Network Manager
nominated by
the European Commission

EUROCONTROL

EUROCONTROL Seven-Year Forecast
February 2014

Flight Movements and Service Units 2014 - 2020

Network Manager
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7-year IFR Flight Movements and Service Units Forecast: 2014-2020

EXECUTIVE SUMMARY

This is the final report of the EUROCONTROL 7-year flight and service units forecast, February 2014 release. This document has been prepared as part of the revised, more inclusive forecast process that was agreed at the 40th session of the Provisional Council. Two draft reports have been circulated for review to a wide group of Stakeholders mid-December 2013 and early February 2014. All Stakeholders' comments and our responses to them are made available on the STATFOR OneSky Teams. This report is the outcome of an improved process which achieved its aim to open the forecast preparation phase to a wider audience (than just the forecast experts belonging to the STATFOR User Group) and to using a richer set of inputs.

The forecast

IFR Movements

Since the previous forecast was finalised in September, the economic outlook in Europe appears to have slightly improved in the first years, but not consistently and some States continue to look fragile. If slight growth is expected for this Summer, specific local events have changed the forecasts locally in the first two years. South-West States have seen their flight forecast revised upwards compared to the September forecast, mainly owing to shifts of tourist flows from Egypt to Spanish Islands and Morocco. The forecasts for South-East axis States are influenced by mixed traffic trends: slow recovery of traffic losses in Egypt since the end of last Summer, coupled with dynamic growth trend from/to Russia and Turkey. Not to forget the influence of the re-opening of the KFOR sector; this will add to the disparities in growth within the region for 2014. Dealing with the busiest European States; Germany, UK, Italy and France forecasts have been revised downwards (compared to the September forecast) to rates ranging from 0% to 1.5% in 2014. The growth rates in these States will level off at around 2.3% on average in 2015.

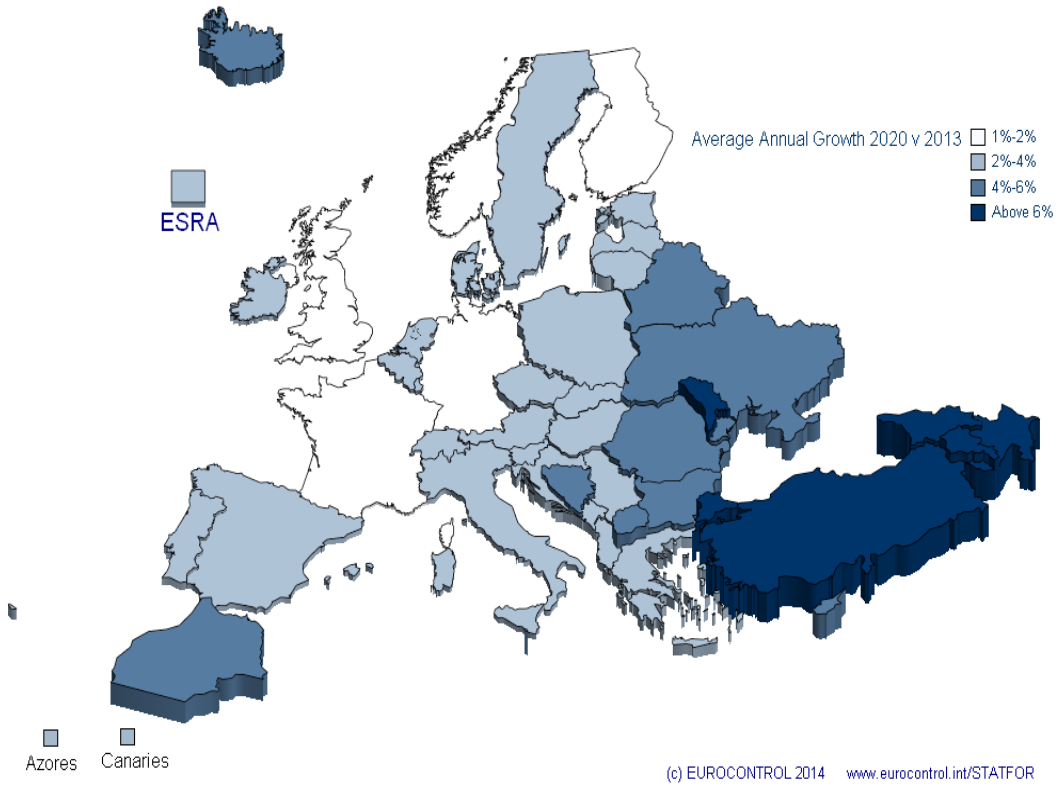
At European level, the traffic forecasts remain mostly unchanged: a moderate growth of 1.2% (±1.2 pp) for 2014 and more steady growth of 2.7% (±1 pp) for 2015.
From 2015 onwards, growth is expected to be back at around 2.7% per year, on average. The 2008 peak of traffic of 10.1 million flights is forecasted to be reached again in 2016; this remains unchanged compared to the September 2013 forecast publication (Ref. 1). In the first part of the horizon (2015-2018), growth rates will average at around 2.5%, falling off to 2.2% in 2018 when capacity constraints will increasingly affect the demand in Europe. In the last two years 2019-2020 will see traffic growth rates averaging at around 3% as additional capacity brought in Turkey will lift the pressure on the whole network. For the whole 2014-2020 period, flight growth averages 2.5% per year in the base scenario.

The new forecast is for 11.2 million IFR movements (± 0.9 million) in Europe in 2020, accounting for 19% more than in 2013. By 2020, the high-growth scenario has 0.8 million more and low-growth scenario 1 million fewer flights than the base scenario. Any user of the forecast is strongly advised to use the forecast range (low-growth to high-growth) as an indicator of risk. This forecast includes downside risks (e.g. capacity reductions in response to weaker demand) and upside risks (e.g. current high load factors might not be able to absorb the passenger demand when traffic begins to grow again). These are discussed in Section 6.

Figure 1. Summary of flight forecast for Europe (ESRA08[1]).

ESRA08		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	AAGR 2020/ 2013	RP1 2014/2011 AAGR	RP2 2019/2014 AAGR
IFR Flight Movements (Thousands)	H	.	.	.	.	9,669	10,015	10,442	10,826	11,208	11,618	12,072	**3.6%**	**-0.4%**	**3.7%**
	B	9,493	9,784	9,548	9,447	9,557	9,812	10,095	10,339	10,570	10,867	11,200	**2.5%**	**-0.8%**	**2.6%**
	L	.	.	.	.	9,438	9,582	9,682	9,780	9,891	10,030	10,179	**1.1%**	**-1.2%**	**1.2%**
Annual Growth (compared to previous year)	H	.	.	.	.	2.3%	3.6%	4.3%	3.7%	3.5%	3.7%	3.9%	**3.6%**	**-0.4%**	**3.7%**
	B	0.8%	3.1%	-2.4%	-1.1%	1.2%	2.7%	2.9%	2.4%	2.2%	2.8%	3.1%	**2.5%**	**-0.8%**	**2.6%**
	L	.	.	.	.	-0.1%	1.5%	1.0%	1.0%	1.1%	1.4%	1.5%	**1.1%**	**-1.2%**	**1.2%**

Figure 2. Average annual flight growth 2013-2020 per State.



Total En-route Service Units

In 2014, total en-route service units are expected to end higher than expected in the forecast of September 2013. Service units are growing faster than flights caused by a general trend in increasing average weight factors and the latest data has caused us to revise upwards the projected growth in weights. In 2014, 128.6 million service units (TSU) are expected to be produced for the CRCO11 area. This is 3.6% more than 2013, a revision up by 0.5 percentage points compared to the forecast of September 2013.

This slight acceleration of growth compared to the September 2013 forecast slows after 2015. The TSU are expected to be higher by around 3.4 million in 2019 than previously forecast, reaching in total 150.2 million in 2019 for EUROCONTROL member states (CRCO11). For those States participating in the Performance Scheme, the average annual growth in the second Reference Period (2019 versus a baseline year of 2014) is 2.8%, slightly up from the 2.6% per year from the September 2013 forecast.

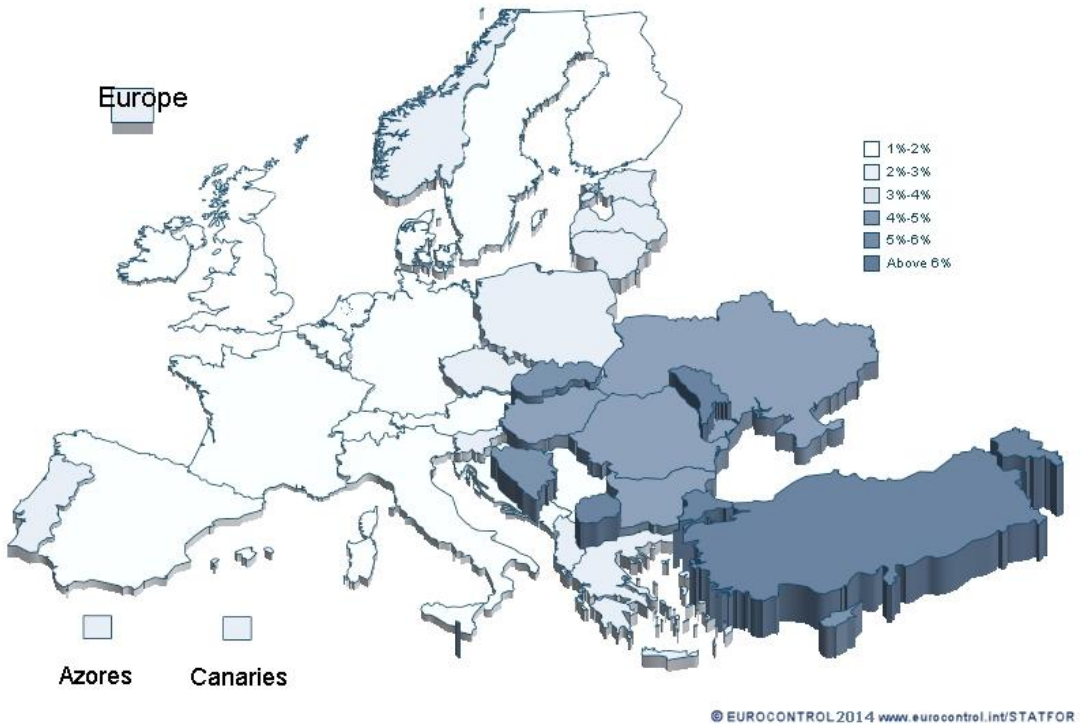
[1] ESRA08 is a large, fixed region covering most of Europe. See Annex A for a definition.

Details of the total en-route service units forecast per state can be found in Annexes E (2-year), F and G (7-year).

Figure 3. Summary of total en-route service units forecast for EUROCONTROL Member States (CRCO11[2]) and Performance Scheme area (RP1Region[2] and RP2Region[2]).

Total en-route service units (Millions)		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2020/2013 Total Growth	RP1 2014/ 2011 AAGR	RP2 2019/ 2014 AAGR
CRCO11[2]	H	.	.	.	.	130.6	136.8	143.3	149.3	155.3	162.0	169.2	36%	**1.9%**	**4.4%**
	B	117.4	123.2	121.6	124.2	128.6	133.3	137.7	141.7	145.4	150.2	155.4	25%	**1.4%**	**3.1%**
	L	.	.	.	.	126.7	129.7	131.6	133.5	135.5	137.9	140.4	13%	**0.9%**	**1.7%**
RP1Region[2]	H	.	.	.	.	110.1	114.9	120.1	124.6	129.4	134.4	139.7	33%	**1.6%**	**4.1%**
	B	100.6	105.1	103.6	105.2	108.5	112.0	115.3	118.2	121.1	124.5	128.1	22%	**1.1%**	**2.8%**
	L	.	.	.	.	106.9	109.1	110.2	111.4	112.7	114.3	115.9	10%	**0.6%**	**1.3%**
RP2Region[2]	H	.	.	.	.	111.8	116.7	121.9	126.6	131.4	136.6	142.0	33%	**1.6%**	**4.1%**
	B	102.0	106.8	105.3	106.9	110.2	113.8	117.1	120.0	122.9	126.4	130.1	22%	**1.1%**	**2.8%**
	L	.	.	.	.	108.6	110.7	111.9	113.1	114.4	116.0	117.7	10%	**0.6%**	**1.3%**
Total en-route service units (growth)		**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2020/ 2013 Total Growth**	**RP1 2014/ 2011 AAGR**	**RP2 2019/ 2014 AAGR**
CRCO11[2]	H	.	.	.	.	5.1%	4.8%	4.8%	4.2%	4.0%	4.3%	4.5%	4.5%	**1.9%**	**4.4%**
	B	3.5%	5.0%	-1.3%	2.1%	3.6%	3.7%	3.3%	2.9%	2.6%	3.3%	3.5%	3.3%	**1.4%**	**3.1%**
	L	.	.	.	.	2.0%	2.4%	1.4%	1.4%	1.5%	1.8%	1.8%	1.8%	**0.9%**	**1.7%**
RP1Region[2]	H	.	.	.	.	4.6%	4.3%	4.5%	3.8%	3.8%	3.9%	3.9%	4.1%	**1.6%**	**4.1%**
	B	2.6%	4.5%	-1.5%	1.6%	3.1%	3.2%	2.9%	2.5%	2.5%	2.8%	2.9%	2.8%	**1.1%**	**2.8%**
	L	.	.	.	.	1.6%	2.0%	1.0%	1.1%	1.2%	1.4%	1.4%	1.4%	**0.6%**	**1.3%**
RP2Region[2]	H	.	.	.	.	4.6%	4.3%	4.5%	3.8%	3.8%	3.9%	3.9%	4.1%	**1.6%**	**4.1%**
	B	2.7%	4.6%	-1.4%	1.6%	3.1%	3.2%	2.9%	2.5%	2.5%	2.8%	2.9%	2.8%	**1.1%**	**2.8%**
	L	.	.	.	.	1.5%	2.0%	1.1%	1.1%	1.2%	1.4%	1.4%	1.4%	**0.6%**	**1.3%**

Figure 4. Average annual en-route service unit growth 2013-2020 per State.



[2] For definitions of CRCO11, RP1Region and RP2Region, see Section. RP1Region was called PScheme in previous reports. RP2Region refers to the 28 EU member states plus Norway and Switzerland.

Terminal Navigation Service Units

As for the flights and en-route service units forecast, this forecast is driven by a timid recovery of the economic situation in Europe. In total over the whole Terminal Charging Zones within the Performance Scheme area (RP2Region[3], details can be found in Annex A), TNSU are expected to grow by 0.4% to reach around 7.5 million in 2014 (with a forecast range between 7.4 and 7.6 million). This is a slower rate than the one expected for flights which are expected to grow by 0.8% (±1.2 percentage points) in the EU28 (all flows). From 2015, the forecast growth should stabilise around 2.7% per year (vs 2.8% for the service units) to average at 2.4% over the next 7 years and reach 8.8 million TNSU in 2020. The low scenario, however, stands for just 8 million TNSU in 2020 which is hardly above the peak value measured in 2008, the year when the greatest number of flights so far was flown in Europe (7.7 million TNSU). Details of the forecast at Terminal Charging Zone level can be found in Annex H.

Figure 5. Summary of total Terminal Navigation Service Units forecast for the second Performance Scheme States (RP2Region).

RP2 Region		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	AAGR 2020/ 2013	RP1 2014/2011 AAGR	RP2 2019/2014 AAGR
TNSU Total (in Millions)	High	.	.	.	.	7.6	7.8	8.2	8.5	8.9	9.2	9.6	**3.6%**	**-0.2%**	**4.0%**
	Base	7.3	7.6	7.5	7.5	7.5	7.7	7.9	8.1	8.3	8.6	8.8	**2.4%**	**-0.5%**	**2.8%**
	Low	.	.	.	.	7.4	7.5	7.6	7.7	7.8	7.9	8.0	**1.0%**	**-0.9%**	**1.3%**
TNSU Annual Growth (in %)	High	.	.	.	.	1.5%	3.6%	4.9%	3.7%	4.1%	3.9%	3.9%	**3.6%**	**-0.2%**	**4.0%**
	Base	0.8%	4.3%	-1.6%	-0.4%	0.4%	2.7%	3.3%	2.5%	2.6%	2.8%	2.7%	**2.4%**	**-0.5%**	**2.8%**
	Low	.	.	.	.	-0.9%	1.5%	1.2%	1.0%	1.3%	1.4%	1.5%	**1.0%**	**-0.9%**	**1.3%**

The EUROCONTROL intermediate two-year service unit forecast for 2014-2015 will be published in May2014.

The EUROCONTROL 7-year IFR movements and service units forecast will be updated in September 2014, with limited parts of the assumptions refreshed only.

[3] RP2Region is defined by 33 Terminal Charging Zones covering 30 the States in the second period of the Performance Scheme (RP2). Any user of this Terminal Navigation Service Units forecast should be aware that these definitions might change in the course of the forthcoming months as States/FABs are preparing their Performance Plans for RP2.

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DOCUMENT CHANGE RECORD

The following table records the complete history of the successive editions of the present document.

Version	Date	Reason for Change	Sections affected
v0.1	9/12/2013	Skeleton draft to present initial inputs.	All
v0.22	3/2/2014	Sections and Annexes amended considering the first review comment cycle: updated set of input data and updated forecast results after comments. See STATFOR OneSky Teams, First Draft Review Comments.	All
v1.0	24/2/2014	All Sections and Annexes amended considering the second review process exercise: updated set of input data and updated forecast results after comments. See STATFOR OneSky Teams, Second Draft Review Comments.	All

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1. INTRODUCTION

1.1 Context

This is the final report on the 7-year forecast, February 2014 edition. This document has been prepared as part of the revised, more-inclusive forecast process that was agreed at the 40th session of the Provisional Council (see Annex I).

The quality of the input data and assumptions for the forecast is of key importance to producing the best-possible forecast. Therefore the new process put in place at the end of 2013 aims to encourage comments on the forecast assumptions from a wide group of Stakeholders.

This document is the outcome of a four-month preparation process. The process started with the publication of new documentation on the forecast methodology (7-year forecast), to be found in Ref. 2. In December 2013, a first draft forecast including a complete review of the forecast inputs and traffic trends up until November 2013 has been sent for a two-week review period to the Network Management Board, Provisional Council, Enlarged Committee for Route Charges, Agency Directors, the Internal Forecast Review Group and the STATFOR User Group. A first set of 80 comments[4] from 10 different States enabled us to fine tune the set of inputs, some of the components of the forecast method and the report. A second forecast draft, refined using these comments, the latest economic forecast update and the most recent traffic trends has been sent to the STATFOR User Group early February 2013 for discussion during the STATFOR User Group meeting mid-February. A set of 55 comments[4] from 20 different States has been recorded. The 7-year forecast presented in this report resulting from the consideration of the latter comments and represents the best available information that we have available as of February 2014

This 7-year IFR movements and Service Units forecast replaces the update of September 2013 (Ref. 1).

1.2 Forecast Method

For the new forecast process, we have produced a completely revised set of documentation on the forecast methods (Ref. 2). This documentation describes the methods at a number of levels of detail, from a two-page summary, to a function-by-function reference. For convenience of readers, the summary is reproduced in this section.

EUROCONTROL/STATFOR provides impartial air traffic forecasts, market analyses and statistics to the ATM community in the widest sense, to improve understanding of current and future trends, to enable better-informed decision making and thus to improve network performance. The STATFOR forecast has been serving European ATM since the 1970s. It is the only air traffic forecast covering Europe.

STATFOR publishes a forecast of IFR flights and both en-route and terminal service units for the next seven years in Europe. The main forecast update is published in February each year. Our focus is on the traffic forecast for States or larger regions. This influences the modelling choices made in the forecasting process. Other EUROCONTROL units use this high level forecast to drill down to the level of airports, control centres, sectors etc.

The number of flights depends on the interaction of supply and demand: an airline operates a flight between an airport A and an airport B because it has customers who pay to travel or ship goods from A to B. Supply and demand are each influenced by a large number of factors like economy, regulation, demographics, business development, oil prices, high-speed rail. When forecasting, we use data that describe these factors, and data more directly about actual and future supply (past flights, and future schedules). Some data are more relevant to the short-term horizon (e.g. airline schedules) while others are used in the medium-term horizon (e.g. demographics). Probably the three most influential inputs to the forecast are:

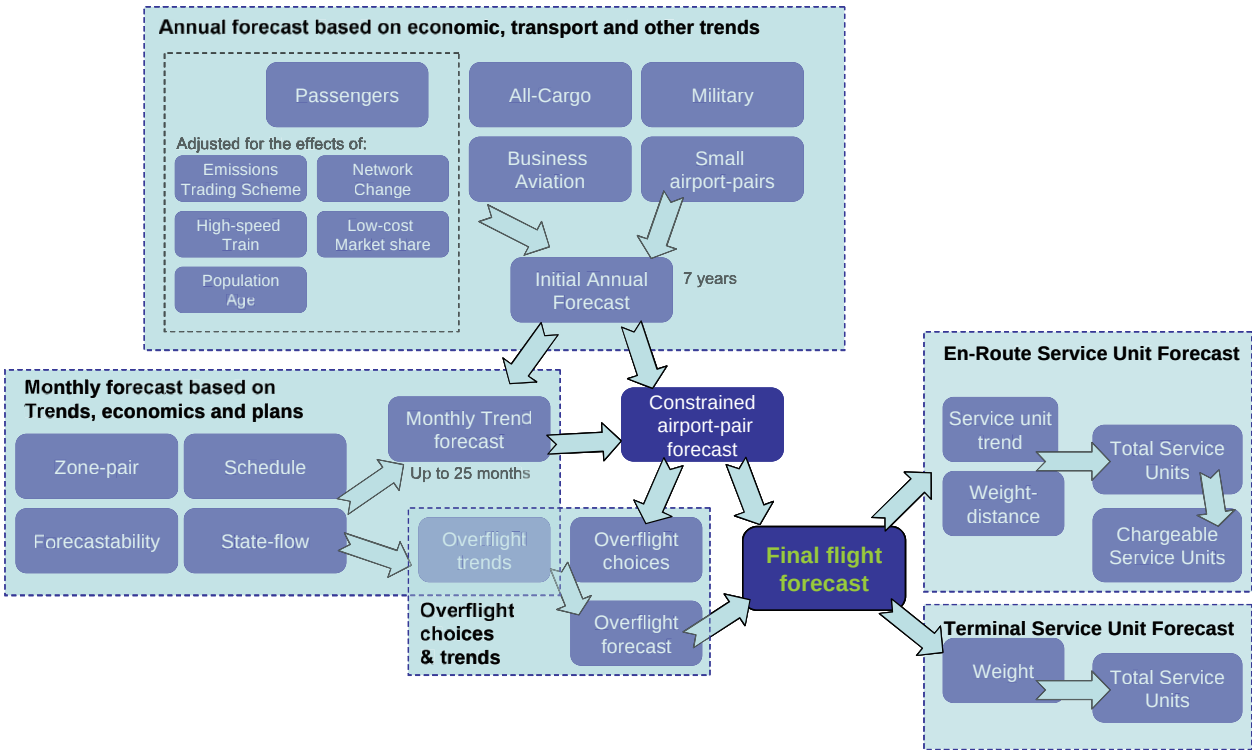
- **Economic growth** forecasts obtained from external specialists, and which in recent years have been very variable; growth has slowed, but there is nothing in our data to show that flight

[44] Available under STATFOR OneSky Teams.

growth has decoupled from economic growth;

- **Regulation**, eg rules on visas, open skies, airport funding, aviation taxes;
- **Overflight** patterns since, for the majority of States, most of their flights are overflights. A crisis such as that in Syria can easily change the number of flights by 10% or more in a number of States due to re-routing, even if the number of flights on the network as a whole is little changed. (See section 4.6 for more on Syria and other re-routing effects.)

Figure 6. The components of the STATFOR seven-year forecast



Overall, the components of the forecast can be grouped into five elements as in Figure 6:

- An initial annual forecast for the next seven years based on economic, transport and other trends;
- A monthly forecast based on trends, economics and airlines' plans;
- These are merged, and constrained by airport capacities to give the constrained forecast;
- The final step of the flight forecast is to calculate how many flights are generated in each State, using both routings through airspace observed in the historical data and recent trends.
- The number of service units in a charging zone depends on the number of flights, the weight of aircraft and, in the *en route* case, the distance flown. The two service unit forecasts therefore take the flight forecast as an input and combine this with time series forecasts of weight and distance as needed. This gives total service units, from which future chargeable service units are estimated using the ratio of chargeable/total from the previous calendar year.

We use a highly-automated and structured process to produce traffic forecasts and because of the variety of factors and inputs, different forecasting techniques are used: traditional time series methods to extrapolate historical patterns, econometric analyses to take into account how economic, social and operational conditions have an effect on the development of traffic, scenario-based inputs to describe the future (what Europe will be in 10 years' time?) and specific data-driven models (e.g. high-speed rail development model). As for any forecast, the method relies on historical data either for taking a snapshot of the most recent trends or longer history to calibrate the models.

The future is always uncertain. We capture this uncertainty in the forecast through three forecast scenarios: low- and high-growth scenarios, with the most-likely "base" forecast in between. All three scenarios should be considered as part of the risk management of any decision based on

the forecast.

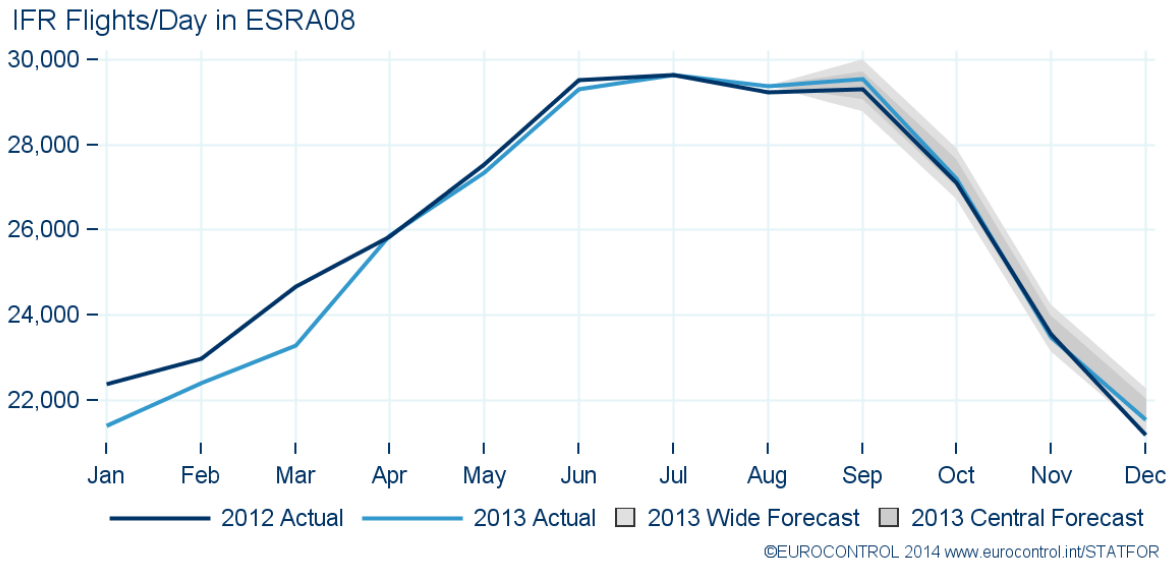
As requested by Stakeholders, we have re-calibrated some of the key relationships with economic growth for this forecast, including introducing more specific country-pair flow relationships where these make statistical sense. This re-calibration process is described in Ref. 3, which has been distributed to the STATFOR User Group

2. FLIGHT AND SERVICE UNITS TRENDS IN 2013

2.1 IFR Movements

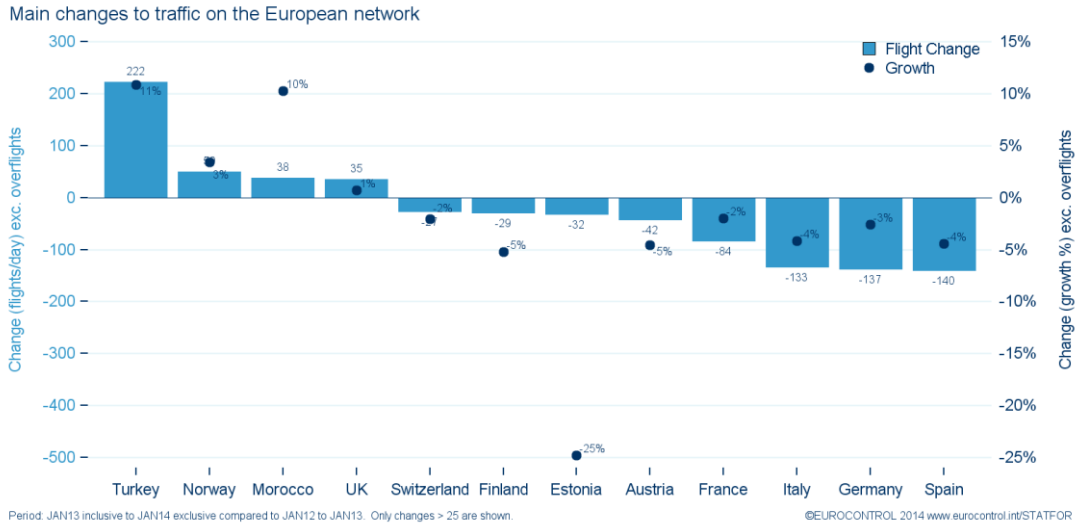
During the first quarter 2013, European traffic remained on average 5% below the 2012 traffic levels (same quarter). From the Summer, traffic volumes were quite similar to 2012 (see Figure 7). The positive growth trend observed during the August-October period was moderated by important losses on tourist traffic flows from/to Egypt, following the renewed unrest (started in August 2013). Altogether, and removing the effect of the leap year effect in 2012, European traffic declined by 0.8% in 2013 compared to 2012.

Figure 7: Except during Winter 12/13, 2013 traffic levels have been similar to 2012 ones.



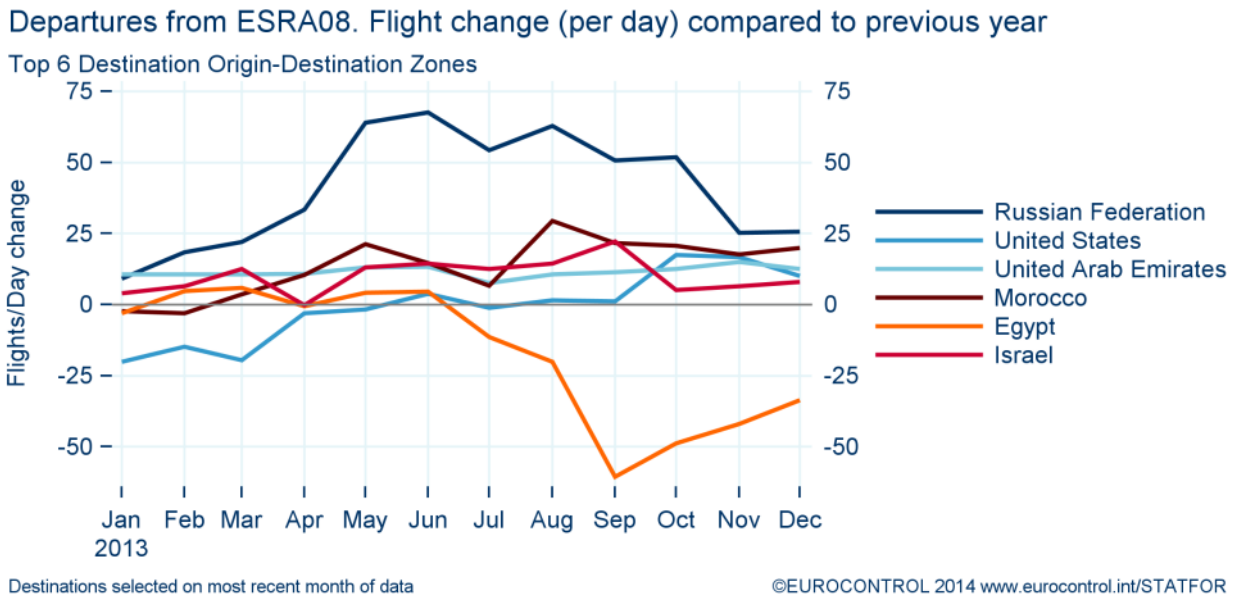
The main area in which there is more clarity than in September forecast is in airlines' intentions for the Winter 13/14 season. The future airline schedules that were available in September were optimistic about the Winter. We treated that optimism cautiously, and plans have indeed been revised sharply downwards as the season began. Figure 8 shows local traffic (i.e traffic excluding overflights) changes for the whole of 2013. Turkey remained the main contributor in Europe adding more than 220 flights per day to the network (excluding overflights) when compared to 2012. The UK, though adding more than 30 flights per day, has shifted from the right-hand side of the graph to the left-hand side with the start of the Summer 2013. Local traffic in Norway has been growing almost all year (not to mention growing overflight flow as well), thanks to low-cost and traditional-scheduled market segments. On the other hand, four of the five busiest states - Spain, Germany, Italy and France - drove the traffic decline in Europe (excluding overflights).

Figure 8: Turkey remained the biggest contributor (excluding overflights) on the European network during 2013 (vs 2012) but this has not compensated for the losses seen in most busiest European States.



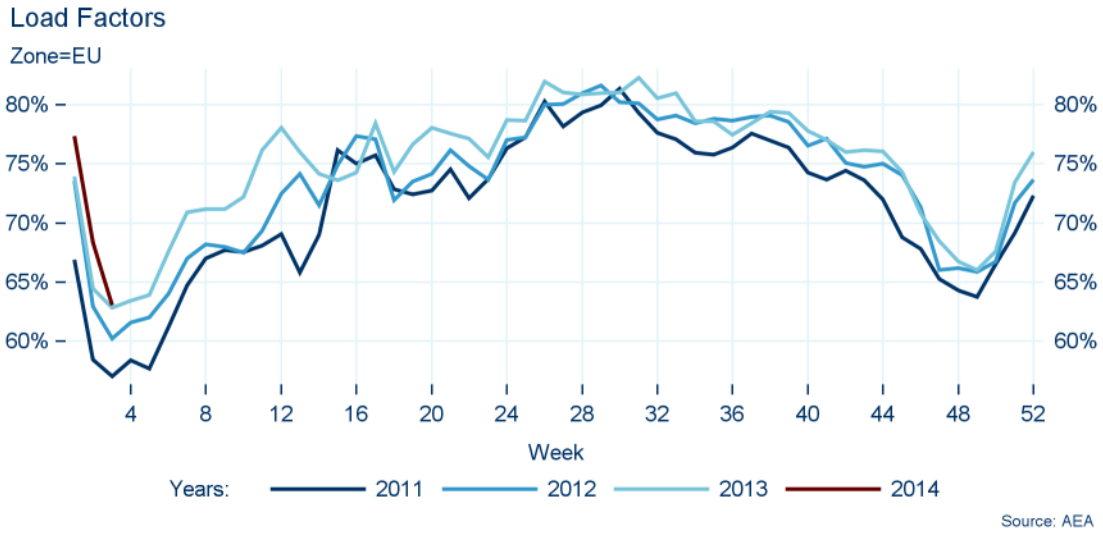
Outside Europe, Russia remained the number one destination from Europe adding traffic to the network: on average an additional 85 flights per day (81 arrivals/departures and 4 overflights) during the year, with peaks at 125 additional arrivals/departures per day during Summer months. Russian arrivals/departures have increased by 10% in 2013 (compared to 2012). The dynamic Russian growth has contributed to the growth of overflights in Eastern European States (and some Western European States as well).

Figure 9: Russian Federation was the most dynamic partner for Europe in 2013.



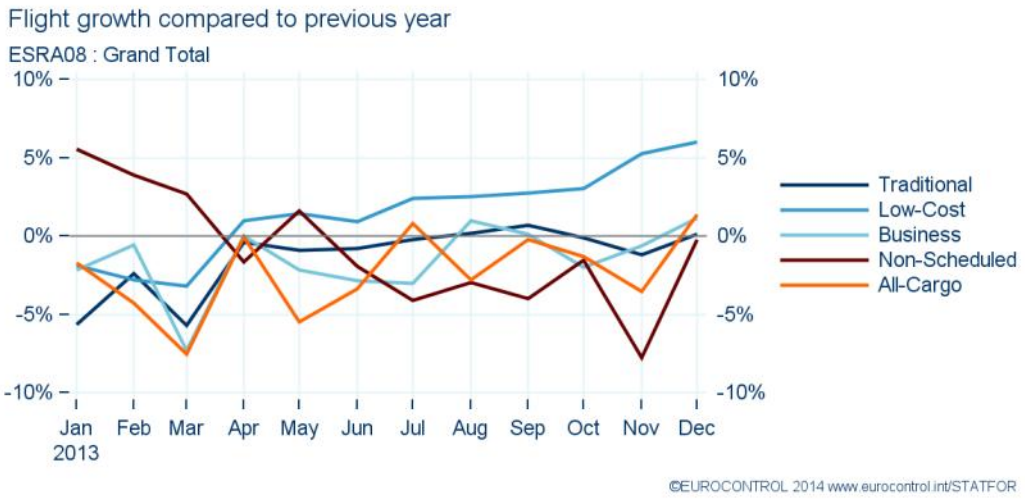
In 2013 and into the first weeks of 2014, load factors remain record-breaking on Europe (cross-border) flows, as shown in Figure 10.

Figure 10: European load factors reached record highs in 2013 (source: AEA.)



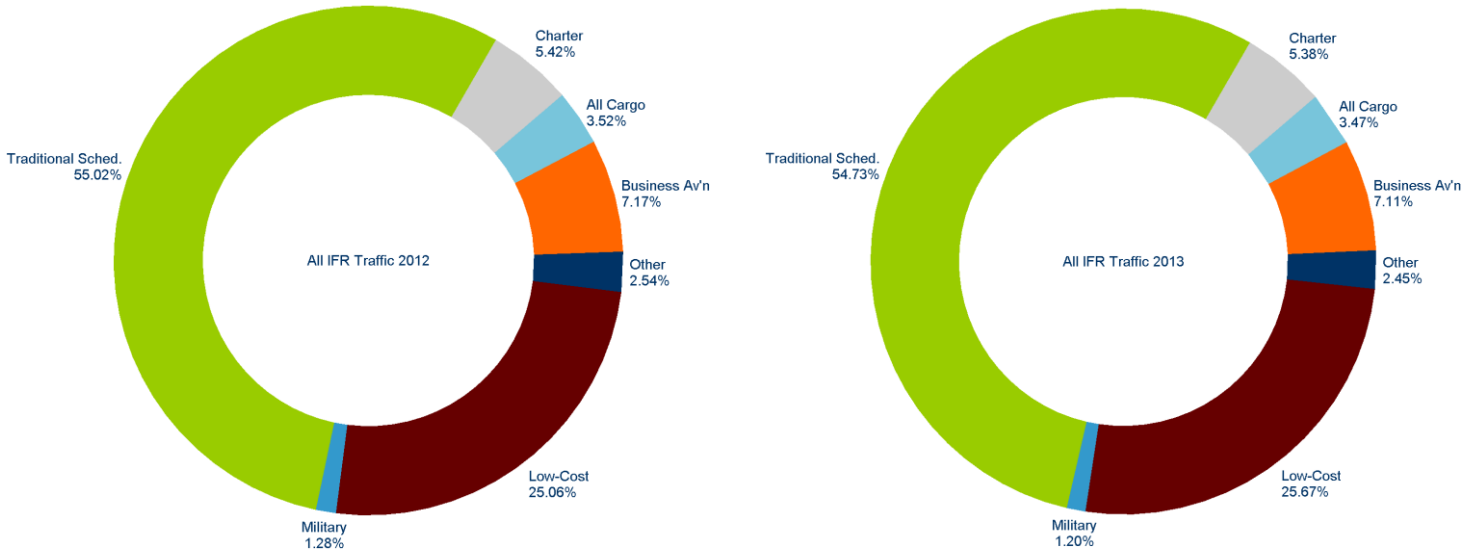
Comparing each of the market segments, low-cost was the only segment with sustained growth for most of 2013, and this accelerated during November and December (Figure 11). The traditional scheduled and business aviation segments shifted into slight growth during Summer but showed an overall decline of around 1.3% and 1.6% respectively. As in 2012, all-cargo continued to decline (-2.4%) in 2013. Charter (Non-Scheduled), if growing at the beginning of the year (as a consequence of the recovery of traffic to North-Africa) later declined due to the renewed political crisis in Egypt: this segment showed a 1.4% decline in 2013.

Figure 11: Low-Cost is the only segment which has grown consistently since Summer Schedule



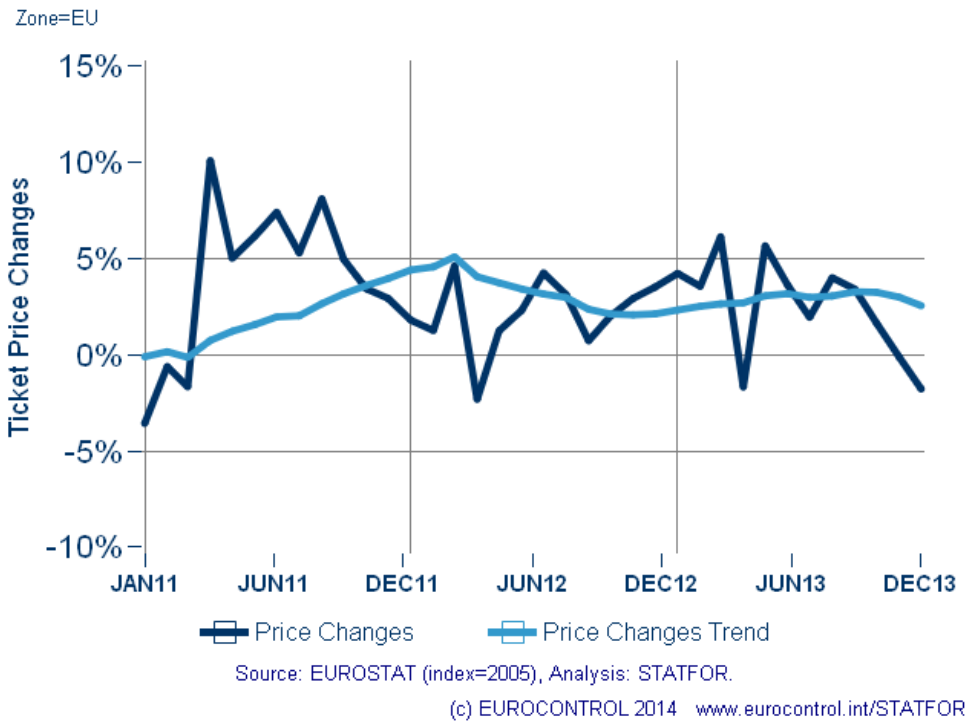
As a result, the market share of the low-cost segment continued to expand in 2013 (+0.6 percentage points), counter-balanced by a contraction of the traditional scheduled segment (Figure 12). The other segments followed by STATFOR remained fairly stable in 2013 (when compared to 2012).

Figure 12: In 2013, low-cost grew their market share at the expense of traditional scheduled carriers.



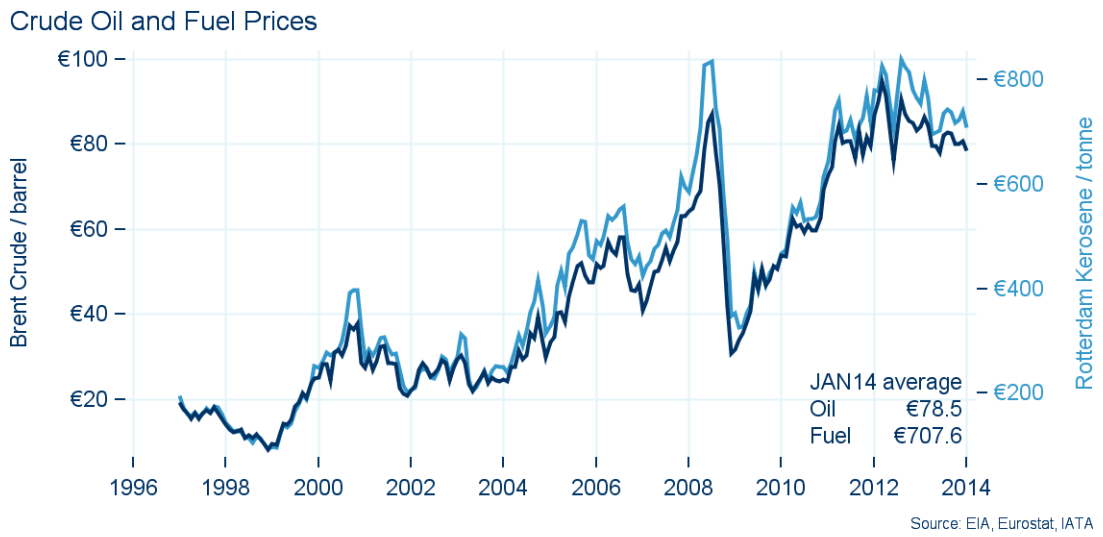
Since 2011, the deflated trend of airline ticket price changes in Europe remained constantly above the zero-line, meaning ticket prices increasing in real terms. Ticket price inflation reached up to a 5% increase in early 2012, responding to the surge in oil prices. Since mid-2012, the trend has levelled off at around 2% to 3% in Europe showing a constant increase of airline ticket prices for the passenger, with the largest monthly variations mostly driven by the movement of Easter (Figure 13). Only in the last few months have prices begun to stabilise or decline.

Figure 13: In 2013, trend in ticket price changes (air travel) in Europe remained around 2%-3% higher than the year before, on a 12-month trailing average. *Note that, on this graph, ticket prices are deflated by overall consumer prices.*



As shown in Figure 14, oil prices remained fairly stable around €80 per barrel in the course of 2013. Fuel prices have also been stable but high at an average of ±€700 per tonne last year, which is less than the €750/tonne approximate average for 2012. Fuel nowadays accounts typically for around 30-35% of airlines costs in Europe. If these costs are much higher than in the last decade, the relative stability in fuel prices together with fuel hedging and surcharges help the airlines to cope with these high prices.

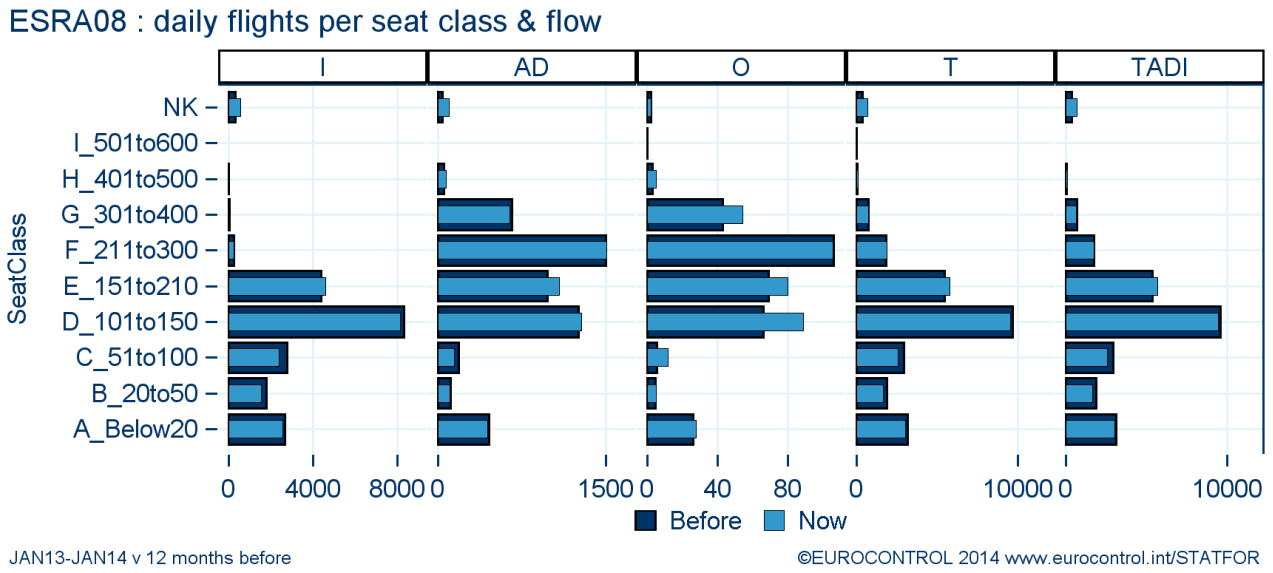
Figure 14: Fuel prices remained high but stable in 2013.



During 2013 in Europe, flights by smaller aircraft (below 100 seats) have declined (compared to the same period in 2012) for all traffic and local traffic flows. Conversely, flights by larger short-haul aircraft (151-210 seaters) have increased for the same flows (see Figure 15).

For overflight traffic, growth has been observed in the small to medium aircraft categories (between 50 and 210 seats) and also for larger long-haul aircraft (more than 300 seats). The 211-300 seat overflight traffic has weakened during the 2013, compared to the same period in 2012.

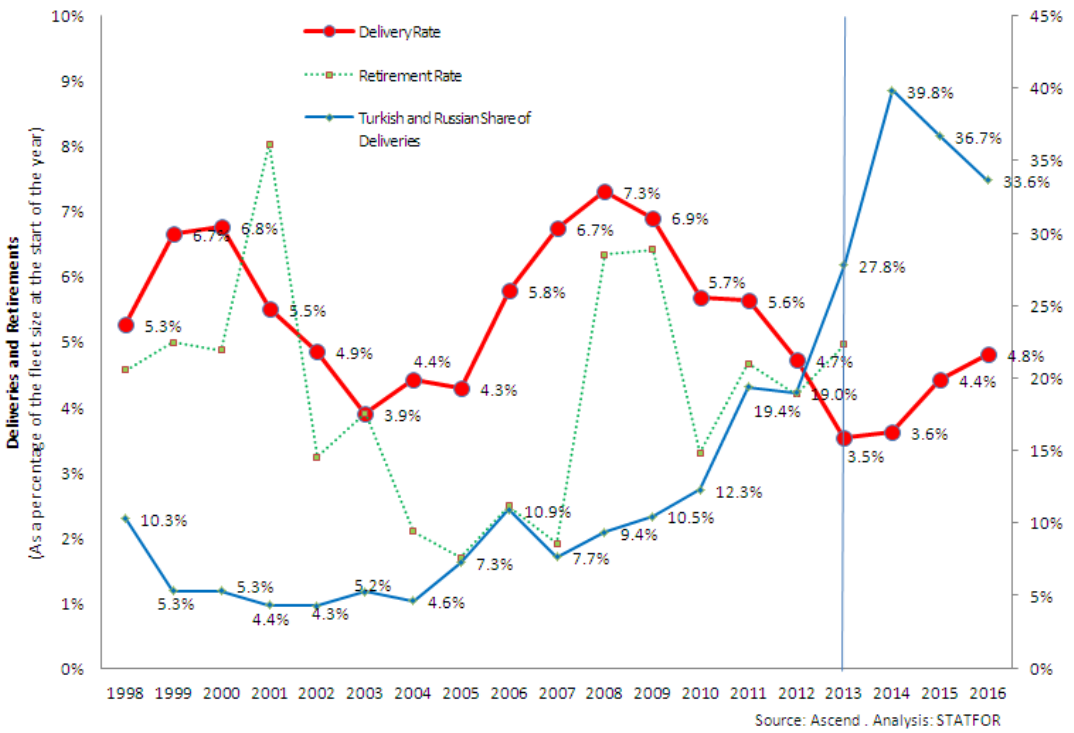
Figure 15. For the main flows in the ESRA08, the biggest declines have been for smaller aircraft[5].



[5] Flows are: I: Internal, AD: Arrivals and Departures from the zone, 0: Overflights, T: Total, TADI: Total excluding overflights.

Figure 16 shows the delivery and retirement rates per year for European carriers. Very low retirement rates (2%) have been observed during the 2004-2007 period during which traffic was expanding. Conversely, during the 2009 economic crisis, retirements rates were much higher (6-7%). During the last 3 years, the retirement rates increased at around 5%, higher than the 2% mentioned previously. This increase needs to be put in perspective with decreasing delivery rates, and 2013 did not see traffic expanding, this is an indication that airlines are still reducing capacity and cherry-picking their fleet to limit inefficient aircraft.

Figure 16. The Replacement Cycle for European Carriers: on the up (Russia included). Dated November 2013.



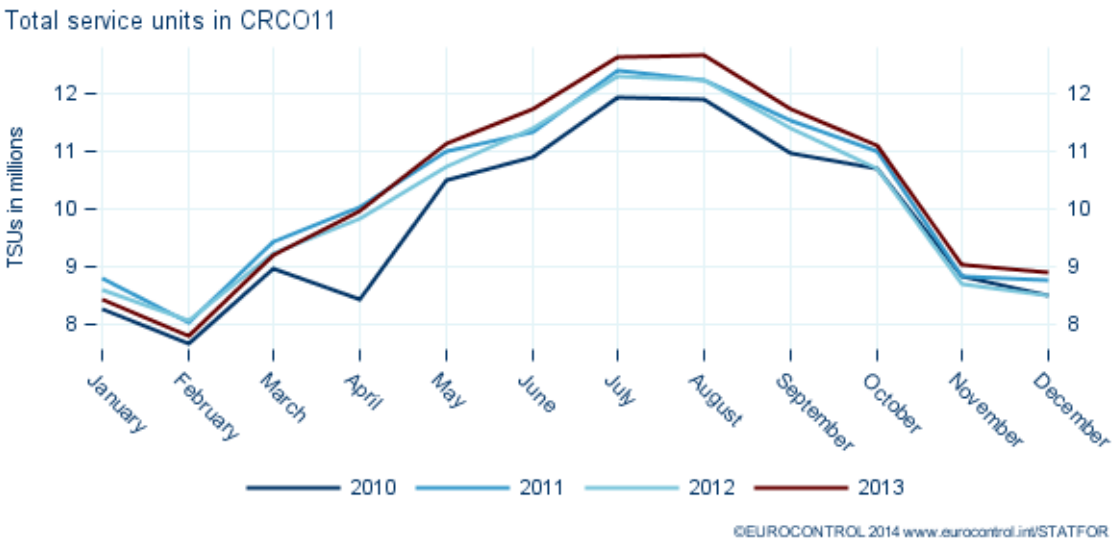
2.2 En-route Service Units

Figure 17 presents the monthly evolution of the total service units (TSU) recorded in the member states of EUROCONTROL in 2013 (CRCO11).

In 2013, 124.2 million total en-route service units (TSU) were produced. This was a 2.1% increase compared 2012 making 2013 the peak year (the previous one being 2011). From the beginning of the Summer 2013, en-route service units have been consistently growing beyond 2012 values, buoyed by stronger flights during the same Summer period.

The number of service units continues to grow more strongly than the number of flights. Part of the reason for that is illustrated in recent statistics on aircraft size, see Figure 15, and this is linked to the fact that organisations such as ACI-Europe continue to report growth in passenger numbers at airports. This illustrates how the average weight of aircraft has been increasing. That in turn increases the number of service units per flight. A second evolution, being the increase of average distance and duration per flight as a result of the gradual shift from short to long haul traffic, also helps to explain the gap between service units and flight growth.

Figure 17. Evolution of total service units recorded in CRCO11 area in 2010-2013.



3. FORECAST INPUTS AND ASSUMPTIONS

As mentioned earlier, economic growth and other factors strongly influence demand for air travel. This section describes in detail the many input assumptions, including those on economic growth. Section 4 describes how they influence the forecast. .

The improved forecast process described in Section 1 enabled the use of the most up-to-date forecast inputs and assumptions reflecting the main drivers and influential factors over the next 7 years: economic growth (Section 3.1), events and trends (Section 3.2), low-cost traffic development (Section 3.3), load factors evolution (Section 3.4), high-speed rail network development (Section 3.5), demographics and propensity to fly (Section 3.6) and airport capacity (Section 3.7).

As usual, there are three forecast scenarios, presented in this 7-year forecast:

- **High**: based on assumptions of strong economic growth, stronger growth of low-cost market segment, stronger effect of events (e.g. EU accession) and slower development of high-speed rail.; this stronger growth goes with weaker load factors[6];
- **Low**: based on assumptions of weak economic growth, weaker growth in low-cost market segment, weaker (and later) effect of events (e.g. EU accession) and quicker development of high-speed rail; this weaker growth means stronger load factors which are used to absorb the flight demand;
- **Base**: the most-likely of the 3 scenarios, representing an intermediate point between high and low.

The specific factors which are used in the scenarios are described below. The first three have the biggest effect on the forecast. Details of how they have this effect are in the methodology document (Ref. 2).

3.1 Economic growth

Forecasts of growth in gross domestic product (GDP) are provided by Oxford Economics Ltd (OE) for most of the States. For some States, when recommended by stakeholders, other GDP forecasts are used. In particular: official government forecast has been used for Germany and UK, International Monetary Fund (IMF) forecast for Ukraine and National Institute of Economic Research forecast for Sweden. All other States or region GDP forecast data in this report originate from the January update of the OE forecast.

The high- and low-growth scenarios are based on fixed offsets[7] from these forecasts. Following Stakeholders' comment on the asymmetric offset for smaller economies in early years (in the first draft: [-0.8% ; +1.5%]), a deep analysis of historical data has been conducted on GDP range (see Ref. 4). The analysis concluded that there is a lack of symmetry in the economic forecast errors of the smaller economies, which we were capturing right with asymmetric offsets. However, because of the lack of historic forecasts over a normal economic cycle, questioning the robustness of the conclusions; and, looking at actual traffic compared to the forecast, we acknowledged that some widening and balancing of the range for smaller economies would be desirable. We therefore now use the same offsets for the low case as are currently used for the high case: [-1.5% ; +1.5%] in the first years.

ECONOMIC FORECAST FOR EUROPE

Figure 18 illustrates how the economic outlook has changed for EU8 since the preparation of the September flight forecast (indicated as MTF13b in Figure 18: see Ref. 1). The economic outlook for EU has been revised slightly upwards in the first two years in the OE January release (indicated as MTF14 in Figure 18). From 2015 onwards, the economic forecast has not been changed.

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[6] See Section 3.4.

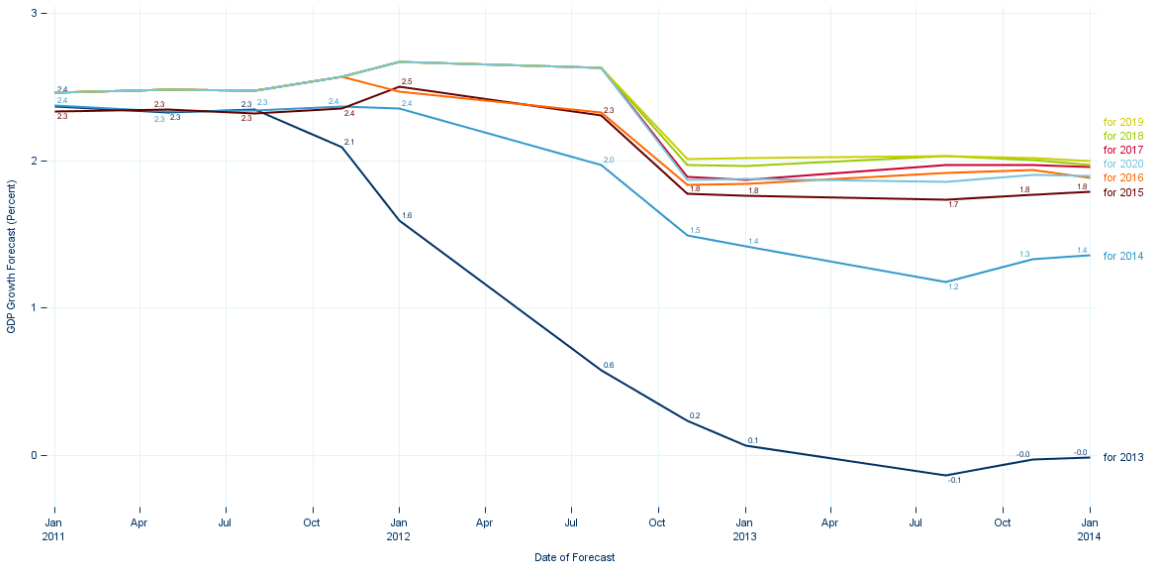
7 +1%, -1% for early years and big States, +1.5%, -1.5% for early years and small States, +0.5%, -0.5% for late years and big States, +0.8%, -0.8% for late years and small States.

8 The economic forecast for EU covers 27 States in the previous forecast and 28 States in this forecast.

Figure 18: EU GDP forecast remained mainly unchanged across the horizon since the OE August 2013 revision. **Note that MTF14 EU forecast refers to EU28 while previous forecast was referring to EU27.**

If the latest EU economic forecast update has not changed for 2013-2020, Figure 19 shows that, from late 2011, the consecutive updates of the EU economic forecasts have been successively revised downwards, more drastically for the short-term (2013 and 2014) than for later years. However, this sequence of downward revisions has been broken with two recent upward revisions.

Figure 19: After many downward revisions, we are now seeing upward revisions of economic growth forecasts for the EU. Note that latest update (January 14) refers to EU28 whereas previous forecasts were refering to EU27.



DETAILS PER STATE

The GDP forecasts are shown for specific states in Figure 20 and Figure 22. For all other states, the economic growth of the traffic region is used. Traffic regions are listed in Figure 53, and their economic growth in Figure 23.

Figure 20: GDP Growth by Traffic Zone

Source: 2005-2020 from Oxford Economics Ltd (Jan2014) or other official forecasts (eg. Government, IMF)
Comments: Real GDP Growth in Euro.
Units: Growth per year. Data last updated: 14/02/2014

	Actual			Base						
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Albania	2.0%	1.5%	1.8%	1.9%	2.7%	3.4%	3.4%	3.4%	3.4%	3.2%
Algeria	2.4%	2.5%	2.6%	3.5%	3.7%	3.8%	3.9%	3.8%	3.8%	3.2%
Armenia	4.7%	7.2%	4.8%	5.0%	5.2%	5.2%	5.2%	5.1%	5.0%	4.7%
Austria	2.9%	0.7%	0.3%	1.5%	1.9%	1.7%	1.6%	1.6%	1.6%	1.4%
Azerbaijan	0.1%	2.2%	5.3%	5.5%	5.2%	5.0%	5.0%	5.0%	5.0%	5.2%
Belarus	5.6%	1.5%	1.3%	3.0%	3.9%	4.3%	4.3%	4.3%	4.3%	4.2%
Belgium/Luxembourg	1.8%	-0.1%	0.2%	0.8%	1.3%	1.6%	1.7%	1.8%	1.8%	1.6%
Bosnia-Herzegovina	1.3%	-0.7%	0.8%	1.6%	3.3%	3.7%	3.9%	3.7%	3.5%	3.3%
Bulgaria	2.0%	0.8%	0.6%	2.9%	3.5%	4.1%	4.2%	4.4%	4.3%	3.5%
Canary Islands	0.1%	-1.6%	-1.2%	0.8%	1.2%	1.5%	2.0%	2.3%	2.3%	2.0%
Croatia	-0.3%	-1.9%	-0.7%	0.8%	2.1%	2.5%	2.5%	2.4%	2.4%	2.4%
Cyprus	0.4%	-2.4%	-5.4%	-4.0%	-0.5%	0.9%	1.0%	1.8%	2.5%	3.9%
Czech Republic	1.8%	-0.9%	-1.4%	2.2%	2.9%	3.0%	2.9%	2.8%	2.8%	2.5%
Denmark	1.1%	-0.4%	0.4%	1.7%	2.2%	2.0%	1.9%	1.8%	1.8%	1.7%
Egypt	1.8%	2.2%	2.1%	2.4%	4.0%	5.9%	5.6%	5.4%	5.2%	5.0%
Estonia	9.6%	3.9%	1.1%	2.5%	3.4%	3.8%	4.1%	4.0%	4.0%	3.8%
FYROM	3.0%	-0.3%	2.8%	2.8%	3.7%	4.2%	3.7%	3.5%	3.0%	2.9%
Finland	2.7%	-0.8%	-1.3%	0.7%	1.4%	1.6%	1.9%	2.1%	2.5%	2.5%
France	2.0%	0.0%	0.1%	0.5%	1.1%	1.3%	1.4%	1.5%	1.6%	1.6%
Georgia	7.1%	6.2%	2.6%	5.2%	5.6%	5.6%	5.4%	5.1%	4.7%	4.4%
Germany	3.4%	0.9%	0.5%	1.7%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%
Greece	-7.2%	-6.4%	-3.5%	-0.5%	1.7%	1.7%	2.1%	2.2%	2.3%	2.6%
Hungary	1.6%	-1.7%	1.2%	2.2%	1.7%	1.8%	2.0%	2.1%	2.0%	2.0%
Iceland	2.7%	1.4%	1.6%	2.0%	2.6%	2.8%	2.6%	2.5%	2.5%	2.5%
Ireland	2.2%	0.2%	-0.0%	1.8%	1.9%	2.5%	2.8%	3.1%	3.6%	3.7%
Italy	0.6%	-2.6%	-1.9%	0.3%	1.2%	1.4%	1.4%	1.4%	1.3%	1.1%
Latvia	5.3%	5.0%	4.4%	4.1%	5.2%	5.0%	4.8%	4.6%	4.5%	4.0%
Libya	3.0%	1.4%	1.0%	1.5%	3.5%	4.5%	4.0%	4.0%	4.0%	3.7%
Lisbon FIR	-1.3%	-3.2%	-1.5%	0.8%	1.1%	1.2%	1.2%	1.2%	1.2%	1.0%
Lithuania	5.9%	3.7%	3.1%	4.1%	5.5%	5.5%	5.3%	4.9%	4.4%	3.1%
Malta	1.6%	0.8%	2.1%	1.4%	1.5%	1.7%	1.8%	1.8%	1.8%	1.8%
Moldova	6.4%	-0.8%	6.0%	5.2%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%
Morocco	5.0%	2.7%	4.5%	4.2%	4.8%	4.9%	4.9%	4.8%	4.7%	4.5%
Netherlands	1.0%	-1.3%	-1.0%	0.3%	0.8%	1.2%	1.5%	1.7%	1.6%	1.7%
Norway	1.1%	2.8%	0.8%	2.1%	2.2%	2.4%	2.4%	2.4%	2.2%	1.9%
Poland	4.5%	2.0%	1.4%	2.8%	3.1%	3.5%	3.5%	3.5%	3.4%	2.8%
Romania	2.2%	0.4%	2.6%	1.9%	2.5%	2.7%	3.1%	3.2%	3.4%	3.5%
Russian Federation	4.3%	3.4%	1.2%	1.9%	2.9%	3.2%	3.3%	3.2%	3.4%	3.1%
Santa Maria FIR	-1.3%	-3.2%	-1.5%	0.8%	1.1%	1.2%	1.2%	1.2%	1.2%	1.0%
Serbia&Montenegro	1.6%	-1.7%	2.0%	1.7%	2.4%	2.7%	3.1%	3.1%	3.1%	3.1%
Slovakia	3.0%	1.8%	0.8%	2.0%	3.5%	3.7%	3.5%	3.2%	3.0%	2.6%
Slovenia	1.1%	-2.4%	-3.0%	-1.6%	0.8%	2.2%	3.0%	3.3%	3.1%	3.1%
Spain	0.1%	-1.6%	-1.2%	0.8%	1.2%	1.5%	2.0%	2.3%	2.3%	2.0%
Sweden	2.9%	1.3%	1.0%	2.5%	2.9%	2.9%	2.7%	2.3%	1.9%	2.0%
Switzerland	1.8%	1.0%	1.9%	2.1%	2.5%	2.1%	1.7%	1.7%	1.7%	1.7%
Tunisia	-1.9%	3.6%	2.7%	3.5%	4.7%	5.0%	5.0%	4.8%	4.7%	4.4%
Turkey	8.8%	2.2%	4.2%	3.3%	4.9%	5.0%	4.8%	4.7%	4.6%	4.4%
Turkmenistan	15%	11%	9.5%	10%	9.0%	8.0%	7.5%	7.0%	6.5%	5.3%

	Actual			Base						
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
UK	1.1%	0.3%	1.9%	2.7%	2.4%	2.4%	2.3%	2.3%	2.3%	2.3%
Ukraine	5.2%	0.2%	0.4%	1.5%	1.5%	1.6%	1.8%	2.0%	2.0%	2.0%
ESRA08	2.0%	-0.1%	0.4%	1.5%	1.9%	2.0%	2.1%	2.1%	2.1%	2.0%

When inspecting the data in more detail, most of the GDP forecasts per state remained unchanged by 2019. Figure 21 shows the growth differences by order of increasing change. Ukraine, because of the recent political events, has seen its economic development severely revised downwards. UK and Germany economic forecasts have also been revised downwards, but this is more due do a difference in data source (OE for MTF13b versus government forecasts for MTF14).

Figure 21: GDP Growth cumulative change per State by 2019 between this forecast (MTF14) and the previous one (MTF13b).

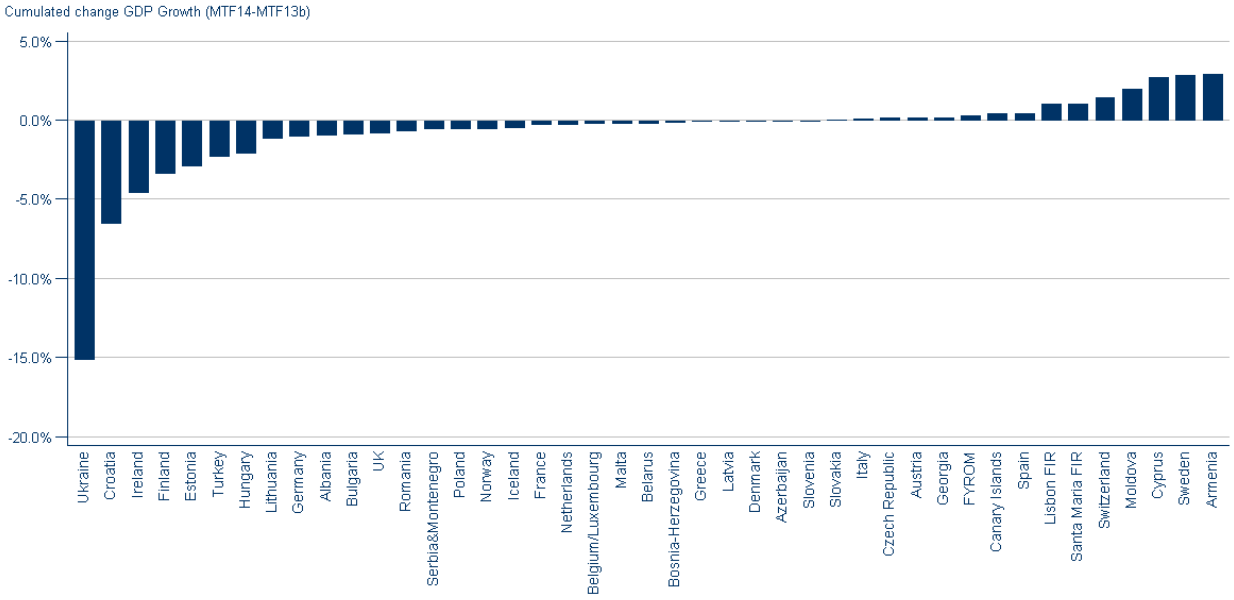


Figure 22: GDP Growth by Origin-Destination Zone

Source: 1993-2004 from STATFOR records. 2005 onwards from Oxford Economics Ltd, Jan14.
Comments: Real GDP Growth in Euro.
Units: Growth per year. Data last updated: 16/01/2014

	Actual			Base						
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Brazil	2.7%	1.0%	2.2%	1.7%	2.7%	3.2%	3.4%	3.4%	3.3%	3.3%
China	9.3%	7.7%	7.6%	7.3%	7.2%	7.2%	7.2%	7.1%	6.9%	6.6%
India	7.5%	5.1%	4.7%	4.9%	5.1%	6.0%	6.6%	6.9%	6.9%	6.2%
Israel	4.6%	3.4%	3.4%	3.6%	4.5%	4.5%	3.8%	3.6%	3.6%	3.7%
South Africa	3.6%	2.5%	1.8%	2.8%	3.5%	3.8%	4.0%	3.8%	3.6%	3.2%

Figure 23: GDP Growth by Traffic Region

Source: 2005 onwards updated from Oxford Economics Jan14
Comments: Real GDP Growth.
Units: Growth per year. Data last updated: 16/01/2014

	Actual			Base						
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Asia/Pacific	1.4%	2.3%	2.4%	2.6%	2.6%	2.4%	2.5%	2.4%	2.3%	2.2%
ESRA East	2.9%	0.6%	0.8%	2.2%	2.8%	3.1%	3.2%	3.2%	3.2%	2.8%
ESRA Mediterranean	1.1%	-1.8%	-0.7%	1.0%	1.9%	2.1%	2.3%	2.3%	2.3%	2.1%
ESRA North-West	2.1%	0.4%	0.7%	1.6%	1.8%	1.9%	1.9%	1.9%	1.9%	1.9%
Mid-Atlantic	3.6%	3.4%	1.6%	3.6%	4.0%	3.9%	3.9%	3.8%	3.7%	3.0%
Middle-East	5.6%	2.2%	2.9%	3.8%	4.4%	4.3%	4.2%	4.1%	4.0%	3.8%
North Atlantic	1.9%	2.7%	1.9%	3.0%	3.1%	3.0%	2.9%	2.8%	2.8%	2.6%
North-Africa	-7.7%	9.1%	1.8%	5.7%	6.1%	5.5%	5.1%	4.7%	4.6%	4.5%
Other Europe	4.3%	3.4%	1.6%	2.3%	3.2%	3.5%	3.6%	3.5%	3.6%	3.3%
South-Atlantic	7.1%	3.7%	4.1%	2.4%	3.7%	3.9%	3.9%	3.6%	3.4%	3.3%
Southern Africa	5.1%	5.4%	5.5%	6.0%	5.9%	5.6%	5.5%	5.4%	5.1%	5.1%

GDP multipliers or “elasticities” convert economic growth into growth in passenger. The multipliers per traffic region pairs have been fully recalibrated for this forecast (Ref. 3). Moreover, some additional multipliers between traffic zone pairs and traffic zone to traffic region have been included in the process. The preparation work of the GDP elasticities is described in a STATFOR document sent for review to the STATFOR User Group members (Ref. 3). Since the first draft review, two specific traffic zone-pair elasticities have been added (Germany-Bulgaria and Hungary-Germany) judged being more representative than the aggregate traffic region-pair elasticity values.

Figure 24: GDP Multipliers per Traffic Region Pair

Source: STATFOR Analysis and modelling
Comments: MTF14 Inputs. See Doc499 (Ref. 3) for discussion.
Units: Multiplier (Elasticity). Data last updated: 26/11/2013
Note: Elasticity reduced by 1.1 for all domestic flights within States in TRs: 60 61 62.

	ESRA North-West	ESRA Mediter	ESRA East	Other Europe	Asia/ Pacific	North Atlantic	Mid-Atlantic	South-Atlantic	North-Africa	Southern Africa	Middle-East
ESRA North-West	1.7	2.2	3.0	2.5	2.0	1.3	1.1	2.7	2.2	1.5	2.2
ESRA Mediterranean	2.2	3.1	3.4	2.5	2.5	1.7	1.4	3.3	2.6	3.0	3.2
ESRA East	3.0	3.4	2.9	2.7	3.5	.	.	.	3.1	.	2.6
Other Europe	2.5	2.5	2.7	3.4	2.8	.	.	.	3.5	.	3.5
Asia/Pacific	2.0	2.5	3.5	2.8	.	.	.	.	.	.	.
North Atlantic	1.3	1.7	.	.	.	.	.	.	0.9	.	.
Mid-Atlantic	1.1	1.4	.	.	.	.	.	.	.	.	.
South-Atlantic	2.7	3.3	.	.	.	.	.	.	.	.	.
North-Africa	2.2	2.6	3.1	3.5	.	0.9	.	.	3.2	2.1	2.8
Southern Africa	1.5	3.0	.	.	.	.	.	.	2.1	.	.
Middle-East	2.2	3.2	2.6	3.5	.	.	.	.	2.8	.	.

Figure 25: GDP Multipliers per Traffic Zone / Traffic Region Pair

Source: STATFOR Analysis and modelling
Comments: GDP elasticity per TZ2 flow
Units: Multiplier (Elasticity). Data last updated: 28/01/2014

	Austria	Belgium	Bulgaria	Denmark	France	Germany	Greece	Ireland	Italy	Lisbon FIR	Poland	Turkey	Ukraine
France	.	.	.	.	.	.	.	.	.	.	.	.	.
Germany	3.5	.	1.7	.	2.2	0.3	.	.	.	.	.	.	.
Greece	.	.	.	.	.	.	0.9	.	.	.	.	.	.
Hungary	.	.	.	.	.	2.5	.	.	.	.	.	.	.
Italy	.	1.6	.	.	.	.	.	.	1.5	.	.	.	.
Lisbon FIR	.	.	.	.	.	.	.	.	.	0.8	.	.	.
Norway	.	.	.	.	.	3.5	.	.	.	.	.	.	.
Poland	.	.	.	.	.	.	.	.	.	.	0.9	.	.
Spain	.	1.1	.	.	2.8	1.5	.	3.4	.	2.5	.	.	.
Switzerland	.	.	.	.	.	2.4	.	.	.	.	.	.	.
Tunisia	.	.	.	.	1.1	.	.	.	.	.	.	.	.
Turkey	.	.	.	.	.	.	.	.	.	.	.	3.0	.
UK	.	.	.	0.3	.	.	0.7	.	.	.	.	.	.
Ukraine	.	.	.	.	.	.	.	.	.	.	.	.	1.6

	Other Europe	Asia/Pacific	North Atlantic	Mid-Atlantic	Southern Africa	Middle-East
France	.	.	1.0	.	1.2	2.1
Germany	3.0	.	.	.	1.9	.
Spain	.	.	.	0.3	.	.
Turkey	.	.	.	.	.	3.4
UK	.	1.6	.	.	.	2.1

3.2 Events and Trends

The ‘events and trends’ assumptions consist of adjustments to arrival, departure, internal, overflight traffic and also en-route service units. The assumptions are listed in Figure 26, where they are expressed as 'cumulative' change: so a 1.01 figure in the year 2014 only would mean increase growth by 1% in 2014 and decrease it in 2015 (with a total cumulative effect of 0 over the full period of the forecast).

The effects considered are described in the remainder of this section.

EU accession: Croatia’s accession in July 2013 may boost its air traffic thanks to air transport and market liberalization. The impact is expected to be seen from 2014 and is factored in by an additional 3% growth as of July 2014, halving the following years. However, this 3% growth is a reduced effect compared to the previous cases (eg. impact for State joining EU was a peak of +11% for Romania and Bulgaria in the February 2006 forecast).

Open skies agreement: adjustment is made for Ukraine traffic following the Open Skies agreement signed with the EU which is likely to enter into force in Summer 2015. The impact is expected to be seen from April 2015 and is factored by an additional 5% growth in the first year, halving the following years. European Union (EU) and Ukraine signed (28-Nov-2013) a comprehensive air services agreement, which will lead towards a "Common Aviation Area" between the EU and Ukraine. No allowance in the input values has been made for developments in Ukraine since the start of February, though those events clearly influence the risk of implementation.

Airspace re-opening: The agreed date of KFOR sector re-opening for civil traffic is April 2014 and airlines are likely to change their flight patterns using the newly-available routes. Detailed simulations conducted at EUROCONTROL/NM/OPL based on a scenario “re-opening of the existing routes only, together with considering airspace environment changes to take place from AIRAC 1403” enabled assessment of the impact, not only on IFR movements (overflights) but also on service units (especially, assessing the impact of aircraft distances and weights). To cover the uncertainty on how much/when the traffic is likely to shift to the newly available routes, we developed a gradual scenario considering:

- a partial shift: 50% of the calculated shift (from the simulations) will happen, implying only a partial take-up of these routes,

- the (partial) shift will happen gradually over 7 months from April 2014 to October 2014, ie by the end of the Summer Schedule and will then continue in the future.

Based on this scenario, the KFOR sector re-opening impact has been translated into monthly adjustments in the flight and service units forecasts. The corresponding annual impact is summarised in Figure 26. The impact on flights has been calculated based on the percentage change in number of overflights whereas the impact on service units has been evaluated based on the percentage change in *average* service units *per flight* to avoid double counting. As far as overflights are concerned, Albania and Bulgaria are likely to lose traffic while other States such as Croatia, Greece, Serbia&Montenegro, Slovenia, FYROM and Bosnia-Herzegovina are expected to see more traffic. The impact in service units per flight depends on changes in both distances and weights and is not directly correlated to traffic changes.

Figure 26: Scenario for modelling the impact of KFOR sector re-opening in Apr 2014-Mar 2015.

Gradual scenario adjustments	Overflights		Average Service Units (per flight)	
	2014	2015	2014	2015
Albania	-4.5%	-8.7%	-1.5%	-2.5%
Bulgaria	-1.9%	-3.3%	1.4%	2.7%
Croatia	1.8%	4.1%	-4.5%	-9.2%
Greece	0.6%	1.2%	-1.1%	-2.2%
Slovenia	1.8%	3.7%	-0.2%	-0.2%
Bosnia-Herzegovina	4.5%	9.3%	4.5%	8.1%
Serbia&Montenegro	0.6%	1.4%	0.7%	1.5%
FYROM	17%	36.5%	4.2%	8.8%

Traffic patterns: the effects of the renewed civil unrest in Egypt, which started to have an effect on flights across Europe as of August 2013, have been included in this report. Important declines in arrival/departure traffic to/from Egypt (down by 50% in September 2013) have been foreseen until Summer 2014. A gradual recovery scenario is developed until September 2014 for Egyptian traffic. In parallel, more moderate drop in overflights for Turkey, Greece, Malta, FYROM, Cyprus, Bulgaria, Austria, Ukraine and some of the States along the Adriatic have been included.

A significant part of the flight demand to Egypt seems to have been transferred to the Spanish Islands since October. Arrival/Departure flow to/from Canaries is foreseen to be adjusted during Winter13/14 by 10%. Arrival/Departures flow to/from Morocco has been boosted (+7% for Winter13/14 and +4% for Summer14) as the recent trends show some increase between Western European States and Morocco; and this seems to be supported by the latest schedules.

Traffic flows to and from Russia have been lifted by 5% over Winter13/14 and by 10% over Summer14 following the recent acceleration in growth over last Summer, and to compensate for the fact that this was under-represented in the forecast.

The crisis in **Syria** continues to disrupt traffic patterns across South-Eastern Europe. We assume that the effects are now largely embedded in the actual data, so that we do not need to model *further* changes until a return to more normal flows is possible. Lacking any indications of when there might be a return to normality, we have made no assumptions about a restoration of pre-crisis traffic patterns. We present calculations of the effects of eventual restoration in Section4.6.

Failures of aircraft operators: some adjustments have been made either to model the recovery of traffic after an airline failure whose effects are already visible with a traffic decline or to model the impact of a failure and its recovery when it has happened recently (namely Aerosvit in Ukraine and BelleAir in Albania). Such events are modelled by short-term impacts (either upwards or downwards) on the concerned flows that are phased to change at each change of schedule to assume a return to previous traffic levels within the next 2 years as other companies respond.

Other adjustments:

Poland overflights, re-routed as a result of ATFCM capacity reduction after FDPS issues this Summer, have been adjusted using historical patterns (for the period August-September 2013).

The transition involved with the **new system** upgrades (from November 2013 to May 2014) ran smoothly and according to the plan (at the time of writing). During the first three months of the implementation, significant re-routings lowered the number of overflights in Poland and Belarus and resulted in additional overflights in Ukraine, Hungary, Denmark and Sweden airspaces. The overflight traffic in these States has been adjusted for the November-December 2013 period based on NM estimations.

EURO2016 impact has newly been introduced in this forecast. EURO2016, to be held in France from 10 June to 10 July 2016 (9 sites) is likely to have a small impact on traffic in France. In accordance with estimates from the DGAC/France, STATFOR derived expected impact based on the EURO2008 and EURO2012 historical data. French Arrivals, Departures and Domestic flows are expected to see 0.1% and 0.08% additional traffic respectively.

Airport slots information, from different sources (EUACA, Stakeholders) for coordinated airports has also been taken into account for Summer 2014: Greece where strong growth is expected particularly at island airports for Summer 2014. Overall, we estimated that extra arrivals/departures would boost the traffic by nearly 5% in 2014; Switzerland where slot requests at Geneva airport show higher than usual values for Summer 2014. This has been modelled by adjusting Swiss arrivals/departures by 1% overall for 2014.

Information coming from **airline Schedules** for June-September 2014, and confirmed by Stakeholders has also been factored in this forecast notably for Norway (Arrivals, Departures and Internal) and Serbia&Montenegro (Arrivals and Departures).

Not included:

No adjustments in this forecast concerning the potential EU accession of Ukraine, Iceland and Turkey which, for forecasting purposes, we assume will not happen before 2020.

No adjustments for other failures, namely like Solyom Hungarian Airways, FlyNonstop, Saga Airlines, Sky Airlines and FlyGeorgia.

No adjustment either for the Winter Olympics in Sochi Russia in February 2014, Summer Olympics in Brazil in August 2016, EURO2020 likely to be held all across Europe (the final list of hosting States is not yet known at the time of writing), nor for Football World cup in Russia in 2018.

The aviation industry has joined the **EU Emission Trading Scheme** (ETS) in 2012. In April 2013 the EU decided to temporarily suspend enforcement of the EU ETS requirements for flights operated in 2010, 2011, and 2012 from or to non-European countries, while continuing to apply the legislation to flights within and between countries in Europe. In autumn 2013, the International Civil Aviation Organization (ICAO) Assembly, mandated by the EU, reached an agreement to tackle aviation emissions globally. The ICAO Assembly agreed to develop by 2016 a global market-based mechanism addressing international aviation emissions and apply it by 2020. Considering the fact that the scope of the EU ETS application and its impact are currently reduced, the fact that carbon prices are now very low (around 5 euros/tonne, see Ref. 5), we have estimated that its impact on flight demand is small relative to the uncertainty within the 7-year horizon of this forecast. This component has thus been de-activated.

Figure 27: Events and Trends assumptions by Traffic Zone

Source: STATFOR analysis and modelling
Comments: Consolidation includes: trends from STF and future events such as EU Accession, Open skies agreement
Units: Growth index (Baseline Year=1.0). Data last updated: 14/02/2014

			2014	2015	2016	2017	2018	2019	2020
Albania	Total: Arr/Dep	H	0.970	0.970	0.970	0.970	0.970	0.970	0.970
		B	0.939	0.939	0.939	0.939	0.939	0.939	0.939
		L	0.910	0.910	0.910	0.910	0.910	0.910	0.910
Canary Islands	Total: Arr/Dep	H	1.060	1.060	1.060	1.060	1.060	1.060	1.060
		B	1.042	1.042	1.042	1.042	1.042	1.042	1.042
		L	1.020	1.020	1.020	1.020	1.020	1.020	1.020
Croatia	Total: Arr/Dep	H	1.045	1.023	1.012	1.005	1.003	1.003	1.003
		B	1.030	1.015	1.008	1.003	1.002	1.002	1.002
		L	1.015	1.008	1.004	1.002	1.001	1.001	1.001
Egypt	Total: Arr/Dep	H	0.925	0.925	0.925	0.925	0.925	0.925	0.925
		B	0.913	0.913	0.913	0.913	0.913	0.913	0.913
		L	0.900	0.900	0.900	0.900	0.900	0.900	0.900
France	Total: Internal	H	.	.	1.002	.	.	.	.
		B	.	.	1.001	.	.	.	.
		L	.	.	1.000	.	.	.	.
	Total: Arr/Dep	H	.	.	1.002	.	.	.	.
		B	.	.	1.001	.	.	.	.
		L	.	.	1.001	.	.	.	.
Greece	Total: Arr/Dep	H	1.060	1.060	1.060	1.060	1.060	1.060	1.060
		B	1.048	1.048	1.048	1.048	1.048	1.048	1.048
		L	1.036	1.036	1.036	1.036	1.036	1.036	1.036
Morocco	Total: Arr/Dep	H	1.075	1.075	1.075	1.075	1.075	1.075	1.075
		B	1.053	1.053	1.053	1.053	1.053	1.053	1.053
		L	1.025	1.025	1.025	1.025	1.025	1.025	1.025
Norway	Total: Internal	H	1.010	1.010	1.010	1.010	1.010	1.010	1.010
		B	1.008	1.008	1.008	1.008	1.008	1.008	1.008
		L	1.006	1.006	1.006	1.006	1.006	1.006	1.006
	Total: Arr/Dep	H	1.021	1.021	1.021	1.021	1.021	1.021	1.021
		B	1.017	1.017	1.017	1.017	1.017	1.017	1.017
		L	1.013	1.013	1.013	1.013	1.013	1.013	1.013
Russian Federation	Total: Arr/Dep	H	1.100	1.100	1.100	1.100	1.100	1.100	1.100
		B	1.079	1.079	1.079	1.079	1.079	1.079	1.079
		L	1.050	1.050	1.050	1.050	1.050	1.050	1.050
Serbia&Montenegro	Total: Arr/Dep	H	1.016	1.016	1.016	1.016	1.016	1.016	1.016
		B	1.013	1.013	1.013	1.013	1.013	1.013	1.013
		L	1.010	1.010	1.010	1.010	1.010	1.010	1.010
Switzerland	Total: Arr/Dep	H	1.013	1.013	1.013	1.013	1.013	1.013	1.013
		B	1.010	1.010	1.010	1.010	1.010	1.010	1.010
		L	1.008	1.008	1.008	1.008	1.008	1.008	1.008
Ukraine	Total: Internal	H	1.012	1.002	1.002	1.002	1.002	1.002	1.002
		B	1.012	1.002	1.002	1.002	1.002	1.002	1.002
		L	1.012	1.002	1.002	1.002	1.002	1.002	1.002
	Total: Arr/Dep	H	1.012	1.047	1.050	1.030	1.020	1.016	1.014
		B	1.012	1.027	1.039	1.019	1.009	1.006	1.004
		L	1.012	1.017	1.030	1.010	1.005	1.002	1.001

3.3 Low-Cost effects

The additional flight movements generated by low-cost carrier growth are represented by the input assumptions given in Figure 28. The figure shows the actual and future low-cost market share for each scenario, and the additional growth of total traffic over the horizon that this low-cost growth will generate. Following Stakeholder comments, low cost market share growth forecast has been revised downwards across the seven years for Germany, Bulgaria, Romania and upwards for Hungary and Slovakia (using the Czech Republic forecasts as an analogy).

Figure 28: Low-Cost effects by Traffic Zone

Source: STATFOR Analysis and modelling
Comments: Represents additional growth for Low-Cost, but only the baseline year is a true statistic for low-co
Units: Percentage Additional Growth Due to Low-Cost Growth. Data last updated: 13/02/2014

	Actual	Low	Base	High
	2013	2020	2020	2020
Albania	57%	56%	59%	61%
Armenia	6%	6%	7%	8%
Austria	23%	22%	27%	33%
Azerbaijan	3%	3%	5%	7%
Belarus	2%	2%	4%	7%
Belgium/Luxembourg	19%	18%	23%	24%
Bosnia-Herzegovina	18%	17%	22%	28%
Bulgaria	21%	20%	25%	31%
Canary Islands	46%	45%	50%	54%
Croatia	28%	27%	32%	38%
Cyprus	30%	29%	38%	48%
Czech Republic	32%	31%	40%	50%
Denmark	22%	21%	26%	27%
Estonia	21%	20%	29%	39%
FYROM	38%	37%	41%	46%
Finland	14%	13%	19%	24%
France	23%	22%	27%	28%
Georgia	17%	17%	20%	25%
Germany	32%	32%	33%	33%
Greece	28%	27%	32%	33%
Hungary	42%	41%	48%	56%
Iceland	9%	8%	13%	18%
Ireland	50%	49%	54%	59%
Italy	41%	38%	43%	45%
Latvia	82%	55%	65%	82%
Lisbon FIR	34%	33%	38%	43%
Lithuania	43%	42%	47%	52%
Malta	35%	34%	43%	53%
Moldova	8%	8%	10%	13%
Morocco	24%	22%	36%	51%
Netherlands	26%	25%	30%	31%
Norway	24%	23%	28%	29%
Poland	34%	33%	44%	57%
Romania	22%	21%	26%	32%
Santa Maria FIR	1%	1%	3%	6%
Serbia&Montenegro	12%	11%	17%	22%
Slovakia	32%	31%	39%	48%
Slovenia	5%	4%	13%	23%
Spain	56%	56%	58%	58%
Sweden	21%	21%	24%	25%
Switzerland	19%	18%	23%	24%

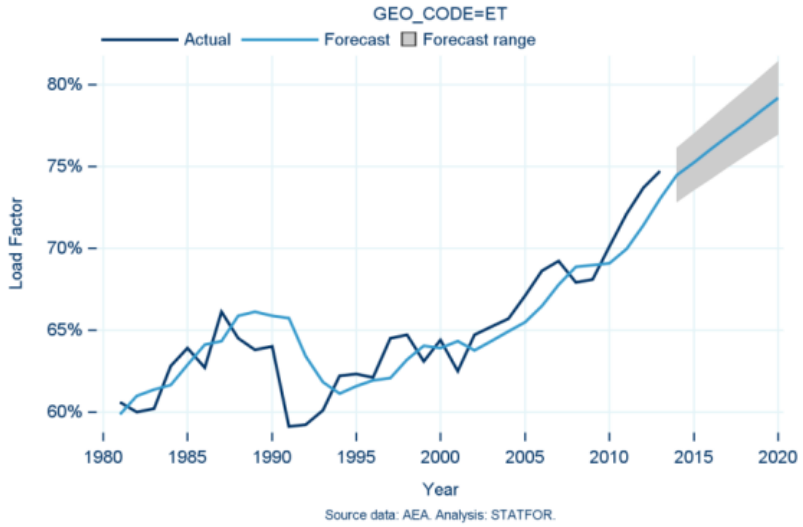
	Actual	Low	Base	High
	2013	2020	2020	2020
Turkey	31%	30%	35%	36%
UK	48%	47%	49%	51%
Ukraine	8%	7%	13%	19%

3.4 Load Factors

Assumptions about the development of load factors are based on data from the Association of European Airlines (AEA). Forecasts are been made using the recent trends shown in the annual data. These are be used as inputs to the forecast, and are shown in Figure 30.

The load factors forecast method (and results), developed by STATFOR, has been updated in this report, compared to the September 2013 forecast. On top of the weekly load factors, we now load annual data from AEA as well as available seat kilometres (ASK). The forecast estimate for the baseline year (2013) is based on the monthly load factors data, with months weighted by ASK. The forecasting method used is of exponential smoothing type. In previous reports, the trend was much slower (usage of linear model) which, in our opinion, was under-representing the likely increase, even in the early years. The key European forecast is shown on Figure 29. See Ref. 2 for details of the methodology.

Figure 29: Load Factors forecast for Europe approach 80% by 2020 in the base scenario.



The load factors forecast is based on the previous described increasing trend explained above but it is combined with assumptions about maximum limits that can be maintained by the airlines in the medium-term. The base load factors in 2020 are relatively high, between 70% and 90% depending on the flow and scenario. In the previous forecasts, they were capped at 75%-85% (depending on the hauls), but their current increasing trend implies that an average of 80% is feasible for short-hauls while an average of 90% is envisaged for long-hauls.

It could be argued that load factors for other market segments (eg regional or low-cost carriers) are different from those provided by the AEA. In the model, it is relative change from the start to the end of the forecast that is most important (see Ref. 2). We assume that the relative changes in load factors for traditional carriers will be similar for other segments.

Figure 30: Load factors by Traffic Region

Source: Actual: AEA (STAR13). Forecast: STATFOR analysis and modelling.
Comments: 2013 estimated on weighted avg (ASK), 2014- exponential smoothing projection.
Units: Percentage Load Factor for this Traffic Region. Data last updated: 29/01/2014

	Actual								Low	Base	High
	2006	2007	2008	2009	2010	2011	2012	2013	2020	2020	2020
Asia/Pacific	80.7%	83.2%	80.9%	80.4%	83.4%	79.9%	81.4%	81.8%	87.2%	84.6%	82.0%
ESRA East	68.6%	69.2%	67.9%	68.1%	70.1%	72.1%	73.7%	74.7%	80.0%	79.2%	76.9%
ESRA Mediterranean	68.6%	69.2%	67.9%	68.1%	70.1%	72.1%	73.7%	74.7%	80.0%	79.2%	76.9%
ESRA North-West	68.6%	69.2%	67.9%	68.1%	70.1%	72.1%	73.7%	74.7%	80.0%	79.2%	76.9%
Mid-Atlantic	82.1%	84.4%	83.4%	81.7%	82.7%	82.4%	83.9%	84.1%	89.5%	87.5%	85.6%
Middle-East	70.9%	73.8%	74.0%	69.5%	71.5%	70.1%	71.6%	73.1%	78.3%	75.1%	72.0%
North Atlantic	81.5%	82.2%	81.4%	82.7%	84.0%	83.1%	84.8%	85.6%	90.0%	89.3%	87.1%
North-Africa	68.5%	69.9%	70.9%	68.4%	70.7%	68.0%	72.4%	71.6%	76.4%	73.6%	70.9%
Other Europe	68.6%	69.2%	67.9%	68.1%	70.1%	72.1%	73.7%	74.7%	80.0%	79.2%	76.9%
South-Atlantic	86.3%	85.0%	81.1%	80.2%	85.0%	85.0%	84.7%	85.1%	90.0%	89.6%	86.0%
Southern Africa	78.0%	79.2%	79.1%	77.7%	77.3%	77.7%	78.6%	79.8%	83.6%	81.6%	79.6%

3.5 High-Speed Train Network

The high-speed train (HST) travel times have been updated for this 7-year forecast. A review of current state of projects has been conducted; the principal source of the HST data being the International Union of Railways (UIC), the European Commission (TEN-T) and local websites for specific projects (e.g. Réseau Ferré de France) or Stakeholder-supplied information (DGAC France and DHMI Turkey). The rail projects listed here are only the ones for which an improvement in travel time will be found across the forecast horizon. The estimated impact of HST development on air traffic is addressed in Section 4.4.

Figure 31: High-Speed Train Times that change during the forecast

Source: Actuals from on-line timetables. Plans from UIC, TEN-T and elsewhere.
Comments: HST projects to be finalised 2013-2020.
Units: Travel time (minutes). Data last updated: 13/02/2014 Distances estimated from airport locations.

			Distance	Rail Time (mins)						Speed (km/h)					
			Km	2013	2014	2016	2017	2018	2020	2013	2014	2016	2017	2018	2020
Amsterdam	London	B	359	277	.	240	.	.	.	78	.	90	.	.	.
Ankara	Sivas	B	354	720	.	.	120	.	.	30	.	.	177	.	.
	Bursa	B	318	240	.	.	135	.	.	79	.	.	141	.	.
	Izmir	B	519	900	.	.	.	210	.	35	.	.	.	148	.
Brussels	Luxembourg	B	176	135	.	.	90	.	.	78	.	.	117	.	.
	Strasbourg	B	337	270	.	.	180	.	.	75	.	.	112	.	.
Erfurt	Leipzig	B	102	72	.	.	39	.	.	85	.	.	156	.	.
	Munchen	B	307	300	.	.	.	150	.	61	.	.	.	123	.
Frankfurt	Bern	B	348	230	200	.	.	.	.	91	105	.	.	.	.
	Bale Mulh.	B	274	170	140	.	.	.	.	97	118	.	.	.	.
	London	B	641	343	.	300	.	.	.	112	.	128	.	.	.
	Paris	B	444	230	.	.	215	.	.	116	.	.	124	.	.
	Stuttgart	B	154	70	.	.	.	53	.	132	.	.	.	175	.
Istanbul	Ankara	B	335	330	180	.	.	.	.	61	112	.	.	.	.
	Konya	B	454	745	205	.	.	.	.	37	133	.	.	.	.
	Sivas	B	682	1260	.	.	300	.	.	32	.	.	136	.	.
	Bursa	B	84	240	.	.	105	.	.	21	.	.	48	.	.
Karlsruhe	Bern	B	239	180	150	.	.	.	.	80	96	.	.	.	.
	Bale Mulh.	B	166	100	.	.	.	.	69	100	.	.	.	.	144
Koln/Bonn	Bale Mulh.	B	361	230	200	.	.	.	.	94	108	.	.	.	.
	London	B	516	251	.	240	.	.	.	123	.	129	.	.	.

			Distance	Rail Time (mins)						Speed (km/h)					
			Km	2013	2014	2016	2017	2018	2020	2013	2014	2016	2017	2018	2020
Leipzig	Frankfurt	B	310	270	.	.	150	.	.	69	.	.	124	.	.
	Munchen	B	354	345	.	.	.	190	.	62	.	.	.	112	.
Madrid	Alicante	B	361	140	120	.	.	.	.	155	180	.	.	.	.
Munchen	Berlin	B	481	360	.	.	.	245	.	80	.	.	.	118	.
	Zurich	B	260	250	.	.	.	.	195	62	.	.	.	.	80
Paris	Barcelona	B	824	480	385	.	.	.	.	103	128	.	.	.	.
	Bordeaux	B	519	182	.	.	125	.	.	171	.	.	249	.	.
	Brest	B	511	250	.	.	180	.	.	123	.	.	170	.	.
	Madrid	B	1062	810	595	.	.	.	.	79	107	.	.	.	.
	Munchen	B	675	360	.	.	330	.	.	113	.	.	123	.	.
	Rennes	B	326	127	.	.	90	.	.	154	.	.	217	.	.
	Stuttgart	B	490	220	.	.	190	.	.	134	.	.	155	.	.
Perpignan	Barcelona	B	158	165	76	.	.	.	.	57	125	.	.	.	.
	Madrid	B	605	500	290	.	.	.	.	73	125	.	.	.	.
Strasbourg	Luxembourg	B	162	130	.	.	85	.	.	75	.	.	114	.	.
	Lille	B	405	240	.	.	150	.	.	101	.	.	162	.	.
	Paris	B	381	140	.	110	.	.	.	163	.	208	.	.	.
Tours	Bordeaux	B	314	155	.	.	.	90	.	122	.	.	.	210	.
Zurich	Milan	B	221	220	.	.	.	.	160	60	.	.	.	.	83

Figure 32: High-speed train city-pairs (baseline scenario) that are expected to see an improvement in travel time by 2020.

3.6 Demographics

The demography model combines the evolution of population age structure with the age structure of the passengers. The population data are based on the 2012 United Nations (UN) population forecast update which is the last available. The input data are shown at traffic zone level in Figure 33 and at traffic region level in

Figure 34.

Figure 33: Population distribution per Traffic Zone

Source: United Nations, Department of Economic and Social Affairs, Population Division: World Population Prospects, the 2012 Revision. New York, 2013 (http://esa.un.org/wpp/Excel-Data/population.htm)
Comments: Only the population age distributions, not numbers (in 000s) are used.
Units: Percentage of TZ population in this age range. Data last updated: 23/10/2013

	Actual										Base									
	2010										2020									
	Age 0 to 14	Age 15 to 19	Age 20 to 24	Age 25 to 34	Age 35 to 44	Age 45 to 54	Age 55 to 59	Age 60 to 64	Age 65 to 74	Age 75+	Age 0 to 14	Age 15 to 19	Age 20 to 24	Age 25 to 34	Age 35 to 44	Age 45 to 54	Age 55 to 59	Age 60 to 64	Age 65 to 74	Age 75+
Albania	23%	8.9%	9.8%	15%	13%	13%	4.5%	3.6%	6.2%	3.4%	18%	6.9%	8.5%	16%	12%	12%	6.2%	6.2%	8.0%	5.1%
Armenia	20%	8.6%	9.9%	15%	11%	15%	5.7%	3.5%	6.0%	5.1%	20%	6.2%	6.1%	17%	15%	11%	6.9%	6.2%	6.7%	5.0%
Austria	15%	6.0%	6.2%	13%	15%	16%	5.9%	5.5%	9.6%	8.0%	15%	5.0%	5.7%	13%	13%	15%	7.9%	6.6%	9.8%	9.9%
Azerbaijan	21%	9.9%	11%	16%	14%	15%	4.4%	2.3%	3.7%	2.8%	22%	6.2%	7.2%	19%	15%	12%	6.6%	5.0%	4.5%	2.3%
Belarus	15%	6.3%	8.2%	16%	14%	16%	6.5%	4.9%	7.5%	6.1%	17%	4.9%	5.0%	15%	15%	14%	7.5%	7.2%	9.2%	5.6%
Belgium/Luxembourg	17%	5.8%	6.0%	13%	14%	15%	6.4%	5.9%	8.6%	8.7%	17%	5.5%	5.5%	12%	13%	13%	7.0%	6.5%	11%	8.9%
Bosnia-Herzegovina	15%	6.0%	7.8%	15%	15%	16%	6.9%	5.2%	8.3%	5.8%	14%	6.0%	7.2%	15%	13%	14%	7.7%	6.5%	9.3%	8.0%
Bulgaria	14%	5.3%	6.7%	15%	14%	14%	7.0%	6.9%	9.8%	7.7%	15%	4.6%	4.5%	12%	15%	15%	6.7%	6.8%	13%	8.6%
Canary Islands	15%	4.8%	5.5%	16%	17%	14%	5.6%	5.3%	8.3%	8.7%	15%	4.9%	4.6%	11%	16%	16%	7.2%	6.2%	9.8%	9.6%
Croatia	15%	5.9%	6.3%	14%	14%	15%	7.1%	6.1%	9.5%	7.7%	15%	4.9%	5.7%	12%	14%	13%	7.2%	7.2%	12%	8.9%
Cyprus	18%	7.6%	8.5%	17%	14%	13%	5.5%	4.7%	6.8%	4.7%	16%	5.6%	7.2%	16%	16%	13%	6.0%	5.6%	8.4%	5.9%
Czech Republic	14%	6.1%	6.6%	17%	14%	13%	7.4%	7.0%	8.1%	6.7%	16%	4.5%	4.5%	13%	16%	14%	6.0%	5.9%	12%	7.7%
Denmark	18%	6.4%	6.0%	12%	14%	14%	6.2%	6.8%	9.5%	7.0%	17%	5.9%	6.3%	13%	12%	14%	6.8%	6.0%	11%	8.8%
Estonia	15%	5.7%	8.0%	15%	13%	14%	6.5%	5.6%	9.3%	7.9%	17%	5.1%	4.9%	13%	14%	14%	6.4%	6.4%	11%	8.8%
FYROM	18%	7.4%	7.8%	16%	15%	14%	6.3%	4.9%	7.3%	4.5%	16%	5.7%	6.2%	15%	15%	14%	6.7%	6.3%	9.5%	5.3%
Finland	17%	6.2%	6.1%	13%	12%	14%	7.2%	7.5%	9.2%	8.1%	17%	5.3%	5.6%	12%	13%	12%	6.6%	6.4%	13%	9.5%
France	18%	6.0%	6.4%	13%	14%	14%	6.5%	6.2%	7.9%	8.9%	18%	6.0%	6.1%	12%	12%	13%	6.4%	5.9%	11%	9.3%
Georgia	17%	7.8%	8.5%	14%	13%	15%	6.1%	4.8%	8.2%	6.1%	19%	5.2%	5.0%	15%	13%	12%	7.5%	6.8%	9.3%	6.7%
Germany	13%	5.1%	6.1%	12%	15%	16%	6.6%	5.6%	11%	8.9%	13%	4.6%	5.1%	12%	12%	15%	8.5%	7.1%	11%	12%
Greece	15%	4.9%	5.6%	15%	16%	14%	6.2%	5.8%	9.5%	9.1%	15%	4.7%	4.9%	11%	15%	15%	6.8%	6.6%	11%	10%
Hungary	15%	6.0%	6.5%	15%	15%	13%	7.4%	6.0%	9.2%	7.3%	15%	5.0%	5.3%	13%	16%	14%	5.5%	6.4%	11%	8.3%
Iceland	21%	7.5%	7.2%	15%	13%	14%	5.8%	4.8%	6.2%	5.8%	20%	6.2%	6.5%	14%	14%	12%	6.2%	5.8%	8.8%	6.3%
Ireland	21%	6.2%	6.8%	16%	15%	13%	5.4%	4.8%	6.6%	5.1%	21%	6.4%	6.2%	12%	16%	13%	5.9%	5.1%	8.3%	5.8%
Italy	14%	4.9%	5.1%	13%	16%	14%	6.1%	6.2%	10%	10%	14%	4.8%	5.0%	11%	13%	16%	7.6%	6.4%	11%	12%
Latvia	14%	5.9%	8.3%	15%	14%	14%	6.3%	5.1%	10%	7.8%	17%	4.8%	4.5%	14%	14%	14%	6.9%	6.6%	10%	8.9%
Lisbon FIR	15%	5.2%	5.6%	15%	15%	14%	6.3%	5.7%	9.5%	8.4%	13%	5.3%	5.2%	11%	15%	15%	7.2%	6.6%	11%	10%
Lithuania	15%	7.0%	8.2%	14%	14%	15%	5.8%	5.0%	8.9%	7.2%	17%	4.7%	5.5%	15%	14%	14%	7.2%	6.4%	8.8%	7.4%
Malta	15%	6.7%	7.5%	15%	12%	15%	7.3%	7.3%	8.2%	5.8%	14%	4.8%	6.0%	14%	15%	12%	7.2%	7.2%	13%	8.0%
Moldova	17%	8.1%	9.9%	15%	12%	15%	6.9%	4.8%	6.7%	4.4%	18%	4.8%	5.3%	18%	15%	12%	7.1%	6.8%	9.1%	4.5%
Netherlands	18%	6.1%	6.0%	12%	15%	15%	6.6%	6.5%	8.4%	6.9%	16%	6.0%	5.9%	12%	12%	14%	7.4%	6.6%	12%	8.5%
Norway	19%	6.8%	6.2%	13%	15%	13%	5.9%	6.5%	7.4%	7.3%	19%	6.0%	6.4%	13%	13%	14%	6.2%	5.7%	9.9%	7.5%
Poland	15%	6.5%	7.8%	17%	13%	14%	7.7%	5.6%	7.1%	6.5%	16%	4.6%	5.2%	14%	16%	13%	6.1%	7.1%	11%	6.8%
Romania	15%	5.6%	7.9%	16%	16%	12%	6.7%	5.4%	8.5%	6.4%	15%	5.0%	5.1%	14%	16%	16%	5.4%	6.5%	10%	7.0%
Russian Federation	15%	5.7%	8.6%	16%	13%	16%	7.0%	5.0%	7.4%	5.4%	17%	5.1%	4.8%	15%	16%	13%	7.1%	6.9%	9.4%	5.4%
Santa Maria FIR	15%	5.2%	5.6%	15%	15%	14%	6.3%	5.7%	9.5%	8.4%	13%	5.3%	5.2%	11%	15%	15%	7.2%	6.6%	11%	10%
Serbia&Montenegro	18%	6.6%	7.3%	15%	14%	13%	7.1%	5.3%	7.8%	6.5%	15%	5.8%	6.0%	14%	15%	14%	6.4%	6.6%	11%	6.1%
Slovakia	15%	6.8%	7.8%	17%	14%	14%	7.1%	5.2%	6.9%	5.1%	16%	4.7%	5.2%	14%	17%	14%	6.5%	6.6%	10%	5.8%
Slovenia	14%	5.1%	6.3%	15%	15%	15%	7.4%	6.0%	8.9%	7.6%	15%	4.5%	4.7%	12%	15%	14%	7.2%	7.0%	11%	9.1%
Spain	15%	4.8%	5.5%	16%	17%	14%	5.6%	5.3%	8.3%	8.7%	15%	4.9%	4.6%	11%	16%	16%	7.2%	6.2%	9.8%	9.6%
Sweden	17%	6.8%	6.6%	12%	14%	13%	6.1%	6.7%	9.7%	8.5%	18%	5.5%	5.4%	14%	12%	13%	6.1%	5.6%	11%	9.7%
Switzerland	15%	6.0%	5.9%	13%	16%	15%	6.2%	6.1%	8.6%	8.0%	15%	4.9%	5.6%	14%	14%	14%	7.2%	6.0%	9.8%	9.2%
Turkey	26%	9.0%	8.8%	17%	14%	11%	4.2%	3.1%	3.8%	2.1%	23%	8.0%	8.0%	16%	15%	12%	4.9%	4.2%	5.7%	3.3%
UK	17%	6.3%	6.8%	13%	14%	14%	5.8%	6.1%	8.7%	7.9%	18%	5.4%	5.8%	13%	13%	14%	6.8%	5.8%	10%	8.8%
Ukraine	14%	6.1%	7.9%	16%	14%	15%	6.6%	5.3%	9.3%	6.2%	16%	4.3%	4.8%	15%	16%	13%	7.2%	6.5%	9.8%	6.8%

Figure 34: Population distribution per Traffic Region

Source: United Nations, Department of Economic and Social Affairs, Population Division: World Population Prospects, the 2012 Revision. New York, 2013 (http://esa.un.org/wpp/Excel-Data/population.htm)
Comments: Only the population age distributions, not numbers (in 000s) are used.
Units: Percentage of TR population in this age range. Data last updated: 23/10/2013

	Actual										Base									
	2010										2020									
	Age 0 to 14	Age 15 to 19	Age 20 to 24	Age 25 to 34	Age 35 to 44	Age 45 to 54	Age 55 to 59	Age 60 to 64	Age 65 to 74	Age 75+	Age 0 to 14	Age 15 to 19	Age 20 to 24	Age 25 to 34	Age 35 to 44	Age 45 to 54	Age 55 to 59	Age 60 to 64	Age 65 to 74	Age 75+
Asia/Pacific	21%	8.0%	8.6%	15%	17%	13%	5.5%	4.0%	5.3%	3.3%	20%	6.2%	6.4%	16%	14%	15%	6.3%	5.0%	7.4%	4.1%
ESRA East	15%	6.0%	8.1%	16%	14%	15%	7.0%	5.3%	7.9%	5.9%	17%	4.8%	4.9%	15%	16%	13%	6.8%	6.8%	10%	6.2%
ESRA Mediterranean	15%	5.2%	5.7%	14%	16%	14%	6.1%	5.7%	9.2%	8.8%	15%	5.0%	5.1%	11%	14%	16%	7.2%	6.4%	11%	10%
ESRA North-West	16%	5.6%	6.2%	12%	14%	15%	6.5%	5.9%	9.7%	8.6%	15%	5.3%	5.6%	12%	12%	14%	7.5%	6.5%	11%	10%
Mid-Atlantic	30%	9.8%	8.9%	15%	13%	9.9%	3.7%	2.7%	3.9%	2.6%	26%	8.8%	8.7%	16%	13%	11%	4.4%	3.5%	4.9%	3.2%
Middle-East	32%	9.6%	9.3%	17%	13%	9.1%	3.3%	2.3%	3.0%	1.8%	28%	8.4%	8.3%	17%	15%	10%	3.8%	3.0%	3.9%	2.1%
North Atlantic	20%	6.9%	7.0%	14%	13%	15%	6.3%	5.4%	7.0%	6.2%	19%	6.3%	6.5%	14%	13%	12%	6.6%	6.3%	9.8%	6.9%
North-Africa	32%	9.9%	9.9%	17%	12%	9.2%	3.4%	2.6%	3.2%	1.6%	31%	8.5%	8.1%	16%	14%	9.8%	4.0%	3.2%	3.9%	1.8%
Other Europe	15%	5.8%	8.6%	16%	14%	16%	7.0%	5.0%	7.5%	5.4%	17%	5.0%	4.9%	15%	16%	13%	7.1%	6.8%	9.3%	5.5%
South-Atlantic	27%	8.9%	8.8%	16%	13%	11%	4.2%	3.2%	4.3%	2.8%	23%	8.2%	8.1%	16%	15%	12%	5.1%	4.2%	5.7%	3.6%
Southern Africa	42%	11%	9.5%	15%	9.5%	6.4%	2.4%	1.9%	2.3%	0.9%	41%	11%	9.2%	15%	10%	6.5%	2.4%	1.9%	2.4%	1.0%

On top of the United Nations forecast of population, we also rely on data related to the propensity[9] to fly to estimate the future number of passengers, hence the future traffic demand. In the September 2013 forecast, data originated from the UK CAA based on surveys conducted recently at Heathrow airport were used only. In this forecast report, the UK CAA data have been complemented by data originated from the DGAC France in which propensity data have been collected over 10 French airports.

Figure 35: Propensity to fly per age group.

Source: UK CAA and French DGAC passenger surveys (2010-2012) and UN population forecast (2012 Revision)
Comments: Evolution of propensity to fly based on an average of the surveys.
Units: Flight Factor (%passengers/%population) per age bracket. Data last updated: 26/11/2013.
Note: base, high and low scenario values are identical

Age Bracket	Actual	Base
	2012	2020
Age 0 to 14	0.14	0.13
Age 15 to 19	0.64	0.64
Age 20 to 24	1.58	1.61
Age 25 to 34	1.83	1.77
Age 35 to 44	1.63	1.69
Age 45 to 54	1.28	1.26
Age 55 to 59	1.22	1.35
Age 60 to 64	1.04	1.26
Age 65 to 74	0.61	0.63
Age 75+	0.15	0.13

3.7 Airports

The assumptions shown in Figure 36 represent the expected traffic switches within the forecast period (not varied by scenario):

- The closure of Berlin/Tegel (EDDT), with traffic moving to Berlin/Schönefeld (EDDB) from March 2015 (shift of traffic starting in 2015, completed in 2016)

[9] Propensity to fly is the annual number of flights generated per thousand population.

- Also, the new (third) airport at Istanbul expected to be operational from 2019 has been modelled in this forecast as an increase in the capacity of LTBA, ie we treat LTBA and the new airport as a single airport.
-

Figure 36: Airport traffic switch

Source: EUROCONTROL Data and analysis
Comments: Updated for MTF14 inputs
Units: Airport Traffic Switching. Data last updated: 12/02/2014

				Low		Base		High	
				2015	2016	2015	2016	2015	2016
Traffic Type	Traffic Between	And Region	Move To						
All	EDDT	-	EDDB	75%	100%	75%	100%	75%	100%

The forecast also takes airport capacity into account. The airport capacity model used in the 7-year forecast is based on 'effective annual capacity' figures that are applied to the forecasted total annual traffic demand at the airports and reduce the final forecasted number of movements to be within the annual capacity limits of the airports. A comprehensive set of capacity data has been gathered through the EUROCONTROL Network Manager Airport Unit's online tool named the 'Airport Corner'. The information coming directly from the airports and validated by the EUROCONTROL Airport Operations team is deemed to be complete, realistic, reliable and of high quality. The data collection process for this forecast covers a set of 108 airports, including the major ones. To respect the commercial sensitivity of this airport information, it is not published.

The impact of airport capacity constraints on European network within the next 7 years is addressed in Section 4.5.

3.8 Airline schedules

The schedules data originating from the January 2014 sample of Innovata LLC have been used in this forecast. Experience shows that they can be used to look ahead only a few months. In this forecast update, schedules until April 2014 have been used. Figure 37 shows per country the expected growth as available from the schedule data at the beginning of January, as used in the forecast. Schedules for May 2014 are shown in Figure 37 but have not been used in this forecast. Recent Winters have seen late downward revisions in the schedules, and we consider this to be a significant downside risk for the coming Winter, too. Overall, the schedules for Europe[10] used in this forecast expect a stable Winter (January to March 2014, compared to the same period last year).

[10] ESRA08

Figure 37. Outlook based on published schedules (Source: INNOVATA, January 2014).

Scheduled Departure Growth	Schedule Reference Date				
	01JAN14				
	Jan-14	Feb-14	Mar-14	Apr-14	May-14
Albania	-44%	-42%	-44%	-44%	-51%
Armenia	9%	13%	17%	17%	42%
Austria	-5%	-3%	2%	2%	3%
Azerbaijan	-3%	0%	7%	7%	8%
Belarus	20%	23%	24%	24%	21%
Belgium/Luxembourg	0%	0%	3%	3%	8%
Bosnia-Herzegovina	36%	45%	37%	37%	16%
Bulgaria	7%	16%	13%	13%	9%
Canary Islands	14%	13%	15%	15%	26%
Croatia	-2%	0%	-2%	-2%	-1%
Cyprus	-1%	6%	-2%	-2%	-9%
Czech Republic	-10%	-6%	-2%	-2%	-3%
Denmark	-1%	1%	6%	6%	7%
Egypt	-3%	-4%	-5%	-5%	-4%
Estonia	-7%	11%	7%	7%	6%
FYROM	10%	10%	16%	16%	34%
Finland	-5%	-4%	-4%	-4%	-2%
France	-9%	-8%	-5%	-5%	-2%
Georgia	28%	35%	34%	34%	12%
Germany	-3%	-1%	-1%	-1%	1%
Greece	3%	35%	31%	31%	20%
Hungary	-4%	-2%	1%	1%	2%
Iceland	7%	9%	9%	9%	13%
Ireland	6%	8%	2%	2%	0%
Italy	-3%	-3%	-4%	-4%	-5%
Latvia	1%	1%	3%	3%	4%
Lisbon FIR	0%	0%	-5%	-5%	-6%
Lithuania	17%	17%	19%	19%	14%
Malta	12%	9%	3%	3%	-2%
Moldova	15%	20%	14%	14%	-6%
Morocco	15%	15%	15%	15%	9%
Netherlands	2%	2%	2%	2%	2%
Norway	3%	3%	5%	5%	6%
Poland	-5%	-4%	-3%	-3%	-2%
Romania	2%	7%	4%	4%	1%
Santa Maria FIR	-4%	-4%	-7%	-7%	-9%
Serbia&Montenegro	13%	22%	22%	22%	16%
Slovakia	-9%	-10%	-17%	-17%	-16%
Slovenia	-11%	-4%	-2%	-2%	3%
Spain	-10%	-11%	-9%	-9%	-7%
Sweden	1%	0%	2%	2%	3%
Switzerland	-5%	-4%	-2%	-2%	0%
Tunisia	1%	4%	9%	9%	6%
Turkey	28%	25%	21%	21%	13%
Ukraine	9%	15%	30%	30%	22%
UK	1%	2%	-3%	-3%	-3%
ESRA02	-1%	0%	0%	0%	0%
ESRA08	-1%	0%	1%	1%	1%

4. GROWTH IN IFR FLIGHTS TO 2020

The new forecast is for 11.2 million IFR movements (±0.9 million) in Europe in 2020, accounting for 19% more than in 2013. The first year of the forecast expects a timid growth in traffic with 1.2% (±1.2 pp) as economic growth in Europe remains fragile for 2014 and many European airlines are still hesitant about adding capacity to the network.

From 2015 onwards, growth is expected to be back at around 2.7% per year. The 2008 peak of traffic of 10.1 million flights is expected to be reached again by 2016; this remains unchanged compared to the September 2013 forecast publication.

Any user of the forecast is strongly advised to consider the low-to-high ranges.

Figure 38. Summary of the forecast for Europe.

ESRA08		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	AAGR 2020/ 2013	RP1 2014/2011 AAGR	RP2 2019/2014 AAGR
IFR Flight Movements (Thousands)	H	.	.	.	.	9,669	10,015	10,442	10,826	11,208	11,618	12,072	**3.6%**	**-0.4%**	**3.7%**
	B	9,493	9,784	9,548	9,447	9,557	9,812	10,095	10,339	10,570	10,867	11,200	**2.5%**	**-0.8%**	**2.6%**
	L	.	.	.	.	9,438	9,582	9,682	9,780	9,891	10,030	10,179	**1.1%**	**-1.2%**	**1.2%**
Annual Growth (compared to previous year)	H	.	.	.	.	2.3%	3.6%	4.3%	3.7%	3.5%	3.7%	3.9%	**3.6%**	**-0.4%**	**3.7%**
	B	0.8%	3.1%	-2.4%	-1.1%	1.2%	2.7%	2.9%	2.4%	2.2%	2.8%	3.1%	**2.5%**	**-0.8%**	**2.6%**
	L	.	.	.	.	-0.1%	1.5%	1.0%	1.0%	1.1%	1.4%	1.5%	**1.1%**	**-1.2%**	**1.2%**

More detailed results are provided in Annexes B, C and D to support this overview. The forecast details per States for the 2-year horizon are shown in Figure 39 and Figure 40; and in Figure 41 for the 7-year horizon.

4.1 Short-term outlook (2014-2015)

Since the previous forecast was finalised in September, the economic outlook in Europe appears to have slightly improved in the first years, but not consistently and some States continue to look fragile. If slight growth is expected for this Summer, specific local events have changed the forecasts locally in 2014. At European level, the traffic forecasts remain mostly unchanged: a moderate growth of 1.2%(±1.2 pp) for 2014 and more steady growth of 2.7% (±1 pp) for 2015.

If slight upwards revisions have been observed in the economic forecast for Europe (see Section 3.1), these are too small to have an impact on the flight forecast. So, weak economic outlook for 2014 combined with the mixed traffic trends since the beginning of the Winter schedule lead to a moderate growth for 2014. The main area in which there is more clarity than in September is in airlines' intentions for the Winter 13/14 and Summer 14 seasons. The future airline schedules that were available in September were optimistic about the Winter. We treated that optimism cautiously, and plans have indeed been revised downwards as the season began. So, while the outlook for next Summer does seem to be slightly positive, this Winter, if currently growing, is likely to have fewer flights than previously expected.

Load factors being at consistently high levels during the last four years (see Figure 10), the scope for further growth now depends mainly on capacity. European airlines are still cautious with adding capacity. On one hand, legacy carriers, which are still involved in their cost-reduction programmes, are either cutting capacity for Summer or keeping growth low. On the other hand, low-cost carriers look set to step up capacity growth in the summer but this is still not fully reflected in the schedules, or is limited by aircraft deliveries. From 2015, deliveries are expected to grow faster in Europe based on the assumption that these will happen on schedule (see Figure 16). More importantly, Turkish and Russian carriers will account for, at least a third of the European deliveries.

South-West axis

South-West axis States have seen upwards revision in their short-term traffic forecasts:

While forecast for Spain has been revised upwards to 1.8%, partly boosted by the Canary Islands flow and higher-than-expected local traffic. As stated above, the current shift in tourist flows from Egypt to Spanish Islands lead to an upwards revision of the forecast for Canaries to 12% (±2 pp). This is also driving Lisbon FIR growth upwards to 6% (±1.6 pp). Santa Maria traffic growth has been revised upwards too but this is owing to the recent change in routing pattern for the jet stream, leading to more southerly routings.

South-East axis

Traffic losses in Egypt are having an influence at whole European level, but especially on South-East axis overflights. However, these losses are partly compensated by shifts of tourist flows to Spanish Islands and Morocco, and also higher-than-usual traffic growth to/from Greek Island airports in the Summer schedules (+9%). On the positive side too, very dynamic Russian traffic growth observed in 2013 is expected to continue stimulating growth in Europe, together with Turkey, remaining the biggest European contributor to the network growth. Traffic growth forecast for Turkey is set for stable increases of 7.3% (±1.5 pp) in 2014 and 7.1% (±1.5 pp) for 2015.

In 2014 and 2015, overflight routings are expected to change due to the KFOR sector re-opening along the South-East axis; which will add to the disparities in the growth rates in the region. This will accelerate growth over the next 18 months; not only on the traffic growth of a number States but also on the growth of the service units (see Section 5.1). The forecasts for the South-East axis States are also highly dependent on the potential changes in routings due to the conflict in Syria, this is addressed in Section 4.6.

North-West axis or Other

Out of the five busiest European States, the forecast for Germany has been revised downwards compared to the September forecast. It is now expected to see no growth (0%, ±1.3 pp) in 2014. This is explained by a complex mix of influencing factors (economic growth recovery coupled with recent declining trends in all flows and stagnation in low-cost market share). France, still showing a weak economic outlook for 2014, has seen its traffic forecast revised downwards to 1.5% (±1.2 pp). Flight forecast for UK has also been slightly revised downwards compared to September to a growth of 0.8% (±1.1 pp) in 2014. UK arrival/departures flow is now expected to grow faster (Figure 8) while overflight and internal forecasts have been revised downwards. Lastly, traffic growth in Italy remains unchanged for 2014 to 0.8% (±1.3 pp).

Europe as a whole

In the short-term, following two years of traffic declines in 2012 and 2013, traffic in Europe is expected to recover to a moderate rate of 1.2% (±1.2 pp) in 2014 (Figure 39). This is a 0.2 pp downwards revision compared to the September forecast explained by a lower than expect growth in the Schedules. In 2015, traffic in Europe is expected to increase by 2.7% (±1 pp), a 0.1 pp upwards revision but leading to the same amount of traffic next year than in the September forecast. Traffic growth rates are expected be more homogeneous across Europe (Figure 40).

Figure 39. State forecast details for 2014.

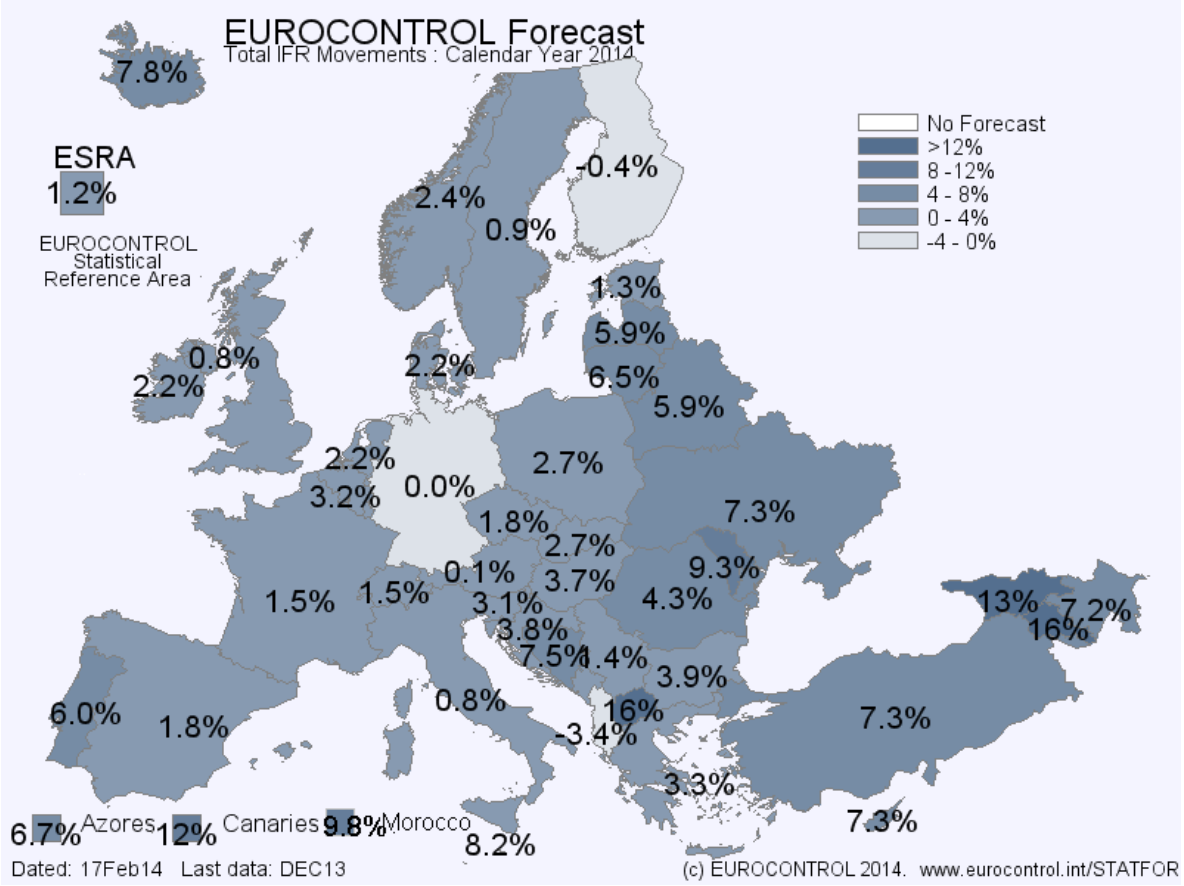
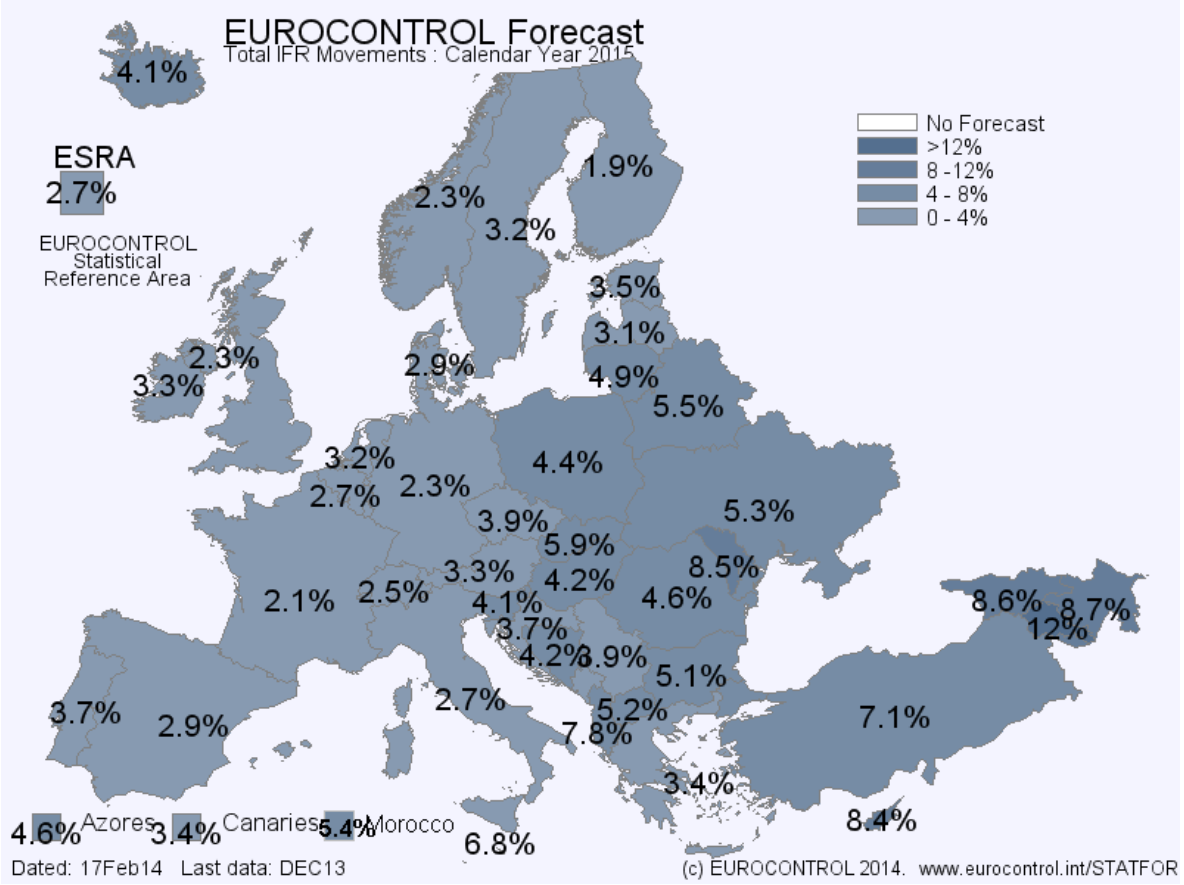


Figure 40. State forecast details for 2015.



4.2 Medium-term outlook (up to 2020)

After 2015, the traffic growth in Europe stabilises at around 2.6% increase per year, showing higher rates in 2016 and 2020 but these are due to the extra growth from the leap year effect. In fact, when comparing average daily traffic growth rates, the growth rate of 2.7% per year in the 2015-2017 horizon will slow down in 2018 (+2.2%) due to the lack of capacity in the European network because of the airport capacity constraints placed upon the European network. However, the new airport in Istanbul, to open in 2019 will partially lift the constraints and growth rates will accelerate averaging at rates of 2.8% in the 2019-2020 horizon (after removing the 2020 leap-year effect, See Figure 1 or Section 4.5).

Any user of the forecast is strongly advised to use the forecast range (low-growth to high-growth) as an indicator of risk. This forecast includes downside risks (e.g. capacity reductions in response to weaker demand) and upside risks (e.g. current high load factors might not be able to absorb the passenger demand when traffic begins to grow again). These are discussed in Section 6. By 2020, the high-growth scenario has 0.8 million more and low-growth scenario 1 million fewer flights than the base scenario.

As Figure 41 and Figure 42 show, the growth is not uniform across Europe. While the growth (in percentage terms) is much weaker in the more mature markets of Western Europe, it is still the busiest States (France, Germany followed by Italy, Spain and UK) which will see the greatest number of extra flights per day (Figure 42). Turkey will both see the fastest growth rates (6.9% as average annual growth rate over the 7 years) and the highest number of extra flights per day (1,800 additional flights per day in 2020), being the biggest contributor to the growth in Europe.

Figure 43 shows the corresponding Figure 41 at functional airspace block level (FAB). Danube FAB is expected to have the highest average annual growth rate (4.2%, ±1.5 pp) over the next seven years. FABEC, the busiest European FAB and UK-Ireland FAB will experience more limited average annual growth rates of around 1.8% by 2020. In its low-growth scenario, FABEC will experience the lowest rates of the FABs with a 0.5% increase only.

Annexes D and E give the details of forecast traffic and growth per State and areas (FAB, EU28…).

Figure 41. Average Annual Growth per State, 2020 v 2013.

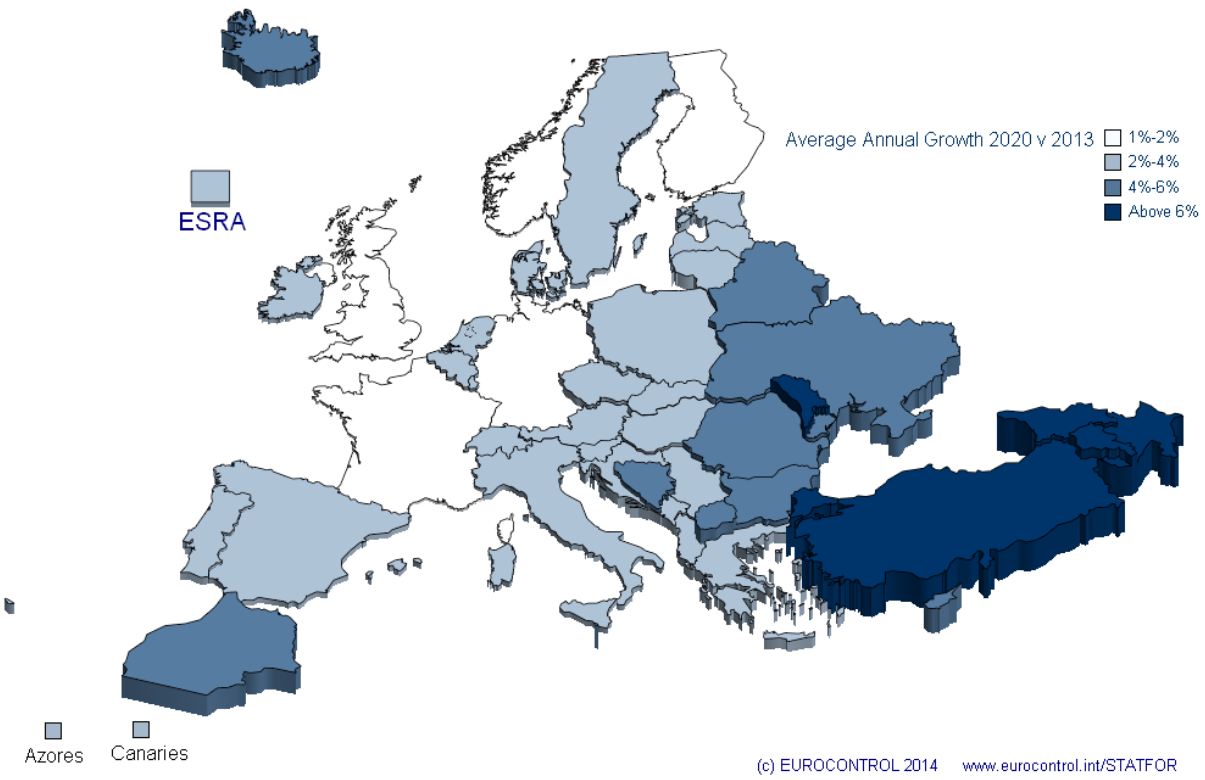


Figure 42. Number of additional movements per day for each State (2020 v 2013).

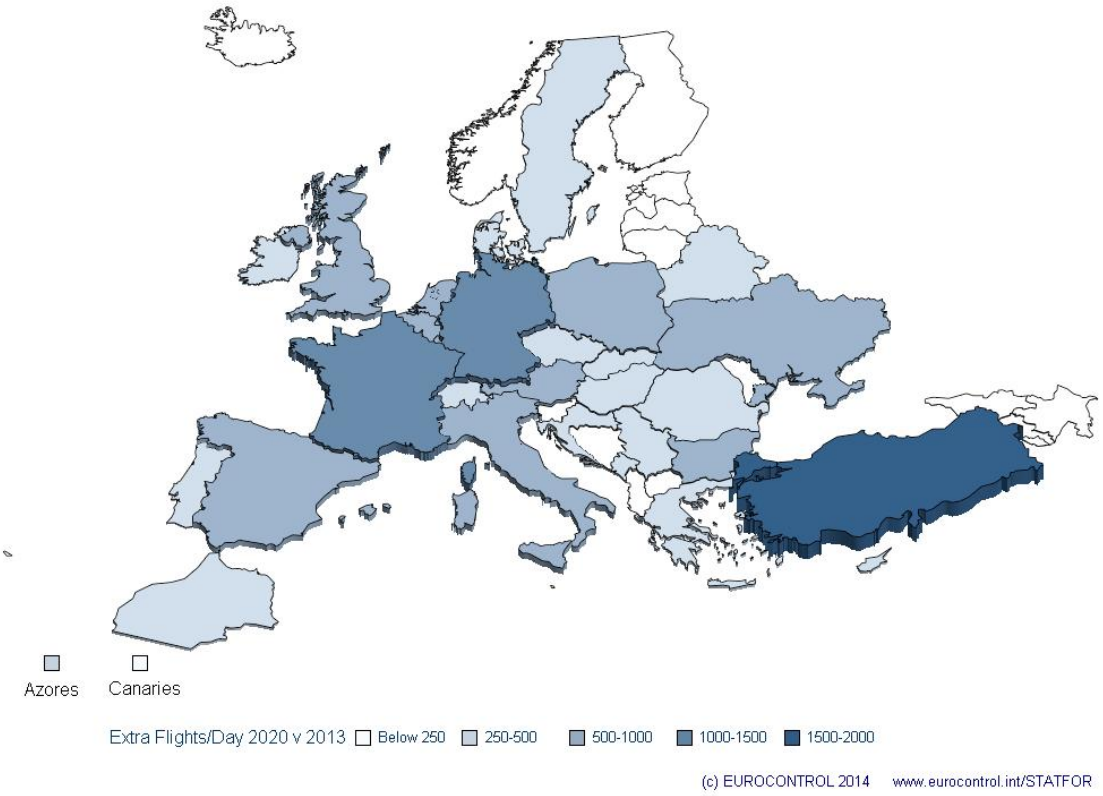
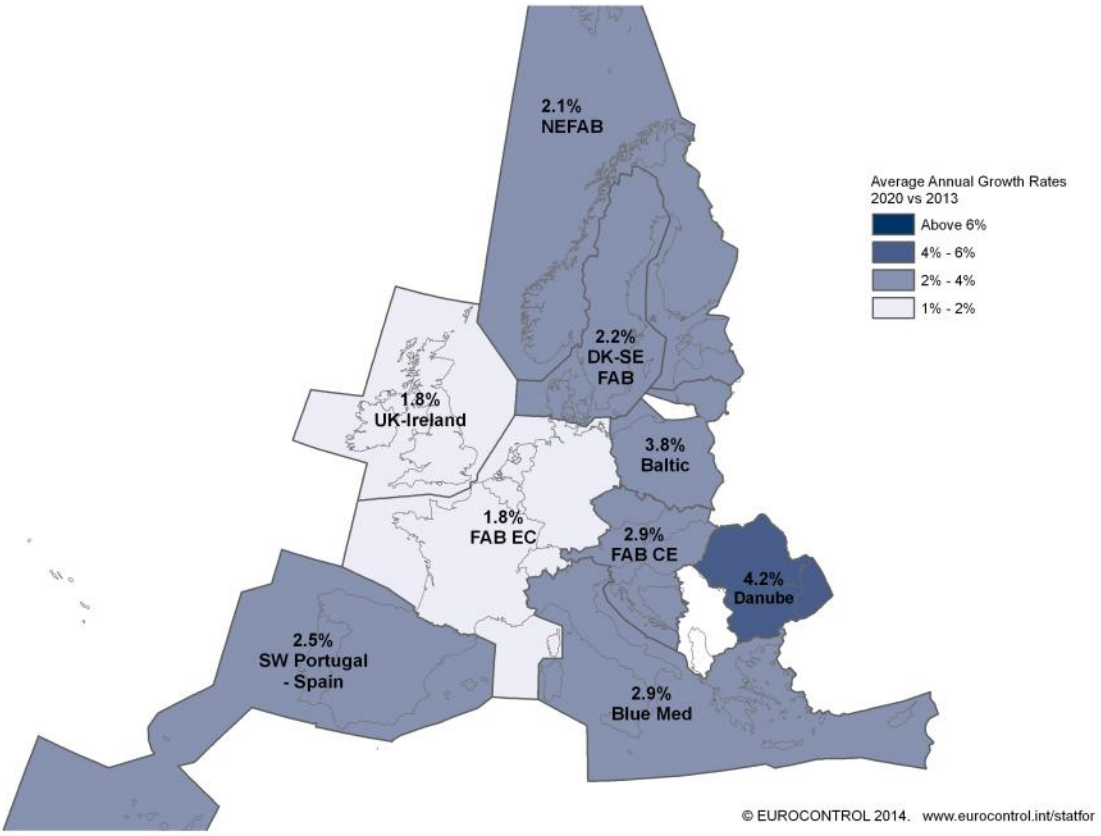


Figure 43. Average Annual Growth per FAB, 2020 v 2013.

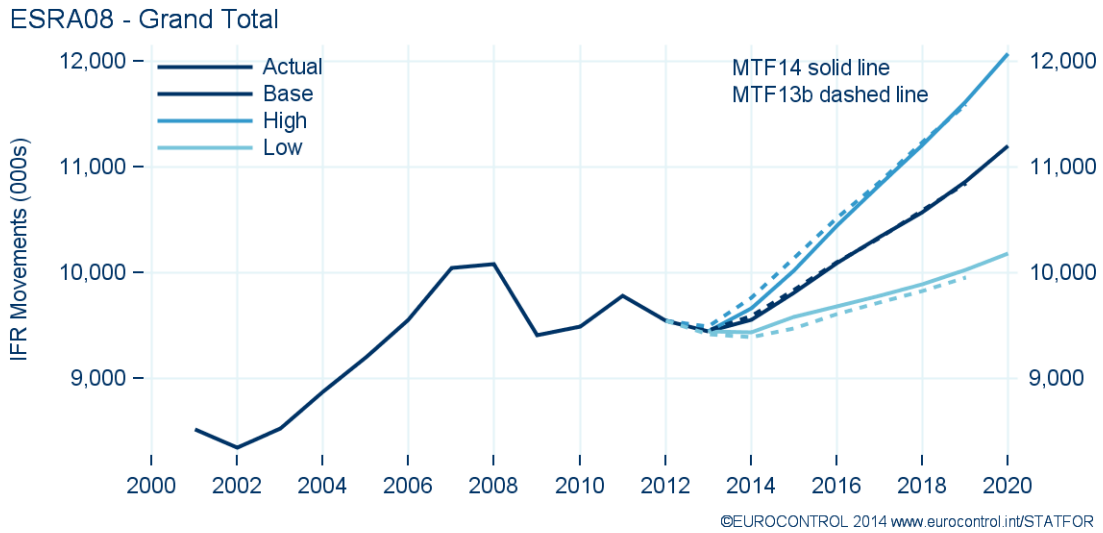


4.3 Comparison with previous forecast

Globally, the baseline forecast is in line with the September 2013 forecast (see Ref. 1), moreover, the uncertainty around high and low scenarios has been reduced in the first years.

Figure 44 illustrates that the current forecast (MTF14) for total Europe remains quite well aligned with the previous seven-year forecast issued in September 2013 (MTF13b, see Ref. 1), especially for the base scenario. The first two years of the forecast show narrower low-to-high ranges because the uncertainty has now been reduced in the short-term.

Figure 44. For total Europe, current forecast is aligned with previous forecast (dated September 2013), with narrower short-term uncertainty.



4.4 High-speed train effect

Expansion of the high-speed train network reduces flight growth by just 0.4% over 7 years, though the local effects are more significant. In flight terms, this is a slightly higher impact than in the previous forecast over the whole horizon.

In the forecast model, reductions in travel time for high-speed train lead to reductions in the number of flights on the same city pair (see methodology document, Ref. 2). The high-speed train lines' improvement taken into account in this forecast are detailed in Section 3.5. The number of IFR movements that are lost to rail because of improvements in the high-speed train (HST) network are summarised in Figure 45. The effect is around 0.4% in total over the 7 years; which is small on the scale of the network as a whole (see Section 4.5 for the effect of capacity constraints). However, on specific city-pairs, the effect can be quite large, especially at the end of the horizon. In 2013, a good part of the HST projects had been delayed or even cancelled, not only for economic reasons but also for environmental and political ones. In this forecast, there are little changes compared to last year's assumptions. Together with a few projects removed (Paris/Brussels - Amsterdam/Rotterdam, now in operation), others added as now falling within then the horizon (eg. Gothard project between Milan and Zurich to open in 2020, Ankara - Sivas) or even improved in terms of timing (eg. Madrid – Paris, 100 minutes faster in the previous forecast), the current reduction in traffic is for to 47,300 flights in 2019. Last year, the reduction was comparable with around 45,000 flights. By 2020, it is now assessed that around 51k flights will be removed from the network.

As far as the States are concerned, Turkey will see the largest impacts in terms of flights: reduction of nearly 26,000 flights lost to train in 2020 which corresponds to 2.5% of local traffic. Development of HST will have the same impact in France and Germany, with around 10,000 flights left to train in each State in 2020, corresponding to around 1% of the air traffic (local) removed in each State. Air traffic development in France will notably be affected by the Madrid/Barcelona-Paris lines as well as the opening of the LGV Sud Europe Atlantique (Paris-Bordeaux).

Figure 45. Impact of High-Speed Train (Reduction in flights when High-Speed train network development is taken into account. Note that the HST impact is assessed on forecasts excluding capacity constraints).

	Change in IFR Movements (000s)							Percentage Change						
	2014	2015	2016	2017	2018	2019	2020	2014	2015	2016	2017	2018	2019	2020
High	1.1	6.1	17.3	22.5	33.1	48.7	60.9	-0.0%	0.1%	0.2%	0.2%	0.3%	0.4%	0.5%
Base	1.1	8.5	12.9	22.8	37.1	47.3	50.9	0.0%	0.1%	0.1%	0.2%	0.3%	0.4%	0.4%
Low	1.1	8.3	12.1	22.0	35.3	43.9	46.7	0.0%	0.1%	0.1%	0.2%	0.3%	0.4%	0.4%

		Change in IFR Movements (000s)							Percentage Change						
		2014	2015	2016	2017	2018	2019	2020	2014	2015	2016	2017	2018	2019	2020
Base	Belgium/Luxe	.	.	.	.	0.1	0.1	0.1	.	.	.	.	0.1%	0.1%	0.1%
	France	.	0.5	0.9	5.7	10.1	10.0	10.0	.	0.1%	0.1%	0.6%	1.0%	1.0%	1.0%
	Germany	.	0.2	0.5	1.6	5.9	10.2	10.2	.	0.0%	0.0%	0.1%	0.5%	0.9%	0.9%
	Italy	.	.	.	.	.	.	0.1	.	.	.	.	.	.	0.0%
	Netherlands	.	.	0.8	1.6	1.6	1.6	1.7	.	.	0.3%	0.5%	0.5%	0.5%	0.5%
	Spain	.	0.5	0.3	0.2	0.2	0.2	0.1	.	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
	Switzerland	.	.	.	.	.	.	0.2	.	.	.	.	.	.	0.1%
	Turkey	1.1	7.4	9.1	11.4	16.9	22.7	25.9	0.2%	1.1%	1.2%	1.4%	1.9%	2.4%	2.5%
	UK	.	.	1.1	2.3	2.4	2.4	2.5	.	.	0.1%	0.2%	0.2%	0.2%	0.2%

4.5 Airport Capacity impact

Constraints at airports mean that demand for 144,500 flights cannot be accommodated by 2020, which is a 1.3% reduction in growth over the period. Compared to previous estimates of the impact, the main change is in the forecast volume of traffic not in the capacity values.

Airports provide their capacity plans to EUROCONTROL through the Airport Unit. The published forecast is constrained by these capacity plans (see Section 3.7). We calculate the effects of airport capacity constraints by comparing the published forecast with a what-if? forecast that removes capacity constraints. The results are shown in Figure 46.

In the base scenario, by 2020 144,500 flights cannot take place because the departure or arrival airport has reached its capacity. That is 1.3% of demand, so represents about 0.2%/year reduction in flight growth. This assumes that airports are able to deliver the capacity plans that they have, which has not always been the case.

Industry responds to constraints in a number of ways: airlines by up-gauging aircraft, or moving elsewhere; airports by expanding or enhancing their infrastructure; governments by investing in alternative modes, for example. The mitigation report (Ref. 6) from *Challenges of Growth 2013* considered these mitigation options in more detail, at the 2035 horizon. In practice, this implies that some of these 145k flights of unaccommodated demand may be accommodated by other means that are beyond the scope of the present report to analyse.

Compared to the February 2013 forecast (Ref. 7, Figure 26) constraints have a similar impact at 7-years ahead (1.3% in 2020, versus 1.2% in 2019 last year), but at the shared 2019 horizon have a smaller impact: down from 135k to 125k in the base scenario. The main contributing factor for this reduction is a reduction in some local flight forecasts.

Figure 46. Impact of airport constraints (Reduction in IFR flights when airport constraints are taken into account.)

	Change in IFR Movements (000s)							Percentage Change						
	2014	2015	2016	2017	2018	2019	2020	2014	2015	2016	2017	2018	2019	2020
High	27.9	45.7	121.4	157.1	249.3	329.8	405.6	0.3%	0.4%	1.1%	1.4%	2.2%	2.8%	3.3%
Base	15.6	15.7	42.9	55.3	114.2	124.5	144.5	0.2%	0.2%	0.4%	0.5%	1.1%	1.1%	1.3%
Low	6.3	1.4	2.1	3.1	19.3	16.8	25.3	0.1%	0.0%	0.0%	0.0%	0.2%	0.2%	0.2%

4.6 What-if? restoration of Middle-East and North African routings

We examined the effect of re-routings following the Arab Spring with a what-if? analysis. This showed a potential, following a return to 'normal routing', for some States to gain overflights (Cyprus +4%) while others lose flights (including Albania 5%). These changes are not built into the published forecast, but provided to support analysis of risk.

The forecast is sensitive to network changes and to changes of choice of route through the network. This represents a risk which can be on the up-side for some states and conversely on the down-side for others. See section 6 for a broad discussion of risks, including re-routing.

Routings on the network remain perturbed following the Arab Spring, in particular there are significant re-routings away from Syrian, and to a lesser extent Libyan, airspace. So we have run a what-if? analysis to test the risks associated with the re-routings that have followed the Arab Spring. This section focuses on the results of that what-if? analysis.

Overflight patterns can be described by looking at each airport-to-airport (AP2) flow and calculating the percentage of flights on this flow that overfly each TZ volume of airspace. For example, from LFPG (Paris) to ZBAA (Beijing) suppose 90% of flights overfly the Germany TZ, 30% overfly the Finland TZ, etc (hypothetical figures). These percentages will in general add up to more than 100%, since flights overfly several TZs. Our what-if? method was to take all of the AP2 flows with one airport in the Middle East or Asia/Pacific regions, and restore the overflight percentages to those observed in 2010, before the Arab Spring started in 2011, leaving all other AP2 flows unchanged.

We thus restored long-haul overflight patterns to the East, but a side-effect was to remove effects of route network improvements since 2010. So the results are only approximate.

We considered two additional scenarios looking more at the re-routing that followed the conflict in Libya:

- restoration of flight patterns to MidEast, Asia/Pacific and North Africa;
- restoration to these three regions, plus Southern Africa.

Figure 47 shows the results of these analyses. For example, Cyprus is estimated to have the potential for a 2% increase in flights if flows to the MidEast and Asia/Pacific returned to their pre-Syrian patterns. The flows mostly involved here are those between the Middle East and the ESRA North-West and ESRA Mediterranean regions. The 2% increase includes a loss of traffic on the Middle East-Middle East flow (essentially Lebanon-MidEast). The increase could be as much as 4% if flights to North Africa also returned to their 2010 patterns. The additional effect of restoring overflight flows to Southern Africa, however, is minimal for Cyprus.

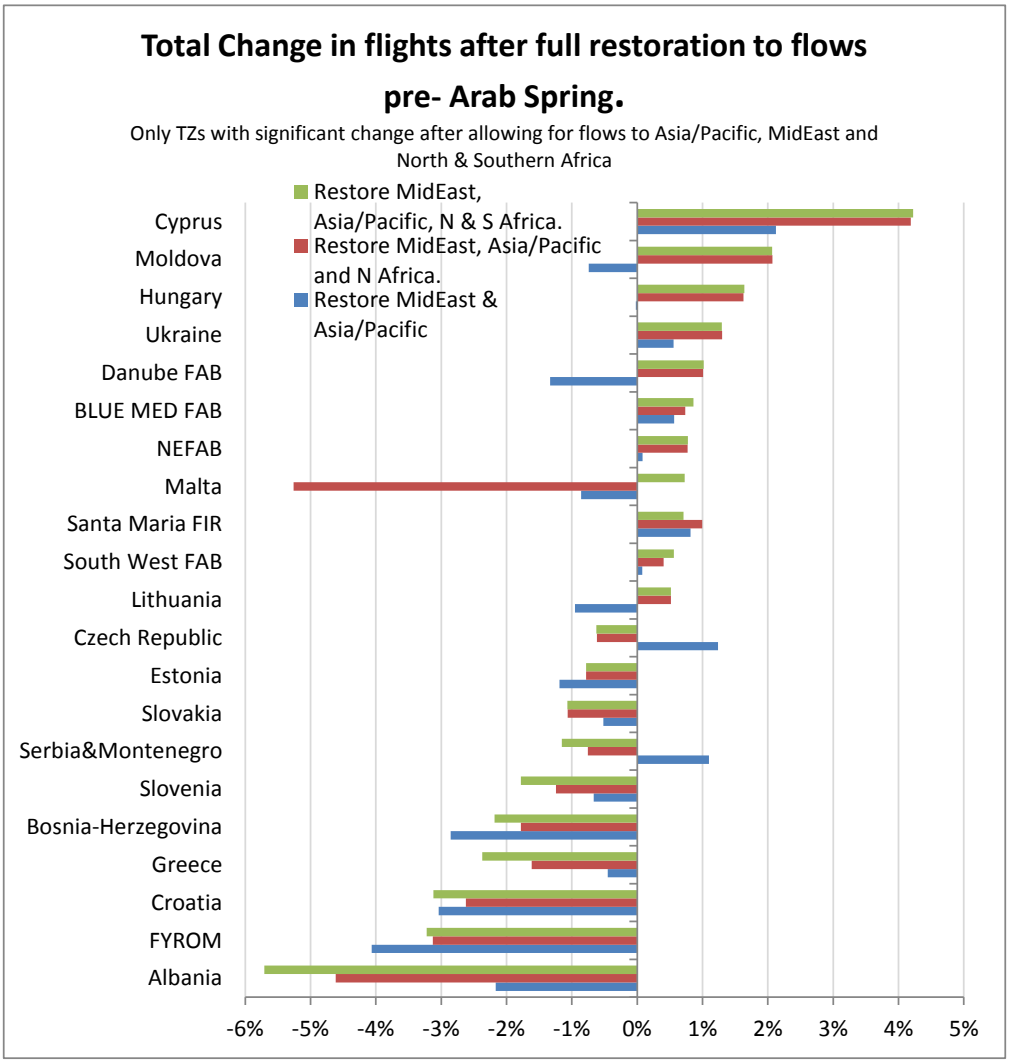
The analysis shows that Malta is currently gaining overflight traffic to and from N African destinations, and would lose about 5% of its total flights if these were to be restored to their pre-Arab Spring routings. However, it has also lost overflights to and from Southern Africa. If these were to be restored, they would more than cancel out the N African effects.

We make no assumptions about how long it might be before these routes and route-choices are restored. If the KFOR restoration in 2014 is any guide, then it might not be within the 7 years of the present forecast.

Overall, we see restoration of pre-Arab Spring overflight patterns as potentially increasing traffic,

especially for Cyprus (around 4%), but reducing traffic particularly for states near the Northern Adriatic Coast, Albania losing around 5% of flights.

Figure 47. Total change in flights after full restoration to flows pre-Arab Spring (only States or FABs with significant change after allowing for flows to Asia/Pacific, MidEast and North & Southern Africa).



5. SERVICE UNIT GROWTH TO 2020

5.1 En-route Service units (TSU)

Despite the fact that the new flight forecast has been slightly revised downwards, 2014 en-route service units are expected to end 2014 higher than expected in the forecast of September 2013. Service units are growing faster than flights caused by a general trend in increasing average weight factors and the latest data has caused us to revise upwards the projected growth in weights. In 2014, 128.6 million service units (TSU) are expected to be produced. This is 3.6% more than 2013, a revision up by 0.5 percentage point compared to the forecast of September 2013.

The total en-route service units in the participating EUROCONTROL member states (CRCO11) are expected to grow by 3.7% in 2015 compared to 2014 and reach 133.3 million. This is an upwards growth revision compared to the 2.9% growth that was expected in September 2013, not only resulting from the upward flight revision, but amplified by the increasing weight trend

The medium-term forecast has been fully updated and the horizon has been extended by an additional year 2020, to bring it in line with the seven-year horizon of the flight forecast.

This slight acceleration of growth compared to the September 2013 forecast slows after 2015. The TSU are expected to be higher by around 3.4 million in 2019 than previously forecast, reaching in total 150.2 million in 2019. For those States participating in the Performance Scheme, the average annual growth in RP2 (2019 v a baseline year of 2014) is 2.8%, slightly up from the 2.6%/year from the September forecast. A more moderate growth in 2018 is mainly explained by the unaccommodated demand for Turkey that year, which is solved in later years by capacity expansion (section 3.7).

Finally, by 2020, the TSU are expected to reach 155.4 million representing a baseline scenario average growth of 3.3% per year from 2013 and a total growth of 25% compared to 2013.

Figure 49 compares the evolution of the forecast between the September 2013 forecast and this new forecast release for the CRCO11 grouping. The TSU forecast of the first two years has been adapted upwards by an additional 0.6% in the first year and 0.8% in the consequent year, resulting in overall higher TSU forecast from 2014 onwards. This variation from forecast to forecast is well within the low-to-high-scenario range.

Any user of this seven-year forecast is reminded to consult the entire forecast range (low-growth to high-growth) as an indicator of risk. This forecast includes downside risks (e.g. the economic indicators could further worsen) and upside risks (e.g. high load factors could trigger higher traffic numbers sooner-than-expected). Section 6 elaborates further on risks.

For the TSU, by 2020, the high-growth scenario has 13.8 million more and low-growth scenario has 15.0 million fewer TSU than the base scenario (+11% and -12% in terms of growth respectively). This range is greater than the forecast range for 2019 published in September but 2020 adds an additional year to the previous forecast for which the uncertainty is logically greater than that for 2019.

The average annual growth figures per State can be found in Figure 50. The detailed forecasts for each State are in Annexes E and G. Note that the definition “PScheme” does not show in the report any more and is replaced by RP1Region and RP2Region, which now includes Croatia. RP1Region corresponds to the former “PScheme” and is still reported on to enable a comparison with previous forecast.

Figure 48: Summary of forecast of total service units in Europe.

Total en-route service units		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2020/ 2013 Total Growth	RP1 2014/ 2011 AAGR	RP2 2019/ 2014 AAGR
Total service units (thousands) CRCO11*	H	.	.	.	.	.	.	130,555	136,758	143,278	149,295	155,291	161,958	169,204	36%	**1.9%**	**4.4%**
	B	119,521	113,434	117,393	123,211	121,589	124,162	128,633	133,334	137,687	141,669	145,420	150,157	155,406	25%	**1.4%**	**3.1%**
	L	.	.	.	.	.	.	126,683	129,732	131,576	133,474	135,485	137,899	140,388	13%	**0.9%**	**1.7%**
Total service units (thousands) RP1Region†	H	.	.	.	.	.	.	110,097	114,868	120,055	124,616	129,369	134,442	139,726	33%	**1.6%**	**4.1%**
	B	104,941	98,057	100,579	105,126	103,572	105,235	108,522	112,039	115,311	118,171	121,068	124,460	128,105	22%	**1.1%**	**2.8%**
	L	.	.	.	.	.	.	106,918	109,047	110,191	111,368	112,710	114,251	115,867	10%	**0.6%**	**1.3%**
Total service units (thousands) RP2Region†	H	.	.	.	.	.	.	111,812	116,646	121,922	126,567	131,402	136,569	141,962	33%	**1.6%**	**4.1%**
	B	106,212	99,355	102,030	106,761	105,251	106,930	110,204	113,754	117,081	119,995	122,940	126,397	130,116	22%	**1.1%**	**2.8%**
	L	.	.	.	.	.	.	108,567	110,699	111,864	113,066	114,432	116,004	117,653	10%	**0.6%**	**1.3%**
Total en-route service units		**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2020/ 2013 Total Growth**	**RP1 2014/ 2011 AAGR**	**RP2 2019/ 2014 AAGR**
Annual Growth CRCO11*	H	.	.	.	.	.	.	5.1%	4.8%	4.8%	4.2%	4.0%	4.3%	4.5%	4.5%	**1.9%**	**4.4%**
	B	6.1%	-5.1%	3.5%	5.0%	-1.3%	2.1%	3.6%	3.7%	3.3%	2.9%	2.6%	3.3%	3.5%	3.3%	**1.4%**	**3.1%**
	L	.	.	.	.	.	.	2.0%	2.4%	1.4%	1.4%	1.5%	1.8%	1.8%	1.8%	**0.9%**	**1.7%**
Annual Growth RP1Region†	H	.	.	.	.	.	.	4.6%	4.3%	4.5%	3.8%	3.8%	3.9%	3.9%	4.1%	**1.6%**	**4.1%**
	B	5.3%	-6.6%	2.6%	4.5%	-1.5%	1.6%	3.1%	3.2%	2.9%	2.5%	2.5%	2.8%	2.9%	2.8%	**1.1%**	**2.8%**
	L	.	.	.	.	.	.	1.6%	2.0%	1.0%	1.1%	1.2%	1.4%	1.4%	1.4%	**0.6%**	**1.3%**
Annual Growth RP2Region†	H	.	.	.	.	.	.	4.6%	4.3%	4.5%	3.8%	3.8%	3.9%	3.9%	4.1%	**1.6%**	**4.1%**
	B	5.3%	-6.5%	2.7%	4.6%	-1.4%	1.6%	3.1%	3.2%	2.9%	2.5%	2.5%	2.8%	2.9%	2.8%	**1.1%**	**2.8%**
	L	.	.	.	.	.	.	1.5%	2.0%	1.1%	1.1%	1.2%	1.4%	1.4%	1.4%	**0.6%**	**1.3%**

* CRCO11 designates the sum over all the states participating in the Multilateral Route Charges System in 2012 of all TSU either measured or forecasted for the corresponding year. See Annex A.

† RP1Region stands for the sum over all the 30 states that are currently involved in the EU-wide performance target setting minus Croatia (28 EU member states plus Norway and Switzerland minus Croatia). RP2Region is RP1Region plus Croatia.

Figure 49: Comparison 2013-2020 of the forecast between the current forecast and September 2013 for CRCO11 Area.

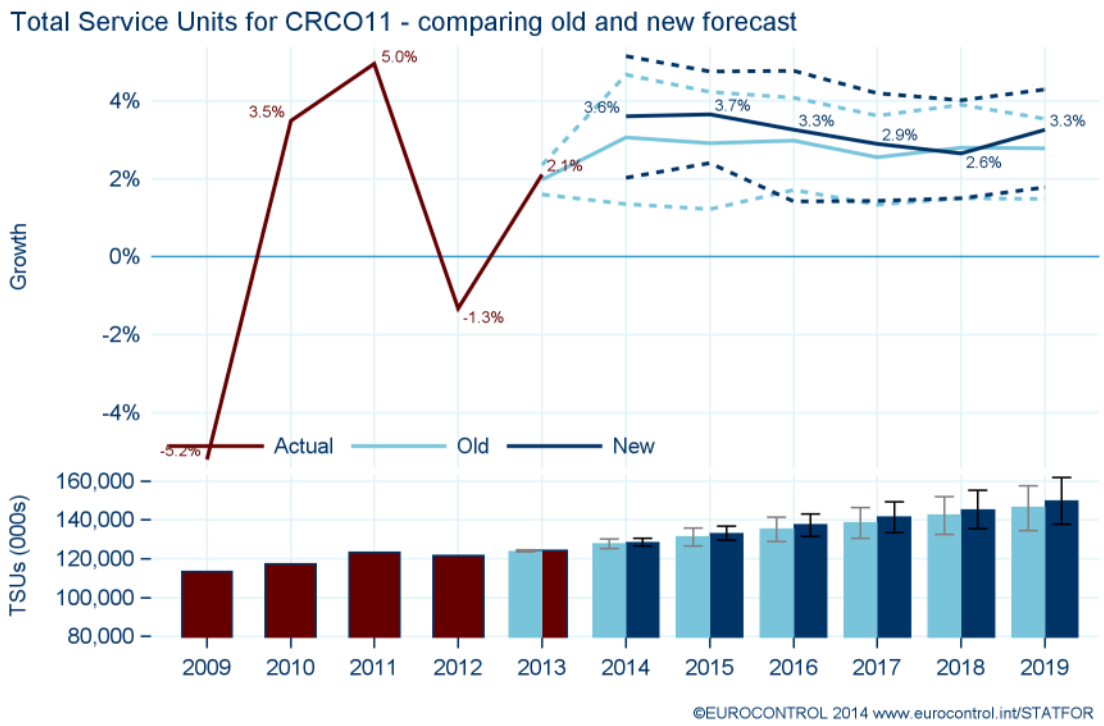
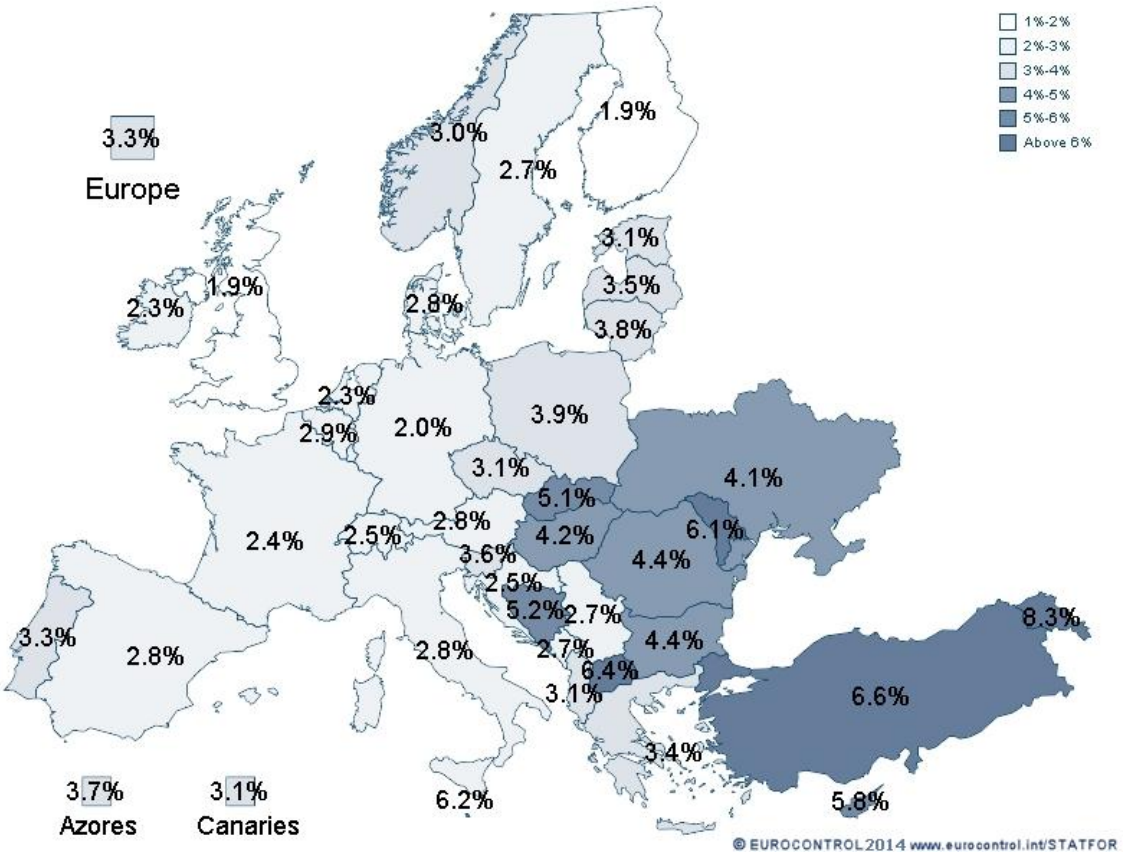


Figure 50. Average annual growth of service units between 2013 and 2020



5.2 Terminal Navigation Service units (TNSU)

This TNSU forecast is based on the 2013-2020 IFR flight forecast (Section 4) and uses the CRCO flight database for all States except for Estonia which provided STATFOR with its own data, to capture the necessary information about weight of the aircraft. More details about the TNSU forecast method can be found in Ref. 2. The definition of the Terminal Charging Zones (TCZ) is based on the known list of airports per TCZ for RP2 provided by States up until mid-February 2014 (see Annex A), but it is understood that some States intend further changes to these groupings.

The detailed results per TCZ are given in Annex H.

Figure 51. Total Terminal Navigation Service Units generated in the RP2Region area as defined (TCZ definition dated February 2014).

RP2 Region		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	AAGR 2020/ 2013	AAGR 2014/ 2011	AAGR 2019/ 2014
TNSU Total (in thousands)	High	.	.	.	.	.	7565.4	7838.7	8221.8	8529.9	8875.6	9223.8	9582.1	3.6%	-0.2%	4.0%
	Base	7232.5	7286.9	7600.8	7480.5	7452.5	7478.9	7682.2	7932.3	8132.5	8346.4	8576.6	8811.5	2.4%	-0.5%	2.8%
	Low	.	.	.	.	.	7388.6	7501.4	7590.2	7669.6	7767.0	7872.8	7993.3	1.0%	-0.9%	1.3%
TNSU Annual Growth (in %)	High	.	.	.	.	.	1.5%	3.6%	4.9%	3.7%	4.1%	3.9%	3.9%	3.6%	-0.2%	4.0%
	Base	-6.4%	0.8%	4.3%	-1.6%	-0.4%	0.4%	2.7%	3.3%	2.5%	2.6%	2.8%	2.7%	2.4%	-0.5%	2.8%
	Low	.	.	.	.	.	-0.9%	1.5%	1.2%	1.0%	1.3%	1.4%	1.5%	1.0%	-0.9%	1.3%

6. RISK TO THE FORECAST GROWTH

Users of the forecasts are strongly advised to use the forecast range (low-growth to high-growth) as an indicator of risk. These flight and service unit forecasts are prepared in conditions of a fragile economic situation with risk of a slower recovery than expected and downside effects on traffic development. There are upside risks too, but these are more localised.

The main sources of uncertainty in the intermediate forecast can be summarised as follows:

The **economic forecasts** used here were updated in January 2014. The economic outlook remains uncertain and the return to growth could still be delayed. The low scenario provides some guidance here. On the other hand, there are already signs of growing competitive pressures for expansion, especially for low-cost carriers, so as aircraft deliveries accelerate we could see more rapid expansion, although in our view this is likely to be localised. The high scenario provides some guidance for this.

Two States, Turkey and Russia, have been the predominant drivers of flight growth in recent years. This makes growth sensitive to the continued expansion of these **two economies**. As the US Federal Reserve begins to taper its quantitative easing, pressure has built on a number of economies and currencies. But there are both downside and upside risks here: downside risks to local economic growth, but upside risks that a falling local currency makes it a more attractive tourist destination.

Along with the actual uncertainty in economic growth, severe cuts in spending and tax hikes have been put in place by European States to balance their budgets (eg. Spain, France). Such state control measures and political decisions on reorganisation of air traffic management might lead to **industrial unrest**, as it has in the last year. The same applies for the private sector where air industry operators might have to handle protest from the workforce against savings plans (day-to-day flight disruption), or to share in any increase in profitability. These represent a downside risk for future traffic development as presented in this report.

Load factors remain at or near record highs. When traffic begins to grow again, this means that load factors might be able to absorb less of the passenger growth than they have in past years. From the present position, the eventual recovery could come more rapidly than anticipated. This is therefore an upside risk.

Network changes and the route choice of airlines have a large influence on the number of overflights. Currently, the **Syrian conflict** is having an important impact on overflights across South-East Europe. We have not included an end to this in our scenario, though clearly at some point this network disruption will clear and the overflight changes reverse. Section 4.6 describes a detailed what-if? study of this risk.

More generally, future **network changes** (eg. new routes) and airlines' changing **choice of routes** are not modelled by the forecast although the KFOR sector re-opening is now included.

Unit rates are one of the many factors that influence an airline's choice of route. In particular, relative differences in unit rate between one airspace and its neighbours can have some influence on overflight patterns. This effect is not currently part of the forecast method.

The **jet stream** influences route choice too, in a manner that can strongly influence overflights for Atlantic zones, though this is more usually an effect over days or weeks than over the whole year. 2013 saw an unusual pattern for the jet stream, leading to more southerly routings that in the past. We have not adjusted the data for this, nor modelled a future restoration.

The current **airline schedules** until the end of April 2014 were used (see Section 3.8). Even now, information for the Summer schedule is very much subject to change. Evidence is that at this time of year, schedules may under-state summer growth: as the schedules become clearer, airlines are more likely to increase flights, so this is an upside risk.

Tourism trends are quite variable. The forecast does not identify which will be the new holiday "destination of preference" in a given year. The recent political instability in both Egypt and Tunisia has led to more variability in tourism destinations. We have included a scenario for a gradual recovery of traffic to Egypt, but a faster or slower recovery is certainly possible. On the whole this is more likely an upside risk (a faster recovery than in our scenarios, see Section 3.2).

Oil prices remain changeable with oil being increasingly an item of speculation and investment, and with the recent rapprochement of Iran and the US. With fuel accounting for 25-35% or even more of costs of the airlines, this can have an effect on fares and cost of travel for customer (see Section 2.1).

Terrorist attacks, wars and natural disasters. The last seven years have not been quiet ones for aviation. There is no reason to believe the next seven years will be uneventful, with the effects of a further volcano eruption or an H1N1 flu pandemic being some of the risks. The impact on air traffic could be a temporary one, or more significant.

7. GLOSSARY

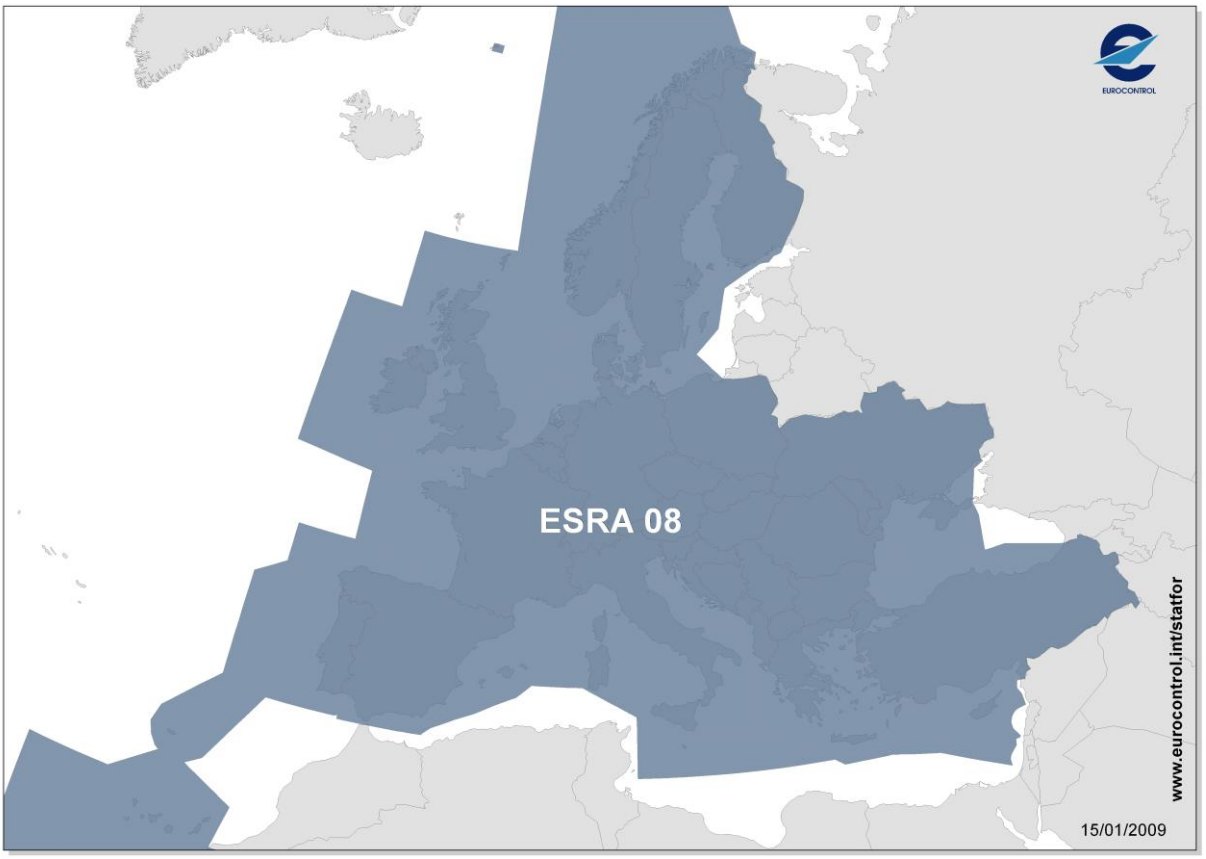
AAGR	Average annual growth
ACC	Area Control Centre
AEA	Association of European Airlines
AIRAC	Aeronautical Information and Regulation and Control
ATFCM	Air Traffic Flow and Capacity Management
B	(in tables) Baseline Scenario
CFMU	Central Flow Management Unit
CRCO11	Current states participating to the Multilateral Route Charges System
ESRA	Eurocontrol Statistical Reference Area (see Annex A.1)
ETS	Emission Trading Scheme
EU27	European Union (27 States)
EU28	European Union (28 States): EU27 plus Croatia.
FAB	Functional Airspace Block
FDPS	Flight Data Processing System
FIR	Flight Information Region
GDP	Gross Domestic Product
H	(in tables) High-Growth Scenario
HST	High-Speed Train
ICAO	International Civil Aviation Organisation
IFR	Instrument Flight Rules
L	(in tables) Low-Growth Scenario
MTF	Medium-Term (Seven-Year) Forecast
MTF13	February 2013 publication of the MTF
MTF13b	September 2013 publication of the MTF
MTF14	February 2014 publication of the MTF
MTOW	Maximum Take-Off Weight
NM	Network Manager
NMB	Network Management Board
OE	Oxford Economics Ltd
pp	percentage point
PS	Provisional Council
PScheme	States involved in the Performance scheme first period of reference (EU27, Norway and Switzerland – no longer used)
RP1	First Period of Reference (2012-2014) for the Performance Scheme of the SES
RP2	Second Period of Reference (2015-2019) for the Performance Scheme of the SES
RP1Region	See PScheme
RP2Region	States involved in the Performance scheme second period of reference (EU28, Norway and Switzerland)
SES	Single European Sky
SID	STATFOR Interactive Dashboard
STATFOR	Eurocontrol Statistics and Forecast Service
STF	Short-Term Forecast
SUG	STATFOR User Group
TCZ	Terminal Charging Zone (a grouping of airports)
TNSU	Terminal Navigation Service Units
TR	Traffic Region (a grouping of TZs)
TSU	Total En-Route Service Units
TZ	Traffic Zone (≈State, except for Spain, Portugal, Belgium and Luxembourg, Serbia and Montenegro)
UIR	Upper Flight Information Region

A. Traffic Regions Definition

ESRA08

The EUROCONTROL Statistical Reference Area (ESRA) is designed to include as much as possible of the ECAC area for which data are available from a range of sources within the Agency. It is used for high-level reports from the Agency, when referring to 'total Europe'. The ESRA changes only slowly with time; a region is added to the ESRA only when there is a full year's data from all sources, so that growth calculations are possible. 'ESRA08' was introduced in the MTF09 report. It is now used as a basis for comparison at European level in the forecasts. Note that the EUROCONTROL forecast includes also regions outside of the ESRA (eg. Armenia and Latvia), though still within ECAC.

Figure 52. The EUROCONTROL Statistical Reference Area.



Traffic zones are defined by an aggregate of FIRs & UIR of States. These do not take delegation of airspace into account. For individual States, the differences between charging areas and ACCs can have a big impact on overflight counts (and thus on total counts where the total is dominated by overflights). For the ESRA as a whole, there is only a small proportion of overflights, so that the difference between a FIR and an ACC definition is small.

Traffic regions

The traffic regions are defined for statistical convenience and do not reflect an official position of the EUROCONTROL Agency.

Traffic flows are described as being to or from one of a number of traffic regions listed in Figure 53. Each traffic region is made up of a number of traffic zones (=States), which are indicated by the first letters of the ICAO location codes for brevity.

As far as "Europe" is concerned, it is split into two regions: ESRA (defined in the previous section) and Other Europe. For flow purposes, ESRA is split into a "North-West" region mostly of mature air traffic markets, a "Mediterranean" region stretching from the Canaries to Turkey and with a significant tourist element, and an Eastern region. The 'Other Europe' region (i.e. non ESRA)

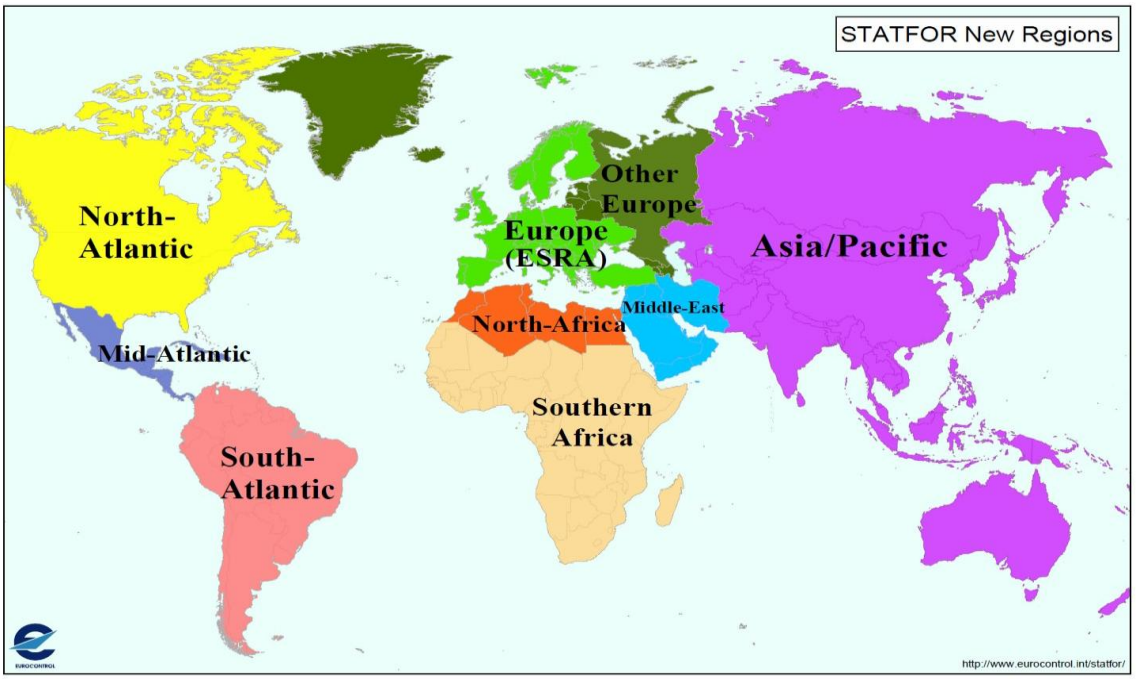
includes the States along the border of ESRA and extends from Greenland to the Urals and Azerbaijan.

The map of the nine traffic regions used in our statistics is displayed in Figure 54.

Figure 53. Regions used in flow statistics as of 31 August 2012.

	ICAO region/country
ESRA North-West	EB, ED, EF, EG, EH, EI, EK, EL, EN, ES, ET, LF, LN, LO, LS
ESRA Mediterranean	GC, LC, LE, LG, LI, LM, LP, LT
ESRA East	BK, EP, LA, LB, LD, LH, LJ, LK, LQ, LR, LU, LW, LY, LZ, UK
Other Europe	BG, BI, EE, EK (Faroe Islands), ENSB (Bodo Oc.), EV, EY, GE, LX, UB, UD, UG, UH, UI, UL, UM, UN, UO, UR, US, UU, UW, Shanwick Oc., Santa Maria FIR
North Atlantic	C, K, P
Mid-Atlantic	M, T
South-Atlantic	S
North-Africa	DA, DT, GM, HE, HL
Southern Africa	D, F, G, H, (except DA, DT, HE, HL, GC, GM)
Middle-East	L, O (except OA, OP)
Asia/Pacific	A, N, P, Y, OA, OP, R, V, W, Z (except ZZZZ), U (except UK and areas in Other Europe)

Figure 54. Map of the Traffic Regions used in flow statistics.



EU28

This 7-year forecast report includes, for the first time, EU28, taking the accession of Croatia into account.

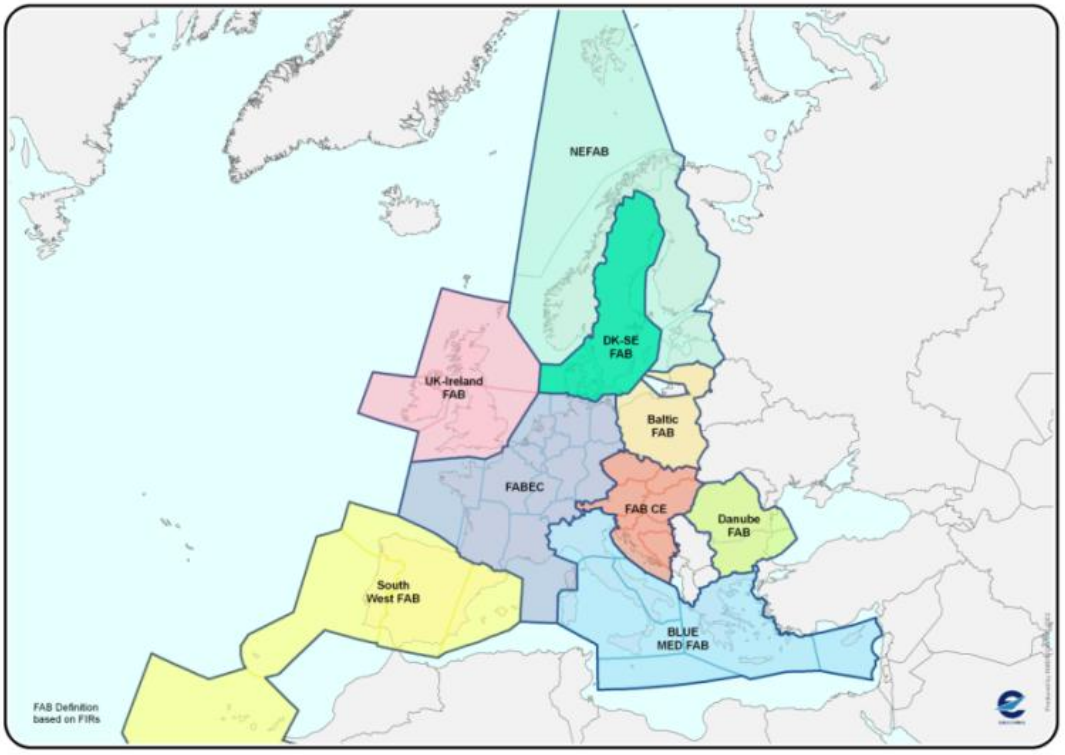
Functional Airspace Blocks

On top of the traffic zones, this report also presents the forecast of IFR movements from 2014 to 2020 for the Functional Airspace Blocks (FAB). A FAB is a block of airspace based on operational requirements regardless of the State boundaries (Figure 55). FAB initiatives (definitions) are now frozen according to the targets defined to improve the performance of the European air traffic management network. STATFOR defines the FABs based on the FIR[11] boundaries. The definition of FAB-FIR is:

- **UK-Ireland FAB** (SCOTTISH FIR&UIR, LONDON FIR&UIR, SHANNON FIR&UIR)
- **Danish-Swedish FAB** (COPENHAGEN FIR, SWEDEN FIR)
- **Baltic FAB** (WARSZAWA FIR, VILNIUS FIR&UIR)
- **BLUE MED FAB** (NICOSIA FIR&UIR, ATHINAI FIR&UIR, BRINDISI FIR&UIR, MILANO FIR&UIR, ROMA FIR&UIR, MALTA FIR&UIR)
- **Danube FAB** (SOFIA FIR, BUCAREST FIR)
- **FAB CE** (ZAGREB FIR, BUDAPEST FIR, LJUBLJANA FIR, PRAHA FIR, WIEN FIR, SARAJEVO FIR&UIR, BRATISLAVA FIR)
- **FABEC** (BRUSSELS FIR&UIR, LANGEN FIR, MUNCHEN FIR, RHEIN UIR, HANNOVER UIR, BREMEN FIR, AMSTERDAM FIR, BORDEAUX FIR, REIMS FIR, PARIS FIR, FRANCE UIR, MARSEILLE FIR, BREST FIR, SWITZERLAND FIR, SWITZERLAND UIR)
- **North European FAB** (TALLINN FIR, FINLAND FIR&UIR, ENOR FIR, RIGA FIR, BODO OCEANIC FIR)
- **South West FAB** (CANARIAS FIR&UIR, LISBOA FIR, MADRID FIR&UIR, BARCELONA FIR&UIR).

The change compared to the previous definition used in the past forecast reports (August 2012-December 2013) consisted in removing the TIRANA FIR from BLUE MED FAB as well as the removal of SOTA and NOTA from UK-Ireland FAB. This new definition is in line with the FAB-FIR definition of the Performance Review Unit (PRU) of EUROCONTROL.

Figure 55. FABs as stipulated by the European Commission (STATFOR update: January 2014). Source: EUROCONTROL PRU



[11] Note that the PRU uses the FAB-ANSP definition.

CRCO11

CRCO11 designates the EUROCONTROL Member States participating in the Multilateral Route Charges System in 2012. This list comprises: Albania, Armenia, Austria, Belgium/Luxembourg, Bosnia-Herzegovina, Bulgaria, Canary Islands, Croatia, Cyprus, Czech Republic, Denmark, FYROM, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lisbon FIR, Lithuania, Malta, Moldova, Netherlands, Norway, Poland, Romania, Santa Maria FIR, Serbia&Montenegro, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, UK.

RPRegions

RP1Region and RP2Region are the two regions involved in the Performance Scheme respectively related to First Reference Period (2012-2014) and Second Review Period (2015-2019).

- **RP1Region**: stands for the sum over all the 29 states that are involved in the EU-wide performance target setting for the first period, namely: 28 EU member states plus Norway plus Switzerland minus Croatia.
- **RP2Region**: stands for the sum over all the 30 states that are involved in the EU-wide performance target setting for the second period, namely: 28 EU member states plus Norway plus Switzerland.

SES

The SES area mentioned in this report has been created in 2010 and is much larger than the RPRegions. These States are shown in

Figure 56. States within SES Region in this report (in agreement with the SESAR Joint Undertaking, the oceanic airspace is not included in the STATFOR definition of the SES area).

Terminal Charging Zones

A “Terminal charging zone” is an airport or a group of airports for which a single cost base and a single unit rate are established. The forecast of Terminal Navigation Service Units for the Review Period 2 of the Performance Scheme shown in Annex H has been produced based on the list submitted by the Stakeholders.

The list of aerodromes forming the TCZs in 2014 for the 30 States participating in the SES performance scheme (RP2) can be found in Figure 57. This list is based on the known list of airports provided by States in June 2013 (published on the EUROCONTROL website: http://www.eurocontrol.int/articles/prc-and-prb-publications#field-tabs-tab-4). It has been slightly amended (Belgium, UK, France, Ireland and Italy) following the requested changes filed to

STATFOR up until mid-February 2014. We understand that other changes may be being considered by States, but they were not available at the time of forecast production.

Figure 57. List of aerodromes forming the TCZ in RP2.

State Name	TCZ Name	APCode	N
Belgium	EB_TCZ		5
		EBAW	1
		EBBR	1
		EBCI	1
		EBLG	1
		EBOS	1
Germany	ED_TCZ		16
		EDDB	1
		EDDC	1
		EDDE	1
		EDDF	1
		EDDG	1
		EDDH	1
		EDDK	1
		EDDL	1
		EDDM	1
		EDDN	1
		EDDP	1
		EDDR	1
		EDDS	1
		EDDT	1
		EDDV	1
		EDDW	1
Estonia	EE_TCZ		2
		EETN	1
		EETU	1
Finland	EF_TCZ		1
		EFHK	1
UK	EG_TCZ_B		9
		EGBB	1
		EGCC	1
		EGGW	1
		EGKK	1
		EGLC	1
		EGLL	1
		EGPF	1
		EGPH	1
		EGSS	1
Netherlands	EH_TCZ		4
		EHAM	1
		EHBK	1
		EHGG	1
		EHRD	1
Ireland	EI_TCZ		1
		EIDW	1
Denmark	EK_TCZ		1
		EKCH	1
Luxembourg	EL_TCZ		1
		ELLX	1
Norway	EN_TCZ		4
		ENBR	1
		ENGM	1
		ENVA	1
		ENZV	1
Poland	EP_TCZ		14
		EPBY	1
		EPGD	1
		EPKK	1
		EPKT	1
		EPLB	1
		EPLL	1
		EPMO	1
		EPPO	1
		EPRA	1
		EPRZ	1
		EPSC	1
		EPWA	1
		EPWR	1
		EPZG	1
Sweden	ES_TCZ_A		1
		ESSA	1
	ES_TCZ_L		1
		ESGG	1
Latvia	EV_TCZ		3
		EVLA	1
		EVRA	1
		EVVA	1
Lithuania	EY_TCZ		4
		EYKA	1
		EYPA	1
		EYSA	1
		EYVI	1
Bulgaria	LB_TCZ		5
		LBBG	1
		LBGO	1
		LBPD	1
		LBSF	1
		LBWN	1
Cyprus	LC_TCZ		2
		LCLK	1
		LCPH	1
Croatia	LD_TCZ		1
		LDZA	1
Spain	LE_TCZ		5
		GCLP	1
		LEBL	1
		LEMD	1
		LEMG	1
		LEPA	1

State Name	TCZ Name	APCode	N
France	LF_TCZ		61
		LFAQ	1
		LFBA	1
		LFBD	1
		LFBE	1
		LFBH	1
		LFBI	1
		LFBL	1
		LFBO	1
		LFBP	1
		LFBT	1
		LFBZ	1
		LFCR	1
		LFGJ	1
		LFJL	1
		LFJR	1
		LFKB	1
		LFKC	1
		LFKF	1
		LFKJ	1
		LFLB	1
		LFLC	1
		LFLL	1
		LFLP	1
		LFLS	1
		LFLX	1
		LFLY	1
		LFMD	1
		LFMH	1
		LFMI	1
		LFMK	1
		LFML	1
		LFMN	1
		LFMP	1
		LFMT	1
		LFMU	1
		LFMV	1
		LFOB	1
		LFOH	1
		LFOK	1
		LFOT	1
		LFPB	1
		LFPG	1
		LFPN	1
		LFPO	1
		LFQQ	1
		LFRB	1
		LFRD	1
		LFRG	1
		LFRH	1
		LFRK	1
		LFRN	1
		LFRO	1
		LFRQ	1
		LFRS	1
		LFRZ	1
		LFSB	1
		LFSD	1
		LFSL	1
		LFST	1
		LFTH	1
		LFTW	1
Greece	LG_TCZ		1
		LGAV	1
Hungary	LH_TCZ		1
		LHBP	1
Italy	LI_TCZ_1		1
		LIRF	1
	LI_TCZ_2		3
		LIMC	1
		LIML	1
		LIPZ	1
	LI_TCZ_3		43
		LIBC	1
		LIBD	1
		LIBF	1
		LIBG	1
		LIBP	1
		LIBR	1
		LICA	1
		LICC	1
		LICD	1
		LICG	1
		LICJ	1
		LICR	1
		LICT	1
		LIEA	1
		LIEE	1
		LIEO	1
		LIMA	1
		LIME	1
		LIMF	1
		LIMG	1
		LIMJ	1
		LIMP	1
		LIMZ	1
		LIPB	1
		LIPE	1
		LIPH	1
		LIPK	1
		LIPO	1
		LIPQ	1
		LIPR	1
		LIPU	1
		LIPV	1
		LIPX	1
		LIPY	1
		LIQN	1
		LIRA	1
		LIRI	1

State Name	TCZ Name	APCode	N
		LIRN	1
		LIRP	1
		LIRQ	1
		LIRS	1
		LIRU	1
		LIRZ	1
Slovenia	LJ_TCZ		3
		LJLJ	1
		LJMB	1
		LJPZ	1
Czech Republic	LK_TCZ		4
		LKKV	1
		LKMT	1
		LKPR	1
		LKTB	1
Malta	LM_TCZ		1
		LMML	1

State Name	TCZ Name	APCode	N
Austria	LO_TCZ		6
		LOWG	1
		LOWI	1
		LOWK	1
		LOWL	1
		LOWS	1
		LOWW	1
Portugal	LP_TCZ		9
		LPAZ	1
		LPFL	1
		LPFR	1
		LPHR	1
		LPMA	1
		LPPD	1
		LPPR	1
		LPPS	1
		LPPT	1

State Name	TCZ Name	APCode	N
Romania	LR_TCZ		2
		LRBS	1
		LROP	1
Switzerland	LS_TCZ		2
		LSGG	1
		LSZH	1
Slovakia	LZ_TCZ		1
		LZIB	1

B. Summary of forecast for ESRA08

Figure 58. Growth in Europe (ESRA08)

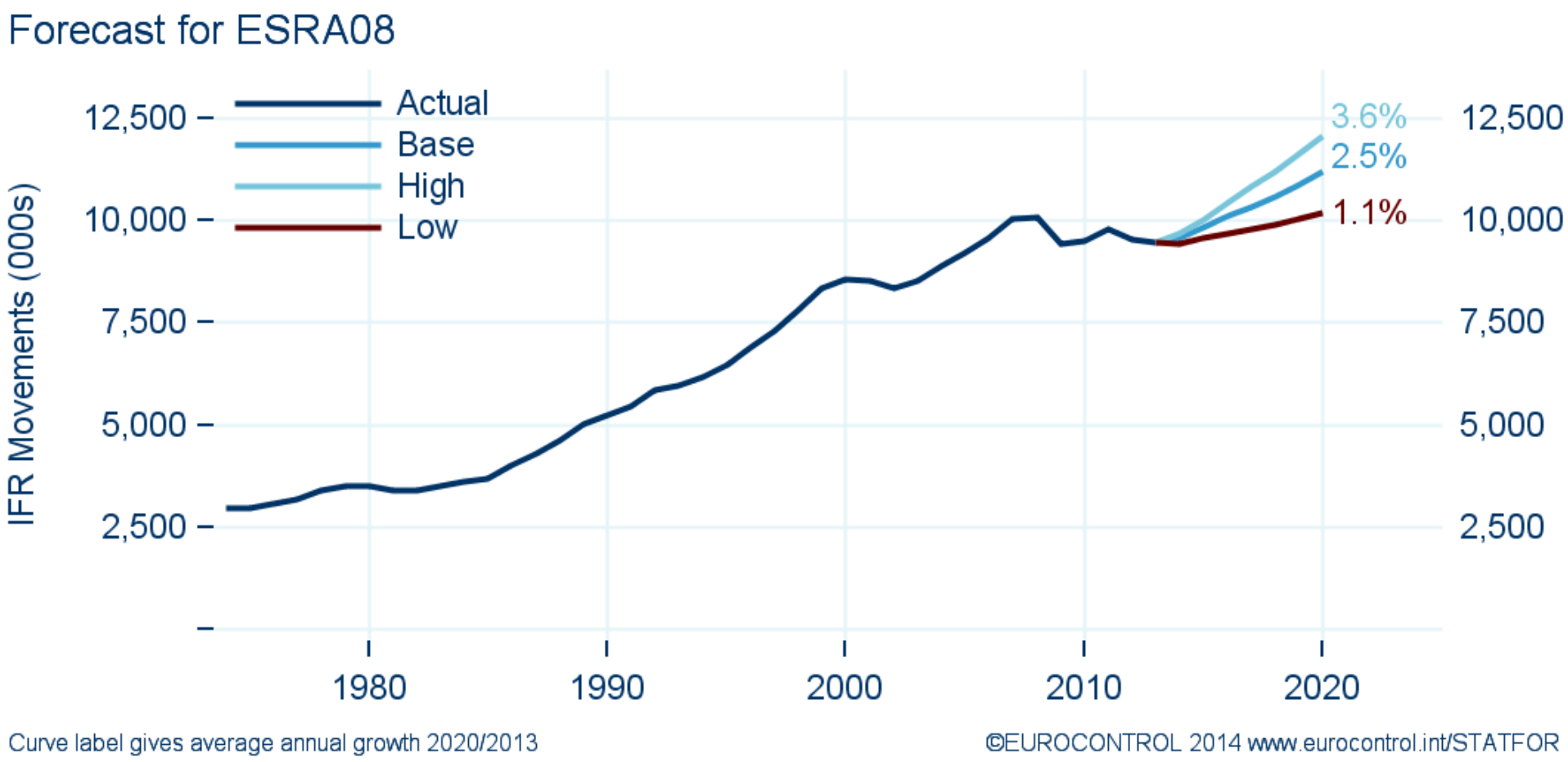


Figure 59. Flights and growth on main flow categories in Europe (ESRA08)

ESRA08		IFR Movements(000s)											Annual Growth											AAGR 2020/ 2013	RP1 2014/ 2011 AAGR	RP2 2019/ 2014 AAGR
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020			
Total: Internal	H	.	.	.	.	7,437	7,657	7,933	8,175	8,412	8,655	8,926	.	.	.	.	1.2%	3.0%	3.6%	3.0%	2.9%	2.9%	3.1%	**2.8%**	**-1.5%**	**3.1%**
	B	7,562	7,790	7,514	7,347	7,357	7,513	7,692	7,840	7,979	8,161	8,366	-0.5%	3.0%	-3.5%	-2.2%	0.1%	2.1%	2.4%	1.9%	1.8%	2.3%	2.5%	**1.9%**	**-1.9%**	**2.1%**
	L	.	.	.	.	7,272	7,347	7,393	7,439	7,497	7,574	7,662	.	.	.	.	-1.0%	1.0%	0.6%	0.6%	0.8%	1.0%	1.2%	**0.6%**	**-2.3%**	**0.8%**
Total: Arr/Dep	H	.	.	.	.	2,063	2,168	2,303	2,430	2,558	2,706	2,869	.	.	.	.	5.2%	5.1%	6.2%	5.5%	5.3%	5.8%	6.0%	**5.6%**	**3.1%**	**5.6%**
	B	1,815	1,883	1,916	1,961	2,036	2,117	2,209	2,296	2,377	2,479	2,594	6.1%	3.7%	1.7%	2.4%	3.8%	4.0%	4.4%	3.9%	3.5%	4.3%	4.6%	**4.1%**	**2.6%**	**4.0%**
	L	.	.	.	.	2,006	2,060	2,107	2,152	2,198	2,252	2,305	.	.	.	.	2.3%	2.7%	2.3%	2.1%	2.2%	2.4%	2.3%	**2.3%**	**2.1%**	**2.3%**
Total: Overflight	H	.	.	.	.	169	190	206	221	238	257	277	.	.	.	.	22%	12%	8.3%	7.4%	7.7%	7.9%	8.1%	**10.4%**	**14.9%**	**8.7%**
	B	116	112	119	139	165	183	194	204	215	227	240	15%	-3.4%	6.6%	17%	19%	11%	5.8%	5.3%	5.5%	5.5%	5.6%	**8.1%**	**13.8%**	**6.6%**
	L	.	.	.	.	160	176	182	189	196	204	212	.	.	.	.	15%	9.7%	3.9%	3.7%	3.9%	3.8%	3.8%	**6.2%**	**12.8%**	**5.0%**
Grand Total	H	.	.	.	.	9,669	10,015	10,442	10,826	11,208	11,618	12,072	.	.	.	.	2.3%	3.6%	4.3%	3.7%	3.5%	3.7%	3.9%	**3.6%**	**-0.4%**	**3.7%**
	B	9,493	9,784	9,548	9,447	9,557	9,812	10,095	10,339	10,570	10,867	11,200	0.8%	3.1%	-2.4%	-1.1%	1.2%	2.7%	2.9%	2.4%	2.2%	2.8%	3.1%	**2.5%**	**-0.8%**	**2.6%**
	L	.	.	.	.	9,438	9,582	9,682	9,780	9,891	10,030	10,179	.	.	.	.	-0.1%	1.5%	1.0%	1.0%	1.1%	1.4%	1.5%	**1.1%**	**-1.2%**	**1.2%**

Figure 60. Busiest bi-directional region-to-region flows for ESRA08

				IFR Movements(000s)											Annual Growth											AAGR 2020/ 2013
				2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
1	ESRA North-W	ESRA North-W	H	.	.	.	.	3487.5	3550.4	3626.3	3674.9	3725.1	3766.6	3809.6	.	.	.	.	-0.1%	1.8%	2.1%	1.3%	1.4%	1.1%	1.1%	**1.3%**
			B	3573.2	3679.4	3581.4	3491.4	3459.8	3506.1	3550.2	3569.8	3595.1	3624.3	3659.2	-2.5%	3.0%	-2.7%	-2.5%	-0.9%	1.3%	1.3%	0.6%	0.7%	0.8%	1.0%	**0.7%**
			L	.	.	.	.	3428.0	3445.7	3440.9	3426.2	3417.8	3415.8	3425.1	.	.	.	.	-1.8%	0.5%	-0.1%	-0.4%	-0.2%	-0.1%	0.3%	**-0.3%**
2	ESRA Mediter	ESRA North-W	H	.	.	.	.	1731.8	1791.6	1861.0	1919.9	1979.4	2043.8	2112.1	.	.	.	.	3.1%	3.5%	3.9%	3.2%	3.1%	3.3%	3.3%	**3.3%**
			B	1576.8	1674.8	1653.8	1680.2	1710.4	1752.7	1794.3	1831.1	1866.9	1911.9	1959.9	1.8%	6.2%	-1.3%	1.6%	1.8%	2.5%	2.4%	2.1%	2.0%	2.4%	2.5%	**2.2%**
			L	.	.	.	.	1687.3	1708.5	1715.6	1727.8	1743.6	1762.4	1780.5	.	.	.	.	0.4%	1.3%	0.4%	0.7%	0.9%	1.1%	1.0%	**0.8%**
3	ESRA Mediter	ESRA Mediter	H	.	.	.	.	1298.0	1351.0	1412.8	1485.3	1546.3	1615.1	1704.1	.	.	.	.	2.5%	4.1%	4.6%	5.1%	4.1%	4.5%	5.5%	**4.3%**
			B	1466.9	1480.4	1350.0	1266.2	1283.0	1321.7	1375.8	1432.0	1473.5	1539.5	1617.3	1.5%	0.9%	-8.8%	-6.2%	1.3%	3.0%	4.1%	4.1%	2.9%	4.5%	5.1%	**3.6%**
			L	.	.	.	.	1267.8	1289.6	1320.0	1354.7	1387.3	1429.0	1471.5	.	.	.	.	0.1%	1.7%	2.4%	2.6%	2.4%	3.0%	3.0%	**2.2%**
4	ESRA East	ESRA North-W	H	.	.	.	.	521.5	545.6	586.2	620.9	660.0	696.6	733.4	.	.	.	.	-0.8%	4.6%	7.4%	5.9%	6.3%	5.6%	5.3%	**4.9%**
			B	510.6	520.3	520.4	525.8	512.6	528.2	550.5	569.6	591.2	613.3	635.7	-0.6%	1.9%	0.0%	1.0%	-2.5%	3.0%	4.2%	3.5%	3.8%	3.7%	3.7%	**2.8%**
			L	.	.	.	.	503.9	511.4	517.8	525.2	534.2	543.1	552.3	.	.	.	.	-4.2%	1.5%	1.3%	1.4%	1.7%	1.7%	1.7%	**0.7%**
5	ESRA North-W	North Atlant	H	.	.	.	.	295.6	301.7	308.7	314.9	321.9	328.0	333.3	.	.	.	.	1.2%	2.1%	2.3%	2.0%	2.2%	1.9%	1.6%	**1.9%**
			B	288.8	302.0	293.7	292.2	293.4	299.3	304.9	309.3	314.1	318.9	323.7	-0.6%	4.6%	-2.7%	-0.5%	0.4%	2.0%	1.9%	1.4%	1.6%	1.5%	1.5%	**1.5%**
			L	.	.	.	.	291.0	294.7	298.0	300.1	302.1	304.1	306.7	.	.	.	.	-0.4%	1.3%	1.1%	0.7%	0.7%	0.7%	0.8%	**0.7%**

C. Seven-year traffic forecast per state (IFR movements)

This appendix presents the flight forecast details. On top of the Average Annual Growth rates over the 7-year horizon, average annual growth rates over the first reference period (RP1) and the second reference period (RP2) of the Performance Scheme have been added to the tables.

Figure 61. Forecast of the number of IFR Movements (thousands) per State.

IFR Movements (thousands)		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	AAGR 2020/ 2013	RP1 2014/2011 AAGR	RP2 2019/2014 AAGR
Albania	H	.	.	.	.	197	215	226	235	245	256	269	4.3%	.	.
	B	181	197	195	201	194	209	216	222	228	236	245	2.9%	.	.
	L	.	.	.	.	190	203	206	209	212	215	219	1.3%	.	.
Armenia	H	.	.	.	.	62	71	77	83	90	97	105	10%	.	.
	B	53	57	56	52	61	68	73	77	82	87	93	8.6%	.	.
	L	.	.	.	.	59	66	68	71	75	78	81	6.5%	.	.
Austria	H	.	.	.	.	1,132	1,183	1,242	1,293	1,346	1,397	1,464	4.0%	-0.6%	4.3%
	B	1,137	1,154	1,133	1,114	1,116	1,153	1,188	1,218	1,248	1,284	1,324	2.5%	-1.1%	2.9%
	L	.	.	.	.	1,099	1,121	1,132	1,143	1,157	1,172	1,188	0.9%	-1.6%	1.3%
Azerbaijan	H	.	.	.	.	140	154	165	178	190	205	224	8.2%	.	.
	B	120	124	130	129	138	150	159	169	178	190	205	6.9%	.	.
	L	.	.	.	.	136	145	152	159	166	175	183	5.2%	.	.
Belarus	H	.	.	.	.	275	294	315	334	354	376	399	7.0%	.	.
	B	196	225	240	249	270	285	297	309	321	335	349	4.9%	.	.
	L	.	.	.	.	265	275	281	286	293	300	307	3.0%	.	.
Belgium/ Luxembourg	H	.	.	.	.	1,150	1,189	1,235	1,273	1,315	1,356	1,394	3.4%	1.7%	3.4%
	B	1,035	1,091	1,089	1,101	1,136	1,167	1,195	1,219	1,245	1,274	1,303	2.4%	1.3%	2.3%
	L	.	.	.	.	1,122	1,139	1,145	1,152	1,163	1,175	1,188	1.1%	0.9%	0.9%
Bosnia-Herzegovina	H	.	.	.	.	287	302	319	334	349	367	386	5.7%	.	.
	B	250	276	268	262	282	294	305	315	324	335	349	4.1%	.	.
	L	.	.	.	.	278	286	290	295	300	305	311	2.5%	.	.
Bulgaria	H	.	.	.	.	580	617	650	686	713	754	807	5.6%	2.5%	5.4%
	B	504	539	540	551	572	601	626	652	669	702	743	4.4%	2.0%	4.2%
	L	.	.	.	.	564	585	599	614	628	648	665	2.7%	1.5%	2.8%
Canary Islands	H	.	.	.	.	301	315	327	337	349	362	374	5.1%	0.4%	3.7%
	B	275	298	275	265	297	307	312	316	322	328	334	3.3%	-0.1%	2.0%
	L	.	.	.	.	292	298	297	298	299	300	301	1.8%	-0.7%	0.6%
Croatia	H	.	.	.	.	519	544	573	599	625	654	688	4.9%	1.4%	4.7%
	B	459	497	495	492	511	530	548	565	580	600	623	3.4%	0.9%	3.3%
	L	.	.	.	.	503	515	522	530	538	548	557	1.8%	0.4%	1.7%
Cyprus	H	.	.	.	.	304	334	358	382	405	434	469	7.8%	2.7%	7.3%
	B	285	281	270	277	298	323	340	356	371	391	415	5.9%	1.9%	5.6%
	L	.	.	.	.	291	311	320	329	339	351	363	3.9%	1.1%	3.8%
Czech Republic	H	.	.	.	.	702	739	784	823	864	905	950	4.9%	0.3%	5.2%
	B	668	695	679	680	692	719	746	770	791	817	846	3.2%	-0.2%	3.4%
	L	.	.	.	.	682	699	709	719	728	738	750	1.4%	-0.6%	1.6%

IFR Movements (thousands)		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	AAGR 2020/ 2013	RP1 2014/2011 AAGR	RP2 2019/2014 AAGR
Denmark	H	.	.	.	.	638	662	688	710	734	757	778	3.3%	0.7%	3.5%
	B	595	625	605	618	632	650	667	681	696	711	726	2.3%	0.4%	2.4%
	L	.	.	.	.	624	635	639	643	648	653	658	0.9%	-0.0%	0.9%
Estonia	H	.	.	.	.	189	197	210	221	233	246	260	5.1%	1.9%	5.5%
	B	156	178	189	183	185	192	199	205	212	220	227	3.1%	1.4%	3.4%
	L	.	.	.	.	182	186	188	191	194	197	201	1.3%	0.8%	1.6%
FYROM	H	.	.	.	.	133	142	150	157	164	172	181	7.0%	.	.
	B	125	124	113	113	131	138	143	148	152	158	164	5.5%	.	.
	L	.	.	.	.	129	134	136	138	141	144	147	3.8%	.	.
Finland	H	.	.	.	.	245	253	263	271	280	290	300	3.1%	-2.8%	3.4%
	B	242	267	252	243	242	247	251	255	259	264	269	1.5%	-3.3%	1.7%
	L	.	.	.	.	239	240	240	240	240	241	242	-0.0%	-3.7%	0.2%
France	H	.	.	.	.	2,978	3,065	3,181	3,270	3,367	3,463	3,549	2.9%	0.1%	3.1%
	B	2,794	2,968	2,923	2,902	2,944	3,005	3,076	3,127	3,187	3,254	3,323	2.0%	-0.3%	2.0%
	L	.	.	.	.	2,905	2,935	2,947	2,957	2,976	3,002	3,031	0.6%	-0.7%	0.7%
Georgia	H	.	.	.	.	127	139	151	162	173	187	204	9.2%	.	.
	B	94	110	108	110	125	135	144	153	160	171	184	7.6%	.	.
	L	.	.	.	.	122	131	137	143	149	156	163	5.8%	.	.
Germany	H	.	.	.	.	3,027	3,121	3,246	3,348	3,456	3,561	3,672	3.0%	-0.6%	3.3%
	B	2,981	3,078	3,018	2,990	2,989	3,056	3,131	3,192	3,254	3,323	3,401	1.9%	-1.0%	2.1%
	L	.	.	.	.	2,950	2,983	3,002	3,022	3,045	3,070	3,103	0.5%	-1.4%	0.8%
Greece	H	.	.	.	.	653	681	714	746	777	814	857	4.7%	-0.2%	4.5%
	B	655	656	633	623	644	666	689	710	730	756	788	3.4%	-0.6%	3.3%
	L	.	.	.	.	635	649	659	670	681	695	709	1.9%	-1.1%	1.8%
Hungary	H	.	.	.	.	631	666	705	742	778	819	868	5.4%	0.8%	5.3%
	B	622	617	589	600	622	648	673	697	719	748	780	3.8%	0.3%	3.7%
	L	.	.	.	.	613	630	641	653	666	680	695	2.1%	-0.2%	2.1%
Iceland	H	.	.	.	.	143	150	158	165	174	182	191	5.6%	.	.
	B	102	111	123	131	141	147	153	157	163	168	175	4.2%	.	.
	L	.	.	.	.	140	144	147	150	152	155	159	2.8%	.	.
Ireland	H	.	.	.	.	538	557	573	589	607	624	642	3.0%	1.0%	3.0%
	B	513	523	521	522	534	552	564	576	589	602	617	2.4%	0.7%	2.4%
	L	.	.	.	.	528	540	547	553	560	568	578	1.4%	0.3%	1.5%
Italy	H	.	.	.	.	1,683	1,746	1,831	1,903	1,978	2,058	2,144	3.8%	-0.8%	4.1%
	B	1,712	1,726	1,685	1,648	1,661	1,706	1,757	1,801	1,845	1,897	1,953	2.5%	-1.3%	2.7%
	L	.	.	.	.	1,638	1,661	1,674	1,690	1,708	1,728	1,748	0.8%	-1.7%	1.1%
Latvia	H	.	.	.	.	255	267	283	298	313	330	346	5.6%	2.7%	5.3%
	B	214	235	233	236	250	258	265	272	279	288	296	3.3%	2.0%	2.8%
	L	.	.	.	.	246	249	251	253	255	258	261	1.4%	1.4%	1.0%
Lisbon FIR	H	.	.	.	.	483	507	529	547	568	589	609	4.4%	2.4%	4.0%
	B	429	450	438	449	476	494	505	514	525	536	547	2.8%	1.9%	2.4%
	L	.	.	.	.	469	480	481	482	485	488	491	1.3%	1.4%	0.8%

IFR Movements (thousands)		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	AAGR 2020/ 2013	RP1 2014/2011 AAGR	RP2 2019/2014 AAGR
Lithuania	H	.	.	.	.	263	280	298	313	330	348	366	6.0%	4.1%	5.8%
	B	206	233	236	242	258	271	281	289	299	308	318	4.0%	3.4%	3.6%
	L	.	.	.	.	254	262	265	269	273	277	281	2.1%	2.8%	1.8%
Malta	H	.	.	.	.	120	130	140	149	159	171	185	7.8%	14.2%	7.3%
	B	95	81	97	109	118	126	133	139	145	152	161	5.7%	13.5%	5.2%
	L	.	.	.	.	116	122	125	129	132	136	141	3.7%	12.8%	3.3%
Moldova	H	.	.	.	.	83	91	98	104	111	119	127	8.0%	.	.
	B	54	60	64	74	81	88	93	97	102	108	113	6.2%	.	.
	L	.	.	.	.	80	85	88	91	94	97	100	4.3%	.	.
Morocco	H	.	.	.	.	374	400	433	464	500	541	585	8.3%	.	.
	B	339	352	324	334	367	387	405	422	441	462	483	5.4%	.	.
	L	.	.	.	.	360	373	379	386	394	402	411	3.0%	.	.
Netherlands	H	.	.	.	.	1,143	1,185	1,226	1,262	1,302	1,339	1,368	3.0%	1.7%	3.2%
	B	1,013	1,085	1,083	1,109	1,134	1,170	1,199	1,224	1,250	1,278	1,299	2.3%	1.5%	2.4%
	L	.	.	.	.	1,124	1,146	1,152	1,159	1,169	1,180	1,192	1.0%	1.2%	1.0%
Norway	H	.	.	.	.	629	646	666	685	701	721	734	2.7%	3.7%	2.8%
	B	537	563	587	610	625	640	654	665	676	688	699	2.0%	3.5%	1.9%
	L	.	.	.	.	621	629	630	631	633	635	637	0.6%	3.3%	0.5%
Poland	H	.	.	.	.	722	764	821	871	926	981	1,032	5.9%	3.3%	6.3%
	B	599	655	684	692	710	741	774	802	832	864	897	3.8%	2.8%	4.0%
	L	.	.	.	.	699	719	731	743	756	769	782	1.8%	2.2%	1.9%
Romania	H	.	.	.	.	542	574	607	641	672	710	756	5.7%	3.6%	5.6%
	B	470	487	487	513	535	559	582	605	624	652	685	4.2%	3.1%	4.1%
	L	.	.	.	.	527	544	556	568	581	597	612	2.5%	2.7%	2.5%
Santa Maria FIR	H	.	.	.	.	131	138	143	148	154	159	164	4.4%	2.2%	3.9%
	B	118	123	118	121	129	135	139	142	146	149	153	3.4%	1.8%	2.9%
	L	.	.	.	.	128	132	134	135	137	139	140	2.1%	1.3%	1.7%
Serbia&Montenegro	H	.	.	.	.	534	561	591	619	646	677	715	4.7%	.	.
	B	543	558	535	518	526	546	566	585	601	623	650	3.3%	.	.
	L	.	.	.	.	517	531	539	549	558	570	581	1.7%	.	.
Slovakia	H	.	.	.	.	415	445	472	497	522	549	580	5.6%	2.8%	5.8%
	B	370	382	381	397	408	433	450	466	480	499	519	3.9%	2.3%	4.1%
	L	.	.	.	.	402	420	427	435	443	452	461	2.1%	1.7%	2.4%
Slovenia	H	.	.	.	.	345	363	381	397	414	432	454	4.7%	-0.8%	4.6%
	B	328	353	346	329	339	353	365	375	385	398	412	3.3%	-1.3%	3.2%
	L	.	.	.	.	334	343	347	352	357	363	369	1.7%	-1.8%	1.7%
Spain	H	.	.	.	.	1,577	1,639	1,711	1,772	1,842	1,914	1,984	3.8%	-1.8%	3.9%
	B	1,608	1,665	1,557	1,528	1,555	1,600	1,642	1,679	1,723	1,767	1,812	2.5%	-2.3%	2.6%
	L	.	.	.	.	1,531	1,556	1,563	1,577	1,596	1,615	1,633	1.0%	-2.8%	1.1%
Sweden	H	.	.	.	.	745	776	813	843	875	907	937	3.6%	1.0%	4.0%
	B	664	724	724	730	737	761	784	802	822	841	862	2.4%	0.6%	2.7%
	L	.	.	.	.	728	743	750	756	763	770	778	0.9%	0.2%	1.1%

IFR Movements (thousands)		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	AAGR 2020/ 2013	RP1 2014/2011 AAGR	RP2 2019/2014 AAGR
Switzerland	H	.	.	.	.	1,048	1,083	1,129	1,164	1,199	1,228	1,265	3.1%	-0.5%	3.2%
	B	1,025	1,063	1,045	1,019	1,034	1,060	1,088	1,110	1,134	1,160	1,187	2.2%	-0.9%	2.3%
	L	.	.	.	.	1,019	1,033	1,039	1,046	1,056	1,066	1,076	0.8%	-1.4%	0.9%
Turkey	H	.	.	.	.	1,242	1,347	1,439	1,556	1,639	1,758	1,922	7.7%	.	.
	B	965	1,039	1,066	1,142	1,224	1,311	1,398	1,494	1,553	1,670	1,817	6.9%	.	.
	L	.	.	.	.	1,207	1,274	1,338	1,404	1,463	1,544	1,621	5.1%	.	.
Ukraine	H	.	.	.	.	538	575	616	650	687	730	777	6.7%	.	.
	B	429	453	466	494	530	558	586	608	631	660	691	4.9%	.	.
	L	.	.	.	.	522	542	556	568	583	599	615	3.2%	.	.
UK	H	.	.	.	.	2,265	2,329	2,405	2,468	2,537	2,608	2,673	2.7%	0.4%	2.9%
	B	2,181	2,241	2,211	2,225	2,242	2,294	2,339	2,377	2,420	2,465	2,512	1.7%	0.0%	1.9%
	L	.	.	.	.	2,218	2,248	2,265	2,279	2,298	2,318	2,341	0.7%	-0.4%	0.9%
ESRA02	H	.	.	.	.	9,510	9,842	10,255	10,630	10,999	11,396	11,838	3.5%	.	.
	B	9,367	9,641	9,388	9,297	9,400	9,646	9,921	10,161	10,386	10,675	11,002	2.4%	.	.
	L	.	.	.	.	9,284	9,421	9,517	9,615	9,724	9,859	10,006	1.1%	.	.
EU27	H	.	.	.	.	8,792	9,076	9,446	9,759	10,088	10,431	10,796	3.3%	-0.9%	3.5%
	B	8,805	9,036	8,766	8,622	8,688	8,891	9,116	9,300	9,490	9,715	9,962	2.1%	-1.3%	2.3%
	L	.	.	.	.	8,577	8,681	8,740	8,797	8,871	8,960	9,059	0.7%	-1.7%	0.9%
ESRA08	H	.	.	.	.	9,669	10,015	10,442	10,826	11,208	11,618	12,072	3.6%	-0.4%	3.7%
	B	9,493	9,784	9,548	9,447	9,557	9,812	10,095	10,339	10,570	10,867	11,200	2.5%	-0.8%	2.6%
	L	.	.	.	.	9,438	9,582	9,682	9,780	9,891	10,030	10,179	1.1%	-1.2%	1.2%
SES	H	.	.	.	.	9,196	9,490	9,877	10,206	10,552	10,916	11,302	3.3%	-0.8%	3.5%
	B	9,171	9,407	9,162	9,022	9,090	9,301	9,536	9,728	9,928	10,162	10,420	2.1%	-1.1%	2.3%
	L	.	.	.	.	8,976	9,084	9,144	9,202	9,277	9,368	9,470	0.7%	-1.5%	0.9%
Baltic FAB	H	.	.	.	.	820	863	926	982	1,044	1,106	1,163	6.0%	3.4%	6.2%
	B	679	741	768	776	807	837	873	904	938	974	1,010	3.8%	2.8%	3.8%
	L	.	.	.	.	794	812	825	838	853	868	882	1.9%	2.3%	1.8%
BLUE MED FAB	H	.	.	.	.	2,277	2,367	2,488	2,596	2,706	2,830	2,968	4.3%	-0.1%	4.4%
	B	2,286	2,283	2,227	2,210	2,246	2,310	2,387	2,456	2,524	2,606	2,700	2.9%	-0.5%	3.0%
	L	.	.	.	.	2,213	2,247	2,274	2,304	2,337	2,375	2,413	1.3%	-1.0%	1.4%
Danube FAB	H	.	.	.	.	804	846	893	941	982	1,038	1,106	5.6%	2.0%	5.2%
	B	734	758	746	758	793	825	858	892	917	960	1,012	4.2%	1.5%	3.9%
	L	.	.	.	.	782	802	820	839	858	882	905	2.6%	1.0%	2.4%
FAB CE	H	.	.	.	.	1,917	1,994	2,104	2,201	2,300	2,402	2,523	4.5%	0.0%	4.6%
	B	1,864	1,914	1,865	1,854	1,889	1,942	2,008	2,067	2,122	2,190	2,266	2.9%	-0.4%	3.0%
	L	.	.	.	.	1,861	1,889	1,912	1,936	1,962	1,991	2,022	1.3%	-0.9%	1.4%
FABEC	H	.	.	.	.	5,572	5,735	5,952	6,124	6,308	6,486	6,665	2.8%	-0.6%	3.1%
	B	5,431	5,671	5,564	5,499	5,509	5,626	5,758	5,860	5,970	6,093	6,223	1.8%	-1.0%	2.0%
	L	.	.	.	.	5,440	5,498	5,525	5,550	5,587	5,633	5,688	0.5%	-1.4%	0.7%
NEFAB	H	.	.	.	.	1,047	1,078	1,121	1,159	1,198	1,240	1,276	3.4%	1.9%	3.4%
	B	924	988	1,001	1,012	1,036	1,059	1,084	1,104	1,124	1,147	1,170	2.1%	1.6%	2.1%
	L	.	.	.	.	1,026	1,036	1,037	1,041	1,045	1,050	1,055	0.6%	1.2%	0.5%

7-year IFR Flight Movements and Service Units Forecast: 2014-2020

IFR Movements (thousands)		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	AAGR 2020/ 2013	RP1 2014/2011 AAGR	RP2 2019/2014 AAGR
South West FAB	**H**	.	.	.	.	1,648	1,708	1,783	1,848	1,921	1,997	2,071	**3.8%**	**-3.3%**	**3.9%**
	B	1,765	1,823	1,644	1,591	1,625	1,667	1,711	1,750	1,795	1,841	1,887	**2.5%**	**-3.8%**	**2.5%**
	L	.	.	.	.	1,600	1,622	1,629	1,643	1,662	1,681	1,700	**1.0%**	**-4.3%**	**1.0%**
UK-Ireland FAB	**H**	.	.	.	.	2,298	2,362	2,439	2,502	2,573	2,645	2,712	**2.7%**	**0.4%**	**2.8%**
	B	2,216	2,272	2,238	2,254	2,275	2,327	2,373	2,410	2,454	2,500	2,549	**1.8%**	**0.0%**	**1.9%**
	L	.	.	.	.	2,250	2,279	2,296	2,311	2,331	2,351	2,375	**0.8%**	**-0.3%**	**0.9%**
DK-SE FAB	**H**	.	.	.	.	1,034	1,072	1,118	1,156	1,196	1,236	1,274	**3.5%**	**0.9%**	**3.6%**
	B	953	1,008	978	999	1,023	1,052	1,082	1,105	1,130	1,155	1,181	**2.4%**	**0.5%**	**2.4%**
	L	.	.	.	.	1,012	1,029	1,036	1,044	1,052	1,060	1,069	**1.0%**	**0.1%**	**0.9%**
EU28	**H**	.	.	.	.	8,805	9,088	9,459	9,773	10,102	10,445	10,811	**3.3%**	**-0.9%**	**3.5%**
	B	8,820	9,050	8,779	8,634	8,701	8,904	9,128	9,313	9,504	9,728	9,975	**2.1%**	**-1.3%**	**2.3%**
	L	.	.	.	.	8,589	8,693	8,752	8,809	8,884	8,972	9,072	**0.7%**	**-1.7%**	**0.9%**

D. Seven-year traffic forecast per state (Growth)

This appendix shows the same data as the previous, but presented as growth rather than counts of flights.

Figure 62. Forecast of the IFR Movements growth per State.

IFR Movements (Growth)		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	AAGR 2020/ 2013	RP1 2014/2011 AAGR	RP2 2019/2014 AAGR
Albania	H	.	.	.	.	-1.6%	8.9%	5.0%	4.4%	4.1%	4.5%	5.0%	**4.3%**	.	.
	B	12%	8.7%	-1.1%	2.8%	-3.4%	7.8%	3.3%	3.0%	2.7%	3.4%	3.7%	**2.9%**	.	.
	L	.	.	.	.	-5.1%	6.5%	1.4%	1.5%	1.5%	1.7%	1.8%	**1.3%**	.	.
Armenia	H	.	.	.	.	19%	14%	8.9%	7.9%	7.6%	8.1%	8.4%	**10.5%**	.	.
	B	9.3%	8.1%	-2.0%	-6.6%	16%	12%	6.7%	6.1%	5.7%	6.5%	6.7%	**8.6%**	.	.
	L	.	.	.	.	14%	10%	4.4%	4.4%	4.4%	4.6%	4.4%	**6.5%**	.	.
Austria	H	.	.	.	.	1.6%	4.5%	5.0%	4.1%	4.1%	3.8%	4.8%	**4.0%**	**-0.6%**	**4.3%**
	B	2.2%	1.5%	-1.8%	-1.7%	0.1%	3.3%	3.0%	2.5%	2.5%	2.9%	3.0%	**2.5%**	**-1.1%**	**2.9%**
	L	.	.	.	.	-1.3%	2.0%	0.9%	1.0%	1.2%	1.3%	1.3%	**0.9%**	**-1.6%**	**1.3%**
Azerbaijan	H	.	.	.	.	8.9%	9.8%	7.7%	7.6%	6.6%	8.1%	9.2%	**8.2%**	.	.
	B	11%	2.8%	5.4%	-1.3%	7.3%	8.7%	6.3%	6.3%	5.1%	7.0%	7.9%	**6.9%**	.	.
	L	.	.	.	.	5.5%	7.0%	4.5%	4.6%	4.5%	5.1%	4.9%	**5.2%**	.	.
Belarus	H	.	.	.	.	10%	6.9%	7.3%	6.0%	6.1%	6.2%	6.2%	**7.0%**	.	.
	B	7.7%	15%	6.7%	3.8%	8.4%	5.5%	4.5%	3.9%	4.0%	4.3%	4.2%	**4.9%**	.	.
	L	.	.	.	.	6.3%	4.0%	1.9%	2.1%	2.3%	2.4%	2.2%	**3.0%**	.	.
Belgium/ Luxembourg	H	.	.	.	.	4.5%	3.4%	3.9%	3.0%	3.3%	3.1%	2.8%	**3.4%**	**1.7%**	**3.4%**
	B	1.5%	5.4%	-0.2%	1.0%	3.2%	2.7%	2.4%	2.0%	2.2%	2.3%	2.3%	**2.4%**	**1.3%**	**2.3%**
	L	.	.	.	.	1.9%	1.5%	0.6%	0.6%	0.9%	1.0%	1.1%	**1.1%**	**0.9%**	**0.9%**
Bosnia-Herzegovina	H	.	.	.	.	9.2%	5.5%	5.5%	4.8%	4.5%	4.9%	5.4%	**5.7%**	.	.
	B	11%	10%	-2.6%	-2.2%	7.5%	4.2%	3.6%	3.3%	2.9%	3.7%	4.0%	**4.1%**	.	.
	L	.	.	.	.	5.8%	2.9%	1.5%	1.6%	1.7%	1.9%	1.9%	**2.5%**	.	.
Bulgaria	H	.	.	.	.	5.4%	6.4%	5.3%	5.5%	3.9%	5.8%	7.0%	**5.6%**	**2.5%**	**5.4%**
	B	5.6%	7.1%	0.2%	1.9%	3.9%	5.1%	4.2%	4.2%	2.5%	5.0%	5.9%	**4.4%**	**2.0%**	**4.2%**
	L	.	.	.	.	2.4%	3.7%	2.5%	2.5%	2.2%	3.1%	2.7%	**2.7%**	**1.5%**	**2.8%**
Canary Islands	H	.	.	.	.	14%	4.7%	3.7%	3.1%	3.6%	3.6%	3.5%	**5.1%**	**0.4%**	**3.7%**
	B	3.2%	8.2%	-7.7%	-3.4%	12%	3.4%	1.7%	1.4%	1.8%	1.8%	1.8%	**3.3%**	**-0.1%**	**2.0%**
	L	.	.	.	.	10%	2.2%	-0.2%	0.1%	0.4%	0.4%	0.4%	**1.8%**	**-0.7%**	**0.6%**
Croatia	H	.	.	.	.	5.4%	4.9%	5.2%	4.6%	4.3%	4.7%	5.2%	**4.9%**	**1.4%**	**4.7%**
	B	8.7%	8.4%	-0.4%	-0.6%	3.8%	3.7%	3.4%	3.0%	2.7%	3.5%	3.8%	**3.4%**	**0.9%**	**3.3%**
	L	.	.	.	.	2.1%	2.5%	1.4%	1.5%	1.5%	1.8%	1.8%	**1.8%**	**0.4%**	**1.7%**
Cyprus	H	.	.	.	.	9.8%	9.8%	7.2%	6.6%	6.0%	7.1%	8.1%	**7.8%**	**2.7%**	**7.3%**
	B	6.4%	-1.2%	-4.1%	2.8%	7.3%	8.4%	5.3%	4.8%	4.0%	5.4%	6.3%	**5.9%**	**1.9%**	**5.6%**
	L	.	.	.	.	4.9%	6.7%	3.1%	2.9%	2.9%	3.4%	3.5%	**3.9%**	**1.1%**	**3.8%**
Czech Republic	H	.	.	.	.	3.3%	5.2%	6.1%	5.0%	5.0%	4.8%	4.9%	**4.9%**	**0.3%**	**5.2%**
	B	3.2%	4.0%	-2.3%	0.0%	1.8%	3.9%	3.7%	3.1%	2.8%	3.2%	3.5%	**3.2%**	**-0.2%**	**3.4%**
	L	.	.	.	.	0.3%	2.6%	1.4%	1.4%	1.3%	1.4%	1.6%	**1.4%**	**-0.6%**	**1.6%**

IFR Movements (Growth)		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	AAGR 2020/ 2013	RP1 2014/2011 AAGR	RP2 2019/2014 AAGR
Denmark	H	.	.	.	.	3.3%	3.7%	4.0%	3.2%	3.3%	3.2%	2.8%	**3.3%**	**0.7%**	**3.5%**
	B	3.3%	5.1%	-3.2%	2.3%	2.2%	2.9%	2.7%	2.1%	2.2%	2.2%	2.1%	**2.3%**	**0.4%**	**2.4%**
	L	.	.	.	.	1.0%	1.7%	0.6%	0.6%	0.8%	0.7%	0.8%	**0.9%**	**-0.0%**	**0.9%**
Estonia	H	.	.	.	.	3.0%	4.8%	6.2%	5.3%	5.6%	5.5%	5.4%	**5.1%**	**1.9%**	**5.5%**
	B	2.1%	14%	6.1%	-3.1%	1.3%	3.5%	3.6%	3.2%	3.4%	3.5%	3.5%	**3.1%**	**1.4%**	**3.4%**
	L	.	.	.	.	-0.4%	2.1%	1.1%	1.4%	1.7%	1.7%	1.8%	**1.3%**	**0.8%**	**1.6%**
FYROM	H	.	.	.	.	18%	6.4%	5.6%	4.8%	4.7%	4.8%	5.3%	**7.0%**	**.**	**.**
	B	-0.1%	-0.4%	-9.6%	0.1%	16%	5.2%	3.7%	3.3%	3.1%	3.6%	3.9%	**5.5%**	**.**	**.**
	L	.	.	.	.	14%	3.9%	1.6%	1.7%	1.8%	2.0%	2.1%	**3.8%**	**.**	**.**
Finland	H	.	.	.	.	1.0%	3.0%	3.9%	3.1%	3.4%	3.5%	3.5%	**3.1%**	**-2.8%**	**3.4%**
	B	0.6%	11%	-5.8%	-3.5%	-0.4%	1.9%	1.8%	1.5%	1.7%	1.9%	2.0%	**1.5%**	**-3.3%**	**1.7%**
	L	.	.	.	.	-1.8%	0.7%	-0.2%	-0.1%	0.2%	0.4%	0.5%	**-0.0%**	**-3.7%**	**0.2%**
France	H	.	.	.	.	2.6%	2.9%	3.8%	2.8%	3.0%	2.8%	2.5%	**2.9%**	**0.1%**	**3.1%**
	B	-0.2%	6.2%	-1.5%	-0.7%	1.5%	2.1%	2.3%	1.7%	1.9%	2.1%	2.1%	**2.0%**	**-0.3%**	**2.0%**
	L	.	.	.	.	0.1%	1.0%	0.4%	0.3%	0.7%	0.9%	1.0%	**0.6%**	**-0.7%**	**0.7%**
Georgia	H	.	.	.	.	15%	10%	8.1%	7.8%	6.5%	7.9%	9.0%	**9.2%**	**.**	**.**
	B	22%	16%	-1.7%	2.1%	13%	8.6%	6.4%	6.2%	4.9%	6.9%	7.6%	**7.6%**	**.**	**.**
	L	.	.	.	.	11%	6.8%	4.5%	4.5%	4.3%	4.9%	4.6%	**5.8%**	**.**	**.**
Germany	H	.	.	.	.	1.2%	3.1%	4.0%	3.1%	3.2%	3.0%	3.1%	**3.0%**	**-0.6%**	**3.3%**
	B	1.7%	3.2%	-1.9%	-0.9%	-0.0%	2.3%	2.5%	1.9%	1.9%	2.1%	2.3%	**1.9%**	**-1.0%**	**2.1%**
	L	.	.	.	.	-1.4%	1.1%	0.6%	0.7%	0.7%	0.8%	1.1%	**0.5%**	**-1.4%**	**0.8%**
Greece	H	.	.	.	.	4.7%	4.4%	4.9%	4.4%	4.1%	4.8%	5.4%	**4.7%**	**-0.2%**	**4.5%**
	B	2.6%	0.2%	-3.5%	-1.6%	3.3%	3.4%	3.4%	3.2%	2.8%	3.6%	4.2%	**3.4%**	**-0.6%**	**3.3%**
	L	.	.	.	.	1.9%	2.2%	1.6%	1.6%	1.7%	2.0%	2.1%	**1.9%**	**-1.1%**	**1.8%**
Hungary	H	.	.	.	.	5.2%	5.5%	5.9%	5.3%	4.8%	5.3%	6.0%	**5.4%**	**0.8%**	**5.3%**
	B	2.4%	-0.8%	-4.4%	1.9%	3.7%	4.2%	3.9%	3.6%	3.1%	4.0%	4.3%	**3.8%**	**0.3%**	**3.7%**
	L	.	.	.	.	2.1%	2.8%	1.8%	1.9%	1.9%	2.2%	2.1%	**2.1%**	**-0.2%**	**2.1%**
Iceland	H	.	.	.	.	9.0%	4.9%	5.5%	4.8%	4.9%	5.0%	5.0%	**5.6%**	**.**	**.**
	B	0.6%	9.0%	11%	6.8%	7.8%	4.1%	3.8%	3.3%	3.3%	3.5%	3.7%	**4.2%**	**.**	**.**
	L	.	.	.	.	6.6%	3.1%	2.1%	1.8%	1.9%	2.0%	2.1%	**2.8%**	**.**	**.**
Ireland	H	.	.	.	.	3.0%	3.5%	3.0%	2.8%	3.0%	2.9%	2.8%	**3.0%**	**1.0%**	**3.0%**
	B	-3.1%	1.9%	-0.4%	0.3%	2.2%	3.3%	2.3%	2.1%	2.2%	2.3%	2.4%	**2.4%**	**0.7%**	**2.4%**
	L	.	.	.	.	1.0%	2.4%	1.2%	1.1%	1.3%	1.5%	1.6%	**1.4%**	**0.3%**	**1.5%**
Italy	H	.	.	.	.	2.1%	3.8%	4.9%	3.9%	3.9%	4.1%	4.2%	**3.8%**	**-0.8%**	**4.1%**
	B	3.9%	0.8%	-2.3%	-2.2%	0.8%	2.7%	3.0%	2.5%	2.5%	2.8%	2.9%	**2.5%**	**-1.3%**	**2.7%**
	L	.	.	.	.	-0.6%	1.4%	0.8%	0.9%	1.1%	1.2%	1.1%	**0.8%**	**-1.7%**	**1.1%**
Latvia	H	.	.	.	.	7.9%	4.7%	6.2%	5.2%	5.2%	5.2%	5.0%	**5.6%**	**2.7%**	**5.3%**
	B	4.0%	9.8%	-1.0%	1.3%	5.9%	3.1%	3.0%	2.6%	2.7%	2.9%	2.8%	**3.3%**	**2.0%**	**2.8%**
	L	.	.	.	.	4.1%	1.6%	0.5%	0.8%	1.0%	1.1%	1.1%	**1.4%**	**1.4%**	**1.0%**
Lisbon FIR	H	.	.	.	.	7.5%	4.9%	4.4%	3.4%	3.8%	3.7%	3.4%	**4.4%**	**2.4%**	**4.0%**
	B	5.6%	4.8%	-2.7%	2.6%	6.0%	3.7%	2.3%	1.8%	2.1%	2.1%	2.0%	**2.8%**	**1.9%**	**2.4%**
	L	.	.	.	.	4.3%	2.5%	0.1%	0.3%	0.6%	0.6%	0.6%	**1.3%**	**1.4%**	**0.8%**

IFR Movements (Growth)		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	AAGR 2020/ 2013	RP1 2014/2011 AAGR	RP2 2019/2014 AAGR
Lithuania	H	.	.	.	.	8.5%	6.4%	6.4%	5.3%	5.4%	5.3%	5.0%	**6.0%**	**4.1%**	**5.8%**
	B	7.3%	13%	1.0%	2.8%	6.5%	4.9%	3.6%	3.1%	3.2%	3.3%	3.1%	**4.0%**	**3.4%**	**3.6%**
	L	.	.	.	.	4.6%	3.5%	1.1%	1.4%	1.5%	1.6%	1.4%	**2.1%**	**2.8%**	**1.8%**
Malta	H	.	.	.	.	10%	8.2%	7.3%	6.9%	6.5%	7.6%	8.3%	**7.8%**	**14.2%**	**7.3%**
	B	12%	-15%	20%	13%	8.2%	6.8%	5.0%	4.8%	4.1%	5.3%	6.0%	**5.7%**	**13.5%**	**5.2%**
	L	.	.	.	.	6.2%	5.3%	2.7%	2.7%	2.7%	3.1%	3.0%	**3.7%**	**12.8%**	**3.3%**
Moldova	H	.	.	.	.	11%	9.9%	8.0%	6.7%	6.6%	6.7%	6.8%	**8.0%**	**.**	**.**
	B	24%	11%	5.7%	16%	9.3%	8.5%	5.6%	4.9%	4.8%	5.3%	5.5%	**6.2%**	**.**	**.**
	L	.	.	.	.	7.5%	7.0%	3.1%	3.0%	3.2%	3.4%	3.3%	**4.3%**	**.**	**.**
Morocco	H	.	.	.	.	12%	7.0%	8.1%	7.2%	7.9%	8.1%	8.2%	**8.3%**	**.**	**.**
	B	8.6%	3.9%	-8.1%	3.3%	9.8%	5.4%	4.6%	4.3%	4.6%	4.6%	4.7%	**5.4%**	**.**	**.**
	L	.	.	.	.	7.6%	3.8%	1.5%	1.9%	2.1%	2.1%	2.1%	**3.0%**	**.**	**.**
Netherlands	H	.	.	.	.	3.1%	3.6%	3.5%	3.0%	3.2%	2.8%	2.2%	**3.0%**	**1.7%**	**3.2%**
	B	1.7%	7.2%	-0.2%	2.4%	2.2%	3.2%	2.5%	2.0%	2.2%	2.2%	1.7%	**2.3%**	**1.5%**	**2.4%**
	L	.	.	.	.	1.4%	2.0%	0.5%	0.6%	0.9%	0.9%	1.1%	**1.0%**	**1.2%**	**1.0%**
Norway	H	.	.	.	.	3.0%	2.8%	3.1%	2.8%	2.4%	2.8%	1.8%	**2.7%**	**3.7%**	**2.8%**
	B	2.2%	4.9%	4.2%	4.0%	2.4%	2.3%	2.3%	1.7%	1.6%	1.8%	1.7%	**2.0%**	**3.5%**	**1.9%**
	L	.	.	.	.	1.8%	1.3%	0.1%	0.3%	0.3%	0.4%	0.3%	**0.6%**	**3.3%**	**0.5%**
Poland	H	.	.	.	.	4.3%	5.9%	7.4%	6.1%	6.3%	6.0%	5.2%	**5.9%**	**3.3%**	**6.3%**
	B	5.8%	9.4%	4.6%	1.1%	2.7%	4.4%	4.3%	3.7%	3.7%	3.9%	3.8%	**3.8%**	**2.8%**	**4.0%**
	L	.	.	.	.	1.1%	2.9%	1.6%	1.6%	1.8%	1.8%	1.7%	**1.8%**	**2.2%**	**1.9%**
Romania	H	.	.	.	.	5.7%	5.8%	5.9%	5.5%	4.8%	5.7%	6.4%	**5.7%**	**3.6%**	**5.6%**
	B	8.2%	3.8%	-0.0%	5.3%	4.3%	4.6%	4.1%	3.9%	3.1%	4.5%	5.0%	**4.2%**	**3.1%**	**4.1%**
	L	.	.	.	.	2.8%	3.2%	2.2%	2.2%	2.2%	2.7%	2.5%	**2.5%**	**2.7%**	**2.5%**
Santa Maria FIR	H	.	.	.	.	8.0%	5.3%	3.9%	3.3%	3.6%	3.6%	3.3%	**4.4%**	**2.2%**	**3.9%**
	B	4.5%	4.3%	-3.9%	2.7%	6.7%	4.6%	2.7%	2.3%	2.5%	2.4%	2.4%	**3.4%**	**1.8%**	**2.9%**
	L	.	.	.	.	5.3%	3.7%	1.1%	1.0%	1.2%	1.2%	1.3%	**2.1%**	**1.3%**	**1.7%**
Serbia&Montenegro	H	.	.	.	.	3.0%	5.1%	5.3%	4.8%	4.3%	4.8%	5.6%	**4.7%**	**.**	**.**
	B	5.9%	2.7%	-4.1%	-3.1%	1.4%	3.9%	3.6%	3.3%	2.8%	3.8%	4.2%	**3.3%**	**.**	**.**
	L	.	.	.	.	-0.2%	2.5%	1.6%	1.8%	1.7%	2.1%	2.0%	**1.7%**	**.**	**.**
Slovakia	H	.	.	.	.	4.3%	7.2%	6.1%	5.3%	5.0%	5.3%	5.7%	**5.6%**	**2.8%**	**5.8%**
	B	9.9%	3.1%	-0.3%	4.4%	2.7%	5.9%	4.0%	3.5%	3.1%	3.9%	4.1%	**3.9%**	**2.3%**	**4.1%**
	L	.	.	.	.	1.1%	4.5%	1.8%	1.8%	1.8%	2.1%	2.0%	**2.1%**	**1.7%**	**2.4%**
Slovenia	H	.	.	.	.	4.7%	5.2%	5.1%	4.4%	4.2%	4.3%	5.0%	**4.7%**	**-0.8%**	**4.6%**
	B	4.8%	7.5%	-2.0%	-4.8%	3.1%	4.1%	3.3%	2.9%	2.7%	3.3%	3.6%	**3.3%**	**-1.3%**	**3.2%**
	L	.	.	.	.	1.5%	2.8%	1.2%	1.3%	1.5%	1.7%	1.7%	**1.7%**	**-1.8%**	**1.7%**
Spain	H	.	.	.	.	3.2%	3.9%	4.4%	3.6%	4.0%	3.9%	3.7%	**3.8%**	**-1.8%**	**3.9%**
	B	1.8%	3.6%	-6.5%	-1.9%	1.8%	2.9%	2.6%	2.3%	2.6%	2.6%	2.5%	**2.5%**	**-2.3%**	**2.6%**
	L	.	.	.	.	0.2%	1.6%	0.5%	0.9%	1.2%	1.2%	1.1%	**1.0%**	**-2.8%**	**1.1%**
Sweden	H	.	.	.	.	2.1%	4.1%	4.7%	3.8%	3.7%	3.7%	3.4%	**3.6%**	**1.0%**	**4.0%**
	B	1.5%	9.1%	-0.1%	0.9%	0.9%	3.2%	3.1%	2.4%	2.4%	2.4%	2.5%	**2.4%**	**0.6%**	**2.7%**
	L	.	.	.	.	-0.3%	2.0%	0.9%	0.8%	0.9%	0.9%	1.0%	**0.9%**	**0.2%**	**1.1%**

IFR Movements (Growth)		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	AAGR 2020/ 2013	RP1 2014/2011 AAGR	RP2 2019/2014 AAGR
Switzerland	H	.	.	.	.	2.8%	3.4%	4.2%	3.1%	3.0%	2.4%	3.0%	**3.1%**	**-0.5%**	**3.2%**
	B	0.7%	3.6%	-1.7%	-2.4%	1.5%	2.5%	2.6%	2.0%	2.2%	2.3%	2.3%	**2.2%**	**-0.9%**	**2.3%**
	L	.	.	.	.	0.0%	1.3%	0.6%	0.7%	0.9%	1.0%	1.0%	**0.8%**	**-1.4%**	**0.9%**
Turkey	H	.	.	.	.	8.8%	8.5%	6.8%	8.1%	5.3%	7.3%	9.3%	**7.7%**	**.**	**.**
	B	13%	7.6%	2.6%	7.1%	7.3%	7.1%	6.6%	6.9%	3.9%	7.6%	8.8%	**6.9%**	**.**	**.**
	L	.	.	.	.	5.8%	5.5%	5.0%	5.0%	4.2%	5.5%	5.0%	**5.1%**	**.**	**.**
Ukraine	H	.	.	.	.	8.9%	6.9%	7.0%	5.6%	5.7%	6.2%	6.5%	**6.7%**	**.**	**.**
	B	14%	5.5%	2.9%	6.0%	7.3%	5.3%	4.9%	3.8%	3.8%	4.5%	4.8%	**4.9%**	**.**	**.**
	L	.	.	.	.	5.6%	3.8%	2.7%	2.1%	2.5%	2.8%	2.7%	**3.2%**	**.**	**.**
UK	H	.	.	.	.	1.8%	2.8%	3.3%	2.6%	2.8%	2.8%	2.5%	**2.7%**	**0.4%**	**2.9%**
	B	-4.3%	2.8%	-1.4%	0.6%	0.8%	2.3%	2.0%	1.6%	1.8%	1.9%	1.9%	**1.7%**	**0.0%**	**1.9%**
	L	.	.	.	.	-0.3%	1.3%	0.8%	0.7%	0.8%	0.9%	1.0%	**0.7%**	**-0.4%**	**0.9%**
ESRA02	H	.	.	.	.	2.3%	3.5%	4.2%	3.6%	3.5%	3.6%	3.9%	**3.5%**	**.**	**.**
	B	0.7%	2.9%	-2.6%	-1.0%	1.1%	2.6%	2.9%	2.4%	2.2%	2.8%	3.1%	**2.4%**	**.**	**.**
	L	.	.	.	.	-0.1%	1.5%	1.0%	1.0%	1.1%	1.4%	1.5%	**1.1%**	**.**	**.**
EU27	H	.	.	.	.	2.0%	3.2%	4.1%	3.3%	3.4%	3.4%	3.5%	**3.3%**	**-0.9%**	**3.5%**
	B	0.2%	2.6%	-3.0%	-1.6%	0.8%	2.3%	2.5%	2.0%	2.1%	2.4%	2.5%	**2.1%**	**-1.3%**	**2.3%**
	L	.	.	.	.	-0.5%	1.2%	0.7%	0.7%	0.8%	1.0%	1.1%	**0.7%**	**-1.7%**	**0.9%**
ESRA08	H	.	.	.	.	2.3%	3.6%	4.3%	3.7%	3.5%	3.7%	3.9%	**3.6%**	**-0.4%**	**3.7%**
	B	0.8%	3.1%	-2.4%	-1.1%	1.2%	2.7%	2.9%	2.4%	2.2%	2.8%	3.1%	**2.5%**	**-0.8%**	**2.6%**
	L	.	.	.	.	-0.1%	1.5%	1.0%	1.0%	1.1%	1.4%	1.5%	**1.1%**	**-1.2%**	**1.2%**
SES	H	.	.	.	.	1.9%	3.2%	4.1%	3.3%	3.4%	3.4%	3.5%	**3.3%**	**-0.8%**	**3.5%**
	B	0.2%	2.6%	-2.6%	-1.5%	0.8%	2.3%	2.5%	2.0%	2.1%	2.4%	2.5%	**2.1%**	**-1.1%**	**2.3%**
	L	.	.	.	.	-0.5%	1.2%	0.7%	0.6%	0.8%	1.0%	1.1%	**0.7%**	**-1.5%**	**0.9%**
Baltic FAB	H	.	.	.	.	5.6%	5.3%	7.3%	6.1%	6.2%	5.9%	5.2%	**6.0%**	**3.4%**	**6.2%**
	B	5.5%	9.2%	3.6%	1.0%	3.9%	3.8%	4.3%	3.6%	3.7%	3.9%	3.7%	**3.8%**	**2.8%**	**3.8%**
	L	.	.	.	.	2.3%	2.3%	1.6%	1.6%	1.8%	1.8%	1.7%	**1.9%**	**2.3%**	**1.8%**
BLUE MED FAB	H	.	.	.	.	3.1%	3.9%	5.1%	4.3%	4.2%	4.6%	4.9%	**4.3%**	**-0.1%**	**4.4%**
	B	3.6%	-0.1%	-2.4%	-0.8%	1.7%	2.8%	3.3%	2.9%	2.8%	3.3%	3.6%	**2.9%**	**-0.5%**	**3.0%**
	L	.	.	.	.	0.2%	1.5%	1.2%	1.3%	1.4%	1.6%	1.6%	**1.3%**	**-1.0%**	**1.4%**
Danube FAB	H	.	.	.	.	6.1%	5.3%	5.5%	5.4%	4.3%	5.6%	6.6%	**5.6%**	**2.0%**	**5.2%**
	B	6.7%	3.3%	-1.5%	1.5%	4.6%	4.0%	4.1%	4.0%	2.8%	4.7%	5.4%	**4.2%**	**1.5%**	**3.9%**
	L	.	.	.	.	3.2%	2.6%	2.3%	2.3%	2.2%	2.8%	2.6%	**2.6%**	**1.0%**	**2.4%**
FAB CE	H	.	.	.	.	3.4%	4.1%	5.5%	4.6%	4.5%	4.5%	5.0%	**4.5%**	**0.0%**	**4.6%**
	B	3.2%	2.7%	-2.6%	-0.6%	1.9%	2.8%	3.4%	2.9%	2.7%	3.2%	3.5%	**2.9%**	**-0.4%**	**3.0%**
	L	.	.	.	.	0.4%	1.5%	1.2%	1.3%	1.3%	1.5%	1.6%	**1.3%**	**-0.9%**	**1.4%**
FABEC	H	.	.	.	.	1.3%	2.9%	3.8%	2.9%	3.0%	2.8%	2.8%	**2.8%**	**-0.6%**	**3.1%**
	B	0.5%	4.4%	-1.9%	-1.2%	0.2%	2.1%	2.4%	1.8%	1.9%	2.1%	2.1%	**1.8%**	**-1.0%**	**2.0%**
	L	.	.	.	.	-1.1%	1.1%	0.5%	0.5%	0.7%	0.8%	1.0%	**0.5%**	**-1.4%**	**0.7%**
NEFAB	H	.	.	.	.	3.4%	3.0%	4.0%	3.4%	3.3%	3.5%	2.9%	**3.4%**	**1.9%**	**3.4%**
	B	2.1%	7.0%	1.3%	1.1%	2.4%	2.1%	2.4%	1.8%	1.9%	2.1%	2.0%	**2.1%**	**1.6%**	**2.1%**
	L	.	.	.	.	1.3%	1.0%	0.2%	0.3%	0.4%	0.5%	0.5%	**0.6%**	**1.2%**	**0.5%**

7-year IFR Flight Movements and Service Units Forecast: 2014-2020

IFR Movements (Growth)		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	AAGR 2020/ 2013	RP1 2014/2011 AAGR	RP2 2019/2014 AAGR
South West FAB	**H**	.	.	.	.	3.6%	3.7%	4.4%	3.6%	4.0%	3.9%	3.7%	**3.8%**	**-3.3%**	**3.9%**
	B	1.8%	3.3%	-9.8%	-3.3%	2.2%	2.6%	2.6%	2.3%	2.6%	2.6%	2.5%	**2.5%**	**-3.8%**	**2.5%**
	L	.	.	.	.	0.6%	1.4%	0.5%	0.9%	1.2%	1.1%	1.1%	**1.0%**	**-4.3%**	**1.0%**
UK-Ireland FAB	**H**	.	.	.	.	2.0%	2.8%	3.3%	2.6%	2.8%	2.8%	2.5%	**2.7%**	**0.4%**	**2.8%**
	B	-4.3%	2.5%	-1.5%	0.7%	0.9%	2.3%	2.0%	1.6%	1.8%	1.9%	1.9%	**1.8%**	**0.0%**	**1.9%**
	L	.	.	.	.	-0.2%	1.3%	0.8%	0.7%	0.8%	0.9%	1.0%	**0.8%**	**-0.3%**	**0.9%**
DK-SE FAB	**H**	.	.	.	.	3.5%	3.6%	4.3%	3.4%	3.4%	3.4%	3.1%	**3.5%**	**0.9%**	**3.6%**
	B	2.4%	5.7%	-3.0%	2.2%	2.4%	2.8%	2.8%	2.1%	2.2%	2.2%	2.3%	**2.4%**	**0.5%**	**2.4%**
	L	.	.	.	.	1.2%	1.7%	0.8%	0.7%	0.8%	0.7%	0.9%	**1.0%**	**0.1%**	**0.9%**
EU28	**H**	.	.	.	.	2.0%	3.2%	4.1%	3.3%	3.4%	3.4%	3.5%	**3.3%**	**-0.9%**	**3.5%**
	B	0.2%	2.6%	-3.0%	-1.7%	0.8%	2.3%	2.5%	2.0%	2.1%	2.4%	2.5%	**2.1%**	**-1.3%**	**2.3%**
	L	.	.	.	.	-0.5%	1.2%	0.7%	0.7%	0.8%	1.0%	1.1%	**0.7%**	**-1.7%**	**0.9%**

E. State by state two-year en-route service unit forecast by State

Figure 63. Forecast Summary: Annual total en-route service units 2014-2015.

	Charging Area	2013 Actual TSU	2014 STATFOR Forecast TSU	2014/2013 Forecast Growth	2015 STATFOR Forecast TSU	2015/2014 Forecast Growth	2014 States Forecast TSU	2014 STATFOR / States
EB	Belgium/Luxembourg	2,277,014	2,351,796	3.3%	2,423,741	3.1%	2,422,721	-2.9%
ED	Germany[A]	12,569,982	12,617,867	0.4%	12,896,166	2.2%	14,119,320	-10.6%
LF	France	17,899,945	18,438,168	3.0%	18,915,225	2.6%	19,045,084	-3.2%
EG	UK	9,754,933	10,024,981	2.8%	10,243,983	2.2%	11,034,647	-9.1%
EH	Netherlands	2,701,735	2,770,309	2.5%	2,847,354	2.8%	2,794,000	-0.8%
EI	Ireland	3,812,940	3,885,941	1.9%	4,019,231	3.4%	4,004,000	-2.9%
LS	Switzerland	1,384,957	1,431,956	3.4%	1,467,624	2.5%	1,558,501	-8.1%
LP	Lisbon FIR	2,876,753	3,104,230	7.9%	3,248,219	4.6%	3,018,536	2.8%
LO	Austria	2,456,012	2,485,902	1.2%	2,576,922	3.7%	2,947,000	-15.6%
LE	Spain	8,447,044	8,757,179	3.7%	9,040,381	3.2%	9,857,260	-11.2%
GC	Canary Islands	1,515,812	1,644,584	8.5%	1,720,754	4.6%	1,795,248	-8.4%
AZ	Santa Maria FIR	4,021,257	4,332,326	7.7%	4,543,030	4.9%	4,359,813	-0.6%
LG	Greece	4,215,705	4,261,808	1.1%	4,403,818	3.3%	5,041,000	-15.5%
LT	Turkey	10,636,744	11,379,198	7.0%	12,169,678	6.9%	11,119,000	2.3%
LM	Malta	735,327	800,030	8.8%	857,922	7.2%	607,164	31.8%
LI	Italy	8,117,393	8,357,654	3.0%	8,610,504	3.0%	9,070,636	-7.9%
LC	Cyprus	1,326,579	1,403,630	5.8%	1,527,660	8.8%	1,340,000	4.7%
LH	Hungary	2,100,927	2,202,955	4.9%	2,315,709	5.1%	2,186,850	0.7%
EN	Norway	2,050,929	2,176,834	6.1%	2,242,613	3.0%	1,842,584	18.1%
EK	Denmark	1,523,724	1,580,892	3.8%	1,624,877	2.8%	1,605,336	-1.5%
LJ	Slovenia	411,103	428,901	4.3%	450,416	5.0%	473,976	-9.5%
LR	Romania	3,751,523	3,921,607	4.5%	4,109,330	4.8%	4,008,000	-2.2%
LK	Czech Republic	2,374,021	2,440,939	2.8%	2,520,579	3.3%	2,499,820	-2.4%
ES	Sweden	3,208,684	3,260,246	1.6%	3,357,183	3.0%	3,393,000	-3.9%
LZ	Slovakia	984,989	1,050,816	6.7%	1,114,110	6.0%	1,017,625	3.3%
LD	Croatia	1,694,578	1,682,040	-0.7%	1,715,227	2.0%	1,811,316	-7.1%
LB	Bulgaria	2,057,979	2,154,312	4.7%	2,259,765	4.9%	2,117,995	1.7%
LW	FYROM	177,596	216,425	21.9%	229,719	6.1%	203,400	6.4%
LU	Moldova	240,411	261,945	9.0%	285,303	8.9%	257,000	1.9%
EF	Finland	770,452	780,141	1.3%	796,129	2.0%	940,000	-17.0%
LA	Albania	455,595	447,968	-1.7%	478,955	6.9%	475,118	-5.7%
LQ	Bosnia-Herzegovina	654,113	740,874	13.3%	782,442	5.6%	692,530	7.0%
UD	Armenia	149,164	173,407	16.3%	194,030	11.9%	155,000	11.9%
LY	Belgrade[B]	1,638,512	1,623,234	-0.9%	1,670,950	2.9%	1,685,316	-3.7%
EP	Poland	3,983,698	4,172,564	4.7%	4,362,840	4.6%	4,161,000	0.3%
EY	Lithuania	450,551	473,231	5.0%	497,085	5.0%	467,097	1.3%
EE	Estonia	740,986	746,339	0.7%	774,641	3.8%	.	.
EV	Latvia[C]	733,633	796,139	8.5%	814,187	2.3%	765,000	4.1%
UK	Ukraine[D]	4,931,009	5,061,715	2.7%	5,337,907	5.5%	.	.
	Charging Area	**2013 Actual TSU**	**2014 STATFOR Forecast TSU**	**2014/2013 Forecast Growth**	**2015 STATFOR Forecast TSU**	**2015/2014 Forecast Growth**	**2014 States Forecast TSU**	**2014 STATFOR / States**
CRCO88	**CRCO88**	**69,718,383**	**71,845,240**	**3.1%**	**73,942,629**	**2.9%**	**76,956,130**	**-6.6%**
ESRA02	**ESRA02**	**116,097,048**	**120,205,614**	**3.5%**	**124,533,172**	**3.6%**	**126,490,831**	**-5.0%**
CRCO11	**CRCO11**	**124,162,313**	**128,633,032**	**3.6%**	**133,333,661**	**3.7%**	**134,891,893**	**-4.6%**
SES29	**RP1 Region**	**105,235,330**	**108,521,953**	**3.1%**	**112,038,968**	**3.2%**	**114,133,400**	**-4.9%**
RP2 Region	**RP2 Region**	**106,929,908**	**110,203,993**	**3.1%**	**113,754,195**	**3.2%**	**115,944,716**	**-5.0%**
TOTAL	**Total**	**129,834,308**	**134,441,086**	**3.5%**	**139,446,208**	**3.7%**	**134,891,893**	**-4.6%(E)**

(A) Includes service units for flight segments performed as Operational Air Traffic. 63.919 service units concerned for 2013. Estimated number for the coming years is 65.000 per year.

(B) The charging zone over Serbia and Montenegro has been renamed Belgrade (Annex 1 of the Conditions of Application of the Route Charges System, Text approved by the enlarged Commission and entered into force on 20.5.2011).

(C) Latvia has only joined EUROCONTROL member states in 2011. Before that date, only yearly data was available for the TSU

(D) Ukraine is not part of the CRCO but has asked STATFOR to produce an individual forecast for them as they will not have this capacity in 2012. In the TOTAL column the 2012 states forecast and the percentage difference between, the 2012 States and STATFOR forecast does not account for Ukraine

(E) Percentage corrected for missing State Forecasts for Ukraine (only Total): it represents the difference between the total state forecast and total STATFOR forecast for all countries but Ukraine.

Figure 64. Forecast Summary: Annual chargeable en-route service units 2014-2015.

	Charging Area	2013 Actual TSU	2014 STATFOR Forecast TSU	2015 STATFOR Forecast TSU	2013 Actual Exempted SU in %	2013 Actual Chargeable SU in %	2014 Chargeable SU Estimate	2015 Chargeable SU Estimate
EB	Belgium/Luxembourg	2,277,014	2,351,796	2,423,741	1.0%	99.0%	2,327,200	2,398,400
ED	Germany[A]	12,569,982	12,617,867	12,896,166	0.9%	99.1%	12,502,200	12,777,900
LF	France	17,899,945	18,438,168	18,915,225	0.9%	99.1%	18,266,500	18,739,100
EG	UK	9,754,933	10,024,981	10,243,983	1.4%	98.6%	9,887,300	10,103,300
EH	Netherlands	2,701,735	2,770,309	2,847,354	1.0%	99.0%	2,742,100	2,818,300
EI	Ireland	3,812,940	3,885,941	4,019,231	1.3%	98.7%	3,834,500	3,966,000
LS	Switzerland	1,384,957	1,431,956	1,467,624	0.3%	99.7%	1,428,200	1,463,800
LP	Lisbon FIR	2,876,753	3,104,230	3,248,219	1.0%	99.0%	3,072,500	3,215,000
LO	Austria	2,456,012	2,485,902	2,576,922	0.2%	99.8%	2,480,100	2,570,900
LE	Spain	8,447,044	8,757,179	9,040,381	0.9%	99.1%	8,675,600	8,956,200
GC	Canary Islands	1,515,812	1,644,584	1,720,754	0.8%	99.2%	1,631,600	1,707,200
AZ	Santa Maria FIR	4,021,257	4,332,326	4,543,030	2.1%	97.9%	4,241,600	4,447,900
LG	Greece	4,215,705	4,261,808	4,403,818	2.3%	97.7%	4,163,400	4,302,100
LT	Turkey	10,636,744	11,379,198	12,169,678	1.0%	99.0%	11,264,300	12,046,800
LM	Malta	735,327	800,030	857,922	3.5%	96.5%	772,100	828,000
LI	Italy	8,117,393	8,357,654	8,610,504	1.8%	98.2%	8,208,400	8,456,700
LC	Cyprus	1,326,579	1,403,630	1,527,660	1.4%	98.6%	1,383,700	1,506,000
LH	Hungary	2,100,927	2,202,955	2,315,709	1.7%	98.3%	2,165,400	2,276,300
EN	Norway	2,050,929	2,176,834	2,242,613	0.8%	99.2%	2,158,800	2,224,000
EK	Denmark	1,523,724	1,580,892	1,624,877	0.6%	99.4%	1,571,700	1,615,500
LJ	Slovenia	411,103	428,901	450,416	0.4%	99.6%	427,400	448,800
LR	Romania	3,751,523	3,921,607	4,109,330	1.8%	98.2%	3,852,300	4,036,700
LK	Czech Republic	2,374,021	2,440,939	2,520,579	2.2%	97.8%	2,387,100	2,465,000
ES	Sweden	3,208,684	3,260,246	3,357,183	0.4%	99.6%	3,247,000	3,343,500
LZ	Slovakia	984,989	1,050,816	1,114,110	1.6%	98.4%	1,033,700	1,095,900
LD	Croatia	1,694,578	1,682,040	1,715,227	0.2%	99.8%	1,678,600	1,711,700
LB	Bulgaria	2,057,979	2,154,312	2,259,765	1.0%	99.0%	2,132,200	2,236,600
LW	FYROM	177,596	216,425	229,719	0.1%	99.9%	216,200	229,500
LU	Moldova	240,411	261,945	285,303	0.1%	99.9%	261,800	285,200
EF	Finland	770,452	780,141	796,129	0.9%	99.1%	773,400	789,300
LA	Albania	455,595	447,968	478,955	0.3%	99.7%	446,500	477,300
LQ	Bosnia-Herzegovina	654,113	740,874	782,442	0.1%	99.9%	740,200	781,800
UD	Armenia	149,164	173,407	194,030	0.1%	99.9%	173,300	193,900
LY	Belgrade	1,638,512	1,623,234	1,670,950	0.1%	99.9%	1,621,700	1,669,300
EP	Poland	3,983,698	4,172,564	4,362,840	0.5%	99.5%	4,153,200	4,342,600
EY	Lithuania	450,551	473,231	497,085	0.4%	99.6%	471,500	495,300
EE	Estonia	740,986	746,339	774,641	.	.	.	.
EV	Latvia	733,633	796,139	814,187	0.5%	99.5%	792,300	810,200
UK	Ukraine	4,931,009	5,061,715	5,337,907	0.2%	99.8%	5,053,800	5,329,600
CRCO88	**CRCO88**	**69,718,383**	**71,845,240**	**73,942,629**	**1.0%**	**99.0%**	**71,091,500**	**73,166,900**
ESRA02	**ESRA02**	**116,097,048**	**120,205,614**	**124,533,172**	**1.2%**	**98.8%**	**118,789,200**	**123,065,800**
CRCO11	**CRCO11**	**124,162,313**	**128,633,032**	**133,333,661**	**1.1%**	**98.9%**	**127,187,300**	**131,835,100**
PScheme	**RP1 Region**	**105,235,330**	**108,521,953**	**112,038,968**	**1.8%**	**98.2%**	**106,524,100**	**109,976,400**
RP2	**RP2 Region**	**106,929,908**	**110,203,993**	**113,754,195**	**1.8%**	**98.2%**	**108,203,800**	**111,689,500**
TOTAL	**Total**	**129,834,308**	**134,441,086**	**139,446,208**	**1.7%**	**98.3%**	**132,220,900**	**137,143,300**

(A) Includes service units for flight segments performed as Operational Air Traffic. 63.919 service units concerned for 2013. Estimated number for the coming years is 65.000 per year.

F. Seven-year en-route service units forecast per State (service units)

Figure 65. Forecast of the total number of en-route service units (thousands) per State.

Total en-route service units (thousands)		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2020/ 2013 Total Growth	RP1 2014/ 2011 AAGR	RP2 2019/ 2014 AAGR
Albania	H	.	.	.	.	.	457	494	519	542	564	589	618	36%	.	.
	B	355	404	448	443	456	448	479	495	510	524	542	562	23%	.	.
	L	.	.	.	.	.	439	464	471	478	486	494	504	11%	.	.
Armenia	H	.	.	.	.	.	179	204	220	237	254	275	297	99%	.	.
	B	111	146	170	154	149	173	194	205	218	230	245	261	75%	.	.
	L	.	.	.	.	.	168	184	191	199	207	217	227	52%	.	.
Austria	H	.	.	.	.	.	2,536	2,667	2,802	2,919	3,039	3,161	3,310	35%	**0.2%**	**4.5%**
	B	2,424	2,449	2,519	2,469	2,456	2,486	2,577	2,658	2,728	2,798	2,882	2,973	21%	**-0.4%**	**3.0%**
	L	.	.	.	.	.	2,436	2,485	2,511	2,539	2,571	2,607	2,645	8%	**-1.1%**	**1.4%**
Belgium/ Luxembourg	H	.	.	.	.	.	2,379	2,472	2,578	2,670	2,771	2,872	2,968	30%	**2.5%**	**3.8%**
	B	2,079	2,115	2,212	2,232	2,277	2,352	2,424	2,495	2,558	2,627	2,702	2,777	22%	**2.1%**	**2.8%**
	L	.	.	.	.	.	2,324	2,371	2,398	2,427	2,463	2,501	2,543	12%	**1.7%**	**1.5%**
Belgrade	H	.	.	.	.	.	1,667	1,743	1,830	1,912	1,989	2,081	2,194	34%	.	.
	B	1,783	1,819	1,831	1,719	1,639	1,623	1,671	1,727	1,782	1,828	1,896	1,974	21%	.	.
	L	.	.	.	.	.	1,579	1,598	1,623	1,649	1,676	1,711	1,746	7%	.	.
Bosnia-Herzegovina	H	.	.	.	.	.	761	815	861	904	945	992	1,046	60%	.	.
	B	579	637	717	680	654	741	782	812	839	863	895	931	42%	.	.
	L	.	.	.	.	.	721	750	763	775	788	803	819	25%	.	.
Bulgaria	H	.	.	.	.	.	2,200	2,343	2,459	2,589	2,681	2,832	3,030	47%	**2.9%**	**5.2%**
	B	1,798	1,840	2,019	2,020	2,058	2,154	2,260	2,350	2,446	2,502	2,626	2,783	35%	**2.2%**	**4.0%**
	L	.	.	.	.	.	2,108	2,176	2,230	2,286	2,334	2,408	2,476	20%	**1.5%**	**2.7%**
Canary Islands	H	.	.	.	.	.	1,675	1,775	1,838	1,895	1,961	2,030	2,101	39%	**0.2%**	**3.9%**
	B	1,492	1,540	1,666	1,599	1,516	1,645	1,721	1,748	1,773	1,805	1,837	1,871	23%	**-0.4%**	**2.2%**
	L	.	.	.	.	.	1,614	1,666	1,663	1,666	1,672	1,679	1,687	11%	**-1.1%**	**0.8%**
Croatia	H	.	.	.	.	.	1,715	1,778	1,867	1,951	2,033	2,127	2,236	32%	**1.6%**	**4.4%**
	B	1,298	1,451	1,634	1,679	1,695	1,682	1,715	1,770	1,824	1,872	1,937	2,011	19%	**1.0%**	**2.9%**
	L	.	.	.	.	.	1,649	1,652	1,673	1,697	1,722	1,754	1,787	5%	**0.3%**	**1.2%**
Cyprus	H	.	.	.	.	.	1,425	1,570	1,677	1,792	1,896	2,033	2,195	65%	**1.9%**	**7.4%**
	B	1,273	1,352	1,347	1,303	1,327	1,404	1,528	1,604	1,687	1,753	1,852	1,969	48%	**1.4%**	**5.7%**
	L	.	.	.	.	.	1,382	1,484	1,527	1,578	1,623	1,683	1,741	31%	**0.9%**	**4.0%**
Czech Republic	H	.	.	.	.	.	2,483	2,594	2,737	2,866	2,999	3,132	3,274	38%	**2.5%**	**4.7%**
	B	2,023	2,190	2,305	2,305	2,374	2,441	2,521	2,607	2,685	2,756	2,842	2,938	24%	**1.9%**	**3.1%**
	L	.	.	.	.	.	2,398	2,446	2,476	2,509	2,540	2,575	2,616	10%	**1.3%**	**1.4%**
Denmark	H	.	.	.	.	.	1,622	1,693	1,767	1,831	1,900	1,968	2,029	33%	**3.3%**	**3.9%**
	B	1,359	1,411	1,470	1,429	1,524	1,581	1,625	1,675	1,717	1,762	1,807	1,852	22%	**2.5%**	**2.7%**
	L	.	.	.	.	.	1,539	1,553	1,571	1,589	1,608	1,628	1,648	8%	**1.5%**	**1.1%**
Estonia	H	.	.	.	.	.	758	793	840	884	933	984	1,037	40%	**2.5%**	**5.4%**
	B	632	627	704	725	741	746	775	802	827	855	886	917	24%	**2.0%**	**3.5%**
	L	.	.	.	.	.	735	756	765	776	790	804	818	10%	**1.4%**	**1.8%**
FYROM	H	.	.	.	.	.	220	237	250	262	274	287	302	70%	.	.
	B	180	183	194	174	178	216	230	238	246	254	263	273	54%	.	.
	L	.	.	.	.	.	213	223	226	230	235	239	244	38%	.	.
Finland	H	.	.	.	.	.	795	820	850	878	908	940	973	26%	**-1.5%**	**3.4%**
	B	727	740	832	790	770	780	796	812	827	843	861	880	14%	**-2.1%**	**2.0%**
	L	.	.	.	.	.	766	773	775	778	782	787	794	3%	**-2.7%**	**0.6%**

Total en-route service units (thousands)		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2020/ 2013 Total Growth	RP1 2014/ 2011 AAGR	RP2 2019/ 2014 AAGR
France	H	.	.	.	.	.	18,644	19,313	20,084	20,696	21,364	22,023	22,632	26%	**1.8%**	**3.4%**
	B	16,780	16,637	17,691	17,515	17,900	18,438	18,915	19,390	19,759	20,181	20,637	21,103	18%	**1.4%**	**2.3%**
	L	.	.	.	.	.	18,226	18,487	18,604	18,714	18,876	19,064	19,268	8%	**1.0%**	**0.9%**
Germany	H	.	.	.	.	.	12,740	13,141	13,684	14,140	14,623	15,093	15,587	24%	**-0.0%**	**3.4%**
	B	11,913	12,294	12,740	12,513	12,570	12,618	12,896	13,233	13,512	13,795	14,114	14,460	15%	**-0.3%**	**2.3%**
	L	.	.	.	.	.	12,494	12,633	12,730	12,830	12,944	13,069	13,222	5%	**-0.6%**	**0.9%**
Greece	H	.	.	.	.	.	4,350	4,574	4,821	5,061	5,292	5,574	5,907	40%	**-1.5%**	**5.1%**
	B	4,139	4,454	4,546	4,358	4,216	4,262	4,404	4,575	4,740	4,887	5,086	5,324	26%	**-2.1%**	**3.6%**
	L	.	.	.	.	.	4,173	4,232	4,318	4,405	4,493	4,600	4,713	12%	**-2.8%**	**2.0%**
Hungary	H	.	.	.	.	.	2,260	2,416	2,563	2,703	2,837	2,990	3,171	51%	**3.0%**	**5.8%**
	B	2,038	2,091	2,067	2,023	2,101	2,203	2,316	2,412	2,504	2,584	2,691	2,810	34%	**2.1%**	**4.1%**
	L	.	.	.	.	.	2,146	2,215	2,261	2,310	2,357	2,413	2,468	17%	**1.3%**	**2.4%**
Ireland	H	.	.	.	.	.	3,929	4,077	4,193	4,306	4,432	4,558	4,688	23%	**1.4%**	**3.0%**
	B	3,561	3,615	3,771	3,806	3,813	3,886	4,019	4,107	4,191	4,283	4,379	4,483	18%	**1.0%**	**2.4%**
	L	.	.	.	.	.	3,840	3,946	3,992	4,036	4,087	4,145	4,212	10%	**0.6%**	**1.5%**
Italy	H	.	.	.	.	.	8,579	9,014	9,447	9,824	10,209	10,630	11,083	37%	**0.8%**	**4.4%**
	B	8,145	8,621	8,370	8,139	8,117	8,358	8,611	8,865	9,090	9,316	9,583	9,873	22%	**-0.0%**	**2.8%**
	L	.	.	.	.	.	8,127	8,178	8,248	8,327	8,417	8,525	8,632	6%	**-1.0%**	**1.0%**
Latvia	H	.	.	.	.	.	809	838	888	933	982	1,033	1,085	48%	**4.8%**	**5.0%**
	B	596	634	702	707	734	796	814	838	860	883	908	934	27%	**4.3%**	**2.7%**
	L	.	.	.	.	.	783	791	796	802	811	820	829	13%	**3.7%**	**0.9%**
Lisbon FIR	H	.	.	.	.	.	3,135	3,304	3,445	3,564	3,700	3,839	3,974	38%	**3.6%**	**4.1%**
	B	2,501	2,624	2,821	2,782	2,877	3,104	3,248	3,324	3,388	3,464	3,540	3,617	26%	**3.2%**	**2.7%**
	L	.	.	.	.	.	3,072	3,190	3,202	3,219	3,245	3,269	3,295	15%	**2.9%**	**1.3%**
Lithuania	H	.	.	.	.	.	485	518	552	581	612	645	677	50%	**4.9%**	**5.9%**
	B	341	371	420	430	451	473	497	515	532	549	567	585	30%	**4.1%**	**3.7%**
	L	.	.	.	.	.	462	476	482	489	496	504	512	14%	**3.2%**	**1.8%**
Malta	H	.	.	.	.	.	819	891	956	1,023	1,087	1,170	1,270	73%	**17.4%**	**7.4%**
	B	416	487	506	641	735	800	858	904	952	993	1,050	1,119	52%	**16.5%**	**5.6%**
	L	.	.	.	.	.	781	826	854	882	909	944	979	33%	**15.6%**	**3.9%**
Moldova	H	.	.	.	.	.	267	293	315	335	357	381	407	69%	**.**	**.**
	B	139	181	195	206	240	262	285	301	315	330	346	365	52%	**.**	**.**
	L	.	.	.	.	.	257	278	287	296	305	315	325	35%	**.**	**.**
Netherlands	H	.	.	.	.	.	2,805	2,908	3,015	3,106	3,205	3,306	3,393	26%	**2.6%**	**3.3%**
	B	2,426	2,476	2,595	2,587	2,702	2,770	2,847	2,918	2,977	3,041	3,109	3,170	17%	**2.2%**	**2.3%**
	L	.	.	.	.	.	2,736	2,780	2,800	2,821	2,848	2,876	2,908	8%	**1.8%**	**1.0%**
Norway	H	.	.	.	.	.	2,213	2,300	2,390	2,474	2,556	2,650	2,736	33%	**8.9%**	**3.7%**
	B	1,495	1,583	1,713	1,846	2,051	2,177	2,243	2,306	2,358	2,411	2,470	2,530	23%	**8.3%**	**2.6%**
	L	.	.	.	.	.	2,141	2,183	2,203	2,222	2,241	2,263	2,284	11%	**7.7%**	**1.1%**
Poland	H	.	.	.	.	.	4,216	4,454	4,753	5,013	5,293	5,581	5,867	47%	**4.7%**	**5.8%**
	B	3,092	3,313	3,676	3,854	3,984	4,173	4,363	4,544	4,699	4,861	5,039	5,221	31%	**4.3%**	**3.8%**
	L	.	.	.	.	.	4,128	4,271	4,344	4,414	4,493	4,575	4,655	17%	**3.9%**	**2.1%**
Romania	H	.	.	.	.	.	3,985	4,204	4,450	4,698	4,919	5,200	5,537	48%	**4.1%**	**5.5%**
	B	3,133	3,414	3,533	3,575	3,752	3,922	4,109	4,289	4,464	4,603	4,819	5,066	35%	**3.5%**	**4.2%**
	L	.	.	.	.	.	3,858	4,013	4,117	4,219	4,317	4,442	4,559	22%	**3.0%**	**2.9%**
Santa Maria FIR	H	.	.	.	.	.	4,413	4,645	4,836	5,008	5,202	5,399	5,585	39%	**3.5%**	**4.1%**
	B	3,479	3,696	3,983	3,874	4,021	4,332	4,543	4,679	4,798	4,928	5,058	5,189	29%	**2.8%**	**3.1%**
	L	.	.	.	.	.	4,251	4,436	4,502	4,559	4,627	4,693	4,764	18%	**2.2%**	**2.0%**

Total en-route service units (thousands)		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2020/ 2013 Total Growth	RP1 2014/ 2011 AAGR	RP2 2019/ 2014 AAGR
Slovakia	H	.	.	.	.	.	1,068	1,146	1,225	1,301	1,378	1,464	1,561	58%	**5.9%**	**6.5%**
	B	768	856	900	922	985	1,051	1,114	1,168	1,219	1,268	1,329	1,395	42%	**5.3%**	**4.8%**
	L	.	.	.	.	.	1,033	1,082	1,110	1,140	1,170	1,204	1,239	26%	**4.7%**	**3.1%**
Slovenia	H	.	.	.	.	.	437	466	490	511	532	555	582	42%	**1.0%**	**4.9%**
	B	331	365	425	425	411	429	450	466	479	492	508	526	28%	**0.3%**	**3.4%**
	L	.	.	.	.	.	420	435	441	447	454	462	470	14%	**-0.3%**	**1.9%**
Spain	H	.	.	.	.	.	8,842	9,189	9,613	9,970	10,379	10,799	11,205	33%	**-1.0%**	**4.1%**
	B	8,358	8,642	9,099	8,444	8,447	8,757	9,040	9,293	9,513	9,765	10,023	10,281	22%	**-1.3%**	**2.7%**
	L	.	.	.	.	.	8,669	8,880	8,936	9,018	9,128	9,238	9,345	11%	**-1.6%**	**1.3%**
Sweden	H	.	.	.	.	.	3,312	3,453	3,627	3,774	3,927	4,088	4,241	32%	**1.3%**	**4.3%**
	B	2,906	2,950	3,185	3,126	3,209	3,260	3,357	3,472	3,565	3,661	3,763	3,870	21%	**0.8%**	**2.9%**
	L	.	.	.	.	.	3,208	3,257	3,303	3,341	3,383	3,425	3,472	8%	**0.2%**	**1.3%**
Switzerland	H	.	.	.	.	.	1,449	1,500	1,561	1,610	1,662	1,711	1,763	27%	**0.4%**	**3.4%**
	B	1,396	1,409	1,431	1,399	1,385	1,432	1,468	1,506	1,537	1,572	1,609	1,648	19%	**0.0%**	**2.4%**
	L	.	.	.	.	.	1,414	1,433	1,443	1,454	1,469	1,484	1,501	8%	**-0.4%**	**1.0%**
Turkey	H	.	.	.	.	.	11,537	12,475	13,365	14,411	15,236	16,369	17,830	68%	**.**	**.**
	B	8,086	8,923	9,618	9,813	10,637	11,379	12,170	12,950	13,793	14,378	15,401	16,650	57%	**.**	**.**
	L	.	.	.	.	.	11,223	11,857	12,415	12,998	13,520	14,225	14,923	40%	**.**	**.**
UK	H	.	.	.	.	.	10,145	10,436	10,750	11,005	11,291	11,580	11,852	21%	**1.0%**	**2.7%**
	B	9,914	9,480	9,860	9,608	9,755	10,025	10,244	10,435	10,583	10,758	10,940	11,131	14%	**0.6%**	**1.8%**
	L	.	.	.	.	.	9,903	10,031	10,090	10,129	10,189	10,255	10,335	6%	**0.1%**	**0.7%**
Ukraine	H	.	.	.	.	.	5,148	5,501	5,845	6,152	6,492	6,887	7,325	49%	**.**	**.**
	B	3,727	4,188	4,465	4,588	4,931	5,062	5,338	5,564	5,759	5,970	6,236	6,533	32%	**.**	**.**
	L	.	.	.	.	.	4,975	5,175	5,285	5,380	5,506	5,653	5,804	18%	**.**	**.**
ESRA02	H	.	.	.	.	.	121,980	127,691	133,655	139,172	144,652	150,762	157,420	36%	**.**	**.**
	B	106,577	110,070	115,248	113,602	116,097	120,206	124,533	128,551	132,230	135,682	140,065	144,937	25%	**.**	**.**
	L	.	.	.	.	.	118,403	121,198	122,907	124,667	126,529	128,774	131,096	13%	**.**	**.**
BLUE MED FAB	H	.	.	.	.	.	15,174	16,048	16,901	17,701	18,484	19,408	20,455	42%	**0.9%**	**5.0%**
	B	13,973	14,914	14,770	14,441	14,395	14,823	15,400	15,948	16,469	16,949	17,571	18,285	27%	**0.1%**	**3.5%**
	L	.	.	.	.	.	14,463	14,719	14,947	15,193	15,443	15,751	16,065	12%	**-0.7%**	**1.7%**
Baltic FAB	H	.	.	.	.	.	4,701	4,973	5,305	5,593	5,905	6,226	6,544	48%	**4.7%**	**5.8%**
	B	3,434	3,684	4,096	4,284	4,434	4,646	4,860	5,059	5,230	5,410	5,606	5,806	31%	**4.3%**	**3.8%**
	L	.	.	.	.	.	4,590	4,747	4,826	4,903	4,989	5,079	5,166	17%	**3.9%**	**2.0%**
Danube FAB	H	.	.	.	.	.	6,186	6,547	6,909	7,287	7,600	8,032	8,566	47%	**3.7%**	**5.4%**
	B	4,931	5,254	5,551	5,595	5,810	6,076	6,369	6,639	6,911	7,105	7,445	7,849	35%	**3.1%**	**4.1%**
	L	.	.	.	.	.	5,966	6,189	6,347	6,505	6,652	6,850	7,035	21%	**2.4%**	**2.8%**
FAB CE	H	.	.	.	.	.	11,260	11,882	12,546	13,155	13,764	14,421	15,179	42%	**2.1%**	**5.1%**
	B	9,460	10,039	10,567	10,503	10,676	11,032	11,475	11,893	12,278	12,634	13,084	13,584	27%	**1.4%**	**3.5%**
	L	.	.	.	.	.	10,804	11,064	11,236	11,417	11,603	11,819	12,044	13%	**0.7%**	**1.8%**
FABEC	H	.	.	.	.	.	38,016	39,333	40,923	42,221	43,625	45,005	46,342	26%	**1.2%**	**3.4%**
	B	34,594	34,931	36,669	36,246	36,834	37,610	38,550	39,542	40,343	41,216	42,172	43,157	17%	**0.8%**	**2.3%**
	L	.	.	.	.	.	37,195	37,704	37,975	38,246	38,599	38,995	39,442	7%	**0.5%**	**1.0%**
NEFAB	H	.	.	.	.	.	9,509	9,897	10,362	10,774	11,206	11,663	12,101	34%	**3.4%**	**4.2%**
	B	7,715	7,944	8,606	8,623	9,028	9,341	9,610	9,906	10,155	10,415	10,695	10,982	22%	**2.8%**	**2.7%**
	L	.	.	.	.	.	9,172	9,313	9,413	9,509	9,614	9,727	9,846	9%	**2.1%**	**1.2%**
South West FAB	H	.	.	.	.	.	13,653	14,268	14,895	15,428	16,040	16,668	17,280	35%	**0.2%**	**4.1%**
	B	12,352	12,806	13,586	12,825	12,840	13,506	14,009	14,365	14,674	15,034	15,400	15,769	23%	**-0.2%**	**2.7%**
	L	.	.	.	.	.	13,355	13,736	13,800	13,903	14,045	14,186	14,327	12%	**-0.6%**	**1.2%**

7-year IFR Flight Movements and Service Units Forecast: 2014-2020

Total en-route service units (thousands)		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2020/ 2013 Total Growth	RP1 2014/ 2011 AAGR	RP2 2019/ 2014 AAGR
UK-Ireland FAB	H	.	.	.	.	.	14,074	14,513	14,943	15,311	15,723	16,138	16,540	22%	**1.1%**	**2.8%**
	B	13,475	13,095	13,632	13,414	13,568	13,911	14,263	14,542	14,774	15,041	15,320	15,614	15%	**0.7%**	**1.9%**
	L	.	.	.	.	.	13,743	13,977	14,082	14,165	14,276	14,400	14,547	7%	**0.3%**	**0.9%**
CRCO88	H	.	.	.	.	.	72,691	75,426	78,400	80,887	83,630	86,372	89,056	28%	**1.1%**	**3.5%**
	B	66,323	66,977	70,390	68,828	69,718	71,845	73,943	75,786	77,317	79,017	80,831	82,703	19%	**0.7%**	**2.4%**
	L	.	.	.	.	.	70,979	72,338	72,871	73,412	74,118	74,882	75,725	9%	**0.3%**	**1.1%**
CRCO11	H	.	.	.	.	.	130,555	136,758	143,278	149,295	155,291	161,958	169,204	36%	**1.9%**	**4.4%**
	B	113,434	117,393	123,211	121,589	124,162	128,633	133,334	137,687	141,669	145,420	150,157	155,406	25%	**1.4%**	**3.1%**
	L	.	.	.	.	.	126,683	129,732	131,576	133,474	135,485	137,899	140,388	13%	**0.9%**	**1.7%**
RP1Region	H	.	.	.	.	.	110,097	114,868	120,055	124,616	129,369	134,442	139,726	33%	**1.6%**	**4.1%**
	B	98,057	100,579	105,126	103,572	105,235	108,522	112,039	115,311	118,171	121,068	124,460	128,105	22%	**1.1%**	**2.8%**
	L	.	.	.	.	.	106,918	109,047	110,191	111,368	112,710	114,251	115,867	10%	**0.6%**	**1.3%**
RP2Region	H	.	.	.	.	.	111,812	116,646	121,922	126,567	131,402	136,569	141,962	33%	**1.6%**	**4.1%**
	B	99,355	102,030	106,761	105,251	106,930	110,204	113,754	117,081	119,995	122,940	126,397	130,116	22%	**1.1%**	**2.8%**
	L	.	.	.	.	.	108,567	110,699	111,864	113,066	114,432	116,004	117,653	10%	**0.6%**	**1.3%**
Total	H	.	.	.	.	.	136,461	143,052	149,963	156,331	162,716	169,829	177,565	37%	**2.1%**	**4.5%**
	B	117,793	122,208	128,380	126,901	129,834	134,441	139,446	144,053	148,255	152,245	157,279	162,855	25%	**1.5%**	**3.2%**
	L	.	.	.	.	.	132,392	135,663	137,626	139,631	141,781	144,355	147,010	13%	**1.0%**	**1.7%**

G. Seven-year en-route service units forecast per State (growth)

This appendix presents the same data as the previous, but presented as growth rather than counts of service units.

Figure 66. Forecast of the total en-route service units growth per State.

Total en-route service units (growth)		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	AAGR 2020/ 2013	RP1 2014/2011 AAGR	RP2 2019/2014 AAGR
Albania	H	.	.	.	.	.	0.2%	8.2%	5.0%	4.4%	4.1%	4.4%	4.9%	4.4%	.	.
	B	9.1%	13.9%	10.8%	-1.0%	2.9%	-1.7%	6.9%	3.4%	3.1%	2.7%	3.4%	3.8%	3.1%	.	.
	L	.	.	.	.	.	-3.6%	5.5%	1.6%	1.6%	1.6%	1.8%	1.8%	1.4%	.	.
Armenia	H	.	.	.	.	.	20.2%	13.7%	7.7%	8.1%	7.2%	8.0%	8.2%	10.4%	.	.
	B	.	31.5%	16.1%	-9.5%	-2.9%	16.3%	11.9%	5.6%	6.3%	5.5%	6.5%	6.6%	8.3%	.	.
	L	.	.	.	.	.	12.4%	10.0%	3.4%	4.5%	4.0%	4.8%	4.6%	6.2%	.	.
Austria	H	.	.	.	.	.	3.2%	5.2%	5.1%	4.1%	4.1%	4.0%	4.7%	4.4%	**0.2%**	**4.5%**
	B	-5.5%	1.0%	2.9%	-2.0%	-0.5%	1.2%	3.7%	3.1%	2.6%	2.6%	3.0%	3.2%	2.8%	**-0.4%**	**3.0%**
	L	.	.	.	.	.	-0.8%	2.0%	1.1%	1.1%	1.3%	1.4%	1.4%	1.1%	**-1.1%**	**1.4%**
Belgium/ Luxembourg	H	.	.	.	.	.	4.5%	3.9%	4.3%	3.5%	3.8%	3.7%	3.3%	3.9%	**2.5%**	**3.8%**
	B	-6.4%	1.7%	4.6%	0.9%	2.0%	3.3%	3.1%	3.0%	2.5%	2.7%	2.8%	2.8%	2.9%	**2.1%**	**2.8%**
	L	.	.	.	.	.	2.1%	2.0%	1.1%	1.2%	1.5%	1.6%	1.7%	1.6%	**1.7%**	**1.5%**
Belgrade	H	.	.	.	.	.	1.8%	4.6%	4.9%	4.5%	4.0%	4.7%	5.4%	4.3%	.	.
	B	2.0%	2.0%	0.6%	-6.1%	-4.7%	-0.9%	2.9%	3.4%	3.2%	2.6%	3.7%	4.2%	2.7%	.	.
	L	.	.	.	.	.	-3.6%	1.2%	1.6%	1.6%	1.6%	2.1%	2.1%	0.9%	.	.
Bosnia-Herzegovina	H	.	.	.	.	.	16.3%	7.1%	5.7%	5.0%	4.5%	5.0%	5.4%	6.9%	.	.
	B	10.3%	10.1%	12.5%	-5.1%	-3.8%	13.3%	5.6%	3.8%	3.3%	2.9%	3.7%	4.0%	5.2%	.	.
	L	.	.	.	.	.	10.2%	4.1%	1.7%	1.6%	1.6%	2.0%	2.0%	3.3%	.	.
Bulgaria	H	.	.	.	.	.	6.9%	6.5%	5.0%	5.3%	3.6%	5.6%	7.0%	5.7%	**2.9%**	**5.2%**
	B	3.0%	2.3%	9.7%	0.1%	1.9%	4.7%	4.9%	4.0%	4.1%	2.3%	5.0%	6.0%	4.4%	**2.2%**	**4.0%**
	L	.	.	.	.	.	2.4%	3.2%	2.5%	2.5%	2.1%	3.2%	2.8%	2.7%	**1.5%**	**2.7%**
Canary Islands	H	.	.	.	.	.	10.5%	6.0%	3.6%	3.1%	3.5%	3.5%	3.5%	4.8%	**0.2%**	**3.9%**
	B	-12.9%	3.2%	8.2%	-4.0%	-5.2%	8.5%	4.6%	1.6%	1.4%	1.8%	1.8%	1.8%	3.1%	**-0.4%**	**2.2%**
	L	.	.	.	.	.	6.5%	3.2%	-0.2%	0.2%	0.4%	0.4%	0.4%	1.5%	**-1.1%**	**0.8%**
Croatia	H	.	.	.	.	.	1.2%	3.7%	5.0%	4.5%	4.2%	4.6%	5.1%	4.0%	**1.6%**	**4.4%**
	B	2.2%	11.8%	12.6%	2.7%	0.9%	-0.7%	2.0%	3.2%	3.0%	2.7%	3.5%	3.8%	2.5%	**1.0%**	**2.9%**
	L	.	.	.	.	.	-2.7%	0.2%	1.3%	1.4%	1.5%	1.8%	1.9%	0.8%	**0.3%**	**1.2%**
Cyprus	H	.	.	.	.	.	7.4%	10.2%	6.8%	6.9%	5.8%	7.2%	8.0%	7.5%	**1.9%**	**7.4%**
	B	-2.9%	6.2%	-0.3%	-3.3%	1.8%	5.8%	8.8%	5.0%	5.2%	3.9%	5.6%	6.4%	5.8%	**1.4%**	**5.7%**
	L	.	.	.	.	.	4.2%	7.3%	3.0%	3.3%	2.9%	3.6%	3.5%	4.0%	**0.9%**	**4.0%**
Czech Republic	H	.	.	.	.	.	4.6%	4.5%	5.5%	4.7%	4.7%	4.4%	4.6%	4.7%	**2.5%**	**4.7%**
	B	0.2%	8.3%	5.2%	-0.0%	3.0%	2.8%	3.3%	3.4%	3.0%	2.7%	3.1%	3.4%	3.1%	**1.9%**	**3.1%**
	L	.	.	.	.	.	1.0%	2.0%	1.2%	1.3%	1.2%	1.4%	1.6%	1.4%	**1.3%**	**1.4%**
Denmark	H	.	.	.	.	.	6.5%	4.4%	4.4%	3.6%	3.7%	3.6%	3.1%	4.2%	**3.3%**	**3.9%**
	B	-7.8%	3.8%	4.2%	-2.8%	6.6%	3.8%	2.8%	3.1%	2.5%	2.6%	2.6%	2.5%	2.8%	**2.5%**	**2.7%**
	L	.	.	.	.	.	1.0%	0.9%	1.2%	1.1%	1.2%	1.2%	1.3%	1.1%	**1.5%**	**1.1%**
Estonia	H	.	.	.	.	.	2.3%	4.6%	5.9%	5.2%	5.5%	5.5%	5.4%	4.9%	**2.5%**	**5.4%**
	B	-9.4%	-0.8%	12.3%	2.9%	2.3%	0.7%	3.8%	3.5%	3.2%	3.4%	3.5%	3.5%	3.1%	**2.0%**	**3.5%**
	L	.	.	.	.	.	-0.8%	3.0%	1.2%	1.5%	1.7%	1.8%	1.8%	1.4%	**1.4%**	**1.8%**
FYROM	H	.	.	.	.	.	24.0%	7.5%	5.6%	4.7%	4.7%	4.7%	5.3%	7.9%	.	.
	B	-1.0%	1.7%	5.9%	-10.2%	1.9%	21.9%	6.1%	3.8%	3.3%	3.2%	3.6%	3.9%	6.4%	.	.
	L	.	.	.	.	.	19.8%	4.7%	1.7%	1.7%	1.9%	2.0%	2.1%	4.7%	.	.
Finland	H	.	.	.	.	.	3.1%	3.1%	3.7%	3.3%	3.4%	3.6%	3.5%	3.4%	**-1.5%**	**3.4%**
	B	-8.1%	1.7%	12.6%	-5.1%	-2.5%	1.3%	2.0%	2.1%	1.8%	2.0%	2.1%	2.2%	1.9%	**-2.1%**	**2.0%**
	L	.	.	.	.	.	-0.6%	0.9%	0.3%	0.4%	0.6%	0.7%	0.8%	0.4%	**-2.7%**	**0.6%**

Total en-route service units (growth)		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	AAGR 2020/ 2013	RP1 2014/2011 AAGR	RP2 2019/2014 AAGR
France	H	.	.	.	.	.	4.2%	3.6%	4.0%	3.0%	3.2%	3.1%	2.8%	3.4%	**1.8%**	**3.4%**
	B	-7.0%	-0.9%	6.3%	-1.0%	2.2%	3.0%	2.6%	2.5%	1.9%	2.1%	2.3%	2.3%	2.4%	**1.4%**	**2.3%**
	L	.	.	.	.	.	1.8%	1.4%	0.6%	0.6%	0.9%	1.0%	1.1%	1.1%	**1.0%**	**0.9%**
Germany	H	.	.	.	.	.	1.4%	3.2%	4.1%	3.3%	3.4%	3.2%	3.3%	3.1%	**-0.0%**	**3.4%**
	B	-6.6%	3.2%	3.6%	-1.8%	0.5%	0.4%	2.2%	2.6%	2.1%	2.1%	2.3%	2.5%	2.0%	**-0.3%**	**2.3%**
	L	.	.	.	.	.	-0.6%	1.1%	0.8%	0.8%	0.9%	1.0%	1.2%	0.7%	**-0.6%**	**0.9%**
Greece	H	.	.	.	.	.	3.2%	5.1%	5.4%	5.0%	4.6%	5.3%	6.0%	4.9%	**-1.5%**	**5.1%**
	B	-2.8%	7.6%	2.1%	-4.2%	-3.3%	1.1%	3.3%	3.9%	3.6%	3.1%	4.1%	4.7%	3.4%	**-2.1%**	**3.6%**
	L	.	.	.	.	.	-1.0%	1.4%	2.0%	2.0%	2.0%	2.4%	2.4%	1.6%	**-2.8%**	**2.0%**
Hungary	H	.	.	.	.	.	7.6%	6.9%	6.1%	5.5%	5.0%	5.4%	6.0%	6.1%	**3.0%**	**5.8%**
	B	-2.6%	2.6%	-1.2%	-2.1%	3.8%	4.9%	5.1%	4.2%	3.8%	3.2%	4.1%	4.4%	4.2%	**2.1%**	**4.1%**
	L	.	.	.	.	.	2.2%	3.2%	2.1%	2.1%	2.1%	2.4%	2.3%	2.3%	**1.3%**	**2.4%**
Ireland	H	.	.	.	.	.	3.0%	3.8%	2.9%	2.7%	2.9%	2.9%	2.8%	3.0%	**1.4%**	**3.0%**
	B	-6.9%	1.5%	4.3%	0.9%	0.2%	1.9%	3.4%	2.2%	2.0%	2.2%	2.2%	2.4%	2.3%	**1.0%**	**2.4%**
	L	.	.	.	.	.	0.7%	2.8%	1.2%	1.1%	1.3%	1.4%	1.6%	1.4%	**0.6%**	**1.5%**
Italy	H	.	.	.	.	.	5.7%	5.1%	4.8%	4.0%	3.9%	4.1%	4.3%	4.5%	**0.8%**	**4.4%**
	B	-6.0%	5.9%	-2.9%	-2.8%	-0.3%	3.0%	3.0%	3.0%	2.5%	2.5%	2.9%	3.0%	2.8%	**-0.0%**	**2.8%**
	L	.	.	.	.	.	0.1%	0.6%	0.9%	1.0%	1.1%	1.3%	1.3%	0.9%	**-1.0%**	**1.0%**
Latvia	H	.	.	.	.	.	10.3%	3.6%	5.9%	5.1%	5.2%	5.2%	5.0%	5.7%	**4.8%**	**5.0%**
	B	-9.1%	6.4%	10.8%	0.7%	3.8%	8.5%	2.3%	3.0%	2.6%	2.6%	2.9%	2.8%	3.5%	**4.3%**	**2.7%**
	L	.	.	.	.	.	6.7%	1.0%	0.6%	0.8%	1.0%	1.2%	1.2%	1.8%	**3.7%**	**0.9%**
Lisbon FIR	H	.	.	.	.	.	9.0%	5.4%	4.3%	3.5%	3.8%	3.8%	3.5%	4.7%	**3.6%**	**4.1%**
	B	-6.6%	4.9%	7.5%	-1.4%	3.4%	7.9%	4.6%	2.3%	1.9%	2.2%	2.2%	2.2%	3.3%	**3.2%**	**2.7%**
	L	.	.	.	.	.	6.8%	3.8%	0.4%	0.6%	0.8%	0.8%	0.8%	2.0%	**2.9%**	**1.3%**
Lithuania	H	.	.	.	.	.	7.6%	7.0%	6.4%	5.3%	5.4%	5.3%	5.0%	6.0%	**4.9%**	**5.9%**
	B	-11.0%	8.7%	13.2%	2.3%	4.9%	5.0%	5.0%	3.6%	3.2%	3.2%	3.3%	3.1%	3.8%	**4.1%**	**3.7%**
	L	.	.	.	.	.	2.5%	3.1%	1.2%	1.5%	1.6%	1.6%	1.5%	1.8%	**3.2%**	**1.8%**
Malta	H	.	.	.	.	.	11.4%	8.8%	7.3%	7.0%	6.2%	7.7%	8.5%	8.1%	**17.4%**	**7.4%**
	B	-1.4%	17.0%	3.9%	26.8%	14.7%	8.8%	7.2%	5.4%	5.2%	4.3%	5.8%	6.6%	6.2%	**16.5%**	**5.6%**
	L	.	.	.	.	.	6.2%	5.7%	3.4%	3.3%	3.0%	3.8%	3.8%	4.2%	**15.6%**	**3.9%**
Moldova	H	.	.	.	.	.	10.9%	9.9%	7.4%	6.5%	6.5%	6.7%	6.8%	7.8%	**.**	**.**
	B	20.4%	30.7%	7.4%	5.7%	16.8%	9.0%	8.9%	5.4%	4.7%	4.6%	5.1%	5.2%	6.1%	**.**	**.**
	L	.	.	.	.	.	7.0%	8.0%	3.3%	3.0%	3.1%	3.3%	3.2%	4.4%	**.**	**.**
Netherlands	H	.	.	.	.	.	3.8%	3.7%	3.7%	3.0%	3.2%	3.1%	2.6%	3.3%	**2.6%**	**3.3%**
	B	-7.5%	2.1%	4.8%	-0.3%	4.4%	2.5%	2.8%	2.5%	2.0%	2.1%	2.2%	1.9%	2.3%	**2.2%**	**2.3%**
	L	.	.	.	.	.	1.3%	1.6%	0.7%	0.7%	1.0%	1.0%	1.1%	1.1%	**1.8%**	**1.0%**
Norway	H	.	.	.	.	.	7.9%	3.9%	3.9%	3.5%	3.4%	3.7%	3.2%	4.2%	**8.9%**	**3.7%**
	B	-2.8%	5.9%	8.2%	7.8%	11.1%	6.1%	3.0%	2.8%	2.3%	2.2%	2.4%	2.4%	3.0%	**8.3%**	**2.6%**
	L	.	.	.	.	.	4.4%	2.0%	0.9%	0.9%	0.8%	1.0%	0.9%	1.5%	**7.7%**	**1.1%**
Poland	H	.	.	.	.	.	5.8%	5.6%	6.7%	5.5%	5.6%	5.4%	5.1%	5.7%	**4.7%**	**5.8%**
	B	-4.3%	7.1%	11.0%	4.8%	3.4%	4.7%	4.6%	4.1%	3.4%	3.5%	3.7%	3.6%	3.9%	**4.3%**	**3.8%**
	L	.	.	.	.	.	3.6%	3.5%	1.7%	1.6%	1.8%	1.8%	1.7%	2.2%	**3.9%**	**2.1%**
Romania	H	.	.	.	.	.	6.2%	5.5%	5.9%	5.6%	4.7%	5.7%	6.5%	5.7%	**4.1%**	**5.5%**
	B	-3.3%	9.0%	3.5%	1.2%	4.9%	4.5%	4.8%	4.4%	4.1%	3.1%	4.7%	5.1%	4.4%	**3.5%**	**4.2%**
	L	.	.	.	.	.	2.8%	4.0%	2.6%	2.5%	2.3%	2.9%	2.7%	2.8%	**3.0%**	**2.9%**
Santa Maria FIR	H	.	.	.	.	.	9.7%	5.3%	4.1%	3.5%	3.9%	3.8%	3.4%	4.8%	**3.5%**	**4.1%**
	B	-0.1%	6.3%	7.8%	-2.7%	3.8%	7.7%	4.9%	3.0%	2.5%	2.7%	2.6%	2.6%	3.7%	**2.8%**	**3.1%**
	L	.	.	.	.	.	5.7%	4.4%	1.5%	1.3%	1.5%	1.4%	1.5%	2.5%	**2.2%**	**2.0%**
Slovakia	H	.	.	.	.	.	8.5%	7.3%	6.9%	6.2%	5.9%	6.2%	6.6%	6.8%	**5.9%**	**6.5%**
	B	0.7%	11.5%	5.2%	2.4%	6.9%	6.7%	6.0%	4.8%	4.4%	4.0%	4.8%	5.0%	5.1%	**5.3%**	**4.8%**
	L	.	.	.	.	.	4.9%	4.7%	2.7%	2.6%	2.7%	2.9%	2.9%	3.3%	**4.7%**	**3.1%**

Total en-route service units (growth)		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	AAGR 2020/ 2013	RP1 2014/2011 AAGR	RP2 2019/2014 AAGR
Slovenia	H	.	.	.	.	.	6.4%	6.5%	5.2%	4.3%	4.2%	4.3%	4.9%	5.1%	**1.0%**	**4.9%**
	B	-3.1%	10.3%	16.3%	0.1%	-3.3%	4.3%	5.0%	3.4%	2.9%	2.7%	3.3%	3.6%	3.6%	**0.3%**	**3.4%**
	L	.	.	.	.	.	2.3%	3.4%	1.5%	1.4%	1.5%	1.7%	1.7%	1.9%	**-0.3%**	**1.9%**
Spain	H	.	.	.	.	.	4.7%	3.9%	4.6%	3.7%	4.1%	4.0%	3.8%	4.1%	**-1.0%**	**4.1%**
	B	-8.4%	3.4%	5.3%	-7.2%	0.0%	3.7%	3.2%	2.8%	2.4%	2.6%	2.6%	2.6%	2.8%	**-1.3%**	**2.7%**
	L	.	.	.	.	.	2.6%	2.4%	0.6%	0.9%	1.2%	1.2%	1.2%	1.5%	**-1.6%**	**1.3%**
Sweden	H	.	.	.	.	.	3.2%	4.3%	5.0%	4.1%	4.1%	4.1%	3.8%	4.1%	**1.3%**	**4.3%**
	B	-11.2%	1.5%	7.9%	-1.8%	2.6%	1.6%	3.0%	3.4%	2.7%	2.7%	2.8%	2.8%	2.7%	**0.8%**	**2.9%**
	L	.	.	.	.	.	-0.0%	1.5%	1.4%	1.2%	1.2%	1.3%	1.3%	1.1%	**0.2%**	**1.3%**
Switzerland	H	.	.	.	.	.	4.6%	3.5%	4.1%	3.2%	3.2%	2.9%	3.0%	3.5%	**0.4%**	**3.4%**
	B	-5.1%	0.9%	1.5%	-2.3%	-1.0%	3.4%	2.5%	2.6%	2.1%	2.3%	2.4%	2.4%	2.5%	**0.0%**	**2.4%**
	L	.	.	.	.	.	2.1%	1.3%	0.7%	0.8%	1.0%	1.1%	1.1%	1.2%	**-0.4%**	**1.0%**
Turkey	H	.	.	.	.	.	8.5%	8.1%	7.1%	7.8%	5.7%	7.4%	8.9%	7.7%	**.**	**.**
	B	6.0%	10.4%	7.8%	2.0%	8.4%	7.0%	6.9%	6.4%	6.5%	4.2%	7.1%	8.1%	6.6%	**.**	**.**
	L	.	.	.	.	.	5.5%	5.7%	4.7%	4.7%	4.0%	5.2%	4.9%	5.0%	**.**	**.**
UK	H	.	.	.	.	.	4.0%	2.9%	3.0%	2.4%	2.6%	2.6%	2.4%	2.8%	**1.0%**	**2.7%**
	B	-10.2%	-4.4%	4.0%	-2.6%	1.5%	2.8%	2.2%	1.9%	1.4%	1.7%	1.7%	1.7%	1.9%	**0.6%**	**1.8%**
	L	.	.	.	.	.	1.5%	1.3%	0.6%	0.4%	0.6%	0.6%	0.8%	0.8%	**0.1%**	**0.7%**
Ukraine	H	.	.	.	.	.	4.4%	6.8%	6.3%	5.3%	5.5%	6.1%	6.4%	5.8%	**.**	**.**
	B	-4.5%	12.4%	6.6%	2.8%	7.5%	2.7%	5.5%	4.2%	3.5%	3.7%	4.5%	4.8%	4.1%	**.**	**.**
	L	.	.	.	.	.	0.9%	4.0%	2.1%	1.8%	2.3%	2.7%	2.7%	2.4%	**.**	**.**
ESRA02	H	.	.	.	.	.	5.1%	4.7%	4.7%	4.1%	3.9%	4.2%	4.4%	4.4%	**.**	**.**
	B	-5.4%	3.3%	4.7%	-1.4%	2.2%	3.5%	3.6%	3.2%	2.9%	2.6%	3.2%	3.5%	3.2%	**.**	**.**
	L	.	.	.	.	.	2.0%	2.4%	1.4%	1.4%	1.5%	1.8%	1.8%	1.8%	**.**	**.**
BLUE MED FAB	H	.	.	.	.	.	5.4%	5.8%	5.3%	4.7%	4.4%	5.0%	5.4%	5.1%	**0.9%**	**5.0%**
	B	-4.6%	6.7%	-1.0%	-2.2%	-0.3%	3.0%	3.9%	3.6%	3.3%	2.9%	3.7%	4.1%	3.5%	**0.1%**	**3.5%**
	L	.	.	.	.	.	0.5%	1.8%	1.5%	1.6%	1.6%	2.0%	2.0%	1.6%	**-0.7%**	**1.7%**
Baltic FAB	H	.	.	.	.	.	6.0%	5.8%	6.7%	5.4%	5.6%	5.4%	5.1%	5.7%	**4.7%**	**5.8%**
	B	-5.0%	7.3%	11.2%	4.6%	3.5%	4.8%	4.6%	4.1%	3.4%	3.4%	3.6%	3.6%	3.9%	**4.3%**	**3.8%**
	L	.	.	.	.	.	3.5%	3.4%	1.7%	1.6%	1.8%	1.8%	1.7%	2.2%	**3.9%**	**2.0%**
Danube FAB	H	.	.	.	.	.	6.5%	5.8%	5.5%	5.5%	4.3%	5.7%	6.7%	5.7%	**3.7%**	**5.4%**
	B	-1.1%	6.5%	5.7%	0.8%	3.8%	4.6%	4.8%	4.2%	4.1%	2.8%	4.8%	5.4%	4.4%	**3.1%**	**4.1%**
	L	.	.	.	.	.	2.7%	3.7%	2.6%	2.5%	2.3%	3.0%	2.7%	2.8%	**2.4%**	**2.8%**
FAB CE	H	.	.	.	.	.	5.5%	5.5%	5.6%	4.9%	4.6%	4.8%	5.3%	5.2%	**2.1%**	**5.1%**
	B	-1.2%	6.1%	5.3%	-0.6%	1.6%	3.3%	4.0%	3.6%	3.2%	2.9%	3.6%	3.8%	3.5%	**1.4%**	**3.5%**
	L	.	.	.	.	.	1.2%	2.4%	1.6%	1.6%	1.6%	1.9%	1.9%	1.7%	**0.7%**	**1.8%**
FABEC	H	.	.	.	.	.	3.2%	3.5%	4.0%	3.2%	3.3%	3.2%	3.0%	3.3%	**1.2%**	**3.4%**
	B	-6.7%	1.0%	5.0%	-1.2%	1.6%	2.1%	2.5%	2.6%	2.0%	2.2%	2.3%	2.3%	2.3%	**0.8%**	**2.3%**
	L	.	.	.	.	.	1.0%	1.4%	0.7%	0.7%	0.9%	1.0%	1.1%	1.0%	**0.5%**	**1.0%**
NEFAB	H	.	.	.	.	.	5.3%	4.1%	4.7%	4.0%	4.0%	4.1%	3.8%	4.3%	**3.4%**	**4.2%**
	B	-8.4%	3.0%	8.3%	0.2%	4.7%	3.5%	2.9%	3.1%	2.5%	2.6%	2.7%	2.7%	2.8%	**2.8%**	**2.7%**
	L	.	.	.	.	.	1.6%	1.5%	1.1%	1.0%	1.1%	1.2%	1.2%	1.2%	**2.1%**	**1.2%**
South West FAB	H	.	.	.	.	.	6.3%	4.5%	4.4%	3.6%	4.0%	3.9%	3.7%	4.3%	**0.2%**	**4.1%**
	B	-8.6%	3.7%	6.1%	-5.6%	0.1%	5.2%	3.7%	2.5%	2.2%	2.4%	2.4%	2.4%	3.0%	**-0.2%**	**2.7%**
	L	.	.	.	.	.	4.0%	2.9%	0.5%	0.7%	1.0%	1.0%	1.0%	1.6%	**-0.6%**	**1.2%**
UK-Ireland FAB	H	.	.	.	.	.	3.7%	3.1%	3.0%	2.5%	2.7%	2.6%	2.5%	2.9%	**1.1%**	**2.8%**
	B	-9.4%	-2.8%	4.1%	-1.6%	1.1%	2.5%	2.5%	2.0%	1.6%	1.8%	1.9%	1.9%	2.0%	**0.7%**	**1.9%**
	L	.	.	.	.	.	1.3%	1.7%	0.8%	0.6%	0.8%	0.9%	1.0%	1.0%	**0.3%**	**0.9%**
CRCO88	H	.	.	.	.	.	4.3%	3.8%	3.9%	3.2%	3.4%	3.3%	3.1%	3.6%	**1.1%**	**3.5%**
	B	-7.3%	1.0%	5.1%	-2.2%	1.3%	3.1%	2.9%	2.5%	2.0%	2.2%	2.3%	2.3%	2.5%	**0.7%**	**2.4%**
	L	.	.	.	.	.	1.8%	1.9%	0.7%	0.7%	1.0%	1.0%	1.1%	1.2%	**0.3%**	**1.1%**

Total en-route service units (growth)		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	AAGR 2020/ 2013	RP1 2014/2011 AAGR	RP2 2019/2014 AAGR
CRCO11	H	.	.	.	.	.	5.1%	4.8%	4.8%	4.2%	4.0%	4.3%	4.5%	4.5%	**1.9%**	**4.4%**
	B	-5.1%	3.5%	5.0%	-1.3%	2.1%	3.6%	3.7%	3.3%	2.9%	2.6%	3.3%	3.5%	3.3%	**1.4%**	**3.1%**
	L	.	.	.	.	.	2.0%	2.4%	1.4%	1.4%	1.5%	1.8%	1.8%	1.8%	**0.9%**	**1.7%**
RP1Region	H	.	.	.	.	.	4.6%	4.3%	4.5%	3.8%	3.8%	3.9%	3.9%	4.1%	**1.6%**	**4.1%**
	B	-6.6%	2.6%	4.5%	-1.5%	1.6%	3.1%	3.2%	2.9%	2.5%	2.5%	2.8%	2.9%	2.8%	**1.1%**	**2.8%**
	L	.	.	.	.	.	1.6%	2.0%	1.0%	1.1%	1.2%	1.4%	1.4%	1.4%	**0.6%**	**1.3%**
RP2Region	H	.	.	.	.	.	4.6%	4.3%	4.5%	3.8%	3.8%	3.9%	3.9%	4.1%	**1.6%**	**4.1%**
	B	-6.5%	2.7%	4.6%	-1.4%	1.6%	3.1%	3.2%	2.9%	2.5%	2.5%	2.8%	2.9%	2.8%	**1.1%**	**2.8%**
	L	.	.	.	.	.	1.5%	2.0%	1.1%	1.1%	1.2%	1.4%	1.4%	1.4%	**0.6%**	**1.3%**
Total	H	.	.	.	.	.	5.1%	4.8%	4.8%	4.2%	4.1%	4.4%	4.6%	4.6%	**2.1%**	**4.5%**
	B	-5.1%	3.7%	5.1%	-1.2%	2.3%	3.5%	3.7%	3.3%	2.9%	2.7%	3.3%	3.5%	3.3%	**1.5%**	**3.2%**
	L	.	.	.	.	.	2.0%	2.5%	1.4%	1.5%	1.5%	1.8%	1.8%	1.8%	**1.0%**	**1.7%**

H. Terminal Navigation Service Unit Forecast

This appendix presents the forecast of the Terminal Navigation Service Units based on the Terminal Charging Zones definition submitted to EUROCONTROL by mid-February 2014. Any user of this Terminal Navigation Service Units forecast should be aware that these definitions might change in the course of the forthcoming months as States/FABs are preparing their Performance Plans for RP2.

The definition of the Terminal Charging Zones can be found in Annex A.

Figure 67. Forecast of the total number of Terminal service units (thousands) per Terminal Charging Zone.

Terminal Navigation Service Units (thousands)			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	AAGR 2020/ 2013	RP1 2014/ 2011	RP2 2019/ 2014
Austria	LO_TCZ	H	.	.	.	.	.	178.7	187.2	198.8	209.2	221.1	228.6	245.3	5.0%	-1.0%	5.1%
		B	169.1	180.7	184.1	179.1	174.7	175.9	181.0	187.9	193.1	199.4	205.5	213.4	2.9%	-1.5%	3.2%
		L	.	.	.	.	.	173.0	175.3	177.6	179.8	182.9	185.7	188.3	1.1%	-2.0%	1.4%
Belgium	EB_TCZ	H	.	.	.	.	.	199.8	209.1	221.0	231.7	243.8	257.0	270.3	4.9%	-0.0%	5.2%
		B	181.3	188.9	199.9	195.5	193.0	197.6	204.8	212.9	220.3	229.1	237.9	249.1	3.7%	-0.4%	3.8%
		L	.	.	.	.	.	194.8	199.8	203.7	207.4	212.1	217.1	223.5	2.1%	-0.9%	2.2%
Bulgaria	LB_TCZ	H	.	.	.	.	.	44.7	48.6	53.8	58.9	64.6	70.6	76.6	9.1%	1.1%	9.6%
		B	40.3	41.5	43.3	41.5	41.7	43.9	46.0	50.0	53.3	57.2	60.7	64.3	6.4%	0.5%	6.7%
		L	.	.	.	.	.	43.1	44.5	46.1	48.0	50.9	53.5	56.0	4.3%	-0.1%	4.4%
Croatia	LD_TCZ	H	.	.	.	.	.	16.0	16.4	16.7	17.8	18.5	19.9	21.3	4.4%	-1.4%	4.5%
		B	16.6	16.2	16.7	16.0	15.8	15.6	15.9	16.0	16.5	17.0	17.9	18.5	2.3%	-2.2%	2.7%
		L	.	.	.	.	.	15.4	15.4	15.7	15.9	15.8	16.1	16.8	0.9%	-2.6%	0.8%
Cyprus	LC_TCZ	H	.	.	.	.	.	40.4	42.3	47.3	50.8	55.0	59.3	65.3	7.7%	-2.7%	8.0%
		B	41.3	42.1	43.9	42.5	39.0	39.4	40.5	43.7	45.5	48.0	50.4	53.5	4.6%	-3.6%	5.1%
		L	.	.	.	.	.	38.4	38.9	39.2	39.4	42.0	43.1	44.9	2.0%	-4.3%	2.3%
Czech Republic	LK_TCZ	H	.	.	.	.	.	72.6	79.9	90.9	99.0	108.8	119.1	133.9	8.9%	-4.9%	10.4%
		B	86.5	82.7	84.4	75.3	73.6	71.0	75.0	81.6	86.1	92.9	97.9	103.3	5.0%	-5.6%	6.6%
		L	.	.	.	.	.	69.5	71.9	73.7	75.8	77.9	80.2	82.5	1.6%	-6.2%	2.9%
Denmark	EK_TCZ	H	.	.	.	.	.	152.0	156.1	161.9	165.9	170.0	175.7	181.4	2.9%	1.5%	2.9%
		B	133.0	138.3	145.3	143.7	148.1	150.5	154.1	156.7	158.8	162.2	165.8	167.8	1.8%	1.2%	2.0%
		L	.	.	.	.	.	148.1	150.2	150.6	150.3	151.3	152.3	153.4	0.5%	0.7%	0.6%
Estonia	EE_TCZ	H	.	.	.	.	.	15.6	16.5	17.7	19.5	22.8	26.0	28.4	10%	1.0%	10.7%
		B	11.9	12.1	15.2	17.7	14.6	15.2	15.4	16.6	17.2	17.7	18.6	20.8	5.2%	0.1%	4.1%
		L	.	.	.	.	.	14.7	14.5	15.1	15.3	15.9	16.3	16.7	1.9%	-1.0%	2.1%
Finland	EF_TCZ	H	.	.	.	.	.	98.0	101.3	106.4	110.4	115.4	120.7	125.0	3.5%	-2.9%	4.2%
		B	93.2	93.1	107.1	97.6	97.9	96.6	98.7	101.0	103.0	105.1	108.3	111.2	1.8%	-3.4%	2.3%
		L	.	.	.	.	.	95.1	96.0	96.2	96.3	97.0	97.9	98.8	0.1%	-3.9%	0.6%
France	LF_TCZ	H	.	.	.	.	.	1037.5	1065.0	1108.5	1137.8	1170.0	1202.8	1225.0	2.4%	0.2%	3.0%
		B	993.2	986.0	1032.8	1040.1	1035.8	1027.4	1049.2	1078.6	1097.2	1118.0	1142.2	1173.4	1.8%	-0.2%	2.1%
		L	.	.	.	.	.	1013.7	1027.4	1034.8	1036.8	1041.0	1052.8	1067.5	0.4%	-0.6%	0.8%
Germany	ED_TCZ	H	.	.	.	.	.	1290.7	1325.0	1388.2	1431.1	1477.3	1520.7	1576.3	3.0%	-0.5%	3.3%
		B	1218.7	1255.2	1311.6	1295.5	1282.1	1274.9	1298.9	1337.2	1365.0	1389.1	1419.0	1459.0	1.9%	-0.9%	2.2%
		L	.	.	.	.	.	1258.3	1268.4	1286.4	1295.8	1304.9	1318.0	1337.8	0.6%	-1.4%	0.9%
Greece	LG_TCZ	H	.	.	.	.	.	76.2	77.2	79.1	81.3	83.4	86.2	89.5	2.7%	-7.5%	2.5%
		B	113.3	103.8	96.4	83.0	74.5	75.2	75.6	77.2	78.8	80.0	82.1	84.4	1.8%	-7.9%	1.8%
		L	.	.	.	.	.	74.0	73.6	74.1	74.4	75.1	76.3	77.4	0.6%	-8.4%	0.6%

Terminal Navigation Service Units (thousands)			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	AAGR 2020/ 2013	RP1 2014/ 2011	RP2 2019/ 2014
Hungary	LH_TCZ	H	.	.	.	.	.	50.8	54.3	58.6	64.7	69.5	75.4	82.1	7.6%	-4.9%	8.2%
		B	57.3	56.0	59.0	49.6	49.2	49.7	51.6	54.3	56.7	58.9	61.7	65.6	4.2%	-5.6%	4.4%
		L	.	.	.	.	.	48.6	49.5	50.2	51.2	51.9	53.0	54.2	1.4%	-6.2%	1.7%
Ireland	EI_TCZ	H	.	.	.	.	.	109.1	111.7	114.2	117.1	120.8	123.9	128.1	2.6%	3.8%	2.6%
		B	108.8	96.6	97.6	100.0	106.9	108.7	111.6	114.2	117.1	120.9	124.0	128.1	2.6%	3.7%	2.7%
		L	.	.	.	.	.	107.2	108.9	110.4	112.2	114.4	117.2	120.9	1.8%	3.2%	1.8%
Italy	LI_TCZ_1	H	.	.	.	.	.	210.7	216.9	226.7	234.9	242.9	251.9	261.4	3.2%	-2.3%	3.6%
		B	219.5	226.8	225.7	217.7	210.0	208.9	213.0	218.3	222.4	226.7	231.5	236.6	1.7%	-2.5%	2.1%
		L	.	.	.	.	.	206.4	207.6	207.7	207.9	208.3	208.8	209.3	-0.0%	-2.9%	0.2%
	LI_TCZ_2	H	.	.	.	.	.	230.9	240.2	252.6	262.4	273.5	287.2	300.5	4.0%	-2.3%	4.5%
		B	234.5	239.9	247.8	239.1	227.9	228.1	234.4	242.6	248.7	254.6	261.6	269.8	2.4%	-2.7%	2.8%
		L	.	.	.	.	.	225.1	227.8	229.7	231.8	234.1	237.0	239.2	0.7%	-3.2%	1.0%
	LI_TCZ_3	H	.	.	.	.	.	407.2	422.6	447.1	467.9	492.2	514.1	538.0	3.7%	-2.9%	4.8%
		B	418.9	436.1	445.1	429.8	415.8	402.3	413.1	427.8	441.1	455.4	470.5	487.4	2.3%	-3.3%	3.2%
		L	.	.	.	.	.	398.1	403.9	409.0	414.2	420.4	426.6	432.3	0.6%	-3.6%	1.4%
Latvia	EV_TCZ	H	.	.	.	.	.	35.2	37.5	41.0	44.2	47.7	51.8	55.3	7.9%	3.0%	8.0%
		B	24.0	26.6	32.2	31.5	32.4	33.8	34.8	35.6	36.4	36.8	37.6	38.2	2.4%	1.6%	2.1%
		L	.	.	.	.	.	33.0	33.3	32.8	32.7	32.5	32.4	32.1	-0.1%	0.8%	-0.4%
Portugal	LP_TCZ	H	.	.	.	.	.	188.9	197.5	208.6	216.7	225.8	235.1	245.2	4.5%	2.1%	4.5%
		B	167.0	174.6	177.5	175.7	180.3	186.2	192.0	197.7	202.5	207.9	212.5	217.2	2.7%	1.6%	2.7%
		L	.	.	.	.	.	183.6	186.6	187.2	188.0	189.7	192.1	193.7	1.0%	1.1%	0.9%
Lithuania	EY_TCZ	H	.	.	.	.	.	23.7	25.6	28.5	30.9	34.3	37.6	41.8	10%	10.8%	9.7%
		B	13.1	16.3	17.4	19.2	21.0	22.8	24.8	26.5	28.4	29.9	31.6	33.2	6.7%	9.4%	6.7%
		L	.	.	.	.	.	22.5	23.9	24.6	25.6	26.6	27.7	28.5	4.4%	9.0%	4.2%
Luxembourg	EL_TCZ	H	.	.	.	.	.	40.6	42.2	45.2	47.6	50.4	53.3	56.8	6.2%	4.8%	5.6%
		B	34.3	34.6	35.3	34.9	37.3	40.0	41.3	43.0	44.7	46.9	49.0	51.7	4.8%	4.3%	4.2%
		L	.	.	.	.	.	39.4	40.2	41.1	42.2	45.2	46.5	47.8	3.6%	3.7%	3.4%
Malta	LM_TCZ	H	.	.	.	.	.	24.4	25.9	28.2	30.2	32.5	34.9	37.6	7.5%	5.7%	7.5%
		B	18.6	20.5	20.6	20.7	22.7	23.9	24.9	26.0	27.3	28.5	29.8	31.2	4.7%	5.0%	4.5%
		L	.	.	.	.	.	23.5	24.0	24.3	24.7	25.2	25.7	26.3	2.2%	4.4%	1.8%
Netherlands	EH_TCZ	H	.	.	.	.	.	340.9	354.4	364.8	377.0	389.4	399.0	401.6	2.2%	0.2%	3.2%
		B	311.1	315.9	339.0	339.2	345.0	341.1	354.4	365.2	375.8	385.8	397.2	401.5	2.2%	0.2%	3.1%
		L	.	.	.	.	.	341.6	349.9	351.4	355.0	359.2	363.4	368.9	1.0%	0.3%	1.2%
Norway	EN_TCZ	H	.	.	.	.	.	254.0	264.8	275.0	286.3	295.3	305.8	312.5	3.7%	4.9%	3.8%
		B	198.9	205.3	220.1	231.0	241.8	253.7	262.0	272.9	280.0	287.2	295.2	302.0	3.2%	4.8%	3.1%
		L	.	.	.	.	.	252.8	258.1	260.7	263.1	266.3	269.7	272.7	1.7%	4.7%	1.3%
Poland	EP_TCZ	H	.	.	.	.	.	153.4	167.2	187.4	205.8	227.7	250.6	267.0	8.6%	4.7%	10.3%
		B	122.3	128.9	133.7	148.9	150.0	150.2	159.8	169.7	181.3	192.7	204.1	215.3	5.3%	3.9%	6.3%
		L	.	.	.	.	.	148.2	152.6	157.2	163.0	167.9	172.6	177.5	2.4%	3.5%	3.1%
Romania	LR_TCZ	H	.	.	.	.	.	49.5	52.1	56.0	59.2	62.9	67.5	72.1	6.2%	0.3%	6.4%
		B	48.9	51.1	49.1	47.8	47.3	48.8	50.7	52.8	55.1	57.3	59.9	63.0	4.2%	-0.2%	4.2%
		L	.	.	.	.	.	48.0	49.2	50.0	51.2	52.4	53.9	55.4	2.3%	-0.7%	2.3%
Slovakia	LZ_TCZ	H	.	.	.	.	.	9.3	10.0	11.1	12.0	13.0	14.1	15.3	8.6%	-2.0%	8.7%
		B	11.5	10.2	9.9	8.7	8.6	9.1	9.5	10.2	10.8	11.4	12.0	12.6	5.7%	-2.8%	5.8%
		L	.	.	.	.	.	8.8	9.1	9.4	9.7	10.1	10.4	10.8	3.3%	-3.7%	3.4%

Terminal Navigation Service Units (thousands)			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	AAGR 2020/ 2013	RP1 2014/ 2011	RP2 2019/ 2014
Slovenia	LJ_TCZ	H	.	.	.	.	.	11.4	11.8	12.7	13.4	14.3	15.3	17.1	6.1%	-3.0%	6.1%
		B	13.3	12.4	12.5	11.1	11.3	11.2	11.3	11.6	12.1	12.6	13.3	14.3	3.4%	-3.5%	3.5%
		L	.	.	.	.	.	10.8	10.7	10.8	11.0	11.3	11.4	11.7	0.5%	-4.7%	1.1%
Spain	LE_TCZ	H	.	.	.	.	.	641.9	664.1	691.4	712.4	742.2	773.7	803.4	3.5%	-3.0%	3.8%
		B	673.3	677.6	704.1	655.5	629.6	633.6	649.1	666.9	682.1	700.6	721.6	734.2	2.2%	-3.5%	2.6%
		L	.	.	.	.	.	625.1	633.1	637.3	644.5	653.8	662.2	670.1	0.9%	-3.9%	1.2%
Sweden	ES_TCZ_A	H	.	.	.	.	.	134.0	139.5	146.5	152.6	159.2	166.8	173.6	4.4%	3.2%	4.5%
		B	106.6	108.2	121.9	121.7	128.6	132.5	136.6	141.7	146.1	150.0	153.5	158.5	3.0%	2.8%	3.0%
		L	.	.	.	.	.	131.0	133.5	135.6	138.0	140.1	141.9	144.2	1.7%	2.4%	1.6%
	ES_TCZ_L	H	.	.	.	.	.	33.7	34.4	35.9	37.3	38.9	40.9	43.1	4.0%	-1.0%	3.9%
		B	26.9	29.3	34.7	31.9	32.7	33.3	34.0	35.2	36.1	37.5	38.3	39.3	2.6%	-1.4%	2.9%
		L	.	.	.	.	.	33.0	33.6	34.5	34.6	35.3	35.8	36.2	1.5%	-1.7%	1.6%
Switzerland	LS_TCZ	H	.	.	.	.	.	260.1	273.0	290.5	304.5	315.4	323.0	338.5	4.0%	0.5%	4.4%
		B	234.5	239.5	256.4	259.7	257.5	256.1	265.3	279.1	288.0	298.6	308.7	318.3	3.1%	-0.0%	3.8%
		L	.	.	.	.	.	252.6	258.4	262.9	267.5	273.4	278.4	284.9	1.5%	-0.5%	2.0%
UK	EG_TCZ_B	H	.	.	.	.	.	1133.4	1168.7	1209.4	1239.1	1277.0	1315.1	1353.1	2.9%	1.6%	3.0%
		B	1090.8	1040.0	1080.5	1079.6	1106.1	1121.5	1153.1	1182.0	1205.0	1230.4	1256.5	1274.9	2.1%	1.2%	2.3%
		L	.	.	.	.	.	1110.9	1131.7	1150.4	1166.2	1181.9	1196.8	1213.0	1.3%	0.9%	1.5%

Figure 68. Forecast of the total number of Terminal service units (growth) per Terminal Charging Zone.

This appendix presents the same data as the previous, but presented as growth rather than counts of terminal navigation service units.

Terminal Navigation Service Units (growth)			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	AAGR 2020/ 2013	RP1 2014/ 2011	RP2 2019/ 2014
Austria	LO_TCZ	H	.	.	.	.	.	2.3%	4.7%	6.2%	5.3%	5.7%	3.4%	7.3%	**5.0%**	**-1.0%**	**5.1%**
		B	-8.1%	6.9%	1.9%	-2.7%	-2.4%	0.7%	2.9%	3.8%	2.8%	3.2%	3.1%	3.8%	**2.9%**	**-1.5%**	**3.2%**
		L	.	.	.	.	.	-1.0%	1.3%	1.3%	1.2%	1.7%	1.6%	1.4%	**1.1%**	**-2.0%**	**1.4%**
Belgium	EB_TCZ	H	.	.	.	.	.	3.5%	4.7%	5.7%	4.8%	5.3%	5.4%	5.2%	**4.9%**	**-0.0%**	**5.2%**
		B	-8.1%	4.2%	5.8%	-2.2%	-1.2%	2.4%	3.6%	3.9%	3.5%	4.0%	3.9%	4.7%	**3.7%**	**-0.4%**	**3.8%**
		L	.	.	.	.	.	0.9%	2.5%	2.0%	1.8%	2.3%	2.3%	3.0%	**2.1%**	**-0.9%**	**2.2%**
Bulgaria	LB_TCZ	H	.	.	.	.	.	7.3%	8.7%	11%	9.4%	9.7%	9.3%	8.4%	**9.1%**	**1.1%**	**9.6%**
		B	-7.6%	3.0%	4.3%	-4.2%	0.4%	5.5%	4.8%	8.6%	6.6%	7.4%	6.1%	5.9%	**6.4%**	**0.5%**	**6.7%**
		L	.	.	.	.	.	3.4%	3.2%	3.8%	4.0%	6.1%	5.1%	4.7%	**4.3%**	**-0.1%**	**4.4%**
Croatia	LD_TCZ	H	.	.	.	.	.	1.6%	2.1%	2.2%	6.3%	4.0%	7.8%	6.8%	**4.4%**	**-1.4%**	**4.5%**
		B	-2.5%	-2.2%	3.2%	-4.5%	-1.1%	-0.9%	1.4%	1.0%	3.1%	2.8%	5.3%	3.5%	**2.3%**	**-2.2%**	**2.7%**
		L	.	.	.	.	.	-2.3%	-0.2%	1.8%	1.5%	-1.0%	2.0%	4.3%	**0.9%**	**-2.6%**	**0.8%**
Cyprus	LC_TCZ	H	.	.	.	.	.	3.8%	4.5%	12%	7.5%	8.1%	7.9%	10%	**7.7%**	**-2.7%**	**8.0%**
		B	-2.5%	2.0%	4.2%	-3.1%	-8.4%	1.0%	2.8%	7.8%	4.3%	5.4%	5.1%	6.1%	**4.6%**	**-3.6%**	**5.1%**
		L	.	.	.	.	.	-1.4%	1.1%	0.9%	0.4%	6.5%	2.6%	4.3%	**2.0%**	**-4.3%**	**2.3%**
Czech Republic	LK_TCZ	H	.	.	.	.	.	-1.4%	10%	14%	9.0%	9.9%	9.4%	12%	**8.9%**	**-4.9%**	**10.4%**
		B	-8.6%	-4.4%	2.0%	-11%	-2.1%	-3.6%	5.6%	8.8%	5.5%	8.0%	5.3%	5.5%	**5.0%**	**-5.6%**	**6.6%**
		L	.	.	.	.	.	-5.6%	3.4%	2.5%	2.8%	2.8%	3.0%	2.9%	**1.6%**	**-6.2%**	**2.9%**
Denmark	EK_TCZ	H	.	.	.	.	.	2.7%	2.7%	3.7%	2.5%	2.4%	3.3%	3.3%	**2.9%**	**1.5%**	**2.9%**
		B	-11%	4.1%	5.0%	-1.1%	3.1%	1.7%	2.4%	1.7%	1.4%	2.1%	2.2%	1.2%	**1.8%**	**1.2%**	**2.0%**
		L	.	.	.	.	.	0.0%	1.4%	0.3%	-0.2%	0.6%	0.6%	0.7%	**0.5%**	**0.7%**	**0.6%**
Estonia	EE_TCZ	H	.	.	.	.	.	7.1%	5.3%	7.3%	11%	17%	14%	9.3%	**10%**	**1.0%**	**10.7%**
		B	.	1.6%	25%	17%	-17%	4.3%	1.3%	7.2%	4.0%	3.0%	5.2%	12%	**5.2%**	**0.1%**	**4.1%**
		L	.	.	.	.	.	0.8%	-1.4%	3.8%	1.9%	3.4%	2.8%	2.2%	**1.9%**	**-1.0%**	**2.1%**
Finland	EF_TCZ	H	.	.	.	.	.	0.1%	3.3%	5.1%	3.7%	4.5%	4.6%	3.6%	**3.5%**	**-2.9%**	**4.2%**
		B	-9.1%	-0.1%	15%	-8.9%	0.4%	-1.4%	2.2%	2.3%	2.0%	2.1%	3.0%	2.7%	**1.8%**	**-3.4%**	**2.3%**
		L	.	.	.	.	.	-2.9%	0.9%	0.2%	0.1%	0.8%	0.9%	1.0%	**0.1%**	**-3.9%**	**0.6%**
France	LF_TCZ	H	.	.	.	.	.	0.2%	2.6%	4.1%	2.6%	2.8%	2.8%	1.8%	**2.4%**	**0.2%**	**3.0%**
		B	-5.6%	-0.7%	4.7%	0.7%	-0.4%	-0.8%	2.1%	2.8%	1.7%	1.9%	2.2%	2.7%	**1.8%**	**-0.2%**	**2.1%**
		L	.	.	.	.	.	-2.1%	1.3%	0.7%	0.2%	0.4%	1.1%	1.4%	**0.4%**	**-0.6%**	**0.8%**
Germany	ED_TCZ	H	.	.	.	.	.	0.7%	2.7%	4.8%	3.1%	3.2%	2.9%	3.7%	**3.0%**	**-0.5%**	**3.3%**
		B	-5.2%	3.0%	4.5%	-1.2%	-1.0%	-0.6%	1.9%	2.9%	2.1%	1.8%	2.2%	2.8%	**1.9%**	**-0.9%**	**2.2%**
		L	.	.	.	.	.	-1.9%	0.8%	1.4%	0.7%	0.7%	1.0%	1.5%	**0.6%**	**-1.4%**	**0.9%**
Greece	LG_TCZ	H	.	.	.	.	.	2.3%	1.3%	2.5%	2.8%	2.6%	3.3%	3.8%	**2.7%**	**-7.5%**	**2.5%**
		B	5.8%	-8.4%	-7.1%	-14%	-10%	1.0%	0.5%	2.1%	2.1%	1.6%	2.5%	2.8%	**1.8%**	**-7.9%**	**1.8%**
		L	.	.	.	.	.	-0.6%	-0.5%	0.6%	0.5%	0.9%	1.5%	1.5%	**0.6%**	**-8.4%**	**0.6%**
Hungary	LH_TCZ	H	.	.	.	.	.	3.3%	7.0%	7.9%	10%	7.5%	8.5%	8.9%	**7.6%**	**-4.9%**	**8.2%**
		B	-7.4%	-2.4%	5.4%	-16%	-0.9%	1.1%	3.8%	5.3%	4.4%	3.9%	4.6%	6.3%	**4.2%**	**-5.6%**	**4.4%**
		L	.	.	.	.	.	-1.0%	1.8%	1.4%	2.0%	1.4%	2.1%	2.2%	**1.4%**	**-6.2%**	**1.7%**

Terminal Navigation Service Units (growth)			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	AAGR 2020/ 2013	RP1 2014/ 2011	RP2 2019/ 2014
Ireland	EI_TCZ	H	.	.	.	.	.	2.1%	2.3%	2.3%	2.6%	3.2%	2.6%	3.3%	2.6%	3.8%	2.6%
		B	-15%	-11%	1.0%	2.5%	6.9%	1.7%	2.7%	2.3%	2.6%	3.2%	2.6%	3.3%	2.6%	3.7%	2.7%
		L	.	.	.	.	.	0.3%	1.6%	1.4%	1.6%	2.0%	2.4%	3.2%	1.8%	3.2%	1.8%
Italy	LI_TCZ_1	H	.	.	.	.	.	0.4%	2.9%	4.5%	3.6%	3.4%	3.7%	3.8%	3.2%	-2.3%	3.6%
		B	-4.0%	3.3%	-0.5%	-3.6%	-3.5%	-0.5%	2.0%	2.5%	1.9%	1.9%	2.1%	2.2%	1.7%	-2.5%	2.1%
		L	.	.	.	.	.	-1.7%	0.6%	0.0%	0.1%	0.2%	0.2%	0.2%	-0.0%	-2.9%	0.2%
	LI_TCZ_2	H	.	.	.	.	.	1.3%	4.0%	5.2%	3.9%	4.2%	5.0%	4.6%	4.0%	-2.3%	4.5%
		B	-6.7%	2.3%	3.3%	-3.5%	-4.7%	0.1%	2.8%	3.5%	2.5%	2.4%	2.7%	3.1%	2.4%	-2.7%	2.8%
		L	.	.	.	.	.	-1.3%	1.2%	0.8%	0.9%	1.0%	1.2%	0.9%	0.7%	-3.2%	1.0%
	LI_TCZ_3	H	.	.	.	.	.	-2.1%	3.8%	5.8%	4.7%	5.2%	4.5%	4.6%	3.7%	-2.9%	4.8%
		B	-1.1%	4.1%	2.1%	-3.4%	-3.3%	-3.2%	2.7%	3.6%	3.1%	3.2%	3.3%	3.6%	2.3%	-3.3%	3.2%
		L	.	.	.	.	.	-4.3%	1.5%	1.3%	1.3%	1.5%	1.5%	1.3%	0.6%	-3.6%	1.4%
Latvia	EV_TCZ	H	.	.	.	.	.	8.7%	6.6%	9.2%	7.8%	7.9%	8.6%	6.9%	7.9%	3.0%	8.0%
		B	5.7%	11%	21%	-2.3%	2.9%	4.4%	2.9%	2.4%	2.2%	0.9%	2.2%	1.7%	2.4%	1.6%	2.1%
		L	.	.	.	.	.	1.9%	0.7%	-1.5%	-0.1%	-0.7%	-0.3%	-0.9%	-0.1%	0.8%	-0.4%
Portugal	LP_TCZ	H	.	.	.	.	.	4.8%	4.6%	5.6%	3.9%	4.2%	4.1%	4.3%	4.5%	2.1%	4.5%
		B	-5.2%	4.6%	1.7%	-1.0%	2.6%	3.3%	3.1%	3.0%	2.4%	2.7%	2.2%	2.2%	2.7%	1.6%	2.7%
		L	.	.	.	.	.	1.8%	1.7%	0.3%	0.4%	0.9%	1.2%	0.9%	1.0%	1.1%	0.9%
Lithuania	EY_TCZ	H	.	.	.	.	.	13%	8.3%	11%	8.3%	11%	9.7%	11%	10%	10.8%	9.7%
		B	-34%	24%	6.9%	10%	9.5%	8.6%	8.6%	7.0%	6.9%	5.3%	5.8%	4.9%	6.7%	9.4%	6.7%
		L	.	.	.	.	.	7.2%	6.1%	3.0%	3.7%	4.2%	3.9%	3.0%	4.4%	9.0%	4.2%
Luxembourg	EL_TCZ	H	.	.	.	.	.	8.7%	4.1%	7.1%	5.2%	5.9%	5.8%	6.4%	6.2%	4.8%	5.6%
		B	-12%	0.8%	2.1%	-1.0%	6.8%	7.2%	3.3%	4.0%	4.1%	4.8%	4.6%	5.3%	4.8%	4.3%	4.2%
		L	.	.	.	.	.	5.5%	2.0%	2.3%	2.7%	7.2%	2.8%	2.8%	3.6%	3.7%	3.4%
Malta	LM_TCZ	H	.	.	.	.	.	7.5%	6.1%	9.0%	7.3%	7.4%	7.6%	7.6%	7.5%	5.7%	7.5%
		B	-2.9%	10%	0.5%	0.2%	9.7%	5.4%	4.3%	4.4%	5.0%	4.2%	4.7%	4.7%	4.7%	5.0%	4.5%
		L	.	.	.	.	.	3.5%	2.4%	1.4%	1.6%	1.8%	2.0%	2.5%	2.2%	4.4%	1.8%
Netherlands	EH_TCZ	H	.	.	.	.	.	-1.2%	3.9%	2.9%	3.3%	3.3%	2.5%	0.6%	2.2%	0.2%	3.2%
		B	-8.4%	1.5%	7.3%	0.0%	1.7%	-1.1%	3.9%	3.1%	2.9%	2.7%	3.0%	1.1%	2.2%	0.2%	3.1%
		L	.	.	.	.	.	-1.0%	2.4%	0.4%	1.0%	1.2%	1.2%	1.5%	1.0%	0.3%	1.2%
Norway	EN_TCZ	H	.	.	.	.	.	5.1%	4.2%	3.9%	4.1%	3.2%	3.6%	2.2%	3.7%	4.9%	3.8%
		B	-5.9%	3.2%	7.2%	5.0%	4.6%	4.9%	3.3%	4.2%	2.6%	2.6%	2.8%	2.3%	3.2%	4.8%	3.1%
		L	.	.	.	.	.	4.6%	2.1%	1.0%	0.9%	1.2%	1.3%	1.1%	1.7%	4.7%	1.3%
Poland	EP_TCZ	H	.	.	.	.	.	2.3%	9.0%	12%	9.8%	11%	10%	6.5%	8.6%	4.7%	10.3%
		B	-9.3%	5.4%	3.8%	11%	0.7%	0.1%	6.4%	6.2%	6.9%	6.3%	5.9%	5.5%	5.3%	3.9%	6.3%
		L	.	.	.	.	.	-1.2%	3.0%	3.0%	3.7%	3.0%	2.8%	2.8%	2.4%	3.5%	3.1%
Romania	LR_TCZ	H	.	.	.	.	.	4.8%	5.2%	7.4%	5.8%	6.1%	7.4%	6.9%	6.2%	0.3%	6.4%
		B	-0.7%	4.5%	-3.9%	-2.7%	-1.1%	3.2%	3.9%	4.2%	4.3%	4.0%	4.6%	5.1%	4.2%	-0.2%	4.2%
		L	.	.	.	.	.	1.7%	2.4%	1.7%	2.3%	2.5%	2.8%	2.7%	2.3%	-0.7%	2.3%
Slovakia	LZ_TCZ	H	.	.	.	.	.	8.4%	7.6%	11%	8.1%	9.1%	8.3%	8.4%	8.6%	-2.0%	8.7%
		B	-20%	-11%	-3.3%	-12%	-1.7%	5.8%	4.8%	7.8%	5.0%	6.2%	5.1%	5.1%	5.7%	-2.8%	5.8%
		L	.	.	.	.	.	3.0%	2.9%	3.0%	4.1%	3.5%	3.6%	2.9%	3.3%	-3.7%	3.4%

Terminal Navigation Service Units (growth)			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	AAGR 2020/ 2013	RP1 2014/ 2011	RP2 2019/ 2014
Slovenia	**LJ_TCZ**	**H**	.	.	.	.	.	0.8%	3.6%	7.4%	6.1%	6.5%	6.9%	12%	**6.1%**	**-3.0%**	**6.1%**
		B	-12%	-6.1%	0.4%	-11%	1.4%	-0.6%	0.6%	3.0%	4.0%	4.0%	6.0%	6.9%	**3.4%**	**-3.5%**	**3.5%**
		L	.	.	.	.	.	-4.3%	-0.7%	0.7%	1.7%	2.4%	1.3%	2.4%	**0.5%**	**-4.7%**	**1.1%**
Spain	**LE_TCZ**	**H**	.	.	.	.	.	1.9%	3.5%	4.1%	3.0%	4.2%	4.2%	3.8%	**3.5%**	**-3.0%**	**3.8%**
		B	-8.5%	0.6%	3.9%	-6.9%	-4.0%	0.6%	2.4%	2.7%	2.3%	2.7%	3.0%	1.7%	**2.2%**	**-3.5%**	**2.6%**
		L	.	.	.	.	.	-0.7%	1.3%	0.7%	1.1%	1.5%	1.3%	1.2%	**0.9%**	**-3.9%**	**1.2%**
Sweden	**ES_TCZ_A**	**H**	.	.	.	.	.	4.2%	4.1%	5.0%	4.2%	4.3%	4.8%	4.1%	**4.4%**	**3.2%**	**4.5%**
		B	-15%	1.5%	13%	-0.2%	5.7%	3.0%	3.1%	3.8%	3.1%	2.7%	2.3%	3.2%	**3.0%**	**2.8%**	**3.0%**
		L	.	.	.	.	.	1.9%	1.9%	1.6%	1.7%	1.5%	1.3%	1.6%	**1.7%**	**2.4%**	**1.6%**
	ES_TCZ_L	**H**	.	.	.	.	.	3.1%	1.9%	4.5%	3.8%	4.2%	5.3%	5.3%	**4.0%**	**-1.0%**	**3.9%**
		B	-18%	9.0%	19%	-8.0%	2.5%	1.7%	2.3%	3.4%	2.7%	3.7%	2.2%	2.5%	**2.6%**	**-1.4%**	**2.9%**
		L	.	.	.	.	.	0.9%	1.7%	2.7%	0.3%	2.0%	1.5%	1.1%	**1.5%**	**-1.7%**	**1.6%**
Switzerland	**LS_TCZ**	**H**	.	.	.	.	.	1.0%	4.9%	6.4%	4.8%	3.6%	2.4%	4.8%	**4.0%**	**0.5%**	**4.4%**
		B	-3.8%	2.1%	7.0%	1.3%	-0.9%	-0.5%	3.6%	5.2%	3.2%	3.7%	3.4%	3.1%	**3.1%**	**-0.0%**	**3.8%**
		L	.	.	.	.	.	-1.9%	2.3%	1.7%	1.7%	2.2%	1.9%	2.3%	**1.5%**	**-0.5%**	**2.0%**
UK	**EG_TCZ_B**	**H**	.	.	.	.	.	2.5%	3.1%	3.5%	2.5%	3.1%	3.0%	2.9%	**2.9%**	**1.6%**	**3.0%**
		B	-7.6%	-4.7%	3.9%	-0.1%	2.5%	1.4%	2.8%	2.5%	1.9%	2.1%	2.1%	1.5%	**2.1%**	**1.2%**	**2.3%**
		L	.	.	.	.	.	0.4%	1.9%	1.6%	1.4%	1.3%	1.3%	1.3%	**1.3%**	**0.9%**	**1.5%**

I. Improved STATFOR Forecast Process (February 2014)

The EUROCONTROL traffic and service units forecasts are of increasing importance to Stakeholders, financially and operationally. A more inclusive forecast process has been agreed at the 40th session of the Provisional Council in December 2013. This revised process has been set up to improve quality and to improve stakeholder buy-in. Main aspects of the new process consist in both better exploiting available information and including a wider review group

Main items of the STATFOR Revised Process:

a. Multi-disciplinary internal review group

b. Broader review group: **PC Members**, NMB, Agency Directors as well as internal review group and STATFOR User Group (see Figure 69),

c. Two two-week stakeholder review periods (see Figure 70 and Figure 71):

   i. 9-20 December 2013: Full group,

   ii. 3-14 February 2014: STATFOR User Group & Internal Review Group ,

   iii. Including 11 February 2014: STATFOR User Group meeting,

d. Improved documentation on forecast method (see Ref. 2),

e. Preparation and review now spread over 4 months.

Figure 69. Revised process encourages States to participate in the forecast review.

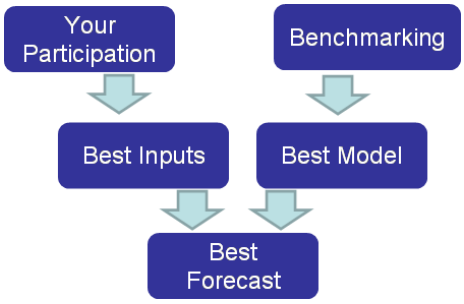


Figure 70. The revised process involves two review iterations when changes to input data and assumptions will be invited.

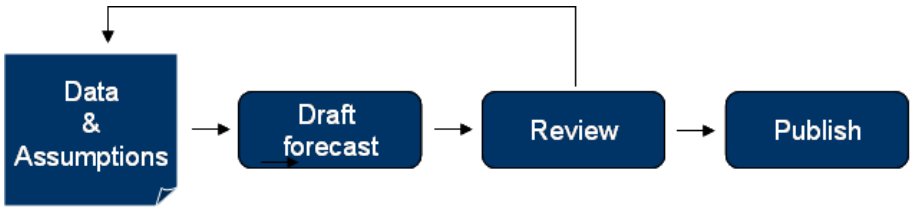
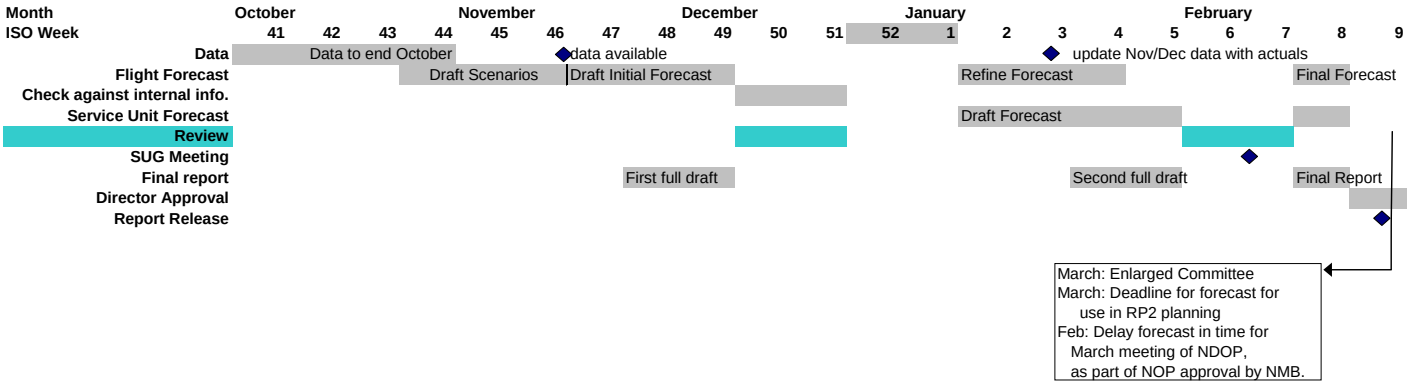


Figure 71. Detail of forecast preparation timing (2013-2014)



J. References

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