Response to RP4 Consultation

Sent to consultation@iaa.ie

23 August 2024

AIRNAV IRELAND

Executive Summary

Overview

Performance and Charging Regulation is designed to ensure the customer gets the best possible service at the best possible price. AirNav Ireland has a continuous and sustained focus on its customers, the airspace users, and our RP4 Business Plan has been designed to ensure we can continue to meet their needs. In our final Business Plan, we examined the approximate impact of the RP4 Plan on passengers, which is updated in this document to account for the draft decision.

Impact on the passenger 2025-2029

In terms of en-route or overflight passengers using our services, the overall impact in real terms is €0.27 during RP4, which is €0.03 more than the application of the European Union-Wide Cost Efficiency target. Most importantly, AirNav Ireland's RP4 Plan would only add an additional €0.02 per passenger.

Similarly, from a terminal services perspective across the three relevant airports, we observe that while the IAA's draft decision is €0.15 more than applying the cost efficiency target to terminal services, AirNav Ireland's RP4 Plan would only result in an additional €0.10 per passenger over the period 2025-2029.

Starting point – RP4 Business Plan

AirNav Ireland considers its RP4 Plan to be the starting point in terms of what is required over the period 2025-2029 and considers the Draft Decision and associated shortfalls from this perspective. The IAA has noted that it does not consider shortfalls to be the correct terminology when considering the base year 2023 as the starting point. Nonetheless, this response document continues to consider the RP4 Plan as having the best estimate of requirements over the period 2025-2029 and frames a response accordingly where the draft decision does not recognise this need.

The IAA has proposed in its draft decision that our en-route cost base would be 6% lower in real terms over the whole of RP4 compared to the required costs which we specified and supported by evidence in our RP4 Business Plan. This draft decision also proposes to reduce our required terminal cost base by 5% over the period 2025-2029.

This Response to the Draft Decision provides more evidence justifying the costs that have been estimated in our final RP4 Business Plan as the required costs based on the bottom-up analysis of our real needs in RP4 and summarises the key comments we have on the approach taken during the RP4 performance planning in Ireland.

Key Points from the Stakeholder Consultation Meeting

AirNav Ireland found the RP4 Stakeholder Consultation meeting to be very engaging and worthwhile. It is critically important, however, that key points from the meeting are taken into account for the final RP4 decision, as follows:

ATCOs: The driving factors behind the required increase in ATCOs in our RP4 Plan included (i) traffic (24), (ii) work-life balance – described below, (iii) roster resilience (12), (iv) instructor and training requirements (7), (v) departure position (6). It is critically important that we take this opportunity to ensure there are no ATCO shortages in providing this essential service to the industry. CEPA's approach is based almost exclusively around traffic movements compared to ATCO headcounts and makes insufficient allowance for non-traffic related step-changes between RP3 and RP4**.**

At our consultation meeting, airspace users suggested the required ATCO number was probably somewhere between the IAA's Draft Decision and AirNav Ireland's Business Plan (i.e. 353-374 by 2029), having considered the underlying rationale, progress during RP3 and capacity constraints from a training perspective. No other stakeholder disagreed with this view. Of particular interest to airlines right across Europe is ensuring better staffing at weekends throughout the summer – AirNav Ireland can provide evidence to support this statement if required.

Work-life balance: With the support of the Staff Panel, AirNav Ireland has made it clear that it requires approximately 21 ATCOs (12 in 2025, 6 in 2026, 3 in 2029) to ensure there are sufficient numbers in place to provide appropriate access to annual leave, statutory leave cover and other aspects such as job-sharing. However, the modelled headcount in the Draft RP4 Decision compared to the AirNav Ireland Plan has a deficit that also amounts to 21 during RP4, which emphasises the significance of this shortfall. The Company's 10-year plan for ATCOs was published upon the launch of AirNav Ireland – prior to the RP4 Planning process – and has been key to a more harmonious and productive industrial relations environment.

Engineers: AirNav Ireland welcomes the view from stakeholders that if our RP4 CAPEX Plan was exhausted, full remuneration would be possible from RP5. However, the past two reference periods have shown shortfalls in the planned investment despite impressive projects being delivered. There appeared to be tacit agreement at the stakeholder consultation meeting that the RP4 CAPEX Plan needs to be delivered, but the proposed shortfall in engineers will have an impact on this and jeopardise system reliability. The engineering requirement identified in our RP4 Plan needs to be assessed in the context of the new portfolio of projects, the enhanced compliance requirements, safety critical work (e.g. engaging with the IAA for approvals), day-to-day monitoring requirements, maintenance requirements for an increasing footprint (e.g. ASMGCS and the new TOOMAN radar), and emergencies such as those that are weather related which are increasing in frequency.

Corporate Services staff: The IAA noted that the modelled headcount figure is not really what is significant but rather the associated costs. AirNav Ireland fully agrees with this position and has sought to structure this response document on the importance of obtaining the appropriate costs for the required headcount. AirNav Ireland provided an example during the consultation meeting showing that the Draft Decision appears to provide 10 additional staff to Corporate

Services for activities such as cybersecurity and the Corporate Sustainability Reporting Directive, but in fact the costs modelled would only permit an additional 2 staff members.

Modelled headcount versus costed headcount: This response document considers the shortfall of resources in the Draft Decision compared to the RP4 Plan, but also examines how this shortfall is exacerbated when the modelled costs are considered i.e., the true headcount being permitted is much lower than what is being permitted due to the modelled costs not matching this headcount due in part to efficiencies. The assumptions on efficiencies are quite ambitious and do not apply to other jurisdictions falling under the RP4 remit. From an ATCO perspective, AirNav Ireland provided the example at the consultation meeting that the productivity assumed from 2029 based on TopSky ATC One would not in fact be realised until several years after its introduction due to familiarisation requirements and that it is therefore an RP5 consideration.

Non-staff OPEX: AirNav Ireland explained that it was preparing additional evidence having assessed the shortfall from its Business Plan in the CEPA Assessment and that on this basis it expects the non-staff OPEX to increase in the final decision. This response to the consultation responds to the additional evidential requirements outlined in the Draft Decision and there have also been parallel responses directly to the IAA with more detailed information.

Financial penalty scheme: AirNav Ireland noted that with the introduction of TopSky ATC One towards the end of RP4, it is prudent to plan for delay from a safety perspective, and that we shouldn't be penalised financially for it. There was no disagreement with this viewpoint. AirNav Ireland would expect to work closely with the IAA on this matter closer to the time.

Cost efficiency target: AirNav Ireland set out the need to incur spending that is not compatible with the Union-wide cost efficiency target if service delivery is to remain at acceptable levels. This was not contested by airspace users or any other stakeholder such as the PRB who were in attendance.

Cost of Capital: It was discussed that there are European States with much higher asset betas compared to what is proposed for AirNav Ireland. We therefore requested an assessment of the emerging Costs of Capital across Europe for RP4 to ensure Ireland is not an outlier, which wasn't available at the stakeholder consultation meeting, but should be possible before a final decision is made.

Environment key performance area: Following calls for a more challenging target for our en-route horizontal flight efficiency, AirNav Ireland explained how weather was such a significant factor that is outside of our control. We also agreed with requests from stakeholders to engage with neighbouring ANSPs, which has been ongoing for some time along with regular engagement with the IAA.

Scope for change: In relation to traffic forecasts, operational stakeholders and representatives agreed during the consultation meeting with the need to plan for growth at Dublin Airport, even though there is a possibility that the passenger cap will remain in place for several years due to the planning issue. Stakeholders also recognised the possibility to incorporate Autumn 2024 traffic forecasts into the RP4 Plan and that it may warrant another consultation, similar to the precedent set in 2021. In a similar light, there have been developments in relation to ✂ and Capex Plan that we request to be taken into account ahead of the final Decision on RP4.

Introduction

Response to the IAA's Consultation and Draft Decision on RP4

AirNav Ireland welcomes the opportunity to respond to the "*Draft Decision on RP4 Draft Performance Plan for Air Navigation Services Charging and Performance in Ireland*" which was published by the Irish Aviation Authority (IAA) on 18 July 2024. We also welcomed the opportunity to attend, present, and respond to queries at the statutory consultation meeting which took place on 2 August 2024 with representatives from the various stakeholder groupings in attendance.

AirNav Ireland agrees that the timeline for submission of the draft Performance Plan is tight, as set out in paragraph 1.32 of the IAA's Draft Decision. We have nonetheless sought to produce a complete response to this consultation in parallel to **(i)** responding to additional information requests received from the National Supervisory Authority during the consultation period **(ii)** issuing clarification requests of our own in relation to the consultation material **(iii)** justifying our Plan and responding to queries at the stakeholder consultation meeting.

AirNav Ireland is therefore requesting that the IAA considers all of these developments since 18 July rather than focussing solely on this document from an AirNav Ireland perspective. Moreover, in instances where we believe aspects of our Business Plan remain relevant, we simply reference the relevant section of the Business Plan rather than repeating the information again in its entirety in this document. This consultation document, therefore, focusses predominantly on new information since 18 July, which has either been requested by the IAA or which is relevant in the context of the Draft Decision published by the IAA.

We will continue to be available following the consultation period to address information and clarification requests in relation to any aspect of our RP4 Plan or related material.

Continued Relevance of AirNav Ireland's RP4 Business Plan (28 June)

AirNav Ireland's final RP4 Business Plan was submitted to the IAA on 28 June 2024 in line with the required timelines – updates from our draft RP4 Business Plan submitted on 3 May 2024 were clearly identifiable to the NSA at the time of submission, and AirNav Ireland strongly believe its overall RP4 Plan continues to remain valid, despite some minor changes notified to the IAA in July e.g., a security project was added and we stated our position on capacity towards the end of RP4 with the introduction of TopSky ATC One.

Furthermore, at the stakeholder consultation meeting on 2 August, we did not observe any stakeholder expressing clear objections to any aspect of our RP4 Business Plan, and we are strongly of the view that every query was satisfactorily addressed in response. In an industry where the management of the Regulated Entity is recognised as being best placed to make key decisions on behalf of the Company within an overall allowance, this position of stakeholders, notably airspace users, only further reinforces the relevance of AirNav Ireland's RP4 Business Plan.

Adhering to the IAA's RP4 Planning Guidelines, our unredacted RP4 Business Plan submitted to the IAA contains a significant amount of detail at more than 300 pages. We nonetheless anticipated additional queries and have been very keen to engage with all stakeholders in relation to clarification requests. AirNav Ireland had made it clear in the response to the RP4 Methodological Consultation and Issues Paper that it was critically important for the NSA to identify what evidence had been accepted and what evidence had not been accepted in its Draft Decision.

Notwithstanding this reasonable request, it has not been possible from the CEPA OPEX Study or the IAA's Draft Decision to ascertain what aspects of AirNav Ireland's RP4 Business Plan were not deemed to be sufficiently credible – this significantly complicates this response to the consultation as AirNav Ireland is forced to second guess what evidential requirements are needed to support its case. Not only is it a very time-consuming process to document and detail what we think the missing evidence might be (e.g. taking engineers away from their day-to-day duties), it also comes with the very real risk that AirNav Ireland requires legitimate costs to run the business at acceptable levels of service during RP4 but which will have been missed at this stage which all stakeholders agree to be very time constrained.

Structure of this Response to Consultation

This document focusses on responding to the following topics in the consultation with respect to AirNav Ireland's required costs over the period 2025-2029:

- staff OPEX requirements
- non-staff OPEX requirements
- CAPEX requirements (including Cost of Capital)
- key performance areas (including Financial Penalty Scheme)
- traffic forecasts, risk sharing and scope for an additional consultation.

The interdependencies between the four key performance areas of safety, environment, capacity and cost are documented throughout.

Staff OPEX Requirements

Staff operating expenditure is a function of staffing levels and staff unit costs which combine to form an estimate for base payroll costs. These are then supplemented by overtime costs and pension costs to form an overall assessment of staff OPEX. As demonstrated by the graph below, the IAA draft decision based upon CEPA's assessment of efficient staff OPEX varies considerably from our requirement included in our RP4 Business Plan.

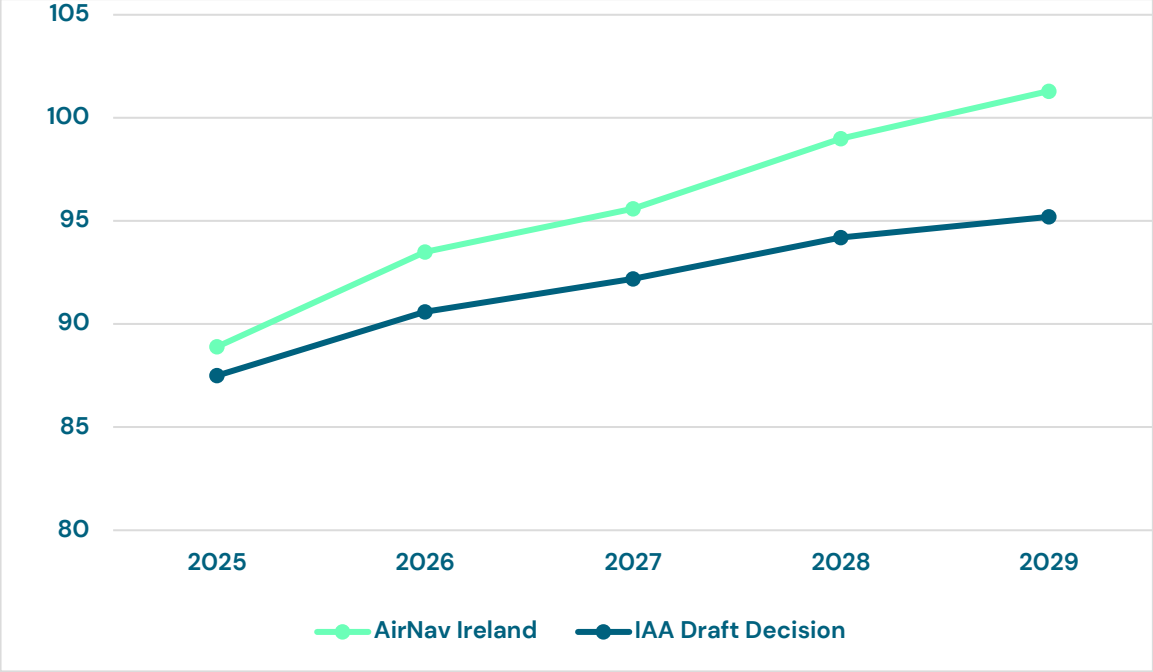

FIGURE 1: COMPARISON OF AIRNAV IRELAND AND IAA DRAFT DECISION ON STAFF OPEX (€M, 2022 PRICES)

TABLE 1: COMPARISON OF AIRNAV IRELAND AND IAA DRAFT DECISION ON STAFF OPEX (€M, 2022 PRICES)

	2025	2026	2027	2028	2029	RP4 Total
AirNav Ireland	88.9	93.5	95.6	99.0	101.3	**478.3**
IAA Draft Decision	87.5	90.6	92.2	94.2	95.2	**459.7**
Difference	-1.4	-2.9	-3.4	-4.8	-6.1	**-18.6**

Key points on staff OPEX are summarised below:

- CEPA's assessment of ATCO headcount for Dublin and Shannon ACCs is based upon a flawed methodology which is based entirely on a theoretical approach to estimating efficient ATCO levels based on forecast service units for RP4. The CEPA methodology does not consider the non-traffic drivers for increases in ATCO headcount described in detail in our RP4 Business Plan such as regulatory requirements around Statutory Leave, Job Sharing and Work Life Balance. The CEPA methodology also includes efficiencies in ATCO headcount based on productivity assumptions related to the implementation of CP1 projects, with limited supporting justification. The ATCO headcount efficiency assumptions driven by productivity

improvements resulting from the implementation of TopSky ATC One will not occur in practice.

- CEPA's assessment of an efficient engineer headcount is based entirely on a theoretical approach that utilises elasticity factors that have not been justified or explained. The CEPA approach uses the 2016-2023 average headcount as the starting point for its forecast; this is significantly lower than the 2023 actual. CEPA have not explained why this starting point was chosen. The CEPA methodology is a purely theoretical approach and is not based upon a holistic assessment of engineering need. To model efficient engineer unit payroll costs, CEPA have not included pay increments. Consequently, our unit payroll costs will evolve differently compared to what CEPA have allowed for and the result will be that the allowed budget will not be sufficient for the modelled increase in engineer headcount. Due to the CEPA approach to modelling engineer headcount and unit payroll costs, the actual headcount that we have cost allowance for in the IAA Draft Decision is significantly below the requirements included in our RP4 Business Plan submission.
- AirNav Ireland is incentivised via regulation to spend CAPEX – there has been an underspend on CAPEX in RP2 and RP3 and our airline customers raised concerns. We are also concerned as CAPEX delay means that the average age of systems is 15-year plus, and it is the case that older systems have a higher probability of failure, which can lead to ATC delay. The cost of ATC delay is higher than the cost of having adequate staff and renewing systems as needed such that improvements can be made to resilience.
- AirNav Ireland is highly productive in terms of engineers but has only 50% of the average number of engineers in other EU ANSP's based on ACE when compared to ATCO headcount as a ratio. As set out in the consultation meeting, Ireland as an island which controls 75% of North Atlantic Traffic implying that it is a key ANSP in the EU carrying heavy responsibility. AirNav Ireland is striving to be world class and to do so we need adequate staffing.
- For Ops Management and Support, Data Assistants and FMP/AMC, CEPA have assessed that the headcount requirements we included in our RP4 Business Plan are efficient. However, due to the way in which CEPA have modelled unit payroll costs, applied standard wage growth assumptions and not included pay increments, we will not have sufficient cost allowance to meet this headcount. This means the IAA Draft Decision applies a significant reduction in headcount for these categories compared to our RP4 Business Plan submission. There is no reason for CEPA to omit increments from their assessment of unit payroll costs, as this is a significant driver behind the evolution of our payroll costs over time (this was recognised for ATCO costs where increments have been included in the CEPA approach).
- For Corporate Services, CEPA has assessed that a smaller increase in headcount than the one we proposed in our Business Plan would be efficient based on the justifications we provided in the Business Plan for these increases. We have subsequently provided additional evidence supporting the increase in Corporate Services headcount we require. As with the other non-ATCO categories, CEPA have not included increments in their assessment of unit payroll costs and they have applied a 5% efficiency challenge to Corporate Services, based upon a benchmarking of efficient payroll costs. This means the headcount supported by the cost allowance is significantly below headcount that CEPA deem to be efficient. This is because increments have a real impact on our cost evolution over time, so will drive our payroll costs above those modelled by CEPA. In addition, the 5% efficiency challenge is unlikely to be achievable, as the CEPA approach to modelling this efficiency is subject to some inconsistencies. Firstly, it is not possible to follow the logic of how CEPA's assessment has

translated into the 5% efficiency challenge nor is it something that can be met beginning January 2025. Also, the CEPA benchmarking assessment relies on a comparison of Corporate Services wage growth between 2019 and 2023, with the wage growth of office administrative, office support and other business support staff in other industries. It is unclear how in making this comparison CEPA have accounted for the mix of staff within Corporate Services. CEPA have also benchmarked Corporate Services gross salary costs based on data from Glassdoor and Forsa. The fidelity of the data from Glassdoor could be questioned given it is self-reported and not necessarily updated to reflect wage increases over time. Furthermore, the roles used for comparison seem to have been selected arbitrarily without justification and many of them (such as a Garda Officer or Porter) bear little relevance to the roles undertaken by Corporate Services staff at AirNav Ireland.

Modelled Headcount versus Modelled Costs

The stakeholder consultation focussed on AirNav Ireland's planned headcount versus the modelled headcount by CEPA which is in the Draft Decision. This section goes further to show the impact of not aligning the cost with the modelled headcount.

AirNav Ireland's RP4 Business Plan

TABLE 2: HEADCOUNT INCLUDED IN AIRNAV IRELAND'S RP4 BUSINESS PLAN

	2025	2026	2027	2028	2029
ATCOs	328	340	352	363	374
Engineers	114	126	126	126	126
Ops Management and Support	76	78	81	82	82
Data Assistants + FMP/AMC	53	58	58	58	58
Corporate Services	66	69	69	69	69
RP4 Headcount	**637**	**671**	**686**	**698**	**709**

CEPA Assessment/IAA Draft Decision

TABLE 3: HEADCOUNT INCLUDED IN CEPA ASSESSMENT/IAA DRAFT DECISION

	2025	2026	2027	2028	2029
ATCOs	326	337	342	354	353
Engineers	107	115	117	118	123
Ops Management and Support	77	79	82	83	83
Data Assistants + FMP/AMC	53	58	58	58	58
Corporate Services	64	65	65	65	65
RP4 Headcount	**626**	**653**	**663**	**678**	**681**

Headcount shortfall of Draft Decision against Business Plan

TABLE 4: HEADCOUNT SHORTFALL OF DRAFT DECISION AGAINST BUSINESS PLAN

	2025	2026	2027	2028	2029
ATCOs	-2	-3	-10	-9	-21
Engineers	-7	-11	-9	-8	-3
Ops Management and Support	1	1	1	1	1
Data Assistants + FMP/AMC	-0	-1	-1	-1	-1
Corporate Services	-2	-4	-4	-4	-4
RP4 Headcount	**-11**	**-18**	**-23**	**-20**	**-28**

CEPA real impact taking into account increments and of evolution of unit costs

TABLE 5: REAL HEADCOUNT IMPACT TAKING INTO ACCOUNT INCREMENTS AND OF EVOLUTION OF UNIT COSTS

	2025	2026	2027	2028	2029
ATCOs	331	341	352	356	357
Engineers	107	114	114	113	116
Ops Management and Support	75	76	78	79	79
Data Assistants + FMP/AMC	49	53	52	51	51
Corporate Services	61	62	62	62	62
RP4 Headcount	**623**	**647**	**658**	**661**	**664**

Real shortfall compared to AirNav Ireland's RP4 Business Plan

TABLE 6: REAL SHORTFALL COMPARED TO AIRNAV IRELAND'S RP4 BUSINESS PLAN

	2025	2026	2027	2028	2029
ATCOs	3	1	0	-7	-17
Engineers	-7	-12	-12	-13	-10
Ops Management and Support	-1	-2	-3	-3	-3
Data Assistants + FMP/AMC	-4	-5	-6	-7	-7
Corporate Services	-5	-7	-7	-7	-7
RP4 Headcount	**-14**	**-24**	**-28**	**-37**	**-45**

While IAA claims in their Draft Decision that they allowed for staff increase modelled by CEPA, in reality, the increase is significantly lower than our requirements in most of the categories. CEPA allowed for staff increments for ATCOs, however, these were not reflected for the non-ATCO staff. Our unit costs will evolve differently compared to what CEPA allowed for and the result will be that the allowed budget will not be sufficient for the modelled increase in most non-ATCO staff categories. In Corporate Services, the actual number of allowed staff in 2029 is 62 and not 65 as claimed by CEPA (compared to the real requirement of 69). Even more significant shortfall is for data assistants and FMP/AMC staff. The real allowance is for 51 staff in 2029 compared to 58 modelled and requested. The allowance for engineers will only increase to 116 compared to the modelled 123 in 2029 (while the requirement is 126) and the operational management and support staff will only increase to 79 in 2029 compared with the modelled 83 (while the requirement is 82).

ATCO Requirements 2025-2029

Headcount – AirNav Ireland Business Plan v IAA Draft Decision (Modelled Headcount)

TABLE 7: ATCO HEADCOUNT – AIRNAV IRELAND BUSINESS PLAN V IAA DRAFT DECISION (MODELLED HEADCOUNT)

	2025	2026	2027	2028	2029
AirNav Ireland	328	340	352	363	374
Draft Decision / CEPA	326	337	342	354	353
Difference	-2	-3	-10	-9	-21

The shortfall in headcount shown in the table above is driven by CEPA's approach to modelling an efficient ATCO headcount, there are many areas where the highly theoretical methodology is open to challenge, given its lack of consideration for the real key drivers of our ATCO headcount requirements. This is discussed in more detail later in this section.

Headcount – AirNav Ireland Business Plan v IAA Draft Decision (Modelled Cost)

TABLE 8: ATCO HEADCOUNT – AIRNAV IRELAND BUSINESS PLAN V IAA DRAFT DECISION (MODELLED COST)

	2025	2026	2027	2028	2029
AirNav Ireland	328	340	352	363	374
Draft Decision / CEPA	331	341	352	356	357
Difference	+3	+1	-	-7	-17

Accounting for the CEPA approach to modelling costs for ATCOs, which provides a true picture of the headcount being allowed, the allowed budget will be sufficient for the modelled increase in headcount. This is because the CEPA modelling approach for ATCO unit payroll costs is broadly consistent with actual unit payroll costs. To model efficient ATCO unit payroll costs, CEPA have applied wage growth assumptions. For 2024 to 2026, this is based on wage growth forecasts from the Central Bank of Ireland, and from 2027 onwards, CEPA assume average wage growth will

be 1.5% in real terms, in line with the historic average growth in real wages in the Irish economy. CEPA have then adjusted their estimates to reflect rates of attrition and hiring, and annual salary increments along pay scales.

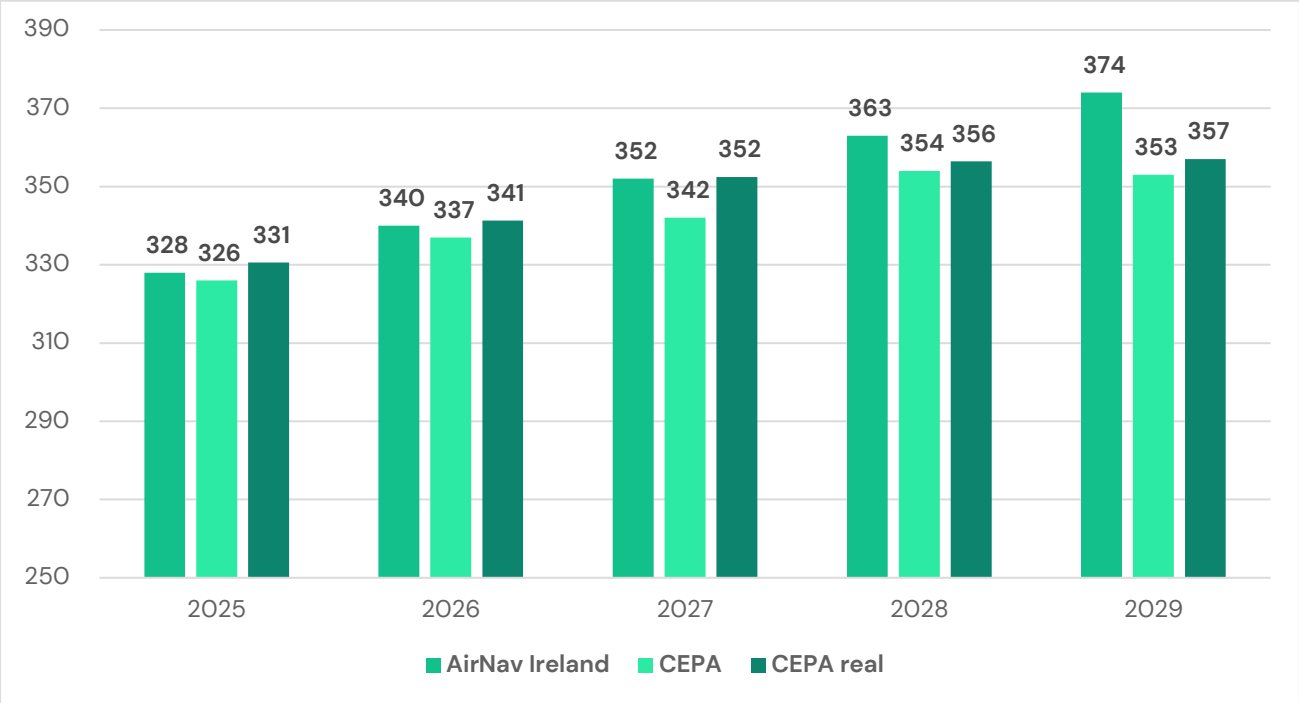

FIGURE 2: ATCO HEADCOUNT AIRNAV IRELAND, CEPA MODELLED VS CEPA REAL

The figure above illustrates the broad alignment between the headcount provided for by the cost allowance and the actual headcount allowance included in the RP4 Draft Decision. This is a result of taking into account the increments, which is not the case for other staff categories, as explained in the following sub-sections. However, both of these headcounts are driven by CEPA's underlying approach to modelling an efficient headcount, which is not reflective of the key drivers influencing our ATCO headcount requirements. As a result, the Draft Decision does not reflect our headcount requirements and there is a significant shortfall of ATCOs compared to our need towards the end of RP4.

Driver behind ATCO requirements

We have provided all of the factors driving our bottom-up ATCO forecast over the RP4 period to the IAA and stakeholders attending the consultation meeting, and we have responded to queries on this forecast, which included the provision of data in relation to our recent track record of hiring ATCOs and our ability to get the required numbers through the system to reach 374 by 2029. It was also explained that the ideal number was higher than 374 by 2029 but that our forecast had been capped at this number due to training limitations and so on.

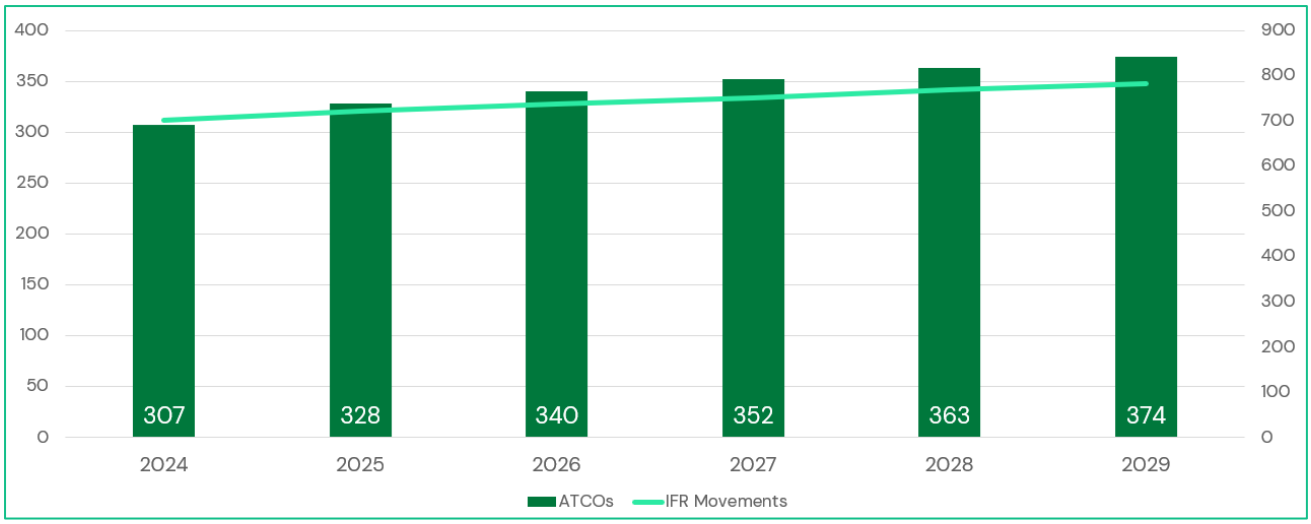

FIGURE 3: AIRNAV IRELAND RETIREMENTS VS IFR MOVEMENTS

TABLE 9: AIRNAV IRELAND ATCO REQUIREMENT DRIVERS

	2025	2026	2027	2028	2029	Total
Traffic	12	0	0	4	8	24
Work-Life Balance*	12	6	0	0	3	21
Roster Resilience	0	6	6	0	0	12
Instructor/Training	1	0	0	6	0	7
Dep Position	0	0	6	0	0	6

The key factors driving a need for more ATCOs during RP4 are set out below. It is important to note that the need is not limited solely to projected traffic increases:

- traffic increases (base case scenario STATFOR Spring 2024)
- retention/work-life balance
  - statutory leave
  - job-sharing
  - annual leave changes
  - career breaks
- overtime reduction
  - 2023 overtime increased by 76% when compared to 2019
  - 2024 YTD overtime is 36% higher than same period in 2023 and 122% higher than 2019
  - instances of staffing-related ATFM delays
- roster resilience
  - if traffic levels are above forecast or instances where sickness levels are high or if ATCO attrition is higher than planned, we have a limited amount of extra resilience without automatically leading to persistently high levels of overtime
- SM roster fatigue management/comms
- Operational Support Group (OSG) support/projects

- Accident Occurrence Investigation (AOI)
- instructor provision
- reducing ATCO attrition rates
  - ATCO attrition rate of over 3% per annum since 2022
  - 2022 – YTD 2024: ATCO attrition totals 23 ATCO
  - work-life balance improvements
  - ATCO attrition totalling 24 included in the RP4 BP
- retirements
  - 31 retirements over the course of RP4.

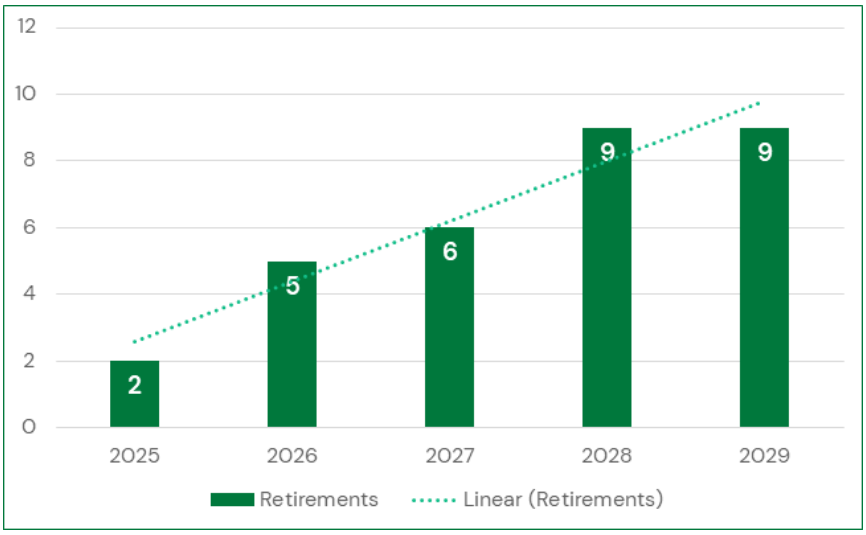

FIGURE 4: RP4 RETIREMENTS

While we have received queries at the consultation meeting from airspace users in relation to the cost of additional capacity, one answer is to say that in total 24 of the additional ATCOs are specific to the traffic factor but in reality there is an overlap with other factors summarised below because if we were to only receive 24 additional ATCOs, we would have insufficient ATCOs for work-life balance and statutory related requirements, roster resilience, instructor requirements and the new departures position, which would in turn restrict capacity.

Following the assessment of the increase in ATCOs required to provide the required capacity to support the forecast traffic increase over RP4, we then assessed the ATCO headcount requirements to account for a series of step-changes specific to RP4. These step-changes are:

- **Annual leave** requirements have been calculated to account for the potential outcomes of the Collective Labour Agreement (CLA) which is currently under negotiation.
- Changes to Irish law requires us to account for a higher amount of **Statutory Leave and Job Sharing**. The Work Life Balance Act 2023 means that employers are required to offer unpaid leave for medical care purposes (5 days within a consecutive 12-month period) from 3rd July 2023, and paid leave to workers who are subjected to domestic violence from 27th November 2023 (up to five days paid domestic violence leave over a period of 12 months). The Act also introduces the right for employees to request flexible working arrangements for caring purposes.

- In our Business Plan, the ATCO headcount has been planned with more focus on resilience. This **roster resilience** will be built into the Dublin roster from 2026 and Shannon from 2027 (earliest possible time). This will facilitate operational resilience and efficiency of the overall European network as described below:
  - Overtime is necessary and inevitable to cover unplanned staff shortages due to sickness, provisional inability, etc. However, using overtime to fill the roster at publication has the effect of reducing the resilience of our ATC service provision. This is because we will never use overtime to the point where our service provision is unsafe due to fatigue management, etc. If there are unexpected ATCO absences with overtime already used to fill the roster, there is an increased likelihood of not having sufficient numbers of staff available to provide the additional cover necessary. For example, this was experienced on 6th November 2023 when unexpected staff absences resulted in two 50-minute zero flow rates in/out of Dublin Airport being applied. This was necessary as unplanned ATCO absences meant there were insufficient ATCOs on duty to maintain a service delivery whilst still providing the required fatigue breaks to staff. In addition, the high use of overtime has been identified as a contributory factor to ATCO retention. Given the societal change towards a greater focus on work-life balance, the impact of employees demanding a better work-life balance is already being experienced in our organisation, with ATCOs citing this as a reason for leaving the organisation. There is a significant risk that if overtime use remains persistently high throughout RP4, our ATCO attrition rate will increase further thereby limiting our ability to increase overall numbers.
  - Issues arising in other European countries often require us to adapt our operation at short notice to cope with traffic flow changes. We already make use of dynamic sectorisation to ensure the airspace is managed as efficiently as possible – this is still dependent on having sufficient ATCOs to respond to changes in traffic flows.
- In RP3, approximately 15% of ATCO time was spent on non-operational tasks such as training, instructing and supporting the delivery of projects. For the majority of RP4, this is not expected to change significantly as the ATCO time allocated to these activities is expected to increase proportionately to the ATCO headcount requirements. However, during 2028 and 2029, there will be a significant increase in demand for **ATCO instructor time** due to training to prepare ATCOs for operationalisation of the new TopSky ATC One ATM System.
- In relation to **ATM Occurrence Investigation (AOI) & Operational Support Group (OSG) staffing**, rather than having ATCOs allocated on a rotational basis to these functions, in RP4 we will instead allocate ATCOs permanently to these functions. By doing so, staff will become more specialised in these areas leading to more consistent work output.
  - In 2022, AOI resourcing, had a direct impact on our EoSM performance against the Safety Risk Management Objective. In RP4, we will address this by allocating staff on a permanent basis to this function, which will mean they will no longer be available to fill the roster.
  - In RP4, instead of a small number of ATCOs permanently assigned to the OSG supplemented 12 months a year by rotational ATCOs, an increased number of ATCOs will be permanently assigned to the OSG which will be supplemented by rotational ATCOs outside of the core summer months. This will guarantee the OSG an increased minimum number of staff all year round. Given the importance of OSG to the successful delivery of our CAPEX programme, it is essential we have OSG resources ring-fenced in RP4, to help mitigate the resourcing challenge we faced in RP3 and the consequence of this on the delivery of CAPEX projects.

- An additional **Departure ATCO position** is required at Dublin to help facilitate the parallel runway operations that were introduced with the operationalisation of Dublin's new runway (28R/10L) in 2022, and to facilitate the RP4 traffic growth assumptions at Dublin Airport. Provision has been made for 6 additional ATCOs from 2027 to fill this new position.

These step-changes have resulted in our ATCO requirements increasing beyond what would be required solely to account for the evolution in traffic as forecasted in the February 2024 STATFOR base forecast. Without these step-changes being taken into consideration, we will not have enough ATCOs to support the traffic evolution anticipated by the forecast, as these step-changes are non-traffic related factors applying pressure to our ATCO resourcing.

CEPA's approach to estimating ATCO requirements 2025-2029

CEPA's forecasting approach to estimate efficient ATCO headcount requirements for RP4 is based upon two methodologies. CEPA has considered that as activity levels at the two control centres are more elastic to traffic than the two tower-only operations, they should forecast each of these separately. For the ATCOs based at the Shannon and Dublin control centres traffic levels were used as a key driver of headcount, while for the two tower operations CEPA assessed the efficiency of proposed step-changes in headcount included within our Business Plan. Similarly, for supervisory and non-operational roles, CEPA forecast headcount with reference to the requirements documented in our Business Plan.

For operational ATCOs at Dublin and Shannon control centres, CEPA have followed a 3-step approach based on: (1) determining the optimum ratio of operational ATCOs to traffic movements, (2) calculating the optimal number of ATCOs give traffic forecasts, and (3) determining the efficient path of ATCOs from the current level to the optimum level accounting for training and hiring constraints.

Our understanding is that in Step 1 CEPA have:

- Estimated by how much the FTEs at Dublin and Shannon would need to increase to reduce utilisation to sustainably efficient levels (i.e. 85% utilisation).
- CEPA then use this to estimate the impact on ATCO productivity, defined as the ratio of ATCOs to service units (an indicator of traffic levels). They do this separately for en-route and terminal. For en-route CEPA scale down the 2023 ratio of en-route ATCOs to en-route service units by a factor of 0.92, where en-route ATCOs consist of all ATCOs in Shannon plus 76% of ATCOs in Dublin control centre. For terminal, CEPA scale down the 2023 ratio of terminal ATCOs to terminal service units by a factor of 0.94. Terminal ATCOs consist of 24% of ATCOs in Dublin control centre. This approach CEPA state provides "*the optimal ratio of ATCO FTEs to service units, given current efficient productivity levels.*"
- CEPA then further adjust the optimal ratio of ATCO FTEs to service units based upon a number of other factors including:
  - A planned decrease in operational working hours from 2028 to allow for additional training for TopSky ATC One.
  - Expected increases in productivity related to CAPEX projects (two 2% productivity improvements were applied, one due to productivity improvements related to CP1 CAPEX projects from 2026-2029, and the other related to productivity improvements as a result of TopSky ATC One implementation in 2029).

In Step 2 CEPA calculated the optimal number of ATCOs given traffic forecasts through RP4. Our understanding is that CEPA have multiplied their ratio of efficient ATCOs per service unit calculated in Step 1, with the forecast service units for RP4 using the February 2024 STATFOR base forecast.

In Step 3 CEPA have attempted to determine the efficient path of ATCOs from the current level to the optimum level accounting for training and hiring constraints, this has been done by applying the following assumptions:

- The number of direct entries is capped at 5 per year. Direct entry is assumed fixed for 2023 and 2024 but variable thereafter.
- Class sizes are capped at ✂ with a ✂ completion rate. This gives an effective class size of ✂. Training takes 2 years, so class sizes prior to 2025 are considered fixed.
- ✂

CEPA have estimated an increase in ATCOs at Shannon and Dublin control centres from 218 FTEs in 2024 to 262 FTEs at the end of RP4. It notes this accounts for the limited number of ATCOs as well as the forecast increase in traffic, changes in ATCO productivity, and a small reduction in operational working hours. CEPA then convert these FTE figures into headcount estimates by assuming the ratio of FTE to headcount from 2023 remains constant.

For ATCOs in Shannon and Cork towers and Station Managers CEPA have adopted an alternative methodology to the one described above. Instead for these positions CEPA has assessed the forecast included in our Business Plan based upon 3 criteria, these are Need, Additionality and Efficiency.

The outcome of this assessment is presented below:

- Need. CEPA accept our case that additional Station Managers are needed for its fatigue management strategy and should improve communication within units.
- Additionality. Given the forecast increase in operational ATCOs over RP4, CEPA assess there is a need for additional Station Managers above the 2023 baseline.
- Efficiency. The increase proposed is proportional to the forecast increase in ATCOs and the supporting evidence is sufficient given the low materiality of this increase.

For operational ATCOs at Shannon and Cork towers, CEPA forecast efficient headcount to increase by 3 in 2025, from 20 to 21 at Cork and 20 to 22 at Shannon. CEPA consider these step changes appropriate in the context of CEPA's efficiency analysis contained in the OPEX assessment report where they find that the utilisation of ATCOs in Cork and Shannon towers was above 85% in 2023.

Finally, an assessment was completed on our non-operational ATCO headcount where an assessment of available evidence led CEPA to accept our planned increase in non-operational ATCOs (ATM specialists) from 9 in 2024 to 16 in 2025 through to the end of RP4.

Key questions from CEPA's approach

We are supportive of IAA's assessment that we were limited in terms of ATCO headcount during RP3. We also support the IAA's acknowledgment of the wider implications of this in terms of capacity performance, operational resilience and overreliance of overtime, and that this is commensurate with the challenges we have experienced during RP3 on a day-to-day basis in the delivery of our services. However, the RP4 ATCO headcount forecast included in IAA's Draft Decision produced by CEPA does not contain sufficient ATCOs in RP4 to address this issue from RP3.

CEPA use two separate methodologies for forecasting ATCO headcount. The first (3-step methodology) is used for operational ATCOs at Dublin and Shannon control centres, whereas for operational ATCOs at Shannon and Cork towers their forecast is based on an assessment of our forecast.

The 3-step methodology used to assess an efficient ATCO headcount at Dublin and Shannon ACCs varies significantly in methodology compared to our approach. The CEPA methodology is based upon a more theoretical approach and contains a number of elements that could be questioned:

- The first step of CEPA's 3-step methodology used to assess an efficient ATCO headcount at Dublin and Shannon ACCs is based upon the use of Service Units as a proxy for traffic as opposed to IFR movements. Given Service Units are a product of the distance flown (expressed in 100s of km) and the square root of the Maximum Take off Weight (MTOW) of the aircraft (expressed in 50 tonnes), they are not as close a proximation to traffic as IFR movements and often evolve differently due to changes in routes used and changes in traffic mix. From 2025-2029 IFR movements are anticipated to grow more quickly than en-route Service Units.
- The CEPA headcount forecast tracks closely to our own assessment until 2026, after which the divergence between our forecast ATCO headcount and the forecast used by CEPA becomes significant. The IAA justify this divergence, particularly in 2029, as "*reflective of CEPA's assumption of enhanced ATCO productivity following the planned major investment in AirNav Ireland's ATM systems*". The CEPA OPEX assessment report asserts that ATCOs will be able to handle an additional 2% more Service Units from 2029 as a consequence of productivity gains associated with the operationalisation of TopSky ATC One. CEPA's assumptions around productivity improvements stemming from this statement are incorrect for a number of reasons set out below in addition to a oversight in the business case for 2029:
  - The implementation dates of TopSky ATC One vary amongst COOPANS partners, and we expect our implementation to not deliver any productivity improvements in 2029, as the system implementation takes some time to settle in the first year and our ATCOs take some time to become more comfortable implementing the new system.
  - In addition, productivity improvements do not necessarily reflect an ability to immediately reduce ATCO headcount. For an improvement in productivity to translate to headcount efficiencies, all things being equal, the sectors that ATCOs handle would need to increase in size, allowing a given ATCO to handle more traffic and reducing the number of ATCOs required. The issue is any changes to airspace sectors is a significant undertaking, with implications on controller licensing.

- Even more importantly, the experience of ANSPs implementing new systems is that it impacts productivity in the short term negatively and not positively. ATCOs need to get used to the new interface and functionalities, even after the training, and it takes some time before all functionalities are fully used. In addition, two systems will be run in parallel, one in a shadow mode, which will also impact efficiency in the short term. The capacity plan takes into account that the capacity will be impacted during the system implementation period and there is a higher risk of delays during this period.
- We deem it to be a significant and unnecessary risk to plan efficiencies in ATCO headcount arising from productivity improvements enabled by the new TopSky ATC One system, until the realisation of these productivity improvements can be assessed in the real operational environment, in the Irish airspace context. We ask the IAA to consider the balance of risk in including these efficiencies when forecasting the ATCO headcount for RP4.

- A further reason for the divergence in forecast from 2026 in ATCO headcount forecast between CEPA's forecast and our forecast is driven by a productivity factor applied by CEPA associated with the completion of projects related to CP1 compliance. CEPA have used the assumption that ATCOs will be able to handle 2% more Service Units per FTE from 2026 due to the completion of these projects. While AirNav Ireland is working on ways of enhancing productivity over RP4, such as the Collective Labour Agreement, we are already operating at high levels of efficiency due to dynamic sectorisation, for example, and it will not be possible to achieve 2% so early in RP4. In fact, we see CP1 driving a higher resource requirement during RP4 and that it will not be fully deployed until 2029. Some productivity enhancements may be possible from 2026 based on fast time analysis tools and the rostering tool and associated data analysis, for example, but it would not exceed 1%.

- Significantly, the 3-step methodology applied by CEPA to estimate the ATCO headcount forecast for RP4 does not consider the step-changes outlined in our RP4 Business Plan submission. It is clear that these step-changes will impact our ATCO availability for operational duties, but CEPA has not accounted for these in its methodology.

Consequently, CEPA's approach is based almost exclusively around Service Units compared to ATCO headcounts and makes insufficient allowance for non-traffic related step-changes between RP3 and RP4**.**

For ATCOs in Shannon and Cork towers and Station Managers CEPA have adopted an alternative methodology to the 3-step methodology used for Dublin and Shannon ACCs. Instead for these positions they have assessed the requirement included in our Business Plan based upon three criteria, these are Need, Additionality and Efficiency. Based on these tests, CEPA has concurred with the requirement included in our Business Plan. The same assessment was also conducted for additional non-operational ATCOs, where CEPA came to the same conclusion. It is unclear why a similar assessment of our proposed headcount requirement was not considered when assessing the headcounts for Dublin and Shannon ACCs. CEPA state that "*As activity levels at the two control centres are more elastic to traffic than the two tower-only operations, we forecast each of these separately. For the ATCOs based at the Shannon and Dublin control centres we use traffic levels as a key driver of headcount, while for the two tower operations we assess the efficiency of proposed step-changes in headcount included within AirNav Ireland's*

Business Plan. Similarly, for supervisory and non-operational roles, we forecast headcount with reference to AirNav Ireland's Business Plan.".

However, we consider this divergence in methodologies to be not well justified and would ask the IAA to consider that an assessment of the efficiency of our ATCO headcount forecast for Dublin and Shannon ACC should form part of CEPA's assessment. This would ensure that CEPA's assessment for these two ACCs is not solely based on a theoretical traffic focussed approach but includes a holistic assessment of the Need, Additionality and Efficiency of the headcount requirement included in our Business Plan for Dublin and Shannon ACCs, including the step-changes driving this requirement.

Engineer Requirements 2025-2029

Headcount – AirNav Ireland Business Plan v IAA Draft Decision (Modelled Headcount)

TABLE 10: ENGINEER HEADCOUNT – AIRNAV IRELAND BUSINESS PLAN V IAA DRAFT DECISION (MODELLED HEADCOUNT)

	2025	2026	2027	2028	2029
AirNav Ireland	114	126	126	126	126
Draft Decision / CEPA	107	115	117	118	123
Difference	-7	-11	-9	-8	-3

As is demonstrated in the table above, our RP4 Business Plan submission has 38 additional engineer FTEs per annum, cumulatively over and above the IAA Draft Decision for the RP4 period. This difference is more pronounced (54) when the headcount modelled through the allowable costs is considered as is demonstrated by the table below.

Headcount – AirNav Ireland Business Plan v IAA Draft Decision (Modelled Cost)

TABLE 11: ENGINEER HEADCOUNT – AIRNAV IRELAND BUSINESS PLAN V IAA DRAFT DECISION (MODELLED COST)

	2025	2026	2027	2028	2029
AirNav Ireland	114	126	126	126	126
Draft Decision / CEPA	107	114	114	113	116
Difference	-7	-12	-12	-13	-10

Unlike the approach used for modelling efficient ATCO unit payroll costs, the CEPA approach for modelling engineer unit payroll costs is not reflective of actual unit payroll costs.

To model efficient engineer unit payroll costs, CEPA have applied the same wage growth assumptions as for ATCOs and all other staff categories. For 2024 to 2026, this is based on wage growth forecasts from the Central Bank of Ireland, and from 2027 onwards, CEPA assume average wage growth will be 1.5% in real terms, in line with the historic average growth in real wages in the Irish economy. However, contrary to how they modelled ATCO unit payroll costs, CEPA have

assumed that the impact of attrition and new hiring is offset by annual increments. CEPA base this on the assumption that the downward impact of the large increase in engineer headcount on unit payroll costs will not be significant based on the assumption that we hire some engineers with prior experience, who do not necessarily start at the bottom of the pay scale. Consequently, CEPA have based engineer unit payroll costs exclusively on their wage growth assumptions, and have not considered increments, despite CEPA being aware that these are a quantifiable real input to our unit payroll costs. Increments were omitted from their approach for engineers despite rightly being included in the approach for ATCOs.

This approach by CEPA is not an appropriate measure of real unit payroll costs. Our unit payroll costs will evolve differently compared to what CEPA allowed for and the result will be that the allowed budget will be insufficient for the modelled increase in engineer headcount. This is reflected in the figure below, where the real headcount enabled by the allowable costs is below the headcount modelled by CEPA, which was included in the RP4 Draft Decision. The approach applied by CEPA means our engineering headcount for RP4 is even further below the requirement included in our RP4 Business Plan submission.

FIGURE 5: ENGINEER HEADCOUNT AIRNAV IRELAND, CEPA MODELLED VS CEPA REAL

The engineering requirements included in our RP4 Business Plan were based on a bottom-up assessment of engineering need. The actual allowed headcount in the IAA Draft Decision is a function of unit payroll costs, which as described above do not reflect reality and a modelled headcount which is based on a theoretical methodology to estimating the allowed headcount which is not grounded in our engineering requirements. In the remainder of this section, we reaffirm our engineering needs for RP4, which drive our engineer headcount requirements which we included in our RP4 Business Plan submission.

✂

Outlining why our engineering workload will increase above 2024 requirements in RP4

We are going to increase our asset base with additional systems such that we can improve on safety, business continuity, efficiency and effectiveness, for example:

- ASMGCS Cork and Shannon. These are new systems which will be installed under the CAPEX plan and then managed and maintained during RP4. This means new additional SMR, EFS & MLAT systems at Cork and Shannon. This increase alone requires 4 additional engineers. This will improve safety.
- New Contingency Facility at Dublin. This is akin to the standalone CEROC contingency facility in Shannon region being built in Dublin to enhance contingency capability. New systems which will need to be managed and maintained.
- New FMP Cell. This systems with this new cell will need to be maintained by engineers.
- New TOOMAN Radar. This facility will have surveillance, communications, networks and mechanical and electrical systems which will need to be managed and maintained. The facility is due to go operational in 2025.

We will need to comply with new regulations, for example:

- New ISMS cyber regulation.
- New NIS 2 cyber regulation.
- New H&S regulations on paternity leave.
- CP1 regulation which is very broad and requires significant workload. ✂

Comparison of engineering staffing to EU averages for ANSP's

- Based on independent Eurocontrol ACE report, we had 50% of average EU ANSP engineering staffing in 2022.

Further details underpinning our forecast engineering requirements

A key focus of our forecasting approach for RP4 has been to ensure we have sufficient engineers to balance day-to-day engineering needs such as planned and corrective maintenance, as well as the engineering requirements to support the delivery of our CAPEX programme. During RP3, this was a particular challenge due to staffing constraints, originating from the Covid-19 recruitment freeze and associated recovery which was faster than anticipated and a number of other factors. In RP3, staff prioritised day-to-day operations to avoid user delays, however this has come at the cost of our CAPEX programme ✂. Understanding that a repeat of such challenges in RP4 could have significant long-term consequences for our service delivery, our approach to estimating the engineers we require for RP4 is based on a combination of bottom-up and top-down estimation to ensure we have sufficient engineers to match the engineering demands of our business. Our engineering requirements for RP4 are also driven by the below factors:

- Engineers to support the delivery of TopSky ATC One – This will require significant engineer resources as this project will be delivered across all technical services domains and require support from other facets of our organisation such as our Safety domain and our Operational Support Group (OSG). This significant modernisation project kicks off this year and will run

through RP4. Such a significant upgrade is approximately a once in a decade implementation for us, and it will facilitate the modernisation of our main ATM system to align with the European ATM Master Plan and our COOPANS partners.

- ✂

Our approach to forecasting the engineers we require for RP4 was based on the combination of bottom-up and top-down estimation. The bottom-up approach is facilitated by tracking our historic resource utilisation for planned maintenance, corrective maintenance, safety, security, quality, change and training for each domain. We have used this historic data to estimate future requirements, alongside a bottom-up estimate of the resources required to deliver each of our CAPEX projects included in our Business Plan.

Our forecast is also based upon the top-down view of our engineer requirements. In RP3, our technical resources were significantly below the headcounts of our European ANSP counterparts, this is shown by our low numbers of technical staff per ATCO in operations. ✂ ensure we have sufficient engineers to deliver the improvements to our ATC service that need to be made. Although, our engineer forecast balances these demands against the challenges in recruiting and training engineers in an increasingly competitive labour market for engineer staff.

CEPA's forecasting approach

CEPA's forecast for estimating an efficient engineer headcount for RP4 is based on a 4-step methodology, described below:

- CEPA start with the average headcount over the period 2016 and 2023, which results in an estimate of 76 staff.
- CEPA then adjust this headcount to reflect the expected increase in our regulated asset base relative to the 2016-2023 average, using an elasticity of 0.5.
- They then scale the headcount to reflect the average expected level of capital investment for the years (t+1) and (t+2) relative to the 2016 to 2023 average, using an elasticity of 0.15. Here, CEPA assume that engineers are working on capital projects that will be delivered over the next two years.
- Finally, CEPA include 7 additional staff required as a result of EU Regulation 2017/373.

Key questions from CEPA approach

- In the first step of their methodology CEPA's starting point is the average number of engineers over 2016-2023, which results in an estimate of 76 engineers. We request IAA to provide justification for why this is deemed an effective starting point from which to forecast engineers for RP4. A more accurate baseline from which to forecast future engineer headcount requirements would be the actual engineer headcount from 2023.
- CEPA's methodology for calculating the engineer forecast is heavily reliant on two elasticity factors. The first elasticity factor is applied in the second step of CEPA's methodology, in which the elasticity of engineer headcount with respect to the size of the regulated asset base is used. Our interpretation of this elasticity is that a 1% increase in the size of the regulatory asset base between 2016-2023, would lead to a 0.5% increase in engineer headcount. The use of the elasticity factor of 0.5 has not been justified by CEPA, despite it being a crucial determinant of the engineer headcount in their methodology. We request the IAA to provide the supporting evidence behind the use of an elasticity factor of 0.5 or why it carries more weight than our analysis.

- The second elasticity factor of 0.15 has been applied by CEPA to scale headcount to reflect the average expected level of capital investment for the years (t+1) and (t+2) relative to the 2016 – 2023 average. Our interpretation of this elasticity factor is that for every 1% increase in capital expenditure above the 2016-2023 average, a 0.15% increase in the headcount has been applied for the two years prior to the investment. The use of the elasticity factor of 0.15 has not been justified by CEPA, despite it being a crucial determinant of the engineer headcount in their methodology. We request the IAA to provide the supporting evidence behind the use of an elasticity factor of 0.15 or why it carries more weight than our analysis.

CEPA have assessed that the efficiency of our required engineer headcount for RP4 has not been demonstrated, which is why they have used the above methodology to estimate an efficient engineer headcount. However, given its high-level nature, the fact the methodology could not be replicated based on the information provided, and that many inputs to the methodology have not been justified, we assess the CEPA model does not provide a well evidenced alternative to our approach.

Ops Management and Support Requirements 2025-2029

Headcount – AirNav Ireland Business Plan v IAA Draft Decision (Modelled Headcount)

TABLE 12: OMS HEADCOUNT – AIRNAV IRELAND BUSINESS PLAN V IAA DRAFT DECISION (MODELLED HEADCOUNT)

	2025	2026	2027	2028	2029
AirNav Ireland	76	78	81	82	82
Draft Decision / CEPA	77	79	82	83	83
Difference	1	1	1	1	1

The modelled headcount in the IAA Draft Decision is consistent with the headcount proposed in our RP4 Business Plan submission. This is because the CEPA methodology to assess an efficient RP4 headcount is based on an assessment of the headcount we proposed.

The key drivers for our headcount requirement for Ops Management and Support in RP4 are:

- Operations: Primarily due to increased admin support at Dublin operations and increased admin support for Operations HQ.
- Engineering: Additional support staff for engineering are required to coordinate engineering activity over RP4, particularly given the increased headcount and the size of the CAPEX programme. Through subsequent engagement, we have also provided further details of the specific roles being created.
- Safety management: Similarly, we propose a small increase in safety management staff. We have identified a need for these roles to improve the timeliness of our accident occurrence investigations and to improve coordination of the organisation's safety and security activities.

CEPA assessed that the increase in Ops Management and Support staff associated with each of these drivers was efficient, resulting in their headcount allowance aligning with our requirements.

Headcount – AirNav Ireland Business Plan v IAA Draft Decision (Modelled Cost)

TABLE 13: OMS HEADCOUNT – AIRNAV IRELAND BUSINESS PLAN V IAA DRAFT DECISION (MODELLED COST)

	2025	2026	2027	2028	2029
AirNav Ireland	76	78	81	82	82
Draft Decision / CEPA	75	76	78	79	79
Difference	-1	-2	-3	-3	-3

However, the true headcount allowed in the IAA Draft Decision is the headcount facilitated by the allowed costs. The table above demonstrates that due to the way CEPA have modelled unit payroll costs, the real headcount increase is significantly lower than our requirements. This is because, CEPA's methodology for estimating unit payroll costs for Ops Management and Support is based on standard wage growth assumptions. For 2024 to 2026, this is based on wage growth forecasts from the Central Bank of Ireland, while from 2027 onwards, we assume average wage growth will be 1.5% in real terms, in line with the historic average real wage growth in the Irish economy.

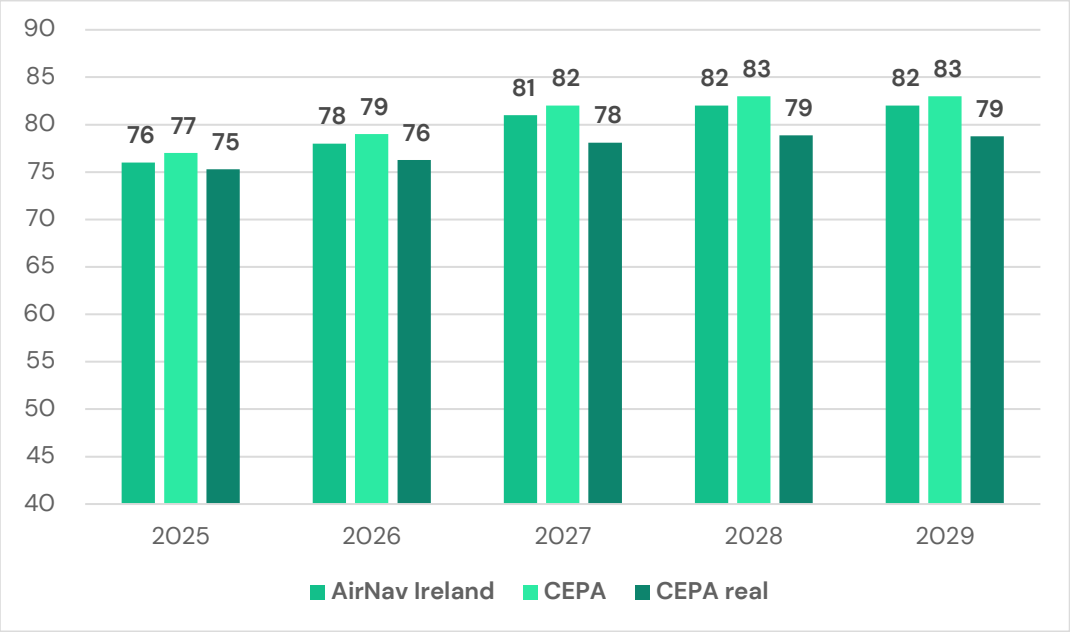

FIGURE 6: OMS HEADCOUNT AIRNAV IRELAND, CEPA MODELLED VS CEPA REAL

Due to the fact CEPA's approach does not consider pay increments for non-ATCO staff, the CEPA cost allowance for Ops Management and Support staff does not support the headcount that we require (that CEPA have assessed as efficient). The true headcount supported by the allowed costs, will leave us 12 Ops Management and Support FTEs below the headcount that CEPA modelled and presented to stakeholders.

Data Assistant Requirements 2025-2029 (includes FMP/AMC provision)

Headcount – AirNav Ireland Business Plan v IAA Draft Decision (Modelled Headcount)

✂Conversely, we consider it more appropriate to consider whether the cost ✂ for filling these positions, and whether an enhancement might be required, as opposed to a cut.

TABLE 14: DATA ASSISTANTS AND FMP/AMC HEADCOUNT – AIRNAV IRELAND BUSINESS PLAN V IAA DRAFT DECISION (MODELLED HEADCOUNT)

	2025	2026	2027	2028	2029
AirNav Ireland	53	58	58	58	58
Draft Decision / CEPA	52.5	57.5	57.5	57.5	57.5
Difference	-0.5	-0.5	-0.5	-0.5	-0.5

The IAA Draft Decision almost aligns with our headcount requirements for RP4, the CEPA assessment of our Data Assistant headcount assesses that the requirements included in our Business Plan are efficient. ✂ Our proposal for 5 additional staff from 2025 and a further 5 from 2026 has been considered appropriate by CEPA.

Headcount – AirNav Ireland Business Plan v IAA Draft Decision (Modelled Cost)

TABLE 15: DATA ASSISTANTS AND FMP/AMC HEADCOUNT – AIRNAV IRELAND BUSINESS PLAN V IAA DRAFT DECISION (MODELLED COSTS))

	2025	2026	2027	2028	2029
AirNav Ireland	53	58	58	58	58
Draft Decision / CEPA	49	53	52	51	51
Difference	-4	-5	-6	-7	-7

Unit payroll costs for Data Assistants and FMP/AMC staff, have been estimated by CEPA by applying the same standard wage growth assumptions as for other staff categories, such as Ops Management and Support. The outcome of applying wage growth assumptions based on national averages has resulted in a true headcount, the headcount allowed once actual unit payroll costs are considered, far below the headcount assessed by CEPA as efficient.

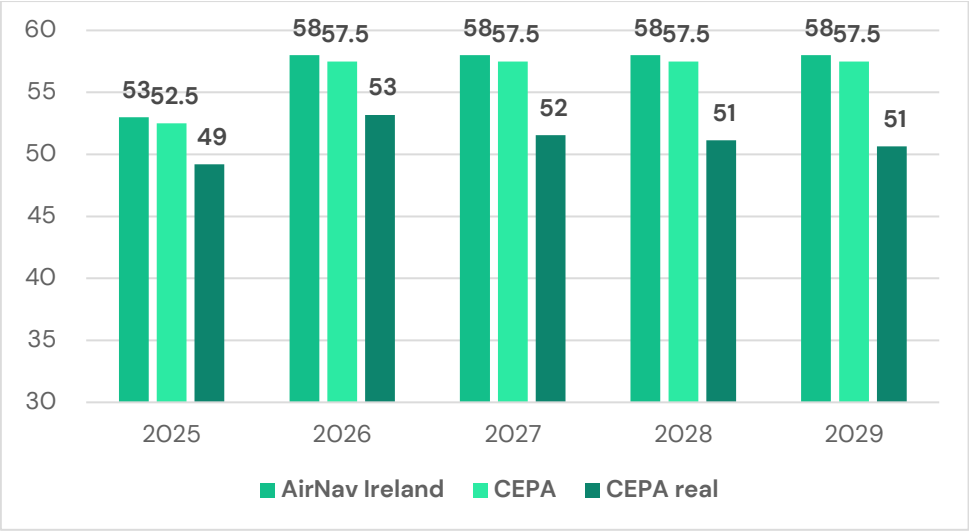

FIGURE 7: DATA ASSISTANTS AND FMP/AMC HEADCOUNT AIRNAV IRELAND, CEPA MODELLED VS CEPA REAL

This difference is a consequence of CEPA not including pay increments in their methodology for non-ATCO staff, meaning that our actual unit payroll costs will evolve differently compared to what CEPA allowed for. The impact of this is that we will actually have 29 less Data Assistants ✂ per annum cumulatively than the headcount required (assessed as efficient by CEPA) over RP4.

Corporate Services Requirements 2025-2029

Our Corporate Services headcount requirement for RP4 is based upon an assessment of business need, we assessed that we require an increase in headcount across IT, Finance, HR, Property and Facilities, and Sustainability.

TABLE 16: CORPORATE SERVICES HEADCOUNT REQUIREMENTS

Corporate Services	2025	2026	2027	2028	2029
IT	13	14	14	14	14
Finance	13	13	13	13	13
Internal Audit	3	3	3	3	3
Human Resources	6	7	7	7	7
Procurement	5	5	5	5	5
Property and facilities	3	4	4	4	4
Executive	4	4	4	4	4
Corporate Affairs	7	7	7	7	7
Sustainability	2	2	2	2	2
Security	7	7	7	7	7
Quality	3	3	3	3	3
Total	**66**	**69**	**69**	**69**	**69**

Our justification for the increase in headcount for IT, Finance, HR, Property and Facilities and Sustainability is as follows:

- IT: We need to bolster our IT department to handle growing cybersecurity risks, and to meet new compliance requirements related to NIS. There is also a need for a network analyst.
- Finance: There are material new reporting and compliance requirements in finance activities during RP4, including the corporate sustainability reporting directive, CSRD, which is effective from 1 January 2026.
- HR: An additional HR resource is required to support our growing operational staff requirements.
- Property and Facilities: The property department plays a crucial role in overseeing and maintaining our diverse portfolio of properties and facilities. As the organisation continues to grow and evolve, the need for an additional administrative support within the property department has become apparent. This is due to two factors:
  - Increased Workload: Our property department manages a wide range of tasks, including lease agreements, maintenance schedules, and regulatory compliance. With the expansion of our infrastructure and operations, the workload on existing staff members has grown significantly. Introducing an additional administrator position will help alleviate this burden and ensure that essential administrative tasks are completed efficiently and effectively.
  - Compliance and Documentation: The aviation industry is subject to strict regulatory requirements regarding property management and documentation. Maintaining accurate records, ensuring compliance with regulations, and managing documentation is a time-consuming yet critical aspect of the property department's responsibilities. By assigning these tasks to a dedicated administrator, we can mitigate the risk of non-compliance, minimise administrative errors, and demonstrate a commitment to best practices in property management.
- Sustainability: CRSD will put extra demands on the information we share and how we monitor a wide range of ESG issues. As we grow, so do the complexities of our operations. Managing sustainability initiatives across various departments, supply chains, and geographical locations requires dedicated expertise and resources.

Headcount – AirNav Ireland Business Plan v IAA Draft Decision (Modelled Headcount)

TABLE 17: CORPORATE SERVICES HEADCOUNT – AIRNAV IRELAND BUSINESS PLAN V IAA DRAFT DECISION (MODELLED HEADCOUNT)

	2025	2026	2027	2028	2029
AirNav Ireland	66	69	69	69	69
Draft Decision / CEPA	64	65	65	65	65
Difference	-2	-4	-4	-4	-4

CEPA have assessed our Corporate Services headcount based by reviewing the step-increases we require as included in our RP4 Business Plan and to decide whether each aspect of our Corporate Services headcount is justified. As presented in the table above, the CEPA allowance assumed is much less than the headcount required as was included in our Business Plan. CEPA's justification is as described below:

- Sustainability: CEPA include the additional 2 staff proposed by ourselves to work on sustainability initiatives given the Government's additional focus on sustainability through the Climate Action Plan. CEPA reviewed the proportionality of our increase by comparing against proposals by Dublin Airport and Gas Networks Ireland and consider the scale of our increase to be reasonable.
- Procurement: CEPA assume 1 additional staff member in 2024 and 2025, and 2 additional staff members from 2026 to work on procurement. CEPA's rationale for the step change is the scale of the CAPEX programme, including the re-prioritisation of several smaller capital projects that were deprioritised in RP3, and CEPA's suggestion that retendering of key maintenance and cleaning contracts should drive OPEX efficiencies.
- Finance: CEPA assume 1 additional staff member to account for higher volumes of activity as we grow as a business.
- HR: CEPA link the number of HR staff to the total headcount, including an additional 0.2 staff members in 2024, rising to 1 additional staff member by 2029.
- IT: CEPA include 2 additional staff members to strengthen our cyber security function. CEPA have reviewed our internal business case for the additional headcount and find the needs case is justified given increasing cyber security threats and likely additional requirements from the NIS2 Directive, which has been published in draft form. CEPA also find that that the additionality and efficiency tests are met, given the description of the proposed duties of the 2 staff members.

We have outlined in the detail the drivers behind our Corporate Services headcount requirements for RP4, both in our Business Plan and subsequently to the IAA. In our view, this detail should be sufficient to prove the need for the headcount included in our RP4 Business Plan submission, as opposed to the headcount proposed by CEPA.

While IAA claims in their Draft Decision that they allowed for staff increase modelled by CEPA, in reality, the increase is significantly lower than our requirements in most of the categories. CEPA allowed for staff increments for ATCOs, however, these were not reflected for the non-ATCO staff. Our unit costs will evolve differently compared to what CEPA allowed for and the result will be that the allowed budget will be not sufficient for the modelled increase in most non-ATCO staff categories.

In reality, the headcount described above proposed by CEPA is not a true reflection of the actual Corporate Services headcount that we would have cost allowance for under the Draft Decision. Due to the way CEPA have modelled our unit payroll costs, the actual headcount we would have cost allowance for is 33 below the headcount we require over RP4. This is a significant reduction. This difference is shown in the table below.

Headcount – AirNav Ireland Business Plan v IAA Draft Decision (Modelled Cost)

TABLE 18: CORPORATE SERVICES HEADCOUNT – AIRNAV IRELAND BUSINESS PLAN V IAA DRAFT DECISION (MODELLED COST)

	2025	2026	2027	2028	2029
AirNav Ireland	66	69	69	69	69
Draft Decision / CEPA	61	62	62	62	62
Difference	-5	-7	-7	-7	-7

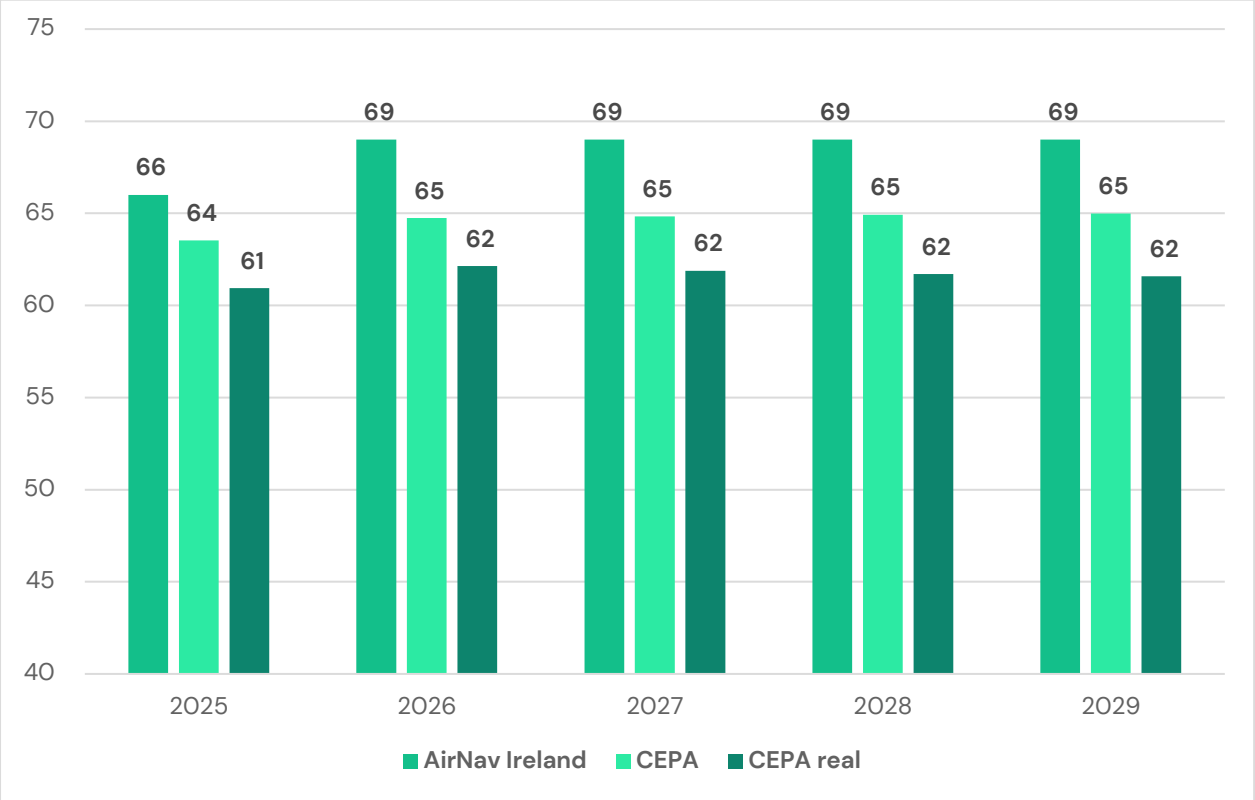

FIGURE 8: CORPORATE SERVICES HEADCOUNT AIRNAV IRELAND, CEPA MODELLED VS CEPA REAL

As with other non-ATCO staff categories, this difference is driven by the fact that CEPA have not included pay increments in their assessment of unit payroll costs. For Corporate Services, they have applied the same standard wage growth assumptions as described above for the Ops Management Support and Data Assistant categories; pay increments were not considered. In addition, CEPA have applied a 5% efficiency challenge to Corporate Services costs. This is a key driver behind the significant deficit and is described in detail below:

CEPA have followed a 3-way approach to benchmarking the efficiency of our historic unit payroll costs. These are:

1. Assessment of the growth in our unit payroll costs over the period 2019 to 2023.
2. Benchmarking high level employment costs for ATCO and non-ATCO roles against other ANSPs using the ACE benchmarking dataset.

3. Benchmarking specific unit payroll costs against available wage data from sources such as Glassdoor and Forsa.

Based on this benchmarking assessment approach (which was also applied to ATCOs, Engineers, Data Assistants or Ops Management & Support roles) CEPA have applied a 5% efficiency challenge to our Corporate Services unit payroll costs compared to those included in our RP4 Business Plan submission. Our understanding is this efficiency challenge has been applied based upon the following factors:

- When assessed in the first method above against other industries between 2019-2023, the growth in the Corporate Services unit payroll cost significantly exceeded the industry comparator of 19.6% in the same period.
- When non-ATCO employment costs as a whole were benchmarked against our RP3 and RP4 ANSP comparators using ACE 2022 data at purchasing power parity, our employment costs for non-operational staff were 11% higher than the average (excluding ANI) of comparator ANSPs.
- When assessed against data from sources such as Glassdoor and Forsa, CEPA's analysis indicates our gross unit payroll costs exceed those of other roles in other industries that CEPA would suggest are comparable.

We challenge IAA's Draft Decision to apply this 5% efficiency cut on a number of factors outlined below:

- Firstly, there is no clear link to CEPA's assessment and the 5% efficiency target applied to Corporate Services staff. A footnote in the CEPA OPEX Assessment report states that "*Through our benchmarking analysis, we find that AirNav Ireland's non-ATCO unit costs exceeded the ANSP average by 10.6%. For OMS roles, we also found a 10% efficiency gap in the growth of unit payroll costs. While our other benchmarking approaches found larger efficiency gaps, some of this may be an artefact of other factors as described in this section. As such, we use the 10% efficiency gap to anchor the size of our efficiency challenge. We allow a margin of error of 5%, and therefore set the efficiency challenge to 5%.*" In this footnote there is no mention of Corporate Services unit costs only OMS, yet CEPA have applied the 5% efficiency challenge to Corporate Services unit payroll costs. It is therefore not possible to follow the logic of how CEPA's benchmarking assessment has translated into the 5% efficiency challenge for Corporate Services unit payroll costs.
- Secondly, the first method applied in CEPA's benchmarking is based upon an assessment of wage growth compared to industry comparators. In this assessment CEPA compare our Corporate Services wage growth between 2019 and 2023, with wage growth for office administrative, office support and other business support activities in other industries over the same period. The 25% wage growth for our Corporate Services staff compares to 19.6% growth in other industries. CEPA state in their OPEX assessment report that "*we assume this is not purely a wage growth effect but instead, also reflects changes in the mix of staff*." However, it is unclear how CEPA have attempted to differentiate between the two effects in their assessment, with Corporate Services in AirNav Ireland encompassing a wide range of staff (including Finance, HR, Sustainability, Property and Facilities Management, Procurement etc.), we believe the mix of staff in such an assessment is crucial to any comparison. A broad strokes industry comparison offers little insight into the efficiency of our payroll costs for the Corporate Services domain.

- The benchmarking of unit employment cost for non-operational staff against RP3 and RP4 comparators can be questioned in terms of the extent to which this should be used as an input to the decision to apply a 5% efficiency challenge to Corporate Services. This is because particularly for non-operational roles, our employment costs are influenced by the local labour market (particularly in the locality of our head office in Dublin). The supply in the local area of other jobs in finance, HR etc and the demand for these jobs in the local Dublin economy is a significant driving factor in the wage rates that we offer for each role. CEPA's benchmarking of unit payroll costs for all non-operational staff against RP3 and RP4 comparators does not take into consideration the local dynamics of the labour market.
- We request the IAA to confirm that this efficiency challenge is not connected in any way to the recent legal separation that impacted the cost allocation keys in relation to corporate services.
- Finally, CEPA's third method involves benchmarking our Corporate Services gross salary costs against other roles based on data from Glassdoor and Forsa. The fidelity of using data from Glassdoor is open to question, given that Glassdoor data is based on reported salaries inputted to the website from former and/or current employees. Even if these salaries are taken at face value, between the time they were reported and the time they were viewed by CEPA these salaries may have changed significantly. In all likelihood this would lead to an underestimation of comparative salaries in CEPA's methodology. Furthermore, the roles used for comparison seem to have been selected arbitrarily and many of them (such as a Garda Officer or Porter) bear little relevance to the roles undertaken by Corporate Services staff at AirNav Ireland. If alternative roles would have been selected for comparison, the benchmarking assessment may have presented our gross salary costs for Corporate Services staff more favourably. CEPA has not provided any justification for the comparator roles they have selected, or the datasets supporting the analysis from Glassdoor and Forsa.

If the IAA Draft Decision is upheld, due to the application 5% efficiency cut to Corporate Services unit payroll costs (which is a flawed assumption as explained above) combined with the exclusion of increments in the assessment, we will have insufficient budget to grow our Corporate Services headcount over RP4. This despite us requiring extra staff to cope with factors such a CRSD requirements, HR and IT staff to help address our cybersecurity needs etc.

Non-Staff OPEX Requirements

Other operating expenditure includes all non-staff related operating costs such as training, travel, utilities, telecoms, subscriptions and administration costs. In our Business Plan submission we forecast Other OPEX for RP4 based upon a bottom-up approach, which involved assessing any changes in our business requirements for each 'Other OPEX' category for RP4 and also identifying where costs are likely to change as a result of external market conditions e.g. the cost of hiring contractors, utility bills, rents etc.

As demonstrated in the graph below, the IAA Draft Decision cuts our Other OPEX by 11% compared to the costs included in our RP4 Business Plan. This is a significant reduction and has been based upon CEPA's assessment of efficient costs for each of the 24 categories of Other OPEX included in our Business Plan.

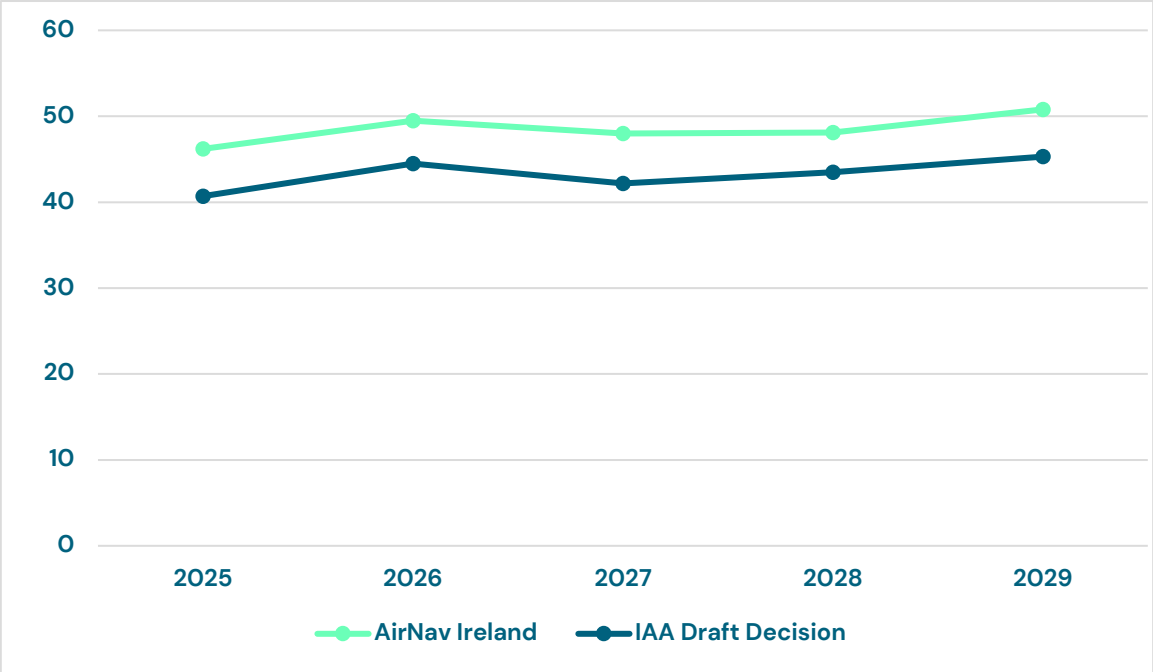

FIGURE 9: COMPARISON OF AIRNAV IRELAND AND IAA DRAFT DECISION OTHER OPEX (€M), REAL 2022 PRICES

TABLE 19: COMPARISON OF AIRNAV IRELAND AND IAA DRAFT DECISION OTHER OPEX (€M), REAL 2022 PRICES

	2025	2026	2027	2028	2029	RP4 Total
AirNav Ireland	46.2	49.5	48	48.1	50.8	**242.6**
IAA Draft Decision	40.7	44.5	42.2	43.5	45.3	**216.2**
Difference	-5.5	-5	-5.8	-4.6	-5.5	**-26.4**

TABLE 20: SUMMARY OF KEY DIFFERENCES AIRNAV IRELAND BUSINESS PLAN VS IAA DRAFT DECISION

	AirNav Ireland	IAA Draft Decision	Difference
Maintenance	31.6	30.0	-1.6
Spares	10.3	8.7	-1.6
Computing	18.9	13.6	-5.3
Consultancy	8.9	4.9	-4.0
Building Repairs	9.7	6.5	-3.2
Professional Services	6.1	3.1	-3.0
Staff related	7.1	4.9	-2.2

Training

The IAA Draft Decision proposes to reduce our training costs compared to our RP4 Business Plan submission by ✂. This reduction is primarily driven by the lower headcount rates discussed in the Staff Operating Expenditure section above. Training costs include costs related to training new ATCOs, ongoing training for ATCOs, ongoing training for engineers, and training expenditure related to CAPEX projects such as TopSky ATC One. Training costs are driven by the cost of providing training, as well the assumed headcount growth (particularly for ATCOs and Engineers).

TABLE 21: IAA DRAFT DECISION CEPA AND AIRNAV IRELAND'S REQUIRED TRAINING EXPENDITURE, 2023-2029 (€ MILLION, 2022 PRICES)

✂

AirNav Ireland has evidence that does not align with CEPA's assessment of efficient training costs for RP4 on four key drivers. These are set out below and are incorrect:

- Class sizes (for the training of new ATCOs): Class sizes determine the cost of training new ATCOs, ✂. CEPA endogenously model optimal class sizes.
- Total ATCO headcount (for the training of existing ATCOs): ✂ CEPA assume the cost of ongoing training increases linearly with the number of ATCOs.
- Engineer headcount: Training for engineers' accounts for ✂ of total training costs. CEPA assume this cost increases with the number of engineers.
- Other staff headcount: CEPA assume the residual headcount drives the final ✂ of staff costs.

CEPA say that for each of the drivers above they "*assume an elasticity of 1 with respect to the relevant driver and apply it to the share of training costs that it applies to*". In addition, CEPA have assessed proposed step changes for training related to CAPEX projects in 2026 and 2028/2029. CEPA consider the need and additionality of the spend is justified on the basis that these are new systems that will require additional training beyond existing levels. CEPA consider the scale of the step-changes reasonable in the context of the step change assumed in the setting of the RP3 Performance Plan.

In the Staff Operating Expenditure section, we have asked CEPA to review the approach they have applied in relation to ATCO, Engineer and Corporate Services headcount. **Should the IAA in**

their Final Decision, adopt a revised headcount allowance, we would expect that this would be reflected in adjustments to our staff training cost allowance.

Telecoms

The IAA Draft Decision cuts our budget for telecoms by ✂ over the RP4 period compared to our RP4 Business Plan submission.

TABLE 22: IAA DRAFT DECISION AND AIRNAV IRELAND'S REQUIRED TELECOMS EXPENDITURE, 2023-2029 (£ MILLION, 2022 PRICES) ✂

Telecoms costs comprise of private wires for the transmission of radar data, flight plans, meteorological information, and voice communications.

For telecoms CEPA has taken an elasticity-based approach to estimating future expenditure, linking it to IFR movements. They have applied an elasticity of 0.2, meaning that every 10% increase in flight movements leads to a 2% increase in telecoms expenditure. This is based on their assumption that while a large proportion of telecoms costs will be fixed, a small proportion may be linked to volumes of activity. ✂

AirNav Ireland has submitted a detailed bottom-up forecast of telecoms costs over the RP4 period. The following two factors are central to the increased costs in 2025-2027 that have not been provided for in the draft decision:

✂
AirNav Ireland have included the following reductions to telecoms costs from 2027

- At our en-route centre the main voice switch uses E1s to communicate with the remote sites. These are known as legacy TDM circuits. A new replacement voice switch is planned for Ballycasey – it is planned to be in place by 2027 and this will use newer IP technology for the historical cost, the reduction doesn't take full effect in 2028 because both systems will run in parallel while the new system is phased in.
- As noted above the current Backbone network is to be replaced. However, we have to allow some overlap of the current network to ensure continuity of service, and to move over from TDM to IP e.g. new voice switches, new IP radar technology. The AirNav Ireland plan has included phased reductions of costs from 2027.
- The relevant details underpinning the required costs have been shared with the IAA during this consultation period.

Maintenance

The IAA Draft Decision has cut maintenance costs by €1.6m compared to the costs submitted in our RP4 Business Plan.

TABLE 23: IAA DRAFT DECISION AND AIRNAV IRELAND'S REQUIRED MAINTENANCE EXPENDITURE, 2023-2029 (€ MILLION, 2022 PRICES)

	2023	2024	2025	2026	2027	2028	2029	RP4 Total
AirNav Ireland	4.9	5.7	5.9	6.0	5.7	6.8	7.1	**31.6**
IAA Draft Decision	4.9	5.5	5.7	5.9	5.6	6.3	6.5	**30.0**

To estimate efficient expenditure on maintenance CEPA have first assessed the efficiency of the 2023 expenditure by assessing the historic evolution of spending on a breakdown of maintenance costs into:

- contract for maintenance of ATM systems
- facilities management contract
- other maintenance contracts.

Overall CEPA assessed that our step-up in spending in 2023 can at least be partially explained by an increase in the asset base. And as spending remained below the level assumed in the setting of the RP3 Performance Plan, CEPA accept our outturn 2023 expenditure of €4.9 million as an efficient baseline. For forecasting an efficient profile of expenditure for RP4, CEPA have assessed that:

- Our forecast spending on ATM system contracts included in our Business Plan is efficient. This is based upon our bottom-up forecast we provided to CEPA of maintenance expenditure on ATM systems including a forecast of the transition from the current system to the new TopSky ATC One implementation. We forecast spending to increase slightly ✂ million in 2025 and 2026, before declining to ✂ million in 2027 and 2028 as the old system is phased out, before increasing to ✂ million in 2029 as the new system is phased in. CEPA consider such a profile reasonable and, therefore, adopt it as their own forecast.
- CEPA have allowed a smaller increase in facilities management maintenance than included in our RP4 Business Plan submission: We currently have a five-year facilities management contract, which is due to expire in 2028. ✂
- CEPA acknowledge that an increased asset base would lead to an increase in the volume of maintenance works required, but also highlight that asset replacement associated with capital expenditure should result in some OPEX efficiencies. As a result, CEPA have applied a 5% efficiency challenge to account for the OPEX efficiencies associated with capital investments.

  As requested by CEPA, below we have provided additional evidence which demonstrates the efficiency of our maintenance forecast, particularly for facilities management and other maintenance contracts where there is a discrepancy between the CEPA forecast and our forecast included in our RP4 Business Plan submission.

Additional evidence The CEPA methodology for calculating efficient maintenance costs for RP4 does not account for the level of price increases since the start of RP3 that are specific to the construction sector. According to the SCSI's Tender Price Index, which is the only independent assessment of commercial construction tender prices in Ireland, the annual median national rate of rate of construction price inflation in the period July 2022 to June 2023 was 6.2%, down from 11.5% in the preceding 12-month period (January 2022 to December 2022). The SCSI Index recorded an annual median national rate of 14% between July 2021 and June 2022 which was the highest 12-monthly inflation rate recorded since the index began 25 years ago. Reports are issued in August each year however running assessments for the period 2023-2024 are showing an inflation figure at approximately 4.5%. The cumulative effect of these figures shows a total inflation of approximately 24% since January 2022. Such inflationary pressures need to be considered in any estimation of efficient maintenance expenditure in RP4.

✂

For our other maintenance contracts, CEPA have applied a 5% efficiency challenge to account for the OPEX efficiencies associated with capital investments. We have provided the IAA additional evidence to show our maintenance contracts for RP4, these contracts have already been reviewed by our management team, assessed for changes that could be made to reduce costs and the outcome of this process has resulted in the final maintenance costs that we have included in our Business Plan. On this basis we ask CEPA/IAA to explain where the 5% efficiency challenge can be applied to our maintenance costs, as we have now provided evidence to show based on the contracts, we have in place our cost requirement for RP4 is justified.

Spares

The IAA Draft Decision proposes to reduce our OPEX on spares by €1.6m compared to our RP4 Business Plan submission forecast.

TABLE 24: IAA DRAFT DECISION AND AIRNAV IRELAND'S REQUIRED SPARES EXPENDITURE, 2023-2029 (€ MILLION, 2022 PRICES)

	2023	2024	2025	2026	2027	2028	2029	RP4 Total
AirNav Ireland	1.0	1.2	1.6	2.2	3.3	1.6	1.6	**10.3**
IAA Draft Decision	1.0	1.2	1.4	1.9	2.8	1.4	1.3	**8.7**

For spending on spares, we project our spending will increase to €3.3 million in 2027 from €1.0 million in 2023, before falling to €1.6 million in 2028 and 2029. ✂

CEPA have assessed that based on the material we have provided to them so far "it is not yet apparent why new capital initiatives would require additional investment in spares, nor why such investment would not be capitalised. Moreover, as with the other maintenance contracts, we expect that our capital plan will allow OPEX efficiencies to be realised by enabling less spending on spares for older, decommissioned assets." As a result, CEPA have applied a 15% efficiency challenge to our forecast of spares expenditure, such that by 2029 expenditure broadly returns

to the historic average. In the section, below we provide evidence to show why additional expenditure on spares is required, and why our overall expenditure on spares increases in our forecast despite the decommissioning of assets.

Additional evidence:

There are four key reasons why spares costs are expected to increase during RP4:

- Increasing the asset base of installed systems.
- The constraints on the ANSP in terms of sourcing critical spares.
- The increasing costs of maintaining systems as they age.
- Business costs inflation

In the section below we discuss these reasons in more detail.

Increasing asset base

- When procuring major new systems, we need to ensure that a full holding of essential spares is procured (via OPEX) in order to support ongoing system serviceability. Spares holdings need to be in place to ensure we are able to provide a timely response to failures. Our key systems operate on a 24/7/365-day basis and must remain at a high level of availability. This necessitates that support is in place and spares are available at short notice to minimise downtime and to maintain ongoing safe operations. As the asset base of installed systems continues to increase, this necessitates a corresponding increase in spares levels.
- In RP4, we plan to increase our asset base with additional systems with the aim of improving safety, efficiency and compliance for example:
  - ASMGCS Cork and Shannon. These are new systems which will be installed under the CAPEX plan and then managed and maintained during RP4. This means new additional SMR, EFS & MLAT systems at Cork and Shannon.
  - New Contingency Facility at Dublin. This is akin to the standalone CEROC contingency facility in Shannon region being built in Dublin to enhance contingency capability.
  - New FMP Cell. The systems with this new cell will need to be maintained by engineers and spares holdings will need to be in place.
  - New TOOMAN Radar. This facility will have surveillance, communications, networks and mechanical and electrical systems which will need to be managed and maintained. The facility is due to go operational in 2025.
- All these new systems will need to be managed and maintained and have an appropriate level of spares in place to support their serviceability. From a safety regulatory perspective, it is an essential part of the argument prior to regulatory acceptance that there is assurance evidence that adequate spares holdings are in place.

Constraints sourcing critical spares

Given the safety critical nature of the business and the resulting need to ensure only manufacturer approved and validated spares are installed, it is important to recognise that we are dependent on system suppliers as the sole source of key spares. Given the specialist nature

of the business and the long in-service system life of many major systems, the costs charged by the suppliers for spares are reflective of the operating costs involved in providing support over the lifecycle of the system. The ANSP can only procure and use spares that have been assured and validated for use within the 'functional system' and are of proven provenance and of a defined configuration. Spares budgets therefore need to take into consideration this reality.

✂

Maintaining aging systems
As our installed systems ages the ongoing costs towards the end of the system lifecycle can escalate and as noted above, we are restricted to sourcing these from the original supplier. As an example, for Dublin Radar 3 over the last 2 years there has been a need to procure spares on a more regular basis. Even though some of the parts could be considered "off the shelf" (netgear switches, oil level sensors, power supplies, relays, motors, rotary joints) we still have to order these through Thales as the original parts are now obsolete and the replacement parts have to be approved by the manufacturer, with the suitable safety assurance documentation.

Much of the CAPEX spend in RP4 is to replace obsolete systems. Doing this in a timely manner can avoid escalating costs that occur towards the end of the systems life cycle due to increased failure rate and costs to repair and replace. Very often a supplier will forecast a product line in operations is end of life. We will review and where required order additional spares required to maintain the service. An example of this is the backbone network. The Time Division Multiplexed (TDM) system will be replaced by and IP/MPLS system, however, additional spares were purchased to ensure the system remained serviceable until such time as it is removed from operations and decommissioned.

While a replacement system is yet to receive regulatory approval it is incumbent on the ANSP to maintain the legacy obsolete system, very often for longer than expected thus incurring additional costs. Examples of this are Radar2, Backbone network amongst others.

Flight Checking

The IAA Draft Decision proposes to reduce our flight checking budget by ✂ over the RP4 period. CEPA's methodology for forecasting efficient expenditure is based upon a link to IFR movements, but with a 1-year lag. CEPA state that "while we would not necessarily expect there to be a direct link between air traffic movements and spending on flight checking, we observe that there has been a link." CEPA have provided no further justification or supporting evidence to demonstrate the supposed link between IFR movements and spending on flight checking in their methodology. CEPA also do not provide the reasoning for how this supposed link has translated into a 1% cut in flight checking Other OPEX for the RP4 period compared to the forecast included in our RP4 Business Plan.

We would like to provide the IAA the following additional evidence, which provides full justification for our flight checking expenditure forecast included in our RP4 Business Plan submission. The below additional evidence highlights that our requirement to do flight checking is driven by ICAO and EU regulatory requirements and a key driver of our flight checking expenditure is the quantity of NAVAIDS we have installed. ✂

TABLE 25: IAA DRAFT DECISION AND AIRNAV IRELAND'S REQUIRED FLIGHT CHECKING EXPENDITURE, 2023-2029 (€ MILLION, 2022 PRICES)

✂

Additional evidence:
We undertake flight checking as this is a regulatory requirement (ICAO ANNEX 10) and is necessary to confirm that NAVAIDS are radiating within tolerances to ensure that they continue to operate safely. Flight checks also form a significant part of the safety argument in the safety cases associated with NAVAIDs. Flight checks must be carried out on NAVAIDS following installation and/or certain maintenance activity. The maintenance and flight checking requirements, including the periodicity of the checks are set out in ICAO DOC 8017 Manual on Testing of Radio Navigation Aids.

(EU) 2017/373 ANNEX VIII CNS.TR.100 requires that "a communication, navigation or surveillance services provider shall be able to demonstrate that its working methods and operating procedures are compliant with the standards of Annex 10 to the Chicago Convention on aeronautical telecommunications".

In summary, we are obliged to have flight check conducted as follows:

- ILS every 6 months
- marker beacons every 6 months
- DME associated with ILS every 6 months
- NDBs associated with approach procedures every 12 months
- VOR/DME every 18 months
- en-route NDBs every 18 months
- air ground lighting at the airports is also flight checked while the ILS flight checks are taking place.

The amount of flight checking activity is determined by the number of NAVAIDs to be checked and the periodicity of those checks. With the opening of the parallel RWY at Dublin, there are a greater number of NAVAIDs to be checked every 6 months.

Additionally, any changes to Instrument Flight Procedures will be subject to a flight check and (EU) 2017/373 (ANNEX XI Specific Requirements for Providers of Flight Procedure Design Services (Part-FPD)) includes some requirements in this area:

- FPD.OR.105 requires the establishment and maintenance of a management system that includes control procedures for (e) ground validation and, when appropriate, flight validation of flight procedure.
- FPD.OR.115 requires that (b) when flight validation is deemed necessary to be performed, the FPD provider shall ensure that it is undertaken by a competent pilot.

✂

Other Operational Costs

The IAA decision on other operational costs aligns with the forecast included in our RP4 Business Plan submission.

TABLE 26: IAA DRAFT DECISION AND AIRNAV IRELAND'S REQUIRED OTHER OPERATIONAL COSTS, 2023-2029 (€ MILLION, 2022 PRICES)

	2023	2024	2025	2026	2027	2028	2029	RP4 Total
AirNav Ireland	0.2	0.3	0.5	0.6	0.6	0.6	0.6	**2.9**
IAA Draft Decision	0.2	0.3	0.5	0.6	0.6	0.6	0.6	**2.8**

We acknowledge that our RP4 Business Plan submission included a limited amount of detail on this category, from which CEPA is able to make an informed assessment. We recognise that CEPA have stated that "When reviewing representations made by AirNav Ireland, or other parties in response to the draft decision on the performance plan, we will reconsider our forecast for these categories. We will review any further details provided by AirNav Ireland on what is captured by these cost categories, with a view to bringing our estimates closer to AirNav Ireland's 2020 and 2021 outturn spend should we assess the proposed spending as not efficient." We have therefore provided additional detail on our forecast for this category of Other OPEX below.

Additional evidence

We provide a detailed breakdown of our Other Operational costs below to provide CEPA additional insight into what is included in this category. AirNav Ireland remains available to discuss any aspect of this information with the IAA and CEPA.

FIGURE 10: BREAKDOWN OF OTHER OPERATIONAL COSTS

✂

Administration Costs

Computing

The IAA Draft Decision has cut our OPEX associated with Computing by €5.3m compared to our forecast in our RP4 Business Plan. This is a significant 20% reduction.

TABLE 27: IAA DRAFT DECISION AND AIRNAV IRELAND'S REQUIRED COMPUTING EXPENDITURE, 2023-2029 (€ MILLION, 2022 PRICES)

	2023	2024	2025	2026	2027	2028	2029	RP4 Total
AirNav Ireland	2.1	3.1	3.7	3.8	3.8	3.8	3.9	**18.9**
IAA Draft Decision	2.1	2.6	2.6	2.7	2.7	2.8	2.8	**13.6**

The CEPA methodology for estimating efficient OPEX on Computing was based on first assessing whether the 2023 expenditure was efficient to be used as a baseline. CEPA assess that based on the benchmarking they have conducted, our €2.1m 2023 expenditure on computing was efficient. To estimate a 2024 forecast CEPA assess that we did not qualify the impact of:

- The cost of separation from IAA, where AirNav Ireland now incur costs that were previously borne by IAA, and the re-negotiation of contracts post-separation.
- Technological advancements and the expansion of the computing remit through new projects and services, which have necessitated upgraded equipment and software that have higher costs.
- Increase cyber-security costs to meet regulatory obligations.

CEPA state that "AirNav Ireland does not quantify the impact of each factor on its forecast of computing expenditure". CEPA benchmark our step-change in IT expenditure against that of Gas Network Ireland's (GNI) IT function following the separation of Irish Water from the Ervia Group in 2023. Consequently, CEPA apply the following methodology:

- Given the direct comparability between AirNav Ireland's computing expenditure and GNI's IT function, we allow the same step-changes of 14.2% for separation and 8.8% for cyber-security between 2023 and 2024, and challenge AirNav Ireland to evidence and quantify the impact of the factors behind its forecasted expenditure increases. This allowance for separation may be an overestimate if some separation costs are already implicitly captured within AirNav Ireland's 2023 computing expenditure.
- We then uplift computing expenditure from 2024 onwards by a compound annual growth rate (CAGR) of 1.4% annually, which is calculated using historical computing expenditure across RP2 and RP3. This CAGR accounts for annual increases in computing expenditure."

Below we present the additional evidence that CEPA may wish to consider alongside the above methodology.

Additional evidence

We acknowledge that CEPA have provided for an increase in computing costs, however the AirNav Ireland plan includes additional expenditure for the RP4 IT strategy including the following:
Cybersecurity risk mitigation and compliance for IT Business Network
✂
Business continuity factored into on-premise/cloud solutions controlled by AirNav Ireland IT
✂
The phased rollout of Artificial Intelligence over the course of RP4; ✂

✂

Consultancy

The IAA Draft Decision has cut our OPEX associated with consultancy support for RP4 by €4m compared to the forecast included in our RP4 Business Plan.

TABLE 28: IAA DRAFT DECISION AND AIRNAV IRELAND'S FORECAST OF EFFICIENT CONSULTANCY EXPENDITURE, 2023-2029 (€ MILLION, 2022 PRICES)

	2023	2024	2025	2026	2027	2028	2029	RP4 Total
AirNav Ireland	0.5	1.5	1.8	1.8	1.8	1.8	1.8	**8.9**
IAA Draft Decision	0.9	0.9	1.0	1.0	1.0	1.0	1.0	**4.9**

CEPA have assessed that they "do not consider that the justification and evidence provided thus far by AirNav Ireland is sufficient to warrant a step-increase in our forecast. We understand that there may be short-term consulting needs to deal with the residual effects of the UK exit from the European Union and the opening of Dublin Airport north runway. However, AirNav Ireland has not provided sufficient evidence of a need to permanently increase consulting spend from its long-term average. Nor has AirNav Ireland provided evidence that the scale of the increase being proposed is efficient and proportionate to the need." CEPA therefore assessed an efficient consultancy expenditure via the same methodology as for Professional Services expenditure. CEPA's methodology is based on estimating efficient baseline for RP4 using the 2016 to 2019 average spending as an efficient baseline for 2023, with an RP4 forecast estimated by uplifting this baseline according to an estimate of wage growth for individuals working in 'professional, scientific and technical activities'.

The basis of the CEPA assessment is that we in their view have not "provided underlying assumptions that would justify an increase in expenditure of this magnitude." The supporting evidence that CEPA require to ascertain that our forecast included in our RP4 Business Plan is efficient and proportionate is provided below.

Additional evidence

Additional consultancy requirements during RP4 include:

✂

Building repairs

The IAA Draft Decision proposes to reduce our costs compared to our RP4 Business Plan by €3.2m for building repairs.

TABLE 29: IAA DRAFT DECISION AND AIRNAV IRELAND'S REQUIRED BUILDING REPAIRS EXPENDITURE, 2023-2029 (€ MILLION, 2022 PRICES)

	2023	2024	2025	2026	2027	2028	2029	RP4 Total
AirNav Ireland	1.3	1.7	2.0	1.9	1.9	2.0	2.0	**9.7**
IAA Draft Decision	1.3	1.3	1.3	1.3	1.3	1.3	1.3	**6.5**

CEPA have conducted an assessment of efficient building repairs expenditure by first estimating an efficient baseline for 2023. Their assessment for this was based upon the SCSI Tender Price Index, and CEPA assess that if our 2023 expenditure had grown in line with this index, it would be €1.25 million compared with outturn expenditure of €1.30 million. CEPA consider it plausible that the difference between the 2023 benchmark estimate and outturn spending could be driven by an ageing property base. Therefore, CEPA use 2023 outturn expenditure as our efficient baseline estimate. CEPA have decided to keep their estimate of efficient building repairs expenditure for RP4 in line with our 2023 outturn expenditure. This is based on CEPA's assessment that we have not justified why a complete review of our building portfolio is necessary, nor estimated the likely impact once such a review is complete. Additionally, CEPA assess that CAPEX related to the refurbishment or extension of existing buildings will offset the increase in volume of building repairs elsewhere. In this assessment CEPA have requested us to justify the step-change in our forecast expenditure in greater detail. This is provided below.

Additional evidence:

The CEPA methodology for calculating efficient building repair costs for RP4 does not account for the level of price increases since the start of RP3 that are specific to the construction sector. According to the SCSI's Tender Price Index, which is the only independent assessment of commercial construction tender prices in Ireland, the annual median national rate of rate of construction price inflation in the period July 2022 to June 2023 was 6.2%, down from 11.5% in the preceding 12-month period (January 2022 to December 2022). The SCSI Index recorded an annual median national rate of 14% between July 2021 and June 2022 which was the highest 12-monthly inflation rate recorded since the index began 25 years ago. Reports are issued in August each year however running assessments for the period 2023-2024 are showing an inflation figure at approximately 4.5%. The cumulative effect of these figures shows a total inflation of approximately 24% since January 2022. Such inflationary pressures need to be considered in any estimation of efficient maintenance expenditure in RP4.

In 2024, we have commissioned extensive condition assessment reports on the main centres and the findings/recommendations within these reports require a program of ongoing maintenance to maintain the structures and the building installations. The surveys are a continuance of the works considered within RP3 and are necessary to ensure safe operation of equipment and personnel. The costings proposed are based on existing PMM schedules within

existing contracts, additional maintenance to the building which is not considered CAPEX and a provision for reactive works for unforeseen failures.

We have provided 7 reports (balance of condition assessments) to the IAA for the main centres to demonstrate the level of detail we are undertaking to ensure any funding requested is accurate and informed.

Security

The IAA Draft Decision has cut our spending on security compared to our RP4 Business Plan submission by ✂ over the RP4 period. ✂

The CEPA methodology for estimating efficient security expenditure was initially based upon assessing whether our 2023 expenditure on security was efficient. CEPA assessed that our 2023 spending was efficient and adopted this as the baseline from which to estimate RP4 efficient expenditure. CEPA's forecast for efficient expenditure in RP4 has been based upon an assessment of the justification provided for the increase in forecast expenditure provided in our RP4 Business Plan. CEPA assess that some of the approximate ✂ increase in expenditure in RP4 can be justifiably explained by wage growth. However, CEPA assess that we have not fully evidenced the proportionality of the remaining increase, which is driven by enhanced security requirements, additional regulatory training requirements and the introduction of a new independent security network, with monitoring centres at Dublin ATC and Ballycasey requiring increased staffing levels. CEPA also assess that relevant projects within our CAPEX plan should introduce OPEX efficiencies. As a result, CEPA include a preliminary step increase of 5% to account for the combined effect of the additional requirements and the CAPEX efficiencies. However, CEPA state that they will consider "any further information from AirNav Ireland on how the factors referenced in the Business Plan and the capital initiatives have been incorporated into the security forecast". Below we provide this additional evidence required to show our RP4 forecast is efficient.

Additional evidence

We have a Security Management Programme, which must ensure compliance with ICAO ANNEX 17, EU 300/2008, EU 2017/373 and Ireland's National Civil Aviation Security Programme requirements (applicable to ATM since 2015 with annual NCASP updates). It is required to ensure that all facilities, personnel, assets and infrastructure are protected against Acts of Unlawful Interference by appropriate means and must be regularly assessed to ensure the measures reflect the ever-changing security environment. In line with regulations, it is a requirement to ensure continual improvement of security systems, equipment and processes as part of a continuous improvement programme.

Regulatory requirements require an appropriate level of protection, detection, delay and response systems and processes to be in place and to be continuously reviewed. With 34 sites around Ireland, including main operational centres, radar sites, navigational sites and communication sites there is an ongoing requirement to ensure required systems are installed, upgraded in line with the asset register and continually improved as part of the improvement programme. Security systems and equipment are ever evolving and must be assessed against our requirements based on risk assessments.

In line with regulatory requirements, we must ensure research and development of new security equipment to better achieve civil aviation security objectives. We have an obligation to

continuously review for vulnerabilities and ensure that appropriate measures and equipment, which complies with appropriate equipment standards, are provided to address such vulnerabilities and to facilitate response requirements in the case of a threat escalation.

Our sites are required to be risk assessed and audited on an ongoing basis to ensure their compliance with the various security regulations, to detect gaps in security controls and to ensure that the systems and process keep up with changes to the installations, processes, local environment and previously unforeseen threats and risks. This requires an active and ongoing security project programme to ensure all systems and equipment are fit for purpose and are replaced/upgraded as appropriate.

We have engaged a competent third-party security risk management company to undertake risk assessments of its critical assets and critical areas. ✂ It is therefore intended to gradually change on a planned basis from the existing system to ✂ system for new installs and where existing equipment requires replacement due to failure or end of life. No equipment which is operating normally, or which is not at end of life will be replaced.

✂

In addition, the risk assessment undertaken in Q1 of 2024 requires us to ensure the security hardening of critical assets and critical areas of our main centres using a 5-level approach to security protection, detection, delay and response. This will require investment in our perimeter protections, CCTV analytical solutions for detection and tracking, building hardening security doors and windows, room hardening doors, access control units, and equipment hardening with inner protections such as caging, grillage or demarcation of areas with separation partitions etc.

The list of requirements for security hardening have been identified by our external risk management consultants, Risk Management International (RMI), and the reports are confidential. RMI were engaged in Q1 2024 with the reports received in recent weeks which requires additional expenditure in RP4. ✂

Due to the nature of security systems and equipment, they incur both a capital and operational cost. The capital cost for the installation and replacement of equipment and an operational cost related to the maintenance, servicing and repair. In addition, NDAA approved systems require annual licences to be procured at an additional operational cost. Expenditure on security equipment does not provide operational savings as they are an essential cog in the security management system coupled with security personnel, security processes, security policies and procedures; all of which are required to provide an effective security management system which is appropriate to the criticality, size, scale and location of our facilities and which ensure ongoing regulatory compliance.

Professional Services

Professional services expenditure includes legal fees, audit and audit-related fees, taxation, pension administration, and pension actuarial and advisory fees. The IAA Draft Decision proposes to reduce our professional services budget by €3m over the RP4 period. CEPA's methodology for estimating an efficient baseline for RP4 has been based upon the use of the 2016 to 2019 average spending as an efficient baseline for 2023, with forecast estimated by uplifting this baseline according to an estimate of wage growth for individuals working in 'professional, scientific and technical activities'. ✂ Below we provide additional detail behind each of these

components, providing additional justification behind the efficiency of the forecast included in our Business Plan.

TABLE 30: IAA DRAFT DECISION AND AIRNAV IRELAND'S REQUIRED PROFESSIONAL SERVICES EXPENDITURE, 2023-2029 (€ MILLION, 2022 PRICES)

	2023	2024	2025	2026	2027	2028	2029	RP4 Total
AirNav Ireland	0.8	1.1	1.2	1.2	1.2	1.2	1.2	**6.1**
IAA Draft Decision	0.6	0.6	0.6	0.6	0.6	0.6	0.6	**3.1**

Additional evidence:

Included in professional services are costs associated with statutory requirements and contractual obligations in relation to audit. It is not reasonable to base the RP4 allowance solely on costs incurred historically in 2016 – 2019 as AirNav Ireland has additional statutory and regulatory reporting requirements since that time. For example, annual regulatory financial statements are now required.

AirNav Ireland's business plan includes audit fees associated with CSRD – from the year ended 31 December 2025, AirNav Ireland is required to comply with Corporate Sustainability Reporting Regulations 2024 (S.I. No. 336 of 2024), which were signed into law in Ireland in 2024. The IAA has not considered these additional costs in its draft decision. Separately in consultancy there will be a cost for a consultant to assist and advise in the preparation and implementation the CSRD work.

AirNav Ireland has appointed its statutory auditor for the years 2024-2026, after which it will be required to tender for a statutory auditor for the remainder of RP4. ✂

Legal fees include –advice around legislative provisions (e.g. FOI and data protection), other contractual legal advice, HR related legal advice, planning and development of new and existing sites, advice around planning obligations, drones etc, provision of advice for public procurement requirements. By their nature, legal fees are difficult to predict and can vary greatly from year to year.

Cleaning

The IAA Draft Decision proposes to reduce our cleaning costs by €0.4m compared to our RP4 Business Plan submission. ✂

We are currently within a 5-year contract for the provision of cleaning services which was signed in 2023. Recognising that we will have limited opportunity to renegotiate this contract during RP4, CEPA have used our 2023 expenditure on cleaning costs as the baseline for its estimate of efficient expenditure for RP4. Despite this, CEPA have concerns based on their analysis that our cleaning costs are inefficient during RP3 due to their real term increase in wage growth above estimated market labour costs. Consequently, CEPA conclude that an efficient RP4 forecast for cleaning costs is equivalent to the 2023 level of expenditure for the duration of RP4. In making

this assumption, CEPA are expecting that "a retendering and renegotiation of the cleaning contract combined with improved supplier management, will deliver efficiencies that will offset any increases from a larger footprint and higher labour costs".

CEPA have requested that we provide additional evidence to support our forecast of efficient Cleaning expenditure in RP4. This is provided below.

Additional evidence:
The AirNav cleaning contractor was appointed in 2022 following a competitive public tendering process. Market rates reflect the cost of providing this service. This contract is in place until 2026. There has also been an increase in costs associated with the increase in the Minimum Wage in 2024 and cost of cleaning products. The program for Government has committed to a transition towards a living wage with additional wage increases expected during the RP4 period. Wage costs are a significant portion of the overall service costs. In addition, there is a planned increase in staffing numbers which will increase the loading on facilities.

The proposal to reduce the current provision does not recognise contractual commitments in place which are directly influenced by the Program for Government. ✂ The Government mandated wage increase was €1.75. Simply put the company would operate at a loss in providing the service if there was not a mechanism to account for increases in the Minimum wage. The government has said that this wage increase is one of a number to get to the "living wage". As a state commercial company, we will be expected to honour this commitment.

Our cleaning costs for RP4 have increased as a consequence of this inflation, on the following pages we have provided the evidence of the increase. We ask the IAA to consider this evidence when considering their Final Decision.

✂

Staff related

Staff related costs comprise of medicals, employee wellbeing, health and safety and recruitment costs. The IAA Draft Decision proposes to reduce our RP4 Staff Related Other OPEX costs by €2.2m compared to our RP4 Business Plan submission. This is a significant reduction.

TABLE 31: IAA DRAFT DECISION AND AIRNAV IRELAND'S REQUIRED STAFF RELATED EXPENDITURE, 2023-2029 (€ MILLION, 2022 PRICES)

	2023	2024	2025	2026	2027	2028	2029	RP4 Total
AirNav Ireland	0.8	1.2	1.5	1.4	1.4	1.4	1.4	**7.1**
IAA Draft Decision	0.8	0.9	0.9	1.0	1.0	1.0	1.0	**4.9**

CEPA's methodology for assessing efficient staff related Other OPEX is first to assess whether our 2023 expenditure was efficient. Despite our costs per staff member increasing above the level assumed in the setting of the RP3 performance plan, CEPA have assessed that our 2023 expenditure was efficient. This was based on the fact that recruitment is a key driver for this cost item and higher than expected attrition has placed higher demands on recruitment costs during RP3. It is also noted by CEPA that from their analysis of efficient staffing levels that we were under-resourced in 2023, which means we will need to invest more in recruitment for 2024 and beyond. CEPA's forecast for efficient staffing levels in RP4 is based on their projection of future staffing levels. CEPA assess that any further increase above this compared to the 2023 expenditure cannot be justified by the evidence we have provided in our Business Plan, suggesting that we have not adequately made the case that growth in spending should exceed growth in headcount. Below we provide CEPA the additional evidence in relation to the additionality and efficiency of the additional spending on this cost category included in our RP4 Business Plan submission.

Additional evidence

Costs associated with the recruitment for training places for our student controller training are increasing due to the increased frequency and class size required for recruiting in the RP4 aligned to the increased headcount requirement. SCP recruitment will be carried out on an annual basis for the next 3 to 5 years to meet the manpower requirements associated with the 10-year staffing plan. From a resource planning perspective our retirement profiling assumptions have shown that a large number of ATCOs will be retiring from 2028 (as we enter RP5) requiring recruitment to commence for backfill in RP4 associated with the lead in time for recruitment and training.

The costs associated with SCP recruitment include costs for technical testing, psychometric testing, group and final interviews – all of which must be carried out off site due to restrictions on meeting rooms available in AirNav HQ subsequent to the separation programme in 2023. ✂

Recruitment for engineering staff remains challenging in an area with global shortages, incurring overheads associated with advertisement and with attendance at recruitment fairs.

✂ Medicals will increase with the increased number of students, the class three medicals cost around ✂ per medical and if there are additional tests required as part of the initial med may increase. We are investing more in our employee wellbeing programme from this year with more on-site medical support e.g. prostate cancer and health checks.

We are also looking at improving our brand awareness as a new company in order to attract the high number of candidates needed to sustain the number of training places. This is because we need approximately 1000 applications to get a panel of 50+ student places.

Other administration costs

The IAA decision on Other Administration costs aligns with the forecast included in our RP4 Business Plan submission.

TABLE 32: IAA DRAFT DECISION AND AIRNAV IRELAND'S REQUIRED OTHER ADMINISTRATION EXPENDITURE, 2023-2029 (€ MILLION, 2022 PRICES)

	2023	2024	2025	2026	2027	2028	2029	RP4 Total
AirNav Ireland	1.7	1.4	1.6	1.6	1.6	1.6	1.6	**7.9**
IAA Draft Decision	2.1	1.4	1.6	1.6	1.6	1.6	1.6	**7.9**

We acknowledge that our RP4 Business Plan submission included a limited amount of detail on this category from which CEPA is able to make an informed assessment. We recognise that CEPA have stated that "When reviewing representations made by AirNav Ireland or other parties in response to the Draft Decision on the Performance Plan, we will reconsider our forecast for these categories. We will review any further details provided by AirNav Ireland on what is captured by these cost categories, with a view to bringing our estimates closer to AirNav Ireland's 2020 and 2021 outturn spend should we assess the proposed spending as not efficient." We have therefore provided additional detail on our forecast for this category of Other OPEX below.

Additional evidence

We provide a detailed breakdown of our Other Administration costs below to provide CEPA additional insight into what is included in this category.

FIGURE 11: OTHER ADMINISTRATION COSTS BREAKDOWN ✂

Similar to the Other Operating Costs, AirNav Ireland remains available to discuss any aspect of Administration Costs with the IAA and CEPA ahead of the final decision.

CAPEX Requirements

In the Draft Decision, the IAA propose an estimate of capital costs of €21m in 2025, increasing to €35m by 2029. This is below the capital cost proposal of €22m in 2025, increasing to €40m in 2029, in our RP4 Business Plan. These differences are driven by the IAA proposal to make some adjustments to our proposed asset lives, and by the application of a 20% reduction to RP4 capitalisations within RP4 (excl. TopSky-ATC One). The application of a lower WACC rate (discussed later in this document) is also a factor. The figure below demonstrates the difference between the IAA's forecasted capital costs and the capital costs included in our RP4 Business Plan submission.

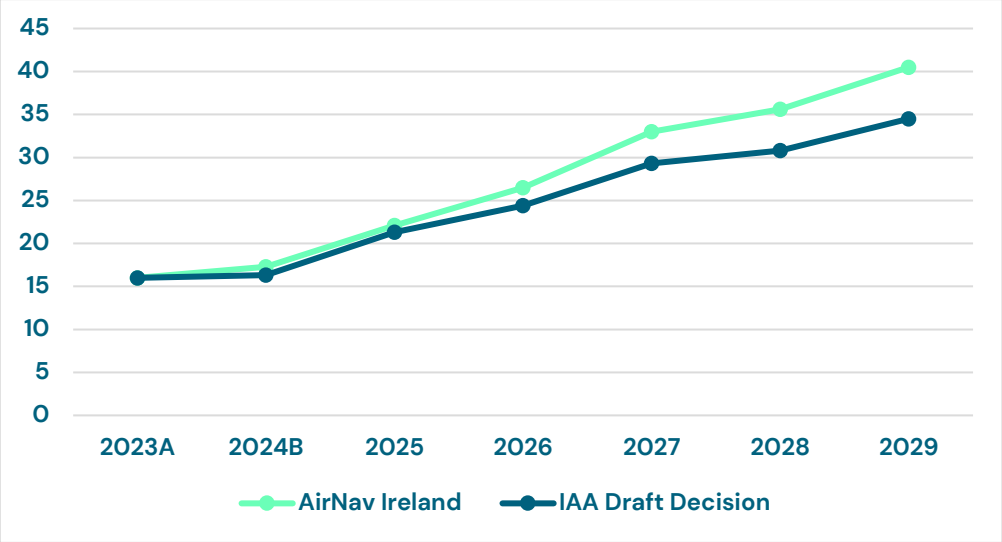

FIGURE 12: TOTAL CAPITAL COSTS FOR RP4 AIRNAV IRELAND VS IAA DRAFT DECISION (€M), REAL 2022 PRICES

TABLE 33: TOTAL CAPITAL COSTS FOR RP4 AIRNAV IRELAND VS IAA DRAFT DECISION (€M), REAL 2022 PRICES

	2025	2026	2027	2028	2029	RP4 Total
AirNav Ireland	22.1	26.5	33	35.6	40.5	**157.7**
IAA Draft Decision	21.3	24.4	29.3	30.8	34.5	**140.3**
Difference	-0.8	-2.1	-3.7	-4.8	-6	**-17.4**

IAA Draft Decision on Capital Costs

Our RP4 capital investment plan is integral to meet regulatory requirements such as CP1 compliance, address system obsolescence and support improvements that will deliver significant long-term benefits to our service provision and facilitate our ability to meet future performance targets. In its Draft Decision, the IAA have cut our capital costs by €17.4m compared to our RP4 Business Plan submission. This is a significant cut and will influence our ability to deliver all the CAPEX programme which we have set out in our Business Plan. The IAA decision cuts our proposed CAPEX programme for RP4 based on the fact that we underdelivered against our CAPEX plan in RP3, and that despite us putting measures in place that should provide more certainty over our ability to deliver in RP4, the IAA have again proposed a cut to a similar extent to be made when planning for RP3 as they "consider it unlikely that AirNav Ireland will now be

able to deliver all of the projects it suggests over RP4 and note that it forecasts a larger level of delivery relative to the RP3 programme, against which it underdelivered."

The IAA has therefore applied a 20% reduction in forecast capitalisations, relative to the forecast in our Business Plan, which is a similar approach to the one the IAA took during RP3. Rather than disallow or adjust the cost of any individual project, IAA propose to make a programme level adjustment over 2025-2029. However, within this adjustment the IAA propose to exclude the TopSky ATC One project from the scope of this adjustment, as it will not follow the same process as the other projects, and the main capitalisation does not occur until 2029 in any case, meaning that the capital costs earlier in RP4 include the cost of capital during construction which is incurred before capitalisation. ✂

Response to IAA Draft Decision on Capital Costs

CAPEX programme

We do not agree with the IAA's proposal in relation to the reduction to our RP4 CAPEX plan. We have been open with stakeholders about the under-delivery of our RP3 CAPEX programme, we have been transparent about the causes of this such as the need to prioritise service delivery and the delivery of major capital projects, difficulty in the recruitment and retention of engineers in the first half of RP3, and the focus on the regulatory restructuring process. By the end of RP3, we anticipate that we will have underdelivered approximately 23% of our CAPEX programme compared to our RP3 plan. In our RP4 Business Plan submission, we outlined the changes and mitigations we have put in place to ensure this is not repeated in RP4. The steps we have taken to provide confidence that we can deliver our CAPEX programme as set out in our RP4 Business Plan submission are documented below:

- In the planning of our RP4 CAPEX programme we engaged Egis' aviation consultancy division to help us plan, providing a more accurate view of the resources we require to deliver the CAPEX projects in our programme.
- We have restructured our Project Management Office to support improved project management and control of delivery. This restructuring will not only support the delivery of projects but is also advised by the IAA (ANSD).
- For RP4, we have been able to put in place dedicated managers to lead the sustainability, property and security domains and their associated projects. Previously these roles were all performed by the same person. Having separate dedicated managers to lead these areas should provide better oversight and leadership to these domains and provide better total oversight as their respective CAPEX investments are led to completion.

In our Business Plan we have explained in detail why each of our CAPEX projects is necessary. We have a backlog of CAPEX projects from RP3 which need to be addressed for us to ensure our service delivery into the future. We have a number of systems that have reached the end of their useful life, which need to be replaced and we also have regulatory requirements that we need to meet through delivery of CAPEX projects. In forming our CAPEX programme for RP4, we assessed which projects are required based on the needs of our business. This is reflected in the appendices of our Business Plan, which contains a detailed summary of each project, including the key drivers. For the technical services domain, these project sheets were produced in collaboration with our engineering domain heads, who have an appreciation of the technical

requirements and demands for the project. The same degree of technical input by domain specialists was sourced to establish detailed requirements for the Property, Security, ICT and Sustainability projects.

Reflecting on both the steps we are taking to address the causes of CAPEX under-delivery in RP3, and the extent of the detailed planning we have undertaken to provide greater confidence that we can deliver in RP4, we can confidently predict that the IAA Draft Decision to cut our capitalisations by 20% ✂ compared to our Business Plan will leave us with insufficient cost allowance (or resources as previously explained) to deliver all the projects that are necessary. This is likely to have a significant impact on our service provision in RP4 and future reference periods.

The reduction in our capitalisations will not be effectively mitigated by the proposed provision to recover efficiently incurred expenditure over the allowance through a unit rate adjustment in RP5. Although, this provision is useful in theory as it would allow us additional flexibility towards the end of RP4, the reality is that the engineer headcount included in the Draft Decision is insufficient to deliver the CAPEX programme even if the 20% reduction is applied ✂ Thus, we are unlikely to be in a position at the end of the period to overspend efficiently on additional projects not included in our allowance. This would be different if as previously discussed, CEPA's approach to assessing an efficient engineer headcount considered our bottom-up assessment of the engineers required to deliver our CAPEX programme, as opposed to being based upon a theoretical top-down assessment, that considers the CAPEX programme based purely upon the unjustified application of an elasticity factor.

In summary, the reduction in capitalisations proposed in the IAA Draft Decision ✂ will impact our service delivery in future reference periods as we will not be able to deliver all the CAPEX projects that we need to as documented in our RP4 Business Plan. To compound this, the IAA Draft Decision provides allowance for an insufficient number of engineers to deliver the CAPEX programme they propose ✂ because the assessment of engineer headcount conducted by CEPA is not linked to the engineering demands of our RP4 projects. The combination of these factors means the current proposal in the Draft Decision will significantly dampen our ability to deliver CAPEX projects in RP4, and we will not be able to deliver the projects that are required to support our future service provision and to meet regulatory requirements.

Recovery of CAPEX and reporting

In our RP4 Business Plan we outlined that our position on the treatment of unspent CAPEX for RP4 remains unchanged from RP3. In their Draft Decision the IAA, have adopted the same proposal that all unspent CAPEX will be returned to users in RP+1 via lower en route and terminal unit rates. The unspent CAPEX will be grouped as a whole, as this better supports medium term planning and flexibility to adjust to unanticipated developments.

Importantly, the IAA have included in their Draft Decision that if we deliver more of our CAPEX programme than the IAA have anticipated in the Decision and we therefore efficiently incur associated expenditure in excess of what IAA have allowed for, this can be adjusted for in the unit rate for RP5 and/or added to the RAB from the start of RP5. We welcome this proposal as it ensures there is no disincentive for us to continue to deliver CAPEX projects towards the end of RP5, if our programme is running on or ahead of schedule. However, as described in the section

above, based on current proposals in the Draft Decision this is unlikely to be the case given the engineer headcount included.

In their Draft Decision, the IAA have decided to accept the proposal made in our RP4 Business Plan, that a programme level rather than project level adjustment should be made, this means that consistent with RP3, the RP4 allowances will be reconciled at a programme level rather than project (or grouping of projects) level. We are supportive of this proposal as it provides us additional flexibility within our CAPEX programme.

The Draft Decision proposed by the IAA indicates that the reporting of CAPEX will continue on a biannual basis and will be published on the IAA website to provide stakeholders progress updates during RP4.

Asset lives

The IAA has assessed the assumptions for the asset lives used in our final Business Plan and concluded that in most cases, the asset lives put forward by us are reasonable. The IAA also concluded that in some cases where they amended the asset life proposed by us in RP3, we have not always followed this in our RP4 Business Plan. For example, the CEROC Midlife Upgrade, Security Systems and Upgrade Works. For these projects, the IAA again proposed the asset life that was set in RP3. In reviewing the asset lives proposed for new projects, IAA compared the proposals with the expected useful life of the asset, including with reference to decisions on similar projects both in RP3 and elsewhere (such as in setting depreciation profiles for Dublin Airport assets).

We acknowledge that the IAA concluded that the asset lives we proposed are reasonable in most cases. For those examples where we did not follow the IAA's recommendation in RP3, we refer to our response to the RP3 consultation where we provided clear arguments why the proposed asset lives in some cases are not realistic. For example, we emphasised that Conditional Survey Works have a standard life of 10-years and the proposed 20 years would be far too excessive even though it may sometimes be possible to achieve 12 years on some aspects. The arguments we have used in the RP3 consultation still stand and we request the IAA to justify why it has amended the asset lives in particular cases.

Responses to IAA Queries on CAPEX Projects

In our RP4 Business Plan submission, we included a series of appendices that included additional details about each of our CAPEX projects, split across three key domains which were:

- Property, Security and Sustainability Projects (Appendix 1).
- ICT projects (Appendix 2).
- Technology and Operations (Appendix 3).

As part of the IAA assessment of our CAPEX programme, they asked us a series of questions and in some cases issued requests for further information, predominantly to ensure that the IAA understood and could report on:

- The need for, or benefits of, a particular project.
- How the cost proposal has been derived (together with evidence supporting same where available).

- The basis of estimation of asset lives.

In the IAA's Draft Decision, they state that "a number of answers to these questions remain outstanding or were not received in time to take into account for the Draft Decision. These will be closed out and taken into account as part of the Final Decision, together with the consultation response submissions. We have responded to all of the IAA queries and make ourselves available to provide further details if required.

Cost of Capital

The following table summarises the difference between the cost of capital included in the en-route and terminal cost base in our final Business Plan and the allowance given in the draft decision. The shortfall is €8.4m which represents 12.9%.

TABLE 34: COST OF CAPITAL IAA DRAFT DECISION VS AIRNAV IRELAND

	2023	2024	2025	2026	2027	2028	2029	RP4 Total
AirNav Ireland	5.60	6.17	9.41	11.20	13.74	14.92	15.70	**64.97**
IAA Draft Decision	5.60	6.17	8.85	10.07	11.88	12.66	13.13	**56.59**

Comparing the assumptions used in our Business Plan and in the draft decision, we have different views to IAA on multiple aspects of the cost of capital calculation and these are further discussed below in the first subsection dedicated to the WACC. This contrasts with the position we were in at the equivalent stage of IAA's review of our revised RP3 performance plan when there was a good measure of agreement between the Company and the Regulator on all component parts of the calculation apart from beta. Similarly, as in RP3, this is an area in which we have relied on external consultants, First Economics. We followed the advice given by First Economics with one exception, we reduce the asset beta from the recommended 0.72 to 0.6 in order to reduce the cost of capital.

In addition to reduction of the proposed WACC rate, IAA also proposed to modify asset lives for some of the assets which has also an impact on the cost of capital. This is discussed in the CAPEX section.

WACC Rate

Gearing

The Charging Regulation specifies that the weights given to debt and equity in the cost of capital calculation *"shall be based on the proportion of financing through debt or equity"*. First Economics therefore recommended to use the actual capital structure. AirNav Ireland currently does not have any debt and do not plan to borrow in the foreseeable future. First Economics recommended not to take this approach on the basis that the future is uncertain – i.e. an intention not to incur borrowings might not necessarily lead to zero borrowings in reality. Factors that could cause the business to have a need for external financing during the next regulatory

period include the bringing forward of new capital investment, external shocks to revenues or costs, or a change in AirNav Ireland approach towards distributions and capital structure. The consultants also took into account the fact that AirNav Ireland has anticipated such eventualities by securing revolving credit facilities with a total limit of €60m and that these arrangements come with a cost which ought to be appropriately recognised within the calculation of charges. As a precaution, some level of borrowing in the cost of capital calculations, First Economics considered it to be appropriate to assume a modest level of gearing and chose 5% gearing. The WACC that we included in our RP4 business plan was deliberately intended to be a weighted average of the cost of our actual borrowing and the return that we require on our actual equity financing.

IAA used the concept of a notional capital structure in RP3 and assumed 50% financing through equity. The regulator has reviewed this approach and the level of gearing proposed by us and concluded that in respect of RP4 they did not find any compelling rationale to change the approach from RP3. IAA therefore proposed retaining the notional capital structure methodology used for RP3 and retaining 50% of gearing.

The PRB advocates, that when taking a Hybrid WACC approach, to calculate the gearing based on the actual capital structure of the ANSP. In maintaining the RP3 approach, the proposed methodology differs. However, as debt is less expensive than equity, IAA justified assuming a notional gearing based on the fact that we currently do not carry any debt, and a notional gearing better represents more efficient financing.

In our view, the notional gearing of 50% is an arbitrary decision which is not supported by any evidence with respect to whether this would be efficient for our business and operations. ✂ This is not consistent with our real-world financing plan. It is also not a level of indebtedness that we are able to accommodate within our current borrowing facilities. IAA states that its notional gearing assumption "better represents more efficient financing". We note that the IAA offers no substantiation for this point of view. In our view, the IAA has not given adequate weight to:

a) our relatively small size and the constraint this places on both the way in which we have to borrow (e.g. via bank facilities rather than bond issues, as is commonplace for larger entities) and the cost of that borrowing; and

b) the scale of the cost and revenue risk that we are managing and the weaker financial resilience that we would have in the face of cost and revenue shocks if we were obligated to make large, fixed interest payments to lenders every year. We expand on this latter point under heading 4 "Beta" below.

When assessing optimal capital structure, there are many sources which provide a wide range of estimates. PRB in their study from 2021[1] looked at the optimum gearing for a wide range of regulated companies. Before making any comparisons, it is important to highlight that both IAA and First Economics use a different terminology than the PRB. While IAA/First Economics use the term "gearing" for the proportion of financing through debt (which is then used to weigh the Return on Equity and Cost of Debt within the resulting WACC rate), PRB uses the term "gearing" for the Debt-to-Equity (D/E) ratio. In PRB's terminology, the proposed gearing would be therefore

[1] *Study on cost of capital Methodology review and update, September 2021, Performance Review Body*

100% and not 50%. In Ireland, the RP3 comparators used by the PRB included EQTEC (with optimum gearing between 1% and 34%) and Ryanair Holdings (with optimum gearing between 23% and 26%) resulting in a range of 12% to 30%, depending on the year. The Union-wide average was between 34% and 41%. This compares with 100% proposed by the IAA.

In its latest update of the Cost of Capital Study[2], the PRB has modified its approached and recommended the same optimum gearing (D/E) for all ANSPs for the efficient WACC calculations. PRB selected two groups of comparators, Tier 1 consisting of airports where the 10-year average median for the optimum gearing (D/E) was 18% and Tier 2 consisting of other regulated businesses resulting in 10-year average median of 50%. Based on this analysis, PRB recommended to use the gearing (D/E) of 33.7% for all ANSPs. This compares with the D/E of 100% selected by IAA. Using the IAA/First Economics terminology, PRB recommends using the 74.8% share of financing through equity for the notional capital structure approach which compares with 50% proposed by IAA.

We are firm in our view that we currently have the optimal capital structure for our business. The IAA should reflect our financing mix in its WACC calculations rather than the notional 50:50 debt: equity capital structure proposed.

Return on Equity

IAA concluded in the draft decision that AirNav Ireland placed weight solely on current data, specifically February 2024. It also concluded that relying solely on a single month is a small sample size which may put too much weight on recent market developments and lead to the inclusion of noise and a reduction of predictive power; and as in RP3, IAA placed weight on 5-year, 2-year, and 1-year averages.

We are broadly content with the IAA's estimate of the risk-free rate. However, we do not agree with the weight that the IAA places on historical bond yields. Our allowed WACC needs to reflect likely market conditions in each new regulatory period. This requires that we consider market data and recognise when there has been a shift in the economic outlook. First Economics' assessments include an overview of the rates development and shows a sharp jump in yields as the ECB and other central banks around the world have raised interest rates in response to the sudden emergence of high inflation. The range of estimates provided in their report is partly a reflection of changing interest rate conditions and partly a consequence of regulators' different preferences for taking spot estimates vs long-term historical averages. We used the advice from First Economics that the risk-free rate feeding into the calculation of RP4 charges ought to be based on the current level of interest rates in the Irish economy. Ten-year bond yields were approximately 2.8% during the month of February 2024, giving a real-time risk-free rate of approximately 0.7%.

In our view, long-term government bonds are the best indicator for the risk-free rate and are widely used by other ANSPs. Even though the First Economics assumption was based on one month, the following chart shows that the rates have been relatively stable.

[2] *Study on cost of capital, Methodology review and update, June 2024, Performance Review Body*

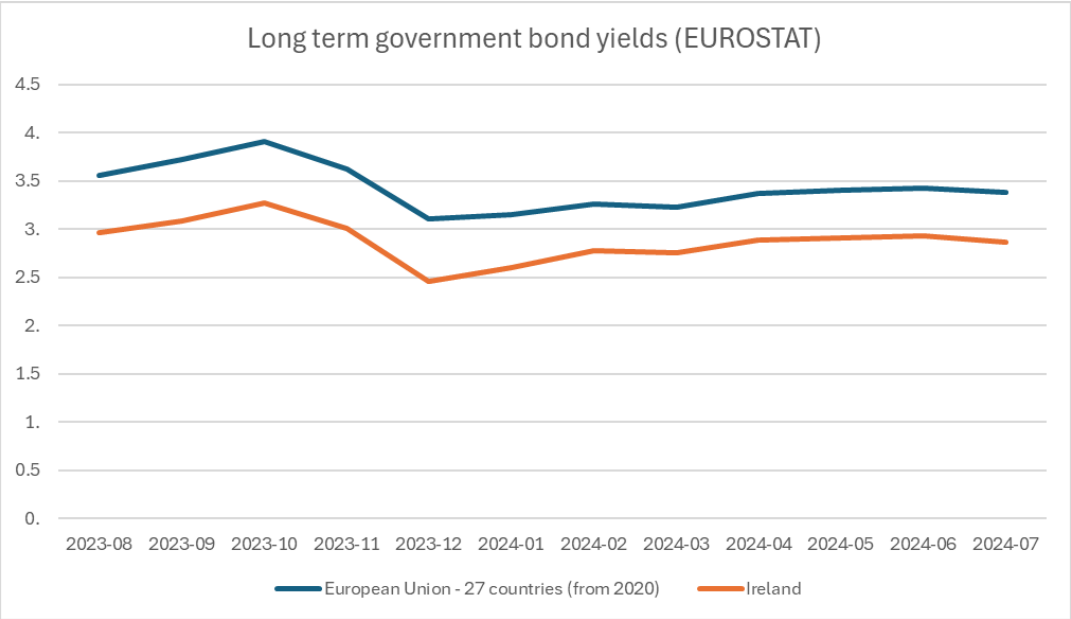

FIGURE 13: LONG TERM GOVERNMENT BOND YIELDS

The average for the last 12 months has been 2.88% in nominal terms which is broadly consistent with the current yield (2.86% as of July 2024), slightly below the EU-wide average. Even though ECB started to cut the interest rates in June 2024, there is a wide consensus of economists that we are in "higher for longer" period which means that the rates will stay likely higher in RP4 compared to RP3 (for example, see the recent article on BBC[3] which summarises the IMF warnings). This proves that there has been a pronounced move in the market during 2022 and 2023 when central banks around the world began to normalise monetary policies at the end of the pandemic and in response to various geopolitical events. This means that the outlook for interest rates, as of 2024, is now very different from the outlook that there was two and five years ago.

In these circumstances, data from the period 2019 to 2022 no longer has any informational value and should not be included in the IAA's calculation of the risk-free rate. We note that this is consistent with the position that the IAA took in its most recent review of Dublin Airport's price cap. Para 10.20 of IAA's decision document states that there has been "an observed transition to a higher inflationary period, which raises doubts over the predictive power of long-run historical averages".

We therefore do not think that looking at longer-term averages for the long-term government bond yields is appropriate.

Another widely used credible source of risk-free rates is the IESE Business School's surveys with the latest one published in March 2024[4]. The survey suggests the median nominal risk-free rate of 3.0% for Ireland based on 38 responses.

3 https://www.bbc.com/news/articles/czrjpp494m2o

4 Survey: Market Risk Premium and Risk-Free Rate used for 96 countries in 2024, Pablo Fernandez, Diego García and Lucia F. Acin, IESE Business School, March 2024

We invite IAA to reconsider the logic of this position over to our review and exhibit a consistent approach to cost of capital estimation across decisions.

Total Market Returns (TMR) and Equity Risk Premium (ERP)

Our business plan made provision for an expected market return that was in line with the figures used in other recent regulatory determinations. The IAA uses a similar lens in its draft decision but arrives at a figure that is 0.25% lower than our proposed estimate of 6.5%. There are two reasons for this difference:

- first, the IAA gives undue weight to the ranges that regulators have identified in their published documents rather than the point estimates that the regulators actually used in their decisions; and
- second, the figures that the IAA cites for the CAA's two most recent price control decisions are incorrect. Specifically, the IAA has mistakenly used the CAA's estimates of the RPI-stripped TMR rather than the equivalent CPI-stripped figures. [5]

The table below corrects for these errors showing, in the final row, a more accurate survey of TMR regulatory decisions of 6.60%.

Decision	IAA Low	IAA High	Chosen point estimate
CRU – Irish Water	6.30%	6.75%	6.75%
Comreg – telecoms	6.65%	6.65%	6.65%
CRU – ESB and Eirgrid	5.70%	6.75%	6.40%
IAA – AirNav Ireland	6.00%	7.00%	6.50%
IAA – Dublin Airport	5.70%	6.81%	6.25%
CAA – Heathrow Airport	5.20%	6.50%	6.81%
CAA – NERL	5.20%	6.50%	6.81%
Average	**5.82%**	**6.71%**	**6.60%**

Asset beta

Our proposal for asset beta was originally based on the First Economics assessment. They conducted an analysis using a more varied comparator group compared to IAA's analysis, including telecom companies and electricity, gas and water network utilities. Based on its assessment of risk exposure and comparator analysis, First Economics proposed an RP4 asset beta of 0.61 for terminal services and 0.80 for en-route, settling on a point estimate of 0.72 for both combined. We have however subsequently offered the IAA to concede on the asset beta and used lower WACC rates in our assumptions. We proposed an estimate of 0.6 instead, which is below the lower bound of the First Economics range.

[5] *CAA (2022), Economic regulation of Heathrow Airport Limited: H7 final proposals, para 9.182. See also CMA (2021), Anglian Water Services Limited, Bristol Water plc, Northumbrian Water Limited and Yorkshire Water Services Limited price determinations – final report, para 9.,397 and table 9-38.*

IAA decided to increase the asset beta range from 2021 by 0.05, giving a range of 0.50 to 0.60, with a point estimate of 0.55. This figure is lower than our proposal and in the middle of the range recommended by the PRB.

First Economics have performed a detailed analysis of AirNav's risk profile in terms of demand and cost risks compared also to other regulated industries. The systematic risk that our shareholder faces primarily from the variation that our profits will show in the face of unexpected reductions or increases in our traffic volumes. The table below calculates the loss or gain of nominal operating profit return that AirNav Ireland's En-route business could suffer, during RP4, if service unit volumes turn out to be 2%/10% below or above EUROCONTROL STATFOR's base case traffic forecasts.

	Loss of profit	Gain of profit
2% traffic shock	- 50%	+ 50%
10% traffic shock	- 110%	+ 110%

Note: the loss of profit has been calculated using the revenues and return provided in the IAA's draft decision and after applying the traffic risk-sharing mechanism.

The +/-50% figures indicate that we will lose or gain operating profit equal to half of our allowed return if/when traffic variance hits the +/-2% risk-sharing threshold. The +/-110% figures indicate that we will lose the entirety of our profit and make a loss, or alternatively more than double our return, if traffic variances meet or exceed the +/-10% outer limit in the risk-sharing scheme.

First Economics concluded that they are not aware of any other regulated business that can face such pronounced swings in profitability in the face of such small deviations in systematic risk.

By way of comparison, the equivalent figures for NERL's loss or gain of return at the +/-2% and +/-10% thresholds are approximately +/-15% and +/-35% respectively and under the terms of the IAA's 2022 airport price cap decision, Dublin Airport would have to see a traffic variance of more than 10% in order to suffer a loss/gain of half its nominal return and a traffic variance of more than 30% in order for its nominal return to either be wiped out or doubled. This is clear evidence that AirNav Ireland has an unusual risk profile and should be viewed as having an unusually high beta.

We have brought such comparisons to the IAA's attention in both the RP3 and RP4 consultations. In its RP3 review, the IAA said that we had not taken an account of the SES risk-sharing arrangements and that we "face significantly lower revenue risk compared to almost all other business in the aviation sector and other economic sectors". This was not true in 2021 and the table above demonstrates, beyond any reasonable doubt, that it is not true now going into the RP4 period.

In its draft decision, the IAA notes that AirNav Ireland was not as badly affected as Dublin Airport by the loss of volumes during the COVID pandemic. We agree that this was the case. However, we are not seeking a beta that compensates for the risk of future pandemic-like events. Consistent with the IAA's approach when setting all its price controls, we are looking for a beta that recognises the variability of AirNav Ireland's profit only during 'normal times'.

As a consequence, it proposed a beta at the extreme right-hand side of the available spectrum of 0.8. In the case of the terminal services business, a bigger-sized RAB relative to revenues reduces risk. First Economics see a good degree of similarity between AirNav Ireland's and NERL's risk profiles and therefore used the NERL beta of 0.61. This resulted in the combined asset beta of 0.72 but as explained above, subsequently offered the IAA to concede on the asset beta and used 0.6 in our assumptions.

Given the robustness of First Economics' analysis and their conclusions and content that their asset beta estimates of 0.80 and 0.61 are appropriate, we strongly support using our compromised position and use 0.6 in the final decision. Insofar as the arithmetic in the table above demonstrates, beyond any reasonable doubt, that AirNav Ireland has a very pronounced exposure to systematic traffic risk, we believe the IAA should provide for a beta that is no lower than 0.6.

We note that a beta of 0.6 would be broadly in line with the CAA's beta for NERL, as a business that operates in the same market and with the same risk profile but with greater stability in profit.

Cost of Debt

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The IAA's draft decision questioned the assumption about the proportion of capital financed through equity, and instead propose to retain the 50% assumption (see the discussion above, the observations that we made above under "Gearing" and "Risk-free rate" are also relevant in the IAA's assessment of the cost of our debt.). This resulted in the real cost of debt of 2.02%. In addition, IAA assumed that the ECB would reduce interest rates over the coming months and years and calculated the cost of debt based on a 5-year historic average of the 3-month EURIBOR rate to June 2024. IAA considered it appropriate to place weight on the near-term forecast as per the First Economics approach, but also on the longer run average. This resulted in a real cost of debt in the range of 0.32% to 2.02%. IAA proposed a point estimate of 1.17% which is the mid-point of this range.

In our view, this significantly underestimates the real cost of borrowing. While ECB started to cut the interest rates in June 2024, there is a wide consensus of economists that we are in the "higher for longer" period which means that the rates will stay likely higher in RP4 compared to RP3. We therefore do not think that using long-term averages is appropriate and much more emphasis should be put on the current environment.

We also noted that the IAA has assumed a level of borrowing that we do not have and cannot currently accommodate within our existing bank facilities. In the section on the risk-free rate, we said that it was inappropriate for the IAA to use pre-2022 interest rates as a benchmark for RP4 interest rates. It follows that the IAA's use of a 5-year trailing average reading of EURIBOR results in a significant under-estimate of the cost that AirNav Ireland will likely face during the 2025-2029 regulatory period.

We, therefore, request that the IAA uses a current market forecast for EURIBOR when it makes its final decision.

Aiming up

All of the cost of capital analysis that the IAA published since 2018, and prior to our draft decision, contains 50 basis points of aiming up. IAA explained in its RP3 decision that aiming up is necessary "to mitigate estimation error and the impact of the point estimate of the WACC being set too low – which can be considered to have greater adverse consequences on economic welfare than an overestimate".

Our RP4 draft decision contains no such aiming up. This is despite the fact that the IAA takes a decidedly more stringent approach to each of the WACC parameters – e.g. by using 5-year benchmarks for interest rates. We request that the IAA either moves to a more balanced calibration of the line-by-line inputs into its WACC calculation, which recognises at source the importance of showing caution and avoiding inadvertent under-estimation, or that the IAA reinstates the RP3 aggregate aiming up.

Summary on Cost of Capital

Having reviewed the arguments used by both First Economics and the IAA in the draft decision, we are content that the assumptions we have proposed in our final Business Plan for the WACC calculations still stand, including our compromised position with respect to asset beta.

In addition, from the Reporting Tables submitted to an enlarged Committee in June 2024 as well as from other stakeholder consultations, we are aware that many states are proposing higher WACC rates for their ANSPs compared to the IAA proposal. At the stakeholder consultations, it was also discussed that there are European States with much higher asset betas compared to what is proposed for AirNav Ireland. We therefore requested an assessment of the emerging Costs of Capital across Europe for RP4 to ensure Ireland is not an outlier, which was not available at the stakeholder consultation meeting, but should be possible before a final decision is made.

We hereby invite IAA to review WACC rates proposed by other states for their ANSPs, further consider arguments provided in this section and revise its decision. We remain of the view that the appropriate pre-tax real WACC is no lower than 4.91%.

Key Performance Areas

Safety

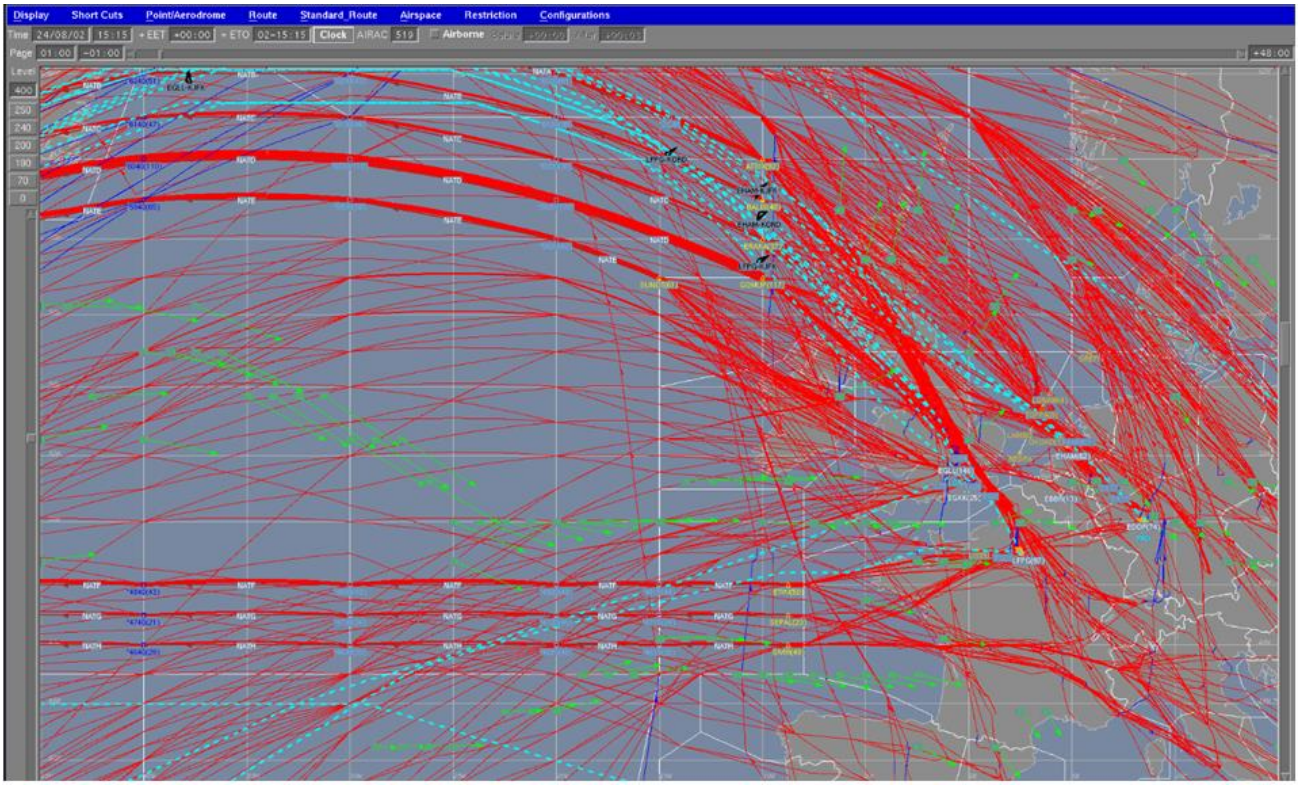
As discussed in the RP4 Stakeholder Consultation meeting, AirNav Ireland has marginally missed its RP3 safety target in 2022 and 2023, and we have formulated a plan for RP4 that considers the requirements to continuously improve of Effectiveness of Safety Management score.

Environment

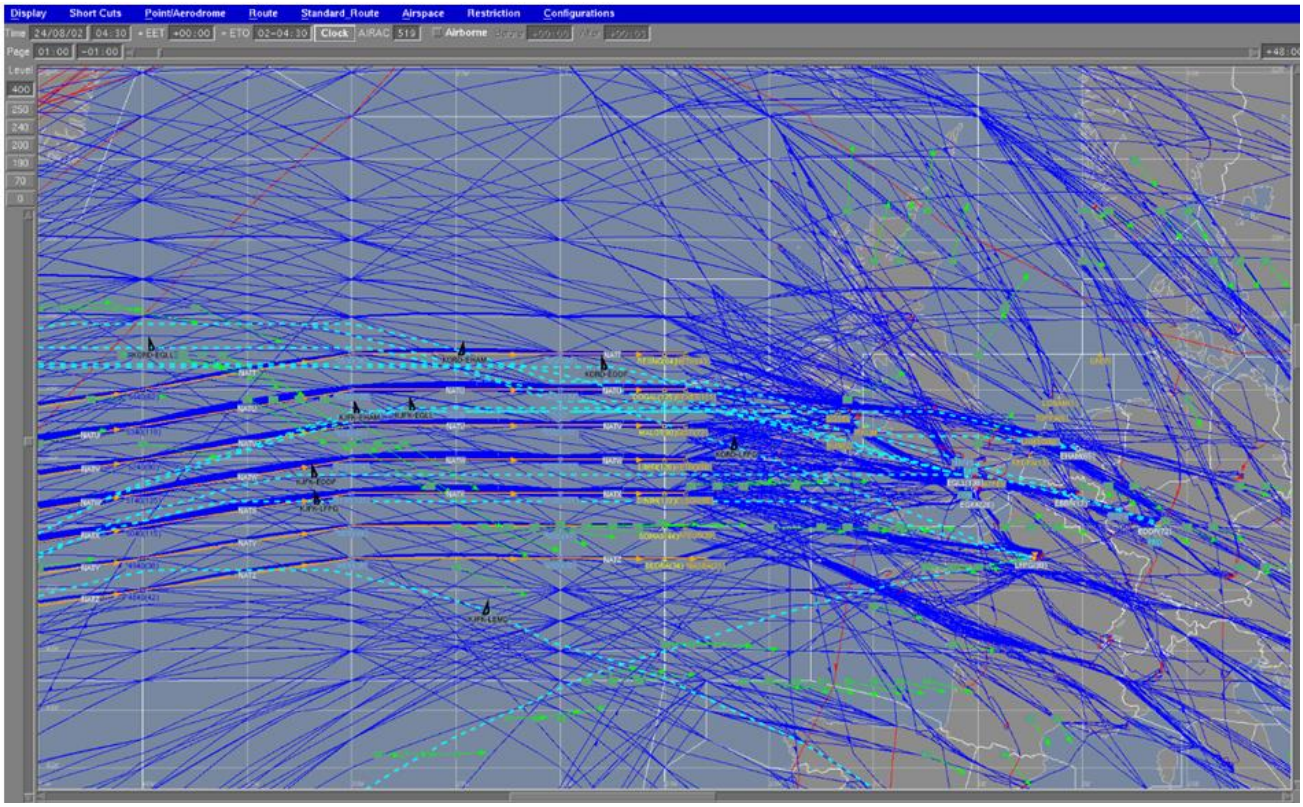
Following calls for a more challenging target for our En-route horizontal flight efficiency, AirNav Ireland explained at the stakeholder consultations how weather was such a significant factor that is outside of our control. We also agreed with requests from stakeholders to engage with neighbouring ANSPs, which has been ongoing for some time along with regular engagement with the IAA.

The historical horizontal flight "in-efficiency" in the Shannon FIR (excluding the CTRs) is approximately 450 metres. The majority of "inefficiencies" in the Shannon FIR are due to meteorological conditions on the NAT, military training flights, tango routes, French ATC industrial action, maintenance, crew flight planning/re-routes, traffic presentation and due adjacent ANSP agreements.

The following example shows the Westbound Traffic Flow on the 2nd of August 2024. The flights are routing North due to adverse weather on the NAT.



The following picture shows the Eastbound Traffic Flow on the same day:



Capacity

IAA in its Draft Decision proposed capacity targets that are more ambitious than the reference values from the Network Manager. We would like to reiterate that achieving these targets will be only possible if the allowance for sufficient ATCOs is provided. At the stakeholder consultations, however, we noted that with the introduction of TopSky ATC One towards the end of RP4, it is prudent to plan for delay, and that we should not be penalised financially for it. There was no disagreement with this viewpoint. AirNav Ireland would expect to work closely with the IAA on this matter closer to the time.

The Importance of Having Enough ATCOs in Terms of Capacity

Just one week after the IAA's Draft Decision on RP4 was published A4E issued a press release calling on Europe to address the crisis of air traffic controller shortages across Europe. The press release is included in full below to show from a customer perspective the importance of having enough air traffic controllers.

Brussels, 22 July 2024– A4E, Europe's largest airline trade association, today called on EU Transport Commissioner Hoekstra to take urgent action to address the crisis of Europe's ATC capacity shortages. So far this summer, Europe's airlines have been forced to delay or cancel thousands of flights, impacting hundreds of thousands of passengers.

The most recent data from Eurocontrol for the week of 8-14 July, show that total Air Traffic Flow Management (ATFM) delays grew by 68% year on year for A4E airlines, with ATC capacity and ATC staffing issues causing 53% of these delays. The total amount of delays for the week was just under 700,000 minutes affecting over 34,000 flights which represents an average delay of 20 mins per flight.

Despite Europe's ATC fees rising to record levels (up 15% in the last 3 years), ATC service levels continue to deteriorate even though traffic has not returned to pre-COVID 2019 levels. 2023 was one of the worst years for ATC performance in two decades according to the latest Eurocontrol performance **report**.

A4E is calling for a number of actions to help alleviate delays caused by ATC capacity issues:

- Despite the best efforts of airlines, coordination with Eurocontrol and ATC service providers (ANSPs) needs to be more effective to react to major weather or other disruptive events.
- There needs to be a better match between capacity and demand often resulting from controllers being in the wrong place at the wrong time.
- There needs to be better adaptability amongst the ATC workforce through improved rostering and through increased hiring in some areas.
- Longer term, European ATC providers need to ensure they are operating with the latest technology and operational concepts.

These improvements can go some way to addressing ATC capacity issues so that airlines can deliver the timely and efficient service their passengers expect and deserve.

Cost Efficiency

In its Draft Decision, IAA concluded that having reviewed the drivers of the variance between the cost bases and EU-wide cost efficiency targets, the initial assessment is that it is related to measures necessary to meet the local capacity targets. We fully support this view. We have set out the need to incur spending that is not compatible with the Union-wide cost efficiency target if service delivery is to remain at acceptable levels. This was not contested by airspace users or any other stakeholder such as the PRB at the stakeholder consultations.

The key measure to meet our capacity target is the increase in our ATCOs and we summarise here again the key arguments:

- ATCOs: The driving factors behind the required increase in ATCOs in our RP4 Plan included (i) traffic, (ii) Work-Life Balance, (iii) Roster Resilience, (iv) Instructor and training requirements, (v) Departure position. It is critically important that we take this opportunity to ensure there are no longer ATCO shortages in providing this essential service to the industry. CEPA's approach is based almost exclusively around traffic movements compared to ATCO headcounts and makes insufficient allowance for non-traffic related step-changes between RP3 and RP4.

  At our consultation meeting, Airspace users suggested the required ATCO number was probably somewhere between the IAA's Draft Decision and AirNav Ireland's Business Plan (i.e. 353-374 by 2029), having considered the underlying rationale, progress during RP3 and

capacity constraints from a training perspective. No other stakeholder disagreed with this view. Of particular interest to airlines right across Europe is ensuring better staffing at weekends throughout the summer – AirNav Ireland can provide evidence to support this statement if required.

Work-Life Balance: With the support of the Staff Panel, AirNav Ireland has made it clear that it requires approximately 24 ATCOs (12 in 2025, 6 in 2026, 3 in 2029) to ensure there are sufficient numbers in place to provide appropriate access to annual leave, statutory leave cover and other aspects such as job-sharing. However, the modelled headcount in the Draft RP4 Decision compared to the AirNav Ireland Plan has a deficit that also amounts to 24 during RP4, which emphasises the significance of this shortfall. The Company's 10-year plan for ATCOs was published upon the launch of AirNav Ireland – prior to the RP4 Planning process – and has been key to a peaceful and productive industrial relations environment. Constraints: Over the course of Summer 2023-Summer 2024, AirNav Ireland encountered numerous performance related issues with its key customers due to a variety of factors ranging from staffing constraints, unexpected absences, short-term sick leave, licencing issues and challenges experienced with regulatory requirements. All these factors have the potential to significantly disrupt the passenger experience, and AirNav Ireland has been very fortunate to narrowly avoid a material impact on its headline capacity metrics.

We provide here extracts from a sample of relevant correspondence with our customers to demonstrate the real impact of operating a 24-7 critical service with very limited resilience from a staffing perspective. It also underscores the validity of the ATCO requirement set out in the RP4 Business Plan and the importance of getting the Collective Labour Agreement over the line.

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En-route Capacity incentive scheme

For en-route capacity incentive scheme, IAA proposed a penalty-only scheme given that determined costs were set at a level which is consistent with delivering very low delay performance throughout RP4, at or below the level of delay observed in RP3. The penalty is proposed to amount 1%. Given IAA proposed more stringent capacity targets than the reference values for Ireland calculated by the Network manager, IAA proposed not to modulate the pivot values based on the annual update of the NOP. We do not have any objections to this proposed decision. At the stakeholder consultations, however, we noted that with the introduction of TopSky ATC One towards the end of RP4, it is prudent to plan for delay, and that we should not be penalised financially for it. There was no disagreement with this viewpoint. AirNav Ireland would expect to work closely with the IAA on this matter closer to the time.

The second decision is related to modulation of the pivot values for CRSTMP delay, which can be influenced by the ANSP. IAA concluded that en-route ATFM delay attributed to non-ANSP causes (i.e. codes other than CRSTMP), has historically been at or close to zero and this means that there is a less compelling basis to set Modulated pivot values. IAA therefore proposed to set Fixed pivot values for the en-route capacity incentive scheme.

While we agree that the historically the non-CRSTMP delay has been negligible, this might be not the case in the future. There is a global-wide consensus that the climate is changing and while in some regions, e.g. in Central and Eastern Europe, there was also historically very low level of

weather delay which has however started to change significantly in the recent years. Some ANSPs which did not face weather delay now incur significant disruptions especially during the summer due to heavy thunderstorms. We cannot rule out that the conditions will also change in our region and in such case, AirNav Ireland would not be protected from high level of weather delays. In combination with very ambitious capacity targets, this significantly increases chances of being penalised. We would therefore propose to introduce CRSTMP modulation also for the en-route capacity incentive scheme and modulate the pivot values based on the actual CRSTMP delay during the actual year (i.e. subtract the non-CRSTMP delay both from the actual delay as well as from the pivot value).

Terminal Capacity incentive scheme

Unlike for the en-route capacity incentive scheme, for the terminal scheme IAA proposed to modulate the pivot values based on the CRTSMP codes only, given that, unlike en-route ATFM delay, the majority of arrival delay is not ANSP attributable. While we are supportive of such a proposal, IAA also proposes to define the modulation in advance and proposed to subtract 0.1 from the terminal capacity targets to get to the modulated pivot values. Even though this decision would protect us from the potentially increasing weather delay in the future, it also dramatically reduces the terminal target for the purposes of penalty calculation also for the non-CRSTMP causes. That means during the years when the non-CRSTMP delay would be zero or negligible, the pivot values for the CRSTMP delay would be also reduced to 50% of the terminal targets. We do not think that such an arbitrary decision would be in line with the intended purpose of the Performance Regulation. Instead, similarly as for the en-route scheme, we would support modulating the pivot values based on the actual CRSTMP delay during the actual year (i.e. subtract the non-CRSTMP delay both from the actual delay as well as from the pivot value). This way we would be protected from the effect of the delay which we cannot control while the terminal targets would not be effectively cut by 50% for the delay that we can influence.

Deadband

The IAA has proposed to not introduce any dead bands in neither of the capacity incentive schemes. The argument was that unlike the threshold and pivot values, the 2019 Regulation does not stipulate what the deadband value should be, nor contain guidance on how it should be modulated from a default value, except for the fact that the deadband must be symmetrical around the pivot value.

It is very important that the IAA considers the PRB's Guidance Document (paragraph 305) which states that a tolerance margin (or dead-band) is to be included as part of the incentive scheme even though it does not specify how big it should be The purpose of the dead band is to protect the ANSPs from a penalty in case of a marginal difference in their performance compared to the target, as well as not to benefit from a performance that is only marginally better than the target.

Traffic Risk Sharing

The 2019 Regulation allows for the NSA to alter the parameters in order to increase (but not decrease) the ANSP's risk exposure above 4.4%. IAA in its draft Decision reiterated its position from the Issues Paper in which they said that IAA does not see any compelling reason to change the TRS parameters and decided to retain the TRS parameters at the default level as in RP3.

We reiterate here our position that we are in agreement with this proposed approach to the TRS to not modify the default parameters of this scheme.

INFLATION AND TRAFFIC FORECASTS

Inflation

In our RP4 Business Plan submission, we aligned our inflation assumptions with the PRB guidance material for the development of draft RP4 Performance Plans which is in line with Implementing Regulation 2019/317. Consequently, we assumed an inflation forecast for 2024 to 2029 based on the International Monetary Fund's (IMF) Consumer Price Index (CPI). The latest World Economic Outlook has been published on 16 April 2024. The following table summarises the average inflation of average consumer prices according to IMF, including the inflation index recalculated taking 2022 as the base year for calculation of real prices.

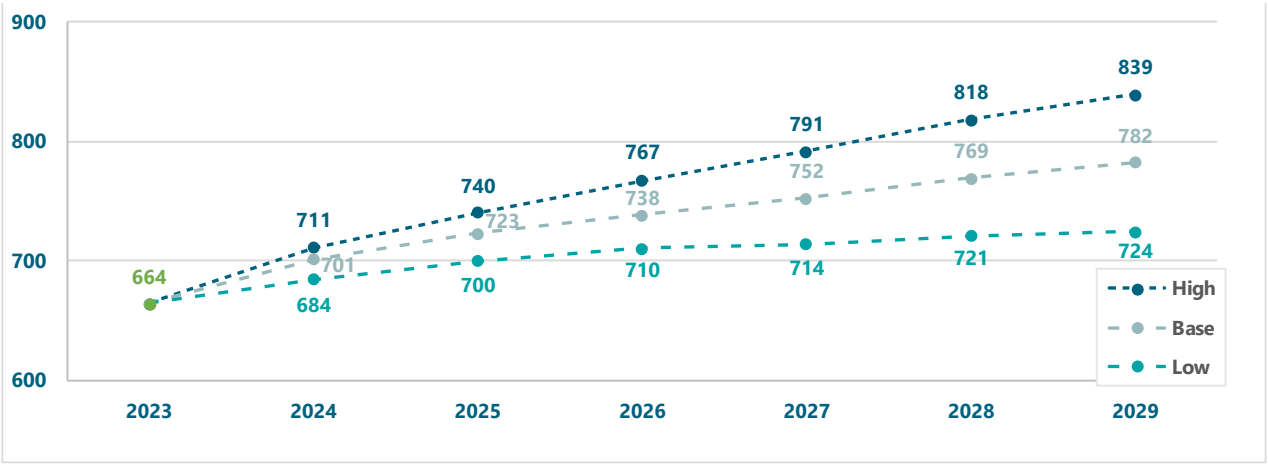
TABLE 35: AVERAGE INFLATION OF AVERAGE COMSUMER PRICES FOR RP4 INCL. BASELINE YEARS

		2019	2024	2025	2026	2027	2028	2029
Inflation, average consumer prices	**Percent change**	0.86	2.38	2.00	1.95	1.96	1.98	2.00
Inflation, average consumer prices	**Index**	90.77	107.70	109.86	112.00	114.20	116.46	118.80

The IAA's proposal in their Draft Decision is to also use the IMF's CPI, as a consequence the IAA's proposal is aligned to the inflation assumption included in our RP4 Business Plan.

Traffic

We based our RP4 Business Plan submission on EUROCONTROL's February 2024 STATFOR Base forecast. The PRB's Union-wide targets for Cost-Efficiency, Capacity, Safety and Environment have been set considering this February 2024 STATFOR base forecast. As a result of more pessimistic economic forecasts for 2024, the volume of flights through to 2027 have been revised downwards in-line with this more negative view. Below illustrates the predicted growth for IFR flight movements, using the base forecast by EUROCONTROL, noting that 2024 remains a forecast to the year end



IRELAND IFR MOVEMENTS 2023-2029 ('000)

In May 2024, EUROCONTROL published a revised STATFOR forecast for en-route service units covering 2024 and 2025. This revised forecast was based upon actual en-route service unit developments between January and May 2024. For Ireland, the revised base forecast for en-route service units in 2024 and 2025 was between the base and high scenario forecasts from the February 2024 STATFOR forecast shown below. The following table summarises the difference between these two forecasts:

TABLE 36: SUMMARY OF STATFOR BASE FORECASTS FOR EN-ROUTE SERVICE UNITS

	RP3		RP4				
	2023 Actual	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast
STATFOR Base February 2024	4,812,000	5,048,000	5,175,000	5,256,000	5,349,000	5,458,000	5,544,000
STATFOR Base May 2024	4,812,000	5,091,000	5,289,183	-	-	-	-

The May 2024 forecast only covered en-route service units, the February 2024 forecast for terminal service units is shown below.

TABLE 37: SUMMARY OF STATFOR BASE FORECAST FOR TERMINAL SERVICE UNITS

	RP3		RP4				
	2023 Actual	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast
STATFOR Base February 2024	193,000	205,000	215,000	221,000	226,000	233,000	237,000

Our RP4 Business Plan submission was based upon our requirements to deliver a service based on traffic materialisation forecasted in the February 2024 STATFOR forecast. In the Draft Decision the IAA have proposed 'to use the latest available STATFOR base forecast of en-route and

Terminal service units, and for IFR flight forecasts. The most recent STATFOR forecast currently available is from February 2024.' We agree with the use of the February STAFOR Base forecast as this is the latest complete forecast for the RP4 period. The May 2024 update is not a complete forecast as it only covers 2024 and 2025 and only covers en-route service units. Should a revised STATFOR forecast be published in October 2024, we would support the adoption of this forecast for Ireland's performance plan subject to a stakeholder consultation on the issue before adoption.

Conclusion

Changes to the proposed RP4 Decision

AirNav Ireland welcomes the statement from the IAA in paragraph 1.31 of its Draft Decision that it anticipates changes to be made to its proposals on the basis of consultation submissions and feedback. As set out in this document, stakeholders at the consultation meeting were broadly supportive of AirNav Ireland's plan which ensures the overall continuity of an excellent service over the next 5 years. We have sought to reinforce our RP4 Plan with supplementary information contained in this document, and also to demonstrate how our cost projections are more reliable than CEPA's approach.

The key requirement included in our final Business Plan related to the ATCO increase. The driving factors behind the increase includes traffic, work-life balance, roster resilience, instructor and training requirements, and departure position. There is more evidence included in this Response to the Decision why these factors are so important, including evidence of further attrition due to the internationally competitive market for ATCOs, which is reinforcing the assumed attrition rates during RP4. It is critically important that we take this opportunity to ensure there are no longer ATCO shortages in providing this essential service to the industry. CEPA's approach is based almost exclusively around traffic movements compared to ATCO headcounts and makes insufficient allowance for non-traffic related step-changes between RP3 and RP4. At our consultation meeting, airspace users suggested the required ATCO number was probably somewhere between the IAA's Draft Decision and AirNav Ireland's Business Plan (i.e. 353-374 by 2029), having considered the underlying rationale, progress during RP3 and capacity constraints from a training perspective. No other stakeholder disagreed with this view. Of particular interest to airlines right across Europe is ensuring better staffing at weekends throughout the summer – AirNav Ireland can provide evidence to support this statement if required.

This response document considers the shortfall of resources in the Draft Decision compared to the RP4 Plan, but also examines how this shortfall is exacerbated when the modelled costs are considered i.e., the true headcount being permitted is much lower than what is being permitted due to the modelled costs not matching this headcount due in part to efficiencies. This applies to all staff categories and our calculations suggest that the real shortfall compared to AirNav Ireland's final Business Plan is 45 staff in 2029 compared to 28 described in the Draft Decision. This difference is significant and should the Final Decision stick to the staff cost proposal, this will have consequences for our performance in many areas of our operation.

For non-staff OPEX, this Response includes additional evidence having assessed the shortfall from its Business Plan in the CEPA Assessment and we expect that on this basis, the non-staff OPEX to increase in the final decision.

This Response includes additional arguments on many other areas (such as CAPEX programme, capital costs, WACC rate, incentive schemes) where our views differ from the IAA's Draft Decision. We invite IAA to re-consider these arguments and take these fully into account in the Final Decision.

We have set out the need to incur spending that is not compatible with the Union-wide cost efficiency target if service delivery is to remain at acceptable levels. This was not contested by airspace users or any other stakeholder such as the PRB at the stakeholder consultations. We fully agree with IAA conclusion that the drivers of the variance between our cost base and EU-wide cost efficiency targets is related to measures necessary to meet the local capacity targets. It is absolutely necessary to plan for additional capacity if service delivery is to remain at acceptable levels. This was not contested by airspace users or any other stakeholder such as the PRB at the stakeholder consultations. In this Response we provide examples of letters from our customers that fully support the need for an increase in capacity. We expect that IAA takes these arguments in the account and our needs (defined in our final RP4 Business Plan and additional material provided to IAA) will be fully reflected in the Final Decision.