Today over 55 million passengers a year worldwide make self-connections, almost all of them including at least one flight on a low cost carrier (LCC). ICF forecasts that with the next stage of facilitation by airlines, online travel agencies (OTAs), and airports, this number will double in the next five years.

This emerging self-connecting passenger market transformation is driven by:

- **Passenger needs and wants**: Self-connecting passengers are generally experienced at connecting and eager to avoid higher fares, find routes where no direct flight or traditional connecting option exists, or obtain a preferred schedule.

- **Technology advances**: Self-connection route opportunities are more easily visible and bookable.

- **The explosive growth of LCCs and subsequent retreat of many traditional network airlines from short-haul services**: LCCs do not typically offer connections on either their own network or across partners’ networks, in contrast to traditional online, codeshare, and interline services.

In this white paper, ICF outlines some of the latest self-connecting market developments and explores the question of who will be the main beneficiaries of this trend in the next five years.
New Connecting Options for Passengers

Passengers who need to connect en route from their origin to their final destinations have a wide range of options, which are summarized in the following table.

<table>
<thead>
<tr>
<th>Who facilitates the process?</th>
<th>Virtual Hubbing</th>
<th>Airport Hosted Transfers</th>
<th>LCC Connection</th>
<th>Traditional Connections</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passenger</td>
<td>Online Travel Agency (OTA)</td>
<td>Airport</td>
<td>Airline</td>
<td>Airline</td>
</tr>
<tr>
<td>Passenger books single journey via an OTA who provides insurance to cover the connection at the hub; passenger may have to recheck hold luggage</td>
<td>Airport provides customer booking interface (via existing IT solution provider) as well as supporting infrastructure and processes (baggage transfer and customer service)</td>
<td>LCCs provide interlining between flights on their own network at certain hubs only; bookings made only via airline's website; needs supporting airport infrastructure</td>
<td>Passenger books either directly with airline or through an OTA; all interlining managed by the airline and/or codeshare partners</td>
<td></td>
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How does it work?

- Passenger researches and books separate flights and airlines (using separate airline websites) and rechecks at hub airport
- Passenger stays airside; baggage transferred to next flight; standard transfer processes (if hub infrastructure allows)

How is the passenger processed at the hub?

- Passenger must go landside to recheck baggage and re-enter through security
- Passenger stays airside; baggage transferred to next flight; may use standard transfer processes

Industry examples?

- 15 million passengers annually in Europe alone
- Content provided from niche OTAs (e.g., Kiwi.com); search provided by meta-search engines (e.g., Kayak, Skyscanner)

Expected next steps?

- Total market size increases as technology makes search and booking easier, but the majority of passengers move towards hosted solutions
- Larger online brands entering the market; continued consolidation between search and OTA providers
- Common standards emerging; more airports offering hosted services and protected connections
- More long-haul to short-haul partnerships between carriers
- Value of traditional alliances continues to erode; airlines seek further tactical opportunities with new partners
The way passengers choose to search for and book their flights will typically determine the way airports host them during their layover. "Airport Hosted Transfers" are a relatively recent but increasingly visible innovation in this area. These transfer services target the self-connecting passenger and generally offer a level of support and security that is not available to the DIY "Self-Connecting" passenger.

Airports are not the only players who are exploring the potential benefits offered by these new connections. LCCs are increasingly looking to take a share of this market opportunity by offering connections on their own network and exploring connections with other airlines (outside of traditional alliance, codeshare, or interline protocols).

And at the beginning of the passenger journey, search providers and OTAs are building and offering new connecting itineraries to rival that of traditional connections.

New Market Opportunities for Airports Today

With several possible stakeholders competing for the LCC self-connecting passenger, why are some airports investing in these services?

Traditionally, airports have not catered specifically to self-connecting passengers and simply treated them as a subset of local passengers. Most airport operators do not know how many passengers make their own self-connections in their terminals and that with some attention and investment, their self-connecting passenger market numbers could grow and bring further benefits to their airports.

The growth in LCCs at both primary and secondary airports has led to the growth in complementary networks, which are ripe for new connecting opportunities for passengers. As shown in the table below, since 2010 the number of viable connecting market opportunities using an LCC on at least one leg of the journey has grown by more than 50%; the market for long-haul flights has grown over 80% during this same time period. Further connecting options have also been added to existing flows as carriers have increased frequencies, reinforcing the connection potential at each of these airports.

GROWTH IN VIABLE LCC CONNECTING OPTIONS (NUMBER OF MARKETS)
2017 VERSUS 2010

<table>
<thead>
<tr>
<th></th>
<th>2017 versus 2010</th>
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<tbody>
<tr>
<td>Long-haul flights</td>
<td>+83%</td>
</tr>
<tr>
<td>Short-haul flights</td>
<td>+36%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>+53%</strong></td>
</tr>
</tbody>
</table>

Source: ICF analysis of global airline schedules using ICF’s Self-Connection Tool
The following chart identifies European airports with the greatest potential for viable LCC connections.

**Number of European Markets Served by LCC Self-Connections in 2017**

Current, Gatwick provides the greatest number of potential markets in Europe, creating a "virtual hub" with more than 4,500 markets served meeting the criteria applied within ICF’s Self-Connection Tool.

Other European hubs with scale and significant LCC presence closely follow Gatwick: Amsterdam, Barcelona, and Paris all offer around 4,000 unique markets.

While the number of self-connecting opportunities is significant, it is often overshadowed by the number of markets served via traditional connections at Europe’s largest hub airports. These traditional connection flows will continue to account for the vast majority of connecting traffic at least in the medium term. However, opportunities will grow for those airports where LCCs offer significant network scale, provide new connecting opportunities, and reinforce current connections served by legacy carriers.

**Airport Market Share Forecasts**

ICF expects the next five years to bring even more change as technology, competition, and passenger appetite work together as a tailwind for these non-traditional transfer services. As with any innovative product or service in its relative infancy, it is difficult to know exactly how things are likely to play out and who will emerge as the winners and losers from this disruption. However, ICF is confident about the following:

- **Competition for passenger attention—as well as spending—will continue**, with new players in the distribution space (including OTAs and airports) competing with the established brands and the airlines’ own direct channels.

- **Some common practices or standards are likely to emerge**, driven either by market leaders or by collaboration in the industry. This will help raise the profile of these services and further increase take-up by passengers.

- **Airports’ role in facilitating connections will remain** even though airlines, OTAs, and possible other big names enter this space.

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Note: This is only a fraction of the hypothetical number of markets that could be connected. For example, many markets have been excluded because they would result in long routings. ICF’s Self-Connection Tool uses a systematic filtering process to locate markets that meet minimum thresholds including circuity, frequency, and connection time.

Source: ICF
As depicted in the following charts, ICF forecasts a wide range of possibilities for airports’ market share in the LCC connection segment via "Airport Hosted Transfers."

**EUROPEAN AIRPORT HOSTED TRANSFERS (MILLIONS OF PASSENGERS)**

<table>
<thead>
<tr>
<th></th>
<th>Low Case Scenario</th>
<th>High Case Scenario</th>
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<tbody>
<tr>
<td>2017</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2018</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>2019</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>2020</td>
<td>15</td>
<td>20</td>
</tr>
<tr>
<td>2021</td>
<td>20</td>
<td>25</td>
</tr>
</tbody>
</table>

Source: ICF

If the airport industry as a whole takes a proactive approach and develops services and passenger awareness, airports’ share of this business could grow tenfold. On the other hand, if airports remain passive and simply process whoever turns up at their airport, other players such as airlines and OTAs are likely to "own" the passenger relationship, reducing the contact, insight, and incremental revenue available to airports. In any event, the total market size will grow and lead to more connecting passengers at airports generally.

At the individual airport level, airport operators who enable and support the self-connecting experience will gain positive reputations and additional traffic at the expense of those who leave their passengers to fend for themselves, whether the booking is done via OTAs, airlines, or airports.

**Conclusion**

LCC connections will not become significant at all airports. The growth of this segment will depend on the network points served and how the viable connections over an airport compare to all the other ways of getting from A to B. As is already being seen, some airlines are set to introduce their own connecting products to enable them to compete on a wide range of market flows.

However, some airports have the potential to add incremental traffic and revenues by recognizing their unique opportunities early, identifying a clear and grounded path forward, and quickly implementing products and services that meet the needs of their particular passenger segment to help establish their airport as a strong connecting hub.

Partnerships with airlines and OTAs are likely to be an airport's best path forward to effectively reach passengers at the point of search and booking.
To take advantage of this opportunity, airport operators need to determine:

1. **Strengths and weaknesses** of their individual airport as a strong LCC connecting airport (see accompanying text box)

2. **Size** of potential self-connecting market (ICF offers a self-connection tool for sizing these opportunities at any airport worldwide)

3. **Alignment** of potential growth with strategic goals

4. **Infrastructure accommodations** for airside self-connecting baggage transfer, if required, or an airside arrivals customer service capability

5. **A business case** considering additional revenues from aeronautical (e.g., passenger charges) and non-aeronautical sources (e.g., food & beverage) against required infrastructure and staff investment

Early adopter airports have the opportunity to become front of mind for LCC passengers and airlines, who will be driving the rapid expansion of this new transfer segment. As traditional hubs have already demonstrated, scale and momentum are prerequisites for further network expansion, and thus these LCC self-connection flows can form an important pillar of an airport’s air service development as well as non-aeronautical revenue strategy. On the other hand, failure to ensure that an airport can provide the required facilities and technology to effectively host these new connecting flows may mean it is bypassed in favor of other airports.
About the Author

Kata Cserep leads ICF’s airports practice and regularly advises airports with longer term strategic advice relating to traffic, pricing, regulations, incentives, and transactions. She is an expert at communicating the key demand and supply issues facing airports and their implications for business planning.

She joined ICF in 2005 and has delivered a wide variety of high value projects, including airline diagnostics and business planning, detailed market studies including socio-economics and tourism, and due diligence of airline and airport transactions.

In recent years Ms. Cserep’s focus has been on the strategic aspects of airport development, including the interplay between policy, business planning, and economic development, including the continued evolution of the airline-airport business relationship.

Ms. Cserep has both a master's degree and a bachelor's degree in Economics from the University of Cambridge, Trinity College in the United Kingdom.

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