

Supporting
European
Aviation



CANSO/EUROCONTROL Global Resilience Summit Lessons Learnt from COVID Crisis

Razvan Bucuroiu

Head of Airspace and Capacity Division

EUROCONTROL NETWORK MANAGER

09 December 2021



Summer 2021 – Actions

- EACCC support**
 - EACCC State Focal Points coordination

- NDOP Ad-hoc Coordination Cell**
 - Operational stakeholder discussion every Monday

- NOTAMs**
 - Daily NOTAM summary table

- European NOP Rolling Seasonal Plan**
 - Replacing Network Recovery Plan
 - Covering 6 week period
 - Started on 23rd Oct 2020
 - 54 editions published

- Active Support from NMOC**
 - Maintaining low level of delays
 - Supporting efficient trajectories

- Airport Function in NMOC**
 - Airport Corner – COVID-19 page
 - Strong cooperation with ACI
 - Data collection used in the Recovery Plan

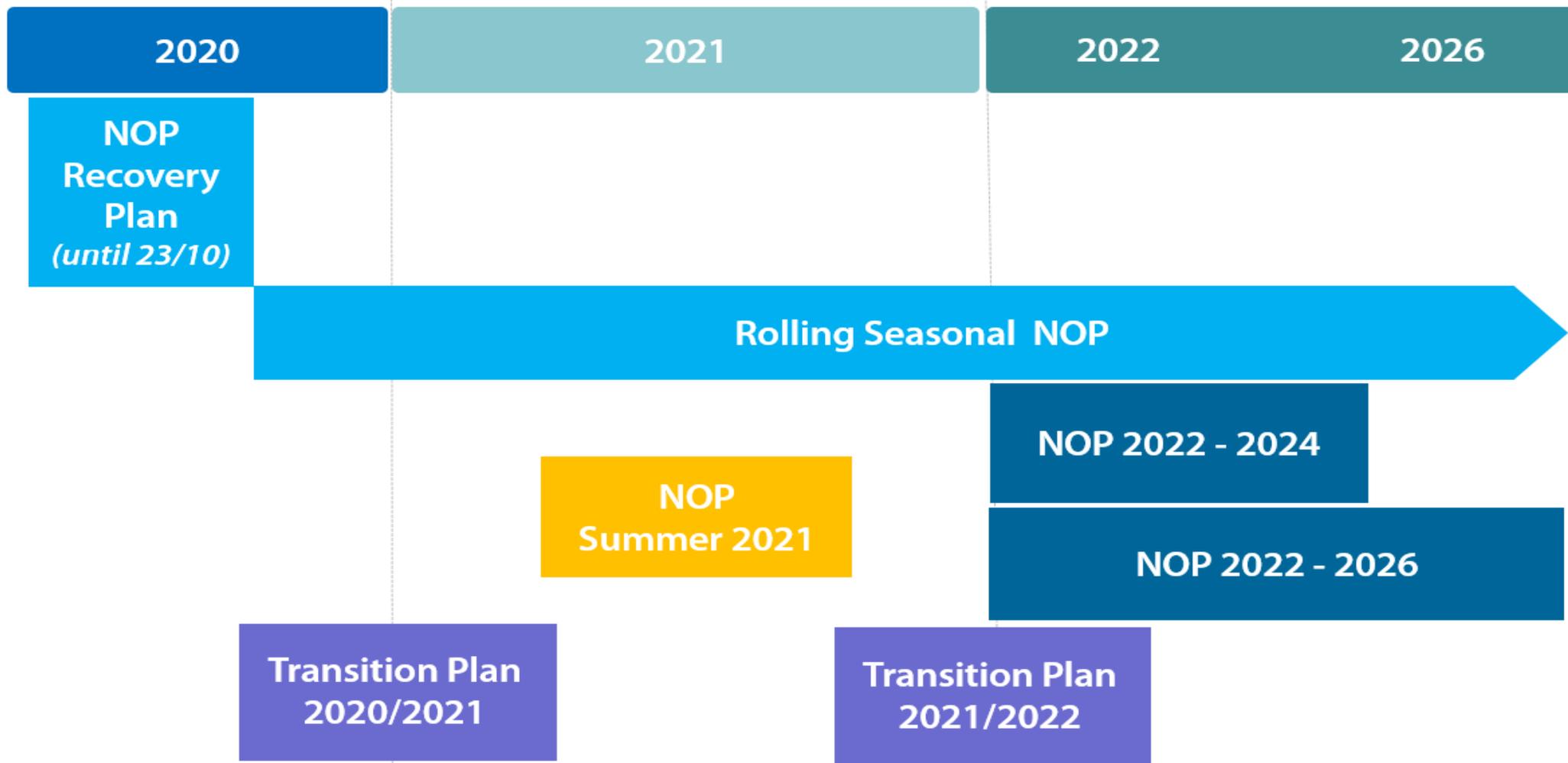
- Resilience**
 - Building Network Resilience with ANSPs

- Industry engagement**
 - Regular bilateral recovery briefings and talks with operational stakeholders

- RAD**
 - NM coordinated the lifting RAD and other restrictions



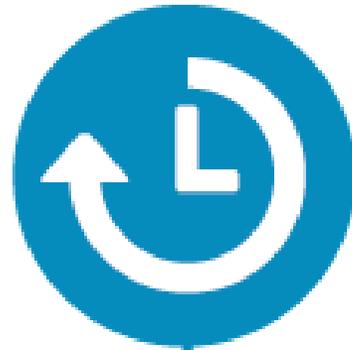
Network Operations Plan



Rolling Seasonal NOP



6-week traffic & capacity outlook
Weekly updates



Close to zero delay



Greener trajectories

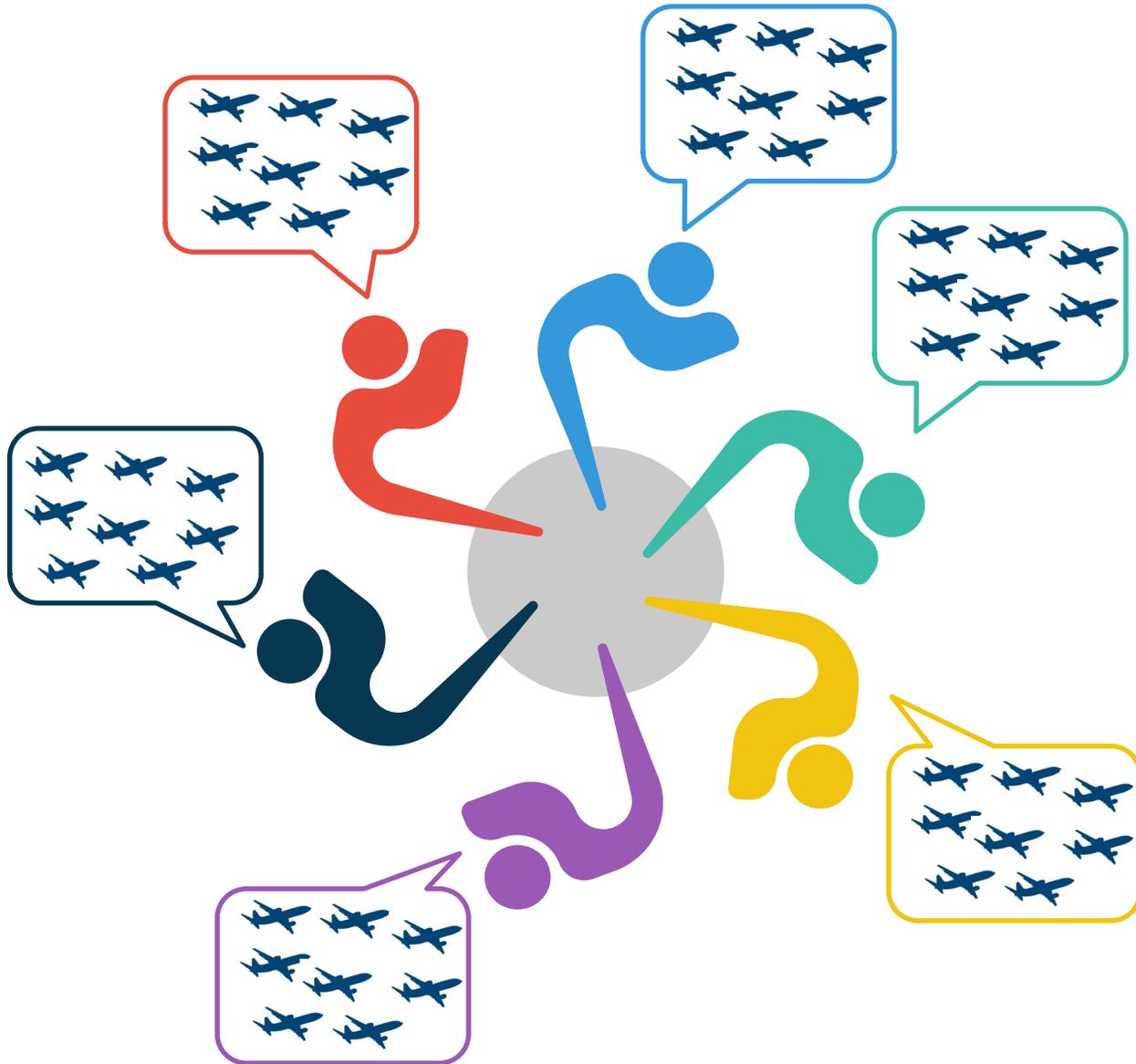
Rolling Seasonal NOP



Action	Date	Who
ANSPs to send their capacity plan to NM for the outlook period	By Friday COB one week before publication	ANSPs
Traffic expectations at network and ACC level for the outlook period, in NEST and Excel format	By Wednesday COB	NM
NM Assessment of ACC plans	Monday/Thursday	NM
Weekly NOP publication	By Friday COB	NM

Weekly UFN

Traffic Outlook



Weekly

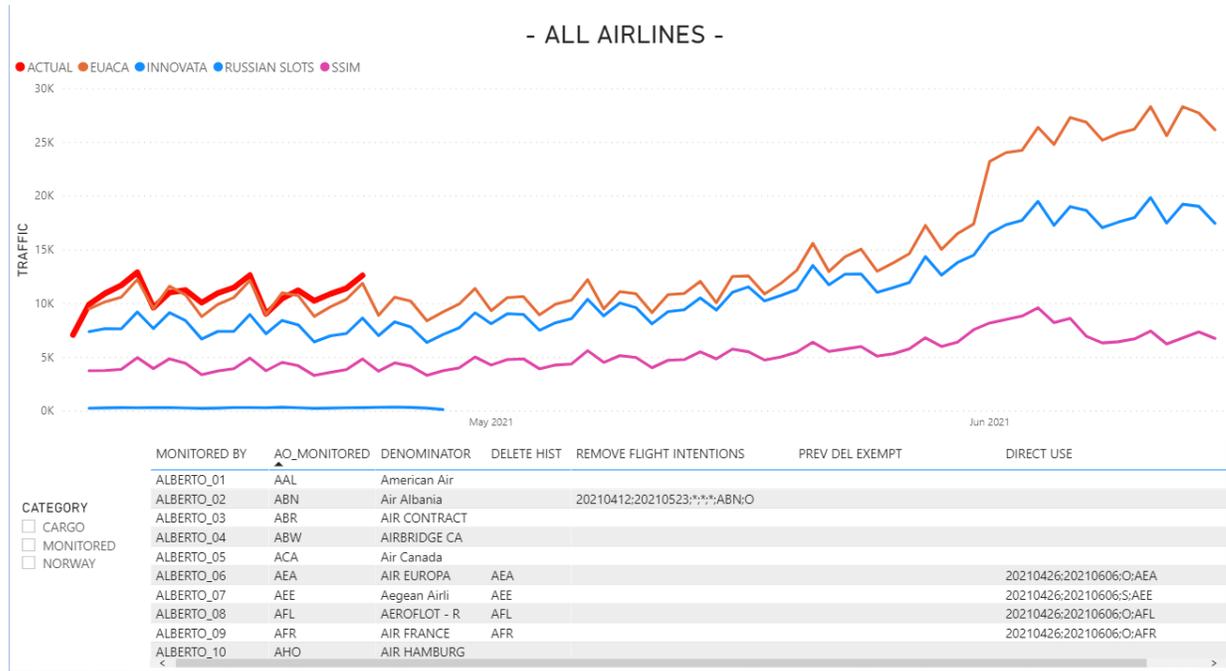
- >130 airlines are monitored.



Continuous

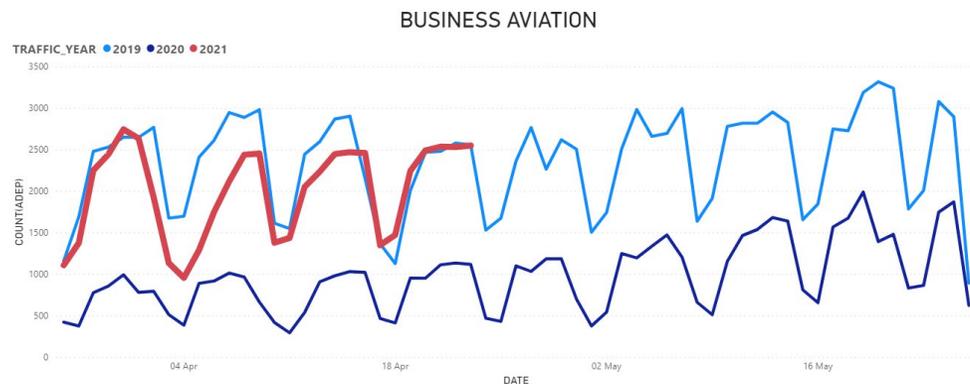
- Data collection and communication with the airlines
- Improvement of the algorithm and process
- Documentation and planning
- Keeping a bulletin of news from the industry

Monday am



Initial hypothesis:

- Analysis of the raw flight intentions for the >320 monitored airlines
- Initial input for the forecast algorithm



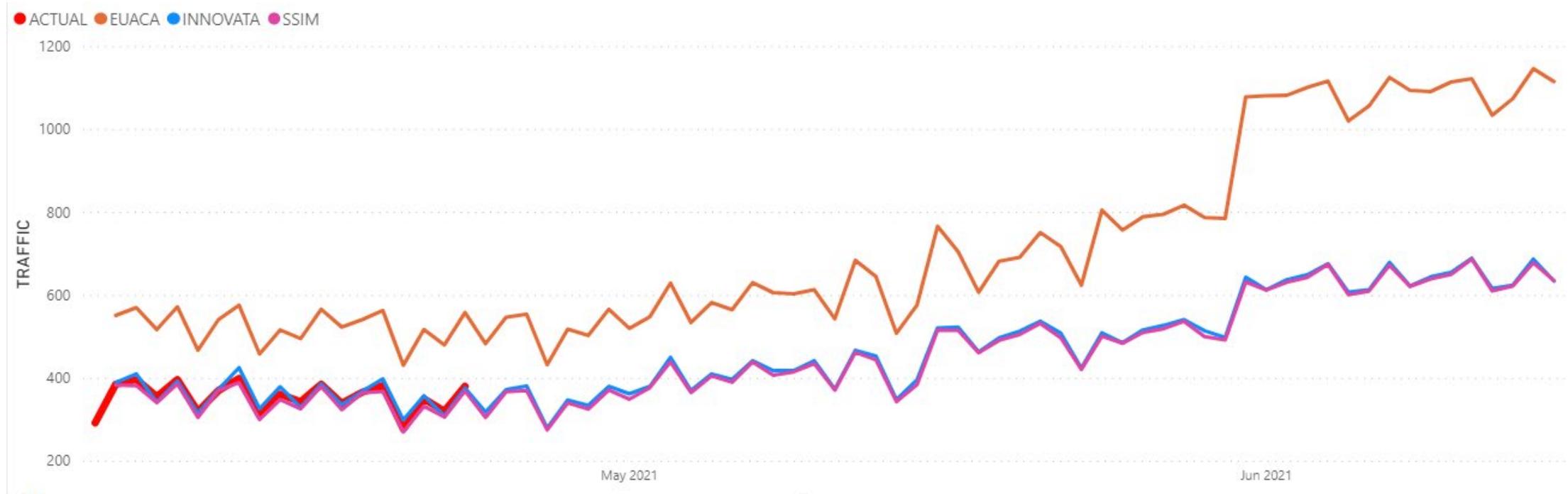
Initial hypothesis:

- Check business aviation previous weeks
- Check Norway helicopters previous weeks
- Choice of reference week

Flight intentions - Examples

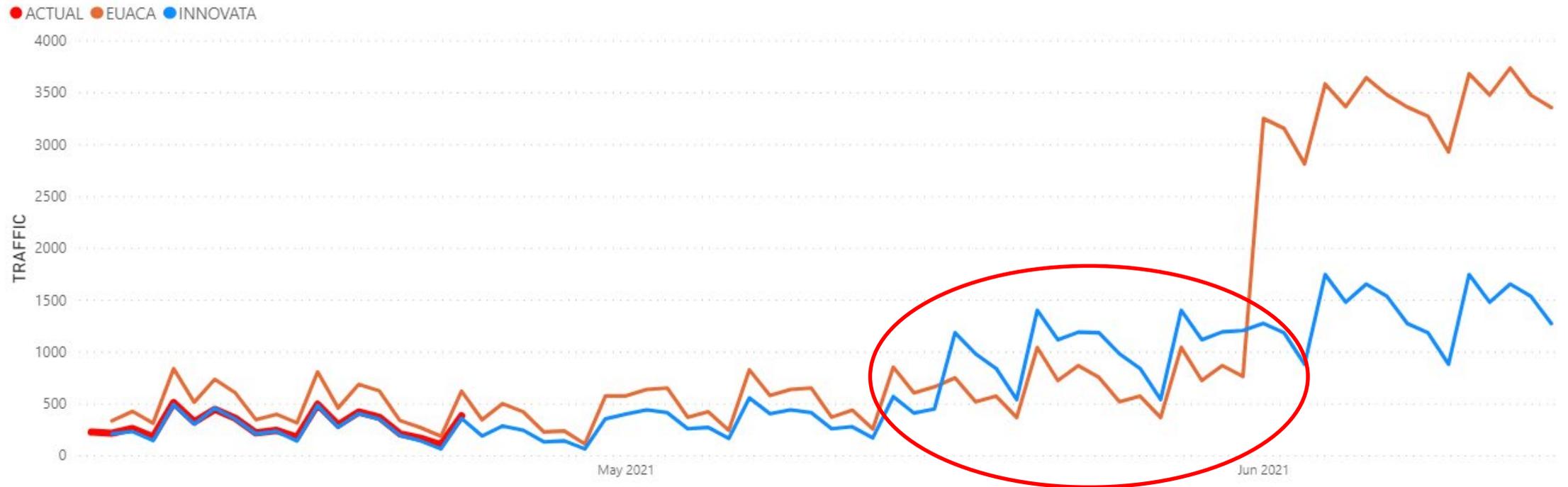


All sources aligned



Flight intentions - Examples

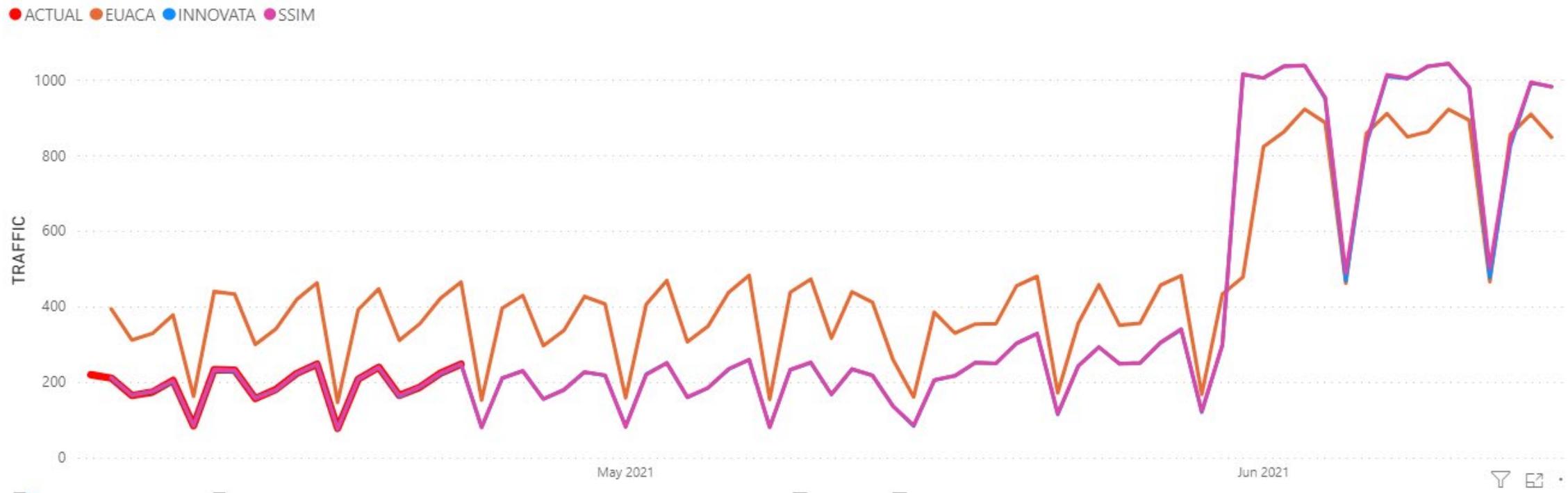
Diverging information



Flight intentions - Examples



Data not updated for the end of the period



Monday pm



Reviewed hypothesis

- Analysis of the calculated traffic for the >130 monitored airlines
- Reviewed input for the forecast algorithm

Next step:

- Launch forecast generation with route assignment

Monday pm

Route Assignment



Last 6 months scanned for the most recent occurrence of a route to build a **route catalogue**



~92%

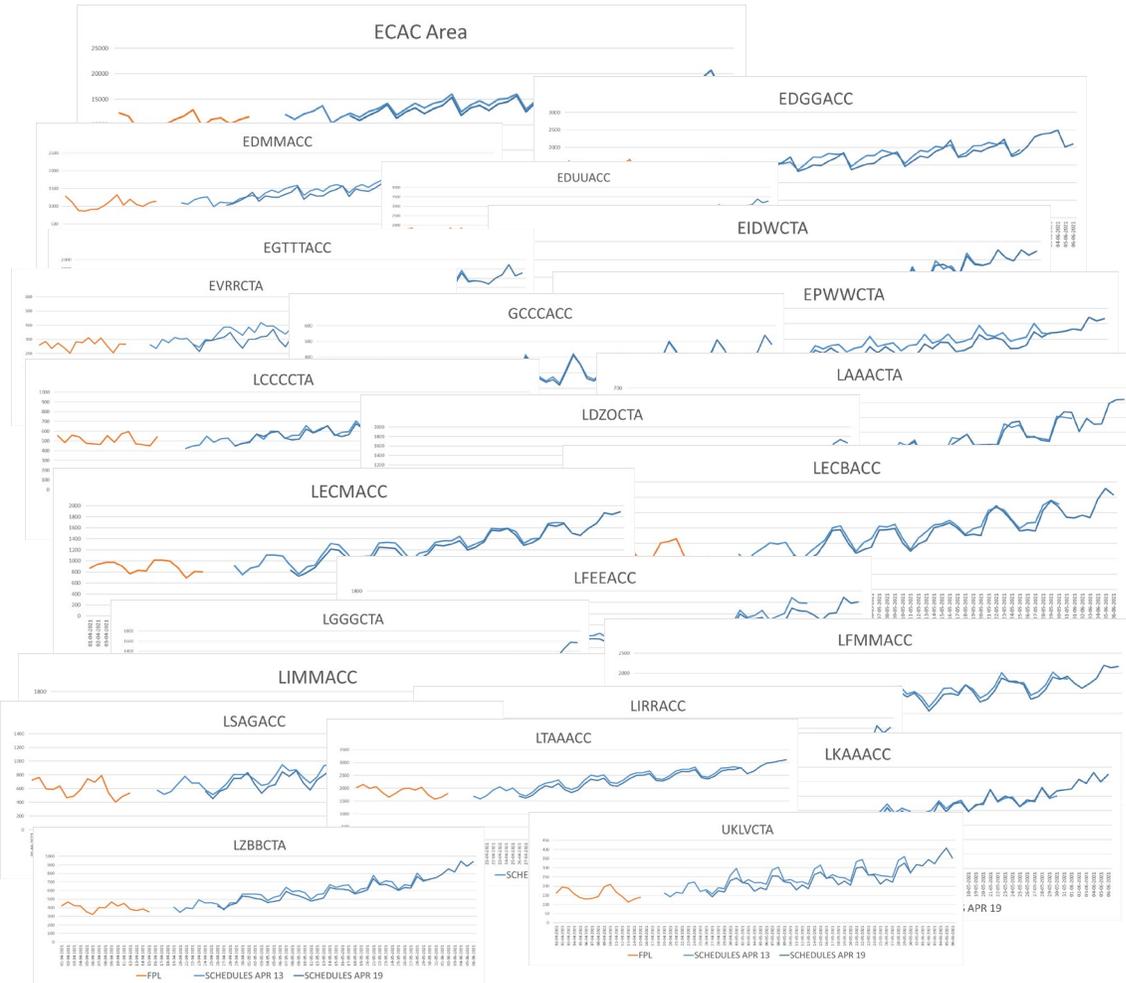
Flight intention **in** the route catalogue
Route matched from route catalogue



~8%

Flight intention **not in** the route catalogue
DDR2 shortest route assignment

Tuesday



Final traffic outlook

ACC traffic demand checked for

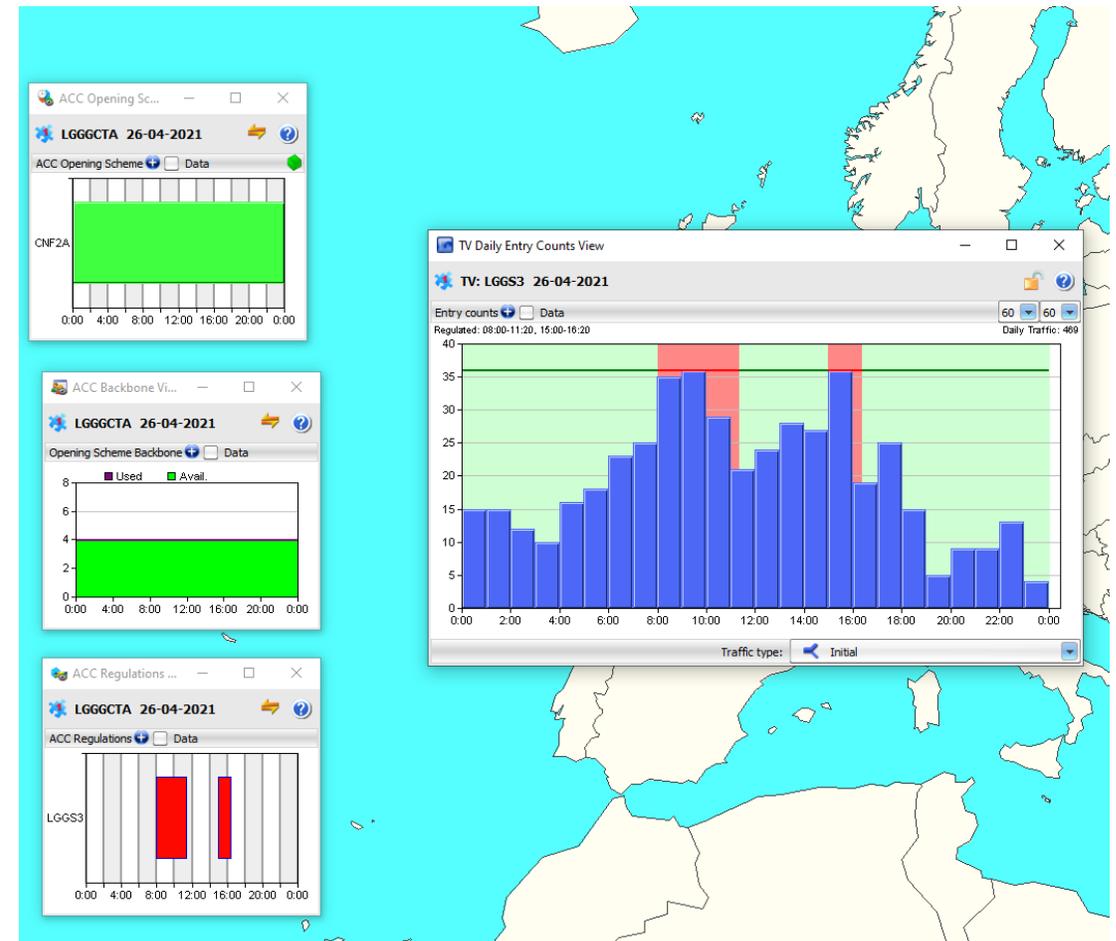
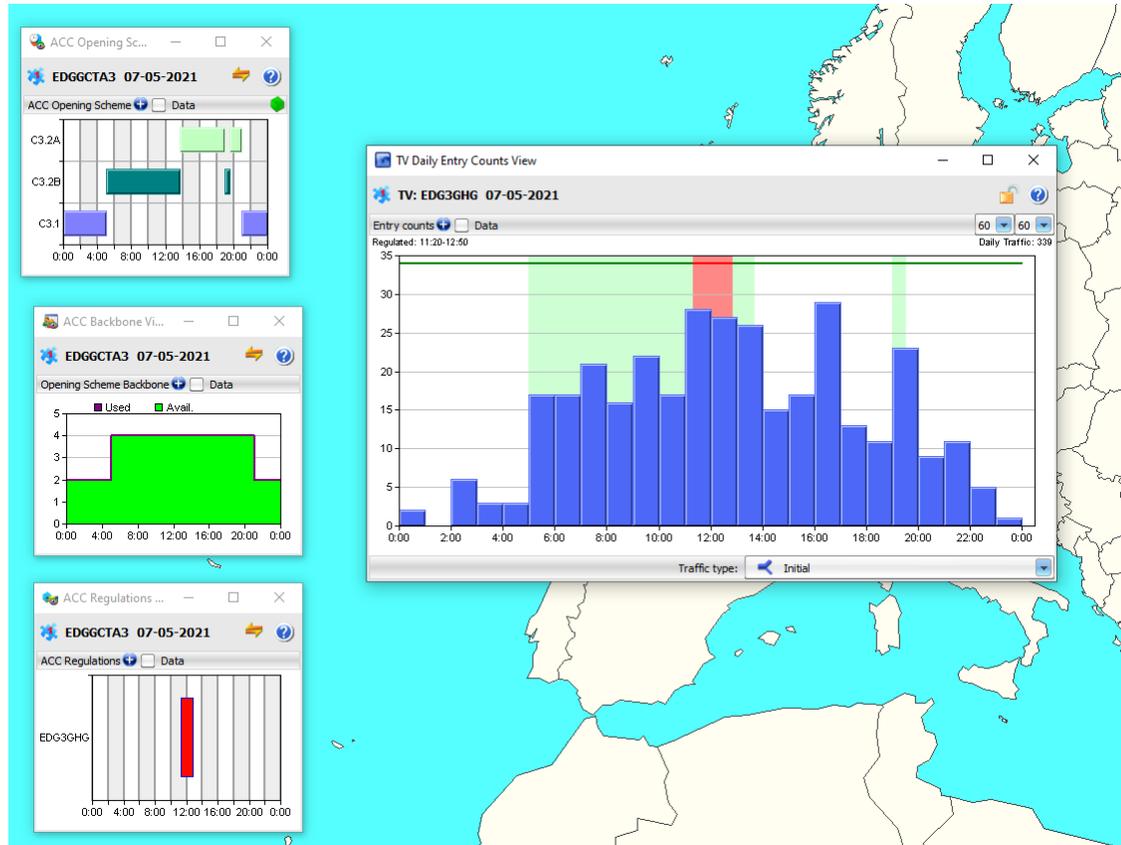
- Consistency with local airline behaviour
- Hypotheses assumed
- General trends
- Information collected and recent news

➔ GO/NO GO

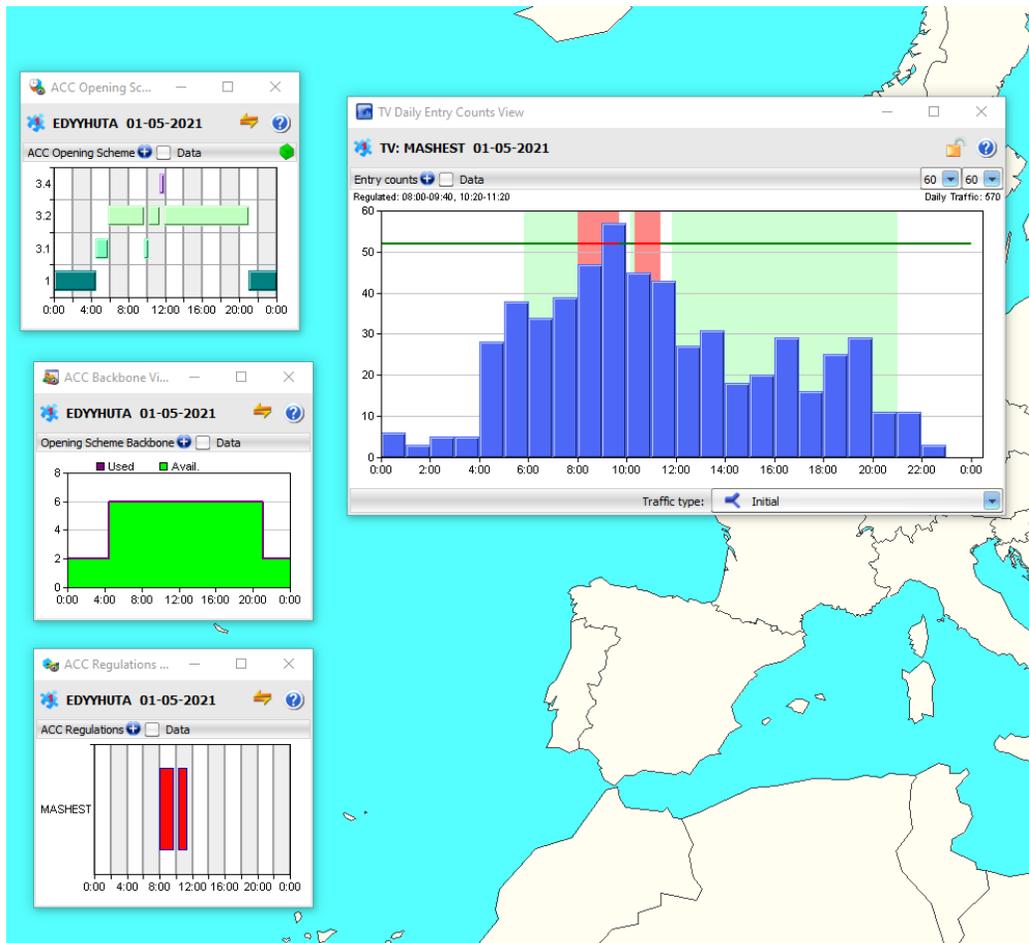
Fine tunings and an additional run

➔ **Final Traffic Outlook** NEST file

Check: Regulation not needed => colour GREEN



Check: Slight overload / close to capacity => colour YELLOW



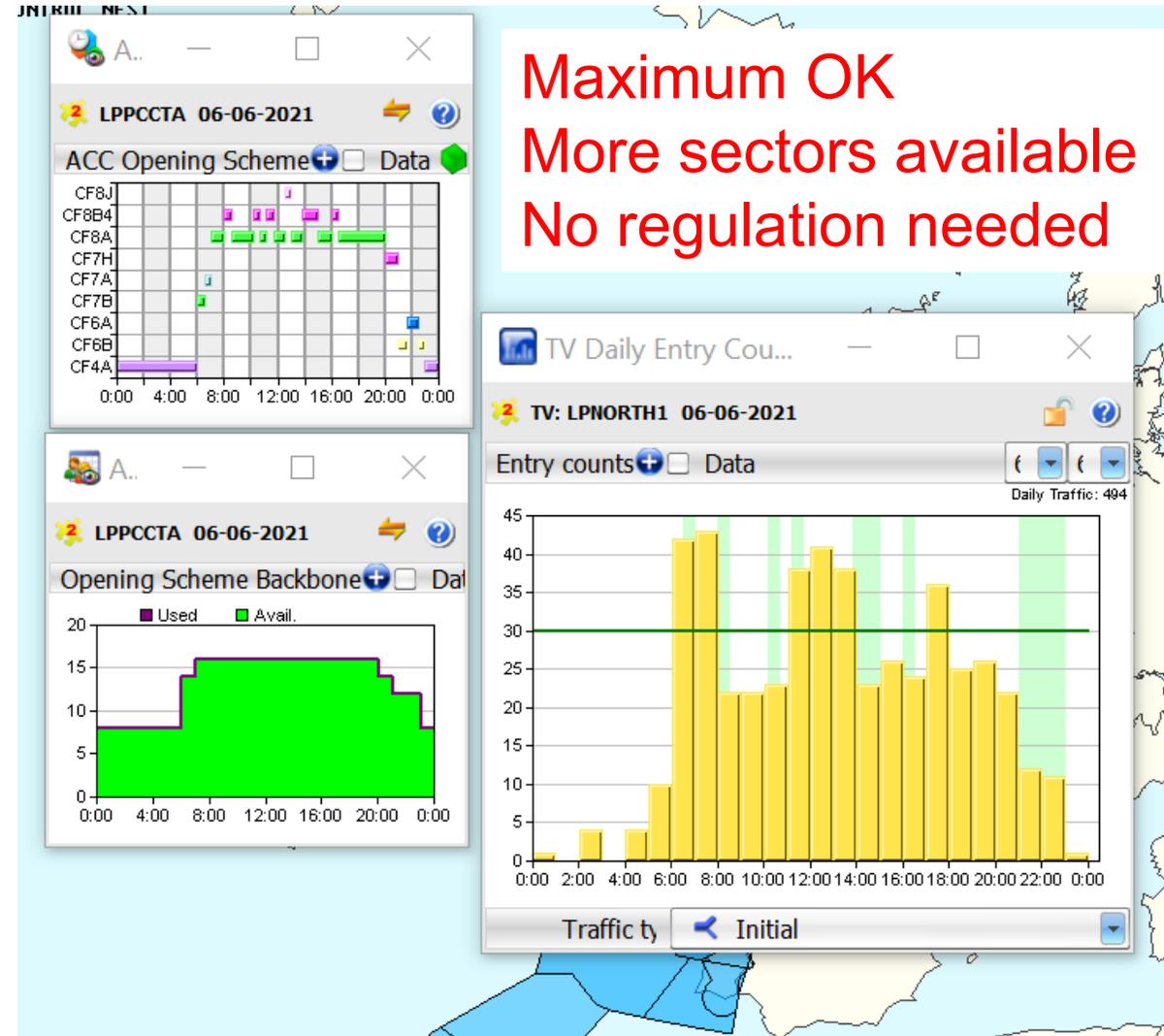
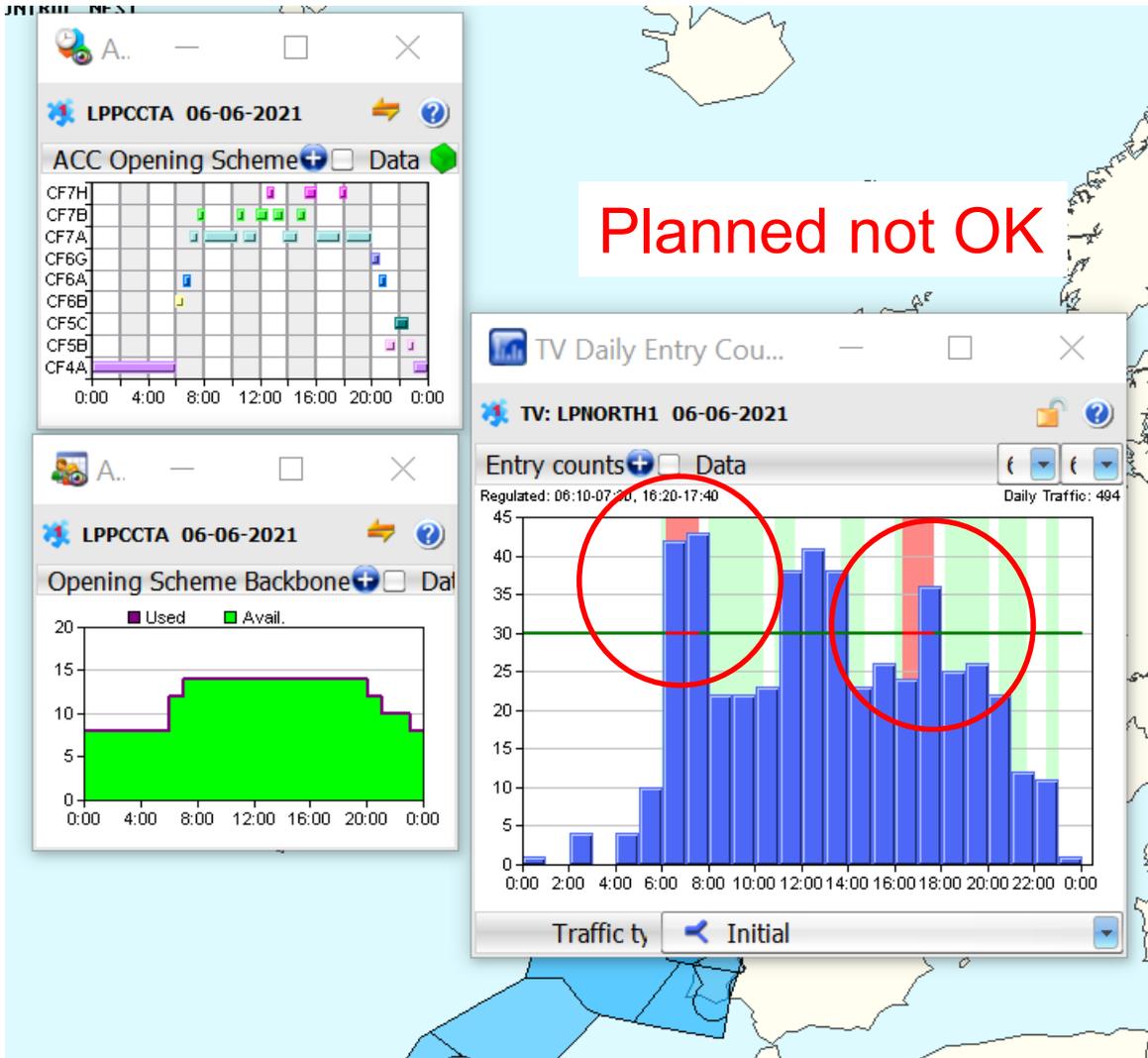
Flight List

57 Flights Initial 01-05-2021 Crossing TV MASHEST [09:00-10:00]. Delay sum : 302 min

Flight ID	Call Sign	Origin	Destination	EOBT	ETOT Date	ETOT	Arrival Time	RFL	PBN Capacity	Airline	Aircr
419328547	TAY0816	ZSHC	EBLG	22:05	30-04-2021	22:05	10:35	360		TAY	B744
3313001198	CAO1069	ZSCN	EBLG	23:15	30-04-2021	23:15	10:28	360		CAO	B744
3410165532	AIC131	VABB	EGLL	01:02	01-05-2021	01:02	10:06	400		AIC	B773
419390018	TAY876	UNNT	EBLG	03:55	01-05-2021	03:55	10:02	360		TAY	B744
228755838	P4GMS	UMMS	EGSS	08:10	01-05-2021	08:10	10:26	400		PAG	GLEX
419758499	WUK4486	UKLL	EGGW	08:25	01-05-2021	08:25	10:58	380		WUK	A20N
415082611	UAE161	OMDB	EIDW	03:30	01-05-2021	03:30	11:12	380		UAE	B773
419827651	UAE17	OMDB	EGCC	03:35	01-05-2021	03:35	10:57	380		UAE	B773
418260646	ETD72E	OMAA	EIDW	03:15	01-05-2021	03:15	10:57	400		ETD	B789
417249331	RYS042	LZIB	EGNM	09:05	01-05-2021	09:05	10:59	400		RYS	B738
419912995	THY65M	LTFJ	EDDL	07:20	01-05-2021	07:20	10:23	360		THY	B738
419896727	PGT1179	LTFJ	EGCC	06:50	01-05-2021	06:50	10:44	380		PGT	A320
418811027	SWR1210	LSZH	ENGM	09:10	01-05-2021	09:10	11:18	410		SWR	E190
418826021	AUA65	LOWW	KORD	09:00	01-05-2021	09:00	18:03	410		AUA	B762
418828609	AUA93	LOWW	KIAD	08:50	01-05-2021	08:50	17:54	360		AUA	B762
417811802	AUA87	LOWW	KJFK	08:55	01-05-2021	08:55	17:04	410		AUA	B762
418828394	AUA89	LOWW	KEWR	08:30	01-05-2021	08:30	17:50	380		AUA	B762
420047532	EWG7863	LIEE	EDDH	07:30	01-05-2021	07:30	09:39	410		EWG	A319
420047453	EWG7659	LGTS	EDDH	07:40	01-05-2021	07:40	10:00	400		EWG	A319
3410128970	ABR255	LFPG	EDDV	08:35	01-05-2021	08:35	09:39	390		ABR	B737
419955402	UAE236	KORD	OMDB	02:00	01-05-2021	02:00	14:43	370		UAE	B773
419757151	WZZ1416	EVRA	EDLW	08:15	01-05-2021	08:15	09:53	410		WZZ	A320
418223352	SAS386D	ESSA	LSGG	08:45	01-05-2021	08:45	11:13	390		SAS	B737
417999229	RYR1647	EPWR	EGNX	08:45	01-05-2021	08:45	10:31	400		RYR	B738
417884709	RYR1158	EPWR	EGPH	09:10	01-05-2021	09:10	11:07	400		RYR	B738
417889924	RYR7623	EPZR	EGNX	08:30	01-05-2021	08:30	10:43	400		RYR	B738
419592769	LOT6545	EPKT	MDPP	08:15	01-05-2021	08:15	18:48	400		LOT	B788
419827232	RYR6868	EPKT	EDDK	08:10	01-05-2021	08:10	09:31	300		RYR	B738
417912444	RYR6AJ	EPKK	EGHH	08:45	01-05-2021	08:45	10:50	400		RYR	B738
418758783	RYR1213	EPBY	EGBB	08:35	01-05-2021	08:35	10:27	400		RYR	B738
418760862	RYR4558	ENTO	LIME	09:05	01-05-2021	09:05	11:06	410		RYR	B738
418228206	SAS793	EKCH	LFMN	09:00	01-05-2021	09:00	11:08	430		SAS	A20N
418802256	DLH3MA	EKCH	EDDF	09:35	01-05-2021	09:35	10:48	480		DLH	A319
418761418	RYR5346	EIDW	EPKT	08:00	01-05-2021	08:00	10:21	410		RYR	B738
419753436	QTR9VY	EIDW	OTHH	07:55	01-05-2021	07:55	14:08	410		QTR	B788
3410152451	CAL074	EHAM	RCTP	09:15	01-05-2021	09:15	21:02	410		CAL	A359
3410144786	TGZ652	EHAM	UGTB	08:55	01-05-2021	08:55	13:09	390		TGZ	B737
3410130005	BLA200	EHAM	LROP	09:25	01-05-2021	09:25	11:50	410		BLA	B738
418883325	SIA323	EHAM	WSSS	09:30	01-05-2021	09:30	20:49	410		SIA	A359
419255147	LOT266	EHAM	EPWA	09:00	01-05-2021	09:00	10:43	370		LOT	E190
3410176268	CAO1034	EHAM	ZSPD	09:20	01-05-2021	09:20	19:35	360		CAO	B77L
3410187646	RUK3677	EGSS	UKBB	08:50	01-05-2021	08:50	11:42	410		RUK	B738
243112765	PLF106	EGLF	EPWA	08:10	01-05-2021	08:10	10:14	410		PLF	GLF5
228756868	DIZMM	EDRY	EDXW	08:35	01-05-2021	08:35	09:55	390		DIZ	C510
243114250	ATL1D	EDDW	LEBL	09:10	01-05-2021	09:10	11:19	430		ATL	C56X
3410145819	PBD820	EDDK	UJWW	09:05	01-05-2021	09:05	11:32	350		PBD	B738
420000575	AEE825	EDDH	LGAV	09:40	01-05-2021	09:40	12:16	390		AEE	A320
243113751	AZE32LL	EDDH	LIEO	09:25	01-05-2021	09:25	12:14	360		AZE	E50P
406652315	DLH6KW	EDDH	EDDF	09:15	01-05-2021	09:15	10:15	320		DLH	A20N
418799770	DLH454	EDDF	KSFO	08:50	01-05-2021	08:50	19:06	430		DLH	A359
419151831	EJU4717	EDDB	GCTS	09:35	01-05-2021	09:35	14:24	390		EJU	ZZZ
418468019	EJU5923	EDDB	GCFV	09:20	01-05-2021	09:20	14:26	390		EJU	ZZZ
418465213	EJU67YP	EDDB	GCLP	08:50	01-05-2021	08:50	13:34	370		EJU	ZZZ
419823750	RYR8559	EDDB	EIDW	08:55	01-05-2021	08:55	10:46	400		RYR	B738
419383751	TAY0811	EBLG	ZSIN	08:40	01-05-2021	08:40	18:09	350		TAY	B744
3410161477	BCS115	EBBR	EDDP	09:15	01-05-2021	09:15	10:09	330		BCS	A306
419750997	LOT2PX	EBBR	EPWA	08:35	01-05-2021	08:35	10:17	370		LOT	E190

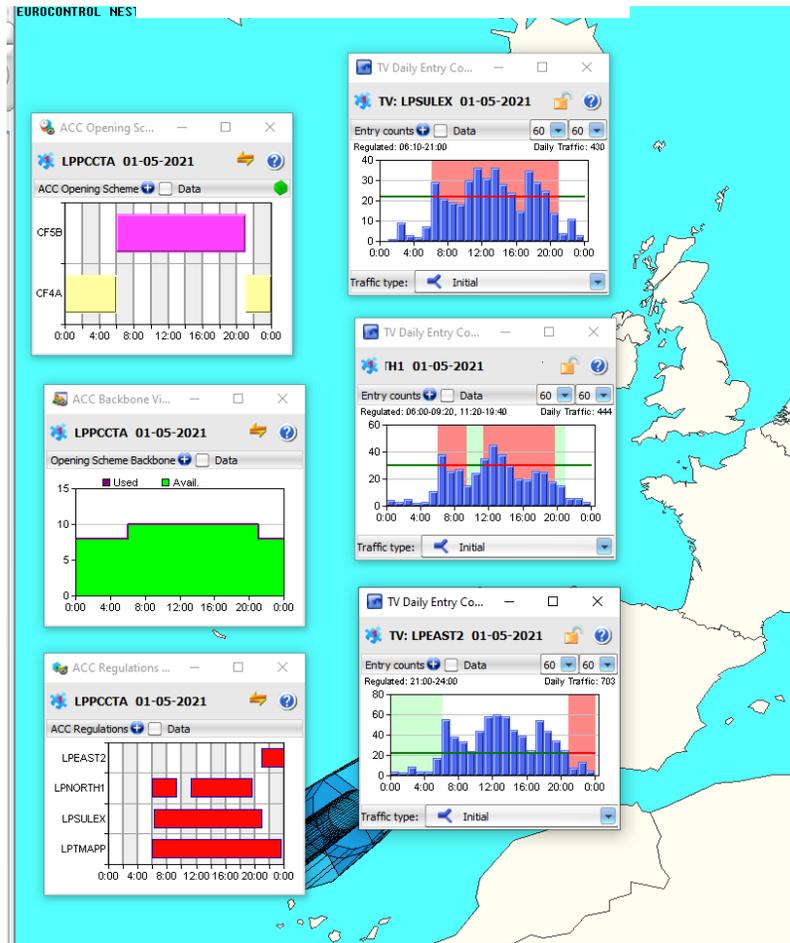
Traffic type: Initial

Check: Comparison Planned/Maximum => colour ORANGE

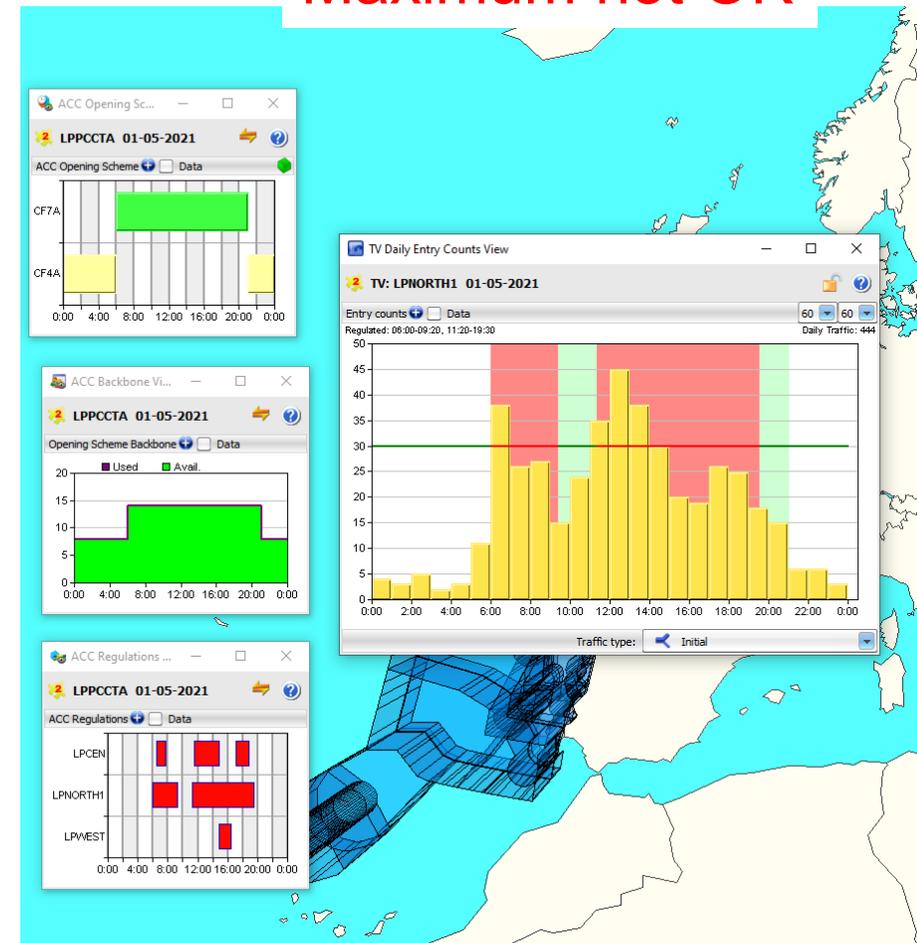


Check: Comparison Planned/Maximum => colour RED

Planned not OK



Maximum not OK



Summary of Lessons Learnt

-  Strong and close **cooperation from all partners** in the network
-  **High level of commitment**
-  Well established **processes, support tools and data, easily adaptable**
-  High level of **anticipation** and **dynamism**
-  **Measures agreed at European network level**

Summary of Lessons Learnt

