

#LYS The next low cost long haul base in Europe?



Why LYS is the perfect market for a low cost long haul airline?

- France, an underserved market for long haul
 - Despite the direct services offered by XL Airways to the French overseas territories (Guadeloupe, Martinique and Réunion), let's count the number of cities with a direct service to the US: 2 (Paris & Nice), to Asia: 1 only (Paris) or to South America: 1 only (Paris). France, with the capacity being centralised in Paris and despite the strong O&D demand, is clearly an underserved market for long haul, especially compared to its European neighbourgs such as the United Kingdom, Spain, Germany or Ireland;
- LYS & Lyon, increasing awarenes globally
 - With 3 UNESCO sites, the Alps just at a foot step, the vineyards..., LYS' region is also a prime destination for inbound tourism. The inbound traffic to LYS is booming: 2.8 million passengers travelled inbound to LYS in 2016, which was a +21% growth compared to 2015;
- LYS, the largest unserved French city
 - LYS is ranked number 1 in France in terms of O&D potential to most long haul destinations, even without considering the leakages mainly directed to Geneva (GVA) or to Paris (CDG and ORY) that represent about 60% of our overall international potential according to a Skyscanner survey;
 - Bangkok, New York City, Fort-de-France ...are just some examples of unserved markets with a strong O&D demand evaluated to more than 100 one-way passengers each day, without taking into account the stimulation effect that would be generated by new long haul services;
- LYS, a competitive airport in Europe
 - LYS' airport charges and taxes are 28% lower than Paris-CDG (CDG) or 169% when compared to Manchester (MAN), without taking any additional incentive scheme into account. An airline opening an unserved destination from LYS would benefit from LYS' new route incentive scheme, which are discounted passenger & landing fee for two years, but also from a dedicated marketing plan to build the airline brand and the destination in LYS' catchment area.





Why France is an opportunity for the low cost long haul airlines?

In Europe, France ranks number 3 in terms of population after Germany and the United Kingdom¹. It also ranks number 3 in terms of GDP², behind the same countries.

As a consequence, the air traffic demand is important in France and the country presents one of the largest O&D potentials in Europe to most international destinations, as shown in the table below :

O&D passenger traffic (One-way passengers – Year 2016)

	Asia Sub- continent	Caribbean	Far East Asia	North America	Southeast Asia
Including (examples) :	India, Sri Lanka	Cuba, Dominican Rep.	China, Japan	Canada & the US	Indonesia, Cambodia
UNITED KINGDOM	2,329,000	931,000	2,122,000	8,321,000	1,849,000
GERMANY	785,000	665,000	1,956,000	3,908,000	1,497,000
FRANCE	731,000	1,394,000	1,440,000	3,674,000	1,107,000
ITALY	594,000	279,000	1,487,000	3,103,000	600,000
SWITZERLAND	250,000	115,000	437,000	1,166,000	482,000
Rank of France	3	1	4	3	3

Source : Sabre Market Intelligence

However and despite this strong traffic demand, France has an extreme low development of the capacity outside Paris. Paris is in fact in most cases (except for Delta's seasonal service from New York to Nice and some leisure long haul services by XL Airways from some French airports), the only French city addressing the demand:

Benchmark among the Western European countries (2017)

	Country	# of cities linked to the US	# of cities linked to Asia	# of cities linked to South America	Population (2015)
1	Germany	7	5	1	81,174,000
2	France	2	1	1	66,326,000
3	United Kingdom	9	3	1	64,767,000
4	Italy	5	2	2	60,796,000
5	Spain	3	2	2	46,440,000

Source: OAG, Eurostat



¹ Source : Eurostat ² Source : Eurostat



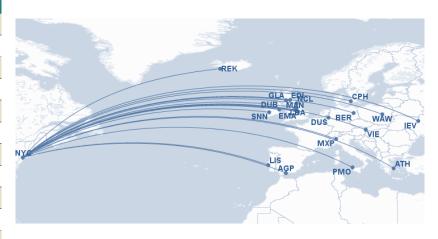
France appears more and more as an exception at a time when non-capital cities become more and more important in airlines' network development strategy: Barcelona for Level and Cologne for Eurowings...

As an example, out of the 20 new destinations opened from New York during the last 5 years, 11 concerned non-capital cities. None in France...

To the contrary, in France, Norwegian decided to open a base in Paris, where 7 airlines already operate scheduled direct flights to New York City (American Airlines, Air France, Delta, La Compagnie, Open Skies, United and XL Airways).

New routes opened during the last 5 years between New York city and European cities

Destination city	2012-17 % Average annual		
Destination city	growth rate		
Newcastle	28,5%		
Leeds Bradford	28,5%		
Palermo	27,2%		
Athens	21,2%		
Edinburgh	18,6%		
Reykjavik	17,5%		
Nottingham	14,9%		
Lisbon	12,2%		
Dublin	10,3%		
Malaga	9,9%		
Manchester	9,1%		
Berlin	9,0%		
Dusseldorf	7,9%		
Vienna	7,1%		
Glasgow	6,8%		
Milan	6,8%		
Warsaw	5,8%		
Kiev	5,1%		
Copenhagen	4,4%		
Shannon	3,8%		



Source : OAG

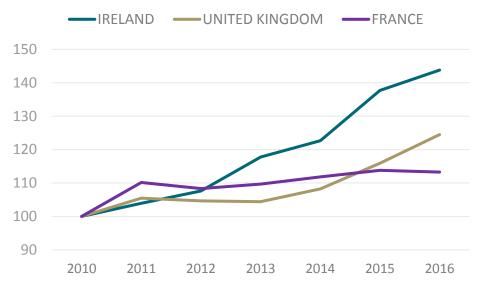




And this centralisation has of course a direct impact on the overall air services to France:

1. First, the dynamic of the overall market in France is naturally restrained by this lack of air services outside Paris, as shown on the graph below.





Source : Sabre Market Intelligence

While the O&D traffic between the US and Ireland and the United Kingdom increased by an average of +6.2% and +3.7% per year, the growth remained more steady in France with a +2.1% on average each year.

 Second, because of the traffic leakages to airports located in other countries. We, for instance, evaluate that 1.2 million passengers each year living in LYS' catchment area and departing from Geneva (GVA) in Switzerland travel to long haul destinations especially to North America, the Carribean and Asia. This is of course a tremendous loss of traffic and GDP for both LYS and France;

As a consequence, France currently drops behind the other European countries both in terms of market dynamic and of territorial development outside the capital. But it also mean that it would represent an even more obvious opportunity for an airline looking for a strong O&D demand in an open competitive environment, compared to main or capital airports.



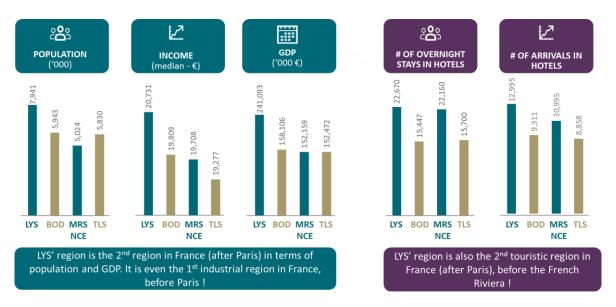


Why LYS is an opportunity for low cost long haul airlines?

We already talked a lot in the previous white papers of the main assets of LYS' catchment area. But it is always good to review the basics :

- LYS' region, called the Auvergne-Rhône-Alpes, has a country sized economy. With 7.9million inhabitants and a GDP of more than 240 b€, the region is larger than Finland (5.7million inhabitants and a GDP of 214 b€). If we keep on with comparisons, we can also say that LYS' region is richer than Portugal (GDP of 185b€) and more populated than Ireland (4.7million inhabitants), Ireland where for instance has 3 cities which are directly linked to New York: Dublin the capital of course, but also Shannon and Cork;
- LYS has clearly the strongest catchment area in France in terms of population, GDP, average income...but also in terms of tourism, as shown below:

Comparison between LYS and BOD, MRS/NCE and TLS's regions on a different set of macro indicators



Source: INSEE (French Bureau of Statistics)

LYS' region is also a prime destination for inbound tourism. And it appears more and more through both the airport and Only Lyon tourism board statistics. As an illustration, 30% of our passengers were travelling inbound to LYS in 2016³. This means that 260,000 return passengers travelled inbound to LYS' region in 2016; it is a +10% growth compared to the previous year.

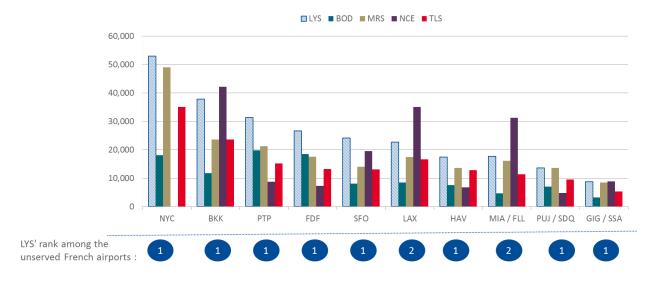


³ Source: LYS Passengers Survey



The demand for air travel is very important in LYS' region. LYS is without surprise ranked number 1 in France in terms of O&D potential to most of the long haul destinations.





One could say that Nice (NCE) can also sustain the comparison, especially to North America...but it would be without considering that :

- 1. The seasonality: Nice (NCE) is a leisure / summer orientated airport. As an example, in LYS, July is 29% busier than February. As a comparison, in NCE, there is 50% less traffic in January than in July. More globally, the traffic is less volatile over the year in LYS than from any other French regional airports.
- 2. The leakages, LYS' hidden potential. According to a survey led on the online searches made on Skyscanner⁴ by users living in LYS' region, airlines overlook 60% of LYS' opportunity when just looking at the MIDT data, as shown in the graph hereafter. Out of 10 searches led on Skyscanner by users living in LYS' catchment area⁵, 6 are made from a departure airport that is not LYS (GVA, CDG...).



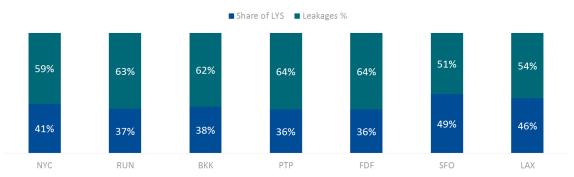
connect & fly

⁴ Skyscanner is a travel fare aggregator website and online travel search engine. The website is owned by Ctrip since November 2016, the largest travel company in China. The site is available in over 30 languages and is used by 60 million people per month (source : Skyscanner)

⁵ Defined here as the former Rhône-Alps region



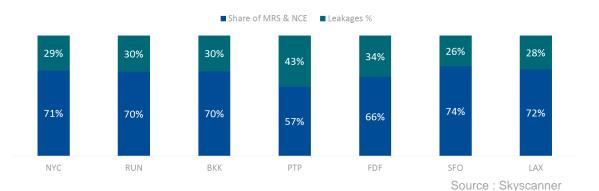
LYS' share among Skyscanner searches in 2016



Source: Skyscanner

LYS' situation towards leakages is indeed very unique in France. We indeed cannot deny that leakages are to be considered also from the other benchmarked airports. But the ratio are very different from what we observe in LYS. As an illustration, we use the same Skyscanner data for users living in the French Riviera (Provence-Alpes-Côte-d'Azur) which is MRS and NCE's greater region.

MRS and NCE's share among Skyscanner searches in 2016



Out of 10 searches on Skyscanner by users living in MRS and NCE's catchment area⁶, 3 are made from a different origin airport.

Let's compare again then the O&D potential from LYS and from NCE, considering this average 60% / 30% leakage factor.



⁶ Defined here as the Provence-Alpes-Côte-d'Azur (French Riviera)



Compared O&D traffic from a set of French airports (leakages included – one-way passengers)

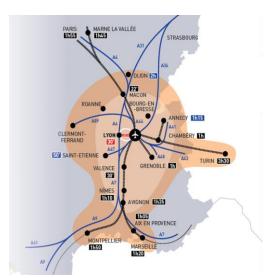
Destination	LYS O&D	LYS including leakages	NCE	NCE including leakages	LYS vs NCE %
NYC	52,980	84,770	112,870	146,730	- 42%
RUN	45,500	72,800	6,940	9,020	707%
BKK	37,910	60,660	42,250	54,930	10%
PTP	31,390	50,220	8,710	11,320	344%
FDF	26,710	42,740	7,280	9,460	352%
SFO	24,160	38,660	19,490	25,340	53%
LAX	22,680	36,290	35,120	45,660	-21%
HAV	17,510	28,020	6,790	8,830	217%
MIA / FLL	17,690	28,300	31,240	40,610	-30%
PUJ / SDQ	13,640	21,820	4,790	6,230	250%
GIG / SSA	8,710	13,940	8,820	11,470	22%

Source: Sabre market intelligence, Skyscanner

The conclusion is then clearly obvious on the opportunity LYS would represent for airlines.

In addition, a low cost long haul airline would clearly attract passengers from a larger catchment area, especially thanks to the direct high-speed trains (TGV) and low cost high-speed trains (Ouigo) that connect Marseille and Montpellier to LYS train station.

Direct high-speed train network from LYS train station



A new long haul service would also capture a share of MRS and MPL's O&D potential as already observed for Emirates: 11% of Emirates outbound passengers in LYS live in MRS and MPL's regions. LYS is currently in the spotlight. The traffic grew by +10% in 2016 compared to 2015 and the positive trend is confirmed for this year. LYS will surpass the 10 million threshold for the first time.





LYS' traffic evolution since 2000



Source : Aéroports de Lyon

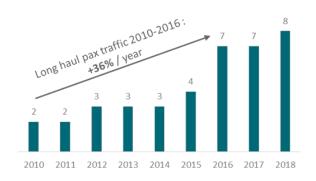
The traffic growth is coming from the long haul market that was clearly under-dimensionned in LYS up until now.

In 2016, for instance, 3 new long haul services were launched from LYS:

- Aigle Azur, the French Airlinechose LYS to launch its first long haul outside Paris to Dakar (DKR);
- Air Canada started in June 2016 to Montreal (YUL). Operated 5 times a week in Summer and 4 times a week in Winter, it is LYS' only year-round transatlantic service and Air Canada's second direct city in France;
- Aeroflot

started in June 2016 a direct service to Moscow-Sheremetyevo (SVO). The Russian carrier started to operate 4 times a week before increasing to a daily service.

Evolution of the number of long haul services from LYS since 2010





Source : Aéroports de Lyon





As shown above, the number of passengers travelling from LYS to long haul destinations (see the map) increased by +36% in average each year since 2010! The dynamic continues as XL Airways will operate a new LYS-Point-à-Pitre (PTP in Guadeloupe), which will start from January 2018.

The new capacity offered undoubtlesly leads to additional traffic. When an airline dares to take its chance on LYS, it obviously fills the aircrafts both by capturing both the pre-existing O&D potential and some of the leakages and of course by stimulating the demand. See the two examples below:

30% induction

Jun15-May16 = 65 700 pax

Jun16-May17 = 84 700 pax

70% induction

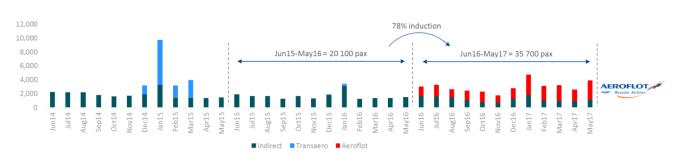
Nov16-Apr16
14 400 pax

Plug properties of the propertie

Montreal (YUL) - LYS O&D traffic evolution since 2014

Source : Sabre Market Intelligence

Since Air Canada launched the LYS-Montreal (YUL) direct service in June 2016 and even if the destination was already operated during summer only by Air Transat, the O&D traffic has grown by +30% in one year. The stimulation is even more obvious in winter when no direct service existed: +70% on the O&D traffic.



Moscow (MOW) - LYS O&D traffic evolution since 2014

Source : Sabre Market Intelligence

Another example with Aeroflot below that started its 4/7 service in June 2016 and later increased to a daily since January 2017.





As shown on the graph above, we observe a +78% stimulation factor on the LYS-Moscow O&D demand.

Both Air Canada and Aeroflot then experienced high induction factors in LYS by launching a new year round service. Let's then imagine what the market stimulation could be for a low cost long haul airline!

A competitive airport for low cost long haul carriers

LYS presents:

- The strongest economic and demographic region in France after Paris
- The highest existing (undeveloped) O&D potential to a large set of long haul destinations

But LYS is also a competitive airport for low cost long haul airlines in terms of fees and charges.

The table below presents the fees per passenger calculated on a large set of European airports based on a A330-300 (with a MTOW of 233t) and a 90% average load factor on international destinations.

Benchmark of public airport fees & charges (including taxes) for a set of European airports

	BCN	LYS	MXP	CDG	FCO	STN	MAN	LGW	ВНХ
Landing	7.82 €	4.13 €	5.88 €	3.27 €	3.05€	2.12€	5.95€	5.48 €	9.35 €
PSC	19.79 €	14.15€	17.44 €	22.60 €	28.41 €	12.85 €	7.06 €	16.28 €	13.90 €
PRM	0.59 €	0.74 €	1.15 €	0.70 €	0.86 €	0.26 €	0.53 €	0.32 €	0.41 €
Security	3.63€	7.75€	3.25 €	11.50 €	3.34 €		6.40 €		
Sec. Sur- tax	1.24 €	1.25 €		1.25 €	2.27 €				
CAA tax		8.00€		8.00€					
Solidarity tax		4.51 €		4.51 €					
Other taxes			15.50 €		17.50 €		1.65 €	0.65€	0.82 €
APD						87.30 €	87.30 €	87.30 €	87.30 €
TOTAL € / dep pax	33.1 €	40.5 €	43.2 €	51.8 €	55.4 €	102.5€	108.9 €	110.0 €	111.8 €
% vs LYS	-18%		7%	28%	37%	153%	169%	172%	176%





LYS ranks then number 2 out of this benchmark. It is for instance 28% cheaper than Paris-CDG (CDG) or 169% than Manchester (MAN).

This is even without accounting for the public incentives. LYS indeed offers a special incentive scheme for airlines opening new destinations that are not currently served from LYS. The prerequisites to be eligible are as follows:

- The route must be operated at least for 16 consecutive weeks;
- The route must be operated twice a week for short / middle haul routes (< 3,400 km) and once a week for long haul routes.

If the conditions are all fulfilled, the airline is eligible to a special discount off the passenger and landing fee for this route :

- -75% during the first year;
- -50% for the second year.

LYS fees & charges - 2017 / 2018

€ / dep pax	Year 1	Year 2	Year 3	
Landing fee	4.13€	4.13€	4.13€	
Parking fee	0.83€	0.83€	0.83€	
PSC fee	14.15€	14.15€	14.15€	
RMP	0.74€	0.74€	0.74€	
400 Hz & bridges	1.11€	1.11€	1.11€	
TOTAL	20.96€	20.96€	20.96€	
New Route Incentive				
Discount off landing fee	-75%	-50%	0%	
Discount off PSC	-75%	-50%	0%	
TOTAL € / dep pax	7.45€	11.95€	20.96€	

And this is even without taking account the performance bonus incentive scheme (loyalty program) that the airline would benefit from in LYS, starting from year 3 or any dedicated marketing support program that LYS would implement to promote the airline and the destination(s).





Main long haul opportunities from LYS

2016 and 2017 are turning points for LYS, LYS is now on a dynamic growth curve. However, LYS remains a star with many opportunities still available for airlines.

There remains high-potential markets unserved today. You will then find below a list of opportunities identified thanks to Sabre GDD data.

We evaluate here the outbound leakages using Sabre Point of Sale (POS) data processed through Beontra B route development⁷. Nevertheless, this methodology (actually the only one we have) still underestimates the actual number of passengers leaking from our airport because:

- The POS data only accounts for the bookings made on GDS and airline online bookings are not included in the evaluation;
- The information included in the data set are also under-evaluated because of the fact that leading travel agencies in the French market, are mainly based (and issue the tickets) outside LYS catchment area, like Carlson Wagonlit (CWT in Paris, Clermont-Ferrand...), American Express (in Paris), BCD Travel (in Paris, Lille and Montpellier)... It is even truer with the major Online Travel Agencies (OTA): OPODO, Lastminute.com, Odigeo (Opodo, eDreams, Go Voyages...).

This means a passenger who lives in our catchment area and buys their ticket from Paris (PAR) to New York (NYC) through an OTA, a Business Travel Agency or directly through an airline website (one global airline told us +40% of their French sales are issued by their website), are not considered as part of our outbound leakages.

From the figures evaluated for the outbound traffic and knowing that 31% of LYS non-connecting passengers travel inbound to LYS⁸ (this is an average, we are indeed able to evaluate this ratio per destination airport, city or country), we estimate the inbound leakages, ie the number of passengers travelling to our catchment area without using LYS as destination airport.

Please send us your comments on what we should write for our next White Paper.

Contact LYS network development team to get further information: NetworkDevelopmentTeam-LyonAirports@lyonaeroports.com.



⁷ LYS catchement area is defined as the following French « départements » : 01 (Bourg-en-Bresse), 07 (Privas), 26 (Valence), 38 (Grenoble), 42 (Saint-Etienne), 43 (Le Puy-en-Velay), 69 (Lyon), 71 (Châlons-sur-Saone), 73 (Chambéry) and 74 (Annecy)

⁸ Source: LYS Passengers survey - Year: 2016



Main long haul unserved / underserved markets from LYS

Destination code	O&D traffic	Leakages outbound from LYS	Leakages inbound to LYS	TOTAL Potential	PPDEW WITHOUT STIMULATION
NYC	52,980	58,540	10,050	121,570	167
RUN	45,500	85,830	19,780	151,110	207
BKK	37,910	53,810	0	91,720	126
PTP	31,390	94,940	0	126,330	173
FDF	26,710	82,020	0	108,730	149
SFO	24,160	12,730	2,450	39,340	54
LAX	22,680	27,170	4,020	53,870	74
HAV	17,510	13,210	0	30,720	42
MIA/FLL	17,690	11,520	1,850	31,060	43
PUJ / SDQ	15,060	24,050	0	39,110	54
GIG / SSA	8,710	6,240	0	14,950	20
DPS	8,000	27,150	0	35,150	48

Source : Sabre Market Intelligence, Beontra B route development, LYS Passengers survey

