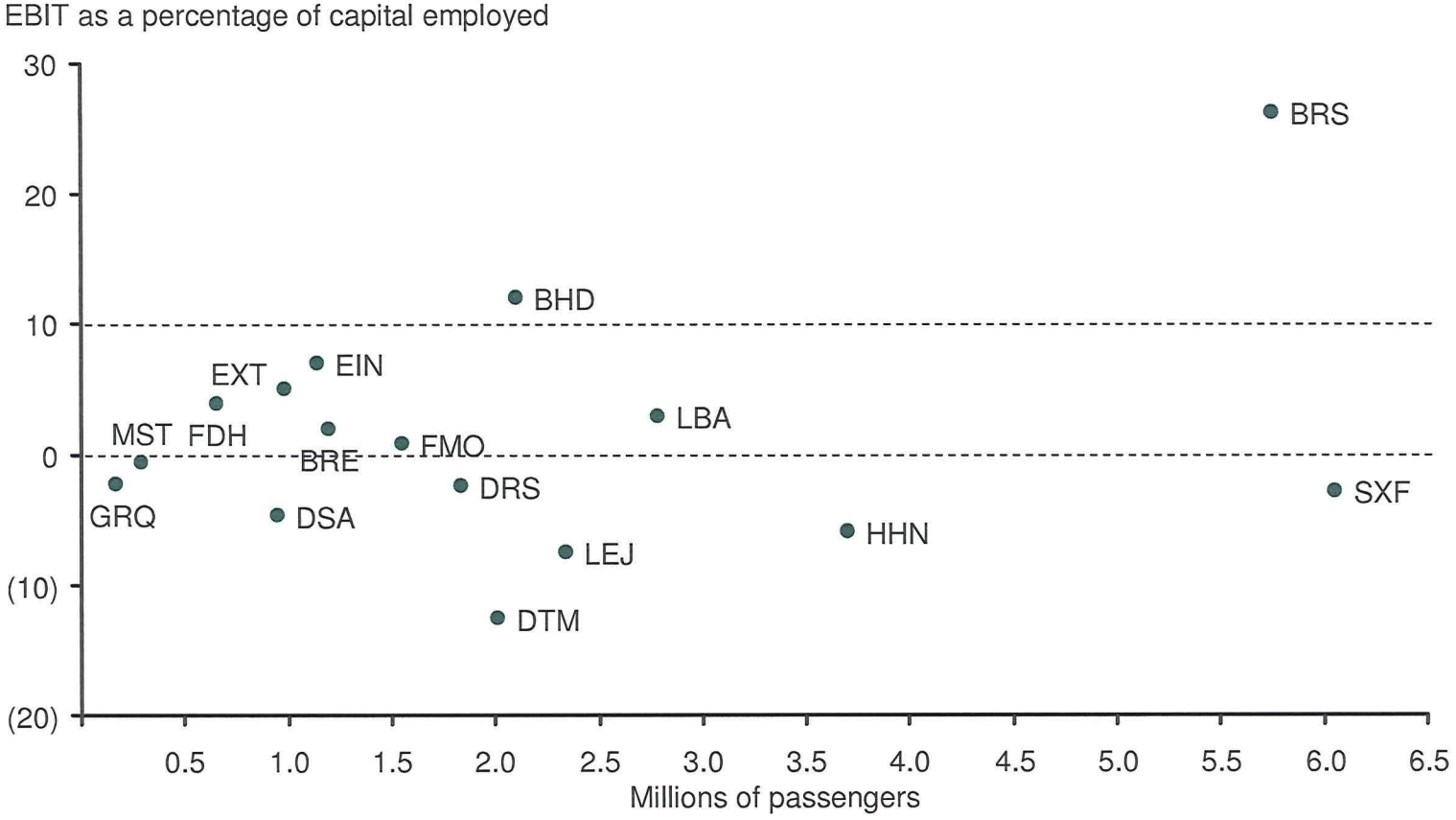
Passenger numbers and profitability at select European airports



Notes: All figures are for calendar year 2006
Source: Amadeus; Company Accounts

Using return on capital employed as a measure of investment returns, only Belfast City and Bristol airports (from a sample of 16) are likely to be making a commercial return on their invested capital

Return on capital employed at select European airports



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We have considered three scenarios of estimated costs and revenues, to determine the inputs to the cashflow model and to enable us to estimate the break-even passenger numbers

Base case	Minimum investment case (e.g. regional jet service)	LCC case
85% LCC, 15% other	100% Non-LCC	100% LCC
Terminal as planned Full Capex schedule	Small terminal (upgrade existing) Reduction in additional Capex relating to terminal	Terminal as planned Full Capex schedule
Full initial attraction/ marketing costs Variable costs develop in relation to passenger/ ATM growth; the degree of variability is dependent on the individual cost item	Reduction in initial attraction/ marketing costs Fixed costs remain unchanged. Variable costs develop in relation to passenger/ ATM growth	Full initial attraction/ marketing costs Fixed costs remain unchanged. Variable costs develop in relation to passenger/ ATM growth
Freight and General Aviation assumptions per ADECS: Freight reaching 30,000t, GA 15,000 ATMs, both growing with or slower than passengers	Freight and General Aviation assumptions as in Base case	Freight and General Aviation assumptions as in Base case

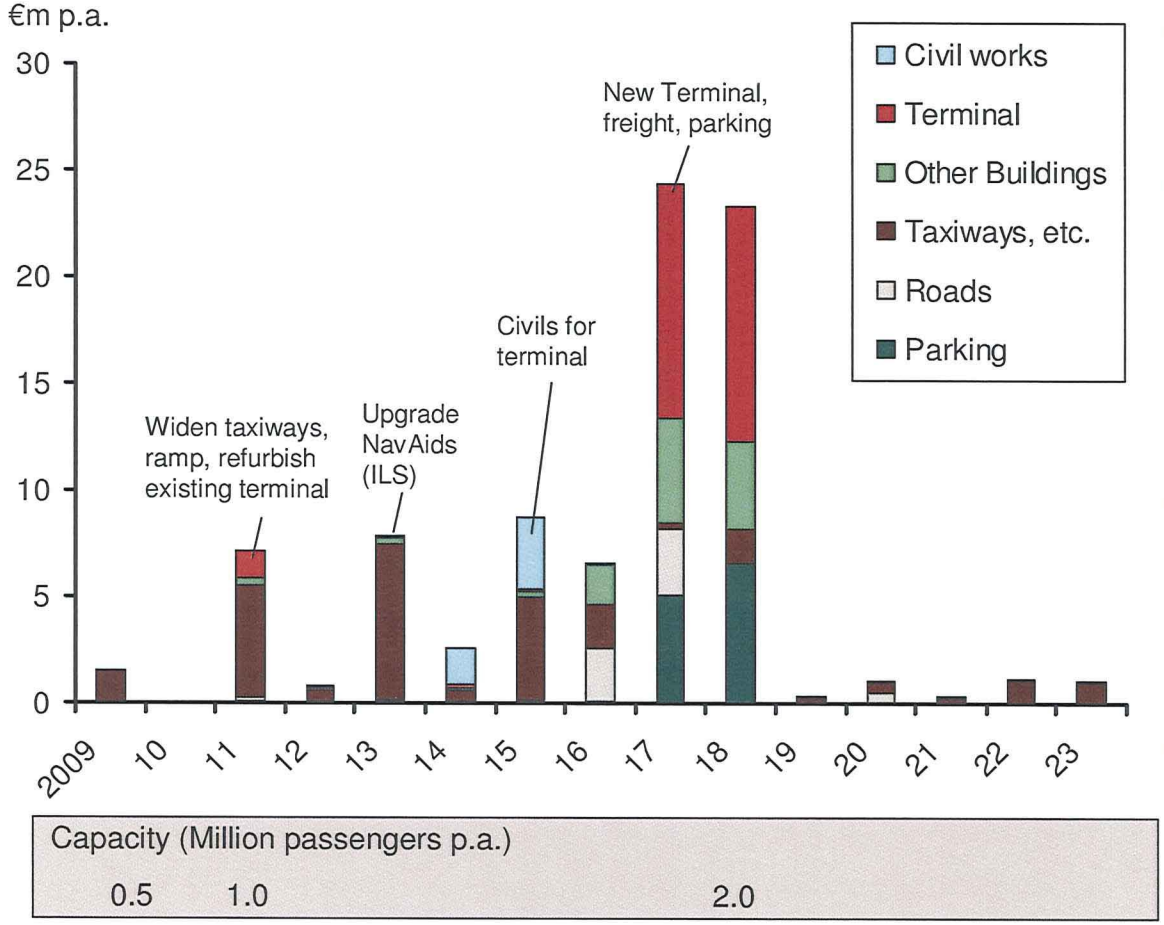
Source: ADECS; NACO; SPARK; VTM; L.E.K. analysis

We have based our cost assumptions on past work carried out for VTM, and have assessed the plausibility of these assumptions where possible

Driver		Approach	Key considerations
Costs	Operating costs	Cost model follows ADECS work, benchmarked and adjusted for SPARK / VTM inputs Key categories include labour, maintenance and depreciation A share of each cost line is assumed to vary with passenger numbers or ATMs	ADECS assumes synergies between parts of the operations that have been retained
	Capital expenditure	As estimated by NACO for Scenario 2: Middle Area development, benchmarked Adjusted for updated VTM/SPARK input Varied by scenario	Minimizing and delaying capex can significantly help make a positive investment case

For the base case, we have assumed an investment profile in line with the NACO/ADECS assumptions, adjusted for more recent information

Assumed base case investment costs



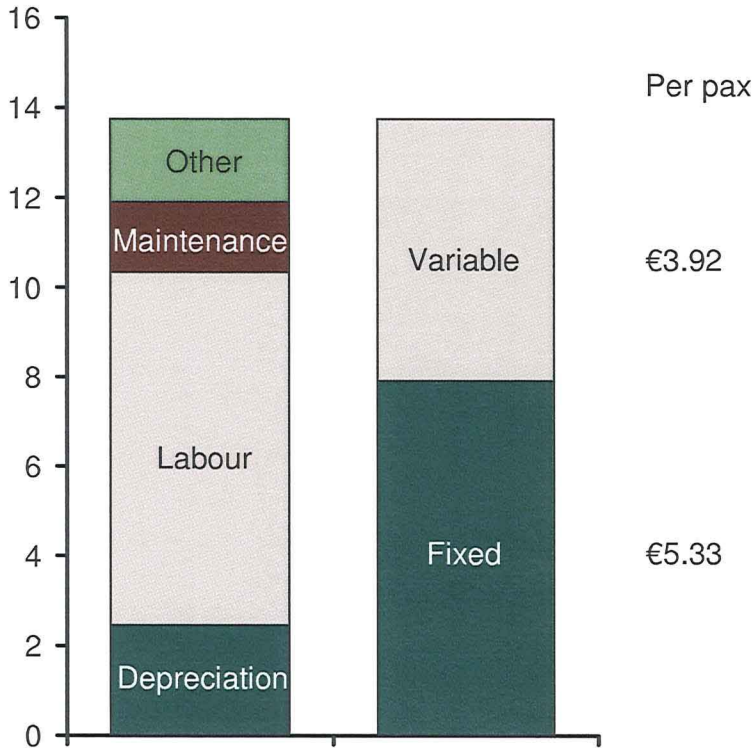
- The investments are based on the NACO report, also leveraged by ADECS
- The layout of the current option 4 is, in the context of our high level evaluation, a symmetric transposition to the North of the NACO "Scenario 2: Ontwikkeling Midden Areaal"
  - we have therefore used these estimates as a basis
- VTM / SPARK have provided us with more recent estimates for parking and civil works
  - we have adjusted our assumptions accordingly
- The terminal constriction cost is at the low end of similar recent projects (e.g., Ljubljana, Bilbao, Wroclaw, Sofia)

Source: ADECS / NACO; SPARK; L.E.K. analysis

At c.1 million passengers in the base case the airport would have around €14m of costs p.a. (around €9 per passenger)

Assumed base case cost structure*

Millions of Euros p.a.



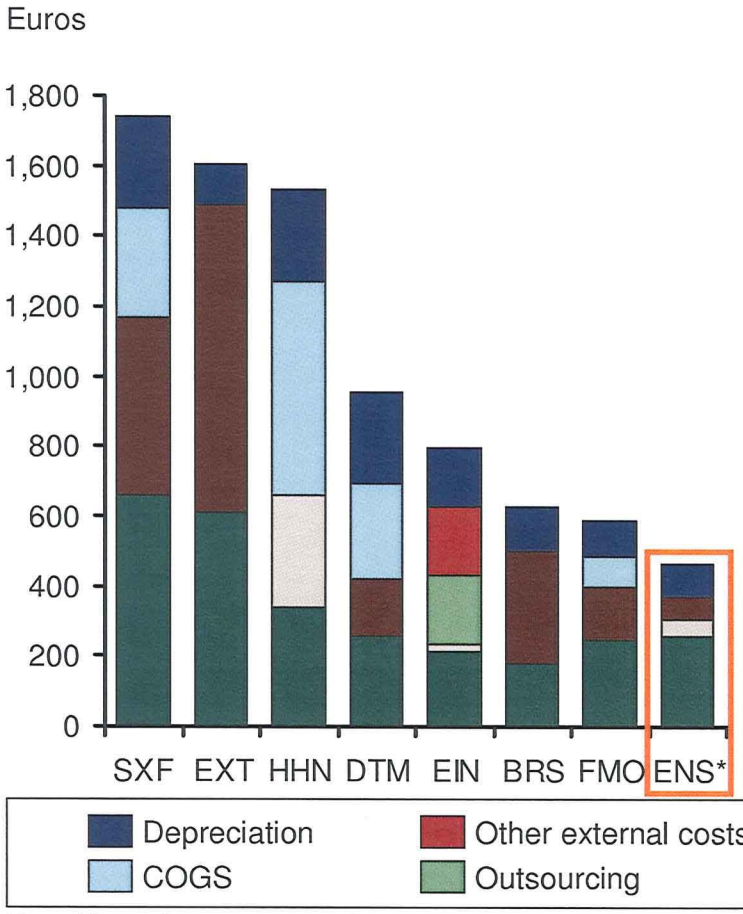
Key assumptions

- Fixed costs include labour costs and a variety of other costs
  - labour costs are based on an average wage and a minimum number of personnel needed to operate the airport (totalling 85 for airport operations, security, personnel handling, ATC and parking)
  - other costs include energy, cleaning, fuel vehicles, transformation and additional various cost items
  - also included are ATC and security accommodation and systems costs and initial airline attraction/ marketing costs (only in first 3 years of operation)
- Variable costs are calculated on the basis of passenger and ATM volume growth for labour and other costs. Additionally, maintenance costs are fully allocated to variable costs

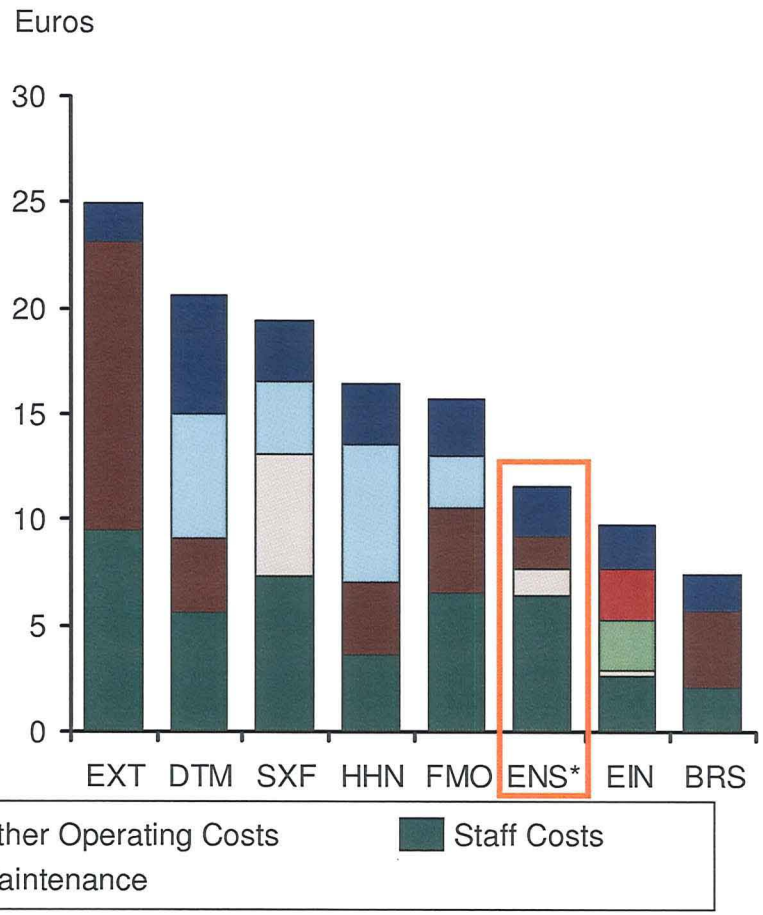
Note: *Based on ADECS assumptions
Source: ADECS; SPARK; VTM; L.E.K. analysis

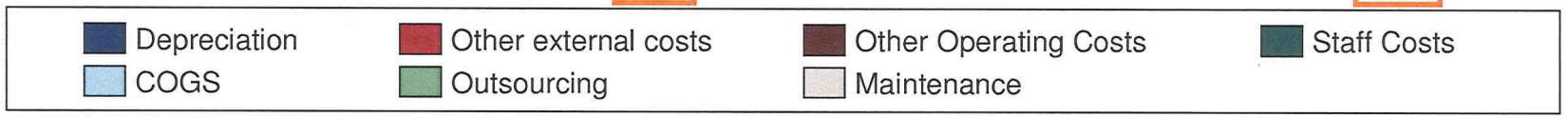
Costs per ATM and per passenger suggest a low cost base that will require careful management and which could be optimistic

Costs per ATM



Costs per passenger

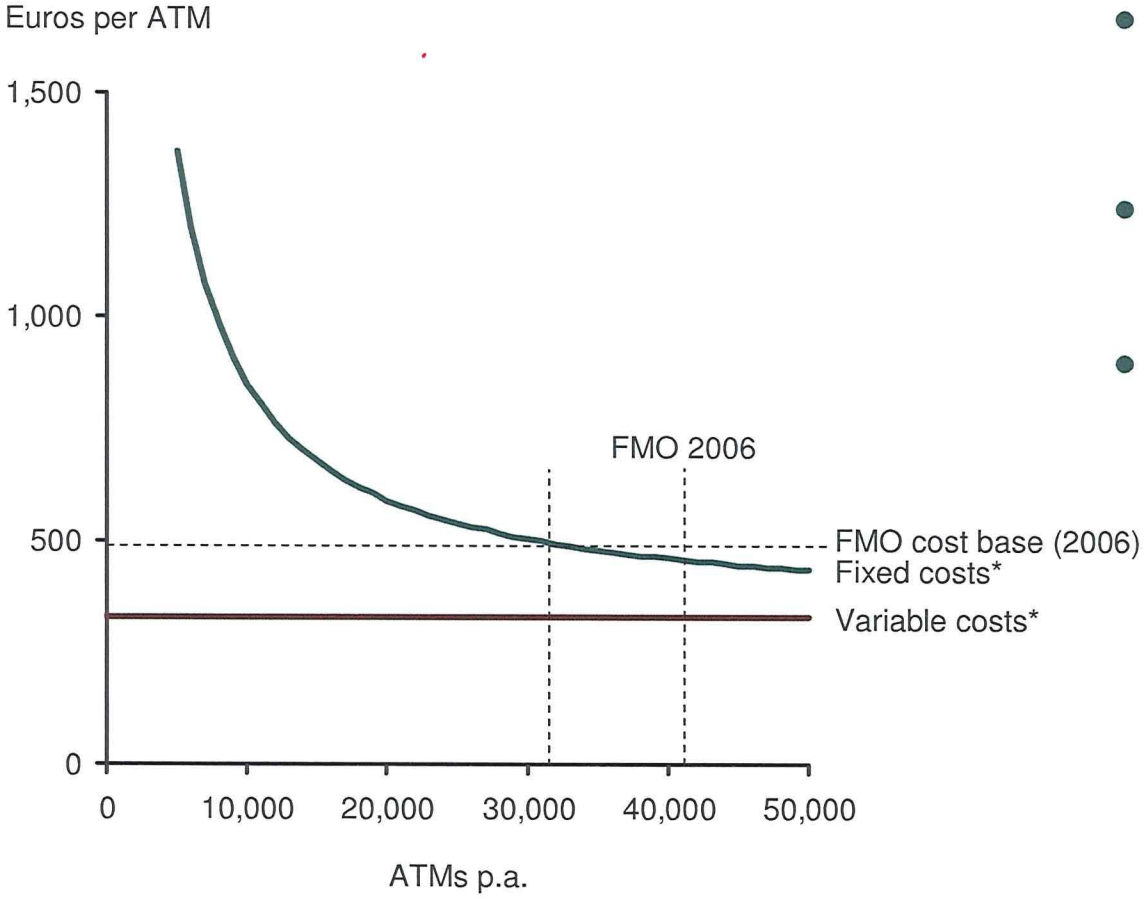




Note: *Assuming 1m pax p.a.; Based on ADECS assumptions
Source: Company Accounts; CAA; ADV; ADECS; SPARK; L.E.K. analysis

Although the base case assumes ENS can reach a very low cost base, it becomes cost competitive with FMO only when it reaches c.1.3m passengers p.a.

Operating costs (excluding depreciation)



- In the event of a "price war", the lowest cost airport would be best placed to survive (assuming equal investor support)
- Fixed costs lead to assumed ENS costs below FMO at approx. 32,000 ATMs p.a. (c.1.3m passengers)
- Both are relatively low levels compared to benchmarks and would require validation before investment

Note: *Based on ADECS assumptions
Source: Company Accounts; ADV; ADECS; SPARK; L.E.K. analysis

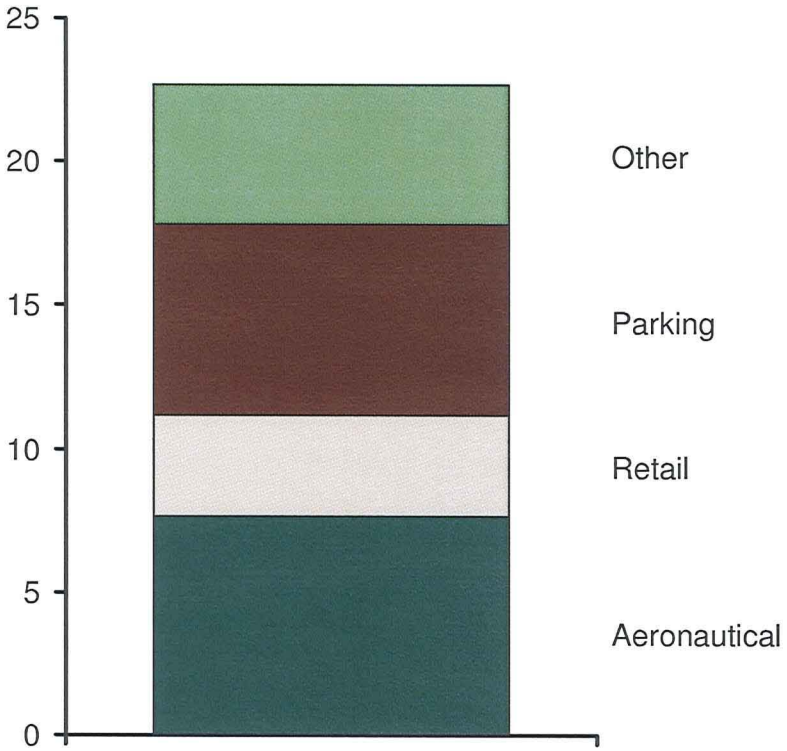
Our revenue assumptions are based on the ADECS structure and other prior advice to VTM, and reflect typical pricing mechanisms for commercial airports

Driver		Approach	Key considerations
Revenue	Aeronautical	Charge for terminal infrastructure per passenger Charge for airfield infrastructure per tonne	Since infrastructure has net-zero marginal cost, significant discounts can be and are provided to LCCs by other airports (especially during start-up years)
	Parking	Average revenue per passenger provided by SPARK	Car park charges are being increasingly seen as a competitive issue by airlines
	Retail	Average revenue per passenger, benchmarked	
	Other	Revenue per passenger/ ATM for ATC, ground handling, etc.	Non-core activity that must be legally separated (i.e. cannot be used to cross subsidise)

The VTM base case leads to revenues primarily generated from aeronautical activities and car parking

Example revenue structure (assuming 1m pax p.a.)

Millions of Euros p.a.



Key assumptions in the base case

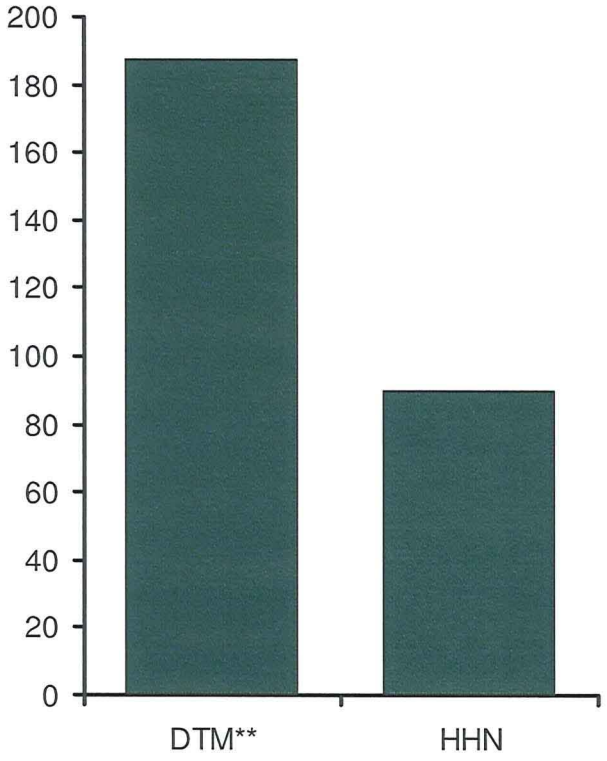
- LCCs do not pay for or receive a discount on several charges
  - 50% marketing contribution towards airport passenger charge
  - passenger security charge waived
  - landing fees waived
- Landing fees discounts are also granted to other air traffic categories, ranging from 10% for charter to 30% for freight
- There is no fuel commission revenue from LCC or scheduled flights
- Retail and parking revenues are collected from all passengers, regardless of flight category
- Ground handling is a separate business. There is no cross subsidy between airport activities

Source: ADECS; SPARK; VTM; L.E.K. analysis

We have assumed costs of marketing support for new routes on the basis of that observed at other airports and feedback from airlines

Marketing support for new routes*

Thousands of Euros



- Marketing support varies depending on the number and capacity of new routes. It covers both awareness-build for new routes…

  "… Airports will do all the can to incentivise airlines. These incentives extend beyond simple reductions in landing and handling fees, they also regularly offer support on local marketing …"
  Jet2.com

  "…The support we expect from airports is mainly costs. We want to keep our base case as low as possible…sometimes airports give us marketing support, but this is mainly financial as we would never let them get involved in that …"
  Flybe

  "…There is a joint effort in the marketing. The airport helps publicise the new routes and gets the tourism board involved. We then publicise that it is our airline providing these new routes …"
  Stirling

- … and start-up operating losses

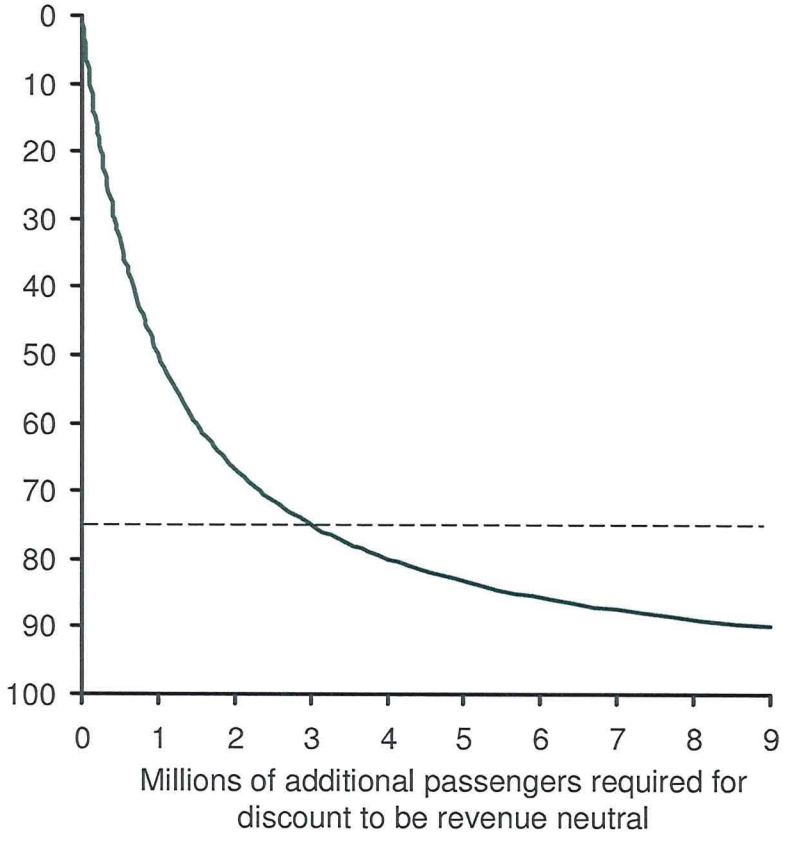
  "… in the meantime you're flying empty planes, so we would expect the airport to heavily support this …"
  Flybe

Note: *All are assuming 375,000 pax; **Assumes 4 routes
Source: Airport websites

Low cost carriers in particular expect significant discounts on aeronautical charges

Indicative aeronautical charges discounting

Percent discount on landing and passenger fees



Source: L.E.K. interviews and analysis

- LCCs may expect discounts or even exemptions from all aeronautical charges. These include an airport passenger charge, a passenger security charge and landing fees

  "… We would typically expect a 3 year arrangement, with landing and passenger discounts given by the airport of around 75% in the 1st year, 50% in the 2nd year and 25% in the 3rd year …"
  Stirling Airlines

  "… The selection of new destinations is mainly driven by finances. We have profitability criteria which must be met in order for us to open a new route…if an airport is willing to work with us on costs then we are likely to use them …"
  easyJet

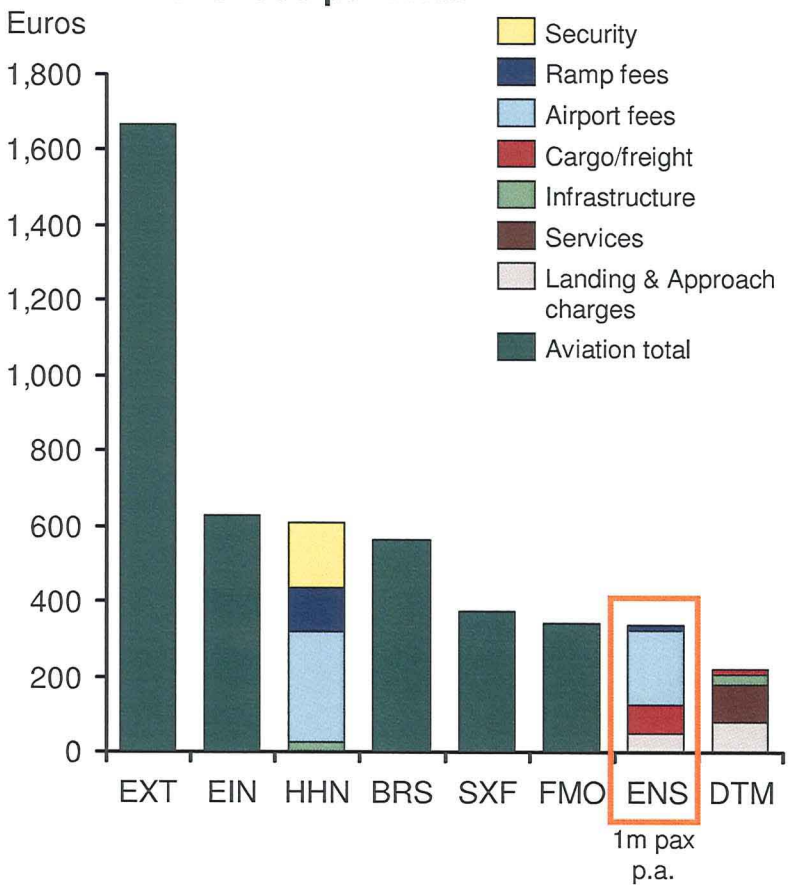
  "… Every airline has different demands, how aggressive the deal making process is varies per case. We can make them an offer mainly based on airport charges, and a little bit of marketing…There are airlines that pay the full landing fee but discounts for some can amount to anything, but not zero! …"
  Bristol Airport

  "… The fight for airlines has got very bad. We are forced to make lower and lower offers and the airlines can cancel the contract any time …"
  Dortmund Airport

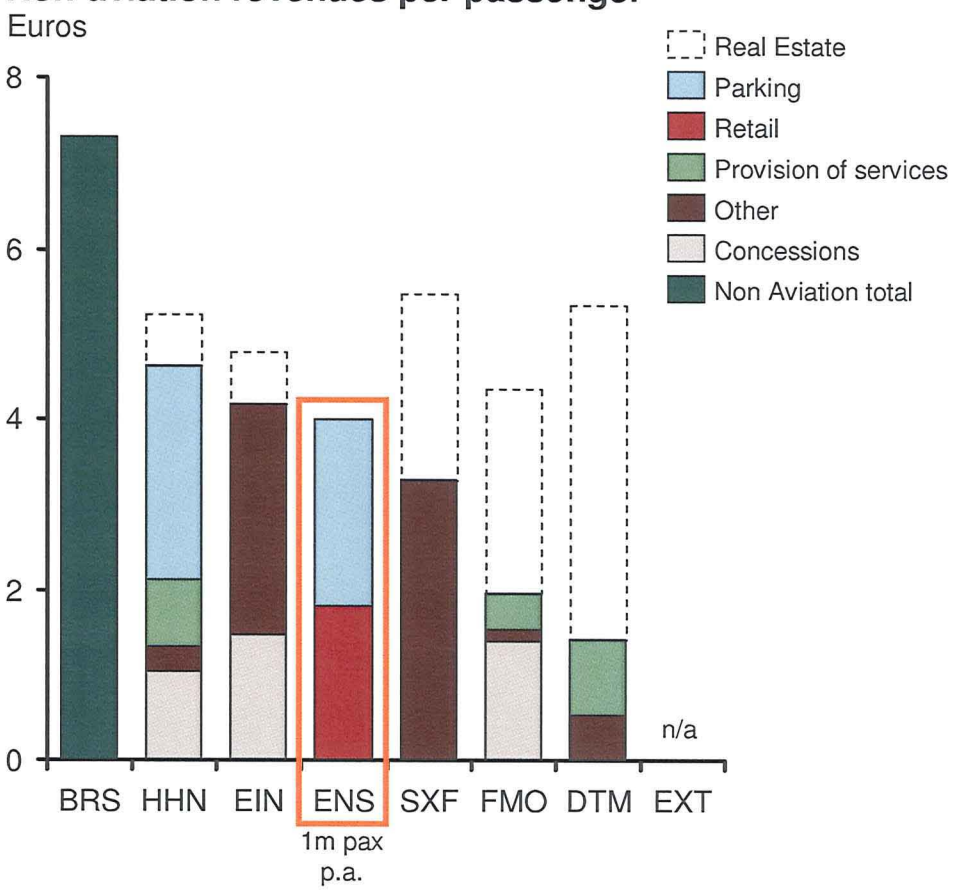
  "… Low-cost carriers are very strong on negotiation with airports to reduce fees due to the number of routes they can bring to an airport …"
  Exeter Airport

The price structure results in aeronautical revenues in line with the low end of benchmarks while non-aviation revenues excluding real estate appear plausible but possibly optimistic

Aviation revenues per ATM



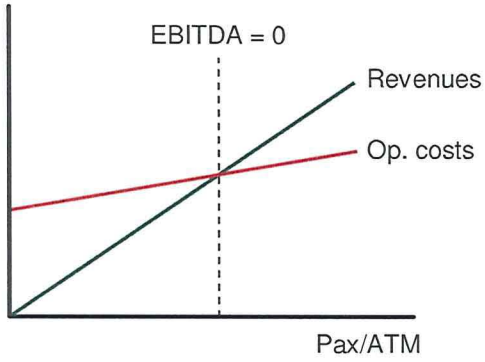
Non-aviation revenues per passenger



Source: Annual Reports; ADV; CAA; ADECS; SPARK; L.E.K. analysis

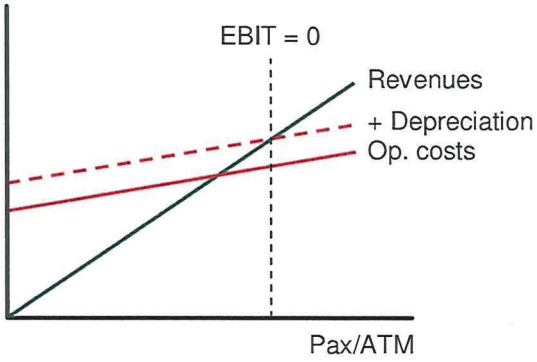
Three breakeven levels can be considered: cash, annual profit and investment (NPV)

Cash breakeven



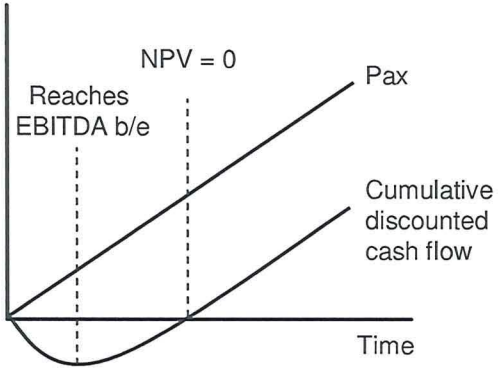
- EBITDA (Earnings before Interest, Tax, Depreciation and Amortisation) reflects the approximate cash cost of operating the business
- A business at EBITDA breakeven will not require an operational subsidy, but cannot pay for investment or finance

P&L breakeven



- EBIT (Earnings before Interest, Tax) reflects the accounting cost of operating, before cost of financing
- A business at EBIT breakeven is sustainable if it has no debt, but provides no return on the investment of its owners

Investment breakeven



- Future cashflows are discounted at the cost of capital to reflect the return a rational investor would expect for the risk of the project
- We have assumed cost of capital (WACC) rate levels
  - 5%, to reflect a public sector investment
  - 10%, to reflect a stable commercial operation
  - 15% to reflect a higher-risk commercial operation

We have used the cashflow model to estimate breakeven levels to help to frame the demand analysis

Break-even Passenger numbers (millions of passengers in 2020)

	Base case	Regional jets	LCC case
EBITDA Break-even	650,000	300,000	900,000
EBIT Break-even	950,000	470,000	1.3m
NPV Break-even (WACC 5%)	1.8m	920,000	2.5m
NPV Break-even (WACC 10%)	2.4m	1.2m*	3.4m
NPV Break-even (WACC 15%)	3.0m	1.6m*	4.5m

A commercial investor may realistically require rates of return in excess of 30% for an investment with such a risk profile

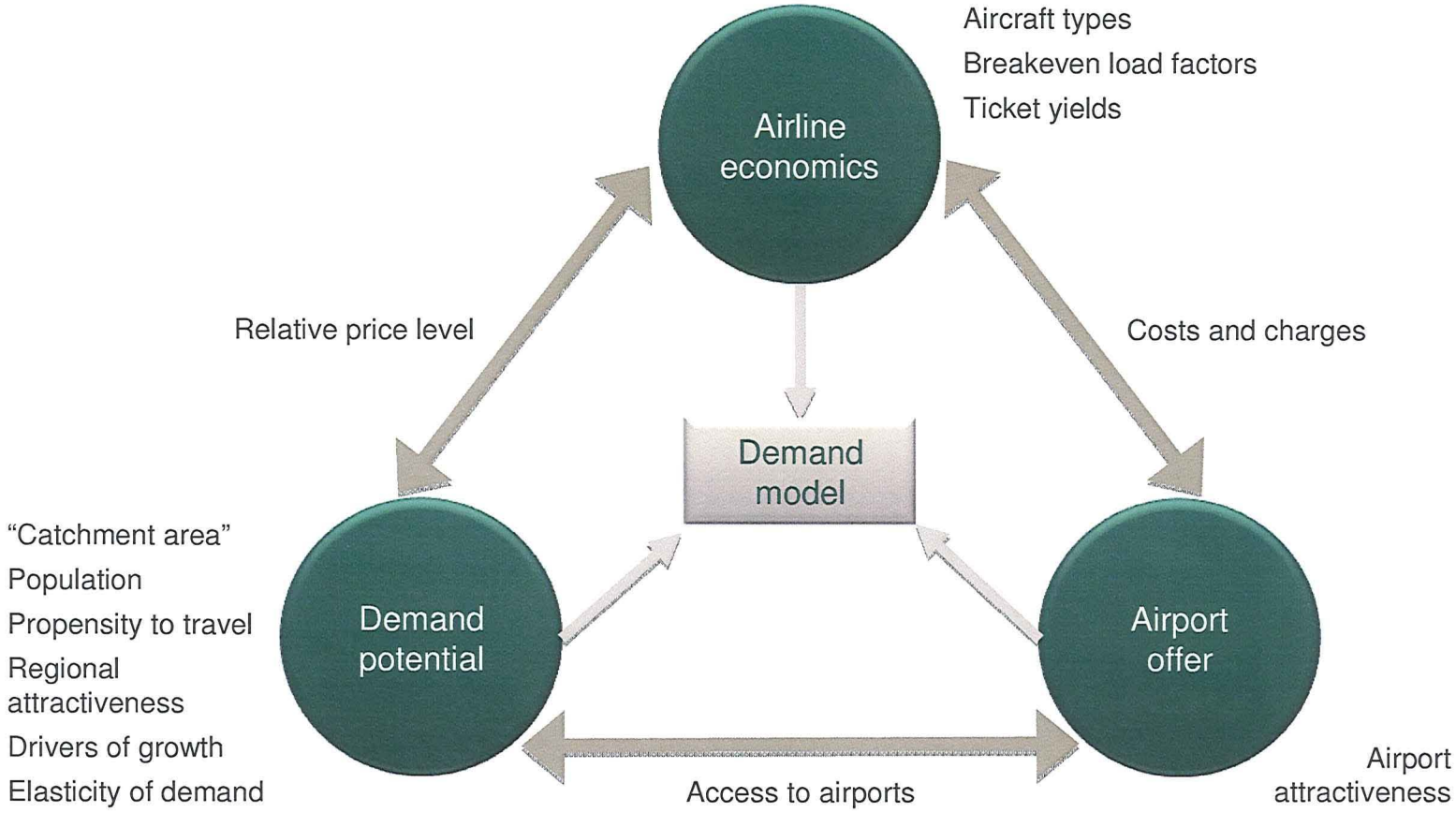
Note: *These numbers imply the terminal will be operating beyond design capacity, like a number of airports (e.g. LHR) currently do
Source: ADECS, SPARKS, L.E.K. analysis

L.E.K.

Agenda

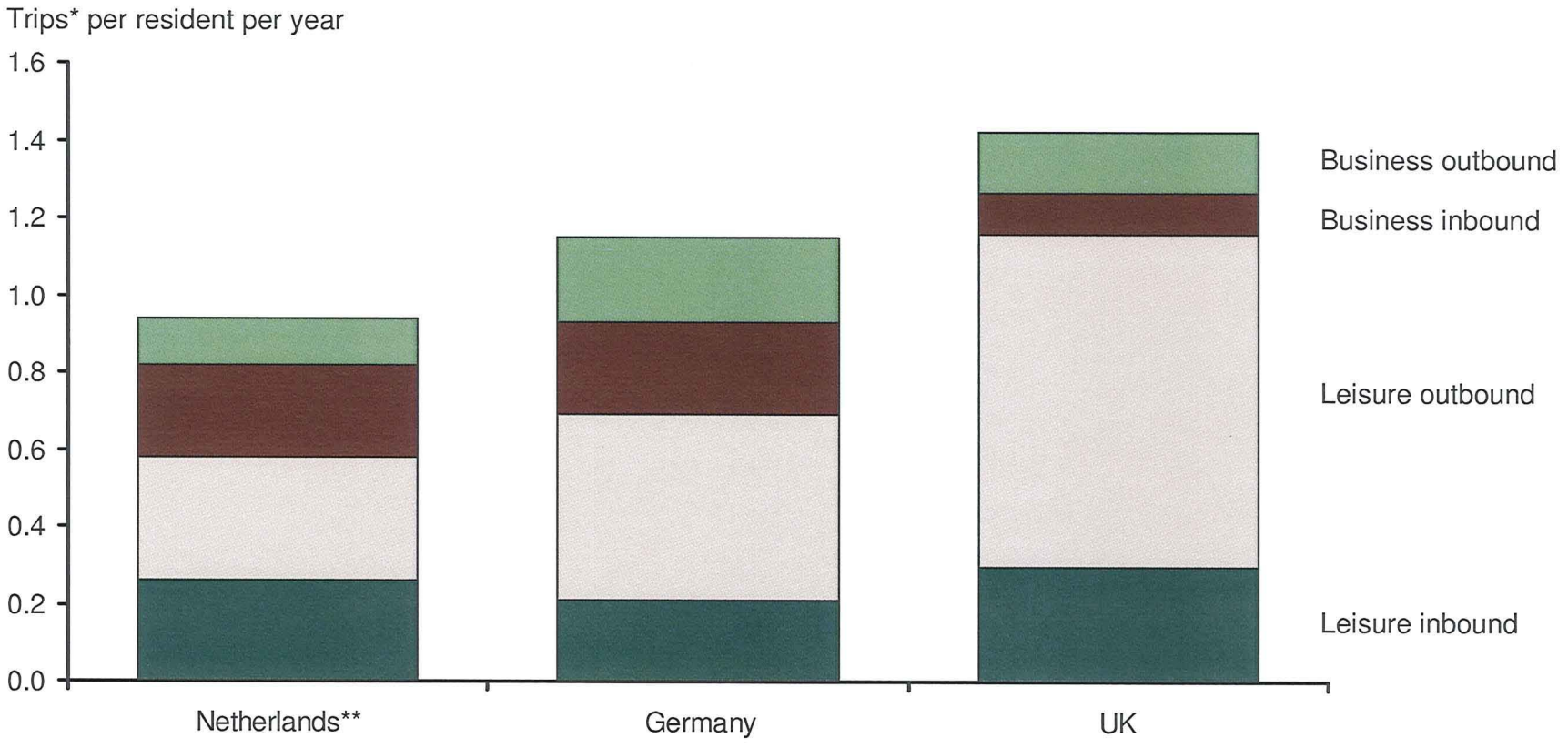
- Introduction
- Current situation at Twente airport
- Airport growth and development
- Economic feasibility requirements
- Demand potential
  - context
  - base case forecast
  - other scenarios
  - potential opportunities and threats
- Conclusions
- Appendices

The approach to demand modelling recognises the inter-relatedness of the regional demand potential, the offer of (each) airport and the requirements of the airlines' economics



Propensity to fly is around 1 trip p.a. in the Netherlands and 1.2 trips in Germany, compared to 1.4 in the UK

Propensity to fly

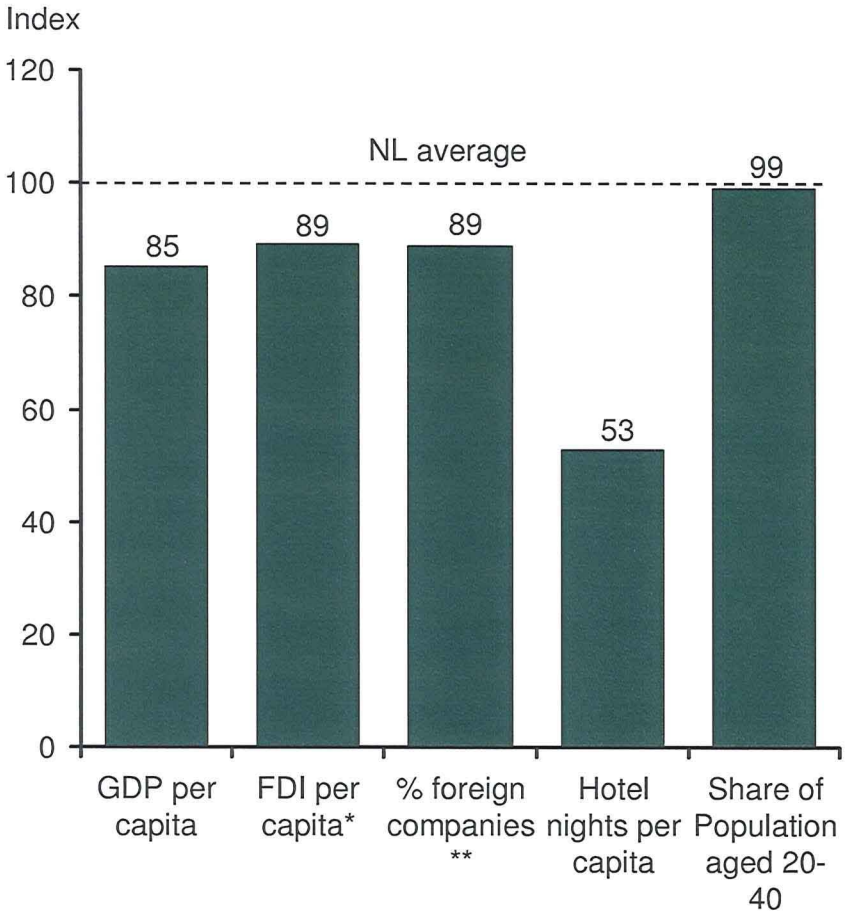


Note: * Equals half of flights, as one trip usually includes inbound and outbound flight; ** our model assumes a mix between purposes specific to each municipality, based on the Schiphol passenger survey

Source: CBS; Schiphol passenger survey; destatis; Statistics office UK; L.E.K. interviews and analysis

Overall propensity to fly in the catchment area of ENS is likely to be similar to that of the Netherlands overall, given the region's characteristics

Key regional measures - Overijssel

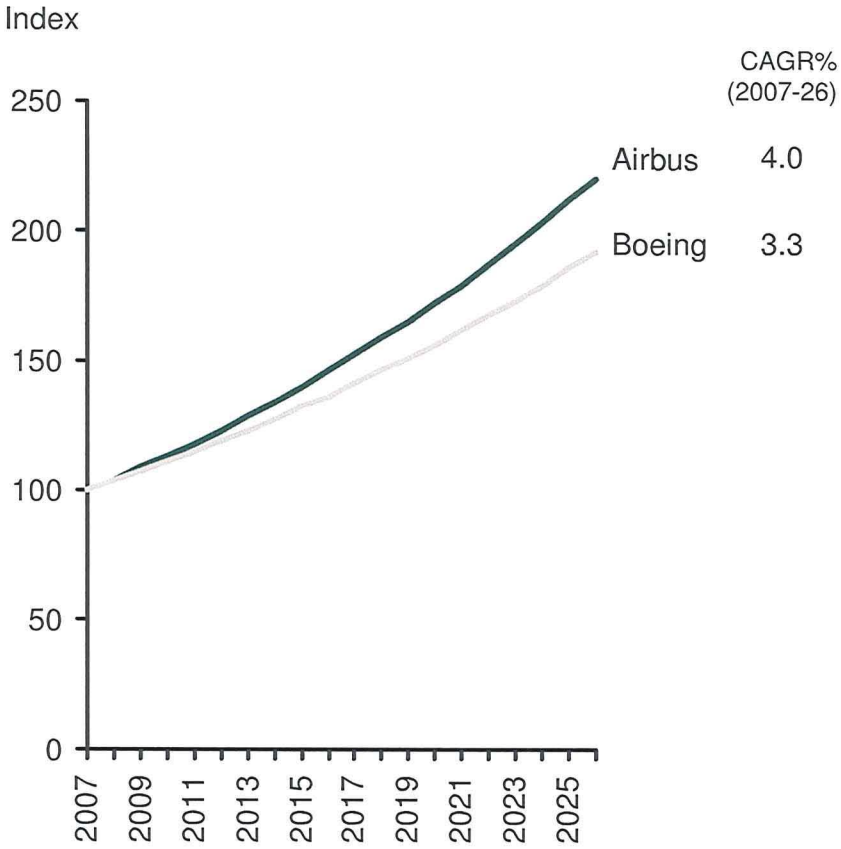


- Twente has a strong heritage of materials (textile industry)
  - various collaboration platforms between the university and businesses exist and the region is keen on enforcing these to promote Twente as a 'material valley'
  - the industrial community is also focusing on the '3M' concept (materials, maintenance, and megatronics)
- Twente University has over 8000 students of which almost 10% are foreign
  - the university is at the forefront of research areas such as nanotechnology, process technology, engineering, information & communication technology, and the biomedical sciences
  - this has fostered growth in high tech with 600 spin-off companies; more than any other Dutch university
- In addition, Twente is considered to have one of the most attractive natural landscapes in the Netherlands

Note: *Foreign Direct Investment (For Eastern Netherlands); **For the region Twente specifically
Source: CBS; Twente Index 2007

Air travel in Europe is forecast by aircraft manufacturers to grow at 3% to 4% p.a. over the long term, driven mainly by higher propensity to fly as incomes rise

Growth in air travel in Europe (forecast)



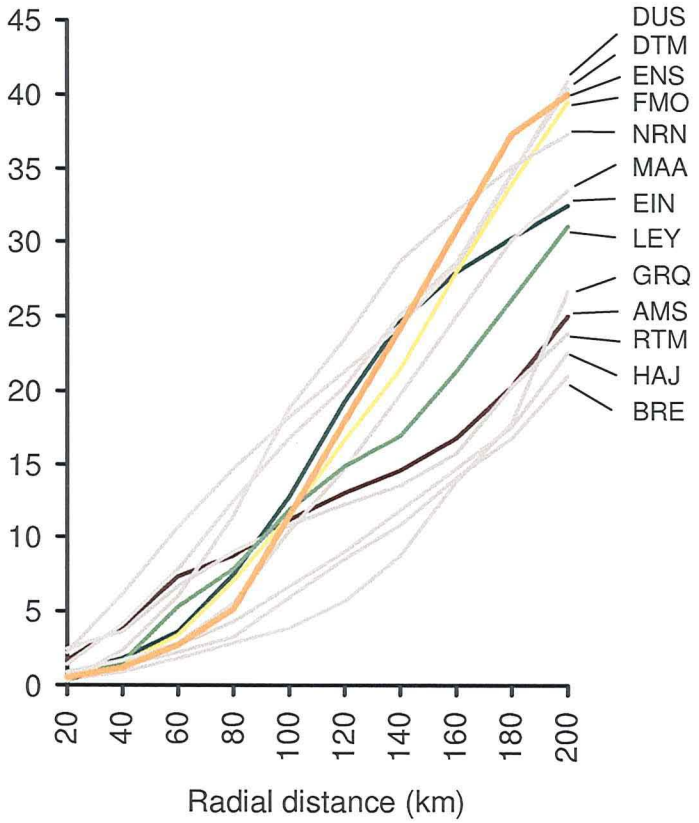
- Market participants we have spoken to were generally positive about the prospects for travel growth
  - "...The air travel market in Europe has experienced stable growth at around 5-6% per year and I expect the market to continue growing in the foreseeable future ..."
    easyJet
  - "...As a general rule in the aviation industry, air travel grows by twice the rate of GDP growth and I expect this pattern to continue ..."
    easyJet
  - "...The growth of overall wealth, particularly in the lower and middle classes, has been a primary driver of the growth in air travel ..."
    Jet2.com
- Airbus And Boeing base their forecast on different passenger sub-markets, segmented according to their degree of maturity and specific characteristics over time, they also incorporate views on the drivers of transportation (such as future consumer behaviour and expectations, the pace of liberalisation, modal competition, the growing importance of emerging markets) and on constraints (such as the influence of airport congestion)
  - there 'central core' forecasts do not take account of possible structural changes such as increased [carbon and other] taxation, terrorism and security, possible recession and competing technological advancements

Source: Airbus - Global market forecast 2007-2026; Boeing - Current market outlook 2007; L.E.K. interviews

Approximately 2.4m people live within a one hour drive time from Twente airport

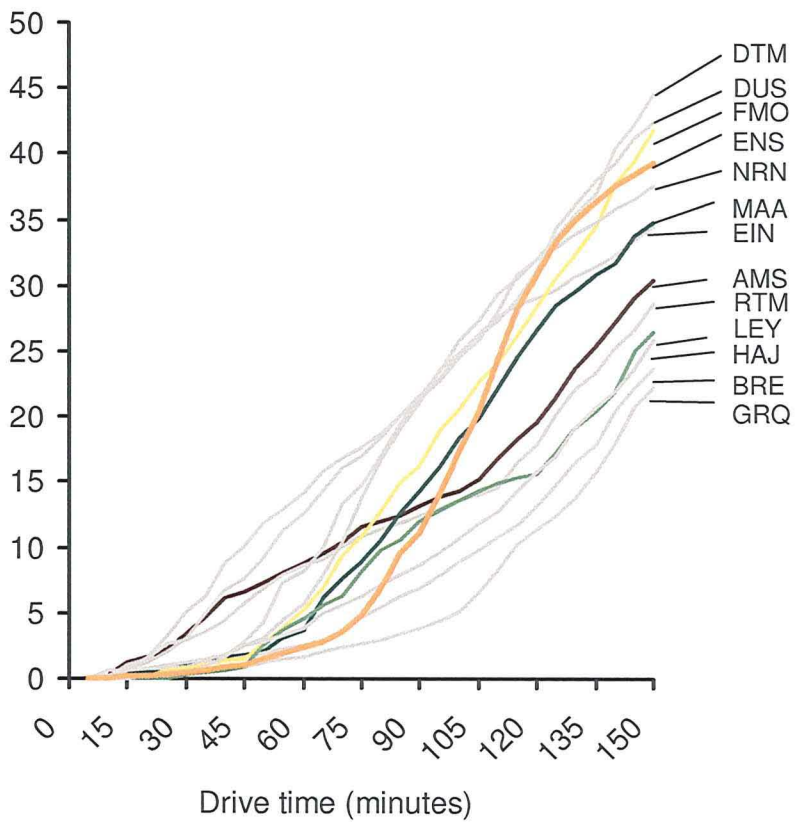
Catchment area of key airports (km)

Cumulative population (millions)



Catchment area of key airports* (minutes time)

Cumulative population (millions)

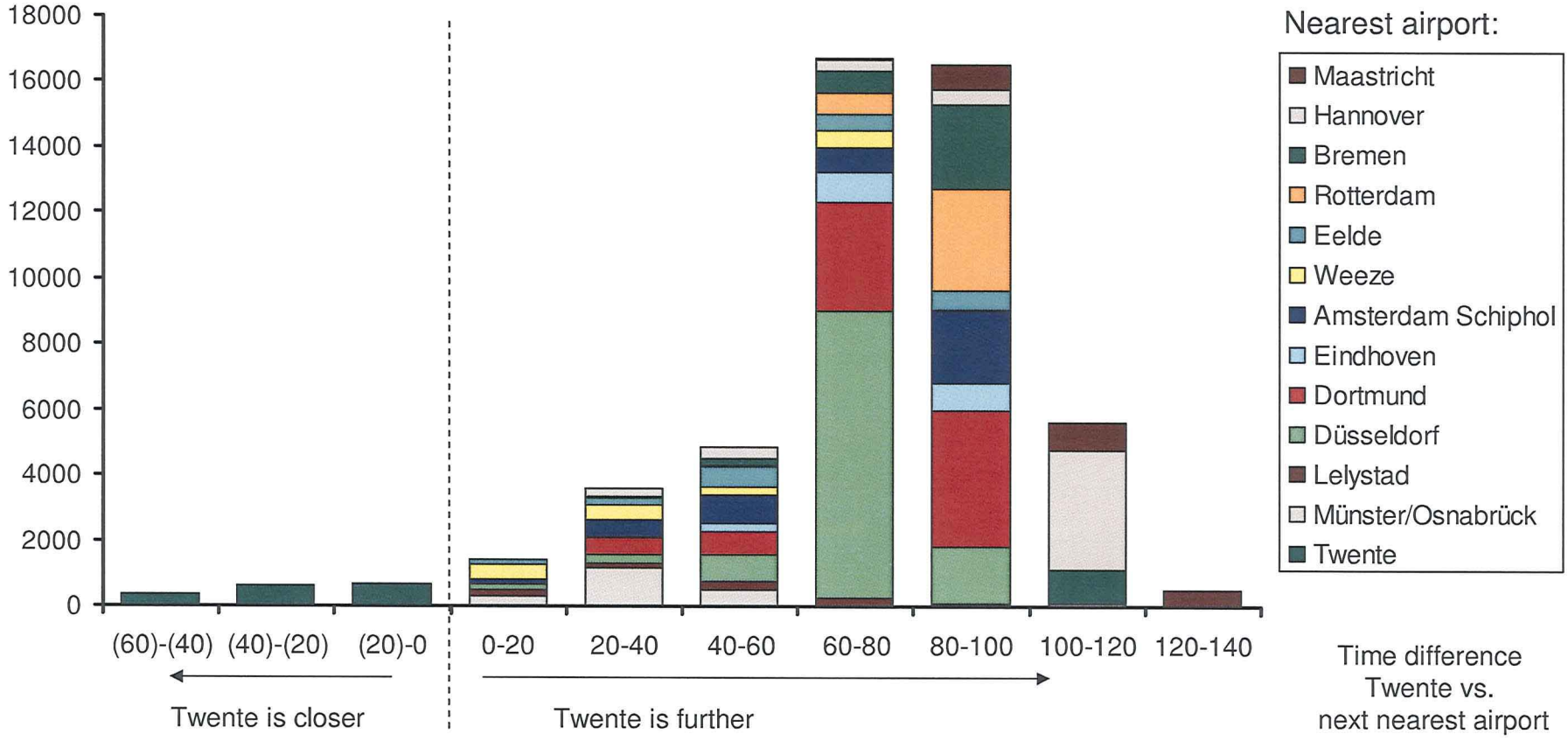


Note: * Constrained analyzed (ENS-relevant) area only
Source: MapInfo; destatis; CBS; L.E.K. analysis

Twente is closer than any other airport for 1.6m people

Convenience of Twente vs. other airports – difference in drive time

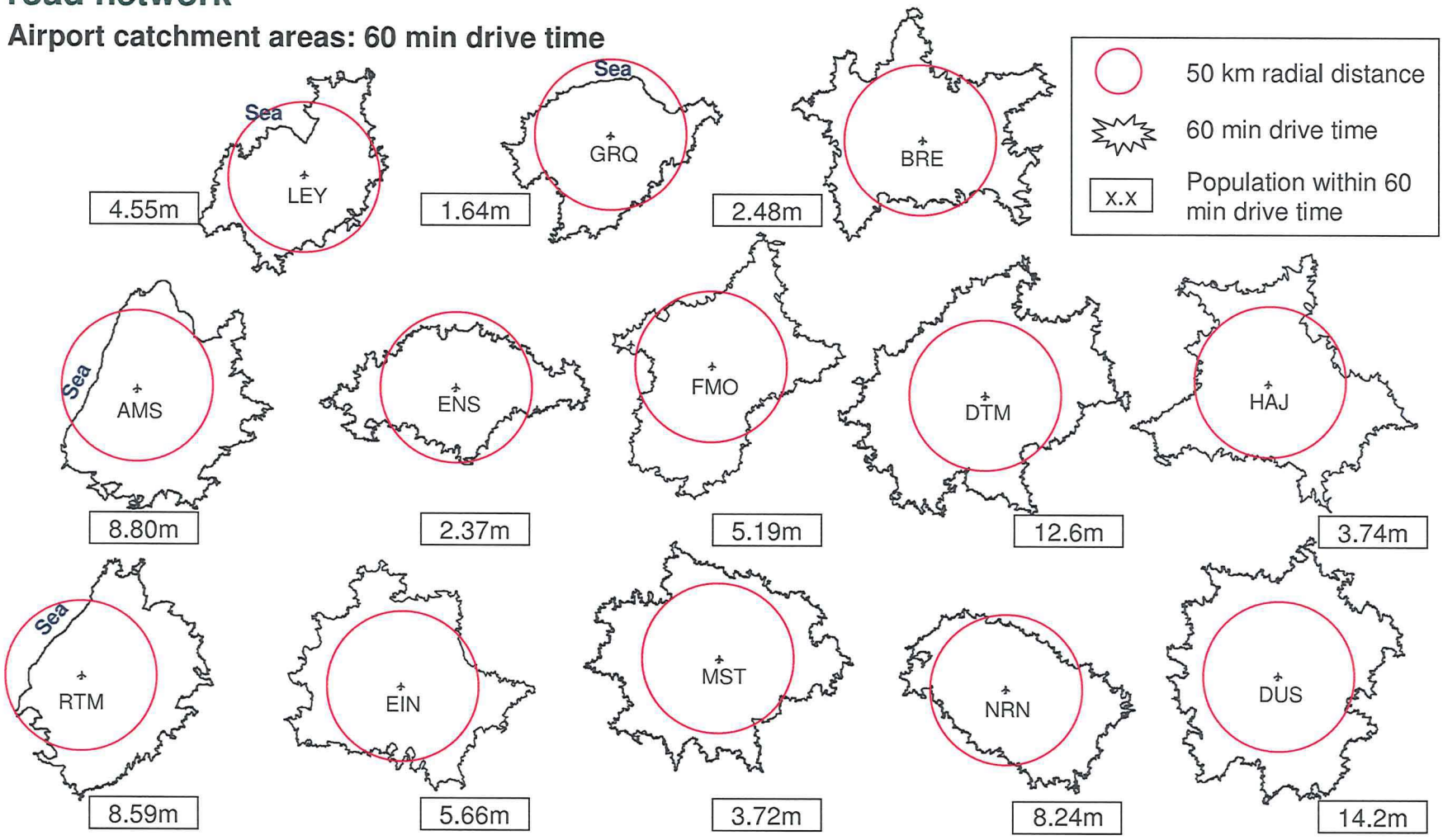
Population (Thousands of persons)



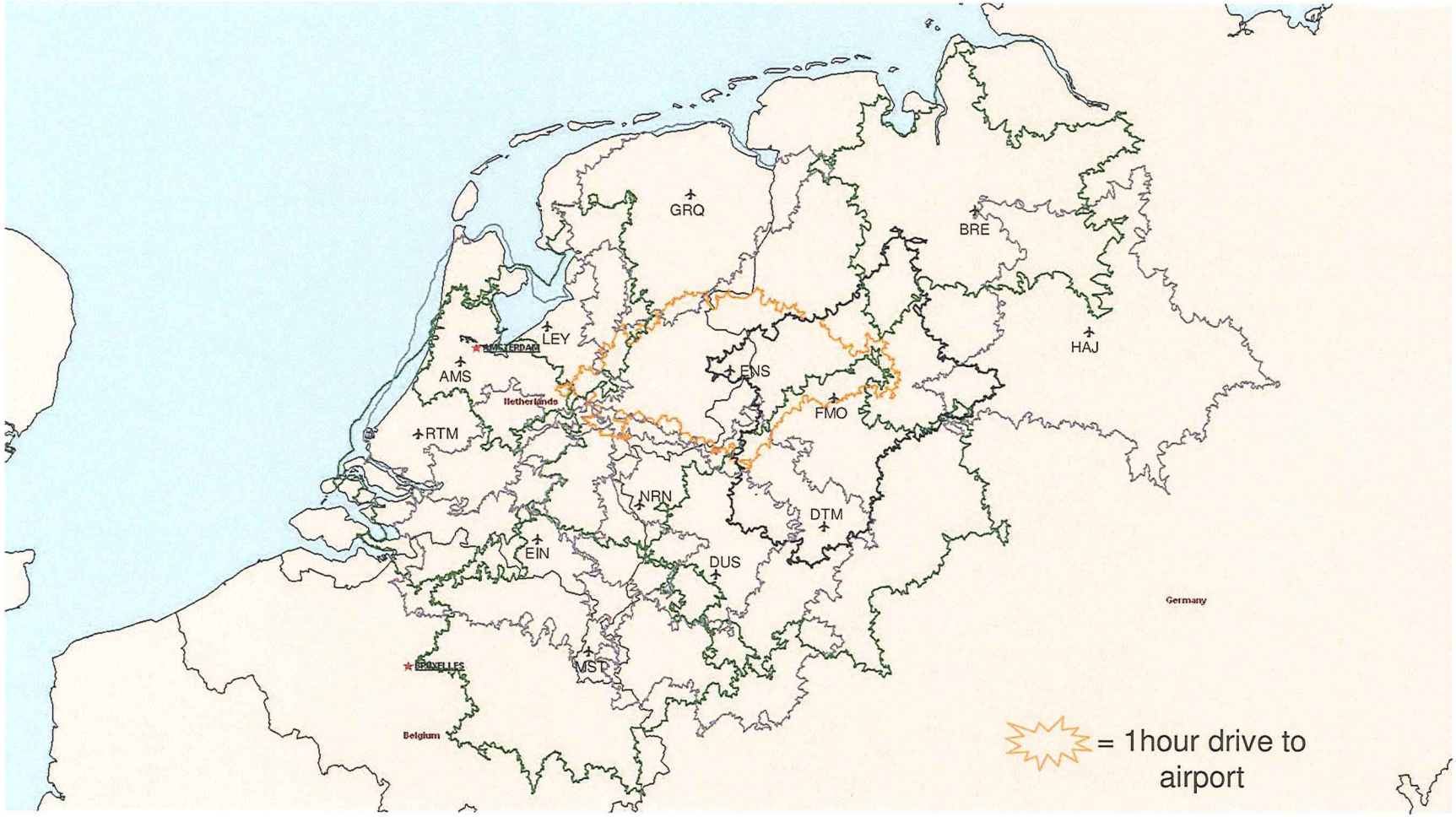
Source: MapInfo; CBS; Destatis

Twente Airport's 60-minute-drive catchment area is at the low end of its competitive set, and largely to the East and west as a consequence of the nearby road network

Airport catchment areas: 60 min drive time



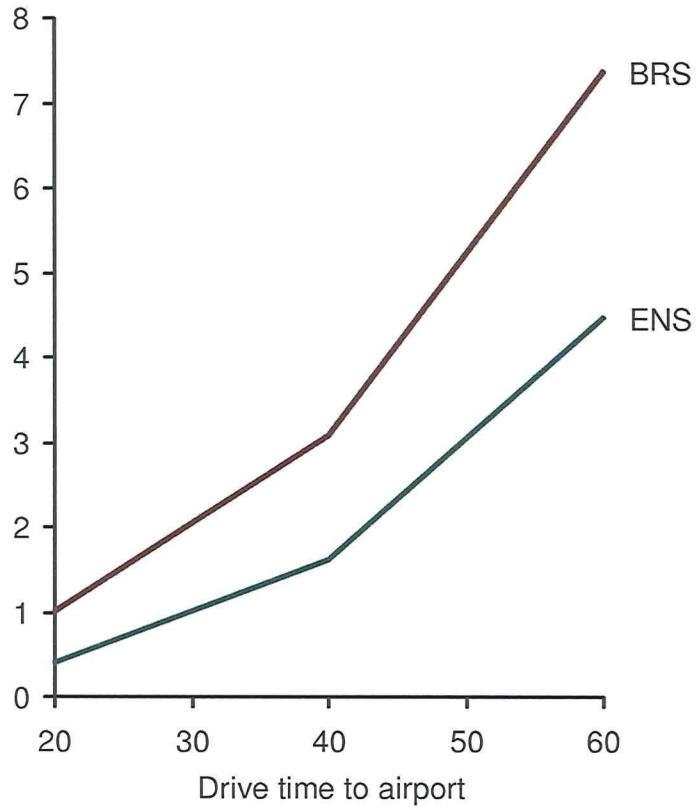
Residents of the wider region around Twente have a choice of airports to fly from, and many have more than one airport within an hour's drive



Bristol's one-hour catchment area generates 1.65 times as many trips as Twente's

Annual passenger trips generated from catchment area

Millions of pax



- The number of annual trips generated from the catchment area was calculated using
  - the number of people living within the respective catchment area
  - multiplied by the propensity to travel for the UK and Netherlands respectively to give the number of annual trips (multiplied by 2 to give the equivalent number of terminal passengers)

"… Our catchment area is about 7 million people within a 2 hour drive. It seems to be increasing, we even get people from South Wales because the product offering at Cardiff is so bad …"

Bristol Airport

- Growth is expected to slow as the airport matures, to the benefit of other airports in the area

"… The 'central scenario' assumes a new runway at both Stansted and Heathrow (in that order) and predicts that Bristol would reach 7.2m passengers at 2015 and 11.6m passengers at 2030. This represents a compound average annual growth rate of 4.1% from 2003 compared with an average annual growth rate of 13.8% at Bristol over the past ten years …"

Extract from Bristol Airport Masterplan, Nov 2006

"… We have seen growth in passenger volumes of around 200% over the last five years. This is faster than Bristol in percentage terms …"

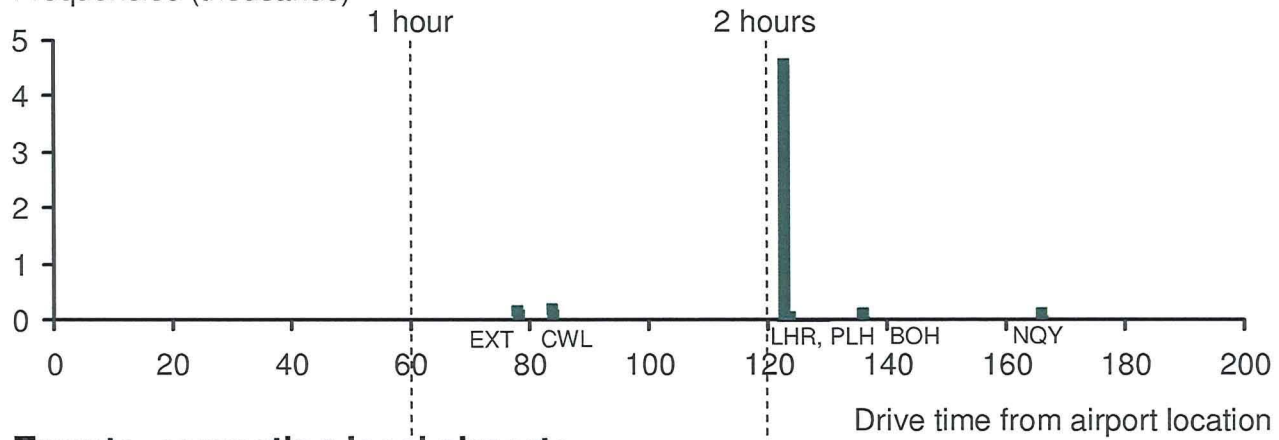
Exeter Airport

Source: Mapinfo; destatis; CBS; Statistics office UK; L.E.K. analysis; L.E.K. interviews

Twente airport faces considerably more competition than Bristol airport

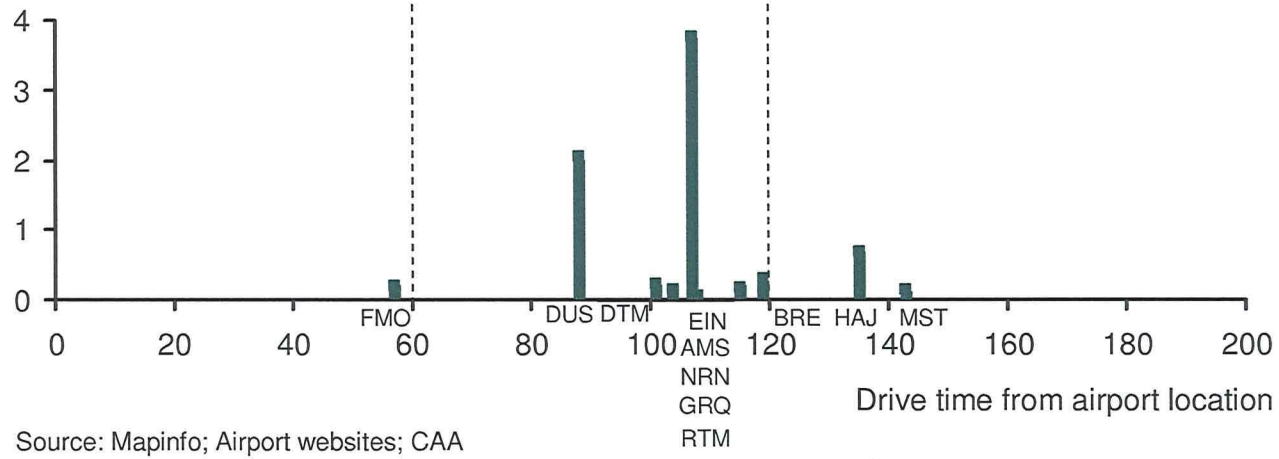
Bristol, competing local airports

Frequencies (thousands)



Twente, competing local airports

Frequencies (thousands)



Source: Mapinfo; Airport websites; CAA

"... I would say that 80% of our passengers live within 50km drive, however, this is changing as we are offering more inter-continental flights, which enlarges the catchment area... We have also been successful in attracting Dutch passengers ..."

Düsseldorf Airport

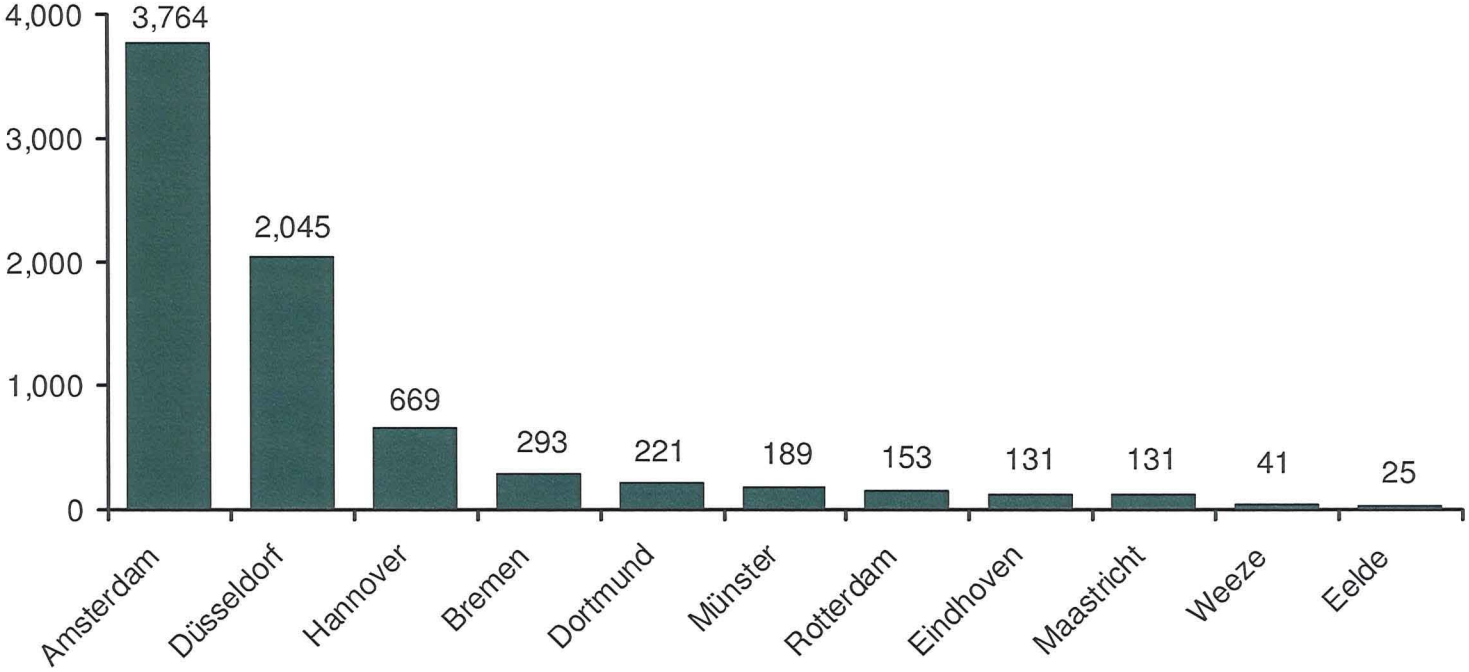
"... If there is one thing we are not short of in this area, it is airports ..."

Münster/Osnabrück Airport

Several airports competing with Twente, most notably Amsterdam and Düsseldorf, offer a wide range of destinations and frequencies

Offer of key airports – frequencies and destinations*

Frequencies per week



267^	188	260	57	69	56	20^	20^	2^	22	2^	Number of destinations (directly served)

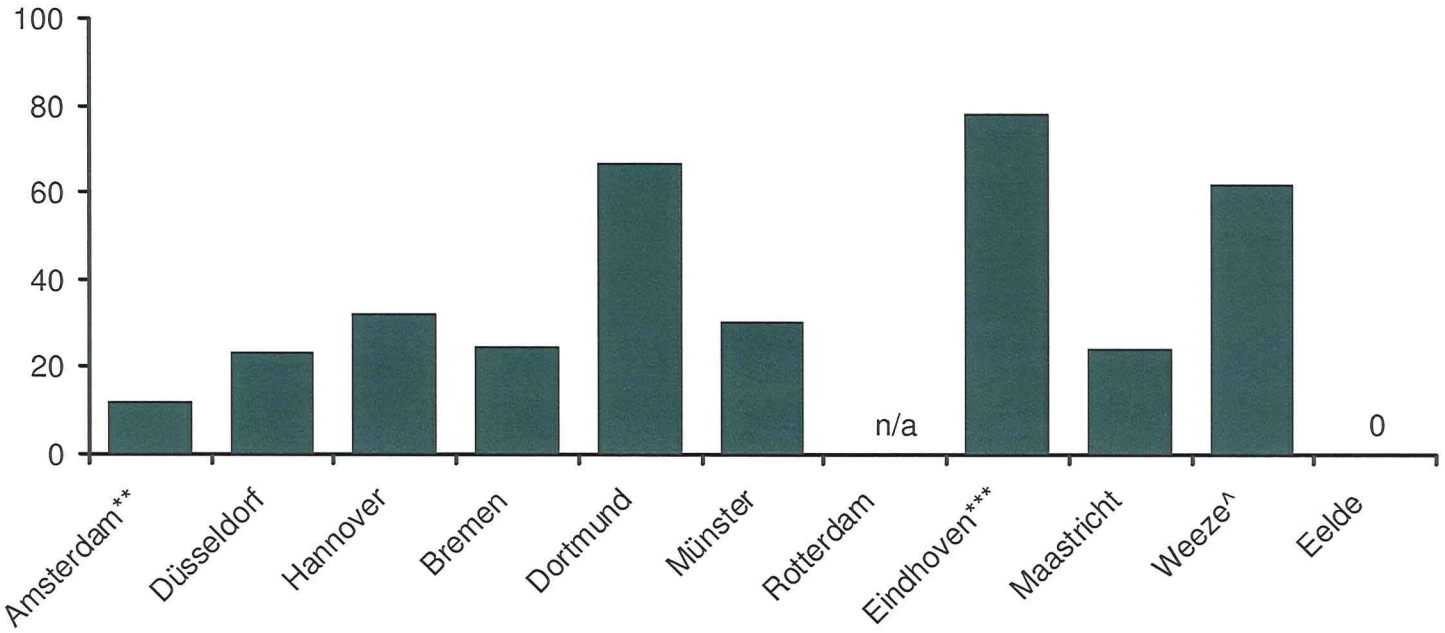
Note: * in this context, longhaul and shorthaul frequencies are equally attractive, as a shorthaul flight to a hub offers the option on a variety of longhaul flights; ^ Scheduled routes only

Source: Eurostat; ADV; CBS; Airport annual reports; Airport websites

At several airports competing with Twente there is also an attractive low cost offer

Low cost offer at key airports (2007)*

LCC passengers as a percentage of total



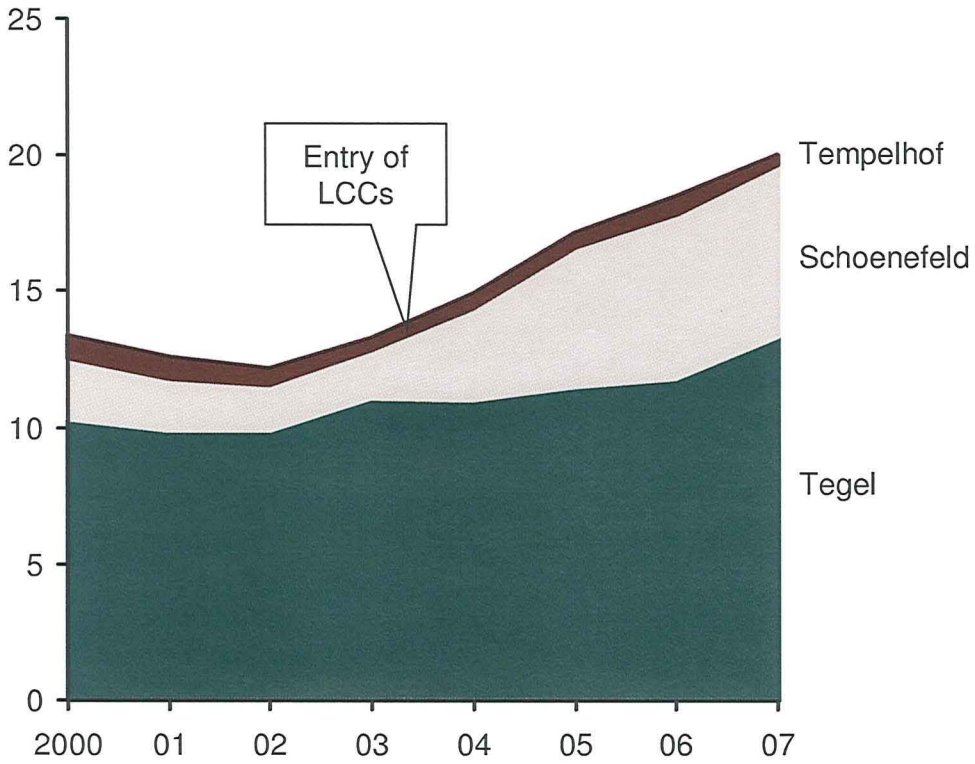
	34	47	47	10	24	29	66	10	n/a	10	n/a	Cheapest direct single fare to London, STN (2nd/3rd June 08) in Euros incl. taxes

Note: *German airports based on passengers numbers for H1 2007; **LCC ATMs as percentage of total; *** Estimated 2006;
^ Percentage estimated using total 2007 pax numbers
Source: ADV; Annual Reports; Airline Websites; L.E.K. interviews

Propensity to fly can increase if there is an attractive low cost carrier offer

Impact of LCC entry on the Berlin air travel market

Millions of passengers

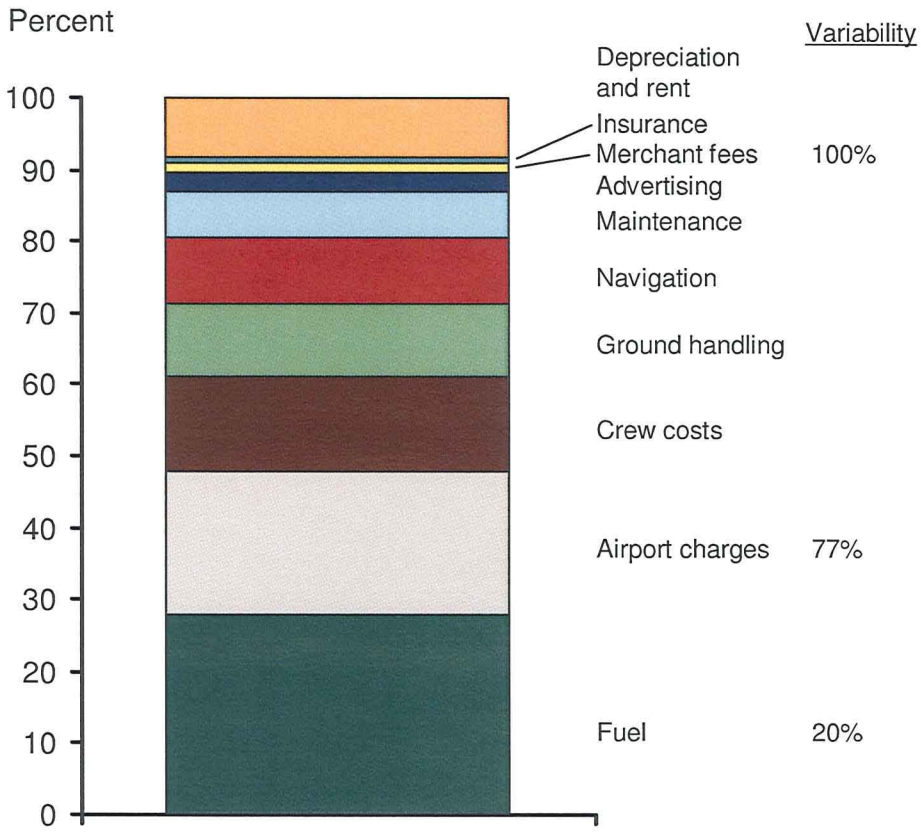


- Below a certain price point, a flight competes with other forms of entertainment (e.g., a night out) for share of wallet
- Cheap flights therefore do increase the propensity to fly (instead of drive, go out, etc.)
- Airlines estimate up to 25% of demand on a new route is stimulated demand
  - "...With marketing efforts we might expect to see 25% growth on our initial figures..." Stirling
  - "... Probably 20 to 25% of volume for a new route is newly generated demand..." Flybe
- In the UK, the number of seats on LCCs grew by c.17% from 2006 to 2007 compared to c.10% for all passenger flight operations

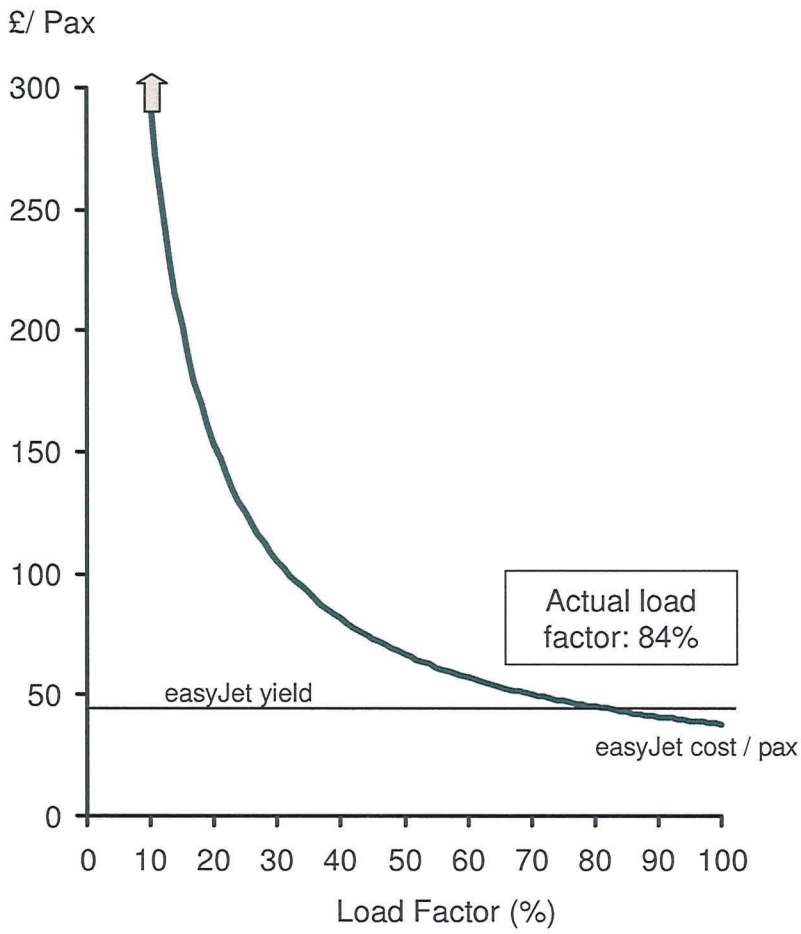
Source: ADV; OAG

The majority of an airline's operating costs are fixed for any given flight, so the impact of load factor on profitability is significant

Airline cost structure (example: easyJet)



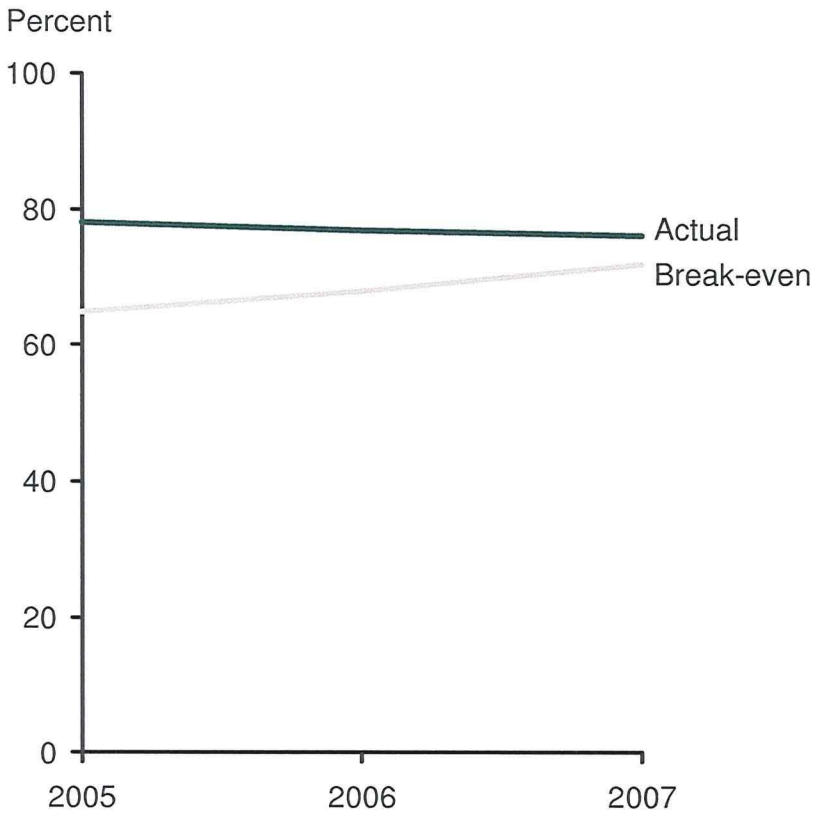
Load factor impact (Illustrative)



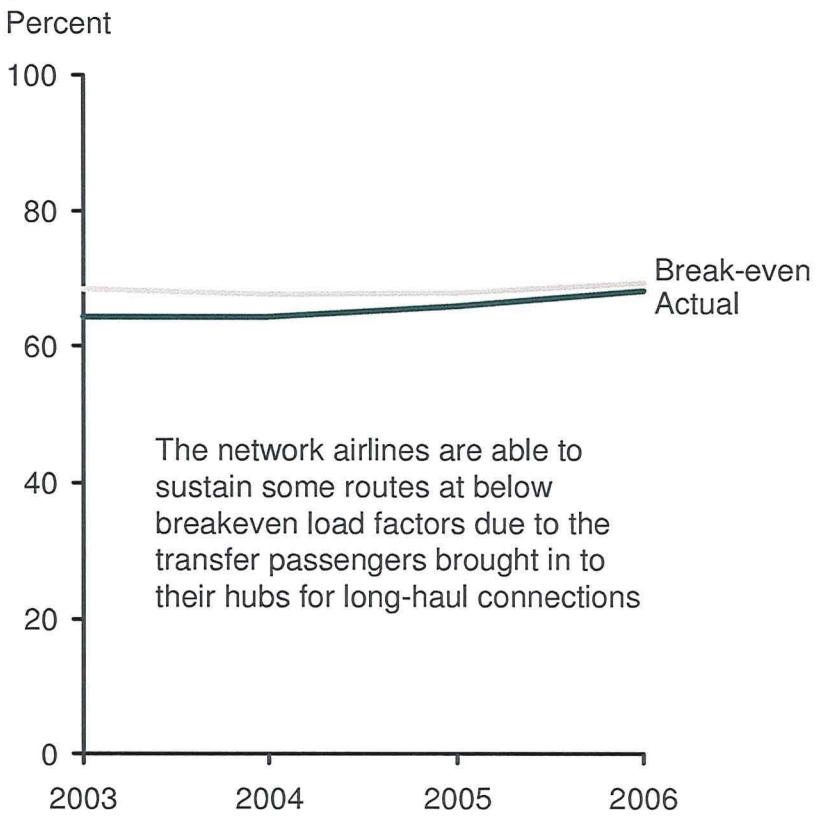
Source: Company financials; L.E.K. analysis

While Ryanair has been consistently achieving load factors in excess of break-even, many airlines have limited profitability

Ryanair average load factor



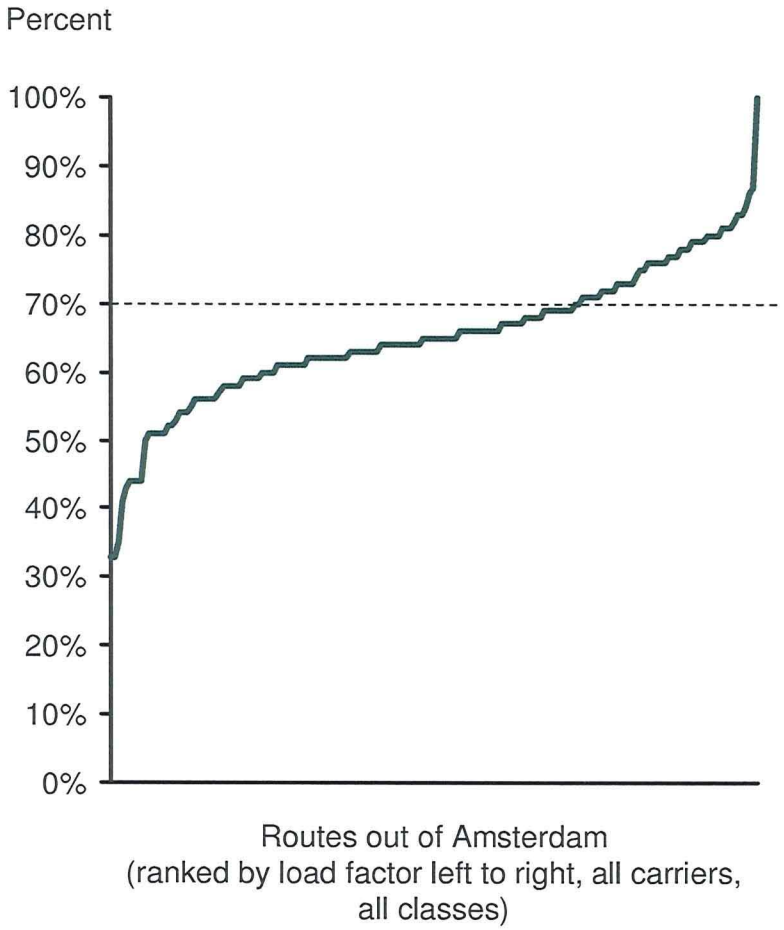
Full-service Network European Airlines (short-haul load factor*)



Note: *Adjusted to represent passenger load factor (excluding cargo)
Source: Company financials; Association of European Airlines; L.E.K. analysis

Airlines usually require load factors of around 70% for a route to be profitable

Average annual load factor by route ex-AMS (2007)

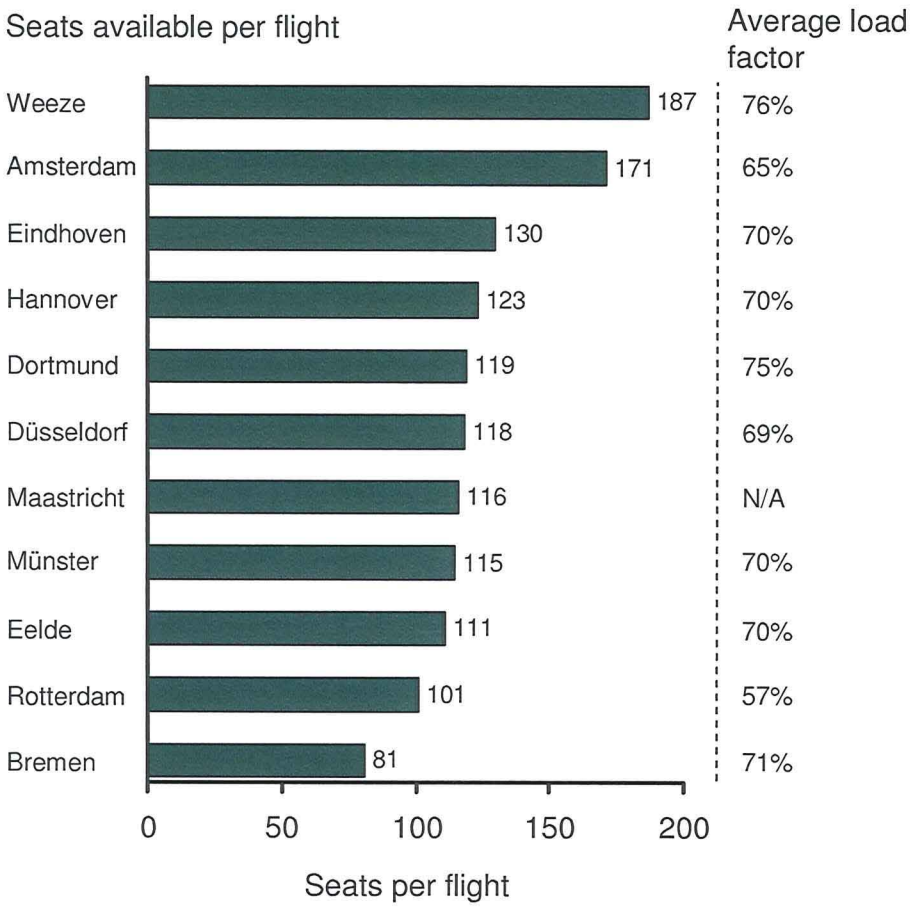


Source: Eurostat; L.E.K. interviews

- Modern yield management systems seek to ensure that the combined yield and load factor is sufficient for the average flight to be profitable
- 70% is generally considered to be a good "rule of thumb" for a viable route
- If a route has a high share of high-yield business travellers, the load factor requirements are lower
  - "... Business is different to leisure ... for business, we expect 60-70% load factor but we also have a few low frequency leisure flights that have a much higher load factor ..."
    Flybe
- LCCs work with higher load factors and lower yields
  - "... For a low cost airline anything less than a load factor of 65% is bad. The annual average load factor must be over 70% in order to break even ..."
    Stirling
- While individual flights can be considerably below 60%, in particular in low season, airlines would expect numbers in excess of that as an expected annual average

Airlines can choose from a range of aircraft sizes to meet demand, although smaller aircraft typically require higher fare yields to overcome higher per-seat flying costs

Average aircraft size



Example shorthaul aircrafts

B737-800 (737 series)

Ryanair: 186 seats
Others: 162-189 seats

A319 (A320 series)

easyJet: 156 seats

CRJ-70 (Regional jet)

Lufthansa: 70 seats

Fokker 50

VLM: 50 seats

Source: Eurostat; ADV; Wikipedia; Airline Websites; L.E.K. analysis

L.E.K.

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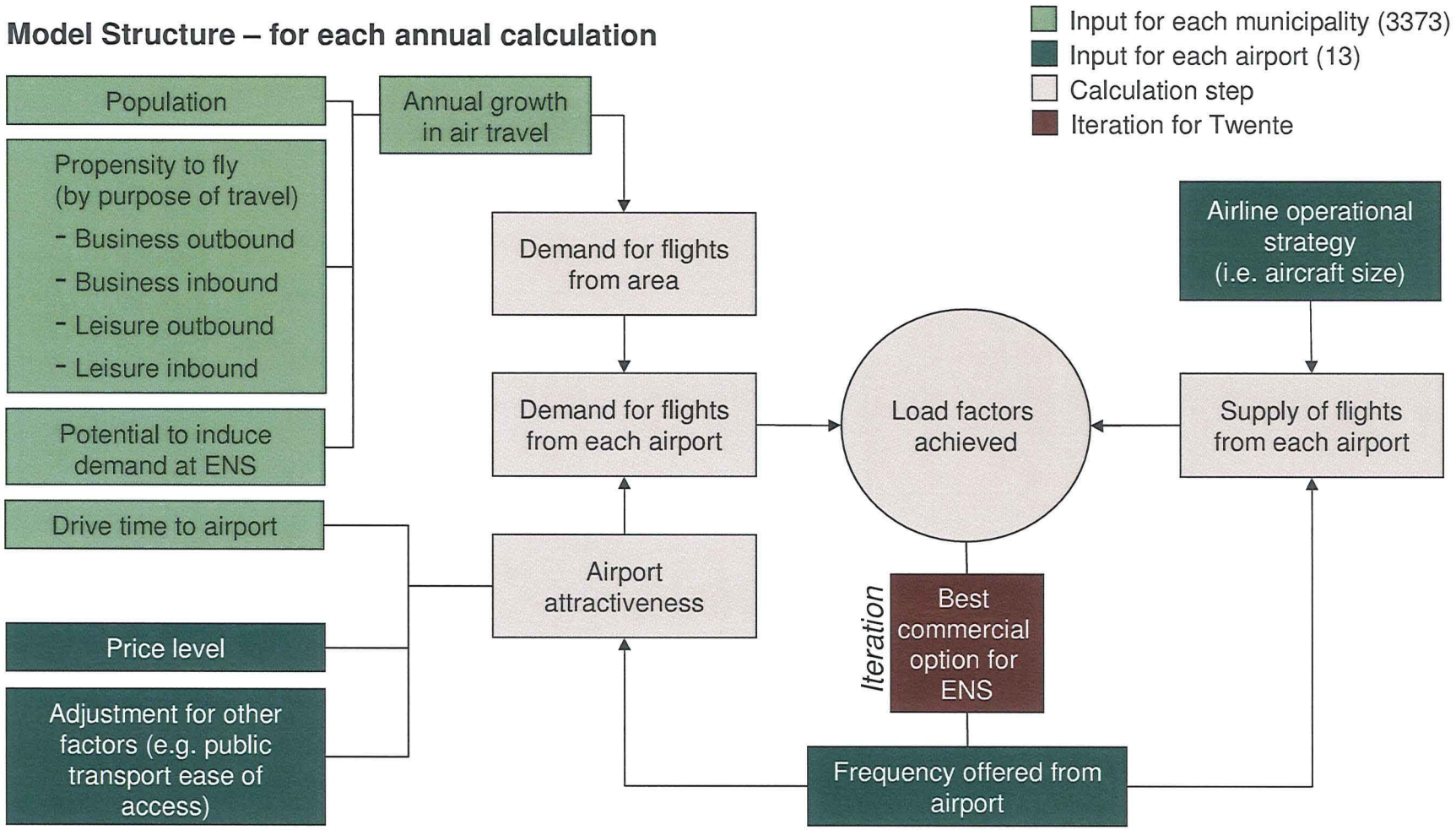
The approach we took to estimate the potential demand for Twente airport reflects the close interaction of supply and demand that characterises the industry

Model Structure – for each annual calculation



Key assumptions and considerations

- The demand model is a decision tool designed to stimulate realistic commercial considerations. As always with such forward-looking analysis, subsequent events that have not been foreseen at this stage may lead to outcomes different to those projected
- Our modelling approach has assumed that, inter alia:
  - passengers choose the airport they fly from on a rational basis, centred principally on the flight offer available, a generalised cost of access (for which drive time is a proxy) and pricing
  - airlines operate in a deregulated, competitive market and make decisions based purely on commercial grounds. In particular, this implies that if a frequency is offered at an airport, there is currently demand to sustain it, otherwise it will be withdrawn
  - "super normal" returns in the competitive airline market (e.g., as a result of fuel price fluctuations) are competed away until a similar equilibrium is reached again
- The model is currently based on the aggregate data sources currently available
  - we would not expect an investment decision to be made on this basis alone
  - as a minimum, the accuracy of the model would be expected to be enhanced if data on actual or reported airport choice behaviour in the area were available, e.g., from a specifically-designed survey
- While following general airport demand forecasting principles (aligned in a simplified form with models used by MinVenW and by the UK DfT), our model is designed specifically to assess the viability of Twente airport; it is not designed as a general airport demand model for the Netherlands.

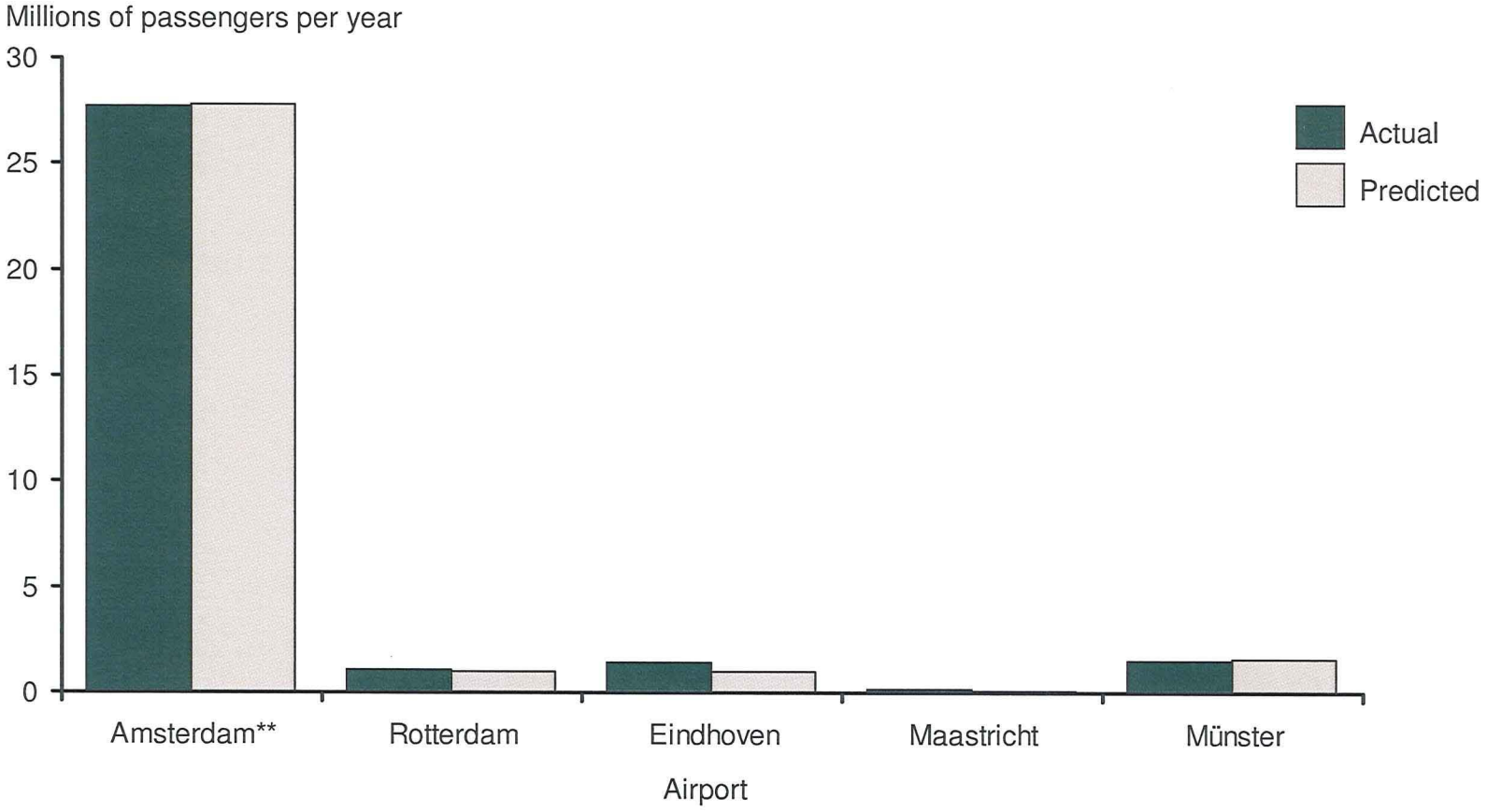
Principal model inputs

Input	Sources and comments
Population	From the national statistical offices of the Netherlands (CBS) and Germany (SBA)
Propensity to fly	National numbers for the Netherland and Germany from CBS / SBA, checked against Schiphol Enquête / Eurostat. Municipality level data could be developed from a survey
Stimulated demand at ENS	Assumption (25%) based on interviews and observed Berlin travel market
Annual growth in air travel	Growth in air travel in Europe forecast by Airbus, checked against Boeing forecast and interviews
Travel time attractiveness	Reciprocal of drive time to the airport, from MapInfo
Price level	Difference in lowest price to London to average of all airports, with and elasticity applied. Checked against LCC share at airport
Flight Offer	Total frequencies offered per week, from Eurostat, checked against airport data and OAG. Tested iteratively for ENS
Adjustment for other factors (e.g. ease of access)	For example, distance to rail station or technical factors
Average Aircraft Size	Average aircraft size from Eurostat, checked against actual fleets of airlines operating at airport

Source: CBS; SBA; Schiphol Enquete; L.E.K. analysis

The model reasonably predicts current demand at existing airports in the Netherlands and Germany without relying on carefully chosen calibration factors

Actual and predicted 2007 demand*



Note: * The relatively larger difference for Eindhoven airport can be explained by the models focus on Dutch and German population and on catchment areas of relevance for Twente airport; ** Non-transit passengers only
Source: ADV; CBS; Airport Websites; L.E.K. analysis

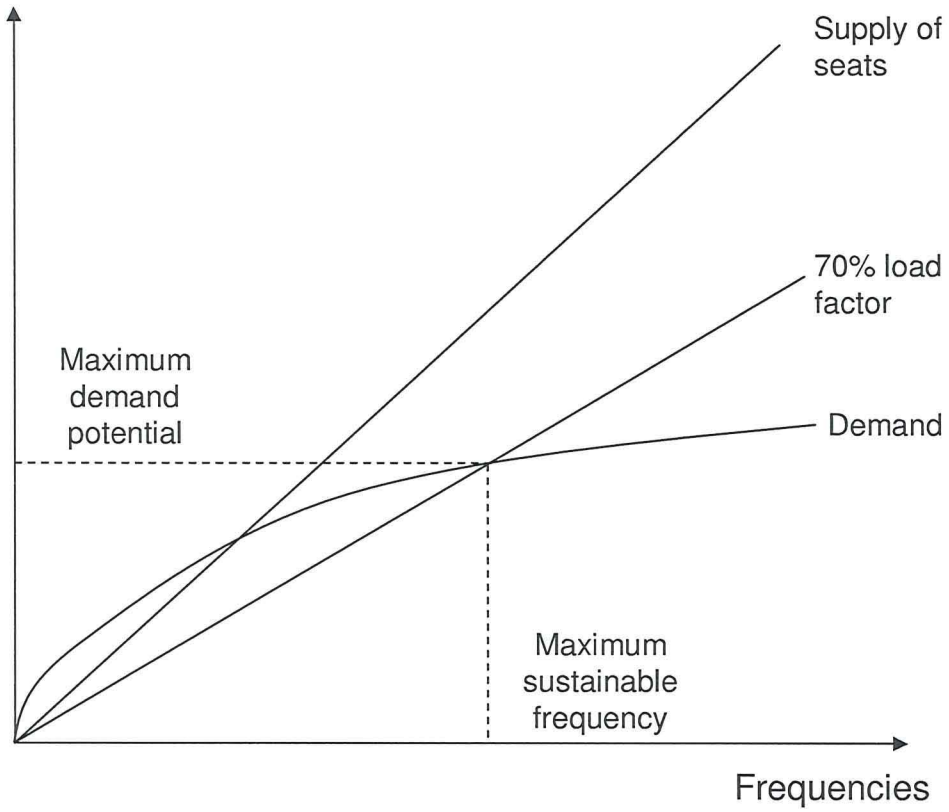
In the base case, we have considered an offer similar to that at comparable regional airports

Key Inputs	Assumptions	Rationale
Type of offer	Mixed LCC, network airlines and charter	Match original vision of a "Bristol" type offer, as well as offer at comparable airports
Minimum Average Load Factor	70% required average load factor	Average at comparable airports, confirmed by airline economic analysis, reported load factors and interviews
Average aircraft size	117 seats per aircraft on average	Median at comparable airports, implying a mix of Boeing 737 / Airbus 320 sizes and regional jets
Pricing	Average pricing	Mix of LCC and full service airlines

Source: L.E.K. analysis

While offering additional flights from an airport increases its attractiveness, the requirement for a minimum load factor limits the number of flights an airports' catchment area can profitably sustain

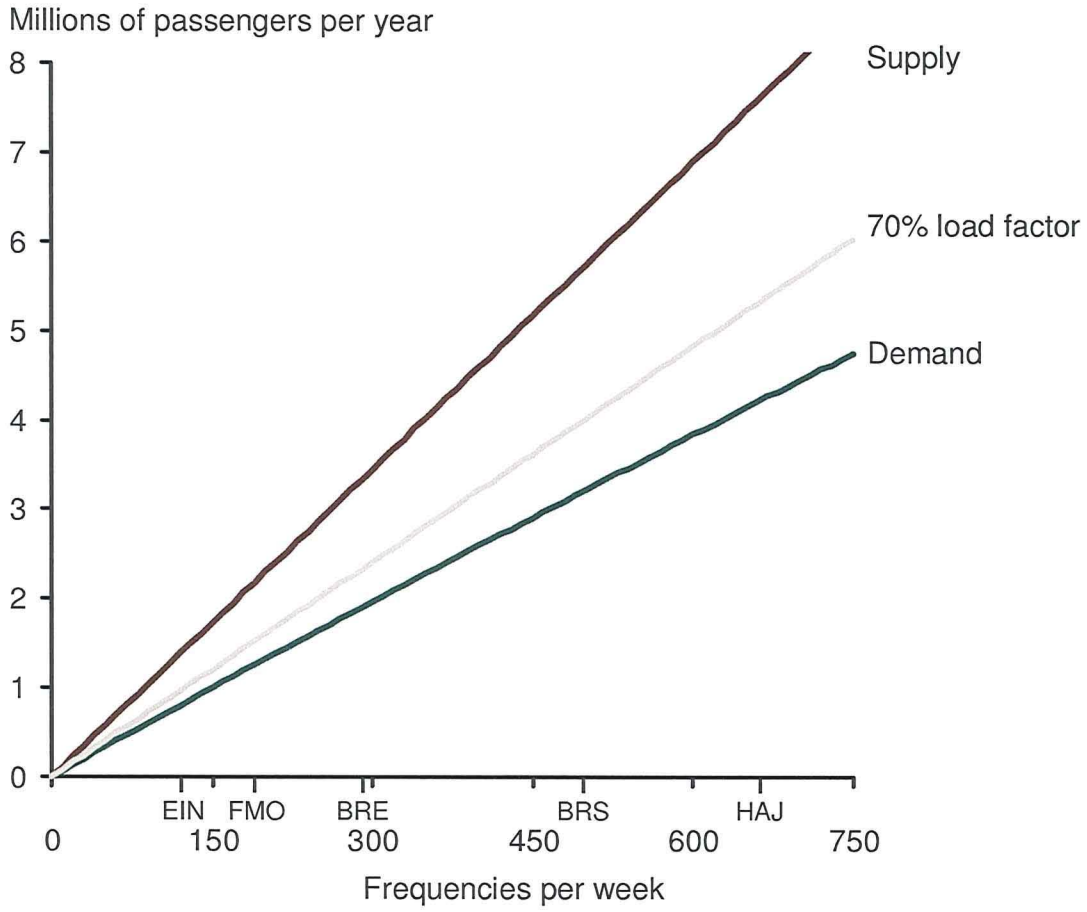
Illustrative theoretical optimum number of frequencies



- Every additional flight offered ads to the attractiveness of ENS vs. other airports
- However, because attractiveness is relative to other airports, the marginal increase in attractiveness diminishes with every additional flight
- At some point, therefore, adding another flight does not draw enough additional passengers for this flight to be profitable
- This process determines the demand potential of ENS given the offer at competing airports
- Lower fares increase the demand potential, but also the required load factor for profitable operations
- Conversely, high-yield passenger flights require lower load factors, but such high-priced flights also attract fewer passengers away from other airports

When forecasting on this basis, demand for travel from Twente airport is insufficient to sustain any frequency of services (with base case assumptions)

Twente airport supply and demand curve (base case)



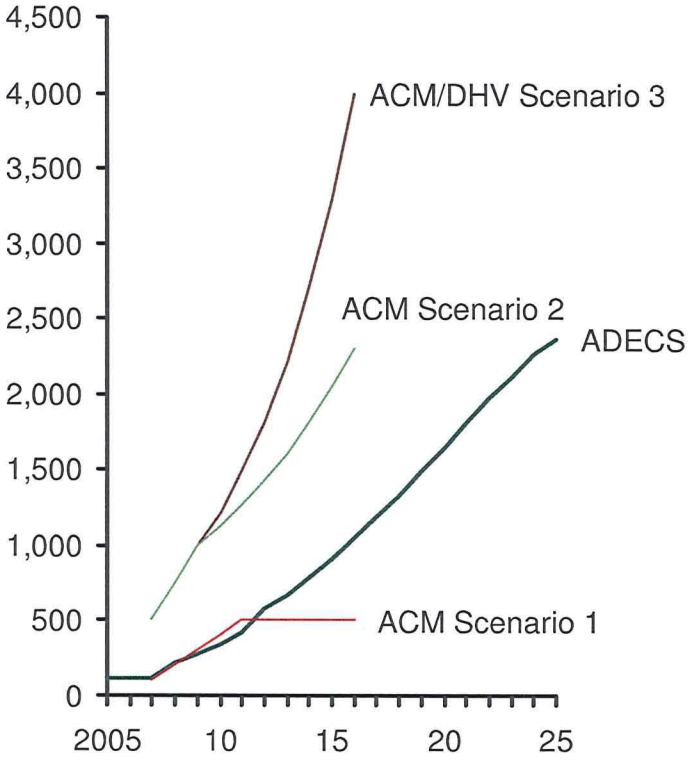
- Passenger demand for Twente airport remains below the required average load factor of 70% for all frequency levels
- This would indicate that, at these assumptions, there is no flight frequency at which Twente can sustain profitable operations
- As a result, demand forecast is technically zero for this scenario
- However the sensitivity of the model to key assumptions, the probability that the scenario could be profitable, and alternative scenarios have also been considered

Source: CBS; SBA; Schiphol Enquete; L.E.K. analysis

Prior forecasting work for VTM estimated demand potential of c.1.5m by 2020 with an upside potentially reaching 4m

Twente airport demand forecasts

Thousands of terminal passengers



- Two previous forecasts took a reasonable if incomplete approach
  - ACM / DHV took a high level view of the air travel market and developed a destination / frequency pattern to match it
  - ADECS reviewed the population and travel demand in the catchment areas, estimated market position based on drive time and used European airports in a similar position as comparatives to take a view on demand
- ADECS in particular noted that this approach does not adequately take into account the attractiveness of the offer relative to other airports
- Competitive airport offers that have not been accounted for in either approch do however, have a determining impact route economics (i.e. it must be profitable for airline to operate the route(s))

Source: ADECS Reference Business Plan, ACM/DHV "Vliegveld Twente"Report, L.E.K. interviews

By flexing the model assumptions we can reproduce an estimate similar to the previous unconstrained demand forecasts, but the required assumptions do not represent commercially viable airline operations

Assumptions consistent with previous forecasts (base case)

Input flexed (other things being equal)	Value consistent with previously forecast demand of		Notes
	4.0m pax p.a	1.5m pax p.a	
Average load factor for the airport	53%	54%	Unrealistically low vs. commercial expectation of 70%
Average available seats per flight for the airport	87	91	Small aircraft require higher yields which: - requires disproportionate number of business passengers and - reduces Twente's attractiveness relative to other airports
Yield (relative to average)	64%	69%	Requires higher load factor to be economic for the airline
Demand Stimulation	900%	700%	Implausibly high

Source: CBS, SBA, Schiphol Enquete; L.E.K. analysis

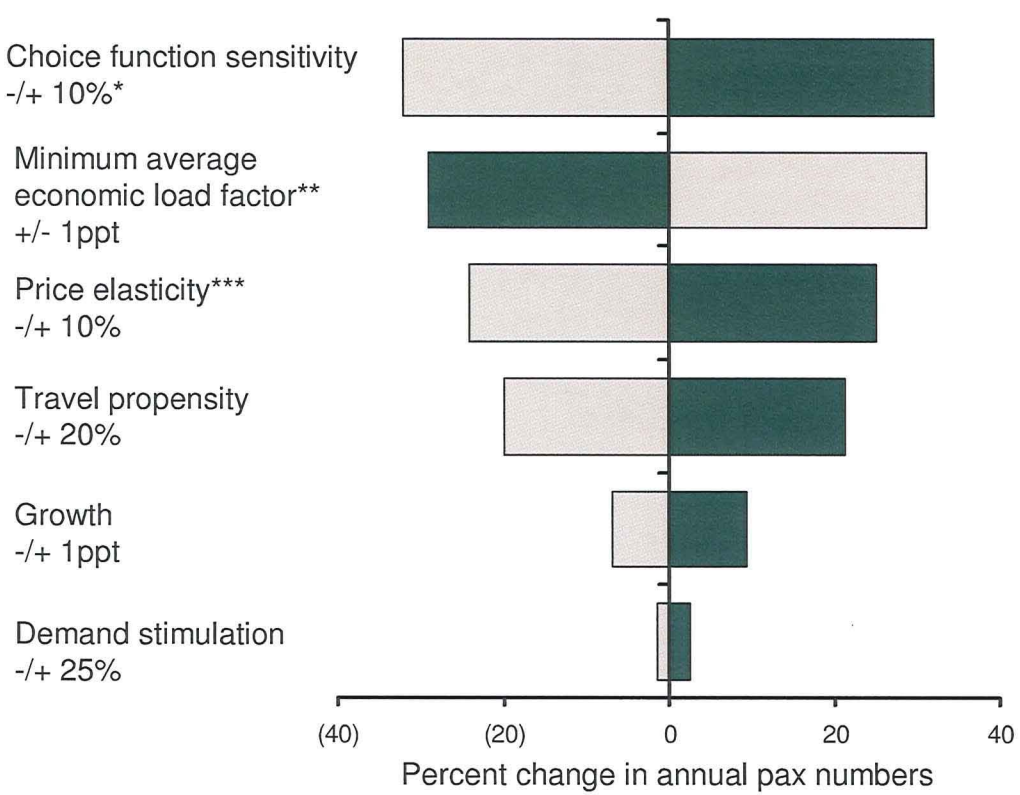
However, there are significant uncertainties involved in demand forecasting, in general, and in preliminary studies like this, in particular, which need to be carefully considered

Key input:	Sources of uncertainly:
Assumptions about choice behaviour	• The mathematical formulae that model the way choices are made are by necessity proxies for more complex decision processes and involve an element of error
Propensity to travel	• Survey data quality varies, depending on sample sizes and selections as well as questionnaire design or, in this instance, geographic granularity
Growth in air travel	• Growth depends on a a number of factors, from the state of the economy to security and environmental threats to future taxation poliicy so long term forecasts are highly uncertain
Latent demand	• Cultural preferences, local holiday regulations, trends and fashions, migration and disposable income trends, quality of airline marketing, amongst others
General demand structure	• Sensitivity to un-quantified airport attractiveness factors, drive time-elasticity of demand and maximum time a passenger is willing to drive to airport
Airline operations metrics	• Minimum required load factor per frequency, aircraft size and yields vary between airlines and are impacted, inter alia, the economic environment

Sensitivity tests on the model show that it is most sensitive to the assumed passenger choice preferences (for which data was not available), propensity to take air trips and to the airline's breakeven load factors

Indicative sensitivities of different inputs

Percentage change in number of passengers in 2020 from central estimate



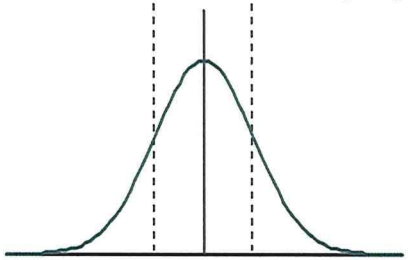
Central value		Range tested
105%	→	95% / 115%
[55%]	→	56% / 54%
-1	→	-0.9 / -1.1
1.76	→	1.4 / 2.1
4.8%	→	3.8% / 5.8%
0.1	→	0.075 / 0.125

Notes: * since the base case is no passnegers, an offset to 105% in the central case was used; **Since the 70% LF is not sustainable, 55% was used as a basis for testing the model; Assuming ENS at 5% discount to average

Source: CBS; SBA; Schiphol Enquete; L.E.K. analysis

By varying key inputs following a probability distribution, we can simulate a range of outcomes with attached probabilities that reflect the uncertainty in our projections

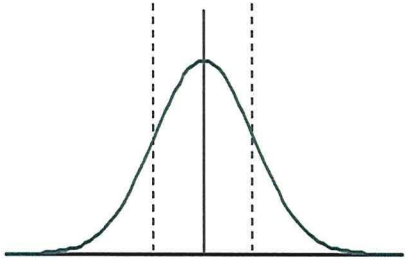
Specific attractiveness of Twente (with all else equal)



0.8 1.0 1.2

ENS may be more or less attractive than other airports for reasons not included in the model (e.g., marketing, quality of retail offer, etc.)

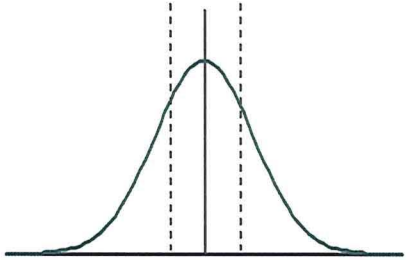
Drive time sensitivity



0.8 1.0 1.2

Response to drive time may be different than assumed, e.g. because of congestion

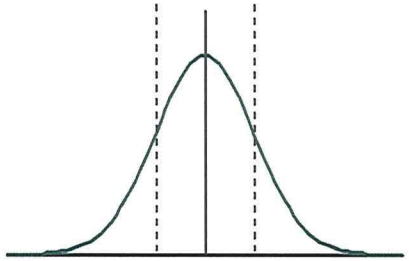
Stimulated demand



0.00.20.4

ENS may be more or less successful in stimulating demand (e.g. depending on local habits)

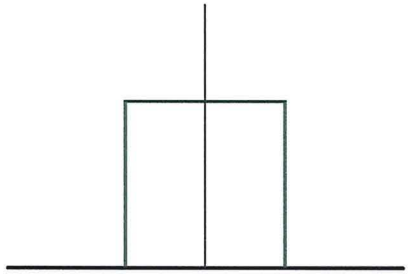
Growth in air travel



4% 4.85% 5.6%

Air travel may grow slower or faster than assumed, e.g. because of environmental concerns, better tourism marketing, etc.

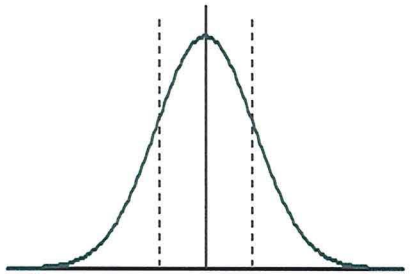
Minimum average load factor



55% 65% 75%

Airline's break even load factor may change, e.g. with better management or different regulation

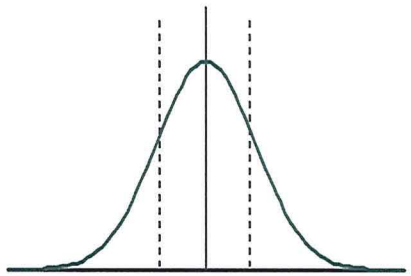
Max drivetime (Germany)



90 120150

Technical factor to reflect exclusion of airports too far away (e.g. Berlin)

General uncertainty factor



0.0 0.2 0.4

Capturing any other uncertainty in passenger choices not reflected elsewhere

Of the range of outcomes generated in the three main scenarios, in less than 30% does the airport break even (at approximate public-sector investment hurdle rates)

	Probability of NPV breakeven*		
WACC (real, after tax)	Base case	Regional jets case	LCC case
5%	28.5%	17.7%	14.9%
10%	27.7%	17.5%	14.3%
15%	26.9%	17.4%	13.7%

Note: *Excludes terminal value to reflect useful asset life
Source: ADECS; SPARK; L.E.K. analysis

L.E.K.

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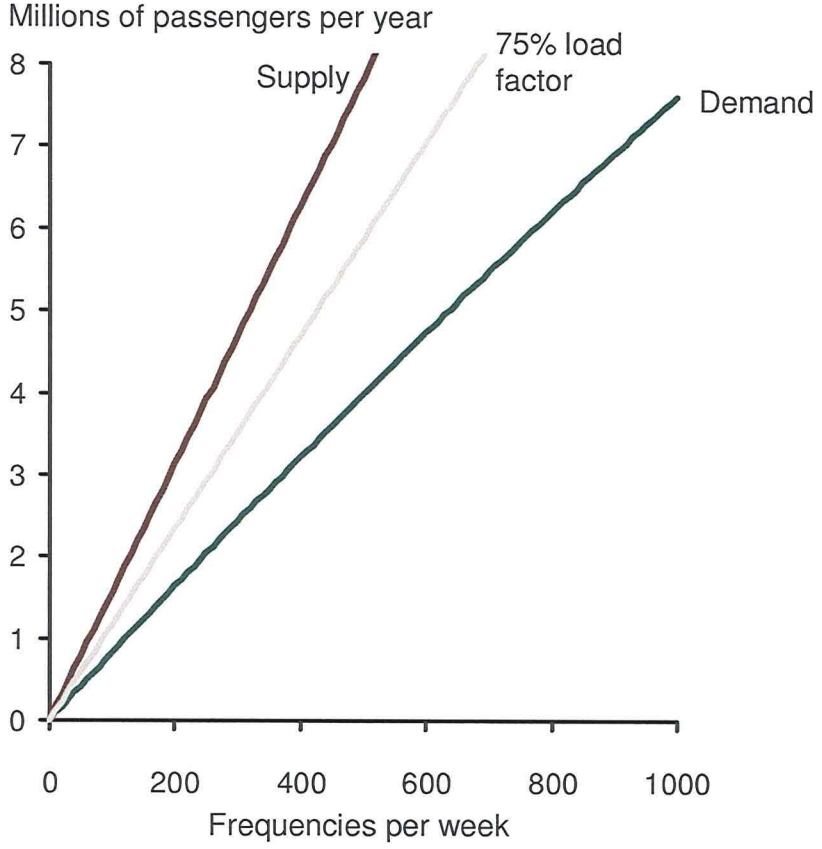
Faced with the failure of the base case, we have also considered a range of alternative operating scenarios

Scenario:	Description:
LCC Focus	• An airport exclusively served by low cost carriers and therefore an attractive price offer (similar to Weeze, currently a 100% Ryanair airport) • LCCs fly larger planes at higher load factors, which raises the benchmark for average route profitability
Concentrated Demand	• If demand is concentrated on select routes (e.g., GRQ energy business), flights may be profitable even if aggregate demand levels suggest otherwise • The Schiphol Enquête indicates demand to key destinations from the Twente area, and thus what frequency can be sustained
Charter Base	• Even if a scheduled frequency is not plausible, a once weekly summer flight to select leisure destinations may be
Business Focus	• Airline operations utilising smaller if somewhat higher seat cost aircraft, with higher pricing but lower load factors can provide a frequent service • Such a service is primarily targeted at the business market and therefore needs to be sustainable from that demand

We have not assessed the viability of an airport focused on cargo or general aviation as these were not within the scope of our study, but have considered those as further sources of revenue

A focus on LCC's is less promising than the base case given the higher expected plane loads

Twente airport supply and demand curve (LCC case)

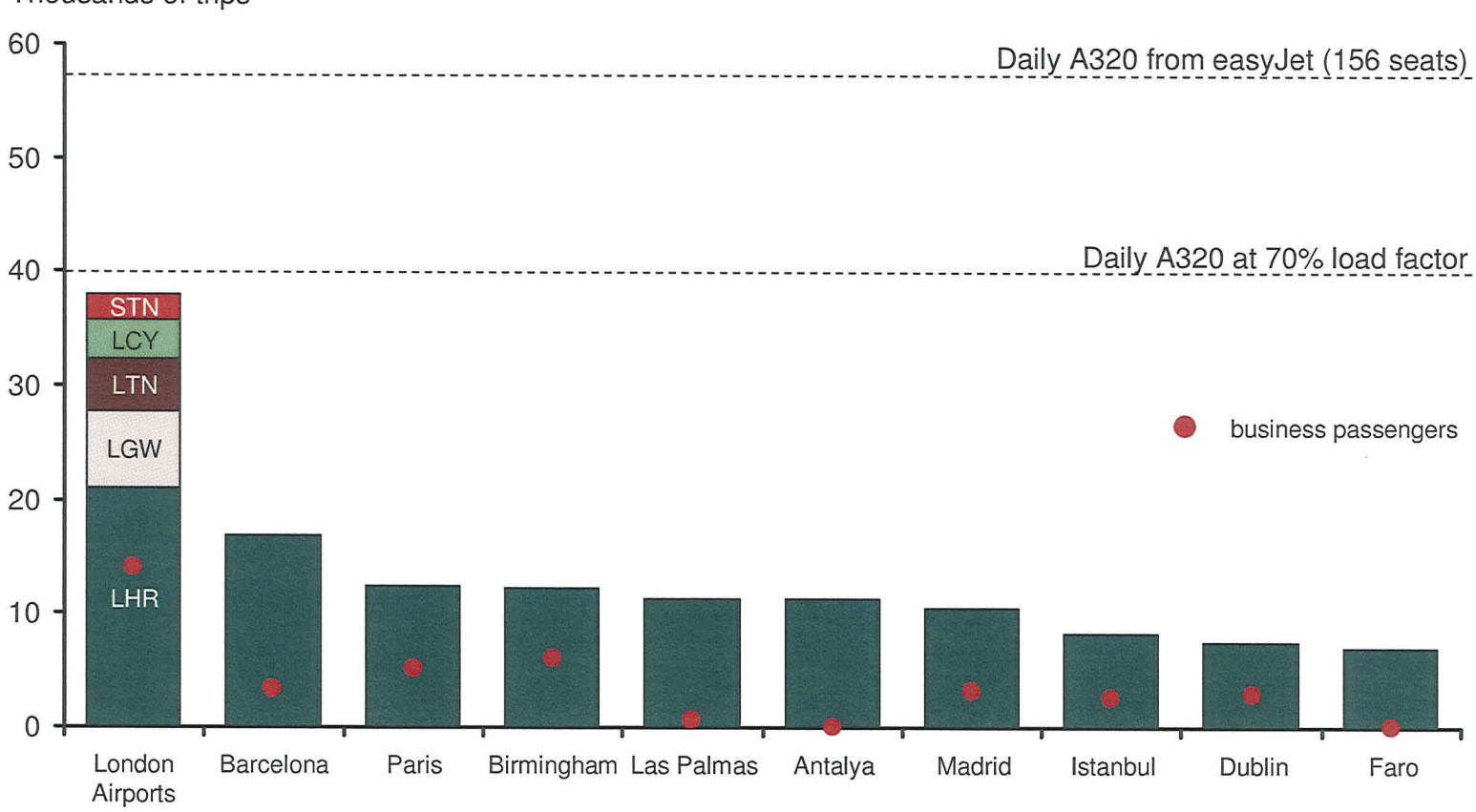


- A low-cost offer at Twente would attract passengers from other, higher-priced airports (e.g., FMO)
- However, LCC's use larger aircraft and normally target higher load factors, to reduce the cost per passenger
- This raises the threshold average number of passengers per flight for a route to be economic for the airline
- We have assumed
  - pricing in line with Weeze airport (practically a pure Ryanair airport)
  - 150 seats per plane (easyJet flies 156 seat A319s)
  - target load factor must be higher than overall industry average of 70%
- Under those assumptions, however, the lower price does not attract sufficient passengers to reach load factors above 55%

Source: CBS; SBA; Schiphol Enquête L.E.K. analysis

The main destinations for travel from the area around Twente would not support dedicated routes (with the possible exception of London)

Total 2007 passengers from municipalities for which Twente is the closest airport (top 10 destinations from area)

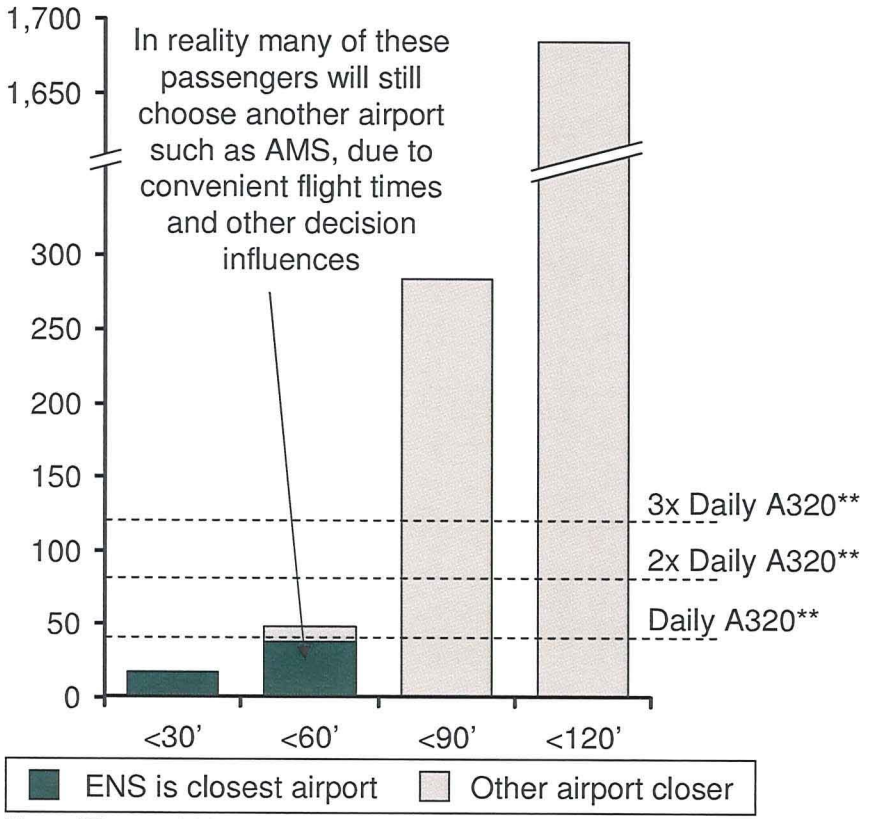


Source: Mapinfo; Schiphol Enquête; L.E.K. analysis

Passengers from the area within one hour's drive of Twente could theoretically support one flight to London per day but only if the better offer at Schiphol does not attract any of them

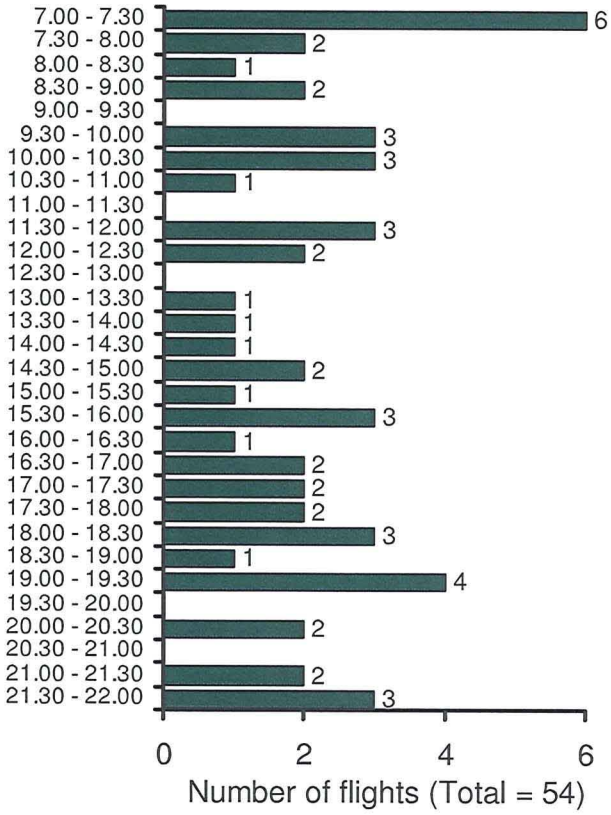
Passengers to London from Twente airport's catchment area

Thousands of trips p.a.



Available flights from AMS to London

Time of day*

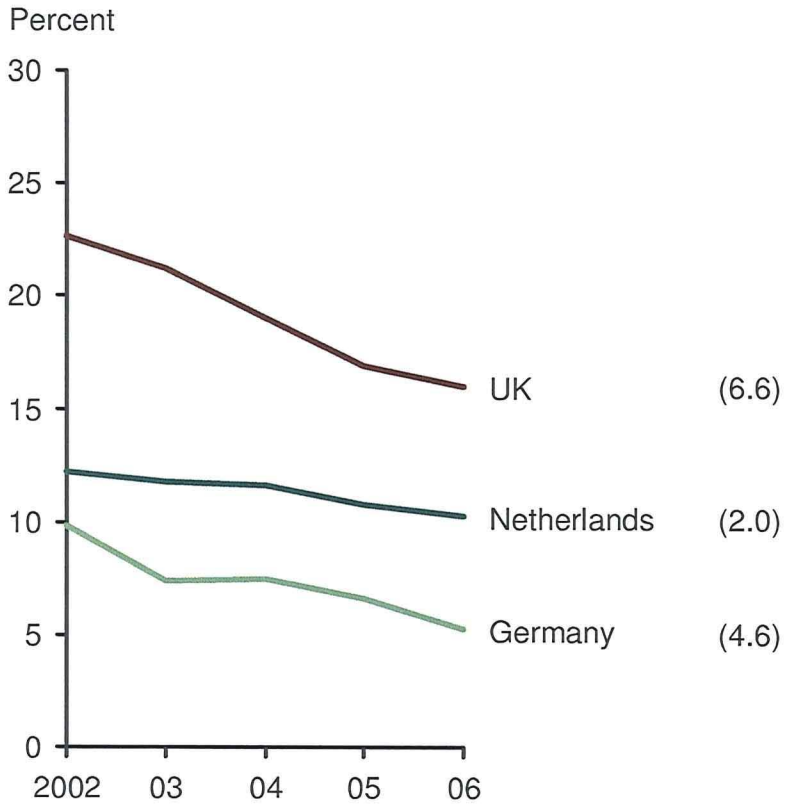


Note: *Times which fall on a boundary are included in the earlier category; **At 70% load factor
Source: Mapinfo; Schiphol Enquête; OAG; L.E.K. analysis

In principle, holiday charters can create some demand for flights from Twente, although they are a declining segment of the market

Percentage of passengers carried on non scheduled flights

PPT Δ 2002-06



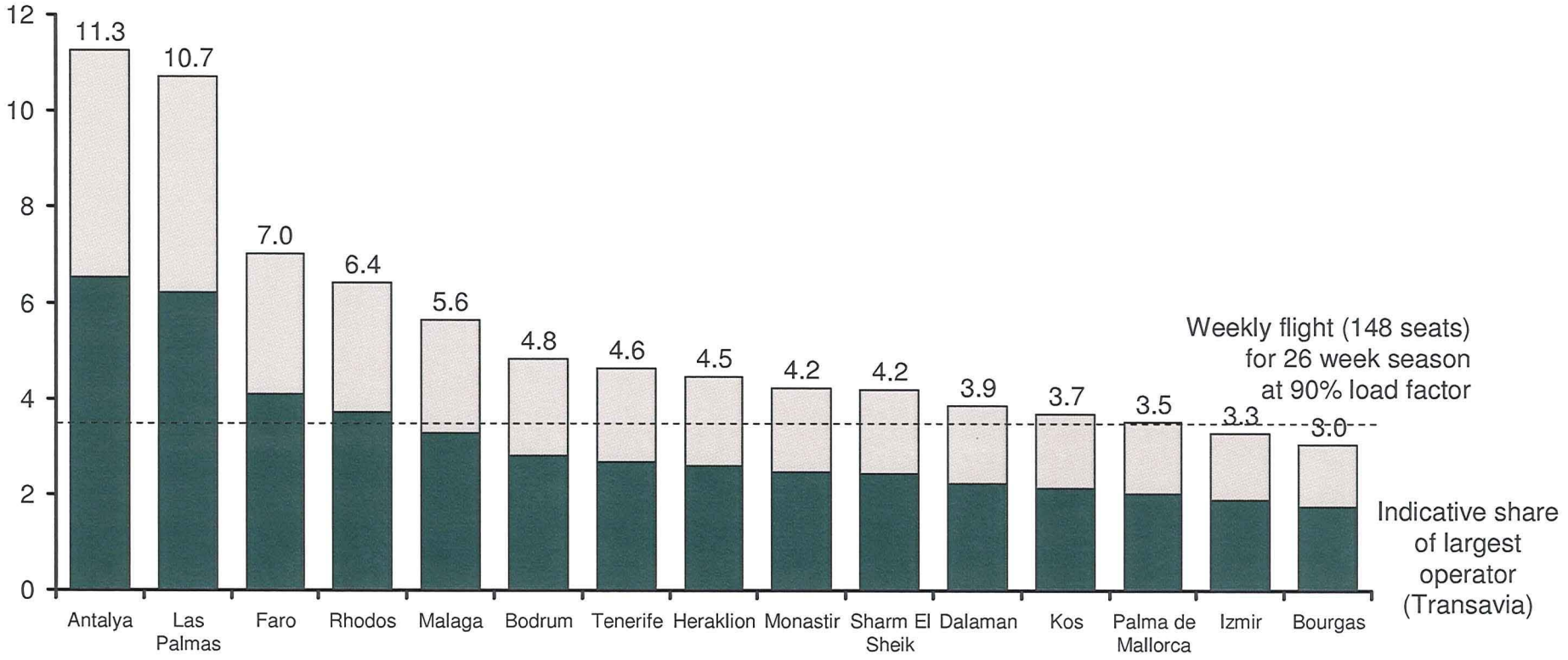
- Holiday charter flights display a somewhat different dynamic than scheduled
  - tour operators influence the airport used
  - while they need to take into account the preferences of their customers, to a certain extent they are in a position to "direct" demand to a specific airport
- The airline's operations considerations do, however, play a key role
  - "… We have our base at Schiphol, and it would be uneconomic to split that. We would occasionally serve regional airports, but would not consider basing an aircraft there …"
    ArkeFly
  - "… Transavia has exceptional experience with regional airports but takes the view that […] parties must be able to make their own economic and commercial decisions when it comes to their choice of airports …"
    Transavia Annual Report on regional Airports

Source: Eurostat; Transavia Annual report 2007, L.E.K. interviews and analysis

The total demand to some holiday destinations can comfortably sustain a weekly charter flight from ENS, most fall below that threshold and the traffic will be divided between multiple operators

Top holiday destinations for travellers from Twente airport's immediate catchment area*

Thousands of trips p.a.



Note: *Defined as municipalities for which Twente is the closest airport
Source: Mapinfo; Schiphol Enquête; Transavia; L.E.K. analysis

Regional airlines can offer frequencies at low demand levels, using small aircraft, and have been growing rapidly

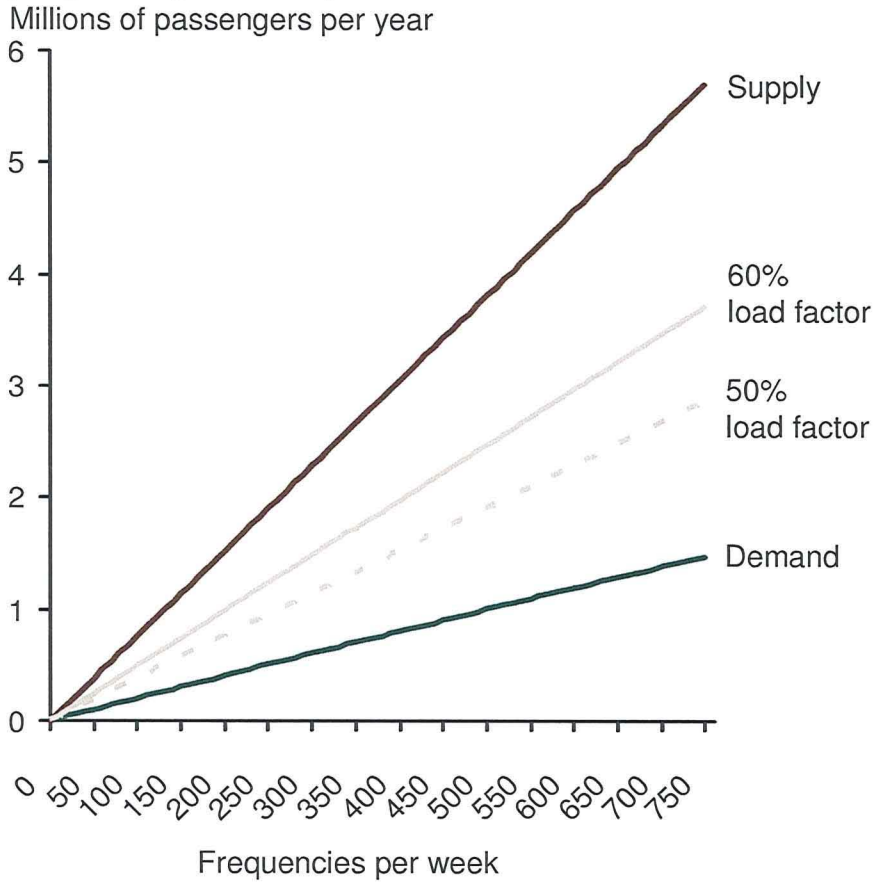
Brand	Airlines	Pax 2007	Growth (06-07)
Lufthansa 	LH Regional, LH CityLine, Eurowings, Augsburg Airways, Contact Air	23.8m	12.1%
Air France 	Regional, Brit Air, CityJet	10.1m	7.6%
Iberia 	Air Nostrum	5.7m	7.6%
KLM 	KLM Cityhopper, KLM Cityhopper UK	5.6m	7.9%
Austrian 	Tyrolean Airways	4.6m	11.8%
Total		76.9m	9.5%

Source: CBS, SBA, MapInfo, ERAA, L.E.K. analysis

- Regional airlines operate high frequency, low demand routes, often under a network carrier brand and feeding into its hubs, e.g.,
  - Lufthansa Bern to Munich, allowing e.g. Bern to Wroclaw via MUC or long haul connections
  - VLM airlines from RTM to LCY
- Regional airlines use smaller, shorter range aircraft - turboprops and regional jets mostly in the 50 to 90 seat range
  - typical examples are Bombardier's CRJ, the Embraer range, or a Fokker 50
  - those aircraft face a cost penalty per seat compared to larger equipment
- To recover this, pricing is normally higher on regional services
  - the offer is targeted at higher yield (business) passengers
  - higher yield passengers enable economic flights at somewhat lower load factors but typically require at least two frequencies per day
- A number of 100-600k pax p.a. airports focus on regional services (incl. Antwerp, Bern, Friedrichshafen, Lugano, Mannheim, Norwich, Tempehof), but none are currently profitable

A high-frequency, high-yield offer based on regional jets and targeted at business passengers at Twente does not appear viable without assuming some leisure demand

Twente airport supply and demand curve (Regional jets case)



Source: CBS, SBA, MapInfo, ERA, Bombardier, L.E.K. analysis

- To allow flights at higher frequencies to be economic, this scenario assumes an average of 73 seats (ERA average) and a 20% price premium (typical cost uplift for RJs)
- However, in the context of Twente, the higher yield requirement and the shorter range limit the potential market (e.g., excluding Mediterranean holiday destinations), bringing load factors below even the lower targets
- In addition, it is not clear that any of the large alliances would have an interest in such links
  - SkyTeam's hub in AMS is close enough to drive to
  - Star has 10 flights a day from FMO to FRA and MUC
  - OneWorld has limited regional airline operations
- In view of the above, we have attempted to construct a case where services might be viable
  - assuming an airline minimises the cost penalty by using 90 seat aircraft, enabling price uplift of only 10%, attracting some leisure passengers
  - if profitable at an unusually low 65% average load factor, this could attract 600,000 passengers to Twente
  - this would still be NPV negative for Twente, but could be profitable at the EBIT level

L.E.K.

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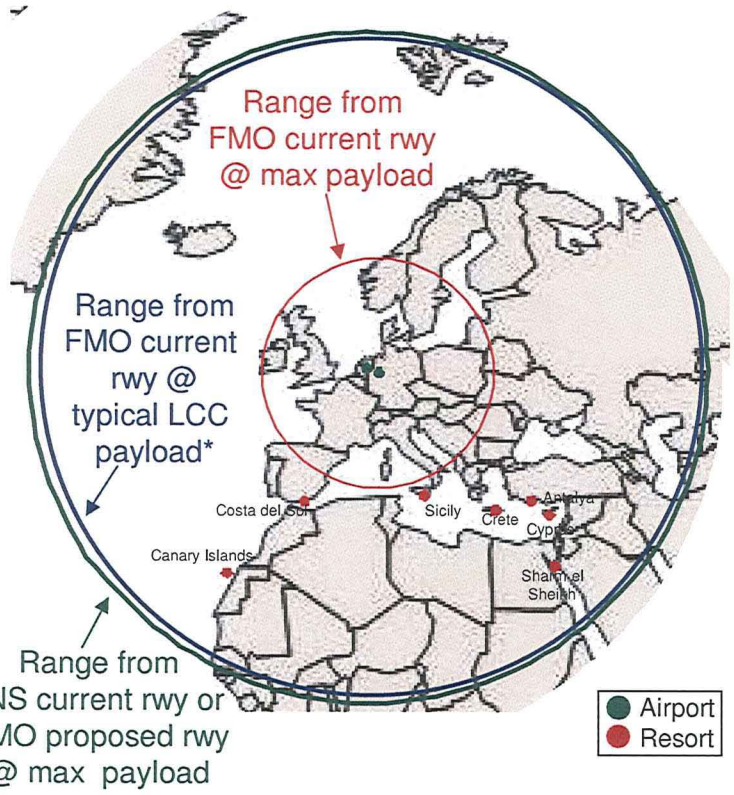
FMO's short runway limits range and/or payload at the extreme, but this is of little practical consequence for passenger operations. Plans for its extension are expected to have a negligible impact on ENS

Runway Length Impact: Range Payload Trade-off for a Boeing 737-800



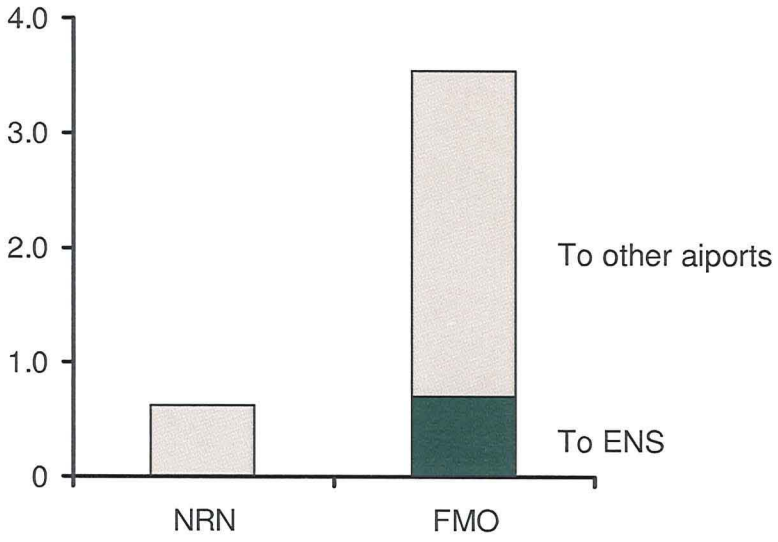
Note: *180 passengers with luggage, no freight
Source: Boeing; L.E.K. analysis

- While the short runway at FMO (2100m vs. 2800m at ENS) would restrict the range of a fully loaded aircraft, in practice LCC and charter passenger aircraft are well below maximum take-off weight
  - in specific situations, e.g., a particularly hot day, aircraft to destinations far away may have to make a refuelling stop
  - such situations do not occur more than a few times a year
- The rationale for extending the FMO runway are stated to be to allow cargo and long haul flights
  - "… The extension will give the regional economy a boost by linking us to the global medium- and long-haul route network …"
    Osnabrück-Emsland Chamber of Commerce Press Release
- The extension is opposed locally, and has been challenged in court
  - "… The extension in FMO is not justified …"
    Lufthansa CFO, in WamS Newpaper, Sep 2005
  - "… Such expansion plans should be stopped on environmental grounds …"
    German Nature Protection Association Press Release

It appears unlikely that lossmaking competitor airports like NRN on the German side will be closed. Even in such a scenario, ENS does not significantly benefit

Impact of closing NRN or FMO airports*

Millions of passengers per year



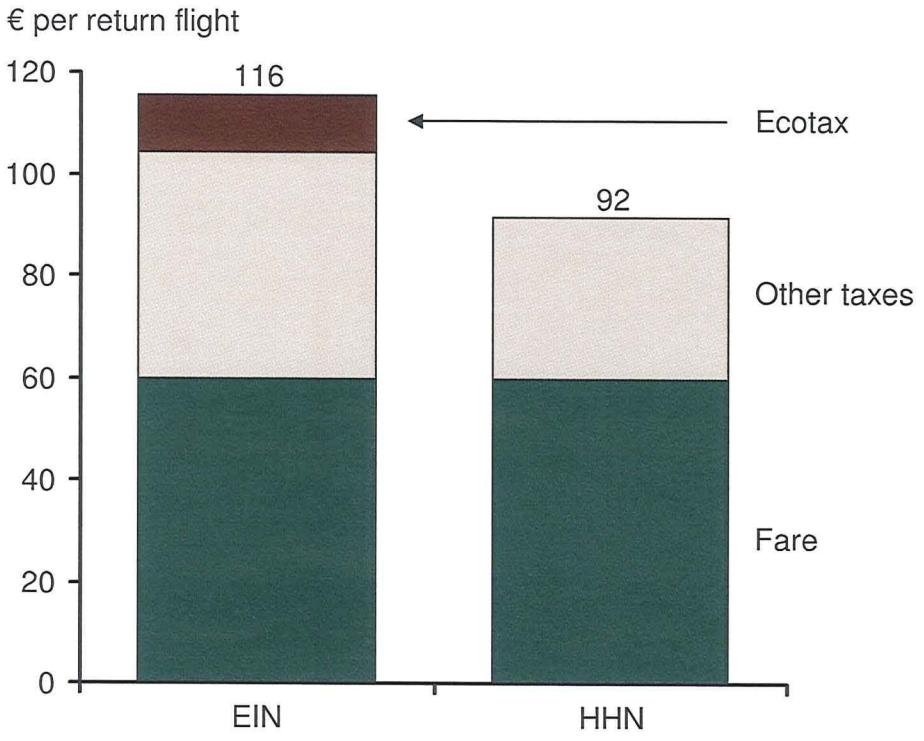
- Several German airports near to ENS are currently lossmaking at the EBIT level
- However, they break even at the EBITDA level
  - as a result, they do not place a demand on tax funds after the initial investments have been undertaken
- Closing them is considered politically unfeasible and therefore unlikely

"...The airport has our full support because it creates jobs, which is critical for the region. We have made a clear political statement that we will cover losses if need be ..."
Public Relations, District Authority of Kleve

Note : *In base case
Source: L.E.K. analysis

The introduction of the vliegtax ("ecotax") from July represents a clear disadvantage for Dutch airports compared to German airports

Costs of short haul flight from EIN and HHN to Madrid*



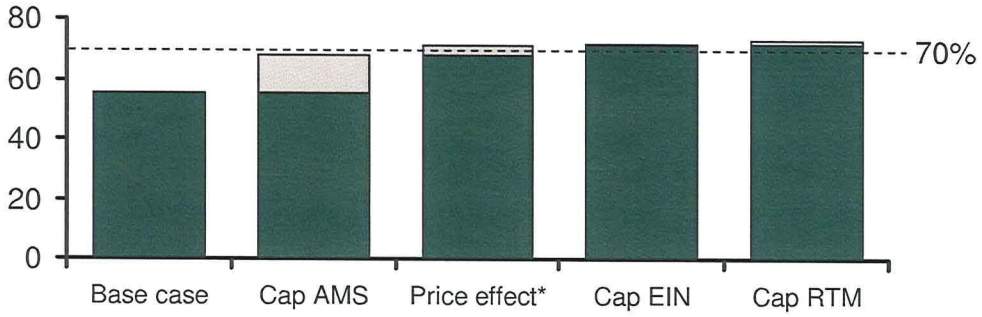
- On the 19th of March the Dutch court ruled that the ticket tax does not violate international aviation law and will therefore be applied as of the 1st of July 2008
- The tax amounts to €11.25 for short-haul (<2500km) flights and €45.00 for long-haul flights (>2500km) per departing passenger
- Germany appears unlikely to replicate this tax in the near future
- This differential introduces a price disadvantage for ENS compared to cross-boarder alternatives
  - the demand model estimates around 100,000 passengers p.a. negative impact

Note: *Assumptions: Ryanair flight, 11-18 July, 1 passenger
Source: Ryanair.com

The cap on AMS flight numbers can generate some demand for flights from ENS

Impact on Load Factors at ENS of AMS cap at 480k ATMs

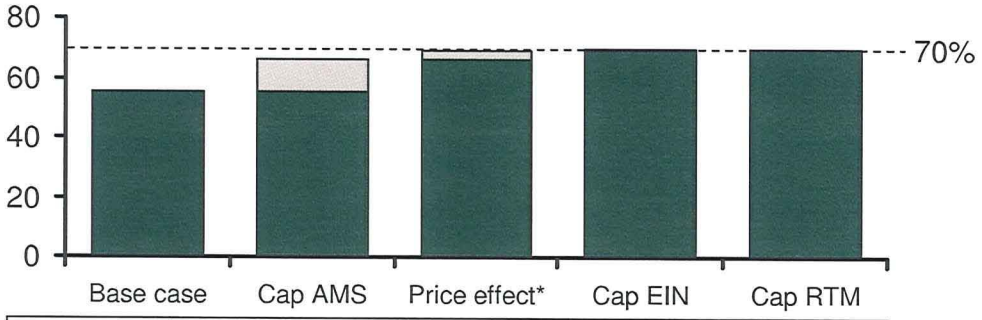
Load factor



Pax p.a. at ENS	1.20m	1.88m	2.56m

Impact on Load Factors at ENS of AMS cap at 520k ATMs

Load factor



Pax p.a. at ENS	513k

Note: *Increased prices at AMS as a result of demand exceeding supply

Source: CBS; SBA; Schiphol Enquete; L.E.K. analysis

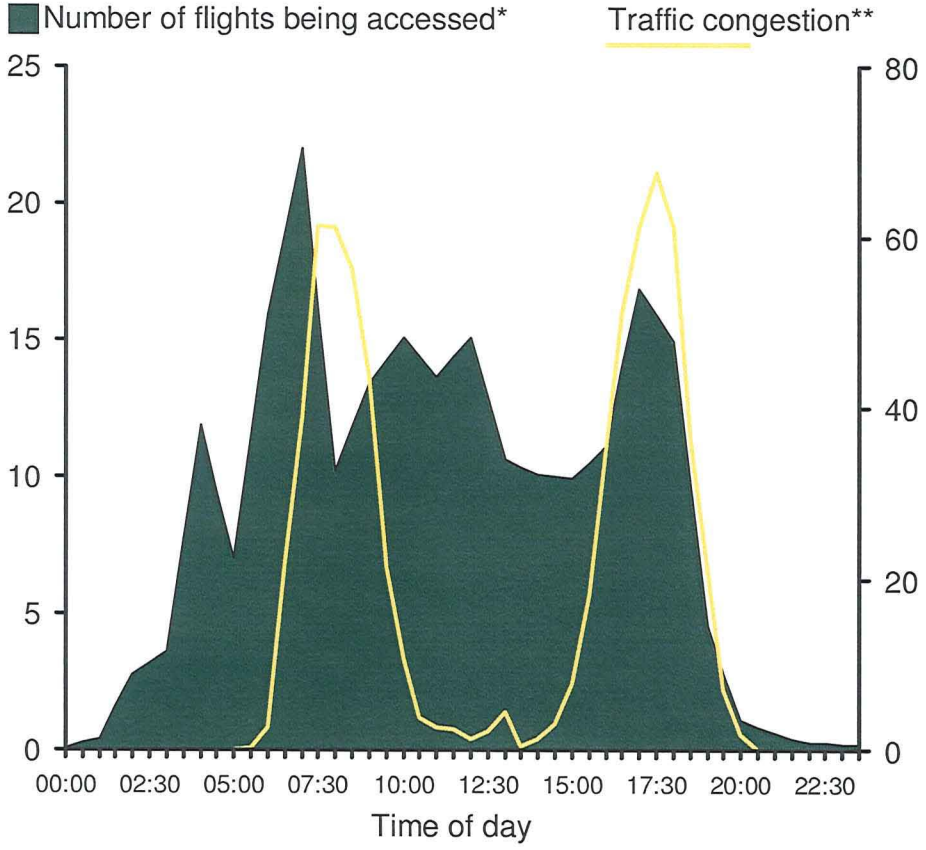
- The Tafel van Alders consultation group, was set up to advise the Government on balancing Schiphol development with noise and environmental considerations
  - they are expected to recommend an cap on Schiphol ATMs of between 480k and 520k p.a.
- If this cap is enforced, RTM and EIN are not expanded and LEY is not built, some of the growth at AMS will "overflow" to ENS
  - it is uncertain, however, when AMS will reach a cap as, in the past, larger planes and changes to the cargo business have kept ATM growth well below passenger growth
- In addition, MinVenW does not currently see a role for ENS in capturing any overflow

  "...For future overflow capacity for Schiphol, V&W will focus on airports Eindhoven, Rotterdam and Lelystad..."

  MinVenW

While congestion reduces the attractiveness of Amsterdam Schiphol, most flights take place outside peak congested times

Timing of traffic congestion and air passenger travel to AMS



- Drive time data in the demand model is sourced from MapInfo, a leading provider of geographical information systems
  - this represents current average travel times, taking into account the relevant road types
- To the extent that this average understates congestion during peak times, a consequence would be that access by road to Schiphol (amongst other airports) would be less attractive at these times
  - we have used the demand model to calculate the sensitivity of the results to changes in drive times – at an extreme, if all journey times to AMS, for all passengers, at all times of the day were to double, on average, 440,000 passengers would be attracted to Twente if it were unaffected by the congestion
- Schiphol's latest annual report indicates that only 28% of passengers were taken to the airport by car (and this share is falling over time), many of whom are unlikely to be travelling to access the airport during times of peak congestion
- Similarly, whilst access to Twente will be improved if the proposed A18 motorway is built, model sensitivity calculations show that this does not have sufficient impact to make flights from the airport viable
  - in addition, other airports also plan access improvements (e.g., the N201 rerouting for Schiphol)

Note: *Flight time less three hours, to allow access and check-in; **Congestion measured as the total number of traffic jams in The Netherlands
Source: Schiphol annual report and statistical review, VID, L.E.K. analysis

During the course of our study, a number of other potential sources of revenue and/or demand have been suggested, which we have briefly considered

- Basing an MRO (aircraft maintenance, repair and overhaul) service provider at the airport – initial research indicates that airport revenues from such operations tend to be small and demand for additional facilities in North-West Europe is limited

- A cargo-focused airport – would face significant competition from the large European cargo hubs, but could benefit from the growth in airfreight if a major airfreight operator establishes a base at Twente, e.g., if there were no restrictions on night flights

- A general aviation (GA) focused airport – would attract some traffic (as Twente has in the past), in particular if Leystad is developed into a LCC airport and displaces business aviation. However, initial research indicates that few European GA airports are economically viable without public subsidy

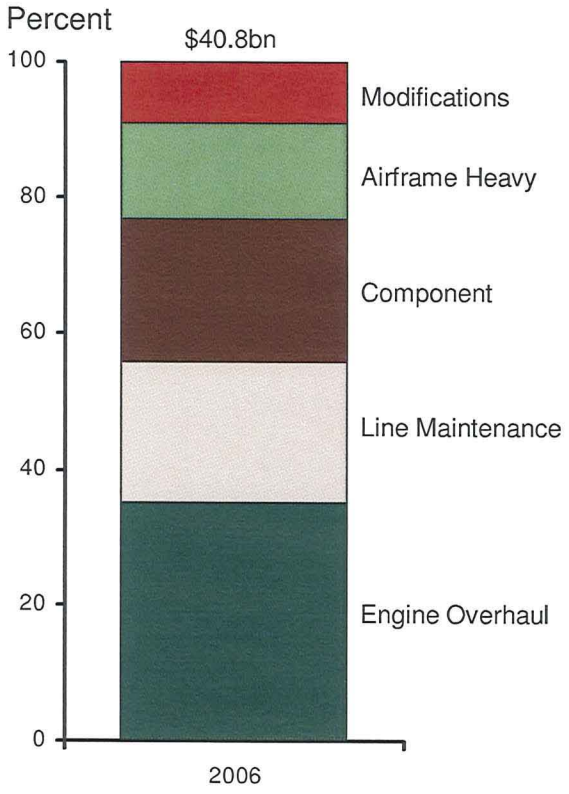
- Basing a 'careport' specialist medical facility in close proximity to the airport to synergistically drive demand for services at both sites – while this depends on the existence of a viable airport, the incremental demand would benefit a marginal case like the regional jets scenario

- Improving access to the site through new rail access infrastructure – current guidelines applied by ProRail/NS would require established passenger volumes at the airport to justify investment

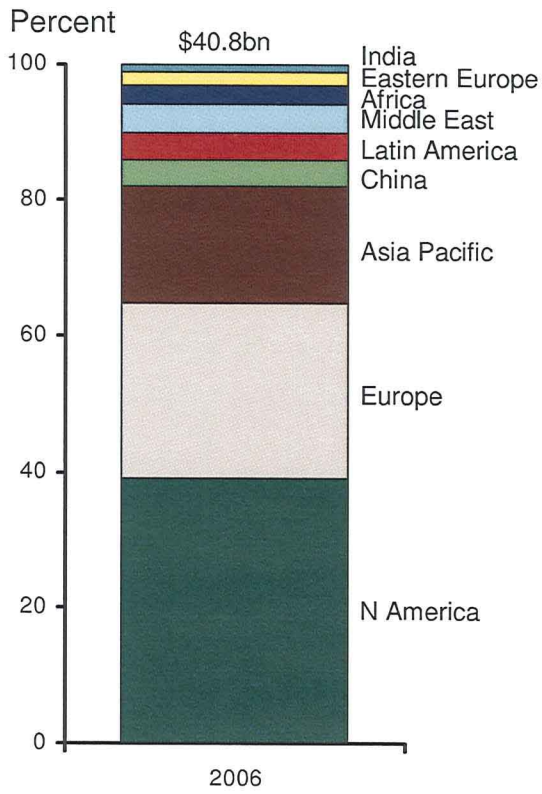
- Re-basing military operations at the site and sharing costs – depending on the cost sharing arrangements, this could allow viable commercial operations (as at Eindhoven and Newquay in the UK), but is subject to public-policy decisions

While MRO is a significant market in Europe expected to see some growth, the contribution it can make to an airport is negligible

Air transport MRO market by type



Air transport MRO market by region



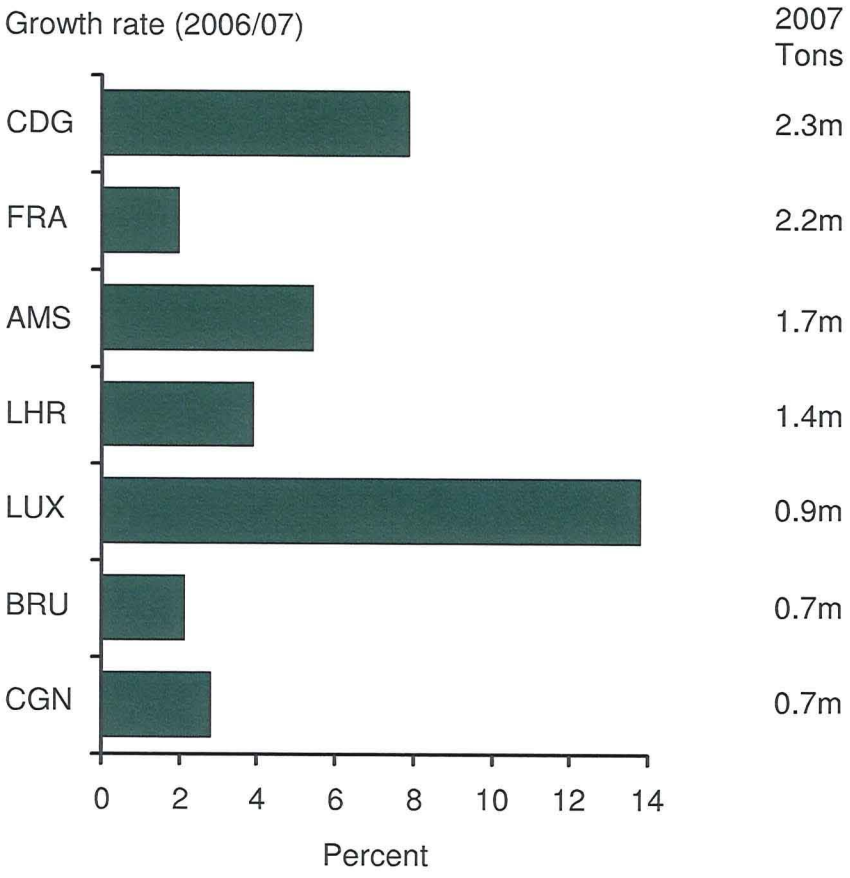
- MRO market forecasts point to some growth in the market
  - *Overhaul & Maintenance* magazine forecasts overall growth of 4.4% p.a. to 2017
  - AeroStrategy forecasts overall growth of 3.6% to 2016
- However, the contribution they can make to an activity
  - airport fees are a very small part of MRO costs
  - airports with an MRO or similar operation do not see it as a key revenue stream

"… It is good to have [MRO] here because it creates jobs, but the contribution it makes to our revenue is negligible …"
Dresden

Source: AeroStrategy; Overhaul & Maintenance; L.E.K. interviews

While airfreight is growing, small cargo airports can struggle to benefit without attracting a major freight operator

Top seven cargo airports in Europe

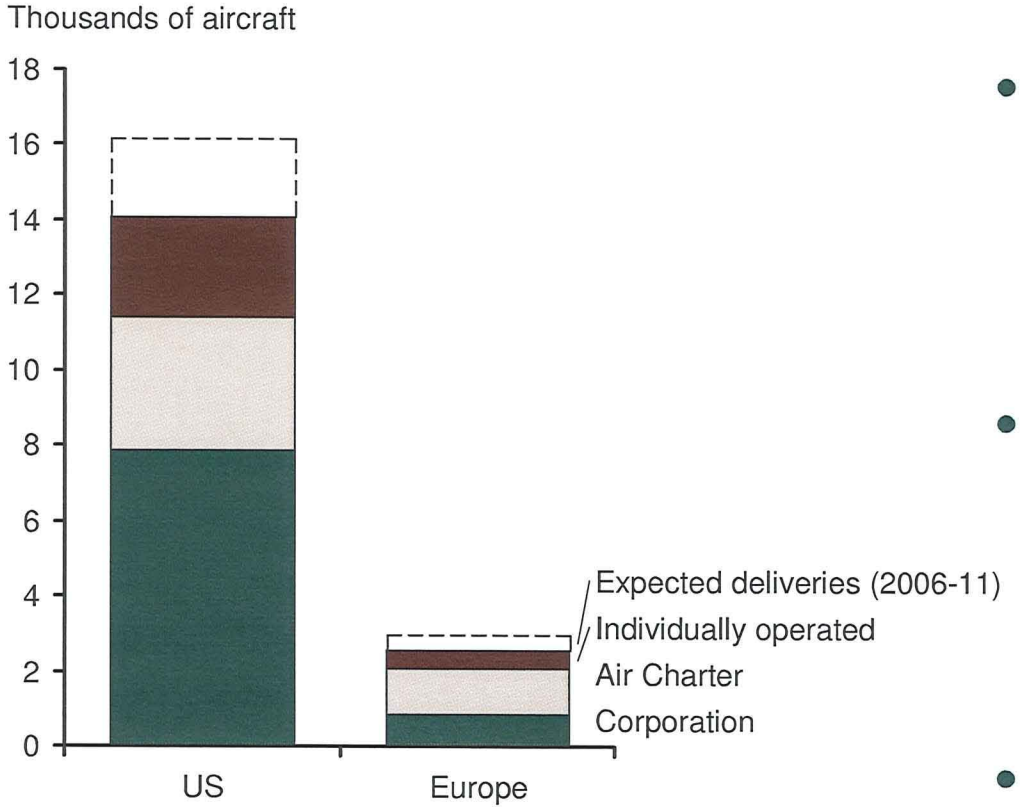


Source: Airport Council International, Press Reports

- Airfreight is a growing market, driven by increase in trade and a shift to higher-value, time-sensitive goods
- The top seven cargo airports in Europe increased their share of total traffic from 57.8% in 2006 to 58.1% in 2007, driven by
  - hub-effects in transhipment
  - synergies with passenger operations (cargo transported in the belly of passenger flight)
  - operational synergies (e.g., airlines concentrating passenger and cargo line maintenance)
  - the growth of overnight courier services based at CGN (UPS) and BRU (DHL)
- By contrast, Europe's newest cargo airport, Paris-Vatry (a former airbase) remains small (at 37,000t) and loss making, in spite of
  - 24 hour operations with continued local support
  - good motorway connections to both Iberia and Central Europe

General aviation is growing, but less prevalent in Europe than elsewhere

US and European business aviation fleet (2005)



- General aviation is growing, driven by businesses' need for ever greater flexibility and innovations such as fractional ownership of jets
- However, this is generally not a European phenomenon. The two largest GA airports, at over 400,000 movements p.a. are
  - Van Nuys near Los Angeles, driven by the entertainment industry
  - Jandakot in Western Australia, a base for airline training and the "Flying Doctors"
- In Europe, large, significant general aviation airports like Biggin Hill (serving London) do not currently make an adequate return on capital in spite of relatively high landing charges and over 100,000 movements per year
  - Southend Airport is currently loss making, but may benefit from its proximity to the site of the 2012 Olympics
- Twente may benefit from any GA traffic that is displaced due to growth of commercial traffic at Schiphol and Lelystad (or other nearby airports)

Source: Eurocontrol; GAMA; Bart Magazine; Honeywell

L.E.K.

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- Airport growth and development
- Economic feasibility requirements
- Demand potential
  - context
  - base case forecast
  - other scenarios
  - potential opportunities and threats
- Conclusions
- Appendices

Conclusions

- Our cash flow analysis indicates that investment break-even (positive NPV) requires passenger numbers in 2020 to reach between c.1.8m with a required return at the public sector end of the range, and c.3.0m or higher for more entrepreneurial investment criteria, for a mixed use commercial passenger airport

- Our demand analysis leads to the conclusion that it is not possible, for any level of assumed services, to reach average flight load factors that would make them economically viable. We have also considered the potential for other operational models targeted to attract different traffic mixes, and although in certain very specific circumstances these can support potentially viable routes, the level of demand would not provide an economic return for the airport

- However, there is the potential that the development of national aviation policy could generate a scenario that results in a forecast of viable demand at Twente airport, in particular if there are tight restrictions on the development of Amsterdam Schiphol airport. We have not considered the prospects of an airport focused on cargo or general aviation

- Overall therefore this study indicates that it is unlikely that a viable and sustainable commercial passenger airport could be developed at Twente, due to the relatively high levels of nearby airport competition and the relatively low levels of nearby demand for air travel. This conclusion is reinforced by the fact that the cost and revenue assumptions based on prior work may be at the optimistic end of the spectrum

- Whether the development of a passenger airport on the site is an appropriate course of action is therefore dependent on the estimated broader socio-economic benefits that the airport could bring to the region and the (net) value available from alternate uses of the land after the existing contents have been removed

L.E.K.

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Glossary

IATA Airport codes

- AMS: Amsterdam
- BHD: Belfast City
- BRE: Bremen
- BRS: Bristol
- DRS: Dresden
- DSA: Doncaster Sheffield
- DTM: Dortmund
- DUS: Düsseldorf
- EIN: Eindhoven
- ENS: Enschede
- EXT: Exeter
- FDH: Friedrichshafen
- FMO: Münster/Osnabrück
- GRQ: Groningen/Eelde
- HAJ: Hannover
- HHN: Frankfurt-Hahn
- LBA: Leeds Bradford
- LEJ: Leipzig
- LEY: Lelystad
- MST: Maastricht/Aachen
- NRN: Weeze/Niederrhein
- RTM: Rotterdam
- SXF: Berlin Schoenefeld

Key Technical Terms

- Load Factor: Seats sold as share of seats available
- Yield: Average revenue per passenger
- ATM: Air transport movement, i.e. a takeoff or a landing
- Pax: passengers, in the context of an airport terminal passengers i.e. departing plus arriving plus transfer counted once
- WLU: Workload unit, equal to one terminal passenger or 100kg of freight
- EBIT: Earnings before interest and tax
- EBITDA: Earnings before interest, tax, depreciation and amortisation
- WACC: Weighted average cost of capital
- NPV: Net present value
- LCC: Low-cost carrier
- GA: General aviation

Other Abbreviations

- CAA: Civil Aviation Authority (UK)
- ADV: German Airport Working Group
- BAA: BAA plc (UK Airport Operator)
- DfT: UK Department for Transport
- ONS: Office of National Statistics (UK)
- ACI: Airports Council international

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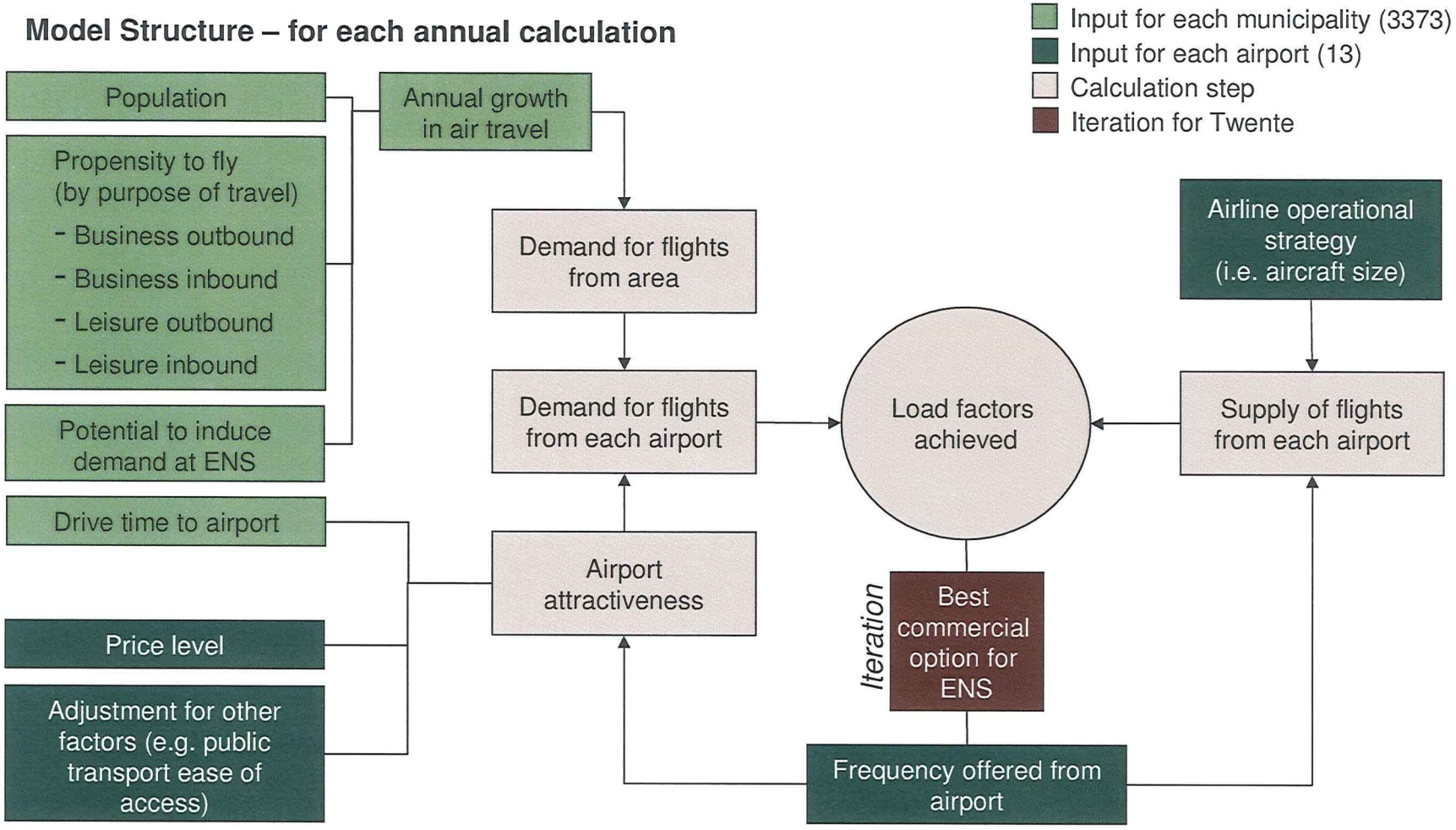
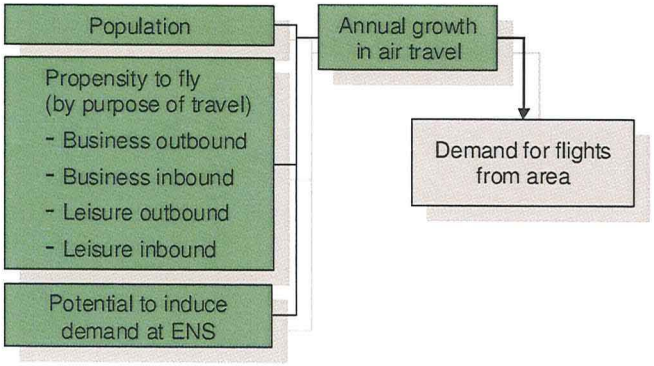
The approach we took to estimate the potential demand for Twente airport reflects the close interaction of supply and demand that characterises the industry

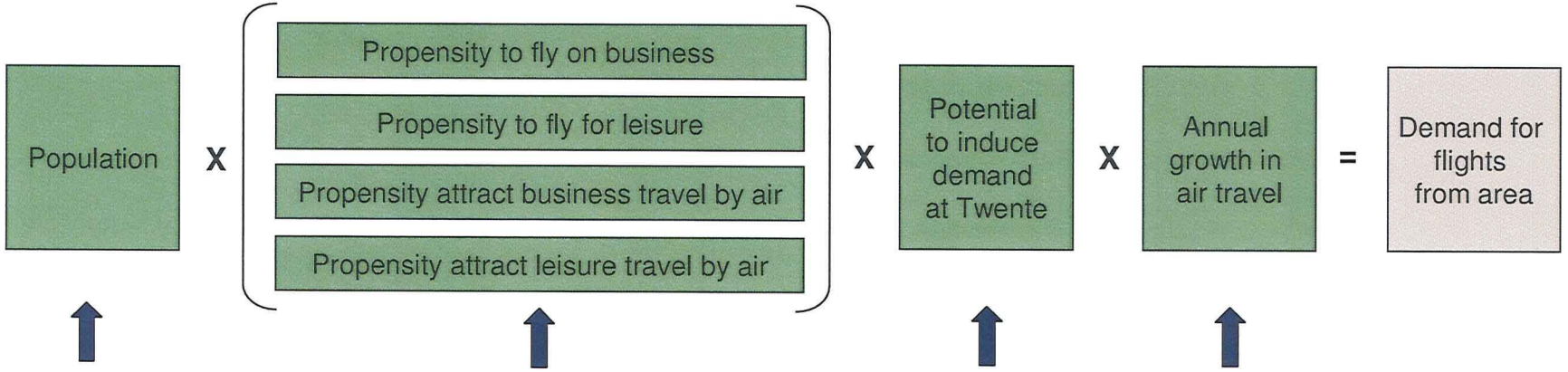
Model Structure – for each annual calculation



Step 1: Demand for flights from the area



For each municipality



From the national statistical offices of the Netherlands (CBS) and Germany (SBA)

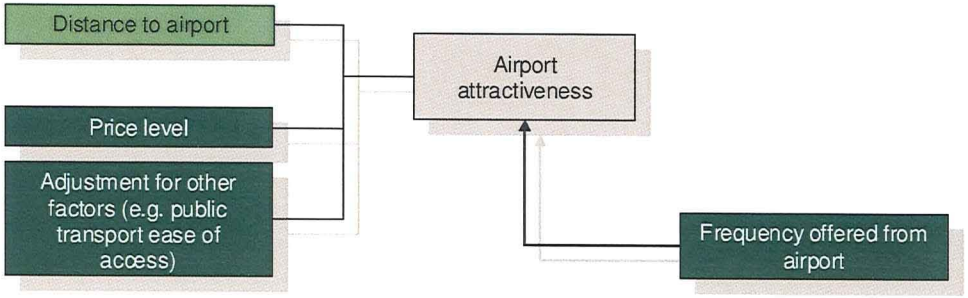
National numbers for the Netherland and Germany from CBS / SBA, checked against Schiphol Enquête and Eurostat

Municipality level data could be developed from a survey

Assumption based on interviews and observed Berlin travel market

Growth in Air travel in Europe forecast by Airbus, checked against Boeing forecast and interviews

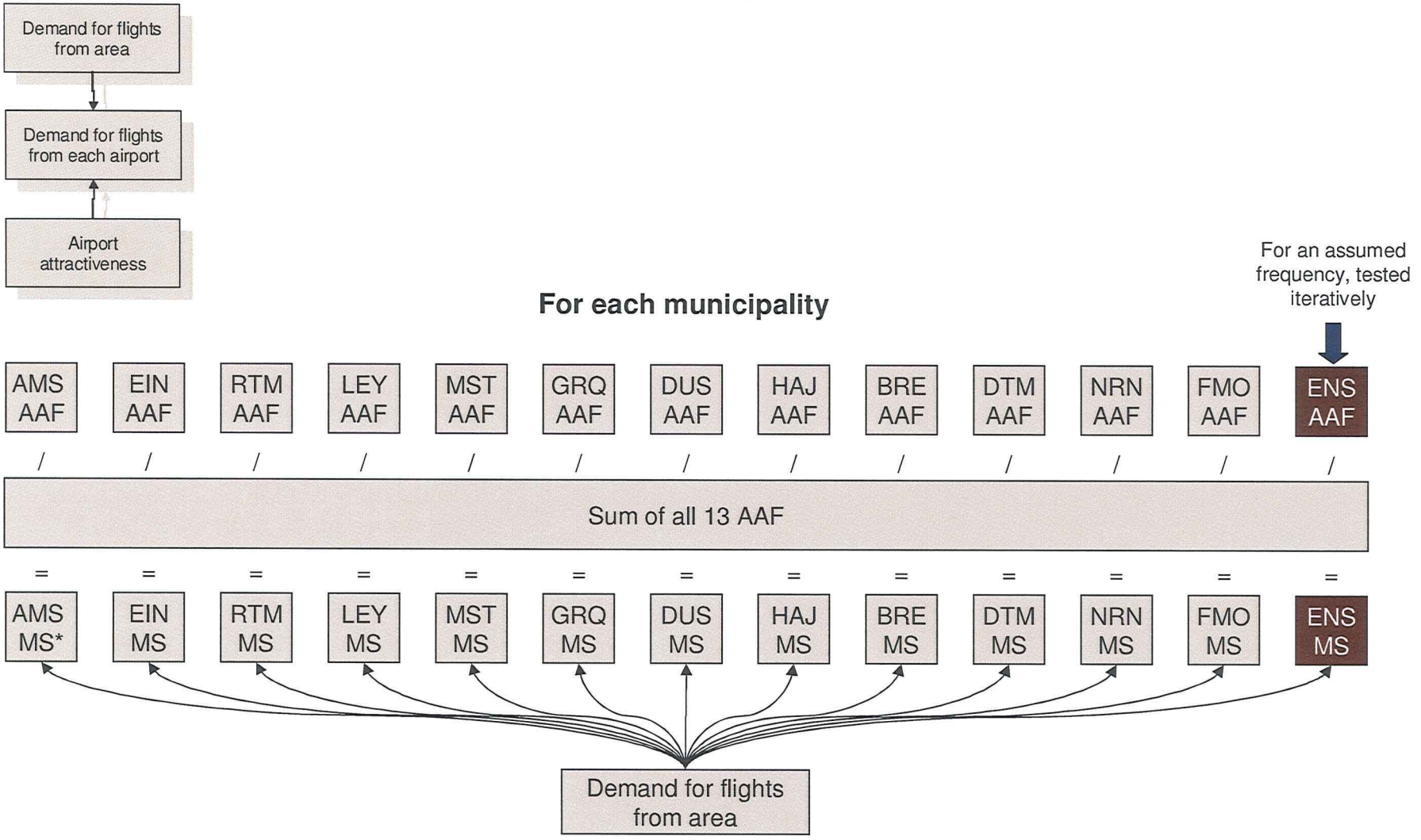
Step 2: Airport attractiveness to residents of a municipality



For each municipality / airport combination

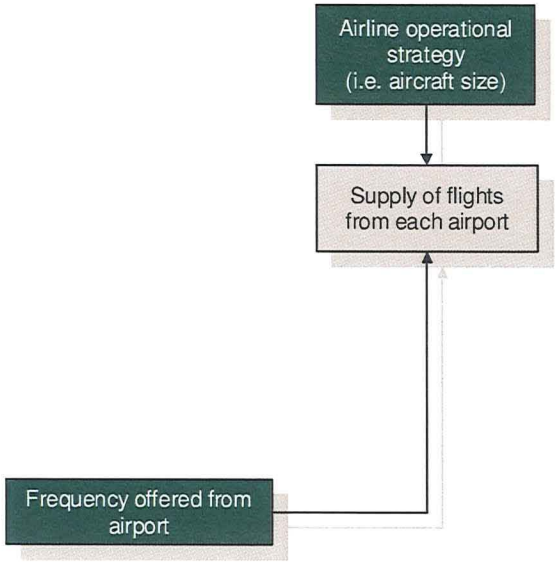
Drive Time Attractiveness Factor	X	Flight Offer Attractiveness Factor	X	Price Level Attractiveness Factor	X	Public Transport Access Attractiveness Factor	X	Other Attractiveness Factor	=	Airport Attractiveness Factor (AAF)
Reciprocal of drive time to the airport, from MapInfo		Total frequencies offered per week, from Eurostat, checked against airport data and OAG Tested iteratively for ENS		Difference in lowest price to London to average of all airports, with and elasticity applied. Checked against LCC share at airport		Based on distance to nearest rail station, varies between 100% (station at airport) and 90% (worst airport in sample)		Set at 1, varied +/- 20% in Monte Carlo simulation		

Step 3: Demand for flights from each airport (market shares)



Note: * Market share

Step 4: Supply of flights from each airport



For each airport

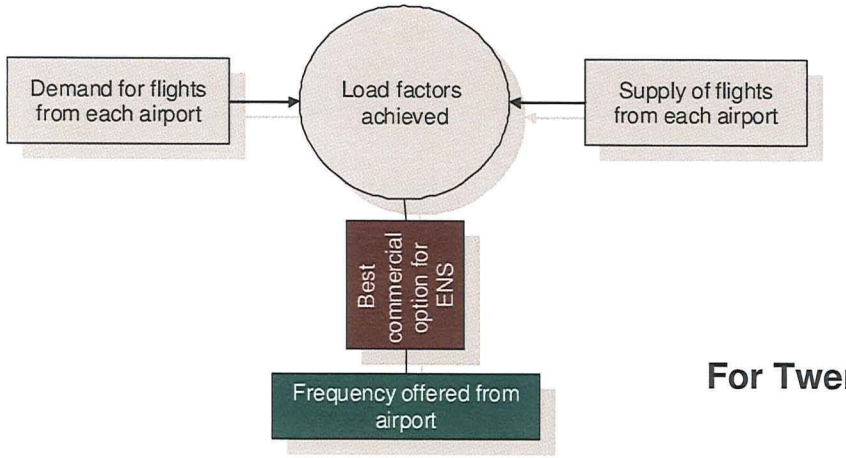
Frequencies	X	Average Aircraft Size	=	Seats offered

Total frequencies offered per week, from Eurostat, checked against airport data and OAG

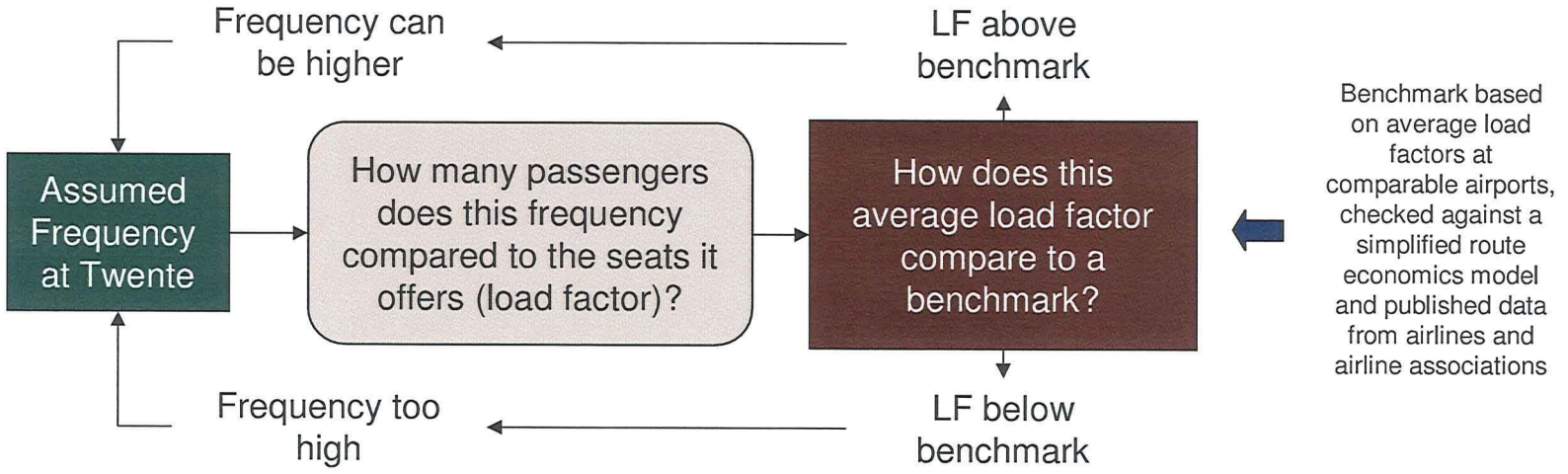
Tested iteratively for ENS

Average aircraft size from Eurostat, checked against actual fleets of airlines operating at airport

Step 5: Iterative optimisation for load factor at Twente



For Twente airport



The demand forecasting model has been designed to address the specific issues impacting the viability of commercial pax operations at Twente. A number of limitations must therefore be borne in mind before considering scenarios outside of this scope

- The model will not automatically adjust for changes in (for example):
  - differential regional growth
  - changes in airport pricing strategies
  - significant changes over time in surface access infrastructure or cost / time to access (e.g., due to conjunction or road pricing)
  - significant changes in airline cost structures

- These factors can, however, be adjusted for manually if the analyst is aware of the likely commercial implications at an airport and airline level

L.E.K.

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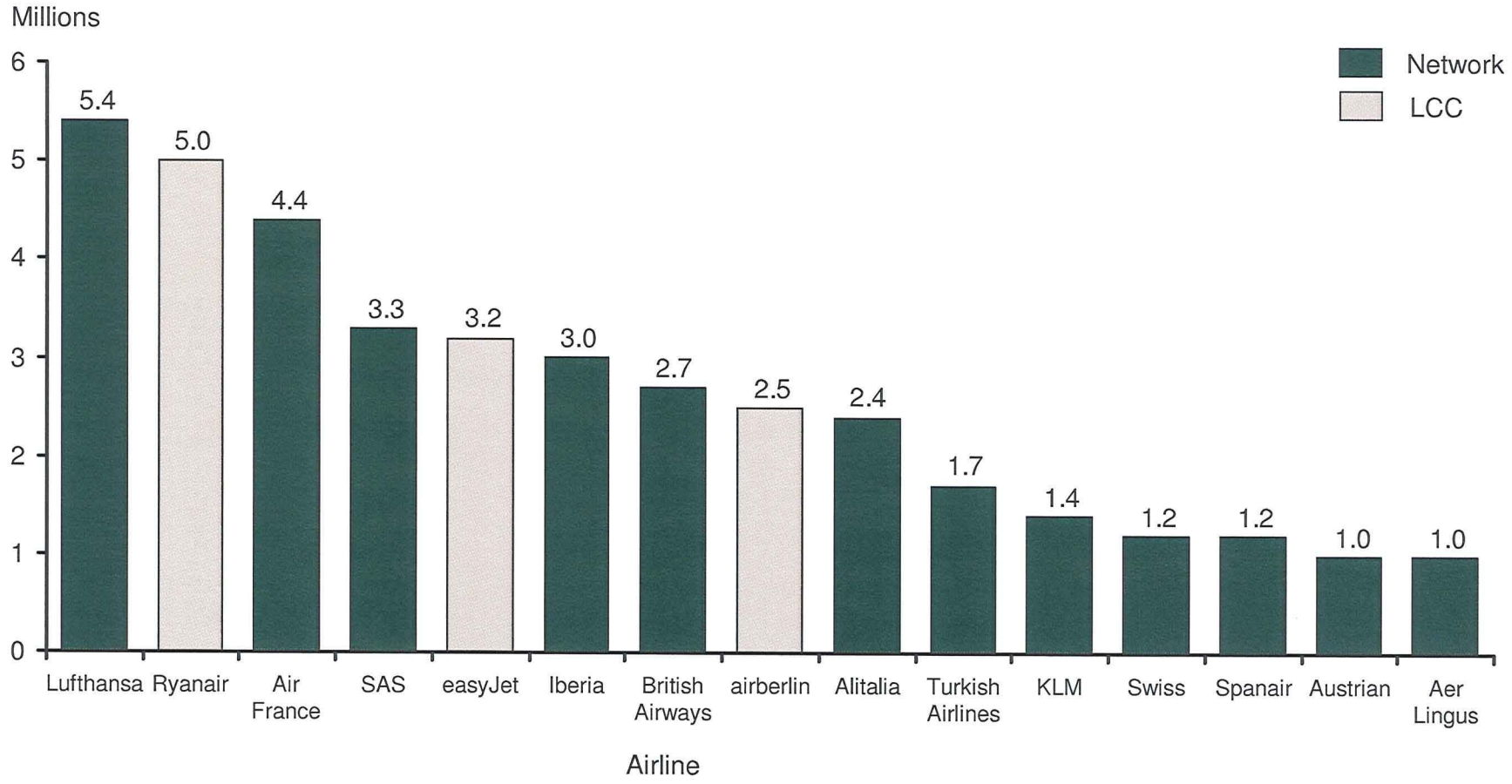
Main airlines operating regional services in Europe

Monthly Intra-European Seats (November 2007)

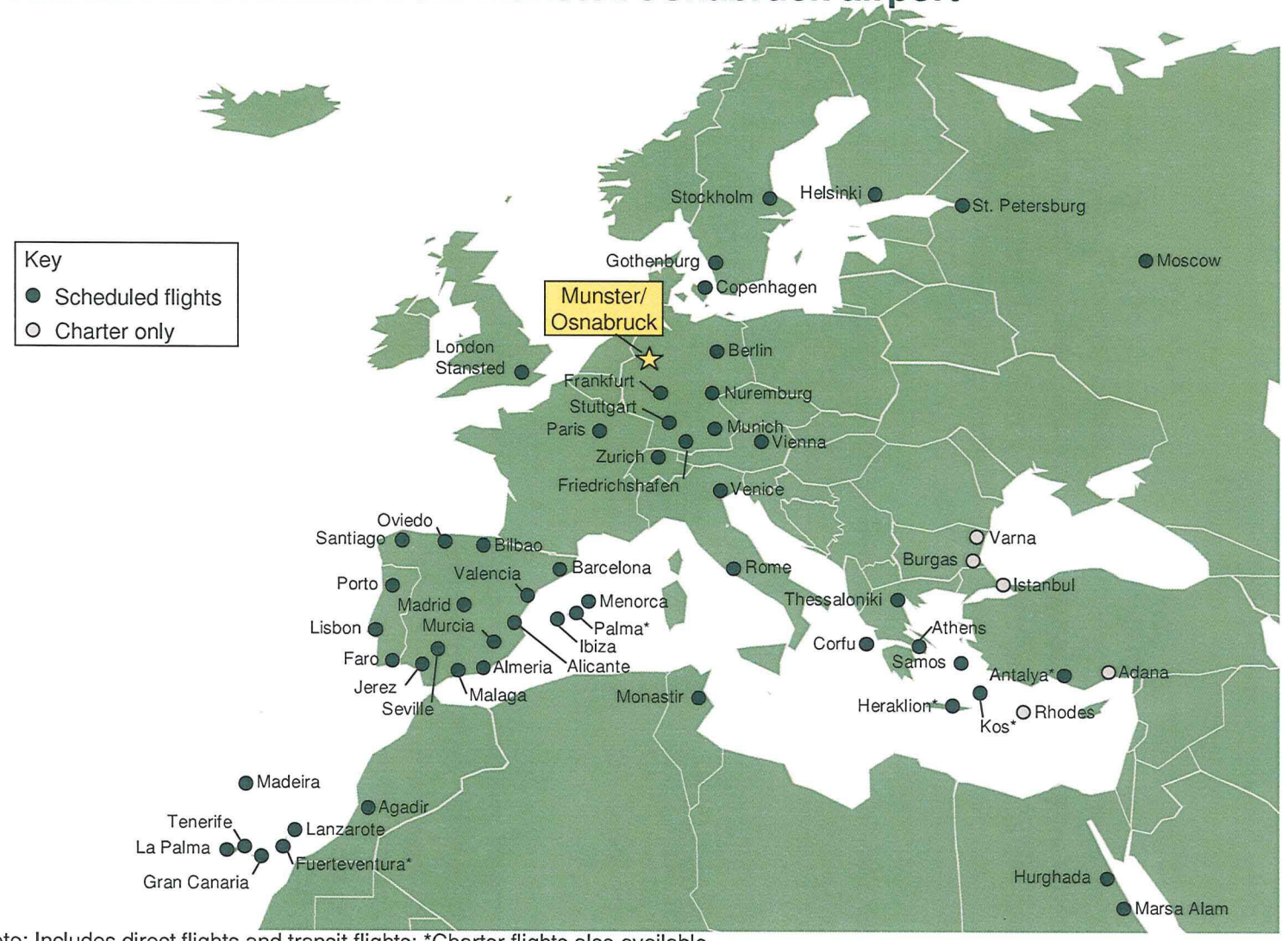


Source: AEA; L.E.K. analysis

Destinations available from Eindhoven airport

Note: Includes direct flights and transit flights
Source: Airport website

Destinations available from Munster/Osnabruck airport

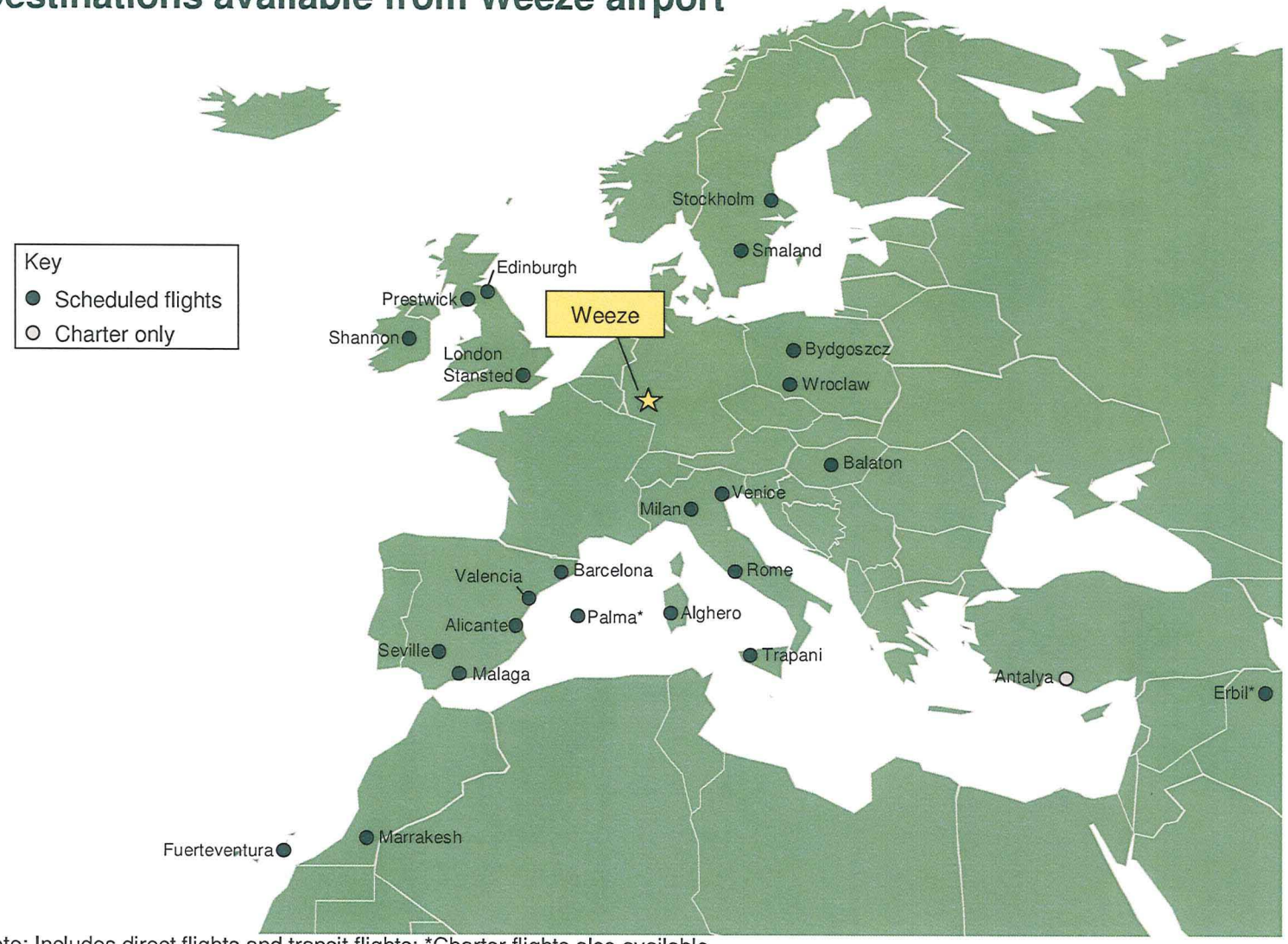


Note: Includes direct flights and transit flights; *Charter flights also available
Source: Airport website

Destinations available from Dortmund airport

Note: Includes direct flights and transit flights
Source: Airport website

Destinations available from Weeze airport



Note: Includes direct flights and transit flights; *Charter flights also available
Source: Airport website

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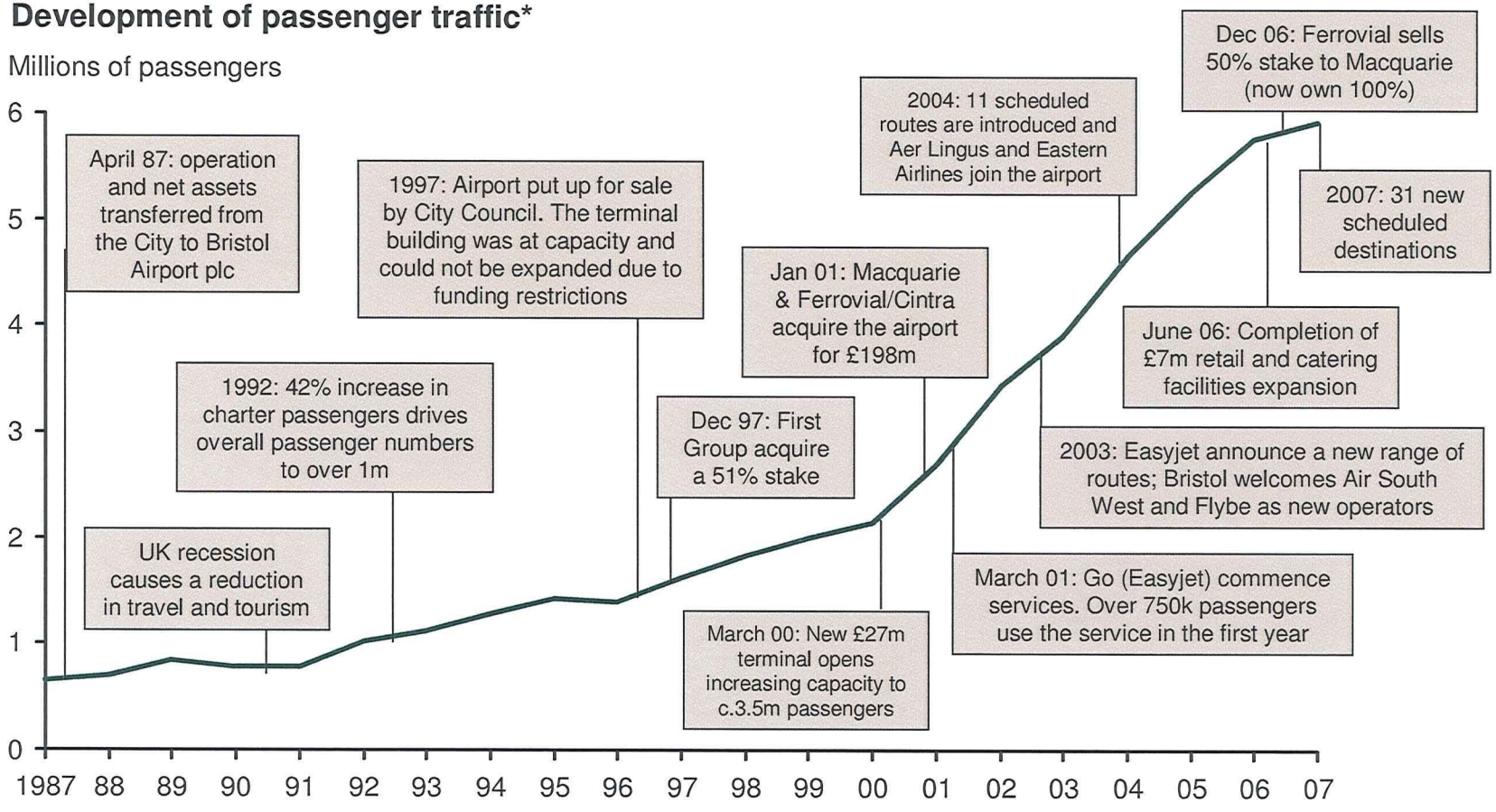
Bristol is a successful airport with high passenger and profit growth

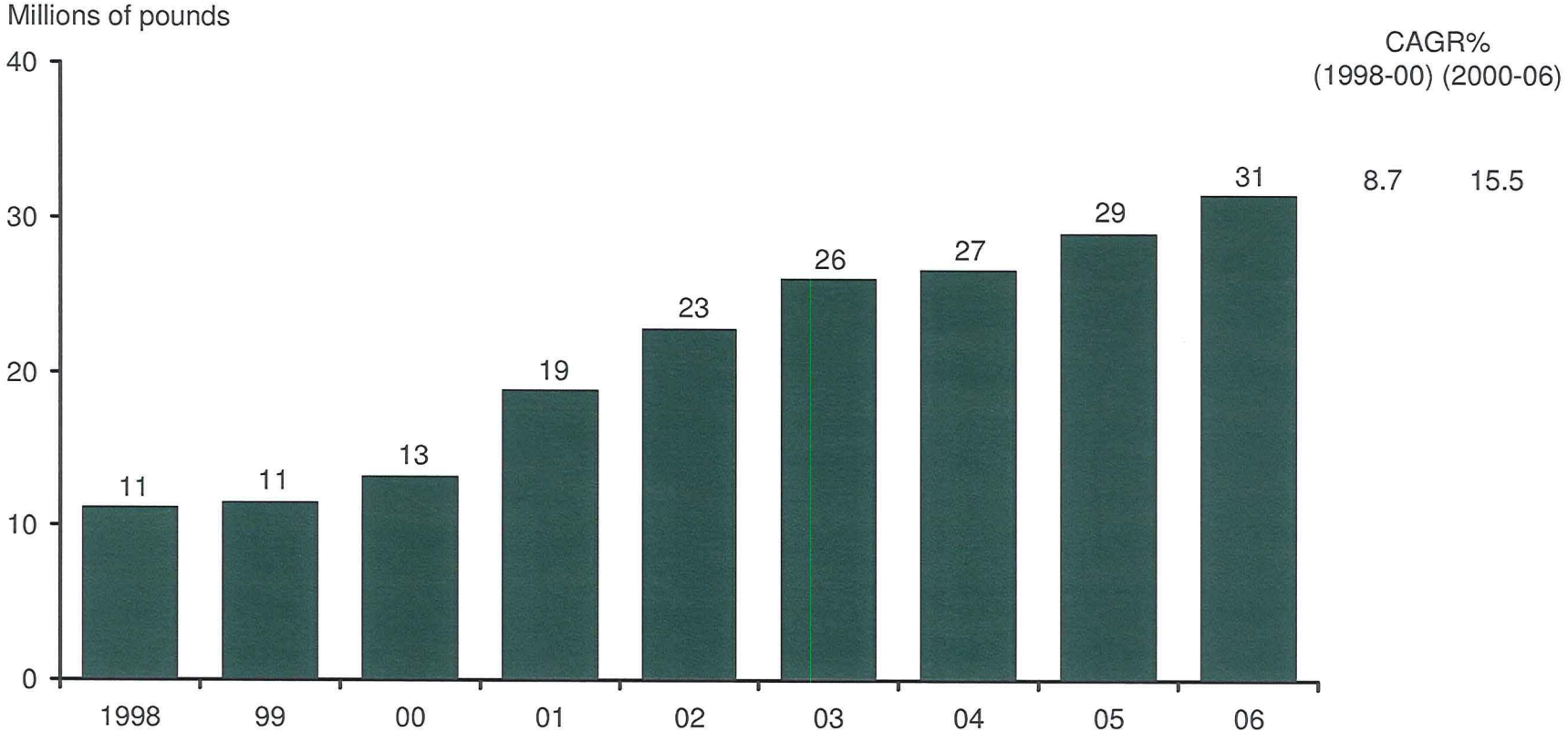
Development of passenger traffic*



Notes: *Pre-1997 figures are OD passengers only (Transit passengers account for c.0.9% of total passengers for 1997-2007)
Source: CAA; Press; Company websites

Profitability levels have improved significantly since the acquisition of the airport by Macquarie in early 2001

EBITDA



Note: 1998-2003, Financial year ending 31st March (eg. 2003: 1st April 2003 – 31st March 2004); Calendar year from 2004 onwards
Source: Amadeus; Companies House; Company Website; Press;

Bristol Airport's retail offer is extensive with 25 retail outlets covering an area of 3,794m²

Current offering

- Shopping outlets
  - Flying Visit
  - WHSmith (x2)
  - Nuance Tax & Duty Free
  - Fashion Gallery (designer clothes)
  - Street, Surf and Sand (holiday fashion)
  - WHSmith books
  - Superdrug
  - Claire's (value-priced jewellery and accessories)
  - Serendipity (Games arcade)
  - Bijoux Terner (Fashion accessories)
  - Travelex (x2)
  - Bureau de Change
  - Serendipity/Games Zone
- Catering outlets
  - Riazza coffee bar (x2)
  - Subway
  - Soho Coffee Company
  - Bar des Voyagers
  - Echo Music Bar and Restaurant
  - Dexters Restaurant (opening soon)
  - Starbucks
  - Burger King
  - Brunel Bar

Recent and future developments

- In June 2006 the £7.5m expansion of the retail and catering facilities at Bristol was completed, increasing the space allocated to retail and catering by 40%
- Included in the development was the UK's first ever departure lounge Superdrug, the largest regional airport WHSmith bookstore, the UK's first Soho Coffee Company airport outlet and the UK's largest Claire's Accessories airport shop
- The Nuance Duty free store was expanded by 50%, enabling it to provide a wider choice of luxury brands including Chanel, Clarins and Clinique fragrances as well as Mont Blanc pens, Rayban, Oakley, Gucci, Armani and Dior sunglasses as well as an enhanced technology section
- The range of outlets is designed to appeal to a wide variety of shoppers:

  "… Bristol International has worked hard to respond to the growing and varied demands of passengers looking for special presents, designers bargains, last minute holiday purchases and presents for friends and family …"

  Bristol International, June 2006

  "… The retail expansion has performed beyond expectations…The spend per head has been very positive …"

  "… We have a minimum retail spend target per passenger of £5.00, although we are currently exceeding that level …"

  Bristol Airport March 2008
- Proposed new outlets for Summer 2008 include a seafood and champagne bar and a casual family dining restaurant

Source: Press; Company Website; L.E.K. interviews