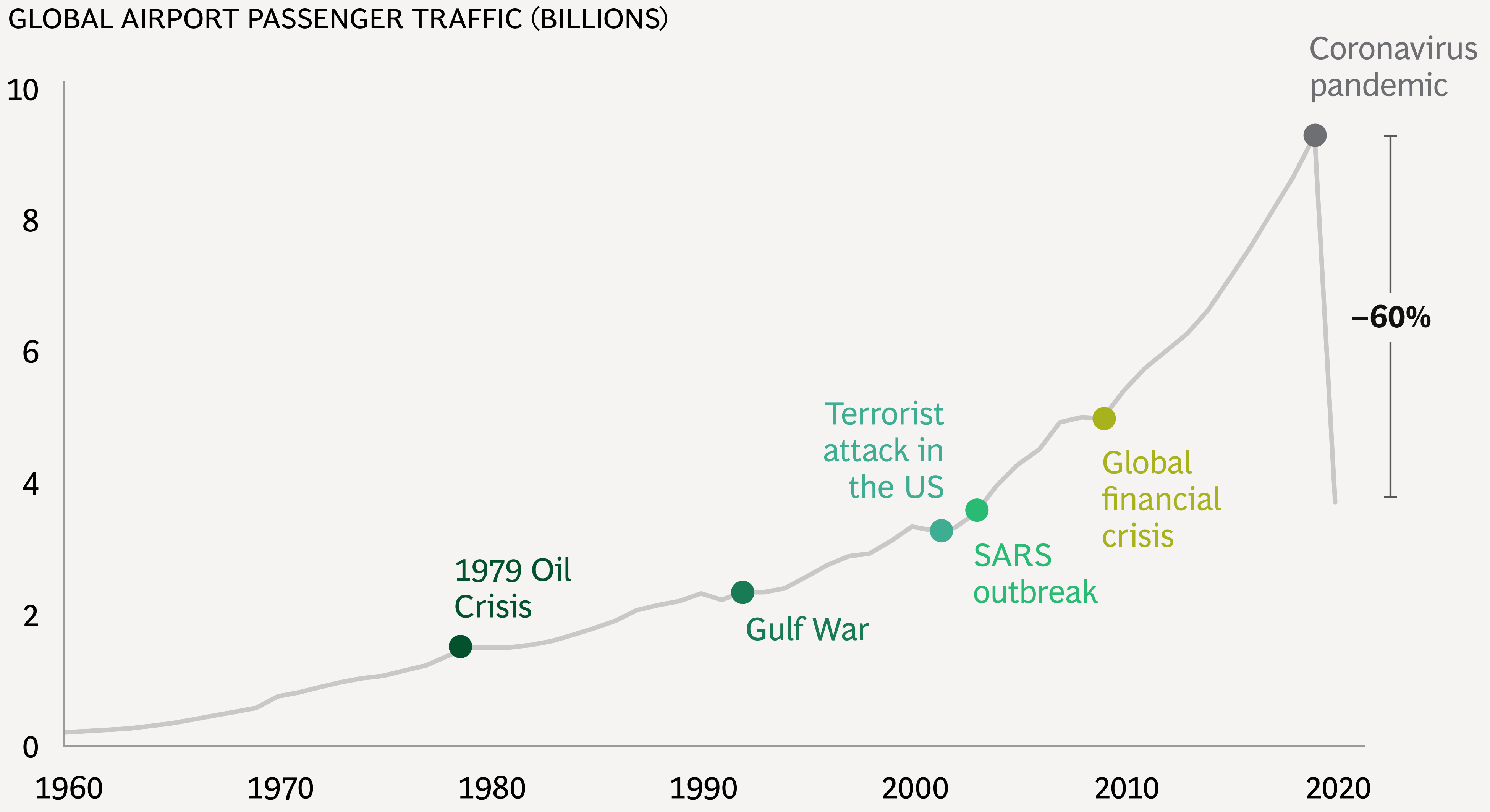
Building a Brighter Future for Airports

DECEMBER 2021

The pandemic triggered revenue losses throughout the global airport industry



60% reduction in passenger traffic
A loss of almost 6 billion passengers in 2020, compared with the baseline scenario for 2020[1]

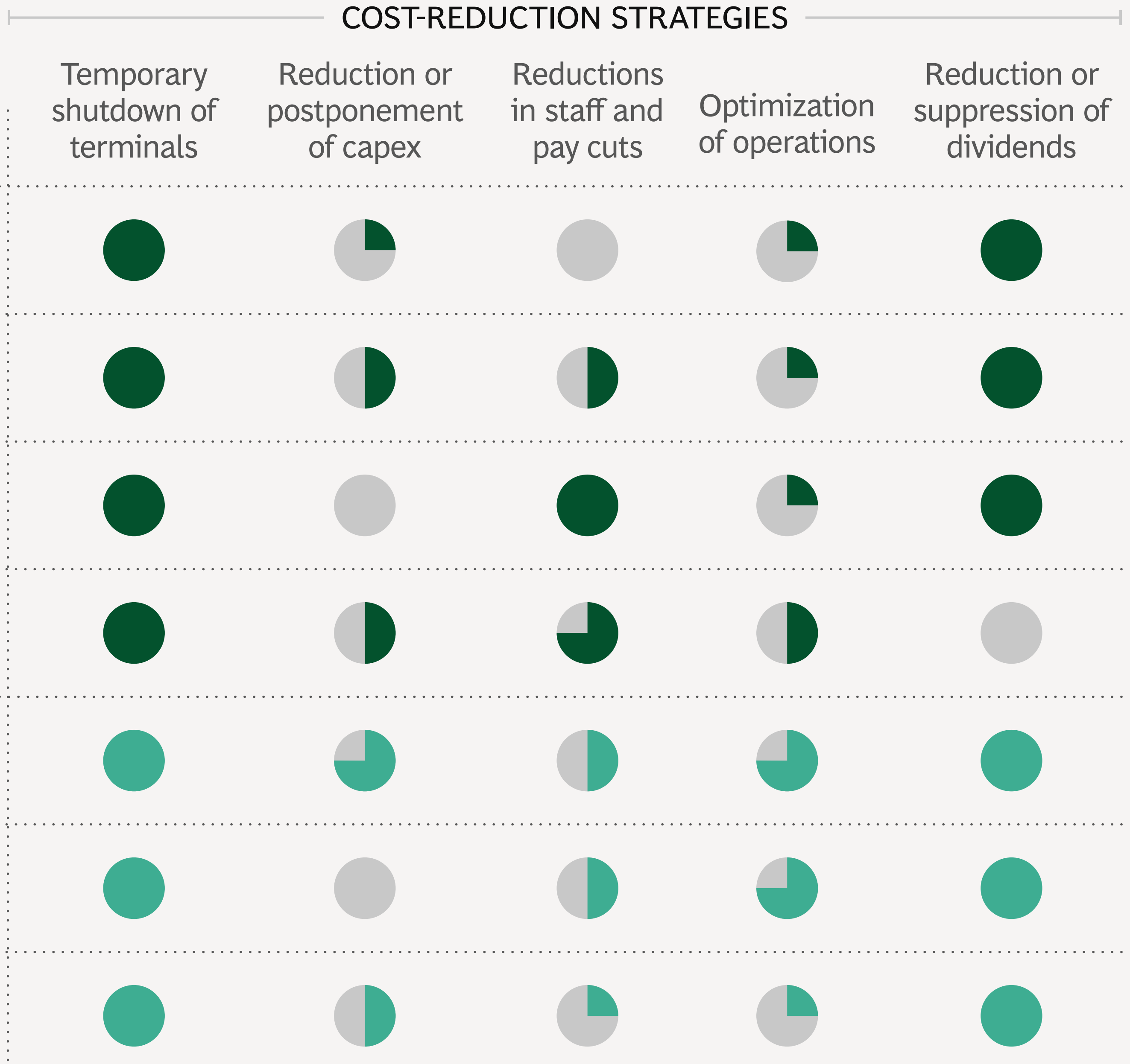
65% in airport revenues
A decline of $112 billion in aeronautical and commercial revenues in 2020

51% contraction in airline capacity[2]
A drop of 67% in international capacity and a drop of 40% in US domestic capacity

Sources: International Civil Aviation Organization; International Air Transport Association; Airports Council International.
Note: SARS = severe acute respiratory syndrome.
[1]The baseline scenario assumed a similar level of growth, compared with previous years.
[2]This is a weighted average of the decline in the number of seats offered by domestic and international airlines.

Airports reacted quickly and cut costs, but it was not enough

		Revenue loss 2019 vs. 2020 (%)	Opex reduction 2019 vs. 2020 (%)	EBITDA ($millions) 2019	EBITDA ($millions) 2020	EBITDA change
Financial results Q3 2020	Aena	–49	–9	2,355	695	–71% ↓
	Heathrow Airport Holdings	–59	–18	1,641	291	–82% ↓
	Fraport	–53	–15	1,036	–272	–126% ↓
	Copenhagen Airports	–60	–11	294	45	–85% ↓
Financial results Q2 2020	Group ADP	–47	–20	790	82	–90% ↓
	Royal Schipol Group	–50	–11	280	–50	–118% ↓
	Aeroporti di Roma	–60	–27	269	23	–92% ↓



Sources: S&P Capital IQ; BCG analysis.
Note: Opex = operating expenses; EBITDA = earnings before interest, taxes, depreciation, and amortization; capex = capital expenditures. The numbers were rounded.

● About 100% ● About 0%

Investors are reassessing the inherent risks of airports

Airports have been preferred infrastructure assets…

- They have had **sustained growth** for more than 50 years
- Precrisis forecasts predicted **+4% CAGR** for the next **20 years** across all regions

- Airports have proved **resilient** during various economic cycles and events
- They offer a **diversified and manageable revenue** stream and have **limited competition**

- The **regulatory framework** guarantees a considerable return
- Many **manageable ways exist to boost profitability**

…but the pandemic has shaken that perspective

- **An unclear recovery** path and less optimistic growth forecasts are transforming airports into **riskier assets**

- Changes in consumers' preferences and traveling habits are **reducing investors' confidence in the airport industry's resilience**

- **Refinancing challenges, liquidity pressures, and covenant breaches** are leading to a general worsening of ratings by airport industry analysts

The result will be changes to the status quo

- Increases in the **cost of financing**
- Changes in the **stakeholder mix**

Source: BCG analysis.

A rebound in passenger and air traffic will depend on four main factors

Travel restrictions

- Government restrictions on international travel will play a vital role in the recovery of the airport industry; continued border closures and testing requirements will limit travel considerably
- In early September 2021, 42% of international borders were closed to travelers from high incidence areas and another 51% had entry conditions subject to COVID-19 testing and vaccination status

Vaccination programs

- The varying effectiveness of countries' vaccination programs will result in an uneven recovery in passenger and air traffic across developed and developing countries

Consumer sentiment

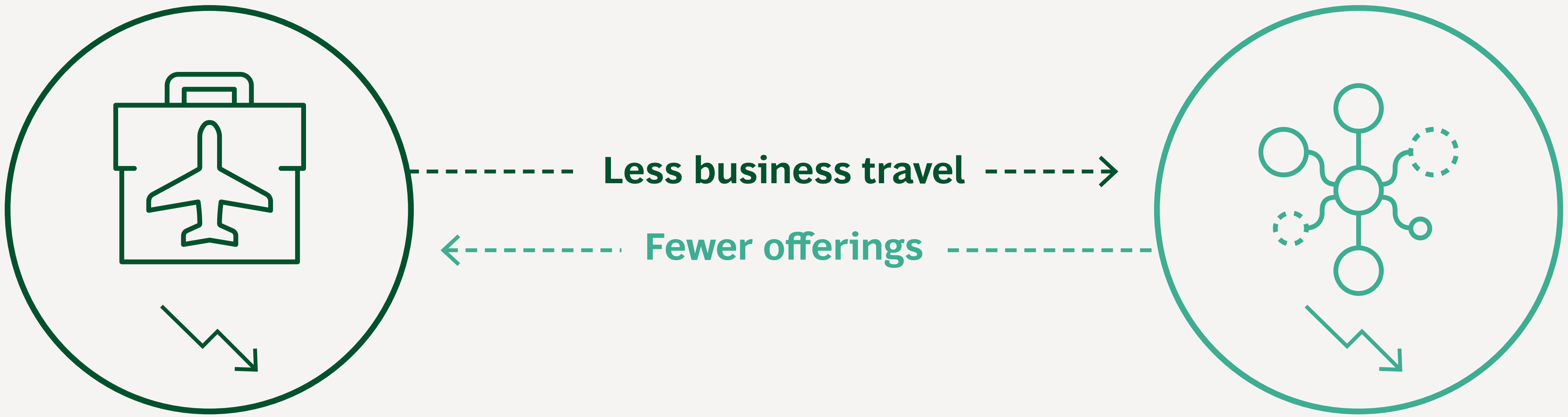
- In August 2021, 32% of consumers in the US were concerned about catching the coronavirus if they were traveling domestically; 53% were concerned if traveling internationally
- In July 2021, 86% of companies had canceled all or most international travel and 50% of domestic travel; however, more than two-thirds of companies expected to resume most domestic and international business trips by 2022, while one-third was still unsure

Economic crisis

- The COVID-19 crisis caused global GDP to drop by 3.2% in 2020; however, an economic recovery is expected in North America in late 2021 and in 2022 for Europe and other advanced economies
- The traditional corollary between GDP and air traffic growth will most likely mean that air traffic's recovery in Europe and Latin America will be slower than global trends

Sources: BCG's Consumer Sentiment Survey; Airport Strategy & Marketing; Global Business Travel Association; International Monetary Fund; World Bank; UN Migration; BCG analysis.

A permanent reduction in business travel may affect all carriers



Airline economics will change...

- Business (or MICE) travel is expected to permanently reduce airline revenues by **10% to 25%**, given companies' large investments in "teleworking" and employees' desire to improve their work-life balance
- Full-service carriers are dependent on their high-paying business customers: the **top 10% of customers account for 40% of revenue**, and business class sustains the economy seats
- **International business travel**, which is expected to recover last, **sustains** a significant portion of **hub operations**

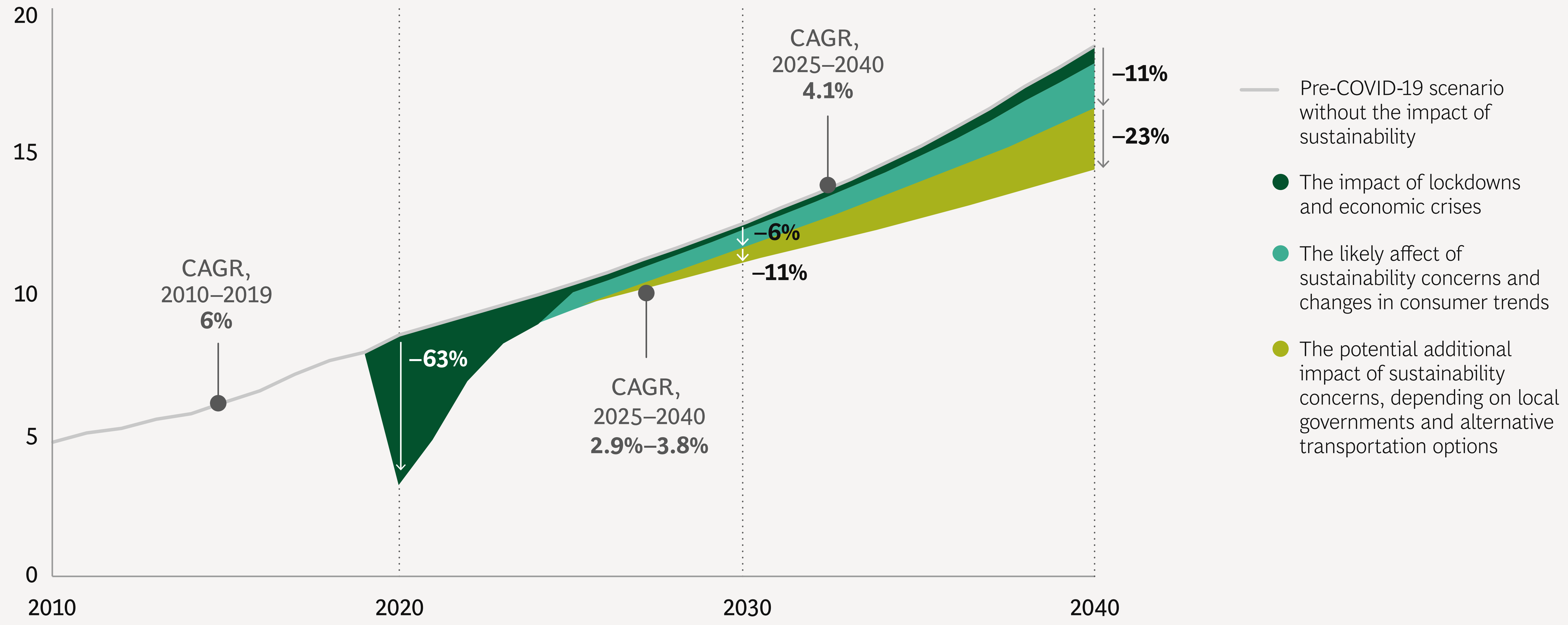
...forcing carriers to focus on their more profitable routes

- Full-service carriers will need to **trim capacity** to match reduced business demand; steps will include **eliminating routes, scaling back flight frequency, raising prices, or taking a combination of measures**
- Hub carriers will be even more affected owing to the reduction in connection opportunities, which will **hit transfer traffic at airport hubs**
- The point-to-point segment will be hit hard, although indirectly, but low-cost carriers will pick up this business

Source: BCG analysis.
Note: MICE = meetings, incentives, conferences, and exhibitions.

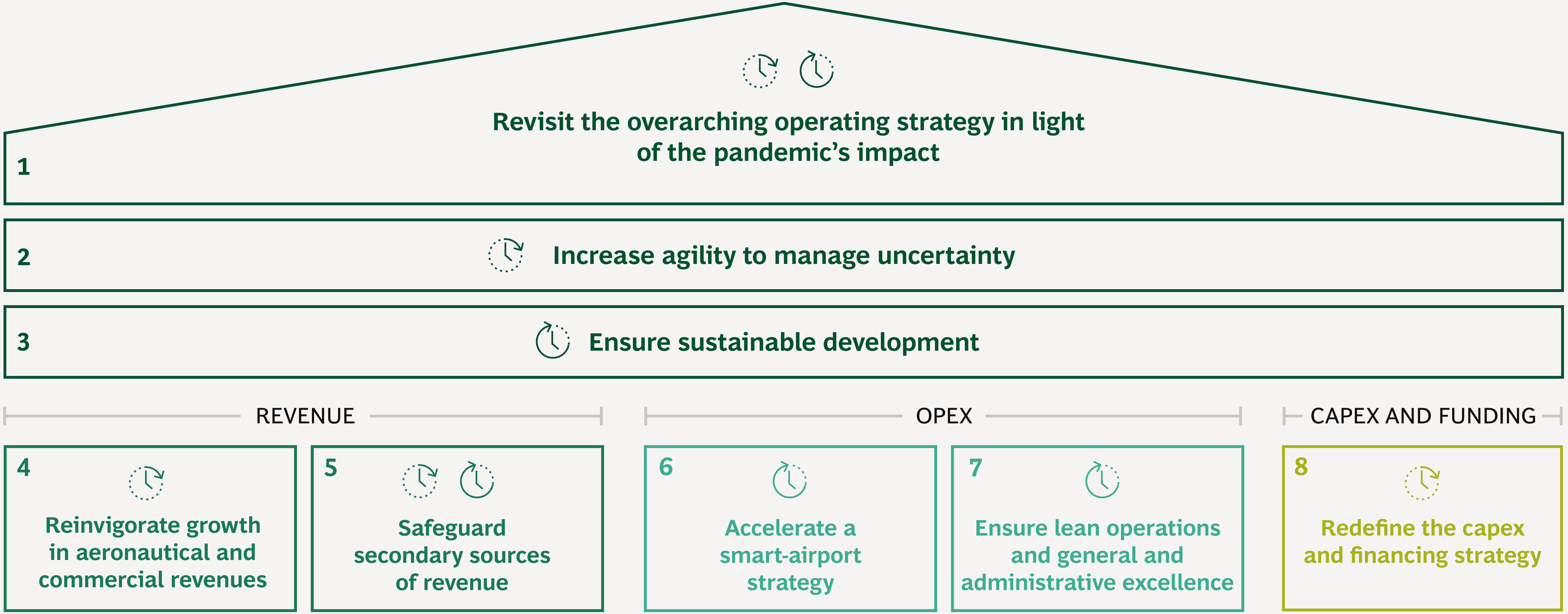
The COVID-19 crisis is the most pressing issue now, but sustainable air travel will be the biggest challenge over the next 20 years

AIRPORT TRAFFIC FORECAST, 2019–2040 (BILLIONS OF PASSENGERS)



Sources: International Air Transport Association; Oxford Economics; UBS; BCG analysis.

How can airports emerge stronger after the pandemic?



Short-term priorities

Mid- and long-term priorities

Source: BCG analysis.
Note: Opex = operating expenses; capex = capital expenditures.

Adapt the operating strategy in order to face potential headwinds from external stakeholders

New regulatory frameworks could be less favorable

- **Struggling stakeholders**, especially airlines, will **pressure regulators** to tighten regulations for airports because of their higher margins
- **Regulators are taking positions that are less favorable for airports in the near future**; for example, the UK's Civil Aviation Authority has denied Heathrow Airport's request to increase its landing fee because of low volumes

Airlines will likely pressure airports to discount fees

- Low landing volumes let **airlines choose which routes to operate** and negotiate discounts for landing fees
- The **new, supply-governed market** means that airlines' route choices will dictate air traffic levels
- **Airports must work with airlines** to make themselves attractive and to ensure they get passenger traffic

Airports will need to **revise their operating model**, taking into account **new regulatory trends** and considering breakthrough changes in terms of **new revenue streams** and savings (such as those that can be attained through **group synergies**)

Source: BCG analysis.

Improve the ability to anticipate and adapt to changes in travel demand

Air traffic levels have traditionally been stable and highly predictable, but airports now need to improve forecasting so they can adapt to fluctuations

	CURRENT	IMPROVED
Planning frequency	Air traffic forecasts use airline capacity plans that are developed **a year to six months in advance** and only make small adjustments in the final six months	**Weekly or biweekly forecasts** capture demand precisely so airports can adapt, realize savings, and seize opportunities
Nature of data	**Data is aggregated from two sources:** airlines' capacity forecasts and the airport's long-term forecasts	Highly granular input data includes **millions of variables;** sources of data include epidemiological models, macro indicators, consumer sentiment and spending analyses, web activity, and airline data
Scenario forecasting	Projections have only **one—the most likely—scenario;** they do not include alternative scenarios	**Forecasts include multiple scenarios** to help airports cope with uncertainty by enabling flexible and robust operational planning

Source: BCG analysis.

Actively ensure and promote sustainability for the benefit of the air transportation industry overall

Although airports account for only 5% of the air transportation industry's revenues, they must play a significant role to ensure its growth

Contribute to emissions reduction

Increasingly **tight emissions regulations** and **higher offsetting and carbon-tax costs** will most likely increase air fares, negatively affecting the amount of air traffic

Airports should undertake initiatives to **reduce** their **emissions** and encourage other stakeholders, especially airlines, to do so as well

Improve social acceptance

Sustainability concerns have turned **public opinion against** the growth of the air transportation industry; for example, Sweden is seeing the flight-shaming movement gain momentum, and some airports are facing public-opinion resistance to expansions

Airports should work to improve public opinion by undertaking initiatives that, for example, limit carbon impact, favor local businesses, and promote coexistence with host cities

Source: BCG analysis.

Play an active role in reinvigorating air traffic growth by working with authorities and airlines

Increase marketing spending to boost air traffic

- **Major airport operators**, such as Aena and Heathrow Airport Holdings, **have increased their marketing budgets** during the pandemic to attract visitors and promote the security of air travel
- Airports need to **work with local government authorities** to create marketing campaigns that promote travel and that align travel guidelines with coronavirus restrictions

Partner with major airlines to develop routes and boost operations

- Because of changing consumer trends, airlines will need to adjust their flight frequencies and networks, and airports must work with them to increase air traffic
- In the new, supply-governed market, **airports need to persuade airlines** to fly to them by offering fee discounts or other incentives

Source: BCG analysis.

Safeguard secondary revenue streams and introduce new ones

Retail and duty-free shops

- **Adapt the offering** to the current passenger base; shift to newer, trendier, and surprising offerings and concepts
- Propose **agile partnerships** with retailers, offering risk-sharing models

Parking lots and car rentals

- **Pivot the economic model** to account for the prevalence of ride-hailing services versus traditional taxis
- Change from a pay-to-stay approach to a **pay-to-access** model to guarantee revenues

Food and beverage venues

- Update the food and beverage offering by introducing **local options and new concepts**
- **Alternate the placement of food stands between commercial** and high-traffic areas (such as boarding gates) for passengers' convenience

Real estate

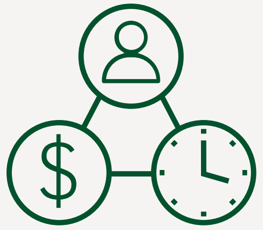
- **Update cargo warehouses** to meet the needs of e-commerce companies
- Assess **opportunities to develop landside real estate** (such as a need for office buildings or an industrial complex) and position the airport as a **core city area**

Advertising

- **Offer new advertising concepts**, such as showrooms that pay the airport a fee for product purchases made offsite
- Introduce **brand animations, pop-ups**, and interactive spaces to engage customers

Source: BCG analysis.
Note: Landside areas are parking lots, fuel tank farms, and access roads.

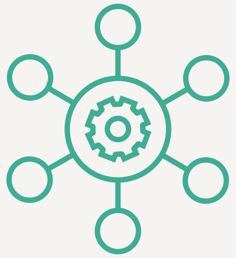
Accelerate a smart-airport strategy for operations and the customer's airport journey



Greater operational efficiency

Installing data-gathering sensors and using advanced analytics can enable **deeper insights into operations** and reveal efficiency opportunities

Using robots to perform repetitive tasks and automating processes can significantly **reduce manual effort and errors**



Better asset utilization

Capturing optimized data in real time from sensors can enable better **utilization of existing assets**

Using sophisticated data modeling can provide **insights into the future capacity of individual assets** as well as identify business opportunities and risks

Improved customer experiences

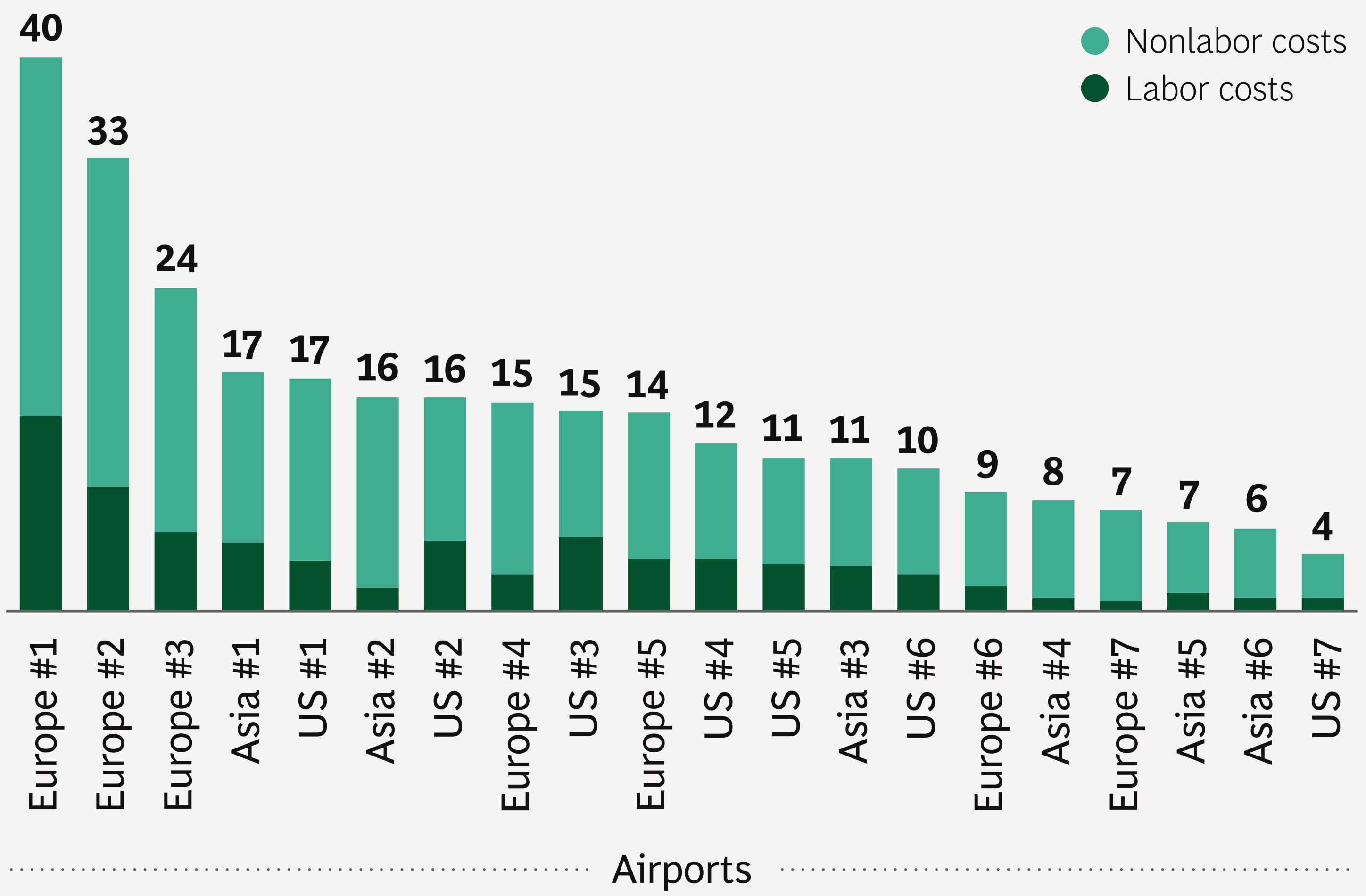
Using real-time data to gain **insight into customers' behavior and preferences** as they navigate the terminals allows the airport to provide more personalized end-to-end services

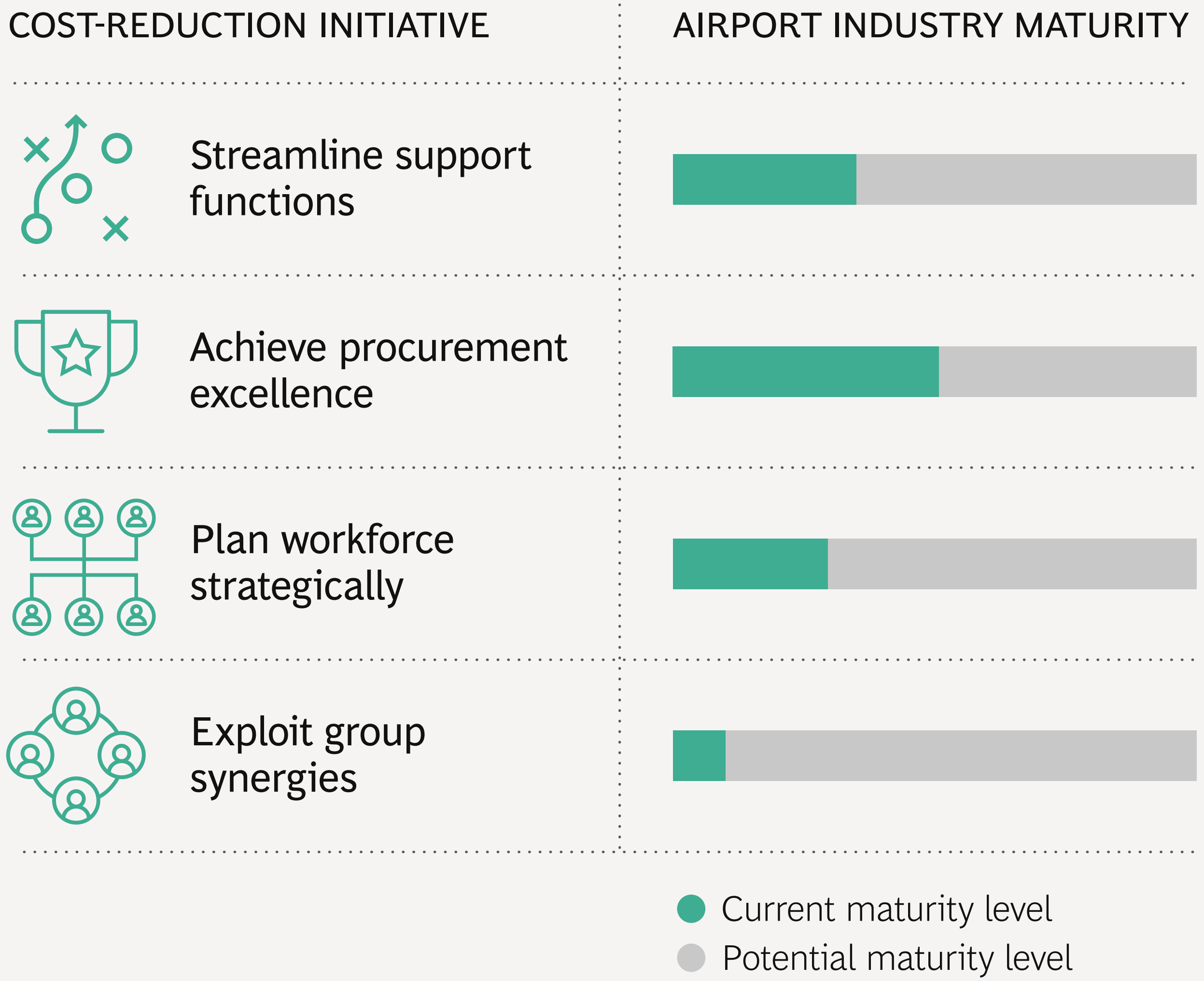
Improving customers' airport experience can **capture their propensity to pay** for additional products and services

Source: BCG analysis.

Permanently reduce operating expenses to remain competitive and robust during the next crisis

AIRPORT OPERATING EXPENSES PER PASSENGER, 2017 ($)[1]

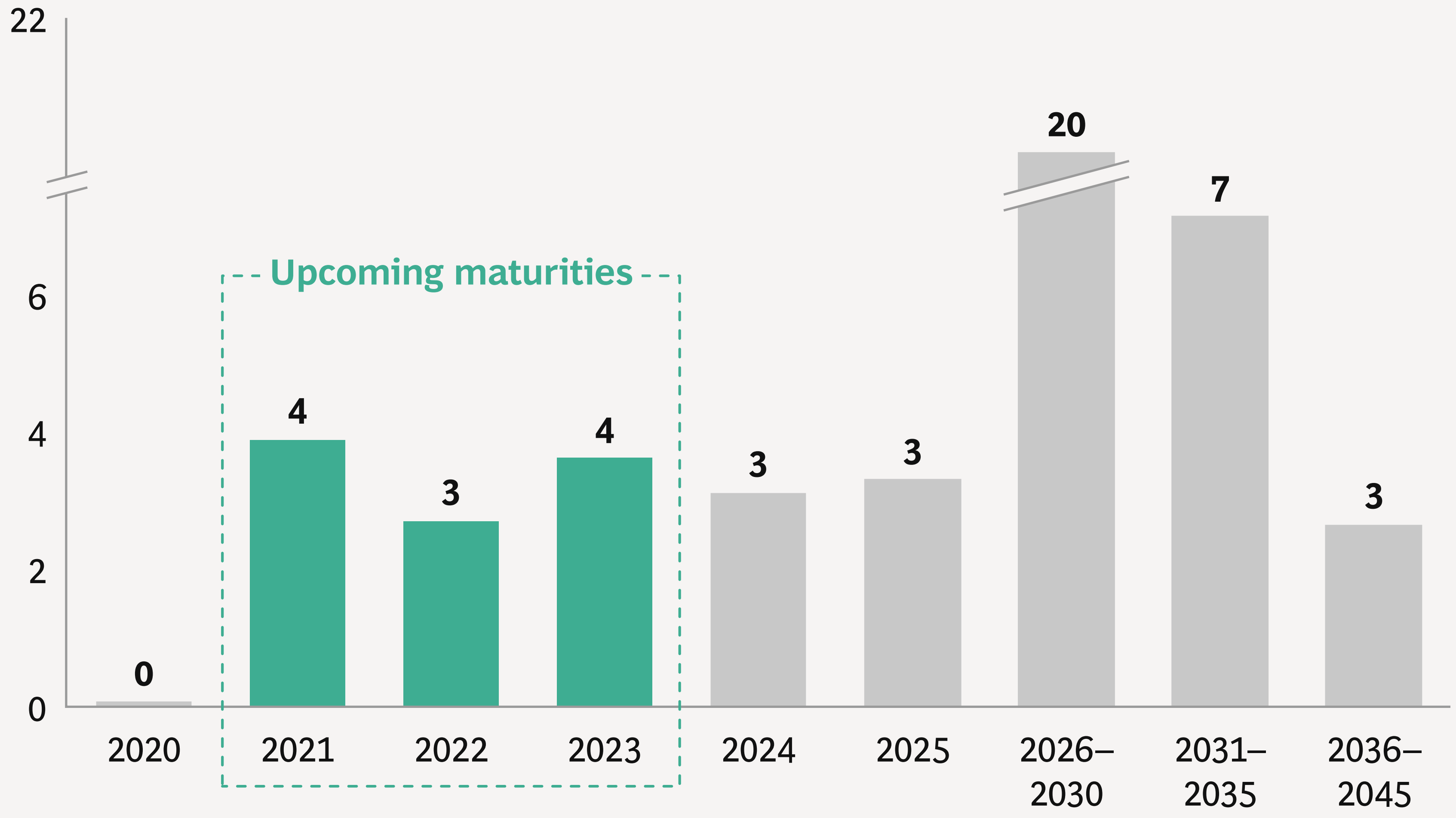




Source: Air Transport Research Society.
[1]These airports were among those with the highest levels of traffic on their respective continents.

Create a debt management plan to remain liquid and have refinancing opportunities

MATURITY OF DEBT OUTSTANDING FOR EUROPEAN AIRPORTS ($BILLIONS)



Airports will need to **refinance or extend maturing debt or issue new debt** to maintain liquidity in the short term while avoiding a breach of debt covenants

Lenders will **require a robust turnaround plan** and **a revised, sustainable business model** to ensure financing at reasonable rates

Sources: S&P Capital IQ; Bloomberg.
Note: Debt with no maturity specified was assumed to be due from 2036 through 2045.