



Supporting
European
Aviation

EUROCONTROL Forecast Update 2022-2028

European Flight Movements and Service Units
After COVID-19, Russian invasion of Ukraine
and Europe's energy crisis



EUROCONTROL
STANDS WITH
UKRAINE

THIS 7-YEAR FORECAST COVERS 2022-2028 PERIOD

The October 2022 forecast takes into account the following updated inputs:



Traffic trends up to August 2022:

Airlines, airports and States are recovering from the COVID-19 pandemic. Strong summer in most of the European States but the network is still impacted by the Russian invasion of Ukraine.



Economic growth:

Latest revision of the economic forecast (Oxford Economics, August 2022 release).



Routings:

No return to “normal” routing (prior closure of Ukrainian and Russian airspaces) by the end of the seven-year horizon.



Scenarios:

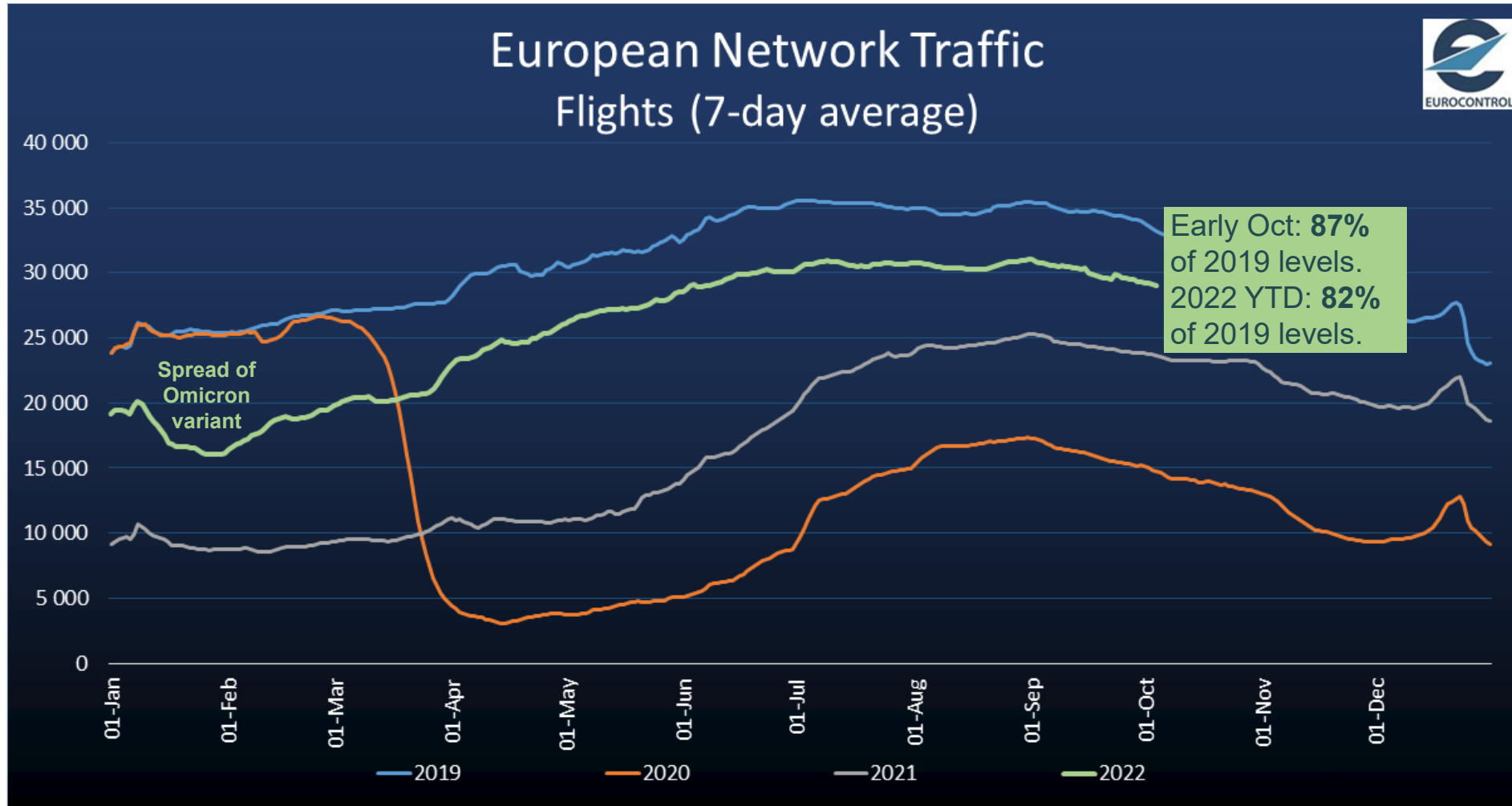
Three scenarios accounting for the impact of the war in Ukraine, the pressure on energy prices and the COVID-19 recovery.

This forecast replaces the June 2022 forecast and now covers 7 years.



TRAFFIC TRENDS

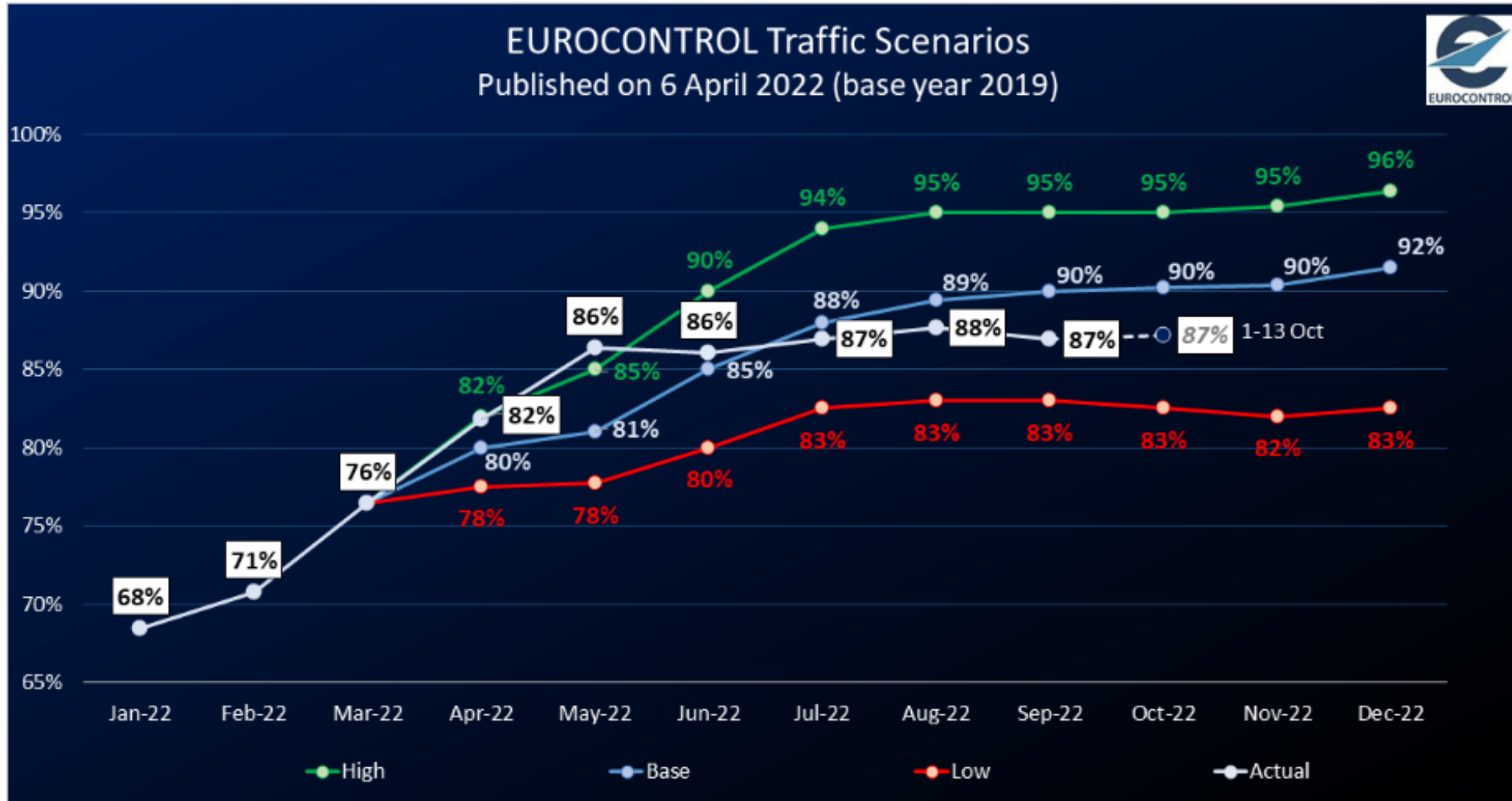
Since the beginning of 2022 (YTD), flights are 82% of 2019 traffic levels.





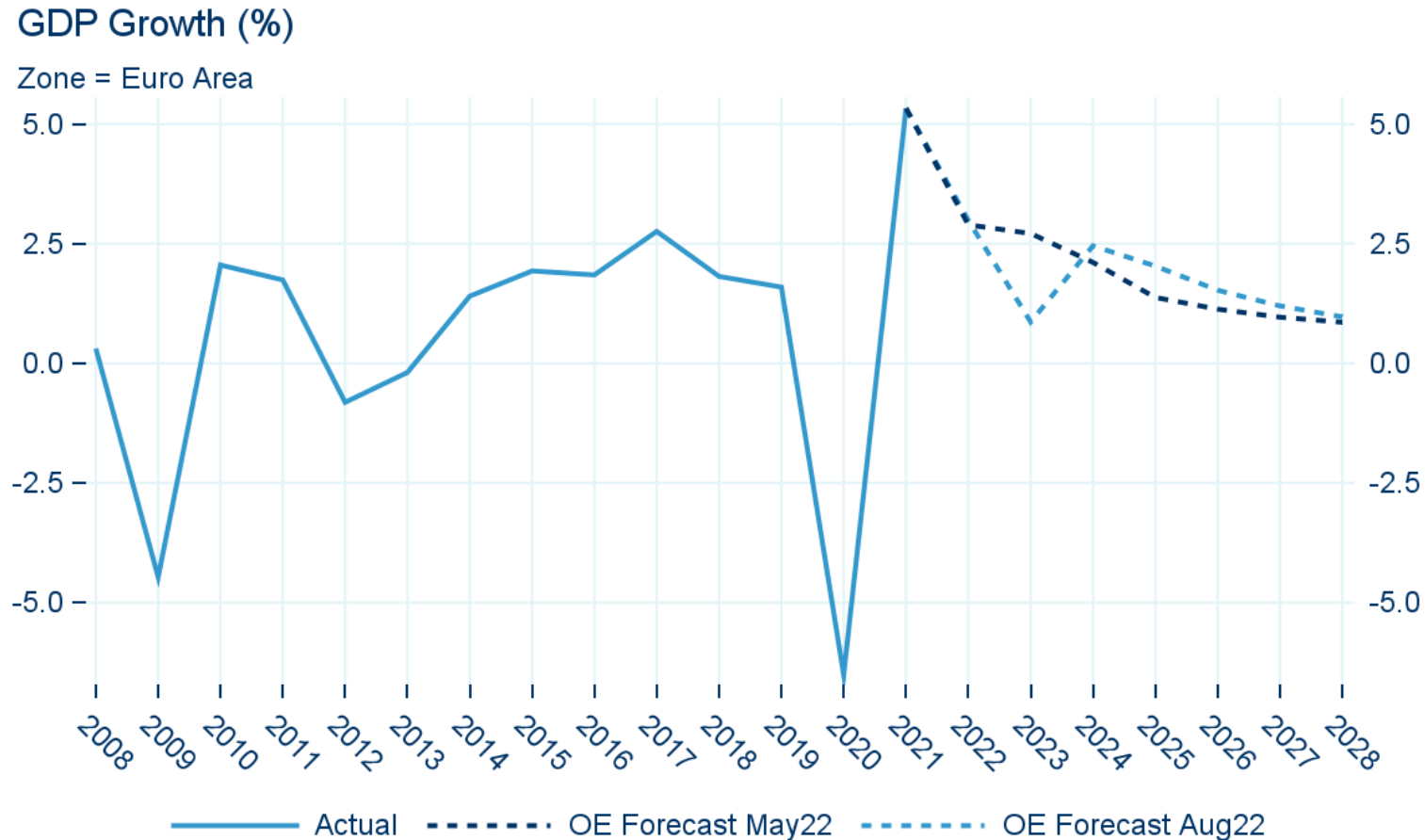
TRAFFIC TRENDS

Actual flights are slightly below the base scenario of the June 2022 forecast.



MACRO-ECONOMIC IMPACT

The GDP baseline forecast has been revised downward in 2023 with a positive carry-over effect over the rest of the horizon.



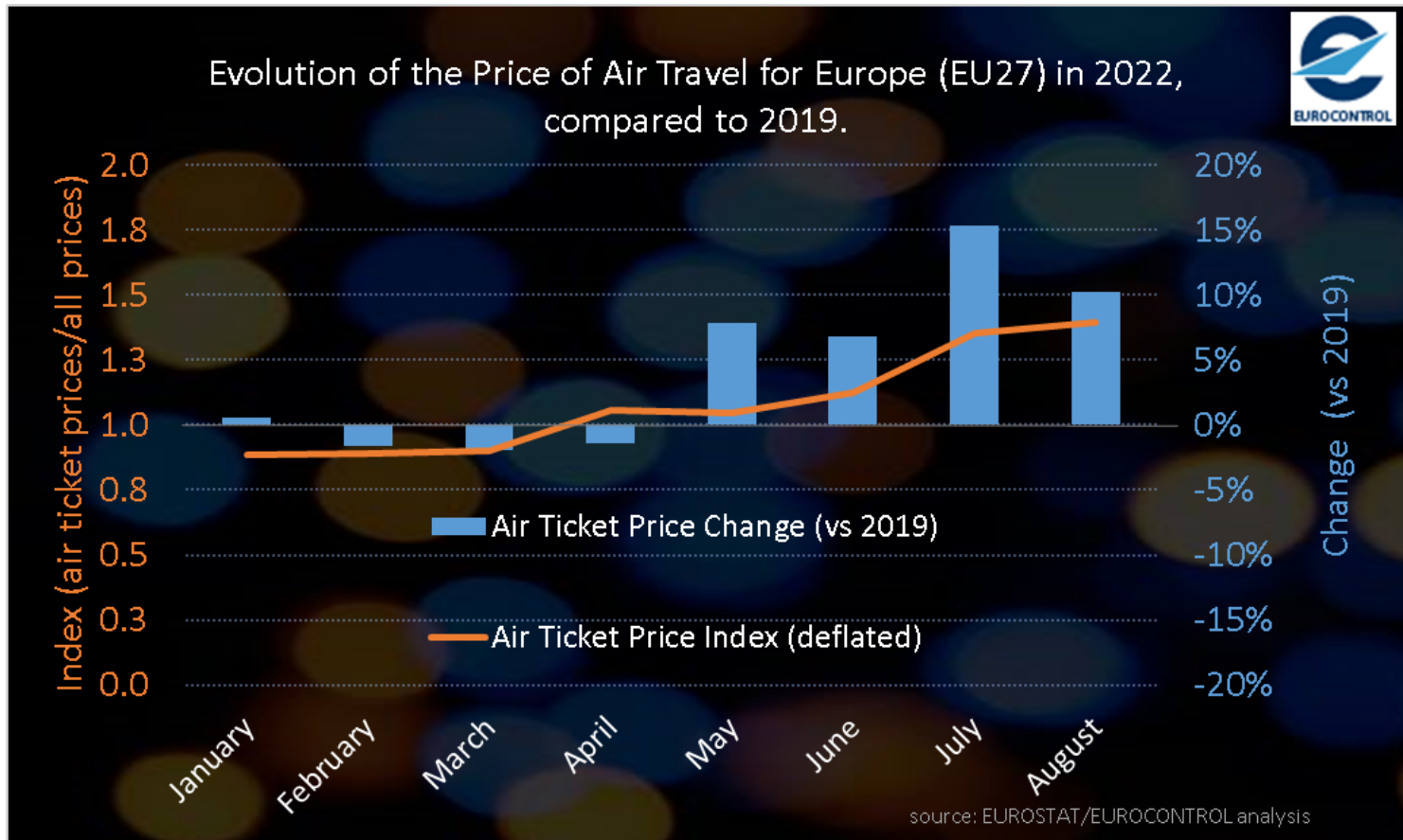
- ➔ Downward revision in 2023 of the baseline projections of Oxford Economics explained by **rising inflation, dwindling growth** and **growing geopolitical and natural disruptions** to business.
- ➔ Uncertainty remains very high, with **risks** skewed to the **downside**.

Source: Oxford Economics (OE) Ltd



TICKET PRICES

From January to August 2022, ticket prices increased by 5% (vs January to August 2019).



- **Air ticket prices** started to increase since May 2022 (compared to May 2019).
- July 2022 recorded a **15% increase**, above inflation, on July 2019.
- Since the beginning of the year: ticket prices **increased** by **5%** on average, above inflation (vs same period in 2019).



FUEL PRICES

Since the beginning of 2022, fuel prices have increased by 47%.

Fuel Prices in Europe (€/l)

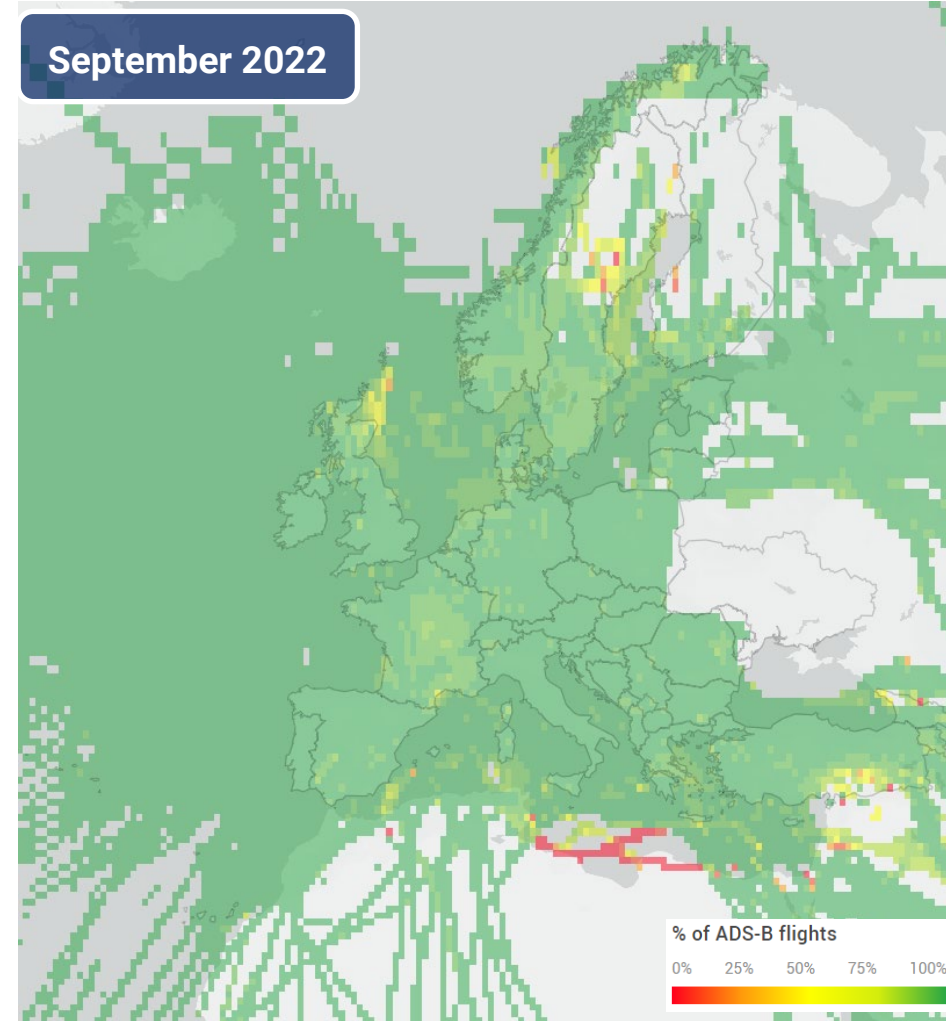
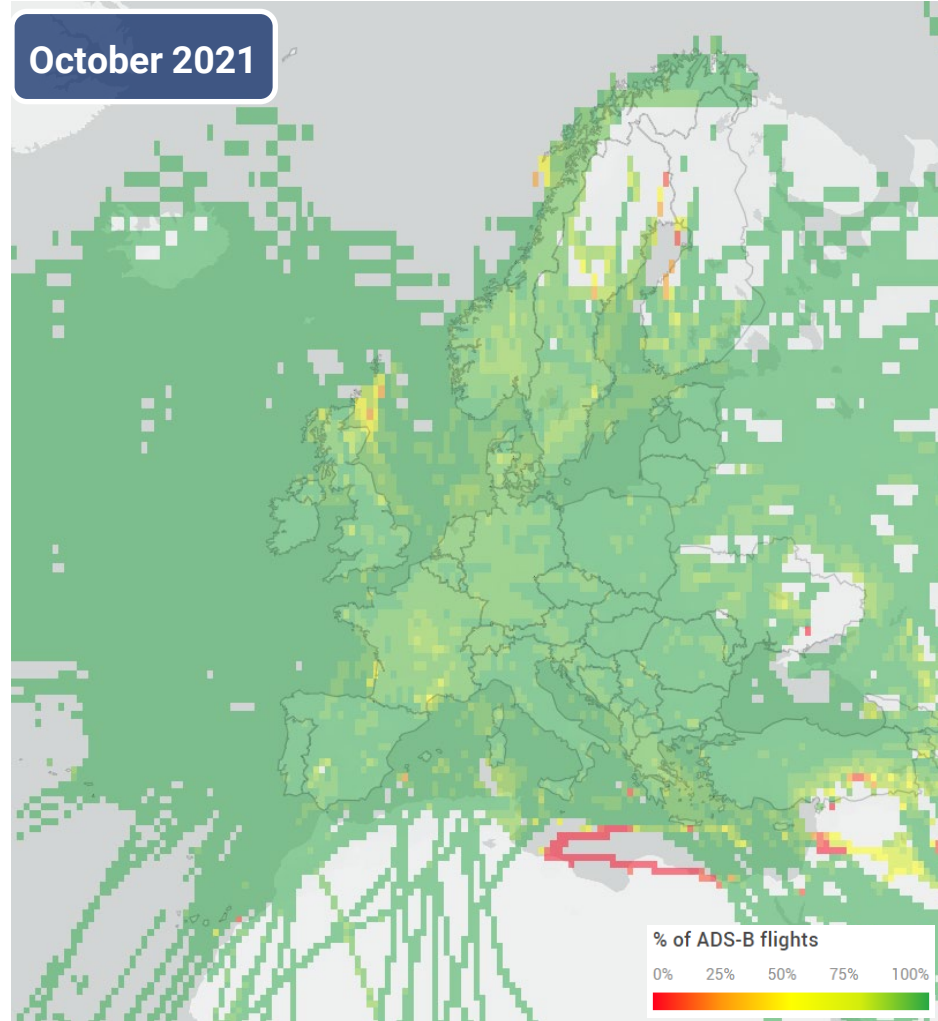


- **Jet fuel prices plunged** at the beginning of the **COVID-19** outbreak from ~0.5 €/l to less than 0.15 €/l in April 2020.
- Also, **production** capacity was **shifted away** from jet fuel. With the **restart of demand**, prices recorded a **rapid surge** up to a record price of ~1 €/l in June 2022.
- More recently, prices started to decrease but still represent a **predominant share** in airlines' **costs**.



UKRAINE INVASION

The closure of the airspaces has notably changed the trajectories.



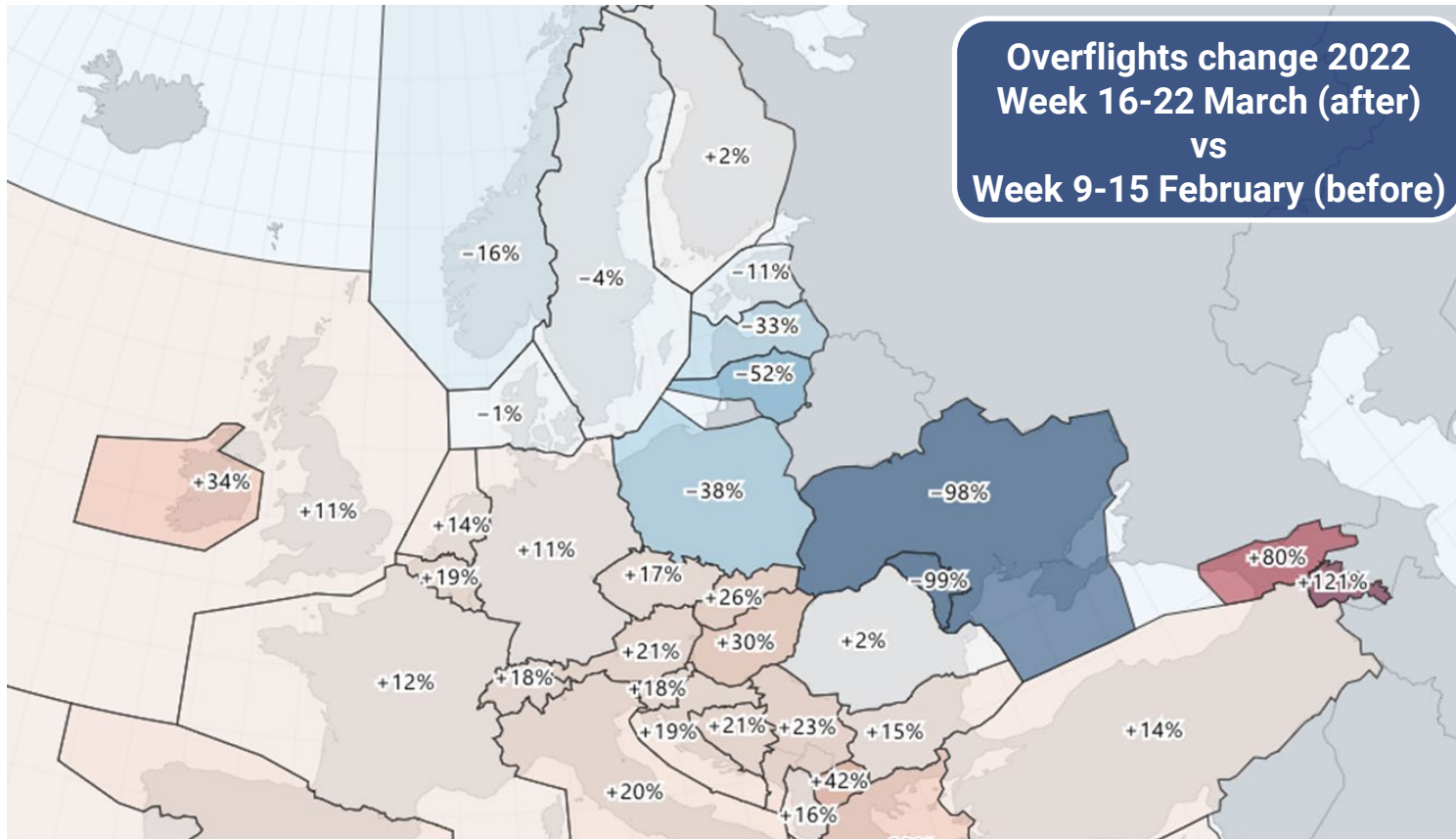
Proportion of flights equipped with ADS-B v2 with respect to the total number of flights derived from EUROCONTROL Network Manager. Regions outside of the NM area do not include local traffic.

Source: Aireon position reports



UKRAINE INVASION

The invasion of Ukraine is affecting overflights in several countries.



Since end February 2022, the closure of Russian and Ukrainian airspaces for European airlines has shifted some traffic to the South-East axis.

- ➔ **Fewer overflights:** mainly Baltic States, Scandinavian States and Poland.
- ➔ **More overflights:** mainly States in South-East Europe.



SCENARIO UPDATE (OCTOBER 2022)

Impact of war in Ukraine and Post-pandemic recovery

Building the scenarios

Common Assumptions

Impact of war in Ukraine

- **Restrictions** on Ukrainian, Russian, Belarusian and Moldovan airspaces to **remain** until the end of the horizon (2028).
- Overall **decrease** of the economic situation. **Downward** revision of the GDP forecast for 2023 due to rising inflation, dwindling growth and growing geopolitical and natural disruptions to business.
- **Increasing** energy prices and the knock-on effect on the purchasing power of consumers to affect travel demand.
- Cargo segment **strongly** impacted due to constrained operations of key cargo carriers.

Post-pandemic recovery

- COVID-19 moving towards **endemic** phase: focus on prevention with **very limited travel restrictions**.
- Long-haul flows **recovering well** in 2022, apart from the China (Asia/Pacific region) and South Atlantic flows. Full restoration is expected to occur in 2023.
- Business aviation: after the strong uplift, the segment is **levelling off** with the return of some passengers to scheduled services.
- Some of the staff shortages experienced in summer 2022 might occur again in 2023, **affecting** the capacity of airlines and airports.
- Staffing issues also **impacting** the global logistics supply chain with repercussions on cargo flights.



SCENARIO UPDATE (OCTOBER 2022)

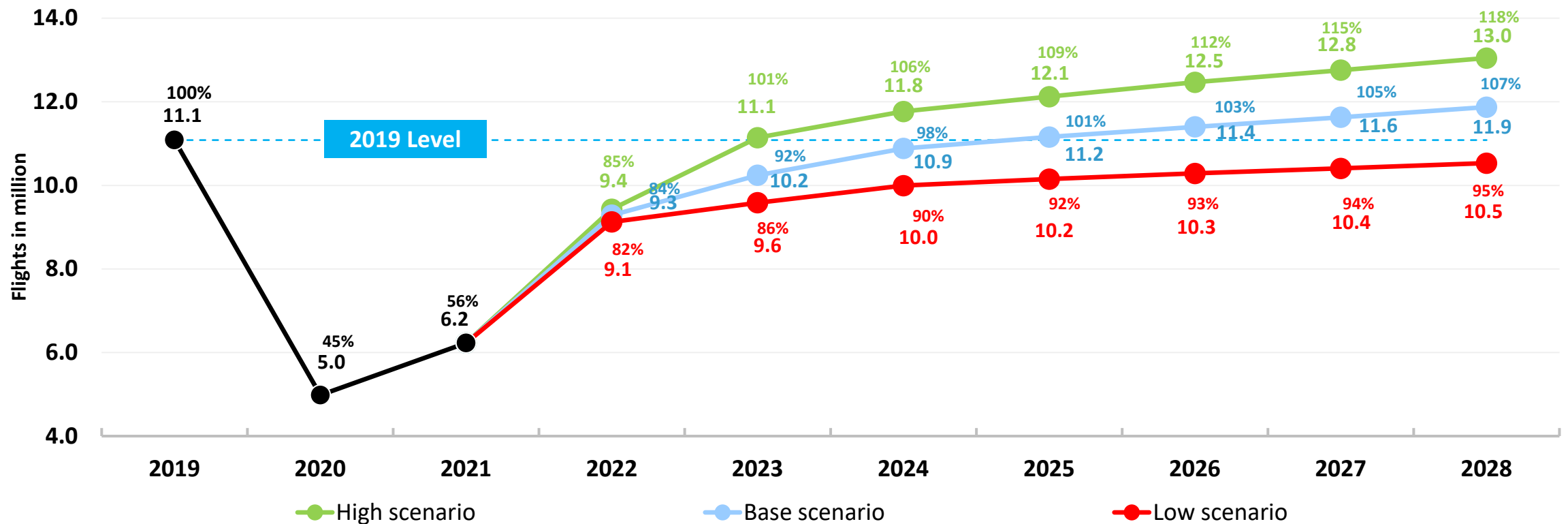
Impact of war in Ukraine and Post-pandemic recovery

	HIGH scenario	BASELINE scenario	LOW scenario
Impact of war in Ukraine	<ul style="list-style-type: none"> • Most of the European states with moderate GDP growth in 2023 and beyond • Limited impact on demand from inflation (including jet fuel price) 	<ul style="list-style-type: none"> • Weak GDP in 2023 for most European states • High inflation impacts demand 	<ul style="list-style-type: none"> • A significant number of European states in recession in 2023 • Demand for travel strongly reduced by effects of inflation
Post-pandemic recovery	<ul style="list-style-type: none"> • Good passenger confidence • Dynamic tourism flows above 2019 levels • Fast bounce-back of business travel <ul style="list-style-type: none"> • Airports and airlines mostly able to bring back capacity in 2023 • Cargo: limited staffing issues on the whole sector and increase on global cargo output 	<ul style="list-style-type: none"> • Relatively good passenger confidence • Business travel partly replaced by digital alternatives • Growing environmental concerns in some European states <ul style="list-style-type: none"> • Some airlines/airports experience staffing/capacity issues in 2023 (but much less than in 2022) • Cargo: slight increase on global cargo output in 2023 	<ul style="list-style-type: none"> • Occasional resurgence of COVID-19 variants: possible travel restrictions at local level • Substantial replacement of business travel (digital alternatives) • Environmental concerns strongly affecting travel choices <ul style="list-style-type: none"> • More extensive staffing/capacity issues at airlines/airports in 2023 • Cargo: deterioration of staffing issues on the whole logistic sector in 2023

EUROCONTROL STATFOR 7-YEAR FORECAST for *Europe 2022-2028 (October 2022)

Actual and future **IFR movements**, % traffic compared to 2019

* Europe = ECAC 44 Member States



Source:
EUROCONTROL 7-year Forecast 2022-2028, October 2022.

FLIGHT FORECAST (OCTOBER 2022)

Summary of flight forecast for Europe (ECAC)

ECAC*		2015	2016**	2017	2018	2019	2020**	2021	2022	2023	2024**	2025	2026	2027	2028**
IFR Flight Movements (Thousands)	High	.	.	.	.	.	.	.	9,431	11,142	11,768	12,124	12,467	12,755	13,045
	Base	9,923	10,197	10,604	11,002	11,085	4,979	6,231	9,287	10,243	10,883	11,157	11,399	11,629	11,873
	Low	.	.	.	.	.	.	.	9,126	9,583	9,994	10,150	10,285	10,405	10,530
Annual Growth (compared to previous year unless otherwise mentioned)	High	.	.	.	.	.	.	.	51%	18%	5.6%	3.0%	2.8%	2.3%	2.3%
	Base	1.6%	2.8%	4.0%	3.8%	0.8%	-55%	25%	49%	10%	6.3%	2.5%	2.2%	2.0%	2.1%
	Low	.	.	.	.	.	.	.	46%	5.0%	4.3%	1.6%	1.3%	1.2%	1.2%
Fraction of 2019 (compared to 2019 level)	High					.	.	.	85%	101%	106%	109%	112%	115%	118%
	Base					100%	45%	56%	84%	92%	98%	101%	103%	105%	107%
	Low					.	.	.	82%	86%	90%	92%	93%	94%	95%

* ECAC is the European Civil Aviation Conference

** leap year

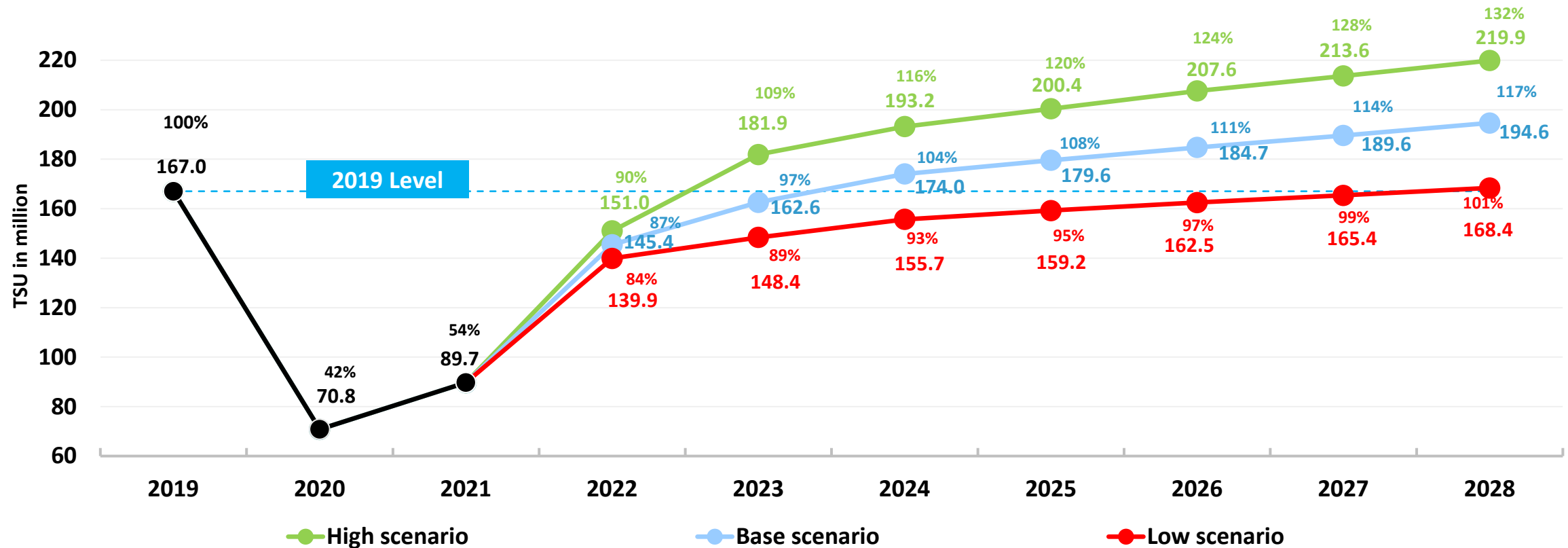
Source:

EUROCONTROL 7-year Forecast 2022-2028, October 2022.

EUROCONTROL STATFOR 7-YEAR FORECAST for *Europe 2022-2028 (October 2022)

Actual and future **En Route Service Units**, % TSU compared to 2019

* CRCO corresponds to 39 Member states of the CRCO (without Ukraine)



Source: EUROCONTROL 7-year Forecast 2022-2028, October 2022.

EN ROUTE SERVICE UNITS FORECAST (OCTOBER 2022)

Summary of TSU forecast

CRCO*		2015	2016**	2017	2018	2019	2020**	2021	2022	2023	2024**	2025	2026	2027	2028**
Total En-route Service Units (Thousands)	High	.	.	.	.	.	.	.	151,011	181,890	193,190	200,391	207,556	213,647	219,857
	Base	138,505	144,274	153,194	162,512	167,000	70,828	89,680	145,442	162,590	174,013	179,583	184,746	189,552	194,627
	Low	.	.	.	.	.	.	.	139,923	148,375	155,698	159,220	162,500	165,370	168,375
Annual Growth (compared to previous year unless otherwise mentioned)	High	.	.	.	.	.	.	.	68%	20%	6.2%	3.7%	3.6%	2.9%	2.9%
	Base	4.2%	4.2%	6.2%	6.1%	2.8%	-58%	27%	62%	12%	7.0%	3.2%	2.9%	2.6%	2.7%
	Low	.	.	.	.	.	.	.	56%	6.0%	4.9%	2.3%	2.1%	1.8%	1.8%
RP3 Region ^o		2015	2016**	2017	2018	2019	2020**	2021	2022	2023	2024**	2026	2026	2027	2028**
Total En-route Service Units (Thousands)	High	.	.	.	.	.	.	.	112,270	135,039	143,385	148,686	153,944	158,232	162,552
	Base	104,909	109,333	115,160	121,822	125,206	52,595	66,991	108,125	120,401	128,777	132,851	136,603	139,977	143,541
	Low	.	.	.	.	.	.	.	104,128	109,773	115,005	117,522	119,862	121,802	123,819
Annual Growth (compared to previous year unless otherwise mentioned)	High	.	.	.	.	.	.	.	68%	20%	6.2%	3.7%	3.5%	2.8%	2.7%
	Base	3.2%	4.2%	5.3%	5.8%	2.8%	-58%	27%	61%	11%	7.0%	3.2%	2.8%	2.5%	2.5%
	Low	.	.	.	.	.	.	.	55%	5.4%	4.8%	2.2%	2.0%	1.6%	1.7%

* CRCO corresponds to 39 Member states of the CRCO (without Ukraine)

^o RP3Region corresponds 29 States that are involved in the EU-wide performance target setting for the third period

** leap year

Source:

EUROCONTROL 7-year Forecast 2022-2028, October 2022.

ADDITIONAL RISKS



Higher inflation and **greater uncertainty** triggered by Russia's invasion of Ukraine have emerged as key risks. A longer period of conflict with bigger disruptions to energy markets would translate into a bigger hit to the **global economic expansion**. Current forecast includes different economic forecasts but a further deterioration of the economic situation is a downside risk.



The **volatility in oil and fuel prices**: It is uncertain how the airlines will be able to pass the fuel price spikes to travellers in a market recovering from the numerous COVID-19 lockdowns. This is a downside risk for the airline industry.



Future **airspace and network changes** (e.g. unexpected closures, new routes) and **airlines' changing choice of routes** are not modelled by the forecast. We currently assume that the Ukrainian and Russian airspaces remain closed till the end of the horizon (2028)*.



Terrorist attacks, bans of one country on another one, wars and natural disasters. These are impossible to predict. Their impact on air traffic could however be temporary, or more long term.

** The routes used in the forecast are those flown in the period Mar22-Sep22. When not available, the 2019 routes are used instead. Routes for the flows impacted by restrictions on the airspaces of Ukraine, Russia, Belarus and Moldova and which are not yet back in 2022 were re-calculated based on alternative routings.*

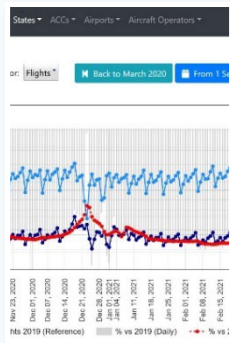
USEFUL LINKS



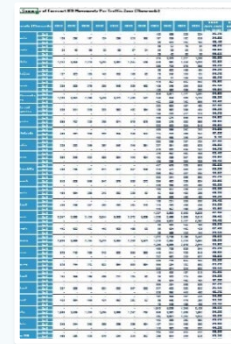
A presentation of the geographical definitions can be found in [Annex - Traffic Region Definitions](#)



Connect to the [STATFOR Interactive Dashboard](#)



Connect to the [Aviation Intelligence Dashboard](#)



The forecast per state can be found in [Annex - Detailed Traffic Forecast](#)

For further info, please contact the forecasting team: statfor.info@eurocontrol.int

To further assist you in your analysis, EUROCONTROL provides the following additional information:

1. EUROCONTROL STATFOR Interactive Dashboard

www.eurocontrol.int/dashboard/statfor-interactive-dashboard

- The STATFOR interactive dashboard (SID) is a unique source of statistics on flights in Europe. Thanks to the segmented approach of the SID, users benefit from a customisable and flexible interface; early access to statistics – updated and made available in the first week of each month; a wide coverage of the statistics, synchronisation with the other STATFOR products.

2. EUROCONTROL Daily Traffic Variation dashboard:

www.eurocontrol.int/Economics/DailyTrafficVariation (or via the COVID-19 button on the top of our homepage www.eurocontrol.int)

- This dashboard provides traffic for Day+1 for all European States; for the largest airports; for each Area Control Centre (ACC) and for the largest airline operators.

3. NOP Recovery Plan.

<https://www.public.nm.eurocontrol.int/PUBPORTAL/gateway/spec/index.html>

- This report, updated every Friday, is a special version of the Network operation Plan supporting aviation response to the COVID-19 Crisis. It is developed in cooperation with the operational stakeholders ensuring a rolling outlook.



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