ACI EUROPE
AIRPORTS COUNCIL INTERNATIONAL

2050 NET ZERO

AIRPORT INDUSTRY CONNECTIVITY REPORT 2023

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FOREWORD

For the past 10 years ACI EUROPE has been providing detailed air connectivity data to all its airport members, and producing reports which both track and analyse the air connectivity trends which flow from this.

Much has changed over that period.

When we started collating connectivity data back in 2013, air connectivity was on a seemingly unstoppable upward trend. It was also very much at the top of the European policy agenda – a recognition of its role in supporting local economies, driving cohesion across our continent and enabling Europe's ability to trade globally.

But the COVID-19 pandemic along with much increased geopolitical tensions - in particular the war in Ukraine - have clearly challenged the resilience of air connectivity. Overall, the recovery of air connectivity keeps lagging behind that of traffic volumes. It has also been anything but uniform when one looks across geographies and individual airport markets.

What's more, recovery patterns are now driving more structural changes, reflecting a new reality for our aviation market. The dynamic recovery of *direct connectivity* compared to *indirect connectivity* is a case in point - along with the way in which *hub connectivity* remains much below its pre-pandemic levels.

Alongside these developments, the climate emergency is bringing the societal role and value of air connectivity into question – and this report also points at what the future might hold for air connectivity in Europe from that perspective. While the aviation sector is committed to net zero air connectivity and is working hard to deliver it, there is no question that policymakers and regulators have a crucial role to play in enabling this transformation. And if progress has been made, we are not there yet.

Ultimately, making air connectivity sustainable requires achieving decarbonisation whilst at the same time preserving its formidable economic and social benefits. These must go hand-in-hand if we are to de-risk our future across the board.

Together with the whole ACI EUROPE team, I hope this report will be a constructive contribution to the addressing of these challenges.

Olivier Jankovec
ACI EUROPE Director General

EXECUTIVE SUMMARY

European *total air connectivity* still -16% below pre-pandemic (2019) levels in 2023 – meaning that travellers from European airports continue to see fewer options while air fares have increased at twice the rate of inflation.

- The performance gap between ***direct connectivity* (-4%)** and ***indirect connectivity* (-22%)**, points to **recovery patterns becoming structural** – in particular the significant expansion of ultra-Low Cost Carriers (LCCs) and the relative retrenchment of Full Service Carriers[1] (FSCs).

Istanbul, Amsterdam-Schiphol and London-Heathrow stand atop the airport podium for ***direct connectivity*** – with the Turkish hub being the only one having exceeded its pre-pandemic (2019) *direct connectivity*.

- Only **34%** of Europe's airports have recovered or exceeded their pre-pandemic (2019) *direct connectivity* levels.
- **Athens, Palma de Mallorca, Lisbon, Dublin** and **Istanbul-Sabiha Gökçen** have recovered or exceeded their pre-pandemic (2019) *direct connectivity* – along with **smaller and regional airports**. This reflects the continued strength of leisure and VFR[2] demand (which for now defies inflationary pressures), with airlines targeting these markets for capacity deployment.

***Direct connectivity* between Europe and all other world regions has recovered, with the exception of Asia-Pacific.**

- ***Direct connectivity*** to **Africa (+8%)** and the **Middle East (+7%)** has exceeded pre-pandemic (2019) levels, followed by *direct connectivity* to **North America (-1%)**, **Latin America (-1%)** and **Asia-Pacific (-18%)**.

***European hub connectivity* remains -25% below pre-pandemic (2019) levels**, also reflecting structural changes in connectivity patterns and the aviation market as a whole.

- **Frankfurt** remains the **top airport globally for *hub connectivity***, followed by **Istanbul** and **Dallas Fort Worth**.
- Hub connectivity shrinkage, hub downgrades and considerable variations in performance have become key features of the European market.

Low Cost Carriers (LCCs) account for all of Europe's gains in *direct connectivity* over the past 10 years. Their share of *direct connectivity* on the intra-European market now stands at 46%.

- When compared to pre-pandemic (2019), LCCs exceed their *direct connectivity* levels on the entire European market by +12%, whereas Full Service Carriers (FSCs) are at -13%.
- Large airline groups[3] have increased their share of *direct connectivity* at their hub airports to 66%, while LCCs have reinforced their position at regional and smaller airports – pointing to a potential re-segmentation of the aviation market.

Türkiye, the Western Balkans and other countries relying on inbound tourism significantly outperform in their recovery of *air connectivity*.

- 5 national markets have now exceeded their pre-pandemic (2019) *total air connectivity* levels: **Türkiye, Cyprus, Bosnia & Herzegovina, Albania** and **Greece. Ukraine** has lost all air connectivity while international sanctions have resulted in much lower levels of *total air connectivity* for **Belarus** and **Russia**.
- The **UK** has overtaken **Spain** as the European country with the highest level of *direct connectivity*, with **Germany** coming in the third position.

Looking ahead, **a combination of factors is set to challenge the historical progression and resilience of *air connectivity*:** the aviation market moving back to more segmentation, lack of infrastructure capacity, climate action and related policies as well as geopolitical risks and fragmentation.

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[1] *Includes Full Service and other carriers not considered as Low Cost Carriers.*
[2] *Visiting Friends and Relatives*
[3] *AFKL: AMS, CDG*
LH Group: FRA, MUC
IAG: LHR
TK: IST

CONTENTS

PASSENGER PERSPECTIVE OF AIR CONNECTIVITY

The "Airport Connectivity Indices" have been created by SEO Amsterdam Economics using their proprietary NetScan model.

Air connectivity is best considered from the perspective of the air traveller. The one who wants to get from A to B. Or sometimes, from A to B to C. The following definitions describe them and together they provide a comprehensive picture of connectivity provided by an airport – and how it links its communities to the rest of the world.

A. Direct connectivity

These are the direct air services available from the airport – measured not just in terms of destinations, but also factoring in the frequency of flights to the same destination (so for example, an airport with 5 daily flights to another airport will register a higher score than one with only 4).

B. Indirect connectivity

This measures the number of places people can fly to, through a connecting flight at another airport from a particular airport. For example, if you fly from Malaga, Spain to a hub airport such as Amsterdam Schiphol, that's a direct flight from A to B. But with the vast choice of onward destinations you can fly to from there – the large number of available onward connections from this airport expands the range of destinations available from the airport of origin. Indirect connections are weighted according to their quality, based on connecting time and detour involved with the indirect routing. For example, a flight from Hamburg to Johannesburg via Frankfurt will register a higher score than an alternative routing via Doha, which is geographically a longer diversion from the direct flight path.

C. Airport connectivity / Total air connectivity

As the name suggests, this is the most comprehensive metric for airport connectivity – taking into account both direct and indirect connectivity from the airport in question. Airport connectivity is defined as the sum of direct and indirect connectivity – thus measuring the overall level to which an airport is connected to the rest of the world, either by direct flights or indirect connections via other airports.

D. Hub connectivity

Hub connectivity is the key metric for any hub airport, big or small. It measures the number of connecting flights that can be facilitated by the hub airport in question – taking into account a minimum and maximum connecting time, and weighing the quality of connections by connecting times and detour involved.

AIRPORT GROUPS (based on pre-pandemic (2019) traffic levels)
MAJORS > Top 5 busiest airports in Europe
GROUP 1 > Airports welcoming over 25 million passengers per year
GROUP 2 > Airports welcoming between 10 and 25 million passengers per year
GROUP 3 > Airports welcoming between 5 and 10 million passengers per year
GROUP 4 > Airports welcoming below 5 million passengers per year

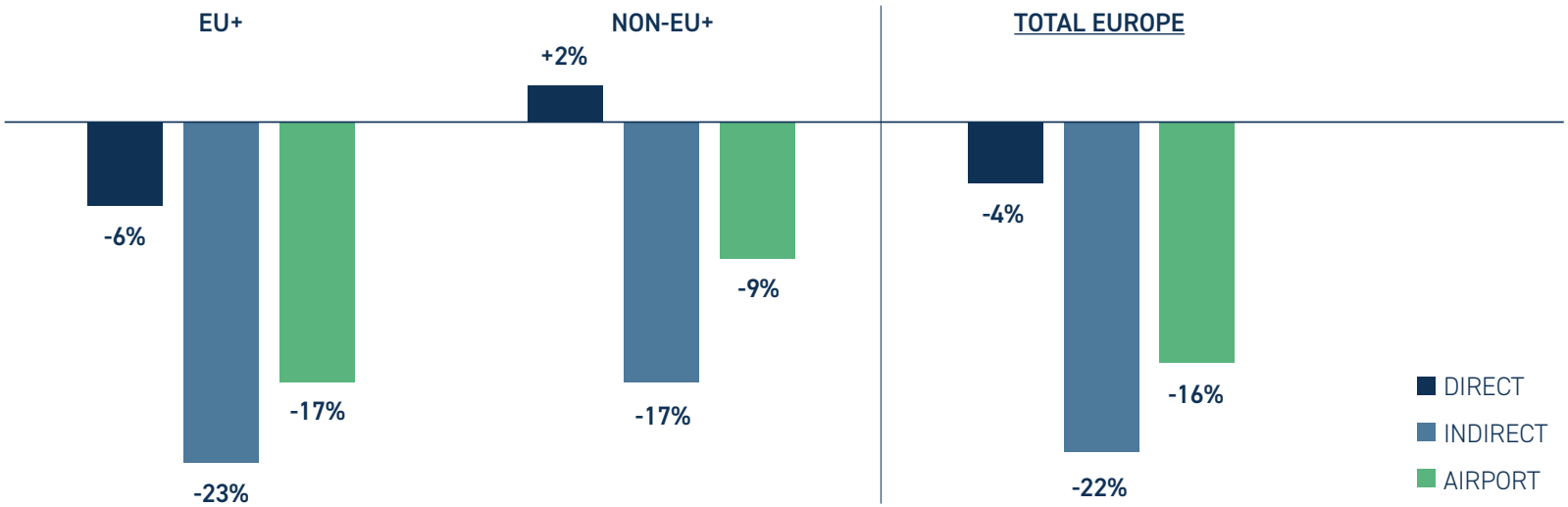
1. EUROPEAN AIR CONNECTIVITY — *SNAPSHOT*

1.1 AIR CONNECTIVITY RECOVERY: INCOMPLETE & IMBALANCED

The recent determination by the WHO that COVID-19 is no longer a public health emergency of international concern is possibly the most definitive signal that we have finally turned the corner of the pandemic. Yet, more than 3 years since drastic travel restrictions led to an unprecedented collapse in air travel, ***total air connectivity*** *(direct + indirect connectivity)* across the European airport network remains **-16% below its pre-pandemic (2019) levels**.

The continued performance gap between *direct* and *indirect connectivity* points to notable changes in the aviation market: ***direct connectivity*** has almost recovered pre-pandemic levels **(-4%)**, while ***indirect connectivity*** remains well below **(-22%)**. This reflects traffic recovery patterns that have become structural – in particular as a result of the significant expansion of ultra-Low Cost Carriers and the relative retrenchment of European Network Carriers.

Chart 1: **DIRECT, INDIRECT & AIRPORT CONNECTIVITY (EU+, NON-EU+ AND ALL EUROPEAN AIRPORTS — JUNE 2023 VS. JUNE 2019)**



1.2 NON-EU+ MARKET OUTPERFORMING

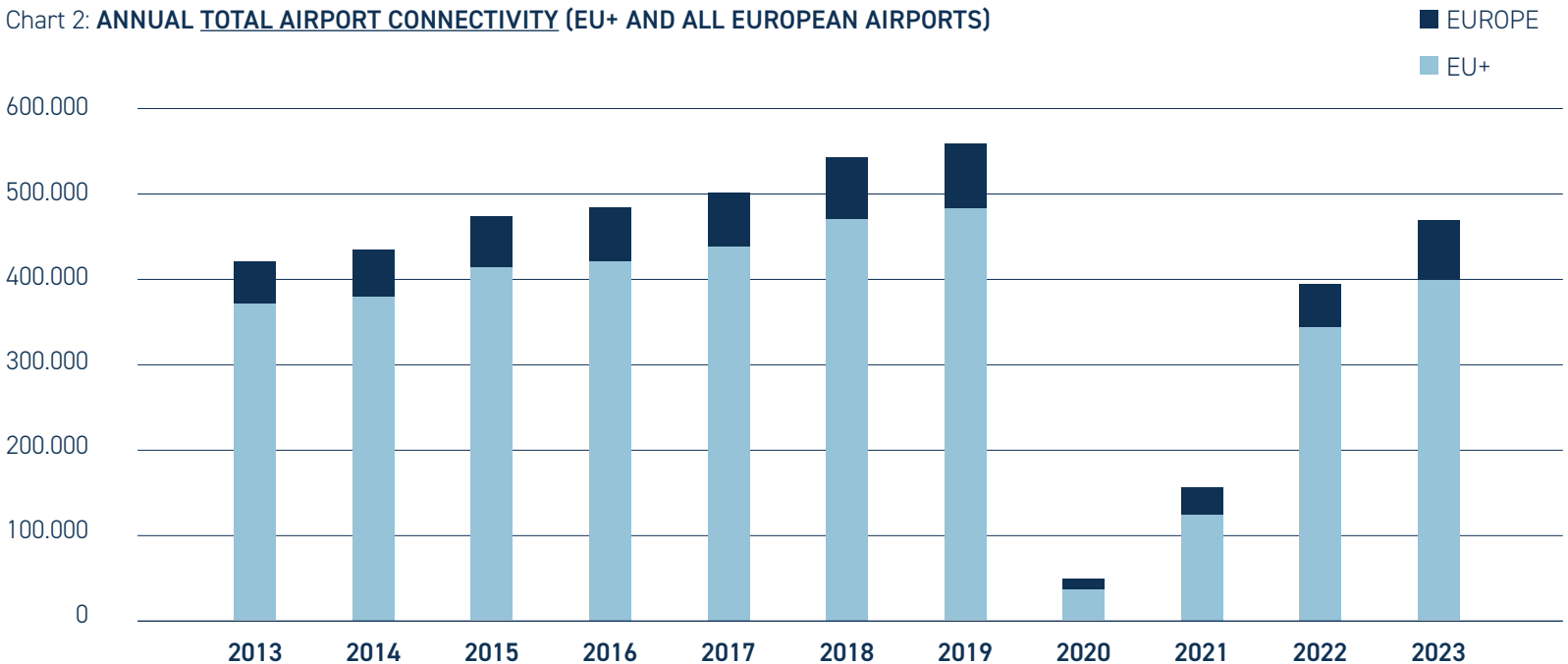
The impact of the war in Ukraine (especially the loss of all air connectivity for Ukrainian airports and the loss of air connectivity to the EU+ market as well as to the US and Canada for Russian and Belarusian airports) is not visible in the overall performance of the non-EU+ market. This is largely due to traffic in Russia shifting to the domestic and other external markets as well as significant connectivity developments for airports in the Western Balkans, Türkiye and 'the Stans'. This also reflects the still lower propensity to fly in the non-EU+ market and the potential for further significant air connectivity growth in the coming years.

In fact, ***total air connectivity*** in **the non-EU+ market (-9%)** outperforms **the EU+ market (-17%)**, with ***direct connectivity*** levels in **the non-EU+ market (+2%)** now above pre-pandemic (2019) levels.

1.3 LOOKING BACK – THE TEN YEAR PERSPECTIVE

The evolution of air connectivity over the past decade shows us – with hindsight – the incredible performance of 2018 and 2019. It also reveals the enormous chunk of lost air connectivity – with the quantum of loss in 2020, 2021 and 2022 set to remain a scar on European airports long into the future, even as and when 2019 connectivity levels will finally be surpassed.

Chart 2: **ANNUAL TOTAL AIRPORT CONNECTIVITY (EU+ AND ALL EUROPEAN AIRPORTS)**



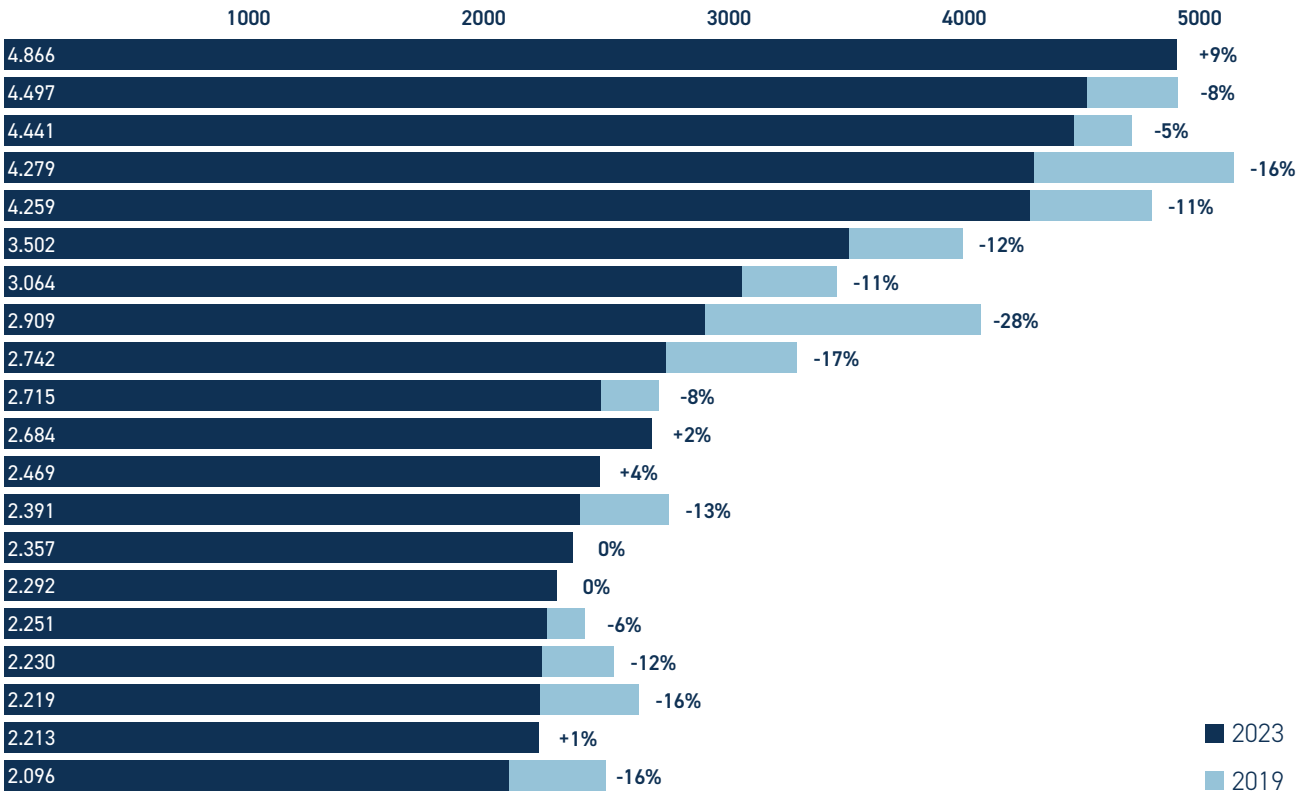
2.
DIRECT CONNECTIVITY

- **IST** | **AMS** | **LHR** on top
- Fastest recovery at
  ATH | **PMI** | **LIS** | **DUB** | **SAW**

2.1 TOP 20 DIRECT CONNECTIVITY RANKING

Chart 3: **DIRECT CONNECTIVITY — TOP 20 AIRPORTS IN EUROPE IN 2023 (JUNE 2023 VS. JUNE 2019 | RANKINGS 2023, 2022 & 2019)**

2019	2022	2023	CODE	2023	2019	Δ
5	2	1	IST	4.866	4.466	+9%
2	1	2	AMS	4.497	4.888	-8%
4	3	3	LHR	4.441	4.676	-5%
1	4	4	FRA	4.279	5.095	-16%
3	5	5	CDG	4.259	4.784	-11%
7	6	6	MAD	3.502	3.979	-12%
8	8	7	BCN	3.064	3.443	-11%
6	7	8	MUC	2.909	4.041	-28%
9	11	9	FCO	2.742	3.303	-17%
10	9	10	LGW	2.715	2.952	-8%
14	10	11	PMI	2.684	2.630	+2%
19	12	12	ATH	2.469	2.369	+4%
11	17	13	VIE	2.391	2.747	-13%
20	14	14	DUB	2.357	2.357	0%
21	16	15	SAW	2.292	2.292	0%
17	15	16	ORY	2.251	2.394	-6%
15	20	17	ZRH	2.230	2.534	-12%
13	18	18	CPH	2.219	2.644	-16%
23	19	19	LIS	2.213	2.192	+1%
16	13	20	OSL	2.096	2.496	-16%



Istanbul (+9%) has come out **on top of the European ranking for *direct connectivity***, moving up from the 5th position pre-pandemic (2019) – and thus replacing Amsterdam-Schiphol in the top spot.

Over the past 10 years, the Turkish hub has seen its *direct connectivity* increase by an impressive **+32%**. This performance very much reflects the ambitions and achievements of Turkish Airlines – which are reflected in Istanbul's levels of *direct connectivity* to the Middle East, Europe, Asia-Pacific and Africa. The fact that the airport still has a very low penetration level of LCCs (see section 5) points to **its significant potential for further connectivity growth and diversification**.

Amsterdam-Schiphol (-8%) now holds the **second position** and retains the **best *direct connectivity* to Europe** and second best to Latin America. But if the decision of the Dutch Government to reduce the capacity were to be implemented, further downgrades in its ranking would inevitably follow.

London-Heathrow (-5%) remains in the **3rd position** this year, having moved up from 4th position pre-pandemic (2019). The exposure to and reliance upon the transatlantic market for the British hub contributed to its performance, with that market being a major driver in the recovery. **London-Heathrow's *direct connectivity* to North America is more than twice that of its next competitor (Paris-CDG).** London-Heathrow also has **the best *direct connectivity* to Asia-Pacific**, meaning it is ideally placed to capitalise on the recovery of that market.

Frankfurt (-16%) continues to hold **4th position**, now closely followed by **Paris-CDG (-11%).** Pre-pandemic (2019), Frankfurt was in the top position for *direct connectivity*.

Along with Istanbul, **Athens (+4%), Palma de Mallorca (+2%), Lisbon (+1%), Dublin (0%) and Istanbul-Sabiha Gökçen (0%)** have recovered or exceeded their pre-pandemic (2019) *direct connectivity*. This reflects the distinctive patterns of the traffic recovery coming out of the COVID-19 pandemic – largely driven by leisure and VFR demand, boosted by ultra-LCC expansion and very much focused on the intra-European and transatlantic markets. Looking back 10 years, it is worth noting that these airports have all seen impressive increases in their *direct connectivity* levels - between +43% (Palma de Mallorca) and +90% (Athens).

Conversely, along with Frankfurt, **Munich (-28%), Rome-Fiumicino (-17%), Copenhagen (-16%) and Oslo (-16%)** are lagging behind in recovering their pre-pandemic *direct connectivity* levels. This mostly reflects tight capacity management or even shrinkage by their home based network airline, along with lower presence of Low Cost Carriers for some.

The graphs on the next page provide an overview of **which European airports provide the highest levels of *direct connectivity* by geographical market.**

Chart 4.1: **TOP 5 AIRPORTS BY DIRECT CONNECTIVITY TO AFRICA IN 2023**

Chart 4.2: **TOP 5 AIRPORTS BY DIRECT CONNECTIVITY TO ASIA-PACIFIC IN 2023**

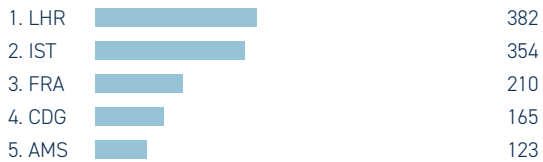


Chart 4.3: **TOP 5 AIRPORTS BY DIRECT CONNECTIVITY TO EUROPE IN 2023**

Chart 4.4: **TOP 5 AIRPORTS BY DIRECT CONNECTIVITY TO LATIN AMERICA & CARIBBEAN IN 2023**

Chart 4.5: **TOP 5 AIRPORTS BY DIRECT CONNECTIVITY TO MIDDLE EAST IN 2023**

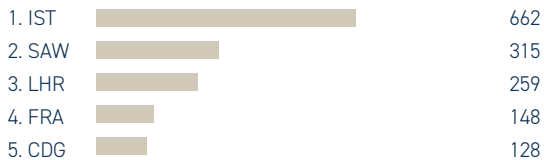


Chart 4.6: **TOP 5 AIRPORTS BY DIRECT CONNECTIVITY TO NORTH AMERICA IN 2023**

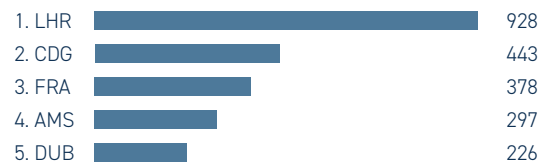
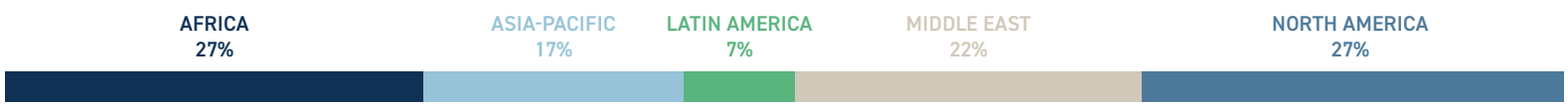


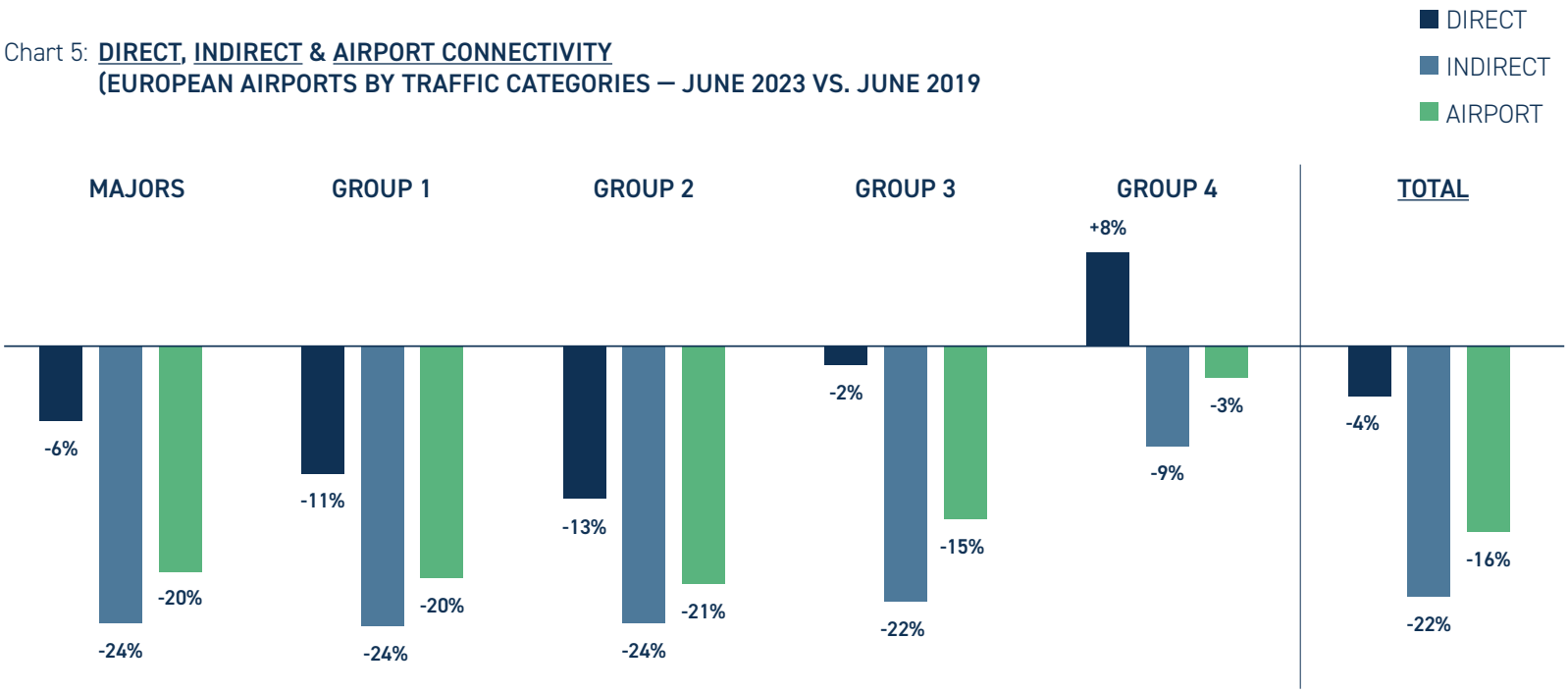
Chart 4.7: **DIRECT CONNECTIVITY SHARE OF EACH DESTINATION REGION (2023)**



2.2 REGIONAL & SMALLER AIRPORTS RECOVERING FASTER

Again this year, regional and smaller airports are outperforming larger airports as regards ***direct connectivity***. In particular, the *direct connectivity* of **Group 4 airports**, which includes airports that welcomed less than 5 million passengers in 2019, is now **+8%** above pre-pandemic (2019) levels.

Chart 5: **DIRECT, INDIRECT & AIRPORT CONNECTIVITY**
(EUROPEAN AIRPORTS BY TRAFFIC CATEGORIES — JUNE 2023 VS. JUNE 2019



This reflects the above mentioned recovery patterns and in particular the fact that regional and smaller airports have a larger exposure and reliance on leisure and VFR demand as well as on ultra-LCCs.

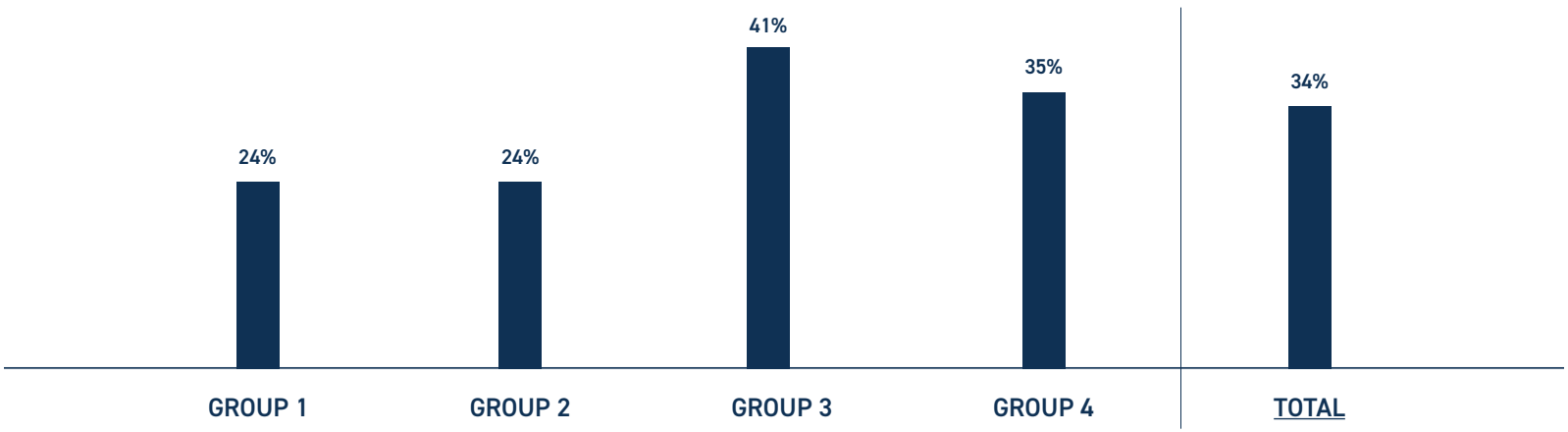
However, there are huge variations in performance amongst these airports. Whilst insular airports, those serving popular tourism destinations, and those which serve as LCC bases, are seeing impressive growth in *direct connectivity* with levels far exceeding pre-pandemic (2019) levels, many other regional and smaller airports still struggle to recover and rebuild their *direct connectivity*.

Examples of best performing regional and smaller airports and LCC bases for direct connectivity include: **Trapani (+155%), Tirana (+81%), Zadar (+84%), Funchal (+29%), Chania (+26%), Paphos (+24%), Rhodos (+21%), Bergamo (+19%), Dalaman (+19%), Bristol (+17%)** and **Brussels-Charleroi (+14%)**.

Along with regional and smaller airports, the **top 5 European airports[4] (-6%)** did significantly better than other larger airports as regards *direct connectivity*, still benefitting from the 'critical mass advantage' afforded by their large based network airlines.

All in all, **66% of Europe's airports have yet to recover their 2019 *direct connectivity.***

Chart 6: **% OF EUROPEAN AIRPORTS WITH FULLY RECOVERED DIRECT CONNECTIVITY COMPARED TO 2019 (JUNE 2023)**



[4] *Based on 2019 passenger traffic : London-Heathrow, Paris-CDG, Amsterdam-Schiphol, Frankfurt and Istanbul.*

3.
CONNECTIVITY
TO OTHER WORLD REGIONS

ALL MARKETS HAVE RECOVERED – EXCEPT ASIA-PACIFIC

While **intra-European *direct connectivity* (-5%)** has almost recovered its pre-pandemic (2019) levels this year, it is striking to see that *direct connectivity* between Europe and other world regions has also nearly met or even exceeded 2019 levels – as is the case for **Africa (+8%)** and the **Middle East (+7%)**, followed by **North America (-1%)** and **Latin America (-1%)**.

Conversely, *direct connectivity* between Europe and **Asia-Pacific (-18%)** remains impacted by the lingering impact of longer COVID-19 travel restrictions – in particular China's 'Zero Covid' policy – as well as the closure of the Russian airspace to most European airlines. Part of that long-haul capacity has been redeployed to other markets.

Chart 7: **DIRECT CONNECTIVITY FROM EUROPEAN AIRPORTS — INTRA-EUROPE**

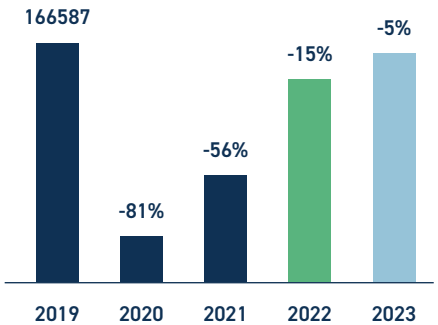
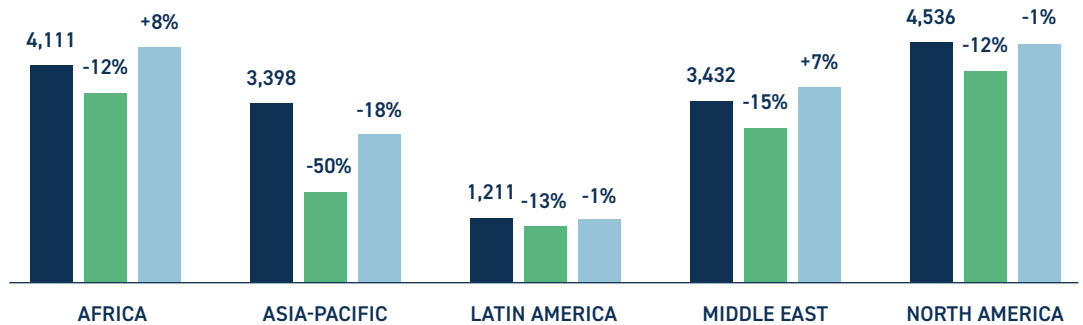


Chart 8: **DIRECT CONNECTIVITY FROM EUROPEAN AIRPORTS BY WORLD REGION**



4.
HUB CONNECTIVITY

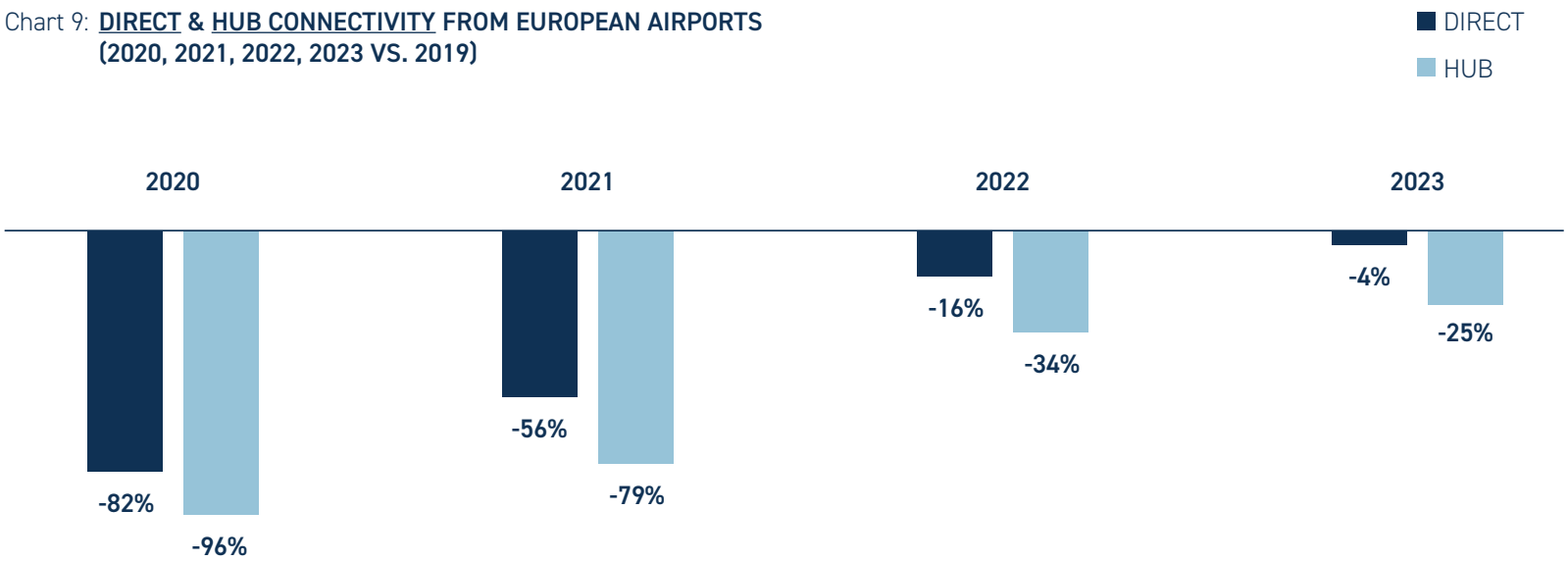
- Weaker recovery in *hub connectivity* reflecting structural changes in aviation market and connectivity patterns
- **FRA**, **IST** and **DFW** on top of global *hub connectivity* ranking
- Significant hub shrinkage and downgrades

4.1 STRUCTURALLY LOWER HUB CONNECTIVITY

Hub connectivity is where we see the full value of air transport networks. For an airport that has a wave of 10 flights leaving at 10.00 am, one additional flight arriving at 9.00 am increases its *hub connectivity* by 10, reflective of the onward connecting options for passengers arriving on that additional flight.

Hub connectivity remains **-25%** below its pre-pandemic (2019) level this year and thus keeps significantly underperforming ***against direct connectivity* (-4%)** - despite the fact that most countries around the globe had lifted restrictions for cross border travel by the end of 2022. As already mentioned in relation to the underperformance of *indirect connectivity* (section 1.1), this points to structural changes in the aviation market and thus changed connectivity patterns for Europe.

Chart 9: **DIRECT & HUB CONNECTIVITY FROM EUROPEAN AIRPORTS (2020, 2021, 2022, 2023 VS. 2019)**



4.2 GLOBAL HUB CONNECTIVITY PERFORMANCE

8 European airports are amongst the top 20 global airports for *hub connectivity*, along with 8 North American airports, 2 from the Middle East and 2 from Asia-Pacific.

Frankfurt continues to be the **top airport globally for *hub connectivity*** – despite its *hub connectivity* remaining **-23%** below its pre-pandemic (2019) level. The airport has held the top position every year since 2009, with the exception of 2021[5]. **Istanbul (+31%)** keeps its second position this year, having jumped from the 6th position in 2019. **Dallas Fort Worth (-19%)** holds the 3rd position.

Doha (+31%) keeps progressing, now in the 10th position up from the 17th position in 2019, followed by **Dubai (-7%)**.

Both **Tokyo-Haneda (+35%)** and **Singapore-Changi (-25%)** have joined the top 20 this year – replacing New York-JFK and Miami which exited the league.

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[5] *In 2021, Dallas Fort Worth International Airport came out on top of the global hub connectivity ranking.*

Chart 10: **HUB CONNECTIVITY — TOP 20 AIRPORTS GLOBALLY IN 2023 (JUNE 2023 VS. JUNE 2019 | RANKINGS 2023, 2022 & 2019)**

2019	2022	**2023**	CODE		
1	1	**1**	FRA	60.439	-23%
6	3	**2**	IST	54.280	+31%
2	2	**3**	DFW	50.130	-19%
3	4	**4**	AMS	42.593	-27%
7	5	**5**	DEN	39.834	+3%
4	6	**6**	CDG	38.153	-20%
5	7	**7**	ATL	36.111	-18%
10	10	**8**	LHR	30.408	-10%
13	8	**9**	EWR	28.875	+5%
17	13	**10**	DOH	27.296	+31%
12	17	**11**	DXB	26.288	-7%
8	9	**12**	MUC	22.733	-37%
9	11	**13**	ORD	22.640	-35%
14	12	**14**	CLT	21.703	-14%
16	16	**15**	MAD	19.714	-14%
15	15	**16**	IAH	19.010	-19%
11	14	**17**	YYZ	17.880	-47%
27	27	**18**	HND	16.795	+35%
18	18	**19**	ZRH	14.553	-21%
20	23	**20**	SIN	13.220	-25%

4.3 EUROPEAN HUB CONNECTIVITY PERFORMANCE

A closer look at European airports in terms of *hub connectivity* reveals significant structural developments with systemic **'hub shrinkage'**, several **hub downgrades** and **considerable performance variations**.

Whilst **Munich** was part of the **major hubs** group up until last year, its significant decrease in *hub connectivity* (-37%) compared to its pre-pandemic (2019) level sees it downgraded to a **secondary hub**.

Chart 10.1: **HUB CONNECTIVITY — MAJORS | JUNE 2023 VS. 2019**

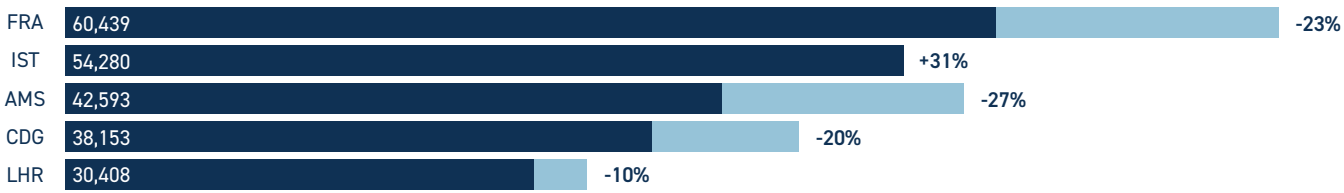
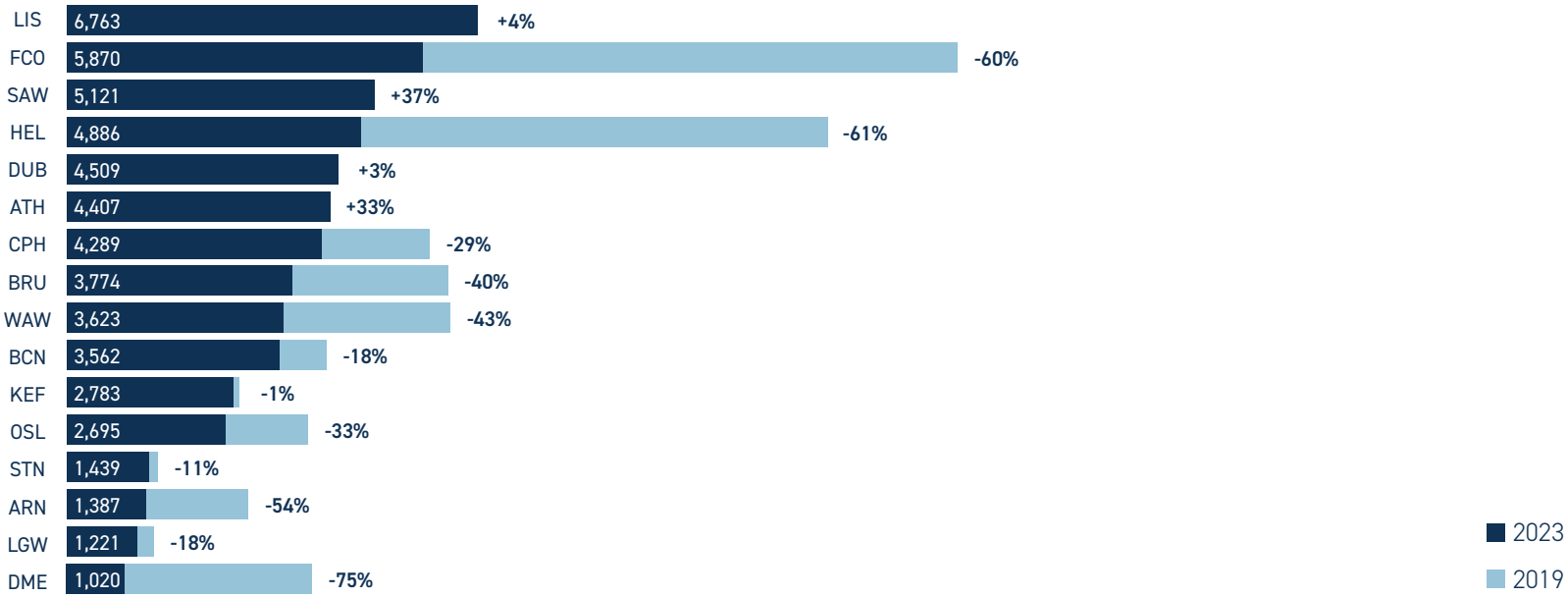


Chart 10.2: **HUB CONNECTIVITY — SECONDARY HUBS | JUNE 2023 VS. 2019**

Chart 10.3: **HUB CONNECTIVITY — NICHE AND SMALLER HUBS | JUNE 2023 VS. 2019**



The even sharper decrease in *hub connectivity* of **Rome-Fiumicino (-60%)** and **Helsinki (-61%)** - as a result of replacement of Alitalia by a smaller ITA Airways and the harsh impact of the war in Ukraine on the Asia-focused network of Finnair - means these airports no longer qualify as **secondary hubs** and have become smaller **niche hubs**.

Similarly, **Prague (-83%)** and **Dusseldorf (-77%)** which previously qualified as **niche hubs** can no longer be considered as being part of the hub airport market – due to the retrenchment of their home-based network airline.

Other **niche hubs** seeing a significant decrease in their hub connectivity compared to pre-pandemic (2019) levels include **Moscow-Domodedovo (-75%)**, **Stockholm-Arlanda (-54%)**, **Warsaw (-43%)** and **Brussels (-40%)**.

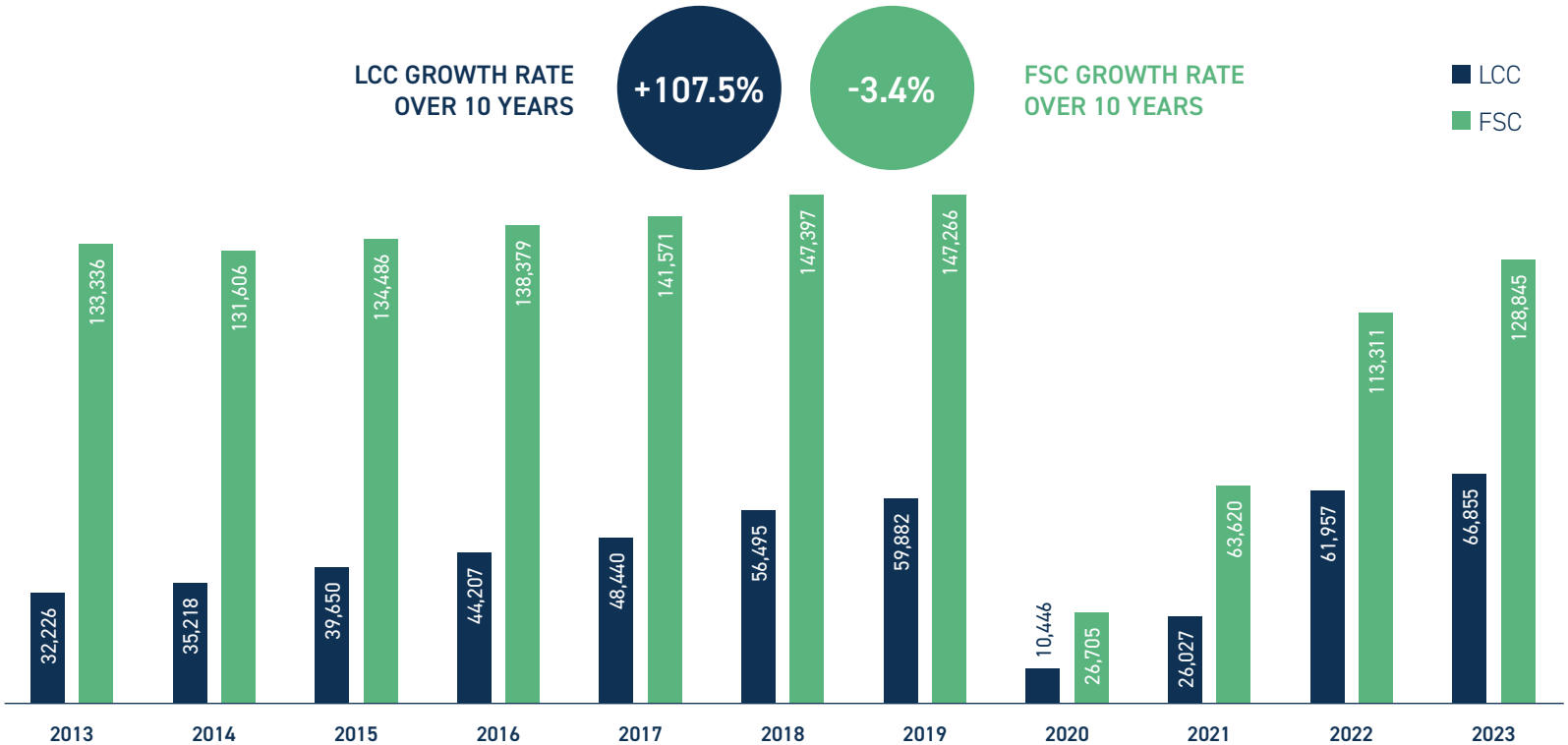
Apart from the stellar performance of **Istanbul (+31%)**, only a handful of airports exceeded their pre-pandemic (2019) hub connectivity levels – all being **niche hubs**: **Istanbul-Sabiha Gökçen (+37%)**, **Athens (+33%)**, **Lisbon (+4%)** and **Dublin (+3%)**.

5.
CONNECTIVITY & AIRLINE BUSINESS MODELS

- LCCs' *direct connectivity* doubled over the past 10 years and is now above pre-pandemic levels
- FSCs' *direct connectivity* still below pre-pandemic levels across almost all segments of the airport industry - except smaller regionals

Over the past 10 years, Europe's *direct connectivity* gains (+18.2%) are coming entirely from **Low Cost Carriers (LCCs, +107.5%)** as a result of their dynamic expansion, and the decrease in the *direct connectivity* offered by **Full Service Carriers (FSCs, -3.4%)**.

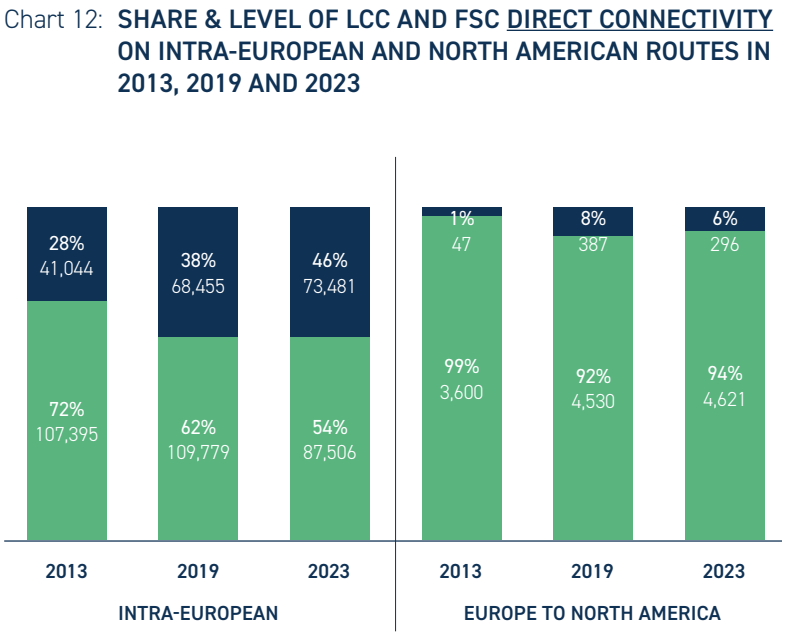
Chart 11: **DIRECT CONNECTIVITY AT EUROPEAN AIRPORTS FROM 2013 TO 2023 — LCC & FSC**



While **LCCs** have now exceeded their *direct connectivity* by **+12%** compared to pre-pandemic (2019) levels, the *direct connectivity* offered by **FSCs** has not recovered and remains **-13%** below such levels.

LCCs' share of ***direct connectivity*** **within Europe** now stands at **46%** up from 38% pre-pandemic (2019). This reflects the combination of a **+7%** increase by these airlines and a **-20%** decrease by **FSCs**.

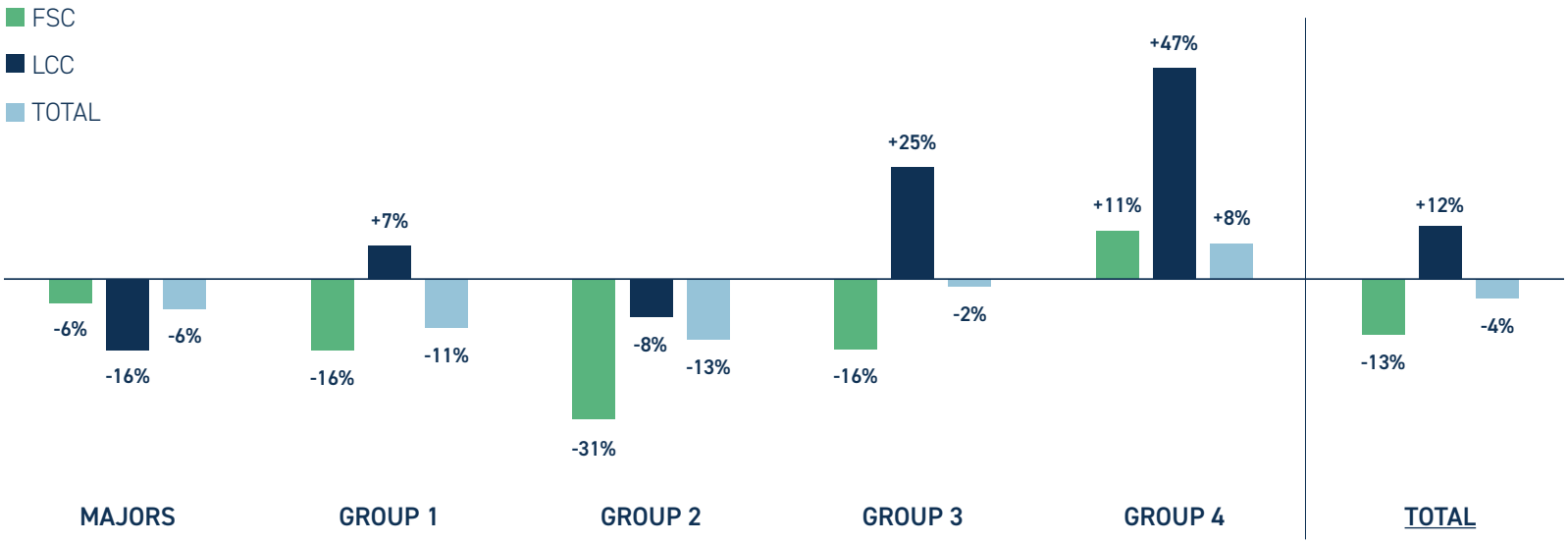
Chart 12: **SHARE & LEVEL OF LCC AND FSC DIRECT CONNECTIVITY ON INTRA-EUROPEAN AND NORTH AMERICAN ROUTES IN 2013, 2019 AND 2023**



Conversely, **FSCs**' share of ***direct connectivity*** **to North America** has now increased to **94%** up from 92% pre-pandemic (2019), as **LCCs** have not fully recovered their *direct connectivity* on that market – despite new entrants such as Play, Norse Atlantic and JetBlue replacing Wow and Norwegian.

When compared to pre-pandemic (2019) levels, **LCCs** have been growing their *direct connectivity* exponentially at regional and smaller airports (groups 3 & 4), while decreasing at major hubs. Meanwhile, **FSCs** are still offering lower levels of *direct connectivity* across all segments of the airport industry, with the exception of smaller regional airports. This reflects their foray into new leisure and VFR markets, many of which are highly seasonal.

Chart 13: **DIRECT CONNECTIVITY AT EUROPEAN AIRPORTS — LCC & FSC LEVELS (JUNE 2023 VS. 2019)**



While the share of *direct connectivity* offered by independent **LCCs**[6] at the largest hubs (Frankfurt, Istanbul, Amsterdam-Schiphol, Paris-CDG, London-Heathrow and Munich) has increased from 6% to 8% over the past 10 years, it has slightly decreased from 9% compared to its pre-pandemic (2019) level. Conversely, hub based airline groups have increased their share post-pandemic from 64% to 66%.

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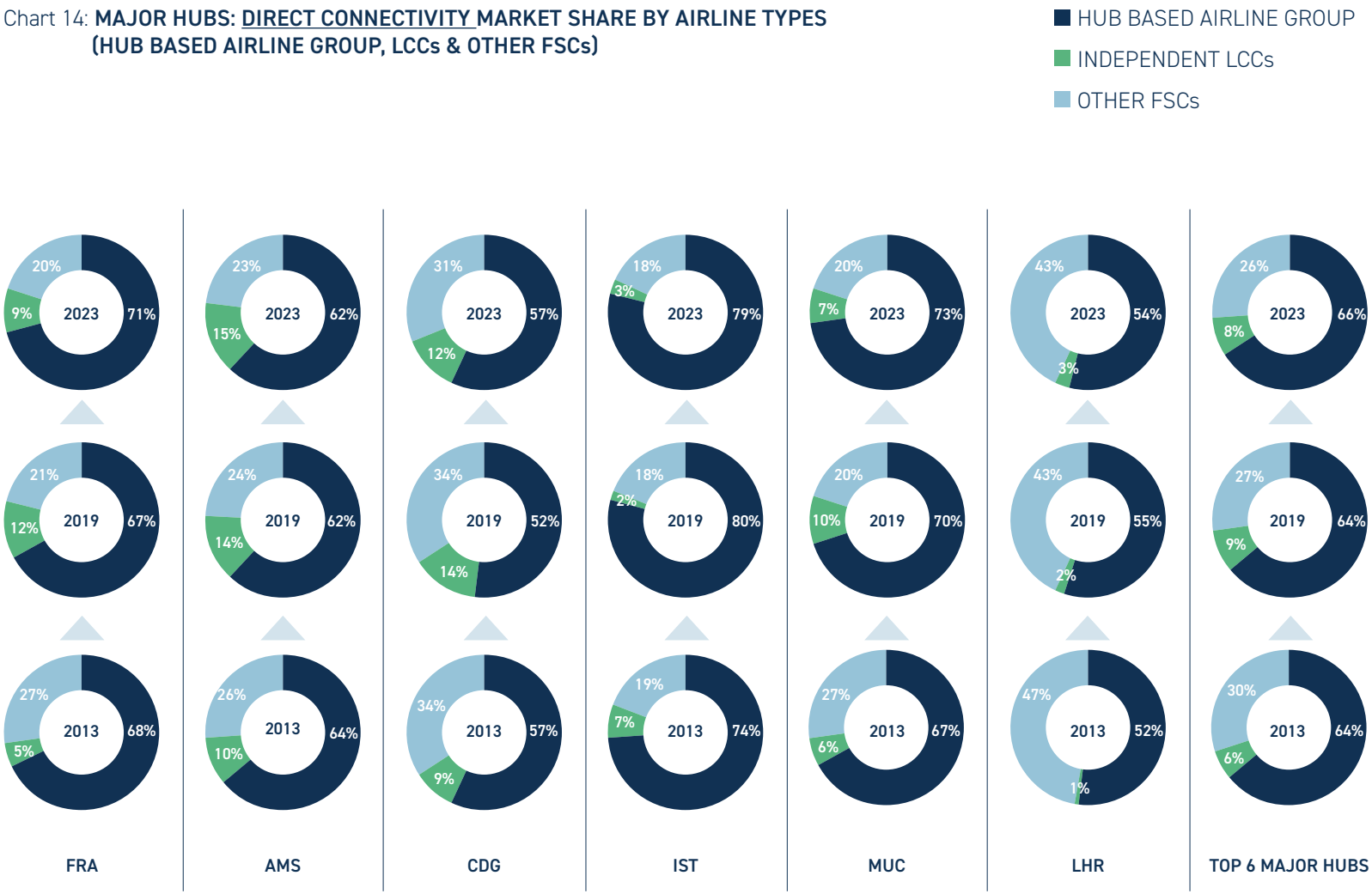
[6] *This excludes LCCs owned and operated by network airline groups (i.e. Transavia by Air France/KLM, Eurowings by the Lufthansa Group and Vueling and Iberia Express by IAG).*

Chart 14: **MAJOR HUBS: DIRECT CONNECTIVITY MARKET SHARE BY AIRLINE TYPES (HUB BASED AIRLINE GROUP, LCCs & OTHER FSCs)**



Overall, the largest hubs remain dominated by their home based network airlines[7] with the highest *direct connectivity* market share being held by **Turkish Airlines (79%)** at **Istanbul**, followed by the **Lufthansa Group** at both **Munich (73%)** and **Frankfurt (71%)**.

Independent LCCs hold the largest share of *direct connectivity* at **Amsterdam-Schiphol (15%)** and **Paris-CDG (12%)**.

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[7] *AFKL: AMS, CDG*
LH Group: FRA, MUC
IAG: LHR
TK: IST

6.
NATIONAL MARKETS

- Continued performance variations, with Türkiye, the Western Balkans and countries relying on tourism/in-bound travel outperforming
- Ukraine's *total air connectivity* erased – with international sanctions severely impacting Belarus and (to a lesser extent) Russia
- Top 3 countries for *direct connectivity:* UK, Spain and Germany

While **Greece** was the only European country that had achieved a full recovery of its ***total air connectivity*** *(direct + indirect connectivity)* last year compared to pre-pandemic (2019) levels, a total of **5 national markets** have now exceeded these levels. The best performances come from **Türkiye (+19%)**, followed by **Cyprus (+17%)**, **Bosnia & Herzegovina (+8%)**, **Albania (+7%)** and **Greece (+4%)**.

- Within the **EU+ market**, apart from Cyprus and Greece, the best performances come from **Portugal (-1%)**, **Iceland (-4%)** and **Poland (-5%)** which are getting very close to a full recovery. Conversely, the worst performing countries are the **Czech Republic (-44%**, due to the considerable diminution of Czech Airlines and more limited penetration from LCCs), **Finland (-40%**, largely due to the impact of the war in Ukraine on the hub positioning of Helsinki) and **Malta (-39%)**.

  Amongst the larger EU+ markets, the **UK (-10%)** and **Spain (-12%)** are closest to a full recovery of their *total air connectivity*, followed by **Italy (-16%)** and **France (-17%)**, while **Germany (-27%)** clearly underperforms.

- In the **rest of Europe**, the war in Ukraine is obviously interrupting all air connectivity for the country – with international sanctions impacting *total air connectivity* in **Russia (-34%)** and **Belarus (-82%)**.

Looking at ***direct air connectivity***, results are much better – reflecting the fact that the traffic recovery continues to be driven by point-to-point air services rather than indirect air services. **16 national markets have recovered or exceeded their pre-pandemic (2019) *direct connectivity* levels** – with the best performances coming from:

- Countries in the Western Balkans: **Albania (+84%)**, **Bosnia & Herzegovina (+74%)**, **Serbia (+26%)**, **North Macedonia (+23%)** and **Kosovo (+17%)**.

- Countries which tend to rely on tourism and inbound visitors: **Cyprus (+29%)**, **Portugal (+16%)**, **Greece (+10%)**, **Turkey (+5%)** and **Italy (+2%)**.

The **UK (0%)** now has the highest level of *direct connectivity* in Europe, very closely followed by **Spain (-3%)** and then **Germany (-20%)** – with the latter clearly lagging behind in the recovery.

Chart 15: **RANKING OF EUROPEAN COUNTRIES BASED ON TOTAL AIR CONNECTIVITY CHANGE (JUNE 2023 VS. JUNE 2019)**

EU+

	Country	2023 vs. 2019		Country	2023 vs. 2019
1	Cyprus	**+17%**	17	Switzerland	**-22%**
2	Greece	**+4%**	18	Belgium	**-25%**
3	Portugal	**-1%**	19	Germany	**-27%**
4	Iceland	**-4%**	20	Hungary	**-27%**
5	Poland	**-5%**	21	Lithuania	**-27%**
6	Ireland	**-9%**	22	Estonia	**-28%**
7	Denmark	**-10%**	23	Latvia	**-28%**
8	Norway	**-10%**	24	Sweden	**-30%**
9	United Kingdom	**-10%**	25	Austria	**-31%**
10	Spain	**-12%**	26	Slovenia	**-33%**
11	Romania	**-14%**	27	Slovakia	**-35%**
12	Italy	**-16%**	28	Bulgaria	**-36%**
13	France	**-17%**	29	Malta	**-39%**
14	Luxembourg	**-17%**	30	Finland	**-40%**
15	Croatia	**-19%**	31	Czech Republic	**-44%**
16	Netherlands	**-20%**			

NON-EU+

	Country	2023 vs. 2019
1	Türkiye	**+19%**
2	Bosnia and Herzegovina	**+8%**
3	Albania	**+7%**
4	North Macedonia	**0%**
5	Israel	**-4%**
6	Serbia	**-8%**
7	Georgia	**-16%**
8	Kosovo	**-26%**
9	Russian Federation	**-34%**
10	Montenegro	**-41%**
11	Moldova	**-46%**
12	Belarus	**-82%**
13	Ukraine	**-98%**

7.
WHAT NEXT FOR AIR CONNECTIVITY?

Until the COVID-19 pandemic hit, air connectivity had proven to be extremely resilient to external shocks and adverse market conditions.

But looking ahead, **a combination of factors is set to challenge the historical progression and resilience of air connectivity – cumulatively weighing on its recovery and further development**.

EVOLVING AVIATION MARKET

Some of the recovery patterns (the predominance of leisure and VFR demand as well as ultra-LCCs' expansion versus network carriers' tight capacity management and yields focus) appear to become structural, with the European aviation market potentially moving back to more segmentation — rather than following pre-pandemic hybridisation trends. This is likely to result in **continued divergences and performance gaps in traffic and air connectivity developments across the European airport network**.

LACK OF INFRASTRUCTURE CAPACITY

Europe already accounts for more than half of the world's most congested airports. Congestion is set to increase at major hubs — and increasingly also at other large and secondary airports as a result of political and societal resistance to airport expansion. **This will constrain air connectivity developments for Europe**.

CLIMATE ACTION POLICIES

Ambitious decarbonisation policies and in particular the EU's Fit for 55 package will **increase the cost of flying, lower future demand and limit connectivity developments**. Independent economic consultancy Oxera estimated that by 2050, direct flight demand from EU airports will decrease by -6% compared to the business as usual scenario as a direct consequence of the Fit for 55 package[8]. Regional and smaller airports will be most impacted, with demand for direct flights decreasing by -20%.

At the same time, demand management has also become a potential risk, as shown by the decision of the Dutch Government to reduce the capacity of Amsterdam-Schiphol from 500,000 movements per year to 440,000 movements per year - which if implemented would significantly curtail the connectivity of the airport and of the Netherlands as a whole.

GEOPOLITICAL RISKS & FRAGMENTATION

The war in Ukraine has shown the immediate impact geopolitical events can have on air connectivity. As our world faces instability, fragmentation and is prone to disruption, we are now facing **more risk to the continuity and resilence of air connectivity**.

The societal value of air connectivity is now being questioned in parts of Europe – fuelling debate over its sustainability and pointing to the need to focus on "quality" air connectivity. Yet, **the reality is that air connectivity remains essential to enable and support economic activity across our continent – and to bring its people together**. The COVID-19 crisis has laid bare the impact of restricting travel on livelihoods, and the air traffic recovery is emblematic of the importance of air connectivity for **cohesion** and **territorial equality**.

The decarbonisation of aviation holds the promise of zero emission air connectivity, with regional aviation set to be the first mover. The whole aviation sector is committed to and working on that – as per the Destination 2050 decarbonisation roadmap[9]. It is therefore **essential that adequate policy and financial support is given to deliver the needed technological and operational changes** and ensure their effective deployment.

Alongside these, **important policy directions should be secured:**

i) **Safeguarding open market access for airlines** where it already exists - and ensuring more 'open skies' between Europe and the rest of the world.

ii) **Reforming airport slot allocation rules** with a clear focus on generating more efficient use of scarce airport capacity and diversifying connectivity.

iii) **Achieving the Single European Sky** to generate long awaited CO_2 reduction benefits as well as operational and costs efficiencies.

iv) **Reviewing visa policies** (in particular for Schengen) to reduce administrative burdens, complexity and delays – and also extend visa-free regimes.

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[8] *OXERA Impact assessment of Fit for 55 policies on the aviation sector can be accessed here: https://www.aci-europe.org/downloads/resources/OXERA%20Impact%20assessment%20of%20Fit%20for%2055%20policies%20on%20the%20aviation%20sector.pdf*

[9] *www.destination2050.eu*

Want to know more about YOUR airport's connectivity performance?

Additional appendices detailing individual airport data on air connectivity are available to download.
Simply scan the QR code below to access the webpage storing the data:

https://www.aci-europe.org/air-connectivity.html

AIRPORTS COUNCIL INTERNATIONAL

For the 10th year, ACI EUROPE publishes its annual European Airport Industry Connectivity Report – a comprehensive report on *airport connectivity* measured in many dimensions. This Report describes the recovery of the European airport sector from the COVID-19 pandemic and the impacts of new geopolitical tensions including Russia's war against Ukraine. The report is based on data from SEO's NetScan connectivity model.

ACI EUROPE is the European region of the Airports Council International federation (ACI), the only worldwide professional association of airport operators.

ACI EUROPE represents over 500 airports in 55 countries. Our members facilitate over 90% of commercial air traffic in Europe. Air transport supports 13.5 million jobs, generating €886 billion in European economic activity (4.4% of GDP). In response to the climate emergency, in June 2019 our members committed to achieving Net Zero carbon emissions for operations under their control by 2050, without offsetting.

Released on the 26 June 2023, ahead of the ACI EUROPE/World Annual General Assembly, Congress & Exhibition in Barcelona, Spain.

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