# ADDITIONAL INFORMATION TO REPORTING TABLES 1 – TOTAL COSTS AND UNIT COSTS

## 1. Determined costs and unit costs

### a) Description of the methodology used for allocating costs of facilities or services between different air navigation services, based on the list of facilities and services listed in ICAO Regional Air Navigation Plan, European Region (Doc 7754) as last amended, and a description of the methodology used for allocating those costs between different charging zones;

The allocation methodology applied until the year 2011 (allocation key was determined on the basis of the number of movements) was revised. After a revision and reassessment of the allocation of equipments to en route and terminal purposes, the applied methodology changed for the period RP1. Under the new cost allocation methodology common costs are allocated with using the relation of the average distance flown – which allocation principle is accepted by EUROCONTROL as well - where 50% of distance flown in APP is taken into account in en route, and the other half is calculated for terminal services. This change in allocation methodology results a ratio of 85,94%-14,06% between en route and terminal.

**ATM** related direct costs are allocated in the following way between en route and terminal services:

- ACC 100% en route,
- TWR 100% terminal,
- APP related direct costs are allocated on the basis of average distance flown.

**CNS support costs** are allocated based on average distance flown (85,94% en route – 14,06% terminal) with the exception of the two long range en route radars (Kőrishegy, Püspökladány), which is entirely dedicated to en route services.

**SAR** related costs are considered 100% en route.

**AIS direct costs** are allocated 100% to en route ANS services in line with the provisions of ECTL Principles.

Met costs provided by OMSZ (external MET provider) are 100% related to en route services from 2012; internal Met services provided by HungaroControl are assigned to en route and terminal services just like all the indirect as well as common costs.

Cost related to general overheads, training, research and development are attributed to the individual ANS businesses on the basis of average distance flown.

Identification of costs associated with a certain activity is implemented through special accounting codes which denote a particular activity (such as ATM, Com, Nav, SUR, Administration) on the one hand, and the costs' relatedness to either core ATM business line (that is serving only en route, only terminal, common costs).

Hungary is a single charging zone at present.

### b) Description of the methodology and assumptions used to establish the costs of air navigation services provided to VFR flights, when exemptions are granted for VFR flights in accordance with Article 31(3), 31(4) and 31(5);

Exemptions are granted to VFR flights but the cost of such exemptions is so marginal, that it was registered with 0 value in the reporting tables.

**c) Criteria used to allocate costs between terminal and en route services, in accordance with Article 22(5);**

The allocation has not changed between en route and terminal compared to the previous reference period and over the current reference period.

For reminder, the allocation methodology applied in RP1-RP2 is the following: common costs are allocated with using the relation of the average distance flown – which allocation principle is accepted by EUROCONTROL as well - where 50% of distance flown in APP is taken into account in en route, and the other half is calculated for terminal services. This allocation methodology results a ratio of 85.94%-14.06% between en route and terminal.

Hungary is a single charging zone at present.

**d) Breakdown of the meteorological costs between direct costs and the costs of supporting meteorological facilities and services that also serve meteorological requirements in general ('MET core costs'). MET core costs include general analysis and forecasting, surface and upper-air observation networks, meteorological communication systems, data processing centres and supporting core research, training and administration;**

HungaroControl provides internally MET services for airport operations which are included here.

**e) Description of the methodology used for allocating total meteorological costs and MET core costs referred to in point (d) to civil aviation and between charging zones;**

The reported MET costs as a whole are incurred in relation with civil air traffic service provision.

Hungary is a single charging zone at present.

**f) For each entity, description of the composition of each item of the determined costs by nature and by service (points 1 and 2 of Table 1), including a description of the main factors explaining the planned variations over the reference period;**

***Determined costs by nature and by service***

| Entity: HungaroControl | |
|---|---|
| **1. Detail by nature (in nominal terms)** | |
| 1.1 Staff costs | Significant staff cost increase is planned to RP3 due to the following reasons.<br>ATCO staff cost increase is justified for two main reasons. In one hand some other ANSPs salary policies have significant effect on ATCO mobility. Capacity crunch puts a huge pressure on wage agreements due to ATCO mobility. On the other hand wages shall be increased to compensate significantly higher workload of the ATCOs.<br>Non-ATCO staff cost will increase in response to the wage pressure on the Hungarian labour market and also because of some ANS related postitions' wages are relatively lower in regional comparison (e.g. ATSEP). |
| of which, pension costs | State pension scheme for all of the staff categories: Social contribution tax - 17,5% of income wages and certain fringe benefits<br>Contributions for ATCO<br>-contribution_A1 - 9,3% of yearly base salary<br>-contribution_A2 - 3,7% of yearly base salary and 326577 Ft fix amount increased by yearly inflation rate<br>-contribution_A3 - 430700 Ft fix amount increased by yearly inflation rate<br>-contribution_A4 - 13% of yearly wage cost<br><br>Contribution for non-ATCO |

| | |
|---|---|
| | -contribution_nA1 - 435400 Ft fix amount increased by yearly inflation rate<br>-contribution_nA2 - 340-350mFt/year for all non-ATCO employees - terms to be determined this year |
| 1.2 Other operating costs | Growth can be observed mainly due to the intensive ATCO training over RP3. |
| 1.3 Depreciation | The new MATIAS system Build 12 will cause a significant increase from 2021. All major investment is mandated by a SES Regulation. |
| 1.4 Cost of capital | Increasing asset base and the reimbursement of previous over-recoveries lead to higher cost of capital. Further explanations covered in item i) |
| 1.5 Exceptional items | n/a |
| **2. Detail by service (in nominal terms)** | |
| 2.1 Air Traffic Management | We are facing a continuously growing terminal traffic at Budapest airport and based on the latest forecasts, further significant increase is expected in RP3.<br>To be able to keep the delay figures at low level and provide enough capacity during RP3 we need to invest in new technologies such as new ATM systems and ATCO trainings. |
| 2.2 Communication | Gradual increase can be observed in nominal terms mainly due to the above described staff cost increase and costs related to capacity increase. |
| 2.3 Navigation | Gradual increase can be observed in nominal terms mainly due to the above described staff cost increase and costs related to capacity increase. |
| 2.4 Surveillance | Gradual increase can be observed in nominal terms mainly due to the above described staff cost increase and costs related to capacity increase. |
| 2.5 Search and rescue | n/a |
| 2.6 Aeronautical Information | Gradual increase can be observed in nominal terms mainly due to the above described staff cost increase and costs related to capacity increase. |
| 2.7 Meteorological services | Gradual increase can be observed in nominal terms mainly due to the above described staff cost increase and costs related to capacity increase. |
| 2.8 Supervision costs | Gradual increase can be observed regarding NSA cost. Staff cost will increase in response to the wage pressure on the Hungarian labour market and also due to the staff increase planned for RP3. Further cost increase planned for RP3 due to the increased tasks of the NSA based on the new regulation. |
| 2.9 Other State costs | Gradual increase can be observed in nominal terms mainly due to the above described staff cost increase and costs related to capacity increase. |
| **Adjustments beyond the provisions of the International Financial Reporting Standards adopted by the Union pursuant to Regulation (EC) No 1126/2008** | |
| The Reporting Tables are submitted according to IFRS rules. Adjustments beyond IFRS rules are mainly related to Property management contract: the property management contract includes a requirement to preserve the value of the assets held under the lease and maintain their condition. Until the Hungarian National Asset Management Inc. (MNV) formally acknowledges the value of investments made for preserving the condition of the assets, Hungarocontrol cannot recognize it as an asset in its balance sheet. This means, that these investments represent expense for HungaroControl, however it will turn into a receivable next year, when the approval from MNV is to be expected. There will always be an amount waiting for approval, so for the purpose of this report 'Replacement investments' are not considered as part of the cost-base. | |

## *Pension costs*

*Note: The determined pension costs of the main ANSPs are detailed and justified in the body of the performance plan (item 3.4.3)*

| **Entity: HungaroControl** |
|---|
| **Assumptions underlying the determined pension costs and expected evolution over Reference Period 3** |
| Evolution of pension cost is directly influenced by the staff increase and the wage increase described above. Further explanations covered in item 1.1) |

**g) For each entity, a description and justification of the method adopted for the calculation of depreciation costs (point 1.3 of Table 1): historical costs or current costs referred to in the fourth subparagraph of Article 22(4), and, where current cost accounting is used, provision of comparable historical cost data;**

In compliance with the Accounting Policy, a calculation method based on historic value is applied for establishing the depreciation costs of assets. Depreciation is provided using the straight-line method over the estimated useful lives of the assets. The amortisation periods applied by HungaroControl are in line with the relevant provisions of the EUROCONTROL principles. The useful life and depreciation methods are reviewed periodically to ensure that the method and period of depreciation are consistent with the expected pattern of economic benefits from items property, plant and equipment.

With regard to investments co-financed by the EU Cohesion Fund and the Connecting Europe Facility fund, the full amount of depreciation costs is included in the national cost base. On the other hand EU subsidies are taken into account as income from other sources.

**h) For each entity, description and underlying assumptions of each item of complementary information (point 3 of Table 1), including a description of the main factors explaining the variations over the reference period;**

| HungaroControl | |
|---|---|
| **Costs of new and existing investments (see also performance plan item 2)** | |
| 3.10 Depreciation | Covered in item f) above |
| 3.11 Cost of capital | Covered in item i) |
| 3.12 Cost of leasing | to be covered later |

| **Eurocontrol costs** | |
|---|---|
| 3.13 Eurocontrol costs (Euro) | n/a |
| 3.14 Exchange rate (if applicable) | n/a |

**i) For each entity, description of the assumptions used to compute the cost of capital (point 1.4 of Table 1), including the composition of the asset base, the return on equity, the average interest on debts and the shares of financing of the asset base through debt and equity;**

| HungaroControl | |
|---|---|
| **Average asset base** | |
| 3.1 NBV fixed assets | The capital employed is calculated taking into account the intangible assets, the tangible assets, the working capital (current assets less short term liabilities and interest bearing accounts) and the deferred and accrued income/expenses (which also include over/under-recoveries created in previous years).<br>The resulting sum is then modified by the following items which serve to decrease the amount of the capital employed:<br>• The proportionate part of investment costs financed by EU community funds received before the company was established in 2007 (presented under Adjustments total assets),<br>The rate of return on equity is then applied to the capital employed. |
| 3.2 Adjustments total assets | |
| 3.3 Net current assets | |
| **Cost of capital %** | |
| 3.6 Return on equity | HungaroControl used the Capital Asset Pricing Model for calculation of its Weighted Average Cost of Capital (WACC) rate for RP3. Optimal capital structure was taken into account (60% of financial leverage). WACC was calculated with the following assumptions: |

| | |
|---|---|
| | **WACC** — **Coefficient**<br>Tax rate: 9,00%<br>Asset beta: 0,5<br>Debt beta: 0,1<br>Financial leverage (D/(D+E)): 60,0%<br>Equity beta: 1,05<br><br>Risk free rate for debt calc: 3,32%<br>Debt risk premium: 1,50%<br>**Cost of debt (after tax): 4,39%**<br>**Cost of debt (before tax)**: 4,82%<br><br>Risk free rate: 3,32%<br>Market risk premium: 8,08%<br>**Return on Equity (after tax): 11,77%**<br>**Return on Equity (before tax): 12,93%**<br><br>**WACC before tax: 8,06%**<br><br>$$WACC = \frac{E}{(D+E)} \times CoE + \frac{D}{(D+E)} \times CoD$$<br>where:<br>• $E$ represents the market value of the company's equity<br>• $D$ is the market value of the company's debt<br>• *CoE* – cost of equity, i.e. the required return on shareholders' equity<br>• *CoD* – cost of debt, i.e. the required return on debt (and debt-like items)<br><br>Resulting WACC rate is 8,06%. |
| 3.7 Average interest on debts | n/a |
| 3.8 Share of financing through equity | 100% |

**j) Description of the determined costs of common projects (point 3.9 of Table 1).**

| TNC (000Ft) | | | | | | |
|---|---|---|---|---|---|---|
| **Cost of common projects** | | **2020** | **2021** | **2022** | **2023** | **2024** |
| **2.1 Total costs of common projects** | | **429 578** | **581 711** | **670 493** | **785 496** | **969 150** |
| 2.2 Common project - CPDLC | | 42 844 | 39 798 | 7 000 | 0 | 0 |
| 2.3 Common project - MATIAS Build 11. | | 110 922 | 104 739 | 98 556 | 92 373 | 86 190 |
| 2.4 Common project - A-SMGCS HW and SW | | 159 426 | 149 006 | 138 587 | 52 996 | 0 |
| 2.5 Common project - Meteorological system - AWOS | | 70 694 | 67 284 | 63 991 | 60 698 | 57 512 |
| 2.6 Common project - VoIP | | 6 403 | 5 359 | 1 325 | 658 | 625 |
| New MATIAS system (ANSIII, ANSI, TTF), new simulat | | 0 | 0 | 0 | 0 | 38 100 |
| MATIAS Build 13 ANS I HW replacement PCP, new TW | | 0 | 12 700 | 44 450 | 145 471 | 164 924 |
| MATIAS system Build 12 | | 39 290 | 135 080 | 158 511 | 149 936 | 141 640 |
| A-SMGCS integrated upgrade | | 0 | 67 745 | 158 072 | 283 364 | 480 160 |

## 2. Actual costs and unit costs

**a) For each entity and for each cost item, a description of the reported actual costs and the difference between those costs and the determined costs, for each year of the reference period;**

Not applicable for this submission

**b) Description of the reported actual service units and a description of any differences between those units and the figures provided by the entity that is billing and collecting charges as well as any differences between those units and the forecast set in the performance plan, for each year of the reference period;**

Not applicable for this submission

**c) Breakdown of the actual costs of common projects per individual project;**

Not applicable for this submission

**d) Justification of the difference between the determined and the actual costs of new and existing investments of the air navigation service providers, as well as the difference between the planned and the actual date of entry into operation of the fixed assets financed by those investments for each year of the reference period;**

Not applicable for this submission

**e) Description of the investment projects added, cancelled or replaced during the reference period with respect to the major investment projects identified in the performance plan, and approved by the national supervisory authority in accordance with Article 28(4)..**

Not applicable for this submission

## ADDITIONAL INFORMATION TO REPORTING TABLES 2 – UNIT RATE CALCULATION

**a) Description and rationale for establishment of the different charging zones, in particular with regard to terminal charging zones and potential cross-subsidies between charging zones;**

In accordance with state level decisions, Terminal Navigation Charge is levied presently exclusively for services provided to traffic departing from Budapest Liszt Ferenc International Airport.

**b) Description of the policy on exemptions and description of the financing means to cover the related costs;**

To comply with the provisions of EC Charging Regulation No. 1794/2006 EK, a governmental decision was made in 2010 to arrange the financing of the exempted flights from the annual state budgets.

**c) Description of adjustments resulting from the traffic risk sharing mechanism in accordance with Article 27;**

1 252 mHUF over-recovery from 2018 was taken into account in the unit rate calculation.

**d) Description of the differences between determined costs and actual costs of year n as a result of the changes in costs referred to in Article 28(3) including description of the changes referred to in that Article;**

Not applicable for this submission

**e) Description of adjustments resulting from unforeseen changes in costs in accordance with Article 28(3) to (6);**

Not applicable for this submission

**f) Description of the other revenues, if any, broken down between the different categories indicated in Article 25(3);**

| *thuf* | | 2020 |
|---|---|---|
| | **Other revenues** | **-3 335** |
| 10.1 | Union assistance programmes *(Art. 25(3)(a))* | 16 004 |
| 10.3 | Commercial activities (*Art. 25(3)(b))* | 53 892 |
| | Other revenue adjustment due to traffic and actual amount (n-2) | -73 231 |

**g) Description of the application of the financial incentive schemes referred to in Article 11(3) and 11(4) in year n and the resulting financial advantages and disadvantages; description and explanation of the modulation of air navigation charges applied in year n under Article 32 where applicable, and resulting adjustments;**

### *Financial incentive schemes*

The description and justification of the parameters of the incentive scheme defined in accordance with Article 11(3) and 11 (4) are provided in the body of the performance plan under item 5.2.

### *Modulation of charges*

n/a

**h) Description of adjustments relating to the temporary application of a unit rate under Article 29(5);**

Not applicable for this submission

**i) Description of the cross-financing between en route charging zones, or between terminal charging zones, in accordance with point (e) of Article 15(2) of Regulation 550/2004;**

n/a

**j) Information on the application of a lower unit rate under Article 29(6) than the unit rate calculated in accordance with Article 25(2) and the means to finance the difference in revenue;**

n/a

**k) Information and breakdown of the adjustments relating to previous reference periods impacting the unit rate calculation;**

-302 mHUF inflation adjustment and -1 252 mHUF traffic adjustment were taken into account in the unit rate calculation as over-recovery.

## ADDITIONAL INFORMATION TO REPORTING TABLE 3 – COMPLEMENTARY INFORMATION ON COMMON PROJECTS AND ON UNION ASSISTANCE PROGRAMME

**l) Information on the costs of common projects and other funded projects broken down per individual project, as well as of public funds obtained from public authorities for these projects.**

N/A