

Review of the reporting of meteorological costs for air navigation services

Annex

December 2023

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1 QUESTIONNAIRE DESCRIPTION

1.1 Selected survey instructions

- 1 The PRB sent a common questionnaire on 12th May 2023 to the Member States, who provided on 16th June 2023 detailed answers on the way they report MET and SAR costs (hereafter, “the questionnaire”).
- 2 The PRB designed the questionnaire, titled “Questionnaire for NSAs on the reporting on costs of MET and SAR for ANS”, to better understand how Member States define the share of MET costs allocated to civil aviation and recovered through ANS charges. Out of the 29 NSAs, 28 provided responses, with only Belgium missing.
- 3 For each question, NSAs were able to upload supporting documents to provide additional information that NSAs deemed helpful.
- 4 NSAs were invited to use comment boxes to provide additional information, or if applicable select the option "Other" to provide any clarifications.

1.2 Survey questions and applicable multiple-choice answers

- 5 Q1. Indicate on behalf of which Member State you are completing this survey (maximum one completed survey per Member State).

Section 1: Arrangements for the provision of MET services

- 6 Purpose: To obtain information on the setup of MET service provision in your Member State.
- 7 Q2. Has the Member State designated a MET service provider to provide meteorological data?
- 8 Q3. Aeronautical MET cost are usually divided into the following categories:
 - Direct costs for aeronautical MET services; and
 - Core cost for MET services (e.g. staff or infrastructure).
- 9 Based on which methodology these two categories are defined in your Member State and reported in the performance plan?
- 10 Q4. Indicate which of the following describes best the methodology of MET costs allocation between en route and terminal charging zones applied by the MET provider(s) under your supervision?

- MET costs are allocated between en route and terminal charging zones on the basis of a general cost allocation methodology (e.g. a methodology that is applied across all air navigation services); and
 - MET costs are allocated between en route and terminal charging zones on the basis of a cost allocation methodology specifically established for MET (e.g. to account for operational variances that are specific to MET).
- 11 Q5. Indicate which guidance material(s) you consult for the purpose of establishment of MET costs, or allocation of MET costs to en route and terminals.
 - “Manual on air navigation services economics” (ICAO);
 - “Guide on aeronautical meteorological services cost recovery” (WMO);
 - “Principles for establishing the cost-base for en route charges and the calculation of the unit rates” (Eurocontrol);
 - “Supporting material on cost bases and unit rates” and/or “Supporting material for the development performance plans” (guidance material available in SES europa.eu website); and
 - Other (e.g. local guidance material).
 - 12 Q6. Indicate whether there are any changes to the cost establishment methodology or allocation methodology for MET services from RP2 to RP3.
 - 13 Q7. To what extent (level of detail) do you consult the MET costs with airspace users?

Section 2: Availability of information/data on the costs of MET service provision to NSAs

- 14 Purpose: To explore the availability of information/data on MET provision to NSAs, which may not be reflected in the current reporting.
- 15 Q8. What is the approximate ratio of MET core costs allocated to civil aviation and MET core costs allocated to other parties?
- 16 Q9. What is the approximate ratio of MET core costs and MET direct costs as part of the total MET costs included in the cost base(s)? The value should be aggregated for RP3. Provide your answer in percentage (%).

- 17 Q10. Provide the approximate ratio of MET costs allocated to the en route and terminal charging zones covered by the performance plan? Provide your answer in percentage (%).
- 18 Q11. Are there specific measures in place to exclusively monitor the cost for the provision of MET services in your Member State?
- 19 Q12. Assess the overall workload related to the monitoring of costs of MET service provision compared to the costs of other air navigation services.

2 INFORMATION ON THE QUESTIONNAIRE AND THE AIR NAVIGATION SERVICES PROVIDERS

Name of responding NSA	Date of submission	Name of civil ANSP	Name of MET ANSP(s)
Austrian NSA	06-07-23	Austro Control	Austro Control
Belgian NSA	Not provided	skeyes/MUAC Belgium	skeyes
Bulgaria NSA	16-06-23	BULATSA	BULATSA
Croatia NSA	16-06-23	Croatia Control	Croatia Control
Cyprus NSA	05-06-23	DCAC Cyprus	Department of Meteorological Services of Cyprus
CAA Czech Republic	16-06-23	ANS CR	Czech Hydro-meteorological Institute (CHMI)
Denmark NSA	19-06-23	NAVIAIR	Danish Meteorological Institute (DMI)
Estonia NSA	30-06-23	EANS	Estonian Weather Service or Finnish Meteorological Institute
Finland NSA	12-06-23	Fintraffic ANS	Finnish Meteorological Institute (FMI)
France NSA	15-06-23	DSNA	Meteo France
BAF (German NSA)	14-06-23	DFS	Deutscher Wetterdienst (DWD)
HCAA (Greece NSA)	15-06-23	HASP	Hellenic National Meteorological Service (HNMS)
Hungarian NSA	15-06-23	HungaroControl	HungaroControl until 2022 and OMSZ afterwards
Ireland NSA	16-06-23	IAA	Met Éireann's Aviation Services Division
Italian NSA	16-06-23	ENAV	ENAV and Italian Air Force (ITAF)
Latvian NSA	12-06-23	LGS	LGS and Latvian Environment, Geology and Meteorology Centre (LVGMC)
Lithuania NSA	16-06-23	Oro Navigacija AB	Lithuanian Hydrometeorological Service (LHMS)
Luxembourg NSA	16-06-23	skeyes/ANA LUX/MUAC Luxembourg	MeteoLux/ANA LUX
Malta NSA	27-04-23	MATS	Malta International Airport

Name of responding NSA	Date of submission	Name of civil ANSP	Name of MET ANSP(s)
Netherlands NSA	14-06-23	LVNL/MUAC	Royal Netherlands Meteorological Institute (KNMI)
Norwegian NSA	06-06-23	Avinor Flysikring AS	Norwegian Meteorological Institute
Polish NSA	06-06-23	PANSA	IMWM, Airport Meteo, WiM and Bydgoszcz Meteo
Portugal NSA	15-06-23	NAV Portugal	Instituto Português do Mar e da Atmosfera (IPMA)
Romania NSA	08-06-23	ROMATSA	ROMATSA
Slovakia NSA	27-06-23	LPS	Slovenský hydrometeorologický ústav (SHMÚ)
Slovenia NSA	12-06-23	Slovenia Control	National Meteorological Service of Slovenia (ARSO)
Spanish Civil NSA – AESA (State Safety and Security Aviation Agency) Spanish Military NSA – Spanish Air and Space Force Spanish Meteorological NSA - MITERD	13-06-23	ENAIRES – AEMET	Agencia Estatal de Meteorología (AEMET)
Sweden NSA	19-06-23	LFV	LFV, Saab Digital Air Traffic Solutions (SDATS) and Swedish Meteorological and Hydrological Institute (SMHI)
Switzerland NSA	23-05-23	Skyguide	MeteoSwiss

Table 1 – Responses from the NSAs to MET questionnaire (source: PRB elaboration on the questionnaire).

3 NSA REPLIES

3.1 Section 1: Arrangements for the provision of MET services

Q2. Has the Member State designated a MET service provider to provide meteorological data?

20 Table 2 presents the responses from Member States categorised into two options.

No designation	Bulgaria ¹
Designation to provide all MET data used for ATM services	Austria, Croatia, Cyprus, Czech Republic, Denmark, Germany, Greece, Hungary, Ireland, Italy, Latvia ² , Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, and Switzerland
Designation to provide part of the MET data used for ATM services	Estonia ³ , Finland ⁴ , and Sweden

Table 2 – MET service provider designation (source: PRB elaboration on the questionnaire).

Q3. Aeronautical MET cost are usually divided into “direct costs for aeronautical MET services” and “core cost for MET services”. On which methodology are these two categories defined in your Member State and reported on in the performance plan?

21 Responses from each Member State are summarised in Table 3 (on page 8). Instances where “X” is marked in red have been added by the PRB after considering the responses provided by the respective Member State throughout the questionnaire.

22 The majority of the Member States identify direct costs based on actual data while core costs are identified using a sharing key. Some Member

States do not differentiate between direct and core costs where there is a direct contract with a MET ANSP for aeronautical services (Estonia and Malta), or because the main ANSP provides the MET services and considers all costs direct costs to civil aviation (Bulgaria, Croatia, and Romania). Some Member State governments cover certain MET costs for both aviation and non-aviation users (Germany, Finland, and Croatia).

- 23 Some Member States offered more detailed explanations in their response to this question outside of the multiple-choice answer. These explanations are summarised below, where the letter of the paragraph is mapped to the corresponding Member State in Table 3 (on page 8).
- 24 (A) In Bulgaria, direct costs for aeronautical MET services for civil aviation are identified based on actual data. All MET costs for civil aviation are part of BULATSA cost base, and BULATSA does not provide any MET services other than aeronautical MET services.
- 25 (B) Spain noted that direct costs are identified both through actual data and through a sharing key given some costs are allocated 100% to civil aviation where they provide services directly to civil aviation while other costs are allocated to civil aviation based on a sharing key given their contribution to both civil aviation and other users.
- 26 (C) Cyprus did not provide an answer on how they calculate direct costs.
- 27 (D) In Germany, core costs exist and are identified based on actual data and allocated to different areas based on a sharing key but they are covered by the government and not charged to users.
- 28 (E) In the Netherlands, MET core costs are not being allocated to aeronautical meteorological service provision. Since 2015, the revised cost allocation method used by KNMI replaced the “core cost” principle with a general overhead and

¹ Bulgaria claimed no designation as BULATSA provide MET services themselves, however, this means that Bulgaria has designated BULATSA to provide the services, answer should be “designation to provide all MET data used for ATM services”.

² Latvia actually has MET services provided by both the main ANSP and another ANSP, answer should be “designation to provide part of the MET data used for ATM services”.

³ In Estonia, MET services are provided exclusively by other ANSPs, answer should be “designation to provide all MET data used for ATM services”.

⁴ In Finland, MET services are provided exclusively by other ANSPs, answer should be “designation to provide all MET data used for ATM services”.

- surcharge allocation on man hours and indirect costs. With the new cost allocation methodology, the costs for the meteorological aeronautical service provision by MET ANSP KNMI are calculated in line with all other services provided by KNMI.
- 29 (F) As per Norway's answer to Question 8 of the questionnaire, MET core costs are not included in cost bases. MET costs are entirely defined as "other operating costs" as the designated MET provider operates as a subcontractor to Avinor ANS.
- 30 (G) Romania argues that as ROMATSA is designated METSP, all MET costs are direct costs for civil aviation.
- 31 (H) In Croatia, CCL in its capacity as MET service provider delivers MET services only to airspace users within a single en route charging zone. No MET core costs allocation exists in this framework. Furthermore, MET services provided to users exempted from ANS charges are covered yearly by the Ministry of Transport (MoT)/State budget.
- 32 (I) In Estonia, MET services are purchased either from the Estonian Weather Service (EWS) or Finnish Meteorological Institute based on the contract and listed prices for different weather forecasts and weather services. Given this, the distribution of costs into direct costs and "MET core costs" is not applicable. The MET costs incurred by EWS are not material in the context of all costs.
- 33 (J) In Finland, all costs related to observations are covered by the State of Finland.
- 34 (K) In Lithuania, LHMS allocates a share of the MET core costs to aviation. Attributable core costs comprise the cost of upper-air soundings (radio sondes and balloons), the cost of meteorological observations and the cost of satellite information. Total costs of aeronautical services in Lithuania are allocated to products using a single apportionment key that reflects the relative efforts required to deliver them. MET costs are allocated to ANS en route and ANS terminal, among other users, based on ICAO/IMO guidance on aeronautical MET costs. The allocation complies with ICAO Annex 3 "Meteorological Service for International Air Navigation".
- 35 (L) In Malta, the MET service provider charges a flat rate to the main ANSP – no analysis of core and direct costs is provided.
- 36 (M) For Poland, no methodology was chosen. They instead indicated that the situation differs depending on the MET provider.
- 37 (N) In Switzerland, no core costs have been allocated to MET costs for civil aviation for RP3.

Member State	Direct costs are identified based on actual data	Direct costs are identified based on a sharing key	Core costs are identified based on actual data	Core costs are identified based on a sharing key	All core costs are included in the MET costs for civil aviation	No core costs are included in the MET costs for civil aviation	Other
Austria	X			X			
Bulgaria	X (A)				X (A)		X
Croatia							X (H)
Cyprus			X (C)				
Czech Republic	X			X			
Denmark	X			X			
Estonia							X (I)
Finland	X			X			X (J)
France	X			X			
Germany	X					X (D)	X
Greece		X		X			
Hungary	X		X	X			
Ireland	X						
Italy		X		X			
Latvia	X		X				
Lithuania	X						X (K)
Luxembourg		X		X			
Malta							X (L)
Netherlands	X					X (E)	
Norway		X				X (F)	
Poland							X (M)
Portugal	X		X				
Romania	X					X (G)	
Slovakia	X				X		
Slovenia	X			X			
Spain	X	X (B)		X			
Sweden		X		X			
Switzerland	X	X				X (N)	X (N)

Table 3 – Direct and core cost methodologies (source: PRB elaboration on the questionnaire).

Q4. Indicate which of the following describes best the methodology of MET costs allocation between en route and terminal charging zones applied by the MET provider(s) under your supervision?

- 38 Member State responses to this question are summarised in Table 4. Where a Member State chose “other”, the reasoning they provided is given below.
- 39 For Estonia, purchased MET costs are allocated between different charging zones (en route and terminal navigation services) according to ANSP's internal guidance document on Activity Based Costing.
- 40 For Lithuania, the total costs of aeronautical services are allocated to products using a single apportionment key that reflects the relative efforts required to deliver them. Products are allocated to five different users, namely ANS en route, ANS terminal, aerodromes, military and interior (custom and police aircraft) users. Allocation to ANS en route and ANS terminal of MET products made available in accordance with ICAO Annex 3 complies with ICAO/IMO guidance on aeronautical MET costs.
- 41 For Poland, they explain that they use a methodology based on the ICAO document “manual on air navigation services”.

MET costs are allocated between en route and terminal charging zones on the basis of a general cost allocation methodology (e.g. a methodology that is applied across all air navigation services).	Bulgaria, Croatia, France, Italy, Luxembourg, Malta, Portugal, Romania, Slovakia, Slovenia, and Switzerland
MET costs are allocated between en route and terminal charging zones on the basis of a cost allocation methodology specifically established for MET (e.g. to account for operational variances that are specific to MET).	Austria, Cyprus, Czech Republic, Denmark, Finland, Germany, Greece, Hungary, Ireland, Latvia, the Netherlands, Norway, Spain, and Sweden
Other	Estonia, Lithuania, and Poland

Table 4 – Methodology for allocating MET costs between en route and terminal (source: PRB elaboration on the questionnaire).

Q5. Indicate which guidance material(s) you consult for the purpose of establishment of MET costs, or allocation of MET costs to en route and terminals.

- 42 Member State responses to this question are summarised in Table 5 (next page). Where a Member State chose “other”, the reasoning they provided is given below.
- 43 Austria, Norway, and Slovenia mentioned they use other guidance material in addition to the ones mentioned but provided no further information.
- 44 Estonia allocates purchased MET costs between different charging zones (en route and terminal navigation services) according to internal EANS's guidance document on Activity Based Costing.
- 45 Lithuania also consult ICAO Annex 3 “Meteorological Service for International Air Navigation”.
- 46 The Netherlands mentions various other sources, including international conventions, regulations, and agreements related to air navigation and meteorology, as well as relevant ICAO documents.
- 47 Sweden also refer to their national regulation (TSFS 2020:44).

“Manual on air navigation services economics” (ICAO)	Bulgaria, Croatia, Czech Republic, Denmark, Finland, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, and Switzerland
“Guide on aeronautical meteorological services cost recovery” (WMO)	Austria, Czech Republic, Denmark, Finland, France, Greece, Hungary, Ireland, Lithuania, the Netherlands, Poland, Portugal, Romania, Slovenia, Spain, and Switzerland
“Principles for establishing the cost-base for en route charges and the calculation of the unit rates” of Euro-control)	Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Greece, Hungary, Ireland, Italy, Latvia, Luxembourg, Malta, Poland, Portugal, Romania, Slovenia, and Sweden
“Supporting material on cost bases and unit rates” and/or “Supporting material for the development performance plans” (guidance material available in SES europa.eu website)	Cyprus, Denmark, Hungary, Ireland, Italy, Latvia, Luxembourg, Malta, Portugal, Romania, Slovenia, Sweden, and Switzerland
Other (e.g. local guidance material)	Austria, Estonia, Lithuania, the Netherlands, Norway, Slovenia, and Sweden

Table 5 – Guidance Material used to allocate MET costs between en route and terminal charging zones (source: PRB elaboration on the questionnaire).

Q6. Indicate whether there are any changes to the cost establishment methodology or allocation methodology for MET services from RP2 to RP3.

48 Member State responses to this question are summarised in Table 6. Where a Member State selected “Yes”, the reasoning provided is given below.

Yes	Germany, Greece, the Netherlands, Norway, Portugal, Slovakia, and Switzerland
No	Austria, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Poland, Romania, Slovenia, Spain, and Sweden

Table 6 – Changes to methodology between RP2 and RP3 (source: PRB elaboration on the questionnaire).

- 49 Germany noted that in RP2 the cost base(s) still contained (parts of) core costs of the German Weather Service but that this is not included in RP3.
- 50 For Greece, the NSA referred to the information provided in the performance plan. The PRB did not find any evidence of possible changes to the methodology for MET cost allocation.
- 51 The Netherlands noted that a revised cost allocation method was implemented in 2015, aligning MET costs with other services provided by the MET ANSP KNMI (Royal Netherlands Meteorological Institute).
- 52 Norway mentioned that MET overhead costs (support) have been included since RP3.
- 53 Portugal noted that the distribution of costs between en route and terminal ANS, regarding MET ANSP and NSA, has been adjusted with a new sharing key for RP3 to ensure a more equitable allocation of MET services cost.
- 54 Slovakia mentioned changes to the cost establishment methodology or allocation methodology for MET services from RP2 to RP3, based on stakeholder consultations and requests from airspace users regarding the allocation between en route and terminal charges for the Terminal Area Forecast (TAF) service.
- 55 For Switzerland, the NSA referred to the information provided in the performance plan. The PRB did not find any evidence of possible changes to the methodology for MET cost allocation from RP2 to RP3.
- 56 Where a Member State selected “No” but provided clarifying information, this is given below.
- 57 Luxembourg mentioned that while the overall methodology remains unchanged, the sharing

keys were revised to better allocate overall costs with regard to all service provision.

Q7. To what extent (level of detail) do you consult the MET costs with airspace users?

- 58 The majority of Member States consult on MET costs with airspace users as part of the standard consultations on the total ATM cost base through the reporting tables and performance plans as stipulated in the Implementing Regulation (EU) 2019/317 (Austria, Bulgaria, Cyprus, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Spain, and Switzerland). Within this, some Member States mentioned that they provide a breakdown of the MET costs to airspace users (e.g. Ireland), while others noted that they only consult on the total cost (e.g. Malta). Responses have shown that the frequency of consultation can also vary with some Member States consulting on a yearly basis in line with the reporting tables (e.g. Portugal, Spain, Cyprus, Czech Republic, Denmark, and France), while others consult as part of the performance plan ahead of each reference period (e.g. Norway and Poland).
- 59 Some Member States hold additional or specific consultations with airspace users on MET costs (Czech Republic, Finland, France, the Netherlands, Slovakia, and Sweden). For example, in France, the MET provider performs a yearly direct consultation with airspace users presenting the detailed actual costs incurred and updated budget.
- 60 Other Member States did not provide specific details of the consultation process (Hungary and Slovenia).
- 61 Clarification on the frequency and detail of consultation of MET costs for ANSPs would be beneficial for transparency and to support standardisation.

3.2 Section 2: Availability of information/data on the costs of MET service provision to NSAs

Q8. What is the approximate ratio of MET core costs allocated to civil aviation and MET core costs allocated to other parties?

- 62 17 Member States provided information on the allocation of core costs between civil aviation and other parties (Table 7, next page).

- 63 Croatia and Romania allocated 100% core costs to civil aviation as they only provide MET services to civil aviation users. While Bulgaria has a similar arrangement, they did not provide any information as they argued that they do not track core costs as all costs are direct costs to civil aviation users.
- 64 Denmark did not provide this information as part of the questionnaire, but information taken from the reporting tables show that core costs are allocated to civil aviation in proportion to the relative aeronautical and non-aeronautical use made of the facility based on time recordings. This calculation is carried out on a yearly basis.
- 65 For Estonia and Malta, as MET is purchased directly from the designated provider for civil aviation at an agreed rate, they explained that there is no differentiation provided between core costs and direct costs.
- 66 Switzerland, Norway, and the Netherlands did not provide information on core costs as they are not included in the civil aviation cost bases for RP3.
- 67 For Austria and Latvia, only the core costs for civil aviation are known with no detail provided on core costs for other parties. Portugal also claimed that the information they have available is not sufficiently detailed to compare only core costs where the available information combines direct and core MET costs.
- 68 Poland did not provide a response to this question explaining that each MET provider performs different tasks and that economic data is company information.

Member State	Core costs % to civil aviation	Core costs % to other parties
Cyprus	80	20
Croatia	100	0
Czech Republic	10	90
Finland	6	94
France	26.7	73.3
Germany	10 ⁵	90
Greece	45.38	54.62
Hungary	33	67
Ireland	27	73
Italy	50	50
Lithuania	14	86
Luxembourg	50	50
Romania	100	0
Slovakia	94	6
Slovenia	18	82
Spain	48	52
Sweden	20	80

Table 7 – Ratio of MET core costs allocated to civil aviation and other parties (source: PRB elaboration on the questionnaire).

Q9. What is the approximate ratio of MET core costs and MET direct costs as part of the total MET costs included in the cost base(s)? The value should be aggregated for RP3. Provide your answer in percentage (%).

- 69 18 Member States provided an approximate ratio of MET core costs to direct costs (Table 8). Most of the Member States who did not provide data for this question were the same as those who did not provide information for question 8 above and gave the same reasoning. This included Bulgaria, Denmark, Estonia, Malta, the Netherlands, Poland, and Portugal.
- 70 Norway and Switzerland allocated 100% of MET costs to direct costs as core costs are not included in the civil aviation cost base for RP3. Romania also allocated 100% MET costs to direct costs on the basis that they only provide MET services to airspace users. While Croatia is like Romania in only providing MET services to airspace users, they did not provide an answer to this question.
- 71 Greece exposed that the ratio is difficult to define. Slovakia was not able to address this question.

Member State	Core costs % within total MET cost base	Direct costs % within total MET cost base
Austria	15	85
Cyprus	50	50
Czech Republic	28	72
Finland	44	56
France	58.7	41.3
Germany	67 ⁶	33
Hungary	71	29
Ireland	42	58
Italy	50	50
Latvia	25	75
Lithuania	14	86
Luxembourg	22	78
Norway	0	100
Romania	0	100
Slovenia	60	40
Spain	68	32
Sweden	60	40
Switzerland	0	100

Table 8 – Ratio of MET core costs and MET direct costs as part of the total MET costs included in the cost base (source: PRB elaboration on the questionnaire).

Q10. Provide the approximate ratio of MET costs allocated to the en route and terminal charging zones covered by the performance plan? Provide your answer in percentage (%).

- 72 24 Member States provided an approximate ratio of MET costs allocated to en route and terminal (Table 9, next page).
- 73 Estonia and Malta did not provide values given that MET costs are purchased directly by contract from the MET provider and are therefore a flat pre-determined charge in the ANSP cost structure.
- 74 Sweden did not provide a breakdown for en route and terminal and this aligns with the additional information provided to their performance plan which states that MET services are financed 100% by en route. However, the Swedish national regulation TSFS 2020:44 does indicate that eligible MET costs are allocated to both en route and terminal charging zones.

⁵ The 10% of core cost associated with civil aviation is not charged to airspace users but covered by the German government.

⁶ The 67% of MET core cost is not charged to airspace users – it is instead paid for by the German government.

75 Croatia did not provide a breakdown between en route and terminal as they only have an en route MET performance plan.

Member State	% MET costs allocated to en route	% MET costs allocated to terminal
Austria	80	20
Bulgaria	80	20
Cyprus	80	20 ⁷
Czech Republic	90	10
Denmark	98	2
Finland	50	50
France	80.2	19.8
Germany	70	30
Greece	97.5	2.5
Hungary	94	6
Ireland	80	20
Italy	70	30
Latvia	65	35
Lithuania ⁸	87	13
Luxembourg	28	72
Netherlands	82	18
Norway	53	47
Poland	60	40
Portugal	85	15
Romania	94	6
Slovakia	56.7	43.3
Slovenia	73	27 ⁹
Spain	72	28
Switzerland	65	35

Table 9 – Ratio of MET costs allocated to en route and terminal charging zones (source: PRB elaboration on the questionnaire).

Q11. Are there specific measures in place to exclusively monitor the cost for the provision of MET services in your Member State?

76 13 Member States stated that there were specific measures in place to exclusively monitor the cost of the provision of MET services (Table 10). These measures include regular oversight, audits of actual costs incurred and monitoring of investments and cost-sharing mechanisms.

77 The majority of Member States specified that these measures take place on an annual basis as a minimum, with a few mentioning more regular monitoring. For example, the French NSA participates in MET workshop where the MET provider directly consults with airspace users, while Poland mentioned receiving quarterly reports from MET providers. Latvia suggested that additional monitoring is triggered if any cost eligibility or validity risks are identified in the annual monitoring. Some NSAs clarified that the MET service is supervised by the NSA in the same way as for the ANSP (e.g. Austria, Slovakia, and Ireland). Spain mentioned that as their MET provider is a public body, on top of supervision by the NSA, it is also subject to additional financial management by the Spanish General State Controller (IGAE) and the Court of Auditors.

Yes	Austria, Cyprus, Finland, France, Ireland, Latvia, Norway, Poland, Romania, Slovakia, Spain, Sweden, and Switzerland
No	Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Germany, Greece, Hungary, Italy, Lithuania, Luxembourg, Malta, the Netherlands, Portugal, and Slovenia

Table 10 – Special measures for MET cost monitoring (source: PRB elaboration on the questionnaire).

Q12. Assess the overall workload related to the monitoring of costs of MET service provision compared to the costs of other air navigation services.

78 Latvia was the only Member State to note that MET cost reporting requires a higher workload (Table 11, next page). They claimed that justifying the allocation among all services requires additional effort to verify the allocation and ensure no cross-financing in place.

79 Malta made a comment that the NSA is not in a position to monitor MET costs from the data provided by the ANSP which should be investigated.

⁷ Note that Cyprus doesn't have a terminal charging zone under the Regulation.

⁸ Note that the information Latvia provided in the questionnaire does not match that provided in the reporting tables of June 2023 - "MET costs for ANS, i.e. en route and terminal services available to civil aviation, in 2022-2024 year represents 67.3 % of the costs of all MET services provided to civil aviation, en route services amounted 58,1 %, and terminal services for 9.2% MET costs for ANS in 2022-2024 year vs. previous years (was 64.1 %) is higher due to increase of the costs for meteorological services and seeking to ensure provisions of MET services compliance with Commission Implementing Regulation (EU) No. 2017/373."

⁹ Note that for Slovenia the terminal MET costs are not included in the cost base.

Higher workload compared to other ANS	Latvia
Similar workload compared to other ANS	Austria, Bulgaria, Croatia, Greece, Italy, Luxembourg, the Netherlands, Poland, Romania, Slovakia, Sweden, and Switzerland
Lower workload compared to other ANS	Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Lithuania, Malta, Norway, Portugal, Slovenia, and Spain

Table 11 – Workload required to monitor costs of MET service provision (source: PRB elaboration on the Questionnaire).

4 FOLLOW-UP MEETINGS

- 80 To obtain further clarification on the MET service provision in specific Member States, on 16th October, the PRB proposed bilateral online meetings with a selected group of NSAs (hereafter, the “Follow-up meetings”). As part of this approach, the PRB proposed that each NSA invites the relevant ANSP in charge of the MET service. The follow-up meetings were held between 19th October and 3rd November 2023.
- 81 The PRB prepared the questions to be discussed and shared with the NSAs at a minimum of two days before the agreed date of the follow-up meeting. Follow-up meetings were proposed to 13 Member States, out of which seven meetings were organised, with four Member States providing a written response in place of a meeting. Two Member States provided written responses alongside the organised follow-up meeting. The Member States that the PRB reached out to, alongside the responses received, are presented in Table 12.
- 82 For all the meetings that took place, the PRB wrote minutes. The written answers and the information provided during the follow-up meetings were used to insert relevant details into the main report.

Member State	Follow-up meeting	Written answers	Additional documents
Austria	No	Yes	No
Cyprus	Yes, on 30 th October	No	Yes
Estonia	No	No	No
Finland	Yes, on 25 th October	Yes	No
France	No	Yes	No
Ireland	No	No	No
Italy	Yes, 3 rd November	No	Yes
Latvia	Yes, on 18 th October	Yes	Yes
Malta	Yes, on 31 st October	No	No
Poland	No	Yes	No
Slovakia	No	Yes	No
Spain	Yes, on 3 rd November	No	Yes
Switzerland	Yes, on 31 st October	No	Yes

Table 12 – General information for each Member State selected (source: PRB elaboration on the follow-up meetings).