



Performance Review Body Monitoring Report

Bulgaria - 2023

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TABLE OF CONTENTS

1	OVERVIEW	3
1.1	Contextual information	3
1.2	Traffic (En route traffic zone)	3
1.3	Safety (Main ANSP)	4
1.4	Environment (Member State)	4
1.5	Capacity (Member State)	5
1.6	Cost-efficiency (En route/Terminal charging zone(s))	5
2	SAFETY - BULGARIA	6
2.1	PRB monitoring	6
2.2	Effectiveness of Safety Management (EoSM) (KPI#1)	6
2.3	Safety occurrences	7
2.4	Use of automated safety data recording system (ASDRS) (PI#3)	8
3	ENVIRONMENT - BULGARIA	8
3.1	PRB monitoring	8
3.2	En route performance	8
3.3	Civil-Military dimension	9
4	CAPACITY - BULGARIA	10
4.1	PRB monitoring	10
4.2	En route performance	10
5	COST-EFFICIENCY - BULGARIA	13
5.1	PRB monitoring	13
5.2	En route charging zone	14

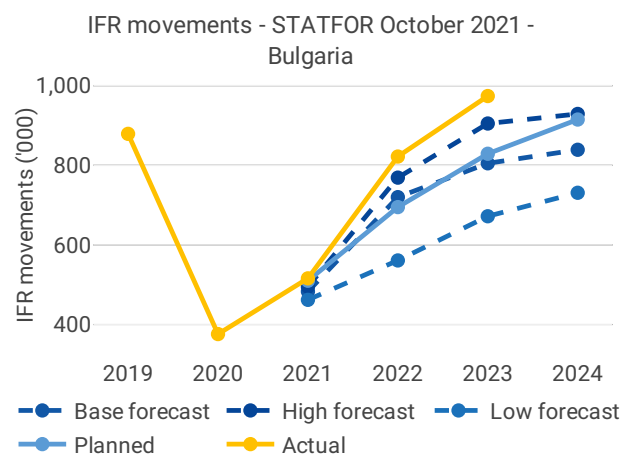
1 OVERVIEW

1.1 Contextual information

National performance plan adopted following Commission Decision (EU) 2022/778 of 13 April 2022

List of ACCs 1	Exchange rate (1 EUR=)	Main ANSP
Sofia ACC	2017: 1.95543 BGN	• BULATSA
	2023: 1.9551 BGN	
No of airports in the scope of the performance plan:	Share of Union-wide:	Other ANSPs
• ≥80'K 0	• traffic (TSUs) 2023 3.8%	—
• <80'K 0	• en route costs 2023 1.7%	
	Share en route / terminal costs 2023 100% / 0%	MET Providers
	En route charging zone(s)	—
	Bulgaria	
	Terminal charging zone(s)	
	—	

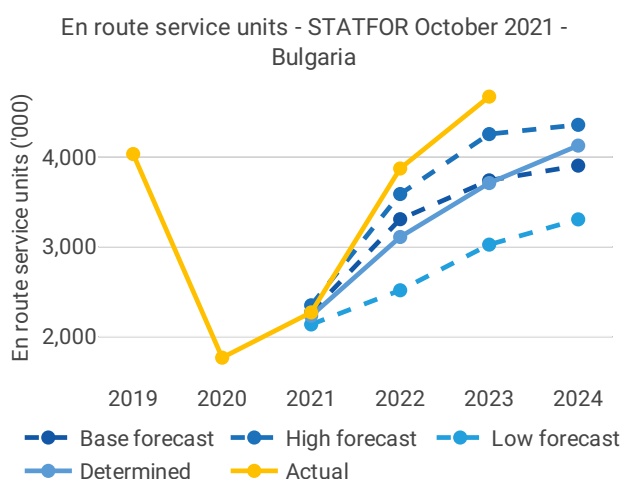
1.2 Traffic (En route traffic zone)



- Bulgaria recorded 974K actual IFR movements in 2023, +18% compared to 2022 (822K).

- Actual 2023 IFR movements were +18% above the plan (829K).

- Actual 2023 IFR movements are +11% above the actual 2019 level (879K).

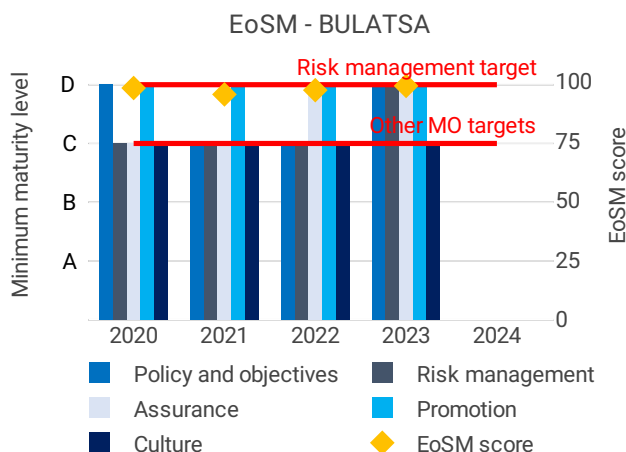


- Bulgaria recorded 4,671K actual en route service units in 2023, +21% compared to 2022 (3,871K).

- Actual 2023 service units were +26% above the plan (3,709K).

- Actual 2023 service units are +16% above the actual 2019 level (4,032K).

1.3 Safety (Main ANSP)



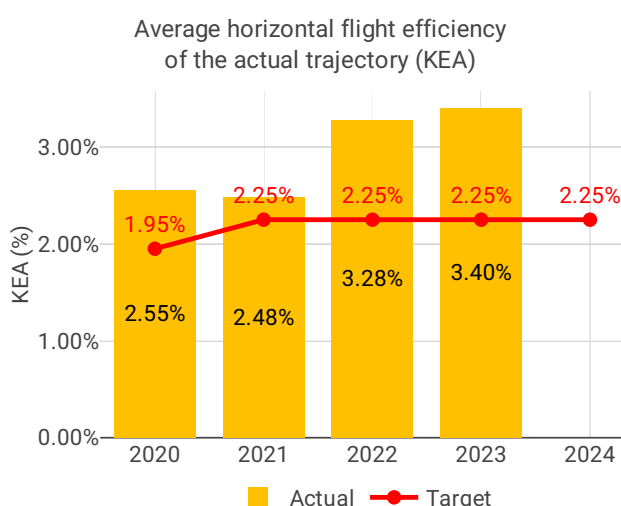
- BULATSA improved its safety performance and achieved the RP3 targets for all management objectives. BULATSA exceeded its planned maturity levels from the performance plan.

- Bulgaria adopted the specific safety measures to achieve the acceptable level of safety performance according to its National Safety Plan, which is a part of the National Safety Programme. The plan's objectives included the integration of key safety initiatives to introduce continuous safety improvements.

- Bulgaria did not provide monitoring data for separation minima infringements (SMIs).

- BULATSA does not use automated safety data recording systems.

1.4 Environment (Member State)



- Bulgaria achieved a KEA performance of 3.40% compared to its target of 2.25% and did not contribute positively towards achieving the Union-wide target.

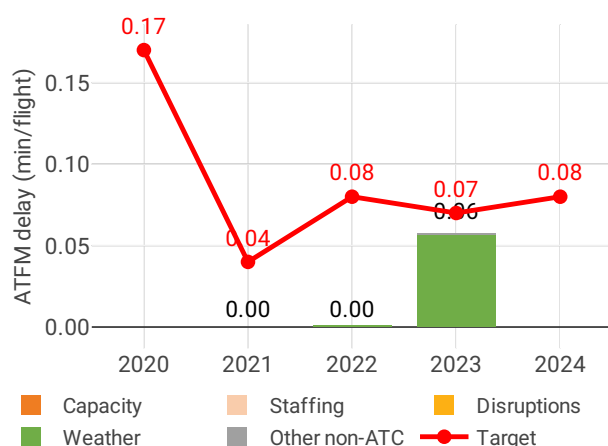
- The NSA states the reasons for not meeting the environmental targets are related to the geopolitical situation and airspace restrictions due to the Crimean crisis and Russia's war of aggression against Ukraine, shifts in traffic flows, and airspace user preferences.

- Both KEP and SCR deteriorated in comparison to 2022.

- Bulgaria has no airports that are regulated under the performance and charging scheme.

1.5 Capacity (Member State)

Average en route ATFM delay per flight by delay groups



- Bulgaria registered 0.06 minutes of average en route ATFM delay per flight during 2023, thus achieving the local target value of 0.07. Delays in Bulgaria increased by 0.06 minutes per flight year-on-year.

- Delays were highest between June and September and in November, due to adverse weather.

- The share of delayed flights with delays longer than 15 minutes in Bulgaria increased by 13 p.p. compared to 2022 and was higher than 2019 values.

- The average number of IFR movements was 11%

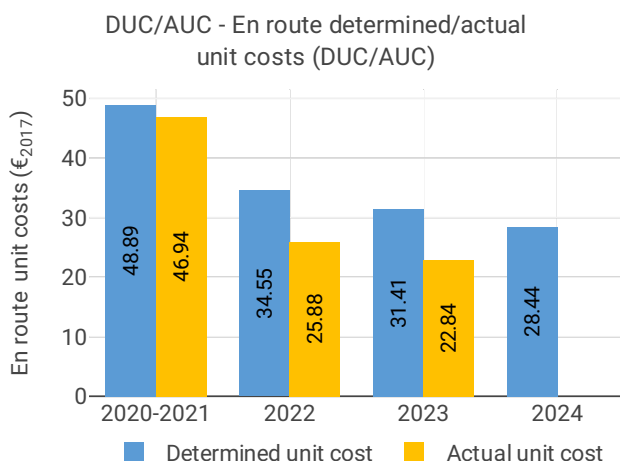
above 2019 levels in Bulgaria in 2023.

- The number of ATCOs in OPS is expected to increase by 1% by 2024, with the actual value being over the 2023 plan in Sofia by 3 FTEs.

- The yearly total of sector opening hours in Sofia ACC was 39,503, showing a 13.4% increase compared to 2022. Sector opening hours are 9.2% above 2019 levels.

- Sofia ACC registered 23.99 IFR movements per one sector opening hour in 2023, being 1.6% above 2019 levels.

1.6 Cost-efficiency (En route/Terminal charging zone(s))



- The en route 2023 actual unit cost of Bulgaria was 22.82 €2017, -27% lower than the determined unit cost (31.41 €2017). Bulgaria does not have a terminal charging zone.

- The en route 2023 actual service units (4.7M) were +26% higher than the determined service units (3.7M).

- The en route 2023 actual total costs were -9.9 M€2017 (-8.5%) lower than determined. The gap was attributable to lower other operating costs (-8.2 M€2017, or -37%), mainly due to unpaid 10M BGN "alliance entry fee" (COOPANS or ITEC) which,

if unpaid in 2024, will be reimbursed to users through the 2025 unit rate. Additionally, a much lower rate for the increase in energy prices, actual resources versus determined resources, and lower than determined external services costs contributed to overall lower operating costs.

- BULATSA spent 19 M€2017 in 2023 related to costs of investments, -7.0% lower than determined (20 M€2017). This difference arose from a reduction in fixed assets (-8.2 M€2017, or -15%) and a corresponding decline in the cost of capital (-1.3 M€2017, or -15%). The NSA explained that the difference is justified by the deduction of the liquidated damages received for two investment projects from the depreciation costs in 2023, which reduced the value of the related assets.

- The en route actual unit cost incurred by users in 2023 was 30.54€ (-10% below the 2023 DUC).

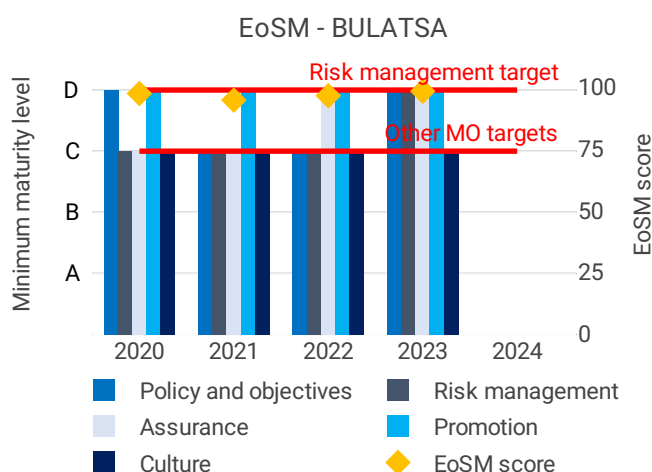
- The en route regulatory result for BULATSA amounted to +29 M€, or 21% of the 2023 revenue. This may indicate that the airspace users are charged for costs which have not materialised in 2023. The PRB will take into consideration the implementation of the RP3 performance plan when assessing the RP4 cost-efficiency targets.

2 SAFETY - BULGARIA

2.1 PRB monitoring

- BULATSA improved its safety performance and achieved the RP3 targets for all management objectives. BULATSA exceeded its planned maturity levels from the performance plan.
- Bulgaria adopted the specific safety measures to achieve the acceptable level of safety performance according to its National Safety Plan, which is a part of the National Safety Programme. The plan's objectives included the integration of key safety initiatives to introduce continuous safety improvements.
- Bulgaria did not provide monitoring data for separation minima infringements (SMIs).
- BULATSA does not use automated safety data recording systems.

2.2 Effectiveness of Safety Management (EoSM) (KPI#1)



Focus on EoSM

All five EoSM components of the ANSP meet, or exceed, already the RP3 target level, with only two questions below maximum maturity.

Detailed information on Safety performance monitoring for the year 2023 are included in Performance Review Body Monitoring Report 2023, Annex I – Safety report

The chart displays the Rate of RI (solid blue line) and the EU Wide Average (dotted blue line) from 2020 to 2023. The Rate of RI remains constant at 0.00, while the EU Wide Average decreases from 6.89 in 2020 to 3.47 in 2023.

Year	Rate of RI (per 100,000 mvts)	EU Wide Average (per 100,000 mvts)
2020	0.00	6.89
2021	0.00	6.30
2022	0.00	4.20
2023	0.00	3.47

Focus on separation minima

Detailed information on Safety performance monitoring for the year 2023 are included in Performance Review Body Monitoring Report 2023, Annex I – Safety report

2.3.3 Quality of occurrences reporting

Detailed information on Safety performance monitoring for the year 2023 are included in Performance Review Body Monitoring Report 2023, Annex I – Safety report

2.4 Use of automated safety data recording system (ASDRS) (PI#3)

2023	
For RIs	For SMIs
X	X

Detailed information on Safety performance monitoring for the year 2023 are included in Performance Review Body Monitoring Report 2023, Annex I – Safety report

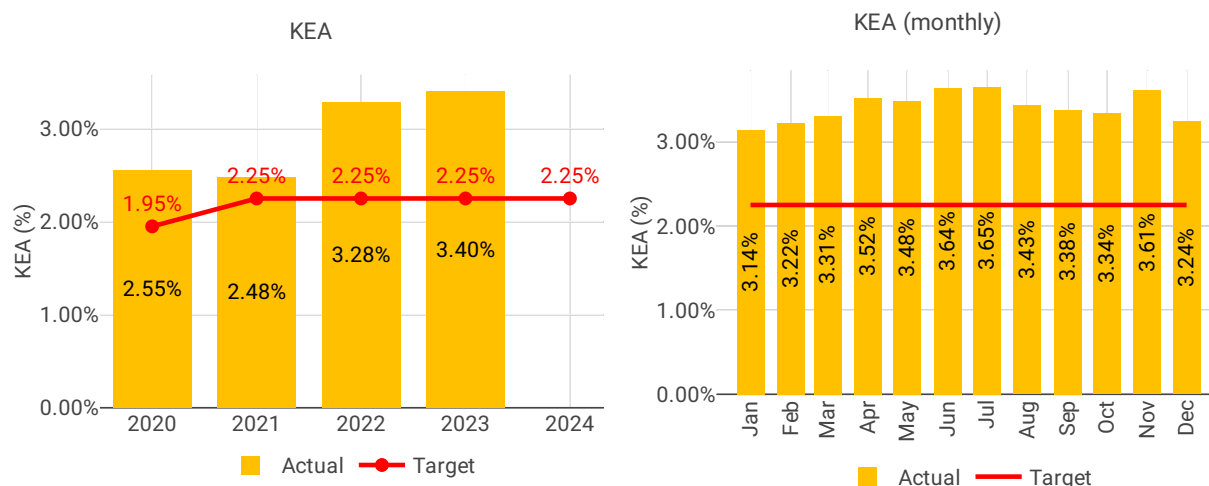
3 ENVIRONMENT - BULGARIA

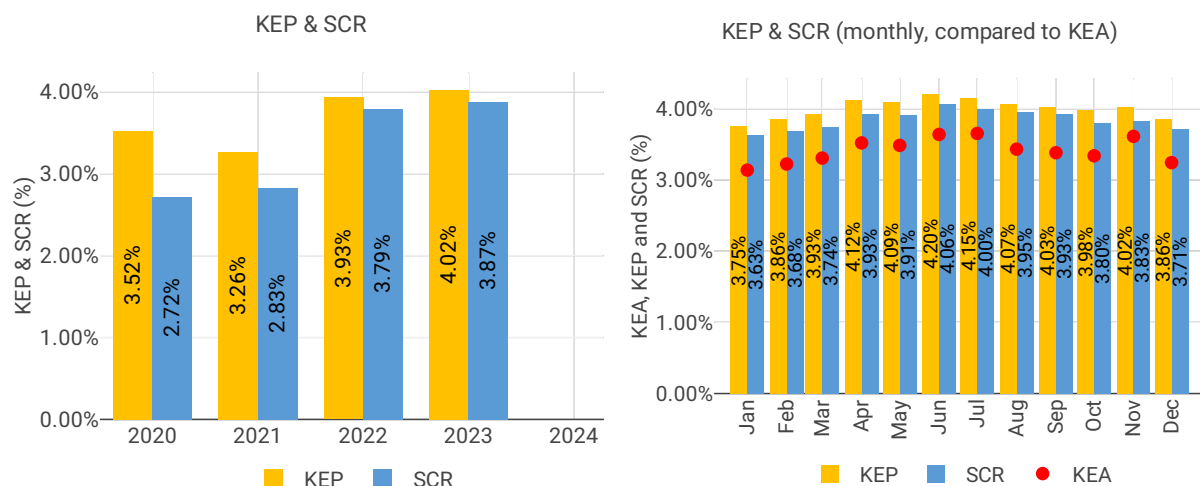
3.1 PRB monitoring

- Bulgaria achieved a KEA performance of 3.40% compared to its target of 2.25% and did not contribute positively towards achieving the Union-wide target.
- The NSA states the reasons for not meeting the environmental targets are related to the geopolitical situation and airspace restrictions due to the Crimean crisis and Russia's war of aggression against Ukraine, shifts in traffic flows, and airspace user preferences.
- Both KEP and SCR deteriorated in comparison to 2022.
- Bulgaria has no airports that are regulated under the performance and charging scheme.

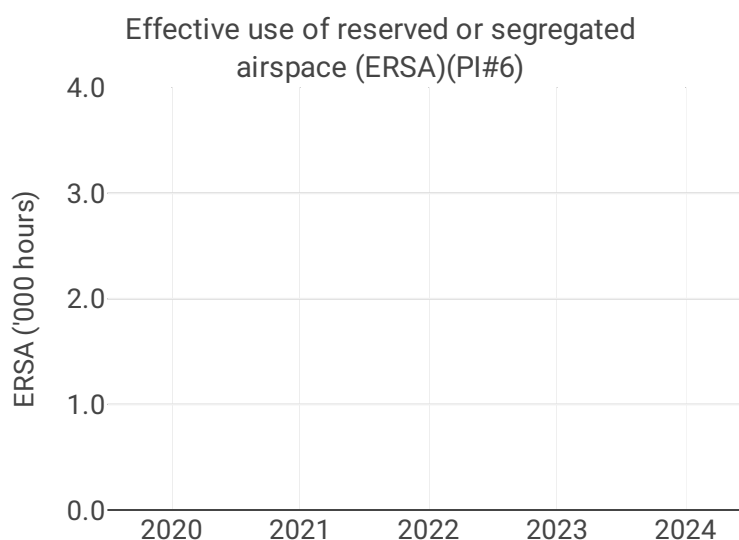
3.2 En route performance

3.2.1 Horizontal flight efficiency of the actual trajectory (KEA) (KPI#1), of the last filed flight plan (KEP) (PI#1) & shortest constrained route (SCR) (PI#2)

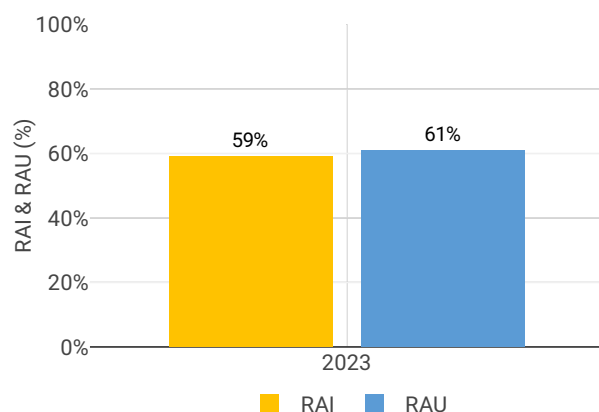




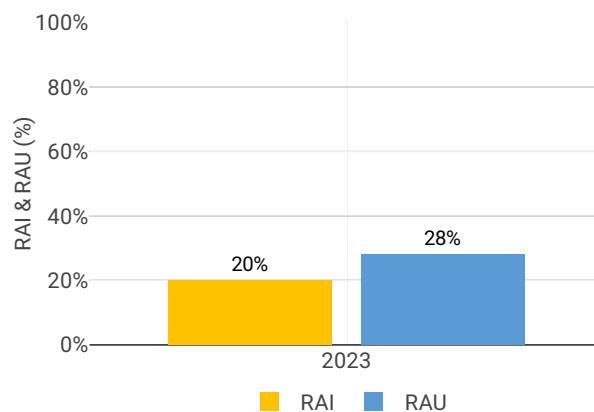
3.3 Civil-Military dimension



RAI & RAU via available conditional routes (PIs#7 & 8)



RAI & RAU via available restricted and segregated airspace (PIs#7 & 8)



Focus on Civil-Military dimension

Update on Military dimension of the plan

Military - related measures implemented or planned to improve capacity

National legislation was updated recently to improve coordination and reduce activation/deactivation time of military areas. According FUA some reserved/restricted areas have been replaced by prior co-ordination area (PCA) procedure to improve capacity and efficiency. Eurocontrol CIMA and LARA tools

were implemented. The vertical and horizontal boundaries of several TRAs are reduced or changed to allow civilian traffic especially from/to the LTFM and other Istanbul airports. A reduction in the applicable separation for interoperable military aircraft is planned to improve capacity while maintaining safety levels. Letters of agreement between civilian ATS units and military controlling units. Agreement for military operations outside segregated airspace. Agreement for information exchange and for usage of CIMA CT and LARA tools/systems.

Initiatives implemented or planned to improve PI#6

No data available.

Initiatives implemented or planned to improve PI#7

No data available.

Initiatives implemented or planned to improve PI#8

Not available.

4 CAPACITY - BULGARIA

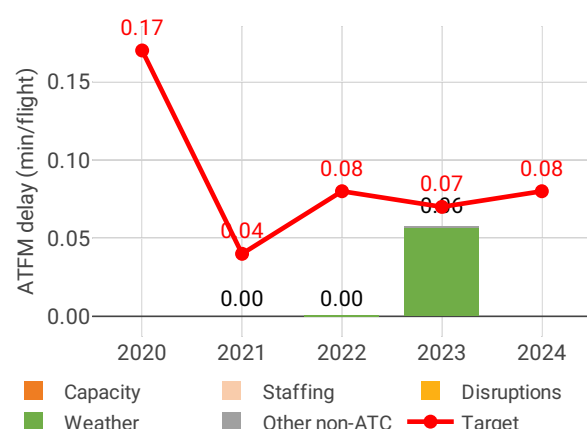
4.1 PRB monitoring

- Bulgaria registered 0.06 minutes of average en route ATFM delay per flight during 2023, thus achieving the local target value of 0.07. Delays in Bulgaria increased by 0.06 minutes per flight year-on-year.
- Delays were highest between June and September and in November, due to adverse weather.
- The share of delayed flights with delays longer than 15 minutes in Bulgaria increased by 13 p.p. compared to 2022 and was higher than 2019 values.
- The average number of IFR movements was 11% above 2019 levels in Bulgaria in 2023.
- The number of ATCOs in OPS is expected to increase by 1% by 2024, with the actual value being over the 2023 plan in Sofia by 3 FTEs.
- The yearly total of sector opening hours in Sofia ACC was 39,503, showing a 13.4% increase compared to 2022. Sector opening hours are 9.2% above 2019 levels.
- Sofia ACC registered 23.99 IFR movements per one sector opening hour in 2023, being 1.6% above 2019 levels.

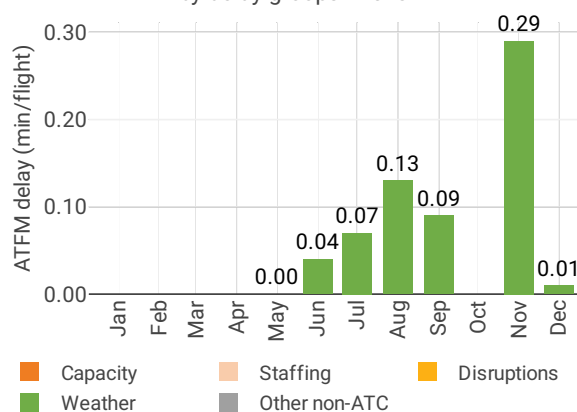
4.2 En route performance

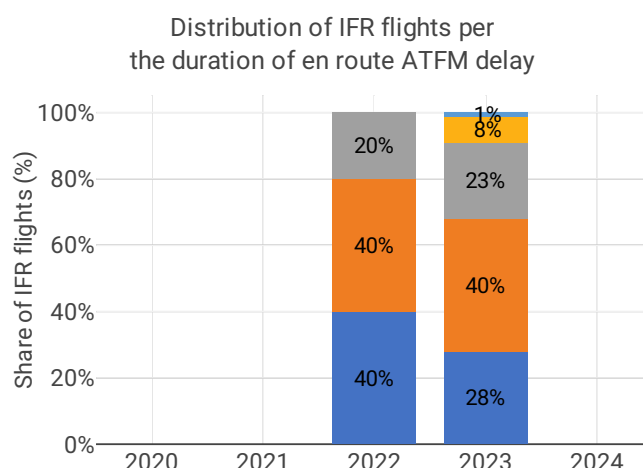
4.2.1 En route ATFM delay (KPI#1)

Average en route ATFM delay per flight by delay groups



Monthly distribution of en route ATFM delay by delay groups - 2023





Focus on en route ATFM delay

Summary of capacity performance

Bulgaria experience an increase in traffic from 822k flights in 2022, with almost zero en route ATFM delay, to 974k flights in 2023 with 55k minutes of en route ATFM delay. For reference, in 2019, Bulgaria had 879k flights with less than 500 minutes of en route ATFM delay.

There were an additional 6k minutes of delay originating in Bulgaria that were re-attributed to DFS via the NM post operations delay attribution process, according to the NMB agreement for eNM/S23 measures, to ameliorate capacity shortfalls in Karlsruhe UAC.

NSA's assessment of capacity performance

During 2023 the number of serviced aircraft increased, surpassing 2019 levels by approximately 10%. The reciprocal bans imposed on the use of EU airspace by Russian aircraft and on the use of Russian Federation airspace by European aircraft still stand. These actions lead to a significant extension of the flight time for some destinations (mainly from/to the Far East and the aggregate flow from/to Other ICAO regions in Asia) and to the shift of non-traditional traffic to the Bulgarian airspace. BULATSA carried out the necessary preparations in a timely manner and successfully dealt with the increased air traffic over Bulgaria by developing sector configurations to handle the traffic and providing the necessary number of air traffic controllers. The number of flights in Sofia FIR is 983,382, which is a increase of 18% compared to the previous year, where IFR flights account for 974 thousand.

Delays were generated only due to weather (55,299 code W). All challenges related to the handling of the problems associated with the war in Ukraine were successfully handled by the ANSP.

Monitoring process for capacity performance

Monitoring of capacity performance is effected through regular monitoring of the minutes of delay generated, based on the information provided by NM. Monitoring is done on a monthly basis.

Capacity planning

Capacity planning is done on a network level as part of the capacity planning processes established by NM. Additionally, BULATSA has established internal capacity planning which is based on the traffic forecast produced by STATFOR, but also based on the internally produced traffic forecasts, which take into account local specifics. The capacity planning process includes:

- HR availability and rostering, both in long term (new ATCO hiring and training), but also in the medium (seasonal) and short term (monthly). HR requirements are assessed and measures are taken to re-prioritize available resources during the busy periods.
- Medium and long term planning of capacity availability based on technological improvements, introduction of SESAR innovations, system upgrades.
- Airspace changes, sectorization and development of interfaces with adjacent FIRs.

The issues and plans are regularly reviewed and reassessed in relation to current operational environment and forecasts. A Capacity Management Board is established internally that convenes once a

month in order to discuss the latest information and trends. The Capacity Board includes a broad range of experts (technical, operational, financial and legal) in order to ensure that multidisciplinary approach to capacity is undertaken.

Application of Corrective Measures for Capacity (if applicable)

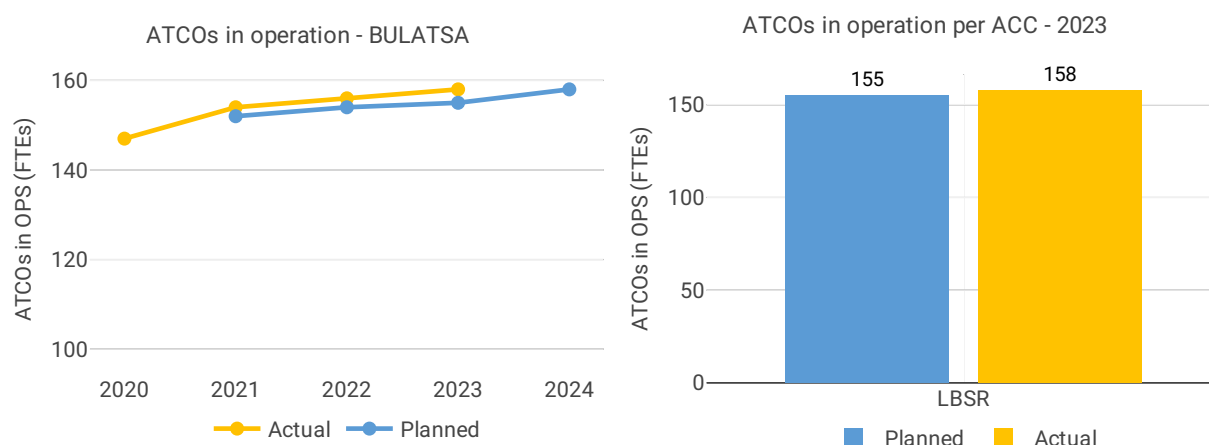
Not applicable.

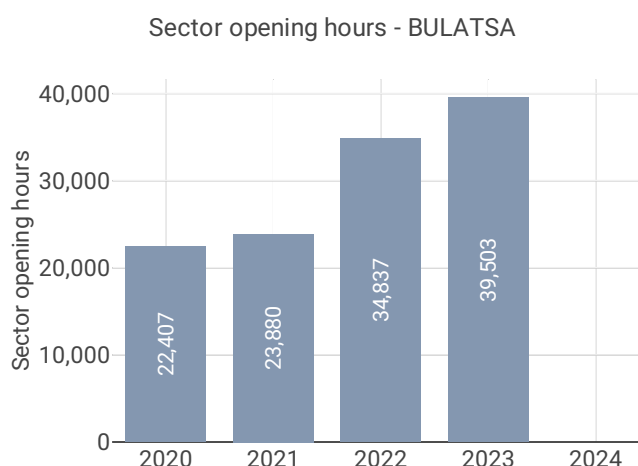
Additional Information Related to Russia's War of Aggression Against Ukraine Significant amount of traffic flows were redirected since the beginning of the war in Ukraine. This created a concentration of traffic in particular sectors (East sectors of Sofia cluster) and strained considerably the throughput in the airspace and interfaces. At the same time other sectors (Varna cluster) remained underloaded. The uneven distribution of traffic created particular challenges, which were timely addressed by the ANSP through re-allocation of resources, revision of interfaces with Türkiye and traffic flow management initiatives. The big impact over traffic flows is the outstanding aviation developments in Türkiye (Sabiha gökçen international airport has opened the new RWY). The expansion of the new Istanbul airport is overwhelming. As a response to the situation, BULATSA introduced the utilization of new airspace configurations (now the lateral split of Sofia east sectors is actively used). A new organization of the interfaces with Türkiye was implemented for Summer 2023. Cross training between sector cluster was initiated and successfully completed to allow for more flexibility in the human resources re-allocation. Meetings were carried out with major airspace users (Turkish Airlines) to review flight planning practices and agree on some traffic flow initiatives. Administrative staff with operational competence was reallocated for the peak traffic periods. At the same time, BULATSA continued the work on key technological projects (rostering system, complexity management system, ATM system) in order to ensure that capacity will be improved in the medium and long term.

En route Capacity Incentive Scheme

BULATSA: The incentive scheme is under review by the European Commission. In accordance with Article 3(3)(a) of Implementing Regulation (EU) 2020/1627: The incentive scheme shall cover only the calendar years 2022 to 2024.

4.2.2 Other indicators





Focus on ATCOs in operations

N/A

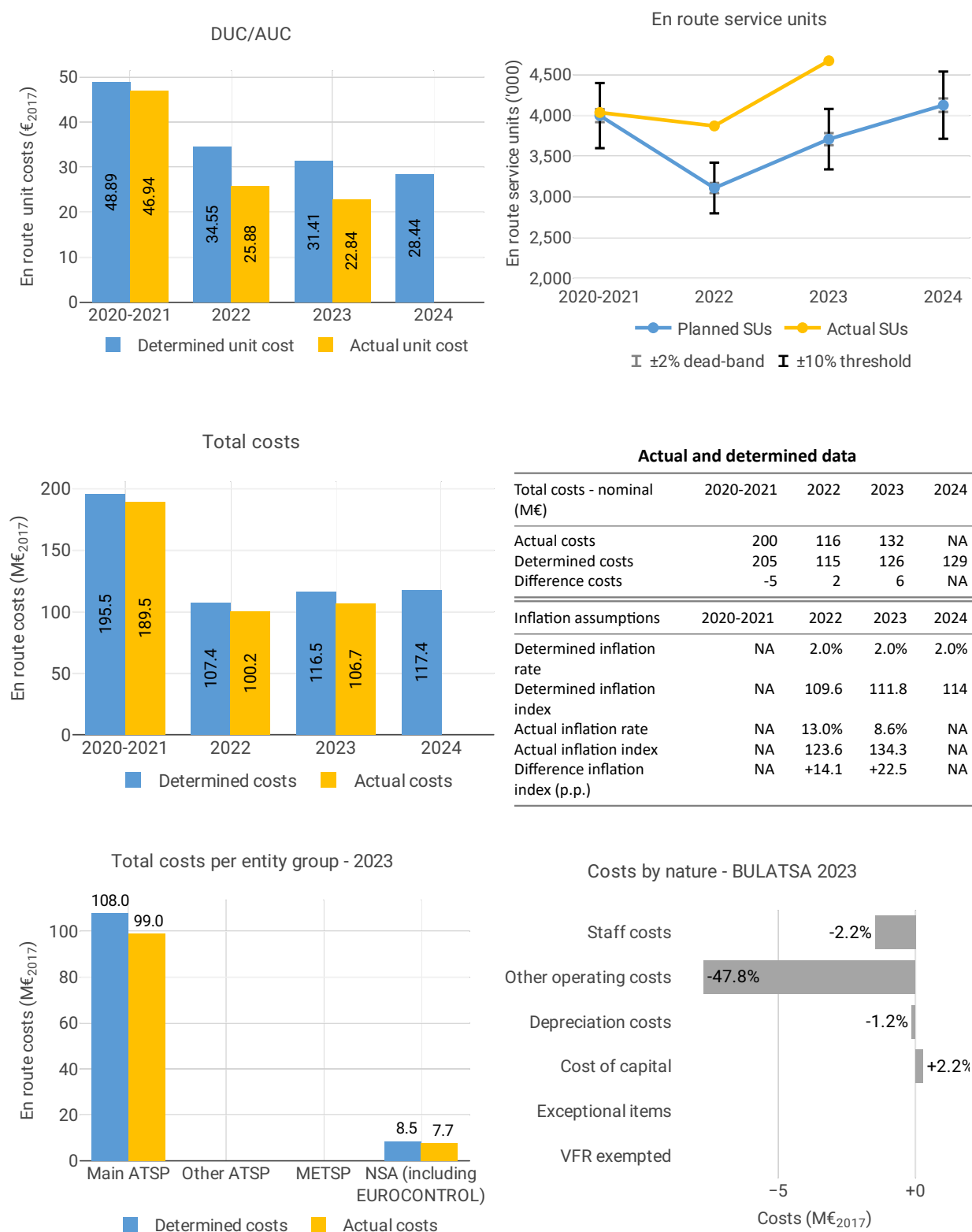
5 COST-EFFICIENCY - BULGARIA

5.1 PRB monitoring

- The en route 2023 actual unit cost of Bulgaria was 22.82 €2017, -27% lower than the determined unit cost (31.41 €2017). Bulgaria does not have a terminal charging zone.
- The en route 2023 actual service units (4.7M) were +26% higher than the determined service units (3.7M).
- The en route 2023 actual total costs were -9.9 M€2017 (-8.5%) lower than determined. The gap was attributable to lower other operating costs (-8.2 M€2017, or -37%), mainly due to unpaid 10M BGN “alliance entry fee” (COOPANS or ITEC) which, if unpaid in 2024, will be reimbursed to users through the 2025 unit rate. Additionally, a much lower rate for the increase in energy prices, actual resources versus determined resources, and lower than determined external services costs contributed to overall lower operating costs.
- BULATSA spent 19 M€2017 in 2023 related to costs of investments, -7.0% lower than determined (20 M€2017). This difference arose from a reduction in fixed assets (-8.2 M€2017, or -15%) and a corresponding decline in the cost of capital (-1.3 M€2017, or -15%). The NSA explained that the difference is justified by the deduction of the liquidated damages received for two investment projects from the depreciation costs in 2023, which reduced the value of the related assets.
- The en route actual unit cost incurred by users in 2023 was 30.54€ (-10% below the 2023 DUC).
- The en route regulatory result for BULATSA amounted to +29 M€, or 21% of the 2023 revenue. This may indicate that the airspace users are charged for costs which have not materialised in 2023. The PRB will take into consideration the implementation of the RP3 performance plan when assessing the RP4 cost-efficiency targets.

5.2 En route charging zone

5.2.1 Unit cost (KPI#1)



Focus on unit cost

AUC vs. DUC

In 2023, the en route AUC was -27.3% (-16.79 BGN2017 or -8.59 €2017) lower than the planned DUC. This results from the combination of significantly higher than planned TSUs (+25.9%) and significantly lower than planned en route costs in real terms (-8.5%, -19.4 MBGN2017, or -9.9 M€2017). It should be noted that the actual inflation index in 2023 was +22.5 p.p. higher than planned.

En route service units

The difference between the 2023 actual and planned TSUs (+25.9%) falls outside the $\pm 10\%$ threshold foreseen in the traffic risk sharing mechanism. The resulting gain of additional en route revenues is therefore shared between the ANSP and the airspace users .

En route costs by entity

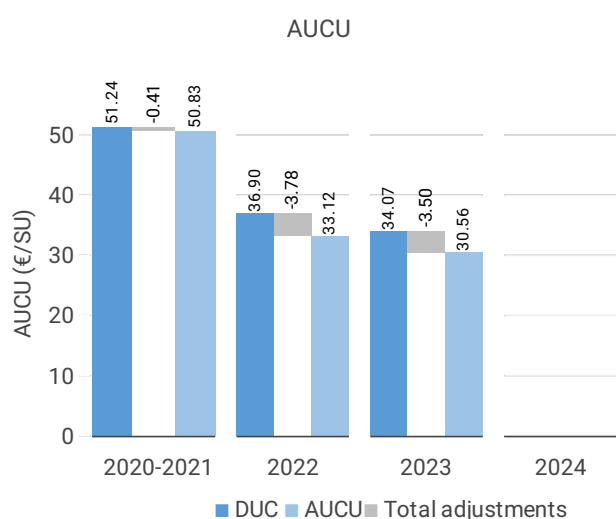
The 2023 actual real en route costs are -8.5% (-9.9 M€2017) lower than planned. This is the result of lower than planned costs for the main ANSP, BULATSA (-8.4%, or -9.0 M€2017) and the NSA/EUROCONTROL (-10.2%, or -0.9 M€2017).

En route costs for the main ANSP at charging zone level

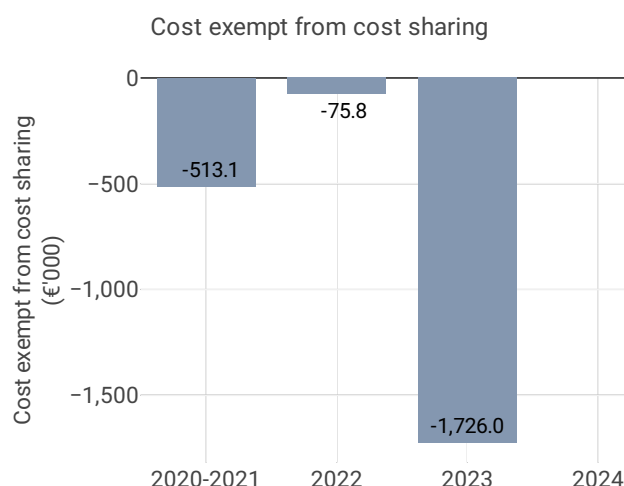
The 2023 real en route actual costs for BULATSA are significantly lower than planned (-8.4%, or -9.0 M€2017), mainly due to a higher than planned inflation index (+22.5 p.p.) and resulting from:

- Lower than planned staff costs in real terms (-2.2%), but higher than planned in nominal terms (+17.5%), reported to be mainly due to *“normalising levels of payment in line with traffic levels and in response to high inflation in Bulgaria (...) higher staff numbers as well as increase in social security costs (...)”*
- Significantly lower than planned other operating costs in real terms (-47.8%), reported to be mainly due to *“non-payment of an alliance entry fee of BGN 10 million (COOPANS or ITEC alliances) (...) the amount will be returned to users”*
- Lower than planned depreciation costs (-1.2%)
- Higher than planned cost of capital (+2.2%).

5.2.2 Actual unit cost incurred by the users (AUCU) (PI#1)

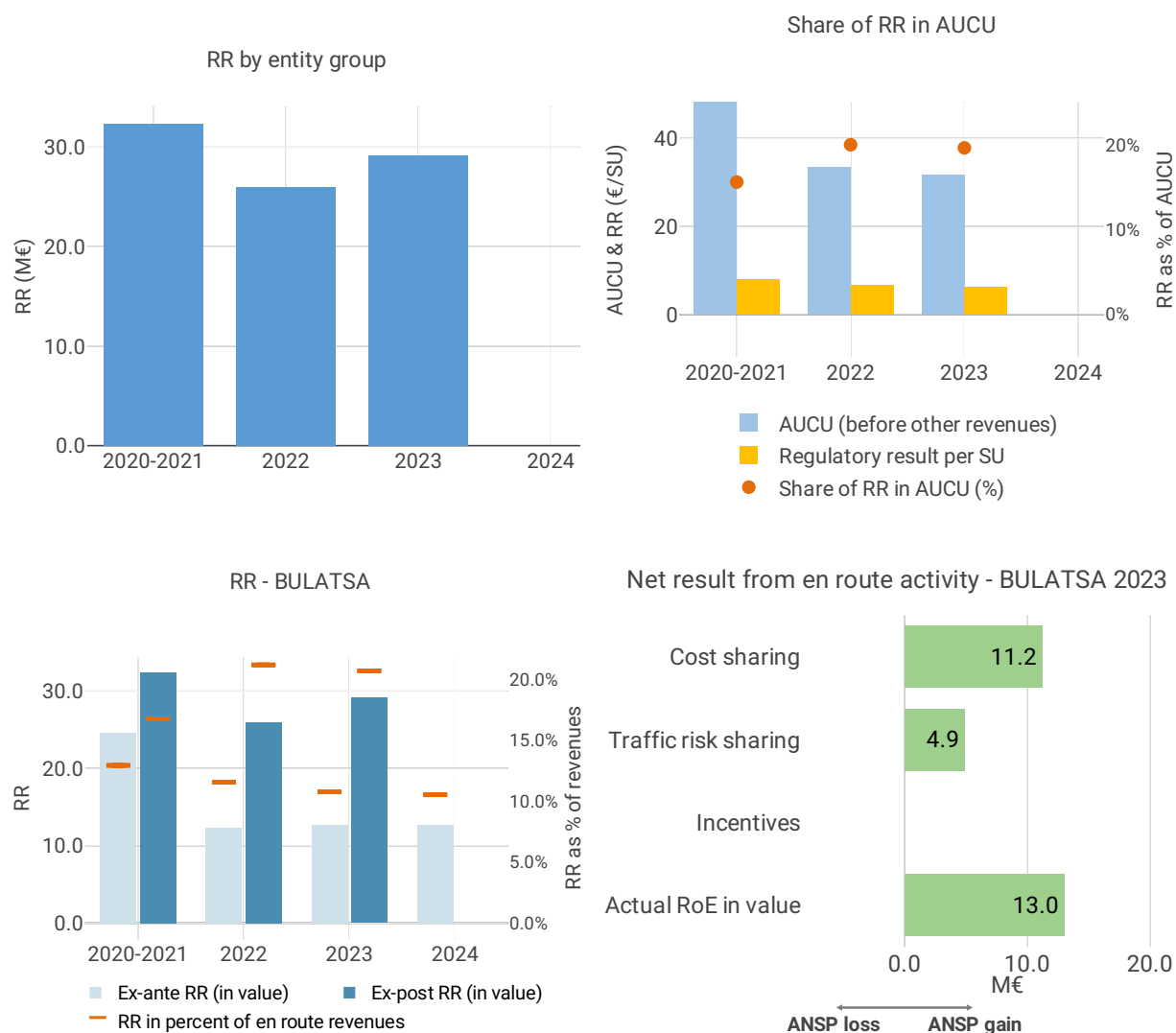


AUCU components (€/SU) – 2023	
Components of the AUCU in 2023	€/SU
DUC	34.07
Inflation adjustment	4.02
Cost exempt from cost-sharing	-0.37
Traffic risk sharing adjustment	-5.16
Traffic adj. (costs not TRS)	-0.80
Financial incentives	0.00
Modulation of charges	0.00
Cross-financing	0.00
Other revenues	-1.19
Application of lower unit rate	0.00
Total adjustments	-3.50
AUCU	30.56
AUCU vs. DUC	-10.3%



Cost exempt from cost sharing by item - 2023	€'000	€/SU
New and existing investments	-1,432.7	-0.31
Competent authorities and qualified entities costs	-870.4	-0.19
Eurocontrol costs	84.1	0.02
Pension costs	493.0	0.11
Interest on loans	0.0	0.00
Changes in law	0.0	0.00
Total cost exempt from cost risk sharing	-1,726.0	-0.37

5.2.3 Regulatory result (RR)



Focus on regulatory result

BULATSA net gain on activity in the Bulgaria en route charging zone in the year 2023

BULATSA reported a net gain of +31.6 MBGN, as a combination of a gain of +22.0 MBGN arising from the cost sharing mechanism with a gain of +9.6 MBGN arising from the traffic risk sharing mechanism.

BULATSA overall regulatory results (RR) for the en route activity

Ex-post, the overall RR taking into account the net gain from the en route activity mentioned above (+31.6 MBGN) and the actual RoE (+25.4 MBGN) amounts to +56.9 MBGN (20.7% of the en route revenues). The resulting ex-post rate of return on equity is 15.7%, which is higher than the 7.0% planned in the PP.