

Performance Plan

Sweden

Third Reference Period (2020-2024)

Status: Draft performance plan containing revised RP3 targets (Art. 3 of IR 2020/1627 & Art. 12 of IR 2019/317)

Date of issue 4,48E+04

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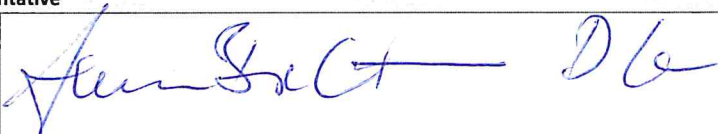
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** Only as per Article 15(6) of the Regulation*

Signatories

Performance plan details	
State name	Sweden
Status of the Performance Plan	Draft performance plan containing revised RP3 targets (Art. 3 of IR 2020/1627 & Art. 12 of IR 2019/317)
Date of issue	2022-09-23
Date of adoption of Draft Performance Plan	2022-09-23
Date of adoption of Final Performance Plan	2022-12-16

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	
Jonas Bjelfvenstam	

Additional comments	
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Document change record		
Version	Date	Reason for change
V1.52_2021_17th of NOV	2021-11-17	New traffic forecast
V1.52_2022_31_Jan	2022-01-31	Safety
V1.52_2022_07_13	2022-07-12	Comission implementing decision
V1.52_2022_07_28	2022-07-28	Completeness check
V1. 52_2022_09_14	2022-09-14	Completeness check
V1. 52_2022_09_23	2022-09-23	Completeness check

SECTION 1: INTRODUCTION

1.1 The situation

- [1.1.1 - List of ANSPs and geographical coverage of services](#)
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1 - INTRODUCTION

1.1 - The situation

NSA(s) responsible for drawing up the Performance Plan	Transportstyrelsen, Swedish Transport Agency
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1.1.1 - List of ANSPs and geographical coverage and services

Number of ANSPs	6	
ANSP name	Services	Geographical scope
LFV	ATS	SE FIR, Stockholm Terminal
SDATS	ATS	Approach
ACR	ATS	Approach
SMHI	MET	SE FIR
ARV - Arvidsjaur	ATS	Approach
Swedavia	CNS	SE FIR, Stockholm Terminal

Cross-border arrangements for the provision of ANS services

Number CB arrangements where ANSPs provide services in an other State	7
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ANSPs providing services in the FIR of another State	
ANSP Name	Description and scope of the cross-border arrangement
LFV	Naviar, Denmark. Exchange of services in each other respective FIR, described in the picture on the right hand side.
LFV	Avinor, Norway. Described in the picture on the right hand side.
LFV	ANS Finland, Finland. Described in the picture on the right hand side.
LFV	PANSA, Poland. Described in the picture on the right hand side.
LFV	DFS, Germany. Described in the picture on the right hand side.
SMHI, MET	Synergies in cross border TAF production, Low Level Forecast production, contingency back-up, common tools, common MET
SMHI, MET	Finland SWC (significant weather chart)

Number CB arrangements where ANSPs from another State provide services in the State	4
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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
Naviar, Denmark	Described in the picture on the right hand side.
ANS Finland, Finland	Described in the picture on the right hand side.
DK MET	TAF in southern parts of SE FIR
FIN MET	SWC (significant weather chart)

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
Swedish Maritime Administration	Search and Rescue	Provision of Search and Rescue facilities for the civil air traffic in the SE FIR

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 1	Sweden
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Terminal	Number of terminal charging zones	1
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Terminal charging zone 1	Sweden - TCZ
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1.1.4 - Other general information relevant to the plan

A great part of the Swedish airports provides en route services due to the construction of large TMA:s that are far and between, hence making it cost-efficient to also allow for provision of en route/approach services. This is developed further in Annex M.

Air Navigation Services (ANS) at several airports are provided under market conditions in Sweden since 2010. That is, the airport operator is free to choose provider, or to self-supply. As a consequence, the Air Navigation Service Provider (ANSP) at a specific airport can be changed during a reference period. This can impact the system for route charges as some of the costs for ANS provided at airports are allocated to the en route charging zone. The Swedish Transport Agency (STA), in its role as NSA, needs to ensure that each party in Sweden contributes towards the objective for cost-efficiency. To ensure this, the STA has decided on a breakdown of the Swedish cost efficiency objective for each party, i.e. for Luftfartsverket (LFV), ACR Aviation Capacity Resources AB, Saab Digital Air Traffic Solutions AB, Arvidsjaur Airport, Swedish Maritime Administration, Swedish Meteorological and Hydrological Institute (SMHI) and the STA. When an airport changes the ANSP, the NSA transfers the corresponding determined costs between the relevant ANSPs. Therefore, the amounts for determined costs at ANSP level can diverge from what was communicated as part of the performance plan, but the overall amount for Sweden will not change.

The airports costs for CNS infrastructure related to approach are included in the table for each ANSP designated at each specific airport. Hence the costs and calculations in table 1 and table 2 for both LFV, SDATS, Arvidsjaur and ACR also includes airport costs for CNS infrastructure. For example LFV includes Swedavia airports from being the ATC provider at Swedavia's airports. This leads to for example that the cost of capital calculations for Swedavia is underpinning the assumptions in LFV table. So even if the provider LFV's RoE is set to 0 (zero) for RP3, there are other providers reporting in the same table. For further elaboration on the setting of RoE please advice Annex A, additional information. If deemed necessary, Sweden have the possibility to report the costs for each organisation as well.

Current traffic situation. Sweden have applied the STATFOR base from June 2022.

The list of ANSPs covered in 1.1.1 constitutes the relevant providers subject to this plan. The not listed constitutes minor airport operators where part of their CNS equipment are allocated to En Route in accordance with the regulations (EU) 2019/317 and TSFS 2020:44

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

The covid 19 crisis have had major impact on the traffic volumes. The drop have been least severe in domestic flights and air cargo have increased to some extent. The recovery in Sweden is slower compared to EU level.

ANSPs in Sweden have of course all been affected by the drop in revenues but have had different approaches to cope with the deficits. Main ANSP LFV have had the liquidity available to handle the shortage of revenues. Other providers have not had the same opportunity, so a credit facility have been provided via the Swedish Government, and approved by the EU Commission, in order for providers to cope with the deficits caused by the low traffic and the deferrals of payment that Eurocontrol offered airlines. The credit facility that Eurocontrol provided have not been used in Sweden.

Local circumstances with high significance for evaluating the long term trend is found within the area of uncontrollable pension costs. This is further explained in Annex F.

Additional comments

1.2 - Traffic Forecasts

1.2.1 - En route

En route Charging zone 1

Sweden

En route traffic forecast

STATFOR Base forecast MAY 2021 (Flight Plan 2017-19, Actual Route 2020-2024)

STATFOR Base forecast MAY 2021 (Flight Plan 2017-19, Actual Route 2020-2024)	2017A	2018A	2019A	2020A	2021	2022	2023	2024	CAGR 2019-2024
IFR movements (thousands)	808	831	823	351	380	626	751	773	-1,3%
IFR movements (yearly variation in %)		2,8%	-0,9%	-57,4%	8,2%	64,7%	20,0%	2,9%	
En route service units (thousands)	3 615	3 813	3 820	1 676	1 732	2 724	3 248	3 367	-2,5%
En route service units (yearly variation in %)		5,5%	0,2%	-56,1%	3,3%	57,3%	19,2%	3,7%	

1.2.2 - Terminal

Terminal Charging zone 1

Sweden - TCZ

Terminal traffic forecast

STATFOR Base forecast MAY 2021

STATFOR Base forecast MAY 2021	2017A	2018A	2019A	2020A	2021	2022	2023	2024	CAGR 2019-2024
IFR movements (thousands)	160,5	158,1	151,0	43,1	43,6	82,9	105,8	109,2	-6,3%
IFR movements (yearly variation in %)		-1,5%	-4,5%	-71,5%	1,2%	90,2%	27,6%	3,2%	
Terminal service units (thousands)	193,0	194,2	189,1	54,1	52,0	104,0	137,0	142,0	-5,6%
Terminal service units (yearly variation in %)		0,7%	-2,7%	-71,4%	-4,0%	100,0%	31,7%	3,6%	

1.3 - Stakeholder consultation

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

Description of main points raised by stakeholders and explanation of how they were taken into account in developing the performance plan
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See also Annex C since this section is not complete in the PDF version

Result of 5th of July Consultation: See details in Annex C. The users expressed the concern of high unit rates and not reaching the targets of cost-efficiency while the providers expressed concern about severe effect of suggested deductions of the cost base in 2024.

The NSA has set up a forum, the national RP3 council, to work with the planning of RP3 and discuss different aspects of RP3. The council have consisted of main providers incl airports and user organisation and have convened at several occasions during the entire RP3 process. During the spring of 2021: 12th of March and the 22nd of June. During the market- and charges consultation held in November and May each year topics related to RP3 have been discussed. A pre - consultation meeting regarding pensions was arranged in August.

The RP3 consultation was held digitally on the 30th of August between 9-16. NSA presented an proposal for draft performance plan. NSAs proposal including a proposal for determined costs for each of the provider, aswell as targets in all performance areas and incentive schemes. The providers were given a time slot for presentations and to take questions from the users.

Environment target

NSA proposal amended the reference value for SE in the EU wide targets. LFVs position is that the target is highly unrealistic to be achieved considering the traffic development and calls for a revision. LFV points to the fact that the target consists of two components, one local and one network related. LFV have clearly demonstrated examples where military training zones outside SE affects the SE achievement negatively, and points to these external factors as constituting about 1/3 of the historical divergence.

NSA has been both prior and after the consultation contemplating LFVs position and also consulted experts. NSA recognise that taking historical values into account the proposed target is challenging with much FRA and FUA introduced. However historical values are affected by previous capacity situation for example in Germany and there are examples of performance improving initiatives on-going. The NSA will move forward with the SE reference values in the draft Performance plan in its submission to EU. NSA will not apply penalties to the target.

Training costs

In the NSA proposal there were reductions of training costs. LFV summarises that in their view the NSA proposed reductions for ATCO training costs would lead to cancelled training. LFV needs training to meet upcoming retirements which are predicted on a high level in the upcoming years. LFV also points out that STA argument that the cost allocation key for TNC ARN leads too to high cost for TNC is surprising since the same sharing key have been used since RP1. Swedavia emphasise the importance of considering long term capacity in light of the proposed reductions.

NSA response regarding the ATCO training costs. NSA have not proposed reducing LFVs requested volume of ATCO training, if so NSA would also have proposed a reduction in staff costs as a consequence. NSA arguments have been concerning the level of cost per student, which including LFVs internal costs are higher than the figures presented at the consultation, and potential harmonisation of courses. After the consultation, the written feedback and clarifications from LFV, NSA has re-considered the proposed reductions for training costs for En Route, taking the TNC argument into consideration.

Capacity and incentive schemes

Capacity was not so much in debate during the consultation. For the incentive scheme users argued that there should be an asymmetrical model due to the fact that there is no modulation applied. Providers argue that to cope with long run capacity demand, an accurate level of resources is needed.

Return on Equity (RoE)

Users welcome LFV and Sjöfartsverket for waiving return on equity but is of the opinion that it should be done by all providers. On some organisations they question the application of CAPM model leading to high RoE during the crisis and lack of information even if it is understood that gearing increases. LFV points out that they have waived RoE for 2020/2021, the remaining period is part of the NSA proposal. NSA response to users is that the NSA is not aware of that the CAPM would be obsolete and the parameters are disclosed in additional information, even if not specified calculations per provider are specified. NSA do not make any changes to the proposal after the consultation or written feedback. PRB published a report on the topic of RoE in September. The Swedish proposal in relation to that report can be found in the additional information.

Pensions

A separate consultation was held on the matter of pensions where LFV did a thorough and a transparent presentation on the functions of the pension system under the defined benefit regime and actions undertaken to cope with the costs of the system. Users still is of the opinion that a pension regime like this and the volatility it creates should be handled by the owner who is responsible for the plan.

ATS providers not contributing to target

During the consultation the users raised a deep concern regarding that the increase in costs at ATS providers (not LFV), and that they not at all are contributing to the target. The NSA response is that all providers have been audited.

Investments

Users opinions are that the investments lack of information and/or CBAs support. Providers point to requirements according to EU regulations and business secrecy. NSA response is that the investments have been audited from the perspective that they are eligible and underpinned by regulation requirements or have a positive impact in performance areas. NSA also recognize the article 28 where the investments also are subject to yearly auditing, settlements and consultations

Government support

Users points out that this operations have received almost no financial support from the government and urge Sweden to apply support according to article 29 to mitigate the charge effect.

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	No	
Charging policy	Yes	No objections
Maximum financial advantages and disadvantages for the mandatory incentive scheme on capacity	Yes	Changed as a result of inputs from the consultation into a assymmetrical model
Where applicable, decision to modulate performance targets for the purpose of pivot values to be used for the mandatory incentive scheme on capacity	No	
Symmetric range ("dead band") for the purpose of the mandatory incentive scheme on capacity	Yes	NSAs proposal for deadband ranges led to no objections.
Establishment or modification of charging zones	No	
Establishment of determined costs included in the cost base for charges	Yes	Changed as a result of inputs from the consultation and written feedback.
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	Minor changes to non-major investments as a result of written feedback.

1.3.3 - Consultation of stakeholder groups on the performance plan

#1 - ANSPs

Stakeholder group composition	The NSA has set up a forum, the national RP3 council, to work with the planning of RP3 and discuss different aspects of RP3. The council have consisted of main providers and user organisation.
Dates of main meetings / correspondence	Auditing correspondence December 2020 through September 2021. Marketconsultations May 25th 2021 and October 26th 2021. RP3 consultations 30th of August and 9th of November. NSA sent a proposal for cost base for each provider in June which then was the basis for the consultation on the 30th of August.
Main issues discussed	Different cost aspects, both levels and eligibility. Matters pertaining targets other than cost efficiency.
Actions agreed upon	After consultation and clarifications from the ANSPs there have changes in some elements and proposals from the SE NSA.
Points of disagreement and reasons	<p>There are elements in the cost bases where SE NSA do not approve investments and costs for not being eligible or/and justified.</p> <p>ANSPs have expressed that the STATFOR forecast of October is too optimistic and do not consider trends in Swedish aviation markets. As examples the trend in Swedish domestic traffic which have been decreasing for several decades or that the issue of climate is not expressed as taken into consideration (flightshame).</p> <p>Other aspects are the financial crisis had a longer recovery period than what is expected at present time.</p> <p>SE NSA recognise several of the arguments as relevant but do not consider them to apply solid justifications to deviate from the STATFOR Base. Sweden have although the process advocated that STATFOR Base should be applied for all member states and do not consider to revise this opinion at this time.</p>
Final outcome of the consultation	

Additional comments

#2 - Airspace Users	
Stakeholder group composition	<p>The NSA has set up a forum, the national RP3 council, to work with the planning of RP3 and discuss different aspects of RP3. The council have consisted of main providers and user organisation.</p> <p>Representatives in the council and during the market consultations have been airlines and airlines representatives, SFB and IATA.</p>
Dates of main meetings / correspondence	Marketconsultations May 25th 2021 and October 26th 2021. RP3 consultations 30th of August and 9th of November. NSA sent a proposal for cost base for each provider in June which then was the basis for the consultation on the 30th of August.
Main issues discussed	<p>A major interest of the users have been matters pertaining pension costs. Pension costs constitutes a major part of the cost base and have also increased during 2020.</p> <p>The flexibility of costs and adoption of the ANSPs operation to the crisis.</p> <p>Users questioned the SE NSAs statement that the proposed targets for cost efficiency met the EU wide targets.</p> <p>Users believe that more could have been done by ANSPs to lower costs and questions if the NSA have gone through all possible efficiency measures.</p>

Actions agreed upon	In order to have a detailed explanation on the underpinning regulatory framework for LFV pensions a separate consultation was organised. In order to explain what measures have been undertaken in order to cope with crisis, ANSPs have reported during the regular market consultations. All providers were given a slot during the consultation on the 30th of August and took users questions. In the written feedback sent afterwards the users did however believe that there were to little focus on efficiency improvements during the consultation, but more on the consequences of NSAs proposal.
Points of disagreement and reasons	On the issue on SE proposal for performance scheme is, or is not, consistent with the targets, it is the NSAs opinion that the assessment criteria is clear from the (EU) 2019/317 regulation. SE NSA have gone them through on several occassions, but are willing to do so again if deemed necessary.
Final outcome of the consultation	Users do not support the targets proposed for cost efficiency, in their opinion targets should be met for each year and this is not the case in Sweden where there is an adverse effect 2020 when pension costs are high and outweighs the lower costs compared 2020/2019. Users have not made any objections to the other targets proposed.

Additional comments

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

Additional comments

#4 - Airport operators

Stakeholder group composition	Airport operators are represented in both RP3 Council and in consultations but prominently in their role as holding part of the infrastructure (CNS).
Dates of main meetings / correspondence	
Main issues discussed	
Actions agreed upon	
Points of disagreement and reasons	
Final outcome of the consultation	

Additional comments

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

Additional comments

#6 - Other (specify)	
Stakeholder group composition	N/A

Dates of main meetings / correspondence	N/A
Main issues discussed	N/A
Actions agreed upon	N/A
Points of disagreement and reasons	N/A
Final outcome of the consultation	N/A
Additional comments	

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

1.4.1 - Airports as per Article 1(3) (IFR movements $\geq 80\,000$)

ICAO code	Airport name	Charging Zone	IFR air transport movements			
			2016	2017	2018	Average
ESSA	Stockholm/Arlanda	Sweden - TCZ	234 537	248 865	243 779	242 394

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

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

Description of the process
Not applicable

1.7 - Establishment and application of a simplified charging scheme

Is the State intending to establish and apply a simplified charging scheme for any charging zone/ANSP?	No
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SECTION 2: INVESTMENTS

2.1 - Investments - LFV

- 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 - SDATS

- 2.2.1 - Summary of investments
- 2.2.2 - Detail of new major investments
- 2.2.3 - Other new and existing investments

2.3 - Investments - ACR

- 2.3.1 - Summary of investments
- 2.3.2 - Detail of new major investments
- 2.3.3 - Other new and existing investments

2.4 - Investments - SMHI

- 2.4.1 - Summary of investments
- 2.4.2 - Detail of new major investments
- 2.4.3 - Other new and existing investments

2.5 - Investments - ARV - Arvidsjaur

- 2.5.1 - Summary of investments
- 2.5.2 - Detail of new major investments
- 2.5.3 - Other new and existing investments

2.6 - Investments - Swedavia

- 2.6.1 - Summary of investments
- 2.6.2 - Detail of new major investments
- 2.6.3 - 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 - LFV

2.1.1 - Summary of investments as regards the main ANSP LFV. In the reporting table for En route (Annex A) also investments are included for the airports where LFV provides services to the extent they are allocated En Route according to (EU) 2019/317 and TSFS 2020:44 (example regional airports of Swedavia).

Number of new major investments	3
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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	COOPANS	7 600 000	7 600 000	0	0	80 389	587 708	1 464 667	12	100%		Not during RP3 - values during RP3=cost of capital
2	Expansion RTS	15 900 000	11 925 000	4 271 325	22 183 073	26 348 452	22 969 583	21 837 619	5-40	75%	25%	The building was taken in to operations 2019 and RTC for airports start from 2021
3	Other development	7 200 000	7 200 000	0	0	194 389	569 708	1 388 667	5-12	100%		Not during RP3
Sub-total of new major investments above (1)		30 700 000	26 725 000	4 271 325	22 183 073	26 623 229	24 126 998	24 690 954				
Sub-total other new investments (2)		82 552 667	82 552 667	11 226 798	13 733 499	70 233 609	71 134 918	77 221 612		100%		
Sub-total existing investments (3)				119 968 466	121 153 992	103 577 897	83 213 401	63 974 487		100%		
Total new and existing investments (1) + (2) + (3)		113 252 667	109 277 667	135 466 588	157 070 564	200 434 735	178 475 317	165 887 053				

* 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	COOPANS		Total value of the asset	7 600 000 €
Description of the asset	COOPANS TopSky ATM systems operated in Stockholm and Malmö ATCC with connected ATS units. Please observe that in table 2.1.1 = total value for the RP3 period			
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	COOPANS is in the process of planning for the next generation systems, which will replace our existing FDP and HMI to increase system capacity as well as meeting new European regulatory requirements such as PCP/Interoperability. This will require significant investment over the next decade from all the COOPANS partners and will deliver incremental improvement of safety, efficiency and capacity.		

	AF1	AF2	AF3	AF4	AF5	AF6	Interoperability	
Specify links to the PCP/CP1/Interoperability Regulations (add the sub-AF number(s) under each relevant box)	Extended AMAN for SWIM Sub-AF 1.1 – Arrival Manager extended to en-route airspace	Airport Integration and Throughput. TBS within the scope of COOPANS	Flexible Airspace Management and Free Route Sub-AF 3.1 – Airspace Management and Advanced Flexible Use of Airspace Sub-AF 3.2 - Free Route Airspace	Network Collaborative Management.	SWIM: ground-ground integration and flight data and aeronautical data management & sharing. SWIM services within the scope of COOPANS	Initial Trajectory Information Sharing: air-ground integration towards i4D with enhanced Flight Data Processing performances. Future impact on FDP is within the scope of COOPANS		
Benefits for airspace users and results of the consultation of airspace users' representatives	Operational efficiency for airspace users: - Reduced fuel burn - Reduced flight time - Reduced delays - Increased network throughput							
Joint investment / partnership	Yes	Investment in the COOPANS partnership						
Investment in ATM systems	Yes	!						
If investment in ATM system, type?	Replacement investment	COOPANS is in the process of planning for the next generation systems, which will replace our existing FDP and HMI to increase system capacity as well as meeting new European regulatory requirements such as PCP/Interoperability. This will require significant investment over the next decade from all the COOPANS partners and will deliver incremental improvement of safety, efficiency and capacity.						
If investment in ATM system, Reference to European ATM Master Plan / PCP	PCP	!						

Name of new major investment 2	Expansion RTS		Total value of the asset	15 900 000 €
Description of the asset	Implementation of a new RTC central in Stockholm with four connected airports (Kiruna, Umeå, Östersund, Malmö) for remote tower services (RTS).			
The investment is mandated by a SES Regulation (i.e. PCP/CP1/Interoperability)?	No	Supports digitalization, improved robustness, flexibility and redundancy		
Level of impact of the investment	Network	No impact		
	Local	Provides a digitalized capability to provide local air traffic services from a centralized location. RTS provides rostering and standardization		
	Non-performance	No impact		
Quantitative impact per KPA	Safety	N/A		
	Environment	N/A		
	Capacity	N/A		
	Cost Efficiency	Long term efficiency gains in provision of ATS and infrastructure costs for airports		
Results of the consultation of airspace users' representatives	Through the process of RP3 this concept have been questioned by the airspace users which have requested that the CBA for the concept should be disclosed by LFV/SDATS. NSAs position is that there is no regulatory support to enforce a disclosure since this concerns business secrecy, however in order to meet the request for more information from users a separate consultation on the matter was organized.			
Joint investment / partnership	No			
Investment in ATM systems	Yes			
If investment in ATM system, type?	New system	RTS, Remote Tower System		
If investment in ATM system, Reference to European ATM Master Plan / PCP	Master Plan (non-PCP)			

Name of new major investment 3	Other development		Total value of the asset	7 200 000 €
Description of the asset	<p>Other investments are aimed at supporting the intentions of the ATM Master Plan/SRIA and other SES principles and may include areas that are not mandated as part of common projects (e.g. PCP/CP1). This concerns primarily investments in infrastructure and services supporting improved digitalization and architecture of service provision. Key areas are planned to include virtualization of platforms and increased use of workload-reducing tools using automation technology in order to achieve scalable and flexible services and improved productivity. Other investments may, to some degree, include operational requirements to change existing systems due to demands raised during the time period. The main investment areas anticipated within the Other category are:</p> <ul style="list-style-type: none">• ATCC virtualization. The first steps are expected to be taken in the technical domain, with the end goal of improving ANS productivity through scalability and flexibility in support of changing demands and sourcing options, as well as de-coupling of services from geographical location, resource sharing and improved working methods.• Platform for automation. This may include the necessary infrastructure for supporting automation such as systems for operational data collection and analysis, algorithms, simulator/training integration, and development of automated services throughout RP3 (and continuing into the forthcoming reference period). Automation is aimed at increasing ANS productivity with benefits starting mainly in RP4.			
The investment is mandated by a SES Regulation (i.e. PCP/CP1/Interoperability)?	No			
Level of impact of the investment	Network	N/A during RP3		
	Local	N/A during RP3		
	Non-performance	N/A during RP3		
Quantitative impact per KPA	Safety	N/A during RP3		
	Environment	N/A during RP3		
	Capacity	N/A during RP3		
	Cost Efficiency	N/A during RP3		
Results of the consultation of airspace users' representatives	Feedback from users after the consultation was that there were lack of justification and benefits of investments in the presentations.			
Joint investment / partnership	No			
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)			

2.1.3 - Other new and existing investments

2.1.3.1 - 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 are mainly a number of investments in replacements and/or upgrades within for example

- Communication networks/systems,
- Radio,
- Navigational aids
- Fallback system for ATS –service
- Buildings and support system for ATS-service

due to, among other things, EU-regulations, end of life of equipment, additional operational requirements for added functionality and capacity increases together with "other PCP" that covers The European Commission Regulation No. 716/2014 that expects to require investments outside COOPANS.

The plan also includes new investments in implementation of a new architecture for information management within the network (SWIM). In practise this is expected to require (non-exhaustive list): an extension of the LFV integration platform (incl. integration nodes, operative and administrative systems, external interfaces), adaptations of connecting systems (e.g. network adaptations, AIM/AIS (non-ADQ) to the common information architecture and Cyber Security related aspects. Relevant services will be analysed and defined, including Implement Cooperative Network Information Exchange, Aeronautical Information Exchange, Meteorological Information Exchange, Network B2B and Flight Plan Exchange, included in the implementation of the SWIM concept. Implementing a service oriented architecture aims to meet PCP/CP1 requirements or increase performance in terms of flexibility, scalability and ultimately possible cost-efficiency of operations.

The existing investments contains mainly of fulfillment in investment in Contingency/Single System and the replacements of new MSSR.s.

Regarding unspent budget from CAPEX in RP2, LFV has had an higher investment ratio than planned, the depreciation costs is higher than budget. The cost of capital has been slightly lower than planned because of the inflation an change in interest rate.

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

Number of new other investments	17
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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	
1	Maintaining - C-, N-, S- and ATS-service	192 000	192 000	3 900	7 400	10 500	12 400	15 200	<p>The overall purpose of the investment area is to ensure the current level of availability in the technical systems and that these systems meet the legal requirements established at national and European level. The fact that LFV as ANSP meets legal requirements increases the possibility for AO to recoup its investments in the aircraft fleet. In C-service, there is mainly a need to replace old radio equipment that otherwise risk causing permanent capacity limitations in cases where these begin to break down to an increasing extent. LFV is already having a hard time getting spare parts for this type of radio equipment. In addition, there are a number of legal requirements, e.g. VoIP, nationwide coverage of 121.5 that also justifies the exchange of radio and connection infr-structure. Investment in N-service aims to ensure continued nationwide DME-DME navigation. Existing DMEs are around 20 years old and LFV can hardly find spare parts for these. DME-DME is required as redundancy for navigation based on GNSS. The same applies within S-service, the purpose is to ensure the availability of a nationwide ground-based radar coverage that meets current legal requirements such as mode-S. For the ATM area, investments are made with the aim of maintaining technology for ASM, ATFM and ATS services and ensuring compliance with legal requirements in the area. Within buildings and supply systems, there is an exchange program with the aim of replacing aging equipment in primarily the power supply chain, which otherwise risks causing permanent capacity constraints.</p> <p><i>Consequences of non-investment</i> Traffic regulation, mainly in Stockhom TMA (Arlanda and Bromma airport) and at Malmö TMA due to loss of redundancy for communication ground- air and ground - ground. In worst case up to 50% reduction of traffic. Loss of DME-coverage with potentially loss af redundancy for GNSS. Loss of ground-based mode-S surveillance coverage. Traffic regulation due to loss of redundancy for power supply and ventilation of equipment rooms at ATCC Malmö and ATCC Stockholm. Potentially an 50% traffic regulation in large parts of the airspace. Targets related tp CP1 will most likely not be fulfilled</p>

2	SWEA	9 300	4 000	0	0	0	0	300	<p>An must needed airspace modernisation project with the purpose to create an airspace around Arlanda Airport that is suitable for modern aircrafts. With less conflicts between arrivals and departures, less step-climbs/-descends and less track-miles LFV are aiming for an staff reduction of approx 12 FTE and an increased capacity in the airspace around Arlanda Airport. Shorter routes will, during a 10-year period , save approx 135 MSEK in fuel cost and 42 million ton of CO2.</p> <p><i>Consequences of non-investment</i> Longer routes with higer fuel-cost. Potentially capacity issues late RP3 or beginning of RP4. RP3 targets for capacity and environment will most likely not be fulfilled. Missed opportunity for cost savings.</p>
3	Sustained ATS-service	41 000	41 000	0	0	0	0	0	<p>Today LFV are using a Thales ATM system called TopSky for ordinary ATS-service. TopSky is a system designed with availability and reliability in focus – never the less if TopSky, for any reason, could not be used for ATS-service, LFV has to close the airspace served by ATCC Malmö including Landvetter TMA and Malmö TMA and/or ATCC Stockholm including Stockholm TMA. The reason for this is that LFV current fallback system isn't approved for any continuous ATS-service. The fall back system can only be used to clear the sky and make sure that all traffic safely can leave closed airspace or land at nearest airport. The fall back system is from mid 80's with limited functionality and could not for a reasonable amount of money be modernised to the needed functionality level.</p> <p>During the last 20 years has LFV developed TopSky functionality with the ambition to meet traffic demands in a cost-effective approach. A single ATCO can today safely handle more traffic than ever before. LFV has now reached the level when our fall back system is a hinder for further development in TopSky. A single ATCO, in all traffic situation be able, by using LFV fallback system, to clear the sky. To be able to safely fulfil this task, the gap in functionality could not be too big.</p> <p>With this investment LFV main target is to implement a new fall back system that will avoid clear the sky situations (closed airspace) to the highest possible level. Raise level of functionality in LFV fall-back system and thereby be able to implement further cost-effectiveness development in TopSky with the target to meet future capacity requirement.</p> <p><i>Consequences of non-investment</i> Traffic regulation, potentially closed airspace Limits for further capacity enhancement in ordinary ATM-system</p>
4	Improved environment	5 000	5 000	0	0	0	500	1 000	<p>By providing ATCO in approach with better information regarding subsequent take-offs, LFV can more often use optimized flight paths with a shorter flight path (approx 5 NM shorter) as a result. Which in turn reduces AO's fuel consumption and reduces CO2 emissions.</p> <p><i>Consequences of non-investment</i> Longer routes with higher fuel-cost RP3 targets for environment will most likely not be fulfilled</p>
5	Energy Efficiency improvements	18 000	14 000	0	0	0	0	400	<p>By changing to modern heating systems at ATCC Malmö LFV will save cost for energy consumption by approx 2 MSEK/year wich according to prce forecast will incease upcoming years.</p> <p><i>Consequences of non-investment</i> Missed opportunity for cost saving RP3 targets for environment will most likely not be fulfilled</p>
6	SWIM	36 000	30 000	0	0	0	0	3 000	<p>LFV together with all other partners in COOPANS are developing a common platfform that will fulfill Common Project One (CP1) requirement related to SWIM and Aeronautical Information Exchange, Meteorological Information Exchange, Cooperative Network Information Exchange and Flight information Exchange.</p> <p><i>Consequences of non-investment</i> LFV will not comply to CP1 requirement</p>

7	COOPANS TopSky	221 000	221 000	1 900	3 300	5 300	6 600	8 300	<p>The subject of the investments is the LFV main ATM system, which is maintained and developed in a collaboration within the framework of the COOPANS Alliance. The purpose of the investment is to ensure that the systems support an increased demand for capacity, automation, safety, security, and as well as to meet the regulatory requirements imposed on ATM systems within the EU.</p> <p>Investments in the ATM system during the course of RP3 includes but is not limited to:</p> <ul style="list-style-type: none"> - Implementation of SWIM - New Final Approach Spacing Tool for higher arrival capacity - System capacity improvements to allow for overall increase of traffic - New improved safety nets - New improved separation tools - CPDLC improvements - Security improvements
8	ADQ - being implemented	10 000	0	0	6 000	7 500	12 000	12 000	New investments in ADQ (AIM), started before RP3.
9	Other		0	5 400	26 600	30 500	30 100	28 400	New investments mainly surveillance and contingency, started before RP3.

2.2 - Investments - SDATS

2.2.1 - Summary of investments

Number of new major investments	0
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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

The scope consists of approach for CNS and ATS equipment covering three, from 2021, four airports and approach zones. ATS concept is remote towers. One is new and will be opened 2020, Scandinavian Mountain Airport. Investments covers infrastructure as remote ATS, MET and CNS. No major investments. The planned investment of 2021 is postponed and the new entry date is planned in 2022.

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

Number of new other investments	1
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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	
1	CNS and ATS investments	15 827	11 079		570	3 079	2 975	2 809	Please see B 1023.

2.3 - Investments - ACR

2.3.1 - Summary of investments

Number of new major investments	0
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2.3.3 - Other new and existing investments

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

The scope for this is ATS and CNS infrastructure for 18 units. Among other new investments, one is in a simulator for education and training, both during initial training and re-fresh. No major investments. The planned investment of 2021 is postponed and the new entry date is planned in 2022.

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

Number of new other investments	1
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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	
1	Flight simulator	3 051	2 124		310	474	624	775	

2.4 - Investments - SMHI

2.4.1 - Summary of investments

Number of new major investments	0
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2.4.3 - Other new and existing investments

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

New investments in weather radar system and automatic observation systems. No major investments. The planned investment of 2021 is postponed and the new entry date is planned in 2022.

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

Number of new other investments	8
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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	
1	PW-givare	1 943	1 943			13	129	334	
2	Automatiska ytobservationer	309	309			19	49	64	
3	Automatisering klimatologiskt nät	110	110				5	19	
4	Väderradarsystem	197	197			18	35	36	
5	Vädersatellitssystem	664	664			57	116	115	
6	Blixtlokaliseringssystem	298	298			14	42	56	
7	Aerologiska observationer	63	63			11	14	14	
8	Utbytesenheter väderradar	793	793			55	69	54	

2.5 - Investments - ARV - Arvidsjaur

2.5.1 - Summary of investments

Number of new major investments	0
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2.5.3 - Other new and existing investments

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

The scope for this is ATS and CNS infrastructure for 1 unit. No major investments. No changes in planned investments during the year.

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

Number of new other investments	0
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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	

2.6 - Investments - Swedavia

2.6.1 - Summary of investments

Number of new major investments	0
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2.6.3 - 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

CNS equipment. No major investments. 10 new investments relating to regional airports presented under En Route (Annex A) and 11 investments relating to Terminal Arlanda (Annex B). Several of the investments concerns replacing. Note that the maximum number of "new other investments" in E1027 below are 20. The planned depreciation rate of the new investments of 2021 is shorter than anticipated compared to the last performance plan, but have minor impact on the total cost base of SE performance plan.

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

Number of new other investments	1
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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	
1	Replacing and other new investments	70 377	47 033	1 286	2 902	3 212	3 697	6 762	Please see B 1023.

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
En Route Charging Zone #x

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

[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		4					
LFV NUAC		2020A Actual	2020 Target	2021 Target	2022 Target	2023 Target	2024 Target
	Safety policy and objectives	C	C	C	C	C	C
	Safety risk management	D	D	D	D	D	D
	Safety assurance	B	B	C	C	C	C
	Safety promotion	C	C	C	C	C	C
	Safety culture	C	C	C	C	C	C
	Additional comments						
ACR		2020A Actual	2020 Target	2021 Target	2022 Target	2023 Target	2024 Target
	Safety policy and objectives	Select Level	C	C	C	C	C
	Safety risk management	Select Level	D	C	C	D	D
	Safety assurance	Select Level	C	B	B	C	C
	Safety promotion	Select Level	C	C	C	C	C
	Safety culture	Select Level	C	B	B	C	C
	Additional comments						
SDATS		2020A Actual	2020 Target	2021 Target	2022 Target	2023 Target	2024 Target
	Safety policy and objectives	Select Level	C	C	C	C	C
	Safety risk management	Select Level	D	D	D	D	D
	Safety assurance	Select Level	C	C	C	C	C
	Safety promotion	Select Level	C	C	C	C	C
	Safety culture	Select Level	C	B	B	C	C
	Additional comments						
AFAB (Arvidsjaur)		2020A Actual	2020 Target	2021 Target	2022 Target	2023 Target	2024 Target
	Safety policy and objectives	Select Level	C	C	C	C	C
	Safety risk management	Select Level	D	C	C	D	D
	Safety assurance	Select Level	C	B	B	C	C
	Safety promotion	Select Level	C	C	C	C	C
	Safety culture	Select Level	C	C	C	C	C
	Additional comments						

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

N/A The targets are set to be met in the end of RP3.

* Refer to Annex O, if necessary.

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

See Annex O

* 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) Environment national 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) National environment performance targets

	2020A	2020	2021	2022	2023	2024
National reference values	1,03%	n/a	1,05%	1,05%	1,05%	1,05%

	2020	2021	2022	2023	2024
National targets	Target	Target	Target	Target	Target
	1,26%	1,05%	1,05%	1,05%	1,05%

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

N/A

** Refer to Annex P, if necessary.*

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

Sweden considers this reference target values as challenging to achieve during the recovery period 2023-2024 but propose to apply them.

According to the historical data provided by LFV less than 1/3 of the related HFE extension is due to local circumstances. Other impact is for example military training zones outside the Swedish FIR and airspace dodging. Also note that Free route airspace is to large extent implemented as well as FUA. Cross border FRA with Poland will be introduced during the autumn of 2021. LFV makes a reservation that impact of this introduction could be limited due to the fact that day-to-day directroutes are used already.

The motivation by the Commission/Network manager is that the reference value of 1.05% indicated simply asks Sweden to continue the same approach as in 2020 and in 2021, were the situation is very well, even at the moment when traffic levels will go higher and progress with the cross border FRA with Poland and other initiatives, where the latters could drive further improvement.

Sweden will not apply an incentive target related to the environment target. It should be noted that Sweden has one of the toughest targets among the members states and that the war in Europe is impacting the actual values very negative during spring of 2022.

EU Commission have stated that there will be no changes to the EU Wide Targets, and there are no indication that local reference values will be different. Sweden will monitor the development.

** Refer to Annex P, if necessary.*

3.3 - Capacity targets

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

- a) Capacity national 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 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) Capacity 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) National capacity performance targets

	2020A	2020	2021	2022	2023	2024
National reference values	0,01	n/a	0,05	0,07	0,08	0,08
		2020	2021	2022	2023	2024
		Target	Target	Target	Target	Target
National targets		0,12	0,05	0,07	0,08	0,08

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

N/A

* Refer to Annex Q, if necessary.

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

During 2020, after the pandemic outbreak, 2021 as well as in the first quarter of 2022 delays have been close to zero. However forecasts now point at a recovery which imply arising capacity issues in RP3 during summer periods.

The reference values applied to Sweden are though acceptable and considered feasible for the remaining part of RP3. However issues related to demography needs to be considered in the ATCO planning and the long trend for capacity. This is developed further in Annex Q.

Main ANSP LFV is introducing project SWEA which is an airspace project with a focus of the Stockholm area with side efficiency effects following other border areas. The now prevailing airspace structure is from the 1990s and development can drive performance in all KPI areas. This is also developed further in Annex Q.

* Refer to Annex Q, if necessary.

d) ATCO planning

	Actual			Planning			
Malmö (ESMM ACC)	2018	2019	2020	2021	2022	2023	2024
Number of additional ATCOs in OPS planned to start working in the OPS room (FTEs)	7	4	5	7	6	4	12
Number of ATCOs in OPS planned to stop working in the OPS room (FTEs)	6	14	6	6	0	6	9
Number of ATCOs in OPS planned to be operational at year-end (FTEs)	140,14	130,14	129,14	130,14	136,14	134,14	137,14

	Actual			Planning			
Stockholm (ESOS ACC)	2018	2019	2020	2021	2022	2023	2024
Number of additional ATCOs in OPS planned to start working in the OPS room (FTEs)	5	1	5	8	7	4	11
Number of ATCOs in OPS planned to stop working in the OPS room (FTEs)	10	12	7	3	1	4	9
Number of ATCOs in OPS planned to be operational at year-end (FTEs)	144,73	133,73	131,73	136,73	142,73	142,73	144,73

Additional comments

The number of ATCOs are calculated as total ATCOs reduced with ATCOs on other duties, outside the opsroom. The number of FTEs reported are december each year (not the average FTE over the year of 2018 which was earlier reported). Overtime and sickness leave is not included. The number of additional ATCOs in OPS, includes 13 ATCOs that are planned to be converted to En Route from the controltower of Malmö airport (3 ATCOs 2021, 2 2022, 8 2023).

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

a) National capacity performance targets

	2020A	2020	2021	2022	2023	2024
	Actual	Target	Target	Target	Target	Target
National targets	0,00	0,35	0,05	0,15	0,15	0,15
Additional comments						

Airport level	ESSA-Stockholm/Arlanda	0,00	0,35	0,05	0,15	0,15	0,15
	Airport contribution to national targets						

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

Historically delay causes have been related to weather and technical incidents. The 2020 actual was 0,01 with delays caused in Jan-Feb, prior to the decline in traffic caused by the pandemic. This proposed target comes from taking historical levels and delay causes into account and aims at setting an appropriate level from the traffic level. This proposed targets takes into account that a zero, or close to zero target, is to expensive.

The proposed, ambitious, targets should contribute positively to Network performance, not contributing to capacity issues arising from this specific Terminal area. From the NSA point of awareness, there have not historically been any substantial negative effects to the network from performance at Arlanda. With the capacity target now harder than previously, NSA believe this target would enhance an effective contribution. Setting a target lower than the proposed is not considered realistic.

The right composition of staffing and relevant infrastructure, updates and maintenance, would also prevent negative side effects on environmental performance.

* 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

Appropriate level of staff and funds for technical maintenance and development.

* 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

En Route Charging Zone #x

- 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

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

Terminal Charging Zone #x

- 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

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

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

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

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

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.

3.4 - Cost efficiency targets

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

En Route Charging Zone #1 - Sweden

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

En route charging zone Sweden	Baseline 2014	Baseline 2019	RP3 revised cost-efficiency targets (determined 2020-2024)				2024 D vs. 2014 B	2024 D vs. 2019 B
	2014 B	2019 B	2020/2021 D	2022 D	2023 D	2024 D		
Total en route costs in nominal terms (in national currency)	1 913 650 422	2 095 259 455	4 835 744 542	2 309 764 674	2 358 551 456	2 234 106 189	16,7%	6,6%
Total en route costs in real terms (in national currency at 2017 prices)	1 967 651 603	2 037 826 606	4 641 932 842	2 110 148 089	2 114 368 392	1 978 523 470	0,6%	-2,9%
Total en route costs in real terms (in EUR2017) 1	204 259 227	211 543 998	481 872 712	219 051 593	219 489 697	205 387 821	0,6%	-2,9%
YoY variation			127,8%	-54,5%	0,2%	-6,4%		
Total en route Service Units (TSU)	3 257 576	3 788 684	3 408 463	2 724 000	3 248 000	3 367 000	3,4%	-11,1%
YoY variation			-10,0%	-20,1%	19,2%	3,7%		
Real en route unit costs (in national currency at 2017 prices)	604,02	537,87	1 361,88	774,65	650,98	587,62	-2,7%	9,2%
Real en route unit costs (in EUR2017) 1	62,70	55,84	141,38	80,42	67,58	61,00	-2,7%	9,2%
YoY variation			153,2%	-43,1%	-16,0%	-9,7%		

National currency	SEK
1 Average exchange rate 2017 (1 EUR=)	9,63

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

En route charging zone Sweden	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)	1 913 650 422	2 095 259 455	1 657 044 422	2 179 365 205	256 606 000	-84 105 750
Total en route costs in real terms (in national currency at 2017 prices)	1 967 651 603	2 037 826 606	1 701 443 288	2 118 904 893	266 208 315	-81 078 287
Total en route costs in real terms (in EUR2017) 1	204 259 227	211 543 998	176 624 505	219 960 625	27 634 722	-8 416 626
Total en route Service Units (TSU)	3 257 576	3 788 684	3 284 841	3 820 393	-27 264	-31 709

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	3
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Adjustment #1	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
Adverse impact from uncontrollable costs (Pensions)	LFV	ANSP	Staff	256 606 000	266 208 315	27 634 722
Description and justification of the adjustment						
Please see further description and justification in Annex F.						

Total adjustments to the 2014 baseline value for the determined costs	Costs nominal NC	Costs real NC	Costs EUR2017
	256 606 000	266 208 315	27 634 722

c.2) Adjustments to the 2014 service units

Impact of transition to actual route flown	Coefficient M2/M3	Source	Service units
	-0,83%	CRCO correction factor May 2019 (on 12 months)	-27 264

Other adjustment to the 2014 service units	No
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Total adjustments to the 2014 service units	-27 264
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c.3) 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
EU-funding	LFV	ANSP	Staff	15 900 000	15 327 665	1 591 144
Description and justification of the adjustment						
Until 2019 LFV has used net-accounting for some INEA-funding which has changed to gross accounting from 2020 and onwards.						

Adjustment #2	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
New airports in the system		ANSP	Other operating	14 888 250	14 352 334	1 489 896
Description and justification of the adjustment						
From 2020 there is three new airports that is part on the system compared to 2019. The new airports are Scandinavian Mountain Airport, Skövde and Eskilstuna. Please see further description and justification in Annex F.						

Adjustment #3	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
Adverse impact from uncontrollable costs (Pensions)	LFV	ANSP	Staff	-114 894 000	-110 758 286	-11 497 666
Description and justification of the adjustment						
Please see further justification in Annex F						

Total adjustments to the 2019 baseline value for the determined costs	Costs nominal NC	Costs real NC	Costs EUR2017
	-84 105 750	-81 078 287	-8 416 626

c.4) Adjustments to the 2019 service units

Impact of transition to actual route flown	Coefficient M2/M3	Source	Service units
	-0,83%	CRCO correction factor May 2019 (on 12 months)	-31 709

Other adjustment to the 2019 service units	No
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Total adjustments to the 2019 service units	-31 709
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d) Description and justification of the consistency between local and Union-wide cost-efficiency targets

The EU wide cost efficiency target is not met according to (EU) 2019/317 Annex IV 1.4 Cost effectiveness a) b) and c)

** 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	Yes	Detailed in part 3.4.6 of the performance plan
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

In the overview and auditing by the NSA several cost driving parameters have been identified, of which many of them are primarily not related to long run cost efficiency and have clear impact on KPAs within capacity (which in turn could increase revenues and decrease unit costs), environment and safety. The NSA has slightly decreased the costs the ANSP:s have requested, for example in areas of staff hiring, implementation costs, training costs and costs for facilities. In the auditing of costs the aim has also been that this revised draft performance plan will not give the possibility for the ANSP:s to increase the costs.

The NSA has been looking carefully into two projects, Remote ATS and SWEA, and their business-case, cost-benefits analysis and follow-up calculations. One object intended for long run efficiency is the Remote ATS. In May 2021 the NSA was able to get Business Case and follow-up calculations regarding Remote ATS. The NSA has seen in the material an increase in implementing cost which not have been approved in the cost base. The Remote ATS is however beneficial on the infrastructure side for the customers avoiding investments. Another project is SWEA (airspace procedures).

Return on Equity. NSA has launched a study for a maximum cap of Return on Equity with a specific focus on providers on the market subject to competition. SE NSA is of the opinion that providers otherwise should have a lower RoE. SE NSA is also of the opinion that capital structure (gearing) evaluation needs to be individually audited from the (EU) 2019/317 article 22. The financing of SDATS and, in particular ACR, related to deficits 2020/2021 have highly risen the calculated RoE. However financing have been offered by the state at an interest of 1-2 percent, which in turn gives a lower WACC than if the providers were 100 percent financed through equity.

Another aspect is the pensionsystem for ATCOs. This has been changed for employees born 1988 and later, from a defined benefit to a defined contribution system.

Important to note on the long term cost effectiveness trend which is stretched out to 2014. 2014 was a year with exceptional pension adjustments, actually pushing costs downward. If 2014 were to be harmonized to "normal" values it would reveal a decreasing long run trend.

Not explicitly related to the DUC cost effectiveness target, however important for costs charged to users, the recovery of uncontrollable pension costs from RP2 is over two reference periods. This amount is reported in the reporting tables under T1 LFV 3.2.

The STATFOR forecast for traffic has been volatile under 2021 and 2022. The update STATFOR forecast from June 2022 is almost 14% lower than the update in October 2021 regarding Service Units, but IFR movements is only 7% lower. It is an wide spread between high and low scenario and to reach the costefficiency target will impact the costs widely. Therefore a full adjustment to the cost base to reach the costefficiency target related to the new forecast is not included in the draft revised performance plan. Please see Volatile Traffic Forecasts in Annex R.

** 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

The NSA has verified the costs and identified some equipment and commercial costs that have been rejected from the cost base.

** Refer to Annex U, if necessary.*

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

Terminal Charging Zone #1 - Sweden - TCZ

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

Terminal charging zone Sweden - TCZ	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)	191 167 283	441 904 612	200 172 902	205 638 071	208 304 348	9,0%
Total terminal costs in real terms (in national currency at 2017 prices)	184 622 618	421 269 155	179 131 197	180 624 386	180 161 203	-2,4%
Total terminal costs in real terms (in EUR2017) 1	19 165 422	43 731 376	18 595 365	18 750 371	18 702 289	-2,4%
YoY variation		128,2%	-57,5%	0,8%	-0,3%	
Total terminal Service Units (TNSU)	150 405	106 147	104 000	137 000	142 000	-5,6%
YoY variation		-29,4%	-2,0%	31,7%	3,6%	
Real terminal unit costs (in national currency at 2017 prices)	1 227,50	3 968,73	1 722,42	1 318,43	1 268,74	3,4%
Real terminal unit costs (in EUR2017) 1	127,43	411,99	178,80	136,86	131,71	3,4%
YoY variation		223,3%	-56,6%	-23,5%	-3,8%	

National currency	SEK
1 Average exchange rate 2017 (1 EUR=)	9,63

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

Terminal charging zone Sweden - TCZ	Baseline 2019	Actuals 2019	2019 Baseline adjustments
	2019 B	2019 A	
Total terminal costs in nominal terms (in national currency)	191 167 283	191 167 283	0
Total terminal costs in real terms (in national currency at 2017 prices)	184 622 618	184 622 618	0
Total terminal costs in real terms (in EUR2017) 1	19 165 422	19 165 422	0
Total terminal Service Units (TNSU)	150 405	150 405	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	0
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c.2) Adjustments to the 2019 service units

Adjustment to the 2014 service units	No
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d) Description and justification of the contribution of the the local targets to the performance of the European ATM network

See Annex R

** 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 NSA has been auditing the costs and have seen there has been austerity measures at one of the provider. Regarding the other provider the NSA has approved lower costs than requested within staff, training and indirect costs.

The NSA have proposed and outlined an incentive scheme considered effective under the situation where capacity target is not met

** 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

The audit has not given rise to any corrections in the cost base.

** Refer to Annex U, if necessary.*

3.4.3 - Pension assumptions

LFV

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	1 473 040	535 934	2 008 974	594 578	598 130	646 591
En-route activity	1 019 984	375 463	1 395 446	417 152	420 448	447 528
Terminal activity	102 070	38 102	140 172	40 878	40 704	44 557
Other activities	350 986	122 370	473 356	136 548	136 978	154 506

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			-			
Employer % contribution rate to this scheme						
Total pension costs in respect of this scheme			-			
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

"LFV's employees are covered by the public pension system in Sweden as well as the pension agreement for government employees, called PA16. The pensions are "state" pensions - no private pension schemes/no privat pension insurance. The public pension is financed through employers contribution for national social security purposes, LFV does not account for this as pensions costs - instead we include it in staff costs as social security costs. Total employers' contributions are paid by employers to the Swedish Tax Authorities of 31.42 % on salaries, whereof 10.81 % (year 2019-2022) are state pensions. According to Swedish Accounting principles employers contribution (including theses 10.81 %) are classified in the accounts as social security contributions, not pension costs.

Defined-contribution and defined-benefit pensions within the framework of PA16 are reported and commented under section 3.4.3.3 and 3.4.3.4 below. Pensions costs based on PA16 are recorded and presented in the accounts as "pension costs".

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

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 contributions" pension scheme (in nominal terms in '000 national currency)

Are there different contribution rates for different staff categories? If yes, how many?	Yes-2
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PA16 category 1 and 2	2020D	2021D	2020/2021D	2022D	2023D	2024D
Total pensionable payroll to which this scheme applies	825 836	864 653	1 690 489	883 253	895 817	906 153
Employer % contribution rate to this scheme	7,63%	7,63%		7,62%	7,63%	7,64%
Total pension costs in respect of this scheme	63 011	65 976	128 987	67 322	68 347	69 206
Number of employees the employer contributes for in this scheme	1 142	1 194		1 196	1 199	1 201

<Staff category name>	2020D	2021D	2020/2021D	2022D	2023D	2024D
Total pensionable payroll to which this scheme applies			-			
Employer % contribution rate to this scheme						
Total pension costs in respect of this scheme			-			
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

The defined contribution plan for LFV staff is part of the pension system for government employees (called "PA16"). The defined contribution pensions are accounted for in accordance with Swedish GAAP and the Swedish National Financial Management Authority's regulations (ESV). The pensions are administrated by SPV (National Government Employee Pensions Board). The premium for the pensions are based on what's stipulated in PA16 and invoiced by SPV. The premium/cost to be paid by LFV for each employee is a certain percentage of gross salary and a special employer's contribution on the premium/cost. The costs are accounted for in the P/L as pension costs.

Category 1: Employees born in 1988 or later (2021: appr 120 members of staff) are only covered by defined contribution scheme (no part is defined benefit). The contribution rate for these employees are 6 % in general and then 31,5 % on monthly gross salaries above SEK 43k. On these premiums a special employer's contribution of 24.26 % is accounted for and paid to the state/the Tax Authorities. Calculations of actual outcome for 2020-2021 shows an average contribution rate of appr. 15 -20% including special employer's contribution (in percent of total salaries for category 1).

All active employees of LFV born before 1988 connected to the defined benefit scheme also have a part of the pensions through a defined contribution scheme. The contribution rate is 4.5 % of gross salaries. On these premiums a special employer's contribution of 24.26 % is accounted for and paid to the state/the Tax Authorities.

The number of employees stated above are all employees in the scheme, not only the active members.

We are not aware of any expected changes of the regulations during RP3 of the state pension system. The assumptions for defined contribution scheme are the same for the whole period 2020-2024.

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

See above. The premiums are in accordance with PA16 and administrated by National Government Employee Pensions Board.

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

See above. The premiums are in accordance with PA16 and administrated by National Government Employee Pensions Board. The cost is based on the regulations in PA16 and is calculated based on gross salaries of the employees and therefore deemed to be of the character that no special risk mitigating action against unforeseen change is applicable.

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

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

	2020D	2021D	2020/2021D	2022D	2023D	2024D
Total pensionable payroll to which this scheme applies	825 836	864 653	1 690 489	883 253	895 817	906 153
Total pension costs in respect of this scheme	1 410 029	469 958	1 879 987	527 256	529 783	577 385
- in respect of regular pension costs	1 410 029	469 958	1 879 987	527 256	529 783	577 385
- 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	-1,40%	-1,40%		-1,40%	-1,40%	-1,40%
% 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	1 971	2017*)		2 017	2 017	2 017

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

**) Updated based on information from SPV in May 2022*

Pensions for LfV-staff are based on a pension agreement for personnel employed by the state, called "PA16". The LfV staff is to the largest extent covered by a Defined Benefit Scheme.

As a "state enterprise", LfV follows the accounting rules of Swedish GAAP in accordance the Swedish National Financial Management Authority's regulations (ESV), which is different from IFRS (international accounting rules).

The pensions are administrated by SPV (National Government Employee Pensions Board) and the pensions rights are calculated yearly at present value by SPV and accounted for in LfV's balance sheet. The assumption are decided by SPV and the interest rate is set each year before closing date 31 December on the basis of the interest rate from Swedish Financial Supervisory Authority, which is an average of the interest rates for a year for long-term real obligation (for the period 1 Oct - 30 Sept).

The yearly change in the debt and costs are affected by a number of circumstances that LfV cannot control; for example inflation, forecasted interest rates, and expected average lifetimes. Largest fluctuations between the years mainly are dependent and explained by the fluctuation of the interest rate – the discount rate.

No changes of PA16 (the pension agreement) are expected during 2020-2024.

LfV's pension costs in the performance plan for 2020-2024 are based on a forecast made by SPV (National Government Employee Pensions Board). The forecast is updated yearly and the next forecast will be obtained in July 2022. [Note: New forecast i May/June 2022.] The forecast used in the PP is based on the current interest rates -1,4 %, the gross rate decided for 2020-2021. The same interest rate -1,4 % [the gross rate decided 2020/21] is used for the entire period 2020-2024. A forecast with different discount rates each year will be both very complex to calculated as well as hard to follow up on when the interest rate will fluctuate over the years. The interest rate for the coming years is currently unknown and not possible to determine - it is set annually based on market interest rates for long term government bonds. Interest rate development is uncertain.

Since the basis for pension debt and cost is decided by The Swedish Pensions Agency and is depending on the development of market interest rates, inflation etc. it is an "uncontrollable" cost for LfV and variations compared to the plan will be recoverable. This implies that the final costs can be lower or higher than estimated and out of control of LfV.

For further information see Annex T "Pensions"

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.

Part of the cost for defined benefit obligations is interest (indexation and interest) which is included in staff cost (cost for pensions). This is however accounted for as interest expenses (line item in financial cost) in the financial statement of LfV in accordance with Swedish Accounting principles.

Return on the funding of pension obligation (cash and bank balances) has reduced the cost for pensions. Interest income is recorded as financial income in the financial statement of LfV.

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

See above. The obligation for defined benefit scheme and cost for pensions is regulated by PA16, the Swedish accounting principles and regulations and assumptions etc decided by National Government Employee Pensions Board based on the market development of interest and inflation. Therefore deemed to be out of control of LfV and of the character that no special risk mitigating action against unforeseen change is applicable.

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

LFV

Select number of loans Select

Interest rate assumptions for loans financing the provision of air navigation services (Amounts in nominal terms in '000 national currency)

Other loans	2020D	2021D	2020/2021D	2022D	2023D	2024D
Description						
Remaining balance						
Average weighted interest rate %	-	-		-	-	-
Interest amount			-			

Total loans	2020D	2021D	2020/2021D	2022D	2023D	2024D
Total remaining balance	-	-		-	-	-
Average weighted interest rate %	-	-		-	-	-
Interest amount	-	-	-	-	-	-

3.4.5 - Restructuring costs

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?	No
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3.4.5.2 Restructuring costs planned for RP3

Restructuring costs foreseen for RP3?	Yes
---------------------------------------	-----

Additional comments

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?	Yes
If yes, number of en route charging zones concerned	1

LFV

a) Overall description of the measures necessary to achieve the en-route capacity targets for RP3, which induce additional costs

The measures includes: - ATCO training - Airspace project "SWEA" - Investments maintaining CNS and ATS-service For further descriptions see Annex R

b) Detailed information on the additional costs of measures necessary to achieve the capacity targets for RP3

Number of capacity measures, which induce additional costs	2
--	---

Measure #1	2020D	2021D	2020/2021D	2022D	2023D	2024D
Associated additional costs (nominal terms in '000 national currency)	26 830	24 368	51 198	24 736	21 520	23 195
Description and justification of the additional determined costs of the measure Cost of training to meet capacity requirements and the demographic situation, see Annex R						

Measure #2	2020D	2021D	2020/2021D	2022D	2023D	2024D
Associated additional costs (nominal terms in '000 national currency)		15 000	15 000	19 000	24 000	10 000
Description and justification of the additional determined costs of the measure SWEA project, see Annex R						

Measure #3	2020D	2021D	2020/2021D	2022D	2023D	2024D
Associated additional costs (nominal terms in '000 national currency)	3 900	7 400	11 300	10 500	12 400	15 200
Description and justification of the additional determined costs of the measure Investments, see Annex R						

	2020D	2021D	2020/2021D	2022D	2023D	2024D
Total additional costs of measures ('000 national currency)	30 730	46 768	77 498	54 236	57 920	48 395

c) Detailed information on the additional costs of measures necessary to achieve the capacity targets for RP3 by nature by ANSP

Additional costs of measures necessary to achieve the capacity targets for RP3 (nominal terms in '000 national currency)						
Click to select	2020D	2021D	2020/2021D	2022D	2023D	2024D
Staff		16 464	16 464	25 151	36 983	28 259
of which, pension costs		5 575	5 575	6 562	9 361	4 722
Other operating costs	26 830	23 122	49 952	14 402	4 882	532
Depreciation	3 900	7 356	11 256	10 521	13 157	15 977
Cost of capital		536	536	1 081	2 597	3 481
Exceptional items			-			
Total additional costs of measures	30 730	47 479	78 209	51 155	57 619	48 249

	2020D	2021D	2020/2021D	2022D	2023D	2024D
Total additional costs of measures ('000 national currency)	30 730	47 479	78 209	51 155	57 619	48 249

Additional comments
The information included in c) are figures for ANSP LFV regards the three different measures described in b) above.

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

See Annex R.

SECTION 3.5: ADDITIONAL KPIS / TARGETS

[3.5 Additional KPIS / Targets](#)

Annexes of relevance to this section

ANNEX J. OPTIONAL KPIS AND TARGETS

3.5 - Additional KPIs / Targets

Number of additional KPIs	0
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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?

There is no direct link made between the KPAs and changes to the functional system, but many changes made will have implication for the KPA results. Any change made to the functional system is assessed via the ANSP SMS and the authority receives information and applications for changes depending on severity. Mitigating measures depend on the specific risk but are monitored by ANSP and the authority as required.

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

The main assumption is that safety is prioritized.

This is part of the audit process where different aspects are scrutinized. For this Performance plan the interdependency to cost efficiency has been prioritized. PSR High seas baltic is one example of direct interdependence with cost efficiency since. The investment is a consequence of the increased number of flights not using transponder, which in turn is a safety issue. Other examples constitute staffing issues.

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?

Safety is monitored over the whole system, not specifically related to the KPAs. Currently there is no direct connection made between the KPAs and safety as safety is an integral part of the entire system.

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?

The proposed cost efficiency targets are not considered having a negative impact on safety.

e) Has the State 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.

Changes are assessed as per point a), there is no linkage to the KPAs with regards to changes. However there is interconnection between some KPAs, for example the targets for capacity and cost efficiency are connected. Financial status of the ANSPs are reviewed by the state and personnel resources monitored as part of the oversight conducted.

3.6.2 - Interdependencies and trade-offs between capacity and environment

The dependency between capacity and environment is important, as the fulfillment of the environmental target depends on the airspace capacity and the capacity at the airports. In the event of a poor capacity, delays and risk of aircraft being forced to wait in holding positions in the air or on the ground at the airports will occur, which contributes to an increased environmental impact.

However, during this planning period SE do not consider this particular interdependency a major obstacle meeting the targets.

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

Firstly it is important to note that SE consider the local target reference values which is adapted in this draft performance plan as acceptable and the capacity issue is not priority in the reminder of RP3.

However, in general, the interdependence within these two targets in this plan is most related to number of ATCO staff and this is further elaborated on in Annex R. Another planned project is SWEA, also described further in Annex R.

Investments are also a factor influencing the capacity. Investment in the major ATM system is effected under the umbrella of COOPANS.

3.6.4 - Other interdependencies and trade-offs

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	6
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Initiative #1	
Name	Borealis
Description	The vision of the Borealis Air Navigation Services Alliance is: To be the leading ANSP Alliance that enables its Members to drive better performance for stakeholders through business collaboration.
Expected performance benefits	<p>The primary focus of Borealis is en route and the regulated business. The Alliance's primary task is to reduce the members' costs and increase the capacity for our customers. This can be done e.g. a by cooperating across borders operationally and technically. One of the most positive projects is the implementation of FRA, Free Route Airspace. The Alliance also sees opportunities by cooperating in Cross Border Operation if and when the right conditions exist. Inventory of infrastructure has also been carried out to enable reduced costs for the members. Environment Task Force has been implemented to analyze if there could be any opportunity to work on Vertical Flight Efficiency. Borealis continue to work on Horizontal Flight Efficiency as this is important step in the continuation on FRA.</p> <p>The parties in Borealis are Avinor, EANS, ANS Finland, LFV, LGS, IAA, Isavia, NATS and Naviair.</p> <ul style="list-style-type: none"> • 9 ANSPs • 3 FABs • > 3.8M flights / year • > 10400 flights / day • 38% of European traffic

Initiative #2	
Name	Coopans
Description	The ATC systems represent one of the largest investments for an ANSP. At the initiative of LFV, a group of users of Thales' ATM systems merged and formed COOPANS to harmonize work methodology and coordinate the requirements to reduce the costs for operating and developing ATM systems. The top priority for the members right now is to upgrade all the panels to the same version of the software. Parallel to this, plans are being prepared and prepared for the further development of the systems.
Expected performance benefits	According to the analyzes carried out, it has been found that the cooperation has led to measurable positive effects. Current partners in COOPANS are LFV, Naviair, IAA, Austrocontrol, Nav Portugal and CroatiaControl.

Initiative #3	
Name	A6
Description	LFV is a member of the A6 through our cooperation in COOPANS. The purpose of LFV's cooperation is to implement future SESAR projects and ATM Master Plan. Also the impact on which projects to implement is also done via the A6. The six partners in the A6 are AENA, DFS, DSNA, ENAV, NATS and COOPANS
Expected performance benefits	

Initiative #4	
Name	LFV-Naviair
Description	LFV cooperates with Naviair on many issues and in several areas. LFV and Naviair have taken a further step in cooperation in the technical field through the establishment of the JPO - Joint Program Office. JPO is now completed according to the program plan. The delivered commissioned remains in LFV normal line work, mainly on the technical side with joint tests, etc. On the operational side the work continue with a common ORD (Operational Release Description). The work between LFV and Naviair continue but with separate description attachments, one for LFV and one for NAVIAIR. The latest example of the LFV Naviair collaboration is the introduction of ADQ where an agreement has been concluded and a common system has been traded by LFV.
Expected performance benefits	

Initiative #5	
Name	Entry Point North
Description	Through the joint venture and the educational organization, the owners - LFV, Naviair and IAA - can ensure access to air traffic controller training over time with high quality and cost efficiency.
Expected performance benefits	

Initiative #6	
Name	DK SE FAB
Description	ANSP LFV and Naviar participates as observers in the DK SE FAB Board
Expected performance benefits	At the ANSP level the FAB allows for cooperation between the ANSPs and the authorities of Sweden and Denmark. It also allows for other stakeholders (such as the respective air force) to coordinate with both ANSP and CA. Many other potential performance benefits are overlapping with the initiatives above and therefore not repeated here.

Additional comments
See Coopans - SWIM, LFV-Naviar - ADQ, DMI-SMHI, and also Entry point north (joint infrastructure for education)

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

4.2 - Deployment of SESAR Common Projects

4.2.1 - 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	Technical AMA messages implemented, used for ESMM-ESOS. Horizon extension to 180 NM to be adjusted Expected deployment neighbour countries 2025. The COOPANS consortium plan to have the capability over both OLDI and SWIM service. Sweden will be compliant by CP1 end date.
CP1-s-AF1.2 AMAN/DMAN Integration	N/A for SWEDEN. Out of geographical scope
CP1-AF2 - Airport Integration and Throughput	
CP1-s-AF2.1 DMAN synchronised with predeparture sequencing	Fully integrated
CP1-s-AF2.2.1 Initial airport operations plan (iAOP)	Remaining rolling plan of resource data. Planned to be implemented during 2022
CP1-s-AF2.2.2 Airport operations plan (AOP)	Planned implemented 2024
CP1-s-AF2.3 Airport safety nets	RWY incursion alarm Planned implemented 2021, but due to low traffic in validation possibly delayed to 2022. Rest to be implemented latest end of 2025.
CP1-AF3 - Flexible Airspace Management and Free Route Airspace	
CP1-s-AF3.1 Airspace management and advanced flexible use of airspace	LARA tool is planned to be used. Analysis of how and where e.g. sectorisation should be handled will be addressed (LARA tool, potential new version, versus integration within ATM system level 3). Functionality for the s-AF3 will be addressed within COOPANS (TospSky) system. Sweden will be compliant by CP1 end date.
CP1-s-AF3.2 Free route airspace	Free route implemented. Capacity and efficiency improvements through VoIP Malmö AoR proposed. Sweden will be compliant by CP1 end date.
CP1-AF4 - Network Collaborative Management	
CP1-s-AF4.1 Enhanced short-term ATFCM measures	Planned to be implemented within Network management ongoing initiatives eg. n-connect. Sweden will be compliant by CP1 end date.
CP1-s-AF4.2 Collaborative NOP	Planned to be implemented within Network management ongoing initiatives eg. n-connect. Sweden will be compliant by CP1 end date.
CP1-s-AF4.3 Automated support for traffic complexity assessment	Planned to be implemented within Network management ongoing initiatives eg. n-connect. Sweden will be compliant by CP1 end date.
CP1-s-AF4.4 AOP/NOP integration	Planned to be implemented within Network management ongoing initiatives eg. n-connect. Potential candidate for new COOPANS initiative (INAP concept). Sweden will be compliant by CP1 end date.
CP1-AF5 - SWIM	
CP1-s-AF5.1 Common infrastructure components	GAP expected to be partly covered within the 2017 SWIM PKI project - in an upcoming call there will be a new project- need for the actual deployment of the EACP. Sweden will be compliant by CP1 end date.

CP1-s-AF5.2 SWIM yellow profile technical infrastructure and specifications	<p>To be handled within 2017_061_AF5 and LFV internal projects to achieve the LFV internal roadmap. The implementation within this project is the security features for securing system and resource(server etc) access. This is important for overall secure access against SWIM infrastructure and securing operational resources that is exposed for more threats due to SWIM service implementations. The SWIM platforms security features implementation is done in 2017_066_AF5 COOPANS_SWIM and this makes it important to be monitored and coordinated. Implementation expected to be completed 2025.</p>
CP1-s-AF5.3 Aeronautical information exchange	<p>Project 2017_060_AF5 ADQ will only handle CP1 related service and no business driven services. 2017_060_AF5 ADQ will not handle all CP1 requirements in 5.3.1. Therefore a new project needs to handle all CP1 including business driven services with Swedavia.</p> <p>First ASM level 1 fulfillment will be based on the LARA implementation (LFV internal implementation project expected to finalize in June 2021 as parallel operations to existing CIAM) and ASM level 2 fulfillment will also be based on LARA and Aispac Use Plan reported by LARA to NM. ARES service features need to be verified with LARA TEAM and LARA Road map. ASM level 3 with full ARES fulfillment and ASM level 3 tactical implementation need to be analyzed further. Implementation expected to be completed 2025.</p>
CP1-s-AF5.4 Meteorological information exchange	<p>LFV has meteorological information from several parts related to AIM services. The base information is from SMHI and is exchanged via AFTN/AMHS. This way of communication should be replaced by SWIM services.</p> <p>LFV requirement on SMHI as a MET service provider is to have two separate sources and secure national independency. Cooperation between SMHI and LFV initiated, with focus on initial data exchanges. Implementation expected to be completed 2025</p>
CP1-s-AF5.5 Cooperative network information exchange	<p>LFV to analyse need of an own flow management system. Then LFV needs to be NM B2B compliant. If not LFV can have a NM Tool (CHMI) but is not considered to be compliant but not applicable to CP1. Sweden will be compliant by CP1 end date.</p>
CP1-s-AF5.6 Flight information exchange (yellow profile)	<p>FF-ICE /R1 will affect several operations and systems within LFV. Operations/FPC/Enroute. It will be TopSky/predecessor dependencies to TopSky and therefore also COOPANS relevant. The L-CAPS service will most likely also be affected as the FPC tool for eFPL handling.</p> <p>Analyses need to be initiated; If our SWIM platform is used for FF-ICE/R1 and E-MAN data exchange this part can be reused to a big extent(internal TopSky excluded) in the future platform exchange of TopSky. Sweden will be compliant by CP1 end date.</p>
CP1-AF6 - Initial Trajectory Information Sharing	
CP1-s-AF6.1 Initial air-ground trajectory information sharing	<p>Preliminary technical impact study conducted. Discussion to be conducted at COOPANS level. Sweden will be compliant by CP1 end date.</p>
CP1-s-AF6.2 Network Manager trajectory information enhancement	N/A for SWEDEN.
CP1-s-AF6.3 Initial trajectory information sharing ground distribution	<p>LFV participates in the CoDE project, where the signing of ACDLS Governance MoC is under consideration. Sweden will be compliant by CP1 end date.</p>

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

The Swedish Transport Agency has published national regulation for airspace change and design, TSFS 2018:98. This lays down the procedure for airspace change and also offers guidance on some aspects of the change. There is also internal agency processes for airspace changes (TSG 2017-1206 with associated processes) which dictate how the process should be conducted.

For ATM system changes and improvements these are assessed in accordance with the standard change process. The safety assessment conducted by the ANSP is provided to the authority who will decide on actions based on internal procedures (TSG 2016-3268). For a major change a review would most likely take place which means the authority would verify that the change process has been followed correctly and that regulatory requirements have been fulfilled. Normally this takes place via both document review and on-site audit (for very large changes several visits may take place). TSG 2016-3268 follows 373 and applies to **all** ATC providers (LFV, ACR, SDATS and AFAB)

Report on this segment from the main ANSP LFV:

In LFV the number and speed of changes has increased. The initiatives lead to changed demands and ways to work for the employees. LFV works with different ways to handle these changes in order to strengthen the ability for LFV to handle all the coming changes. The major initiative within airspace changes is Swea that is discribed below.

SWEA will implement changes in two stages as an independent investment project with the aim of modernising the routes to and from the Stockholm region to meet internal as well as external (customer and stakeholder) requirements for: maintained or higher flight safety, reduced costs, reduced environmental impact, increased predictability, increased flexibility and increased availability of general aviation without affecting civil commercial IFR traffic.

Aviation safety provides a framework in which any change in the project must comply with the rules applicable to airspace changes. Most of the identified and planned changes will have a favourable impact on aviation safety compared to the existing system.

A number of conflict points in the airspace will be removed. Adapting the structure with uneven undersides in Stockholm TMA can help reduce the risk of "Airspace Infringement". Methods for handling air traffic are changing, reducing the risk of congestion in the sectors. Clearer departure and arrival flows contribute to fewer intersections between traffic during climb and descent, which leads to a reduced need for monitoring.

The project thus creates the conditions for scalability and gives LFV better conditions to meet any higher growth than the forecast given by LFV for traffic development until 2029. Furthermore, the PCP Regulation (EU 716/2014) imposes requirements for development and implementation PBN-based, fuel-efficient and environmentally friendly SID, STAR and approach procedures by 1 January 2024 at Stockholm Arlanda Airport.

Implementation of the Swea project will be carried out in two phases, 2021-2023 and 2024-2025. The systematic implementation will provide streamlining for LFV as early as 2024-2025 and will have full impact from 2026 onwards.

LFV Operations Management System is to be followed throughout the project together with LFV's project management process. The project will have an impact on the functional system and a change notification shall be sent to the Swedish Transport Agency early in the project. The flight safety work will be planned together with the project's aviation safety resource and documented as an annex to the project plan. The project work will be carried out as appropriate according to the LFV change management process and the flight safety assessment process. In particular, the project will take into account the LFV change management process (regarding the responsibility that falls to LFV in the event of a so-called "multiactor change").

The project will continuously engage in dialogue with the Swedish Armed Forces' various areas of activity in order to fully take their needs into account. The aim is to create a less vulnerable system through increased conditions for military and civilian air traffic to operate independently of each other. LFV will to a large extent need to cooperate with Swedavia, which has the advice over, for example, SID and STAR and the airspace adjacent to the company's airports. The division of responsibilities between these two parties will be taken care of in a specific agreement.

In autumn 2020, LFV conducted a feasibility study Modernized Infrastructure. The results of this feasibility study will be coordinated with Swea.

The steering group is manned with decision-makers to create a good foundation in the organization. The connection to the ATCC centres is important as well as to Operations ATS. This is taken care of by retrieving resources from the whole organisation. An internal advisory reference group is manned with key roles from the line organization.

External communication will be important for implementation, as the project will create new conditions for airspace users and for airports. Documented communication is also a necessary component of the approval process at the Swedish Civil Aviation Authority. An ongoing dialogue with relevant departments within the NSA as well as with Swedavia is necessary to facilitate approval processes and publication.

The project will also mean that in some cases, the air traffic controller will face major changes in the way air traffic are handled and it is therefore important that the Human Factors perspective play a central early role in the planning of future training efforts. As a result, a HR competence has been connected to the project group for the communication plan.

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

The Swedish Transport Agency has published national regulation for airspace change and design, TSFS 2018:98. This lays down the procedure for airspace change and also offers

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

The Swedish Transport Agency has published national regulation for airspace change and design, TSFS 2018:98. This lays down the procedure for airspace change and also offers

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

The Swedish Transport Agency has published national regulation for airspace change and design, TSFS 2018:98. This lays down the procedure for airspace change and also offers

SECTION 5: TRAFFIC RISK SHARING ARRANGEMENTS AND INCENTIVE SCHEMES

5.1 - Traffic risk sharing parameters

[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 for the calculation of financial advantages or disadvantages - Enroute

5.2.1.2 Rationale and justification - Enroute

[5.2.2 - Capacity incentive scheme - Terminal](#)

5.2.2.1 Parameters for the calculation of financial advantages or disadvantages - Terminal

5.2.2.2 Rationale and justification - Terminal

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

Sweden	Traffic risk-sharing parameters adapted?					
			Service units lower than plan			no
			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

Sweden - TCZ	Traffic risk-sharing parameters adapted?					
			Service units lower than plan			no
			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 - Capacity incentive schemes

5.2.1 - Capacity incentive scheme - Enroute

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

Enroute	Expressed in	Value
Dead band Δ	fraction of min	$\pm 0,050$ min
Max bonus ($\leq 2\%$)	% of DC	1,00%
Max penalty (\geq Max bonus)	% of DC	2,00%
The pivot values for RP3 are	fixed	

LFV

	2020	2021	2022	2023	2024
NOP reference values (mins of ATFM delay per flight)			0,07	0,08	0,08
Alert threshold (Δ Ref. value in fraction of min)			$\pm 0,050$	$\pm 0,050$	$\pm 0,050$
Performance Plan targets (mins of ATFM delay per flight)			0,07	0,08	0,08
Pivot values for RP3 (mins of ATFM delay per flight)			0,07	0,08	0,08
Financial advantages / disadvantages	Dead band range		[0,02-0,12]	[0,03-0,13]	[0,03-0,13]
	Bonus sliding range		[0,02-0,02]	[0,03-0,03]	[0,03-0,03]
	Penalty sliding range		[0,12-0,12]	[0,13-0,13]	[0,13-0,13]

5.2.1.2 Rationale and justification - Enroute

If the pivot values are different than the values in the NOP, explain rationale for the difference and method of calculation**

The motivation for the proposed targets is that the deadband does not lead to adjustments on small variations. The target is narrow and volatility and specific incidents should not lead to either bonus or penalty. The incentive scheme is asymmetric and gives a 1 percent bonus and 2 percent penalty outcome. The incentive scheme applies to LFV only. No delay cause is excluded.

** Refer to Annex I, if necessary.

5.2.2 - Capacity incentive scheme - Terminal

5.2.2.1 Parameters for the calculation of financial advantages or disadvantages - Terminal

Terminal	Expressed in	Value
Dead band Δ	fraction of min	$\pm 0,075$ min
Bonus/penalty range (% of pivot value)	%	$\pm 50\%$
Max bonus	% of DC	1,00%
Max penalty	% of DC	2,00%
The pivot values for RP3 are	fixed	

	2020	2021	2022	2023	2024
Performance Plan targets (mins of ATFM delay per flight)			0,15	0,15	0,15
Bonus/penalty range Δ (in fraction of min)			$\pm 0,075$	$\pm 0,075$	$\pm 0,075$
Pivot values for RP3 (mins of ATFM delay per flight)			0,15	0,15	0,15
Financial advantages / disadvantages	Dead band range		[0,075-0,225]	[0,075-0,225]	[0,075-0,225]
	Bonus sliding range		[0,075-0,075]	[0,075-0,075]	[0,075-0,075]
	Penalty sliding range		[0,225-0,225]	[0,225-0,225]	[0,225-0,225]

5.2.2.2 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**

The incentive scheme applies to TNC Arlanda. The incentive scheme is proposed to apply to LFV and Swedavia. LFV provides the ATS service while Swedavia provides infrastructure. The motivation for the proposed deadband is that it does not lead to adjustments on small variations. The maximum deadband possible according to the regulation is applied. The incentive scheme is asymmetric and gives a 1 percent bonus and 2 percent penalty outcome. Historically delay causes have been related to weather and technical incidents which individually have had large impact on the outcome.

No delay cause is excluded.

** Refer to Annex I, if necessary.

5.3 - Optional incentives

Total maximum bonus for all optional incentives (≤2%):	0,0%	Total maximum penalty for optional incentives (≤4%):	0,0%
Number of optional incentives	0		

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 NSA to monitor the implementation of the Performance Plan including the yearly monitoring of all KPIs and Pls defined in Annex I of the Regulation and a description of the data sources

Implementation

The NSA has set up a forum, the national RP3 council, to work with the planning of RP3 and discuss different aspects of RP3. The council have consisted of main providers, users and user organisations.

NSA have taken assistance by consultants in certain areas, for example in the determination of ROE.

Another aspect of the NSA approach has been to incorporate the result of the EU Commissions studies and manuals into the audit process. The auditing process started with the December 2020 reporting, to go into an intensive phase from 1st of April. Except for STAs colleagues at the section for market, also ANS- and legal expertise have assisted in the auditing. The academic study result from 2019 was however difficult to interpret from the diversified results applied for SE depending on two approaches.

After consultations, the implementation will continue with SE NSA decision on each providers determined costs and other targets where applicable. The initial decisions will be subject to the assessment process by the EU Commission, i.e. if the SE Performance scheme is not deemed consistent and need to be revised, the initial decisions by SE NSA might be revised accordingly. SE NSA initial decisions will be distributed after the 17th of November submission.

Monitoring and oversight is performed at different occasions. Safety oversight follows by the yearly monitoring process, April to June, for level of effectiveness of safety management, as well as the oversight according to 373 follows that regulations requirements. The other targets follow of course the yearly monitoring process, i.e. April to June, including auditing of actual performance. To that, the SE NSA arrange market consultations twice a year - May and October. In addition to that, targets are monitored on a regular basis from the SE NSA and certain areas subject to special investigations when it comes to different projects.

Sources of data ANSperformance.eu, NMIR, NOP Portal, Providers financial accounts.

6.2 Non-compliance with targets during the reference period

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

SE NSA has a project group for the Performance plan with expertise covering the perspectives.

During the reference period performance is monitored, especially during the yearly monitoring report process. Where performance is not met the provider responsible is obliged to write a formal explanation to the NSA. If reported with satisfaction the NSA will use this for the monitoring report to make public.

If capacity target for En route delay is not met, and outside the deadband, the penalty mechanism in the incentive scheme will trigger.

7 - ANNEXES

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

ANNEX A.x - En route Charging Zone #x

ANNEX B. REPORTING TABLES & ADDITIONAL INFORMATION (TERMINAL)

ANNEX B.x - Terminal Charging Zone #x

ANNEX C. CONSULTATION

ANNEX D. LOCAL TRAFFIC FORECASTS

ANNEX E. INVESTMENTS

ANNEX F. BASELINE VALUES (COST-EFFICIENCY)

ANNEX G. PARAMETERS FOR THE TRAFFIC RISK SHARING

ANNEX H. RESTRUCTURING MEASURES AND COSTS

ANNEX I. PARAMETERS FOR THE MANDATORY CAPACITY INCENTIVES

ANNEX J. OPTIONAL KPIs AND TARGETS

ANNEX K. OPTIONAL INCENTIVE SCHEMES

ANNEX L. JUSTIFICATION FOR SIMPLIFIED CHARGING SCHEME

ANNEX M. COST ALLOCATION

ANNEX N. CROSS-BORDER INITIATIVES

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 S. INTERDEPENDENCIES

ANNEX T. OTHER MATERIAL

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

ANNEX Z. CORRECTIVE MEASURES*

** Only as per Article 15(6) of the Regulation*