



PERFORMANCE REPORT 2015 - 2019

CAPACITY

August 2018



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Description & Analysis

Europe

Traffic in August 2018 increased by 3.5% compared to August 2017 and was in line with the high forecast. There were 36.966 flights on 31 August, which was a record for the network. Ten states added more than 50 flights per day to the European local traffic growth. Germany was the top contributor with 273 extra flights per day owing to a strong internal flow (+42 flights/day) but also to its Southern Europe flow (mainly to and from Turkey, Spain and Greece) which added 123 daily flights. Greece ranked second with 205 flights per day owing to its internal flow (+41 flights/day) and to its flow to and from Northern Europe (mainly Germany, Poland and UK adding together 67 daily flights). Poland was the third contributor with 164 extra daily flights, a 17.5% increase of its international arrival and departure flow thanks to strong growth of the flows to and from Turkey (+22 flights/day), Greece (+18 flights/day), Germany (+14 flights/day) and Ukraine (+12 flights/day). Italy added 130 flights per day due primarily to its flows to and from the Russian Federation (+21 flights/day), Austria (+15 flights/day), Spain (+14 flights/day) and France (+13 flights/day). At the other end of the scale, only two states recorded fewer daily flights: Sweden (-38 flights/day) and UK (-35 flights/day) due to their weak internal flow.

The charter segment continued to record the fastest growth (10.6%). The traditional scheduled segment was up 5.1%, stable since June. The low-cost segment recorded an increase of 1.7%. The business aviation segment saw an increase of 0.1%. The all-cargo segment slowed down and declined by 8.3%.

The top five external partners in average daily flights on flows in both directions were the Russian Federation (1,228 flights, up 7.7%), the United States (1,144 flights, down 2.2%), the United Arab Emirates (371 flights, up 9.4%), Egypt (286 flights, up 33%) and Canada (246 flights, up 0.2%). In addition, to be noted was the continued recovery of flows to and from Tunisia which were up by 25.6%, 230 daily flights.

The airlines which added the most flights to the European network on a daily basis were easyJet UK (+196 flights), Lufthansa (+107 flights), Wizz Air (+92 flights), Ryanair (+78 flights), Jet2 (+64 flights) and LOT (+60 flights).

The average en-route ATFM delay per flight in the NM area in August was 2.87 min/ft, which is well above the corresponding monthly guideline value of 0.84 min/ft. The average YTD en-route ATFM delay per flight in 2018 in the NM area is 2.04 min/ft, which is more than three times the corresponding guideline value of 0.57 min/ft. (Source: NM).

FABEC

In the FABEC area, traffic increased by 3.0% in August 2018 compared to the same month in 2017. This traffic growth remains significantly above the STATFOR baseline scenario published in March 2015. The landings in the FABEC area (only the airports included in the performance plan) recorded an increase by 2.3%. The 2018 YTD arrival traffic evolution is now 1.0% higher than in 2017. DFS continued to record a sustained increase of landings (+4.2%), like DSNB (+1.7%), skyguide (+1.5%) and Belgocontrol (+1.0%); only LVNL recorded a decrease this month (-2.2%). The units with the highest ATFM en-route delay in August 2018 are Marseille (488 208 min.), Karlsruhe (485 889 min.), Reims (163 505 min.), Maastricht (162 110 min.) and Brest (122 234 min.). In Marseille, delays were due to 'Staffing' (57%), 'Weather' (33%) and 'ATC-Capacity' (10%). In Karlsruhe, delays were due to 'ATC-Capacity' (46%), 'Weather' (30%), 'Staffing' (13%), 'Airspace Management' (9%) and 'Technical' (1%); in Reims, 'ATC-Capacity' (45%), 'Staffing' (29%), 'Weather' (25%) and 'Airspace Management' (1%); in Maastricht, 'Staffing' (39%), 'Weather' (35%), 'ATC-Capacity' (23%), 'Airspace Management' (3%) and 'Other' (1%); in Brest, 'ATC-Capacity' (44%), 'Staffing' (37%), 'Weather' (18%) and 'Other' (1%).

Langen also induced significant delays in August 2018, but at a lower level; Langen (60 604 min.; 42% due to 'ATC-Capacity', 38% 'Weather', 20% 'Staffing').

The en-route ATFM delay per flight all causes reached 3.13 min/ft in August 2018 compared to 1.81 min/ft in 2017. The YTD en-route ATFM delay per flight shows a deterioration compared to last year (2.55 min/ft vs. 1.23 min/ft in 2017). This result is far above the YTD guideline value (0.48 min/ft). The YTD en-route ATFM delay CRSTMP causes reaches 1.53 min/ft. This corresponds to a performance drop compared to last year (0.77 min/ft); this value is, as well, far above the guideline value estimated at the end of August (0.36 min/ft).

The Arrival ATFM delay per arrival movement all causes decreased in August from 0.82 min/ft in 2017 to 0.62 min/ft in 2018 (a performance improvement by 24%). The arrival ATFM delay per arrival flight CRSTMP causes slightly increased from 0.09 min/ft in 2017 to 0.12 min/ft at the end of August 2018, which represents a significant performance deterioration of 33%.

The airports with the highest ATFM delay in August 2018 – more than 10% of the total FABEC arrival delay – were Amsterdam/EHAM (47 796 min.), Zurich/LSZH (31 505 min.) and Frankfurt/EDDF (15 688 min.). In Amsterdam, delays were due to 'Aerodrome capacity' (45%), 'Technical' (33%); 'Weather' (22%) and 'ATC-Capacity' (1%); in Zurich, delays were due to 'Weather' (54%), 'Aerodrome capacity' (22%), 'Environment' (12%), 'ATC-Capacity' (9%), 'Airspace Management' (1%), 'Staffing' (1%); in Frankfurt, 'Weather' (100%).

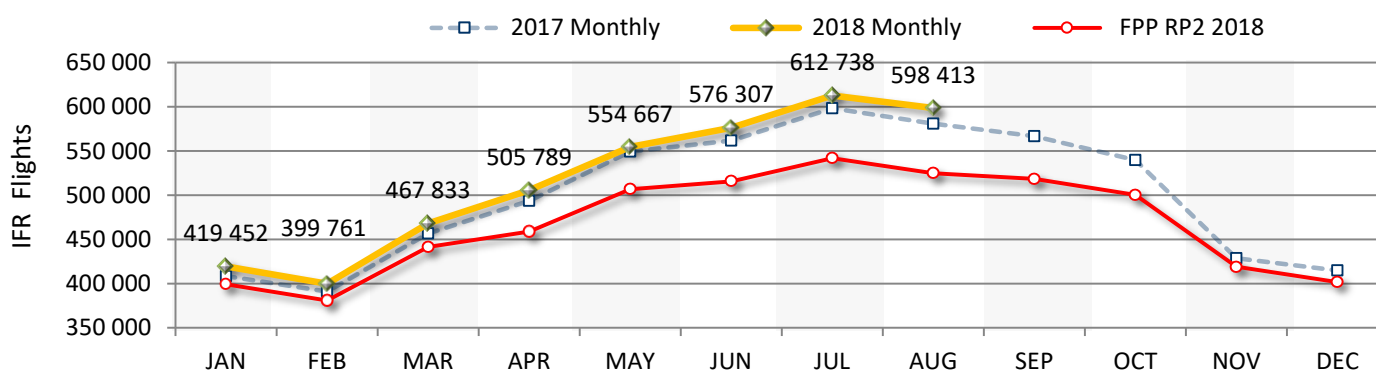
On the one hand, after the first 8 months in 2018, apart from LVNL, no other FABEC members are achieving their respective CRSTMP en-route ATFM delay per flight target. On the other hand, all FABEC members are currently achieving their respective CRSTMP arrival ATFM delay per arrival flight target.

P.S.: In the context of the “post-ops performance adjustment process”, delays figures for all ANSPs are not consolidated yet.

FABEC TRAFFIC DEVELOPMENT (*en-route*)

FABEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YTD
2017 Monthly	408 380	390 913	456 579	493 697	549 331	561 854	598 206	580 758	566 817	539 790	428 731	414 723	4 039 718
2018 Monthly	419 452	399 761	467 833	505 789	554 667	576 307	612 738	598 413					4 134 960
Growth (%)	2.7 %	2.3 %	2.5 %	2.4 %	1.0 %	2.6 %	2.4 %	3.0 %					2.4 %
FPP RP2 2018	399 183	380 820	441 248	458 778	506 547	515 400	541 767	524 918	518 262	500 254	419 096	401 552	3 768 661
2018 / RP2 (%) - Monthly	5.1 %	5.0 %	6.0 %	10.2 %	9.5 %	11.8 %	13.1 %	14.0 %					
2018 / RP2 (%) - Cumulated	5.1 %	5.0 %	5.4 %	6.7 %	7.4 %	8.2 %	9.0 %	9.7 %					

2017 Monthly and 2018 Monthly values represent actual movements (*source: PRU*). RP2 2017 represents the traffic forecast (STATFOR low- growth 02/2015) underpinning the FABEC Performance Plan, split into monthly values on the basis of a FABEC consolidated methodology.

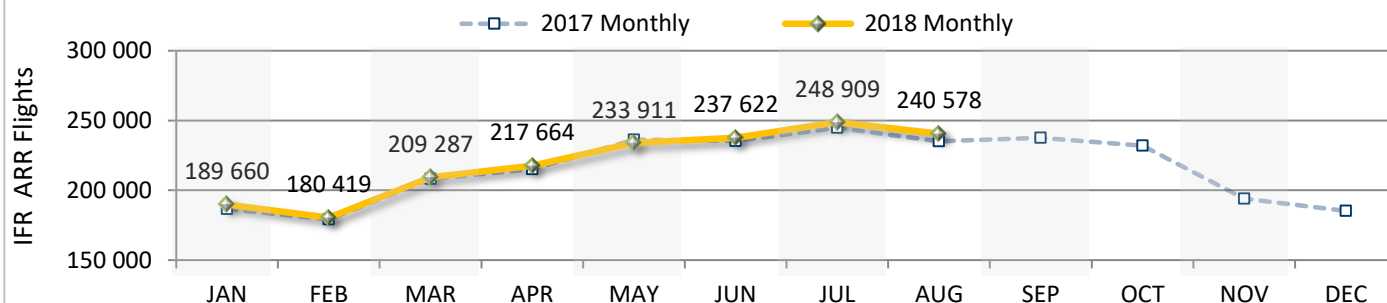


	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YTD
Belgocontrol													
2017 Monthly	43 381	40 904	49 093	51 528	57 327	58 122	60 679	58 562	58 651	57 821	47 761	44 876	419 596
2018 Monthly	44 799	42 925	50 291	54 227	58 665	60 373	63 079	61 076					435 435
Growth (%)	3.3 %	4.9 %	2.4 %	5.2 %	2.3 %	3.9 %	4.0 %	4.3 %					3.8 %
DFS													
2017 Monthly	207 690	197 449	232 389	243 825	273 488	277 744	291 083	283 588	283 914	274 704	220 629	207 969	2 007 256
2018 Monthly	212 646	203 601	238 141	252 738	281 336	287 853	301 595	295 747					2 073 657
Growth (%)	2.4 %	3.1 %	2.5 %	3.7 %	2.9 %	3.6 %	3.6 %	4.3 %					3.3 %
DSNA													
2017 Monthly	206 853	198 320	230 645	264 980	293 336	305 789	332 010	319 032	305 158	284 474	216 125	216 341	2 150 965
2018 Monthly	213 336	202 724	240 485	267 871	294 486	312 448	337 798	325 708					2 194 856
Growth (%)	3.1 %	2.2 %	4.3 %	1.1 %	0.4 %	2.2 %	1.7 %	2.1 %					2.0 %
LVNL													
2017 Monthly	44 846	42 754	51 005	52 668	57 993	56 076	58 322	58 134	56 108	56 514	48 109	44 817	421 798
2018 Monthly	46 296	44 327	50 909	53 087	58 004	57 003	59 115	58 614					427 355
Growth (%)	3.2 %	3.7 %	-0.2 %	0.8 %	0.0 %	1.7 %	1.4 %	0.8 %					1.3 %
MUAC													
2017 Monthly	133 477	125 041	145 379	152 421	168 532	168 567	176 304	172 076	169 510	166 100	137 467	133 707	1 241 797
2018 Monthly	135 713	126 950	147 139	154 380	171 373	171 559	179 214	175 989					1 262 317
Growth (%)	1.7 %	1.5 %	1.2 %	1.3 %	1.7 %	1.8 %	1.7 %	2.3 %					1.7 %
skyguide													
2017 Monthly	83 431	80 925	94 941	102 124	113 118	117 991	125 394	120 501	119 052	113 726	85 542	85 865	838 425
2018 Monthly	86 394	82 941	97 689	107 085	118 537	125 433	132 695	129 467					880 241
Growth (%)	3.6 %	2.5 %	2.9 %	4.9 %	4.8 %	6.3 %	5.8 %	7.4 %					5.0 %

FABEC TRAFFIC DEVELOPMENT (arrival)

FABEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YTD
2017 Monthly	186 527	179 218	208 258	215 117	236 161	235 319	244 758	235 151	237 682	231 904	194 055	185 340	1 740 509
2018 Monthly	189 660	180 419	209 287	217 664	233 911	237 622	248 909	240 578					1 758 050
Growth (%)	1.7 %	0.7 %	0.5 %	1.2 %	-1.0 %	1.0 %	1.7 %	2.3 %					1.0 %

2017 Monthly and 2018 Monthly values represent actual arrivals (source: PRU).



	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YTD
ANA LUX													
2017 Monthly	2 472	2 370	2 814	2 999	3 253	3 235	3 193	2 979	3 165	3 218	2 919	2 751	23 315
2018 Monthly	2 788	2 607	3 008	3 249	3 389	3 414	3 313	3 129					24 897
Growth (%)	12.8 %	10.0 %	6.9 %	8.3 %	4.2 %	5.5 %	3.8 %	5.0 %					6.8 %

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YTD
Belgocontrol													
2017 Monthly	9 664	9 257	10 879	10 825	12 073	11 919	12 327	11 932	11 997	11 704	10 442	9 580	88 876
2018 Monthly	9 676	9 263	10 646	11 094	11 701	11 711	12 477	12 046					88 614
Growth (%)	0.1 %	0.1 %	-2.1 %	2.5 %	-3.1 %	-1.7 %	1.2 %	1.0 %					-0.3 %

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YTD
DFS													
2017 Monthly	73 702	71 414	82 929	83 838	93 496	92 780	95 300	93 225	95 491	94 191	78 002	71 138	686 684
2018 Monthly	73 971	72 422	83 650	86 752	94 000	94 769	98 092	97 183					700 839
Growth (%)	0.4 %	1.4 %	0.9 %	3.5 %	0.5 %	2.1 %	2.9 %	4.2 %					2.1 %

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YTD
DSNA													
2017 Monthly	64 571	62 544	72 516	77 402	84 466	85 445	90 066	83 514	84 712	80 418	66 728	65 988	620 524
2018 Monthly	66 247	61 688	72 535	76 311	82 339	85 816	91 320	84 966					621 222
Growth (%)	2.6 %	-1.4 %	0.0 %	-1.4 %	-2.5 %	0.4 %	1.4 %	1.7 %					0.1 %

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YTD
LVNL													
2017 Monthly	18 164	17 140	20 193	21 439	23 272	22 573	23 770	23 847	22 658	22 915	19 494	18 675	170 398
2018 Monthly	18 970	17 932	20 586	21 404	22 907	22 339	23 347	23 315					170 800
Growth (%)	4.4 %	4.6 %	1.9 %	-0.2 %	-1.6 %	-1.0 %	-1.8 %	-2.2 %					0.2 %

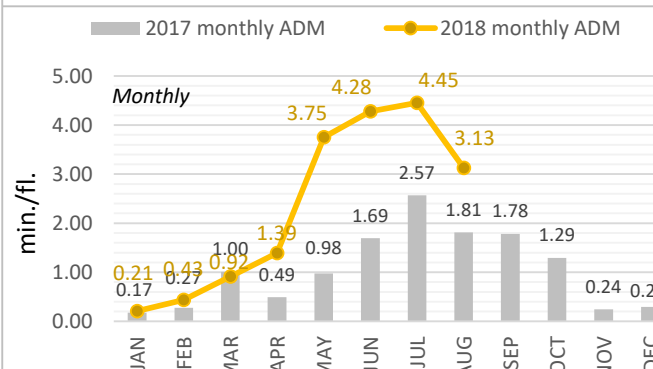
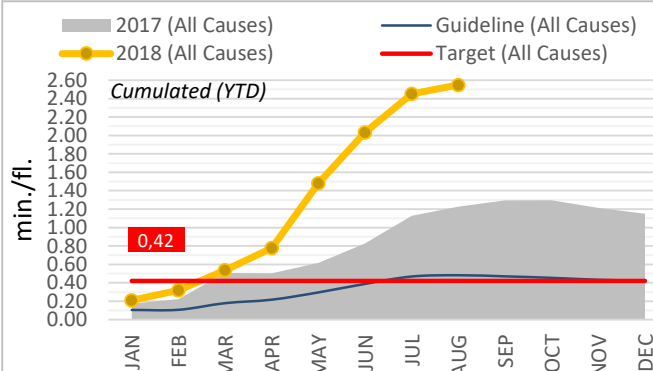
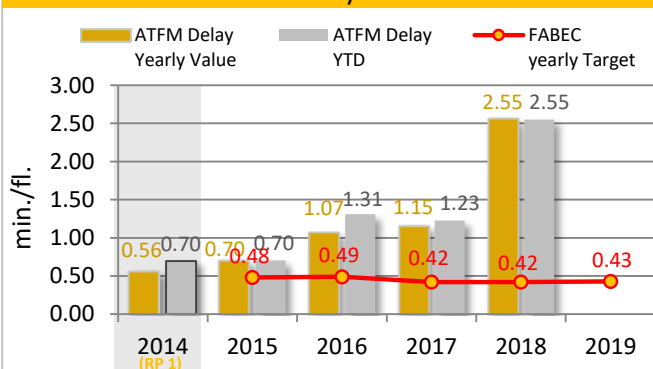
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YTD
skyguide													
2017 Monthly	17 954	16 493	18 927	18 614	19 601	19 367	20 102	19 654	19 659	19 458	16 470	17 208	150 712
2018 Monthly	18 008	16 507	18 862	18 854	19 575	19 573	20 360	19 939					151 678
Growth (%)	0.3 %	0.1 %	-0.3 %	1.3 %	-0.1 %	1.1 %	1.3 %	1.5 %					0.6 %

KPI #1: En-route ATFM delay per controlled flight (FABEC)

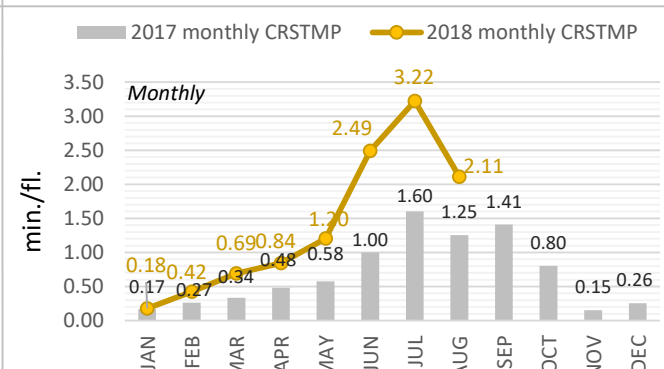
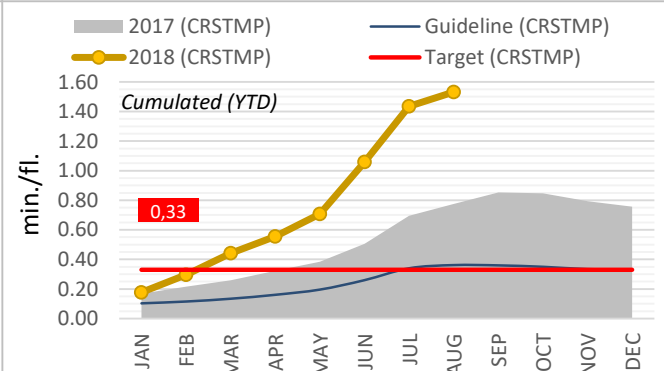
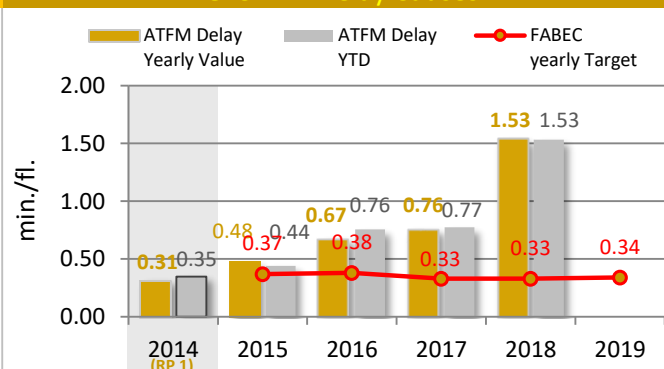
	YTD 2018	YTD 2017		YTD 2018	YTD 2017
En-route Delay All causes	2.55	1.23	En-route Delay CRSTMP causes	1.53	0.77
FABEC Target (yearly value)	0.42		FABEC Target (yearly value)	0.33	
Guideline	0.48		Guideline	0.36	
Minute ('000) ALL causes	10 540	4 955	Minute ('000) CRSTMP causes	6 334	3 129
Diff. 2018 - 2017	+ 112.7 %		Diff. 2018 - 2017	+ 102 %	
Traffic ('000)	4 135	4 040	Potential savings (*) due to underbid the delay Target (all Causes) in Mio EURO (YTD)	0.0	
Diff. 2018 - 2017	+ 2.4 %				

* Cost of ATFM-delay per min = 87 €

All Delay Causes



CRSTMP Delay Causes



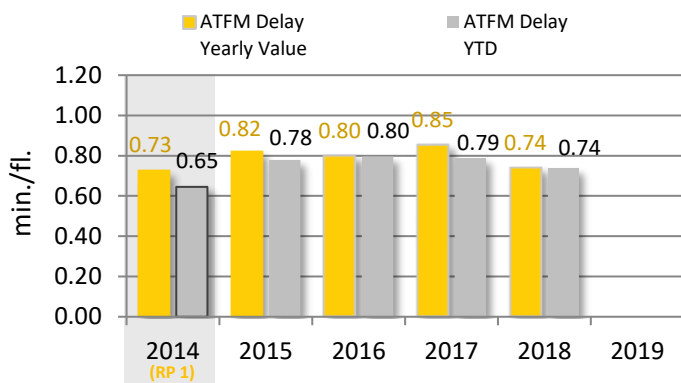
The guideline for the en-route ATFM delay per movement is a basic cumulative extrapolation of the previous three years monthly allocation and is designed to give an impression, how the YTD figures should be, in order to reach the yearly 2018 published targets (0.42 min per flight for all delay causes and 0.33 min per flight for the delay causes CRSTMP).

KPI #2: Arrival ATFM delay per controlled flight (FABEC)

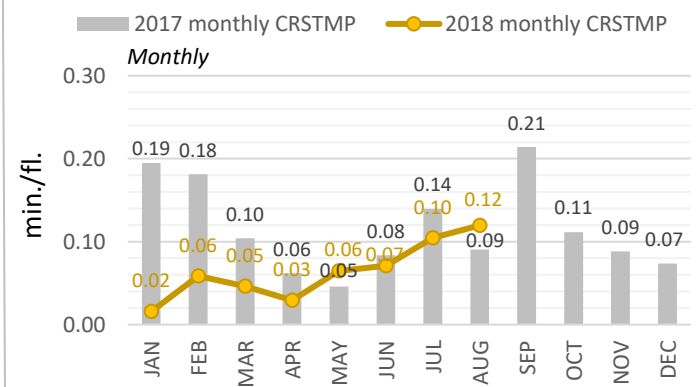
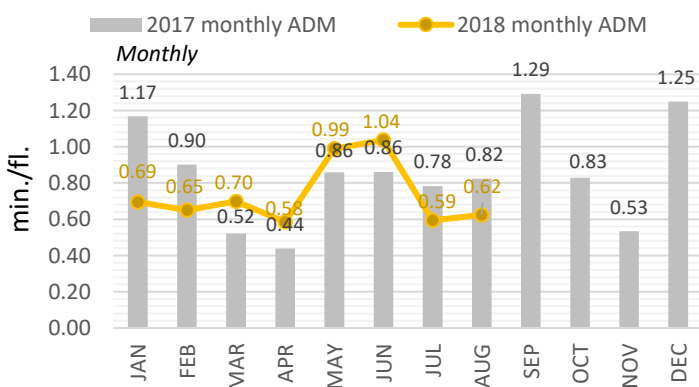
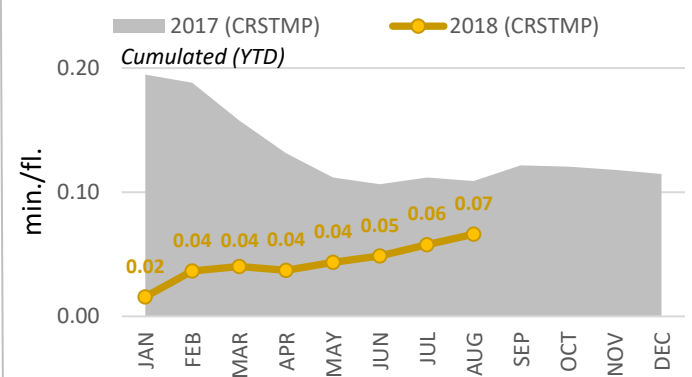
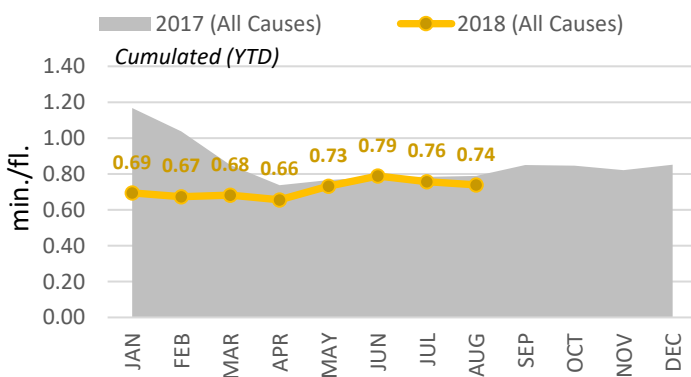
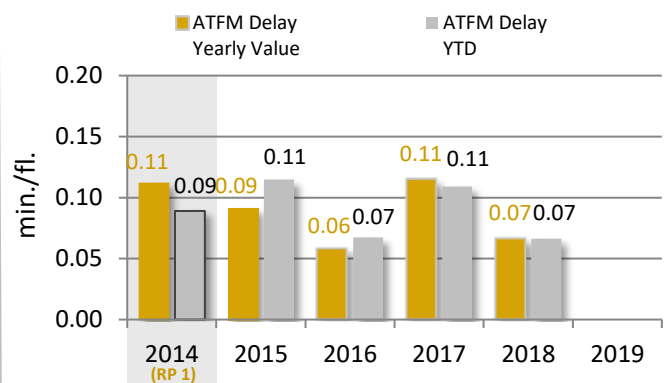
	YTD 2018	YTD 2017
Arrival Delay All causes	0.74	0.79
Diff. 2018 - 2017	- 6 %	
Minute ('000) ALL causes	1298	1 372
Diff. 2018 - 2017	- 5 %	
Traffic ('000)	1 758	1 741
Diff. 2018 - 2017	+ 1.0 %	

	YTD 2018	YTD 2017
Arrival Delay CRSTMP causes	0.07	0.11
Diff. 2018 - 2017	- 39 %	
Minute ('000) CRSTMP causes	116	190
Diff. 2018 - 2017	- 39 %	

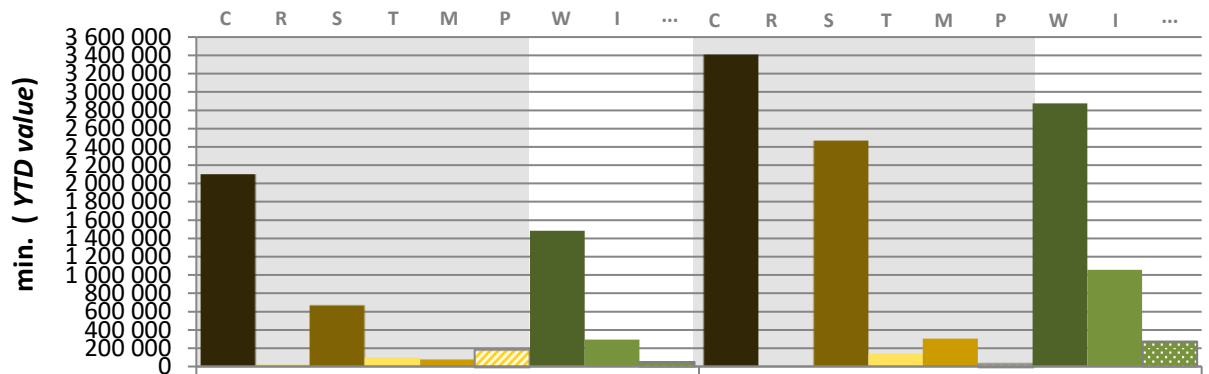
All Delay Causes



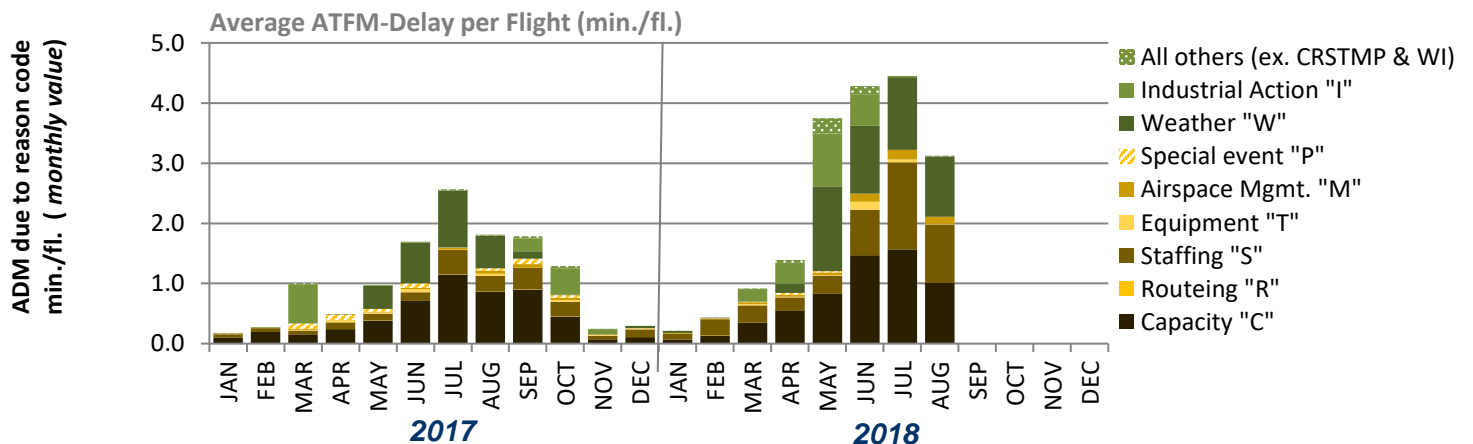
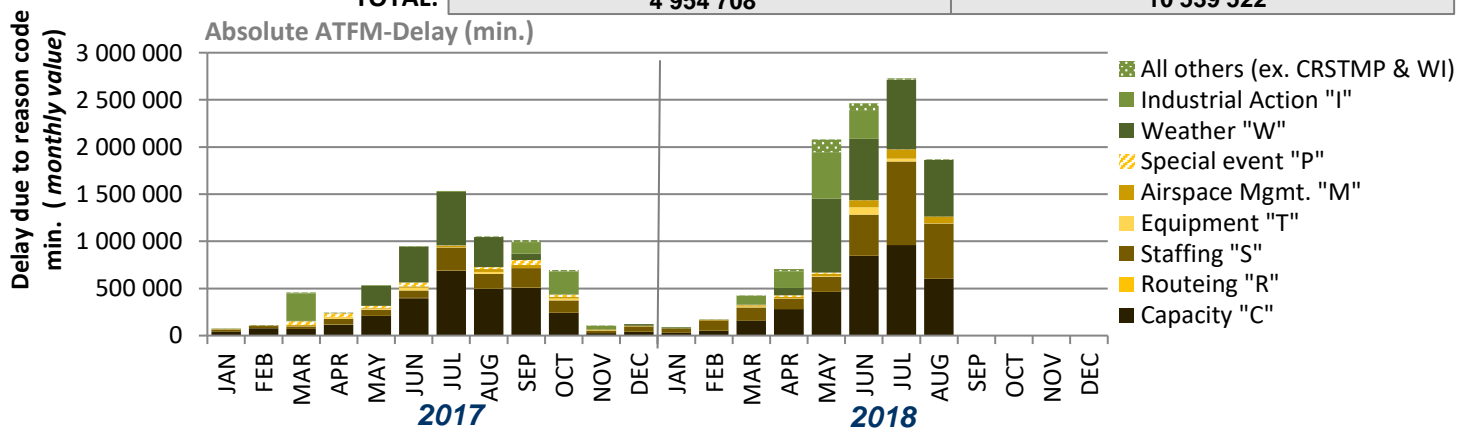
CRSTMP Delay Causes



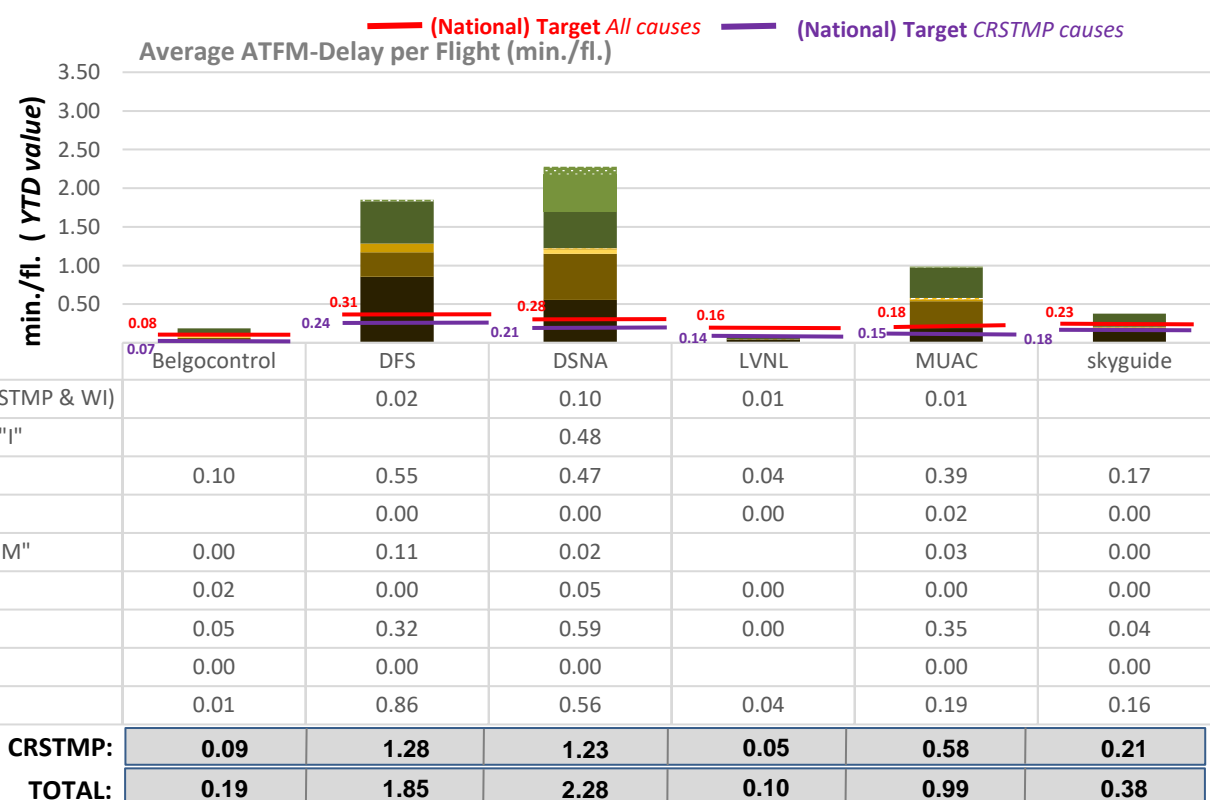
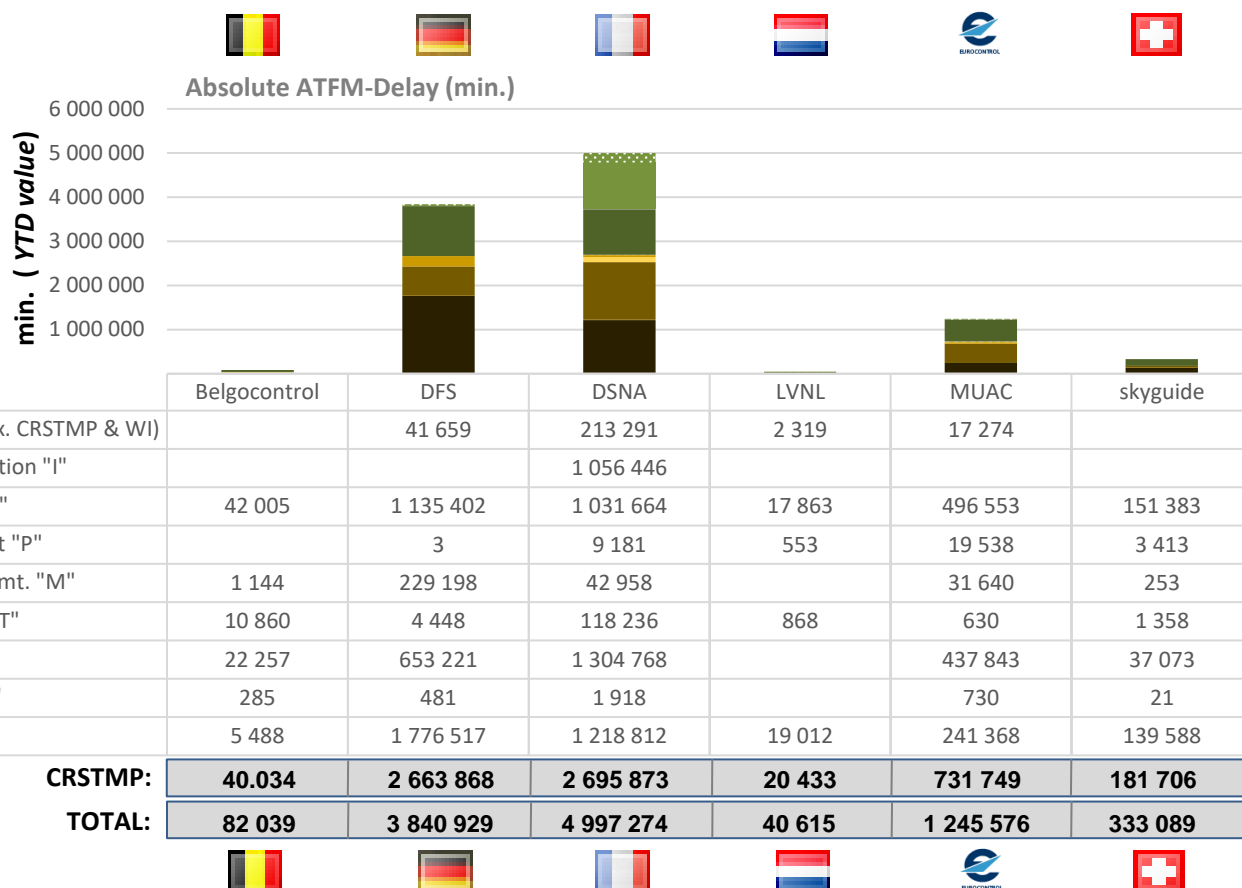
KPI #1: En-route ATFM delay per reason code (FABEC)



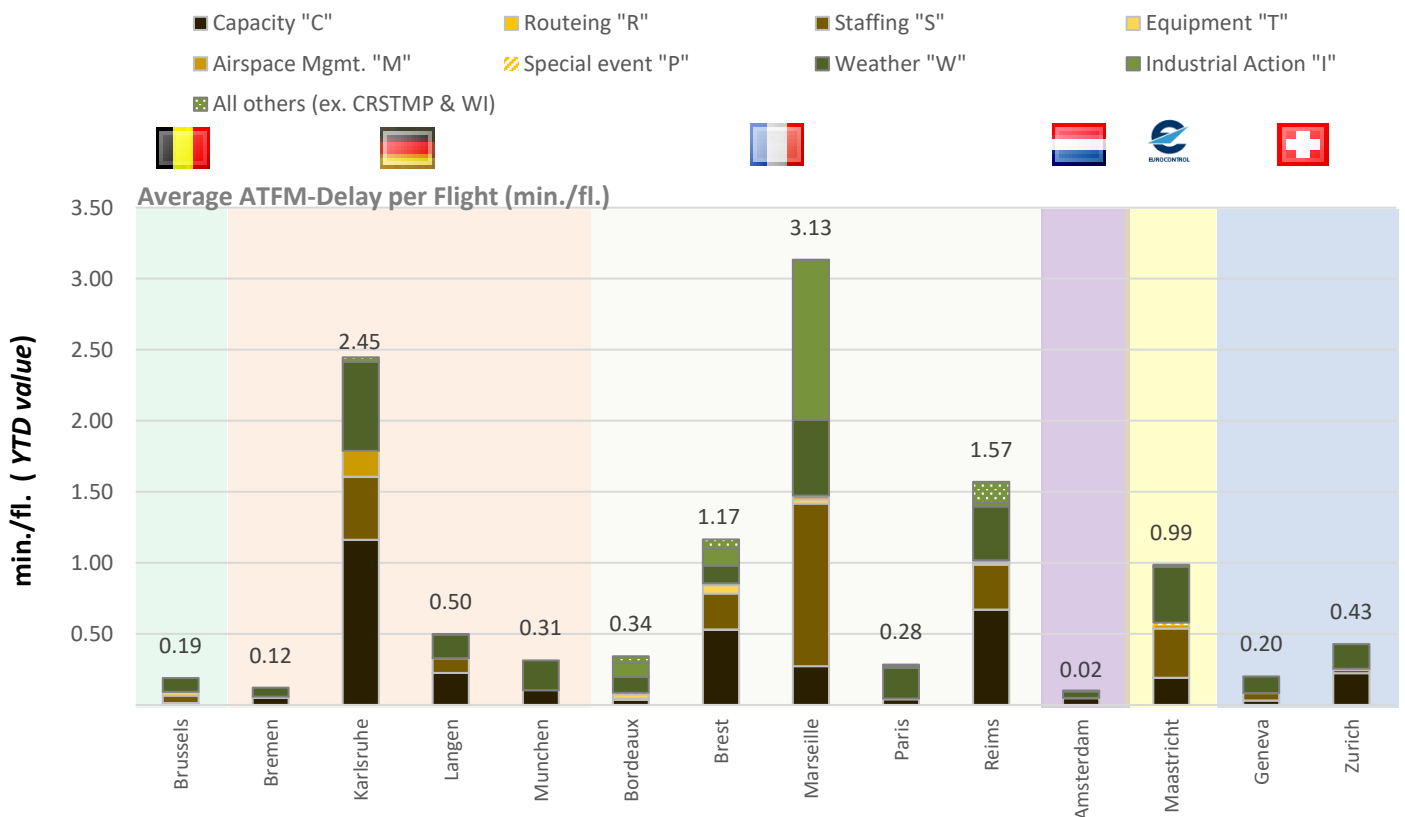
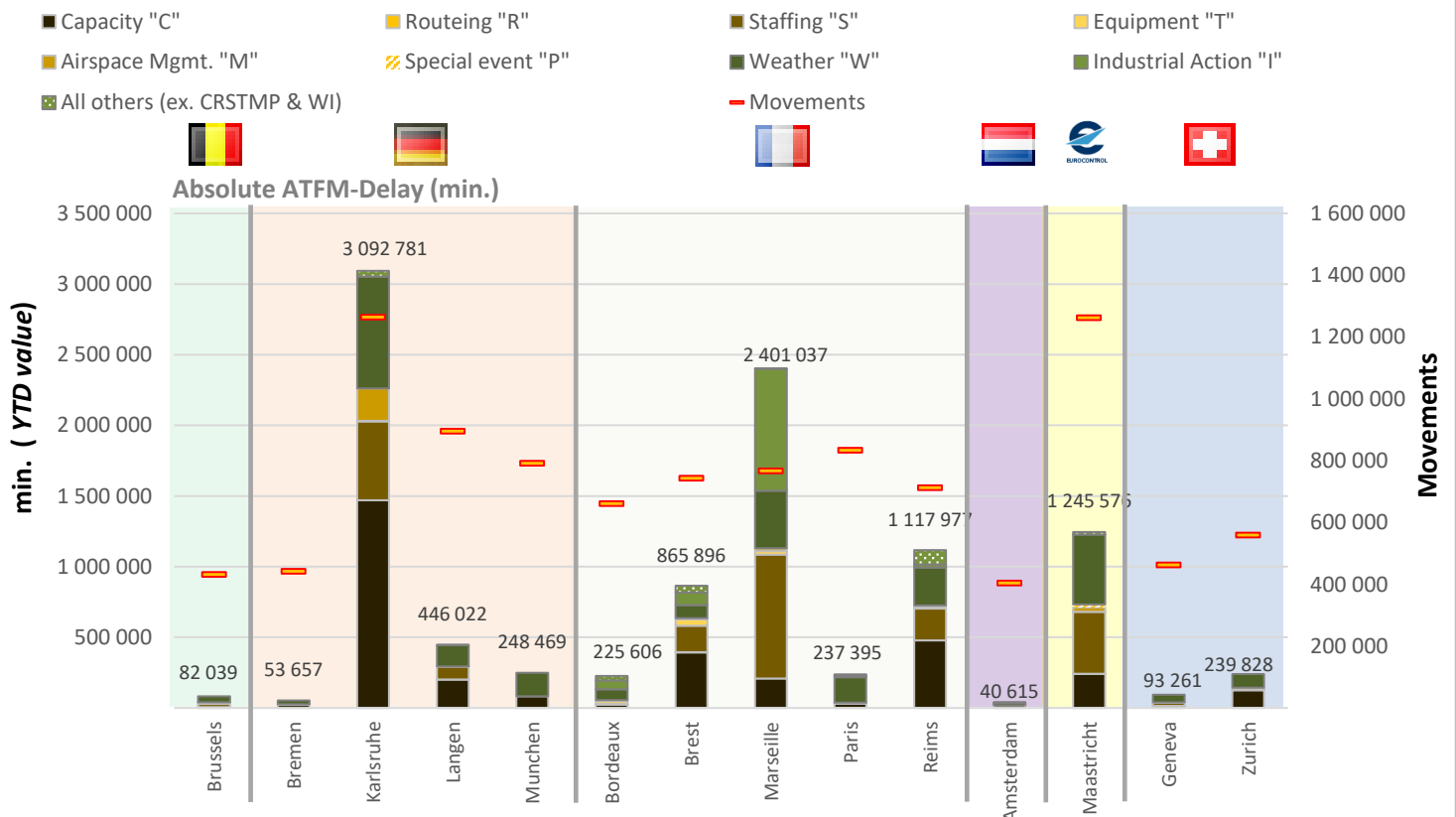
Delay due to reason code:	2017	2018
Capacity "C"	2 096 587	3 400 785
Routeing "R"	14 009	3 435
Staffing "S"	667 200	2 455 162
Equipment "T"	97 067	136 400
Airspace Mgmt. "M"	77 192	305 193
Special event "P"	177 050	32 688
Weather "W"	1 484 807	2 874 870
Industrial Action "I"	293 112	1 056 446
All others (ex. CRSTMP & WI)	47 684	274 543
CRSTMP:	3 129 105	6 333 663
TOTAL:	4 954 708	10 539 522



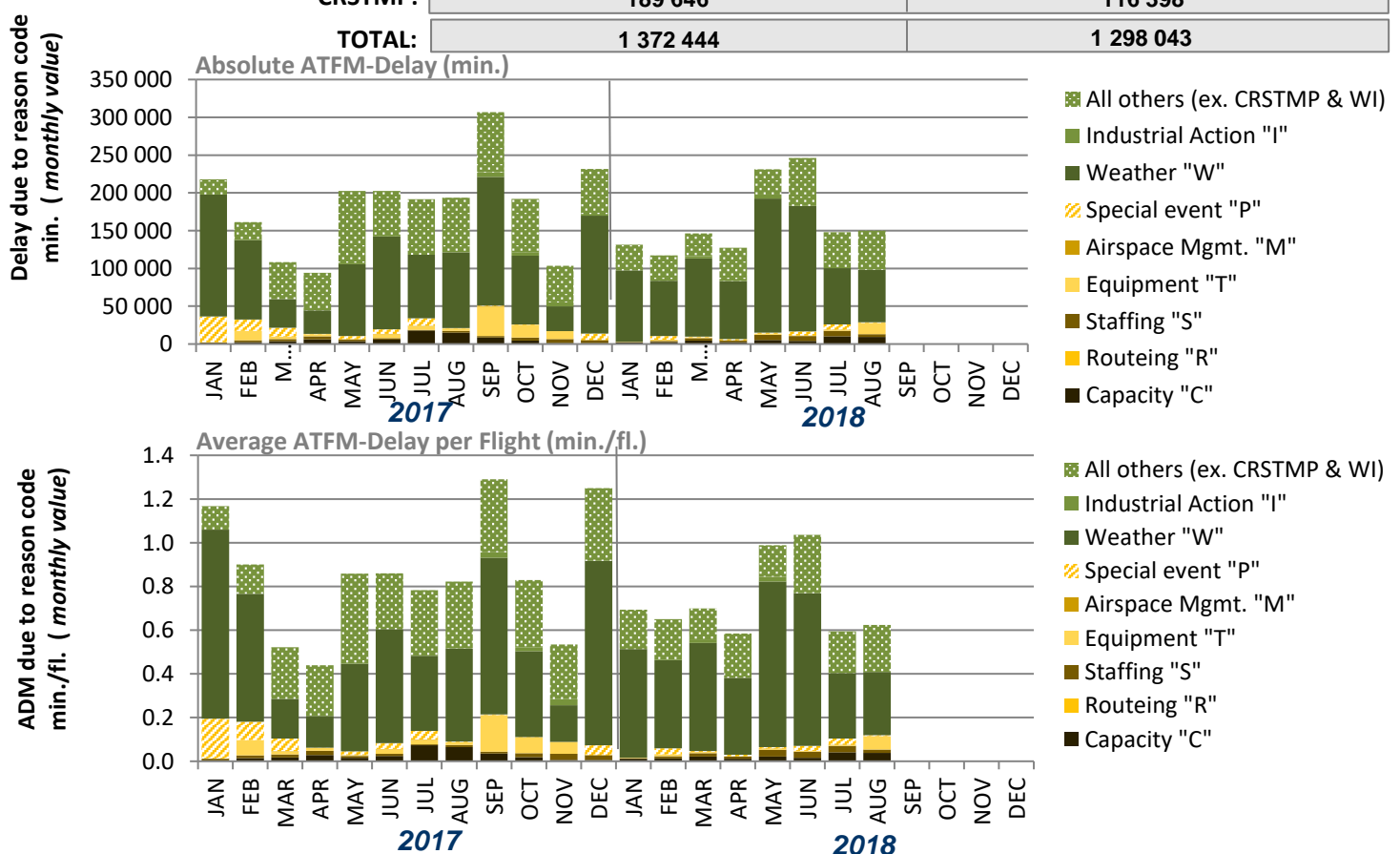
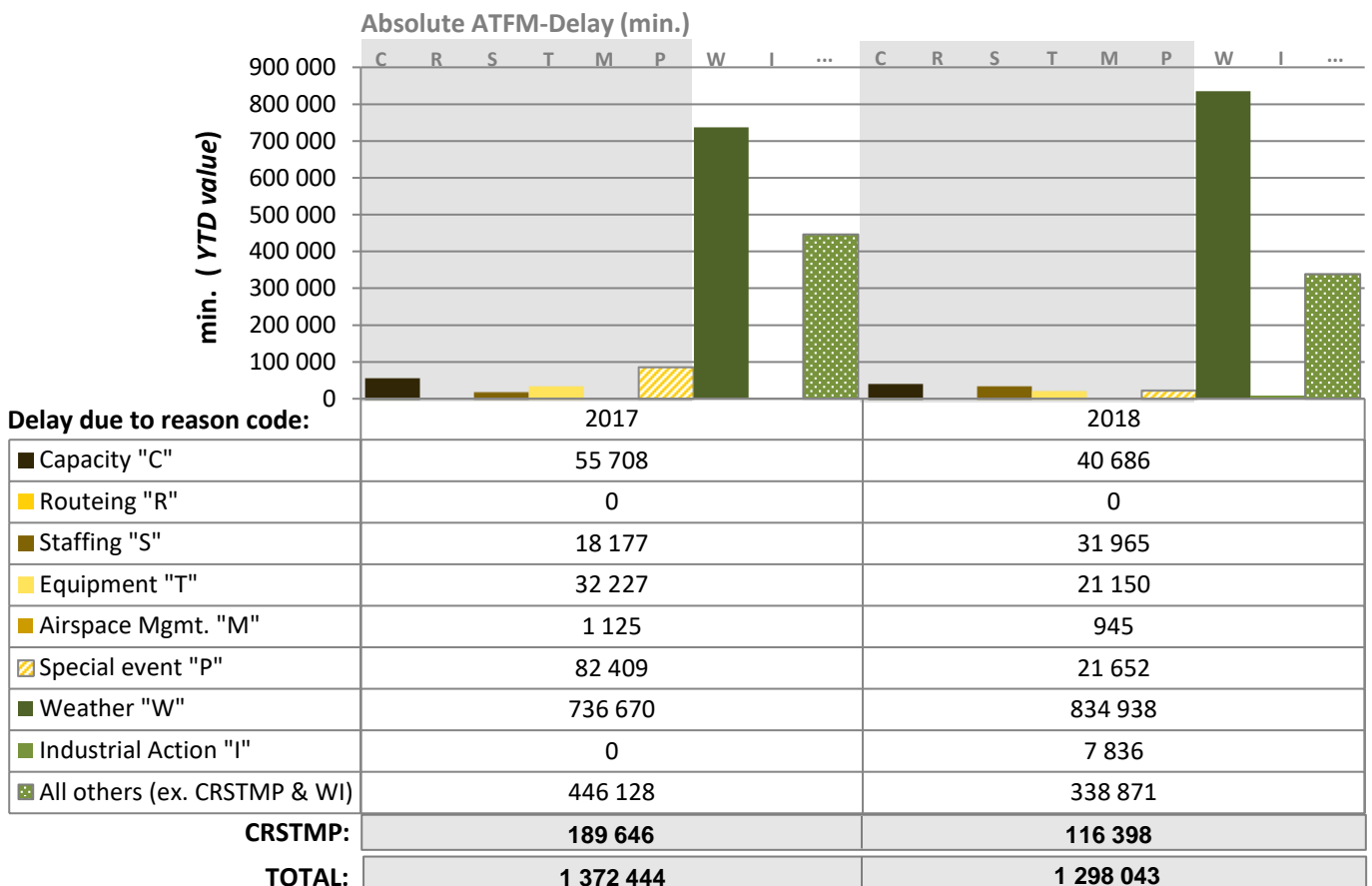
KPI #1: En-route ATFM delay per controlled flight (ANSP)



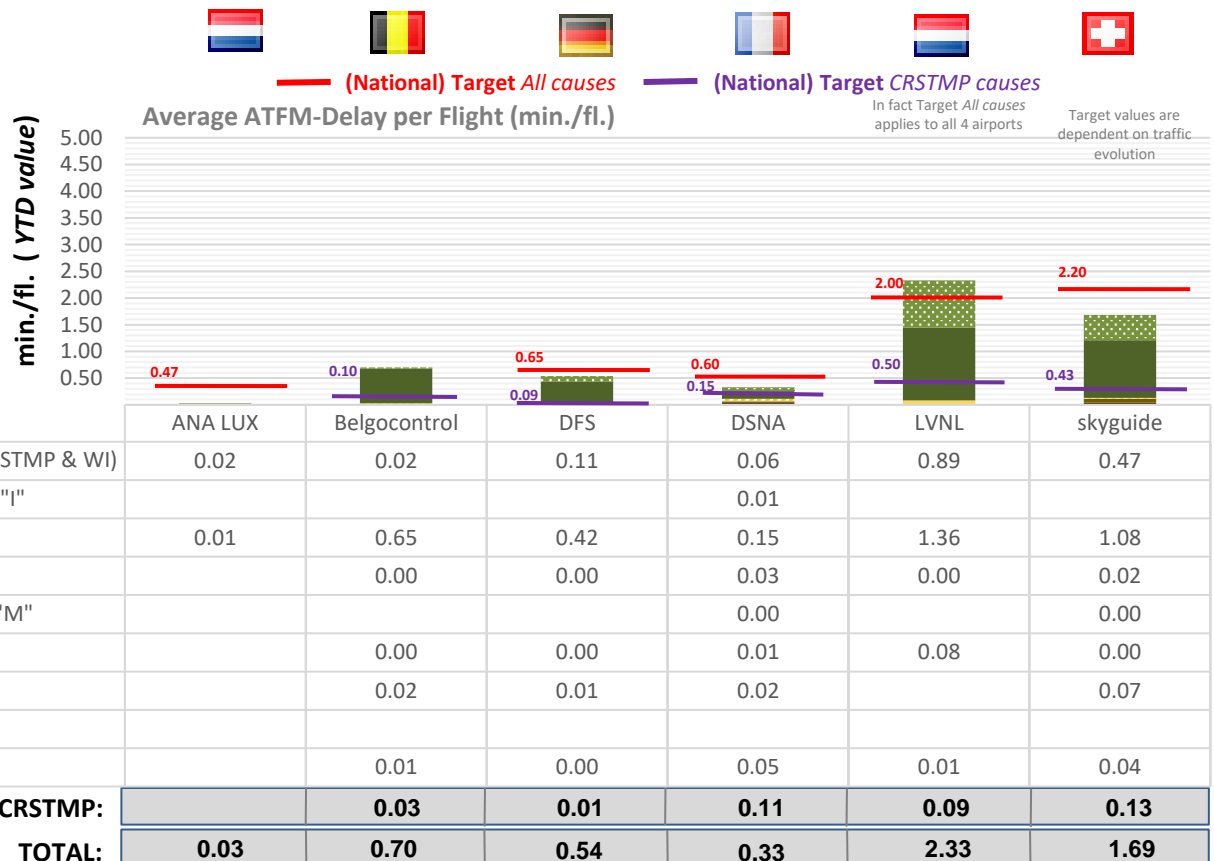
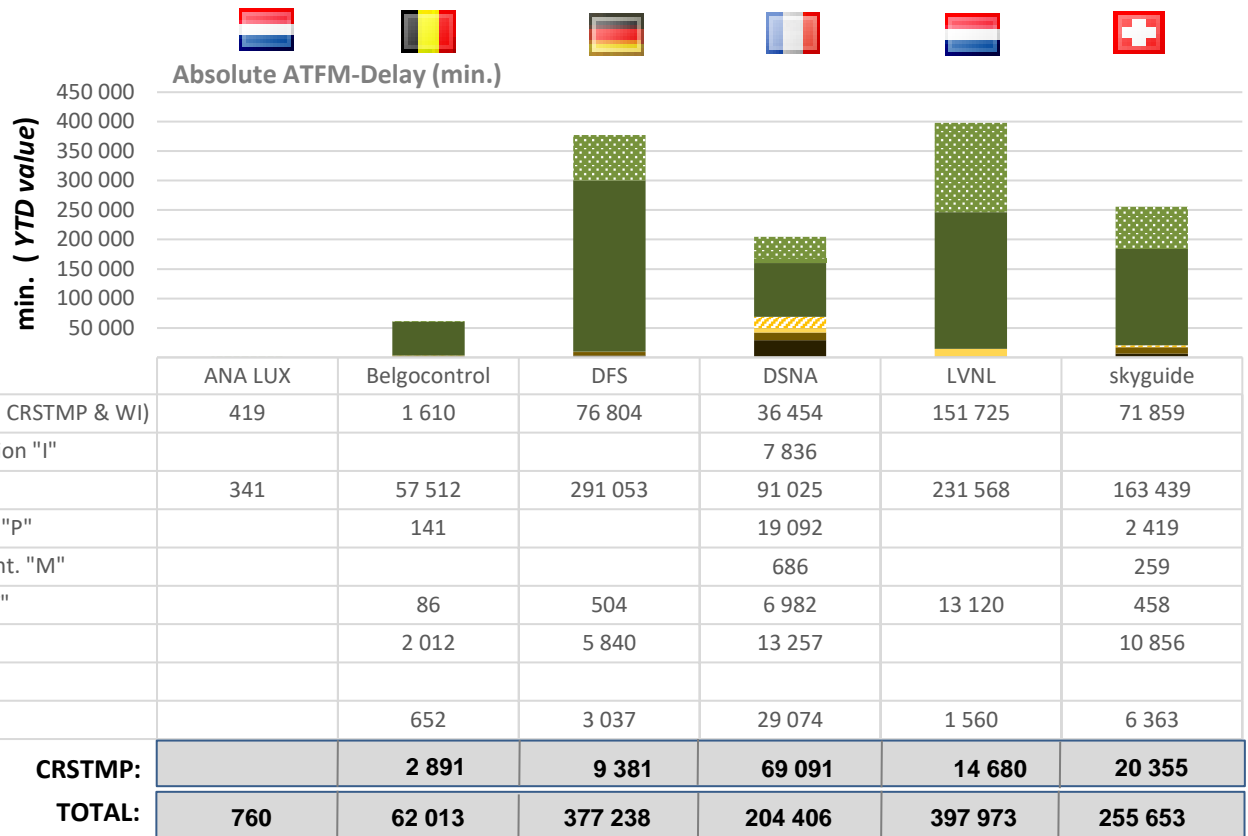
KPI #1: En-route ATFM delay per controlled flight (ACC)



KPI #2: Arrival ATFM delay per reason code (FABEC)



KPI #2: Arrival ATFM delay per controlled flight (ANSP)



Glossary

KPI #1:

KPI #1 is set by IR (EU) 390/2013 and is expressed in minutes per flight. For this indicator, the EU-wide target set for each year of RP2 is 0.50 min./fl.

The targets set at FABEC level are as follows for the indicator 'En-route ATFM delay (all regulation causes) per controlled flight' for **2015**: 0,48 min./fl., **2016**: 0.42 min./fl., **2017**: 0.42 min./fl., **2018**: 0.42 min./fl., **2019**: 0.43 min./fl.

The targets set at FABEC level are as follows for the indicator 'En-route ATFM delay (CRSTMP regulation causes) per controlled flight' for **2015**: 0.37 min./fl., **2016**: 0.33 min./fl., **2017**: 0.33 min./fl., **2018**: 0.33 min./fl., **2019**: 0.34 min./fl.

KPI #2:

KPI #2 is set by IR (EU) 390/2013 and is expressed in minutes per flight. For this indicator, no targets have been defined at EU and FABEC level for RP2. The targets have been set at local level.

Cause	CODE	Guidelines for Application
ATC Capacity	C	En Route: Demand exceeds or complexity reduces declared or expected ATC capacity Airport: Demand exceeds declared or expected ATC capacity.
ATC Industrial Action	I	Reduction in any capacity due to industrial action by ATC staff
ATC Routeings	R	Network solutions / scenarios used to balance demand and capacity
ATC Staffing	S	Unplanned staff shortage reducing expected capacity.
ATC Equipment	T	Reduction of expected or declared capacity due to the non-availability or degradation of equipment used to provide an ATC service.
Accident / Incident	A	Reduction of expected ATC capacity due to an aircraft accident / incident.
Aerodrome Capacity	G	Reduction in declared or expected capacity due to the degradation or non-availability of infrastructure at an airport. e.g. Work in Progress, shortage of aircraft stands etc. Or when demand exceeds expected aerodrome capacity.
Equipment NON ATC- to be Aerodrome Services	E	Reduced capacity due to the degradation or non-availability of support equipment at an airport e.g. Fire Service, De-icing / snow removal equipment or other ground handling equipment.
Industrial Action NON ATC	N	A reduction in expected / planned capacity due to industrial action by non ATC personnel.
Airspace Management	M	Reduction in declared or expected capacity following changes in airspace / route availability due to small scale military activity.
Special Event	P	Reduction in planned, declared or expected capacity or when demand exceeds the above capacities as a result of a major sporting, governmental or social event. It may also be used for ATM system upgrades and transitions. Large multinational military exercises may also use this reason. This category should only be used with prior approval during the planning process.
Weather	W	Reduction in expected capacity due to any weather phenomena. This includes where weather impacts airport infrastructure capacity, but where aerodrome services are operating as planned / expected.
Environmental Issues	V	Reduction in any capacity or when demand exceeds any capacity due to agreed local noise, runway usage or similar procedures. This category should only be used with prior agreement in the planning process.
Other	O	This should only be used in exceptional circumstances when no other category is sufficient. An explanatory ANM remark MUST be given to allow post ops analysis.

CRSTMP:

ATC Capacity (**C**), ATC Routeings (**R**), ATC Staffing (**S**), ATC Equipment (**T**), Airspace Management (**M**), Special Event (**P**); a set of regulation codes which are defined in the Common Charging Scheme Regulation (IR 391/2013) and subject to financial incentive.

Note: Arrival figures (traffic and delay) do only include EBBR and EBLG for Belgium and only EHAM for the Netherlands.

TABLE OF ABBREVIATIONS

ADM - Average en-route ATFM Delay per Movement
ANSP - Air Navigation Service Provider
ATFM - Air Traffic Flow Management
ANM - Aeronautical Notification Message
FABEC - Functional Airspace Block Europe Central

ATM - Air Traffic Management
PRU - Performance Review Unit
YTD - Year to Date value
FPP - FABEC Performance Plan

FABEC Performance Report Capacity:

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Notice

The FABEC PMG has made every effort to ensure that the information and analysis contained in this document are as accurate and complete as possible.

Only information from quoted sources has been used and information relating to named parties has been checked with the parties concerned.

Despite these precautions, should you find any errors or inconsistencies we would be grateful if you could please bring them to the FABEC PMGs attention.