

Performance Plan

Switzerland


Third Reference Period (2020-2024)

Status: Draft revised performance plan containing
revised RP3 targets (Art. 3 of IR 2020/1627 &
Date of issue: 4.49E+04

Signatories

Performance plan details	
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Date of adoption of Final Performance Plan	

We hereby confirm that the present performance plan is consistent with the scope of Regulation (EU) No 2019/317 pursuant to Article 1 of Regulation (EU) No 2019/317 and Article 7 of Regulation (EC) No 549/2004.

Name, title and signature of representative	
Switzerland	
<p>CHRISTIAN HEINER PA - FOCA - CH</p>	

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SECTION 1: INTRODUCTION

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1 - INTRODUCTION

1.1 - The situation

NSAs responsible for drawing up the Performance Plan	Federal Office of Civil Aviation (FOCA), Safety Division Infrastructure
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1.1.1 - List of ANSPs and geographical coverage and services

Number of ANSPs	2
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ANSP name	Services	Geographical scope
Skyguide	ATM	Switzerland
Office Fédéral de la Météorologie et de Climatologie MétéoSuisse	MET	Switzerland

Cross-border arrangements for the provision of ANS services

Number CB arrangements where Skyguide provides services in an other State	4
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ANSPs providing services in the FIR of another State	
ANSP Name	Description and scope of the cross-border arrangement
SKYGUIDE	ATS, FIS, alerting service for Italy (ENAV) ATS, alerting service for Austria (AustroControl) ATC, FIS, alerting service, AIS for Germany (DFS) ATS, FIS, alerting service for France (DSNA)

Number CB arrangements where ANSPs from another State provide services in the State	0
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ANSPs established in another Member State providing services in one or more of the State's FIRs	
ANSP Name	Description and scope of the cross-border arrangement

1.1.2 - Other entities in the scope of the Performance and Charging Regulation as per Article 1(2) last para.

Number of other entities	1
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Entity name	Domain of activity	Rationale for inclusion in the Performance Plan
Federal Office for Civil Aviation (FOCA), Safety Division Infrastructure	Competent authority	Determined costs incurred in relation to the provision of air navigation services in accordance with the article 22(1) of Commission implementing regulation (EU) 2019/317

1.1.3 - Charging zones (see also 1.4-List of Airports)

En-route	Number of en-route charging zones	1
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En-route charging zone 5	Switzerland
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Terminal	Number of terminal charging zones	1
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Terminal charging zone 7	Switzerland - TCZ
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1.1.4 - Other general information relevant to the plan

<p>Relevant local circumstances with high significance for performance target setting and updated view on the impact of the COVID-19 crisis on the operational and financial situation of ANSPs covered in the performance plan</p> <p>The Covid-19 pandemic affects performance and performance planning in a number of ways :</p> <p>-> Practical issues</p> <ul style="list-style-type: none"> - Financial impact - Staff issues (protection, rostering,...) - System implementation <ul style="list-style-type: none"> * distancing constraints and remote working requirements affect practical elements of development, testing, validation and training * travel constraints limit presence and delivery by international suppliers - ATCO training and availability <ul style="list-style-type: none"> * distancing constraints limit training capacity * increased pressure on simulators for training as well as currency * lack of high load traffic levels in OJT * working requirements following vaccination <p>-> Uncertainty and data availability</p> <ul style="list-style-type: none"> - Ongoing pandemic - Uncertainty and variability in traffic recovery - short term volatility in traffic demand <p>Further information is provided either directly in the individual chapters of this draft performance plan when relevant or, when additional relevant information has to be provided for a specific performance area, in the Annexes R or T referred to in the plan. It has also been presented and discussed in detail during the various consultation meetings held by the Swiss NSA and is reflected in the consultation material provided in Annex C.</p>
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Additional comments

1.2 - Traffic Forecasts

1.2.1 - En route

En route Charging zone 1

Switzerland

En route traffic forecast

Local forecast

Local Forecast	2017A	2018A	2019A	2020A	2021	2022	2023	2024	CAGR
									2019-2024
IFR movements (thousands)	1'110	1'167	1'177	477	615	1'048	1'088	1'148	-0.5%
IFR movements (yearly variation in %)		5.2%	0.8%	-59.5%	28.9%	70.4%	3.8%	5.5%	
En route service units (thousands)	1'604	1'741	1'769	650	879	1'594	1'689	1'811	0.5%
En route service units (yearly variation in %)		8.6%	1.6%	-63.2%	35.1%	81.3%	6.0%	7.2%	

Specific local factors justifying not using the STATFOR base forecasts
(provide justification below or refer to Annex D for more detailed explanation)

NOTE: Section 1.3 (Stakeholder Consultation) should include details on the consultation with airspace users' representatives and ANSPs concerned on the rationale for not using the STATFOR base forecasts.

1.2.2 - Terminal

Terminal Charging zone 1

Switzerland - TCZ

Terminal traffic forecast

Local forecast

Local Forecast	2017A	2018A	2019A	2020A	2021	2022	2023	2024	CAGR 2019-2024
IFR movements (thousands)	222.9	225.9	224.2	92.1	118	199	207	217	-0.7%
IFR movements (yearly variation in %)		1.3%	-0.7%	-58.9%	28.1%	68.6%	4.0%	4.8%	
Terminal service units (thousands)	283.8	291.0	292.9	111.8	128.0	246.0	268.0	280.0	-0.9%
Terminal service units (yearly variation in %)		2.5%	0.7%	-61.8%	14.5%	92.2%	8.9%	4.5%	

Specific local factors justifying not using the STATFOR base forecasts
(provide justification below or refer to Annex D for more detailed explanation)

NOTE: Section 1.3 (Stakeholder Consultation) should include details on the consultation with airspace users' representatives and ANSPs concerned on the rationale for not using the STATFOR base forecasts.

1.3 - FABEC Stakeholder consultation

1.3.1 - Overall outcome of the consultation of stakeholders on the performance plan

Introductory remark
<p>Information of this Swiss national plan has been previously presented to the stakeholders through 2 consultation processes, a FABEC consultation process for operational targets (safety, environment, en-route capacity) as part of the initial 2019 & 2021 revised FABEC performance plan, and a national one for the cost-efficiency and the terminal capacity.</p> <p>The initial FABEC stakeholder consultations and outcomes are listed and described below. The operational targets for Switzerland were already presented to the stakeholders during these consultations for the safety, environment and en route capacity performance areas.</p> <p>The national consultations on cost-efficiency, investments and terminal capacity and related outcomes are presented in the following chapter.</p>

Description of main points raised by stakeholders and explanation of how they were taken into account in developing the performance plan
<p>SAFETY: airspace users fully support the targets set by FABEC, but more transparency by NSA and ANSP is needed, in terms of information on the different ANSP targets.</p>
<p>ENVIRONMENT: the proposed KEA target in line with the reference value is strongly supported. ANSPs have to build an efficient airspace by reducing complexities. Moreover, greater focus should be put on improving vertical flight efficiency to reduce CO2 emissions.</p>
<p>CAPACITY: the FABEC targets, which are in line with the reference values, are supported. Mitigation measures shall be identified and planned to manage volatility, staff availability, rostering, training, new ATC system implementation.</p>
<p>INCENTIVE SCHEME: airspace users strongly advocated for a penalty-only scheme. The CRSTMP limitation is not supported. Furthermore, only the achievement of both FAB and ANSP targets would drive the changes required by airspace users.</p>
<p>Although stakeholders commented on the challenging nature of the targets, the targets in the areas of safety, environment and capacity are in line with EU-wide targets, as well as the incentive scheme is consistent with EU Regulation 2019/317 laying down a performance and charging scheme in the single European sky. Therefore, the FABEC Council decided not to alter the proposed targets and incentive scheme.</p>

1.3.2 - Specific consultation requirements of ANSPs and airspace users on the performance plan

Topic of consultation	Applicable	Results of consultation
Where applicable, decision to diverge from the STATFOR base forecast	Select	Not discussed at FABEC consultation; part of national level consultations.
Charging policy	Yes	Not discussed at FABEC consultation; part of national level consultations.
Maximum financial advantages and disadvantages for the mandatory incentive scheme on capacity	Yes	<p>The FABEC en route incentive scheme uses a symmetrical maximum amount of bonus and penalty corresponding to 0,5% of the determined costs.</p> <p>Airspace User representatives strongly advocated for a penalty-only scheme. No bonus should be awarded unless there would be a significant improvement in CAP performance.</p>
Where applicable, decision to modulate performance targets for the purpose of pivot values to be used for the mandatory incentive scheme on capacity	Yes	<p>The FABEC en route incentive scheme will apply one point of the modulation mechanism as referred to the Annex XIII of the regulation IR (EU) 2019/317 to limit the scope of incentives to cover only CRSTMP delay causes.</p> <p>Airspace User representatives did not support the limitation of the scope to cover only CRSTMP delay causes.</p>

Symmetric range ("dead band") for the purpose of the mandatory incentive scheme on capacity	Yes	<p>The FABEC en route incentive scheme is elaborated with a dead band around the pivot value in recognition of the volatile nature of performance at current delay levels. Only penalising does not serve the purpose of improving performance.</p> <p>Airspace User representatives did not agree such a symmetric approach. They consider that only a penalty scheme should be developed to manage performance.</p>
Establishment or modification of charging zones	Select	Not discussed at FABEC consultation; part of national level consultations.
Establishment of determined costs included in the cost base for charges	Yes	Not discussed at FABEC consultation; part of national level consultations.
Where applicable, values of the modulated parameters for the traffic risk sharing mechanism	Select	Not discussed at FABEC consultation; part of national level consultations.
Where applicable, decision to apply the simplified charging scheme	Select	Not discussed at FABEC consultation; part of national level consultations.
New and existing investments, and in particular new major investments, including their expected benefits	Yes	Not discussed at FABEC consultation; part of national level consultations.

1.3.3 - Consultation of stakeholder groups on the performance plan

#1 - ANSPs	
Stakeholder group composition	FABEC ATSPs (ANA Luxembourg, DFS, DSNA, LVNL, MUAC, skeyes and Skyguide)
Dates of main meetings / correspondence	General FABEC stakeholder consultation meeting, 2 September
Main issues discussed	See minutes of the meeting
Actions agreed upon	See minutes of the meeting
Points of disagreement and reasons	See minutes of the meeting
Final outcome of the consultation	See minutes of the meeting

Additional comments

#2 - Airspace Users	
Stakeholder group composition	Air France, DLH, Ryanair, SWISS, Easyjet, Tuifly, IATA, A4E, ERAA
Dates of main meetings / correspondence	General FABEC stakeholder consultation meeting, 2 September
Main issues discussed	See minutes of the meeting
Actions agreed upon	See minutes of the meeting
Points of disagreement and reasons	See minutes of the meeting
Final outcome of the consultation	See minutes of the meeting

Additional comments

#3 - Professional staff representative bodies	
Stakeholder group composition	
Dates of main meetings / correspondence	
Main issues discussed	
Actions agreed upon	
Points of disagreement and reasons	
Final outcome of the consultation	

Additional comments
Not consulted by the NSA; consultation of staff is considered the responsibility of the ANSPs.

#4 - Airport operators	
Stakeholder group composition	ACI was invited to the FABEC stakeholder consultation meeting as representative body for the airports. No representative attended.
Dates of main meetings / correspondence	General FABEC stakeholder consultation meeting, 2 September
Main issues discussed	See minutes of the meeting
Actions agreed upon	See minutes of the meeting
Points of disagreement and reasons	See minutes of the meeting
Final outcome of the consultation	See minutes of the meeting

Additional comments

#5 - Airport coordinator	
Stakeholder group composition	
Dates of main meetings / correspondence	
Main issues discussed	
Actions agreed upon	
Points of disagreement and reasons	
Final outcome of the consultation	

Additional comments

#6 - Other (specify)	
Stakeholder group composition	
Dates of main meetings / correspondence	
Main issues discussed	
Actions agreed upon	
Points of disagreement and reasons	
Final outcome of the consultation	

Additional comments

1.3.7 - Switzerland Stakeholder

1.3.7.1 - Overall outcome of the consultation of stakeholders on the performance p

Description of main points raised by stakeholders and explanation of how they were taken into account in developing the performance plan
<p>Switzerland organised the Stakeholders Consultation on 15th July. The meeting was held virtually due to the ongoing COVID Pandemic.</p> <p>Stakeholders sent written comments following the meeting.</p> <ul style="list-style-type: none"> - IATA Response: Switzerland Cost Efficiency Consultation supported by Easyjet, A4E sent on 23th July. - Easyjet Response: Switzerland RP3 Easyjet response final sent on 25th August. <p>Further bilateral meetings between SWISS and FOCA, FOCA-Skyguide took place after the consultation process.</p> <p>During the meeting. It has been presented an overview on all KPAs. The main focus of stakeholders was on the cost development. FOCA noted all the open questions and delivered a CRD Document, which was sent to the stakeholders in written form after the meeting</p>

1.3.7.2 - Specific consultation requirements of ANSPs and airspace users on the pe

Topic of consultation	Applicable	Results of consultation
Where applicable, decision to diverge from the STATFOR base forecast	No	<p>During the stakeholder consultation on 15th July, it has been informed that STATFOR Base Forecast May 2021 will be used (En route and Terminal).</p> <p>*Update: The Users have been informed by Email on the update for STATFOR Base Forecast October 2021 before the submission date (17th November). The CE En route and Terminal Excel Tabela of the Performance Plan have been also sent.</p>

Charging policy	Yes	Determined costs plus adjustments according to the regulation have been presented.
Maximum financial advantages and disadvantages for the mandatory incentive scheme on capacity	Yes	En route Capacity: Please refer to FABEC consultation Terminal Capacity: Same approach as 2019 and as set in the regulation. No written comments received.
Where applicable, decision to modulate performance targets for the purpose of pivot values to be used for the mandatory incentive scheme on capacity	Yes	En route Capacity: Please refer to FABEC consultation Terminal Incentive scheme is applied for the CRSTMP part. No written comments received.
Symmetric range ("dead band") for the purpose of the mandatory incentive scheme on capacity	Yes	En route Capacity: Please refer to FABEC consultation Terminal: Deadband is expressed in % and is set +-5%. The maximum bonus and penalty was presented as established on the Regulation 2019/317
Establishment or modification of charging zones	No	
Establishment of determined costs included in the cost base for charges	Yes	Presented during the stakeholder consultation. Additional requested information was sent after the meeting.
Where applicable, values of the modulated parameters for the traffic risk sharing mechanism	No	
Where applicable, decision to apply the simplified charging scheme	No	

New and existing investments, and in particular new major investments, including their expected benefits	Yes	Investment overview has been presented during the User Consultation. Additional requested information on Investments was sent after the meeting under the Comment Response Document
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1.3.7.3 - Consultation of stakeholder groups on the performance plan

#1 - ANSPs	
Stakeholder group composition	Skyguide, Meteo CH
Dates of main meetings / correspondence	FOCA has organized several meetings to discuss on a bilateral manner during the whole years 2020 and 2021. The meetings have been done at working level as well as at managerial level on different topics around the Performance and Charging Scheme.
Main issues discussed	National elements of the FABEC Performance Plan COVID- 19 measures RP3 Exceptional Measures National User Consultation
Actions agreed upon	FOCA, Skyguide and METEO CH discussed and agreed on the process to develop the performance plan, the content and the deadlines to draft, review and validate the inputs as well as the whole Stakeholder Consultation process.
Points of disagreement and reasons	The whole discussion and preparation process was held in a constructive level and all requested information or justifications have been delivered on time at working level and at managerial level.
Final outcome of the consultation	The final outcome was the validation and agreement on all the discussed points.

Additional comments	

#2 - Airspace Users	
Stakeholder group composition	IATA

Dates of main meetings / correspondence	Informal Stakeholders Meeting on 20th May Swiss Stakeholders Consultation Meeting on 15th July
Main issues discussed	National elements of the FABEC Performance Plan, Exceptional Items, Staff Cost (ETF Development, Cost development, Short time work) OPEX (2019 Operational Costs, Allocation of Cost en route terminal, MET Cost) CAPEX (Virtual Center Benefits in the four KPA) Swiss State Funding
Actions agreed upon	Exceptional items: A detailed table on exceptional items deduction has been sent after the meeting. No further action. Staff Cost, OPEX; CAPEX, Swiss State Funding; The requested information has been delivered in detail. No further action
Points of disagreement and reasons	
Final outcome of the consultation	FOCA responded to all the concerns.

Additional comments

#3 - Airspace Users	
Stakeholder group composition	SWISS
Dates of main meetings / correspondence	Informal Stakeholders Meeting on 20th May Swiss Stakeholders Consultation Meeting on 15th July
Main issues discussed	National elements of the FABEC Performance Plan Detailed FTE Breakdown during 2020 EU Funding Staff Cost
Actions agreed upon	Detailed FTE Breakdown: It has been agreed to deliver more detailed information after the meeting. No further action. Staff Cost: Further information has been sent after the meeting. No further action.

Points of disagreement and reasons	EU Funding: Funding for European ANSPs could eventually amount between 30 to 70% of eligible costs. For INEA: Skyguide was eligible for the funding for research and development, but as this effort was mostly focused on implementation, it was rejected at each application. Skyguide receives zero funding.
Final outcome of the consultation	No further questions were sent by writing.

Additional comments

#4 - Airspace Users	
Stakeholder group composition	Easyjet
Dates of main meetings / correspondence	Informal Stakeholders Meeting on 20th May Swiss Stakeholders Consultation Meeting on 15th July
Main issues discussed	National elements of the FABEC Performance Plan CAPEX RP2 RP3 Overspending in RP2 Strong increase of the Unit rate - Swiss State Funding
Actions agreed upon	CAPEX in RP2, RP3: It has been explained the development and the way forward. No further action. CE Targets - Swiss State support: The requested information has been explained. No further action.
Points of disagreement and reasons	
Final outcome of the consultation	FOCA responded to all the questions sent by writing.

Additional comments

#5 - Airspace Users	
Stakeholder group composition	Lufthansa
Dates of main meetings / correspondence	Swiss Stakeholders Consultation Meeting on 15th July
Main issues discussed	Short time work rules at Skyguide Capacity delay 2021 Remaining Questions Cost savings

Actions agreed upon	Capacity delay 2021: It has been agreed to send further information after the meeting. This has been done on the CRD Document. Remaining questions: Stakeholders will send their comments, questions in writing. Cost savings: The requested information has been sent.
Points of disagreement and reasons	
Final outcome of the consultation	No further comment has been received by writing.

Additional comments

#6 - Airpace Users	
Stakeholder group composition	Zurich Airport
Dates of main meetings / correspondence	Swiss Stakeholders Consultation Meeting on 15th July
Main issues discussed	Virtual Center Benefits, Tranche 2 and Tranche 3
Actions agreed upon	The requested information has been presented during the meeting. Further details has been sent after the meeting.
Points of disagreement and reasons	
Final outcome of the consultation	No further comment has been received by writing.

Additional comments

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performance plan

1.4 - List of airports subject to the performance and charging Regulation

1.4.1 - Airports as per Article 1(3) (IFR movements ≥ 80 000)

ICAO code	Airport name	Charging Zone	IFR air transport movements			
			2016	2017	2018	Average
LSZH	Zurich	Switzerland-TMZ	262'610	263'549	271'578	265'912
LSGG	Geneva	Switzerland-TMZ	183'079	183'591	180'221	182'297

Additional comments

1.4.2 Other airports added on a voluntary basis as per Article 1(4)

Switzerland

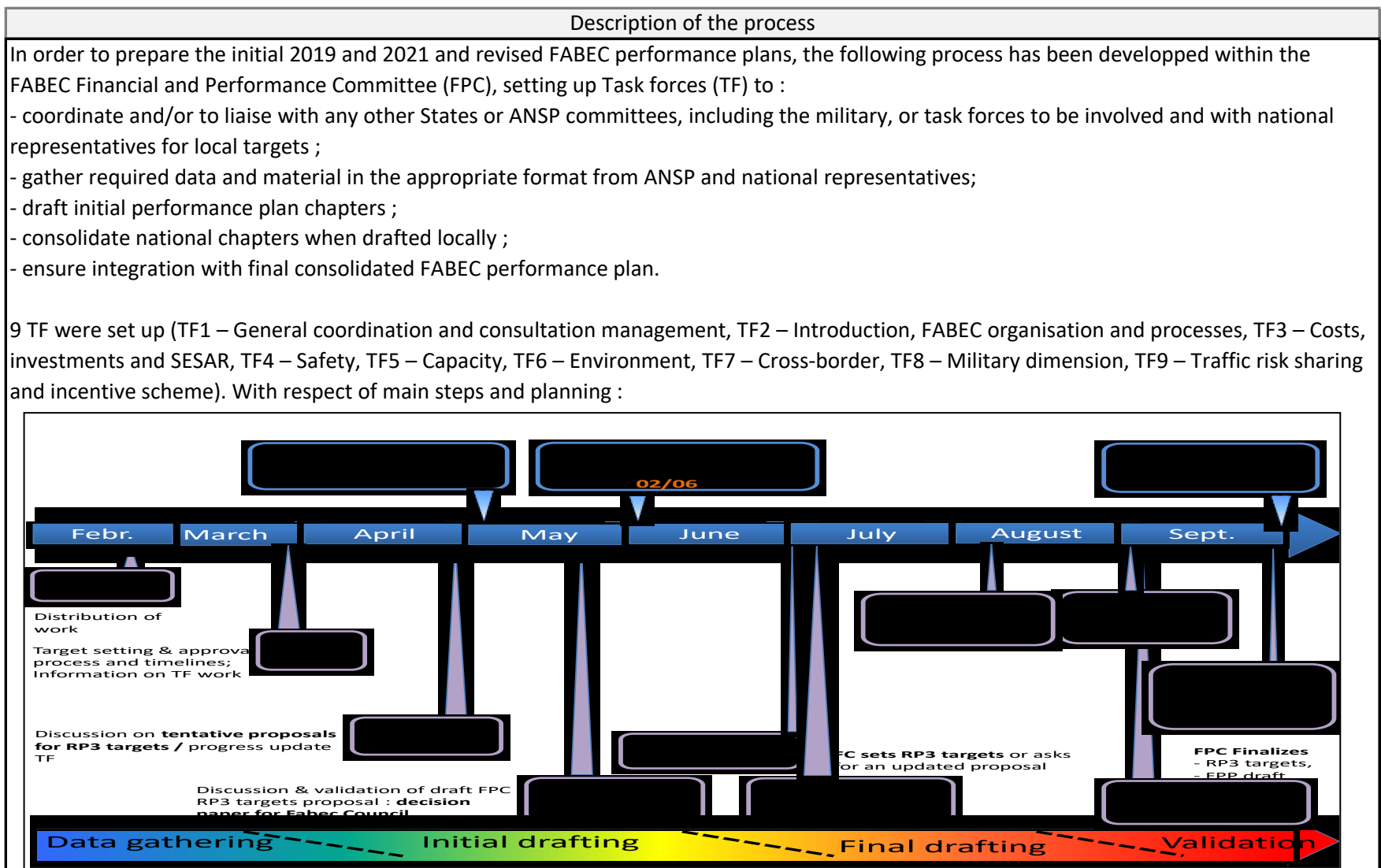
Number of airports	0		
ICAO code	Airport name	Charging Zone	Additional information

Additional comments

1.5 - Services Under Market Conditions

Number of services under market conditions	0
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1.6 - Process followed to develop and adopt a FAB Performance Plan



1.7 - Establishment and application of a simplified charging scheme

How many Member States in the FAB intend to apply a simplified charging scheme?	0
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SECTION 2: INVESTMENTS

2.1 - Investments - Skyguide

2.1.1 - Summary of investments

2.1.2 - Detail of new major investments

2.1.3 - Other new and existing investments

2.2 - Investments - MeteoSwiss

2.2.1 - Summary of investments

2.2.2 - Detail of new major investments

2.2.3 - Other new and existing investments

Annexes of relevance to this section

ANNEX E. INVESTMENTS

NOTE: The requirements as per Annex II, 2.2.(c) are addressed in item 4.1.2

2.1 - Investments - Skyguide

2.1.1 - Summary of investments

Number of new major investments	8
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#	Name of new major investment (i.e. above 5 M€)	Total value of the asset (capex or contractual leasing value)	Value of the assets allocated to ANS in the scope of the PP	Determined costs of investment (i.e. depreciation, cost of capital and cost of leasing) (in national currency)					Lifecycle (Amortisation period in years)	Allocation (%)*		Planned date of entry into operation
				2020	2021	2022	2023	2024		Enroute	Terminal	
1	Virtual Center	63'928'582	61'899'779	1'849'387	4'498'972	7'457'113	7'963'726	8'560'493	8	82%	18%	Stepwise until 2024
2	NSG	7'275'241	5'741'375	97'936	135'733	158'691	966'925	947'307	8	55%	45%	end 2022
3	Smart Radio	5'608'916	3'927'975	75'685	112'590	341'620	335'582	329'544	18	64%	36%	end 2021
4	WAM	8'000'289	7'366'297	11'740	58'631	118'742	381'623	410'663	15	67%	33%	Stepwise (2022, 2025, 2027)
5	SAMAX	5'204'384	5'204'384	65'978	120'454	430'415	518'987	509'331	15	0%	100%	12.2021 rsp in 02.2022 (2 steps entry in operation)
6	PAGE 1	9'876'633	8'465'685	166'143	830'263	1'407'370	1'377'424	1'347'478	8	0%	100%	stepwise between 2018 and 12.2022
7	SkyC@T	7'889'790	4'601'368	14'747	35'037	64'036	91'556	121'972	15	70%	30%	end 2024
8	AMAN CH	5'976'214	5'931'392	78'383	136'920	162'945	984'222	1'039'755	8	50%	50%	01.05.2022
Sub-total of new major investments above (1)		113'760'048	103'138'256	2'359'998	5'928'600	10'140'931	12'620'047	13'266'543				
Sub-total other new investments (2)		128'327'472	111'710'174	2'163'320	6'787'022	9'673'584	12'139'474	14'705'110		62%	38%	
Sub-total existing investments (3)				60'171'511	49'636'744	42'879'514	34'504'153	27'741'102		62%	38%	
Financing outside Suisse FIR				-12'450'878	-14'715'108	-12'570'441	-12'543'124	-11'755'948				
Total new and existing investments (1) + (2) + (3)		242'087'520	214'848'430	52'243'951	47'637'258	50'123'588	46'720'550	43'956'806				

* The total % enroute+terminal should be equal to 100%.

2.1.2 - Detail of new major investments

NOTE: Section 1.3 (Stakeholder Consultation) should include details on the consultation with airspace users' representatives on new major investments.

Name of new major investment 1	Virtual Center	Total value of the asset	63'928'582 €
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Description of the asset	<p>From a local and disconnected set-up to a horizontal service structure:</p> <ul style="list-style-type: none"> - A dynamic and networked airspace configuration - Scalable, connected, highly resilient and location-independent air traffic services - A virtual, network-centric, open and service-oriented architecture - Rationalised auxiliary services through strategic partnerships 							
The investment is mandated by a SES Regulation (i.e. PCP/CP1/Interoperability)?	No							
Specify links to the PCP/CP1/Interoperability Regulations (add the sub-AF number(s) under each relevant box)	AF1	AF2	AF3	AF4	AF5	AF6	Interoperability	
Level of impact of the investment	Network							
	Local	Yes						
	Non-performance							
Quantitative impact per KPA	Safety	Yes						
	Environment	Yes						
	Capacity	Yes						
	Cost Efficiency	Yes						
Results of the consultation of airspace users' representatives	<p>The project was consulted on 28.8.2019 and 15.7.2021, including the following benefits:</p> <p>Phase 1: Replaced classic flight strips to go stripless / Pushed ground-air datalinks / Standardised and harmonised processes and procedures between ACC East and ACC West / Increased the level of safety / Increased our capacity / Recurrent financial benefits of 7+ MCHF a year</p> <p>Phase 2: Laying the foundations for location-independent operations / Harmonised processes between ACC East and West in upper airspace / New Route Handling (NRH) concept up and running Swiss wide / One single data centre based on an open architecture / Location-independent technical services / Cost reductions in engineering by switching off legacy systems and operating an open, flexible and network-centric system out of a single virtual data centre</p> <p>Phase 3 : Simplified, location-independent procedures and processes / Increased automation / Dynamic airspace management</p> <p>The Users took note of the presentation. The written questions raised after the meeting have been answered in the CRD Document.</p>							
Joint investment / partnership	No							
Investment in ATM systems	Yes							
If investment in ATM system, type?	New system	This is a mixture of new systems and improving processes, overhauling old systems, and replacing old systems						
If investment in ATM system, Reference to European ATM Master Plan / PCP	Master Plan (non-PCP)							

Name of new major investment 2	MSG	Total value of the asset	7'275'241 €
Description of the asset	Replacement of end of life asset and also includes new voice recognition features to automate Pilot voice responses for specific training modules, thus allow trainees to practice some modules without the need for a human Pilot, thus ultimately reduce the instructor to learner ratio.		

The investment is mandated by a SES Regulation (i.e. PCP/CP1/Interoperability)?	No	
Level of impact of the investment	Network	
	Local	Yes
	Non-performance	
Quantitative impact per KPA	Safety	Yes
	Environment	
	Capacity	
	Cost Efficiency	Yes
Results of the consultation of airspace users' representatives	<p>The project was consulted on 28.8.2019 and 15.7.2021, including the following benefits:</p> <ul style="list-style-type: none"> - Safety: Obsolescence - Cost-Efficiency: Reduction of Simulation Pilots <p>Users took note of the presentation. No further written questions were raised.</p>	
Joint investment / partnership	No	
Investment in ATM systems	Yes	
If investment in ATM system, type?	Overhaul of	Simulator
If investment in ATM system, Reference to European ATM Master Plan / PCP	Master Plan (non-PCP)	

Name of new major investment 3	Smart Radio						Total value of the asset	5'608'916 €
Description of the asset	Replaces obsolescent main radio equipment across Switzerland, compliant with EC implementing rule for 8.33 kHz, and VOIP enabled to support the Virtual Centre implementation). This project started in 2013 and is due to complete in 2021 fully.							
The investment is mandated by a SES Regulation (i.e. PCP/CP1/Interoperability)? Ref. to the Regulation and, if funded through Union assistance programmes, ref. to the relevant grant agreement.)	Yes							
Specify links to the PCP/CP1/Interoperability Regulations (add the sub-AF number(s) under each relevant box)	AF1	AF2	AF3	AF4	AF5	AF6	Interoperability EC552 2004	
Level of impact of the investment	Network							
	Local	Yes						
	Non-performance							
Quantitative impact per KPA	Safety							
	Environment	Yes						
	Capacity	Yes						
	Cost Efficiency	enabler						
Benefits for airspace users and results of the consultation of airspace users' representatives	<p>The project was consulted on 28.8.2019 and 15.7.2021, including the following benefits:</p> <ul style="list-style-type: none"> - Safety: Obsolescence - Capacity: Enabler for Virutal Center - Cost-Efficiency: Enabler for Virutal Center <p>Users took note of the presentation. No further written questions were raised.</p>							
Joint investment / partnership	No							
Investment in ATM systems	Yes							

If investment in ATM system, type?	Overhaul of	
If investment in ATM system, Reference to European ATM Master Plan / PCP	PCP	

Name of new major investment 4	WAM	Total value of the asset						8'000'289 €
Description of the asset	Deploy MLAT to replace end of asset life secondary radar. MLAT allows lower running costs and affordably improve coverage in the complicated Swiss mountain geography. As demanded by Eurocontrol Bluebook.							
The investment is mandated by a SES Regulation (i.e. PCP/CP1/Interoperability)? Ref. to the Regulation and, if funded through Union assistance programmes, ref. to the relevant grant agreement.)	Yes							
Specify links to the PCP/CP1/Interoperability Regulations (add the sub-AF number(s) under each relevant box)	AF1	AF2	AF3	AF4	AF5	AF6	Interoperability	
							x	
Level of impact of the investment	Network							
	Local	yes						
	Non-performance							
Quantitative impact per KPA	Safety	yes						
	Environment	yes						
	Capacity							
	Cost Efficiency	yes						
Benefits for airspace users and results of the consultation of airspace users' representatives	<p>The project was consulted on 28.8.2019 and 15.7.2021, including the following benefits:</p> <ul style="list-style-type: none"> - Safety: Obsolescence - Cost-Efficiency: Investment costs can be reduced of about 40% / Reduction of service cost about 25% per year over 15 years life cycle as of RP4 <p>Users took note of the presentation (the project and its details were already presented in the consultation of December 2018 as well).</p>							
Joint investment / partnership	No							
Investment in ATM systems	Yes							
If investment in ATM system, type?	Overhaul of existing system							
If investment in ATM system, Reference to European ATM Master Plan / PCP	PCP							

Name of new major investment 5	SAMAX	Total value of the asset						5'204'384 €
Description of the asset	<p>SAMAX SMR ZRH Renewals: The project aims at renewing the two legacy SMR (Surface Movement Radars) of Zürich airport, used for our A-SMGCS application SAMAX. Benefits: Continuous SMR service as sensor for the safety net functions Rimcas and ARSI / Use of modern technology with equal performances / Ensure a safe, available, performing and compliant SMR service beyond 2020 for a 15 years' time frame / to meet OPS and AMS airport surface requirements as they are today .</p>							

The investment is mandated by a SES Regulation (i.e. PCP/CP1/Interoperability)? Ref. to the Regulation and, if funded through Union assistance programmes, ref. to the relevant grant agreement.)	Yes							
Specify links to the PCP/CP1/Interoperability Regulations (add the sub-AF number(s) under each relevant box)	AF1	AF2	AF3	AF4	AF5	AF6	Interoperability	
							x	
Level of impact of the investment	Network							
	Local	yes						
	Non-performance							
Quantitative impact per KPA	Safety	Yes						
	Environment	N/A						
	Capacity	N/A						
	Cost Efficiency	N/A						
Benefits for airspace users and results of the consultation of airspace users' representatives	The project was consulted on the 15.7.2021. Main benefit is linked to Safety (maintained). Users took note of the presentation. No further written questions were raised.							
Joint investment / partnership	Yes	Airport contributes 50%						
Investment in ATM systems	Yes							
If investment in ATM system, type?	Overhaul of							
If investment in ATM system, Reference to European ATM Master Plan / PCP	PCP							

Name of new major investment 6	PAGE 1	Total value of the asset					9'876'633 €	
Description of the asset	The PAGE-1 project aims to reduce the TWR ATCOs workload to harmonise their working methods and to simplify their training by deploying a more efficient and safer working environment that will replace the currently paper strip-based one. It also aims to develop the basis for Approach improvements in view of the global TWR/APP improvement in terms of safety, capacity and cost-efficiency.							
The investment is mandated by a SES Regulation (i.e. PCP/CP1/Interoperability)? Ref. to the Regulation and, if funded through Union assistance programmes, ref. to the relevant grant agreement.)	Yes							
Specify links to the PCP/CP1/Interoperability Regulations (add the sub-AF number(s) under each relevant box)	AF1	AF2	AF3	AF4	AF5	AF6	Interoperability	
							AF6	
Level of impact of the investment	Network							
	Local	yes						
	Non-performance							
Quantitative impact per KPA	Safety	yes						
	Environment	N/A						
	Capacity	yes						
	Cost Efficiency	yes						

Benefits for airspace users and results of the consultation of airspace users' representatives	The project was consulted on the 15.7.2021 Main benefits are linked to Safety + Capacity + Cost Efficiency. Users took note of the presentation. No further written questions were raised.		
Joint investment / partnership	Yes	GVA Airport, FOCA	
Investment in ATM systems	Yes		
If investment in ATM system, type?	New system		
If investment in ATM system, Reference to European ATM Master Plan / PCP	Master Plan (non-PCP)		

Name of new major investment 7	SkyC@T					Total value of the asset	7'889'790 €
Description of the asset	Skyguide Communication at TWR/APP: Following the bankruptcy of the VCS supplier Schmid Telecom (SZ), who was foreseen to support various mid-life upgrades at regional TWRs and ZRH TWR/APP, a new voice communication solution is being implemented. A harmonized VCS product through all civil skyguide OPS units / Simplification of controller working position by replacing several HMI (TEL, RAD, VOBIS, Intercom) by one integrated solution ; Implement the "any controller, any frequency, any site" concept for the first VCS and thereby enable remote TWR and VC concepts						
The investment is mandated by a SES Regulation (i.e. PCP/CP1/Interoperability)?	No						
Specify links to the PCP/CP1/Interoperability Regulations (add the sub-AF number(s) under each relevant box)	AF1	AF2	AF3	AF4	AF5	AF6	Interoperability
Level of impact of the investment	Network						
	Local	yes					
	Non-performance						
Quantitative impact per KPA	Safety	yes					
	Environment	yes					
	Capacity	yes					
	Cost Efficiency	enabler					
Results of the consultation of airspace users' representatives	The project was consulted on the 15.7.2021 Main benefit is linked to Service Continuity. Users took note of the presentation. No further written questions were raised.						
Joint investment / partnership	No						
Investment in ATM systems	Yes						
If investment in ATM system, type?	Overhaul of						
If investment in ATM system, Reference to European ATM Master Plan / PCP	Master Plan (non-PCP)						

Name of new major investment 8	AMAN CH					Total value of the asset	5'976'214 €
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Description of the asset	Replace the 17 year old current Arrival Manager (AMAN) in ZRH, known as CALM. In GVA, a new AMAN is required to complete the PAGE-1 stripless concept for Approach planners. The project also delivers a required pre-requisite for a future planned project (Future: PAGE-2 - which supports the airport development plan to improve capacity and efficiency), and AMAN is a prerequisite for XMAN Zurich.							
The investment is mandated by a SES Regulation (i.e. PCP/CP1/Interoperability)? Ref. to the Regulation and, if funded through Union assistance programmes, ref. to the relevant grant agreement.)	Yes							
Specify links to the PCP/CP1/Interoperability Regulations (add the sub-AF number(s) under each relevant box)	AF1 x	AF2	AF3	AF4	AF5	AF6	Interoperability	
Level of impact of the investment	Network							
	Local							
	Non-performance							
Quantitative impact per KPA	Safety	N/A						
	Environment	yes						
	Capacity	yes						
	Cost Efficiency	enabler						
Benefits for airspace users and results of the consultation of airspace users' representatives	The project was consulted on the 15.7.2021 Main benefit is linked to Service continuity. Users took note of the presentation. No further written questions were raised.							
Joint investment / partnership	No							
Investment in ATM systems	Yes							
If investment in ATM system, type?	Overhaul of							
If investment in ATM system, Reference to European ATM Master Plan / PCP	Master Plan (non-PCP)							

2.1.3 - Other new and existing investments

2.6.3.1 - Overall description and justification of the costs nature and benefits of other new and existing investments in fixed assets planned over the reference period

To comply with EU efficiency targets (amortisation reduction contribution), SKYGUIDE will reduce its annual investment in the project-portfolio by ~17% over the next 5 years. Skyguide also has adjusted capitalisation criteria since 1.1.2021 which reduces the amount of a project's total cost which is capitalised to enable its transformation and the harvesting of Virtual Center benefits (Buy vs. Make). With the reduced annual investment, ~67% of the project portfolio are planned projects required for business continuity, 11% for Virtual centre new systems and processes, and the remainder is spread across ATM, management systems across the company - wherever possible Skyguide aims not just to replace systems but seek to improve the business.

Existing investments are to complete projects in progress which aim to either maintain/improve the 4 main KPAs for capacity, efficiency, environment and of course safety, or to keep the business operations running (facilities, back office, etc.); there are up to 70 small projects or epics across the business addressing these topics in any year.

2.1.3.2 - Details of the main other new investments in fixed assets planned over the reference period

Number of new other investments	Click to select number of new other investments
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#	Name of investment	Total value of the asset (capex or contractual leasing value)	Value of the assets allocated to ANS in the scope of the PP	Determined costs of investment (i.e. depreciation, cost of capital and cost of leasing) (in national currency)					Description
				2020	2021	2022	2023	2024	

2.2 - Investments - Office Fédéral de la Météorologie et de Climatologie MétéoSuisse

2.2.1 - Summary of investments

Number of new major investments	0
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#	Name of new major investment (i.e. above 5 M€)	Total value of the asset (capex or contractual leasing value)	Value of the assets allocated to ANS in the scope of the PP	Determined costs of investment (i.e. depreciation, cost of capital and cost of leasing) (in national currency)					Lifecycle (Amortisation period in years)	Allocation (%)*		Planned date of entry into operation
				2020	2021	2022	2023	2024		Enroute	Terminal	
1		0		0								
Sub-total of new major investments above (1)		0	0	0	0	0	0	0				
Sub-total other new investments (2)		360'000	360'000			24'429	24'429	51'429		50%	50%	
Sub-total existing investments (3)				312'000	312'000	312'000	312'000	312'000		50%	50%	
Total new and existing investments (1) + (2) + (3)		360'000	360'000	312'000	312'000	336'429	336'429	363'429				

* The total % enroute+terminal should be equal to 100%.

2.2.2 - Detail of new major investments

NOTE: Section 1.3 (Stakeholder Consultation) should include details on the consultation with airspace users' representatives on new major investments.

Name of new major investment 1	Total value of the asset							0'000 €
Description of the asset								
The investment is mandated by a SES Regulation (i.e. PCP/CP1/Interoperability)?	Click to select							
Specify links to the PCP/CP1/Interoperability Regulations (add the sub-AF number(s) under each relevant box)	AF1	AF2	AF3	AF4	AF5	AF6	Interoperability	
Level of impact of the investment	Network							
	Local							
	Non-performance							
Quantitative impact per KPA	Safety							
	Environment							
	Capacity							
	Cost Efficiency							
Benefits for airspace users and results of the consultation of airspace users' representatives								
Joint investment / partnership	Click to select							
Investment in ATM systems	Click to select							

If investment in ATM system, type?	Click to select	
If investment in ATM system, Reference to European ATM Master Plan / PCP	Click to select	

2.2.3 - Other new and existing investments

2.2.3.1 - Overall description and justification of the costs nature and benefits of other new and existing investments in fixed assets planned over the reference period

- Other new investments: new sensors to be installed in the framework of the AMAROC project.
 - Existing investments: depreciation of existing infrastructure.

2.2.3.2 - Details of the main other new investments in fixed assets planned over the reference period

Number of new other investments

#	Name of investment	Total value of the asset (capex or contractual leasing value)	Value of the assets allocated to ANS in the scope of the PP	Determined costs of investment (i.e. depreciation, cost of capital and cost of leasing) (in national currency)					Description
				2020	2021	2022	2023	2024	

SECTION 3: PERFORMANCE TARGETS AND MEASURES FOR THEIR ACHIEVEMENT

3.1 - Safety targets

3.1.1 - Safety KPI #1: Level of Effectiveness of Safety Management achieved by ANSPs

3.2 - Environment targets

3.2.1 - Environment KPI #1: Horizontal en route flight efficiency (KEA)

3.3 - Capacity targets

3.3.1 - Capacity KPI #1: En route ATFM delay per flight

3.3.2 - Capacity KPI #2: Terminal and airport ANS ATFM arrival delay per flight

3.4 - Cost efficiency targets

3.4.1 - Cost efficiency KPI #1: Determined unit cost (DUC) for en route ANS

3.4.2 - Cost efficiency KPI #2: Determined unit cost (DUC) for terminal ANS

3.4.3 - Pension assumptions

3.4.4 - Interest rate assumptions for loans financing the provision of air navigation services

3.4.5 - Restructuring costs

3.4.6 - Additional determined costs related to measures necessary to achieve the en route capacity targets

3.5 - Additional KPIs / Targets

3.6 - Description of KPAs interdependencies and trade-offs including the assumptions used to assess those trade-offs

3.6.1 - Interdependencies and trade-offs between safety and other KPAs

3.6.2 - Interdependencies and trade-offs between capacity and environment

3.6.3 - Interdependencies and trade-offs between cost-efficiency and capacity

3.6.4 - Other interdependencies and trade-offs

Annexes of relevance to this section

ANNEX A. REPORTING TABLES & ADDITIONAL INFORMATION (EN-ROUTE)

ANNEX B. REPORTING TABLES & ADDITIONAL INFORMATION (TERMINAL)

ANNEX F. BASELINE VALUES (COST-EFFICIENCY)

ANNEX H. RESTRUCTURING MEASURES AND COSTS

ANNEX M. COST ALLOCATION

ANNEX J. OPTIONAL KPIs AND TARGETS

ANNEX O. JUSTIFICATIONS FOR THE LOCAL SAFETY TARGETS

ANNEX P. JUSTIFICATIONS FOR THE LOCAL ENVIRONMENT TARGETS

ANNEX Q. JUSTIFICATIONS FOR THE LOCAL CAPACITY TARGETS

ANNEX R. JUSTIFICATIONS FOR THE LOCAL COST-EFFICIENCY TARGETS

ANNEX U. VERIFICATION BY THE NSA OF THE COMPLIANCE OF THE COST BASE

SECTION 3.1: SAFETY KPA

3.1 - Safety targets

3.1.1 - Safety KPI #1: Level of Effectiveness of Safety Management achieved by ANSPs

- a) Safety national performance targets
- b) Detailed justifications in case of inconsistency between local and Union-wide safety targets
- c) Main measures put in place to achieve the safety performance targets

Annexes of relevance to this section

ANNEX O. JUSTIFICATIONS FOR THE LOCAL SAFETY TARGETS

3 - PERFORMANCE TARGETS AT LOCAL LEVEL

3.1 - Safety targets

3.1.1 - Safety KPI #1: Level of Effectiveness of Safety Management achieved by ANSPs

a) Safety performance targets

Number of Air Traffic Service Providers	1
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		2020A	2020	2021	2022	2023	2024
		<i>Actual</i>	Target	Target	Target	Target	Target
Skyguide	Safety policy and objectives	C	C	C	C	C	C
	Safety risk management	C	C	C	C	D	D
	Safety assurance	C	C	C	C	C	C
	Safety promotion	C	C	C	C	C	C
	Safety culture	C	C	C	C	C	C
	Additional comments						

b) Detailed justifications in case of inconsistency between local and Union-wide safety targets

** Refer to Annex O, if necessary.*

c) Main measures put in place to achieve the safety performance targets

Skyguide (Switzerland) decided to put in place following measures:

- Integration of all risk management activities together with business continuity and crisis management;
- Implementation of the RMIS (Risk Management Information System) combining all risk information in one single, cloud-based IT tool;
- Development of external supplier monitoring activities;
- Conduct of a safety culture survey together with other ANSPs;
- Legally anchoring of external Just Culture in the Swiss law;
- Application of data science to systematically learn from safety II data;
- Detection and management of interdependencies of complex operations.

On the Competent Authority level, the compliance verification of Commission Implementing Regulation (EU) 2017/373 is considered an effective means by inspecting the current safety performance and thus also anticipating if a set target is endangered. As the EoSM results are directly linked to aforementioned regulation's compliance verification, this is clearly depicting an early indicator of EoSM maturity and its necessary improvement.

Further, FABEC Competent Authorities meet regularly (three times a year) in a dedicated working group, the Safety Performance and Risk Coordination Task Force (SPRC TF), to gather Safety Performance data, to compare the ANSPs' performance among each other and to jointly determine whether and where catch-up demand is necessary. Additionally, the SPRC TF has established cooperation with the Standing Committee Safety (SC-SAF) to guarantee a holistic approach including all 7 FABEC ANSPs.

** Refer to Annex O, if necessary.*

SECTION 3.2: ENVIRONMENT KPA

3.2 - Environment targets

3.2.1 - Environment KPI #1: Horizontal en route flight efficiency (KEA)

- a) National environment performance targets
- b) Detailed justifications in case of inconsistency between National targets and National reference values
- c) Main measures put in place to achieve the environment performance targets

Annexes of relevance to this section

ANNEX P. JUSTIFICATIONS FOR THE LOCAL ENVIRONMENT TARGETS

3.2 - Environment targets

3.2.1 - Environment KPI #1: Horizontal en route flight efficiency (KEA)

a) FAB environment performance targets

	2020A	2020	2021	2022	2023	2024
National reference values	4.21%	n/a	3.95%	3.95%	3.95%	3.95%
		2020	2021	2022	2023	2024
National Targets		Target	Target	Target	Target	Target
		4.78%	3.95%	3.95%	3.95%	3.95%

b) Detailed justifications in case of inconsistency between National targets and National reference values

* Refer to Annex P, if necessary.

c) Main measures put in place to achieve the environment performance targets

The 2020 results within the airspace managed by Skyguide were still highly impacted by network interfaces. Traffic drop only led to a slight improvement of HFE.

FRA CH implementation end of 2020 can't improve significantly the performance result since the internal part of Skyguide HFE is already reduced thanks to direct routes (DRA) and tactical directs. Most of the inefficiency (80%) is at the interfaces (network inefficiency) over which Skyguide has little control.

Measures to improve the performance were implemented in 2020 and are being deployed or planned to be deployed until the end of RP3. In 2020, traffic route restrictions were lifted avoiding the need for aircraft to operate at inefficient flight levels or fly longer routes. Most of these route restrictions were put in place in times of high traffic demand to stabilize the network and ensure safety while providing additional capacity. Moreover, Cooperation between DFS and skyguide has shortened routes over the Alps by 15 nautical miles, saving flight time and reducing fuel consumption

A Free Route Airspace (FRA) project, which will allow Airspace Users to plan and fly direct routes, is in progress and should become effective in 2022.

In 2022, an ATFCM Optimisation Tool Environment will allow planning and flying more direct routes at more economical flight altitudes. In addition, an ATFCM flow based what it will improve efficiency as well.

From 2023, thanks to the CIV-MIL airspace management tool LARA, airspace and routes will be managed more flexibly and dynamically, allowing more frequent direct and shorter routes allocation as well as airlines to plan the route with less fuel.

In 2024, Arrival management (AMAN) extended to en-route airspace will extend the AMAN horizon from the 100-120 nautical miles to at least 180-200 nautical miles from Zürich airport. Arrival sequencing may be anticipated during en-route and early descent phases.

* Refer to Annex P, if necessary.

SECTION 3.3: CAPACITY KPA

3.3 - Capacity targets

3.3.1 - Capacity KPI #1: En route ATFM delay per flight

- a) FAB capacity performance targets
- b) Detailed justifications in case of inconsistency between FAB targets and FAB reference values
- c) Main measures put in place to achieve the target for en-route ATFM delay per flight
- d) ATCO planning

3.3.2 - Capacity KPI #2: Terminal and airport ANS ATFM arrival delay per flight

- a) National performance targets
- b) Contribution to the improvement of the European ATM network performance
- c) Main measures put in place to achieve the target for terminal and airport ANS ATFM arrival delay per flight

Annexes of relevance to this section

ANNEX Q. JUSTIFICATIONS FOR THE LOCAL CAPACITY TARGETS

3.3 - Capacity targets

3.3.1 - Capacity KPI #1: En route ATFM delay per flight

a) FAB capacity performance targets

	2020A	2020	2021	2022	2023	2024
Reference Value	0.04	n/a	0.12	0.19	0.19	0.19

	2020	2021	2022	2023	2024
National target	0.47	0.12	0.19	0.19	0.19

b) Detailed justifications in case of inconsistency between FAB targets and FAB reference values

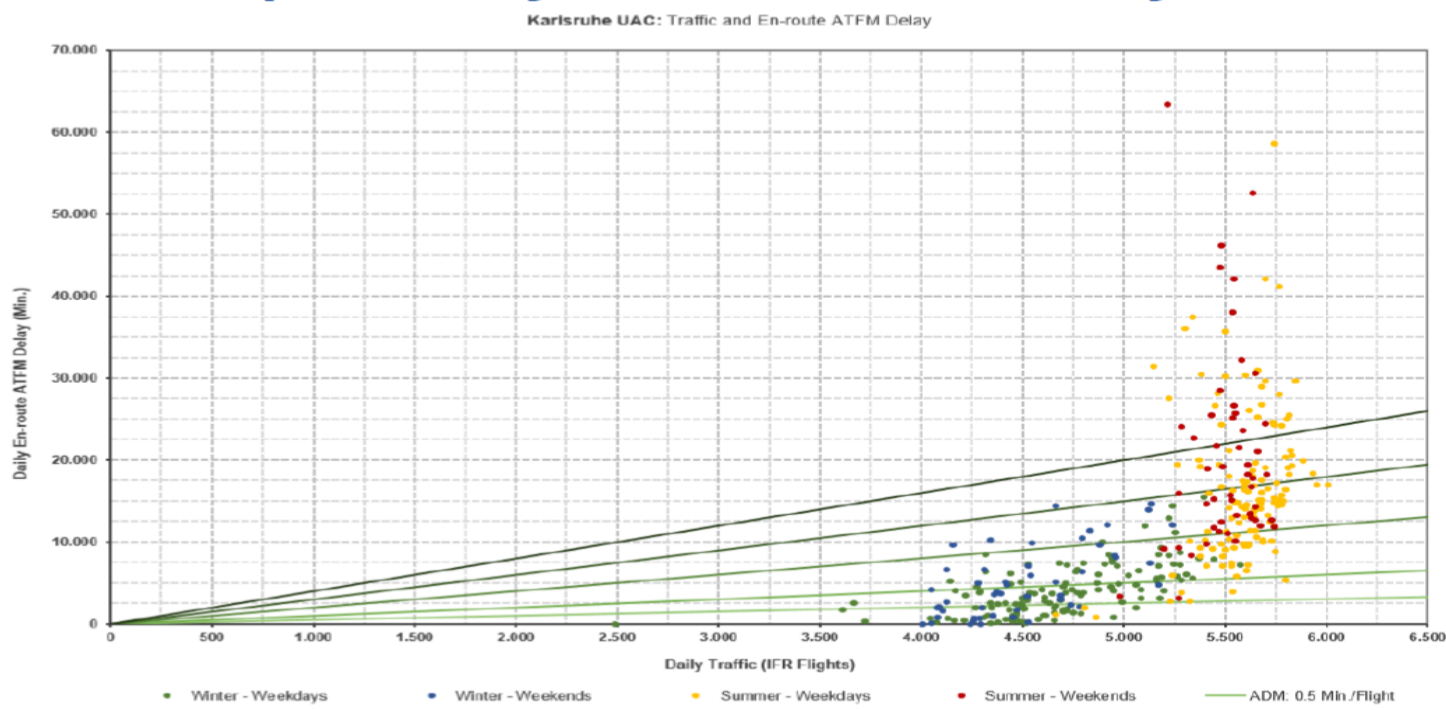
Skyguide's capacity target is in line with the reference values set by the NM. The drop in traffic observed in 2020 and the slow recovery in 2021 have clearly a significant impact on skyguide's capacity and levels of delay during the whole RP3. During RP1, and at the time of developing RP2 plans, traffic growth was lower than forecasts and its future was uncertain. As a result, the main focus of all stakeholders was on cost-efficiency, and ANSPs aimed to control costs, i.a. through reducing or delaying recruitments and investments. In reality, Skyguide airspace - like the rest of Europe - has experienced unforeseen high traffic growth since 2015, as well as significant traffic shifts. ANSPs reacted to this but measures required to increase capacity in a structural manner need time to be implemented and become effective (e.g. hiring and qualifying new ATCO need 3 to 5 years), investment and related operational changes for additional capacity also need several years and may imply provisional capacity reduction for training and safe commissioning purposes.

In the current context of the crisis and the resulting low traffic demand, ATCO training facilities were subject to COVID restrictions (where in some cases the maximum training capacity was already reached in some facilities). Licenced ATCOs were required to train high traffic load scenarios in simulators to keep proficiency, and on-the-job trainingspots for ab initio's were limited. As a result the capacity building measures were slowed down.

It is still expected that, in the next years, despite extensive efforts, Skyguide's ACCs could still be facing an imbalance between traffic and capacity (the targets are challenging and performance will also depend on the traffic evolution which is currently still very uncertain) or staffing issues.

Major uncertainties remain regarding further traffic development and volatility. It is important to consider that, if an ACC operates close to its capacity limits, minor variations in traffic levels can lead to significant changes in the amount of delay. The example below of Karlsruhe UAC (but we observe exactly the same for Skyguide' ACCs during Summer), generated for traffic and delay of 2018, shows the exponential impact on delays of the traffic evolution. In some cases, even without more traffic in total, just a local traffic shift is enough to overload sectors and to create a large amount of delays.

Interdependency of Traffic and Delay



Major uncertainties remain regarding further traffic development and volatility. It is important to consider that, if an ACC operates close to its capacity limits, minor variations in traffic levels can lead to significant changes in the amount of delay.

* Refer to Annex Q, if necessary.

c) Main measures put in place to achieve the target for en-route ATFM delay per flight

Full set of detailed measures implemented by Skyguide and contributing to local capacity improvements will be listed in the European Network Operations Plan (NOP) 2022-2024 and updated in the Network Operations Plan 2022-2026 which elaboration work has now started. All ANSP capacity measures detailed in the NOP and in this performance plan and their impact on capacity provision, delay forecast, and target setting are based on values provided and calculated by the Network Manager and Eurocontrol in general. The capacity profile computed in the NOP – and all the proposed associated measures - are based on the high traffic scenario of the STATFOR Forecast published mid-October 2021 (future versions of the NOP will be updated according to future STATFOR publications, this could increase the gap between the capacity profiles and the PP). In case of assessment of the Performance Plan based on the NOP, due consideration shall be given to the differences between the traffic forecasts. The main measures providing capacity enhancement planned to be implemented are described here under.

Skyguide's capacity target is in line with reference values set by the NM / EU.

In 2021, it is not expected to overtake the reference value even though this one (0.12) is rather low and the uncertainty on traffic ramp-up quite high.

Over the period 2022-2024, the delay forecast will naturally be highly dependent on traffic recovery. If this traffic recovery follows the high traffic forecast from STATFOR, situation will be very tense in the most congested sectors and delays will be high! However, when applying the scenario 2 of STATFOR, taking into consideration the implementation of the Virtual Center concept, notably through the improved ATFCM methodology in the lower airspace, the continuous improvements to Crystal for ACCs (traffic and complexity prediction tool), the further development of ATFCM procedures and STAM, in association with the planned capacity increase due to CPDLC, skyguide should ideally just reach the reference values (0.19 min/ft).

However, this target is very ambitious and if peaks of traffic during reduced periods of the day in summer will reach the level of 2019, then performance will deteriorate, and delays will increase.

Obviously, the great difference between the 3 STATFOR scenarios sets a lot of uncertainty in the planning phase; reliability of any forecast in this situation is therefore very poor.

Following the COVID crisis and the unprecedented resulting drop in revenues, will generate a heavy pressure on costs and could have a rather huge impact on performance in the coming years.

skyguide adapted to the crisis by a series of rostering measures:

- review of the roster every week based on the NM rolling seasonal plan and correction of the rosters in order to increase the short time work with an horizon of 14 days.
- vaccine is followed by at least 2 days-off
- increase shifts at simulator
- releasing ATCOs before the end of their shift or shortening shifts- overtime discontinued

** Refer to Annex Q, if necessary.*

d) Skyguide ATCO planning

	Actual	Planning					
	2018	2019	2020	2021	2022	2023	2024
Geneva (LSAG ACC)							
# of additional ATCOs in OPS planned to start working in the OPS room (FTEs)		5	10	6	13	8	10
# of ATCOs in OPS planned to stop working in the OPS room (FTEs)		8	7	5	6	13	14
# of ATCOs in OPS planned to be operational at year-end (FTEs)	121	118	121	122	129	124	120

	Actual	Planning					
	2018	2019	2020	2021	2022	2023	2024
Zurich (LSAZ ACC)							
# of additional ATCOs in OPS planned to start working in the OPS room (FTEs)		7	4	6	10	10	6
# of ATCOs in OPS planned to stop working in the OPS room (FTEs)		4	12	6	10	11	9
# of ATCOs in OPS planned to be operational at year-end (FTEs)	118	121	113	113	113	112	109

Additional comments

En Route capacity target has strong interdependencies with Safety and Environment targets and with Cost-efficiency target. Those are addressed in Chapter 3.6 of this performance plan. The financial incentive scheme implemented by Switzerland regarding this En Route capacity target is fully described in chapter 5.2.1.

Regarding ATCO planning, the NSA and the ANSP note that there is no legal requirement for ATCO planning figures to be included in the performance plans for RP3. In addition, the NSA question if this is the right level of detail to be monitored by the EC. Technically the plans are and will always be subject to change, creating the unnecessary burden of tracking, supervising and explaining the figures within the SES performance scheme domain. In addition, the details of the planned evolution of ATCO numbers within an ANSP with several ACCs are socially sensitive.

However ATCO hiring and assignment is one of the major driver for current capacity and staffing issues solving. Nevertheless, the State consider that they cannot be considered as a commitment due to the high level of uncertainties related to such ATCO recruitment plans management. These figures, even when provided on annual basis, can only be regarded as snapshot information, i.e. a situation at one point in time which does not guarantee a realistic view throughout the entire duration of RP3.

There are many factors with a high level of uncertainty that have an impact on the ATCO planning: first of all there are classical uncertainty factors of general staff planning like the actual rate of retirement, the absence rate of employees, as well as maternity and parent leave. Moreover, ATCOs mobility has become a severe issue recently, leading to high rate of unforeseen leaves.

Another factor which cannot be significantly mitigated further impacting the availability of ATCOs is the number of suitable applicants, the failure rate of the theoretical training at the academies and the success rate during the on-the-job training phases of trainees.

The final retirement age is firmly set by law, but in many countries employees may go earlier. ANSPs can only assume a certain amount of people opting out/in. It is common culture now that companies offer varying working hours to enable employees to adjust their work to different phases of their life. Again, ANSPs can only assume a certain amount of people opting in/out. On top of all that, future social agreements will significantly determine the ATCO availability per person and by that the total available FTE per ANSP.

The demographic situation of ANSPs is different and might require to hire to an extent not aligned to the traffic demand.

FTE refers to a different amount of working time per year/ANSP. FTE is not harmonised among ANSPs but are subject to national laws and labour regulations.

Before the planned ATCO FTE can reasonably be reported, a revised specification for information disclosure is required, clearly describing how to count ATCOs partially working in projects (another uncertainty factor) and (very important) standardising the assumptions for the uncertainties mentioned above.

For those ANSP having more than one national ACC, ATCO hiring plan are managed at ANSP level but changes in traffic volumes or flows and volatility or local human resources factors can influence the assignment to different ACCs.

It should also be noted that some social agreements regarding numbers of additional ATCO to be recruited during RP3 and working conditions (salaries, extra hours, rostering) will be renegotiated after the submission of this performance plan. Outcomes of such negotiations, in which ANSP and unions but also Ministries of Finance or Public administration are involved, will have an impact on those figure.

Additional information regarding ATCO hiring plans and their impact on cost-efficiency for some ANSP is also provided in chapters 3.4 (cost-efficiency) & 3.6 (interdependencies) and in annexes of this Performance Plan.

3.3.2 - Capacity KPI #2: Terminal and airport ANS ATFM arrival delay per flight

a) National performance targets

	2020A	2020	2021	2022	2023	2024
	Actual	Target	Target	Target	Target	Target
National level	0.55	1.94	1.03	1.15	1.28	1.42
Additional comments						

Airport level	LSZH-Zurich	0.60	2.14	1.25	1.39	1.54	1.71
	Airport contribution to national targets						
Airport level	LSGG-Geneva	0.49	1.37	0.71	0.79	0.88	0.98
	Airport contribution to national targets						

b) Contribution to the improvement of the European ATM network performance

Zurich and Geneva airports are contributors to arrival ATFM delay in the European network, and a reduction of this delay, associated with low targets, would provide indubitably a positive contribution to the overall performance of the European ATM network.

* Refer to Annex Q, if necessary.

c) Main measures put in place to achieve the target for terminal and airport ANS ATFM arrival delay per flight

In Geneva TWR/APP, the sustained effort in recruiting ATCOs in order to ensure an optimum level of performance will remain the reference point for improvement. The e-strip project (step 1 at TWR in 2019-2022 and step 2 at APP in 2024-2027) coupled with the iLVP initiative (separation minima decreased from 12Nm to 6Nm in case of low visibility) and the enhancement and gained experience of the traffic and complexity prediction tool for TWR/APP (CRYSTAL, implemented in 2020) will participate in enhancing the operational level of performance in spite of the high uncertainty of the forecast traffic and its associated volatility.

In Zurich TWR/APP, the sustained effort in recruiting ATCOs will be the cornerstone of a successful performance improvement as well. To harvest benefits of the Advance Runway Safety Improvements as per 2023 through the activation of crossed RWY when under North wind conditions (increase of capacity) will also represent an important step forward. On top of these, to de-complexify the TMA (parachute management and optimization of East arrival concept in 2024-2025; SID concept to South-West with a reduced separation management in 2024), to harvest benefits of the implementation of the traffic and complexity prediction tool for TWR/APP (implemented mid 2020), the e-coordination Departure-ACC (mid 2022), the Rapid Exit Taxiway 28 (end 2021), Runway 28 by-pass (mid 2023), will as well be key enablers to enhance performance towards the end of RP3.

* Refer to Annex Q, if necessary.

SECTION 3.4: COST-EFFICIENCY KPA

3.4 - Cost efficiency targets

- 3.4.1 - Cost efficiency KPI #1: Determined unit cost (DUC) for en route ANS
- 3.4.2 - Cost efficiency KPI #2: Determined unit cost (DUC) for terminal ANS
- 3.4.3 - Pension assumptions
- 3.4.4 - Interest rate assumptions for loans financing the provision of air navigation services
- 3.4.5 - Restructuring costs

Annexes of relevance to this section

- ANNEX A. REPORTING TABLES & ADDITIONAL INFORMATION (EN-ROUTE)
- ANNEX B. REPORTING TABLES & ADDITIONAL INFORMATION (TERMINAL)
- ANNEX F. BASELINE VALUES (COST-EFFICIENCY)
- ANNEX H. RESTRUCTURING MEASURES AND COSTS
- ANNEX M. COST ALLOCATION
- ANNEX R. JUSTIFICATIONS FOR THE LOCAL COST-EFFICIENCY TARGETS
- ANNEX U. VERIFICATION BY THE NSA OF THE COMPLIANCE OF THE COST BASE

NOTE: The following requirements as per Annex II, 3.3 are addressed in the Annexes A and B:

- Point 3.3 (d) on cost-allocation;
- Point 3.3 (e) on the return on equity and cost of capital;

- Point 3.3 (f) on assumptions for pension costs and interest on debt for other entities, inflation forecast and adjustments beyond IFRS;
- Point 3.3 (g) on adjustments to the unit rates carried over from previous reference periods;
- Point 3.3 (h) on costs exempt from cost-sharing;
- Point 3.3 (k) reporting tables and additional informations.

SECTION 3.4.1: KPI #1: Determined unit cost (DUC) for en route ANS

3.4.1 - Cost efficiency KPI #1: Determined unit cost (DUC) for en route ANS

- a) RP3 revised cost-efficiency performance targets (IR 2020/1627)
- b) Information on the baseline values for the determined costs and the determined unit costs
- c) Detailed justifications for the adjustments to the baseline values
- d) Where a deviation from the Union-wide performance targets is observed, please indicate if the NSA considers those deviations to be necessary and proportionate
- e) Main measures put in place to achieve the targets for determined unit cost (DUC) for en route ANS
- f) Findings of the verification by the NSA (under Art. 22(7) of IR 2019/317) of the compliance of the cost base for charges with the requirements of Article 15(2) of Reg. 550/2004 and Article 22 of IR 2019/317, and where applicable identification of corrections

Annexes of relevance to this section

- ANNEX A. REPORTING TABLES & ADDITIONAL INFORMATION (EN-ROUTE)
- ANNEX F. BASELINE VALUES (COST-EFFICIENCY)
- ANNEX M. COST ALLOCATION
- ANNEX R. JUSTIFICATIONS FOR THE LOCAL COST-EFFICIENCY TARGETS
- ANNEX U. VERIFICATION BY THE NSA OF THE COMPLIANCE OF THE COST BASE

NOTE: The following requirements as per Annex II, 3.3 are addressed in the Annexes A and B:

- Point 3.3 (d) on cost-allocation;
- Point 3.3 (e) on the return on equity and cost of capital;

- Point 3.3 (f) on assumptions for pension costs and interest on debt for other entities, inflation forecast and adjustments beyond IFRS;
- Point 3.3 (g) on adjustments to the unit rates carried over from previous reference periods;
- Point 3.3 (h) on costs exempt from cost-sharing;
- Point 3.3 (k) reporting tables and additional informations.

3.4.1 - Cost efficiency KPI #1: Determined unit cost (DUC) for en route ANS

En Route Charging Zone #1 - Switzerland

a) RP3 revised cost-efficiency performance targets (IR 2020/1627)

En route charging zone Switzerland	Baseline 2014	Baseline 2019	RP3 revised cost-efficiency targets (determined 2020-2024)				2024 D	2024 D
	2014 B	2019 B	2020/2021 D	2022 D	2023 D	2024 D	vs. 2014 B	vs. 2019 B
Total en route costs in nominal terms (in national currency)	153'481'985	168'265'324	349'685'633	185'025'300	178'132'412	177'797'629	15.8%	5.7%
Total en route costs in real terms (in national currency at 2017 prices)	152'788'522	166'700'793	346'118'535	182'630'797	174'728'056	173'137'254	13.3%	3.9%
Total en route costs in real terms (in EUR2017) ¹	137'493'721	150'013'312	311'470'551	164'348'653	157'237'011	155'805'455	13.3%	3.9%
YoY variation			107.6%	-47.2%	-4.3%	-0.9%		
Total en route Service Units (TSU)	1'427'068	1'708'100	1'529'488	1'593'957	1'688'954	1'810'951	26.9%	6.0%
YoY variation			-10.5%	4.2%	6.0%	7.2%		
Real en route unit costs (in national currency at 2017 prices)	107.06	97.59	226.30	114.58	103.45	95.61	-10.7%	-2.0%
Real en route unit costs (in EUR2017) ¹	96.35	87.82	203.64	103.11	93.10	86.04	-10.7%	-2.0%
YoY variation			131.9%	-49.4%	-9.7%	-7.6%		

National currency	CHF
¹ Average exchange rate 2017 (1 EUR=)	1.11

b) Information on the baseline values for the determined costs and the determined unit costs

En route charging zone Switzerland	Baseline 2014	Baseline 2019	Actuals 2014	Actuals 2019	2014 Baseline	2019 Baseline
	2014 B	2019 B	2014 A	2019 A	adjustments	adjustments
Total en route costs in nominal terms (in national currency)	153'481'985	168'265'324	153'481'985	163'374'995	0	4'890'329
Total en route costs in real terms (in national currency at 2017 prices)	152'788'522	166'700'793	152'788'522	161'873'775	0	4'827'018

Total en route costs in real terms (in EUR2017) ¹	137'493'721	150'013'312	137'493'721	145'669'500	0	4'343'813
Total en route Service Units (TSU)	1'427'068	1'708'100	1'427'068	1'768'952	0	-60'852

c) Detailed justifications for the adjustments to the baseline values

c.1) Adjustments to the 2014 baseline value for the determined costs

Number of adjustments	0
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c.2) Adjustments to the 2014 service units

Impact of transition to actual route flown	Coefficient M2/M3	Source	Service units
	-	-	

Other adjustment to the 2014 service units	Click to select
--	-----------------

Total adjustments to the 2014 service units	-
--	---

c.3) Adjustments to the 2019 baseline value for the determined costs

Number of adjustments	2
-----------------------	---

Adjustment #1	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
MET costs extraordinary reimbursement 2019	Meteosuisse	MET	Other operating	5'858'770	5'783'378	5'204'436
Description and justification of the adjustment						
In 2019, there reimbursement of MET costs has been provisioned which artificially decreased the MET costs for 2019 (extraordinary one-off effect).						

Adjustment #2	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
MET costs change in allocation key as of 2020	Meteosuisse	MET	Other operating	-968'441	-955'978	-860'281
Description and justification of the adjustment						
The allocation key of MET costs to the various products has been changed, having thus an impact on the cost level.						

Total adjustments to the 2019 baseline value for the determined costs	Costs nominal NC	Costs real NC	Costs EUR2017
	4'890'329	4'827'399	4'344'155

c.4) Adjustments to the 2019 service units

Impact of transition to actual route flown	Coefficient M2/M3	Source	Service units
	-	-	-60'852

Other adjustment to the 2019 service units	Click to select
--	-----------------

Total adjustments to the 2019 service units	-60'852
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d) Description and justification of the consistency between local and Union-wide cost-efficiency targets

In RP2, Skyguide has delivered necessary capacity while having to cope with strong traffic increase and has invested in the future. Skyguide made losses over RP2. Skyguide is currently undergoing a massive transformation in investing in the Virtual Centre and make its cost structure more flexible, in full alignment with the AAS. 2020 and 2021 has been marked by one-off savings measures (short time work, cut of variable salary part, salary containment, etc.), a recapitalization to ensure the financial stability and a huge negative year-end-result due to non-recognition of accruals (even-though foreseen to be invoiced as of 2023)

The capital injection of 150M CHF in 2020 finances the impact of the implementation of more restrictive capitalization rules (90M CHF over RP3 and 125M CHF in total) as well as under-financing of Delegated Airspace in 2020 (23M CHF), neither of this impacts will be billed to users due to the ongoing crisis. As a counterpart of the recapitalization by the CH Confederation, Skyguide has to implement a 120M CHF savings in 2020 - 2024 (reflected in current submission) and to raise the retirement age of ATCOs to at least 60 years (having as consequence a transition phase with additional costs.)

As a summary, the chargeable cost base was reduced by 80 MCHF with regard to the first version of the plan submitted in October 2019. Skyguide decided to take into account the latest STATFOR base scenario of October 2021, without increasing its costs (and expects no further discussions on cost target achievement in 2022, as in 2022 alone traffic has improved by 37% vs. STATFOR Base May 2021).

To avoid putting at risk its ongoing transformation, Skyguide is not planning on reducing its cost base further, i.e. the remaining gap is to be financed by airspace users.

** Refer to Annex R, if necessary.*

e) Where a deviation from the Union-wide performance targets is observed, please indicate if the NSA considers those deviations to be necessary and proportionate under:

Additional costs of measures necessary to achieve the capacity targets for RP3	No	
Restructuring costs planned for RP3	No	

f) Main measures put in place to achieve the targets for determined unit cost (DUC) for en route ANS

The capital injection of 150M CHF in 2020 finances the impact of capitalization rules (90M CHF over RP3 and 125M CHF in total) as well as the under-financing of Delegated Airspace in 2020 (23M CHF). Without this, the gap to target would have been much higher. In addition to that, efforts have been undergone to reduce costs in 2020 and 2021 vs. initially planned costs.

** Refer to Annex R, if necessary.*

g) Findings of the verification by the NSA (under Art. 22(7) of IR 2019/317) of the compliance of the cost base for charges with the requirements of Article 15(2) of Reg. 550/2004 and Article 22 of IR 2019/317, and where applicable identification of corrections applied to the cost base as a result of this verification

Skyguide's financial statements are audited each year by an external statutory auditor; their report is an integral part of the annual report published by Skyguide.

Between 2018 and 2020, the NSA has performed financial audits of the MET services provider for the ANSP, and of Skyguide on the basis of FY 2017.

Due consideration of the requirements of Reg EC 550/2004 and Reg EU 2019/317 and to the guidance and supporting material developed over 2019 / 2020 by EY on behalf of the EC led the NSA to initiate the revisions of the cost accounting of Skyguide due to be implemented by 2023.

Transparency is ensured and information is regularly exchanged with the EC, Eurocontrol and airspace users as required by Reg EC 550/2004 and Reg EU 2019/317. However the detailed presentation of potential findings and related corrections resulting from the NSA oversight in this report would be deemed to be infringing the confidentiality provided for in Reg EC 550/2004 Art. 18.

** Refer to Annex U, if necessary.*

SECTION 3.4.2: KPI #2: Determined unit cost (DUC) for terminal ANS

3.4.2 - Cost efficiency KPI #2: Determined unit cost (DUC) for terminal ANS

- a) RP3 revised cost-efficiency performance targets (IR 2020/1627)
- b) Information on the baseline values for the determined costs and the determined unit costs
- c) Detailed justifications for the adjustments to the baseline values
- d) Main measures put in place to achieve the targets for determined unit cost (DUC) for terminal ANS
- e) Findings of the verification by the NSA (under Art. 22(7) of IR 2019/317) of the compliance of the cost base for charges with the requirements of Article 15(2) of Reg. 550/2004 and Article 22 of IR 2019/317, and where applicable identification of

Annexes of relevance to this section

ANNEX B. REPORTING TABLES & ADDITIONAL INFORMATION (TERMINAL)
ANNEX F. BASELINE VALUES (COST-EFFICIENCY)
ANNEX M. COST ALLOCATION
ANNEX R. JUSTIFICATIONS FOR THE LOCAL COST-EFFICIENCY TARGETS
ANNEX U. VERIFICATION BY THE NSA OF THE COMPLIANCE OF THE COST BASE

NOTE: The following requirements as per Annex II, 3.3 are addressed in the Annexes A and B:

Point 3.3 (d) on cost-allocation;

Point 3.3 (e) on the return on equity and cost of capital;

Point 3.3 (f) on assumptions for pension costs and interest on debt for other entities, inflation forecast and adjustments beyond IFRS;

Point 3.3 (g) on adjustments to the unit rates carried over from previous reference periods;

Point 3.3 (h) on costs exempt from cost-sharing;

Point 3.3 (k) reporting tables and additional informations.

3.4.2 - Cost efficiency KPI #2: Determined unit cost (DUC) for terminal ANS

Terminal Charging Zone #1 - Switzerland - TCZ

a) RP3 revised cost-efficiency performance targets (IR 2020/1627)

Terminal charging zone Name of the CZ	Baseline 2019	RP3 revised cost-efficiency targets (determined 2020-2024)				2024 D vs. 2019 B
	2019 B	2020/2021 D	2022 D	2023 D	2024 D	
Total terminal costs in nominal terms (in national currency)	97'935'900	209'454'206	105'207'116	104'121'837	105'326'817	7.5%
Total terminal costs in real terms (in national currency at 2017 prices)	96'896'397	207'271'463	103'867'436	102'170'228	102'622'408	5.9%
Total terminal costs in real terms (in EUR2017) ¹	87'196'643	186'522'680	93'469'850	91'942'540	92'349'455	5.9%
YoY variation		113.9%	-49.9%	-1.6%	0.4%	
Total terminal Service Units (TNSU)	293'928	239'807	245'791	267'772	279'762	-4.8%
YoY variation		-18.4%	2.5%	8.9%	4.5%	
Real terminal unit costs (in national currency at 2017 prices)	329.66	864.32	422.59	381.56	366.82	11.3%
Real terminal unit costs (in EUR2017) ¹	296.66	777.80	380.28	343.36	330.10	11.3%
YoY variation		162.2%	-51.1%	-9.7%	-3.9%	

National currency	CHF
¹ Average exchange rate 2017 (1 EUR=)	1.11

b) Information on the baseline values for the determined costs and the determined unit costs

Terminal charging zone Name of the CZ	Baseline 2019	Actuals 2019	2019 Baseline adjustments
	2019 B	2019 A	
Total terminal costs in nominal terms (in national currency)	97'935'900	94'165'236	3'770'663
Total terminal costs in real terms (in national currency at 2017 prices)	96'896'397	93'174'256	3'722'142

Total terminal costs in real terms (in EUR2017) ¹	87'196'643	83'847'104	3'349'539
Total terminal Service Units (TNSU)	293'928	293'928	0

c) Detailed justifications for the adjustments to the baseline values

c.1) Adjustments to the 2019 baseline value for the determined costs

Number of adjustments	2
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Adjustment #1	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
MET costs extraordinary reimbursement 2019	Meteosuisse	MET	Other operating	1'509'569	1'490'144	1'340'974
Description and justification of the adjustment						
In 2019, there reimbursement of MET costs has been provisioned which artificially decreased the MET costs for 2019 (extraordinary one-off effect).						

Adjustment #2	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
MET costs change in allocation key as of 2020	Meteosuisse	MET	Other operating	2'261'094	2'231'998	2'008'565
Description and justification of the adjustment						
The allocation key of MET costs to the various products has been changed, having thus an impact on the cost level.						

Total adjustments to the 2019 baseline value for the determined costs	Costs nominal NC	Costs real NC	Costs EUR2017
	3'770'663	3'722'142	3'349'539

c.2) Adjustments to the 2019 service units

Adjustment to the 2014 service units	Click to select
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d) Description and justification of the contribution of the the local targets to the performance of the European ATM network

In RP2, Skyguide has delivered necessary capacity while having to cope with strong traffic increase and has invested in the future. Skyguide made losses over RP2. Skyguide is currently undergoing a massive transformation in investing in the Virtual Centre and make its cost structure more flexible, in full alignment with the AAS. 2020 and 2021 has been marked by one-off savings measures (short time work, cut of variable salary part, salary containment, etc.), a recapitalization to ensure the financial stability and a huge negative year-end-result due to non-recognition of accruals (even-though foreseen to be invoiced as of 2023). The capital injection of 150M CHF in 2020 finances the impact of the implementation of more restrictive capitalization rules (90M CHF over RP3 and 125M CHF in total) which will not be billed to users due to the ongoing crisis. As a counterpart of the recapitalization by the CH Confederation, Skyguide has to implement a 120M CHF savings in 2020 - 2024 (reflected in current submission) and to raise the retirement age of ATCOs to at least 60 years (having as consequence a transition phase with additional costs.) As a summary, the chargeable cost base was reduced by 74 MCHF with regard to the first version of the plan submitted in October 2019. Skyguide decided to take into account the latest STATFOR base scenario of October 2021, without increasing its costs (and expects no further discussions on cost target achievement in 2022, as in 2022 alone traffic has improved by 17% vs. STATFOR Base May 2021). To avoid putting at risk its ongoing transformation, Skyguide is not planning on reducing its cost base further, i.e. the remaining gap is to be financed by airspace users.

* Refer to Annex R, if necessary.

e) Main measures put in place to achieve the targets for determined unit cost (DUC) for terminal ANS

The capital injection of 150M CHF in 2020 finances the impact of capitalization rules (90M CHF over RP3 and 125M CHF in total). Without this, the gap to target would have been much higher. In addition to that, efforts have been undergone to reduce costs in 2020 and 2021 vs. initially planned costs.

** Refer to Annex R, if necessary.*

f) Findings of the verification by the NSA (under Art. 22(7) of IR 2019/317) of the compliance of the cost base for charges with the requirements of Article 15(2) of Reg. 550/2004 and Article 22 of IR 2019/317, and where applicable identification of corrections applied to the cost base as a result of this verification

Skyguide's financial statements are audited each year by an external statutory auditor; their report is an integral part of the annual report published by Skyguide.

Between 2018 and 2020, the NSA has performed financial audits of the MET services provider for the ANSP, and of Skyguide on the basis of FY 2017.

Due consideration of the requirements of Reg EC 550/2004 and Reg EU 2019/317 and to the guidance and supporting material developed over 2019 / 2020 by EY on behalf of the EC led the NSA to initiate the revisions of the cost accounting of Skyguide due to be implemented by 2023.

Transparency is ensured and information is regularly exchanged with the EC, Eurocontrol and airspace users as required by Reg EC 550/2004 and Reg EU 2019/317. However the detailed presentation of potential findings and related corrections resulting from the NSA oversight in this report would be deemed to be infringing the confidentiality provided for in Reg EC 550/2004 Art. 18.

** Refer to Annex U, if necessary.*

SECTION 3.4.3: Pension assumptions

3.4.3: Pension assumptions

3.4.3.1 Total pension costs

3.4.3.2 Assumptions for the "State" pension scheme

3.4.3.3 Assumptions for the occupational "Defined contributions" pension scheme

3.4.3.4 Assumptions for the occupational "Defined benefits" pension scheme

3.4.3 - Pension assumptions - skyguide

3.4.3.1 Total pension costs (in nominal terms in '000 national currency)

Pension costs	2020D	2021D	2020/2021D	2022D	2023D	2024D
Total pension costs	63'516	61'116	124'632	61'163	62'285	62'907
En-route activity	40'284	37'847	78'132	37'885	39'090	39'563
Terminal activity	12'744	12'183	24'927	11'992	12'017	12'138
Other activities	10'488	11'085	21'573	11'287	11'178	11'205
En-route financed outside Swiss FIR	-10'963	-12'388		-11'594	-12'880	-13'307
Terminal financed outside Swiss FIR	-714	-926		-374	-386	-363
TOTAL En Route	29'321	25'460		26'290	26'210	26'256
TOTAL Terminal	12'030	11'258		11'618	11'631	11'775

3.4.3.2 Assumptions for the "State" pension scheme (in nominal terms in '000 national currency)

Are there different contribution rates for different staff categories? If yes, how many?	No
--	----

<Staff category name>	2020D	2021D	2020/2021D	2022D	2023D	2024D
Total pensionable payroll to which this scheme applies	240'433	243'938	484'371	239'521	238'470	237'533
Employer % contribution rate to this scheme	5.275%	5.300%		5.300%	5.300%	5.300%
Total pension costs in respect of this scheme	12'683	12'929	25'612	12'695	12'639	12'589
Number of employees the employer contributes for in this scheme	1'462	1'464		1'468	1'447	1'423

Description on the relevant national pension regulations and pension accounting regulations on which the assumptions are based, as well as information whether changes of those regulations are to be expected during RP3

The state pension (AHV) is a mandatory defined benefit scheme funded on a pay-as-you-go basis through contributions and VAT revenues. Qualification requires at least one year of contributions. The benefit received depends on income and the number of years of contributions.

Description of the assumptions underlying the calculations of pension costs comprised in the determined costs

Assumptions are based on actual state pension legal contributions.

Describe the actions taken ex-ante to manage the cost-risk (cost increase) associated with this item, as well as the actions taken to limit the impact of the

3.4.3.3 Assumptions for the occupational "Defined contributions" pension scheme (in nominal terms in '000 national currency)

Are there different contribution rates for different staff categories? If yes, how many?	Yes-5
--	-------

ATCOs	2020D	2021D	2020/2021D	2022D	2023D	2024D
Total pensionable payroll to which this scheme applies	69'607	74'944	144'551	77'094	76'327	76'866
Employer % contribution rate to this scheme	34.8%	29.0%		30.0%	31.6%	31.8%
Total pension costs in respect of this scheme	24'216	21'771	45'987	23'123	24'083	24'457
Number of employees the employer contributes for in this scheme	396	426		461	455	452

ATCOs : regional/military	2020D	2021D	2020/2021D	2022D	2023D	2024D
Total pensionable payroll to which this scheme applies	20'746	18'320	39'065	15'368	15'307	15'800
Employer % contribution rate to this scheme	18.9%	20.2%		18.8%	17.7%	17.7%
Total pension costs in respect of this scheme	3'917	3'704	7'622	2'891	2'712	2'793
Number of employees the employer contributes for in this scheme	139	123		111	111	110

AOT	2020D	2021D	2020/2021D	2022D	2023D	2024D
Total pensionable payroll to which this scheme applies	83'611	80'514	164'125	79'004	78'314	76'424
Employer % contribution rate to this scheme	15.9%	16.3%		16.7%	17.1%	17.5%
Total pension costs in respect of this scheme	13'335	13'091	26'426	13'183	13'409	13'394
Number of employees the employer contributes for in this scheme	714	700		689	679	661

Managers	2020D	2021D	2020/2021D	2022D	2023D	2024D
Total pensionable payroll to which this scheme applies	36'446	36'774	73'221	34'766	34'557	34'553
Employer % contribution rate to this scheme	25.6%	26.0%		26.5%	27.2%	27.9%
Total pension costs in respect of this scheme	9'326	9'577	18'903	9'229	9'400	9'641
Number of employees the employer contributes for in this scheme	209	212		203	199	197

Auxiliaries (houly staff)	2020D	2021D	2020/2021D	2022D	2023D	2024D
Total pensionable payroll to which this scheme applies	767	788	1'555	785	785	584
Employer % contribution rate to this scheme	5.1%	5.5%		5.5%	5.5%	5.5%

Total pension costs in respect of this scheme	39	44	83	43	43	32
Number of employees the employer contributes for in this scheme	4	3		4	4	3

Description on the relevant national pension regulations and pension accounting regulations on which the assumptions are based, as well as information whether changes of those regulations are to be expected during RP3

Skyguide manages its occupational defined contribution scheme through a separate legal entity called Skycare. Members receive defined benefits, though the full liability of the scheme is assumed by Skycare. Skyguide is only liable for making contributions to the scheme and so its contributions are assessed on a defined contribution basis.

Description of the assumptions underlying the calculations of pension costs comprised in the determined costs

Assumptions are based on actual Skycare pension plans contributions.

Describe the actions taken ex-ante to manage the cost-risk (cost increase) associated with this item, as well as the actions taken to limit the impact of the unforeseen change on the costs to be passed on to airspace users

3.4.3.3 Assumptions for the occupational "Defined benefits" pension scheme

Does the ANSP assume liability for meeting future obligations for the occupational "Defined benefits" scheme?	Select
Is the occupational "Defined benefits" pension scheme funded?	Select

	2020D	2021D	2020/2021D	2022D	2023D	2024D
Total pensionable payroll to which this scheme applies			-			
Total pension costs in respect of this scheme			-			
- in respect of regular pension costs			-			
- in respect of non-recurring deficit repair			-			
- reported as staff costs (in reporting tables)			-			
- not reported as staff costs (in reporting tables): please use comment box			-			
Actuarial assumptions						
% discount rate						
% projected increase in benefits						
% annual increase in salaries						
% expected return on plan assets						
Net funding surplus / deficit			-			
Number of employees the employer contributes for in this scheme						

Description on the relevant national pension regulations and pension accounting regulations on which the assumptions are based, as well as information whether changes of those regulations are to be expected during RP3

Description of the assumptions underlying the calculations of pension costs comprised in the determined costs

Where, in the Reporting Tables, some occupational "defined benefits" costs (e.g. interest expense related to pensions) are reported in other cost item(s) than staff costs, the cost item(s) should be indicated here below along with corresponding explanations.

Describe the actions taken ex-ante to manage the cost-risk (cost increase) associated with this item, as well as the actions taken to limit the impact of the unforeseen change on the costs to be passed on to airspace users

SECTION 3.4.4: Interest rate assumptions for loans financing the provision of ANS

3.4.4 - Interest rate assumptions for loans financing the provision of air navigation services

3.4.4 - Interest rate assumptions for loans financing the provision of air navigation services - Skyguide

Select number of loans							3
Interest rate assumptions for loans financing the provision of air navigation services (Amounts in nominal terms in '000 national currency)							
Loan #1	2020D	2021D	2020/2021D	2022D	2023D	2024D	
Description	Loan of 200M CHF by Postfinance						
Remaining balance (end of year)	200'000	-		-	-	-	
Interest rate %	2.23%	2.23%					
Interest amount	4'470	3'352	7'822				
Loan #2	2020D	2021D	2020/2021D	2022D	2023D	2024D	
Description	New loan from CH Government 250M CHF in 2021						
Remaining balance (end of year)	0	250'000		250'000	250'000	250'000	
Interest rate %		0.27%		0.27%	0.27%	0.27%	
Interest amount		169	169	675	675	675	
Loan #3	2020D	2021D	2020/2021D	2022D	2023D	2024D	
Description	New loan from CH Government 100M CHF in 2022						
Remaining balance (end of year)				100'000	100'000	100'000	
Interest rate %				0.27%	0.27%	0.27%	
Interest amount			-	270	270	270	
Other loans	2020D	2021D	2020/2021D	2022D	2023D	2024D	
Description							
Remaining balance (end of year)							
Average weighted interest rate %	-	-		-	-	-	
Interest amount			-				
Total loans	2020D	2021D	2020/2021D	2022D	2023D	2024D	
Total remaining balance	200'000	250'000		350'000	350'000	350'000	
Average weighted interest rate %	2.23%	1.41%		0.27%	0.27%	0.27%	
Interest amount	4'470	3'521	7'991	945	945	945	

SECTION 3.4.5: Restructuring costs

3.4.5 - Restructuring costs

3.4.5.1 Restructuring costs from previous reference periods to be recovered in RP3

3.4.5.2 Restructuring costs planned for RP3

Annexes of relevance to this section

ANNEX H. RESTRUCTURING MEASURES AND COSTS

3.4.5 - Restructuring costs - Skyguide

3.4.5.1 Restructuring costs from previous reference periods to be recovered in RP3

Restructuring costs from previous reference periods approved by the European Commission?	Select
If yes, number of charging zones concerned	Select

Restructuring costs from previous reference periods to be recovered in RP3 (nominal terms in '000 national currency)						
---	--	--	--	--	--	--

Restructuring costs recovery plan from previous RPs	2020D	2021D	2020/2021D	2022D	2023D	2024D
---	-------	-------	------------	-------	-------	-------

Additional comments

3.4.5.2 Restructuring costs planned for RP3

Restructuring costs foreseen for RP3?	Select
If yes, number of charging zones concerned	1

a) Overall description of the restructuring measures planned for RP3

--

b) Where applicable, information on how the restructuring measures make use of shared services, ATM data services and/or how the measures contribute to infrastructure rationalisation

--

b) Detailed information on the restructuring measures planned for RP3

Number of restructuring measures	Select					
	2020D	2021D	2020/2021D	2022D	2023D	2024D
Total restructuring costs by measures ('000 national currency)	-	-	-	-	-	-

c) Detailed information on the restructuring costs by nature by charging zone

Restructuring costs planned for RP3 by nature and by charging zone (nominal terms in '000 national currency)						
---	--	--	--	--	--	--

Click to select	2020D	2021D	2020/2021D	2022D	2023D	2024D
Staff			-			
of which, pension costs			-			
Other operating costs			-			
Depreciation			-			
Cost of capital			-			
Exceptional items			-			
Total restructuring costs	-	-	-	-	-	-

	2020D	2021D	2020/2021D	2022D	2023D	2024D
Total restructuring costs by charging zone ('000 national currency)	-	-	-	-	-	-

Additional comments

SECTION 3.4.6: Additional determined costs related to measures necessary to achieve the en route capacity targets

3.4.6 - Additional determined costs related to measures necessary to achieve the en route capacity targets

- a) Overall description of the measures necessary to achieve the en-route capacity targets for RP3, which induce additional costs
- b) Detailed information on the additional costs of measures necessary to achieve the capacity targets for RP3
- c) Detailed information on the additional costs of measures necessary to achieve the capacity targets for RP3 by nature by ANSP
- d) Demonstration that the deviation from the Union-wide targets is exclusively due to the additional determined costs related to measures necessary to achieve the performance targets in capacity

Annexes of relevance to this section

-

3.4.6 - Additional determined costs related to measures necessary to achieve the en route capacity targets

Additional costs of measures necessary to achieve the capacity targets for RP3?	No
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SECTION 3.5: ADDITIONAL KPIS / TARGETS

3.5 Additional KPIs / Targets

Annexes of relevance to this section

ANNEX J. OPTIONAL KPIS AND TARGETS

SECTION 3.6: DESCRIPTION OF KPAS INTERDEPENDENCIES AND TRADE-OFFS INCLUDING THE ASSUMPTIONS USED TO ASSESS THOSE TRADE-OFFS

3.6 - Description of KPAs interdependencies and trade-offs including the assumptions used to assess those trade-offs

- 3.6.1 - Interdependencies and trade-offs between safety and other KPAs
- 3.6.2 - Interdependencies and trade-offs between capacity and environment
- 3.6.3 - Interdependencies and trade-offs between cost-efficiency and capacity
- 3.6.4 - Other interdependencies and trade-offs

3.6 - Description of KPAs interdependencies and trade-offs including the assumptions used to assess those trade-offs

3.6.1 - Interdependencies and trade-offs between safety and other KPAs

a) Do the measures to reach the targets in the different KPAs require changes in the ANSP functional system that have safety implications? If yes, which mitigation measures are put in place?

Other KPAs may require changes directly impacting the ANSP functional system. Some changes have already been identified e.g. new procedures for greener routes or modernization of systems to comply with Common Project 1 (CP1) requirements (KPA environment), additional changes may be identified at a later stage.

Improving and maintaining a mature SMS (for example human resources / staff requirements) does also have an indirect impact on other KPAs (especially KPA cost efficiency). An important effort is required to train, maintain and operate experience feedback mechanisms (investigators, local and corporate safety committees, automatic loss of separation detection tools, improved runway alerting systems like ASMGCS) as well as functional system changes' analysis (development of safety barrier models etc.).

In all cases, changes are subject to Commission Implementing Regulation (EU) 2017/373 including its detailed requirements for changes to the functional system.

On the ANSP level, the current safety management processes requested by aforementioned Common Requirements do ensure that safety levels are not compromised when implementing airspace changes or changes to the ATM/ANS functional system. Changes to the ATM/ANS functional system could be required to reach the targets in the different KPAs. A mitigation layer exists as these changes will require approval from the Competent Authorities.

Furthermore, changes might also be necessary on the organisational level (i.e. safety training or safety culture initiatives).

On the Competent Authority level, the changes to the ANSP functional system are closely supervised. The precise changes' scope as well as interfaces are challenged during this process to ensure that all essential information is available to avoid any unacceptable safety implications right from the start of the change management procedure. The combination of changes due to measures to reach the targets in the different KPAs may not have any negative safety implication and overall safety should improve in line with the safety targets.

Furthermore, change management procedures and any change thereto require prior approval by the Competent Authority. These procedures are also inspected by EASA in the frame of the ongoing standardisation (STD) visits. Besides, the Competent Authority oversees the Safety Management requirements covered by Commission Implementing Regulation (EU) 2017/373 Part.ATM/ANS and Part.ATS specifically. That ensures a high standard

b) What are the main assumptions used to assess the interdependencies between safety and other KPAs?

Safety constitutes the highest priority and its attainment cannot be compromised by adverse interdependencies with other key performance areas. Thus, it is always part of any other KPA's consideration. The achievement of an acceptable level of safety has the highest priority. Safety will naturally be balanced with other strong requirements linked to environment, production pressure and finances. In all change paths undertaken, this balance is addressed and ensured to guarantee that this balance stays acceptable. Sometimes this leads to a non-acceptance of change proposals, based on one of these requirements. FABEC ANSPs have a safety target for their operations, that, if quantifiable, helps to establish a bottom line for safety.

On the Competent Authority level, the mitigation measures described in a) address the assumptions used to assess the interdependencies between safety and other KPAs.

c) What metrics, other than those indicators described in the Regulation, are you monitoring during RP3 to ensure targets in the KPAs of capacity, environment, and cost-efficiency are not degrading safety?

Skyguide together with other FABEC ANSPs have defined own (K)PIs to monitor their performance by means of other ad-hoc and flexible indicators than those described in Commission Implementing Regulation (EU) 2019/317. These are also crossing the KPAs to highlight the interface and interdependency between safety and other KPAs. FABEC ANSPs have a dashboard including safety data as well as lagging and leading indicators. For instance: there is an indicator that monitors the number of runway crossings at a certain crossing to ensure achieving the safety objective(s). These indicators could typically indicate production pressure. Similarly, there are parameters for the driving direction of runway inspections, separation on final, etc. Besides, there is a common FABEC dashboard which is kept up-to-date by the SPM working group reporting to the SC-SAF. A yearly aggregation of SMI, RI and EoSM results is done under the leadership of the DSNA and analysed both by SPM and SC-SAF. The publication on a website is foreseen in the near future.

Moreover, performance board meeting are held to monitor indicators relevant to their Integrated Safety Management System (Safety, Security, Quality, Environment). Indicators, issues and possible trade-offs are discussed, explained and sorted out by board members under the leadership of the ANSPs' management. On the Competent Authority level, the Safety Management System's components as described in Commission Implementing Regulation (EU) 2017/373, Part-ATS, ATS.OR.200 are subject to the ongoing oversight. These are: Safety policy and objectives, safety risk management, safety assurance and safety promotion.

d) Do targets allow trade-offs in operational decision making to managing resource shortfalls in order to preserve safety performance? Do targets restrict the release of staff for safety activities, such as training?

In terms of resources normally the operational staff is the bottleneck. Of course, the acceptable safety performance is priority 1, second is safety training, third is the change management of changes to the functional ATM system(s). No non-safety target will be able to restrict safety or safety activities. Operational safety trade-offs (day to day operations at unit level) are very different in nature and content to safety performance trade-offs at organisational level. Operational safety is the main driver but consequences of corporate decision making is also tracked and monitored. Specific processes are required to manage the operational HR's needs that must be maintained. Furthermore, budget issues are scrutinized because of civil service specific norms and rules.

e) Have the States reviewed the ANSP financial and personnel resources that are needed to support safe ATC service provision through safety promotion, safety improvement, safety assurance and safety risk management after changes introduced to achieve targets in other KPAs? Please, explain.

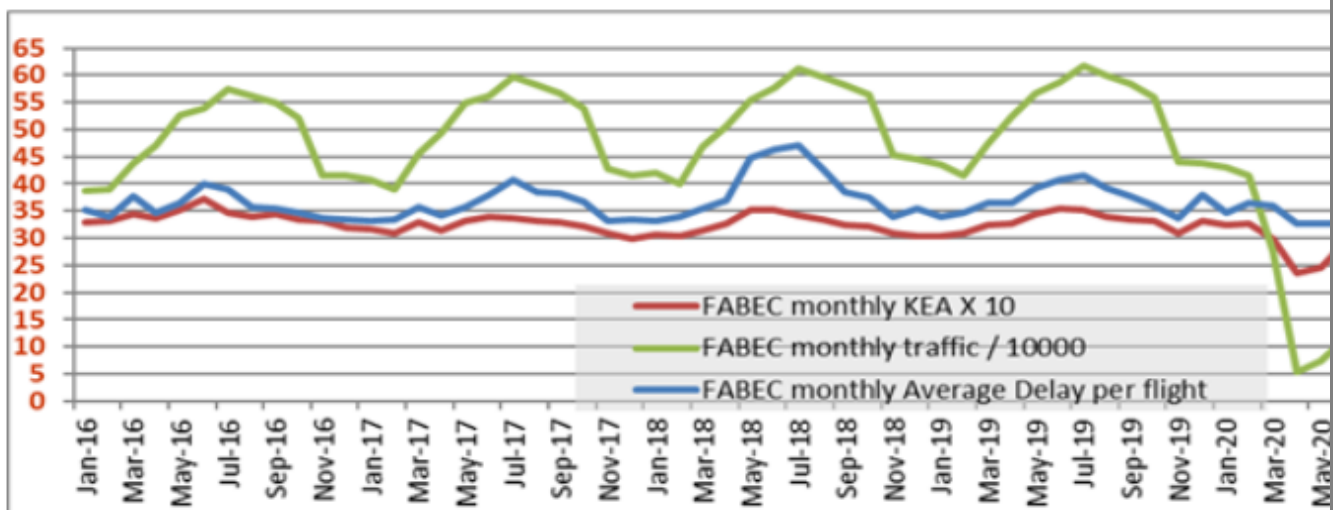
On the ANSP level, Skyguide has committed itself by declaring to have sufficient resources to perform the required safety activities in their day-to-day operations.

On the Competent Authority level, the Safety Management System’s components as described in Commission Implementing Regulation (EU) 2017/373, Part-ATS, ATS.OR.200 are subject to the ongoing oversight. These are: Safety policy and objectives, safety risk management, safety assurance and safety promotion.

Besides, the Management System requirements for ATS providers laid down in Commission Implementing Regulation (EU) 2017/373 Part.ATM/ANS and Part.PERS are strictly overseen by the Competent Authority. These include, but are not limited to, the following aspects: providing appropriate human and financial resources by the senior management, ensuring sufficient resources allocated to the compliance monitoring function and safety manager function, allocation of appropriate resources to achieve the planned safety performance by the safety review board, appropriate resources covered in the Stress Management and Fatigue Management policies. Apart from this, the Competent Authority supervises the annual plan, the resulting annual report and the (5 years) business plan to ensure that financial and personnel resources are dealt with proportionally. Furthermore, the mitigation measures described in a) address the assumptions used to assess the interdependencies between safety and other KPAs.

3.6.2 - Interdependencies and trade-offs between capacity and environment

KEA achievements are clearly influenced by traffic level and volatility (below an example at FABEC level: the evolution of the yearly profile is clearly influenced by seasonality and number of flights). ATCOs can offer more direct routing with low traffic and facing no capacity issues. Nevertheless, whenever a capacity issue is observed, delays increased significantly during RP2, deteriorating flight efficiency. The graph provided here under show the relationship between traffic and delay increases and KEA deterioration :



In addition NM summer initiatives introduced as from 2018 summer introduced massive rerouting which have impacted flight efficiency in order to mitigate capacity issues. As stakeholders put priority on reducing delays, this comes at a cost to environmental performance.

3.6.3 - Interdependencies and trade-offs between cost-efficiency and capacity

As it has been described in chapter 3.3.1, main capacity improvements during RP3 and following RP4 will be provided through measures such as:

- ATCO hiring plans;
- More flexible rostering and new working conditions for ATCO

All these measures have an impact on the costs bases of ANSP: on staff costs for additional recruitments or social agreements, on depreciation costs and costs of capital regarding new investments.

3.6.4 - Other interdependencies and trade-offs

Regarding Environment performance, capacity is not the only performance area influencing KEA achievement; many other factors, some of them out of the full scope of responsibility of ANSPs, can impact a good flight efficiency.

Among the main factors can be listed:

- Further implementation of FUA in the airspaces most affected by military activities is expected to bring a certain improvement of flight efficiency. However, the current ERNIP edition includes only a few project (out of around 300) focusing on FUA improvement. In addition, benefits from FUA implementation will only be significantly perceivable if the level of military activity/training will remain unchanged in the years to come. Increase of military activity has an impact on flight efficiency. Nevertheless, FABEC has set up a FUA harmonization and implementation initiative with its ANSPs through a permanent joint CIV-MIL task-force.

- Weather has been becoming more extreme and unpredictable; and so has its impact on air traffic (to reflect the real situation the TMA cylinder should be extended from 40NM to 200NM, therefore excluding the constraints set for arrival and departure from the calculation of en-route flight efficiency).

- Structure of the traffic: more overflights automatically means a better HFE.

- In contrast to the aim to minimise emissions, Airspace users are not obliged to fly the shortest route. One example of a reason why they might not do this is when longer but cheaper route is available due to different unit rates across Europe. Neither are they obliged to provide a reason for not flying the shortest route. In addition the new En Route charging calculation according to actual flown route could have an impact on Airspace users choice regarding routes, which will influence flight-efficiency in a magnitude which is still unknown.

- The NM and the ANSPs have optimized their operations with respect to rolling UUP and Procedure 3, bringing more flexibility and more options for AOs to fly shorter routes. Unfortunately, the major part of AOs are not able to seize these opportunities because they file their flight plans more than 6-7 hours in advance. As a consequence, when a TRA is released only 3 hours in advance, they are not able to update their flight plans. As long as the flown track follows the flight plan trajectory, this lack of AOs' reactivity has a negative impact on flight efficiency and potentially on capacity (for instance if several flight plans are filed in a region with a capacity bottleneck whereas if these flight plans were updated, the corresponding flights would be rerouted outside this area).

More in general, we note that the performance scheme does not cover all KPAs and indicators that are relevant to ANS performance, and indeed to air transport as a whole. Performance areas such as security, sustainability, business continuity, etc are also important, and activities undertaken to address performance in these areas can affect performance in relation to the KPIs and targets included in this plan, e.g. improving security will come at a cost. Similarly, within the KPAs of safety, capacity, environment and cost efficiency there are (both local and European) issues or priorities that require action even without target setting - compare the PIs included in the performance and charging regulation. As an example, it may be necessary to invest in detecting and/or

SECTION 4: CROSS-BORDER INITIATIVES AND SESAR IMPLEMENTATION

4.1 - Cross-border initiatives and synergies

4.1.1 - Planned or implemented cross-border initiatives at the level of ANSPs

4.1.2 - Investment synergies achieved at FAB level or through other cross-border initiatives

[4.2 - Deployment of SESAR Common Projects](#)

4.3 - Change management

Annexes of relevance to this section

ANNEX N. CROSS-BORDER INITIATIVES

4.1 - Cross-border initiatives and synergies

4.1.1 - Planned or implemented cross-border initiatives at the level of ANSPs

Number of cross-border initiatives	9
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Initiative #1	
Name	Dynamic Cross-border airspace shared by DSNA and skyguide
Description	Implementation of a French/Swiss cross-border airspace at Geneva Airport. Dependent on the RWY in use Swiss and French controllers operate a dynamically adapted cross border airspace.
Expected performance benefits	CEF+ ENV+

Initiative #2	
Name	The 14 ACCs of FABEC are internally benchmarked with the focus on sector level capacity
Description	The study explores factors influencing capacity provision at all 14 FABEC ACCs. In contrast to available benchmark reports this is done on a unusual detailed level and unusual large data set. Local supervisors, ATCOs and ATFM experts along with FABEC performance experts analyse the operational environment, the technical environment as well as staff planning routines to provide a deeper understanding of performance differences and to identify and exchange best practices.
Expected performance benefits	CAP+

Initiative #3	
Name	Harmonisation of regulator framework for unmanned aircraft systems
Description	Initiative to harmonise separation standards to unmanned aircraft systems (UAS/ drones). In the framework of the initiative any kind of factors are analysed that may impair safety and operational performance. The objective is to avoid procedure diversification within FABEC and prepare a consolidated regulatory approach.
Expected performance benefits	CEF+

Initiative #4	
Name	RAD Optimisation Workshops
Description	The Route Availability Document (RAD) is a common reference document containing the policies, procedures and description for route and traffic orientation. The RAD is part of the European Route Network Improvement Plan (ERNIP). It also includes route network and free route airspace utilisation rules and availability. The RAD is also an Air Traffic Flow and Capacity Management (ATFCM) tool that is designed as a sole-source flight-planning document, which integrates both structural and ATFCM requirements, geographically and vertically. FABEC's CRM group organises regular meetings to optimise and harmonise the documents. Airspace users, NM representatives and FABEC's RAD coordinators optimise and harmonise RAD restrictions and increase understanding on users side. During the second half of 2021 a 'Dynamic RAD Progress' trial will take place with, amongst others, DSNA and Skyguide.
Expected performance benefits	CAP+ ENV+

Initiative #5	
Name	Joint States/ ANSPs FUA Task Force
Description	The Task Force of State and ANSP experts, referred to as the joint FUA Task Force (JTF), supports the work of the Airspace Committee in developing an harmonised application of the ASM/FUA concepts within FABEC and in providing guidance to FABEC ANSPs on an harmonised application of FUA Level 2 and Level 3. The tool sub-group is focussing on the usage of available tools. The JTF is established with the general objectives of providing ASM/ FUA expertise to the AC and performing tasks for the AC in the area of ASM/FUA, with the end goal to develop proposals for the harmonisation of the application of ASM/ FUA concept at all three levels, in order to enhance airspace utilisation and contribute to performance and network improvements in particular in the FABEC core area and in cross-border areas of the FABEC airspace.
Expected performance benefits	CAP+ ENV+

Initiative #6	
Name	FABEC/Network Manager Airspace Design Coordination Group (FABEC/NM ADCG)
Description	For the mid-term, the NM Action Plan aims to tackle existing bottlenecks, address future capacity, and flight efficiency challenges, with a renewed airspace structure, in particular for the FABEC. The Airspace Design Coordination Group (ADCG) has been set up with the objective to make the link between the FABEC States and ANSPs bodies/structures (AC, SC OPS and ODG) and the NM RNDSG in charge of conducting the airspace study, on a seamless approach basis regardless of national borders. The new airspace structure will address current and future structural airspace bottlenecks and will include the new airspace requirements, which had to been declared by the States no later than May 2019. The implementation plan was postponed several times due to the COVID crisis but all potential projects are now included in the 'Airspace Catalogue', as annex to ERNIP part 2, even though with a status 'proposed'.

Expected performance benefits	CAP+ ENV+
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Initiative #7	
Name	New German-Swiss interface
Description	a set of permanent new procedures will improve the interface between Germany and Switzerland. Airspace users can remain at fuel-efficient cruising heights for longer, reach higher altitudes earlier across international boundaries and have more shortened routes available.
Expected performance benefits	CAP+ ENV+

Initiative #8	
Name	Extended Arrival Management (XMAN)
Description	With the need to focus on activities which are directly answering current operational needs and the heavy constraints which the still ongoing COVID-19 crisis imposes on all ANSPs, FABEC ANSPs were forced to re-prioritise their FABEC XMAN Activities. As it remains an important initiative for when traffic recovers, most ANSPs continue with implementation as planned or with minor postponement. The maximum benefit for Airlines is therefore still expected to be substantial.
Expected performance benefits	CAP+ ENV+ CEF+

Initiative #9	
Name	Free Route Airspace (FRA)
Description	The project work on Direct Routings and Free Route is in a rolling status with a yearly update of the implementation report and implementation plan. The four involved FABEC ANSPs (MUAC, DFS, DSN and Skyguide) will have FRA 24h by end 2025. Additional FRA improvements are also planned with several cross border operations for e.g. Karlsruhe/Munich/Zurich and Geneva/Zurich.
Expected performance benefits	CAP+ ENV+

Additional comments	
<p>FABEC States are focusing their work in order to ensure that FABEC airspace management aims at supporting both the performance of operations within FABEC airspace, in particular defined RP3 targets, and the Military Mission Effectiveness achievement.</p> <p>The functional airspace block worked as facilitator for not just the abovementioned larger undertakings but also to many more smaller initiatives. Many initiatives are born when the CEOs, OPS directors, technical directors, the Head of ACC group or performance experts plan jointly future performance in their regular meetings. Studies, tests and deployment then, usually starts with one or two collaborating ANSPs and if successful are joined by the FABEC partners. FABEC offers a more comprehensive picture on Operational planning on this site: https://www.fabec.eu/opmap/</p>	

4.1.2 - Investment synergies achieved at FAB level or through other cross-border initiatives

Details of synergies in terms of common infrastructure and common procurement	
<p>Generally speaking, it has to be noted that the financial impact of such common procurement or common infrastructure is hard to determine as soon as an alliance starts to act.</p> <p>Practically, on a yearly basis, Skyguide as a member of the FABEC SC TECH SYS discusses its investment plans for CNS equipment with FABEC partners in order to investigate possibilities for a common procurement. This already resulted in cooperation between FABEC partners on many technical projects and investment synergies are achieved.</p> <p>Such technical synergies are listed in chapter 4.1.1 above.</p>	

4.2.2 - Common Project One (CP1)

CP1 ATM Functionality (CP1-AF) / Sub functionality (CP1-s-AF)	Recent and expected progress
CP1-AF1 - Extended AMAN and Integrated AMAN/DMAN in High-Density TMAs	
CP1-s-AF1.1 AMAN extended to en-route airspace	
Zurich Kloten	<p>-MP Obj ATC07.1 AMAN Tools and Procedures - An Arrival management tool is implemented in Zurich, called CALM.</p> <p>-MP Obj ATC15.1 Information Exchange with En-route in Support of AMAN - AMAN tools and exchange mechanisms and corresponding procedures have been established in Switzerland for years. Time To Lose (TTL) information is provided in LSZH operational environment (APP and corresponding upper sectors). An XMAN implementation project (including an OPS trial) is on-going which will allow an extension of the ER operational coordination with adjacent centers. The current AMAN in LSZH (CALM) will be replaced (AMAN CH Project 2018-2020)</p> <p>Changes to the existing framework will be treated according to standard oversight procedures (EC REG 1034/2011). With the new AMAN, the XMAN Horizon will be increased to the required 200 NM. The integration of GVA and Milano is planned to be completed by 2021</p> <p>-MP Obj ATC15.2 - Arrival Management Extended to En-route Airspace) - An AMAN is implemented in Zurich. In the frame of the FABEC activities an XMAN project was launched in 2015. Initial step is to receive XMAN information (Munich) from DFS and integrate them in Zurich ACC for operational use by ACC ATCOs. Also with this step, XMAN information is sent to Munich, Langen & Reims for operational use by ACC ATCOs of these adjacent centers. The current percentage of implementation is 49% and the expected completion date is December 2023. (source LSSIP CH 2020)</p>
Geneva	<p>-MP Obj ATC07.1 The deployment project of an AMAN in LSGG operational environment has started in 2019 and will finish in 2022 (source LSSIP CH 2020)</p>
CP1-s-AF1.2 AMAN/DMAN Integration	
Zurich Kloten	<p>-MP Obj NAV03.2 RNP 1 in TMA Operations and MP Obj NAV10 RNP Approach Procedures to instrument RWY : The initial version of the PBN Transition Plan was published by Skyguide in July 2020 and undergo wide stakeholders consultation in Sept-Nov 2020. Version 1.0 of the PBN Transition plan was approved by FOCA in Dec 2020 with a focus on the 2020 requirements and the overall approach. Further approvals will be issued if/when the plan evolves towards 2024 and 2030 deadlines. (source LSSIP CH 2020)</p>
Geneva	
CP1-AF2 - Airport Integration and Throughput	
CP1-s-AF2.1 DMAN synchronised with predeparture sequencing	
Zurich Kloten	<p>-MP Obj AOP05 Airport CDM - Airport CDM Applications Level 1 to 3 implemented since 2013 and audited by EUROCONTROL CDM-Team.</p> <p>-MP Obj AOP12 Improve Runway and Airfield Safety with Conflicting ATC Clearances (CATC) Functionality implemented for the Runway part through the Advanced Runway Safety Improvement (ARSI) project (source LSSIP CH 2020)</p>
Geneva	<p>-MP Obj AOP5 Airport CDM is completed (source LSSIP CH 2020)</p>
CP1-s-AF2.2.1 Initial airport operations plan (iAOP)	
Zurich Kloten	<p>MP Obj AOP11 : Capacity information are made available and A-CDM processes partly answer the requirements. The Crystal TWR / APP tool provides traffic and complexity predictions to the FMP and ACC supervisor (source LSSIP CH 2020)</p>
Geneva	<p>MP Obj AOP11 : Capacity information are made available by Skyguide for future processing by Geneva Airport (source LSSIP CH 2020)</p>
CP1-s-AF2.2.2 Airport operations plan (AOP)	
Zurich Kloten	
Geneva	
CP1-s-AF2.3 Airport safety nets	

Zurich Kloten	-MP Obj AOP12 Improve Runway and Airfield Safety with Conflicting ATC Clearances (CATC) Detection and Conformance Monitoring Alerts for Controllers (CMAC) - Functionality implemented for the Runway part through the Advanced Runway Safety Improvement (ARSI) project (source LSSIP CH 2020)
Geneva	
CP1-AF3 - Flexible Airspace Management and Free Route Airspace	
CP1-s-AF3.1 Airspace management and advanced flexible use of airspace	- MP Obj AOM19.1 ASM Support Tools to Support Advanced FUA (AFUA) - LARA tool is in place and the B2B SW Release 3.0 is implemented since 2016. - MP Obj AOM19.2 ASM Management of Real-Time Airspace Data - A study is on-going to identify
CP1-s-AF3.2 Free route airspace	- MP Obj AOM21.2 Free Route Airspace - The on-going FRA Switzerland project aims to implement FRA in the Swiss Area of Responsibility in 2022 The current percentage of implementation is 41%. (source LSSIP CH CH 2020)
CP1-AF4 - Network Collaborative Management	
CP1-s-AF4.1 Enhanced short-term ATFCM measures	-MP Obj FCM04.2 Short Term ATFCM Measures (STAM) - Phase 2 - STAM - phase 2 is implemented between Geneva and Zürich ACCs. (source LSSIP CH 2020)
CP1-s-AF4.2 Collaborative NOP	- MP Obj FCM05 Interactive Rolling NOP - LARA B2B V3 tool is in use and was implemented in 2016. Airport slots are exchanged with Slot Coordination Switzerland, which provides the information to NM via the EUACA database (MoC with Eurocontrol).
CP1-s-AF4.3 Automated support for traffic complexity assessment	- MP Obj FCM06 Traffic Complexity Assessment - Skyguide is using CRYSTAL, a traffic complexity and prediction tool which allows supervisors to continuously monitor sector demand and evaluate traffic complexity (by applying predefined complexity metrics) according to a predetermined qualitative
CP1-s-AF4.4 AOP/NOP integration	
CP1-AF5 - SWIM	
CP1-s-AF5.1 Common infrastructure components	- MP Obj INF08.1 Information Exchanges using the SWIM Yellow TI Profile - Deployment of SWIM Yellow Profile is ongoing: Several proofs of concept were developed or are planned, leading to implementation projects.
CP1-s-AF5.2 SWIM yellow profile technical infrastructure and specifications	- MP Obj INF08.1 Information Exchanges using the SWIM Yellow TI Profile - Deployment of SWIM Yellow Profile is ongoing: Several proofs of concept were developed or are planned, leading to implementation projects.
CP1-s-AF5.3 Aeronautical information exchange	- MP Obj INF08.1 Information Exchanges using the SWIM Yellow TI Profile - Deployment of SWIM Yellow Profile is ongoing: Several proofs of concept were developed or are planned, leading to implementation projects.
CP1-s-AF5.4 Meteorological information exchange	- MP Obj INF08.1 Information Exchanges using the SWIM Yellow TI Profile - Deployment of SWIM Yellow Profile is ongoing: Several proofs of concept were developed or are planned, leading to implementation projects.
CP1-s-AF5.5 Cooperative network information exchange	- MP Obj INF08.1 Information Exchanges using the SWIM Yellow TI Profile - Deployment of SWIM Yellow Profile is ongoing: Several proofs of concept were developed or are planned, leading to implementation projects.
CP1-s-AF5.6 Flight information exchange (yellow profile)	- MP Obj INF08.1 Information Exchanges using the SWIM Yellow TI Profile - Deployment of SWIM Yellow Profile is ongoing: Several proofs of concept were developed or are planned, leading to implementation projects.
CP1-AF6 - Initial Trajectory Information Sharing	
CP1-s-AF6.1 Initial air-ground trajectory information sharing	- MP Obj ITY-AGDL Initial ATC Air-Ground Data Link Services - The AGDL CPDLC is in operation in both Geneva and Zurich ACC (above FL245) since end 2012 (Geneva) and beginning 2013 (Zurich). (source LSSIP CH 2020)
CP1-s-AF6.2 Network Manager trajectory information enhancement	
CP1-s-AF6.3 Initial trajectory information sharing ground distribution	

4.3 - Change management

Change management practices and transition plans for the entry into service of major airspace changes or for ATM system improvements, aimed at minimising any negative impact on the network performance

Skyguide change management process

Building on the learning developed during the Virtual Center Programme, Skyguide now aims for increased business agility. Skyguide applies an innovative and flexible change management framework, applying Lean Portfolio management techniques for the selection and approval of changes, and a hybrid approach to individual change delivery. This includes traditional waterfall methodologies for certain programmes and projects (CNS, Buildings and Infrastructure domains) and a scaled agile method for epics, typically involving complex business requirements with associated iterative software development solutions (Virtual Centre and others). Skyguide's change management framework sits aside and integrates with various neighbouring processes, with especial focus on safety, but also strategy, finance and compliance.

SECTION 5: TRAFFIC RISK SHARING ARRANGEMENTS AND INCENTIVE SCHEMES

5.1 - Traffic risk sharing

- 5.1.1 Traffic risk sharing - En route charging zones
- 5.1.2 Traffic risk sharing - Terminal charging zones

5.2 - Capacity incentive schemes

- 5.2.1 - Capacity incentive scheme - Enroute
 - 5.2.1.1 Parameters at FAB level for the calculation of financial advantages or disadvantages - Enroute
 - 5.2.1.2 Rationale and justification - Enroute
 - 5.2.1.3 Parameters for the calculation of financial advantages or disadvantages - Enroute (skeyes)
 - 5.2.1.4 Parameters for the calculation of financial advantages or disadvantages - Enroute (DSNA)
 - 5.2.1.5 Parameters for the calculation of financial advantages or disadvantages - Enroute (DFS)
 - 5.2.1.6 Parameters for the calculation of financial advantages or disadvantages - Enroute (LVNL)
 - 5.2.1.7 Parameters for the calculation of financial advantages or disadvantages - Enroute (Skyguide)
 - 5.2.1.8 Parameters for the calculation of financial advantages or disadvantages - Enroute (MUAC)

- 5.2.2 - Capacity incentive scheme - Terminal
 - 5.2.2.1 Belgium
 - 5.2.2.2 France
 - 5.2.2.3 Germany
 - 5.2.2.4 Luxembourg
 - 5.2.2.5 Netherlands
 - 5.2.2.6 Switzerland

5.3 - Optional incentives

Annexes of relevance to this section

- ANNEX G. PARAMETERS FOR THE TRAFFIC RISK SHARING
- ANNEX I. PARAMETERS FOR THE MANDATORY CAPACITY INCENTIVES
- ANNEX K. OPTIONAL INCENTIVE SCHEMES

5.1 - Traffic risk sharing

5.1.1 Traffic risk sharing - En route charging zones

Switzerland			Traffic risk-sharing parameters adapted?		no	
			Service units lower than plan		Service units higher than plan	
	Dead band	Risk sharing band	% loss to be recovered	Max. charged if SUs 10% < plan	% additional revenue returned	Min. returned if SUs 10% > plan
Standard parameters	±2.00%	±10.0%	70.0%	5.6%	70.0%	5.6%

5.1.2 Traffic risk sharing - Terminal charging zones

Switzerland - TCZ			Traffic risk-sharing parameters adapted?		no	
			Service units lower than plan		Service units higher than plan	
	Dead band	Risk sharing band	% loss to be recovered	Max. charged if SUs 10% < plan	% additional revenue returned	Min. returned if SUs 10% > plan
Standard parameters	±2.00%	±10.0%	70.0%	5.6%	70.0%	5.6%

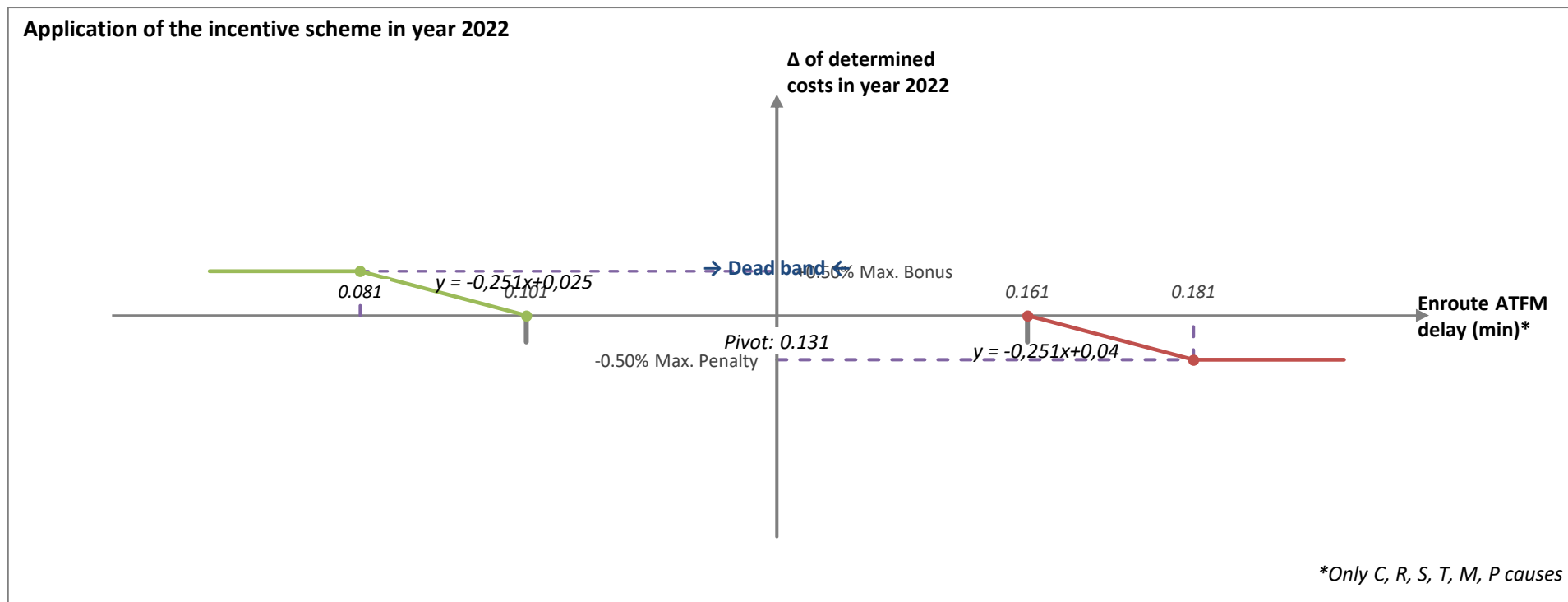


5.2.1.1 Parameters for the calculation of financial advantages or disadvantages - Enroute

Skyguide	Expressed in	Value
Dead band Δ	%	±23.0%
Max bonus (≤2%)*	% of DC	0.50%
Max penalty (≥ Max bonus)*	% of DC	0.50%
The pivot values for RP3 are*	modulated	CRSTMP

* These values are defined at FAB level and apply to all ANSPs and for the whole duration of RP3

	2020	2021	2022	2023	2024
<i>Ref. values (mins of ATFM delay/flight) as per NM letter of 1.6.2021</i>			0.19	0.19	0.19
Alert threshold (Δ Ref. value in fraction of min)			±0.050	±0.050	±0.050
Performance Plan targets (mins of ATFM delay per flight)			0.19	0.19	0.19
Pivot values for RP3 (mins of ATFM delay per flight)**			0.13	0.13	0.13
Delay ranges for the calculation of financial advantages / disadvantages	Dead band range		[0,101-0,161]	[0,101-0,161]	[0,101-0,161]
	Bonus sliding range*		[0,081-0,101]	[0,081-0,101]	[0,081-0,101]
	Penalty sliding range*		[0,161-0,181]	[0,161-0,181]	[0,161-0,181]



Indicate which of the principles below will be applied for the modulation of the pivot values for the whole RP3:	
a) In order to enable significant and unforeseen changes in traffic to be taken into account:	
a.1) The pivot value for year n IS the reference value from the November release of year n-1 of the NOP.	No
a.2) The pivot value for year n is informed by the November release of the year n-1 of the NOP and calculated according to the following principles and	No
b) The scope of the incentives is limited to delay causes related to ATC capacity, ATC routing, ATC staffing, ATC equipment, airspace management and special events with the codes C, R, S, T, M and P of the ATFCM user manual. If yes, provide below a justification for this decision and an explanation of how the pivot values are calculated.	Yes

The national incentive scheme for the en route ATFM delay per flight KPI has been established in accordance with the requirements of Implementing Regulation (EU) 2019/317 of 11 February 2019 laying down a performance and charging scheme in the single European sky as well as Implementing Regulation (EU) 2020/1627 of 3 November 2020 on exceptional measures for the third reference period (2020-2024) of the single European sky performance and charging scheme due to the COVID-19 pandemic. The national incentive scheme is based on the en route ATFM delay causes related to the codes C, R, S, T, M and P of the ATFCM user manual. The focus was already on these delay causes in RP2 because ANSPs are supposed to be responsible for them and can influence them; though the reason for respective ATFM-delay might be considered irrelevant by the airspace users, the State is convinced that rewarding or penalising ANSPs for performance that is outside their influence does not incentivise good ANSP performance and might - in case of e.g. good weather - lead to windfall bonuses for ANSPs. In order to assure the correct application of the ATFM-coding, the State continues to apply a post-operation procedure, checking the correct application yearly on a sample basis. Considering the ratio of en route ATFM delay CRSTMP causes, the historical data of the previous reference period (RP2 - 2014-2019) have been taken into consideration (average CRSTMP-share of RP2 has been used).

** Refer to Annex I, if necessary.

Justification for the set up of the incentive scheme

According to article 11 paragraph 3 lit. a of the Implementing Regulation (EU) 2019/317, the incentive scheme on capacity shall be proportionate to the level of ATFM delay and consist of financial advantages and financial disadvantages having material impact on revenue at risk.

The Swiss scheme was set up taking into account local circumstances with known bottlenecks as well as the current pandemic in general, where a major goal for all stakeholders of the SES is to recover in a still volatile environment, with peaks overshooting pre-2020 levels while the average stays still below.

Switzerland, in line with the incentive scheme applied at FABEC level in RP2, decided to apply a symmetric incentive scheme, with a maximum bonus or penalty set at 0.5%. In addition, Switzerland decided to apply a large dead band.

During the preparation, Switzerland, through FABEC, had discussions with both the Performance Review Body and PRB support on the definition of materiality of the impact of such an incentive scheme. It was outlined by PRB support that there was neither a mathematical calculation nor a rationale provided to determine a value at which a material impact can be assured. In addition, PRB support informed that in 2019 there were € 9.9 Mio bonuses and -€ 9.8 Mio penalties calculated for SES. In fact, -€ 7.2 Mio of that SES penalties did apply to FABEC ANSPs with an incentive scheme with max. bonus/penalty value of 0.5%.

In our view, a symmetric scheme provides for the best incentive in a situation where the precise traffic forecast is not clear and where particular flexibility is needed on the side of the ANSPs. In the same sense, the large dead band is set to avoid on the hand windfall bonuses in case traffic is lower than expected - but also to provide for a considerable margin in case traffic increases faster than expected.

The level of bonus and malus is considered as material for Switzerland, in particular in case of the present uncertainties. This uncertainty in regards of traffic is once again highlighted by the fact of a lately published (15 October 2021) updated traffic forecast with considerably higher traffic figures than provided by the May 2021 STATFOR forecast. With traffic picking up and thus putting pressure on the bottleneck, Switzerland considers the capacity targets as very ambitious - thus expecting strong efforts (including expensive overtime) in order to avoid missing the targets and thus entering into the malus zone. Taking into account the financial impact of the pandemic on ANSPs including tight cost planning for the upcoming years, a 0,5% bonus or penalty is indeed considered to a very material impact on their financial situation.

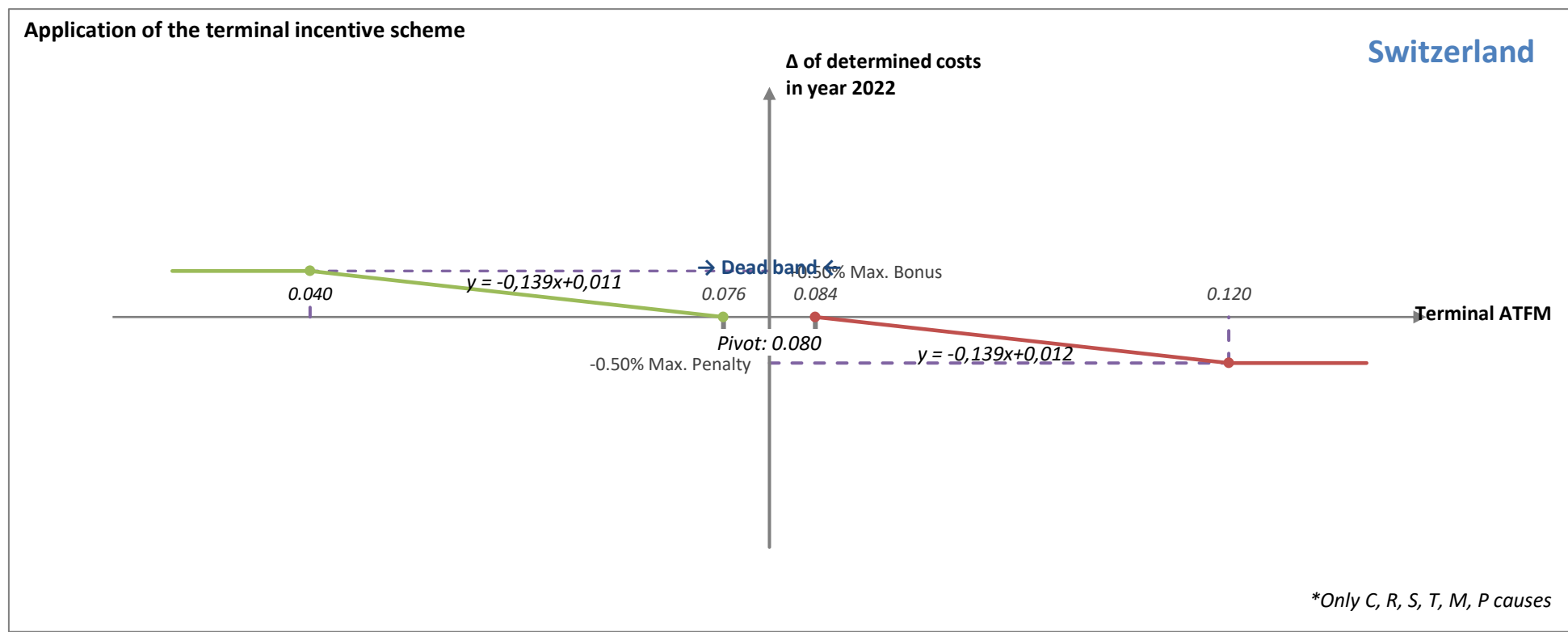
5.2.2.6 Switzerland: Capacity incentive scheme - Terminal

a) Parameters for the calculation of financial advantages or disadvantages - Terminal

Switzerland - Terminal	Expressed in	Value
Dead band Δ	%	±5.0%
Bonus/penalty range (% of pivot value)	%	±50%
Max bonus	% of DC	0.50%
Max penalty	% of DC	0.50%
The pivot values for RP3 are	modulated	CRSTMP

	2020	2021	2022	2023	2024
Performance Plan targets (mins of ATFM delay per flight)			1.15	1.28	1.42
Bonus/penalty range Δ (in fraction of min)			±0.040	±0.045	±0.045
Pivot values for RP3 (mins of ATFM delay per flight)*			0.08	0.09	0.09
Financial advantages / disadvantages	Dead band range		[0,076-0,084]	[0,086-0,095]	[0,086-0,095]
	Bonus sliding range		[0,04-0,076]	[0,045-0,086]	[0,045-0,086]
	Penalty sliding range		[0,084-0,12]	[0,095-0,135]	[0,095-0,135]

* When modulation applies, these figures are only indicative as they will be updated annually on the basis of the methodology described in 5.2.1.2.a below. The pivot values for year n have to be notified to the EC by 1 January n.



b) Rationale and justification - Terminal

Explain how the bonus and penalties are going to be apportioned between the different terminal charging zones and ANSPs providing services in each of them**
There is only one Terminal Charging Zone included in the Performance Plan for Switzerland and skyguide is the unique ANSP.

** Refer to Annex I, if necessary.

Indicate which of the principles below will be applied for the modulation of the pivot values for the whole RP3:	
a) The pivot value for year n is modulated in order to enable significant and unforeseen changes in traffic to be taken into account and is based on the principles explained below:**	No
b) The scope of the incentives is limited to delay causes related to ATC capacity, ATC routing, ATC staffing, ATC equipment, airspace management and special events with the codes C, R, S, T, M and P of the ATFCM user manual. If yes, provide below a justification for this decision and an explanation of how the pivot values are calculated.	Yes
ANSPs can only be held accountable for delay attributed for CRSTMP causes. Therefore, the incentive scheme should be only applicable to these causes. However in order to mitigate the limitation of this scope, a trigger is set at 1.94 min / arrival movement. This means that a bonus is computed only if the total ATFM arrival delay per arrival movement is below 1.94 min/arrival movement. And a penalty is computed only if the total ATFM arrival delay per arrival movement is above 1.94 min/arrival movement.	

** Refer to Annex I, if necessary.

SECTION 6: IMPLEMENTATION OF THE PERFORMANCE PLAN

6.1 Monitoring of the implementation plan

6.2 Non-compliance with targets during the reference period

6 - IMPLEMENTATION OF THE PERFORMANCE PLAN

6.1 Monitoring of the implementation plan

Description of the processes put in place by the NSAs to monitor the implementation of the Performance Plan including the yearly monitoring of all KPIs and PIs defined in Annex I of the Regulation and a description of the data sources

Monitoring processes exist at FABEC and national level, and vary between different KPAs.

Capacity and environment performance is reported by the FABEC ANSPs' Performance Management Group (PMG) on a monthly basis. Reports are presented to the States' Financial and Performance Committee (FPC) which meets approximately 6 times per year.

Monitoring of the safety KPI is limited to the annual monitoring process described below. Monitoring of PIs is done at national level.

Monitoring of cost efficiency and investments is performed at national level.

For the annual monitoring process, FABEC will continue to use the process applied during RP2. The process is performed under the responsibility of the FPC, with FPC members nominated as Champions for the development of the individual parts of the monitoring report. Champions coordinate with:

- the FABEC ANSPs' Performance Management Group (PMG) on gathering operational performance information (capacity, environment)
- the FABEC States' Safety Performance and Risk Coordination (SPRC) Task Force and the ANSPs' focal points for EoSM for gathering and verifying safety performance data; If necessary, the ANSPs' Standing Committee on Safety will be consulted
- national NSAs for information on costs and investments

In all areas, identification of the main drivers for performance and in particular for deviations from planned performance will be part of the monitoring process. Input of all Champions is consolidated into a single monitoring report, which is then reviewed, updated and finalised during a dedicated drafting session.

6.2 Non-compliance with targets during the reference period

Description of the processes put in place and measures to be applied by the NSAs to address the situation where targets are not reached during the reference period

Non-compliance with cost efficiency targets is dealt with at national level.

Germany, as part of the yearly reporting process, is thoroughly investigating and reporting on deviations from the values set in the performance plan. In that way, Germany is committed to both develop and publish an understanding especially where either internal and external effects caused higher costs in certain areas, challenging targets or not. In addition, the German NSA is closely monitoring the internal management reporting of both DFS and MUAC in order to have an early insight into cost changes with frequent exchanges with both the working and management level if necessary. Furthermore, the NSA is well aware of the opportunity and willing to use the instrument of audits in case it sees that targets are not reached or the financial strength is jeopardised.

France addresses the compliance with cost efficiency targets through two processes :

- the annual NSA oversight of the ANSPs compliance with Reg (EU) 317/2019 as amended includes cost-efficiency deviations, revision and adjustments. Potential non-compliances would lead to raising findings managed through a formal corrective action plan implementation and follow-up assessment.
- the annual monitoring assesses and reports on cost-efficiency aspects as well as investment monitoring.

For the Netherlands, compliance with cost efficiency targets is monitored through the regular annual reports and budget planning processes, as well as through six-monthly updates on cost developments.

For Switzerland, compliance with cost efficiency targets is monitored through the annual report and budget planning process, as well as through the annual monitoring report on cost-efficiency and investments

In Belgium, the regular budget planning and annual reporting processes are used to monitor and verify the compliance with cost efficiency targets. Equally, the annual monitoring report on investments and cost-efficiency is used for this process.

Union-wide safety targets for the end of RP3 i.e. 2024 given by Commission implementing decision (EU) 2021/891 of 2 June 2021 are always born in mind by NSAs through the yearly monitoring process. The ANSPs individual targets for 2021-2023 are checked every year within the NSA assessment of the ANSPs self-assessment. Subject matter experts gather data during January each year and will counteract instantly in case an intermediate target is not reached and thus a non-compliance identified. For that purpose close cooperation between NSAs (SPRC TF / NSAC) and ANSPs (SC-SAF) has been established.

For capacity and environment performance, FABEC has developed the 'OPS performance process' which requires ANSPs to propose measures to improve performance if performance is not in line with targets. Remedial measures are initially proposed to the FPC, which will assess the proposals and provide advice to the FABEC Council to either accept the proposed remedial measures or request further improvements.