



AIRPORTS COUNCIL
INTERNATIONAL



AIRPORT INDUSTRY CONNECTIVITY REPORT 2020



CONTENTS

INTRODUCTION	4
DIRECT CONNECTIVITY & INDIRECT CONNECTIVITY	6
CONNECTIVITY TO OTHER WORLD REGIONS	11
HUB CONNECTIVITY	13
AIR ROUTES	16



INTRODUCTION

THE FRAGILITY OF AIR CONNECTIVITY

Since 2014, ACI EUROPE has analysed the yearly evolution of the lead indexes of air connectivity provided by SEO Amsterdam Economics' NetScan model: Direct, Indirect, and Hub connectivity. While this has until now meant focusing on incremental changes and looking for reason behind percentage point shifts, this year is entirely different.

2020 and the COVID-19 pandemic have both revealed and exposed the fragility of air connectivity - with its systemic collapse affecting all airports across all regions and countries of Europe.

This report shows that the extent of the damage has been directly linked to the measures enacted by Governments in their efforts to contain the propagation of the virus. While some required airports to close to commercial air traffic and some island nations completely cut off air links with the rest of the World, others instituted mandatory quarantine periods of up to 14-days for arriving air passengers.

In these difficult times, fretting about air connectivity may seem inappropriate at first. But air connectivity is not an avoidable leisure activity. Air connectivity is an essential part of the productive capacity of our modern society – with **every +10% increase in direct connectivity yielding a +0.5% increase in GDP per capita**. As such, air connectivity is also an unsubstitutable driver of social and territorial cohesion.

This means that Europe will not be able to '*build back*' and move forward without restoring its air connectivity - both within the continent and externally. Rebuilding air connectivity will thus be critical to re-enable not just tourism, but also business, investment and commerce across the board.

However, the structural damage suffered by the entire air transport ecosystem means that **restoring air connectivity cannot be left to the market alone**. This must also be an essential part of European and national economic recovery strategies.

This is why the European aviation sector has unanimously called for specific **aviation relief programmes** to be enacted to support the restoration of air connectivity (*Aviation Round Table Report on the Recovery of European Aviation: [Urgent call for action from the assembled European aviation sector](#)*). As part of that, ACI EUROPE has laid out detailed proposals for a **Recovery Framework for Aviation** (*[ACI EUROPE Position Paper on State Aid for Aviation in Response to COVID-19](#)*) involving the possibility for States to establish **Air Connectivity Restart Schemes**.

We hope that by documenting how COVID-19 has devastated air connectivity, this report will provide both our institutional and industry stakeholders with useful insights and analysis.

EXPLANATION OF METHODOLOGICAL ADJUSTMENT TO THE INDEX

Traditionally, the data used to calculate an individual airports connectivity score is drawn from the schedules recorded with the data provider OAG for the 3rd week in June. This week, all things equal, represents an average week in the year, not distorted by holidays nor by the winter low-travel season.

In 2020 however airline schedules and airport traffic have not followed historical patterns.

Rather, flight schedules have been determined by government imposed restrictions on travel, entry requirements for passengers, document requirements and quarantine requirements. The net result has been that travellers have been prevented or discouraged from taking to the skies. And airlines have had to withdraw routes and ground aircraft, as a way to reduce cost outflows.

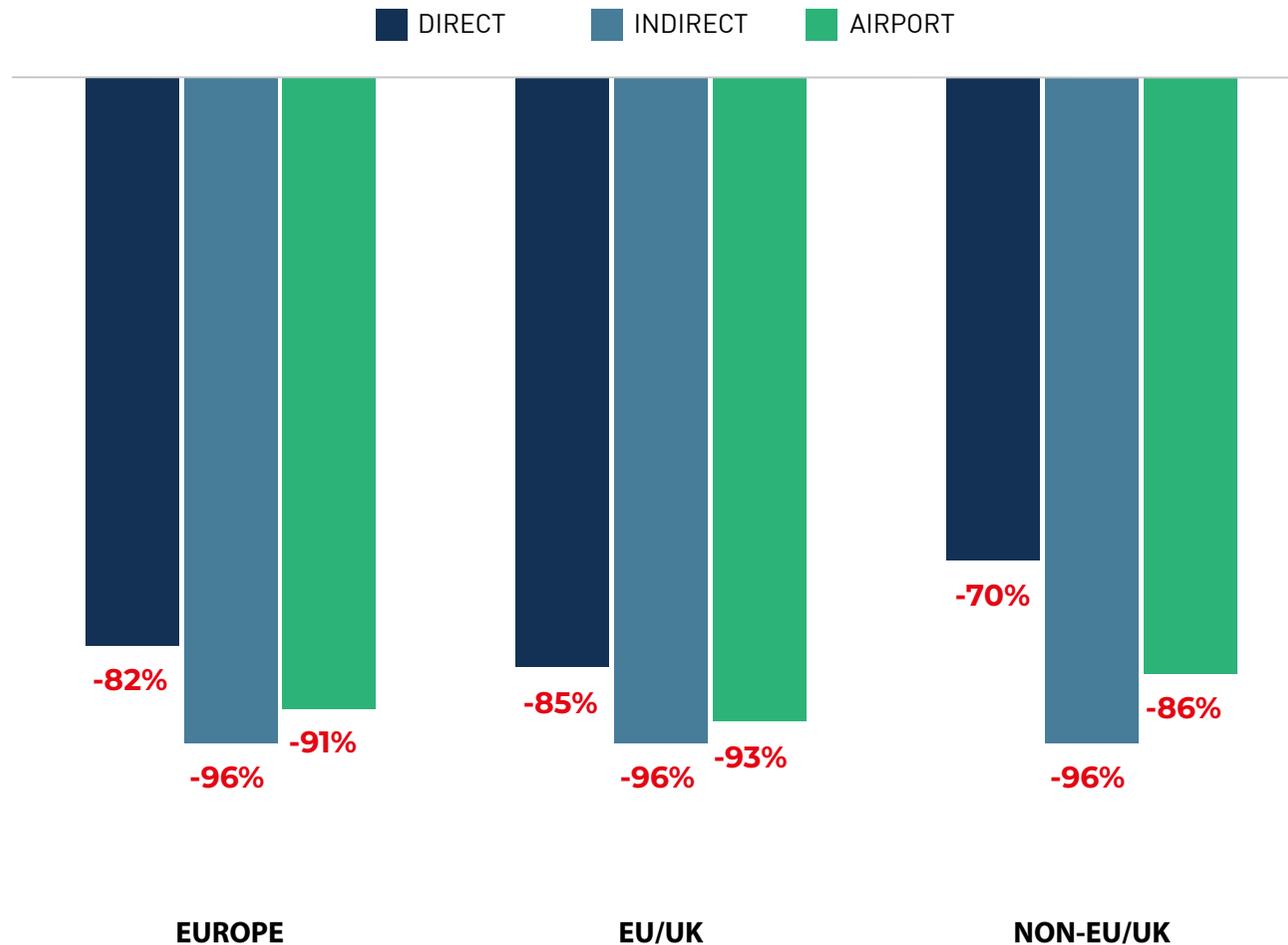
Therefore, this year's report for the first time looks at connectivity at different months within 2020 – allowing comparisons throughout the year, as well as a comparison with the connectivity level in 2019.

The definitions of 'Direct', 'Indirect', and 'Hub' connectivity are available on the ACI EUROPE website ([Air Connectivity section](#)), at SEO Economics' website ([Airport Connectivity](#)), and in the initial paper on the topic (*Why Connectivity Matters Synopsis Paper*).

DIRECT CONNECTIVITY & INDIRECT CONNECTIVITY

In the baseline month June, airport connectivity had almost entirely collapsed, with **9 out of 10 connections not operating**, as shown in Chart 1. Connectivity levels were the lowest ever measured by this index since 2004. Passenger volumes & flights numbers were at the lowest levels in decades.

CHART 1: DIRECT, INDIRECT & AIRPORT CONNECTIVITY (EUROPEAN, EU/UK AND NON-EU/UK AIRPORTS - JUNE 2020 VS. JUNE 2019)

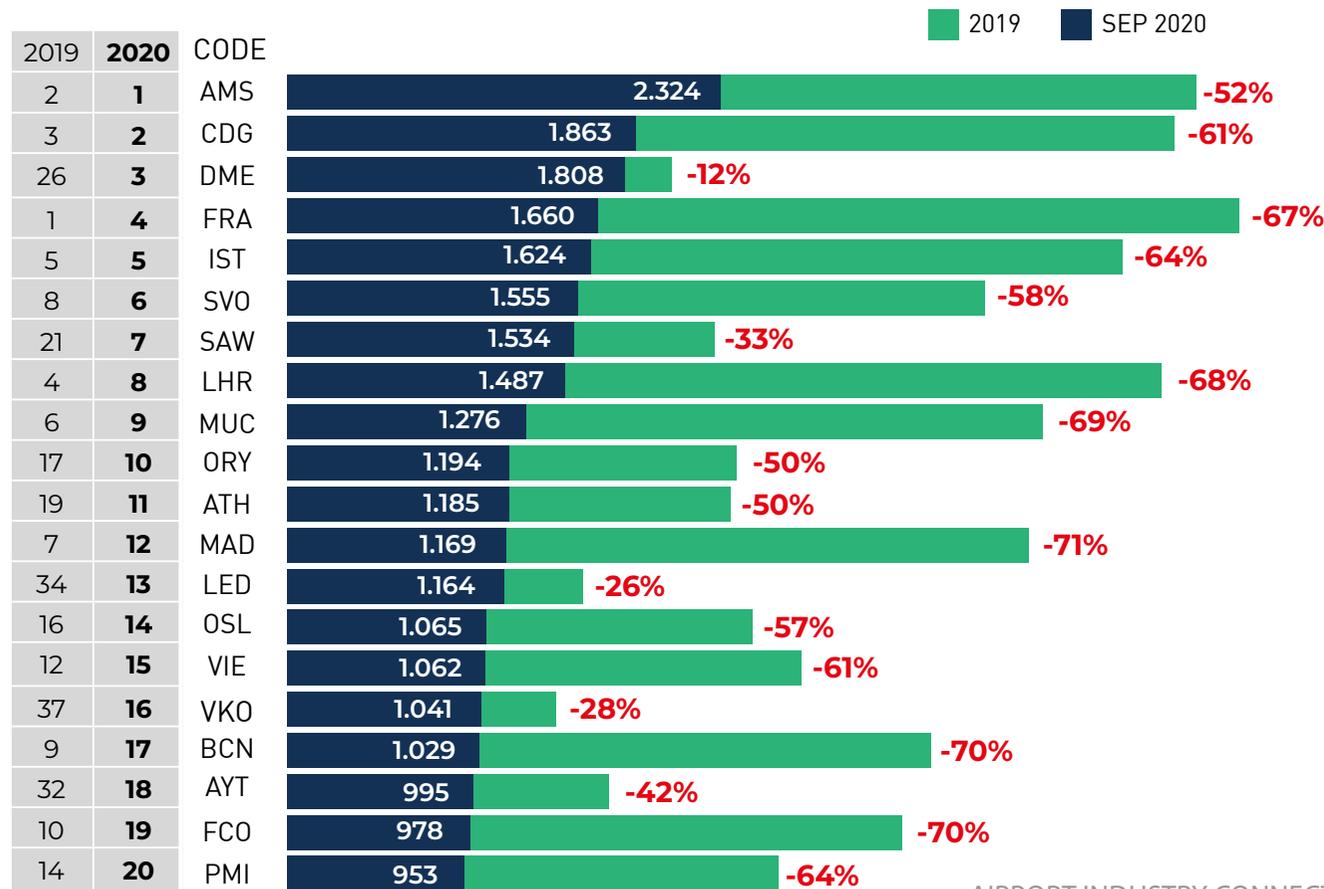


Even by September, following a tentative recovery over the peak summer months of July and August (as several governments had loosened travel restrictions and eased lockdowns while deploying test & trace systems), airports' direct connectivity remained fractions of what it was in 2019.

The least negatively impacted were the Russian airports and to a lesser extent Turkish airports, mainly as a result of a strong shift to domestic travel. This notably resulted in **Moscow Domodedovo** jumping from the 26th position last year to the 3rd position in terms of direct connectivity and **Istanbul Sabiha Gökçen** from the 21st position to the 7th.

Conversely, **Madrid-Barajas** (-71%), **Barcelona-El Prat** (-70%), **Rome-Fiumicino** (-70%), **Munich** (-69%), **London-Heathrow** (-68%) and **Frankfurt** (-67%) suffered the steepest decrease in direct connectivity.

CHART 2: DIRECT CONNECTIVITY - TOP 20 AIRPORTS IN EUROPE 2020 (RANKING 2020 & 2019)

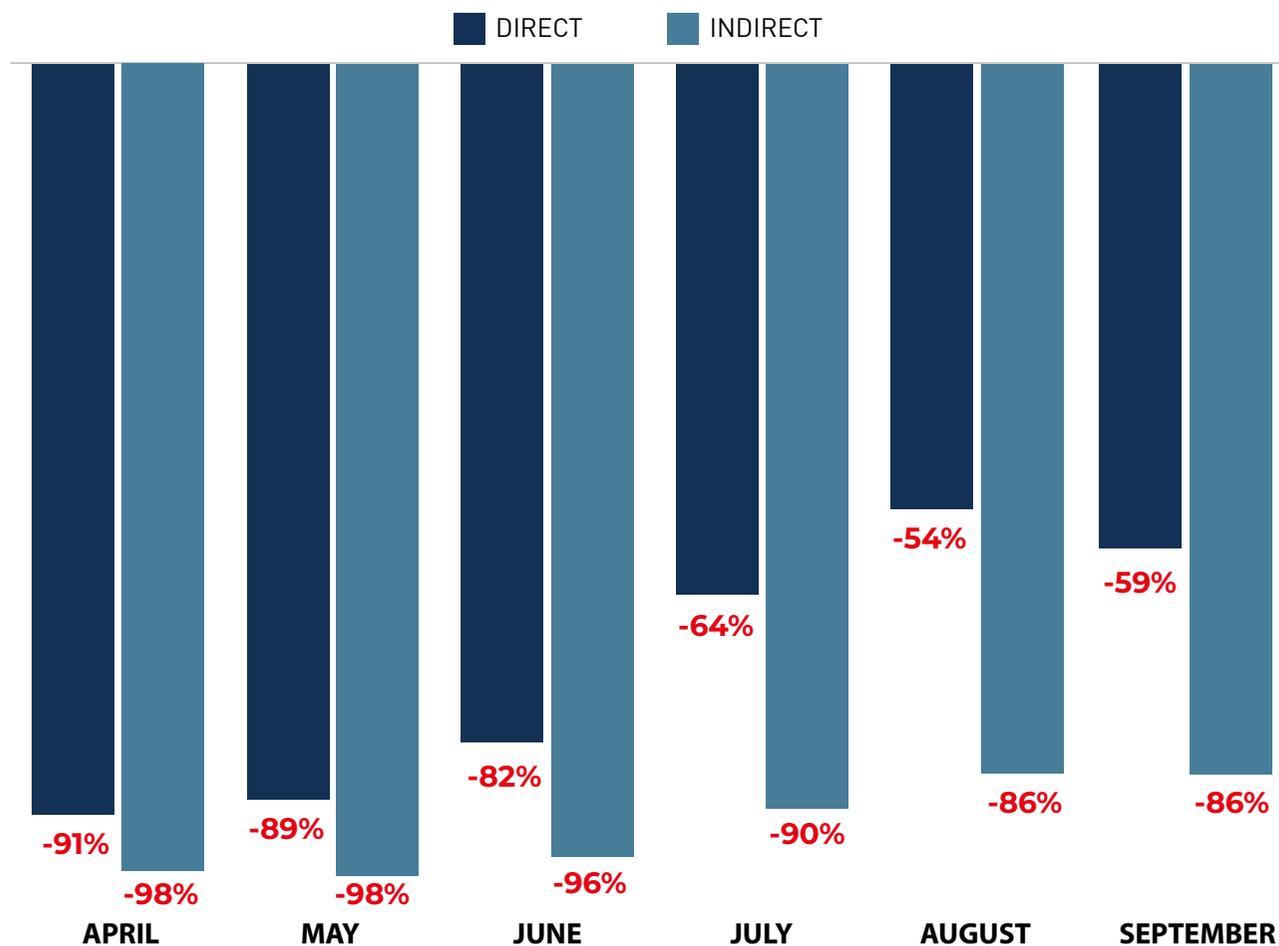


Smaller regional airports have often seen their direct connectivity even more decimated as evidenced by **Linz** (-96%), **Treviso** (-95%), **Groningen Eelde** (-93%), **Vaasa** (-91%), **Quimper** (-87%), **Newquay** (-86%), **Shannon** (-83%), **Burgas** (-82%).

2020 WITHIN YEAR AIR CONNECTIVITY DEVELOPMENT

Direct connectivity recovered from the decimation of flights in April to around 45% of normal operations in August. However, by September, the recovery had ended, as airlines revised capacity offerings, based on lacking demand and renewed travel restrictions.

CHART 3: EUROPE: DIRECT AND INDIRECT CONNECTIVITY IN 2020 (APRIL TO SEPTEMBER)



The 'network' effect of air transport and the value offered by hub airports is visible when comparing the difference in direct & indirect connectivity.

Indirect connectivity has decreased by a greater amount than direct connectivity. This results from the measure of indirect connectivity: it counts the number of places people can fly to with one-stop. With fewer destinations & frequencies at Hubs, each inbound flight does not lose just one outbound flight option, but potentially dozens of onward flight choices.

The recovery in direct connectivity was weaker in the EU/UK market than in the rest of Europe. Once again, this is mainly a reflection of both the size and relative resilience of domestic markets in Russia and Turkey.

CHART 4: EU/UK: DIRECT & INDIRECT CONNECTIVITY IN 2020 (APRIL TO SEPTEMBER)

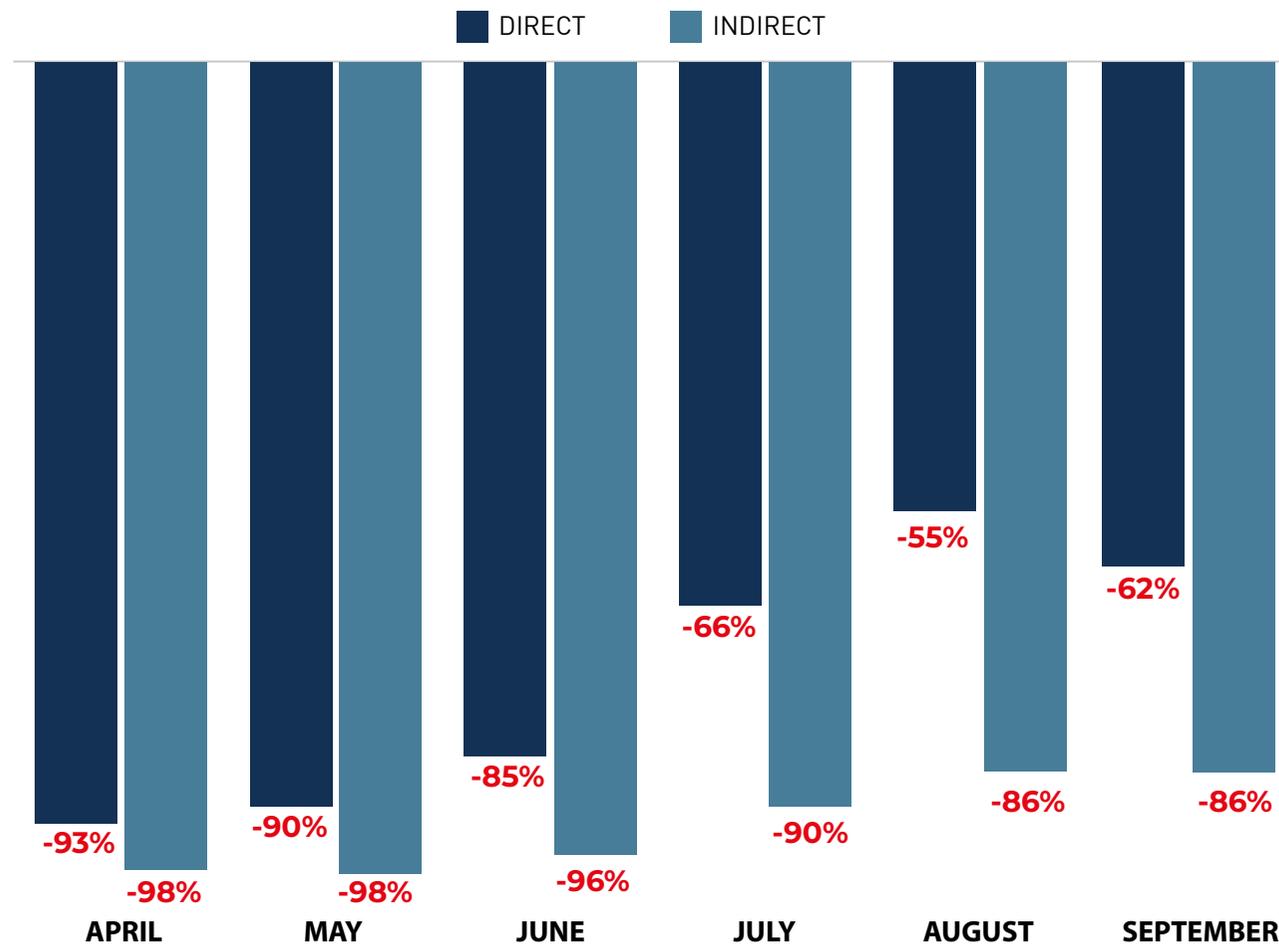
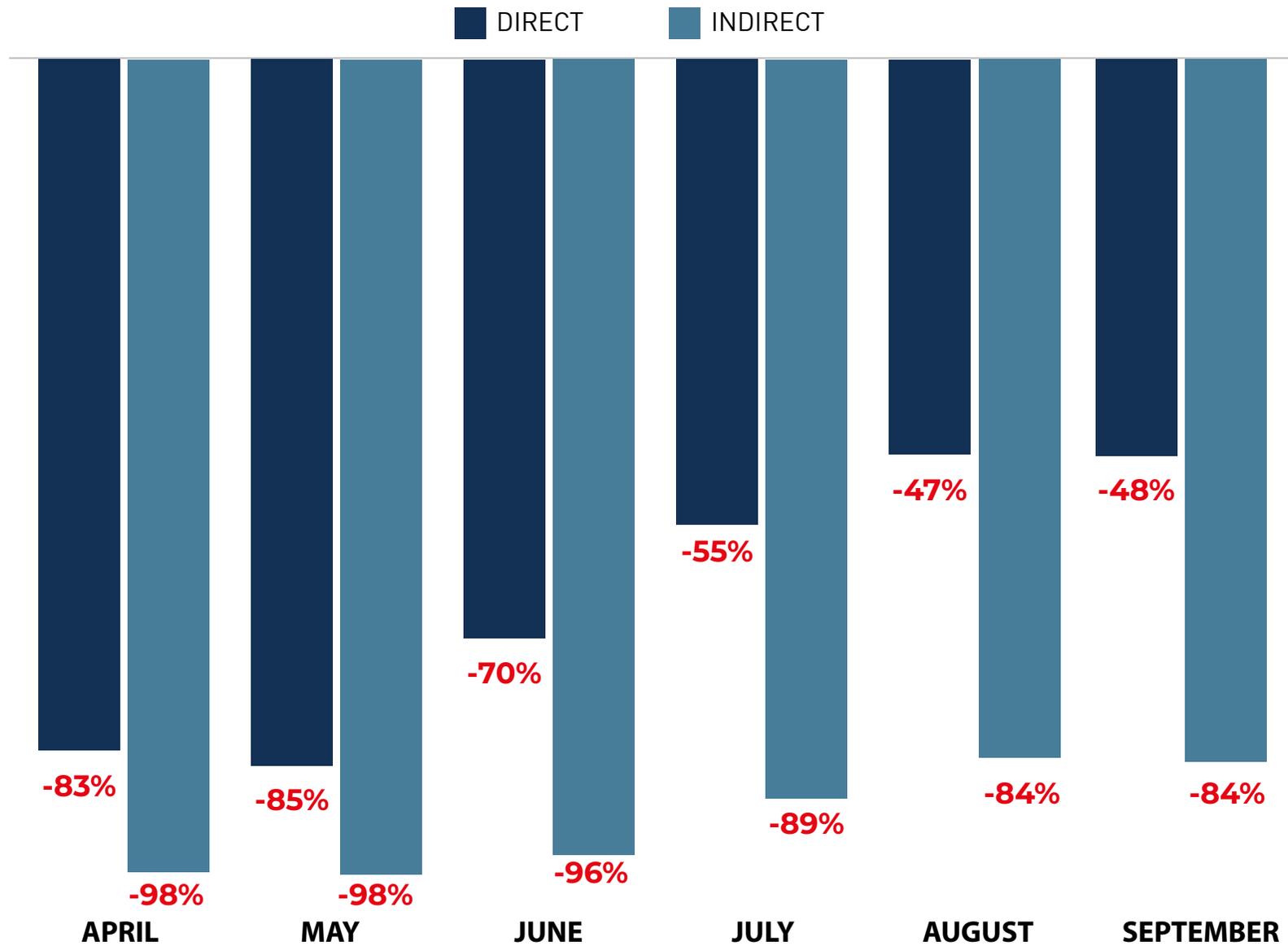


CHART 5: NON-EU/UK: DIRECT AND INDIRECT CONNECTIVITY IN 2020 (APRIL TO SEPTEMBER)



CONNECTIVITY TO OTHER WORLD REGIONS

The weak recovery in air connectivity experienced over the peak Summer months was uneven in that it exclusively focused on the intra-European market - as short-haul flights and domestic flights resumed more quickly following the removal of local lockdowns and the partial easing of intra-European travel restrictions.

On the contrary, as restrictions to global/long-haul travel have remained consistently in place, **air connectivity to other World regions has remained depressed** – with direct connectivity to North America and Asia Pacific being the hardest hit. The Middle East & Africa have registered somewhat lower losses, as a result of geographic proximity to Europe, closer integration with the European market and occasionally the decision of selected Gulf airlines to keep deploying capacity into Europe.

CHART 6: **DIRECT CONNECTIVITY FROM EUROPEAN AIRPORTS - INTRA-EUROPE**

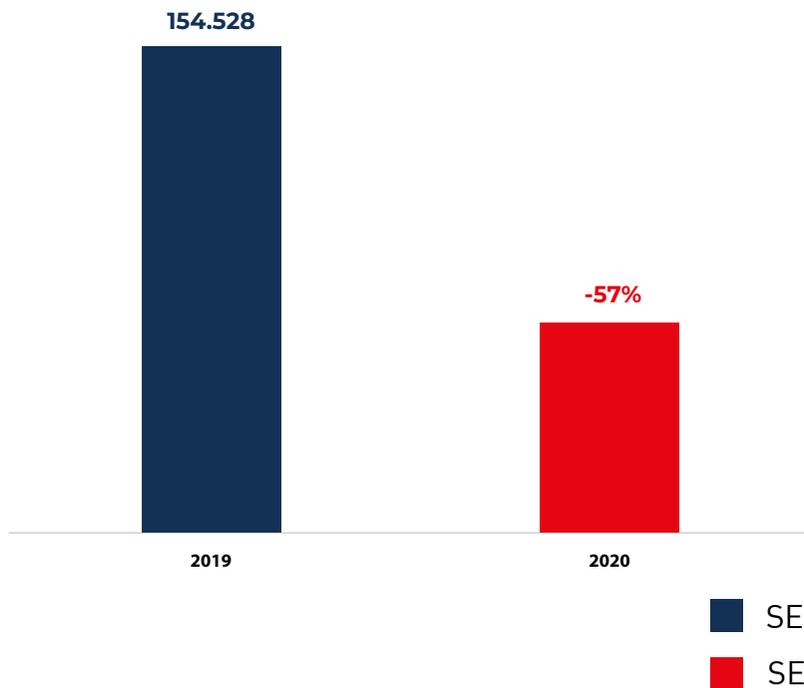


CHART 7: **DIRECT CONNECTIVITY FROM EUROPEAN AIRPORTS BY WORLD REGION**

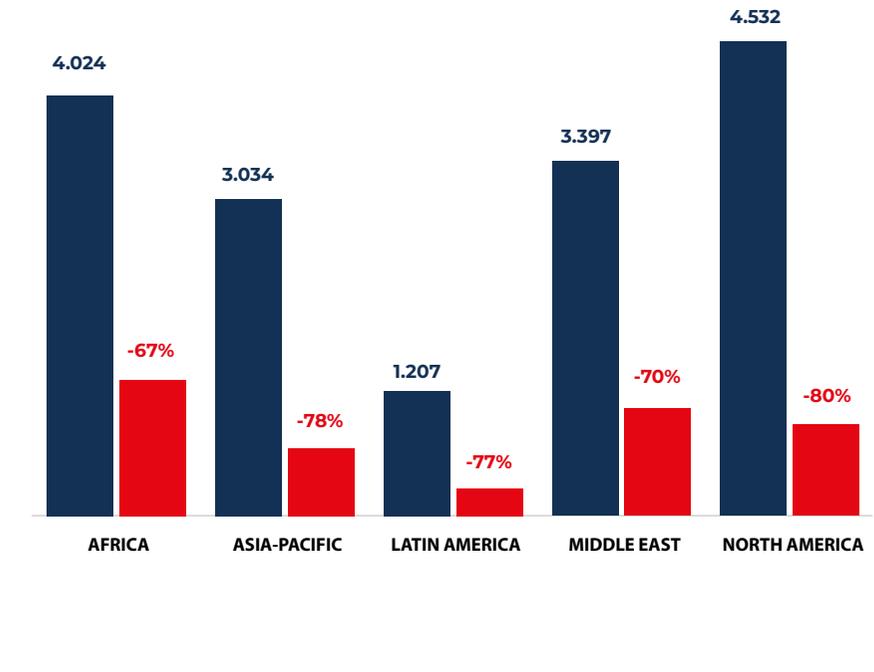


CHART 8: DIRECT CONNECTIVITY FROM EU/UK AIRPORTS TO EUROPE

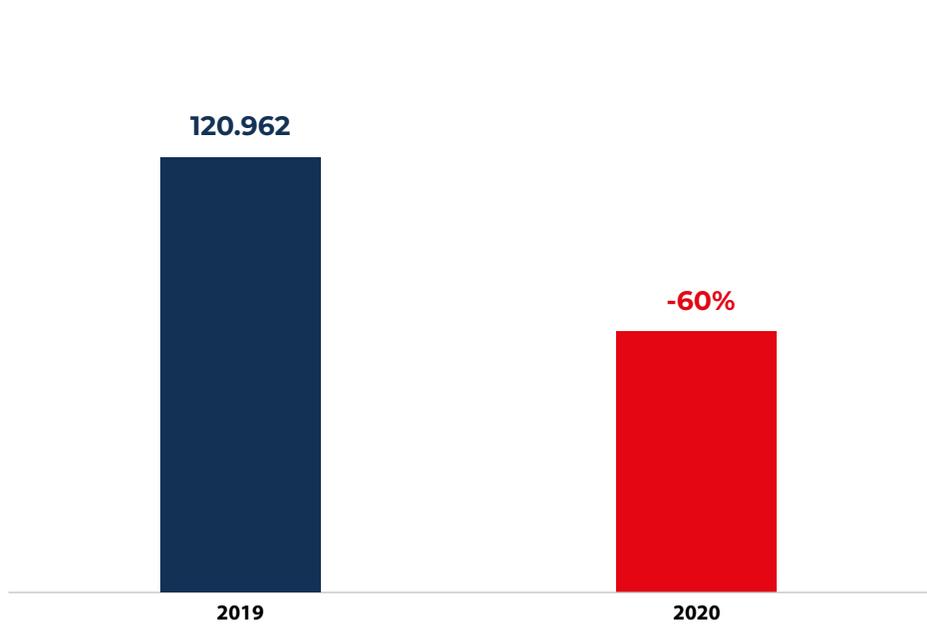
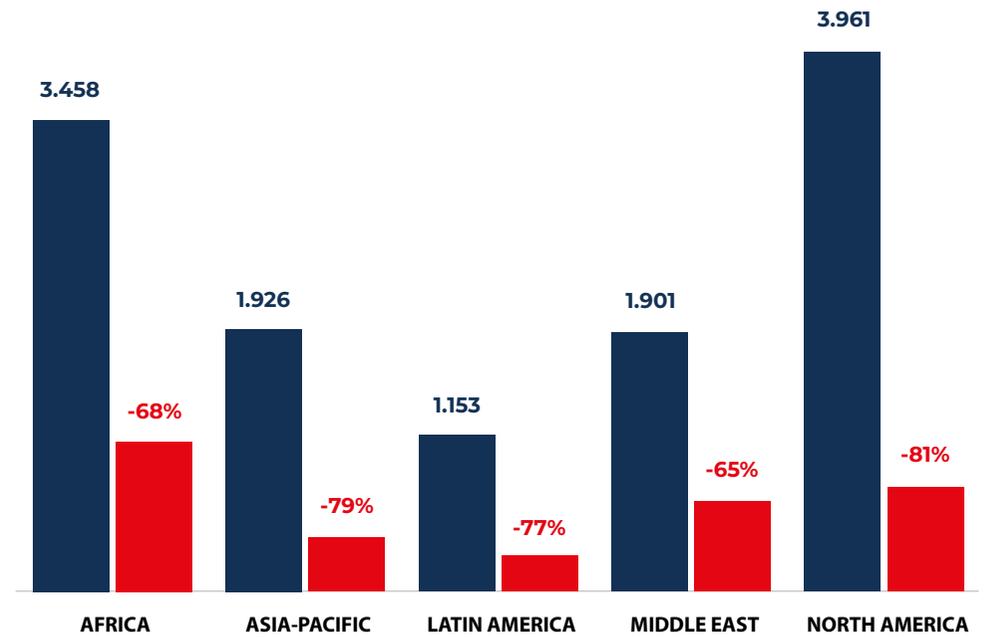


CHART 9: DIRECT CONNECTIVITY FROM EU/UK AIRPORTS BY WORLD REGION

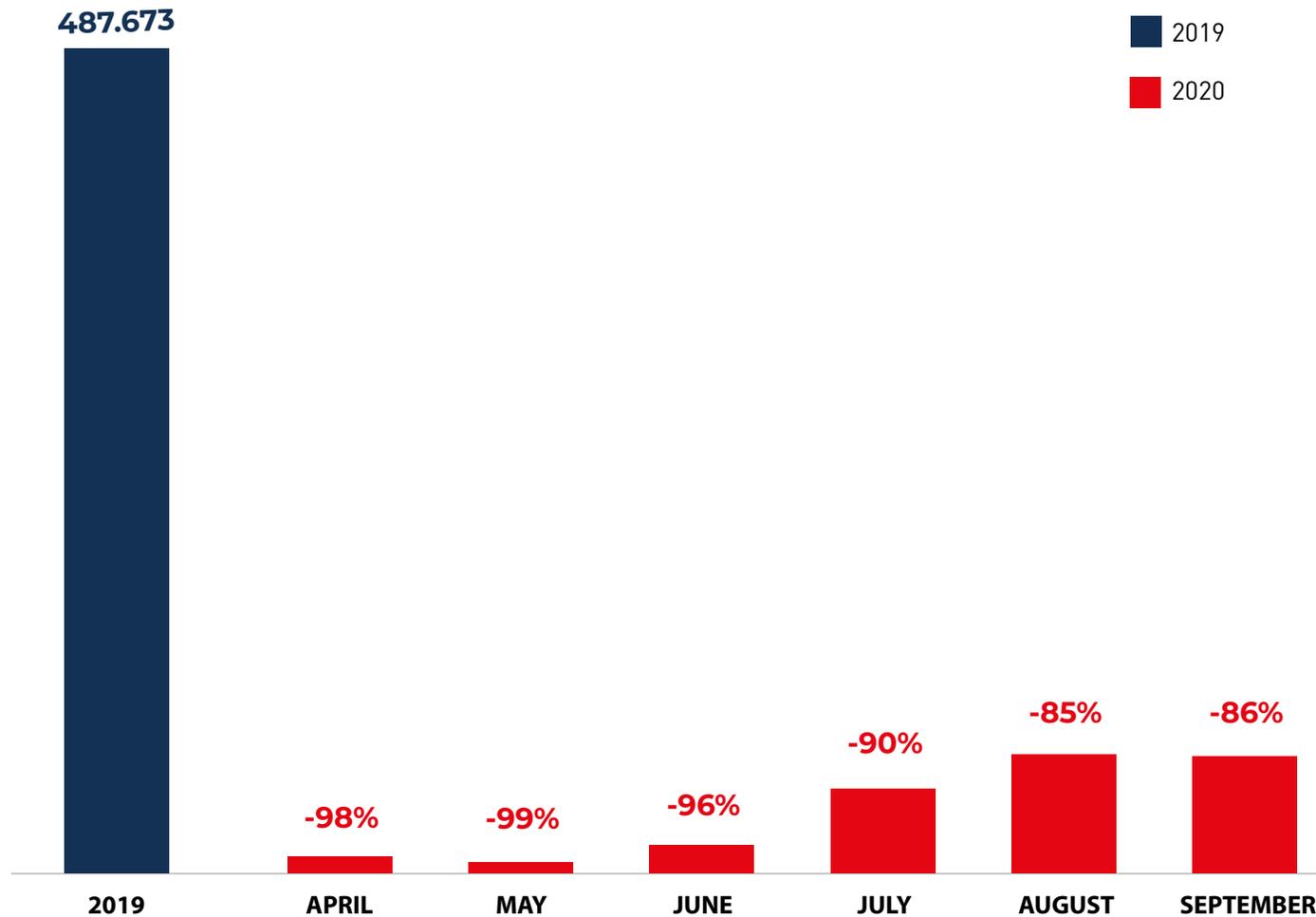


■ SEP 2019
■ SEP 2020

HUB CONNECTIVITY

The absence of any recovery of direct connectivity on intercontinental markets coupled with the drastic reduction of direct connectivity in intra-European markets automatically penalises hub connectivity. In April and May 2020, hub connectivity for European airports was less than **2%** of what it was in 2019. At the peak through 2020 in September, hub connectivity had only reached **14%** of 2019 levels.

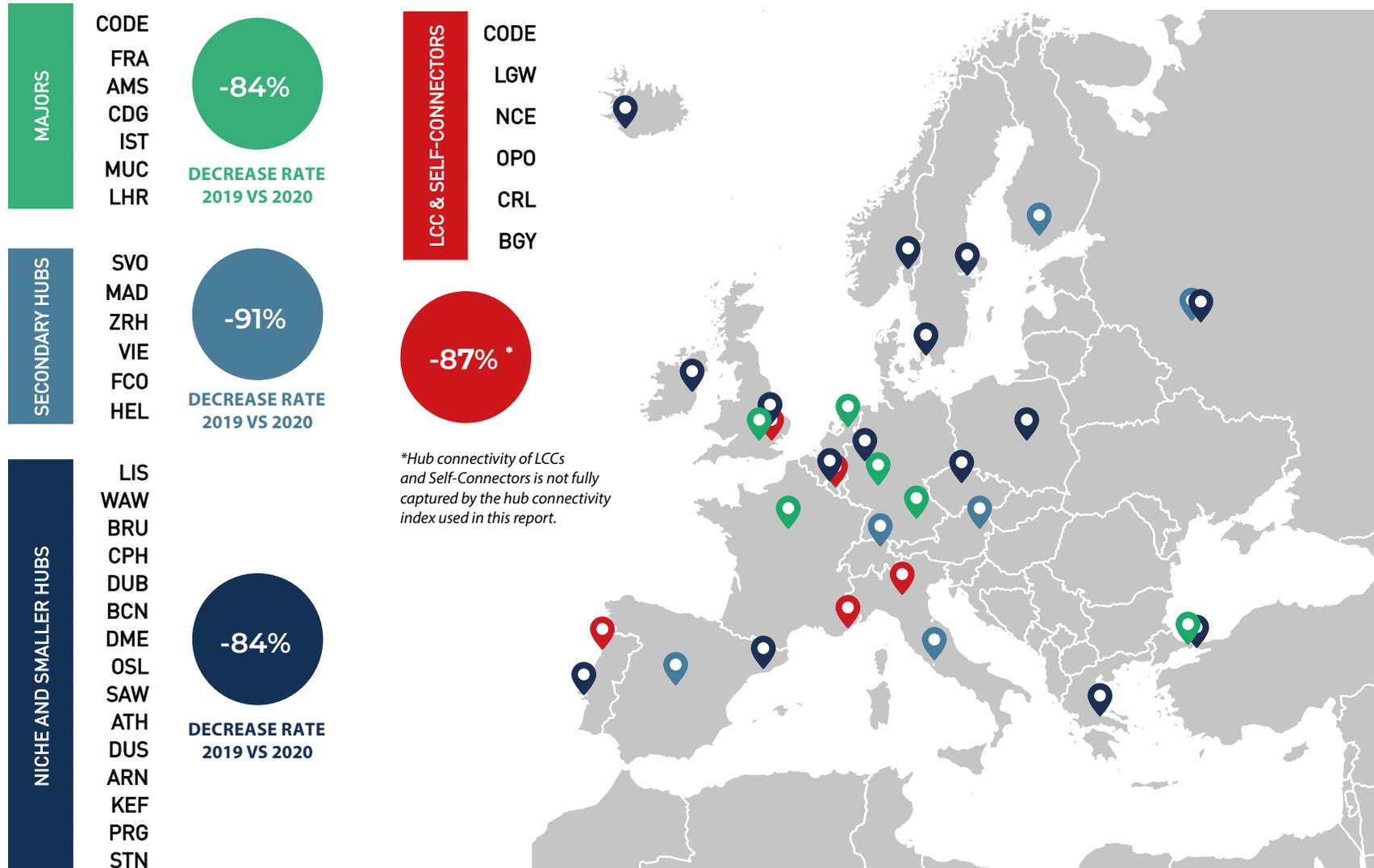
CHART 10: HUB CONNECTIVITY IN EUROPE



Individual hubs had widely different performance, reflecting primarily their exposure to government measures limiting travel as well as decisions taken by their based hub carrier over capacity deployment & routes.

Amongst European hubs, **secondary hubs have on average underperformed Major hubs and niche & smaller ones.**

**CHART 11: HUBS: MAJORS | SECONDARY | NICHE & SMALL | LCCs & SELF-CONNECTORS
(DECREASE BY GROUPS SEPTEMBER 2019 VS. 2020)**

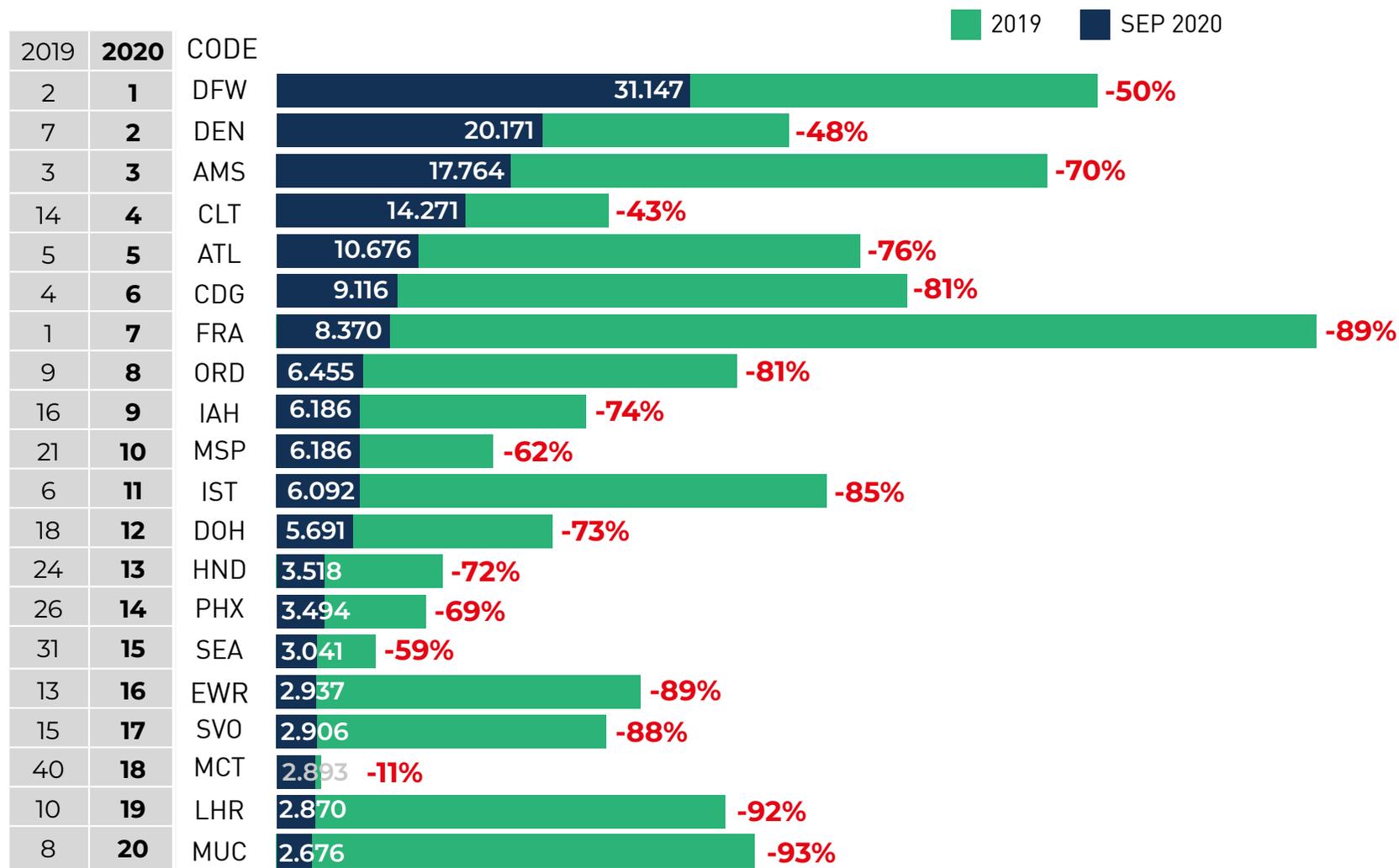


The above classification of airports is based on connectivity performance in 2019.

The global ranking in hub connectivity this year is heavily distorted by the reliance of North American hubs on their domestic market, which cushioned them from the harsh consequences of international travel restrictions. As a result, out of the top 10 Global hub, 7 are located in the US (compared to 4 last year).

Amongst European hubs, **Amsterdam-Schiphol** proved the most “resilient”, remaining in the 3rd position globally (but still losing -70% of its hub connectivity). **Munich** and **London-Heathrow** were the most impacted, with their hub connectivity decreasing by -93% and -92% respectively and coming down at the bottom of the top 20 league.

CHART 12: HUB CONNECTIVITY - TOP 20 WORLDWIDE HUBS (RANKING 2020 & 2019)



AIR ROUTES

The direct and indirect connectivity indexes consider respectively the number of destinations and frequencies to these destinations on the one hand and the number of other destinations and frequencies to these that can be reached with one transfer at an intermediate airport on the other hand.

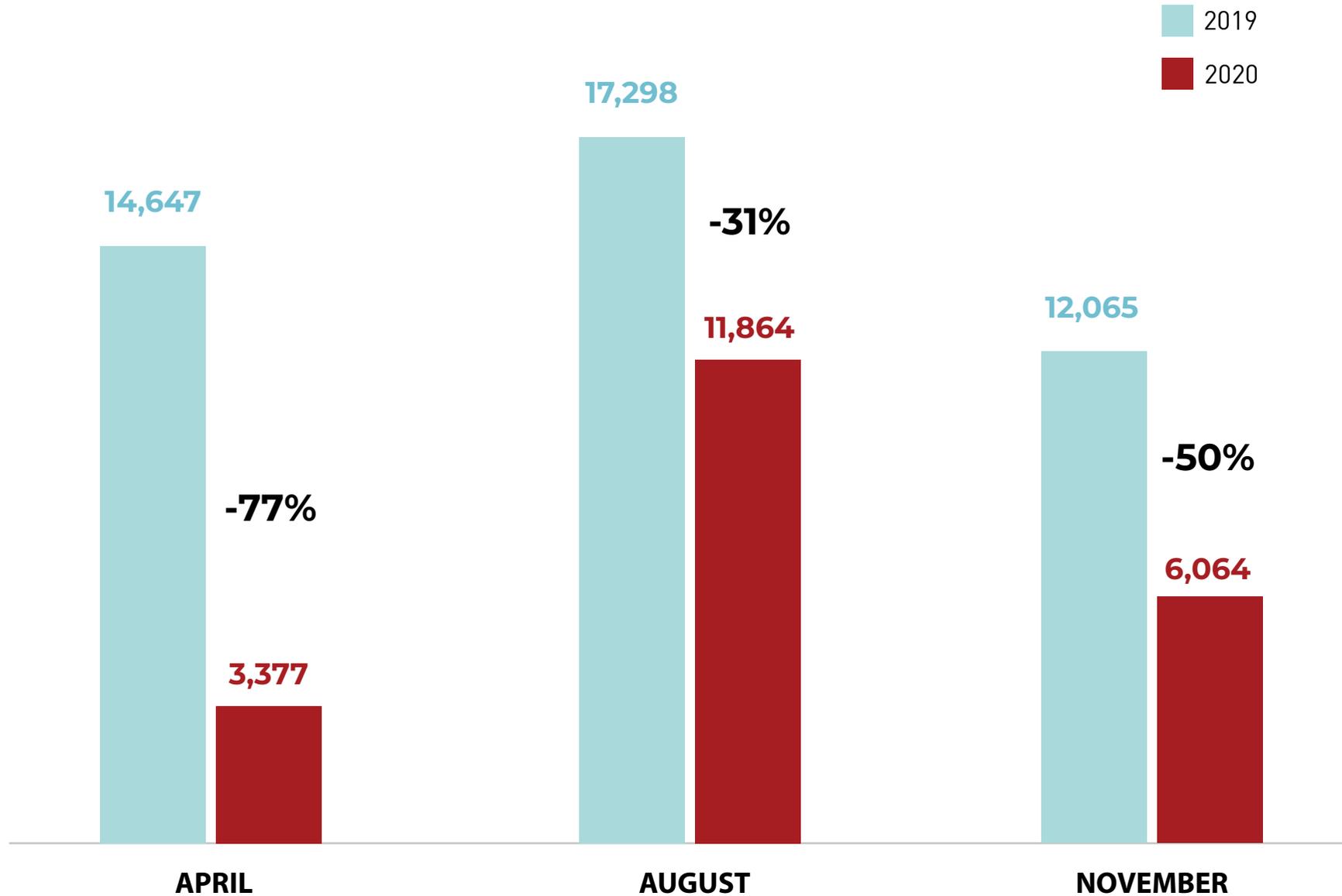
As such the direct and indirect connectivity indexes are better measures than the mere number of destinations (or air routes) served from any given airport, as they also factor in the number of frequencies available to these destinations – and thus the convenience and ease in reaching them.

In 2020, with the extreme market disruption resulting from government containment measures to limit the spread of the COVID-19 virus, it has become equally important to consider how fragile the air routes from an airport are, and consider what airports can do to recover the full range of routes - as well as how Governments can help.

Nine months into the COVID-19 crisis, **more than 6000 air routes which were served from Europe's airports in 2019 remained discontinued** – a 50% decrease.



CHART 13: TOTAL NUMBER OF AIR ROUTES SERVED BY EUROPEAN AIRPORTS (APRIL-AUGUST-NOVEMBER 2019 VS. 2020) + % DECREASE IN 2020



WANT TO KNOW MORE ABOUT YOUR AIRPORT'S CONNECTIVITY PERFORMANCE?

Additional appendices detailing individual airport data on air connectivity are available to download.

Simply click on the icon below to get the file directly:



Or download it from the ACI EUROPE website ([Air Connectivity section](#))



For the 7th year running, ACI EUROPE releases its annual European Airport Industry Connectivity Report – a comprehensive industry-wide snapshot of air connectivity. This Report lays out the impact of the COVID-19 crisis on the direct, indirect and total airport connectivity as well as hub connectivity in comparison to previous years, enriched by analysis based on SEO's NetScan connectivity methodology.

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

ACI EUROPE represents over 500 airports in 45 European countries. Our members facilitate over 90% of commercial air traffic in Europe: 2.5 billion passengers, 20.7 million tonnes of freight and 25.7 million aircraft movements in 2019. In response to the Climate Emergency, in June 2019 our members committed to achieve Net Zero carbon emissions for operations under their control by 2050, without offsetting.

Cover illustration by Jack Hudson.

© Copyright ACI EUROPE 2020.

www.aci-europe.org

 @ACI_EUROPE

EVERY FLIGHT BEGINS AT THE AIRPORT.

seo amsterdam economics