

Route Viability Analysis

Saarbrücken Airport

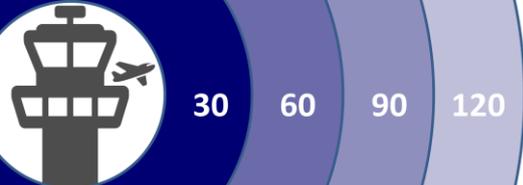


to and from

Reggio-Calabria Airport



September 2017



Management Summary

Saarbrücken Airport has requested CheckIn.com to verify the viability for a route from Saarbrücken (SCN) to the Reggio Calabria region in Italy under consideration of possible aircraft size and frequency for a year-round service.

Emphasis was given to the strong VFR¹-demand between the two regions.

Initially looking at Lamezia Terme Airport (SUF) as the “natural suspect” for flights into the region, CheckIn.com recommended to look compare at the same time at Reggio Calabria Airport (REG), since summer 2017 under the same management as Lamezia Terme (and Crotona Airport), a company called **Sacal** SpA (Società Aeroportuale Calabrese).

Where Lamezia Terme has direct year-round competition to Frankfurt (Sun Express) as well Frankfurt-Hahn and Karlsruhe/Baden-Baden (Ryanair), seasonal services to Luxembourg adds further competition. Whereas travelers to Reggio Calabria will prefer to fly directly to Reggio and not Lamezia Terme. Such the flight to Reggio Calabria offers an emotional, unique selling proposition.

The airline considering this route may prefer Lamezia Terme if it has already operations to that destination though. Usually using the local ground handling on remote stations, we recommend to use Reggio Calabria for the above mentioned reasons.

Developing CheckIn.com fully automated catchment area analyses 2011-2016, one of the concerns was the need to provide a solution for airlines dependent on MIDT² where routes are considered that have not been previously served. Where “comparable” data from other airports has limited real-world value.

Airline network planners commonly work and base their research on the results from tools like IATA’s Pax IS, OAG Traffic Analyser, FlightGlobal’s SRS Analyser and similar. This approach has been addressed in this study, but found to be **misleading** here and such not useful for the qualification of this previously and currently unserved route between two regional airports.

The same is true for the ACI³ QSI (Quality Standard Indicator⁴), basically comparing factors such as aircraft type, stops and frequencies of two flights to forecast market share. Unfortunately, that does neither work on the comparison of flights from different airports, even less on “similar routes”. Even on a A to B route, it is up to the analyst to “define” the “factors & coefficients”, rendering even that model inefficient; we learned from airline network planners that different tools use different factors and coefficients on the same data, so all tools to provide different “biased” results. They also confirmed those tools completely meaningless on previously unserved routes.

While we researched, neither from the Calabrese, nor from the Saar side we have received active support from the chambers of commerce or tourism offices. As such, we have no positive indicator for local/regional support for the airport or the specific route in question. While we have no reason to give this a negative qualification, any airline seriously considering the route is well advised to demand the support from industry, tourism and local political powers.

Researching the numbers we have, comparing the indicators to what we learned from both Saarbrücken as from Sacal for Lamezia Terme and Reggio Calabria, we see an underserved demand between West Germany/Luxembourg and Calabria, with a very strong business case for Saarbrücken to Reggio Calabria, on an initially twice weekly basis with an A319 or similar aircraft, with possibly even a third flight following the successful established route.

We recommend Reggio Calabria for two main reasons.

1. According to the Saarbrücken Airport’s initial information, the Italians (partially second or third generation) living in the Saarbrücken have a demand for flights to Reggio Calabria, not to Lamezia Terme.
2. Service to Reggio Calabria would benefit from demand from an increased catchment area for Saarbrücken, also attracting travelers i.e. from Luxembourg, who want to travel to that region and not Lamezia Terme.

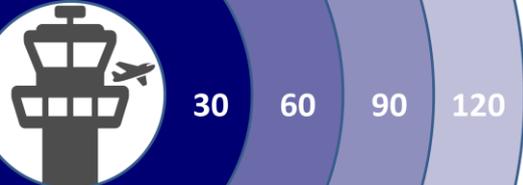
Without “hard numbers” from previous operations, it is not possible to guarantee travel demand. But with an average of more than 85% load factor on flights between Germany/Luxembourg and Lamezia Terme, the route is already underserved. Offering the alternate “destination” in Reggio Calabria should be good for at least a twice-weekly service in summer, if not year-round.

¹ VFR – Visiting Friends and Relatives

² MIDT – Marketing Information Data Tapes. See General Methodology

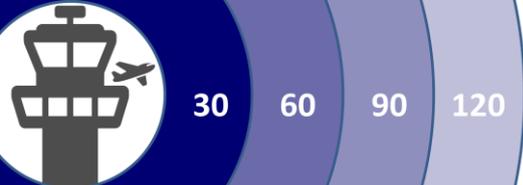
³ ACI – Airports Council International

⁴ An introduction to QSI: https://www.aci-na.org/sites/default/files/welch_qsi_fundamentals.pdf



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Objective + Preparation

To examine the commercial viability of a commercially successful route between Saarbrücken (SCN) and Reggio Calabria (REG) or alternatively Lamezia Terme (SUF).

To avoid a biased analysis, CheckIn.com was selected, providing the analysis on a strong statistical basis and understanding the bias of common data interpretation to large airport and existing route history. CheckIn.com provides catchment area data and route studies to airlines, airports being of minor commercial interest. All CheckIn.com analyses are based on a unique pan-European data base of a commercially unmatched quality.

Prerequisites

The airports have been asked to provide input and information leads for use in this analysis, such as available statistical data on the regional “micro” level, relating to VFR, business travel, leisure (vacation) potential. Such information has been part in the following methodology.

OAG Traffic Analyser, IATA Pax|Airport IS, FlightGlobal SRS Analyser

Those tools have and must **not** be considered for two reasons:

- First of all, they would have more than doubled the cost for, without adding value to the analysis.
- Second, they are proven to be biased to large airports with historic route data on the given route. Their results must fail on smaller, regional airports, trying to compare insufficient data and applying global, statistical assumptions, ignoring i.e. regional difference in ethnicity, commercial relations, etc.

We have received copies of their results from three airlines, all three results rendering the route useless with **Zero** demand. While one airline network manager disqualified the route in the accompanying mail, the other two emphasized that a route without previous “demand” must return such zero-demand and are virtually useless.

General Methodology

With experience in airline network development, CheckIn.com developed an extensive data base providing insights into airport catchment area and also passenger flows on a pan-European level. Using this data as a basis, we also analyze several external sources, such as, but not limited to

- ✈ IATA aviation economics information
- ✈ Traffic data, mainly from IATA⁵, Eurostat, ACI⁶
- ✈ Online data from FlightStats, GfK⁷, OAG⁸ and other providers (commercial or free)
- ✈ MIDT⁹ and air fares information
- ✈ Data provided by the airports, Eurostat, national and regional statistics
- ✈ Public data from a range of other sources

In general, we do not use data blindly, but we review on a case by case basis if the data seems sound, what the weakness or strength of the individual data sources are.

The data provides insights and understanding of the economic framework, sound indication about traffic volumes, seasonality and the success factors for the route. At the same time, we learned and have ample proof that such data is also not error-free, so within the analysis we apply our expertise to identify possible problems and apply sound fixes to the results.

Classic MIDT data is processed with (more than just) “a grain of salt”, as they only reflect the eroding volume of GDS¹⁰ bookings. A major part of the bookings are processed through travel websites and the airlines directly, this is especially true on regional, pan-European flights, dominated by “low cost” operations.

The ticket fare levels are usually higher on GDS-based bookings than on Internet-based ones. Business travelers and their travel management companies use GDS more extensively, while leisure travelers and VFR still use travel agents and tour operators, but book to a larger extend online on the airline or tour operator’s website.

This data is only useful, if there has been recent, comparable traffic on the route. Even competitive routes are having frequently different demand, digging into a different catchment area demand.

⁵ IATA – International Air Transport Association, AirportIS

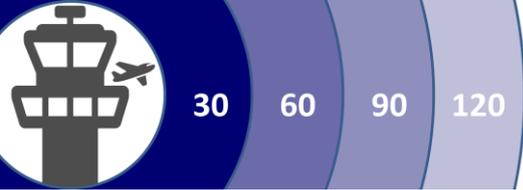
⁶ Airports Council International

⁷ GfK – Gesellschaft für Konsumforschung, expert analysts on purchasing behaviour.

⁸ OAG (Official Airlines Guide) Traffic Analyser

⁹ Management Information Data Tapes, GDS-based booking data

¹⁰ GDS – Global Distribution Systems (mainly Amadeus, Sabre, to some extend Travelport)



Regional airlines, operating usually a mixed fleet of smaller aircraft with a higher cost per seat will need to achieve higher average fares than low cost airlines, operating a single type fleet with very low cost per seat.

Also, the “reach” for the traveler, not living at the airport, but maybe towards Frankfurt, decreasing the “distance factor”. But that fact is automatically considered in the algorithms used in the CheckIn.com Catchment Area Analysis.

Most airports focus on traffic from the airport to the destination. By default, we analyze both directions, also using comparable existing route information.

Where connecting flight possibilities exist, those have been analyzed as well. The same though if there are competitive routes from neighboring airports. Or if a neighboring airport might be the better choice for operations between the two regions.

For an idea how airlines address a new route, Jürgen has published an article on his blog back in 2012 about [Aviation Network Planning – or: How the Crystal Ball works](#). It must be emphasized that we base our forecasting on sound statistical data, where available and decades of experience. Nevertheless, we attempt to predict the future.

For passenger predictions, we identify competitive routes at the neighboring airports. Considering the “size” of the airport, reflected by the annual passengers, as well as the catchment area/passenger ratio of the airport allows to compare route potential even for differently sized airports having different catchment areas. It is important though to understand that the selected flight times, frequency, ticket prices have hard impact on the final potential. Soft factors like the reputation of the airport and airlines, convenience and friendliness also result in positive or negative impact to the attractiveness of the new flight offer.

Another very important fact we research on is the “public support” (or opposition) of the airport by industry, tourism, politicians and press.

Facts and Assumptions

Taking into account the statistical “facts”, assumptions must be made to extrapolate them into future traffic potential. Following the initial market-analysis (generic and route specific), we translate them into expected passenger potential and market penetration for the route and the commercial forecast (assumption) for the next three years.

Where statistical data exists, we take those into account. But aside of high frequency routes, where such statistics seem comparable, we take those as indicators only. It is highly unprofessional to assume a 1:1 relation in statistics.

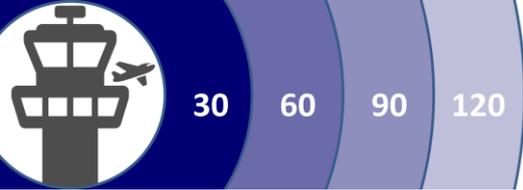
Airport discounts, marketing or other support are **not** considered but may have a direct impact on the financial calculations and the attraction for the airline operator considering the route.

The aircraft taken for the basic assumption is the 150-seat Boeing 737 or Airbus A319 offering a common cost-per-seat. Using different aircraft, the calculations can be adjusted for only a minor surcharge, but we found airlines usually preferring to use their own calculations at that level. We also used common block time assumption and cost per block hour as used by the European operators of such aircraft.

It is vital to understand, that we work with

Indicators

Any company assuming that they work with hard numbers shows a suspect and dangerous naivety. We have experience with large statistical companies like Eurostat, ACI, etc. We call it [the numbers game](#); Even on “passenger numbers”, there is usually (not the exception, but the rule) discrepancies between airports and other “official sources”, even between airport publications within the airport. A common example is Eurostat data between two major airports, such as Vienna and Budapest, where Eurostat published both data, the one from Budapest in- and outbound and the data from Vienna in- and outbound. Aside the need to filter the duplicates, the Budapest outbound and the Vienna inbound should be identical – and are not. This is only an example, that problem being the rule, not the exception. Aviation statistical data is not anywhere close the quality anyone implies. And looking at the existing analyses tools, any such tools return different data as their base data might differ and their algorithms without the luxury of doubt, **do** differ.



General Market Analysis

Developments in Europe raise concerns about the state of the European aviation industry. Expectations vary by the analysts voicing them (and their hidden agendas doing so). As well as the media or politicians ordering or using such studies.

Instead of using questionable own expectations, we focus on the expectations of our industry bodies, namely ACI, IATA or ICAO.

While we face an increasing concentration to few big airlines, on the European level, regional aviation is mostly dominated by “low cost airlines”, with network airlines establishing their own “low cost” subsidiaries also managing the feeder services to their long-haul operations. The current bankruptcy of Air Berlin confirms that trend. It is vital for the airlines to operate their business case.

At the same time, the increasing number of direct point-to-point services challenges the big airport hubs and reflects opportunity for smaller regional airports, beyond direct feeder services into the hubs.

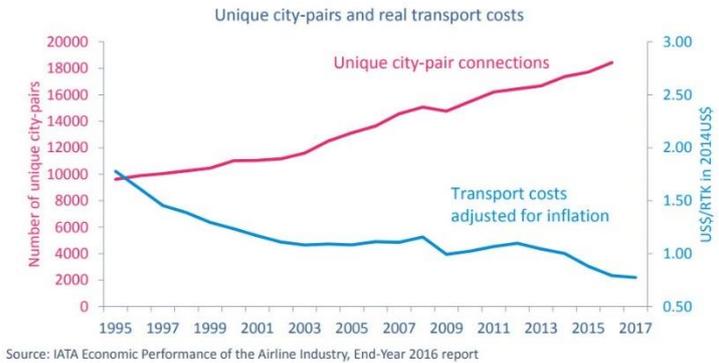
Another trend vital for the airport to understand is the necessity to support the airline actively with their marketing activities. Where many airports still expect the airline to do the marketing for their flights, such promoting the region they fly to. The rise of the Internet, the erosion of airline ticket prices and revenues resulted in a change here. This is another reason, it is vital to have the tourism office, industry bodies, politics and other powers-that-be in active support. If that is not available, the likeliness of routes to fail has been dramatically increased.

Airports are restricted regarding financial support in the process to establish new routes. The risk is largely taken by the airline. More recently at Network Development conferences, more and more airports show commitments by coming with the industrial, tourism and political powers-that-be, expressing the regions sincere interest in developing air traffic for their airports. Even without additional financial risk-sharing, the signal is convincing for an airline operator. Especially compared with other airports, left alone and on their own, reflecting a much higher risk for the airline operating to and from that airport.

Eurocontrol in their [Seven Year Forecast](#) reflects the changed needs also by the airline load factors. At 67,9% ten years ago (2007), the load factors rose to 76.5% in 2016, expecting in the worse-case scenario a load factor of 80,9% 2023. Consequently, airlines increasingly demand “constantly full flights”.

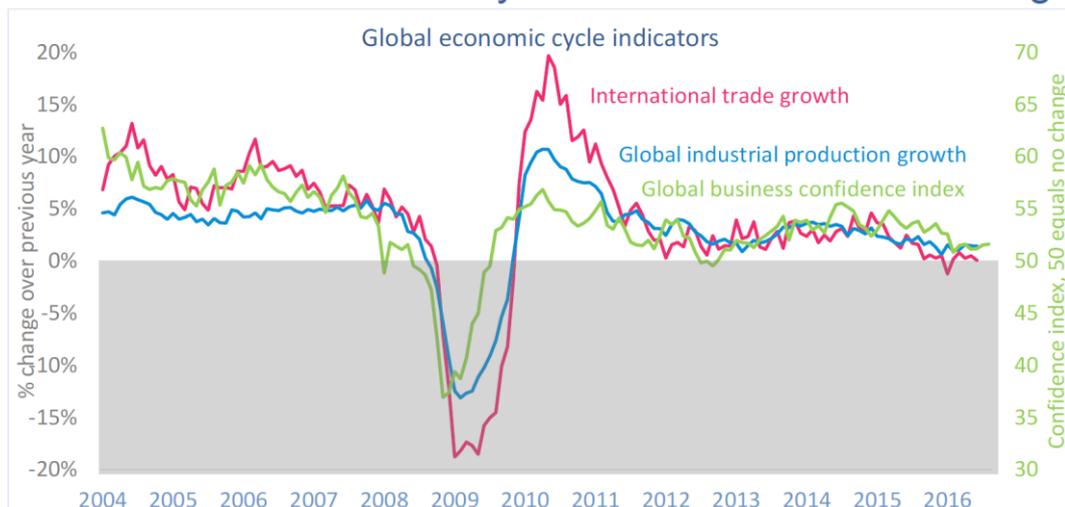
Following the 2008/09 global financial crisis with a major negative impact to all industries, and the following recovery peak, we see a stable industry development since 2012.

The industry has seen considerable success globally



Source: IATA Economic Performance of the Airline Industry, End-Year 2016 report

But lackluster economic cycle now seems to be slowing

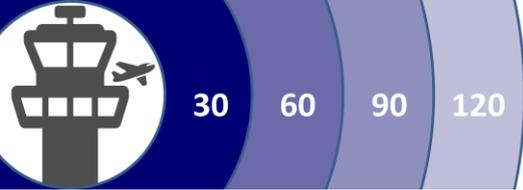


Source: IATA using Netherlands CPB and Markit data

www.iata.org/economics

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In their monthly [State of the Region Monitor](#) for Europe, IATA confirms a solid growth and demand for the European air travel. While the GDP grew a moderate 1,7 percent year-on-year, passenger numbers grew a net 7,7% for travel within Europe, while the number of seats only increased by 4,8 percent. This reflects an improved utilization of the aircraft and “full



flights". This is also reflected by the aircraft orders, reflecting a substantial increase of aircraft numbers operating in Europe. Those aircraft have to be utilized, so airlines keep constantly seeking viable new routes.

IATA's monthly [Passenger Analysis](#) confirms that trend. European airlines' RPKs¹¹ grew 8,6% total (compared to the above used travel within Europe) with the ASKs¹² only growing by 6,3%.

At the same time IATA confirms the trend to single-class cabins on flights within Europe, no longer analyzing "premium" passenger development by seat class. This trend is also confirmed by the senior managers in the business travel management industry. Quite opposite ACTE¹³ confirms increasing business travelers making use of direct booking on low cost airlines. Often at rates higher than offered by the business travel agencies servicing the corporate traveler and such resulting in conflict with the corporate travel policies.

The concentration of the network carriers on their hubs have opened opportunities for airlines. But at the same time, the higher utilization and price wars of the big carriers on competitive routes have increased the interest by airline in unserved routes. On the other side, the airlines focus on high aircraft utilization, so it is important to understand where the aircraft for the route analyzed here shall come from, how it fits into the aircraft's daily rotation.

While we see an overall trend in lower ticket prices, we also identified substantially higher ticket prices and revenue for airlines operating a route exclusively. For the airport it is important to understand competition and to be in constant touch with the airline providing feedback.

With 307 narrow-body aircraft having entered the European market 2016, 356 more will be delivered in 2017. In return, the average yields in Europe for the airline eroded by -7,6% in 2016 with the trend ongoing this year. At the same time the airline operating (EBIT) margin increased in Europe from 5,4 percent in 2015 to 6,1% in 2017. That development is reflected clearly by airlines seeking constantly new, commercially viable routes.

Working with airlines on new routes, we encounter a misunderstanding by airports we keep addressing. With the need for constantly high load factors, the aircraft must be utilized year-round. Airlines are increasingly demanding concepts how to operate the aircraft all year at your airport. Every airport wants aircraft in the summer season. For that reason we have looked beyond the VFR demand at commercial opportunities.

Looking at the route analyzed here, the initial implication was a leisure service, likely a typical summer season route. Where hotels as well as aircraft are in high demand. While it makes sense to initiate the route in summer to promote the new destination and achieve higher load factors from the first flight, It is vital to have a concept to allow to keep those high load factors also during the winter season.

Growth in air passenger volumes

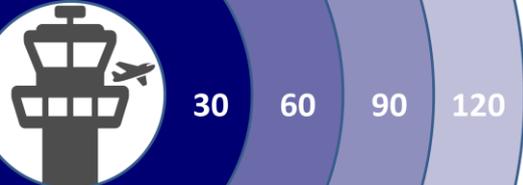


Source: IATA Statistics

¹¹ RPK Revenue Passenger Kilometer (paid)

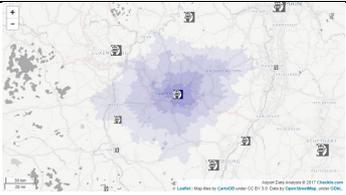
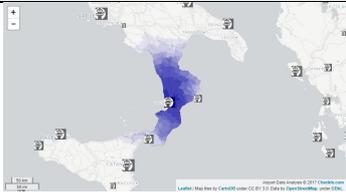
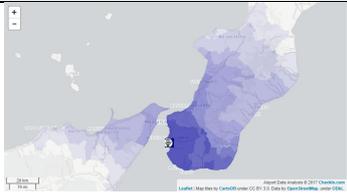
¹² ASK Available Seat Kilometers (capacity)

¹³ ACTE Association of Corporate Travel Executives



Airports' + Regions' Background

Overview

	Saarbrücken	Lamezia Terme	Reggio Calabria
Runway Length	2.000 m	3.017 m	1.996 m
Main Routes	Business routes to TXL (AB), Munich (bmi), HAM/LUX (LG). Vacation routes PMI (Niki), Antalya (Sun Express) Plus summer charter.	12 year-round routes by Ryanair plus 10 year-round routes by other airlines, 32 seasonal routes	Alitalia/Blu Express to Rome and Milano
Passengers 2007 vs. 2016	+ 22% (350»428K)	+73% (1,46»2,52m)	-17% (582»485K)
Main reach	60 min population 2,2 mio catchment 406 thousand Saarbrücken has a strong reach into the local area with a strong purchasing power.	240 min population 6.7 mio. catchment 1,3 mio. Lamezia Terme reaches far towards Naples, Bari and Brindisi in the North/East, as well as Reggio and Catania in Sicily.	90 min population 1.2 mio. catchment 452 thousand Reggio Calabria's reach overlaps Lamezia Terme to the North/East and reaches further towards Catania in Sicily than Lamezia Terme.
Economy	Science & Education cluster, economy not addressed in Wikipedia	Not addressed in Wikipedia	Mainly tourism (then why fly to Lamezia Terme?)
ANNA.aero SVID ¹⁴	24.6 Managerial and operational challenges	7.9 Good	2.2 Good
Catchment area			
Catchment Ratio	60 minute reach: 1.05 : 1 (Germany 2.79 : 1)	120 minute reach: 2.1 : 1 (Italy 2.72 : 1)	60 minute reach: 1.37 : 1 (Italy 2.72 : 1)
Notes	2006-15 local competition by Zweibrücken airport (now closed)	Dominated by Ryanair, also served by i.e. Eurowings, Smartwings or Wizzair	Underserved with quite some opportunities, joint management company with Lamezia Terme.

For detailed catchment area analysis see also attachment

GfK grouped Saarbrücken region as moderate-high in their purchasing power on European level, slightly above average on a German level relating to purchasing of vacation.

On an Italian level, the Southern Italian region has purchasing power "significantly below average". On the European scale though, the Calabrese region is on the average level comparing European purchasing powers, such also has good potential to create a substantial share of passengers originating in the region to travel to Saarbrücken.

On Sicily, Messina is to offer a **free** connection to Calabria from summer 2018, further improving the reach into Northwestern Sicily.

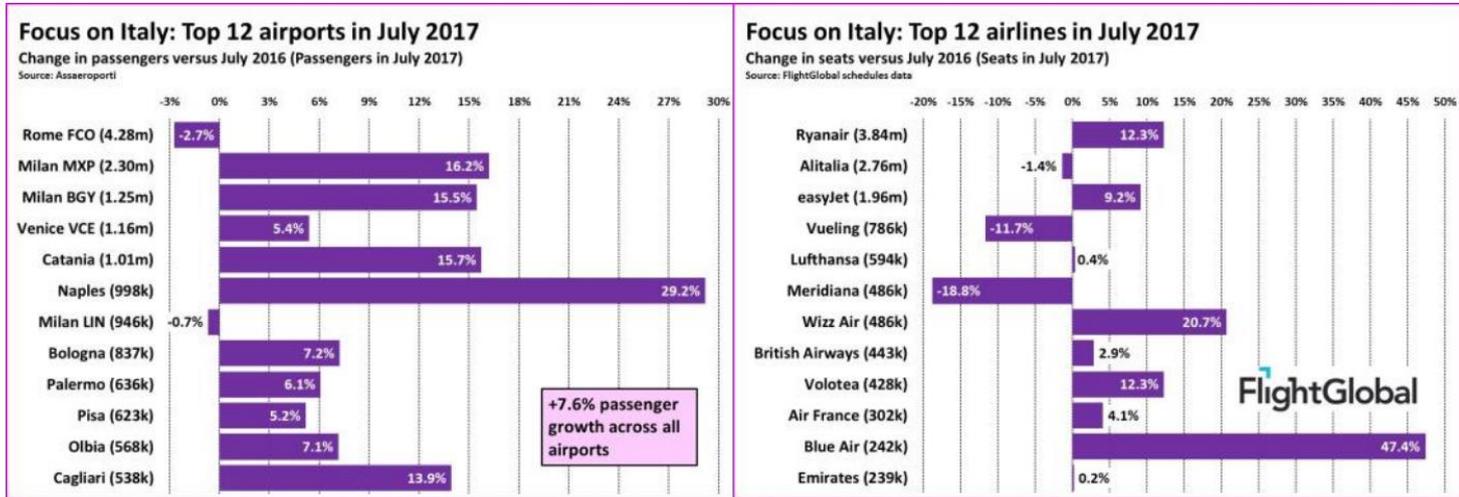
¹⁴ Seasonality Variation in Demand from <http://www.anna.aero/databases/>



Purchasing Power & Catchment Area Maps

The following maps are extracted from the free, low resolution maps provided by GfK (see attachment The Anker Report)

The Anker Report by network development specialist Ralph Anker, formerly founding member and chief analyst at ANNA.aero addressed Italy in his first-ever independent report. Based on FlightGlobal-data he summarized:



Italy: Passenger numbers were up almost 8% in July across all Italian airports despite the country’s busiest, Rome FCO, seeing an almost 3% drop. This is the fifth month out of seven that Italy’s biggest airport has seen traffic fall compared to 2016. The five fastest-growing airlines are all LCCs with Blue Air leading the way.

This shows once more, that flight statistics are not a sound basis but only an indicator looking at existing routes. It is of limited use looking at previously unserved routes. Neither Saarbrücken, nor Reggio Calabria have supporting “flight statistics”, but from the very first discussions emphasized their believe in the business case.

Data Sources and Quality

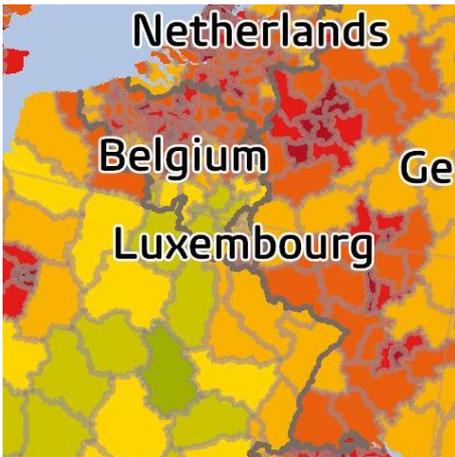
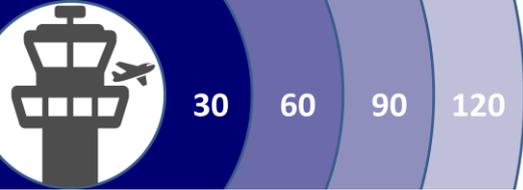
To develop CheckIn.com, we worked many years with aviation and national statistics, as well as Eurostat and a number of commercial sources. We invest a lot of time fixing discrepancies, especially aviation data being inconsistent. Receiving annual passenger data for the route Vienna-Budapest from both airports, the national statistics and Eurostat, not one of the numbers matched. Not for this example but another once, we talk about an offset of +10% on passengers on a route.

Worse on the example VIE-BUD, Eurostat does not refer them once, but twice, such doubling the passenger numbers on sloppy analyses. Over the years, we have added substantial corrections to manage such data discrepancies.

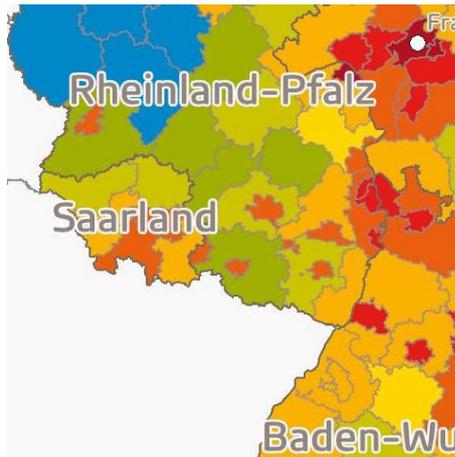
We work with the most granular available data levels ###

GfK Purchasing Power Europe) and CheckIn.com’s Catchment Area Analysis.



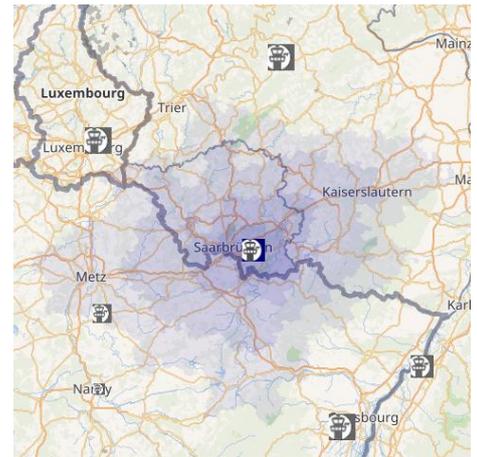


Purchasing power density for 2-digit postcodes
= Purchasing power in mil. €/km²



While the Italian map compares to the national average as 100% dark blue as below 72% and light blue 72-80%, the German map reflects million Euro per km², same as the European map.

As such, the Italian map is **not** really comparable!



The default coloring starts at 8% opacity for 0-10% impact. It adds 8% opacity in steps by 10% until a theoretical impact of 100% reflected by a 80% opacity.



Flight Times, Block Times, Rotations

Working with airlines, we found the three values of high importance in the planning of the daily aircraft rotation and utilization: Flight Time, Block Time and Rotation.

Flight times are based on a speed of 448 kts as an average. Should the aircraft in question operate faster, we recommend to update flight times using the [AIRINC Direct Flight Manager](#), which applies automatically a 15 minute bias on take-off.

Block Times are based on the [Airplane Manager Flight Calculator](#) and include taxi-times and average delays.

The rotation time is based on double block time plus typical turn-around time offered by the two airports.

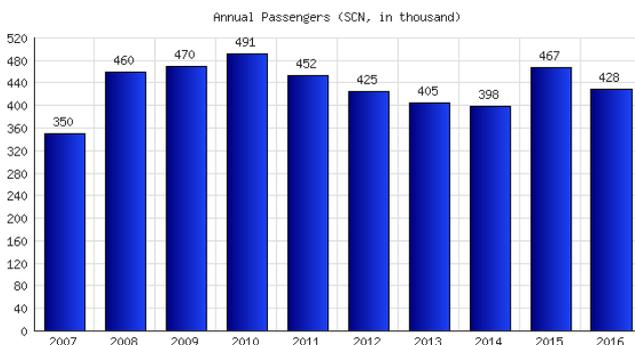
From operational experience and Jürgen being a specialist for disruption management in aviation, we apply an adjusted rotation value. That value typically considers known differences in average time to taxi (in-/outbound), likeliness of operational delays, i.e. due to heavier traffic. The value is also rounded up to full 10 minutes.

Route	Flight Time	Block Time ¹⁵	Turnaround	Rotation	Adjusted
SCN-REG	1:57h	2:24h	0:30 / 0:30	5:48h	5:40h
SCN-SUF	1:53h	2:18h	0:30 / 0:40	5:46h	6:00h

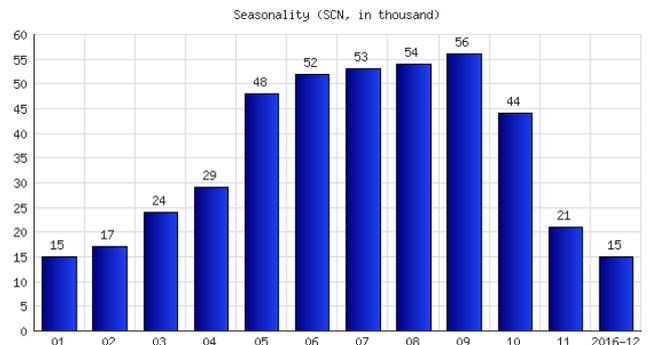
Saarbrücken Airport

Saarbrücken Airport (IATA: SCN, ICAO: EDDR), or Flughafen Saarbrücken or Ensheim Airport in German, is a minor international airport in Saarbrücken, the capital of the German state of Saarland. It features flights to major cities throughout Germany as well as some leisure routes. (Wikipedia)

Passenger Trend past 10 years



Seasonality



As outlined in General Methodology, we use statistical history as basis for our analysis and forecasting.

Within the core catchment area of the airport, one hour of the airport lives a population of almost 2.2 million people. Despite the competition, mainly from Frankfurt as the hub dominating central Germany but more than two hours away and Luxembourg with local airline Luxair being only one hour away, the airport reaches a potential of 406 people traveling. With 2.79 flights per person in Germany in average, the airport has a theoretical potential of one million travelers.

With GfK confirming an average purchasing power, the airport has a good potential to overcome the high seasonality, reflected by a focus on seasonal leisure flights.

Saarland Statistics account for 18.796 Italians in the region for 2013, 705 immigrants, 420 emigrants. 214.820 Italians (Source Wirtschaftsförderung Saarland)

Main regional competitor is Luxembourg airport with a weekly flight to Lamezia Terme (Saturday) and two weekly flights to Catania (Thursday, Saturday), another reason we recommend Reggio Calabria.

¹⁵ Having researched the issue, there are no "official block times" between any two airports, but it is part of the individual airline's flight planning procedure.



Reggio Calabria Airport

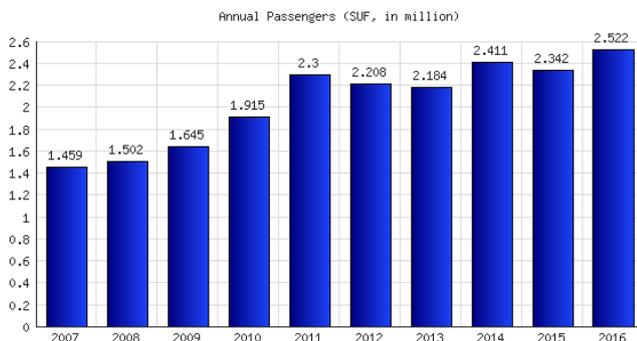
Reggio di Calabria "Tito Minniti" Airport (IATA: REG, ICAO: LICR), also known as Aeroporto dello Stretto (Airport of the Strait) is an airport located near Reggio, in southern Calabria, Italy. It serves mainly the Province of Reggio and the Province of Messina, and partially the Province of Vibo Valentia; more than 1,200,000 people. Daily flights depart and arrive for and from several Italian cities, and are seasonally augmented by flights to various other countries.

Reggio military airport was inaugurated in 1939 (the first airport in Calabria), becoming operative for commercial flights in 1947; later it was named after Italian Royal Air Force war-hero Tito Minniti, who was born in Reggio Calabria. Its IATA airport code REG is derived from Reggio, Calabria's main city, which the airport is closest to. On the outskirts of the airport the training grounds of local football club Reggina Calcio are located.

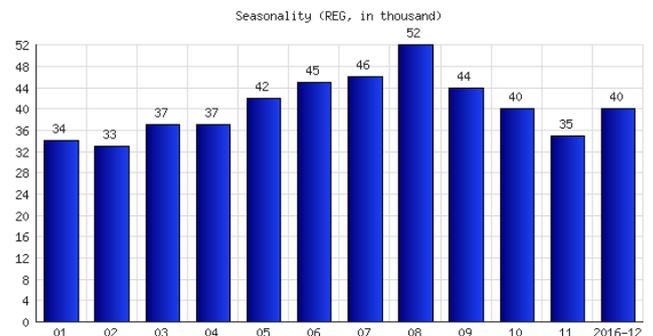
In March 2017, Alitalia announced to terminate all 56 weekly flights to and from the airport (to Milan, Rome and Turin) stating all routes were heavily loss-making. However, this decision was revoked shortly after. [Wikipedia]

In summer 2017, the airport of Reggio Calabria was taken into management by SACAL, also managing Lamezia Terme Airport.

Passenger Trend past 10 years



Seasonality



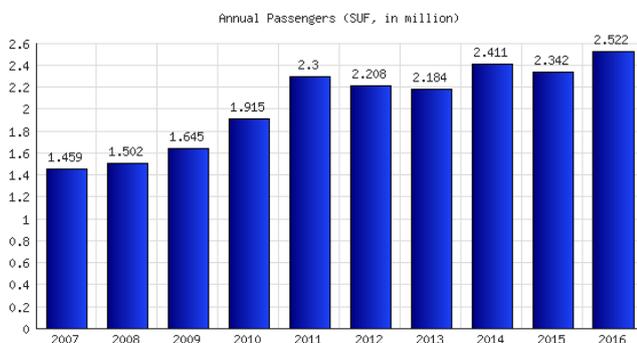
Within two hours of the airport lives a population of almost 2.5 million, though the strong reach is within 60 minutes with about 700 thousand people, of which under competitive considerations about 350 thousand use the airport.

Main regional competitor is Lamezia Terme airport, with a slightly higher population within 60, but a smaller reach in the two hour range, but also a higher seasonality (also because of higher number of summer charter flights from Northwest Europe).

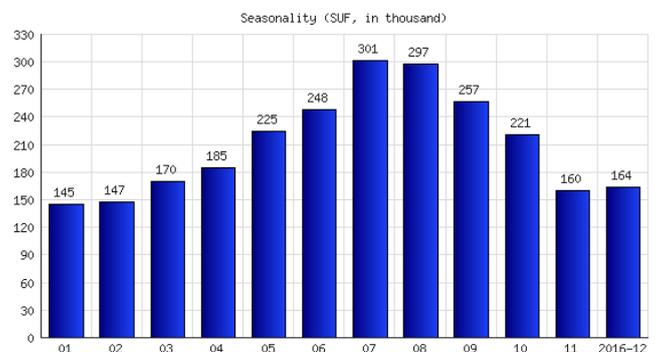
Lamezia Terme Airport

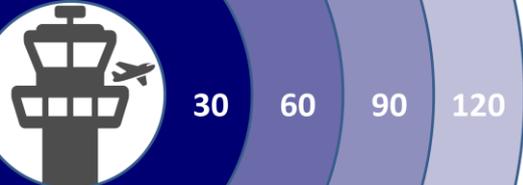
Lamezia Terme International Airport (Italian: Aeroporto Internazionale di Lamezia Terme "Sant'Eufemia") (IATA: SUF, ICAO: LICA) is an airport in the Sant'Eufemia district of Lamezia Terme, Calabria, Italy. It is the principal airport of Calabria. [Wikipedia]

Passenger Trend past 10 years



Seasonality





Regional Relations

Existing statistics by Eurostat, the regional statistics offices of the Saar region and Italian statistics istat.it are limited to national level (region to country), and as such are of little use in large countries like Europe and Italy.

Commerce

No statistical data available on Saarland or Saarbrücken region to Calabria or vice versa!

Leisure

No statistical data available on Saarland or Saarbrücken region to Calabria or vice versa!

Only FTI tour operator in Munich expressed a direct interest to offer packages should there be flight service between the two regions. In general, all German tour operators expressed a “general interest”, but expressed they would need to verify that interest with their regional managers.

VFR

No statistical data available on Saarland or Saarbrücken region to Calabria or vice versa!

Both the airport representatives from Saarbrücken and Sacal (REG, SUF) confirmed that there is public demand, reflecting on VFR-relations between the two cities. Furthermore, Sacal’s representative, only recently having taken responsibility for the management of the Reggio Calabria Airport expressed the demand to be attractive beyond the immediate Saarbrücken area.

Education

Both Reggio Calabria and Saarbrücken have a sizeable number of schools and universities. For year-round use of the new route it will be advisable to establish intercultural relations, organize student exchanges and foreign studies attracting additional VFR traffic.

Regional Support

While we have not received any support from the Calabrese and the Saarland Chambers of Commerce, the Tourism Office or other regional business development bodies to prepare this study, we have also found a mixed support/opposition in social media and press.

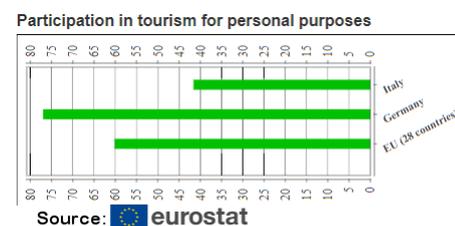
An example might be the new route SCN-MUC, which was generally well received and appreciated sufficient press support, but industry complained about missing “interlining”. A typical “preemptive excuse” by the industry to not make use of local services, ignoring the fact that the feeder traffic by rail to Frankfurt or Luxembourg is neither guaranteed, car traffic does also encounter traffic jams and delays and the flights from Munich are typically offered at lower rates than the flights from Frankfurt¹⁶.

General Assumptions

Without much statistics available in Europe, we must make certain assumptions.

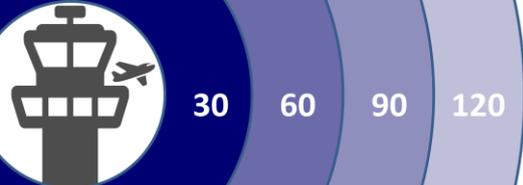
Direction

Based on the stronger commerce and [purchasing power](#) in the Saarbrücken region compared to Calabria, we assume approximately 70% of the traffic to be generated in the Saarbrücken Catchment Area, 30% of the traffic to come from the Calabrese region. This is also in line with Eurostat¹⁷ statistics on leisure travel, with a European (EU28) average of 60.4%, Germany 77.2% and Italy 41.6%.



¹⁶ Situation before the Air Berlin bankruptcy

¹⁷ Source: http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=tour_dem_totot&lang=en



Passenger Potential

Competitive Services

As outlined in General Methodology, we compare competitive services, not as a threat, but as a challenge and opportunity. But also as an **indicator!** Comparing to “big players” like Frankfurt is put into perspective when the total number of passengers and the larger catchment area are compared to the flights.

Further, larger airports face competition by increasing return to direct point-to-point services between smaller airports. The smaller airports offering quick check-in and boarding and lower risk of operational delays or disruptions, a benefit not only for the traveler but also the airlines. Shorter taxi- and turn-around times are in favor of airlines seeking high utilization of their aircraft assets. On the downside, a cancelled passenger can not as easily be rebooked on alternate flight routings as from a big airport.

For Saarbrücken to Calabria, currently there is no competitive service from Saarbrücken to Italy at all, neither any international services from Reggio Calabria. There is also no historic data available. For that very reason, we strongly suggest choosing Reggio Calabria (REG) as the destination airport.

So we can take competitive services into account, being services between the Calabrese catchment area and CGN, FKB, HHN, LUX, STR as well between SUF and CTA and the greater Saarbrücken catchment area. The following flight schedules focus on the Calabrese side, but cover the competitive routes to the wider Saarbrücken catchment area.

Our sources for competitive services are the published flight schedules of the German airports considered competitive, the airport #Airlines_and_Destinations in the airport profiles on Wikipedia, as well as flight schedule information from <https://www.wego.ae/> retrieved in early September 2017

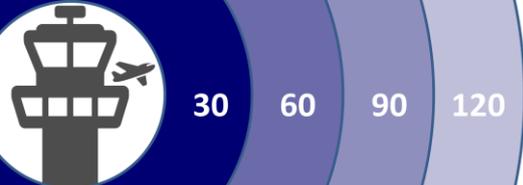
Flight Schedules Lamezio Terme

Inbound						Outbound						
4U 854	CGN	SUF	12:40	15:00	----5--	A319	4U 855	SUF	CGN	15:35	18:00	----5--
FR 5075	FKB	SUF	08:30	10:35	-2---6-	738	FR 5076	SUF	FKB	11:00	13:05	-2---6-
DE 1816	FRA	SUF	16:15	18:35	---4---	B733	DE 1817	SUF	FRA	19:15	21:45	---4---
XG 2029	FRA	SUF	06:35	09:00	----5--	B738	XG 2028	SUF	FRA	10:00	12:50	----5--
DE 1816	FRA	SUF	06:40	09:05	-----7	B733	DE 1817	SUF	FRA	10:10	12:40	-----7
FR 9876	HHN	SUF	06:45	09:10	1---5--	B738	FR 9877	SUF	HHN	09:35	12:00	1---5--
LG 527	LUX	SUF	06:00	08:15	-----6-	B738	LG 528	SUF	LUX	09:05	11:25	-----6-
4U 2852	STR	SUF	12:20	14:20	----5--	A319	4U 2853	SUF	STR	15:00	17:00	----5--
4U 2582	STR	SUF	15:50	17:50	-2-----	A319	4U 2853	SUF	STR	18:30	20:30	-2-----

Flight Schedules Reggio Calabria

Inbound						Outbound						
BV 2118	FCO	REG	10:00	11:15	1234-67	B737	BV 2119	REG	FCO	16:15	17:25	1234-67
AZ 1157	FCO	REG	14:20	15:30	12345-7	A319	AZ 1156	REG	FCO	12:05	13:20	1234567
AZ 1157	FCO	REG	14:05	15:15	-----6-	A319	AZ 1156	REG	FCO	16:00	17:15	-----6-
AZ 1995	LIN	REG	09:40	11:15	12345-7	A319	AZ 1198	REG	LIN	16:15	17:55	12345-7
BV 2121	LIN	REG	14:00	15:45	1234-67	B737	BV 2120	REG	LIN	11:45	13:25	1234-67
AZ 1195	LIN	REG	17:25	19:00	-----6-	A319	AZ 1198	REG	LIN	19:45	21:25	-----6-

Thus, there are no current services between the Saarbrücken catchment area and Reggio Calabria



Flight Schedules Catania

Inbound						Outbound						
4U 816	CGN	CTA	06:35	09:05	---4---	A319	4U 817	CTA	CGN	09:45	12:25	---4---
4U 816	CGN	CTA	15:05	17:35	----5--	A319	4U 817	CTA	CGN	18:15	20:55	----5--
4U 816	CGN	CTA	17:35	20:05	-----7	A319	4U 817	CTA	CGN	20:45	23:25	-----7
EW 816	CGN	CTA	18:25	20:55	-2-----	A319	EW 817	CTA	CGN	21:35	00:15	-2-----
No FR						B738	FR 1559	CTA	FRA	09:40	12:10	-2----6-
No FR						B738	FR 1559	CTA	FRA	10:20	12:50	---4---
DE 1806	FRA	CTA	16:05	18:35	1-----	A320	DE 1807	CTA	FRA	19:35	22:15	1-----
DE 1806	FRA	CTA	08:40	11:05	----5--	A319	DE 1807	CTA	FRA	12:05	14:45	----5--
DE 1806	FRA	CTA	06:35	09:15	--3----	A319	DE 1807	CTA	FRA	10:15	12:50	--3----
LG 583	LUX	CTA	06:00	08:25	---4-6-	B737	LH 584	CTA	LUX	09:10	11:50	---4-6-
EW 2818	STR	CTA	06:00	08:10	----5--	A319	EU 2819	CTA	STR	08:50	11:05	----5--
4U 2818	STR	CTA	07:00	09:10	-----6-	A319	4U 2819	CTA	STR	09:55	12:10	-----6-
4U 2818	STR	CTA	09:35	11:45	-----7	A319	4U 2819	CTA	STR	12:10	14:35	-----7
4U 2818	STR	CTA	10:00	12:10	1-----	A319	4U 2819	CTA	STR	12:45	15:00	1-----
4U 2818	STR	CTA	10:20	12:30	--3----	A319	4U 2819	CTA	STR	13:05	15:20	--3----
4U 2816	STR	CTA	10:35	12:45	----5--	A319	4U 2817	CTA	STR	13:25	15:40	----5--

The Impact of Rail Services

CheckIn.com uses drive times zones using cars. A common concern is the consideration of rail. Rail operates on scheduled, not necessarily optimized to the flights and rail schedules are not available on a pan-European basis. Further, public transport is not limited to rail, but also contains bus services, i.e. in Southern Italy. Though buses use the same road than cars, they usually are slower. To consider a catchment area, statistical findings find rail services to favor the large hub airports having a direct rail link, such as Cologne or Frankfurt in Germany. Even for airports like Stuttgart, travelers using rail usually come from within the drive-time catchment areas. Cross-checks confirmed that impact is covered using the CheckIn.com catchment areas, applying a higher reach for the larger airports. Remaining off-sets are within “statistical noise”, sometimes higher or larger, very dependent on regions and the individual rail services. For example, at the small German Erfurt-Weimar airport, the population is rather ignorant to their own airport and uses rail services to Frankfurt and Berlin with a negative impact to their (small) region. That impact though is not recognizable considering the catchment areas of those competitive airports, very low even on the neighboring Leipzig airport.

Average Fare Value

IATA offers the average fare value in their product [PaxIS](#). A test during September 2017 for 15 different use cases where we have received specific data from DLRs Low Cost Monitor team confirmed the feedback we have from airports and airlines: That those values have to be taken with a strong “grain of salt”, as it only contains BSP data and increasingly and especially in the low cost market, flights are settled directly between airline and consumer by direct means. As such, the importance of BSP-data, as well as other MIDT data from the GDSs is evaporating.

Furthermore, working with airlines on route data, we found it more important to have data on purchasing powers within a region and commerce, tourism and intercultural relations between the regions. The ticket price is largely driven by the used aircraft and the resulting cost and the load factors to support a viable operation.

Operational revenue at Cologne (low cost), Frankfurt-Hahn (low cost) and Frankfurt/Main (global hub) are also not truly compatible.

As such, we provide average fare value for routes only, if the data is provided to us, citing the source.



Crunching the Numbers

Methodology

Using the CheckIn.com catchment area analysis, we can calculate what percentage of the calculated catchment area are traveling between Lamezia Terme, and the and the competitive German airports.

The competitive services to between Lamezio Terme and Catania to the airports reaching into the Saarbrücken catchment area provide a statistically sound approach to calculate the basis of the passenger potential for Saarbrücken. As there are no services from Reggio Calabria to Germany (nor anywhere international), it is likely that a route SCN-REG will not suffer from the competitive flights but add potentially new travelers, so far using flights via Rome or Linate or using Lamezia Terme or Catania using public or private ground transport to or /from Reggio Calabria (both ways!).

We calculated for each competitive route the share of the route to the calculated total catchment area of the airport. For each airport we weighted the percentage under consideration of the airport “size” (annual passengers). Then apply the resulting percentage value to the catchment area of Saarbrücken and Reggio Calabria, respectively Lamezia Terme.

Cross-check calculations on new routes found those results to be usually within +/- 10% after the first year for competitive routes. But we could also identify substantially higher results when low cost airlines competed on “classic routes” or formerly unserved routes.

Catchment Area and Passengers

Based on the competitive information from the previous pages, we extracted and associated the airports’ catchment areas according to the CheckIn.com competitive analyses (see CheckIn.com Catchment Area Analysis in the attachments), then we researched the passengers and load factors from the available data from IATAs AirportIS, cross-checked with the information by the airports to make sure we use sound information.

Airport	Catchment Area	Catchment Area Size	Total Passengers ¹⁸	Tickets/resident ¹⁹	Psgrs outbound	Psgrs inbound	On Route	Percent Psgr	Percent Catchm
Cologne (CGN)	3,116,085	90 min	11,910,138	3.8					
Frankfurt (FRA)	8,624,359	180 min	60,786,937	7.0					
Frankfurt-Hahn (HHN)	337,052	60 min	2,608,984	7.7	17,506	17,643	SUF	1.34	10.43
Karlsruhe-Baden Baden (FKB)	576,134	60 min	2,608,984	4.5					
Luxembourg (LUX)	930,261	90 min	3,022,912	3.2					
Stuttgart (STR)	3,631,092	120 min	10,626,430	3.9	54,755 11,274	54,738 11,441	CTA SUF	1.03 0.21	3.02 0.62
Catania (CTA)	2,433,480	240 min	7,914,117	3.3	54,738	54,755	STR	1.38	4.50
Lamezia Terme (SUF)	1,313,236	180 min	2,521,781	1.9	17,643 11,441	17,506 11,274	HHN STR	1.39 0.90	2.68 1.73
Reggio Callabria (REG)	451,709	90 min	485,346	1.1	-	-	-	-	-

The Catchment Area²⁰ for Central Europe with its high density of airports is defined by the range where the airport reaches approximately 15-20% of the population.

For Southern Italy, Catania with the high passenger numbers reaches well into Southern Italy and even within four hours’ drive time, beyond Lamezia Terme or Palermo reaches +35% of the resident population. Usually Reggio Calabria could limit their reach, but with very little passengers, their impact is small, but also within 90 minutes reflects a reach of 36%

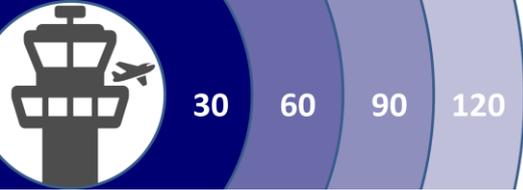
Beyond those “common ranges”, the results are blurred to “statistical noise”. Population attracted from the local airport to the remote one is counteracted by the population attracted from the remote airport to the local one.

As can be seen, the catchment potential differs substantially, reflecting on the different airports in the region. As such, the numbers cannot be used for anything but an indicator!

¹⁸ Population travels multiple times a year. We calculate the trips per year associated to the

¹⁹ Passengers divided by catchment area

²⁰ Requested by the airlines, CheckIn.com by default uses the airports size by passengers to specify a default catchment area size. Paid analyses can be adjusted in six levels from small (20/40/60/90 min) to large (120/180/240/300 min)



Crunching the passenger potential

Only for three of the competitive routes Eurostat data exists. All three flights operate at more than 80% load factor.

Catania to Stuttgart with a load factor of 87.9% accounts for 1.38% of the passengers at that large airport and reflects 4.5% of the catchment area. With 369 flights (in- and outbound) it operated six weekly flights plus additional flights during high season. It is very clearly a high demand route, that should justify an increased frequency, but the annually offered seats were reduced from 136K in 2014 to 125K in 2016.

The two available routes for Lamezia Terme, Hahn (Ryanair) and Stuttgart (Germanwings) came also with load factors above 80%, respectively Hahn with 87.7% and Stuttgart with 83.9%. But both routes are only offered twice weekly. Ryanair operated a Monday/Friday-schedule in the morning, currently using Tuesday/Saturday. Germanwings a Tuesday/Friday schedule cater to both, business and leisure travel. That selection of high demand times also confirm our impression from fare checks that the route provides a viable yield.

In September and October 2017, with time frame two weeks ahead of time, none of the flights was offered cheap, but a cheap flight being about € 125, with ticket prices one-way of frequently beyond € 200. Flex-tickets usually being 200-300€. Only longer term, the flights were offered on the usual "cheap level" with 17 to 30 Euro for the one-way ticket (nothing included), tickets from 50€ on "Plus" and 100€ for flexible tickets.

Germanwings from Stuttgart in October reduced the schedule to a weekly flight, ticket prices starting at 160€ for the one-way ticket (basic, seat only), to more than 300€. With an average over six weeks of monitoring for two months ahead, this reflects a clear case of unmet demand, resulting in high ticket prices.

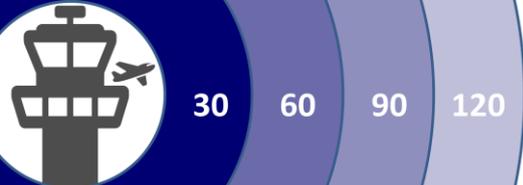
Stuttgart to Catania is served 5x weekly from Stuttgart by Germanwings, for which the ticket prices were about equally high than Lamezia Terme, with a typical return ticket (seat only) available at an average of € 480.

As such, given competitive fare levels, we believe a safe potential for a twice-weekly Reggio Calabria flight, we even recommend considering a three-times weekly service at least as soon as the twice weekly service operates as expected. With the better catchment area compared to Ryanair at Hahn and a season once-weekly service from Luxembourg to Lamezia Terme, such flight service will have a higher attraction to travellers to that region.

We are though concerned about the minimum support to qualify regional relations and support and recommend the airline to secure that support in the pre-launch negotiations with airport and the regional stakeholders.



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Attachments

CheckIn.com Catchment Area Analysis

Introduction

Since March 2016 CheckIn.com provides online, instant Airport Catchment Area Analyses for more than 600 European airports to airlines, airports and consultants. These analyses are based purely on high quality, error-checked statistical data. As passenger acceptance is based also on many more factors, such as planned flight times, frequency, prices, reputation and awareness. As such, these analyses are basis for interpretation by experienced route development experts.

Different from other offers, CheckIn.com has developed highly sophisticated algorithms to identify the impact of competitive airport on the decision of travelers having the choice of different airports to fly from. Plans exist to add further statistical data with impact to these decisions, such as cross-border impact, ethnic and commercial relations between regions, regional buying power and tourism, also on route specific level.

Access licenses are valid for one year, during which all data updates on our server are available without additional charge!

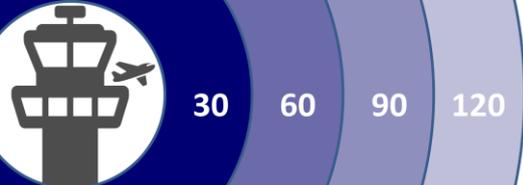
The client ordering this more in-depth route study has free access for one year from the delivery of this report to the data used in this report. Following [free registration](#), please contact us for access to these airports.

Our maps are based on OpenStreetMap. As of the very large amount of data we process for each and every map, the loading of the maps require some time and also download of data into your browser, even on high speed lines. We already apply quite some caching techniques to reduce the data amount and we cache default map settings to avoid time-costly recalculation. We use a default blue color (#0000a0, RGB 0,0,160) and default opacity values. Both values can be set globally, as well as individually per map in the user settings and the display of the competitive airports is optional as well. But we believe the resulting flexibility with the maps justify the little extra time they require.

We enjoy feedback on our work.

Jürgen Barthel
COO + CCO CheckIn.com

**If you like our analyses
... tell your friends.
If you dislike them ... tell us!**



Saarbrücken

General Airport Information

Airport Name (Code)	Saarbruecken Airport (SCN)
GEOdata (lat/lon)	49.220144, 7.112797
Last Passengers (year)	427,566 (2016)
CheckIn.com Isochrones	20/40/60/90 min

Wikipedia: Saarbrücken Airport (IATA: SCN, ICAO: EDDR), or Flughafen Saarbrücken or Ensheim Airport in German, is an international airport in Saarbrücken, the capital of the German state of Saarland. It features flights to major cities throughout Germany as well as some leisure routes.

Catchment Area Analysis

	Classic	Competitive	%
Zone 1: 20 min	353,818	112,286	32%
Zone 2: 40 min	1,261,729	306,840	24%
Zone 3: 60 min	2,219,445	405,807	18%
Zone 4: 90 min	7,340,152	553,165	8%

Passenger : Catchment Ratio (Zone 3) = 1.05 : 1 (Germany 2.79 : 1)

The Classic Isochrone calculation provided figures for the drive times zones. The new figures provide you instantly exact data on the reachable population under consideration of competitive airports.

Top 20 Cities in the catchment area by population

#	Municipality	Catchment Population	Drivetime (Minutes)
1	Catanzaro	79,310	27:99
2	Lamezia Terme	63,988	9:45
3	Cosenza	57,863	47:23
4	Messina	36,560	100:39
5	Rende	29,654	56:27
6	Vibo Valentia	27,083	30:62
7	Corigliano Calabro	24,865	100:31
8	Reggio di Calabria	21,823	78:63
9	Rossano	20,769	113:96
10	Acri	16,284	77:20

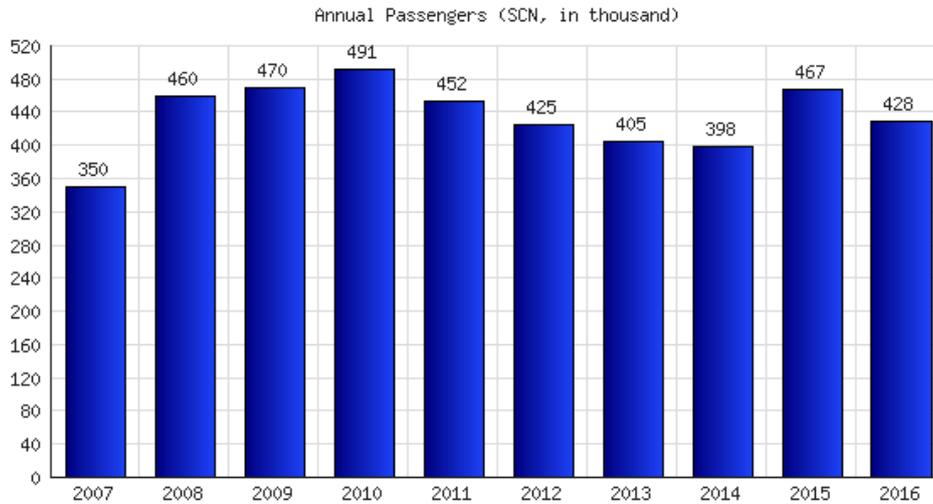
#	Municipality	Catchment Population	Drivetime (Minutes)
11	Montalto Uffugo	16,116	64:95
12	Paola	14,006	57:15
13	Castrovillari	13,590	89:23
14	Amantea	12,662	31:49
15	San Giovanni in Fiore	11,916	96:92
16	Siderno	11,087	78:19
17	Cassano allo Ionio	10,847	92:26
18	Crotone	10,632	89:98
19	Gioia Tauro	9,505	50:97
20	Castrolibero	8,531	54:69

Other Information Sources

Routes Exchange:	No
The Route Shop:	No
Wikipedia:	https://en.wikipedia.org/wiki/Saarbrücken_Airport
Airport Website:	http://www.flughafen-saarbruecken.de/



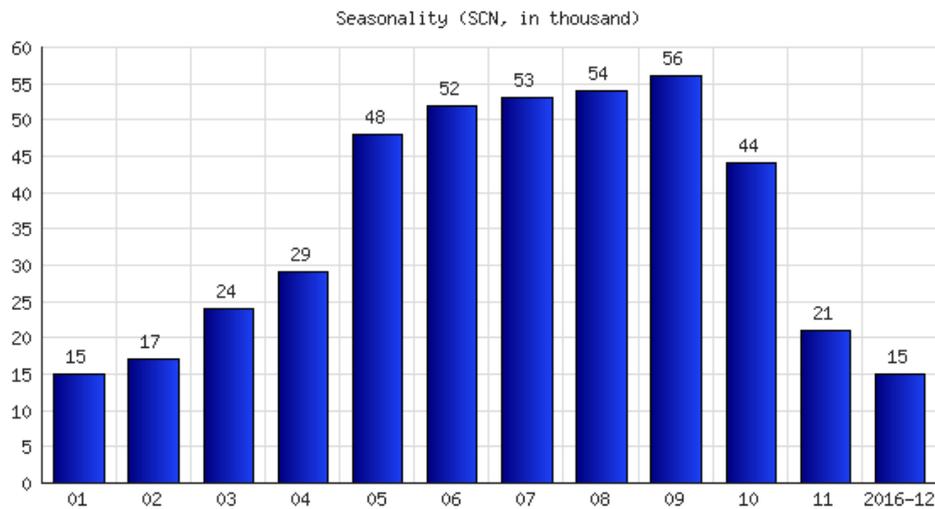
Passenger Development



Year	2016	2015	2014	2013	2012
Passengers	427,566	467,092	398,128	405,265	425,429
	2011	2010	2009	2008	2007
	452,314	491,299	469,933	460,364	349,953

The passenger development gives an indication of the past (max. 10) years of the airport's passenger trend. We emphasize that this is a pure look into the past and that difference makers are marketing, reputation, air services and price levels.

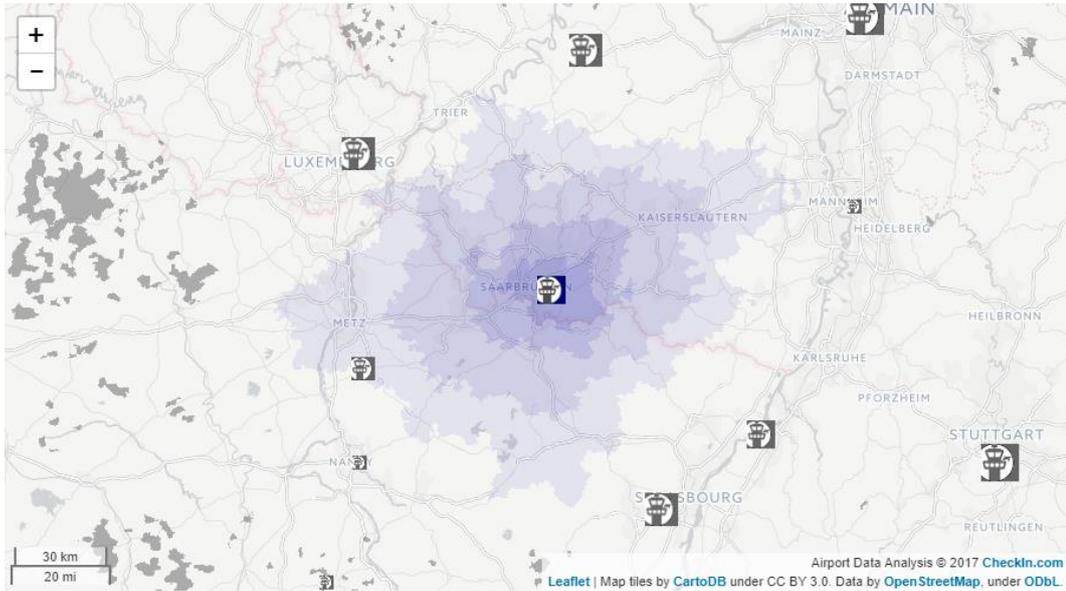
Seasonality



ANNA.aero Seasonal Variation in Demand factor (SVID): 24.6 Managerial and operational challenges

Airlines operating year-round, it is vital to understand the seasonality. But keep in mind that these figures do not take into account seasonal (charter) flights i.e. from Northern Europe to the Mediterranean. So we recommend to discuss the real seasonality with the airport.

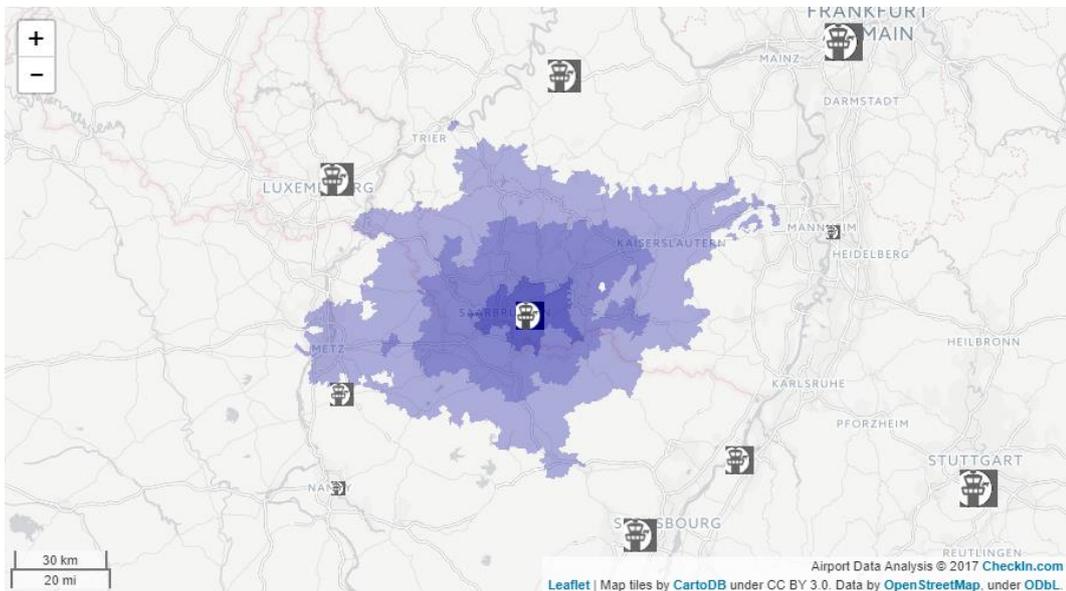
Maps



This map reflects the impact of the airport in the catchment area under consideration of the competing airports. For the analysis we have a European-wide population database on municipality level or similar. Based on this smallest common denominator, drive times to surrounding airports are calculated. Out of 979 airports in Europe in our database, 599 qualify for analysis as they publish passenger figures.

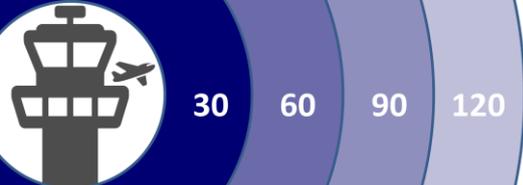
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Drivetimes Isochrones Map



Here we have the classic Isochrones Map. We are not convinced that this one is very helpful in reality, as in almost any case, we have competitive airports and the drive time to the airport is not really of relevance, except as a necessary base for the more detailed calculation of percentages as we do it in our Catchment Area Percentage Map.

The coloring for the isochrones starts at 15% opacity for Zone 4, 30% for Zone 3, 45% for Zone 2 and 60% for Zone 1 (core zone).



Lamezia Terme

General Airport Information

Airport Name (Code)	Lamezia Terme Airport (SUF)
GEOdata (lat/lon)	38.909992, 16.245499
Last Passengers (year)	2,521,781 (2016)
CheckIn.com Isochrones	60/90/120/150 min

Wikipedia: Lamezia Terme International Airport (Italian: Aeroporto Internazionale di Lamezia Terme "Sant'Eufemia") (IATA: SUF, ICAO: LICA) is an airport in the Sant'Eufemia district of Lamezia Terme, Calabria, Italy. It is the principal airport of Calabria.

Catchment Area Analysis

	Classic	Competitive	%
Zone 1: 60 min	837,238	675,683	81%
Zone 2: 120 min	2,127,804	1,201,376	56%
Zone 3: 180 min	3,637,027	1,313,236	36%
Zone 4: 240 min	6,707,123	1,345,310	20%

Passenger : Catchment Ratio (Zone 3) = 2.1 : 1 (Italy 2.72 : 1)

The Classic Isochrone calculation provided figures for the drive times zones. The new figures provide you instantly exact data on the reachable population under consideration of competitive airports.

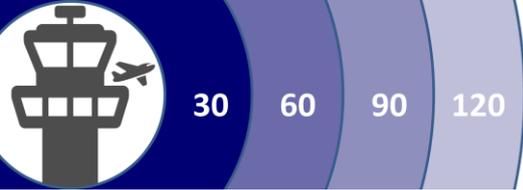
Top 20 Cities in the catchment area by population

#	Municipality	Catchment Population	Drivetime (Minutes)
1	Catanzaro	79,310	27:99
2	Lamezia Terme	63,988	9:45
3	Cosenza	57,863	47:23
4	Messina	36,560	100:39
5	Rende	29,654	56:27
6	Vibo Valentia	27,083	30:62
7	Corigliano Calabro	24,865	100:31
8	Reggio di Calabria	21,823	78:63
9	Rossano	20,769	113:96
10	Acri	16,284	77:20

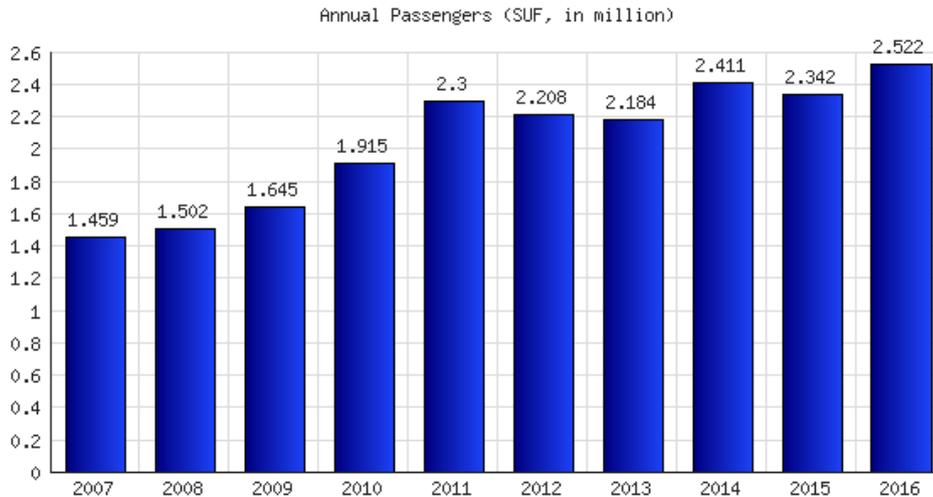
#	Municipality	Catchment Population	Drivetime (Minutes)
11	Montalto Uffugo	16,116	64:95
12	Paola	14,006	57:15
13	Castrovillari	13,590	89:23
14	Amantea	12,662	31:49
15	San Giovanni in Fiore	11,916	96:92
16	Siderno	11,087	78:19
17	Cassano allo Jonio	10,847	92:26
18	Crotone	10,632	89:98
19	Gioia Tauro	9,505	50:97
20	Castrolibero	8,531	54:69

Other Information Sources

Routes Exchange:	No
The Route Shop:	No
Wikipedia:	https://en.wikipedia.org/wiki/Lamezia_Terme_International_Airport
Airport Website:	https://lameziaairport.it/ (Italian only)



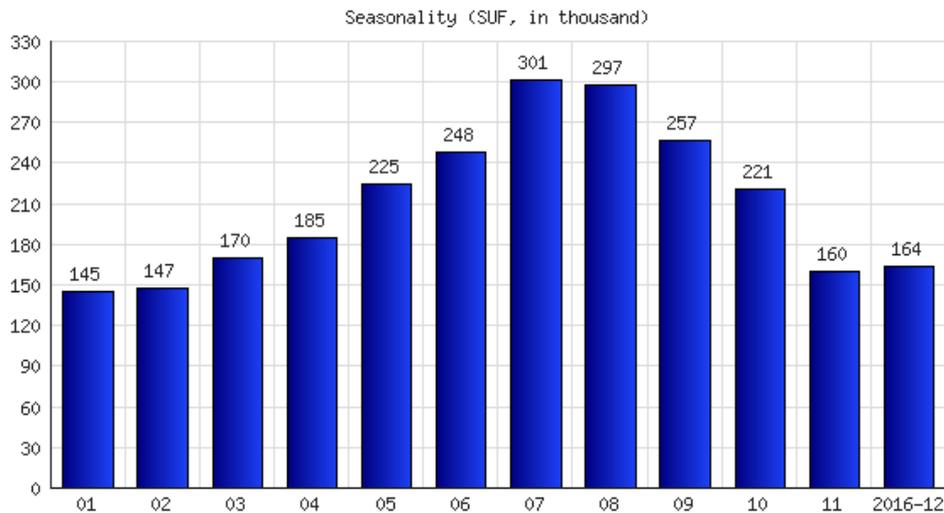
Passenger Development



Year	2016	2015	2014	2013	2012
Passengers	2,521,781	2,342,250	2,411,093	2,184,102	2,207,526
	2011	2010	2009	2008	2007
	2,300,460	1,915,074	1,644,644	1,502,040	1,458,612

The passenger development gives an indication of the past (max. 10) years of the airport's passenger trend. We emphasize that this is a pure look into the past and that difference makers are marketing, reputation, air services and price levels.

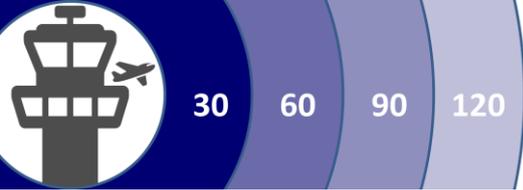
Seasonality



2016	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Passengers	145,362	147,482	169,551	185,388	225,019	248,388	301,291	297,190	257,279	220,724	160,343	163,764

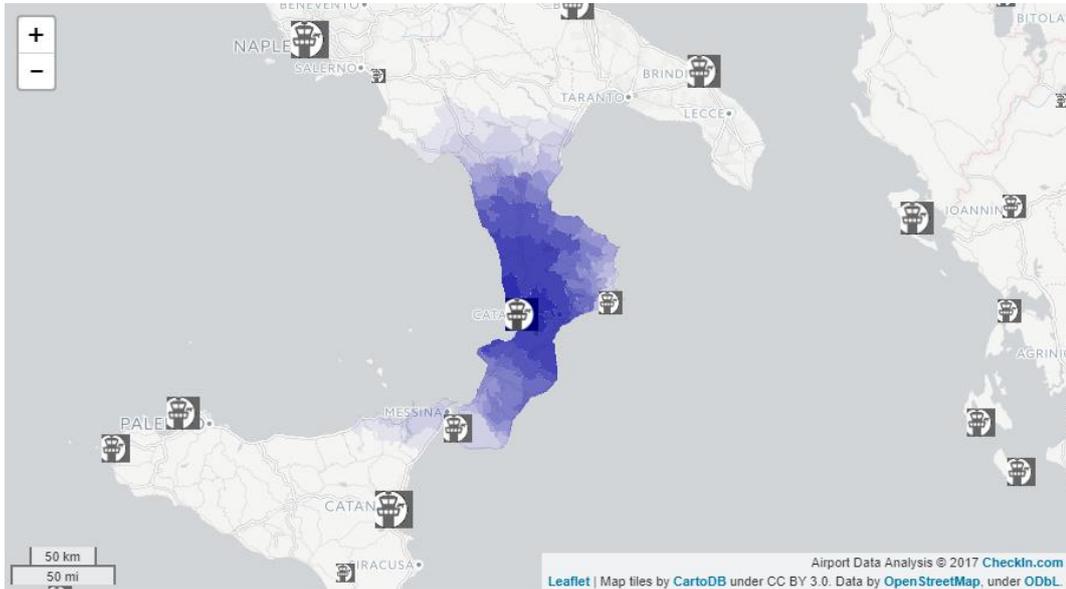
ANNA.aero Seasonal Variation in Demand factor (SVID): 7.9 Good

Airlines operating year-round, it is vital to understand the seasonality. But keep in mind that these figures do not take into account seasonal (charter) flights i.e. from Northern Europe to the Mediterranean. So we recommend to discuss the real seasonality with the airport.



Maps

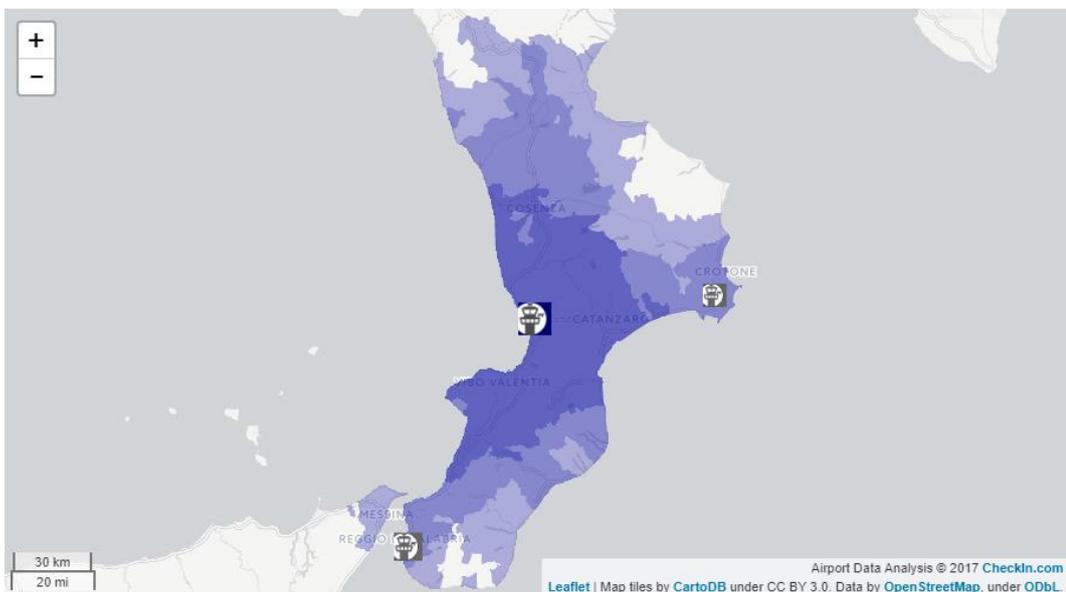
Catchment Area Percentage Map



This map reflects the impact of the airport in the catchment area under consideration of the competing airports. For the analyses we have a European-wide population database on municipality level or similar. Based on this smallest common denominator, drive times to surrounding airports are calculated. Out of 979 airports in Europe in our database, 599 qualify for analysis as they publish passenger figures.

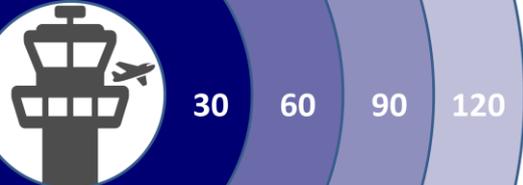
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Drivetimes Isochrones Map



Here we have the classic Isochrones Map. We are not convinced that this one is very helpful in reality, as in almost any case, we have competitive airports and the drive time to the airport is not really of relevance, except as a necessary base for the more detailed calculation of percentages as we do it in our Catchment Area Percentage Map.

The coloring for the isochrones starts at 15% opacity for Zone 4, 30% for Zone 3, 45% for Zone 2 and 60% for Zone 1 (core zone).



Reggio Calabria

General Airport Information

Airport Name (Code)	Reggio Calabria 'Tito Minniti' Airport (REG)
GEOdata (lat/lon)	38.074119, 15.653980
Last Passengers (year)	485,346 (2016)
CheckIn.com Isochrones	30/60/90 (+120) min

Wikipedia: Reggio di Calabria "Tito Minniti" Airport (IATA: REG, ICAO: LICR), also known as Aeroporto dello Stretto (Airport of the Strait) is an airport located near Reggio, in southern Calabria, Italy. It serves mainly the Province of Reggio and the Province of Messina, and partially the Province of Vibo Valentia; more than 1,200,000 people. Daily flights depart and arrive for and from several Italian cities, and are seasonally augmented by flights to various other countries.

Catchment Area Analysis

	Classic	Competitive	%
Zone 1: 30 min	242,692	185,413	76%
Zone 2: 60 min	692,252	354,340	51%
Zone 3: 90 min	1,242,039	451,709	36%
Zone 4: 120 min	2,453,555	488,920	20%

Passenger : Catchment Ratio (Zone 3) = 2.1 : 1 (Italy 2.72 : 1)

The Classic Isochrone calculation provided figures for the drive times zones. The new figures provide you instantly exact data on the reachable population under consideration of competitive airports.

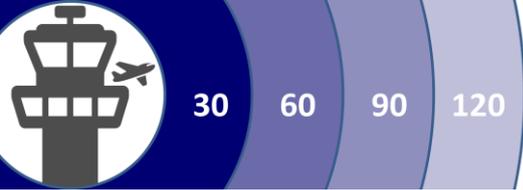
Top 20 Cities in the catchment area by population

#	Municipality	Catchment Population	Drivetime (Minutes)
1	Reggio di Calabria	146,180	5:99
2	Messina	84,320	47:97
3	Villa San Giovanni	9,051	17:41
4	Barcellona Pozzo di G	8,995	76:39
5	Palmi	8,951	33:42
6	Melito di Porto Salvo	8,694	26:61
7	Gioia Tauro	8,106	39:13
8	Milazzo	7,176	75:11
9	Taurianova	5,995	48:11
10	Bagnara Calabria	5,656	29:82

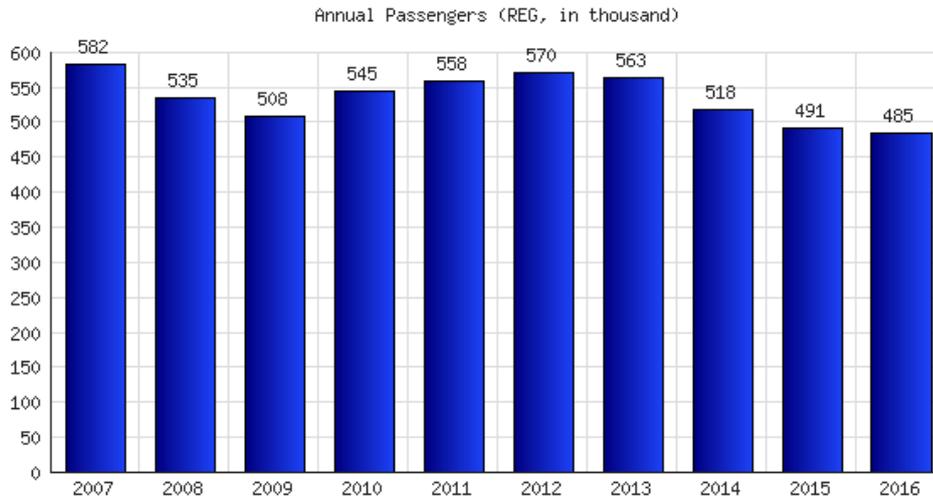
#	Municipality	Catchment Population	Drivetime (Minutes)
11	Rosarno	5,092	44:27
12	Motta San Giovanni	4,804	21:37
13	Montebello Ionico	4,660	32:17
14	Siderno	4,570	76:28
15	Vibo Valentia	4,470	66:70
16	Cittanova	3,543	54:82
17	Condofuri	3,503	52:37
18	Polistena	3,353	52:51
19	Lamezia Terme	3,304	81:55
20	Catanzaro	3,159	100:89

Other Information Sources

Routes Exchange:	No
The Route Shop:	No
Wikipedia:	https://en.wikipedia.org/wiki/Reggio%20Calabria%20Airport
Airport Website:	http://www.aeroporto dellostretto.it/ (Italian only)



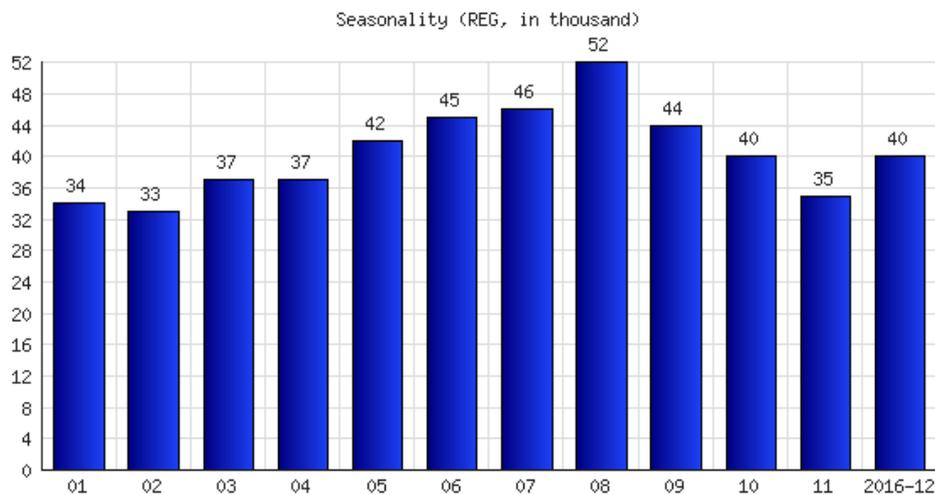
Passenger Development



Year	2016	2015	2014	2013	2012
Passengers	485,346	490,804	517,586	562,747	569,763
	2011	2010	2009	2008	2007
	558,440	545,141	507,947	534,893	582,166

The passenger development gives an indication of the past (max. 10) years of the airport's passenger trend. We emphasize that this is a pure look into the past and that difference makers are marketing, reputation, air services and price levels.

Seasonality



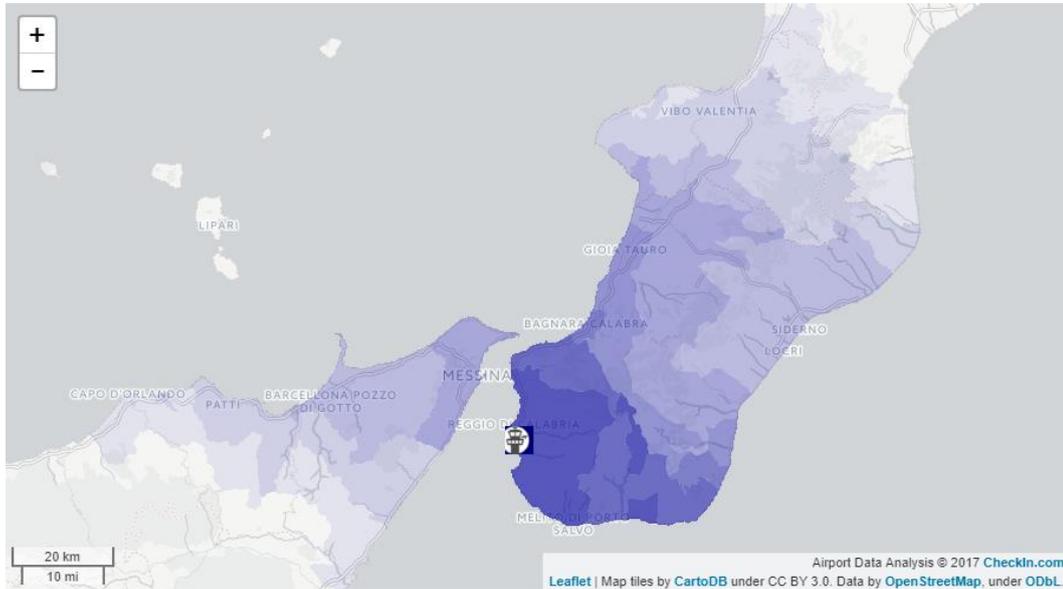
2016	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Passengers	34,222	32,972	37,089	37,219	41,786	45,375	46,350	52,309	43,607	39,980	34,856	39,581

ANNA.aero Seasonal Variation in Demand factor (SVID): 2.2 Good

Airlines operating year-round, it is vital to understand the seasonality. But keep in mind that these figures do not take into account seasonal (charter) flights i.e. from Northern Europe to the Mediterranean. So we recommend to discuss the real seasonality with the airport.

Maps

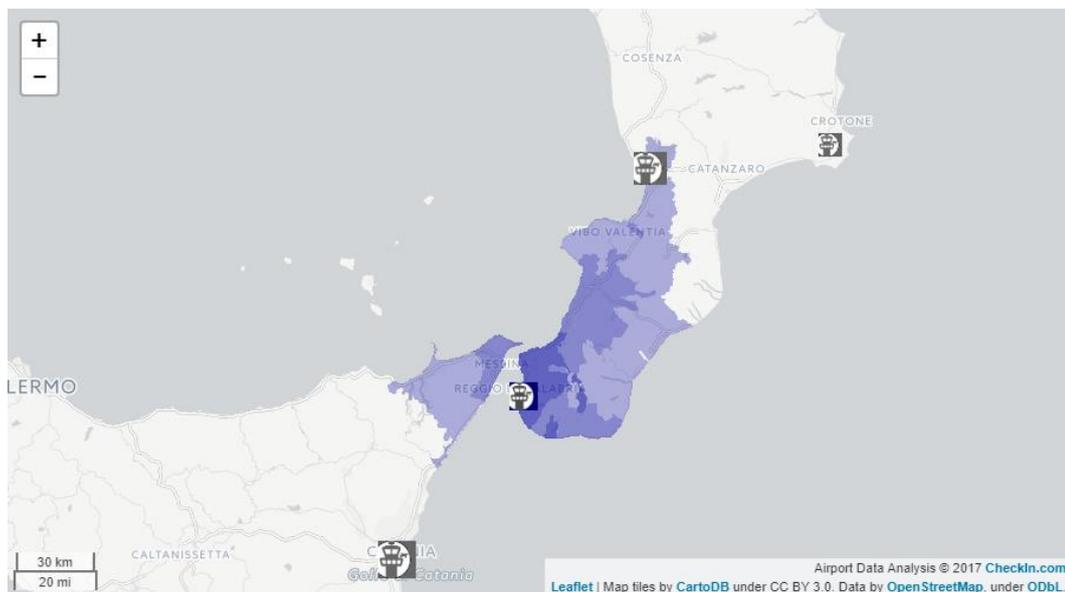
Catchment Area Percentage Map



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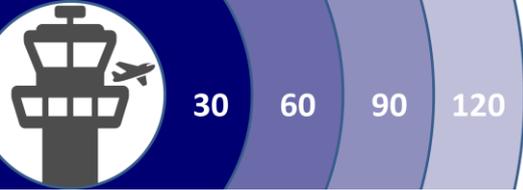
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On-Time Performance

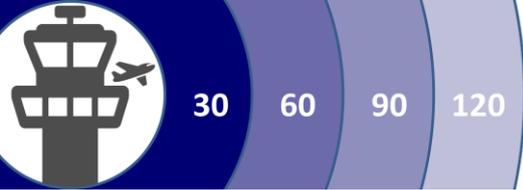
Catania Airport

Taking Catania in as a neighboring airport of Reggio Calabria with a largely shared catchment area, We did not do a complete analysis for that airport but limited ourselves to operational data.

Flightstats²¹ in August 2018 reported 3,417 flights of which they tracked the on-time performance of 76,24%, of which 99.73% were flown (0.27% cancelled, diverted or whatever). Of those flights, only 71.44% were operating on time, the average delay reported with 42.3 minutes. For an airline operating flights not only to one place but many during the day, that is a rather devastating result. It is not clear from those mere statistics though, if the delays were caused by the airline, the airport or other reasons.

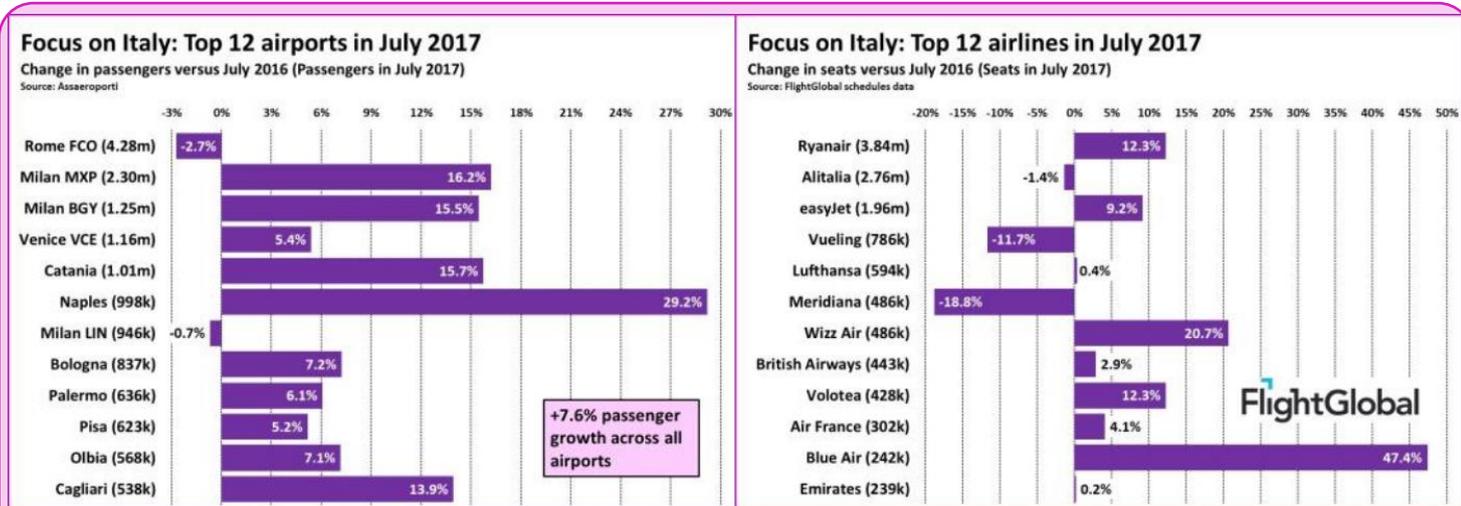
No such data exists for Reggio Calabria or Lamezia Terme: *“Airports with estimated annual seat capacity less than 1.5 million. Airports that fall into this size group are not included in this report.”*

²¹ <http://www.flightstats.com/company/monthly-performance-reports/airports/>



The Anker Report

The [Anker Report](#) by network development specialist Ralph Anker, formerly founding member and chief analyst at ANNA.aero addressed Italy in his first-ever independent report. Based on FlightGlobal-data he summarized:



Italy: Passenger numbers were up almost 8% in July across all Italian airports despite the country's busiest, Rome FCO, seeing an almost 3% drop. This is the fifth month out of seven that Italy's biggest airport has seen traffic fall compared to 2016. The five fastest-growing airlines are all LCCs with Blue Air leading the way.

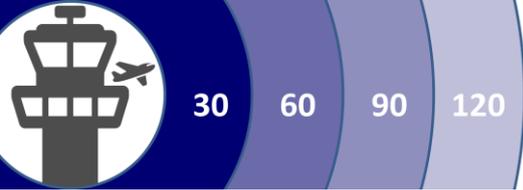
This shows once more, that flight statistics are not a sound basis but only an indicator looking at existing routes. It is of limited use looking at previously unserved routes. Neither Saarbrücken, nor Reggio Calabria have supporting "flight statistics", but from the very first discussions emphasized their believe in the business case.

Data Sources and Quality

To develop CheckIn.com, we worked many years with aviation and national statistics, as well as Eurostat and a number of commercial sources. We invest a lot of time fixing discrepancies, especially aviation data being inconsistent. Receiving annual passenger data for the route Vienna-Budapest from both airports, the national statistics and Eurostat, not one of the numbers matched. Not for this example but another once, we talk about an offset of +10% on passengers on a route.

Worse on the example VIE-BUD, Eurostat does not refer them once, but twice, such doubling the passenger numbers on sloppy analyses. Over the years, we have added substantial corrections to manage such data discrepancies.

We work with the most granular available data levels ###



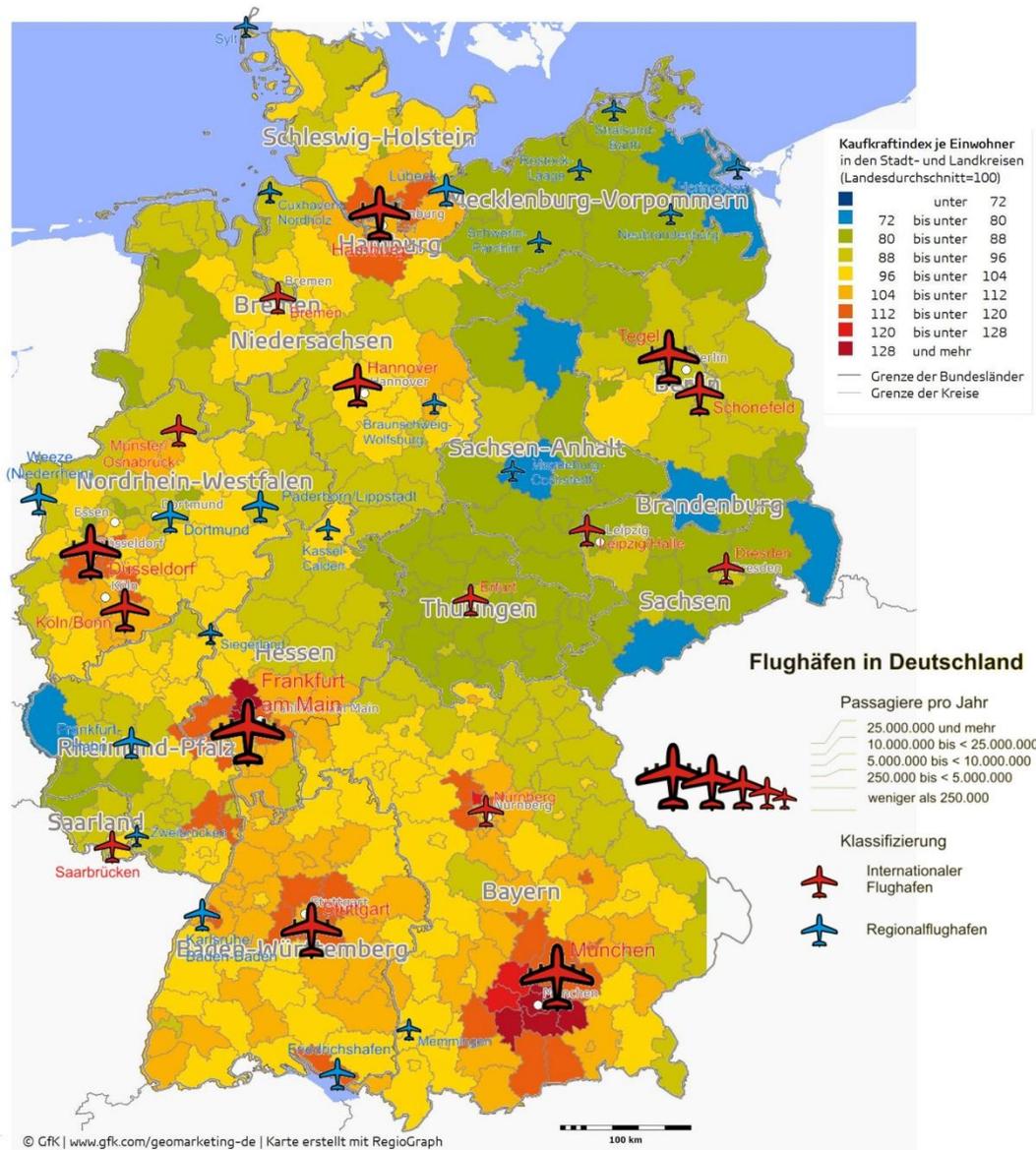
GfK Purchasing Power Europe

GfK issues very useful maps and analyses on purchasing power in Europe. <http://iscm.iun-world.com/gfkiscm-factsheets/>

GfK Purchasing Power is the acknowledged benchmark for assessing consumer potential. This dataset reveals the regions with the highest purchasing power. The values are calculated based on region-specific net income levels as well as any government benefits received. Purchasing power is determined according to consumers' place of residence and is therefore an important indicator of the consumption potential of the population living in a particular area.

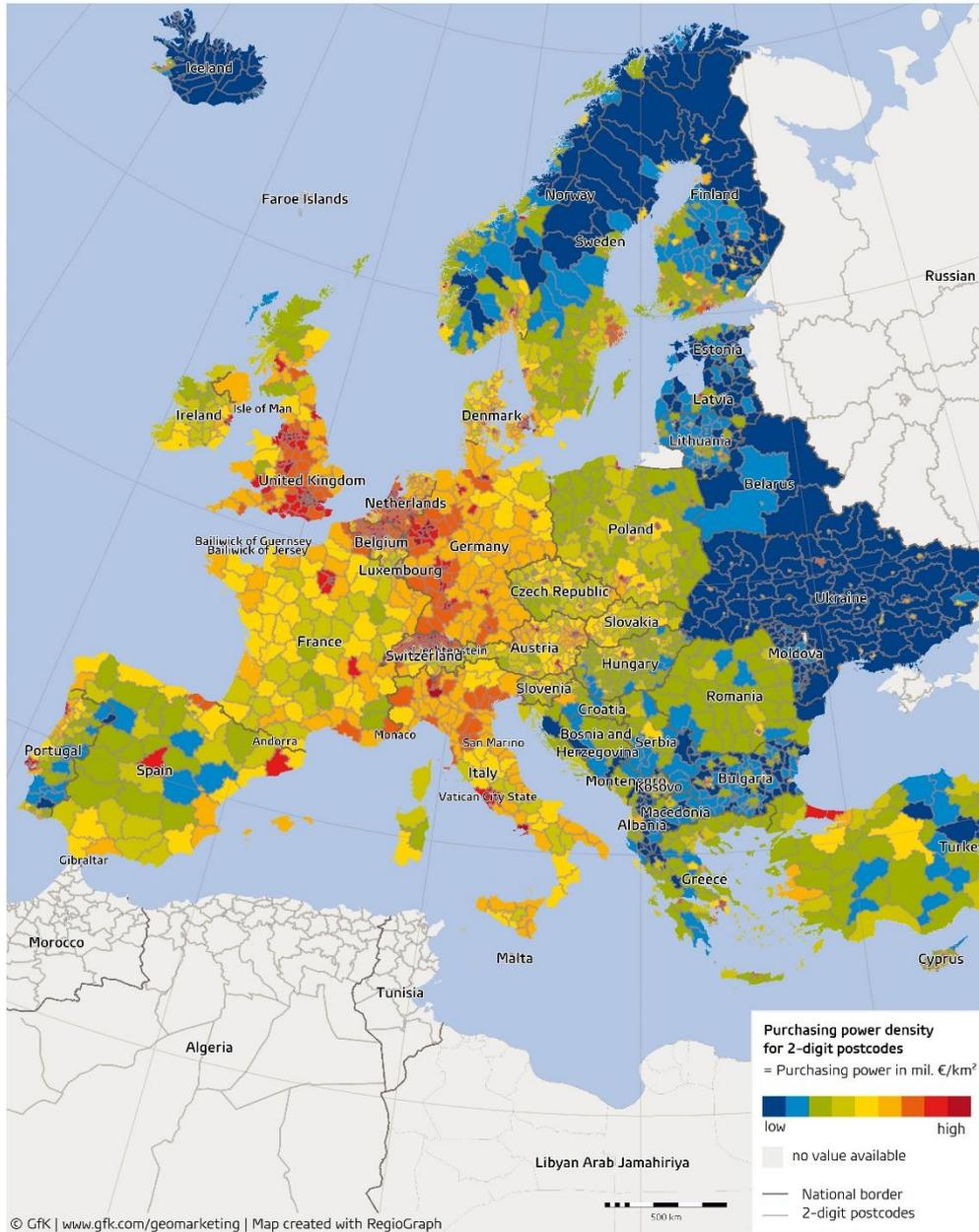
For more than 10 years we keep using those maps in discussions with airport authorities and the industrial and political powers-that-be, overlaying the GfK map with the airports, i.e. in Germany:

GfK Kaufkraft Deutschland 2017

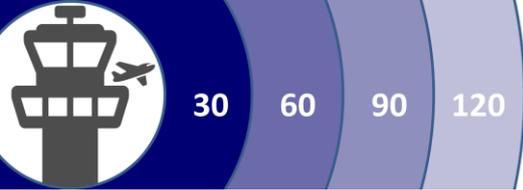


Maps
Europe

GfK purchasing power density,
Europe 2016

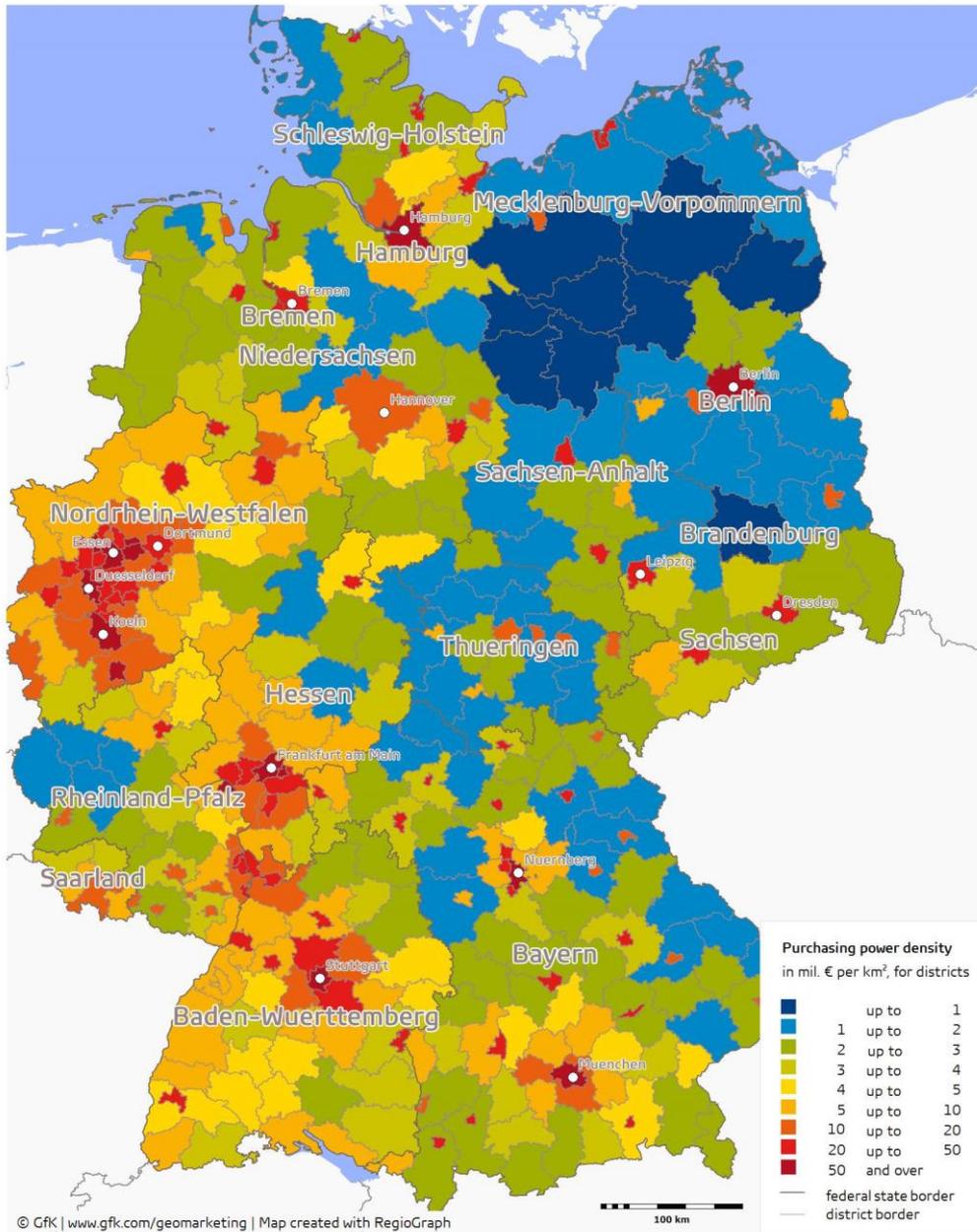


Source: <http://www.gfk.com/insights/news/mom-1116/> Illustration: GfK

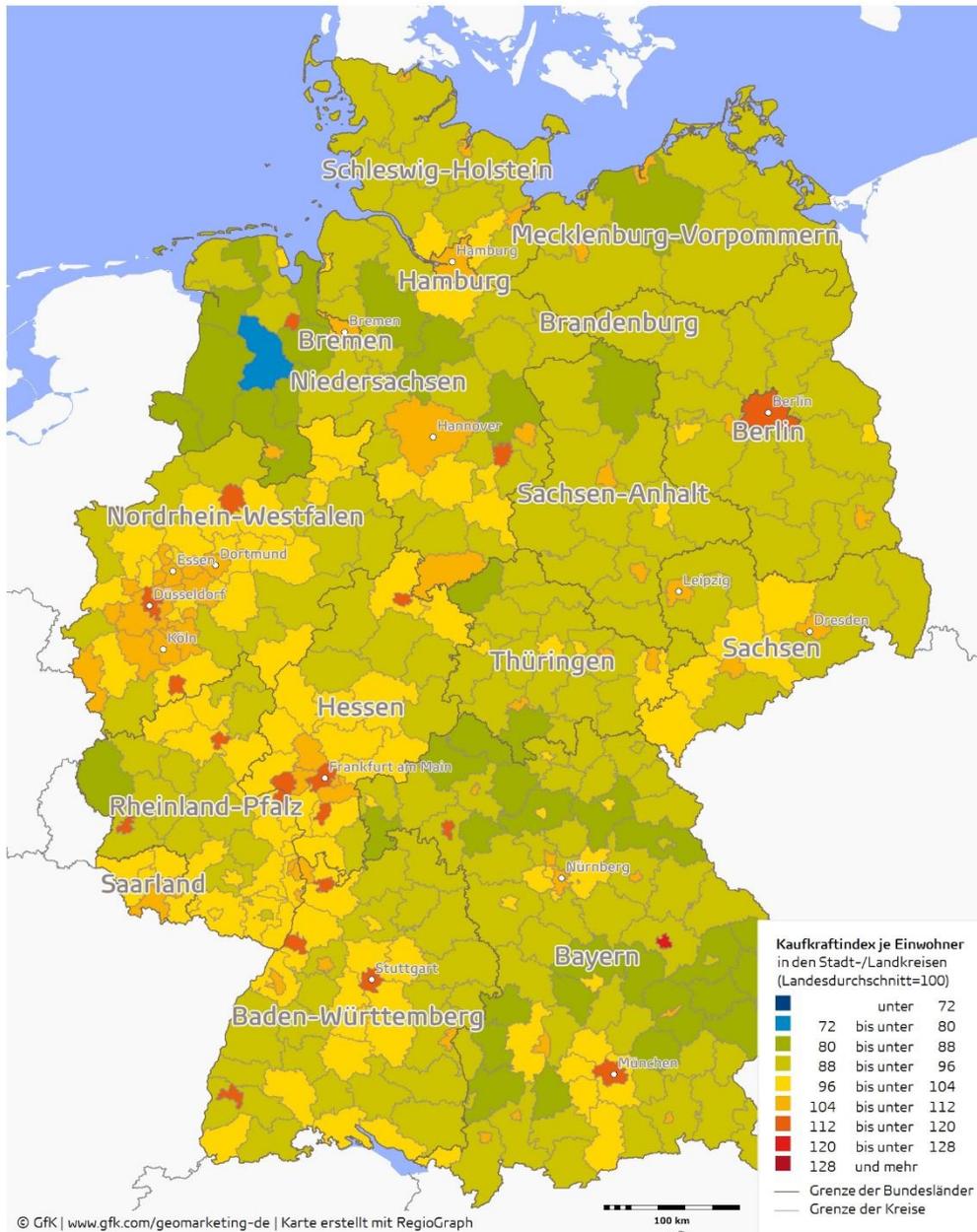


Germany

GfK purchasing power density
Germany 2017



GfK Allgemeine Urlaubsreisenkaufkraft Deutschland 2017

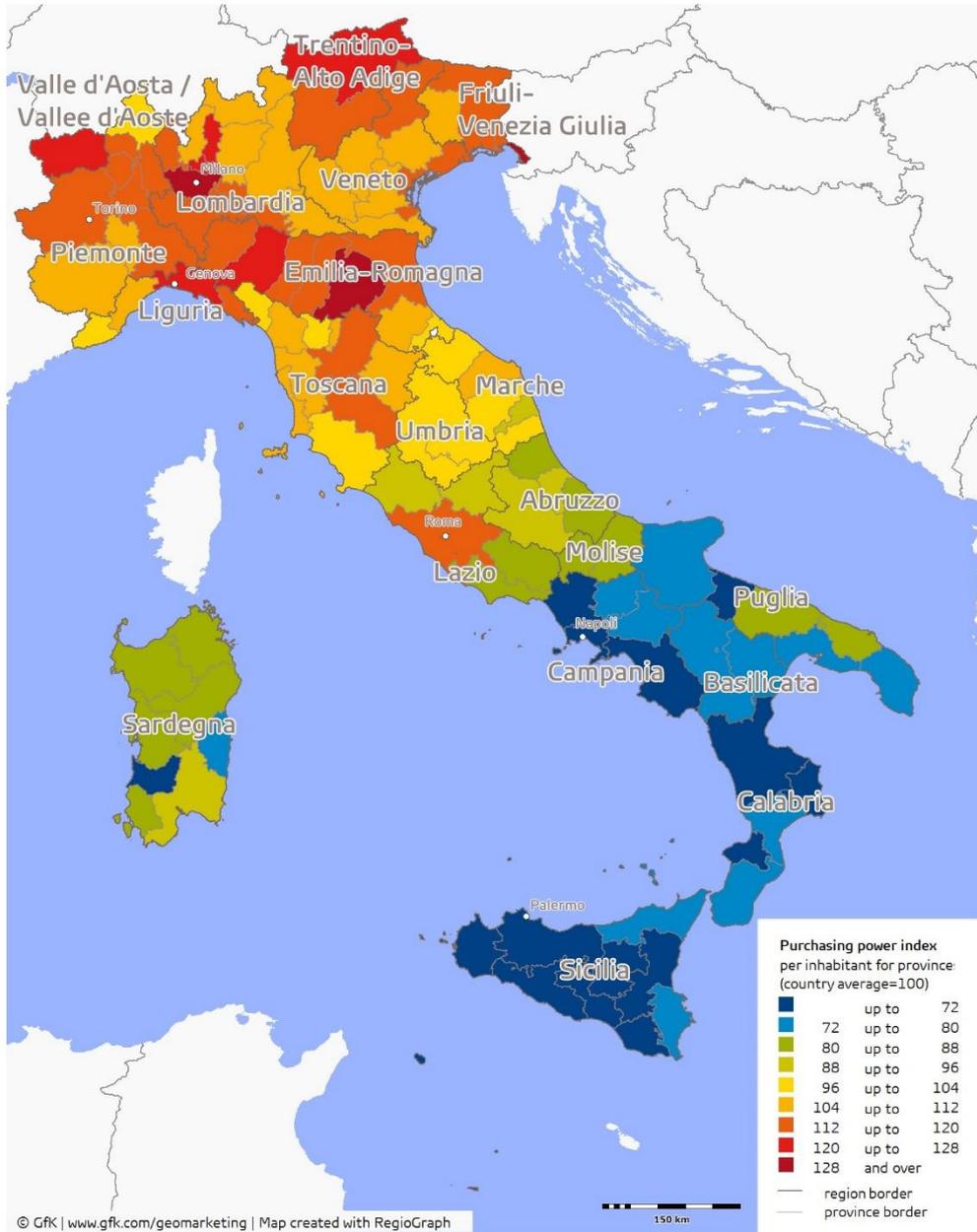


In 2017 GfK released a new report on the general purchasing power related to vacation. This report is initially only available in German and for Germany.



Italy

GfK Purchasing Power Italy 2016



The following information is from the [press release](#) on the 2016 European purchasing power analyzed by GfK