Performance Plan

Norway

Third Reference Period (2020-2024)

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

Date of issue: 17.11.2021

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

Signatories

Performance plan details	
State name	Norway
Status of the Performance Plan	Draft performance plan containing revised RP3 targets (Art. 3 of IR 2020/1627 & Art. 12 of IR 2019/317)
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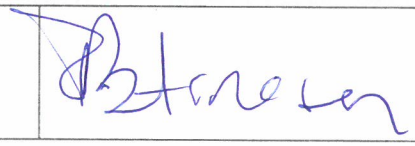
Date of adoption of Final Performance Plan	

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

Name, title and signature of representative	
Mr. Fredrik Birkheim Arnesen Director General Ministry of Transport	

Additional comments	

Document change record		
Version	Date	Reason for change
1.0	11.10.2021	Draft performance plan
2.0	17.11.2021	Draft performance plan (ESA findings, adj. ENZ traffic & related costs)

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1 - INTRODUCTION

1.1 - The situation

NSA(s) responsible for drawing up the Performance Plan	Civil Aviation Authority Norway

1.1.1 - List of ANSPs and geographical coverage and services

Number of ANSPs	4

ANSP name	Services	Geographical scope
Avinor Flysikring AS (Avinor ANS)	En-Route ATS	Norway
Avinor AS	Terminal ATS	Norway
Saerco (Kjevik ANSP)	En-Route ATS	Norway
The Norwegian Meteorological Institute (MET)	En-Route ATS, Terminal ATS	Norway

Cross-border arrangements for the provision of ANS services

Number CB arrangements where ANSPs provide services in an other State	6

ANSPs providing services in the FIR of another State	
ANSP Name	Description and scope of the cross-border arrangement
Avinor Flysikring AS	Kirkenes TMA West and Centre are within Finnish airspace (see 4.1.1, initiative #1).
Avinor Flysikring AS	North Sea Helicopters - Scottish FIR (see 4.1.1, initiative #2).
Avinor Flysikring AS	North Sea Helicopters - Norway FIR (see 4.1.1, initiative #3).
Avinor Flysikring AS	Sweden FIR/Norway FIR (see 4.1.1, initiative #4).
Avinor Flysikring AS	Finland FIR/Norway FIR (see 4.1.1, initiative #5).
Avinor Flysikring AS	Free Route Airspace (see 4.1.1, initiative #6)

Number CB arrangements where ANSPs from another State provide services in the State	2

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
NATS	North Sea Helicopters - Norway FIR (see 4.1.1, initiativ 3).
LFV	Sweden FIR/Norway FIR (see 4.1.1, initiative 4).

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	2

Entity name	Domain of activity	Rationale for inclusion in the Performance Plan
The Civil Aviation Authority of Norway (CAA-N)	National regulator	The CAA-N is the competent authority (NSA) in Norway.
Eurocontrol	Intergovernmental Agency	Norway is a member of Eurocontrol and the determined cost stemming from the Eurocontrol International Convention is a part of the cost base.

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

En-route	Number of en-route charging zones	1

En-route charging zone 1	Norway

Terminal	Number of terminal charging zones	1

Terminal charging zone 1	Norway - TCZ

1.1.4 - Other general information relevant to the plan

Avinor Flysikring AS (Avinor ANS) is the designated provider of ATC-services in Norway. Avinor ANS is a subsidiary company of Avinor AS, which is the owner of the major airports in Norway. Both companies are limited liability companies ("AS"). All the shares of Avinor AS are owned by the State, and administered by the Ministry of Transport (the Ministry).

Avinor Flysikring AS (Avinor ANS) is identified in the performance plan as the service provider for ATC-services in the en route charging zone. Avinor AS is identified as the service provider for ATC-services in the terminal charging zone. The latter solution may not seem logical, but it is related to the fact that Avinor AS as airport owner purchases ATC-services from Avinor ANS in the terminal charging zone, related to their airports, in addition to Avinor AS being an actual provider of CNS-services. All figures reported by Avinor AS in relation to ATC-services in the terminal charging zone are based on the actual costs of Avinor ANS to deliver ATC-services (i.e.: figures are not based on contractual costs).

The Norwegian Meteorological Institute (MET) is designated as the national service provider of meteorological air navigation services. MET delivers its services through contractual relations with Avinor ANS and Avinor AS. These contracts regulate the level and quality of service provision, as well as the costs. The MET cost base is as such an integral part of the cost bases for Avinor ANS and Avinor AS, categorized solely as staff and operating costs. The cost efficiency target of MET (for RP2) is set through the Ministry's designation of MET as a national service provider. The Ministry has not yet set a cost efficiency target for MET for RP3.

The Spanish service provider SAERCO has, through a tender process, been awarded a contract to provide ATC-services on two airports not directly a part of the performance scheme. The service provision commenced in spring 2020. This has an effect on the part of the approach-services for one of the airports (Kristiansand airport, Kjevik) which are allocated to the en route charging zone. The cost allocation model chosen for the performance plan includes the Kjevik approach cost allocated to the en route cost base.

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 Avinor Group comprises Avinor AS, that operates the majority of the Norwegian airports, and Avinor Flysikring AS, the ANS provider. Avinor Flysikring AS is a subsidiary of Avinor AS. Financial support has been provided to the Avinor group by its owner in 2020 and 2021 to strengthen the group's solidity to mitigate weakened credit metrics due to Covid-19. From Avinor's annual and sustainability report 2020: "The loss of traffic caused a significant drop in revenues due to heavy falls in passenger numbers, as well as the Norwegian authorities largely opting to suspend fees due to Avinor for services provided to airlines. Avinor is usually self-financed based on commercial revenues and airport charges, but in this situation financial support in the form of an injection of capital was required in order to maintain the Group's liquidity and equity. The Group's owner, the Norwegian Ministry of Transport, provided support in 2020 amounting to approximately NOK 3.6 billion, and Avinor anticipates that it will remain dependent on support to a similar level throughout 2021. The precise amount will be determined by how quickly the pandemic improves and how quickly passengers resume travel." To mitigate the consequences of the pandemic on the aviation industry the Norwegian Ministry of Transport has made the following decisions: • With reference to (EU)2019/317 Article 29(6), the en-route and terminal unit rates for 2022 will be kept unchanged in real terms compared to previous year. The revenue gap resulting from a lower unit rate than the unit rate calculated in accordance with (EU) 2019/317, Article 25 (2) is expected to be covered by funding from the owner. • The 2020-2021 en-route and terminal deficit of 1 258 MNOK will not be recovered through adjustments of the unit rates from 2023.

Additional comments
With regard to the calculations leading to a determined unit cost/unit rate for the years 2023 and 2024, the Norwegian Ministry of transport reserves the right to decide setting unit rates at a lower level in order to further stimulate the recovery of traffic post covid-19. In that case, this will be communicated in the autumn 2022 (UR 2023) and correspondingly in the autumn 2023 (UR 2024).

1.2 - Traffic Forecasts

1.2.1 - En route

En route Charging zone 1	**Norway**
En route traffic forecast	Local forecast

Local Forecast	2017A	2018A	2019A	2020A	2021	2022	2023	2024	CAGR 2019-2024
IFR movements (thousands)	591	594	591	344	370	480	542	579	-0,4%
IFR movements (yearly variation in %)		0,6%	-0,5%	-41,8%	7,5%	29,5%	13,1%	6,8%	
En route service units (thousands)	2 527	2 522	2 437	1 230	1 407	2 048	2 316	2 472	0,3%
En route service units (yearly variation in %)		-0,2%	-3,4%	-49,5%	14,4%	45,6%	13,1%	6,7%	

Specific local factors justifying not using the STATFOR base forecasts (provide justification below or refer to Annex D for more detailed explanation)
Updated local traffic forecast November 2021 from Avinor Flysikring AS (ANS) scenario for the period 2021D-2024D. Please see Annex C. - Stakeholder consultation (by correspondance) on new local traffic forecast from November 2021 - Minutes from the airspace users consultation meeting August 2021 - Presentation of sensitivity analysis in "Trafikkscenarioer Avinor RP3.pdf" (presented to the airspace users consultation meeting) Please see Annex D. - Justification for using "Local forecasts rev draft PP RP3" from November 2021

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

1.2.2 - Terminal

Terminal Charging zone 1	**Norway - TCZ**
Terminal traffic forecast	Local forecast

Local Forecast	2017A	2018A	2019A	2020A	2021	2022	2023	2024	CAGR 2019-2024
IFR movements (thousands)	214,5	215,7	213,7	130,5	137	181	213	227	1,2%
IFR movements (yearly variation in %)		0,6%	-0,9%	-38,9%	5,1%	32,3%	17,4%	6,7%	
Terminal service units (thousands)	246,2	252,6	251,0	129,0	139,2	204,8	240,4	258,3	0,6%
Terminal service units (yearly variation in %)		2,6%	-0,6%	-48,6%	7,9%	47,1%	17,4%	7,5%	

Specific local factors justifying not using the STATFOR base forecasts (provide justification below or refer to Annex D for more detailed explanation)
Local traffic forecast from Avinor AS for the period 2021D-2024D presented for the airspace users 20th of August 2021. Local traffic figures includes offshore movements at Bergen (ENBR) and Stavanger (ENZV) airport (ref. ANNEX D. LOCAL TRAFFIC FORECAST, 2. Terminal) Please see Annex C. - Stakeholder consultation (by correspondance) on new traffic forecast from November 2021 - Minutes from the airspace users consultation meeting August 2021 - Presentation of sensitivity analysis in "Trafikkscenarioer Avinor RP3.pdf" (presented to the airspace users consultation meeting) Please see Annex D. - Justification for using "Local forecasts rev draft PP RP3" from November 2021

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

1.3 - 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
SAFETY No particular issues. **ENVIRONMENT** Airspace users find it worrying that environmental targets for 2020 were not achieved with a 44% reduction in traffic. Doubts that this is all because of the airspace users. What is KEP in Norway? Can filing plans get better? Are there investments underway with regard to better environmental goals? CAA-N will respond to this in writing, together with KEP. **CAPACITY** Airspace users question a local target of 0.11 in 2023/2024, considering that this was 0.08 in the previous plan, and with regard to actual delay of previous years. It is difficult to see the need for higher values when traffic expectations are lower. Do not see that ANSP has reduced staffing as much as the traffic drops. ANSP replies that there were expected difficulties with capacity in 2023 and 2024 due to extra need for staff in connection with implementation of the Future ATM System (FAS). This still applies. But now the issue is that AFAS has reduced staffing so that they cannot have the same staffing capacity. Airspace users also point out that the relevant parameter concerning need for ATCOs are IFR-units, not service units. **TRAFFIC FORECASTS** ANPSs latest local forecasts are from April 2021, and are now considered to be too optimistic. Airspace users assume that the local forecasts from April are too optimistic in the near future, and perhaps not so much on a long-term basis. Airspace users note a big difference in the figures for En Route and TNC, and ask why. Would like to see figures on actual traffic in 2021 compared to STATFOR forecasts and ANSPs own forecast. Would also like to see a comparison with service units here, since weight is a decisive factor in calculating service units, and offshore traffic is flown with relatively low-weight aircrafts (helicopters). After the STATFOR 7-year forecast was published in October 2021 the CAA-N invited Stakeholders to give a response on the use of local forecasts vs. STATFOR base. From the ANSPs point of view the STATFOR base (OCT 21) is considered to be an unrealistic forecast for the current traffic situation in Norway. The ANSPs claimed that the current STATFOR BASE service units forecast for Norway differed severely from the STATFOR BASE forecast for the rest of Europe without any specific local data that documenting the rationale for this. The STATFOR forecast has not had any national consultation nor input through the STATFOR user group, and the lack of involvement prior to publishing the STATFOR forecast has resulted in a forecast not taking into account local factors such as the market situation, political and social climate, level of regulated and unregulated air traffic charges, and other local national elements that may influence the coming traffic levels. Thus, the ANSPs traffic figures are based on analyzis from their own experts, and also based on signals from their customers. From the airspace users point of view, Board of Airline Representatives in Norway (BARIN) supported (email 4th November) the use of the latest local prognosis developed for Avinor for 2022, and on longer-term planning based on STATFOR. They also replied that they could not collect commercially sensitive data on behalf of members (ref. e-mail 4th November 2021). Federation of Norwegian Aviation Industries (NHO Luftfart) on behalf of the airliners SAS, Norwegian, Widerøe and Flyr, in principle supported (email 2nd November) the use of updated STATFOR base forecasts, which they perceive as thorough and well-recognized in the industry, without any further justification why. Still NHO Luftfart considered use of local forecasts that has been prepared in close collaboration with the industry as more realistic than STATFOR base in 2022 (ref. email 2nd November 2021). The Lufthansa Group opinion on the new STATFOR forecast was that it was ambitious but not unreachable. They also referred to a strong rebound of the demand on the North Atlantic routes, and in the European markets a strong willingness of people travelling again including business travels (ref. e-mail 2nd November 2021). **COST EFFICIENCY** The Norwegian Meteorological Institute does not recognize MET cost figures, and asks for discussion on these. Airspace users have several questions: Notes that the use of STATFOR will push up the DUC. Interested in the difference in price between STATFOR and Avinor traffic estimates? How much staff reductions will we see in the years to come? How much of costs go into early retirement? Why are there changes in investments? And how are investments that should have been made in 2019 reflected? Why does the state still require a return on capital? Wants to know more about MET costs. Why do "other operating costs" increase dramatically?

Reimbursement from 2020/2021 must be reflected in the figures presented, both for en route and TNC. CAA-N must present a decision on a 5 or 7 year reimbursement period.
State aid must be clarified. Has the loan from AAS to AFAS been converted?
Same question related to TNC as for en route. Prefers to receive the answers separately in advance of the meeting in September. Important with regard to effects from 2023.
Positive if the state provides direct injection rather than loans.
Requests the state to discharge return on capital.

INVESTMENTS
Airspace users would like a separate meeting to shed light on the investment situation. A joint approach is needed to clarify the need for investments.

INCENTIVE SCHEMES
Airspace users support that the "penalty-only" solution is applied. Believes this should be the main rule in Europe.

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	Yes	Under consideration.
Charging policy	Yes	Not discussed.
Maximum financial advantages and disadvantages for the mandatory incentive scheme on capacity	Yes	Bonus 0 %, Penalty 2 %
Where applicable, decision to modulate performance targets for the purpose of pivot values to be used for the mandatory incentive scheme on capacity	Yes	Pivot value 0,08 for both ENR and TNC (0,11 for ENR for the years 2023 and 2024) .
Symmetric range ("dead band") for the purpose of the mandatory incentive scheme on capacity	Yes	Dead band +/- 0,03 min/flt for both en route and terminal services
Establishment or modification of charging zones	No	Not discussed.
Establishment of determined costs included in the cost base for charges	Yes	Ref. 1.3.1
Where applicable, values of the modulated parameters for the traffic risk sharing mechanism	No	Not discussed.
Where applicable, decision to apply the simplified charging scheme	No	Not considered an option.
New and existing investments, and in particular new major investments, including their expected benefits	Yes	Not discussed in detail. Airspace users would like separate meetings on this topic.

1.3.3 - Consultation of stakeholder groups on the performance plan

#1 - ANSPs	
Stakeholder group composition	Avinor AS, Avinor Flysikring AS (ANS) and MET
Dates of main meetings / correspondence	18.02.2021, 23.04.2021, 25.05.2021, 18.06.2021 and 03.09.2021
Main issues discussed	Cost-saving measures, new updated investment plans, public funding, traffic forecast.
Actions agreed upon	Ref. main issues above
Points of disagreement and reasons	Incentive schemes (no changes from draft PP RP3 from nov.2019).
Final outcome of the consultation	Agreement on main issues above.

Additional comments
Ref. ANNEX C. CONSULTATION

#2 - Airspace Users	
Stakeholder group composition	SAS, Norwegian, Widerøe, The Lufthansa Group, among others
Dates of main meetings / correspondence	18.06.2021
Main issues discussed	Ref. 1.3.1
Actions agreed upon	Clarification on open issues by correspondence (primo september 2021).
Points of disagreement and reasons	Cost of capital (Calculation of WACC).
Final outcome of the consultation	Clarification on open issues by correspondence.

Additional comments
Rf. ANNEX C. CONSULTATION

#3 - Professional staff representative bodies	
Stakeholder group composition	IATA, BARIN (Board of Airline Representatives in Norway), Federation of Norwegian Aviation industries (NHO Luftfart)
Dates of main meetings / correspondence	18.06.2021
Main issues discussed	Ref. 1.3.1
Actions agreed upon	Clarification on open issues by correspondence (primo september 2021). Incentive schemes (no bonus).
Points of disagreement and reasons	Cost of capital (Calculation of WACC) Local traffic forecast.
Final outcome of the consultation	Clarification on open issues by correspondence.

Additional comments
Ref. ANNEX C. CONSULTATION

#4 - Airport operators	
Stakeholder group composition	Avinor AS
Dates of main meetings / correspondence	18.02.2021, 23.04.2021, 25.05.2021, 18.06.2021 and 03.09.2021
Main issues discussed	Cost-saving measures, new updated investment plans, public funding, traffic forecast.
Actions agreed upon	Ref. main issues above.
Points of disagreement and reasons	No spesific issues.
Final outcome of the consultation	Agreement on main issues discussed above.

Additional comments
Ref. ANNEX C. CONSULTATION

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

Additional comments

#6 - Other (specify)	
Stakeholder group composition	Ministry of Transport - Norway
Dates of main meetings / correspondence	26.03.2021, 18.06.2021, 31.08.2021
Main issues discussed	Cost-saving measures, public funding, unit rates 2022-2024.
Actions agreed upon	Ref. main issues above.
Points of disagreement and reasons	No one.
Final outcome of the consultation	Agreement on main issues dicussed above.

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 ≥ 80 000)

ICAO code	Airport name	Charging Zone	IFR air transport movements			
			2016	2017	2018	Average
ENGM	Oslo/Gardermoen	Norway - TCZ	245 093	251 193	257 474	251 253
ENBR	Bergen/Flesland	Norway - TCZ	87 144	83 653	85 443	85 413

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

Number of airports	2		
ICAO code	Airport name	Charging Zone	Additional information
ENZV	Stavanger/Sola	Norway - TCZ	
ENVA	Trondheim/Vaernes	Norway - TCZ	

Additional comments
The geographical scope of the the terminal charging zone remains unchanged from RP2, i.e. one charging zone subject to the performance and charging regulation in RP3 consisting of the airports Gardermoen (ENGM), Bergen (ENBR), Stavanger (ENZV) and Trondheim (ENVA).

1.5 - Services under market conditions

Number of services under market conditions	0

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

SECTION 2: INVESTMENTS

2.1 - Investments - Avinor Flysikring AS (Avinor ANS)

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 - Avinor AS

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 - Saerco (Kjevik ANSP)

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 - The Norwegian Meteorological Institute (MET)

2.4.1 - Summary of investments
2.4.2 - Detail of new major investments
2.4.3 - 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 - Avinor Flysikring AS (Avinor ANS)

2.1.1 - Summary of investments

Number of new major investments	2

#	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	SKYCOM	13 518 787 €	13 518 787 €	0	432 900	3 562 650	7 306 650	15 783 517	15	100 %	0 %	01.09.2024
2	Future TWR system	21 441 375 €	857 655 €	0	0	0	234 000	468 000	15	100 %	0 %	
Sub-total of **new major investments** above (1)		34 960 162 €	14 376 442 €	0	432 900	3 562 650	7 540 650	16 251 517				
Sub-total **other new investments** (2)		58 079 325 €	39 196 575 €	0	0	6 687 993	13 158 844	21 388 550		100 %	0 %	
Sub-total **existing investments** (3)				176 912 043	188 515 977	189 128 850	190 473 180	177 540 993		100 %	0 %	
Total new and existing investments (1) + (2) + (3)		93 039 486 €	53 573 016 €	176 912 043	188 948 877	199 379 494	211 172 674	215 181 060				

** 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	***SKYCOM***		Total value of the asset	***13 518 787 €***
Description of the asset	Implementation of VoIP based Voice Communication System for Norway ACC, replacing existing 3 old local VCS systems. SKYCOM is an enabler for benefit realisation and performance improvement of future ATM system (FAS) for Norway ACC e.g. dynamic sectorisation			
The investment is mandated by a SES Regulation (i.e. PCP/CP1/Interoperability)?	No			
Level of impact of the investment	Network	Low		
	Local	Moderate		
	Non-performance			
Quantitative impact per KPA	Safety			
	Environment			
	Capacity			
	Cost Efficiency			
Results of the consultation of airspace users' representatives	No consultation with airspace users related to TWR functionality.			
Joint investment / partnership	No			
Investment in ATM systems	No			

If investment in ATM system, type?	Replacement investment	
If investment in ATM system, Reference to European ATM Master Plan / PCP	Master Plan (non-PCP)	

Name of new major investment 2	***Future TWR system***		Total value of the asset	***21 441 375 €***
Description of the asset	System client positions to support Towers and Approaches with ATM-functionality, integrated with the new iTEC ATM system. The client working positions will be connected to a shared data centre, supporting both ACC, APP and (limited) TWR functions.			
The investment is mandated by a SES Regulation (i.e. PCP/CP1/Interoperability)?	No			
Level of impact of the investment	Network	Low		
	Local	Moderate		
	Non-performance			
Quantitative impact per KPA	Safety			
	Environment			
	Capacity			
	Cost Efficiency			
Results of the consultation of airspace users' representatives	No consultation with airspace users related to TWR functionality.			
Joint investment / partnership	No			
Investment in ATM systems	No			
If investment in ATM system, type?	Replacement investment			
If investment in ATM system, Reference to European ATM Master Plan / PCP	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 replacement and upgrade of COM/SUR/NAV-equipment. Annex E provides a more detailed overview. As presented in Annex E the sum of investments consists of a number of smaller projects within the categories NAV, SUR and COM. When planning years ahead, the uncertainty of both which investments actually will be made and also the cost of a possible investment is high. The investment level is based on an evaluation of equipment in operation and the time frame for upgrade/replacement, considering many factors, but most importantly regulatory requirements and cost efficiency. The investment projects in Avinor ANS are managed on a portfolio basis.

Please see Annex E for more detailed information.

Existing investments are described in the Performance Plan for RP2.

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

Number of new other investments	8

#	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	ATM-Systems General	25 500 000	25 500 000						Ref. ANNEX E. INVESTMENTS
2	Buildings General	79 000 000	79 000 000						Ref. ANNEX E. INVESTMENTS
3	Communication General	159 500 000	159 500 000						Ref. ANNEX E. INVESTMENTS
4	Other tech-investments	105 000 000	105 000 000						Ref. ANNEX E. INVESTMENTS
5	MET General	3 600 000	3 600 000						Ref. ANNEX E. INVESTMENTS
6	Mobility General	18 000 000	18 000 000						Ref. ANNEX E. INVESTMENTS
7	Other type of Project	63 000 000	63 000 000						Ref. ANNEX E. INVESTMENTS
8	Surveillance General	88 150 000	88 150 000						Ref. ANNEX E. INVESTMENTS
Σ	Total other new investments	541 750 000	365 616 240	0	0	6 687 993	13 158 844	21 388 550	Ref. 2.1.1 - Summary of investments

2.2 - Investments - Avinor AS

2.2.1 - Summary of investments

Number of new major investments	2

#	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	New ATM system OSL, NeTSO	51 384 255 €	25 622 443 €	643 500	819 000	1 433 250	4 592 250	10 559 250	20	0 %	100 %	01.08.2027
2	Terminal area radar OSL	1 921 147 €	1 921 147 €	579 053	2 814 112	2 761 696	2 709 280	2 656 864	20	0 %	100 %	02.05.2021
Sub-total of **new major investments** above (1)		53 305 402 €	27 543 590 €	1 222 553	3 633 112	4 194 946	7 301 530	13 216 114				
Sub-total **other new investments** (2)		0 €	0 €	0	0	0	0	0		0 %	100 %	
Sub-total **existing investments** (3)				68 823 936	64 724 819	62 855 178	66 020 650	64 598 750		0 %	100 %	
Total new and existing investments (1) + (2) + (3)		53 305 402 €	27 543 590 €	70 046 490	68 357 931	67 050 124	73 322 180	77 814 864				

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

2.2.2 - Detail of new major investments

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

Name of new major investment 1	***New ATM system OSL, NeTSO***					Total value of the asset	***51 384 255 €***
Description of the asset	Investment in new TWR ATM-system to replace existing system at Gardermoen TWR. The total investment costs is based on a feasibility study based on input from several system suppliers. The investment is expected to increase safety, capacity and cost-efficiency of service provision at Oslo airport and implement legal requirements as mandated by IR (EU) 716/2014. The NeTSO project is at the moment in a pre-project phase and a planned investment decision by the Avinor AS board is expected during RP3.						
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	IR (EU) 716/2014					
Specify links to the PCP/CP1/Interoperability Regulations (add the sub-AF number(s) under each relevant box)	AF1	AF2	AF3	AF4	AF5	AF6	Interoperability
Benefits for airspace users and results of the consultation of airspace users' representatives	Increased capacity, safety and cost-efficiency in service provision.						
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	Click to select	IR (EU) 716/2014

Name of new major investment 2	***Terminal area radar OSL***		Total value of the asset	***1 921 147 €***
Description of the asset	The replacement of Gardermoen Terminal Area Radar (TAR) will provide ATC necessary system support to enable and ensure safe and efficient management of air traffic flows into OSL, providing 3NM or less separation between arriving aircraft. The new Gardermoen TAR shall consist of both MSSR and PSR to ensure safety and security and will meet future regulatory requirements for standardization, capacity and provide redundancy to avoid delays for airspace users.			
The investment is mandated by a SES Regulation (i.e. PCP/CP1/Interoperability)?	No			
Level of impact of the investment	Network	Low		
	Local	High		
	Non-performance			
Quantitative impact per KPA	Safety			
	Environment			
	Capacity			
	Cost Efficiency			
Results of the consultation of airspace users' representatives	No consultation with airspace users.			
Joint investment / partnership	No			
Investment in ATM systems	No			
If investment in ATM system, type?	Replacement investment			
If investment in ATM system, Reference to European ATM Master Plan / PCP	Master Plan (non-PCP)			

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

Costs related to depreciation and cost of capital for existing infrastructur related to the TNC-services.

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

Number of new other investments	0

2.3 - Investments - Saerco (Kjevik ANSP)

2.3.1 - Summary of investments

Number of new major investments	Click to select number of new major investments

#	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	
Sub-total of **new major investments** above (1)		0 €	0 €	0	0	0	0	0				
Sub-total **other new investments** (2)		0 €	0 €	0	0	0	0			100 %	0 %	
Sub-total **existing investments** (3)				0	0	0	0	0		100 %	0 %	
Total new and existing investments (1) + (2) + (3)		0 €	0 €	0	0	0	0	0				

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

2.3.2 - 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.

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

Not applicable (ref. section 1.1.4 - Other general information relevant to the plan)

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

Number of new other investments	Click to select number of new other investments

#	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	

2.4 - Investments - The Norwegian Meteorological Institute (MET)

2.4.1 - Summary of investments

Number of new major investments	Click to select number of new major investments

#	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	
Sub-total of **new major investments** above (1)		0 €	0 €	0	0	0	0	0				
Sub-total **other new investments** (2)		0 €	0 €	0	0	0	0	0				
Sub-total **existing investments** (3)				0	0	0	0	0				
Total new and existing investments (1) + (2) + (3)		0 €	0 €	0	0	0	0	0				

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

2.4.2 - 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.

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

Not applicable (ref. section 1.1.4 - Other general information relevant to the plan)

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

Number of new other investments	Click to select number of new other investments

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

SECTION 3: PERFORMANCE TARGETS AND MEASURES FOR THEIR ACHIEVEMENT

3.1 - Safety targets

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

3.2 - Environment targets

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

3.3 - Capacity targets

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

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

3.4 - Cost efficiency targets

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

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	1

		2020A	2020	2021	2022	2023	2024
		Actual	Target	Target	Target	Target	Target
Avinor	Safety policy and objectives	*C*	C	C	C	C	C
	Safety risk management	*D*	C	C	C	C	D
	Safety assurance	*C*	C	C	C	C	C
	Safety promotion	*C*	C	C	C	C	C
	Safety culture	*D*	C	C	C	C	C
	Additional comments						

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

No inconsistency between local and Union-wide safety targets.

** Refer to Annex O, if necessary.*

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

Three main measures put in place by Avinor ANS to improve the quality/maturity, and these are;
- The SMS has been updated along with ISMS to ensure a more holistic approach to risk management. Fatigue reporting and risk management has also been implemented as part of the SMS. Latest update was done in 2021.
- A more integrated way of managing and presenting safety/risk data, to support risk management in the organization, has been implemented. Gathering safety information from both HF, security, fatigue, investigations and monitoring of the result of safety assessments, in a systematic way, such that the organization will have a more holistic overview of safety and risk.
- Parallel to this Avinor ANS are continuously working with developing the organization`s safety culture through awareness activities and direct dialogue/discussions on relevant case scenarios- safety topics with the operational staff, which is an important enabler for the flow of risk information in the organization.

** 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	*1,52 %*	n/a	1,55 %	1,55 %	1,55 %	1,55 %

	2020	2021	2022	2023	2024
	Target	Target	Target	Target	Target
National targets	1,43 %	1,55 %	1,55 %	1,55 %	1,55 %

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

No inconsistency between national targets and national reference values on environment.

** Refer to Annex P, if necessary.*

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

Norway has implemented Free Route Airspace in Norwegian airspace and it is up to the airlines to file a flight plan according to their needs. In that respect the national ANSP has little influence regarding the environment performance target, but they claim to strive to offer direct routings to flights within their area of responsibility.

** Refer to Annex P, if necessary.*

SECTION 3.3: CAPACITY KPA

3.3 - Capacity targets

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

a) 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	0,06	0,11	0,11	0,11

	2020	2021	2022	2023	2024
	Target	Target	Target	Target	Target
National targets	0,08	0,06	0,08	0,11	0,11

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

National target below national reference value i 2022, else no inconsistency between national targets and national reference values.

** Refer to Annex Q, if necessary.*

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

Norway has been developing ATC capacity over years, and is in position to provide more capacity than the national reference values. However during the pandemic cost reductions have been of great importance in order to align costs with the new reduced traffic forecasts. In 2022 the ANSP will be able to provide better capacity due to reduced traffic forecasts. As a result the national target for 2022 is set to 0,08min/flight. However the national target for capacity returns to the national reference value in 2023/24.

** Refer to Annex Q, if necessary.*

d) ATCO planning

	Actual			Planning			
Bodo (ENBD ACC)	2018	2019	2020	2021	2022	2023	2024
Number of additional ATCOs in OPS planned to start working in the OPS room (FTEs)	2	2,7	1	6	4	1	
Number of ATCOs in OPS planned to stop working in the OPS room (FTEs)	2	12	3				
Number of ATCOs in OPS planned to be operational **at year-end (FTEs)**	42	32,7	30,7	36,7	40,7	41,7	41,7

	Actual			Planning			
Oslo (ENOSE ACC)	2018	2019	2020	2021	2022	2023	2024
Number of additional ATCOs in OPS planned to start working in the OPS room (FTEs)	8	1	5	15	16,5	4	4
Number of ATCOs in OPS planned to stop working in the OPS room (FTEs)	5	1	36,8	4	1	2	0
Number of ATCOs in OPS planned to be operational **at year-end (FTEs)**	103	103	71,2	82,2	97,7	99,7	103,7

	Actual			Planning			
Stavanger (ENOSW ACC)	2018	2019	2020	2021	2022	2023	2024
Number of additional ATCOs in OPS planned to start working in the OPS room (FTEs)	0	0	1,6	4	9,2	2	2
Number of ATCOs in OPS planned to stop working in the OPS room (FTEs)	1	0	12,2	3	1		2
Number of ATCOs in OPS planned to be operational **at year-end (FTEs)**	30	30	19,4	20,4	28,6	30,6	30,6

Additional comments
The reduction in the number of ATCO FTEs from 2019 to 2020 is due to cost efficiency measures as a consequence of Covid-19, mainly furloughs, but also voluntary redundancy agreements. ATCOs in ACC-operation including supervisors in OPS only. ATCO FTEs allocated to oceanic and offshore operations are not included (reported as "Other ANS" in ACE).

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

a) National capacity performance targets

	2020A Actual	2020 Target	2021 Target	2022 Target	2023 Target	2024 Target	
National targets	*0,03*	0,50	0,5	0,5	0,5	0,5	1
Additional comments							

Airport level	***ENGM-Oslo/Gardermoen***	*0,05*	0,50	0,50	0,50	0,50	0,50	1
	Airport contribution to national targets							
	ENBR-Bergen/Flesland	*0,01*	0,50	0,50	0,50	0,50	0,50	1
	Airport contribution to national targets							
	ENZV-Stavanger/Sola	*0,03*	0,50	0,50	0,50	0,50	0,50	1
	Airport contribution to national targets							
	ENVA-Trondheim/Vaernes	*0,03*	0,50	0,50	0,50	0,50	0,50	1
	Airport contribution to national targets							

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

The continuous focus on adjusting capacity to the demand with good prediction tools has resulted in an actual terminal and airport ANS ATFM arrival delay in RP3 is so far significantly below the national capacity targets set to 0,5 min/flt including all delay causes. Improved collaboration between airport and ANSP has also significantly reduced weather related delays, which will ensure compliance to the targets through RP3.

** 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

There is a SLA between Avinor ANS and the airport operator Avinor AS describing capacity targets and performance of ATS at the four airports in the performance scheme in Norway. The actual delay in relation to the delay targets in this SLA is reported to airport and airspace users on a regular basis and ensures that the national targets in RP3 are achieved. ANSP has also improved their procedures to handle significant weather events. Through improved cooperation between TWR, APP and airport at Oslo, the trend of reduced delay due to weather events, is likely to continue in RP3.

If targets are not met during the reference period the State can initiate follow up measures and corrective actions in place.

** 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 beyong 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 - Norway

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

En route charging zone Name of the CZ	Baseline 2014 2014 B	Baseline 2019 2019 B	RP3 revised cost-efficiency targets (determined 2020-2024) 2020/2021 D	 2022 D	 2023 D	 2024 D	2024 D vs. 2014 B	2024 D vs. 2019 B
Total en route costs in nominal terms (in national currency)	946 393 843	1 318 558 219	2 200 081 367	1 214 521 187	1 237 546 593	1 268 465 176	34,0%	-3,8%
Total en route costs in real terms (in national currency at 2017 prices)	**1 008 316 271**	**1 262 953 971**	**2 080 441 700**	**1 120 940 259**	**1 125 662 157**	**1 136 639 931**	**12,7%**	**-10,0%**
Total en route costs in real terms (in EUR2017) [1]	108 098 436	135 397 348	223 037 653	120 172 502	120 678 722	121 855 615	12,7%	-10,0%
YoY variation			64,7%	-46,1%	0,4%	1,0%		
Total en route Service Units (TSU)	2 219 624	2 436 159	2 636 595	2 048 218	2 316 485	2 472 291	11,4%	1,5%
YoY variation			8,2%	-22,3%	13,1%	6,7%		
Real en route unit costs (in national currency at 2017 prices)	**454,27**	**518,42**	**789,06**	**547,28**	**485,94**	**459,75**	**1,2%**	**-11,3%**
Real en route unit costs (in EUR2017) [1]	**48,70**	**55,58**	**84,59**	**58,67**	**52,10**	**49,29**	**1,2%**	**-11,3%**
YoY variation			52,2%	-30,6%	-11,2%	-5,4%		

National currency	**NOK**
[1] Average exchange rate 2017 (1 EUR=)	**9,33**

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

En route charging zone Name of the CZ	Baseline 2014 2014 B	Baseline 2019 2019 B	Actuals 2014 2014 A	Actuals 2019 2019 A	2014 Baseline adjustments	2019 Baseline adjustments
Total en route costs in nominal terms (in national currency)	946 393 843	1 318 558 219	946 393 843	1 158 952 119	0	159 606 100
Total en route costs in real terms (in national currency at 2017 prices)	**1 008 316 271**	**1 262 953 971**	1 008 316 271	1 111 480 483	0	151 473 488
Total en route costs in real terms (in EUR2017) [1]	108 098 436	135 397 348	108 098 436	119 158 349	0	16 238 999
Total en route Service Units (TSU)	2 219 624	2 436 159	2 220 734	2 437 377	-1 110	-1 219

c) Detailed justifications for the adjustments to the baseline values

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

Number of adjustments	0

c.2) Adjustments to the 2014 service units

Impact of transition to actual route flown	Coefficient M2/M3	Source	Service units
	-0,05 %	CRCO correction factor May 2019 (on 12 months)	-1 110

Other adjustment to the 2014 service units	No

Total adjustments to the 2014 service units	-1 110

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

Number of adjustments	3

Adjustment #1	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
Cost allocation key changes approach costs en route vs. tnc (50/50 to 80/20)	Avinor Flysikring AS	ANSP	Staff	113 231 100	107 461 492	11 520 611

Description and justification of the adjustment

On the basis of a public hearing note sent to the stakeholders in the spring of 2019, the Ministry of Transport proposes two possible changes in aviation charges. One of the changes affecting the performance area is moving costs related to the approach services from the cost base for the terminal services, both covered by the performance and charging regulation (TNC - OSL/BGO/SVG/TRD) and from other airports outside the regulations, to the cost base for the en-route services. The change is supposed to reduce the cost of Norwegian airports somewhat and increase the cost of flying in the upper airspace accordingly.

The rationale for the change is that, according to studies, Norway (Avinor ANS) allocates a lower proportion of the approach costs to the en route service than the majority of EU Member States.
The Ministry has ended up proposing a re-adjustment from APP 50/50 to APP 80/20 distribution, meaning 80 per cent to the cost base for the en-route services and 20 per cent to the cost base for the terminal services TNC (OSL/BGO/SVG/TRD) and airports outside the regulations.

The proposal is based on a shift in the basis for allocation, from ATCO composite hours (50/50) to a distance based allocation key (80/20). CAA Norway considers that such a change is compatible with the wording of the Performance and Charging Regulation. The basis for the proposed new calculation method is that the approach segment is provided at 80 km from the airport (average horizontal extent of the TMA). For larger/smaller TMAs, the distribution according to this model would give slightly different distribution keys for the individual airports than 80/20, while the larger TMAs of course also weigh heavier than many of the smaller ones which also have significantly less traffic. The approach segment is calculated from 5-80 km. Of the approach cost (15 km/75 km) 20% is considered allocated terminal ANS, while (60 km/75 km) 80% is considered allocated en-route ANS. On this basis we have concluded that the new APP allocation key increases the baseline costs (2019B) of 113,2 MNOK (2019-prices).

Adjustment #2	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
Cost allocation key changes combined towers (TWR/APP) from 60/40 to 50/50	Avinor Flysikring AS	ANSP	Staff	13 875 000	13 168 010	1 411 701

Description and justification of the adjustment

Baseline is adjusted with changes made in the cost base due to change an the internal allocation key for APP cost of combined towers (TWR/APP). An external audit (PWC) have been conducted to evaluate the allocation key in respect of the RP3 Performance Plan which resulted in a recommedation for the new allocation key for combined towers. This changes the baseline cost of 13,8 MNOK (2019-prices).
The previous allocation key was based on historical data on time used in the different services (TWR/APP) in the combined towers. The new allocation key is based on the opening time on sectors in the combined towers.

Adjustment #3	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
Military activities (FUA)	Avinor Flysikring AS	ANSP	Staff	32 500 000	30 843 986	3 306 687
Description and justification of the adjustment						
Avinor ANS provides en-route- and approach services for all military activity. Such costs, which among other incurred by separation of civilian/military traffic as a consequence of military activity in its own allocated areas, cf. the FUA regulations, is previously covered by Avinor AS through commercial income based on invoices from Avinor Flysikring AS (ANSP) according to the national regulations. The Ministry of Transport proposed these costs covered through the en route cost base in RP3. On this basis we have concluded that costs derived from military activities increases the baseline costs (2019B) of 32,5 MNOK (2019-prices).						

Total adjustments to the 2019 baseline value for the determined costs	**Costs nominal NC**	**Costs real NC**	**Costs EUR2017**
	159 606 100	**151 473 488**	**16 238 999**

c.4) Adjustments to the 2019 service units

Impact of transition to actual route flown	Coefficient M2/M3	Source	Service units
	-0,05 %	CRCO correction factor May 2019 (on 12 months)	-1 219

Other adjustment to the 2019 service units	No

Total adjustments to the 2019 service units	-1 219

d) Description and justification of the consistency between local and Union-wide cost-efficiency targets

According to appeal Committee Single European Sky 11/05/2021 the EU-wide cost-efficiency target is set to +4,0% in the period from 2019B (50,23 EUR) to 2024D (52,23 EUR) reflecting the increase in the real en route unit costs (in national currency at 2017 prices). The Norwegian revised en route cost-efficiency performance target is set to -11,3% for the above mentioned period from 2019B (518,42 NOK/55,58 EUR) to 2024D (459,75 NOK/49,29 EUR), which is significant below the EU-wide target trendline.

** Refer to Annex R, if necessary.*

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

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

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

During the pandemic comprehensive cost reductions have been necessary in order to align costs with the reduced traffic forecasts.

** 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

Costbase adjustments in 2019B. Costs related exempted VFR flights deducted in RP3.

** Refer to Annex U, if necessary.*

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

Terminal Charging Zone #1 - Norway - TCZ

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

Terminal charging zone Name of the CZ	Baseline 2019 2019 B	RP3 revised cost-efficiency targets (determined 2020-2024) 2020/2021 D	 2022 D	 2023 D	 2024 D	2024 D vs. 2019 B
Total terminal costs in nominal terms (in national currency)	**406 068 261**	820 743 293	409 243 459	430 889 417	446 675 240	**10,0%**
Total terminal costs in real terms (in national currency at 2017 prices)	**388 405 365**	**771 496 875**	**374 977 851**	**388 790 356**	**396 881 896**	**2,2%**
Total terminal costs in real terms (in EUR2017) [1]	**41 639 725**	**82 709 769**	**40 200 204**	**41 680 999**	**42 548 468**	**2,2%**
YoY variation		98,6%	-51,4%	3,7%	2,1%	
Total terminal Service Units (TNSU)	256 006	273 570	204 803	240 423	258 338	0,9%
YoY variation		6,9%	-25,1%	17,4%	7,5%	
Real terminal unit costs (in national currency at 2017 prices)	**1 517,17**	**2 820,11**	**1 830,92**	**1 617,11**	**1 536,29**	**1,3%**
Real terminal unit costs (in EUR2017) [1]	**162,65**	**302,34**	**196,29**	**173,37**	**164,70**	**1,3%**
YoY variation		85,9%	-35,1%	-11,7%	-5,0%	

National currency	**NOK**
[1] Average exchange rate 2017 (1 EUR=)	**9,33**

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

Terminal charging zone Name of the CZ	Baseline 2019 2019 B	Actuals 2019 2019 A	2019 Baseline adjustments
Total terminal costs in nominal terms (in national currency)	406 068 261	467 804 031	-61 735 770
Total terminal costs in real terms (in national currency at 2017 prices)	**388 405 365**	446 995 434	-58 590 069
Total terminal costs in real terms (in EUR2017) [1]	41 639 725	47 920 984	-6 281 258
Total terminal Service Units (TNSU)	256 006	256 006	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	1

Adjustment #1	Entity name	Entity type	Nature	Costs nominal NC	Costs real NC	Costs EUR2017
Cost allocation key changes approach costs en route vs. tnc (50/50 to 80/20)	Avinor AS	ANSP	Staff	-61 735 770	-58 590 069	-6 281 258

Description and justification of the adjustment

On the basis of a public hearing note sent to the stakeholders in the spring of 2019, the Ministry of Transport proposes two possible changes in aviation charges. One of the changes affecting the performance area is moving costs related to the approach services from the cost base for the terminal services, both covered by the performance and charging regulation (TNC - OSL/BGO/SVG/TRD) and from other airports outside the regulations, to the cost base for the en-route services. The change is supposed to reduce the cost of Norwegian airports somewhat and increase the cost of flying in the upper airspace accordingly.

The rationale for the change is that, according to studies, Norway (Avinor ANS) allocates a lower proportion of the approach costs to the en route service than the majority of EU Member States. The Ministry has ended up proposing a re-adjustment from APP 50/50 to APP 80/20 distribution, meaning 80 per cent to the cost base for the en-route services and 20 per cent to the cost base for the terminal services TNC (OSL/BGO/SVG/TRD) and airports outside the regulations.

The proposal is based on a shift in the basis for allocation, from ATCO composite hours (50/50) to a distance based allocation key (80/20). CAA Norway considers that such a change is compatible with the wording of the Performance and Charging Regulation. The basis for the proposed new calculation method is that the approach segment is provided at 80 km from the airport (average horizontal extent of the TMA). For larger/smaller TMAs, the distribution according to this model would give slightly different distribution keys for the individual airports than 80/20, while the larger TMAs of course also weigh heavier than many of the smaller ones which also have significantly less traffic. The approach segment is calculated from 5-80 km. Of the approach cost (15 km/75 km) 20% is considered allocated terminal ANS, while (60 km/75 km) 80% is considered allocated en-route ANS.

In total this leads to;
- Værnes, 50% is allocated first to TNC, the remaining 50% is allocated 20% to TNC and 80% to ENR
- Bergen and Stavanger, 60% is still allocated to TWR and 40% to APP. Of these 40%, 20% are allocated to TNC and 80% to ENR
- Gardermoen TWR, 100% of TWR is allocated to TNC, since only TWR is delivered from Gardermoen. For 100% of the total cost of the Oslo APP, 20% is allocated to TNC and 80% to ENR

On the basis of the above described changes in the allocation keys the basline costs for terminal services is decreasing with 61,7 MNOK in 2019B (2019-prices).

Total adjustments to the 2019 baseline value for the determined costs	**Costs nominal NC**	**Costs real NC**	**Costs EUR2017**
	-61 735 770	**-58 590 069**	**-6 281 258**

c.2) Adjustments to the 2019 service units

Adjustment to the 2014 service units	No

d) Description and justification of the contribution of the the local targets to the performance of the European ATM network

According to appeal Committee Single European Sky 11/05/2021 the EU-wide cost-efficiency target is et to +4,0% in the period from 2019B (50,23 EUR) to 2024D (52,23 EUR) reflecting the increase in the real en route unit costs (in national currency at 2017 prices). The Norwegian revised tnc cost-efficiency performance target is set to 1,3 % for the above mentioned period from 2019B (1517,17 NOK/162,65 EUR) to 2024D (1536,29 NOK/164,70 EUR), which is significant below the EU-wide target trendline.

** Refer to Annex R, if necessary.*

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

During the pandemic cost reductions have been necessary in order to align costs with the reduced traffic forecasts.

** 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

Costbase adjustments in 2019B.

** Refer to Annex U, if necessary.*

3.4.3 - Pension assumptions

Avinor Flysikring AS (Avinor ANS)

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	372 576	359 374	731 951	367 261	375 338	383 488
En-route activity	214 769	207 139	421 907	211 438	216 040	220 728
Terminal activity	70 988	68 501	139 489	70 350	71 966	73 533
Other activities	86 819	83 735	170 554	85 473	87 333	89 228

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

Avinor Flysikring AS (Avinor ANS)	2020D	2021D	2020/2021D	2022D	2023D	2024D
Total pensionable payroll to which this scheme applies	984 322	1 001 878	1 986 200	1 029 934	1 058 009	1 086 583
Employer % contribution rate to this scheme	14,1 %	14,1 %		14,1 %	14,1 %	14,1 %
Total pension costs in respect of this scheme	**138 789**	**141 265**	**280 054**	**145 221**	**149 179**	**153 208**
Number of employees the employer contributes for in this scheme	1 011	1 003		1 003	1 003	1 003

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
All Norwegian Citizens are members of the National Insurance Scheme and entitled to withdraw a retirement pension after the age of 62. The retirement pension is funded through the National Insurance scheme. Employers are obligated to contribute to the National Insurance scheme through a payroll tax based on as a percentage of personnel cost. The percentage is differentiated based on geographical criteria. For Avinor Flysikring AS the rate is at present 14,1 %. The payroll tax is not classified as "pension cost" in the Annual statements, however the cost is specified in the notes to the Annual statement as a part of Salaries and personnel cost.

Description of the assumptions underlying the calculations of pension costs comprised in the determined costs
The payroll tax is calculated as a flat rate on the Calculation base, with 14,1 %, and is therefore variable with the level of personnel cost. The calculation base is salaries and other benefits, contribution to employer pension plans and refunds of sick pay.

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
The payroll tax is a fixed rate, which is determined by the Norwegian Parliament on a yearly basis. Historically the rate is rarely subject to significant changes.

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?	Select

Avinor Flysikring AS (Avinor ANS)	2020D	2021D	2020/2021D	2022D	2023D	2024D
Total pensionable payroll to which this scheme applies	827 736	841 377	1 669 113	865 421	889 383	913 742
Employer % contribution rate to this scheme						
Total pension costs in respect of this scheme	**158 479**	**149 429**	**307 908**	**141 852**	**145 781**	**149 773**
Number of employees the employer contributes for in this scheme	841	833		833	833	833

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
As per 01.01.2019 all employees under the age of 53 years have been transferred to the new defined contribution plan. The pension plan is financed with 7 % premium on pensionable salary between 0 and 7,1 G (G: Public pension base rate), and 20 % on pensionable salary between 7,1 and 12 G. The employees contributes 1,5% of the premium. For employees over the age limit for automatic transferal to the defined contribution plan, a process based on voluntary transferal is to be carried out in 2019. All new employees from 01.01.19 will be included in the defined contribution plan, as the defined benefit plan is closed for new members. The Group will also, as from 1 January 2019, be affiliated with the private early retirement scheme (AFP) for employees that have transitioned to the new pension scheme. This scheme is funded and expensed through yearly premiums – at present 2,5% of pensionable income.

Description of the assumptions underlying the calculations of pension costs comprised in the determined costs
In determined cost this allocation key for En-Route activity is estimated to 58,5%, which is the total number of employees contributint to the En-Route services in percentage of total employees in Avinor ANS. The allocation key for Terminal activity in Avinor ANS is 17,8%, based on the same assumptions.

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
This defined contribution pension plan is based on fixed rates and is therefore more predictable than the defined benefit plan.

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

Avinor Flysikring AS (Avinor ANS)	2020D	2021D	2020/2021D	2022D	2023D	2024D
Total pensionable payroll to which this scheme applies	156 586	160 109	316 695	163 712	167 395	171 162
Total pension costs in respect of this scheme	**75 308**	**68 680**	**143 988**	**80 188**	**80 378**	**80 507**
- in respect of regular pension costs	75 308	68 680	143 988	80 188	80 378	80 507
- 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	1,70 %	1,50 %		1,50 %	1,50 %	1,50 %
% projected increase in benefits	1,25 %	1,50 %		1,50 %	1,50 %	1,50 %
% annual increase in salaries	2,25 %	2,50 %		2,50 %	2,50 %	2,50 %
% expected return on plan assets	1,70 %	1,50 %		1,50 %	1,50 %	1,50 %
Net funding surplus / deficit	-530 181	-823 240	- 1 353 421	24 503	25 924	27 381
Number of employees the employer contributes for in this scheme	170	170		170	170	170

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 benefit scheme is closed for new members. As of 01.01.19, all personnel not 53 years or more, have been transferred to the defined contribution plan. The defined benefit plan is managed by Statens Pensjonskasse (the Norwegian Public Service Pension Fund/ SPK)and is part of the public occupational pension scheme . The pension plan defines an amount of pension the employee will receive on retirement, dependent on factors such as years of service and compensation. The pension plan includes pension benefits in accordance with the act relating to the Norwegian Public Service Fund (SPK). This includes special-age pensions and an early retirement scheme. For those who have left the defined benefit scheme, a new scheme has been established relating to special-age pensions. A new Act on public occupational pension schemes will come into force from 2020. In addition, new regulations have been adopted for the coordination of public occupational pension schemes and the National Insurance Scheme. Net funding surplus / deficit are the changes in the net pension obligation (Pension Liability - Pension assets). The significant changes in 2020 and 2021, are mainly actuarial gains and losses.

Description of the assumptions underlying the calculations of pension costs comprised in the determined costs
In determined cost this allocation key for En-Route activity is estimated to 58,5%, which is the total number of employees contributint to the En-Route services in percentage of total employees in Avinor ANS. The allocation key for Terminal activity in Avinor ANS is 17,8%, based on the same assumptions.

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.
The interest expenses related to pensions are reported as staff 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
As a consequence of the volatility of the pension costs, the pension defined pension plan were closed effectively for new members as of 01.01.19. All employees not turned 53 years before the aforementioned date have been transferred to the new defined contribution plan.

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

Avinor Flysikring AS (Avinor ANS)

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	Avinor ANS had a loan in 2020, but the remaining balance as per 31.12.2020 is 0. Avinor ANS does not currently have any loans, but with the forecasts for operations and investment, it is estimated that the company must have loans in 2023. What kind of loans and under what conditions is not clear at this time. Interest rates are assessed by comparable loans in Avinor AS.					
Remaining balance	0	-		-	60 000	130 000
Average weighted interest rate %	2,95 %	2,95 %		2,95 %	2,95 %	2,95 %
Interest amount	7 819	-	7 819	-	1 770	3 835

Total loans	2020D	2021D	2020/2021D	2022D	2023D	2024D
Total remaining balance	-	-		-	60 000	130 000
Average weighted interest rate %	-	-		-	2,95 %	2,95 %
Interest amount	7 819	-	7 819	-	1 770	3 835

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

3.4.5.2 Restructuring costs planned for RP3

Restructuring costs foreseen for RP3?	No

Additional comments
Claimed restructuring costs in the first draft of the perfromance plan from RP3 (November 2019) is removed.

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

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

SECTION 3.5: ADDITIONAL KPIS / TARGETS

3.5 Additional KPIs / Targets

Annexes of relevance to this section

ANNEX J. OPTIONAL KPIs AND TARGETS

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

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

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

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

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

a) Do the measures to reach the targets in the different KPAs require changes in the ANSP functional system that have safety implications? If yes, which mitigation measures are put in place?
Measures to reach the targets in the different KPAs requires no changes in the ANSP functional system that have safety implications.

b) What are the main assumptions used to assess the interdependencies between safety and other KPAs?
There are not established any additional indicators for this purpose.

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?
There are not established any additional indicators for this purpose.

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?
First question: Yes, second question: No

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.
Yes, ref. section 4.3 - Change management.

3.6.2 - Interdependencies and trade-offs between capacity and environment

Not applicable.

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

Avinor ANS has through the pandemic done several cost reducing measures, in order to align costs and capacity with the temporary surge in traffic. Still the reduction in traffic levels in 2022 is expected to result in some extra capacity. However in 2023 and 2024, when traffic once again return to normal levels, a major ATM system upgrade is planned, and large portions of the ATCO capacity is planned used in training and implementation activities. In order to keep costs at the lowest level possible, the capacity level for these two years in the reference period is expected to be back at the national reference values.

3.6.4 - Other interdependencies and trade-offs

Not applicable.

Should additional space be needed for any of the items, please use Annex S.

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

Initiative #1	
Name	Kirkenes TMA
Description	Kirkenes TMA West and Centre are within Finnish airspace, but controlled by Kirkenes TWR/APP.
Expected performance benefits	All approach procedures are now within controlled airspace, which ensures and increases the level of safety for all flights in and out of Kirkenes airport.

Initiative #2	
Name	North Sea Helicopters - Scottish FIR
Description	The provision of ATS in a defined area in Scottish FIR has been delegated to Avinor ANS. The purpose is to reduce the need for frequency changes for helicopters on their way to and from oil/gas platforms inside that area.
Expected performance benefits	Less frequency changes for helicopter operators.

Initiative #3	
Name	North Sea Helicopters - Norway FIR
Description	The provision of ATS in a defined area in Norway FIR has been delegated to NATS. The purpose is to reduce the need for frequency changes for helicopters on their way to and from oil/gas platforms inside that area.
Expected performance benefits	Less frequency changes for helicopter operators.

Initiative #4	
Name	Sweden FIR/Norway FIR
Description	The provision of ATS in several defined areas along the border of Norway FIR and Sweden FIR, have been delegated to either LFV or Avinor ANS. The purpose is to reduce the need for frequency changes for flights north to south or vice versa within those defined areas.
Expected performance benefits	Less frequency changes for helicopter operators.

Initiative #5	
Name	Finland FIR/Norway FIR
Description	The provision of ATS in two areas (Halti and Manto) in the northern part om Finland FIR has been delegated to Avinor ANS. The purpose is to reduce the need for frequency changes for flights crossing the border for short periods of the flight.
Expected performance benefits	Less frequency changes for traffic operating close to the Norwegian/Finnish FIR border.

Initiative #6	
Name	Free Route Airspace
Description	Avinor ANS has implemented cross border free route airspace within NEFAB, NUAC, Iceland and Ireland. The purpose is to provide shortest possible trajectories to all flights within the area. The initiative is expanded to include the UK in 2023.
Expected performance benefits	Shorter plannable tracks for all operators flying to, from or across NEFAC and NUAC airspace, thus reducing emissions and fuel consumptions.

Additional comments

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	Oslo Gardermoen: Basic AMAN and AMAN Horizon extension into remote upstream - Oslo, Stavanger and Bodo ACCs is implemented. Planned for implementation within a year after iTEC is deployed in Polaris ACC Oslo / Stavanger.
CP1-s-AF1.2 AMAN/DMAN Integration	Oslo Gardermoen: Implemented.
CP1-AF2 - Airport Integration and Throughput	
CP1-s-AF2.1 DMAN synchronised with predeparture sequencing	Oslo Gardermoen: Pre-requisites except initial AOP are implemented. A possibility study for implementation of DMAN is in progress.
CP1-s-AF2.2.1 Initial airport operations plan (iAOP)	Oslo Gardermoen: Status “Planned” as part of newly opened APOC at OSL. The operational data elements of iAOP will be implemented successively until early RP4. Discussions ongoing both within SESAR2020 and with NM regarding practical solutions.
CP1-s-AF2.2.2 Airport operations plan (AOP)	Oslo Gardermoen: Status “Planned”. The full AOP process will be developed in parallel with the introduction of operational data elements of iAOP. Planned implementation in RP4.
CP1-s-AF2.3 Airport safety nets	Oslo Gardermoen: Planned implemented in new TWR ATM-system at Oslo. Project is called NeTSO.
CP1-AF3 - Flexible Airspace Management and Free Route Airspace	
CP1-s-AF3.1 Airspace management and advanced flexible use of airspace	Status: "Planned" (with new ATM system - 20.04.2023) respectively "Already implemented". LARA is in use, connected to B2B, but not integrated with the ATM system. Integration with ATM is planned as part of FAS programme with target date Q2 2024.
CP1-s-AF3.2 Free route airspace	Status: "Already implemented". Cross border FRA is already supported, but capabilities will be enhanced when the new ATM system is in service by Q2 2024.
CP1-AF4 - Network Collaborative Management	
CP1-s-AF4.1 Enhanced short-term ATFCM measures	Status: STAM phase 1 Not Applicable, STAM phase 2 "Planned". Will use NM platform for this purpose.
CP1-s-AF4.2 Collaborative NOP	Status: "Planned" for all capabilities. AOP/NOP information is planned by Oslo Gardermoen as part of iAOP implementation.
CP1-s-AF4.3 Automated support for traffic complexity assessment	The requirements under 4.3.1 are N/A (as they apply to NM and AU). For 4.3.2 the Avinor ANS status is "No plan" as no industrialized SESAR solution is known at this time.
CP1-s-AF4.4 AOP/NOP integration	Status: "Planned". Currently NM solutions only, for longer term future local deployment of the common iTEC Airspace Capacity Management (iACM) tool is under consideration.

CP1-AF5 - SWIM	
CP1-s-AF5.1 Common infrastructure components	PENS 1 already implemented. NewPENS integration is "In Progress", milestones 1, 2 and 3 (ref SDM Monitoring Exercise) have been completed.
CP1-s-AF5.2 SWIM yellow profile technical infrastructure and specifications	Status: "No plan". Ongoing internal prestudies, competence building and talks to industrial players. Planning to reach madated dates.
CP1-s-AF5.3 Aeronautical information exchange	Status: "No plan". Ongoing internal prestudies, competence building and talks to industrial players. Planning to reach madated dates.
CP1-s-AF5.4 Meteorological information exchange	Status: "No plan". Ongoing internal prestudies, competence building and talks to industrial players. Planning to reach madated dates.
CP1-s-AF5.5 Cooperative network information exchange	Status: "No plan". Ongoing internal prestudies, competence building and talks to industrial players. Planning to reach madated dates.
CP1-s-AF5.6 Flight information exchange (yellow profile)	Status: "No plan". Avinor ANS will industrialize the required capabilities through the iTEC collaboration and deploy according to the updated European roadmap (being part of Cluster #3).
CP1-AF6 - Initial Trajectory Information Sharing	
CP1-s-AF6.1 Initial air-ground trajectory information sharing	General status: "Planned". ATN B1 based services will be provided in conjunction with the new ATM system starting service (Q2 2024). Network and A/G services will be tendered and contracted within 2021. Such service level agreement with a CSP will also cater for Multi Frequency support.
CP1-s-AF6.2 Network Manager trajectory information enhancement	
CP1-s-AF6.3 Initial trajectory information sharing ground distribution	

4.3 - Change management

Change management practices and transition plans for the entry into service of major airspace changes or for ATM system improvements, aimed at minimising any negative impact on the network performance
State level: As the Competent Authority, the Norwegian Civil Aviation Authority is obliged to approve change management procedures for functional changes as defined in ATM/ANS.AR.C.030. This procedure shall in addition to other functional changes, cover management of major airspace changes as well as ATM system improvements. Major Airspace Changes are in addition required to be notified in accordance with a process described in national regulation BSL G 4-1. CAA has approved the ANSPs change management procedures and they are required to notify all planned changes to the CAA-Norway a minimum of 4 weeks before entry into service. Major Airspace Changes are required to be notified as soon as they have been formally decided by the ANSP management. Received notification regarding planned changes to ATM functional systems as well as Major Airspace Changes are assessed and reviewed in accordance with CAA-Norway's change management procedures, developed in accordance with relevant regulation requirements and AMC/GM. System interoperability requirements are set out in Regulation (EC) 552/2004. Received interoperability documentation associated with planned functional changes are assessed in accordance with CAA-Norway's procedures, working methods and national/international regulations. For major airspace changes and major ATM system improvements, CAA and the ANSP have regular meetings long before the actual implementation date in order to keep each other informed on progress, mutual expectations related to documentation to be provided, tests to be carried out, training, etc. **ANSP level:** Planned implementation of new ATM-system based on the iTEC alliance. High level transition concept in place. Human factor management activities, training program and all associated transition activities are planned in close collaboration between the system integration project and the operational environment. All plans are designed to minimize any negative effect on the network performance, and will be closely coordinated with the Network Manager in due time before finalization. Current focus is on development of requirements (system, software, hardware, human factor, security, …) and to assure that for each requirement, the supplier and the ANSP has the same understanding of the expected deliverables and on the interpretation of the requirement.

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

Norway			Traffic risk-sharing parameters adapted?			no
			Service units lower than plan		Service units higher than plan	
	Dead band	Risk sharing band	% loss to be recovered	Max. charged if SUs 10% < plan	% additional revenue returned	Min. returned if SUs 10% > plan
Standard parameters	±2,00%	±10,0%	70,0%	5,6%	70,0%	5,6%

5.1.2 Traffic risk sharing - Terminal charging zones

Norway - TCZ			Traffic risk-sharing parameters adapted?			no
			Service units lower than plan		Service units higher than plan	
	Dead band	Risk sharing band	% loss to be recovered	Max. charged if SUs 10% < plan	% additional revenue returned	Min. returned if SUs 10% > plan
Standard parameters	±2,00%	±10,0%	70,0%	5,6%	70,0%	5,6%

5.2 - Capacity incentive schemes

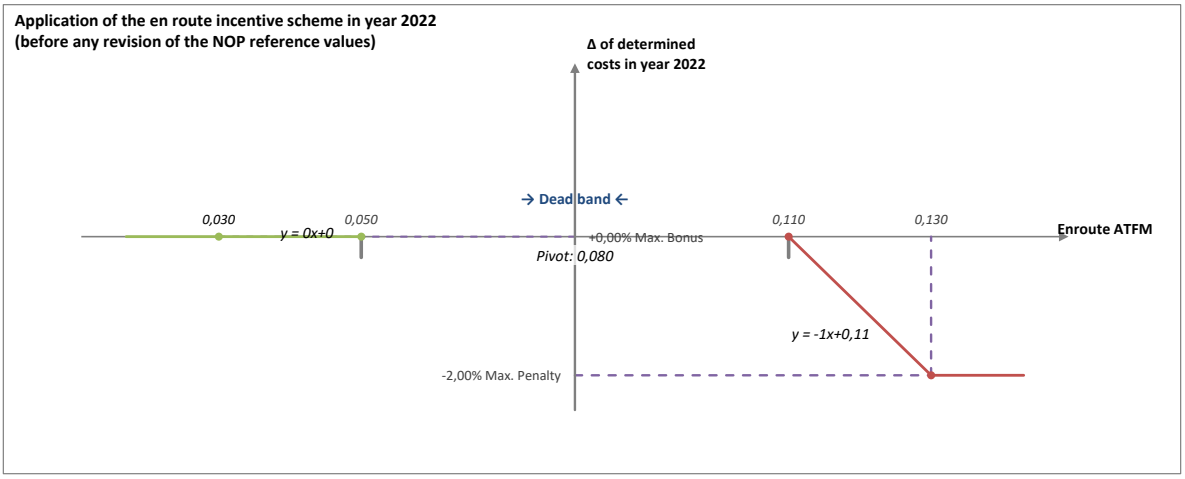
5.2.1 - Capacity incentive scheme - Enroute

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

Enroute	Expressed in	Value
Dead band Δ	fraction of min	±0,030 min
Max bonus (≤2%)	*% of DC*	0,00 %
Max penalty (≥ Max bonus)	*% of DC*	2,00 %
The pivot values for RP3 are	fixed	

Avinor Flysikring AS (Avinor ANS)

		2020	2021	2022	2023	2024
NOP reference values (mins of ATFM delay per flight)				0,11	0,11	0,11
Alert threshold (Δ Ref. value in fraction of min)				±0,050	±0,050	±0,050
Performance Plan targets (mins of ATFM delay per flight)				0,11	0,11	0,11
Pivot values for RP3 (mins of ATFM delay per flight)				0,08	0,11	0,11
Financial advantages / disadvantages	Dead band range			[0,05-0,11]	[0,08-0,14]	[0,08-0,14]
	Bonus sliding range			[0,03-0,05]	[0,06-0,08]	[0,06-0,08]
	Penalty sliding range			[0,11-0,13]	[0,14-0,16]	[0,14-0,16]



5.2.1.2 Rationale and justification - Enroute

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

The cost optimum capacity for en route delay per flight for the ANSP is considererd to be between 0,18 min/flt. and 0,11 min/flt. The recovery phase from the pandemic will consist of a year with traffic growth (2022), before traffic levels return a more sustainable and normal level (2023-24). This allows the ANSP to provide extra capacity in 2022 compared to the national reference value. However i 2023-2024 a major ATS system implementation is planned, and this will require substansial resources from the operational enviroment.
This incentive scheme has been set to encourage the ANSP to perform on targets in the area of capacity, at the same time as cost reductions are required in order to balance the traffic reductions and the recovery from the pandemic.

Avinor ANS starting point is to deliver the capacity that ensures continuity of traffic without significant interruptions. This entails an incentive system that is primarily intended to secure a resource allocation that takes care of this, ie that it must have an economic impact for the ANSP if they do not deliver the agreed capacity. Based on the experience from RP2 it is our view that under normal operational circumstances, the target (0,08-0,11 min/flt) should be achievable.

On the basis of feedback from airspace users, it is also our opinion that the additional costs of delay beyond the threshold value (pivot) are far higher in a global perspective than the savings of providing a significant overcapacity. We have therefore considered an incentive scheme in the third reference period that does not provide any bonus for delivering overcapacity beyond the target (pivot value), while in case of delay beyond the target (pivot including a dead band), a balanced penalty of 2 per cent of the traffic revenues is allocated the airspace users latest within year n + 2 .

*** Refer to Annex I, if necessary.*

5.2.2 - Capacity incentive scheme - Terminal

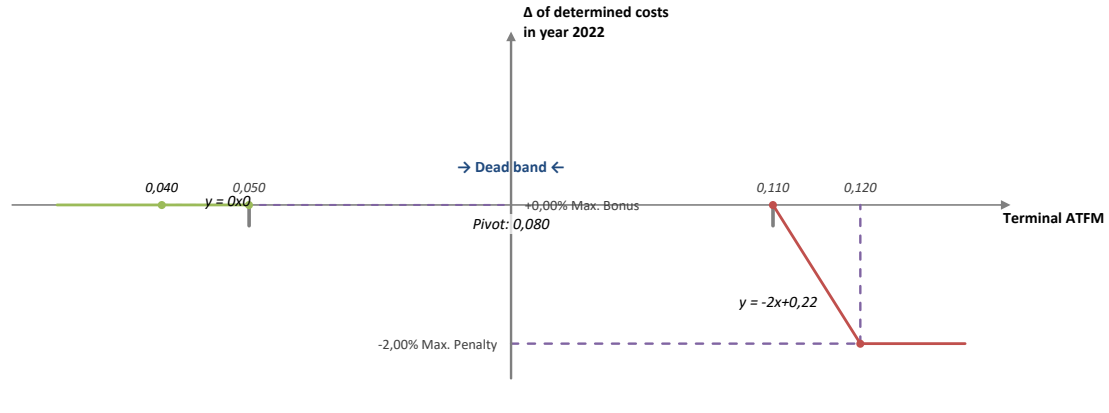
5.2.2.1 Parameters for the calculation of financial advantages or disadvantages - Terminal

Terminal	Expressed in	Value
Dead band Δ	fraction of min	±0,030 min
Bonus/penalty range (% of pivot value)	*%*	±50%
Max bonus	*% of DC*	0,00 %
Max penalty	*% of DC*	2,00 %
The pivot values for RP3 are	modulated	

		2020	2021	2022	2023	2024
Performance Plan targets (mins of ATFM delay per flight)				0,5	0,5	0,5
Bonus/penalty range Δ (in fraction of min)				±0,040	±0,040	±0,040
Pivot values for RP3 (mins of ATFM delay per flight)*				0,08	0,08	0,08
Financial advantages / disadvantages	Dead band range			[0,05-0,11]	[0,05-0,11]	[0,05-0,11]
	Bonus sliding range			[0,04-0,05]	[0,04-0,05]	[0,04-0,05]
	Penalty sliding range			[0,11-0,12]	[0,11-0,12]	[0,11-0,12]

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

Application of the terminal incentive scheme



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**
There is only one terminal charging zone that falls within the geographical scope of the performance plan and incentive scheme, which consists of the airports ENGM, ENBR, ENZV and ENVA. There will not be calculated nor paid any bonus to the service provider during the reference period. This incentive scheme has been set to encourage the ANSP to perform on targets in the area of capacity no more no less, while at the same time a less demanding capacity target than achieved in RP2 has a positive impact in the area of cost-efficiency. In RP3 (2022-2024) the delay is only limited to events with codes C, R, S, T, M and P in the ATFCM User Manual in the range between 0.01 min / flt and 0.11 min / flt. Based on this rationale, a balanced capacity target at 0,08 min/flt in RP3 has a positive impact in the area of cost-effectiveness, and still contributes to the continuity of the network without any major disruptions. Based on the experience from RP2 it is the NSAs view that under normal operational circumstances, the target (0,08 min/flt) should be well achievable without significant effort. On the basis of feedback from airspace users, it is also our opinion that the additional costs of delay beyond the threshold value (pivot) are far higher in a global perspective than the savings of providing a significant overcapacity. We have therefore considered an incentive scheme in the third reference period that does not provide any bonus for delivering overcapacity beyond the target (pivot value), while in case of delay beyond the target (pivot including a dead band), a balanced penalty of 2 per cent of the traffic revenues is allocated the airspace users latest within year n + 2 .

*** Refer to Annex I, if necessary.*

Indicate which of the principles below will be applied for the modulation of the pivot values for the whole RP3:	
a) The pivot value for year n is modulated in order to enable significant and unforeseen changes in traffic to be taken into account and is based on the principles explained below:**	Yes
In RP3 (2022-2024) the delay is only limited to events with codes C, R, S, T, M and P in the ATFCM User Manual in the range between 0.01 min / flt and 0.11 min / flt. Based on this rationale, a balanced capacity target at 0,08 min/flt in RP3 has a positive impact in the area of cost-effectiveness, and still contributes to the continuity of the network without any major disruptions.	
b) The scope of the incentives is limited to delay causes related to ATC capacity, ATC routing, ATC staffing, ATC equipment, airspace management and special events with the codes C, R, S, T, M and P of the ATFCM user manual. If yes, provide below a justification for this decision and an explanation of how the pivot values are calculated.	Yes
Ref. 5.2.2.2 a)	

*** Refer to Annex I, if necessary.*

SECTION 6: IMPLEMENTATION OF THE PERFORMANCE PLAN

6.1 Monitoring of the implementation plan

6.2 Non-compliance with targets during the reference period

6 - IMPLEMENTATION OF THE PERFORMANCE PLAN

6.1 Monitoring of the implementation plan

Description of the processes put in place by the NSA to monitor the implementation of the Performance Plan including the yearly monitoring of all KPIs and PIs defined in Annex I of the Regulation and a description of the data sources
The NSA requests all information from ANSPs as necessary to monitor performance. The NSA monitors the situation on a yearly basis, collects information from ANSPs and from other sources (e.g. Oversights, PRB Dashboard etc.). The Civil Aviation Act article 13 a-1, paragraph 1 no 2 subparagraph e, gives the aviation authorities grounds to demand information from ANSPs which is necessary for the authorities to obtain in order for them to perform their duties in relation to the Act. **Oversight:** The NSA has a plan for yearly review/supervision of the ANPS. Through these revisions, the NSA will verify the ANSPs compliance with the performance plan. NSA conducts its oversight of ATM/ANS service providers in accordance with Regulation (EU) 2017/373 - ATM/ANS.AR.C.010 Oversight and ATM/ANS.AR.C.015 Oversight programme. All audits are conducted in accordance with internal procedures to ensure correct planning, implementation, follow-up and conclusion of all oversight activities. Internal procedures shall also ensure that roles, responsibilities and authority are outlined and contribute to a professional and standardized performance of oversight activities. Periodic contact meetings are held with service providers, where oversight is a separate topic, especially focus on areas with potential for hazards and improvements.

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
NSA can and will propose corrective actions if targets are not met accordingly, and if corrective actions are not taken by the ANSP on their own initiative after dialogue with the NSA. Article 13 of the national regulation on the establishment and the implementation of the Single European Sky, states that the adopted performance plans are binding for legal persons and the authorities as far as the performance plans themselves contain such obligations. If deemed necessary in order to ensure compliance with those obligations, the CAA/NSA may order compliance and impose fines, with regard to the Civil Aviation Act articles 13 a-3, 13 a-4 and 13 a-5 first paragraph no 6.

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*

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

Ref. see separate annex to the national performance plan RP3 named ANNEX A.ENROUTE REPORTING TABLES PP RP3 and ANNEX A.ENROUTE ADDITIONAL INFORMATION PP RP3

Version 2.0 of the draft performance plan changes in traffic and cost assumption compared with previous version 1.0 of the draft performance plan

Cost-elasticity factor Δ staff costs vs. Δ IFR movements (T1 ANSP Avinor)	**0,4**				
Year	**2020**	**2021**	**2022**	**2023**	**2024**
IFR movements (in '000)					
Draft performance plan 1.0 (11.10.2021)	344	385	443	511	545
Draft performance plan 2.0 (17.11.2021)	344	370	480	542	579
			8 %	6 %	6 %
Service units (in '000)					
1.0 Draft performance plan (11.10.2021)	1 230	1 378	1 892	2 182	2 325
2.0 Draft performance plan (17.11.2021)	1 230	1 407	2 048	2 316	2 472
Staff costs (in '000)					
1.0 Draft performance plan (11.10.2021) - 1.1 Staff costs (T1 ANSP Avinor)	681 124	710 375	768 146	787 057	809 319
Draft performance plan 2.0 (17.11.2021) - 1.1 Staff costs (T1 ANSP Avinor in %)			3 %	2 %	3 %
Draft performance plan 2.0 (17.11.2021) - 1.1 Staff costs (T1 ANSP Avinor in KNOK)			25 355	19 374	20 487
Draft performance plan 2.0 (17.11.2021) - new 1.1 Staff costs (T1 ANSP Avinor in KNOK)			**793 501**	**806 431**	**829 807**

Additional comments

A historically well-established cost elasticity factor calculated to 0,4 is used for Avinor Flysikring AS (ANS) describing the correlation between increase in IFR movements versus staff costs (Δ HR, Δ overtime work etc.).

In the fist version of the draft performance plan (1.0) the Norwegian en route cost-efficiency performance target was set to -6,6% for the period from 2019B (518,16 NOK/55,55 EUR) to 2024D (484,02 NOK/51,09 EUR), which was significant below the EU-wide target trendline (+4,0%).

In the second version of the draft performance plan (2.0) the Norwegian revised en route cost-efficiency performance target is set to -11,3% for the period from 2019B (518,42 NOK/55,58 EUR) to 2024D (459,75 NOK/49,29 EUR), which is significant below both the target set in first version (1.0) of the draft performance plan (October 2021) and the EU-wide target trendline (+4,0%).

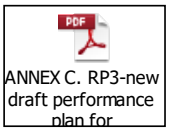
ANNEX B. REPORTING TABLES & ADDITIONAL INFORMATION (TNC)

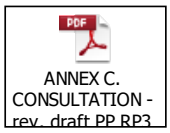
Ref. see separate annex to the national performance plan RP3 named ANNEX B.TERMINAL REPORTING TABLES PP RP3 and ANNEX B.TERMINAL ADDITIONAL INFORMATION PP RP3

No changes in traffic and cost assumptions between the first (1.0) and the second (2.0) version of the draft PP RP3

ANNEX C. CONSULTATION

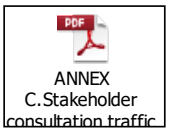
Ref. draft performance plan 2.0 document section 1.3 Stakeholder consultation





Minutes consultation meeting local traffic forecast Norway reference period 3 (2022-2024)

Consultation per email correspondance new rev. draft PP RP3 (Nov. 2021)



Stakeholder consultation traffic (November 2021)

After the STATFOR 7-year forecast was published in October 2021 the CAA-N invited Stakeholders to give a response on the use of local forecasts vs. STATFOR base.

From the ANSPs point of view the STATFOR base (OCT 21) is considered to be an unrealistic forecast for the current traffic situation in Norway. The ANSPs claimed that the current STATFOR BASE service units forecast for Norway differed severely from the STATFOR BASE forecast for the rest of Europe without any specific local data that documenting the rationale for this. The STATFOR forecast has not had any national consultation nor input through the STATFOR user group, and the lack of involvement prior to publishing the STATFOR forecast has resulted in a forecast not taking into account local factors such as the market situation, political and social climate, level of regulated and unregulated air traffic charges, and other local national elements that may influence the coming traffic levels. Thus, the ANSPs traffic figures are based on analyzis from their own experts, and also based on signals from their customers.

From the airspace users point of view, Board of Airline Representatives in Norway (BARIN) supported (email 4th November) the use of the latest local prognosis developed for Avinor for 2022, and on longer-term planning based on STATFOR. They also replied that they could not collect commercially sensitive data on behalf of members (ref. e-mail 4th November 2021).

Federation of Norwegian Aviation Industries (NHO Luftfart) on behalf of the airliners SAS, Norwegian, Widerøe and Flyr, in principle supported (email 2nd November) the use of updated STATFOR base forecasts, which they perceive as thorough and well-recognized in the industry, without any further justification why. Still NHO Luftfart considered use of local forecasts that has been prepared in close collaboration with the industry as more realistic than STATFOR base in 2022 (ref. email 2nd November 2021).

The Lufthansa Group opinion on the new STATFOR forecast was that it was ambitious but not unreachable. They also referred to a strong rebound of the demand on the North Atlantic routes, and in the European markets a strong willingness of people travelling again including business travels (ref. e-mail 2nd November 2021).

ANNEX D. LOCAL TRAFFIC FORECAST

Justification for using local forecast
The CAA-N has received justification for and the use of local traffic forecast in period 2022-2024 prepared by Avinor Flysikring AS (ANS) ref. pdf file below "ANNEX D. Local traffic forecast draft PP RP3 (new)". CAA-N has evaluated the justification and do not have other indications that better supports the use of STATFOR instead of local traffic figures. The main rationale behind our decision is: - STATFOR base scenario for Norway from October 2021 shows an unexplained growth in the relationship between service units and IFR movements far above previous "old time high" levels before the pandemic, despite the fact that the airlines in general are replacing heavier and ultra-wide-body aircrafts with leaner aircrafts with the same range - STATFOR base scenario for Norway from October 2021 is significant above both the STATFOR ECAC base scenario and the local forecast, without any seemingly good justification for this. The latter two are approximately in line for the period from 2022-2024 - There has not been any national consultation nor input through the STATFOR user group taking into account local factors, in the process of developing the STATFOR base scenario for Norway from October 2021.

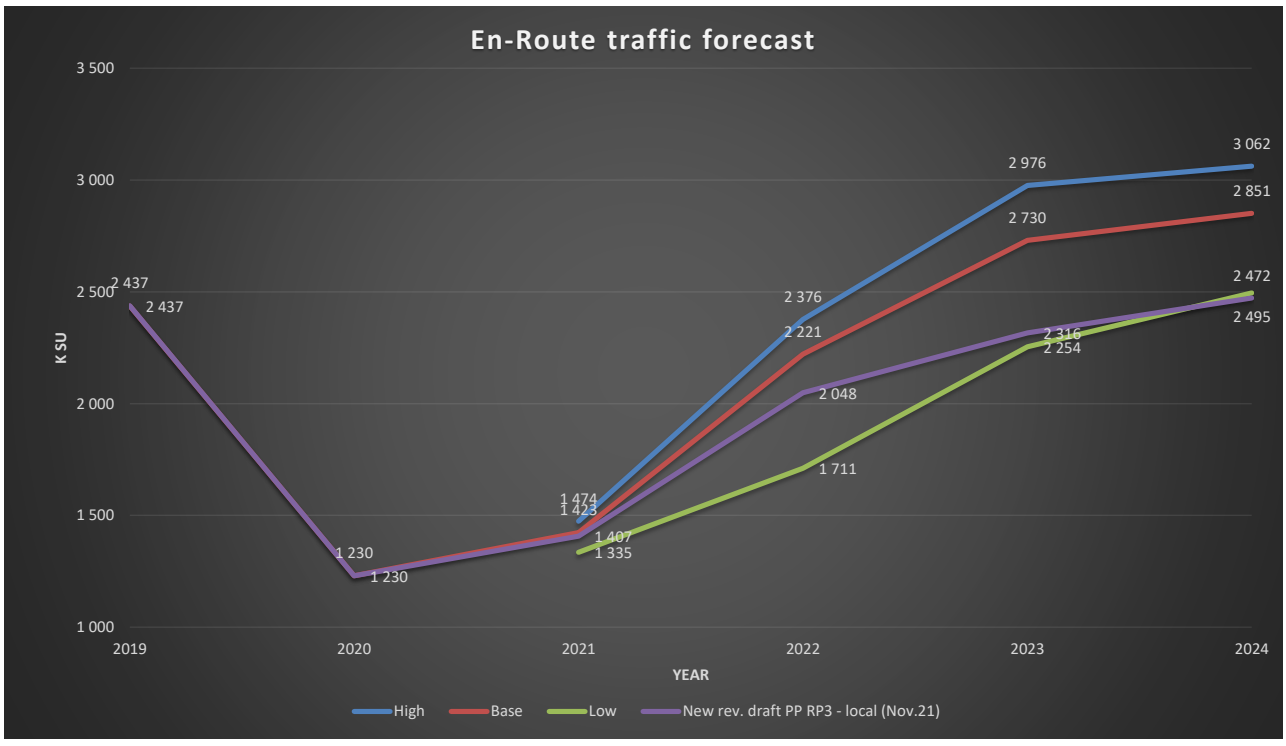
Justification for using local traffic forecast 2022-2024 (prepared by Avinor Flysikring AS (ANS))

ANNEX D. Local traffic forecast draft PP RP3

1. En Route

Traffic scenarios - STATFOR Oct. 21 vs. local Nov. 21 (in KSU)

En-Route Service Units (Thousands)			2019	2020	2021	2022	2023	2024	RP3 AAGR 2020-2024 (vs 2019)
Norway	EN_ENZ	High			1 474	2 376	2 976	3 062	4,7 %
		Base	2 437	1 230	1 423	2 221	2 730	2 851	3,2 %
		Low			1 335	1 711	2 254	2 495	0,5 %
New rev. draft PP RP3		New rev.	2 437	1 230	1 407	2 048	2 316	2 472	0,3 %



2.Terminal

Traffic scenarios - STATFOR Oct. 21 vs. local Nov. 21 (in KSU)

Terminal Navigation Service Units (Thousands)			2019	2020	2021	2022	2023	2024	RP3 AAGR 2020-2024 (vs 2019)
Norway	EN_TCZ	High	.		129	223	263	284	2,5 %
		Base	251	129	126	222	246	268	1,3 %
		Low			121	196	231	242	-0,7 %
New rev. draft PP RP3 - local (Nov.		New rev.	**256**	**134**	**139**	**205**	**240**	**258**	**0,2 %**
Offshore share of traffic			5	5	10	9	9	9	
Ex. Offshore			251	129	129	196	232	250	-0,1 %

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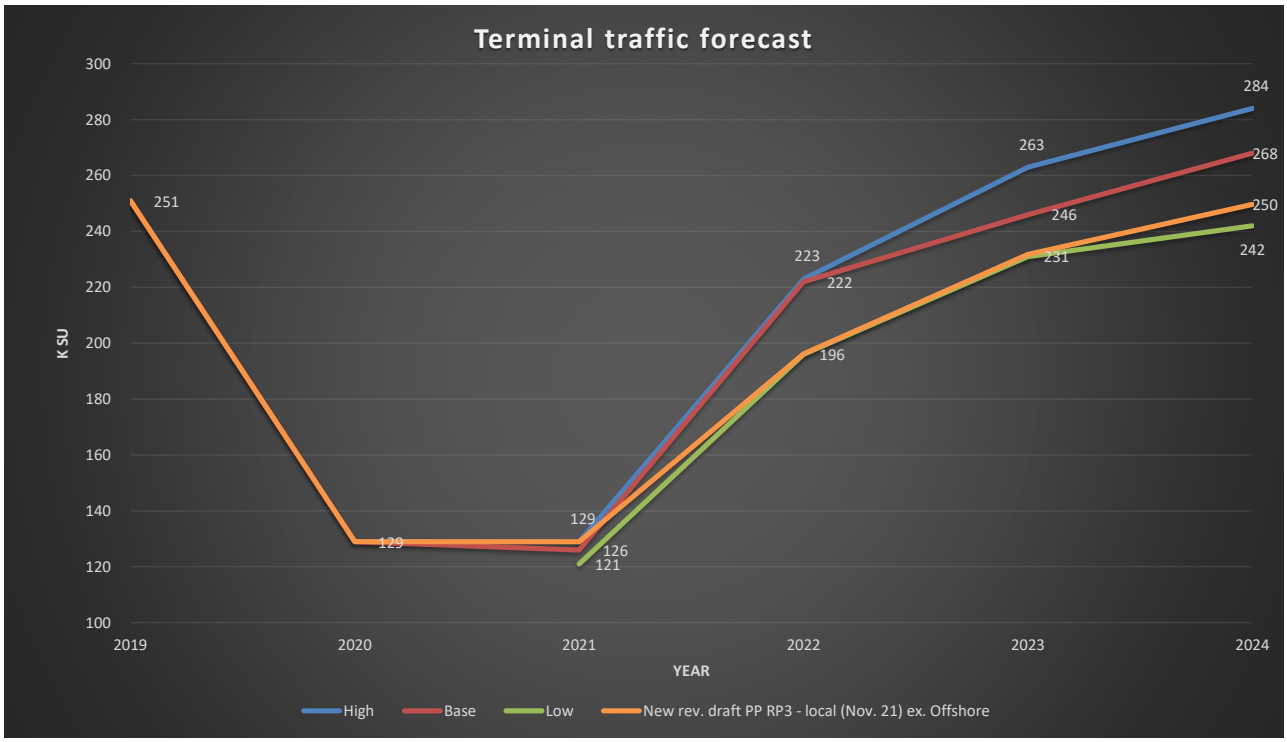
Local traffic scenario - per airport (in SU)

TNSU	2021	2022	2023	2024
OSL	72 543	122 514	147 320	158 620
BGO	30 668	36 608	39 955	43 184
SVG	18 782	24 307	28 173	29 862
TRD	17 247	21 374	24 975	26 672
Totalt	**139 240**	**204 803**	**240 423**	**258 338**
Offshore	**10 279**	**8 635**	**8 635**	**8 635**
Offshore share of traffic	**7 %**	**4 %**	**4 %**	**3 %**



Additional comments
Based on e-mail correspondence from the end of October to the beginning of November between Avinor Flysikring AS (the ANSP) and Eurocontrol STATFOR, the ANSP asked questions around the unexplained growth in En-Route traffic in the STATFOR October forecast compared to the May forecast, and the high growth in the relationship between service units and IFR movements far above previous levels before the pandemic, despite the fact that the airlines in general are replacing heavier and ultra-wide-body aircrafts with leaner aircrafts with the same range, as well as why the STATFOR base scenario for Norway from October 2021 was significant above both the STATFOR ECAC base scenario and the local forecast. The high increase in traffic was explained by STATFOR based on the following two main points. - Assumption of a faster recovery of traffic that is linked to the stronger traffic growth of this summer and to strong prospects for some major airlines, and in the case of Norway, a stronger economic forecast for 2021 and 2022 that will contribute strengthen of the flight forecast (ie. GDP Growth Oxford Economics Forecast September 21 vs. March 21) - For service units specifically, observation made by STATFOR that domestic and international traffic driving the TSU growth in Norway, has been dominated by less heavy-weight aircraft since the beginning of the pandemic. STATFOR assumes that the use of heavy-weight aircraft will go back to their previous trends as the traffic recovers, which will bring additional growth. Weight Recovery/increase in the use of heavy-weight aircraft is also assumed to happen faster in the October forecast than in the May forecast, in line with the faster recovery of traffic. STATFOR also expects the proportion of overflights compared to total traffic to increase. This will increase the average aircraft-weights in international and domestic traffic in Norway, and the average aircraft-weights are expected to return to values similar to those observed in 2019. The average distances are also expected to increase, in particular for the international arrivals and departures, and this will contribute to the increase of the ratio TSU/IFR movements. In this 7-year forecast, STATFOR did not consider the fleet evolution when forecasting the average weight coefficients of the different flows. In the end of the correspondence, STATFOR stated that in no manner they pretend to have a perfect forecast, and ANSPs are always allowed to use their own forecast for the performance scheme. STATFOR also encouraged Avinor Flysikring AS to join the STATFOR User Group in the future.

ANNEX E. INVESTMENTS

Specification of other new investments

Investments (Capex in MNOK)	2020	2021	2022	2023	2024	Sub-total other new investments
ATM-Systems General	-	-	9	9	9	**26**
Buildings General	-	-	32	16	31	**79**
Communication General	-	-	34	44	82	**160**
Other tech-investments	-	-	35	35	35	**105**
MET General	-	-	0	2	2	**4**
Mobility General	-	-	6	6	6	**18**
Other type of Project	-	-	21	21	21	**63**
Surveillance General	-	-	33	32	23	**88**
Total Value of the Assets	**-**	**-**	**169**	**164**	**208**	**542**
Value of the assets allocated to ANS in the scope of the PP(Enroute)	**-**	**-**	**114**	**111**	**141**	**366**

ANNEX T.OTHER MATERIAL

Verification of completeness of the Draft Performance Plan of Norway

Table T1

Nr	Draft Performance Plan section	Topic	Finding	Response CAA-N
1	1.2; 3.4; Annex A; Annex B (if applicable)	En route and terminal traffic forecasts	Please review and update (as appropriate) the draft performance plan in respect of the traffic forecasts for en route services and terminal services in light of the Eurocontrol STATFOR baseline traffic forecast published on 15 October 2021.	Adjusted in section 1.2, 3.4 and Annex A. Rationale behind using local forecast November 2021 and not STATFOR base October 2021.
2	1.1.1; Annex A	List of ANSPs	According to the additional information of the en route reporting table and section 1.1.1, the Norwegian Meteorological Institute is a designated MET service provider in Norway. Therefore, please report the MET service provider in section 1.1.1 as an ANSP. Also, please provide a separate table in section 2.2 on the investments of MET. The en route reporting table includes costs relating to "KJE ANSP". This ANSP should therefore be listed in section 1.1.1 of the draft performance plan. Please complete.	Adjusted in section 1.1 The situation, included KJE and MET into sub-section 1.1.1, also updated information provided a separate table in section 2. INVESTMENTS (2.3 Investments_ANSP#3) and MET (2.4 Investments_ANSP#4) Ref. 1.1.4 - Other general information relevant to the plan (KJE and MET) costs categorized solely as staff and operating costs (i.e. no investments)
3	13	En route and/or terminal traffic forecast	For both en route and terminal, the local forecast is chosen and airspace users have been consulted on it. However, the outcome of these consultations in section 1.3 (cell E39) of the draft performance plan is not sufficiently detailed and reads "under consideration". Please complete the missing information.	Adjusted in section 1.3 Stakeholder consultation and sub-section 1.3.1 - Overall outcome of the consultation of stakeholders on the performance plan under headliner "Traffic Forecast".
4	2.1; Annex A; Annex B (if applicable)	Investments of ANSPs	The information on major investments in part 2 is incomplete. The total value of the asset and the value of the assets allocated to air navigation services (columns D and E in 2.1.1) should be reported in euros and not in national currency. Please complete/correct.	Adjusted in section 2.1 Investments_ANSP#1, 2.2 Investments_ANSP#2, 2.3 Investments_ANSP#3, 2.4 Investments_ANSP#4, hereof sub-section 2.1.1 - Summary of investments assets reported in Euro
5	332	Local capacity targets for terminal	The contribution to the network performance, including its rationale and justification, is not mentioned. Please clarify and provide further details.	Adjusted in section 3.3.2 Terminal, b), justification of contribution to the network performance.
6	341	2019 and 2014 en route baselines values for total service units	The baseline total service units for 2014 and 2019 are equal to 2014 and 2019 actual values. The CRCO traffic correction factor for M2/M3 methodology (-0.05%) has not been applied to the baseline total service units, although it has been selected in cells D97 and D167. Please align the provided baseline figures, or justify in cells C98 and C168 the reasons for applying another coefficient (also justify if this coefficient is 0). Cells I97 and I167 should reflect the number of adjusted service units.	Adjusted in section 3.4.1 ERT-CZ, traffic correction factor for M2/M3 methodology (-0.05%) has now been applied in 2014B and 2019B. I.e. MS Excel cell H33, I33 now in line with D97 and D167.
	3.4.3; Annex A; Annex B	Pensions	The amounts disclosed in section 3.4.3.1 for pension costs of terminal services differ from the figures recorded in the terminal reporting tables. Please clarify whether this difference is due to the fact that section 3.4.3.1 also includes pension costs relating to terminal ANS at non-SES airports, while the terminal reporting tables include only pension costs relating to terminal ANS at SES airports? Please clarify/correct. According to the information provided by Norway, Avinor Flysikring AS contributes to the "State" pension scheme through the payments to the National Insurance scheme through a payroll tax. Note that the relevant contribution is expected to be reported as pension costs. No assumptions for the "State" pension scheme are provided in the draft performance plan or its annexes. Please complete the table in section 3.4.3.2 and update the total pension costs in section 3.4.3.1 and in en route and terminal reporting tables.	Adjusted in section 3.4.3 "State" pension scheme now includig payroll tax and related information, also compliant with reported in Annex A and Annex B in table T1 ANSP (1.1 Staff of which, pension costs)
8	3.4.4; Annex A	Interest rates/cost of capital	Please select the number of loans in 3.4.4. The average interest on debt is not consistent between the reporting tables and the draft performance plan. The components of the weighted average cost of capital reported in T1 ANSP (items 3.5 to 3.8) should be the real and not the efficient components. The efficient components should be detailed and explained in the additional information. Please modify/correct.	Adjusted, in section 3.4.4 Interest rates, average weighted interest rate % set to 2,95%, consistent with the reporting tables in annex A. Taken note of (not adjusted), ref. Articles of Association for Avinor AS (13. June 2018) §5 *Long- term loans to finance fixed assets can only be raised within a framework that ensures that the group's equity does not fall below 40 per cent of the sum of the group's net at any given time interest-bearing debt and equity.* Ref. Ministry of Transport https://www.regjeringen.no/no/dep/sd/org/tilknyttede-virksomheter/avinor-as/id443417/
9	41	Cross-border initiatives and synergies	The description of benefits are missing from some of the cross-border initiatives. The description of investment synergies is incomplete. Please complete/clarify. Please quantify the benefits of the planned cross-border initiatives.	Adjusted in section 4.1 Cross-border, sub-section 4.1.1, initiative #2 to initiative #6 including a description of investment synergies.
10	6	Implementation of the performance plan	The draft performance plan lacks a meaningful summary of the implementation of the performance plan. Please complete/clarify.	Adjusted clarification added in section 6.1 Monitoring of the implementation plan
11	Annex A; Annex B	Cost allocation	The additional information reports that cost allocation keys for en route and terminal services have been updated. However, the new methodology is unclear or not sufficiently detailed. Please clarify/complete.	Adjusted, justified in Annex A additional info. and in Annex B additional info, section 1 c) Criteria used to allocate costs between terminal and en route services, in accordance with Article 22(5)

Nr	Draft Performance Plan section	Topic	Finding	Response CAA-N
12	Annex A	Average asset base	Please provide further clarification on the variations of the net current assets during reference period 3. Please clarify/complete.	Adjusted in Annex A, sheet T1 ANSP Avinor, line 3.3 Net current assets. The calculation of net current assets are calculated on the basis of current receivables and liabilites relating to the En-Route operations. The main reason for the variations throughout RP3 are a higher level of capital bound in other receivables, of which a portion is attributed to En-Route, in the years 2020-2021. The net current assets do not include under-recovery for the years 2020 and 2021, as this will not be charged through the Risk-sharing mechanism. New adjusted calculation ref. ANNEX T. OTHER MATERIAL and Table T2 (see below)
13	Annexes A and B - reporting tables	Costs	According to the additional information of the en route reporting tables and section 1.1.1 of the draft performance plan, the Norwegian Meteorological Institute is a designated MET service provider in Norway. However, the meteorological costs are entirely defined as other operating costs as of 2020 since the meteorological service provider operates as a sub-contractor to "Avinor ANS". Note that the full breakdown of costs by nature is expected to be provided for designated service providers. Please correct the en route and terminal reporting tables.	Adjusted in Annex A and Annex B, sheet "T1 MET" costs re-classified as Staff costs (86%) and Other operating costs (14%) according to feedback from the MET-service provider (The Norwegian Meteorological Institute)

Table T2

CALCULATION NET CURRENT ASSETS - EN ROUTE (in MNOK)

	2020	2021	2022	2023	2024
Average current assets:					
Receivables En-Route Charges (est. Average based on 65 days credit period)	218	187	175	222	228
Other receivables (est. average)	147	282	147	12	12
Total	**365**	**469**	**322**	**234**	**240**
Average current liabilities:					
Short term liabilities (est. average)	260	206	210	209	209
Total	**260**	**206**	**210**	**209**	**209**
3.3 Net Current Assets - En-Route (as per November 2021)	**105**	**263**	**113**	**25**	**31**
3.3. Net Current Assets - En-Route (as per October 2021)	**187**	**114**	**74**	**42**	**38**
Difference (October vs. November)	**-82**	**149**	**38**	**-17**	**-6**

The calculation of net current assets are calculated on the basis of current receivables and liabilites relating to the En-Route operations. The main reason for the variations throughout RP3 are a higher level of capital bound in other receivables, of which a portion is attributed to En-Route, in the years 2020-2021. The net current assets do not include under-recovery for the years 2020 and 2021, as this will not be charged through the Risk-sharing mechanism.