

# PRB Annual Monitoring Report 2022 Annex IV – Investments report

The 2022 monitoring consists of five reports:

- 1. PRB Monitoring Report 2022
- 2. Annex I Member States' factsheets
- 3. Annex II Member States' detailed analysis for experts
- 4. Annex III Safety report
- 5. Annex IV Investments report



## October 2023

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## TABLE OF CONTENTS

1		ABOUT THE DOCUMENT	3
	1.1	Data sources	
	1.2	Report limitations	5
2		RP3 CAPEX AND COSTS RELATED TO INVESTMENTS	7
	2.1	RP3 CAPEX	7
	2.2	Costs related to investments	9
3		NEW MAJOR INVESTMENTS (EN ROUTE AND TERMINAL)	. 15
	3.1	Type of new major investments	. 15
	3.2	Expected benefits from new major investments	.16
4		UNION FUNDING GRANTED AND DECLARED IN 2022	20
5		CONCLUSIONS	. 22
6		ANSP FACTSHEETS	. 23
	6.1	Austria – Austro Control	.24
	6.2	Belgium – Skeyes	. 30
	6.3	Bulgaria – BULATSA	.36
	6.4	Croatia – Croatia Control	. 42
	6.5	Cyprus – DCAC Cyprus	. 48
	6.6	Czech Republic – ANS CR	. 54
	6.7	Denmark – NAVIAIR	. 60
	6.8	Estonia – EANS	
	6.9	Finland – ANS Finland	
	6.10		
	6.11	Germany – DFS	
	6.12		
	6.13	5 / 5	
	6.14		
	6.15	Italy - ENAV	
	6.16	Latvia – LGS	
	6.17	Lithuania - SE Oro Navigacija	
	6.18	Luxembourg – ANA LUX	
	6.19 6.20	Malta – MATS MUAC	
	6.21	Netherlands – LVNL	
	6.22	Norway – Avinor	
	6.23	Poland – PANSA	
	6.24	Portugal – NAV Portugal	
	6.25	Romania – ROMATSA	
	6.26	Slovakia – LPS SR	
	6.27	Slovenia – Slovenia Control	
	6.28	Spain – ENAIRE	
	6.29	Sweden – LFV	
	6.30	Switzerland – Skyguide	

## 1 ABOUT THE DOCUMENT

PRB Performance review body of the single european sky

- 1 The PRB Annual Monitoring Report 2022 examines the performance of air navigation services (ANS) in Member States of the Single European Sky (SES). The SES area comprises EU Member States, Norway, and Switzerland (hereafter defined as Member States).
- <sup>2</sup> The PRB Annual Monitoring Report 2022 is complemented by:
  - Annex I Member States' factsheets (produced by the PRB);
  - Annex II Member States' detailed analysis for experts (produced by Eurocontrol);
  - Annex III Safety report (produced by EASA); and
  - Annex IV Investments report (this document).
- This "Annex IV Investments Report" monitors the ANS costs related to en route and terminal investments at Union-wide and air navigation service provider (ANSP) level, as established in article 3(j) of the Commission Implementing Regulation (EU) 2019/317 (hereafter the Regulation).1 The report also consolidates the available evidence of Union funding of investments, including in the SES air traffic management (ATM) research and development (SESAR) project.
- <sup>4</sup> The identified under/overspending is indicative of the amounts that could be reimbursed/collected by ANSPs through adjustments in the unit rates as per article 28 of the Regulation. Where during either a calendar year of the reference period or the whole reference period:
  - Actual costs related to investments are below the determined ones, the ANSP or Member States shall reimburse the difference to airspace users, unless based on a detailed justification from the ANSP and after consultation with airspace users' representatives, the NSA can decide that the ANSP shall not reimburse a part of the resulting difference;
  - Actual costs related to investments are above the determined costs by not more than 5%,

the difference should be borne by the ANSP or Member State, unless approved differently by the NSA based on justifications and consultations with airspace users; and

- Actual costs related to investments are above the determined costs by more than 5%, the difference beyond the 5% should be borne by the ANSP or Member State.
- 5 The focus of this report is on monitoring 2022 actual costs related to new major, other new and existing investments against the determined costs included in the performance plans. Moreover, the report also summarises other relevant information that Member States provided by 1<sup>st</sup> June 2023 as per Annex II of the Regulation and summarises RP3 data to date (2020-2022):
  - The RP3 determined capital expenditure (CAPEX), included in the monitoring reports: There may be some differences in this section compared to last year's report, as some Member States have made changes in their CAPEX since their last monitoring report;
  - The actual costs for 2022 related to investments (depreciation costs, cost of capital, and leasing costs) compared to the determined costs;<sup>2</sup>
  - The actual costs for RP3 to date related to investments compared to the determined costs;
  - The four main types of new major investments: (i) air traffic management (ATM) systems; (ii) communications, navigation, and surveillance (CNS) systems; (iii) infrastructure; and (iv) other;
  - The expected benefits and justification of new major investments with respect to the European ATM Master Plan and the common projects;<sup>3</sup>
  - Cross border/cross sectoral cooperation; and
  - The public funding received by ANSPs in 2022.
- 6 This report is organised as follows. The remainder of Section 1 describes the data sources and the report limitations. Section 2 analyses Union-wide CAPEX and costs related to investments, while

<sup>&</sup>lt;sup>1</sup> Commission Implementing Regulation (EU) 2019/317 of 11 February 2019 laying down a performance and charging scheme in the single European sky and repealing Implementing Regulations (EU) No 390/2013 and (EU) No 391/2013.

<sup>&</sup>lt;sup>2</sup> This report examines the cost of capital of fixed assets whereas Annexes I and II examine the total cost of capital (fixed and current assets). <sup>3</sup> Article 15(a) of Regulation (EC) No 550/2004 of the European Parliament and of the Council of 10 March 2004 on the provision of air navigation services in the single European sky (the service provision Regulation).

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Section 3 focuses on new major investments (types and expected benefits). Section 4 focuses on Union funding. Section 5 reports the Unionwide performance of cost-efficiency related to investments in 2022. Finally, Section 6 provides detailed factsheets by main ANSP per Member State including data on RP3 determined CAPEX, actual versus determined costs related to investments, details on individual new major investments, expected benefits of new major investments, and public funding.

As a comprehensive investment monitoring activity, the PRB is also developing and maintaining the interactive "CAPEX dashboard", which provides a granular, consolidated, and user-friendly overview of CAPEX reporting at project level, costs of investments and funding data in RP2 and RP3. Access to the dashboard can be requested.<sup>4</sup>

## 1.1 Data sources

8 The main data sources of this report are the "2022 monitoring reports" and the "2022 reporting tables" submitted by Member States by 1<sup>st</sup> June 2023, as required by the Regulation, and the data on funding provided by the SESAR Deployment Manager.

#### 2022 monitoring reports

- 9 The 2022 monitoring reports submitted by the Member States contain the RP3 determined costs related to investments by year for en route and terminal at ANSP level, as included in the performance plans. They also contain the actual costs of investments for the years 2020-2022. The costs related to investments comprise depreciation costs, cost of capital, and leasing costs. The monitoring reports present the costs related to investments broken down into the following three categories according to the value of the investment and the reference period:
  - "New major investments", which are the acquisition, development, replacement, upgrade or leasing of fixed assets representing a total value over the whole lifetime of the

assets greater than  $5M \in_{2017}$  in real terms starting in RP3;<sup>5</sup>

- "Other new investments", which are shortterm projects and/or activities whose total value over the whole lifetime of the assets do not exceed 5M€<sub>2017</sub> in real terms also starting in RP3; and
- "Existing investments", which started in the previous reference period(s) and still have costs related to investments associated to them.
- In addition to the costs related to investments, the 2022 monitoring reports also contain the RP3 determined CAPEX at ANSP level for "new major" and "other new" investments included in the performance plans. As per Annex II of the Regulation, Member States also report the following information in relation to "new major" investments:
  - Total value of each major investment;
  - The asset(s) acquired or developed; and
  - Information on the benefits of the investment for airspace users and on the results of the consultation of airspace users' representatives.
- <sup>11</sup> Moreover, in relation to new major investments in ATM systems, Member States report:
  - Investments in new systems, overhaul of existing systems, and replacement investments; and
  - The justification of the relevance of each investment with reference to the European ATM Master Plan, and the common projects referred to in article 15(a) of Regulation (EC) 550/2004.
- 12 The 2022 monitoring reports and the performance plans provide the planned entry into operation (EIO) date for each investment. In some cases, the 2022 monitoring reports report different EIO dates compared to the performance plans.
- 13 Austria noted in its monitoring report that its determined new major investments are groups of smaller projects (below  $5M \in 2017$ ) that were

<sup>&</sup>lt;sup>4</sup> Send an email to prb-office@prb.eusinglesky.eu in order to acquire access to the dashboard.

<sup>&</sup>lt;sup>5</sup> These investments are also relevant and coherent with Commission Implementing Regulation (EU) 2021/116 of 1 February 2021 on the establishment of the Common Project One supporting the implementation of the European Air Traffic Management Master Plan provided for in Regulation (EC) No 550/2004 of the European Parliament and of the Council, amending Commission Implementing Regulation (EU) 409/2013 and repealing Commission Implementing Regulation (EU) 716/2014.

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presented as new major investments rather than other new investments for additional transparency. However, Austria did not submit data on costs related to investments disaggregated into new (major and other) and existing investments.

14 Sweden has reported additional costs compared to the approved performance plan for new major investments (Project 7 - COOPANS (Topsky) and Project 8 - SUR (surveillance)), which do not seem to have been approved by the NSA and which do not match with the reporting tables. It is unclear if these investments are new major investments.

#### 2022 reporting tables

- 15 The 2022 reporting tables submitted by the Member States provide:
  - Actual costs related to investments for the years 2020-2022 broken down by depreciation costs, cost of capital, and leasing costs per ANSP and en route/terminal charging zone in each Member State;
  - Adjustments in the unit rates regarding the under/overspending related to costs of investments;
  - Union funding received and reimbursed to users by charging zone disaggregated by year and individual investments; and
  - Total revenues received from Union funding and their yearly reimbursement.

## Data from the SESAR Deployment Manager

<sup>16</sup> For monitoring purposes, the SESAR Deployment Manager (SDM) provides the PRB with data on the actual payments to ANSPs for projects in its scope. Specifically, SDM provides data on bank transfers related to the specific grant agreements with the European Climate, Infrastructure, and Environment Executive Agency (CINEA), formerly known as INEA.<sup>6</sup>

## 1.2 Report limitations

17 In general, the report does not consider the operational expenditure (OPEX) related to CAPEX investments since most Member States do not provide details. The exception is France, which included planned and actual OPEX related to CAPEX in its 2022 monitoring report.<sup>7</sup>

- <sup>18</sup> The total actual and determined costs related to investments provided by Member States in the 2022 monitoring reports and 2022 reporting tables should match. However, this is not the case for some Member States (Table 1, next page).
- The quality of data included in the performance 19 plans and monitoring reports varies across Member States. Due to limited information included in the monitoring data and due to Member States not reporting the actual delivery status of individual investments, it is difficult to report on the status of new major investments. Moreover, in most instances, the benefits expected from new major investments are not quantified, making it impossible to quantitatively monitor the impacts. Often, the benefits expected are not detailed or not filled in the proper indicated fields. In order to provide a more meaningful analysis of the expected benefits of investments, the quality of data provided needs to improve. This needs to improve to allow a greater understanding of the potential for different investments to effectively increase capacity in a cost-efficient manner.
- In the performance plans and monitoring reports, only new major investments must be detailed and reported by project. However, new major investments are only detailed for the specific reference period, with existing investments are only considered in the following reference period. This reporting approach makes it difficult to track a specific major investment during its entire lifecycle as when it becomes an existing investment in the next reference period, it is only reported in combination with other existing investments as a total amount.
- 21 The transparency of received funding has improved with the reporting tables for RP3, following the introduction of a specific section requesting the details of the payments received and

<sup>&</sup>lt;sup>6</sup> The Innovation and Networks Executive Agency (INEA) ceased operations on 31 March 2021. CINEA was established on 1 April 2021 to take over INEA's legacy portfolio as well as additional EU funding programmes.

https://ec.europa.eu/inea/en/welcome-to-innovation-networks-executive-agency

<sup>&</sup>lt;sup>7</sup> The French monitoring report included OPEX called "T3 Technic" in the total costs related to investments. This OPEX includes studies, project management, and expenses below  $10K \in_{2017}$ . Due to French public accounting rules, "T3 Technic" costs cannot be included in the depreciation costs in the reporting tables and are registered in "other operating costs". As a result, the 2022 determined costs of  $316M \in_{2017}$  in the monitoring reports (including "T3 Technic" costs) are  $77M \in_{2017}$  higher than the  $239M \in_{2017}$  submitted in the 2022 reporting tables.

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reimbursed since 2014. However, as for the previous PRB reports, the data provided by the SDM and the data provided by Member States in their reporting tables cannot be fully reconciled. Examples of the challenges to reconcile the Union funding data are the following:

- The actual data reported by the Member States are not aligned in terms of time with the SDM payments. This may be due to the clarifications of the reporting and reimbursement rules in RP3 compared to RP2, leading to compensations from one period to another. This may also be due to a different payment cycle posing a challenge to fully reconcile the amounts (e.g. advance, interim, and final payments for a given project);
- Some Member States do not provide the fund declarations or references to the grant agreements that would facilitate the reconciliation; and
- CINEA allocates the grants of the Connecting Europe Facility (CEF) according to eligible expenses. For this reason, adjustments of grants to be paid may take place over the duration of the project across different instalments.
- 22 The limitations mentioned above should be taken into consideration and addressed when putting in place the regulatory framework for RP4. This would allow for more transparent and meaningful monitoring and a greater understanding of the relationship between cost and capacity.

Source	2022 de- termined costs (M€ <sub>2017</sub> )	2022 ac- tual costs (M€ <sub>2017</sub> )
2022 monitoring	1,064	1,026
reports		
France differ- ence <sup>8</sup>	77	97
Italy difference <sup>9</sup>	-35	-52
Remaining differ- ence	40	37
2022 reporting tables	1,066	1,034

Table 1 – Comparison of 2022 costs related to investments included in the 2022 monitoring reports and 2022 reporting tables (source: PRB elaboration on 2022 monitoring reports and 2022 reporting tables).<sup>10</sup>

<sup>&</sup>lt;sup>8</sup> The difference is due to the inclusion of planned and actual OPEX related to CAPEX in its 2022 monitoring report, while they cannot be included within depreciation costs in the reporting tables as from French public accounting rules.

<sup>&</sup>lt;sup>9</sup> Italy reported  $108M \in_{2017}$  of determined costs related to investment in its monitoring report and  $143M \in_{2017}$  in its reporting tables for 2022. Italy did not explain the difference between the two sources ( $35M \in_{2017}$ ). The same applies to the difference of  $52M \in_{2017}$  in actual costs ( $88M \in_{2017}$  vs  $140M \in_{2017}$ ).

<sup>&</sup>lt;sup>10</sup> The data reported for the 2022 monitoring reports excludes Austria, as Austria did not provide a breakdown of investments by new major, other new, and existing in its 2022 monitoring report, while the data for the 2022 reporting tables includes Austria, as the breakdown of cost of investments by cost of capital, depreciation, and cost of leasing has been provided.

## 2 RP3 CAPEX AND COSTS RELATED TO INVEST-MENTS

### 2.1 RP3 CAPEX

- 23 As mentioned in the introduction of this document, there may be some differences in this section compared to last year's report, as some Member States have made changes in their CAPEX since their last monitoring report. More specifically, slight changes have been made by Czech Republic, Lithuania, and Slovenia. Poland also included one additional new major investment compared to its performance plan.
- The total Union-wide en route and terminal RP3 determined CAPEX allocated to ANS included in the performance plans amounts to 5.2B€, out of which 3.9B€ (74%) are determined for new major investments and 1.4B€ (26%) for other new investments. The RP3 determined CAPEX is higher than the total Union-wide RP2 determined CAPEX (+0.35B€, or +7.3%) and RP2 actual (+0.8B€, or +25%).
- The majority of the Union-wide RP3 determined CAPEX included in the performance plans is planned by the main ANSPs (5.0B€, 96% of the total Union-wide RP3 planned CAPEX).
- The largest planned CAPEX is by far reported by France (26% of the total Union-wide CAPEX), followed by Spain (15%), Italy (7.6%), and the Netherlands (5.4%). The RP3 determined CAPEX of those four Member States amounts to 2.8B€ and represents 54% of the total CAPEX at Union-wide

level. The RP3 determined CAPEX at Member State level for en route and terminal is shown in Figure 1 (next page) (ordered from highest to lowest).<sup>11</sup>

- 27 Based on the details and information included in the performance plans, the new major investments have been assigned to the following five categories: ATM, CNS, infrastructure, ancillary, and other. The following are examples of the investments comprised in each category:
  - ATM systems: Arrival and departure management systems (AMAN/DMAN), contingency systems, data management, flight data processing systems (FDPS), recording systems, simulation interface, the CWP/HMI SESAR project (Controller Working Position)/(Human Machine Interface), and tower systems;<sup>12</sup>
  - Infrastructure: Towers, buildings, and facilities;
  - CNS systems: Communications, navigation, surveillance, and multilateration (MLAT) systems;
  - Ancillary: Aeronautical information management, MET systems, non-OPS equipment, IT systems; and
  - Other investments: Aircraft (e.g. civil/military), HR management, security/cyber security, R&D, digitalisation.

<sup>&</sup>lt;sup>11</sup> The figure shows the CAPEX planned by MUAC since it is not possible to allocate its CAPEX per Member State. Similarly, the CAPEX of MUAC States does not include the MUAC values.

<sup>&</sup>lt;sup>12</sup> The "CWP/HMI" project aims at delivering two SESAR solutions: (i) workstation, service interface definition, and virtual centre concept; and (ii) workstation, controller productivity. See: <u>https://cordis.europa.eu/programme/id/H2020\_SESAR.IR-VLD.Wave1-19-2015</u>.



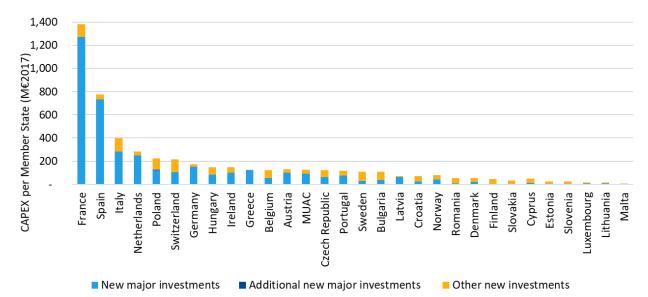


Figure 1 – RP3 determined CAPEX per Member State by value of investment (source: PRB elaboration on 2022 monitoring reports).<sup>13</sup>

28 The ATM category is the largest with 1.8B€ planned CAPEX (47% of the total new major investments), followed by Infrastructure (27%), and CNS (18%), as showed in Table 2.

	RP3 CAPEX (M€)	RP3 CAPEX (%)
ATM systems	1,820	47%
Infrastruc- ture	1,035	27%
CNS	683	18%
Ancillary	124	3.2%
Other	188	4.9%
Unknown <sup>14</sup>	13	0.3%

Table 2 – RP3 determined CAPEX by type of investment (source: PRB elaboration on the performance plans).

- <sup>29</sup> The top three new major investments in ATM systems with the largest determined CAPEX are:
  - "Digital Tech", Spain (307M€, 17% of total determined ATM CAPEX);
  - "4-FLIGHT", France (284M€, 16% of total determined ATM CAPEX); and
  - "COFLIGHT", France (126M€, 6.9% of total determined ATM CAPEX).
- 30 The top three new major investments in infrastructure with the largest determined CAPEX are:

- "MCO and evol CNS/ATM", France (617M€, 60% of total determined Infrastructure CAPEX);<sup>15</sup>
- "Drone Detection System", Germany (57M€, 5.5% of total determined Infrastructure CAPEX); and
- "01440701\_Campus", Poland (39M€, 3.8% of total determined Infrastructure CAPEX).
- The top three new major investments in CNS with the largest determined CAPEX are:
  - "Digital Network", Spain (104M€, 15% of total determined CNS CAPEX);
  - "Technical COMM evolution", Spain (60M€, 8.8% of total determined CNS CAPEX); and
  - "NVCS" (New Voice Communication System), France (42M€, 6.1% of total determined CNS CAPEX).
- 32 New major investments are expected to impact the network at different levels. The total CAPEX for new major investments with an impact on network functions is 1,640M€, for investments with an impact at local level is 1,735M€ and 934M€ for investments with a non-performance impact.
- 33 The total CAPEX for new major investments that are expected to bring benefits to the four key

wide level) could not be attributed to one of the five categories, due to the lack of details in the performance plans.

<sup>&</sup>lt;sup>13</sup> It has been understood that the CAPEX presented by Switzerland and Sweden in their 2022 monitoring reports and performance plans are in euro instead of national currency.

<sup>&</sup>lt;sup>14</sup> Investments with a total determined CAPEX of 13.5M€ (or 0.3% of the total determined RP3 CAPEX of new major investments at Union-

<sup>&</sup>lt;sup>15</sup> MCO: Maintaining technical equipment in operational condition.

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performance areas (KPAs) is distributed as follows: 2,843M€ for investments benefitting safety, 1,900M€ for investments benefiting environment, 3,031M€ for investments benefiting capacity, and 2,269M€ for investments benefiting cost-efficiency.

- New major investments are also expected to benefit interoperability and the scalability of operations, as detailed in Section 3.2. New major investments with impact on interoperability have a total CAPEX of 943M€, while investments with an impact on scalability have a total CAPEX of 101M€.
- The total CAPEX for new major investments linked to the Common Project One (CP1) or the ATM Master Plan is 2,947M€, 76% of the total CAPEX of new major investments.

### 2.2 Costs related to investments

- 36 As stated in the introduction of this document, costs related to investments are reported in the 2022 monitoring reports and in the 2022 reporting tables. Even though the reported data should match, the amounts provided by some Member States do not correspond either due to missing data or different values. The difference between the two sources for actual costs in 2022 amounts to 23M€<sub>2017</sub>, excluding Austria, and is mainly attributable to France and Italy.
- This section focuses on i) the data reported in the 2022 monitoring reports (cost of investments detailed by new major, other new, and existing investments), and ii) the data reported in the 2022 reporting tables (cost of investments detailed by depreciation cost, cost of capital, and cost of leasing). It first focuses on 2022 data, and then summarises the data for RP3 to date (2020-2022).

#### New and existing investments

According to the 2022 monitoring reports, at Union-wide level for 2022, the actual costs related to en route and terminal investments amounted to 1,026M€<sub>2017</sub>. The actual costs are lower (-38M€<sub>2017</sub>, or -3.6%) than the determined costs (1,064M€<sub>2017</sub>). However, the difference between

actual and determined costs varies among Member States, ranging between -21% for Greece and +23% for Sweden. $^{16}$ 

- <sup>39</sup> The total actual costs for 2022 were composed mostly of existing investments (63%), followed by new major investments (28%), and other new investments (9%) (Table 3, next page).
- 40 The total actual cost for 2022 of new major investments (291M€<sub>2017</sub>, 28% of investment costs) are 22M€<sub>2017</sub> (-7.2%) lower compared to the determined value (313M€<sub>2017</sub>). Determined new major investments amounts to 169 projects, out of which 85 (50%) are mandated by Regulation (EU) 2021/116 on the CP1 (see Section 3.2).<sup>17</sup> In addition, Poland reported one additional new major investment compared to its performance plan. Mandated new major investments may not easily be cancelled, postponed, or changed in scope.
- 41 Regarding existing investments, the total actual cost for 2022 (644M€<sub>2017</sub>, 63% of investment costs) is in line with the determined costs. Although not all Member States provided detailed information on their existing investments as it is not required by the Regulation.
- <sup>42</sup> Finally, the total actual cost for 2022 of other new investments (91M€<sub>2017</sub>, 9% of the total costs of investments) is 16M€<sub>2017</sub> (-15%) less compared to the determined value (107M€<sub>2017</sub>).

<sup>&</sup>lt;sup>16</sup> As for CAPEX values, it is not possible to allocate the cost of new and existing investments per Member State for MUAC. Similarly, the cost of new and existing investments of MUAC States does not include the MUAC values.

<sup>&</sup>lt;sup>17</sup> Sweden has reported additional costs compared to the approved performance plan for new major investments (Project 7 - COOPANS (Topsky) and Project 8 - SUR (surveillance)), which do not seem to have been approved by the NSA and which do not match with the reporting tables. It is unclear if these investments are new major investments.

Type of in- vest- ment	2022 de- termined costs (M€ <sub>2017</sub> )	2022 ac- tual costs (M€ <sub>2017</sub> )	Difference (M€ <sub>2017</sub> /%)
New major	313	291	-22/-7.2%
Other new	107	91	-16/-15%
Exist- ing	644	644	+0.2/0.0%
Total	1,064	1,026	-38/-3.6%

Table 3 – Comparison of 2022 Union-wide actual versus determined costs related to investments – by type of investments. The data excludes Austria (source: PRB elaboration on 2022 monitoring reports).<sup>18</sup>

- 43 The Member States who overspent most in absolute costs related to investments compared to determined were: Sweden (+4.7M€<sub>2017</sub>), France (+2.1M€<sub>2017</sub>), and Spain (+1.6M€<sub>2017</sub>). Figure 2 (next page) shows the values for each Member State.<sup>19</sup>
- The highest actual costs related to both en route and terminal investments for 2022 are by far those of France (318M€<sub>2017</sub>, or 31% of total costs related to investments), followed by Spain (142M€<sub>2017</sub>, or 14%), Germany (92M€<sub>2017</sub>, or 9.0%), Italy (88M€<sub>2017</sub>, or 8.6%), and Poland (45M€<sub>2017</sub>, or 4.4%). The actual costs of investments for these five Member States amount to 685M€<sub>2017</sub> for 2022, which represents 67% of the

total actual costs of investments at Union-wide level.

- When analysing the data for RP3 to date (2020-2022), the actual costs related to en route and terminal investments amounted to 3,012M€2017, which is 34M€2017 lower (-1.1%) than determined. The differences between actual and determined costs varies among Member States, ranging between -19% for Malta and +8.8% for Sweden.
- 46 At Union-wide level, for RP3 to date, every type of investment decreased compared to planned. Existing investments were 5.1M€<sub>2017</sub> lower than planned, while new major investments were 21M€<sub>2017</sub> lower, and other new investments 8.5M€<sub>2017</sub> lower (Table 4).

Type of in- vest- ment	RP3 to date de- termined costs (M€ <sub>2017</sub> )	RP3 to date ac- tual costs (M€2017)	Difference (M€ <sub>2017</sub> /%)
New major	708	687	-21/-2.9%
Other new	212	203	-8.5/-4.0%
Exist- ing	2,126	2,121	-5.1/-0.2%
Total	3,046	3,012	-34/-1.1%

Table 4 – Comparison of RP3 to date Union-wide actual versus determined costs related to investments – by type of investments. The data excludes Austria (source: PRB elaboration on 2022 monitoring reports).<sup>20</sup>

<sup>&</sup>lt;sup>18</sup> This report deducted the technical adjustments reported by Germany and Switzerland from existing investments. Austria did not provide a breakdown of investments by new major, other new, and existing, and is therefore excluded from this analysis.

<sup>&</sup>lt;sup>19</sup> The figure shows the actual costs of investments reported by MUAC since the monitoring reports submitted by Member States report the figures per ANSP and MUAC operates in more Member States. Similarly, the actual costs of investments of MUAC Member States does not include the MUAC values.

<sup>&</sup>lt;sup>20</sup> This report deducted the technical adjustments reported by Germany and Switzerland from existing investments. Austria did not provide a breakdown of investments by new major, other new, and existing, and is therefore excluded from this analysis.

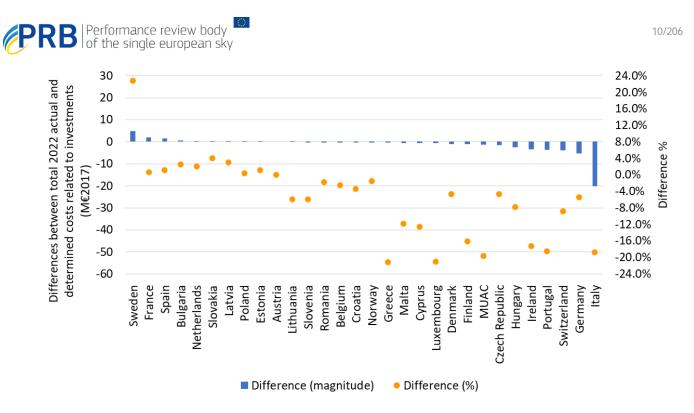


Figure 2 – 2022 en route and terminal actual costs related to investments compared to the determined costs by Member State, sorted from highest to lowest actual cost difference in  $M \in_{2017}$  (source: PRB elaboration on 2022 monitoring reports).

#### Depreciation, cost of capital, and leasing

- According to the 2022 reporting tables submitted by the Member States, at Union-wide level for 2022, the actual costs related to en route and terminal investments amounted to 1,034M€<sub>2017</sub>. These actual costs are -3.0% lower than the determined costs (1,066M€<sub>2017</sub>). This percentage difference is not in line with the values reported in the 2022 monitoring reports (-3.6% from the 2022 monitoring reports (Table 5).
- 48 The total actual costs for 2022 was composed mostly of depreciation costs (75%), followed by cost of capital (24%), and leasing costs (1%). The allocation of actual costs between en route and terminal is 83%/17% (857€<sub>2017</sub>/177M€<sub>2017</sub>).

Invest- ment costs by na- ture	2022 de- termined costs (M€ <sub>2017</sub> )	2022 ac- tual costs (M€ <sub>2017</sub> )	Differ- ence (M€ <sub>2017</sub> / %)
Depre- ciation	836	777	-59/ -7.1%
Cost of capital	220	247	+27/ +12%
Leasing costs	10	10	+0.1/ +0.7%
Total	Total 1,066 1,034		-32/ -3.0%

Table 5 – Comparison of 2022 Union-wide actual versus determined costs related to investments – by nature of costs (source: PRB elaboration on 2022 monitoring reports).

- As from the data from the 2022 reporting tables, the highest actual costs related to both en route and terminal investments for 2022 are by far those of: France (221M€<sub>2017</sub>, or 21% of total costs related to investments), followed by Spain (Continental and Canarias) (142M€<sub>2017</sub>, or 14%), Italy (140M€<sub>2017</sub>, or 14%), Germany (112M€<sub>2017</sub>, or 11%), and Poland (45M€<sub>2017</sub>, or 4%).
- 50 When analysing the en route and terminal data separately, the results are slightly similar. The



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following paragraphs analyse first en route and then terminal separately.

- The top five Member States by actual costs related 51 to en route investments for 2022 are: France (187M€2017), Spain Continental (117M€2017), Italy (117M€2017), Germany (84M€2017), and Poland (37M€<sub>2017</sub>). The actual costs of these five Member States represent 63 % of the en route Union-wide costs. Figure 3 shows the details for each Member State.21
- 54% (equivalent to -21M€<sub>2017</sub>) of the Union-wide 52 underspending in costs related to en route investments compared to determined were realised by three Member States: France (-14M€2017, or -7.0%), Portugal (-3.9M€2017, or -23%), and Austria (-3.3M€<sub>2017</sub>, or -12%).
- The decrease in costs related to investments of 53 France is driven by a decrease in depreciation. The French NSA has attributed this reduction in depreciation costs to the postponement of investments and the transfer of part of the investment costs to project-related OPEX costs. For Portugal, the NSA explains that the reduction in investments costs is due to a delay in the implementation of the new

ATM system. Finally, the Austrian NSA reported that investment costs are still lagging behind as a result of the COVID-19 pandemic.

- The Member States with the largest percentage 54 reductions in actual costs compared to determined for en route costs are: Malta (-1.3M€2017, or -38%), Portugal (-3.9M€2017, or -23%), and Finland (-1.2M€<sub>2017</sub>, or -22%).
- Malta has currently not provided an explanation 55 for the difference in costs. For Finland, the NSA explains that depreciation and cost of capital are lower than planned as investments have been postponed because of revenue losses following Russia's war of aggression against Ukraine.
- On the other hand, seven Member States had en route actual costs that were higher than determined. The Member States with the largest percentage increase in actual costs compared to determined for en route costs are: Slovakia (+1.7M€<sub>2017</sub>, or +27%), Sweden (+5.7M€<sub>2017</sub>, or +24%), and Germany (+7.8M€<sub>2017</sub>, or +10%).

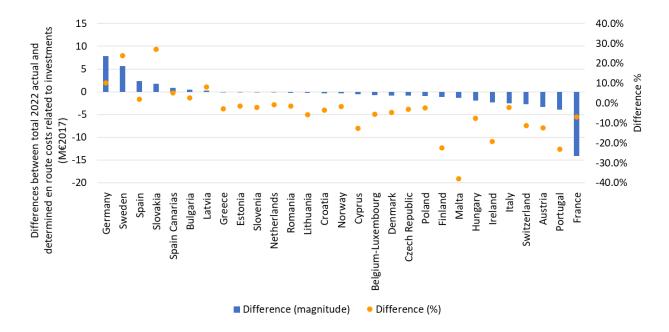


Figure 3 – 2022 en route actual costs by Member State related to investments compared to the determined costs, sorted from highest to lowest actual cost difference in  $M \in_{2017}$  (source: PRB elaboration on 2022 reporting tables).

<sup>&</sup>lt;sup>21</sup> The figure presents the sum of all entities within a Member State. Belgium and Luxembourg are grouped together, as they form one en route charging zone. The actual costs of MUAC are included in the MUAC Member States.



- For Slovakia, the NSA explains that the increase is 57 due to the fact that determined costs of investments have been lowered in the plan by the amount underspent in RP2. The Swedish NSA explains that depreciation costs have been higher mainly due to the write-down of the project One system Topsky and a higher than planned value of pension debts that is used to finance investments. Moreover, Sweden intends to charge airspace users through the cost-sharing mechanism (5.5M€). The eligibility of such costs should be investigated and properly consulted with airspace users. For Germany the increase is entirely due to an increase in the WACC, which the NSA explains by the negative development of commercial papers.
- 58 When analysing the actual costs related to terminal investments for 2022, the data shows that the top five Member States by actual costs related to investments are: France (33M€<sub>2017</sub>), Germany (28M€<sub>2017</sub>), Italy (23M€<sub>2017</sub>), Switzerland (20M€<sub>2017</sub>), and Spain (8.2M€<sub>2017</sub>). The actual costs of these Member States represent 64% of the terminal Union-wide costs. Figure 4 shows the details for each Member State.
- 59 50% (equivalent to -7.0M€<sub>2017</sub>) of the Union-wide underspending in costs related to terminal

investments compared to determined was realised by three Member States: France (-3.8M $\in_{2017}$ , or -10%), Spain (-1.6M $\in_{2017}$ , or -16%), and Germany (-1.6M $\in_{2017}$ , or -5.2%).

- <sup>60</sup> The reduction of costs for France was mainly a result of the postponement of investments, as for en route. The decrease of Spain is mainly due to a lower WACC and net book value of fixed assets than planned. For Germany the decrease was mainly due to reduced depreciation costs.
- For terminal, the Member States with the largest percentage reductions in actual costs compared to determined are: Greece (-0.4M€<sub>2017</sub>, or -90%), Malta (-0.5M€<sub>2017</sub>, or -49%), and Luxembourg (-0.4M€<sub>2017</sub>, or -21%).
- <sup>62</sup> The NSA of Greece explained that the difference is due to delays in investment projects. The decrease of Malta is mainly due to a lower net book value of fixed assets than planned. For Luxembourg, the NSA explained that it is due to the later capitalisation of two projects.

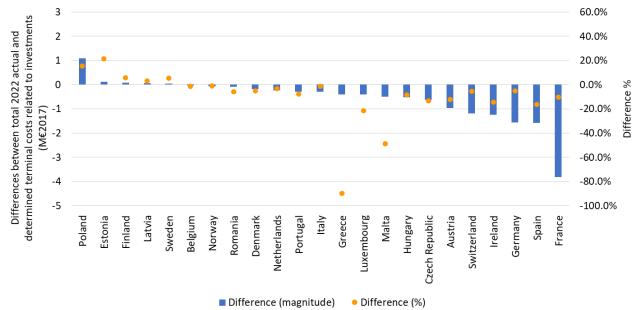


Figure 4 – 2022 terminal actual costs by Member State related to investments compared to the determined costs, sorted from highest to lowest actual cost difference in M $\in$ 2017 (source: PRB elaboration on 2022 reporting tables).<sup>22</sup>

<sup>&</sup>lt;sup>22</sup> The following Member States are not included since they do not have a terminal charging zone: Bulgaria, Croatia, Cyprus, Lithuania, Slovakia, and Slovenia.



- On the other hand, five Member States had actual terminal investment costs that were higher than the determined. The Member States with the largest percentage increase in actual costs compared to determined terminal costs are: Estonia (+0.1M€<sub>2017</sub>, or +21%), Poland (+1.1M€<sub>2017</sub>, or +15%), and Finland (+0.1M€<sub>2017</sub>, or +5.6%).
- <sup>64</sup> The increase in costs for Estonia was mainly driven by the higher cost of capital due to an additional equity injection. The Polish NSA explains that the increase is mainly due to higher WACC and net book value of fixed assets than planned. For Finland the increase is mainly a result of higher cost of leasing.
- 65 When analysing the data for RP3 to date (2020-2022), the actual costs related to en route and terminal investments amounted to 3,034M€2017, which is 68M€2017 lower (-2.2%) than determined. This percentage difference deviates from the values reported in the 2022 monitoring reports (-1.7% from the 2022 monitoring reports). The differences between actual and determined costs

varies among Member States, ranging between - 26% for Malta and + 16% for Slovakia.

<sup>66</sup> The key difference between actual values and determined for RP3 to date is due to lower depreciation costs than planned (Table 6).

Invest- ment costs by na- ture	RP3 to date de- termined costs (M€ <sub>2017</sub> )	RP3 to date ac- tual costs (M€ <sub>2017</sub> )	Differ- ence (M€ <sub>2017</sub> / %)
Depre- ciation	2,421	2,332	-89/ -3.7%
Cost of capital	657	674	+17/ +2.6%
Leasing costs	° 25 29	29	+3.4/ +14%
Total	3,102	3,034	-68/ -2.2%

Table 6 – Comparison of RP3 to date Union-wide actual versus determined costs related to investments – by nature of costs (source: PRB elaboration on 2022 monitoring reports).

## 3 NEW MAJOR INVESTMENTS (EN ROUTE AND TERMINAL)<sup>23</sup>

### 3.1 Type of new major investments

- <sup>67</sup> The types of new major investments included in the RP3 performance plans can be classified as: ATM systems, infrastructure, CNS systems, ancillary, and other (Table 7, next page).<sup>24</sup>
- <sup>68</sup> When investments relate to more than one category, they are classified into the category that they fit in most. For example, if one investment mostly relates to ATM systems but also include CNS systems and/or infrastructure (and vice versa), it will be categorised as ATM systems.
- Out of the total actual costs of investments at Union-wide level for 2022, 40% corresponds to ATM systems, 32% to infrastructure, 12% to CNS systems, 6 % to ancillary, 6% to other, and 4% to unknown. The largest absolute underspend compared to determined costs corresponds to ATM (-19M€<sub>2017</sub>, or -14%). Infrastructure projects display an underspend of 15M€<sub>2017</sub> (or -14%), other investments have an underspend of 0.1M€<sub>2017</sub> (or -0.8%). The other types of new major investments display an overspend as showed in Table 7 (next page).
- Out of the total 169 new major investments at Union-wide level, 59 were categorised as being ATM systems. In 2022, nearly all Member States reported costs for new major investments into ATM systems, with the exception of Bulgaria, Finland, Estonia, Luxembourg, Malta, and Slovenia. The top three new major investments in ATM systems with the highest actual costs in 2022 are:
  - "4-FLIGHT" in France (showing 2022 actual cost of 19M€<sub>2017</sub> and an underspend of 5.0M€<sub>2017</sub>);
  - "COFLIGHT (FR)" in France (showing 2022 actual cost of 15M€<sub>2017</sub> and an underspend of 3.7M€<sub>2017</sub>); and
  - "Digital Tech" in Spain (showing 2022 actual cost of 13M€<sub>2017</sub> and an underspend of 2.4M€<sub>2017</sub>).

- 31 new major investments at Union-wide level correspond to infrastructure investments. The top three new major investments in infrastructure with the largest actual costs in 2022 are:
  - "MCO and evol CNS/ATM" in France (showing 2022 actual cost of 77M€<sub>2017</sub> and an underspend of 10.0M€<sub>2017</sub>);
  - "Dublin Tower Building" in Ireland (showing 2022 actual cost of 3.1M€<sub>2017</sub> and an overspend of 0.1M€<sub>2017</sub>); and
  - "NUOVE TWR/BT" in Italy (showing 2022 actual cost of 2.5M€<sub>2017</sub> and an underspend of 1.3M€<sub>2017</sub>).
- 72 A total of 59 new major investments were categorised as CNS systems. The top three investments in CNS systems with the largest actual costs in 2022 are:
  - "NVCS" in France (showing 2022 actual cost of 6.0M€<sub>2017</sub> and an overspend of 1.5M€<sub>2017</sub>);
  - "Digital Network" in Spain (showing 2022 actual cost of 5.8M€<sub>2017</sub>, in line with determined costs); and
  - "RADAR" in Italy (showing 2022 actual cost of 3.8M€2017 and an overspend of 0.4M€<sub>2017</sub>).
- 73 Ten new major investments deployed by seven Member States were categorised as ancillary in 2022. These projects represent only 6% of the total actual cost of investments related to new major investments.
- Sweden has reported additional costs compared to the approved performance plan for new major investments. For two projects (Project 7 -COOPANS (Topsky) and Project 8 - SUR (surveillance)), Sweden only reports actual costs. It is unclear if these investments are additional new major investments, or if they relate to determined costs presented in the performance plan. If these investments are additional ones, they should have been approved by the NSA, which does not seem to be the case. These investments have been categorised as "Unknown".

<sup>&</sup>lt;sup>23</sup> Poland reported one additional new major investment compared to its performance plan. This investment is not included in this section as the relevant information is not available.

<sup>&</sup>lt;sup>24</sup> The investments are categorised disregarding their status of Common Project One (CP1) or otherwise.

Category	2022 deter- mined costs (M€2017)	2022 actual costs (M€ <sub>2017</sub> )	Actual vs de- termined (M€2017)	Actual vs de- termined (%)	% of actual costs in total costs	Joint initia- tives (% of ac- tual costs in total costs)
ATM sys-	136	117	-19	-14%	40%	24%
tems						
Infrastruc-	108	93	-15	-14%	32%	0.4%
ture						
CNS systems	36	36	+0.2	+0.6%	12%	19%
Ancillary	14	17	+2.9	+21%	6%	43%
Other	18	18	-0.1	-0.8%	6%	5%
Unknown	1.6	11	+9.3	+590%	4%	0%
Total	313	291	-22	-7.2%	100%	15%

Table 7 – Categorisation of new major investments in 2022 at Union-wide (source: PRB elaboration on 2022 monitoring reports).

#### Cross-border or cross-sectoral cooperation

- 75 Out of the total 169 new major investments at Union-wide level, 28 were deployed under joint initiatives in 15 Member States (e.g. cross-border or cross-sectoral cooperation).
- The largest actual amounts deployed in 2022 under reported joint initiatives correspond to ATM and ancillary systems. Within the Union-wide ATM systems related actual costs, 24% (28M€<sub>2017</sub>) corresponds to cross-border or cross-sectoral (ANS/airport) joint initiatives, out of which 87% (25M€<sub>2017</sub>) corresponds to:
  - COFLIGHT (FR)<sup>25</sup> (15M€<sub>2017</sub>) in France; and
  - COOPANS<sup>26</sup> in Austria, Croatia, Denmark, Ireland, and Sweden (4.5M€<sub>2017</sub>), as well as for TOPLIS - TOPSKY ACC<sup>27</sup> in Portugal (4.9M€<sub>2017</sub>).
- 77 Only two new major investments deployed under joint initiatives had actual costs for 2022 classified as infrastructure investments, being "U-Space Program" (0.4M€<sub>2017</sub>) in Poland and "Expansion facilities/Polaris" (33K€<sub>2017</sub>) in the Netherlands. This represents less than 1% of the Union-wide actual cost of new major investments in infrastructure.
- Out of the actual costs of investments classified as CNS systems, 19% (6.9M€<sub>2017</sub>) correspond to cross-border or cross-sectoral (ANS/airport) joint initiatives, out of which 97% (6.7M€<sub>2017</sub>)

correspond to New Voice Communication System in France implemented in cooperation with MUAC.

79 Regarding ancillary investments, 43% (7.1M€<sub>2017</sub>) corresponds to cross-border or cross-sectoral (ANS/airport) joint initiatives, out of which 65% (4.6M€<sub>2017</sub>) corresponds to an investment in meteorological satellites in Spain, in cooperation with EUMETSAT.

## 3.2 Expected benefits from new major investments

- 80 This section describes at Union-wide level and at Member State level four types of benefits from new major investments as reported by Member States. The benefits relate to:
  - Network, local, and non-performance impact;
  - The four KPAs of the performance and charging scheme (i.e. safety, environment, capacity, and cost-efficiency);
  - Interoperability and scalability of operations; and
  - The Common Project One which supports the European ATM Master Plan.
- Often, the benefits expected are not reported in the proper indicated fields, and the vast majority of the Member States do not quantify the expected benefits, making a quantitative monitoring of the impacts impossible. Moreover, only new

<sup>&</sup>lt;sup>25</sup> Coflight is an FDPS (Flight Data Processing Systems) implemented through cooperation of France and Italy. <u>https://www.ecolo-gie.gouv.fr/en/node/2178</u>.

<sup>&</sup>lt;sup>26</sup> COOPANS is a partnership of the air navigation service providers of Austria, Croatia, Denmark, Ireland, Portugal, and Sweden. <u>https://www.coopans.com/</u>.

<sup>&</sup>lt;sup>27</sup> TOPLIS-TOPSKY is the implementation of the new ATM system in Portugal.



major investments have to be detailed and reported by project. However, new major investments are detailed for the specific reference period, being considered existing investments in the following reference period. This reporting approach complicates the monitoring of a specific major investment during its entire lifecycle. Effective ways in which to correctly catalogue investments, to monitor their delivery in terms of cost and time and to calculate their contribution to achieving KPAs should be further explored in setting the regulatory framework for future reference periods.

#### Network, local, and non-performance impact

- Regulation (EU) 2021/116 art. 4(6) (b) and (c) provides that Common projects shall (i) "identify any potential local or regional negative impact for any specific category of operational stakeholder" and (ii) "take account of the relevant deployment elements specified in the Network Strategy Plan and the Network Operations Plan of the Network Manager".
- The Union-wide actual costs in new major investments with an expected positive network impact in 2022 amount to 99M€<sub>2017</sub> (34% of the total Union-wide actual costs of new major investments). The three largest new major investments expected to have network impact were: "4-FLIGHT" (France), "COFLIGHT (FR)" (France), and "Digital Tech" (Spain).
- Investments with an expected positive local impact in 2022 amount to 105M€<sub>2017</sub> (36% of the total Union-wide actual costs of new major investments). The largest new major investments with expected local impact are and "COFLIGHT (FR)" (France), "Digital Tech" (Spain) and "ENAIRE's Digital Transformation" (Spain).
- Finally, the investments with positive non-performance impact in 2022 amount to 59M€<sub>2017</sub> (20%). Examples of positive non-performance impact of investments are: resilience, continuity of operations, modernisation, and staff wellbeing. The largest new major investments with expected positive non-performance were the same than for expected positive impact (paragraph above).

#### Benefits to the four KPAs

<sup>86</sup> The total actual costs in new major investments expected to bring benefits to the safety KPA in

2022 is  $213M \in_{2017}$  (73% of the Union-wide actual costs of new major investments). As reported by the Member States, these investments are expected to improve safety through the effective-ness of safety management systems. The majority of investments expected to bring benefits to safety were classified as ATM systems (45%) and infrastructure (39%).

- 87 With respect to the environment KPA, the actual costs related to new major investments expected to bring benefits in 2022 amount to 110M€<sub>2017</sub> (38% of the Union-wide actual costs of new major investments). These investments are expected to improve the environment by reducing CO<sub>2</sub> emissions, such as investments aimed at reducing the flown trajectory to the shortest route, or related to the implementation of continuous climb and descent operations (CCO/CDO). The majority of investments expected to benefit the environment are classified as ATM systems, with network and local impact.
- For the capacity KPA, the total actual costs of new major investments expected to bring benefits in 2022 was 235M€<sub>2017</sub> (81% of the Union-wide actual costs of new major investments). Member States reported that the investments are expected to reduce delays and to accommodate more traffic. The majority of investments expected to bring benefits to capacity were classified as ATM systems, with network and local impact.
- Finally, the total actual costs of new major invest-89 ments expected to bring benefits to the cost-efficiency KPA in 2022 was 137M€2017 (47% of the Union-wide actual costs of new major investments). These investments are expected to reduce the determined unit costs. The majority of these investments are classified as ATM systems with local impact. However, Member States indicate that eight investments, corresponding to 1.6M€<sub>2017</sub>, ("New technical, ACC and tower building" in Latvia, "Aeronautical data management system - digitalization" in Lithuania, "New technical, ACC and tower building" in Lithuania, and five investments of ANSP EA in Spain) are expected to have a negative impact on cost-efficiency, by increasing determined costs, while not reducing any other costs.

#### Interoperability and scalability of operations

90 Interoperability of systems represents the ability of systems to provide services to and accept

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services from other systems and to use the services that are exchanged to enable them to operate effectively.<sup>28</sup> Interoperability of systems is improved when a system is compatible between Member States, which facilitates the seamless provision of services to airspace users.<sup>29</sup>

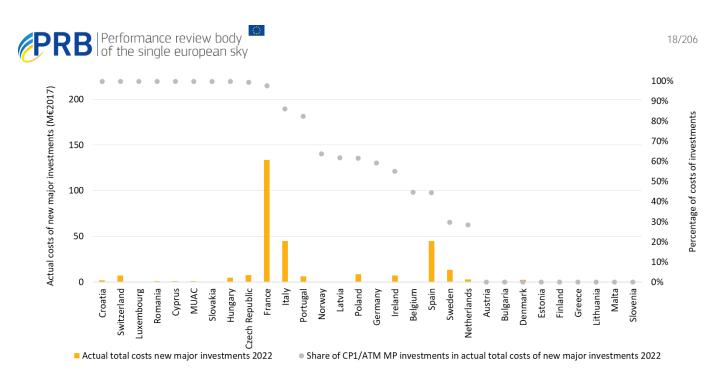
- 91 For 2022, nine Member States reported actual costs for new major investments improving interoperability of systems equal to 68M€<sub>2017</sub> (23% of the Union-wide actual costs of new major investments).
- 92 The majority of these investments corresponds to ATM systems (55M€<sub>2017</sub>, or 82% of investments), with the three largest ATM investments being: "4-FLIGHT" in France (19M€<sub>2017</sub>), "Digital Tech" in Spain (13M€<sub>2017</sub>), and "NUOVO SISTEMA ATM ACC" in Italy (5.6M€<sub>2017</sub>).
- <sup>93</sup> Scalability means the ability to quickly react to unforeseen changes in the demand for services by adapting business processes, the use of resources and the size of the operation. Scalability means upward and downward adaptation, as required by the demand situation.
- Four Member States reported to have spent a total of 5.1M€<sub>2017</sub> in 2022 in new major investments that are expected to improve scalability of operations. This represents 1.8% of the Union-wide actual costs of new major investments.

#### Common Project One and ATM Master Plan

95 Out of the Union-wide actual costs of new major investments for 2022, 234M€<sub>2017</sub> (80%) are linked to Regulation (EU) 2021/116 on the Common Project One (CP1), which supports the European ATM Master Plan.  $133M \in_{2017}$  of these investments are mandated by the same Regulation. Article 4 of the above-mentioned Regulation provides that Common projects shall "*be consistent with and contribute to the European Union-wide performance targets*". At Union-wide level, there were similar levels of actual costs spent in 2022 in new major investments with expected benefits in the KPAs of capacity and safety.

- The share of new major investments linked to the CP1/ATM Master Plan in comparison to the total actual costs of new major investments at Member State level for 2022 is showed in Figure 5 (next page). 22 Member States reported costs of new major investments related to the CP1/ATM Master Plan in 2022. The Member States with the largest actual costs of such investments in 2022 were those of France (131M€<sub>2017</sub>), Italy (39M€<sub>2017</sub>), and Spain (20M€<sub>2017</sub>). The investment costs of the top three Member States represent 65% (189M€<sub>2017</sub>) of the total costs related to new major investments.
- 97 Eight Member States (Croatia, Cyprus, Hungary, Luxembourg, MUAC, Romania, Slovakia, and Switzerland) reported that the entirety of the actual costs related to new major investments in 2022 are costs of investments linked to (but not necessarily mandated by) the CP1/ATM Master Plan.

<sup>&</sup>lt;sup>28</sup>An Interoperability Assessment Model for CNS/ATM Systems, Australian Transport Research Forum 2016.
<sup>29</sup> https://www.easa.europa.eu/sites/default/files/dfu/events-docs-2011-09-20-GANIS-Factsheet-2011.pdf.



*Figure 5 – 2022 actual costs of investments linked to the CP1/ATM MP by Member State (source: PRB elaboration on 2022 reporting tables).* 

### 4 UNION FUNDING GRANTED AND DECLARED

#### IN 2022

- <sup>98</sup> Union funding supports coordinated investments in line with the European ATM Master Plan. As mentioned in Section 1.1, in order to analyse the Union funding granted and declared, this report has used two sources: (i) the declared awarded funding reported in the 2022 reporting tables and (ii) the SDM payments data (which provides actual payments of EU grants to ANSPs for SESAR projects and the project funding overview where AN-SPs are implementing partners). The two sources are not fully aligned mainly due to a different payment cycle posing a challenge to fully reconcile the amounts (e.g. advance, interim, and final payments for a given project).
- <sup>99</sup> The total Union funding declared by Member States in 2022 amounts to 5.0% of the total Unionwide actual costs related to investments, equivalent to  $52M \in_{2017}$  ( $46M \in_{2017}$  for en route and  $6.3M \in_{2017}$  for terminal). However, the total SDM payments amounts to  $58M \in_{2017}$  (5.6%). Therefore, at Union-wide level, the SDM payments exceed the self-declared funds by  $5.4M \in_{2017}$  (Table 8). For 14 Member States the SDM amounts are higher than the self-declared funding. For these Member States, the total gap between the two amounts is  $24M \in_{2017}$ .
- The Union funding declared by Member States in the 2022 reporting tables compared to the actual costs of investments in 2022 per Member State is showed in Figure 6 (next page). The largest amounts of Union funding have been declared by Germany (16M€<sub>2017</sub>), Spain (14M€<sub>2017</sub>), and the Netherlands (7.6M€<sub>2017</sub>). In terms of share of funding compared to actual costs of investments, the Netherlands (31%), Germany (15%), and Sweden (13%) reported the highest percentage of Union funding.
- 101 The Member States that received most SDM funding are Germany (14M€<sub>2017</sub>, 24% of the total SDM

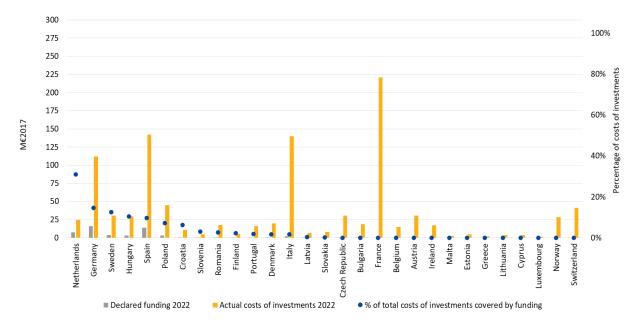
funding), Italy (10M $\in_{2017}$ , 18%), and France (9.3M $\in_{2017}$ , 16%).

- 102 The SDM data shows that ten Member States (Austria, Belgium, Cyprus, Estonia, France, Greece, Ireland, Lithuania, Malta, and Norway) received SDM funding for a total of 14M€<sub>2017</sub> but did not self-declare it. Due to the mismatches between the reporting of project titles that were awarded funding (e.g. project references) and the new major investments naming, it is difficult to identify the sources of such differences.
- 103 When analysing the Union funding granted and declared for RP3 to date (2020-2022), the total Union funding declared by Member States amounts to 6.6% of the total Union-wide actual costs related to investments, equivalent to  $201M \in_{2017}$  (185M  $\in_{2017}$  for en route and  $16M \in_{2017}$ for terminal), while the total SDM payments amounts to  $170M \in_{2017}$  (5.6%). Therefore, at Union-wide level, the self-declared funds exceed the SDM payments by  $31M \in_{2017}$  (Table 8). This may be due to the clarifications of the reporting and reimbursement rules in RP3 compared to RP2, leading to compensations from one period to another.

	2020	2021	2022	RP3 to date
Self-de- clared funds (M€ <sub>2017</sub> )	65	84	52	201
SDM pay- ment (M€ <sub>2017</sub> )	13	100	58	170
Differ- ence (M€ <sub>2017</sub> )	-51	+16	+5.4	-31

Table 8 – Self-declared funds vs SDM payments (source: PRB elaboration on 2022 reporting tables).





*Figure 6 – Actual costs of investments vs funding declared per Member State in 2022 (source: PRB elaboration on 2022 reporting tables).*<sup>30</sup>

 $<sup>^{\</sup>rm 30}$  Spain consists of Spain Continental and Spain Canarias.



### 5 CONCLUSIONS

- 104 According to the Member States 2022 monitoring reports, at Union-wide level, the difference between actual and determined costs related to investments is -3.6%. When examining the investments made in RP3 to date (2020-2022), based on the monitoring reports, Member States underspent 1.1%. However, there is still a discrepancy between the amounts reported in the monitoring reports and the reporting tables. This issue was already highlighted in the PRB Annual Monitoring report 2021. The PRB reiterates its recommendations urging the Member States to correct any difference in the reporting between the reporting tables and the monitoring reports.
- Despite the differences between the reports, both results show an underspent which may indicate a late or non-realisation of the approved performance plans regarding implementation of investment projects. Member States should take action to implement their investment plans to avoid future capacity gaps.
- 106 The difference between actual and determined costs related to investments varies across Member States, ranging from -21% to +23% as per the monitoring reports. At local level the non-realisation of investment plans raises concerns in view of the upcoming traffic and capacity outlook in the medium term.

- 107 As mentioned in the report limitations (Section 1.2), it is difficult to report on the status of new major investments. Many NSAs have reported that cost of investments in 2022 are lower than planned due to delayed and postponed investments.
- 108 As already noted in the past, the limitations highlighted in the report (Section 1.2) should be taken into consideration and addressed when putting in place the regulatory framework for future reference periods. This would allow for more transparent and meaningful monitoring and understanding of the relationship between cost-efficiency and other KPAs. Similarly, effective ways to report investments, to monitor their delivery in terms of cost and time, and to monitor their contribution to achieving KPIs should be further explored in setting the regulatory framework for future reference periods. The PRB will continue to monitor the evolution of the investment plans for the remaining years of RP3.



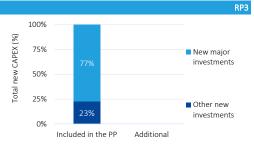
## 6 ANSP FACTSHEETS

Austria underspent  $4.1M \epsilon_{2017}$  (-13%) in costs related to investments for en route and terminal in 2022 compared to the determined costs. Austria planned nine new major investments for RP3, however, it did not report the breakdown of the costs related to investments by new major, other new, and existing investments. The lack of detailed information does not permit to analyse the cost-efficiency performance by type of investment nor the status of delivery of new major investments in 2022.

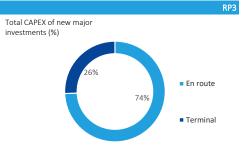
#### CAPEX FOR NEW INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

#### Determined and additional CAPEX by value of individual investments (M€2017)

APEX for new investments	129.84	% of total
New major investments (above 5M€ each) <sup>1</sup>	100.25	77%
Included in the performance plan	100.25	77%
Additional <sup>2</sup>	-	0%
Other new investments (below 5M€ each) <sup>3</sup>	29.59	23%
Included in the performance plan	29.59	23%
Additional	-	09



Determined CAPEX: en route and terminal (M $e_{2017}$ )						
Total CAPEX for new major investments	100.25	% of total				
En route	74.54	74%				
Terminal	25.71	26%				



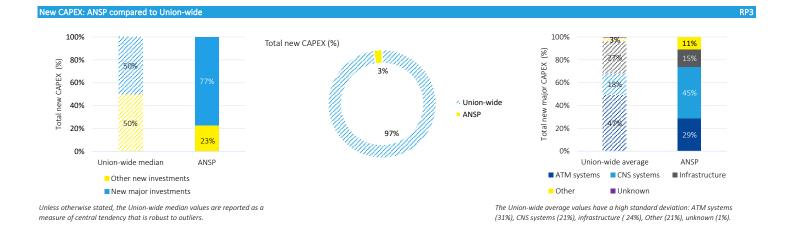
termined CAPEX by type of investment (M€ <sub>2017</sub> )						
Fotal CAPEX for new major investments	100.25	% of total				
ATM systems	28.82	29%				
CNS systems	45.28	45%				
Infrastructure	15.36	15%				
Other	10.79	11%				
Unknown	-	0%				



459

Infrastructure

Other



1. New major investments: "acquisition, development, replacement, upgrade, or leasing of fixed assets representing a total value over the whole lifetime of the assets greater than EUR 5 million in real terms" (Reg. 2019/317 art. 2 (13)).

2. Additional investments are those investments not foreseen as part of the performance plan.

3. Other new investments: new investments or replacements/upgrades of existing assets representing a total value over the whole lifetime of the asset below 5M€ in real terms.

AUSTRIA | Austro Control

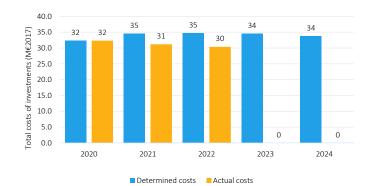
#### COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

Determined costs: new and existing investments ${(M { f \varepsilon }_{2017})}^1$	2020D	2021D	2022D	2023D	2024D	RP3 to date
Total costs	32.34	34.56	34.65	34.47	33.71	101.55
New major investments	Not reported					
% New major investments in total costs of investments	N/A	N/A	N/A	N/A	N/A	N/A
Other new investments	Not reported					
% Other new investments in total costs of investments	N/A	N/A	N/A	N/A	N/A	N/A
Existing investments	Not reported					
% Existing investments in total costs of investments	N/A	N/A	N/A	N/A	N/A	N/A

Actual costs: new and existing investments (M€ <sub>2017</sub> )	2020A	2021A	2022A	2023A	2024A	RP3 to date
Total costs	32.34	31.18	30.38	-	-	93.89
New major investments	Not reported	Not reported	Not reported	-	-	Not reported
% New major investments in total costs of investments	N/A	N/A	N/A	-	-	N/A
Other new investments	Not reported	Not reported	Not reported	-	-	Not reported
% Other new investments in total costs of investments	N/A	N/A	N/A	-	-	N/A
Existing investments	Not reported	Not reported	Not reported	-	-	Not reported
% Existing investments in total costs of investments	N/A	N/A	N/A	=	-	N/A

Actual minus determined costs ( $M \in_{2017}$ ) 2020 2021	2022 2023	2024 RP3 1	o date
--	-----------	------------	--------

lifference	0	(3.38)	(4.28)	_	_	(7.66)
New major investments	Not reported	Not reported	Not reported	-	-	Not reported
% change of actual with respect to determined	N/A	N/A	N/A	-	-	N/A
Other new investments	Not reported	Not reported	Not reported	-	-	Not reported
% change of actual with respect to determined	N/A	N/A	N/A	-	-	N/A
Existing investments	Not reported	Not reported	Not reported	-	-	Not reported
% change of actual with respect to determined	N/A	N/A	N/A	-	-	N/A



0.9 Total costs of investments in 2022 (M€2017) 0.8 0.7 0.6 Not reported 0.5 0.4 0.3 0.2 0.1 0.0 New major Other new Existing

1. The performance plans include costs related to investments which comprise depreciation cost, cost of capital, and cost of leasing.

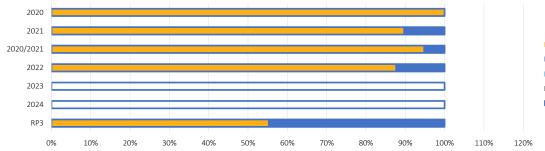
Austria did not provide a breakdown of the costs of investments by new major, other new, and existing investments.

AUSTRIA | Austro Control

Determined costs Actual costs



COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFOR	MANCE PLAN				AUSTRI	IA - En route	Austro Control
Determined costs by nature (M $\varepsilon_{2017}$ )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to date
Total costs of new and existing investments	23.69	25.24	48.93	25.29	25.30	24.72	74.23
Depreciation	19.53	20.26	39.79	20.23	20.41	20.03	60.02
Cost of capital	4.16	4.99	9.14	5.07	4.90	4.69	14.21
Cost of leasing	-	-	-	-	-	-	-
Actual costs by nature (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to date
Total costs of new and existing investments	23.69	22.58	46.27	22.12	-	-	68.39
Depreciation	19.53	18.71	38.24	18.35	-	-	56.59
Cost of capital	4.16	3.87	8.03	3.77	-	-	11.80
Cost of leasing	-	-	-	-	-	-	-
Actual minus determined costs (M $\epsilon_{2017}$ )	2020	2021	2020/2021	2022	2023	2024	RP3 to date
Total difference	-	(2.66)	(2.66)	(3.18)	-	-	(5.84)
Depreciation	-	(1.55)	(1.55)	(1.88)	-	-	(3.43)
Cost of capital	-	(1.11)	(1.11)	(1.30)	-	-	(2.41)
Cost of leasing	-	-	-	-	-	-	-



Actual total costs of investments
Underspending
Overspending up to 5%
Overspending higher than 5%
Determined total costs of investments

STS RELATED TO INVESTMENTS INCLUDED IN THE PERFO	DRIVIANCE PLAN					AUSTRI	A - Terminal   /	Austro Cont
termined costs by nature (M€ <sub>2017</sub> )		2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to da
al costs of new and existing investments		6.77	7.38	14.15	7.46	7.23	7.06	21.6
Depreciation		5.64	5.96	11.60	5.97	5.81	5.69	17.5
Cost of capital		1.12	1.43	2.55	1.49	1.42	1.37	4.0
Cost of leasing		-	-	-	-	-	-	
ual costs by nature (M€ <sub>2017</sub> )		2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to da
al costs of new and existing investments		6.77	6.57	13.33	6.54	-	-	19.8
Depreciation		5.64	5.48	11.12	5.48	-	-	16.0
Cost of capital		1.12	1.09	2.21	1.06	-	-	3.
Cost of leasing		-	-	-	-	-	-	
ual minus determined costs (M€ <sub>2017</sub> )		2020	2021	2020/2021	2022	2023	2024	RP3 to d
al difference		-	(0.82)	(0.82)	(0.92)	-	-	(1.
Depreciation		-	(0.48)	(0.48)	(0.49)	-	-	(0.9
Cost of capital		-	(0.34)	(0.34)	(0.43)	-	-	(0.
Cost of leasing		-	-	-	-	-	-	
2020								
2021								
2020/2021						Actual total cos	ts of investment	S
						Underspending		
2022						Overspending u	ip to 5%	
2023						Overspending h	igher than 5%	
2024						Determined tot	al costs of inves	tments
RP3								

Austria underspent  $4.1M \epsilon_{2017}$  in costs related to investments ( $3.2M \epsilon_{2017}$  in en route and  $0.9M \epsilon_{2017}$  in terminal) in 2022. For RP3 to date Austria underspent  $7.6M \epsilon_{2017}$  in costs related to investments. These amounts shall be reimbursed to the airspace users through a reduction of future unit rate(s), unless the NSA decides after consultation with the users, that the ANSP shall not reimburse a part of the difference according to article 28 of Regulation (EU) 2019/317.

COSTS BY NEW MAJOR INVESTMENTS					AUSTRIA	Austro Contro
Determined costs ( $M \epsilon_{2017}$ ) <sup>1</sup>	2020D	2021D	2022D	2023D	2024D	RP3 to da
Total costs of investments	-	<u>-</u>	_	-	- 1	
1 Voice Communication	Not reported					
2 NAV Infrastructure	Not reported					
3 Carrier Infrastructure	Not reported					
4 Airport Throughput	Not reported					
5 COOPANS (AT)	Not reported					
6 ATS-Enabler	Not reported					
7 ANS Enabler	Not reported					
8 AIM Infrastructure	Not reported					
9 MET Infrastructure	Not reported					
Actual costs (M€ <sub>2017</sub> )	2020A	2021A	2022A	2023A	2024A	RP3 to dat
Total costs of investments	-	-	-	-	-1	
1 Voice Communication	Not reported					
2 NAV Infrastructure	Not reported					
3 Carrier Infrastructure	Not reported					
4 Airport Throughput	Not reported					
5 COOPANS (AT)	Not reported					
6 ATS-Enabler	Not reported					
7 ANS Enabler	Not reported					
8 AIM Infrastructure	Not reported					
9 MET Infrastructure	Not reported					
Actual minus determined costs of investments (M $\varepsilon_{2017}$ )	2020	2021	2022	2023	2024	RP3 to dat
Total difference in costs of investments	-	-	-	-	-	
1 Voice Communication	Not reported					
2 NAV Infrastructure	Not reported					
3 Carrier Infrastructure	Not reported					
4 Airport Throughput	Not reported					
5 COOPANS (AT)	Not reported					
6 ATS-Enabler	Not reported					
7 ANS Enabler	Not reported					
8 AIM Infrastructure	Not reported					
9 MET Infrastructure	Not reported					

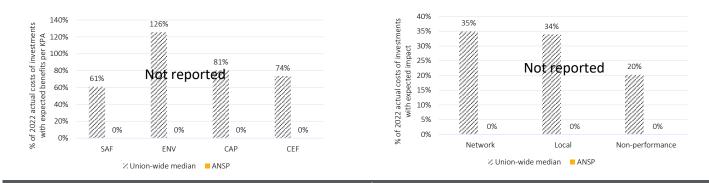


1. Determined costs comprise depreciation costs, cost of capital, and cost of leasing in the performance plans.

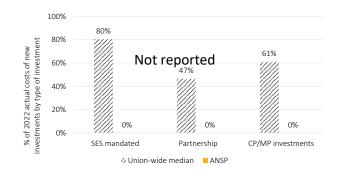
Austria did not report the costs related to individual new major investments. Austria noted in its monitoring report that new major investments are groups of smaller projects (below 5M  $\in$  2017) that were presented as new major investments rather than other new investments for additional transparency.

New major investments	Expected benefit	Expected benefit per KPA								
	SAF	ENV	CAP	CEF						
1 Voice Communication										
2 NAV Infrastructure										
3 Carrier Infrastructure	Х		Х	Х						
4 Airport Throughput	X		Х							
5 COOPANS (AT)				Х						
6 ATS-Enabler										
7 ANS Enabler	Х	Х	Х	Х						
8 AIM Infrastructure										
9 MET Infrastructure			Х							

	Network	Local	Non-performance
Voice Communication			
2 NAV Infrastructure			
3 Carrier Infrastructure		х	Х
l Airport Throughput			
5 COOPANS (AT)			
6 ATS-Enabler			
7 ANS Enabler	Х	х	Х
AIM Infrastructure			
9 MET Infrastructure			



# New major investments	EIO Date <sup>1</sup>	Status	SES Reg.	Partnership	ATM system	
					ATM sytem	CP/ MP <sup>2</sup>
1 Voice Communication	31/12/2024	Unknown	Yes	No	Yes	CP
2 NAV Infrastructure	31/12/2025	Unknown	Yes	No	No	MP
3 Carrier Infrastructure	31/12/2024	Unknown	No	No	Yes	MP
4 Airport Throughput	31/12/2024	Unknown	Yes	No	Yes	CP
5 COOPANS (AT)	31/12/2024	Unknown	Yes	Yes	Yes	CP
6 ATS-Enabler	31/12/2024	Unknown	Yes	No	Yes	CP
7 ANS Enabler	31/12/2024	Unknown	No	No	No	MP
8 AIM Infrastructure	31/12/2024	Unknown	Yes	No	Yes	CP
9 MET Infrastructure	31/12/2024	Unknown	Yes	No	Yes	CP





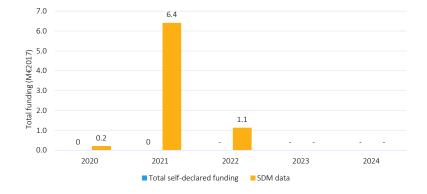
KPAs: SAF = Safety, ENV = Environment, CAP = Capacity, CEF = Cost-efficiency.

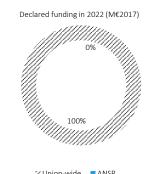
1. EOI date = Date of entry into operation

2. CP/MP = Common Project and Master Plan

Due to the lack of information with regards to the costs of investments and the progression of the investments, the status of the investments reported by Austria is uncertain. The investments have been marked as "unknown".

PUBLIC FUNDING GRANTED FOR TOTAL CAPEX (CEF/TEN-T)						AUSTRIA   Austro Contro		
Actual funding declaration (M $\epsilon_{2017}$ )	2020	2021	2022	2023	2024	RP3 to date		
Total funding declared	-	-	-	-	- 1	-		
En route funding declared	-	-	-	-	-	-		
En route funding that could not be assigned to a specific investment	-	-	-	-	-	-		
Terminal funding	-	-	-	-	-	-		
Terminal funding that could not be assigned to a specific investment	-	-	-	-	-	-		
Actual funding declaration vs payments (M $\varepsilon_{2017}$ )	2020	2021	2022	2023	2024	RP3 to date		
Difference between total funding declared vs received	(0.20)	-6.41	-1.14	0.00	0.00	-7.75		
Total included in the funding declaration (reporting tables)	0.00	0.00	0.00	0.00	0.00	0.00		
SDM Payment	0.20	6.41	1.14	0.00	0.00	7.75		





28/206

∠Union-wide ANSP

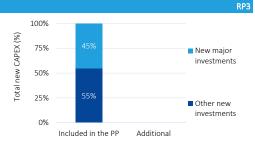
Austria did not declare any funding received in 2022, however SESAR Deployment Manager data indicates a payment of 1.1M  $\epsilon_{2017}$  in 2022. For RP3 to date, Austria did not declare any funding, while SESAR Deployment Manager data indicates a payment of 7.8 M $\epsilon_{2017}$ .

Belgium and Luxembourg do not currently have approved performance plans. Thus, the data within this factsheet is based on information from the latest submission of the draft performance plans. Belgium underspent  $0.3M \in_{2017}$  (-2.5%) in costs related to investments for en route and terminal in 2022 compared to the determined costs. Belgium planned four new major investments for RP3, all of which have started.

#### CAPEX FOR NEW INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

#### Determined and additional CAPEX by value of individual investments (M€2017)

APEX for new investments	124.08	% of total
New major investments (above 5M€ each) <sup>1</sup>	55.81	45%
Included in the performance plan	55.81	45%
Additional <sup>2</sup>	-	0%
Other new investments (below 5M€ each) <sup>3</sup>	68.27	55%
Included in the performance plan	68.27	55%
Additional	-	09



#### Determined CAPEX: en route and terminal (M€<sub>2017</sub>)

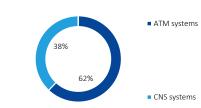
Total CAPEX for new major investments	55.81	% of total
En route	42.25	76%
Terminal	13.56	24%

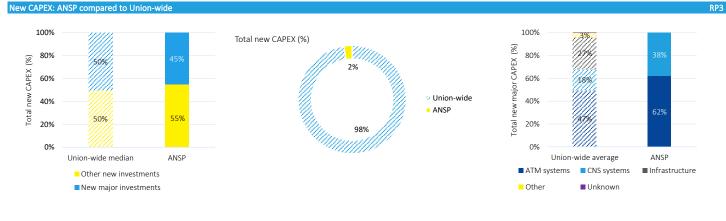


### Determined CAPEX by type of investment (M $\epsilon_{2017}$ )

Total CAPEX for new major investments	55.81	% of total
ATM systems	34.62	62%
CNS systems	21.19	38%
Infrastructure	-	0%
Other	-	0%
Unknown	-	0%







Unless otherwise stated, the Union-wide median values are reported as a measure of central tendency that is robust to outliers.

The Union-wide average values have a high standard deviation: ATM systems (31%), CNS systems (21%), infrastructure ( 24%), Other (21%), unknown (1%).

1. New major investments: "acquisition, development, replacement, upgrade, or leasing of fixed assets representing a total value over the whole lifetime of the assets greater than EUR 5 million in real terms" (Reg. 2019/317 art. 2 (13)).

2. Additional investments are those investments not foreseen as part of the performance plan.

3. Other new investments: new investments or replacements/upgrades of existing assets representing a total value over the whole lifetime of the asset below 5M€ in real terms.

BELGIUM | Skeyes

RP3

#### COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

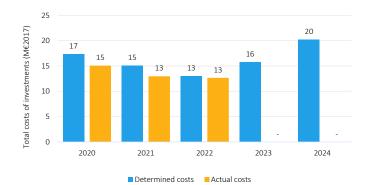
#### BELGIUM | Skeyes

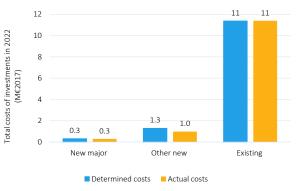
2020D	2021D	2022D	2023D	2024D	RP3 to date
17.36	15.04	12.98	15.72	20.19	45.38
0.02	0.12	0.31	1.62	3.32	0.44
0%	1%	2%	10%	16%	1%
0.83	1.82	1.29	2.88	6.35	3.94
5%	12%	10%	18%	31%	9%
16.52	13.11	11.38	11.22	10.51	41.01
95%	87%	88%	71%	52%	90%
	17.36 0.02 0% 0.83 5% 16.52	17.36         15.04           0.02         0.12           0%         1%           0.83         1.82           5%         12%           16.52         13.11	17.36         15.04         12.98           0.02         0.12         0.31           0%         1%         2%           0.83         1.82         1.29           5%         12%         10%           16.52         13.11         11.38	17.36         15.04         12.98         15.72           0.02         0.12         0.31         1.62           0%         1%         2%         10%           0.83         1.82         1.29         2.88           5%         12%         10%         18%           16.52         13.11         11.38         11.22	17.36         15.04         12.98         15.72         20.19           0.02         0.12         0.31         1.62         3.32           0%         1%         2%         10%         16%           0.83         1.82         1.29         2.88         6.35           5%         12%         10%         18%         31%           16.52         13.11         11.38         11.22         10.51

Actual costs: new and existing investments (M $\varepsilon_{2017}$ )	2020A	2021A	2022A	2023A	2024A	RP3 to date
Total costs	15.07	12.95	12.65	-	-	40.68
New major investments	0.02	0.13	0.29	-	-	0.43
% New major investments in total costs of investments	0%	1%	2%	-	-	1%
Other new investments	0.49	0.69	0.97	-	-	2.16
% Other new investments in total costs of investments	3%	5%	8%	-	-	5%
Existing investments	14.56	12.14	11.39	-	-	38.09
% Existing investments in total costs of investments	97%	94%	90%	-	-	94%

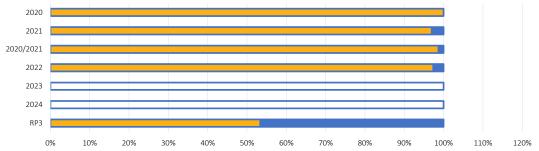
Actual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date

lifference	(2.29)	(2.09)	(0.33)	-	-	(4.71)
New major investments	0	0.01	(0.03)	-	-	(0.02)
% change of actual with respect to determined	0%	8%	-8%	-	-	-3%
Other new investments	(0.33)	(1.13)	(0.32)	-	-	(1.78)
% change of actual with respect to determined	-40%	-62%	-25%	-	-	-45%
Existing investments	(1.96)	(0.97)	0.02	-	-	(2.91)
% change of actual with respect to determined	-12%	-7%	0%	-	-	-7%



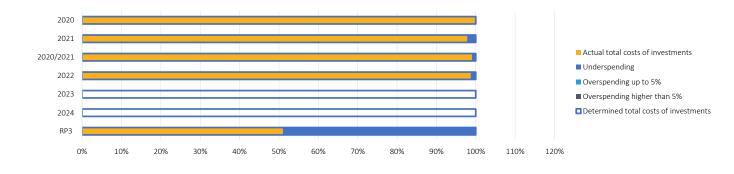


COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFOR	MANCE PLAN					BELGIUM - En	route   Skeyes
Determined costs by nature (M $\epsilon_{2017}$ )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to date
Total costs of new and existing investments	11.59	10.34	21.93	10.11	12.02	15.07	32.04
Depreciation	10.03	9.04	19.07	8.51	8.87	11.06	27.59
Cost of capital	1.56	1.30	2.85	1.60	3.15	4.01	4.45
Cost of leasing	-	-	-	-	-	-	-
Actual costs by nature (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to date
Total costs of new and existing investments	11.59	10.00	21.59	9.82	-	-	31.41
Depreciation	10.03	8.77	18.80	8.54	-	-	27.35
Cost of capital	1.56	1.23	2.79	1.27	-	-	4.06
Cost of leasing	-	-	-	-	-	-	-
Actual minus determined costs (M $\epsilon_{2017}$ )	2020	2021	2020/2021	2022	2023	2024	RP3 to date
Total difference	-	(0.34)	(0.34)	(0.29)	-	-	(0.63)
Depreciation	-	(0.27)	(0.27)	0.03	-	-	(0.24)
Cost of capital	-	(0.07)	(0.07)	(0.32)	-	-	(0.39)
Cost of leasing	-	-	-	-	-	-	-



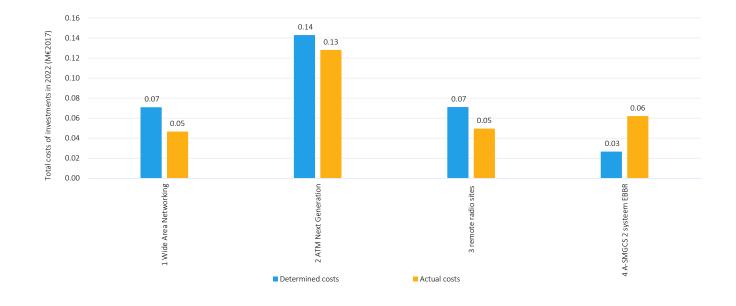
Actual total costs of investments
Underspending
Overspending up to 5%
Overspending higher than 5%
Determined total costs of investments

COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFOR	RMANCE PLAN					BELGIUM - Terminal   Skeye		
Determined costs by nature (M€ <sub>2017</sub> )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to date	
Total costs of new and existing investments	3.48	3.02	6.50	2.87	3.70	5.12	9.38	
Depreciation	3.01	2.64	5.66	2.43	2.80	3.79	8.08	
Cost of capital	0.47	0.38	0.85	0.45	0.90	1.33	1.29	
Cost of leasing	-	-	-	-	-	-	-	
Actual costs by nature (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to date	
Total costs of new and existing investments	3.48	2.96	6.44	2.83	-	-	9.27	
Depreciation	3.01	2.59	5.60	2.47	-	-	8.07	
Cost of capital	0.47	0.37	0.83	0.37	-	-	1.20	
Cost of leasing	-	-	-	-	-	-	-	
Actual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2020/2021	2022	2023	2024	RP3 to date	
Total difference	-	(0.07)	(0.07)	(0.04)	-	-	(0.10)	
Depreciation	-	(0.05)	(0.05)	0.04	-	-	(0.01)	
Cost of capital	-	(0.02)	(0.02)	(0.08)	-	-	(0.09)	
Cost of leasing	-	-	-	-	-	-	-	



Belgium underspent  $0.3M \in_{2017}$  in costs related to investments (- $0.29M \in_{2017}$  in en route and - $0.04M \in_{2017}$  in terminal) in 2022. For RP3 to date Belgium underspent  $0.7M \in_{2017}$  in costs related to investments. These amounts shall be reimbursed to the airspace users through a reduction of future unit rate(s), unless the NSA decides after consultation with the users, that the ANSP shall not reimburse a part of the difference according to article 28 of Regulation (EU) 2019/317.

COSTS BY NEW MAJOR INVESTMENTS					BEL	GIUM   Skeyes
Determined costs $(M \epsilon_{2017})^1$	2020D	2021D	2022D	2023D	2024D	RP3 to date
Total costs of investments	0.02	0.12	0.31	1.62	3.32	0.44
1 Wide Area Networking	0.00	0.03	0.07	0.63	0.79	0.10
2 ATM Next Generation	-	0.04	0.14	0.42	0.87	0.18
3 remote radio sites	0.01	0.04	0.07	0.25	1.06	0.12
4 A-SMGCS 2 systeem EBBR	0.00	0.01	0.03	0.32	0.60	0.04
Actual costs (M€ <sub>2017</sub> )	2020A	2021A	2022A	2023A	2024A	RP3 to date
Total costs of investments	0.02	0.13	0.29	-	-	0.43
1 Wide Area Networking	0.00	0.03	0.05	-	-	0.07
2 ATM Next Generation	-	0.06	0.13	-	-	0.19
3 remote radio sites	0.01	0.03	0.05	-	-	0.09
4 A-SMGCS 2 systeem EBBR	0.00	0.01	0.06	-	-	0.08
Actual minus determined costs of investments (M $\ensuremath{\varepsilon_{2017}}$ )	2020	2021	2022	2023	2024	RP3 to date
Total difference in costs of investments	0.00	0.01	(0.03)	-	-	(0.02)
1 Wide Area Networking	0.00	(0.01)	(0.02)	-	-	(0.03)
2 ATM Next Generation	-	0.02	(0.01)	-	-	0.01
3 remote radio sites	0.00	(0.01)	(0.02)	-	-	(0.03)
4 A-SMGCS 2 systeem EBBR	(0.00)	0.00	0.04	-	-	0.04



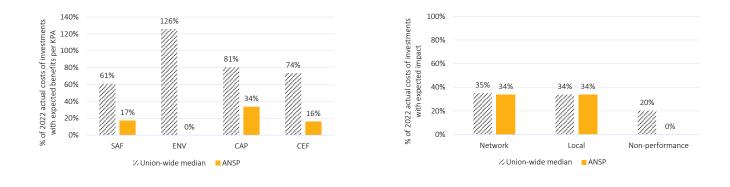
1. Determined costs comprise depreciation costs, cost of capital, and cost of leasing in the performance plans.

32/206

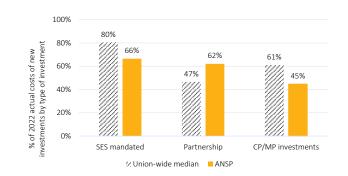
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ECTED BENEFIT AND IMPACT PER NEW MAJOR INVESTMENT			BI	ELGIUM   Ske			
* New major investments	Expected benefit per KPA						
	SAF	ENV	CAP	CEF			
1 Wide Area Networking			Х	Х			
2 ATM Next Generation							
3 remote radio sites	Х		Х				
4 A-SMGCS 2 systeem EBBR							

# New major investments	Expected impact				
	1				
	Network	Local	Non-performance		
1 Wide Area Networking	X	х			
2 ATM Next Generation					
3 remote radio sites	Х	Х			
4 A-SMGCS 2 systeem EBBR					



# New major investments	EIO Date <sup>1</sup>	Status	SES Reg.	Partnership	ATM sy	vstem
					ATM sytem	CP/ MP <sup>2</sup>
1 Wide Area Networking	2022-2024	Started	No	No	No	-
2 ATM Next Generation	2023-2027	Started	Yes	Yes	Yes	CP
3 remote radio sites	2024-2025	Started	No	Yes	No	-
4 A-SMGCS 2 systeem EBBR	2024-2026	Started	Yes	No	No	-



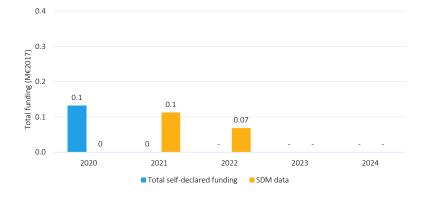


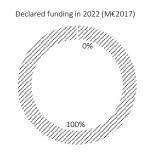
KPAs: SAF = Safety, ENV = Environment, CAP = Capacity, CEF = Cost-efficiency.

1. EOI date = Date of entry into operation

2. CP/MP = Common Project and Master Plan

PUBLIC FUNDING GRANTED FOR TOTAL CAPEX (CEF/TEN-T)					BELGIUM   Skeyes		
Actual funding declaration (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date	
Total funding declared	0.13	-	-	-	- 1	0.13	
En route funding declared	0.13	-	-	-	-	0.13	
En route funding that could not be assigned to a specific investment	0.06	-	-	-	-	0.06	
Wide Area Networking	0.07	-	-	-	-	0.07	
Terminal funding	0.01	-	-	-	-	0.01	
Terminal funding that could not be assigned to a specific investment	0.01	-	-	-	-	0.01	
Actual funding declaration vs payments (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date	
Difference between total funding declared vs received	0.13	(0.11)	(0.07)	-	-	(0.05)	
Total included in the funding declaration (reporting tables)	0.13	-	-	-	-	0.13	
SDM Payment	-	0.11	0.07	-	-	0.18	





Union-wide ANSP

Belgium did not declare any funding received in 2022, however SESAR Deployment Manager data indicates a payment of  $0.07M \epsilon_{2017}$  in 2022. For RP3 to date, Belgium declared  $0.1M \epsilon_{2017}$  of funding, while SESAR Deployment Manager data indicates a payment of  $0.2M \epsilon_{2017}$ .

34/206

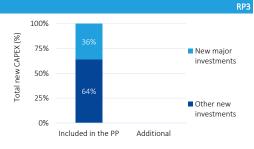
Terminal

Bulgaria overspent  $0.5M \in_{2017}$  (+2.6%) in costs related to investments for en route in 2022 compared to the determined costs. Bulgaria planned three new major investments for RP3, all of which have started.

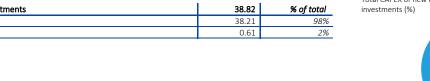
#### CAPEX FOR NEW INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

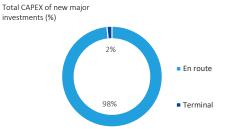
#### Determined and additional CAPEX by value of individual investments (M $\varepsilon_{2017}$ )

APEX for new investments	108.09	% of total
New major investments (above 5M€ each) <sup>1</sup>	38.82	36%
Included in the performance plan	38.82	36%
Additional <sup>2</sup>	0	0%
Other new investments (below 5M€ each) <sup>3</sup>	69.27	64%
Included in the performance plan	69.27	64%
Additional	0	0%



Determined CAPEX: en route and terminal ( $M \in_{2017}$ )		
Total CAPEX for new major investments	38.82	
En route	38.21	

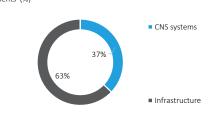




#### Determined CAPEX by type of investment (M€<sub>2017</sub>)

Total CAPEX for new major investments	38.82	% of total
ATM systems	0	0%
CNS systems	14.42	37%
Infrastructure	24.40	63%
Other	0	0%
Unknown	0	0%

#### Total CAPEX of new major investments (%)



New CAPEX: ANSP compared to Union-wide RP3 100% 100% Total new CAPEX (%) (%) 80% 80% (%) 50% major CAPEX 2% new CAPEX 60% 60% 19% Union-wide 40% 40% Total new ANSP 64% Total 50% 20% 20% 98% 0% 0% Union-wide average ANSP Union-wide median ANSP ATM systems CNS systems Infrastructure Other new investments Other Unknown New major investments Unless otherwise stated, the Union-wide median values are reported as a The Union-wide average values have a high standard deviation: ATM systems (31%), CNS systems (21%), infrastructure (24%), Other (21%), unknown (1%). measure of central tendency that is robust to outliers.

1. New major investments: "acquisition, development, replacement, upgrade, or leasing of fixed assets representing a total value over the whole lifetime of the assets greater than EUR 5 million in real terms" (Reg. 2019/317 art. 2 (13)).

2. Additional investments are those investments not foreseen as part of the performance plan.

3. Other new investments: new investments or replacements/upgrades of existing assets representing a total value over the whole lifetime of the asset below 5M€ in real terms.

BULGARIA | BULATSA

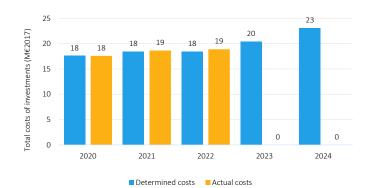
RP3

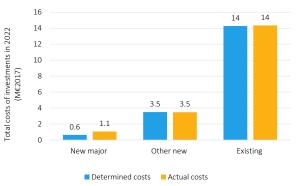
36/206

etermined costs: new and existing investments $(M \boldsymbol{\varepsilon}_{_{2017}})^1$	2020D	2021D	2022D	2023D	2024D	RP3 to date
otal costs	17.59	18.46	18.42	20.36	23.06	54.47
New major investments	0.15	0.42	0.64	1.41	3.11	1.20
% New major investments in total costs of investments	1%	2%	3%	7%	14%	2%
Other new investments	0.92	1.66	3.50	6.30	8.75	6.08
% Other new investments in total costs of investments	5%	9%	19%	31%	38%	11%
Existing investments	16.52	16.38	14.28	12.65	11.20	47.18
% Existing investments in total costs of investments	94%	89%	78%	62%	49%	87%

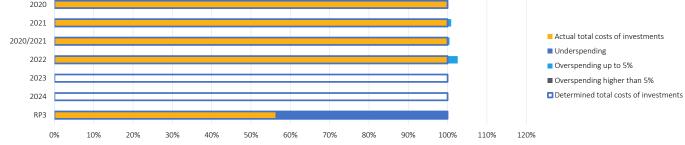
Actual costs: new and existing investments (M $\epsilon_{ m 2017}$ )	2020A	2021A	2022A	2023A	2024A	RP3 to date
Total costs	17.59	18.63	18.89	-	-	55.11
New major investments	0.15	0.54	1.06	-	-	1.74
% New major investments in total costs of investments	1%	3%	6%	=	-	3%
Other new investments	0.92	2.22	3.47	-	-	6.61
% Other new investments in total costs of investments	5%	12%	18%	-	-	12%
Existing investments	16.52	15.88	14.36	-	-	46.76
% Existing investments in total costs of investments	94%	85%	76%	-	-	85%

2020	2021	2022	2023	2024	RP3 to date
0	0.17	0.47	-	-	0.64
0	0.12	0.42	-	-	0.54
0%	28%	65%	-	-	45%
0	0.55	(0.02)	-	-	0.53
0%	33%	-1%	-	-	9%
0	(0.50)	0.08	-	-	(0.42)
0%	-3%	1%	-	-	-1%
	0 0% 0% 0% 0	0         0.17           0         0.12           0%         28%           0         0.55           0%         33%           0         (0.50)	0         0.17         0.47           0         0.12         0.42           0%         28%         65%           0         0.55         (0.02)           0%         33%         -1%           0         (0.50)         0.08	0         0.17         0.47         -           0         0.12         0.42         -           0%         28%         65%         -           0         0.55         (0.02)         -           0%         33%         -1%         -           0         (0.50)         0.08         -	0         0.17         0.47         - </td

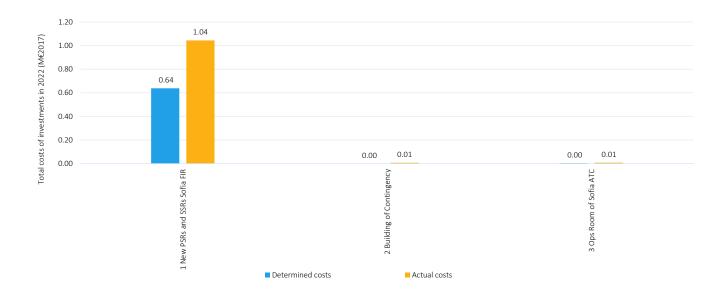




Determined costs by nature (M€ <sub>2017</sub> )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to dat
Total costs of new and existing investments	17.59	18.46	36.05	18.42	20.36	23.06	54.47
Depreciation	10.57	10.96	21.53	10.70	11.87	13.77	32.23
Cost of capital	7.02	7.50	14.52	7.72	8.48	9.28	22.24
Cost of leasing	0	0	0	0	0	0	(
Actual costs by nature (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to dat
Total costs of new and existing investments	17.59	18.63	36.22	18.89	-	-	55.11
Depreciation	10.57	11.49	22.06	11.95	-	-	34.00
Cost of capital	7.02	7.14	14.16	6.94	-	-	21.11
Cost of leasing	0	0	0	-	-	-	(
Actual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2020/2021	2022	2023	2024	RP3 to dat
Total difference	0	0.17	0.17	0.47	-	- [	0.64
Depreciation	0	0.52	0.52	1.25	-	-	1.77
Cost of capital	0	(0.35)	(0.35)	(0.78)	-	-	(1.13
Cost of leasing	0	0	0	-	-	-	(



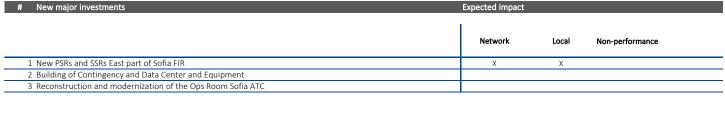
COSTS BY NEW MAJOR INVESTMENTS					BULGA	RIA   BULATSA
Determined costs $\left(M\varepsilon_{2017} ight)^1$	2020D	2021D	2022D	2023D	2024D	RP3 to date
Total costs of investments	0.15	0.42	0.64	1.41	3.11	1.20
1 New PSRs and SSRs East part of Sofia FIR	0.15	0.42	0.64	1.16	2.15	1.20
2 Building of Contingency and Data Center and Equipment	0	0	0	0.15	0.75	0
3 Reconstruction and modernization of the Ops Room Sofia ATC	0.00	0.00	0.00	0.10	0.22	0.01
Actual costs (M€ <sub>2017</sub> )	2020A	2021A	2022A	2023A	2024A	RP3 to date
Total costs of investments	0.15	0.54	1.06	-	-	1.74
1 New PSRs and SSRs East part of Sofia FIR	0.15	0.53	1.04	-	-	1.72
2 Building of Contingency and Data Center and Equipment	0	0.00	0.01	-	-	0.01
3 Reconstruction and modernization of the Ops Room Sofia ATC	0.00	0.01	0.01	-	-	0.01
Actual minus determined costs of investments (M $\ensuremath{\varepsilon_{2017}}$ )	2020	2021	2022	2023	2024	RP3 to date
Total difference in costs of investments	0	0.12	0.42	-	-	0.54
1 New PSRs and SSRs East part of Sofia FIR	0	0.11	0.41	-	-	0.52
2 Building of Contingency and Data Center and Equipment	0	0.00	0.01	-	-	0.01
3 Reconstruction and modernization of the Ops Room Sofia ATC	0	0.00	0.00	-	-	0.01

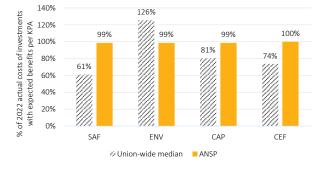


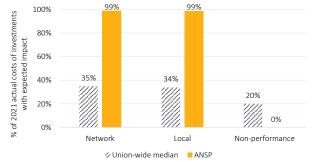
1. Determined costs comprise depreciation costs, cost of capital, and cost of leasing in the performance plans.

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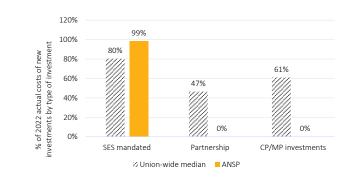
CTED BENEFIT AND IMPACT PER NEW MAJOR INVESTMENT				BULGARIA   BULAT					
# New major investments	Expected benefit per KPA								
	SAF	ENV	CAP	CEF					
1 New PSRs and SSRs East part of Sofia FIR	Х	Х	Х	Х					
2 Building of Contingency and Data Center and Equipment				Х					
3 Reconstruction and modernization of the Ops Room Sofia ATC				Х					

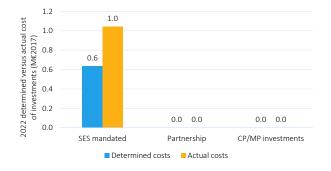






# New major investments	EIO Date <sup>1</sup>	Status	SES Reg.	Partnership	ATM sy	rstem
					ATM sytem	CP/ MP <sup>2</sup>
1 New PSRs and SSRs East part of Sofia FIR	30/09/2023	Started	Yes	No	No	-
2 Building of Contingency and Data Center and Equipment	03/06/2024	Started	No	No	No	-
3 Reconstruction and modernization of the Ops Room Sofia ATC	30/06/2025	Started	No	No	No	-



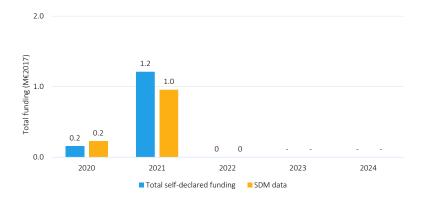


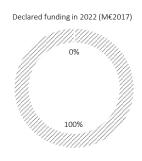
KPAs: SAF = Safety, ENV = Environment, CAP = Capacity, CEF = Cost-efficiency.

1. EOI date = Date of entry into operation

2. CP/MP = Common Project and Master Plan

PUBLIC FUNDING GRANTED FOR TOTAL CAPEX (CEF/TEN-T)	BULGARIA   BULATSA					
Actual funding declaration (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
Total funding declared	0.16	1.21	0.00	-	- 1	1.37
En route funding declared	0.16	1.21	0.00	-	-	1.37
En route funding that could not be assigned to a specific investment	0.16	1.21	0.00	-	-	1.37
Terminal funding	-	-	-	-	-	-
Terminal funding that could not be assigned to a specific investment	-	-	-	-	-	-
Actual funding declaration vs payments (M $\epsilon_{ m 2017}$ )	2020	2021	2022	2023	2024	RP3 to date
Difference between total funding declared vs received	(0.07)	0.25	(0.00)	-	-	0.18
Total included in the funding declaration (reporting tables)	0.16	1.21	0.00	-	-	1.37
SDM Payment	0.23	0.96	0.00	-	-	1.19





✓ Union-wide ANSP

Bulgaria received 2.5K€<sub>2017</sub> funding in 2022, while SESAR Deployment Manager data indicate a payment of 2.6K€<sub>2017</sub> for 2022. For RP3 to date, Bulgaria declared 1.4M€<sub>2017</sub> of funding, while SESAR Deployment Manager data indicates a payment of 1.2M€<sub>2017</sub>.

40/206

Croatia underspent 0.4M€<sub>2017</sub> (-3.4%) in costs related to investments for en route in 2022 compared to the determined costs. Croatia planned two new major investments for RP3, all of which have started.

#### CAPEX FOR NEW INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

#### Determined and additional CAPEX by value of individual investments (M€2017)

APEX for new investments	70.70	% of total
New major investments (above 5M€ each) <sup>1</sup>	25.42	36%
Included in the performance plan	25.42	36%
Additional <sup>2</sup>	0	0%
Other new investments (below 5M€ each) <sup>3</sup>	45.29	64%
Included in the performance plan	45.29	64%
Additional	0	0%



Determined CAPEX: en route and terminal (M $\varepsilon_{2017}$ )

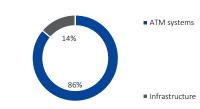
Total CAPEX for new major investments	25.42	% of total
En route	25.42	100%
Terminal	0	0%



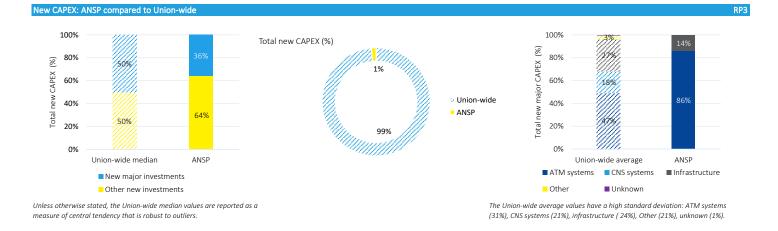
## Determined CAPEX by type of investment (M $\varepsilon_{2017}$ )

Total CAPEX for new major investments	25.42	% of total
ATM systems	21.89	86%
CNS systems	0	0%
Infrastructure	3.53	14%
Other	0	0%
Unknown	0	0%





RP3



1. New major investments: "acquisition, development, replacement, upgrade, or leasing of fixed assets representing a total value over the whole lifetime of the assets greater than EUR 5 million in real terms" (Reg. 2019/317 art. 2 (13)).

2. Additional investments are those investments not foreseen as part of the performance plan.

3. Other new investments: new investments or replacements/upgrades of existing assets representing a total value over the whole lifetime of the asset below 5M€ in real terms.

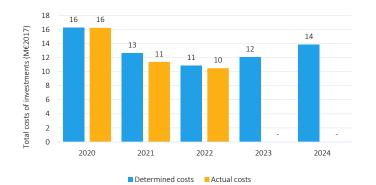
CROATIA | Croatia Control

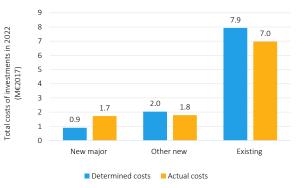
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rmined costs: new and existing investments ${(M {f \varepsilon}_{2017})}^1$	2020D	2021D	2022D	2023D	2024D	RP3 to date
l costs	16.23	12.65	10.85	12.05	13.84	39.74
New major investments	0.44	0.64	0.89	1.57	2.42	1.97
% New major investments in total costs of investments	3%	5%	8%	13%	17%	5%
Other new investments	0.45	1.16	2.03	4.26	6.27	3.64
% Other new investments in total costs of investments	3%	9%	19%	35%	45%	9%
Existing investments	15.34	10.86	7.93	6.22	5.14	34.13
% Existing investments in total costs of investments	95%	86%	73%	52%	37%	86%

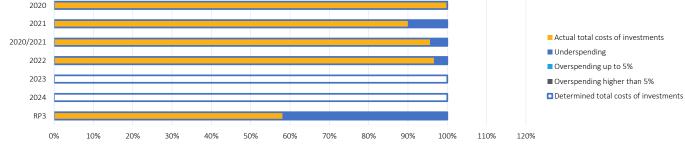
Actual costs: new and existing investments ( $M \varepsilon_{2017}$ )	2020A	2021A	2022A	2023A	2024A	RP3 to date
Total costs	16.23	11.38	10.48	-	-	38.09
New major investments	0.44	0.79	1.72	-	-	2.95
% New major investments in total costs of investments	3%	7%	16%	-	-	8%
Other new investments	0.45	1.23	1.79	-	-	3.47
% Other new investments in total costs of investments	3%	11%	17%	-	-	9%
Existing investments	15.34	9.36	6.97	-	-	31.67
% Existing investments in total costs of investments	95%	82%	67%	-	-	83%

Actual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
Total difference	0	(1.27)	(0.37)	-	-	(1.64)
New major investments	0	0.15	0.83	-	-	0.98
% change of actual with respect to determined	0%	23%	94%	-	-	50%
Other new investments	0	0.07	(0.24)	-	-	(0.17)
% change of actual with respect to determined	0%	6%	-12%	-	-	-5%
Existing investments	0	(1.49)	(0.96)	-	-	(2.45)
% change of actual with respect to determined	0%	-14%	-12%	-	-	-7%





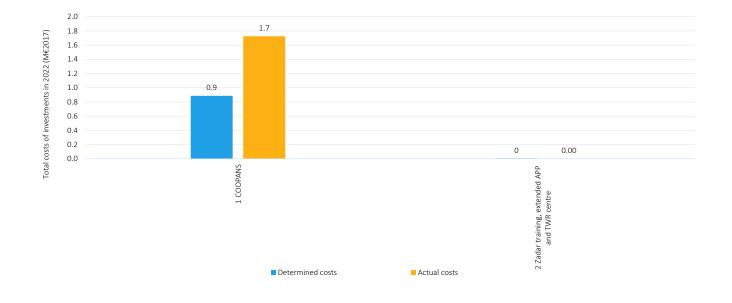
Determined costs by nature (M€ <sub>2017</sub> )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to dat
Total costs of new and existing investments	16.23	12.65	28.88	10.85	12.05	13.84	39.74
Depreciation	13.53	10.42	23.95	8.46	9.30	10.69	32.41
Cost of capital	2.69	2.24	4.93	2.40	2.75	3.15	7.33
Cost of leasing	0	0	0	0	0	0	(
Actual costs by nature (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to dat
Total costs of new and existing investments	16.23	11.38	27.61	10.48	-	-	38.09
Depreciation	13.53	8.99	22.52	8.00	-	-	30.53
Cost of capital	2.69	2.39	5.09	2.48	-	-	7.57
Cost of leasing	0	0	0	-	-	-	(
Actual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2020/2021	2022	2023	2024	RP3 to dat
Total difference	0	(1.27)	(1.27)	(0.37)	-	-1	(1.64
Depreciation	0	(1.43)	(1.43)	(0.46)	-	-	(1.88
Cost of capital	0	0.15	0.15	0.09	-	-	0.24
Cost of leasing	0	0	0	-	-	-	C



Croatia did not establish a terminal charging zone for RP3.

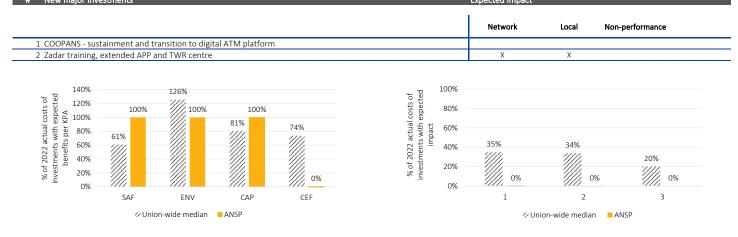
Croatia underspent  $0.4ME_{2017}$  in costs related to investments in 2022. For RP3 to date Croatia underspent  $1.6ME_{2017}$  in costs related to investments. These amounts shall be reimbursed to the airspace users through a reduction of future unit rate(s), unless the NSA decides after consultation with the users, that the ANSP shall not reimburse a part of the difference according to article 28 of Regulation (EU) 2019/317.

COSTS BY NEW MAJOR INVESTMENTS					CROATIA   C	Croatia Control
Determined costs $(M \epsilon_{2017})^1$	2020D	2021D	2022D	2023D	2024D	RP3 to date
Total costs of investments	0.44	0.64	0.89	1.57	2.42	1.97
1 COOPANS - sustainment and transition to digital ATM platform	0.44	0.64	0.89	1.52	2.29	1.96
2 Zadar training, extended APP and TWR centre	0	0	0.01	0.05	0.13	0.0055
Actual costs (M€ <sub>2017</sub> )	2020A	2021A	2022A	2023A	2024A	RP3 to date
Total costs of investments	0.44	0.79	1.72	-	-	2.95
1 COOPANS - sustainment and transition to digital ATM platform	0.44	0.79	1.72	-	-	2.95
2 Zadar training, extended APP and TWR centre	0	0.00	0.00	-	-	0.00
Actual minus determined costs of investments (M $\varepsilon_{2017}$ )	2020	2021	2022	2023	2024	RP3 to date
Total difference in costs of investments	0	0.15	0.83	-	-	0.98
1 COOPANS - sustainment and transition to digital ATM platform	0	0.15	0.84	-	-	0.99
2 Zadar training, extended APP and TWR centre	0	0.00	(0.00)	-	-	(0.00)

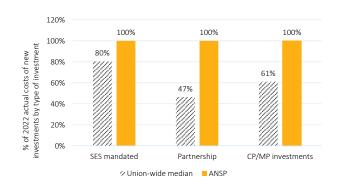


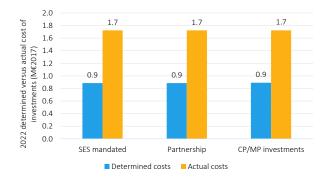
1. Determined costs comprise depreciation costs, cost of capital, and cost of leasing in the performance plans.

New major investments	Expected benefit	Expected benefit per KPA				
	SAF	ENV	CAP	CE		
1 COOPANS - sustainment and transition to digital ATM platform	Х	Х	Х			
2 Zadar training, extended APP and TWR centre	Х		Х	Х		



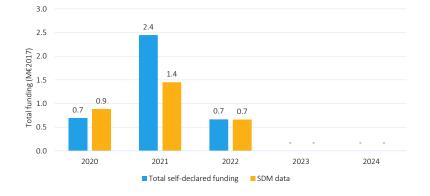
# New major investments	EIO Date <sup>1</sup>	Status	SES Reg.	Partnership	ATM sy	stem
					ATM sytem	CP/ MP <sup>2</sup>
1 COOPANS - sustainment and transition to digital ATM platform	2020-2026	Started	Yes	Yes	Yes	CP
2 Zadar training, extended APP and TWR centre	2026	Started	No	No	Yes	MP

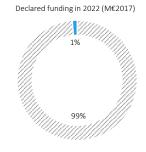




KPAs: SAF = Safety, ENV = Environment, CAP = Capacity, CEF = Cost-efficiency. 1. EOI date = Date of entry into operation 2. CP/MP = Common Project and Master Plan

UBLIC FUNDING GRANTED FOR TOTAL CAPEX (CEF/TEN-T)					CROATIA   (	Croatia Control
ctual funding declaration (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
otal funding declared	0.69	2.45	0.67	-	-	3.80
En route funding declared	0.69	2.45	0.67	-	-	3.80
En route funding that could not be assigned to a specific investment	0.69	1.72	0.67	-	-	3.08
COOPANS - sustainment and transition to digital ATM platform	-	0.72	-	-	-	0.72
Terminal funding	-	-	-	-	-	-
Terminal funding that could not be assigned to a specific investment	-	-	-	-	-	-
tual funding declaration vs payments (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
ifference between total funding declared vs received	(0.19)	1.00	0.00	-	-	0.81
Total included in the funding declaration (reporting tables)	0.69	2.45	0.67	-	-	3.80
SDM Payment	0.88	1.45	0.66	-	-	2.99





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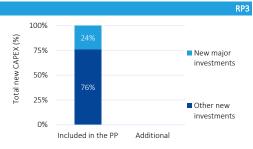
Croatia reported  $0.7M \in_{2017}$  funding in 2022, this payment matches the data provided by the SESAR Deployment Manager. For RP3 to date, Croatia declared  $3.8M \in_{2017}$  of funding, while SESAR Deployment Manager data indicates a payment of  $3.0M \in_{2017}$ .

Cyprus underspent 0.5M€<sub>2017</sub> (-12%) in costs related to investments for en route in 2022 compared to the determined costs. Cyprus planned two new major investments for RP3, both of which have started.

#### CAPEX FOR NEW INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

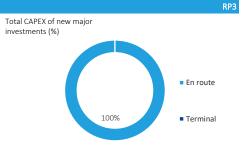
#### Determined and additional CAPEX by value of individual investments (M€2017)

APEX for new investments	47.12	% of total
New major investments (above 5M€ each) <sup>1</sup>	11.30	24%
Included in the performance plan	11.30	24%
Additional <sup>2</sup>	0	09
Other new investments (below 5M€ each) <sup>3</sup>	35.83	76%
Included in the performance plan	35.83	769
Additional	0	09



#### Determined CAPEX: en route and terminal (M€<sub>2017</sub>)

Total CAPEX for new major investments	11.30	% of total
En route	11.30	100%
Terminal	0	0%



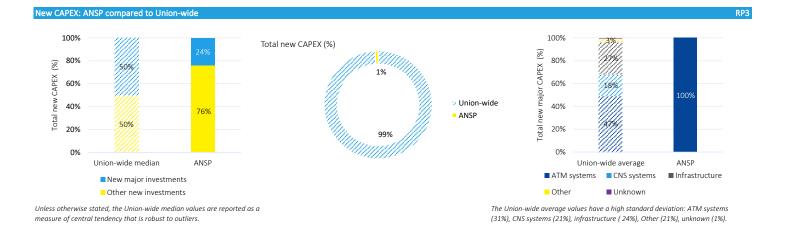
## Determined CAPEX by type of investment (M $\epsilon_{2017}$ )

Total CAPEX for new major investments	11.30	% of total
ATM systems	11.30	100%
CNS systems	0	0%
Infrastructure	0	0%
Other	0	0%
Unknown	0	0%

#### Total CAPEX of new major investments (%)



RP3



1. New major investments: "acquisition, development, replacement, upgrade, or leasing of fixed assets representing a total value over the whole lifetime of the assets greater than EUR 5 million in real terms" (Reg. 2019/317 art. 2 (13)).

2. Additional investments are those investments not foreseen as part of the performance plan.

3. Other new investments: new investments or replacements/upgrades of existing assets representing a total value over the whole lifetime of the asset below 5M€ in real terms.

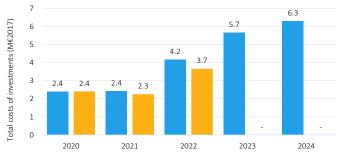
CYPRUS | DCAC Cyprus

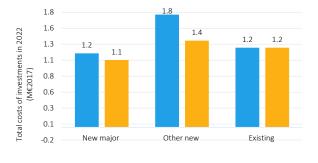
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Determined costs: new and existing investments $\left(M {f \varepsilon}_{2017}  ight)^1$	2020D	2021D	2022D	2023D	2024D	RP3 to date
Total costs	2.41	2.41	4.17	5.67	6.29	8.99
New major investments	0.13	0.37	1.16	1.67	1.64	1.66
% New major investments in total costs of investments	5%	15%	28%	29%	26%	18%
Other new investments	0.17	0.60	1.76	2.87	3.64	2.53
% Other new investments in total costs of investments	7%	25%	42%	51%	58%	28%
Existing investments	2.11	1.45	1.25	1.13	1.01	4.80
% Existing investments in total costs of investments	87%	60%	30%	20%	16%	53%

Actual costs: new and existing investments (M€ <sub>2017</sub> )	2020A	2021A	2022A	2023A	2024A	RP3 to date
Total costs	2.41	2.25	3.65	-	-	8.31
New major investments	0.13	0.34	1.05	-	-	1.52
% New major investments in total costs of investments	5%	15%	29%	-	-	18%
Other new investments	0.17	0.46	1.36	-	-	1.99
% Other new investments in total costs of investments	7%	20%	37%	-	-	24%
Existing investments	2.11	1.45	1.25	-	-	4.80
% Existing investments in total costs of investments	87%	64%	34%	-	-	58%

2020	2021	2022	2023	2024	RP3 to date
0	(0.16)	(0.51)	-	-	(0.68)
0	(0.03)	(0.10)	-	-	(0.13)
0%	-7%	-9%	-	-	-8%
0	(0.14)	(0.41)	-	-	(0.55)
0%	-23%	-23%	-	-	-22%
0	(0.00)	0.00	-	-	(0.00)
0%	0%	0%	-	-	0%
	0 0% 0% 0% 0	0         (0.16)           0         (0.03)           0%         -7%           0         (0.14)           0%         -23%           0         (0.00)	0         (0.16)         (0.51)           0         (0.03)         (0.10)           0%         -7%         -9%           0         (0.14)         (0.41)           0%         -23%         -23%           0         (0.00)         0.00	0         (0.16)         (0.51)         -           0         (0.03)         (0.10)         -           0%         -7%         -9%         -           0         (0.14)         (0.41)         -           0%         -23%         -23%         -           0         (0.00)         0.00         -	0         (0.16)         (0.51)         - <th< td=""></th<>



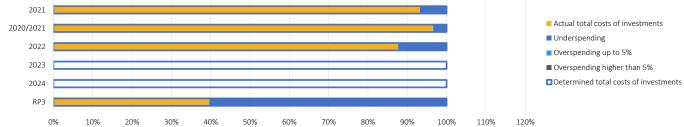


Determined costs

1. The performance plans include costs related to investments which comprise depreciation cost, cost of capital, and cost of leasing.

Determined costs

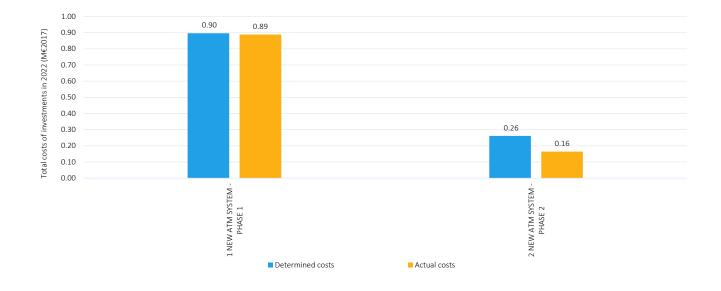
termined costs by nature (M€ <sub>2017</sub> )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to d
tal costs of new and existing investments	2.41	2.41	4.82	4.17	5.67	6.29	8.
Depreciation	1.90	1.30	3.20	2.49	3.66	4.18	5
Cost of capital	0.51	1.11	1.62	1.67	2.01	2.11	3
Cost of leasing	0	0	0	0	0	0	
tual costs by nature (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to c
tal costs of new and existing investments	2.41	2.25	4.66	3.65	-	-	8.
Depreciation	1.90	1.30	3.20	2.43	-	-	5
Cost of capital	0.51	0.95	1.46	1.22	-	-	2
Cost of leasing	0	0	0	0	-	-	
tual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2020/2021	2022	2023	2024	RP3 to d
tal difference	0	(0.16)	(0.16)	(0.51)	-	-	(0.
Depreciation	0	0	0	(0.06)	-	-	(0
Cost of capital	0	(0.16)	(0.16)	(0.45)	-	-	(0
Cost of leasing	0	0	0	0	-	-	
2020							



Cyprus did not establish a terminal charging zone for RP3.

Cyprus underspent  $0.5M \epsilon_{2017}$  in costs related to investments in 2022. For RP3 to date Cyprus underspent  $0.7M \epsilon_{2017}$  in costs related to investments. These amounts shall be reimbursed to the airspace users through a reduction of future unit rate(s), unless the NSA decides after consultation with the users, that the ANSP shall not reimburse a part of the difference according to article 28 of Regulation (EU) 2019/317.

COSTS BY NEW MAJOR INVESTMENTS					CYPRUS	DCAC Cyprus
Determined costs (M€ <sub>2017</sub> ) <sup>1</sup>	2020D	2021D	2022D	2023D	2024D	RP3 to date
Total costs of investments	0.13	0.37	1.16	1.67	1.64	1.66
1 NEW ATM SYSTEM - PHASE 1	0.13	0.28	0.90	0.88	0.87	1.31
2 NEW ATM SYSTEM - PHASE 2	0	0.09	0.26	0.79	0.78	0.35
Actual costs (M€ <sub>2017</sub> )	2020A	2021A	2022A	2023A	2024A	RP3 to date
Total costs of investments	0.13	0.34	1.05	-	-1	1.52
1 NEW ATM SYSTEM - PHASE 1	0.13	0.27	0.89	-	-	1.29
2 NEW ATM SYSTEM - PHASE 2	0	0.07	0.16	-	-	0.23
Actual minus determined costs of investments ( $M \varepsilon_{2017}$ )	2020	2021	2022	2023	2024	RP3 to date
Total difference in costs of investments	0.00	(0.03)	(0.10)	-	- [	(0.13)
1 NEW ATM SYSTEM - PHASE 1	0.00	(0.01)	(0.01)	-	-	(0.02)
2 NEW ATM SYSTEM - PHASE 2	0	(0.02)	(0.10)	-	-	(0.11)



1. Determined costs comprise depreciation costs, cost of capital, and cost of leasing in the performance plans.

EXPECTED BENEFIT AND IMPACT PER NEW MAJOR INVESTMENT			CYPRU	S   DCAC Cyprus
# New major investments	Expected benefit	per KPA		
	SAF	ENV	CAP	CEF
1 NEW ATM SYSTEM - PHASE 1	Х		Х	
2 NEW ATM SYSTEM - PHASE 2	Х		Х	

# New major investments

SAF

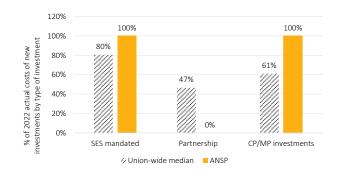
Network Local Non-performance 1 NEW ATM SYSTEM - PHASE 1 2 NEW ATM SYSTEM - PHASE 2 40% 140% 126% 35% % of 2022 actual costs of investments 34% 35% 100% 100% 30% with expected impact 81% 25% 74% 20% 61% 20% 15% 10% 5% 0% 0% 0% 0% 0% 0%

# New major investments Partnership ATM system EIO Date<sup>1</sup> SES Reg. Status Т ATM sytem

CEF

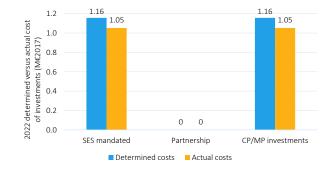
CAP

1 NEW ATM SYSTEM - PHASE 1         01/01/2022         Started         Yes         MP           2 NEW ATM SYSTEM _ PHASE 2         01/01/2022         Started         Yes         MP						ATM sytem	CP/ MP <sup>2</sup>
2 NEW ATM SYSTEM PHASE 2 01/01/2022 Started Voc No Vec MP	1 NEW ATM SYSTEM - PHASE 1	01/01/2022	Started	Yes	No	Yes	MP
2 NEW ATWISTSTEWI-FTIASE 2 01/01/2025 Statted Tes No Tes INI	2 NEW ATM SYSTEM - PHASE 2	01/01/2023	Started	Yes	No	Yes	MP



ENV

& Union-wide median ANSP



Local

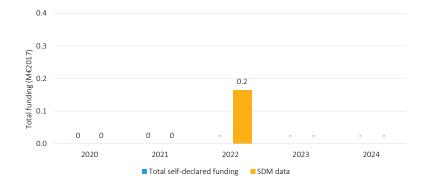
Expected impact

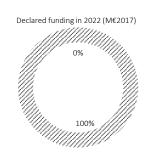
Network

Non-performance

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PUBLIC FUNDING GRANTED FOR TOTAL CAPEX (CEF/TEN-T)					CYPRUS	DCAC Cyprus
Actual funding declaration (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
Total funding declared	-	-	-	-	- 1	-
En route funding declared	-	-	-	-	-	-
En route funding that could not be assigned to a specific investment	-	-	-	-	-	-
Terminal funding	-	-	-	-	-	-
Terminal funding that could not be assigned to a specific investment	-	-	-	-	-	-
Actual funding declaration vs payments (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
Difference between total funding declared vs received	-	-	(0.17)	-	-	(0.17)
Total included in the funding declaration (reporting tables)	-	-	-	-	-	-
SDM Payment	-	-	0.17	-	-	0.17





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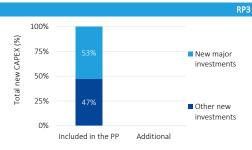
Cyprus did not declare any funding in 2022. However, SESAR Deployment Manager data indicate a payment of 0.2M€<sub>2017</sub> in 2022. For RP3 to date, Cyprus did not declare any funding, while SESAR Deployment Manager data indicates a payment of 0.2M€<sub>2017</sub>.

Czech Republic underspent 1.5ME<sub>2017</sub> (-4.6%) in costs related to investments for en route and terminal in 2022 compared to the determined costs. Czech Republic planned three new major investments for RP3, all of which have started.

#### CAPEX FOR NEW INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

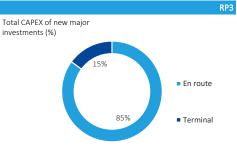
#### Determined and additional CAPEX by value of individual investments (M€<sub>2017</sub>)

APEX for new investments	120.45	% of total
New major investments (above 5M€ each) <sup>1</sup>	63.27	53%
Included in the performance plan	63.27	53%
Additional <sup>2</sup>	0	0%
Other new investments (below 5M€ each) <sup>3</sup>	57.18	47%
Included in the performance plan	57.18	47%
Additional	0	0%



#### Determined CAPEX: en route and terminal ( $M \in_{2017}$ )

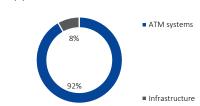
Total CAPEX for new major investments	63.27	% of total
En route	53.82	85%
Terminal	9.45	15%



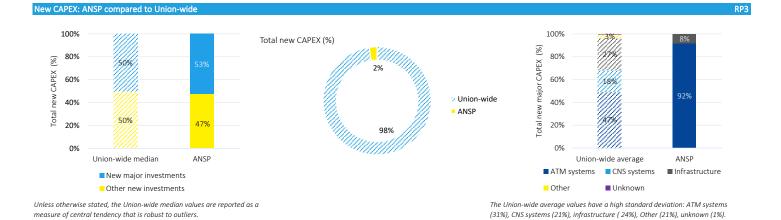
## Determined CAPEX by type of investment (M $\varepsilon_{2017}$ )

Total CAPEX for new major investments	63.27	% of total
ATM systems	58.07	92%
CNS systems	0	0%
Infrastructure	5.19	8%
Other	0	0%
Unknown	0	0%

#### Total CAPEX of new major investments (%)



RP3



1. New major investments: "acquisition, development, replacement, upgrade, or leasing of fixed assets representing a total value over the whole lifetime of the assets greater than EUR 5 million

in real terms " (Reg. 2019/317 art. 2 (13)).

2. Additional investments are those investments not foreseen as part of the performance plan.

3. Other new investments: new investments or replacements/upgrades of existing assets representing a total value over the whole lifetime of the asset below 5M€ in real terms.

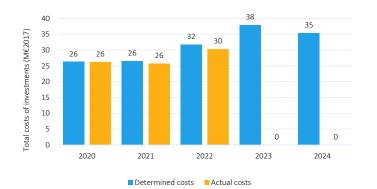
CZECH REPUBLIC | ANS CR

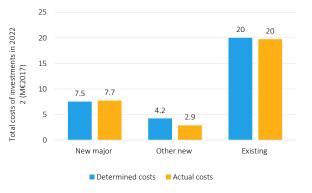
#### CZECH REPUBLIC | ANS CR

termined costs: new and existing investments $(M \boldsymbol{\varepsilon}_{_{2017}})^1$	2020D	2021D	2022D	2023D	2024D	RP3 to date
tal costs	26.23	26.41	31.76	37.82	35.36	84.40
New major investments	0.08	0.09	7.51	15.22	19.22	7.69
% New major investments in total costs of investments	0%	0%	24%	40%	54%	9%
Other new investments	7.33	5.48	4.23	4.20	4.94	17.04
% Other new investments in total costs of investments	28%	21%	13%	11%	14%	20%
Existing investments	18.82	20.83	20.02	18.40	11.19	59.67
% Existing investments in total costs of investments	72%	79%	63%	49%	32%	71%

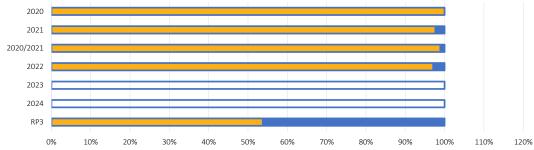
Actual costs: new and existing investments (M $\epsilon_{2017}$ )	2020A	2021A	2022A	2023A	2024A	RP3 to date
Total costs	26.23	25.75	30.30	-	-1	82.27
New major investments	0.08	0.09	7.70	-	-	7.88
% New major investments in total costs of investments	0%	0%	25%	-	-	10%
Other new investments	7.33	5.37	2.87	-	-	15.56
% Other new investments in total costs of investments	28%	21%	9%	-	-	19%
Existing investments	18.82	20.29	19.73	-	-	58.84
% Existing investments in total costs of investments	72%	79%	65%	-	-	72%

Actual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
Total difference	0	(0.66)	(1.46)	-	-	(2.12)
New major investments	0	(0.00)	0.19	-	-	0.19
% change of actual with respect to determined	0%	-2%	3%	-	-	2%
Other new investments	0	(0.11)	(1.36)	-	-	(1.48)
% change of actual with respect to determined	0%	-2%	-32%	-	-	-9%
Existing investments	0	(0.55)	(0.29)	-	-	(0.84)
% change of actual with respect to determined	0%	-3%	-1%	-	=	-1%



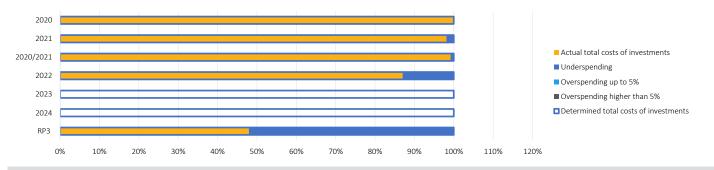


COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFOR	MANCE PLAN				CZECH F	REPUBLIC - En I	oute   ANS CR
Determined costs by nature (M $\epsilon_{2017}$ )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to date
Total costs of new and existing investments	22.64	23.55	46.19	27.10	30.91	30.06	73.29
Depreciation	16.67	16.92	33.60	20.41	22.94	22.15	54.01
Cost of capital	5.97	6.63	12.60	6.69	7.97	7.91	19.28
Cost of leasing	0	0	0	0	0	0	0
Actual costs by nature (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to date
Total costs of new and existing investments	22.64	22.94	45.58	26.24	-	-	71.83
Depreciation	16.67	16.81	33.48	19.38	-	-	52.87
Cost of capital	5.97	6.13	12.10	6.86	-	-	18.96
Cost of leasing	0	0	0	-	-	-	0
Actual minus determined costs (M $\epsilon_{2017}$ )	2020	2021	2020/2021	2022	2023	2024	RP3 to date
Total difference	0	(0.61)	(0.61)	(0.85)	-	-	(1.47)
Depreciation	0	(0.11)	(0.11)	(1.03)	-	-	(1.14)
Cost of capital	0	(0.50)	(0.50)	0.17	-	-	(0.32)
Cost of leasing	0	0	0	-	-	-	0



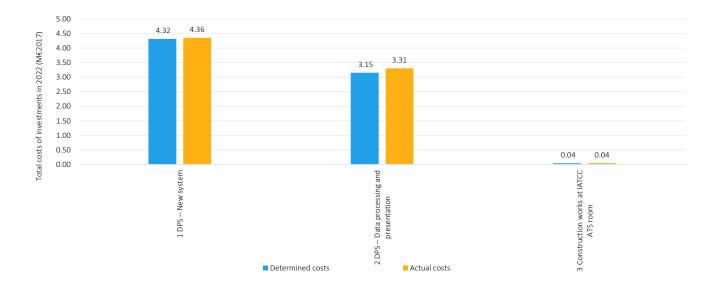
Actual total costs of investments
Underspending
Overspending up to 5%
Overspending higher than 5%
Determined total costs of investments

COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN					CZECH R	REPUBLIC - Terr	minal   ANS CR
Determined costs by nature (M€ <sub>2017</sub> )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to date
Total costs of new and existing investments	3.59	2.86	6.44	4.66	5.39	5.30	11.11
Depreciation	3.59	2.86	6.44	3.77	4.19	4.09	10.21
Cost of capital	0	0	0	0.89	1.19	1.20	0.89
Cost of leasing	0	0	0	0	0	0	0
Actual costs by nature (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to date
Total costs of new and existing investments	3.59	2.80	6.39	4.06	-	-	10.45
Depreciation	3.59	2.80	6.39	3.14	-	-	9.53
Cost of capital	0	0	0	0.91	-	-	0.91
Cost of leasing	0	0	0	0	=	-	0
Actual minus determined costs (M $\epsilon_{2017}$ )	2020	2021	2020/2021	2022	2023	2024	RP3 to date
Total difference	0	(0.05)	(0.05)	(0.61)	-	- [	(0.66)
Depreciation	0	(0.05)	(0.05)	(0.63)	-	-	(0.68)
Cost of capital	0	0	0	0.02	-	-	0.02
Cost of leasing	0	0	0	0	-	-	0



Czech Republic underspent  $1.5M \in_{2017}$  in costs related to investments ( $0.9M \in_{2017}$  in en route and  $0.6M \in_{2017}$  in terminal) in 2022. For RP3 to date Czech Republic underspent  $2.1M \in_{2017}$  in costs related to investments. These amounts shall be reimbursed to the airspace users through a reduction of future unit rate(s), unless the NSA decides after consultation with the users, that the ANSP shall not reimburse a part of the difference according to article 28 of Regulation (EU) 2019/317.

COSTS BY NEW MAJOR INVESTMENTS					CZECH REPL	JBLIC   ANS CR
Determined costs $(M \epsilon_{2017})^1$	2020D	2021D	2022D	2023D	2024D	RP3 to date
Total costs of investments	0.08	0.09	7.51	15.22	19.22	7.69
1 DPS – New system	0	0.03	4.32	8.04	10.03	4.35
2 DPS – Data processing and presentation	0.07	0.04	3.15	6.75	8.50	3.27
3 Construction works at IATCC ATS room	0.01	0.02	0.04	0.43	0.69	0.06
Actual costs (M€ <sub>2017</sub> )	2020A	2021A	2022A	2023A	2024A	RP3 to date
Total costs of investments	0.08	0.09	7.70	-	-	7.88
1 DPS – New system	0	0.03	4.36	-	-	4.39
2 DPS – Data processing and presentation	0.07	0.04	3.31	-	-	3.42
3 Construction works at IATCC ATS room	0.01	0.02	0.04	-	-	0.06
Actual minus determined costs of investments ( $M \varepsilon_{2017}$ )	2020	2021	2022	2023	2024	RP3 to date
Total difference in costs of investments	0	(0.00)	0.19	-	-	0.19
1 DPS – New system	0	(0.00)	0.04	-	-	0.04
2 DPS – Data processing and presentation	0	(0.00)	0.15	-	-	0.15
3 Construction works at IATCC ATS room	0	(0.00)	0.00	-	-	0.00



CTED BENEFIT AND IMPACT PER NEW MAJOR INVESTMENT				PUBLIC   ANS CR
# New major investments	Expected benef	it per KPA		
	SAF	ENV	CAP	CEF
1 DPS – New system	Х	Х	Х	Х
2 DPS – Data processing and presentation	Х	Х	Х	
3 Construction works at IATCC ATS room				Х

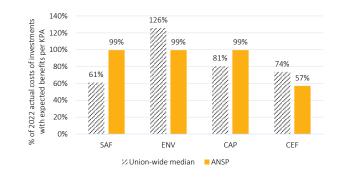


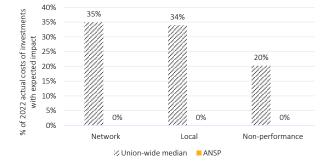
 Network
 Local
 Non-performance

 1 DPS – New system
 0
 0

 2 DPS – Data processing and presentation
 0
 0

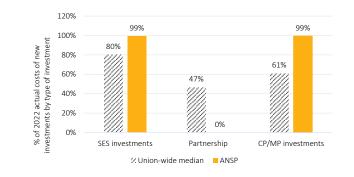
 3 Construction works at IATCC ATS room
 0
 0

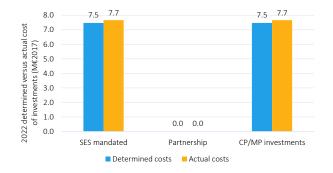




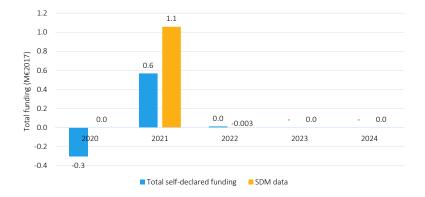
Expected impact

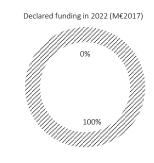
# New major investments	EIO Date <sup>1</sup>	Status	SES Reg.	Partnership	ATM sy	vstem
					ATM sytem	CP/ MP <sup>2</sup>
1 DPS – New system	2021-2024	Started	Yes	No	Yes	MP
2 DPS – Data processing and presentation	2020-2025	Started	Yes	No	Yes	MP
3 Construction works at IATCC ATS room	2020-2024	Started	No	No	No	-





PUBLIC FUNDING GRANTED FOR TOTAL CAPEX (CEF/TEN-T) CZECH R						
Actual funding declaration (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
Total funding declared	(0.30)	0.57	0.01	-	- [	0.28
En route funding declared	(0.30)	0.57	0.01	-	-	0.28
En route funding that could not be assigned to a specific investment	(0.30)	0.57	0.01	-	-	0.28
Terminal funding	-	-	-	-	-	0
Terminal funding that could not be assigned to a specific investment	-	-	-	-	-	0
Actual funding declaration vs payments (M $\varepsilon_{2017}$ )	2020	2021	2022	2023	2024	RP3 to date
Difference between total funding declared vs received	(0.30)	(0.49)	0.01	-	-1	(0.78)
Total included in the funding declaration (reporting tables)	(0.30)	0.57	0.01	-	-	0.28
SDM Payment	-	1.06	(0.00)	-	-	1.05





Union-wide ANSP

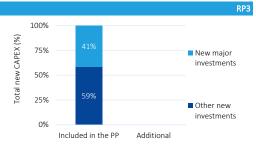
Czech Republic reported 0.01M€2017 funding in 2022. According to SDM data, Czech Republic shows a negative amount of -0.003M€2017. For RP3 to date, Czech Republic declared 0.3M€2017 of funding, while SESAR Deployment Manager data indicates a payment of 1.1M€2017.

Denmark underspent 0.8M €2017 (-4.1%) in costs related to investments for en route and terminal in 2022 compared to the determined costs. Denmark planned two new major investments for RP3, one of which has started and one is expected to start in 2024.

#### CAPEX FOR NEW INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

#### Determined and additional CAPEX by value of individual investments (M€2017)

APEX for new investments	49.59	% of total
New major investments (above 5M€ each) <sup>1</sup>	20.53	41%
Included in the performance plan	20.53	41%
Additional <sup>2</sup>	0	0%
Other new investments (below 5M€ each) <sup>3</sup>	29.06	59%
Included in the performance plan	29.06	59%
Additional	0	0%



Determined CAPEX: en route and terminal ( $M \in_{2017}$ )

Total CAPEX for new major investments	20.53	% of total
En route	19.51	95%
Terminal	1.03	5%

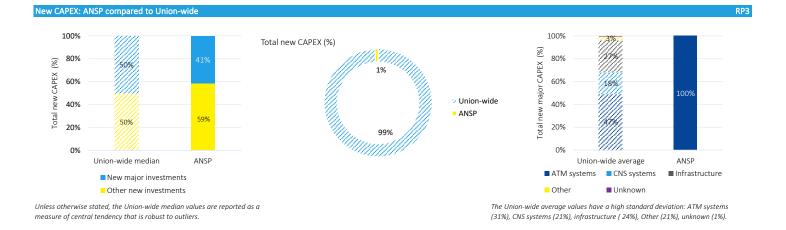


## Determined CAPEX by type of investment (M€<sub>2017</sub>) Total CAPEX for new major investments

Total CAPEX for new major investments	20.53	% of total
ATM systems	20.53	100%
CNS systems	0	0%
Infrastructure	0	0%
Other	0	0%
Unknown	0	0%

#### Total CAPEX of new major investments (%)





1. New major investments: "acquisition, development, replacement, upgrade, or leasing of fixed assets representing a total value over the whole lifetime of the assets greater than EUR 5 million in real terms" (Reg. 2019/317 art. 2 (13)).

2. Additional investments are those investments not foreseen as part of the performance plan.

3. Other new investments: new investments or replacements/upgrades of existing assets representing a total value over the whole lifetime of the asset below 5M€ in real terms.

DENMARK | NAVIAIR

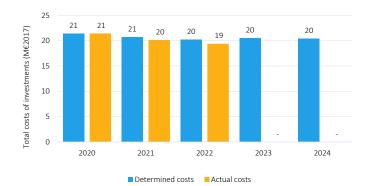
RP3

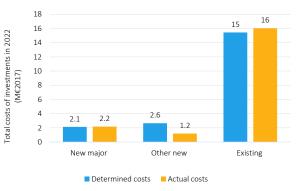
60/206

Determined costs: new and existing investments $\left(M \boldsymbol{\epsilon}_{2017}  ight)^1$	2020D	2021D	2022D	2023D	2024D	RP3 to date
Total costs	21.42	20.74	20.22	20.46	20.43	62.37
New major investments	1.72	1.86	2.13	2.65	3.53	5.71
% New major investments in total costs of investments	8%	9%	11%	13%	17%	9%
Other new investments	0.60	1.85	2.65	3.46	3.63	5.11
% Other new investments in total costs of investments	3%	9%	13%	17%	18%	8%
Existing investments	19.09	17.02	15.44	14.35	13.27	51.56
% Existing investments in total costs of investments	89%	82%	76%	70%	65%	83%

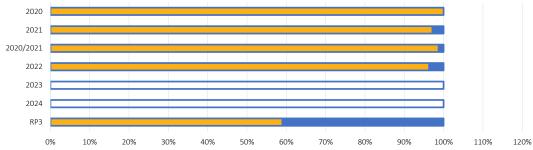
Actual costs: new and existing investments (M $\epsilon_{2017}$ )	2020A	2021A	2022A	2023A	2024A	RP3 to date
Total costs	21.42	20.14	19.38	-	-	60.95
New major investments	1.72	1.81	2.17	-	-	5.70
% New major investments in total costs of investments	8%	9%	11%	-	-	9%
Other new investments	0.60	1.16	1.18	-	-	2.94
% Other new investments in total costs of investments	3%	6%	6%	-	-	5%
Existing investments	19.09	17.18	16.03	-	-	52.30
% Existing investments in total costs of investments	89%	85%	83%	-	-	86%

Actual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
Total difference	0	(0.59)	(0.83)	-	-	(1.43)
New major investments	0	(0.05)	0.04	-	-	(0.01)
% change of actual with respect to determined	0%	-3%	2%	-	-	0%
Other new investments	0	(0.70)	(1.46)	-	-	(2.16)
% change of actual with respect to determined	0%	-38%	-55%	-	-	-42%
Existing investments	0	0.16	0.59	-	-	0.75
% change of actual with respect to determined	0%	1%	4%	-	-	1.45%



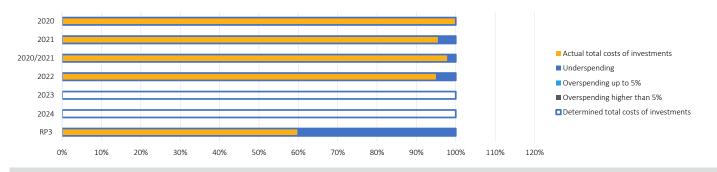


COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFOR	MANCE PLAN				DE	NMARK - En ro	oute   NAVIAIR
Determined costs by nature (M $\epsilon_{2017}$ )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to date
Total costs of new and existing investments	17.64	17.15	34.79	16.85	17.14	17.07	51.64
Depreciation	11.81	12.10	23.91	13.21	13.55	13.47	37.12
Cost of capital	5.82	5.05	10.88	3.64	3.59	3.61	14.51
Cost of leasing	0	0	0	0	0	0	0
Actual costs by nature (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to date
Total costs of new and existing investments	17.64	16.62	34.26	16.19	-	-	50.45
Depreciation	11.81	12.08	23.89	12.45	-	-	36.35
Cost of capital	5.82	4.55	10.37	3.73	-	-	14.10
Cost of leasing	0	0	0	0	-	-	0
Actual minus determined costs (M $\varepsilon_{2017}$ )	2020	2021	2020/2021	2022	2023	2024	RP3 to date
Total difference	0	(0.53)	(0.53)	(0.66)	-	-	(1.19)
Depreciation	0	(0.02)	(0.02)	(0.76)	-	-	(0.78)
Cost of capital	0	(0.51)	(0.51)	0.10	-	-	(0.41)
Cost of leasing	0	0	0	0	-	-	0



A	Actual total costs of investments
🔳 L	Jnderspending
	Overspending up to 5%
	Overspending higher than 5%
	Determined total costs of investments

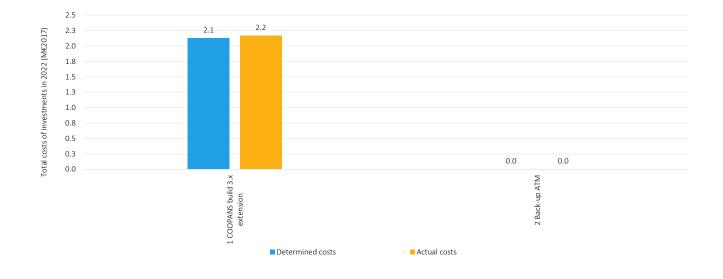
COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFOR	RMANCE PLAN				DE	NMARK - Term	inal   NAVIAIR
Determined costs by nature (M€ <sub>2017</sub> )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to date
Total costs of new and existing investments	3.78	3.58	7.37	3.37	3.32	3.36	10.74
Depreciation	2.07	2.09	4.16	2.29	2.26	2.29	6.45
Cost of capital	1.72	1.49	3.21	1.08	1.06	1.07	4.29
Cost of leasing	0	0	0	0	0	0	0
Actual costs by nature (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to date
Total costs of new and existing investments	3.78	3.42	7.20	3.20	-	-	10.40
Depreciation	2.07	2.10	4.17	2.12	-	-	6.29
Cost of capital	1.72	1.32	3.04	1.08	-	-	4.12
Cost of leasing	0	0	0	-	-	-	0
Actual minus determined costs (M $\varepsilon_{2017}$ )	2020	2021	2020/2021	2022	2023	2024	RP3 to date
Total difference	0	(0.16)	(0.16)	(0.17)	-	-	(0.33)
Depreciation	0	0.01	0.01	(0.17)	-	-	(0.16)
Cost of capital	0	(0.17)	(0.17)	0.00	-	-	(0.17)
Cost of leasing	0	0	0	-	-	-	0



Denmark underspent  $0.8M \epsilon_{2017}$  in costs related to investments ( $0.7M \epsilon_{2017}$  in en route and  $0.2M \epsilon_{2017}$  in terminal) in 2022. For RP3 to date Denmark underspent  $1.5M \epsilon_{2017}$  in costs related to investments. These amounts shall be reimbursed to the airspace users through a reduction of future unit rate(s), unless the NSA decides after consultation with the users, that the ANSP shall not reimburse a part of the difference according to article 28 of Regulation (EU) 2019/317.

61/206

COSTS BY NEW MAJOR INVESTMENTS DENMARK   NAVIAIR							
Determined costs $(M \epsilon_{2017})^1$	2020D	2021D	2022D	2023D	2024D	RP3 to date	
Total costs of investments	1.72	1.86	2.13	2.65	3.53	5.71	
1 COOPANS build 3.x extension	1.72	1.86	2.13	2.65	3.16	5.71	
2 Back-up ATM	0	0	0	0	0.37	0	
Actual costs (M€ <sub>2017</sub> )	2020A	2021A	2022A	2023A	2024A	RP3 to date	
Total costs of investments	1.72	1.81	2.17	-	-	5.70	
1 COOPANS build 3.x extension	1.72	1.81	2.17	-	-	5.70	
2 Back-up ATM	0	0	0	-	-	0	
Actual minus determined costs of investments (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date	
Total difference in costs of investments	0	(0.05)	0.04	-	-	(0.01)	
1 COOPANS build 3.x extension	0	(0.05)	0.04	-	-	(0.01)	
2 Back-up ATM	0	0	0	-	-	0	



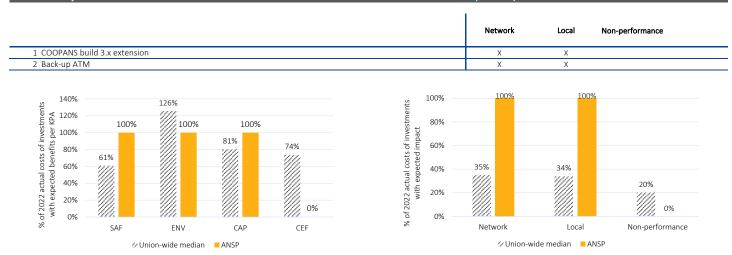
1. Determined costs comprise depreciation costs, cost of capital, and cost of leasing in the performance plans.

6	2	1	$\cap$	L	
0	37	Z	U	0	

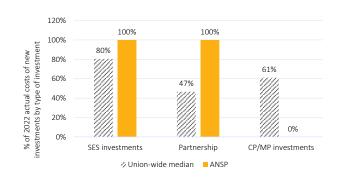
ECTED BENEFIT AND IMPACT PER NEW MAJOR INVESTMENT	DEN	MARK   NAVI		
# New major investments	Expected benefit	: per KPA		
	SAF	ENV	CAP	CEF
1 COOPANS build 3.x extension	Х	Х	Х	
2 Back-up ATM	X	Х	Х	Х

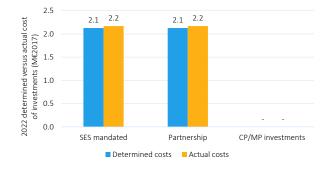
#### # New major investments

Expected impact

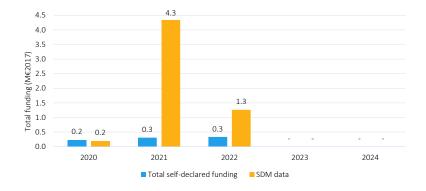


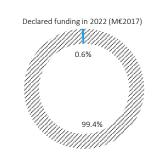
# New major investments	EIO Date <sup>1</sup>	Status	SES Reg.	Partnership	ATM sy	stem
					ATM sytem	CP/ MP <sup>2</sup>
1 COOPANS build 3.x extension	01/07/2024	Started	Yes	Yes	Yes	-
2 Back-up ATM	01/01/2024	Not started	No	No	Yes	MP





PUBLIC FUNDING GRANTED FOR TOTAL CAPEX (CEF/TEN-T)					DENMARK   NAVIAIR	
Actual funding declaration (M $\epsilon_{2017}$ )	2020	2021	2022	2023	2024	RP3 to date
otal funding declared	0.23	0.31	0.33	-	- [	0.88
En route funding declared	0.13	0.29	0.24	-	-	0.65
En route funding that could not be assigned to a specific investment	0.13	0.29	0.24	-	-	0.65
Terminal funding	0.11	0.02	0.10	-	-	0.23
Terminal funding that could not be assigned to a specific investment	0.11	0.02	0.10	-	-	0.23
ctual funding declaration vs payments (M $\epsilon_{2017}$ )	2020	2021	2022	2023	2024	RP3 to date
Difference between total funding declared vs received	0.03	(4.03)	(0.93)	-	-	(4.92)
Total included in the funding declaration (reporting tables)	0.23	0.31	0.33	-	-	0.88
SDM Payment	0.20	4.34	1.26	-	-	5.80





⊘ Union-wide 🛛 🗖 ANSP

Denmark reported 0.3M€<sub>2017</sub> funding in 2022. However, SESAR Deployment Manager data indicates a payment of 1.3M€<sub>2017</sub> for 2022. For RP3 to date, Denmark declared 0.9M€<sub>2017</sub> of funding, while SESAR Deployment Manager data indicates a payment of 5.8M€<sub>2017</sub>.

64/206

Estonia overspent 0.1M €2017 (1.1%) in costs related to investments for en route and terminal in 2022 compared to the determined costs. Estonia did not plan any new major investment for RP3.

#### CAPEX FOR NEW INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

#### Determined and additional CAPEX by value of individual investments (M€2017)

APEX for new investments	24.01	% of total
New major investments (above 5M€ each) <sup>1</sup>	0	09
Included in the performance plan	0	09
Additional <sup>2</sup>	0	09
Other new investments (below 5M€ each) <sup>3</sup>	24.01	1009
Included in the performance plan	24.01	1009
Additional	0	09



#### Determined CAPEX: en route and terminal (M€<sub>2017</sub>)

Other

Unknown

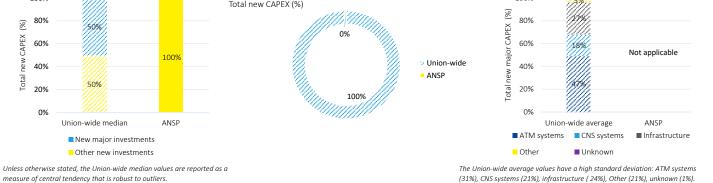
Total CAPEX for new major investments	N/A	% of total
En route	N/A	N/A
Terminal	N/A	N/A

Not applicable

Not applicable

# Determined CAPEX by type of investment (M€2017) Total CAPEX for new major investments N/A ATM systems N/A CNS systems N/A Infrastructure N/A

New CAPEX: ANSP compared to Union-wide



N/A

N/A

% of total N/A

N/A

N/A

N/A

N/A

1. New major investments: "acquisition, development, replacement, upgrade, or leasing of fixed assets representing a total value over the whole lifetime of the assets greater than EUR 5 million in real terms" (Reg. 2019/317 art. 2 (13)).

2. Additional investments are those investments not foreseen as part of the performance plan.

3. Other new investments: new investments or replacements/upgrades of existing assets representing a total value over the whole lifetime of the asset below 5M in real terms.

ESTONIA | EANS



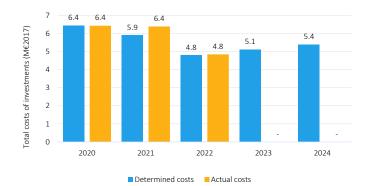
RP3

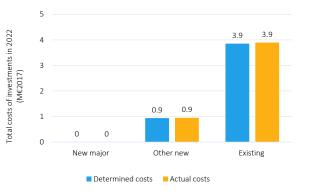
#### ESTONIA | EANS

Determined costs: new and existing investments ${(M { f e}_{ { 2017} } )}^1$	2020D	2021D	2022D	2023D	2024D	RP3 to date
Total costs	6.42	5.89	4.79	5.11	5.39	17.10
New major investments	0	0	0	0	0	0
% New major investments in total costs of investments	0%	0%	0%	0%	0%	0%
Other new investments	0	0.08	0.94	2.93	3.59	1.01
% Other new investments in total costs of investments	0%	1%	20%	57%	67%	6%
Existing investments	6.42	5.81	3.85	2.18	1.80	16.09
% Existing investments in total costs of investments	100%	99%	80%	43%	33%	94%

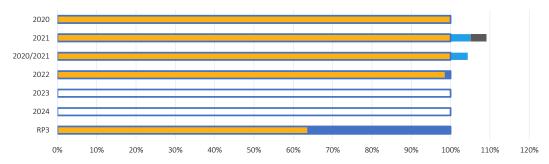
Actual costs: new and existing investments (M€ <sub>2017</sub> )	2020A	2021A	2022A	2023A	2024A	RP3 to date
Total costs	6.42	6.39	4.84	-	-	17.65
New major investments	0	0	0	-	-	0
% New major investments in total costs of investments	0%	0%	0%	-	-	0%
Other new investments	0	0.31	0.95	-	-	1.25
% Other new investments in total costs of investments	0%	5%	20%	-	-	7%
Existing investments	6.42	6.08	3.89	-	-	16.40
% Existing investments in total costs of investments	100%	95%	80%	-	-	93%

2020	2021	2022	2023	2024	RP3 to date
0	0.49	0.05	-	-	0.55
0	0	0	-	-	0
0%	0%	0%	-	-	0%
0	0.23	0.01	-	-	0.24
0%	297%	1%	-	-	24%
0	0.27	0.04	-	-	0.31
0%	5%	1%	-	-	2%
	0 0% 0% 0% 0%	0         0.49           0         0           0%         0%           0         0.23           0%         297%           0         0.27	0         0.49         0.05           0         0         0           0%         0%         0%           0         0.23         0.01           0%         297%         1%           0         0.27         0.04	0         0.49         0.05         -           0         0         0         -           0%         0%         0%         -           0         0.23         0.01         -           0%         297%         1%         -           0         0.27         0.04         -	0         0.49         0.05         -         -         -           0         0         0         -         -         -         -           0%         0%         0%         -         -         -         -         -           0         0.23         0.01         -         -         -         -         -           0%         297%         1%         -         -         -         -         -           0         0.27         0.04         -         -         -         -         -





COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFOR	MANCE PLAN					ESTONIA - EI	n route   EANS
Determined costs by nature (M $\epsilon_{2017}$ )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to date
Total costs of new and existing investments	5.63	5.19	10.83	4.23	4.52	4.77	15.06
Depreciation	4.67	4.64	9.31	3.58	3.41	3.54	12.88
Cost of capital	0.97	0.55	1.52	0.65	1.11	1.23	2.17
Cost of leasing	0	0	0	0	0	0	0
Actual costs by nature (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to date
Total costs of new and existing investments	5.63	5.66	11.30	4.17	-	-1	15.46
Depreciation	4.67	4.86	9.53	3.27	-	-	12.80
Cost of capital	0.97	0.80	1.77	0.90	-	-	2.66
Cost of leasing	0	0	0	0	-	-	0
Actual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2020/2021	2022	2023	2024	RP3 to date
Total difference	0	0.47	0.47	(0.06)	-	-	0.41
Depreciation	0	0.23	0.23	(0.31)	-	-	(0.08)
Cost of capital	0	0.25	0.25	0.24	-	-	0.49
Cost of leasing	0	0	0	0	-	-	0



A	ctual	total	costs	of	investments	
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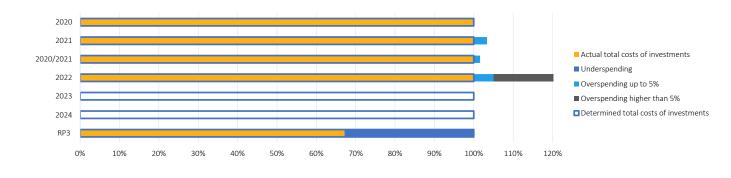
Underspending

Overspending up to 5%

Overspending higher than 5%

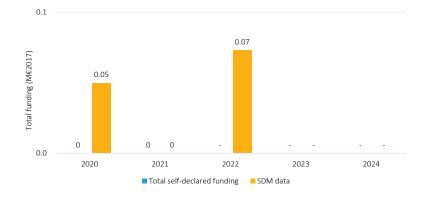
Determined total costs of investments

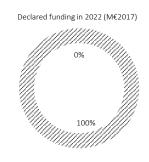
COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFORMAN	NCE PLAN					ESTONIA - Te	erminal   EANS
Determined costs by nature (M $\varepsilon_{2017}$ )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to date
Total costs of new and existing investments	0.79	0.70	1.49	0.55	0.59	0.62	2.04
Depreciation	0.60	0.61	1.21	0.48	0.46	0.48	1.69
Cost of capital	0.19	0.09	0.28	0.07	0.13	0.15	0.35
Cost of leasing	0	0	0	0	0	0	0
Actual costs by nature (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to date
Total costs of new and existing investments	0.79	0.72	1.51	0.67	-	-	2.18
Depreciation	0.60	0.54	1.14	0.49	-	-	1.63
Cost of capital	0.19	0.18	0.37	0.18	-	-	0.55
Cost of leasing	0	0	0	-	-	-	0
Actual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2020/2021	2022	2023	2024	RP3 to date
Total difference	0	0.02	0.02	0.12	-	-	0.14
Depreciation	0	(0.07)	(0.07)	0.01	-	-	(0.06)
Cost of capital	0	0.09	0.09	0.11	-	-	0.20
Cost of leasing	0	0	0	-	-	-	0



68/206

PUBLIC FUNDING GRANTED FOR TOTAL CAPEX (CEF/TEN-T)					ES	TONIA   EANS
Actual funding declaration (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
Total funding declared	-	-	-	-	- 1	-
En route funding declared	-	-	-	-	-	-
En route funding that could not be assigned to a specific investment	-	-	-	-	-	-
Terminal funding	-	-	-	-	-	-
Terminal funding that could not be assigned to a specific investment	-	-	-	-	-	-
Actual funding declaration vs payments (M $\varepsilon_{2017}$ )	2020	2021	2022	2023	2024	RP3 to date
Difference between total funding declared vs received	(0.05)	-	(0.07)	-	-	(0.12)
Total included in the funding declaration (reporting tables)	-	-	-	-	-	-
SDM Payment	0.05	-	0.07	-	-	0.12





⊗ Union-wide ■ ANSP

Estonia did not report any funding in 2022, however SESAR Deployment Manager data indicates a payment of 0.07M  $\epsilon_{2017}$  in 2022. For RP3 to date, Estonia did not declare any funding, while

SESAR Deployment Manager data indicates a payment of  $0.1 M \varepsilon_{2017}$ .

Finland underspent 1.1M  $\in_{2017}$  (-16%) in costs related to investments for en route and terminal in 2022 compared to the determined costs. Finland did not plan any new major investment for RP3.

#### CAPEX FOR NEW INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

#### Determined and additional CAPEX by value of individual investments (M€2017)

APEX for new investments	47.05	% of total
New major investments (above 5M€ each) <sup>1</sup>	0	09
Included in the performance plan	0	09
Additional <sup>2</sup>	0	09
Other new investments (below 5M€ each) <sup>3</sup>	47.05	1009
Included in the performance plan	47.05	1009
Additional	0	09



#### Determined CAPEX: en route and terminal ( $M \in_{2017}$ )

Total CAPEX for new major investments	N/A	% of total
En route	N/A	N/A
Terminal	N/A	N/A

Not applicable

Not applicable

The Union-wide average values have a high standard deviation: ATM systems (31%), CNS systems (21%), infrastructure (24%), Other (21%), unknown (1%).

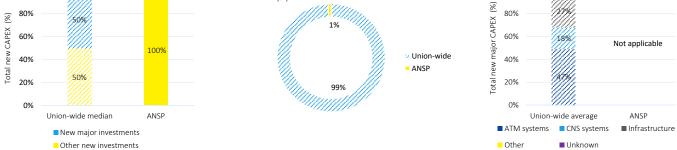
#### Determined CAPEX by type of investment (M€<sub>2017</sub>) Total CAPEX for new major investments % of total N/A N/A ATM systems N/A N/A CNS systems N/A Infrastructure N/A N/A N/A Other N/A Unknown N/A N/A

 New CAPEX: ANSP compared to Union-wide

 100%
 100%

 380%
 50%

 380%
 50%



1. New major investments: "acquisition, development, replacement, upgrade, or leasing of fixed assets representing a total value over the whole lifetime of the assets greater than EUR 5 million in real terms" (Reg. 2019/317 art. 2 (13)).

2. Additional investments are those investments not foreseen as part of the performance plan.

Unless otherwise stated, the Union-wide median values are reported as a

measure of central tendency that is robust to outliers.

3. Other new investments: new investments or replacements/upgrades of existing assets representing a total value over the whole lifetime of the asset below 5M in real terms.

FINLAND | ANS Finland

RP3

RP3



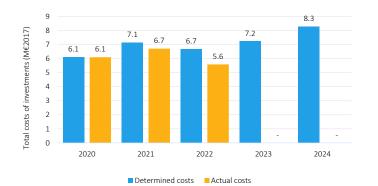
RP3

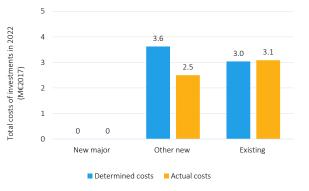
70/206

Determined costs: new and existing investments $(M \boldsymbol{\varepsilon}_{\mathtt{2017}})^1$	2020D	2021D	2022D	2023D	2024D	RP3 to date
otal costs	6.10	7.12	6.66	7.22	8.26	19.87
New major investments	0	0	0	0	0	0
% New major investments in total costs of investments	0%	0%	0%	0%	0%	0%
Other new investments	0.78	1.67	3.62	4.87	6.26	6.06
% Other new investments in total costs of investments	13%	23%	54%	68%	76%	31%
Existing investments	5.32	5.45	3.04	2.35	2.00	13.81
% Existing investments in total costs of investments	87%	77%	46%	32%	24%	69%

Actual costs: new and existing investments (M $\epsilon_{2017}$ )	2020A	2021A	2022A	2023A	2024A	RP3 to date
Total costs	6.10	6.70	5.58	-	-	18.38
New major investments	0	0	0	-	-	0
% New major investments in total costs of investments	0%	0%	0%	-	-	0%
Other new investments	0.78	1.12	2.50	-	-	4.39
% Other new investments in total costs of investments	13%	17%	45%	-	-	24%
Existing investments	5.32	5.58	3.08	-	-	13.99
% Existing investments in total costs of investments	87%	83%	55%	-	-	76%

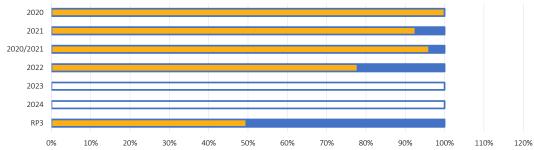
Actual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
Total difference	0	(0.41)	(1.08)	-	-	(1.49)
New major investments	0	0	0	-	-	0
% change of actual with respect to determined	0%	0%	-	-	-	0%
Other new investments	0	(0.55)	(1.12)	-	-	(1.67)
% change of actual with respect to determined	0%	-33%	-31%	-	-	-28%
Existing investments	0	0.13	0.05	-	-	0.18
% change of actual with respect to determined	0%	2%	2%	-	-	1%





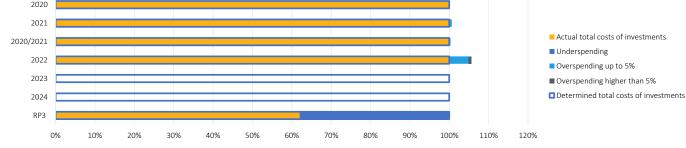
#### FINLAND | ANS Finland

COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFO	RMANCE PLAN				FINL	AND - En route	e   ANS Finland
Determined costs by nature (M€ <sub>2017</sub> )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to date
Total costs of new and existing investments	4.58	5.55	10.13	5.18	5.78	6.74	15.32
Depreciation	3.38	4.15	7.53	3.30	3.69	4.50	10.83
Cost of capital	0.55	0.72	1.27	1.01	1.15	1.23	2.28
Cost of leasing	0.66	0.68	1.34	0.88	0.94	1.01	2.21
Actual costs by nature (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to date
Total costs of new and existing investments	4.58	5.13	9.71	4.02	-	-	13.73
Depreciation	3.38	3.95	7.33	2.51	-	-	9.85
Cost of capital	0.55	0.49	1.04	0.53	-	-	1.58
Cost of leasing	0.66	0.68	1.34	0.98	-	-	2.31
Actual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2020/2021	2022	2023	2024	RP3 to date
Total difference	0	(0.42)	(0.42)	(1.16)	-	-	(1.58)
Depreciation	0	(0.20)	(0.20)	(0.79)	-	-	(0.98)
Depresident							
Cost of capital	0	(0.23)	(0.23)	(0.47)	-	-	(0.70)



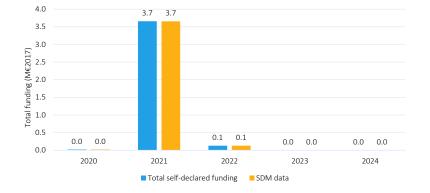
Actual total costs of investments
Underspending
Overspending up to 5%
Overspending higher than 5%
Determined total costs of investments

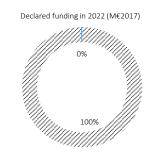
Determined costs by nature (M€ <sub>2017</sub> )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to dat
Total costs of new and existing investments	1.51	1.57	3.08	1.47	1.44	1.51	4.55
Depreciation	0.62	0.65	1.27	0.31	0.23	0.22	1.59
Cost of capital	0.11	0.09	0.20	0.08	0.07	0.06	0.28
Cost of leasing	0.78	0.82	1.60	1.08	1.14	1.23	2.68
Actual costs by nature (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to dat
Total costs of new and existing investments	1.51	1.58	3.09	1.56	-	-	4.64
Depreciation	0.62	0.67	1.29	0.30	-	-	1.60
Cost of capital	0.11	0.09	0.19	0.07	-	-	0.26
Cost of leasing	0.78	0.82	1.60	1.18	-	-	2.79
Actual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2020/2021	2022	2023	2024	RP3 to dat
Total difference	0	0.01	0.01	0.08	-	-	0.09
Depreciation	0	0.02	0.02	(0.01)	-	-	0.01
Cost of capital	0	(0.01)	(0.01)	(0.01)	-	-	(0.02
Cost of leasing	0	(0.00)	(0.00)	0.10	-	-	0.10



Finland underspent  $1.1M\epsilon_{2017}$  in costs related to investments (- $1.2M\epsilon_{2017}$  in en route and + $0.1M\epsilon_{2017}$  in terminal) in 2022. For RP3 to date Finland underspent  $1.5M\epsilon_{2017}$  in costs related to investments. These amounts shall be reimbursed to the airspace users through a reduction of future unit rate(s), unless the NSA decides after consultation with the users, that the ANSP shall not reimburse a part of the difference according to article 28 of Regulation (EU) 2019/317.

PUBLIC FUNDING GRANTED FOR TOTAL CAPEX (CEF/TEN-T)					FINLAND	ANS Finland
Actual funding declaration (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
Total funding declared	0.01	3.66	0.13	-	- 1	3.80
En route funding declared	0.01	3.66	0.13	-	-	3.80
En route funding that could not be assigned to a specific investment	0.01	3.66	0.13	-	-	3.80
Terminal funding	-	-	-	-	-	-
Terminal funding that could not be assigned to a specific investment	-	-	-	-	-	-
Actual funding declaration vs payments (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
Difference between total funding declared vs received	-	0.00	(0.00)	-	-	0.00
Total included in the funding declaration (reporting tables)	0.01	3.66	0.13	-	-	3.80
SDM Payment	0.01	3.66	0.13	-	-	3.80





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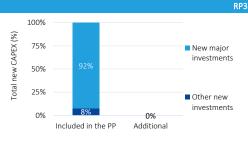
Finland reported 0.1M€<sub>2017</sub> funding in 2022, which matches the data provided by the SESAR Deployment Manager. For RP3 to date, Finland declared 3.8M€<sub>2017</sub> of funding, which also matches the data provided by the SESAR Deployment Manager.

France underspent 18ME<sub>2017</sub> (-8.3%) in costs related to investments for en route and terminal in 2022 compared to the determined costs. However, in the monitoring report France reported an underspending of 16M c2017 due to different accounting rules being applied in the monitoring report and reporting tables to the part of the investments programme called "T3 Technic". France planned nine new major investments for RP3, all of which have started.

#### CAPEX FOR NEW INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

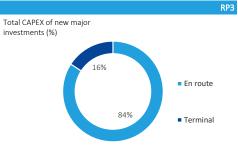
#### Determined and additional CAPEX by value of individual investments (M€2017)

APEX for new investments	1,381.18	% of total
New major investments (above 5M€ each) <sup>1</sup>	1,272.73	92%
Included in the performance plan	1,272.73	92%
Additional <sup>2</sup>	0	0%
Other new investments (below 5M€ each) <sup>3</sup>	108.45	8%
Included in the performance plan	108.45	8%
Additional	0	0%



### Determined CAPEX: en route and terminal (M€2017)

Total CAPEX for new major investments	1,272.73	% of total
En route	1,071.12	84%
Terminal	201.62	16%



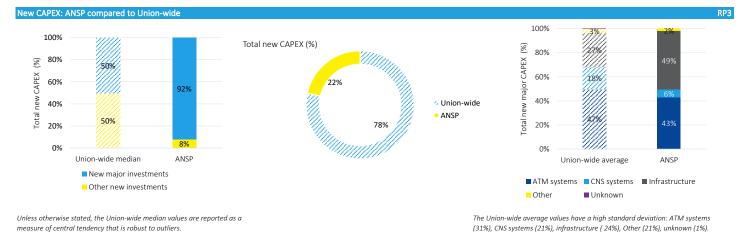
#### Determined CAPEX by type of investment (M€<sub>2017</sub>)

Total CAPEX for new major investments	1,272.73	% of total
ATM systems	547.70	43%
CNS systems	81.15	6%
Infrastructure	617.30	49%
Other	26.59	2%
Unknown	0	0%



Other

RP3



1. New major investments: "acquisition, development, replacement, upgrade, or leasing of fixed assets representing a total value over the whole lifetime of the assets greater than EUR 5 million in real terms" (Reg. 2019/317 art. 2 (13)).

2. Additional investments are those investments not foreseen as part of the performance plan.

3. Other new investments: new investments or replacements/upgrades of existing assets representing a total value over the whole lifetime of the asset below 5M€ in real terms.

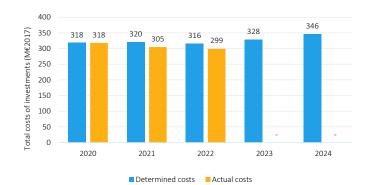
FRANCE | DSNA

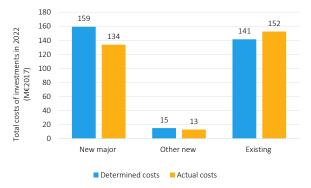
FRANCE | DSNA

Determined costs: new and existing investments $\left(M {\color{red} {}}_{2017}  ight)^1$	2020D	2021D	2022D	2023D	2024D	RP3 to date
Total costs	318.02	319.92	315.50	327.80	346.08	953.44
New major investments	97.62	132.38	159.23	190.40	220.51	389.22
% New major investments in total costs of investments	31%	41%	50%	58%	64%	41%
Other new investments	17.67	8.76	14.90	14.66	14.52	41.33
% Other new investments in total costs of investments	6%	3%	5%	4%	4%	4%
Existing investments	202.73	178.79	141.37	122.73	111.06	522.89
% Existing investments in total costs of investments	64%	56%	45%	37%	32%	55%

Actual costs: new and existing investments $(M \epsilon_{2017})$	2020A	2021A	2022A	2023A	2024A	RP3 to date
Total costs	318.02	304.94	299.18	-	-1	922.13
New major investments	97.62	114.58	133.80	-	-	345.99
% New major investments in total costs of investments	31%	38%	45%	-	-	38%
Other new investments	17.67	11.58	12.92	-	-	42.17
% Other new investments in total costs of investments	6%	4%	4%	-	-	5%
Existing investments	202.73	178.79	152.46	-	-	533.98
% Existing investments in total costs of investments	64%	59%	51%	-	-	58%

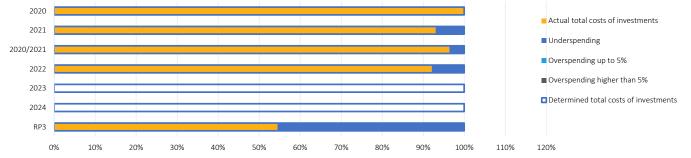
Actual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
Total difference	0	(14.98)	(16.32)	-	-	(31.31)
New major investments	0	(17.80)	(25.43)	-	-	(43.23)
% change of actual with respect to determined	0%	-13%	-16%	-	-	-11%
Other new investments	0	2.82	(1.98)	-	-	0.84
% change of actual with respect to determined	0%	32%	-13%	-	-	2%
Existing investments	0	0	11.09	-	-	11.09
% change of actual with respect to determined	0%	0%	8%	-	-	2%





The performance plan costs related to investments comprise depreciation cost, cost of capital, and cost of leasing.
 The costs included in the monitoring report of France include costs related to a part of the investment programme called "T3 Technic".

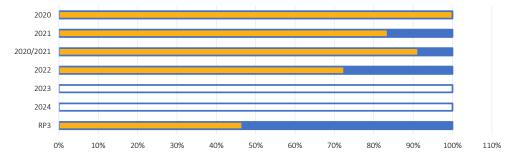
Determined costs by nature $(M \in_{2017})^1$	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to date
Total costs of new and existing investments	175.68	190.70	366.38	187.38	198.01	212.93	553.76
Depreciation	132.12	151.30	283.42	147.89	158.49	173.89	431.31
Cost of capital	43.56	39.40	82.96	39.49	39.52	39.04	122.45
Cost of leasing	0	0	0	0	0	0	0
Actual costs by nature (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to date
Total costs of new and existing investments	175.68	177.40	353.08	172.52	-	-	525.59
Depreciation	132.12	134.52	266.64	122.79	-	-	389.44
Cost of capital	43.56	42.87	86.43	49.72	-	-	136.16
Cost of leasing	0	0	0	0	-	-	0
Actual minus determined costs (M $\epsilon_{2017}$ )	2020	2021	2020/2021	2022	2023	2024	RP3 to date
Total difference	0	(13.30)	(13.30)	(14.87)	-	-	(28.17)
Depreciation	0	(16.78)	(16.78)	(25.10)	-	-	(41.88)
Cost of capital	0	3.47	3.47	10.23	-	-	13.71
Cost of leasing	0	0	0	0	-	-	0

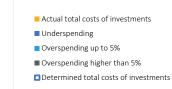


1. The data on costs of investments is based on the data submitted in the reporting tables.

2. The costs included in the reporting tables of France do not include costs related to a part of the investment programme called "T3 Technic". The costs are not included due "to some French State's specific public accounting rules, cannot be registered into depreciation costs and are recorded in other costs reoperating costs. This is the case of studies, assistance for project management, and expenses below the accounting threshold of  $\in$  10k."

COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFOR	MANCE PLAN				FRA	NCE TCZ 1 - Te	erminal   DSNA
Determined costs by nature $(M \epsilon_{2017})^1$	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to date
Total costs of new and existing investments	11.36	13.15	24.51	13.85	15.06	16.31	38.37
Depreciation	9.10	10.95	20.06	11.44	12.58	13.87	31.50
Cost of capital	2.26	2.20	4.46	2.41	2.48	2.44	6.87
Cost of leasing	0	0	0	0	0	0	0
Actual costs by type of cost ( $M \epsilon_{2017}$ )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to date
Total costs of new and existing investments	11.36	10.95	22.32	10.01	-	-	32.32
Depreciation	9.10	8.55	17.65	7.66	-	-	25.31
Cost of capital	2.26	2.40	4.67	2.34	-	-	7.01
Cost of leasing	0	0	0	0	-	-	0
Actual minus determined costs (M $\mathcal{E}_{2017}$ )	2020	2021	2020/2021	2022	2023	2024	RP3 to date
Total difference	0	(2.20)	(2.20)	(3.85)	-	-	(6.05)
Depreciation	0	(2.40)	(2.40)	(3.78)	-	-	(6.18)
Cost of capital	0	0.21	0.21	(0.07)	-	-	0.14
Cost of leasing	0	0	0	0	-	-	0





FRANCE TCZ 2 - Terminal | DSNA

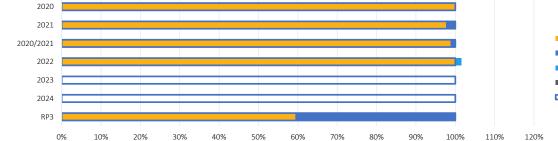
120%

#### COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

ermined costs by nature (M€ <sub>2017</sub> )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to date
al costs of new and existing investments	19.77	20.58	40.35	19.50	19.88	20.80	59.85
Depreciation	14.77	15.78	30.55	14.87	15.40	16.49	45.41
Cost of capital	5.01	4.80	9.80	4.63	4.48	4.31	14.44
Cost of leasing	0	0	0	0	0	0	0

Actual costs by type of cost (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to date
Total costs of new and existing investments	19.77	20.09	39.86	19.79	-	-	59.66
Depreciation	14.77	14.97	29.74	14.42	-	-	44.16
Cost of capital	5.01	5.12	10.13	5.37	-	-	15.50
Cost of leasing	0	0	0	0	-	-	0
Actual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2020/2021	2022	2023	2024	RP3 to date

Total difference 0 (0.49)(0.49) 0.29 (0.20)Depreciation 0 (0.81)(0.81)(0.44)(1.26)Cost of capital 0 0.32 0.32 0.74 1.06 Cost of leasing 0 0 0 0 0



- Actual total costs of investments
   Underspending
- Overspending up to 5%
- Overspending higher than 5%

Determined total costs of investments

1. The data on costs of investments is based on the data submitted in the reporting tables.

2. The costs included in the reporting tables of France do not include costs related to a part of the investment programme called "T3 Technic". The costs are not included due *"to some French State's specific public accounting rules, cannot be registered into depreciation costs and are recorded in other costs reoperating costs. This is the case of studies, assistance for project management, and expenses below the accounting threshold of \in 10k."* 

France established two terminal charging zones for RP3. TCZ 1 includes the Paris Charles de Gaulle and Paris Orly airports, while TCZ 2 includes the Nice Côte d'Azur, Lyon-Saint Exupéry, Marseille Provence, Toulouse-Blagnac and Basel-Mulhouse-Freiburg airports.

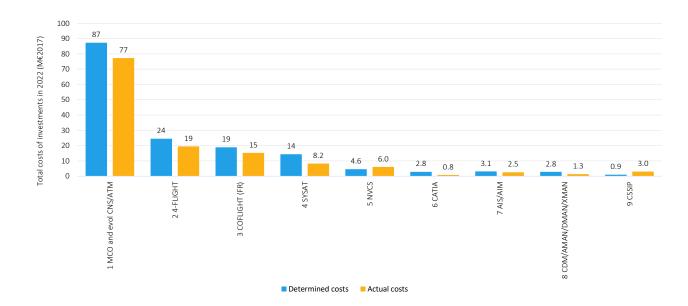
France underspent  $18M \epsilon_{2017}$  in costs related to investments ( $15M \epsilon_{2017}$  in en route and  $3.6M \epsilon_{2017}$  in terminal) in 2022. For RP3 to date France underspent  $34M \epsilon_{2017}$  in costs related to investments. These amounts shall be reimbursed to the airspace users through a reduction of future unit rate(s), unless the NSA decides after consultation with the users, that the ANSP shall not reimburse a part of the difference according to article 28 of Regulation (EU) 2019/317.

COSTS BY NEW MAJOR INVESTMENTS					F	RANCE   DSNA
Determined costs (M€ <sub>2017</sub> ) <sup>1</sup>	2020D	2021D	2022D	2023D	2024D	RP3 to date
Total costs of investments	97.62	132.38	159.23	190.40	220.51	389.22
1 MCO and evol CNS/ATM	60.38	74.65	87.26	97.74	109.78	222.29
2 4-FLIGHT	9.80	15.29	24.49	33.29	41.99	49.58
3 COFLIGHT (FR)	10.02	13.59	18.89	24.45	28.57	42.49
4 SYSAT	5.34	12.44	14.32	15.43	16.17	32.10
5 NVCS	2.91	6.79	4.56	6.56	6.75	14.25
6 CATIA	0.59	1.72	2.84	5.35	8.12	5.15
7 AIS/AIM	2.29	3.50	3.12	3.42	4.05	8.90
8 CDM/AMAN/DMAN/XMAN	1.47	2.59	2.81	3.59	4.54	6.87
9 CSSIP	4.83	1.82	0.95	0.56	0.54	7.59
Actual costs (M€ <sub>2017</sub> )	2020A	2021A	2022A	2023A	2024A	RP3 to date
Total costs of investments	07.62	114 50	122.90		1	245.00

Total costs of investments	97.62	114.58	133.80	-	-	345.99
1 MCO and evol CNS/ATM	60.38	66.29	77.22	-	-	203.89
2 4-FLIGHT	9.80	12.53	19.45	-	-	41.78
3 COFLIGHT (FR)	10.02	16.76	15.23	-	-	42.01
4 SYSAT	5.34	6.42	8.23	-	-	19.99
5 NVCS	2.91	4.45	6.02	-	-	13.37
6 CATIA	0.59	0.69	0.82	-	-	2.10
7 AIS/AIM	2.29	3.08	2.51	-	-	7.87
8 CDM/AMAN/DMAN/XMAN	1.47	1.75	1.32	-	-	4.53
9 CSSIP	4.83	2.60	3.00	-	-	10.44

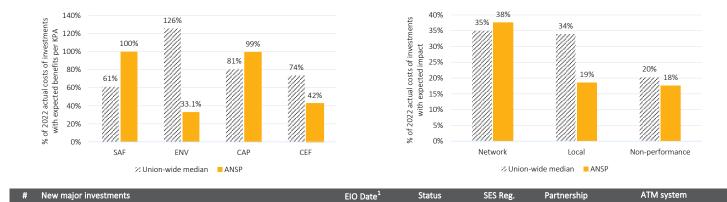
## COSTS OF NEW MAJOR INVESTMENTS

COSTS OF NEW MAJOR INVESTMENTS				FRANCE   DSNA		
Actual minus determined costs of investments (M $\varepsilon_{2017}$ )	2020	2021	2022	2023	2024	RP3 to date
Total difference in costs of investments	0	(17.80)	(25.43)	-	-	(43.23)
1 MCO and evol CNS/ATM	0	(8.36)	(10.04)	-	-	(18.40)
2 4-FLIGHT	0	(2.76)	(5.04)	-	-	(7.80)
3 COFLIGHT (FR)	0	3.18	(3.66)	-	-	(0.48)
4 SYSAT	0	(6.02)	(6.09)	-	-	(12.11)
5 NVCS	0	(2.34)	1.46	-	-	(0.89)
6 CATIA	0	(1.03)	(2.02)	-	-	(3.05)
7 AIS/AIM	0	(0.42)	(0.60)	-	-	(1.03)
8 CDM/AMAN/DMAN/XMAN	0	(0.84)	(1.50)	-	-	(2.33)
9 CSSIP	0	0.79	2.06	-	-	2.85

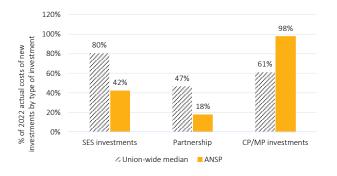


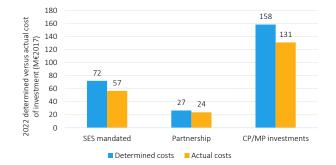
EXPECTED BENEFIT AND IMPACT PER NEW MAJOR INVESTMENT				FRANCE   DSNA
# New major investments	Expected benef			
	SAF	ENV	CAP	CEF
1 MCO and evol CNS/ATM	Х		Х	
2 4-FLIGHT	Х	Х	Х	Х
3 COFLIGHT (FR)	Х	Х	Х	Х
4 SYSAT	Х	Х	Х	Х
5 NVCS	Х		Х	Х
6 CATIA	Х			Х
7 AIS/AIM	Х		Х	Х
8 CDM/AMAN/DMAN/XMAN	Х	Х	Х	Х
9 CSSIP	Х		Х	Х

# New major investments	E	Expected impact				
		Network	Local	Non-performance		
1 MCO and evol CNS/ATM						
2 4-FLIGHT		Х				
3 COFLIGHT (FR)		Х	Х	Х		
4 SYSAT		Х	Х	Х		
5 NVCS		Х				
6 CATIA						
7 AIS/AIM						
8 CDM/AMAN/DMAN/XMAN		Х	Х			
9 CSSIP						



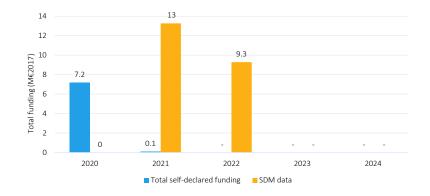
					ATM sytem	CP/ MP <sup>2</sup>
1 MCO and evol CNS/ATM	Recurrent	Started	No	No	Yes	MP
2 4-FLIGHT	2021-2025	Started	Yes	No	Yes	MP
3 COFLIGHT (FR)	2021-2025	Started	Yes	Yes	Yes	MP
4 SYSAT	2021-2030	Started	Yes	No	Yes	MP
5 NVCS	2019-2025	Started	Yes	Yes	No	MP
6 CATIA	2021-2027	Started	Yes	No	Yes	MP
7 AIS/AIM	2018-2024	Started	Yes	Yes	Yes	MP
8 CDM/AMAN/DMAN/XMAN	From 2015	Started	Yes	No	Yes	MP
9 CSSIP	Up to 2022	Started	Yes	No	No	-

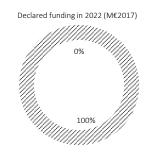




KPAs: SAF = Safety, ENV = Environment, CAP = Capacity, CEF = Cost-efficiency. 1. EOI date = Date of entry into operation 2. CP/MP = Common Project and Master Plan

ctual funding declaration (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
2017/						
otal funding declared	7.18	0.06	-	-	-	7.24
En route funding declared	7.18	0.06	-	-	-	7.24
En route funding that could not be assigned to a specific investment	5.67	0.06	-	-	-	5.73
COFLIGHT (FR)	0.71	-	-	-	-	0.71
CDM/AMAN/DMAN/XMAN	0.80	-	-	-	-	0.80
Terminal funding	-	-	-	-	-	-
Terminal funding that could not be assigned to a specific investment	-	-	-	-	-	-
ctual funding declaration vs payments (M $\epsilon_{2017}$ )	2020	2021	2022	2023	2024	RP3 to date
ifference between total funding declared vs received	7.18	(13.21)	(9.28)	-	-	(15.31
Total included in the funding declaration (reporting tables)	7.18	0.06	-	-	-	7.24
SDM Payment	-	13.27	9.28	-	-	22.55





⊗Union-wide ■ANSP

France did not report any funding in 2022. However, SESAR Deployment Manager data indicates a payment of 9.3M€<sub>2017</sub> in 2022. For RP3 to date, France declared 7.2M€<sub>2017</sub> of funding, while SESAR Deployment Manager data indicates a payment of 23M€<sub>2017</sub>.

79/206

Germany overspent 6.5ME2017 (+6.5%) in costs related to investments for en route and terminal in 2022 compared to the determined costs. However, in the monitoring reports, Germany reported an underspending of 5.3M € 2017 (-5.7%). No explanation for the differences between the monitoring report and reporting tables has been provided. Germany planned nine new major investments for RP3, five of which have started, two have not started, and two have been marked as delayed.

#### CAPEX FOR NEW INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

#### GERMANY | DFS

#### Determined and additional CAPEX by value of individual investments (M€2017)

APEX for new investments	174.27	% of total
New major investments (above 5M€ each) <sup>1</sup>	152.99	88%
Included in the performance plan	152.99	88%
Additional <sup>2</sup>	0	0%
Other new investments (below 5M€ each) <sup>3</sup>	21.28	12%
Included in the performance plan	21.28	12%
Additional	0	0%



#### Determined CAPEX: en route and terminal (M€2017)

Total CAPEX for new major investments	152.99	% of total
En route	81.79	53%
Terminal	71.20	47%



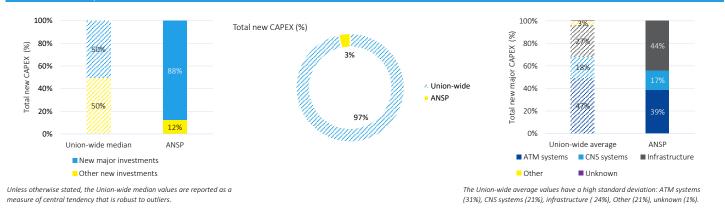
#### Determined CAPEX by type of investment (M€<sub>2017</sub>)

Total CAPEX for new major investments	152.99	% of total
ATM systems	59.42	39%
CNS systems	25.96	17%
Infrastructure	67.61	44%
Other	0	0%
Unknown	0	0%



RP3

#### New CAPEX: ANSP compared to Union-wide



1. New major investments: "acquisition, development, replacement, upgrade, or leasing of fixed assets representing a total value over the whole lifetime of the assets greater than EUR 5 million in real terms " (Reg. 2019/317 art. 2 (13)).

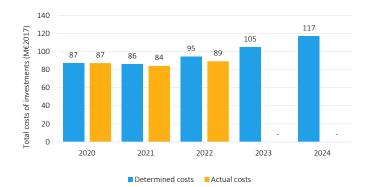
2. Additional investments are those investments not foreseen as part of the performance plan.

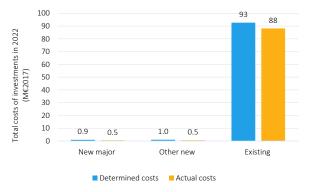
3. Other new investments: new investments or replacements/upgrades of existing assets representing a total value over the whole lifetime of the asset below 5M€ in real terms.

Determined costs: new and existing investments $\left(M \boldsymbol{\varepsilon}_{\mathtt{2017}}  ight)^1$	2020D	2021D	2022D	2023D	2024D	RP3 to date
Total costs	87.21	86.09	94.55	105.07	117.15	267.84
New major investments	0.02	0.09	0.92	4.40	10.34	1.03
% New major investments in total costs of investments	0%	0%	1%	4%	9%	0%
Other new investments	0.08	0.33	0.99	1.63	2.23	1.40
% Other new investments in total costs of investments	0%	0%	1%	2%	2%	1%
Existing investments	87.11	85.67	92.63	99.04	104.58	265.41
% Existing investments in total costs of investments	100%	100%	98%	94%	89%	99%

2020A	2021A	2022A	2023A	2024A	RP3 to date
87.21	84.12	89.20	-	-	260.52
0.02	0.05	0.50	-	-	0.56
0%	0%	-	-	-	0%
0.08	0.21	0.54	-	-	0.82
0%	0%	-	-	-	0%
87.11	83.86	88.16	-	-	259.14
100%	100%	-	-	-	99%
	87.21 0.02 0% 0.08 0% 87.11	87.21         84.12           0.02         0.05           0%         0%           0.08         0.21           0%         0%           87.11         83.86	87.21         84.12         89.20           0.02         0.05         0.50           0%         0%         -           0.08         0.21         0.54           0%         0%         -           87.11         83.86         88.16	87.21         84.12         89.20         -           0.02         0.05         0.50         -           0%         0%         -         -           0.08         0.21         0.54         -           0%         0%         -         -           87.11         83.86         88.16         -	87.21       84.12       89.20       -       -         0.02       0.05       0.50       -       -         0%       0%       -       -       -         0.08       0.21       0.54       -       -         0%       0%       -       -       -         87.11       83.86       88.16       -       -

Actual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
Total difference	0	(1.97)	(5.35)	-	-	(7.32)
New major investments	0	(0.05)	(0.42)	-	-	(0.47)
% change of actual with respect to determined	0%	-50%	-46%	-	-	-46%
Other new investments	0	(0.12)	(0.46)	-	-	(0.58)
% change of actual with respect to determined	0%	-37%	-46%	-	-	-41%
Existing investments	0	(1.80)	(4.47)	-	-	(6.27)
% change of actual with respect to determined	0%	-2%	-5%	-	-	-2%





1. The performance plans include costs related to investments which comprise depreciation cost, cost of capital, and cost of leasing.

Germany included adjustments to the determined and actual costs of investments, under the name of "Experience-based DFS management correction". These adjustments have been deducted from the costs of existing investments (-14MC<sub>2017</sub> in 2022 for determined values).

The total costs of investments included in the monitoring report do not match the total costs of investments included in the reporting tables. No explanation on the differences has been provided.

#### GERMANY | DFS

ermined costs by nature (N	1€ <sub>2017</sub> )		2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to da
al costs of new and existing	investments		70.03	66.14	136.17	71.24	78.69	87.46	207.4
Depreciation			64.98	60.75	125.74	66.72	74.19	83.54	192.4
Cost of capital			5.05	5.39	10.43	4.52	4.51	3.92	14.9
Cost of leasing			0	0	0	0	0	0	
ual costs by nature (M€ <sub>2017</sub>	)		2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to da
al costs of new and existing	investments		70.03	58.87	128.90	79.40	-	- [	208.3
Depreciation			64.98	60.83	125.81	66.13	-	-	191.
Cost of capital			5.05	(1.96)	3.09	13.27	-	-	16.
Cost of leasing			0	0	0	-	-	-	
ual minus determined costs	; (M€ <sub>2017</sub> )		2020	2021	2020/2021	2022	2023	2024	RP3 to d
al difference			0	(7.27)	(7.27)	8.16	-	-	0.
Depreciation			0	0.07	0.07	(0.59)	-	-	(0.
Cost of capital			0	(7.34)	(7.34)	8.76	-	-	1.
Cost of leasing			0	0	0	-	-	-	
2020									
2021									
020/2021							Actual total cost	s of investments	
2022							Underspending		
2022							Overspending up	p to 5%	
2023							Overspending hi	igher than 5%	
2024							Determined tota	al costs of investr	nents
RP3									

termined costs by nature (M€ <sub>2017</sub> )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to d
al costs of new and existing investments	24.25	27.21	51.46	29.14	32.19	34.83	80.0
Depreciation	22.22	25.34	47.56	27.83	30.89	33.61	75.
Cost of capital	2.03	1.87	3.90	1.31	1.30	1.22	5.
Cost of leasing	0	0	0	0	0	0	
ual costs by nature (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to d
al costs of new and existing investments	24.25	22.69	46.94	27.48	-	-	74.
Depreciation	22.22	23.29	45.51	23.07	-	-	68.
Cost of capital	2.03	(0.59)	1.43	4.40	-	-	5
Cost of leasing	0	0	0	-	-	-	
ual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2020/2021	2022	2023	2024	RP3 to o
al difference	0	(4.51)	(4.51)	(1.66)	-	-1	(6
Depreciation	0	(2.05)	(2.05)	(4.75)	-	-	(6
Cost of capital	0	(2.46)	(2.46)	3.09	-	-	0
Cost of leasing	0	0	0	-	-	-	
2020							
2021							
2020/2021					Actual total co	sts of investmer	its
					<ul> <li>Underspendin</li> </ul>	g	
2022					Overspending	up to 5%	
2023					Overspending	higher than 5%	
2024					Determined to	tal costs of inve	stments

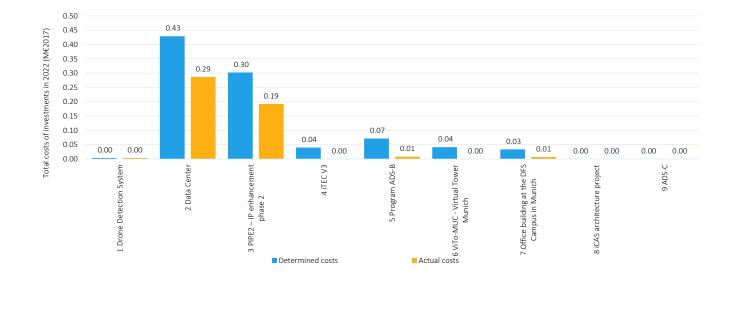
The total costs of investments included in the monitoring report do not match the total costs of investments included in the reporting tables. No explanation on the differences has been provided.

Germany overspent  $6.5M \in_{2017}$  in costs related to investments (+8.2M  $\in_{2017}$  in en route and  $-1.7M \in_{2017}$  in terminal) in 2022. For RP3 to date Germany underspent  $5.3M \in_{2017}$  in costs related to investments. These amounts shall be reimbursed to the airspace users through a reduction of future unit rate(s), unless the NSA decides after consultation with the users, that the ANSP shall not reimburse a part of the difference according to article 28 of Regulation (EU) 2019/317.

82/206

GERMANY - Terminal | DFS

COSTS BY NEW MAJOR INVESTMENTS					G	ERMANY   DF
Determined costs (M€ <sub>2017</sub> ) <sup>1</sup>	2020D	2021D	2022D	2023D	2024D	RP3 to date
Total costs of investments	0.02	0.09	0.92	4.40	10.34	1.03
1 Drone Detection System	0.00	0.00	0.00	1.21	4.78	0.01
2 Data Center	0.01	0.03	0.43	1.50	2.06	0.47
3 PIPE2 – IP enhancement phase 2	0	0.05	0.30	0.96	1.89	0.35
4 ITEC V3	0	0	0.04	0.24	0.55	0.04
5 Program ADS-B	0.01	0.01	0.07	0.19	0.46	0.09
6 ViTo-MUC - Virtual Tower Munich	0	0	0.04	0.22	0.44	0.04
7 New construction of an office building at the DFS Campus in Munich	0	0.00	0.03	0.08	0.17	0.03
8 iCAS architecture project	0	0	0	0	0	C
9 ADS-C	0	0	0	0	0	C
Actual costs (M€ <sub>2017</sub> )	2020A	2021A	2022A	2023A	2024A	RP3 to date
Total costs of investments	0.02	0.05	0.50	-	-1	0.56
1 Drone Detection System	0.00	0.00	0.00	-	-	0.01
2 Data Center	0.01	0.03	0.29	-	-	0.32
3 PIPE2 – IP enhancement phase 2	0	0.00	0.19	-	-	0.20
4 iTEC V3	0	0	0	-	-	(
5 Program ADS-B	0.01	0.01	0.01	-	-	0.03
6 ViTo-MUC - Virtual Tower Munich	0	0	0	-	-	(
7 New construction of an office building at the DFS Campus in Munich	0	0	0.01	-	-	0.01
8 iCAS architecture project	0	0	0	-	-	(
9 ADS-C	0	0	0	-	-	(
Actual minus determined costs of investments (M $\ensuremath{\varepsilon_{2017}}$ )	2020	2021	2022	2023	2024	RP3 to date
Total difference in costs of investments	0	(0.05)	(0.34)	0	0	(0.39
1 Drone Detection System	0	0	0	-	-	C
2 Data Center	0	0.00	(0.14)	-	-	(0.14
3 PIPE2 – IP enhancement phase 2	0	(0.05)	(0.11)	-	-	(0.16
4 iTEC V3	0	0	0	-	-	. (
5 Program ADS-B	0	(0.00)	(0.06)	-	-	(0.06
6 ViTo-MUC - Virtual Tower Munich	0	0	0	-	-	. (
7 New construction of an office building at the DFS Campus in Munich	0	0	(0.03)	-	-	(0.03
8 iCAS architecture project	0	0	0	-	-	. (
9 ADS-C	0	0	0	-	-	(



0.4	1201
ŏ4/	200

Х

Х

New major investments	Expected benefit per KPA									
	SAF	ENV	CAP	CEF						
1 Drone Detection System	Х		Х	Х						
2 Data Center				Х						
3 PIPE2 – IP enhancement phase 2	Х		Х	Х						
1 ITEC V3	Х	Х	Х	Х						
5 Program ADS-B	Х	Х	Х	Х						
5 ViTo-MUC - Virtual Tower Munich	Х			Х						
7 New construction of an office building at the DFS Campus in Munich				Х						
8 iCAS architecture project				Х						

9 ADS-C

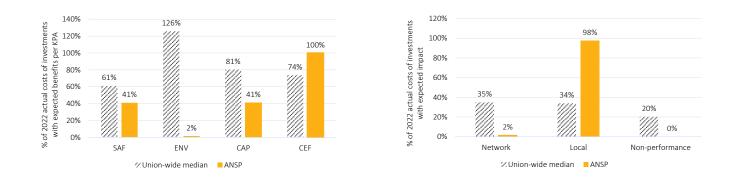
# New major investments

Expected impact

Х

Х

	Network	Local	Non-performance
1 Drone Detection System			
2 Data Center		Х	
3 PIPE2 – IP enhancement phase 2		Х	
4 iTEC V3	Х	Х	
5 Program ADS-B	Х	Х	
6 ViTo-MUC - Virtual Tower Munich		Х	
7 New construction of an office building at the DFS Campus in Munich			
8 iCAS architecture project	Х	Х	
9 ADS-C	Х	х	



# New major investments	EIO Date <sup>1</sup>	Status	SES Reg.	Partnership	ATM sy	stem
					ATM sytem	CP/ MP <sup>2</sup>
1 Drone Detection System	2027-2033	Started	No	No	No	-
2 Data Center	01/07/2024	Started	No	No	Yes	MP
3 PIPE2 – IP enhancement phase 2	2027	Started	No	No	No	-
4 iTEC V3	2028	Delayed	No	Yes	Yes	CP
5 Program ADS-B	2023-2028	Started	Yes	No	Yes	MP
6 ViTo-MUC - Virtual Tower Munich	2030	Delayed	No	No	Yes	MP
7 New construction of an office building at the DFS Campus in Munich	2027	Started	No	No	No	-
8 iCAS architecture project	01/12/2025	Not started	No	Yes	Yes	MP
9 ADS-C	01/01/2028	Not started	Yes	Yes	Yes	CP
80% 60% 60% 40% 40% 60% 2% 0% SES investments Partnership CP/MP investment	nts	2022 determined versus actual cost           0°00         0f investments (McE2017)           0°10         0°00         0°00           0°10         0°00         0°10           0°10         0°10         0°10           0°10         0°10         0°10	0.07 0.01 SES mandated	0.04 0 Partnership	0.58 0.29 CP/MP investr	
. <u>=</u>			Determine	d costs 🗧 Actual co	osts	

KPAs: SAF = Safety, ENV = Environment, CAP = Capacity, CEF = Cost-efficiency.

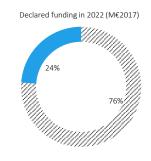
1. EOI date = Date of entry into operation

2. CP/MP = Common Project and Master Plan

The new major investments 4 and 6 have been marked as delayed, as Germany did not report actual costs so far, while costs were determined for both investments.

PUBLIC FUNDING GRANTED FOR TOTAL CAPEX (CEF/TEN-T)					G	ERMANY   DFS
Actual funding declaration (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
Total funding declared	19.54	19.84	16.33	-	-	55.70
En route funding declared	17.60	18.26	15.30	-	-	51.16
En route funding that could not be assigned to a specific investment	6.33	4.87	3.69	-	-	14.89
iCAS architecture project	11.26	13.39	11.62	-	-	36.27
Terminal funding	1.94	1.58	1.02	-	-	4.55
Terminal funding that could not be assigned to a specific investment	1.94	1.58	1.02	-	-	4.55
Actual funding declaration vs payments (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
Difference between total funding declared vs received	16.07	(2.63)	2.69	-	- [	16.13
Total included in the funding declaration (reporting tables)	19.54	19.84	16.33	-	-	55.70
SDM Payment	3.47	22.46	13.63	-	-	39.57





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Germany reported  $16M \epsilon_{2017}$  funding in 2022. SESAR Deployment Manager data indicates a payment of  $14M \epsilon_{2017}$  in 2022. For RP3 to date, Germany declared  $56M \epsilon_{2017}$  of funding, while SESAR Deployment Manager data indicates a payment of  $40M \epsilon_{2017}$ .

Terminal

Greece underspent 0.4M € 2017 (-19%) in costs related to investments for en route and terminal in 2022 compared to the determined costs. Greece planned eight new major investments for RP3, none of which have started.

17.94

15%

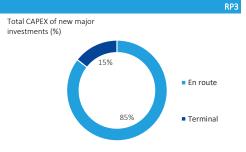
#### CAPEX FOR NEW INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

#### Determined and additional CAPEX by value of individual investments (M€2017)

APEX for new investments	123.71	% of total
New major investments (above 5M€ each) <sup>1</sup>	123.71	100%
Included in the performance plan	123.71	100%
Additional <sup>2</sup>	0	0%
Other new investments (below 5M€ each) <sup>3</sup>	0	0%
Included in the performance plan	0	0%
Additional	0	0%

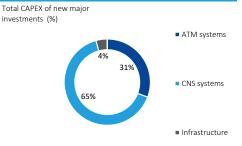


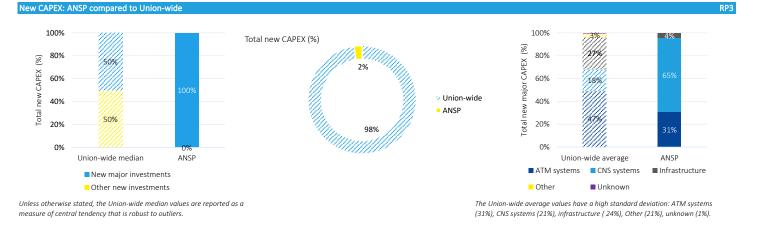
Determined CAPEX: en route and terminal ( $M \in_{2017}$ )		
	400.74	<i>a</i>
Total CAPEX for new major investments	123.71	% of total
En route	105.77	85%



Determined CAPEX by type of investment (M€ <sub>2017</sub> )

Total CAPEX for new major investments	123.71	% of total
ATM systems	37.94	31%
CNS systems	80.56	65%
Infrastructure	5.21	4%
Other	0	0%
Unknown	0	0%





1. New major investments: "acquisition, development, replacement, upgrade, or leasing of fixed assets representing a total value over the whole lifetime of the assets greater than EUR 5 million in real terms " (Reg. 2019/317 art. 2 (13)).

2. Additional investments are those investments not foreseen as part of the performance plan.

3. Other new investments: new investments or replacements/upgrades of existing assets representing a total value over the whole lifetime of the asset below 5M€ in real terms.

GREECE | HCAA

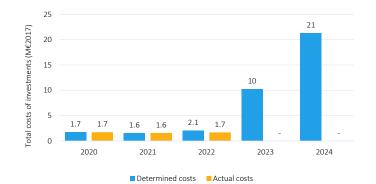
RP3

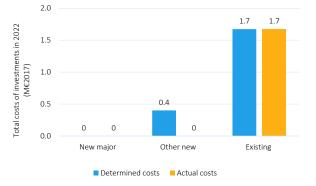
# 87/206

2020D	2021D	2022D	2023D	2024D	RP3 to date
1.73	1.57	2.07	10.23	21.31	5.37
0	0	0	8.09	19.44	0
0%	0%	0%	79%	91%	0%
0.11	0	0.40	0.80	0.77	0.51
7%	0%	19%	8%	4%	10%
1.61	1.57	1.67	1.34	1.10	4.86
93%	100%	81%	13%	5%	90%
	1.73 0 0% 0.11 7% 1.61	1.73         1.57           0         0           0%         0%           0.11         0           7%         0%           1.61         1.57	1.73         1.57         2.07           0         0         0           0%         0%         0%           0.11         0         0.40           7%         0%         19%           1.61         1.57         1.67	1.73         1.57         2.07         10.23           0         0         0         8.09           0%         0%         0%         79%           0.11         0         0.40         0.80           7%         0%         19%         8%           1.61         1.57         1.67         1.34	1.73         1.57         2.07         10.23         21.31           0         0         0         8.09         19.44           0%         0%         0%         79%         91%           0.11         0         0.40         0.80         0.77           7%         0%         19%         8%         4%           1.61         1.57         1.67         1.34         1.10

Actual costs: new and existing investments (M $\varepsilon_{2017}$ )	2020A	2021A	2022A	2023A	2024A	RP3 to date
Total costs	1.73	1.57	1.67	-	-	4.97
New major investments	0	0	0	-	-	0
% New major investments in total costs of investments	0%	0%	0%	-	-	0%
Other new investments	0.11	0	0	-	-	0.11
% Other new investments in total costs of investments	7%	0%	0%	-	-	2%
Existing investments	1.61	1.57	1.67	-	-	4.86
% Existing investments in total costs of investments	93%	100%	100%	-	-	98%

2020	2021	2022	2023	2024	RP3 to date
0	0	(0.40)	-	-	(0.40)
0	0	-	-	-	0
0%	0%	-	-	-	0%
0	0	(0.40)	-	-	(0.40)
0%	0%	-100%	-	-	-78%
0	0	0	-	-	0
0%	0%	0%	-	-	0%
	0 0% 0% 0% 0%	0         0           0         0           0%         0%           0         0           0%         0%           0%         0%           0%         0%           0%         0%	0         0         (0.40)           0         0         -           0%         0%         -           0         0         (0.40)           0%         0%         -100%           0%         0%         0	0         0         (0.40)         -           0         0         -         -           0%         0%         -         -           0         0         (0.40)         -           0         0         (0.40)         -           0%         0%         -100%         -           0         0         0         -	0         0         (0.40)         -

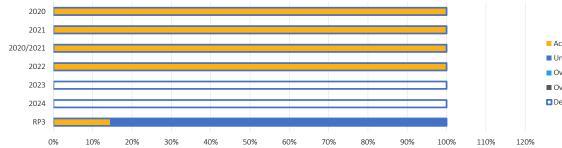




1. The performance plans include costs related to investments which comprise depreciation cost, cost of capital, and cost of leasing.

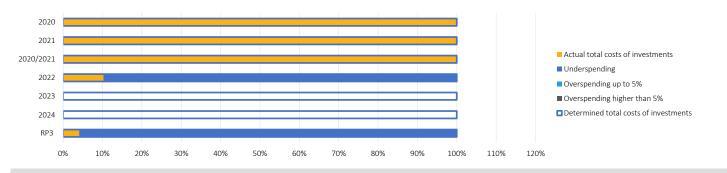
# GREECE | HCAA

Determined costs by nature (M€ <sub>2017</sub> )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to date
Total costs of new and existing investments	1.67	1.52	3.20	1.63	9.73	18.85	4.83
Depreciation	1.34	1.29	2.63	1.45	7.43	14.39	4.08
Cost of capital	0.34	0.23	0.57	0.18	2.30	4.45	0.75
Cost of leasing	0	0	0	0	0	0	0
Actual costs by nature (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to date
Total costs of new and existing investments	1.67	1.52	3.20	1.63	-	- [	4.83
Depreciation	1.34	1.29	2.63	1.45	-	-	4.08
Cost of capital	0.34	0.23	0.57	0.18	-	-	0.75
Cost of leasing	0	0	0	0	-	-	0
Actual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2020/2021	2022	2023	2024	RP3 to date
Total difference	0	0	0	0	-	-	0
Depreciation	0	0	0	0	-	-	0
Cost of capital	0	0	0	0	-	-	0
Cost of leasing	0	0	0	0	-	-	0



Actual total costs of investments
Underspending
Overspending up to 5%
Overspending higher than 5%
Determined total costs of investments

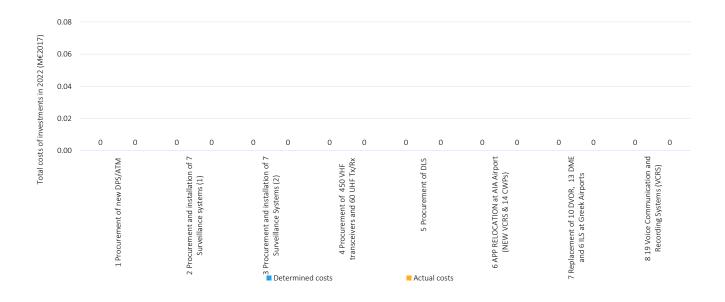
COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFOR	RMANCE PLAN					GREECE - Te	rminal   HCAA
Determined costs by nature (M€ <sub>2017</sub> )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to date
Total costs of new and existing investments	0.05	0.05	0.10	0.45	0.50	2.46	0.54
Depreciation	0.04	0.04	0.08	0.34	0.39	1.86	0.41
Cost of capital	0.01	0.01	0.02	0.11	0.11	0.60	0.13
Cost of leasing	0	0	0	0	0	0	0
Actual costs by nature (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to date
Total costs of new and existing investments	0.05	0.05	0.10	0.05	-	- [	0.14
Depreciation	0.04	0.04	0.08	0.04	-	-	0.12
Cost of capital	0.01	0.01	0.02	0.01	-	-	0.03
Cost of leasing	0	0	0	0	-	-	0
Actual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2020/2021	2022	2023	2024	RP3 to date
Total difference	0	0	0	(0.40)	-	-	(0.40)
Depreciation	0	0	0	(0.30)	-	-	(0.30)
Cost of capital	0	0	0	(0.10)	-	-	(0.10)
Cost of leasing	0	0	0	0	-	-	0



Greece underspent  $0.4ME_{2017}$  terminal costs related to investments in 2022. For RP3 to date Greece underspent  $0.4ME_{2017}$  in costs related to investments. These amounts shall be reimbursed to the airspace users through a reduction of future unit rate(s), unless the NSA decides after consultation with the users, that the ANSP shall not reimburse a part of the difference according to article 28 of Regulation (EU) 2019/317.

88/206

COSTS BY NEW MAJOR INVESTMENTS						FREECE   HCA
Determined costs $(M \epsilon_{2017})^1$	2020D	2021D	2022D	2023D	2024D	RP3 to dat
Total costs of investments	0	0	0	8.09	19.44	C
1 Procurement of new DPS/ATM	0	0	0	6.39	6.17	C
2 Procurement and installation of 7 Surveillance systems (1)	0	0	0	0	5.56	C
3 Procurement and installation of 7 Surveillance Systems (2)	0	0	0	0	2.59	C
4 Procurement of 450 VHF transceivers and 60 UHF Tx/Rx	0	0	0	0.76	0.74	C
5 Procurement of DLS	0	0	0	0.94	0.91	(
6 APP RELOCATION at AIA Airport (NEW VCRS & 14 CWPs)	0	0	0	0	0.88	(
7 Replacement of 10 DVOR, 13 DME and 6 ILS at Greek Airports	0	0	0	0	1.50	(
8 Procurement of 19 Voice Communication and Recording Systems (VCRS) for 5 I	0	0	0	0	1.10	(
Actual costs (M€ <sub>2017</sub> )	2020A	2021A	2022A	2023A	2024A	RP3 to dat
Fotal costs of investments	0	0	0	-	-	(
1 Procurement of new DPS/ATM	0	0	0	-	-	(
2 Procurement and installation of 7 Surveillance systems (1)	0	0	0	-	-	(
3 Procurement and installation of 7 Surveillance Systems (2)	0	0	0	-	-	(
4 Procurement of 450 VHF transceivers and 60 UHF Tx/Rx	0	0	0	-	-	
5 Procurement of DLS	0	0	0	-	-	
6 APP RELOCATION at AIA Airport (NEW VCRS & 14 CWPs)	0	0	0	-	-	
7 Replacement of 10 DVOR, 13 DME and 6 ILS at Greek Airports	0	0	0	-	-	
8 Procurement of 19 Voice Communication and Recording Systems (VCRS) for 5 I	0	0	0	-	-	I
Actual minus determined costs of investments ( $M \varepsilon_{2017}$ )	2020	2021	2022	2023	2024	RP3 to dat
Total difference in costs of investments	0	0	0	-	-1	C
1 Procurement of new DPS/ATM	0	0	0	-	-	(
2 Procurement and installation of 7 Surveillance systems (1)	0	0	0	-	-	(
3 Procurement and installation of 7 Surveillance Systems (2)	0	0	0	-	-	(
4 Procurement of 450 VHF transceivers and 60 UHF Tx/Rx	0	0	0	-	-	
5 Procurement of DLS	0	0	0	-	-	
6 APP RELOCATION at AIA Airport (NEW VCRS & 14 CWPs)	0	0	0	-	-	
7 Replacement of 10 DVOR, 13 DME and 6 ILS at Greek Airports	0	0	0	-	-	
8 Procurement of 19 Voice Communication and Recording Systems (VCRS) for 5 I	0	0	0	-	-	



1. Determined costs comprise depreciation costs, cost of capital, and cost of leasing in the performance plans.

89/206

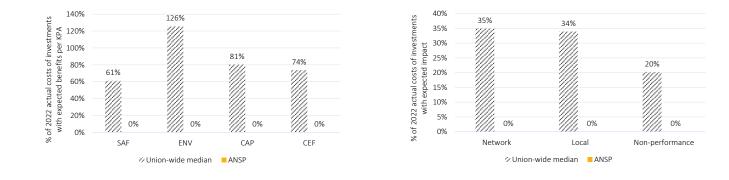
#### 90/206

GREECE | HCAA

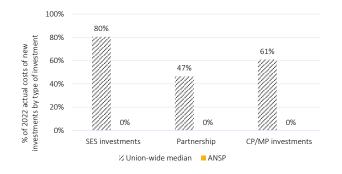
#### EXPECTED BENEFIT AND IMPACT PER NEW MAJOR INVESTMENT

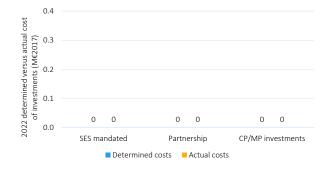
# New major investments	Expected benefit	Expected benefit per KPA					
	SAF	ENV	CAP	CEF			
1 Procurement of new DPS/ATM	Х	Х	Х	Х			
2 Procurement and installation of 7 Surveillance systems (1)	Х	Х	Х	Х			
3 Procurement and installation of 7 Surveillance Systems (2)	Х	Х	Х	Х			
4 Procurement of 450 VHF transceivers and 60 UHF Tx/Rx	Х	Х	Х	Х			
5 Procurement of DLS	Х	Х	Х	Х			
6 APP RELOCATION at AIA Airport (NEW VCRS & 14 CWPs)	Х	Х	Х	Х			
7 Replacement of 10 DVOR, 13 DME and 6 ILS at Greek Airports	Х	Х	Х	Х			
8 Procurement of 19 Voice Communication and Recording Systems (VCRS) for 5 Major and 14 National Airports	Х	Х	Х	Х			

# New major investments	Expected impact	Expected impact			
	Network	Local	Non-performance		
1 Procurement of new DPS/ATM	Х	Х			
2 Procurement and installation of 7 Surveillance systems (1)	Х	Х			
3 Procurement and installation of 7 Surveillance Systems (2)	Х	Х			
4 Procurement of 450 VHF transceivers and 60 UHF Tx/Rx		Х			
5 Procurement of DLS		Х			
6 APP RELOCATION at AIA Airport (NEW VCRS & 14 CWPs)	Х	Х			
7 Replacement of 10 DVOR,13 DME and 6 ILS at Greek Airports		Х			
8 Procurement of 19 Voice Communication and Recording Systems (VCRS) for 5 Major and 14 National Airports	Х	Х			



# New major investments	EIO Date <sup>1</sup>	Status	SES Reg.	Partnership	ATM sy	rstem
					ATM sytem	CP/ MP <sup>2</sup>
1 Procurement of new DPS/ATM	2023	Not started	Yes	No	Yes	MP
2 Procurement and installation of 7 Surveillance systems (1)	2024	Not started	Yes	No	Yes	MP
3 Procurement and installation of 7 Surveillance Systems (2)	2024	Not started	Yes	No	Yes	MP
4 Procurement of 450 VHF transceivers and 60 UHF Tx/Rx	2023	Not started	No	No	No	-
5 Procurement of DLS	2023	Not started	Yes	No	No	-
6 APP RELOCATION at AIA Airport (NEW VCRS & 14 CWPs)	2024	Not started	No	No	No	-
7 Replacement of 10 DVOR, 13 DME and 6 ILS at Greek Airports	2024	Not started	Yes	No	Yes	MP
8 Procurement of 19 Voice Communication and Recording Systems (VCRS) for 5	2024	Not started	Yes	No	Yes	MP



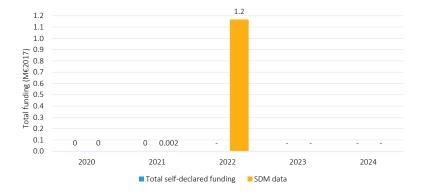


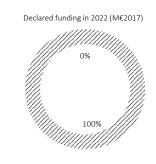
KPAs: SAF = Safety, ENV = Environment, CAP = Capacity, CEF = Cost-efficiency. 1. EOI date = Date of entry into operation

2. CP/MP = Common Project and Master Plan

$\cap$	1	1201	
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PUBLIC FUNDING GRANTED FOR TOTAL CAPEX (CEF/TEN-T)					G	REECE   HCAA
Actual funding declaration (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
Total funding declared	-	-	-	-	- 1	-
En route funding declared	-	-	-	-	-	-
En route funding that could not be assigned to a specific investment	-	-	-	-	-	-
Terminal funding	-	-	-	-	-	-
Terminal funding that could not be assigned to a specific investment	-	-	-	-	-	-
Actual funding declaration vs payments (M $\epsilon_{2017}$ )	2020	2021	2022	2023	2024	RP3 to date
Difference between total funding declared vs received	-	(0.00)	(1.17)	-	-	(1.17)
Total included in the funding declaration (reporting tables)	-	-	-	-	-	-
SDM Payment	-	0.00	1.17	-	-	1.17





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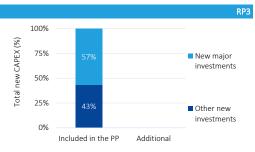
Greece did not report any funding in 2022. However, SESAR Deployment Manager data indicates a payment of 1.2M€<sub>2017</sub> in 2022. For RP3 to date, Greece did not declare any funding, while SESAR Deployment Manager data indicates a payment of 1.2M€<sub>2017</sub>.

Hungary underspent 2.4M  $\in_{2017}$  (-7.5%) in costs related to investments for en route and terminal in 2022 compared to the detemined costs. Hungary planned six new major investments for RP3, all of which have started.

#### CAPEX FOR NEW INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

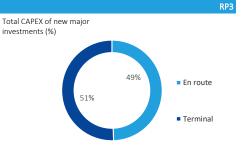
#### Determined and additional CAPEX by value of individual investments (M€2017)

APEX for new investments	146.67	% of total
New major investments (above 5M€ each) <sup>1</sup>	82.92	57%
Included in the performance plan	82.92	57%
Additional <sup>2</sup>	0	0%
Other new investments (below 5M€ each) <sup>3</sup>	63.75	43%
Included in the performance plan	63.75	43%
Additional	0	0%



#### Determined CAPEX: en route and terminal (M€<sub>2017</sub>)

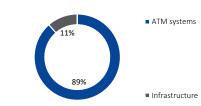
Total CAPEX for new major investments	82.92	% of total
En route	41.03	49%
Terminal	41.89	51%



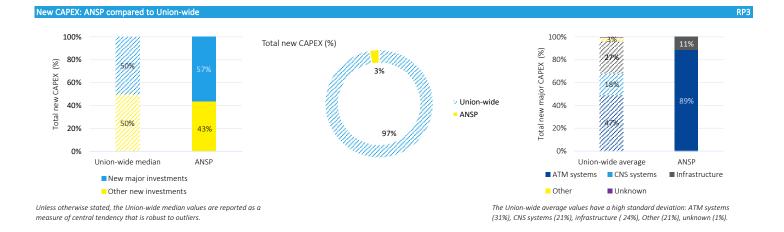
# Determined CAPEX by type of investment ( $M \varepsilon_{2017}$ )

Total CAPEX for new major investments	82.92	% of total
ATM systems	73.43	89%
CNS systems	0	0%
Infrastructure	9.49	11%
Other	0	0%
Unknown	0	0%





RP3



1. New major investments: "acquisition, development, replacement, upgrade, or leasing of fixed assets representing a total value over the whole lifetime of the assets greater than EUR 5 million in real terms" (Reg. 2019/317 art. 2 (13)).

2. Additional investments are those investments not foreseen as part of the performance plan.

3. Other new investments: new investments or replacements/upgrades of existing assets representing a total value over the whole lifetime of the asset below 5M in real terms.

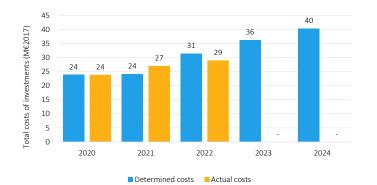
HUNGARY | HungaroControl

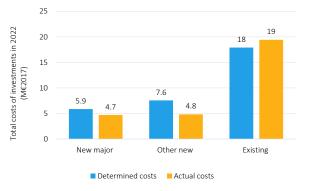
HUNGARY | HungaroControl

mined costs: new and existing investments $(M \boldsymbol{\in}_{2017})^1$	2020D	2021D	2022D	2023D	2024D	RP3 to date
costs	23.84	24.14	31.32	36.24	40.32	79.29
New major investments	0.60	3.21	5.85	12.43	16.46	9.66
% New major investments in total costs of investments	3%	13%	19%	34%	41%	12%
Other new investments	1.33	4.14	7.56	10.23	12.14	13.03
% Other new investments in total costs of investments	6%	17%	24%	28%	30%	16%
Existing investments	21.91	16.79	17.90	13.59	11.72	56.60
% Existing investments in total costs of investments	92%	70%	57%	37%	29%	71%

Actual costs: new and existing investments (M $\varepsilon_{2017}$ )	2020A	2021A	2022A	2023A	2024A	RP3 to date
Total costs	23.84	27.03	28.96	-	-1	79.82
New major investments	0.60	3.22	4.71	-	-	8.53
% New major investments in total costs of investments	3%	12%	16%	-	-	11%
Other new investments	1.33	3.87	4.83	-	-	10.03
% Other new investments in total costs of investments	6%	14%	17%	-	-	13%
Existing investments	21.91	19.93	19.43	-	-	61.26
% Existing investments in total costs of investments	92%	74%	67%	-	-	77%

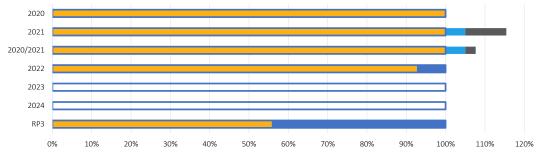
2020	2021	2022	2023	2024	RP3 to date
0	2.89	(2.36)	-	-	0.53
0	0.02	(1.15)	-	-	(1.13)
0%	1%	-20%	-	-	-11.70%
0	(0.27)	(2.73)	-	-	(3.00)
0%	-6%	-36%	-	-	-23%
0	3.14	1.52	-	-	4.66
0%	19%	9%	-	-	8%
	0 0% 0% 0% 0%	0         2.89           0         0.02           0%         1%           0         (0.27)           0%         -6%           0         3.14	0         2.89         (2.36)           0         0.02         (1.15)           0%         1%         -20%           0         (0.27)         (2.73)           0%         -6%         -36%           0         3.14         1.52	0         2.89         (2.36)         -           0         0.02         (1.15)         -           0%         1%         -20%         -           0         (0.27)         (2.73)         -           0%         -6%         -36%         -           0         3.14         1.52         -	0         2.89         (2.36)         -





1. The performance plans include costs related to investments which comprise depreciation cost, cost of capital, and cost of leasing.

COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFOR	RMANCE PLAN				HUNGARY - En route   HungaroCont			
Determined costs by nature (M $\epsilon_{2017}$ )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to date	
Total costs of new and existing investments	20.03	19.66	39.70	25.29	25.95	27.74	64.99	
Depreciation	11.64	13.71	25.35	14.93	15.13	16.33	40.28	
Cost of capital	2.73	3.87	6.60	5.34	5.71	6.40	11.94	
Cost of leasing	5.66	2.08	7.74	5.03	5.11	5.00	12.77	
Actual costs by nature (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to date	
Total costs of new and existing investments	20.03	22.70	42.73	23.44	-	- [	66.18	
Depreciation	11.64	13.54	25.18	13.47	-	-	38.65	
Cost of capital	2.73	3.72	6.45	4.89	-	-	11.35	
Cost of leasing	5.66	5.44	11.10	5.08	-	-	16.18	
Actual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2020/2021	2022	2023	2024	RP3 to date	
Total difference	0	3.04	3.04	(1.85)	-	-	1.19	
Depreciation	0	(0.17)	(0.17)	(1.46)	-	-	(1.63)	
Cost of capital	0	(0.15)	(0.15)	(0.44)	-	-	(0.59)	
Cost of leasing								



Actual total costs of investments

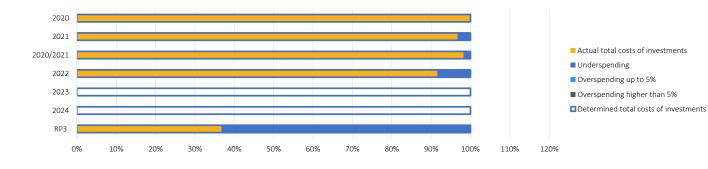
Underspending

Overspending up to 5%

Overspending higher than 5%

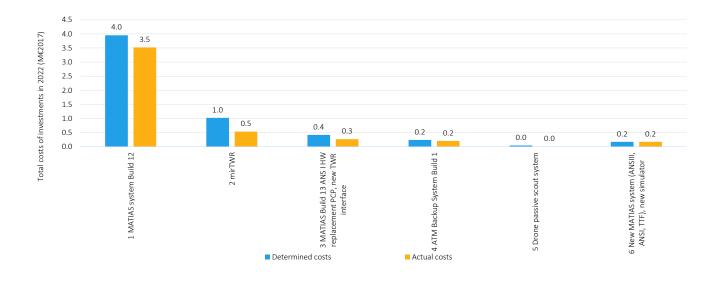
Determined total costs of investments

COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFOR	RMANCE PLAN				HUNGARY	lungaroControl	
Determined costs by nature (M€ <sub>2017</sub> )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to date
Total costs of new and existing investments	3.80	4.47	8.27	6.03	10.29	12.58	14.30
Depreciation	2.69	3.09	5.78	3.45	6.71	8.54	9.23
Cost of capital	0.60	0.88	1.47	1.82	2.81	3.28	3.29
Cost of leasing	0.52	0.50	1.02	0.76	0.78	0.75	1.79
Actual costs by nature (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to date
Total costs of new and existing investments	3.80	4.33	8.13	5.52	-	-	13.65
Depreciation	2.69	2.99	5.67	3.19	-	-	8.87
Cost of capital	0.60	0.91	1.50	1.69	-	-	3.19
Cost of leasing	0.52	0.43	0.95	0.64	-	-	1.59
Actual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2020/2021	2022	2023	2024	RP3 to date
Total difference	0	(0.15)	(0.15)	(0.51)	-	-	(0.66)
Depreciation	0	(0.11)	(0.11)	(0.26)	-	-	(0.36)
Cost of capital	0	0.03	0.03	(0.13)	-	-	(0.10)
Cost of leasing	0	(0.07)	(0.07)	(0.12)	-	-	(0.19)



Hungary underspent  $2.4M \in_{2017}$  in costs related to investments ( $1.8M \in_{2017}$  in en route and  $0.5M \in_{2017}$  in terminal) in 2022. For RP3 to date Hungary overspent  $0.5M \in_{2017}$  in costs related to investments.

COSTS BY NEW MAJOR INVESTMENTS					HUNGARY   H	lungaroContro
Determined costs (M€ <sub>2017</sub> ) <sup>1</sup>	2020D	2021D	2022D	2023D	2024D	RP3 to date
Total costs of investments	0.60	3.21	5.85	12.43	16.46	9.66
1 MATIAS system Build 12	0.53	2.88	3.95	3.75	3.56	7.36
2 mirTWR	0.00	0.13	1.02	5.21	6.89	1.15
3 MATIAS Build 13 ANS I HW replacement PCP, new TWR interface	0	0.01	0.42	2.03	2.33	0.43
4 ATM Backup System Build 1	0.01	0.06	0.24	0.83	1.60	0.31
5 Drone passive scout system	0.00	0.00	0.04	0.44	1.10	0.04
6 New MATIAS system (ANSIII, ANSI, TTF), new simulator	0.05	0.14	0.17	0.17	0.97	0.36
Actual costs (M€ <sub>2017</sub> )	2020A	2021A	2022A	2023A	2024A	RP3 to date
Total costs of investments	0.60	3.22	4.71	-	-	8.53
1 MATIAS system Build 12	0.53	2.89	3.52	-	-	6.94
2 mirTWR	0.00	0.13	0.54	-	-	0.67
3 MATIAS Build 13 ANS I HW replacement PCP, new TWR interface	0	0.01	0.27	-	-	0.28
4 ATM Backup System Build 1	0.01	0.06	0.21	-	-	0.28
5 Drone passive scout system	0.00	0.00	0.00	-	-	0.00
6 New MATIAS system (ANSII, ANSI, TTF), new simulator	0.05	0.14	0.17	-	-	0.36
Actual minus determined costs of investments (M ${f {f e}}_{2017})$	2020	2021	2022	2023	2024	RP3 to date
Total difference in costs of investments	0	0.02	(1.15)	-	-	(1.13
1 MATIAS system Build 12	0	0.01	(0.43)	-	-	(0.42
2 mirTWR	0	0.00	(0.49)	-	-	(0.48
3 MATIAS Build 13 ANS I HW replacement PCP, new TWR interface	0	0.00	(0.15)	-	-	(0.15
4 ATM Backup System Build 1	0	(0.00)	(0.03)	-	-	(0.03
5 Drone passive scout system	0	0.00	(0.04)	-	-	(0.04
6 New MATIAS system (ANSIII, ANSI, TTF), new simulator	0	0	0.00	-	-	0.00



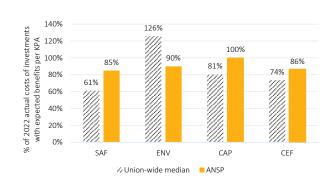
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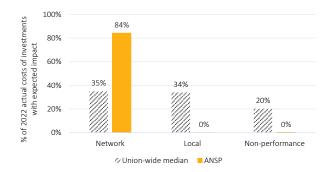
#### EXPECTED BENEFIT AND IMPACT PER NEW MAJOR INVESTMENT HUNGARY | HungaroControl Expected benefit per KPA # New major investments CAP SAF ENV CEF 1 MATIAS system Build 12 Х Х Х Х Х 2 mirTWR Х Х 3 MATIAS Build 13 ANS I HW replacement PCP, new TWR interface Х Х 4 ATM Backup System Build 1 Х Х Х Х Х Х 5 Drone passive scout system

6 New MATIAS system (ANSIII, ANSI, TTF), new simulator

#### # New major investments

	Network	Local	Non-performance
1 MATIAS system Build 12	Х		
2 mirTWR			
3 MATIAS Build 13 ANS I HW replacement PCP, new TWR interface	Х		
4 ATM Backup System Build 1			
5 Drone passive scout system	Х	Х	Х
6 New MATIAS system (ANSIII, ANSI, TTF), new simulator	Х		



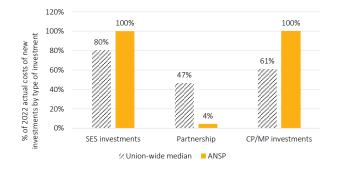


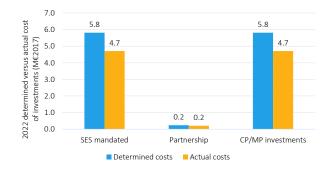
Х

Expected impact

χ

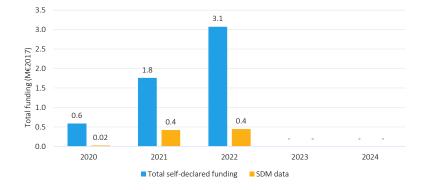
# New major investments	EIO Date <sup>1</sup>	Status	SES Reg.	Partnership	ATM sy	rstem
					ATM sytem	CP/ MP <sup>2</sup>
1 MATIAS system Build 12	26/04/2021	Started	Yes	No	Yes	CP
2 mirTWR	30/09/2021	Started	Yes	No	Yes	CP
3 MATIAS Build 13 ANS I HW replacement PCP, new TWR interface	31/03/2023	Started	Yes	No	Yes	CP
4 ATM Backup System Build 1	31/08/2023	Started	Yes	Yes	Yes	MP
5 Drone passive scout system	30/04/2023	Started	No	No	Yes	-
6 New MATIAS system (ANSIII, ANSI, TTF), new simulator	31/12/2026	Started	Yes	No	Yes	CP

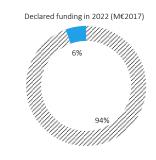




KPAs: SAF = Safety, ENV = Environment, CAP = Capacity, CEF = Cost-efficiency. 1. EOI date = Date of entry into operation 2. CP/MP = Common Project and Master Plan

PUBLIC FUNDING GRANTED FOR TOTAL CAPEX (CEF/TEN-T)					HUNGARY   H	ungaroControl
Actual funding declaration (M $\epsilon_{2017}$ )	2020	2021	2022	2023	2024	RP3 to date
Fotal funding declared	0.58	1.76	3.07	-	- [	5.41
En route funding declared	0.50	1.51	2.64	-	-	4.65
En route funding that could not be assigned to a specific investment	0.50	1.51	2.64	-	-	4.65
Terminal funding	0.08	0.25	0.43	-	-	0.76
Terminal funding that could not be assigned to a specific investment	0.08	0.25	0.43	-	-	0.76
Actual funding declaration vs payments (M $\epsilon_{2017}$ )	2020	2021	2022	2023	2024	RP3 to date
Difference between total funding declared vs received	0.56	1.34	2.63	-	-	4.53
Total included in the funding declaration (reporting tables)	0.58	1.76	3.07	-	-	5.41
SDM Payment	0.02	0.42	0.44	-	-	0.88





Union-wide ANSP

97/206

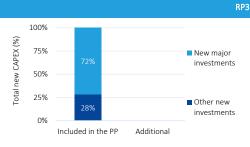
Hungary reported 3.1M€<sub>2017</sub> funding in 2022. SESAR Deployment Manager data indicates a payment of 0.4M€<sub>2017</sub> in 2022. For RP3 to date, Hungary declared 5.4M€<sub>2017</sub> of funding, while SESAR Deployment Manager data indicates a payment of 0.9M€<sub>2017</sub>.

Ireland underspent 3.5M € 2017 (-18%) in costs related to investments for en route and terminal in 2022 compared to the determined costs. Ireland planned 10 new major investments for RP3, five of which have started, one has not started, and four have been marked as delayed.

#### CAPEX FOR NEW INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

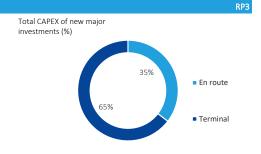
#### Determined and additional CAPEX by value of individual investments (M€2017)

CAPEX for new investments	140.90	% of total
New major investments (above 5M€ each) <sup>1</sup>	101.05	72%
Included in the performance plan	101.05	72%
Additional <sup>2</sup>	0	0%
Other new investments (below 5M€ each) <sup>3</sup>	39.85	28%
Included in the performance plan	39.85	28%
Additional	0	0%

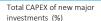


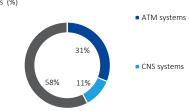
#### Determined CAPEX: en route and terminal (M€2017)

Total CAPEX for new major investments	101.05	% of total
En route	35.83	35%
Terminal	65.22	65%



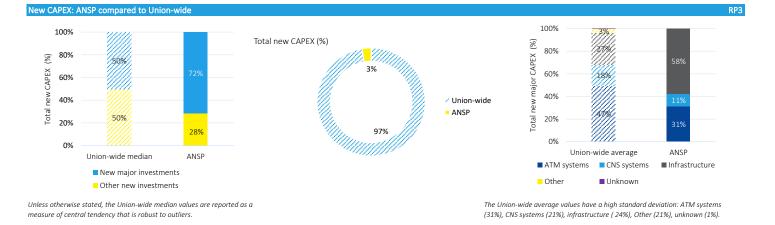
Determined CAPEX by type of investment ( $M \varepsilon_{2017}$ )		
Total CAPEX for new major investments	101.05	% of total
ATM systems	31.47	31%
CNS systems	11.20	11%
Infrastructure	58.38	58%
Other	C	0%
Unknown	C	0%





Infrastructure

RP3



1. New major investments: "acquisition, development, replacement, upgrade, or leasing of fixed assets representing a total value over the whole lifetime of the assets greater than EUR 5 million in real term s" (Reg. 2019/317 art. 2 (13)).

2. Additional investments are those investments not foreseen as part of the performance plan.

3. Other new investments: new investments or replacements/upgrades of existing assets representing a total value over the whole lifetime of the asset below 5M€ in real terms.

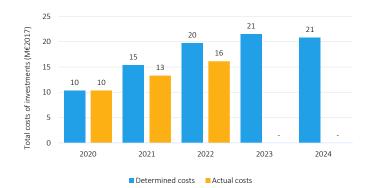
IRELAND | IAA ANSP

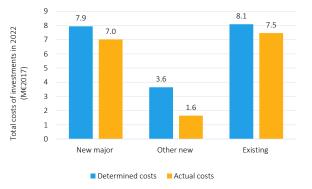
#### IRELAND | IAA ANSP

Determined costs: new and existing investments $\left(M\varepsilon_{2017} ight)^1$	2020D	2021D	2022D	2023D	2024D	RP3 to date
Total costs	10.36	15.32	19.68	21.50	20.78	45.36
New major investments	0.13	4.33	7.94	10.46	11.18	12.40
% New major investments in total costs of investments	1%	28%	40%	49%	54%	27%
Other new investments	0.18	0.95	3.64	5.35	6.45	4.77
% Other new investments in total costs of investments	2%	6%	19%	25%	31%	11%
Existing investments	10.04	10.05	8.09	5.70	3.14	28.18
% Existing investments in total costs of investments	97%	66%	41%	27%	15%	62%

Actual costs: new and existing investments (M $\epsilon_{2017}$ )	2020A	2021A	2022A	2023A	2024A	RP3 to date
Total costs	10.36	13.30	16.13	-	-1	39.79
New major investments	0.13	2.69	7.02	-	-	9.84
% New major investments in total costs of investments	1%	20%	44%	-	-	25%
Other new investments	0.18	0.56	1.65	-	-	2.38
% Other new investments in total costs of investments	2%	4%	10%	-	-	6%
Existing investments	10.04	10.05	7.47	-	-	27.56
% Existing investments in total costs of investments	97%	76%	46%	-	-	69%

Actual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
Total difference	0	(2.02)	(3.54)	-	-	(5.57)
New major investments	0	(1.64)	(0.92)	-	-	(2.56)
% change of actual with respect to determined	0%	-38%	-12%	-	-	-21%
Other new investments	0	(0.39)	(2.00)	-	-	(2.39)
% change of actual with respect to determined	0%	-41%	-55%	-	-	-50%
Existing investments	0	0.00	(0.63)	-	-	(0.63)
% change of actual with respect to determined	0%	0%	-8%	-	-	-2%





COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFOR	MANCE PLAN				IR	ELAND - En rou	ute   IAA ANSP
Determined costs by nature (M $\epsilon_{2017}$ )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to date
Total costs of new and existing investments	7.48	10.06	17.55	11.23	12.01	11.11	28.78
Depreciation	6.34	7.60	13.94	8.35	8.67	7.86	22.29
Cost of capital	1.14	2.46	3.61	2.88	3.34	3.26	6.49
Cost of leasing	0	0	0	0	0	0	0
Actual costs by nature (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to date
Total costs of new and existing investments	8.45	9.62	18.07	8.94	-	- [	27.01
Depreciation	6.61	7.27	13.88	6.66	-	-	20.54
Cost of capital	1.85	2.35	4.20	2.27	-	-	6.47
Cost of leasing	0	0	0	0	-	-	0
Actual minus determined costs (M $\epsilon_{2017}$ )	2020	2021	2020/2021	2022	2023	2024	RP3 to date
Total difference	0.97	(0.44)	0.52	(2.29)	-	-	(1.77)
Depreciation	0.26	(0.33)	(0.07)	(1.69)	-	-	(1.75)
Cost of capital	0.70	(0.11)	0.59	(0.61)	-	-	(0.02)
Cost of leasing	0	0	0	0	-	-	0
2020							
2021							
2020/2021					Actual total cos	ts of investments	5
					Underspending		
2022					Overspending u	p to 5%	
2023					Overspending h	igher than 5%	
2024					Determined tot	al costs of invest	ments
RP3							

70%

80%

90%

100%

110%

120%

0%

10%

20%

30%

40%

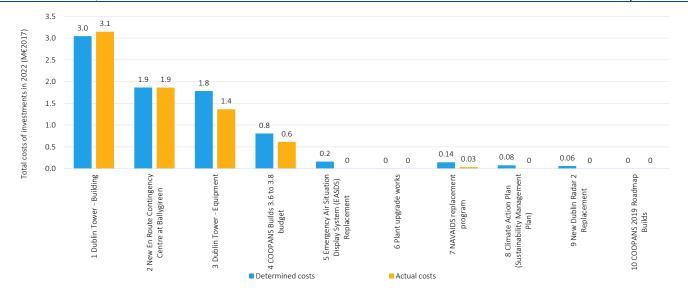
50%

60%

termined costs by nature (M€ <sub>2017</sub> )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to dat
al costs of new and existing investments	2.87	5.26	8.13	8.45	9.49	9.67	16.5
Depreciation	2.44	3.45	5.89	4.93	5.51	5.60	10.8
Cost of capital	0.43	1.81	2.24	3.52	3.98	4.06	5.70
Cost of leasing	0	0	0	0	0	0	1
ual costs by nature (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to dat
al costs of new and existing investments	3.21	3.68	6.89	7.20	-	-	14.0
Depreciation	2.48	2.69	5.16	3.90	-	-	9.0
Cost of capital	0.73	0.99	1.72	3.30	-	-	5.0
Cost of leasing	0	0	0	0	-	-	
ual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2020/2021	2022	2023	2024	RP3 to da
al difference	0.34	(1.58)	(1.24)	(1.25)	-	-	(2.4
Depreciation	0.04	(0.77)	(0.73)	(1.03)	-	-	(1.7
Cost of capital	0.30	(0.82)	(0.52)	(0.22)	-	-	(0.7
Cost of leasing	0	0	0	0	-	-	
2020							
2021							
020/2021					Actual total cos	ts of investment	s
					Underspending		
2022					Overspending u	ip to 5%	
2023					Overspending h	nigher than 5%	
2024					Determined tot	al costs of inves	tments
RP3							

Ireland underspent  $3.5M\xi_{2017}$  in costs related to investments ( $2.3M\xi_{2017}$  in en route and  $1.3M\xi_{2017}$  in terminal) in 2022. For RP3 to date Ireland underspent  $4.3M\xi_{2017}$  in costs related to investments. These amounts shall be reimbursed to the airspace users through a reduction of future unit rate(s), unless the NSA decides after consultation with the users, that the ANSP shall not reimburse a part of the difference according to article 28 of Regulation (EU) 2019/317.

Determined costs (M€ <sub>2017</sub> ) <sup>1</sup>	2020D	2021D	2022D	2023D	2024D	RP3 to date
Total costs of investments	0.13	4.33	7.94	10.46	11.18	12.40
1 Dublin Tower - Building	0	1.47	3.05	3.00	2.98	4.51
2 New En Route Contingency Centre at Ballygireen	0.13	1.89	1.86	1.81	1.72	3.89
3 Dublin Tower - Equipment	0	0.68	1.78	2.36	2.28	2.4
4 COOPANS Builds 3.6 to 3.8 budget	0	0.26	0.81	0.99	0.95	1.0
5 Emergency Air Situation Display System (EASDS) Replacement	0	0	0.16	0.95	1.02	0.1
6 Plant upgrade works	0	0	0.00	0.46	0.65	0.00
7 NAVAIDS replacement program	0	0.01	0.14	0.32	0.56	0.10
8 Climate Action Plan (Sustainability Management Plan)	0	0.02	0.08	0.27	0.50	0.0
9 New Dublin Radar 2 Replacement	0	0	0.06	0.26	0.25	0.06
10 COOPANS 2019 Roadmap Builds	0	0	0	0.02	0.26	(
Actual costs (M€ <sub>2017</sub> )	2020A	2021A	2022A	2023A	2024A	RP3 to dat
Total costs of investments	0.13	2.69	7.02	-	-1	9.84
1 Dublin Tower - Building	0	0.52	3.15	-	-	3.6
2 New En Route Contingency Centre at Ballygireen	0.13	2.00	1.86	-	-	3.9
3 Dublin Tower - Equipment	0	0.17	1.36	-	-	1.5
4 COOPANS Builds 3.6 to 3.8 budget	0	0	0.62	-	-	0.6
5 Emergency Air Situation Display System (EASDS) Replacement	0	0	0.02	-	-	0.0.
6 Plant upgrade works	0	0	0	-	-	
7 NAVAIDS replacement program	0	0	0.03	-	-	0.0
8 Climate Action Plan (Sustainability Management Plan)	0	0	0	-	-	
9 New Dublin Radar 2 Replacement	0	0	0	-	-	
10 COOPANS 2019 Roadmap Builds	0	0	0	-	-	
Actual minus determined costs of investments (M $\mathfrak{e}_{2017}$ )	2020	2021	2022	2023	2024	RP3 to dat
Total difference in costs of investments	(0.00)	(1.35)	(0.62)	-	-	(1.97
1 Dublin Tower - Building	0	(0.95)	0.10	-	-	(0.85
2 New En Route Contingency Centre at Ballygireen	(0.00)	0.11	(0.00)	-	-	0.1
3 Dublin Tower - Equipment	0	(0.51)	(0.42)	-	-	(0.9
4 COOPANS Builds 3.6 to 3.8 budget	0	0	(0.19)	-	-	(0.191
5 Emergency Air Situation Display System (EASDS) Replacement	0	0	0	-	-	
6 Plant upgrade works	0	0	0	-	-	
7 NAVAIDS replacement program	0	0	(0.11)	-	-	(0.109
8 Climate Action Plan (Sustainability Management Plan)	0	0	0	-	-	
9 New Dublin Radar 2 Replacement	0	0	0	-	-	(
10 COOPANS 2019 Roadmap Builds	0	0	0	-	-	(



101/206

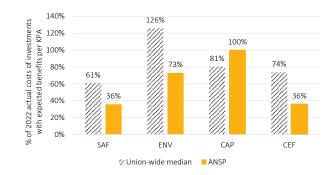
# EXPECTED BENEFIT AND IMPACT PER NEW MAJOR INVESTMENT IRELAND | IAA ANSP # New major investments Expected benefit per KPA

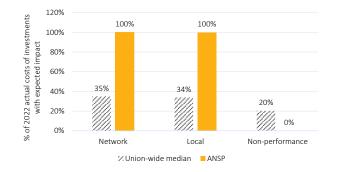
	SAF	ENV	CAP	CEF
1 Dublin Tower - Building		Х	Х	
2 New En Route Contingency Centre at Ballygireen	Х		Х	Х
3 Dublin Tower - Equipment		Х	Х	
4 COOPANS Builds 3.6 to 3.8 budget	Х	Х	Х	Х
5 Emergency Air Situation Display System (EASDS) Replacement	Х			
6 Plant upgrade works			Х	Х
7 NAVAIDS replacement program	Х		Х	Х
8 Climate Action Plan (Sustainability Management Plan)				Х
9 New Dublin Radar 2 Replacement	Х	Х	х	Х
10 COOPANS 2019 Roadmap Builds	Х	Х	х	Х

## # New major investments

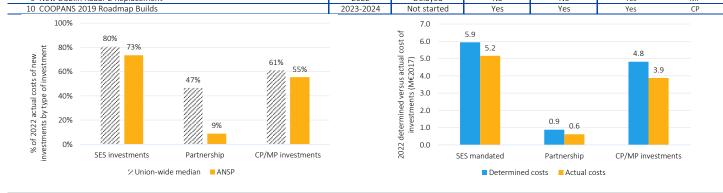
Expected impact

	Network	Local	Non-performance
1 Dublin Tower - Building	Х	Х	
2 New En Route Contingency Centre at Ballygireen	Х	Х	
3 Dublin Tower - Equipment	Х	Х	
4 COOPANS Builds 3.6 to 3.8 budget	Х	Х	
5 Emergency Air Situation Display System (EASDS) Replacement	Х	Х	
6 Plant upgrade works		Х	Х
7 NAVAIDS replacement program	Х	Х	
8 Climate Action Plan (Sustainability Management Plan)			Х
9 New Dublin Radar 2 Replacement	Х	Х	
10 COOPANS 2019 Roadmap Builds	Х	Х	





#### # New major investments Status ATM system EIO Date<sup>1</sup> SES Reg. Partnership ATM sytem CP/ MP<sup>2</sup> 1 Dublin Tower - Building 2021 Started Yes No No 2 New En Route Contingency Centre at Ballygireen 2020 Started No No Yes MP 3 Dublin Tower - Equipment 2021 Started Yes No Yes MP 4 COOPANS Builds 3.6 to 3.8 budget 2021-2023 Started Yes Yes Yes CP 5 Emergency Air Situation Display System (EASDS) Replacement Delayed Yes No Yes MP 2023 6 Plant upgrade works 2021-2024 Delayed No No No 7 NAVAIDS replacement program 2021-2024 Started Yes No Yes MP 8 Climate Action Plan (Sustainability Management Plan) 2021-2024 Delayed No Yes No 9 New Dublin Radar 2 Replacement 2022 Delayed No No Yes MP



KPAs: SAF = Safety, ENV = Environment, CAP = Capacity, CEF = Cost-efficiency.

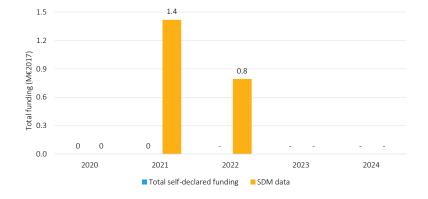
1. EOI date = Date of entry into operation

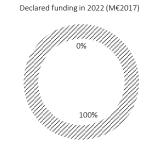
2. CP/MP = Common Project and Master Plan

The new major investments 5, 6, 8, and 9 have been marked as delayed, as Ireland did not report actual costs so far, while costs were determined for those investments.

103/206

PUBLIC FUNDING GRANTED FOR TOTAL CAPEX (CEF/TEN-T)					IRELA	ND   IAA ANSP
Actual funding declaration (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
Total funding declared	-	-	-	-	- 1	-
En route funding declared	-	-	-	-	-	-
En route funding that could not be assigned to a specific investment	-	-	-	-	-	-
Terminal funding	-	-	-	-	-	-
Terminal funding that could not be assigned to a specific investment	-	-	-	-	-	-
Actual funding declaration vs payments (M $\epsilon_{2017}$ )	2020	2021	2022	2023	2024	RP3 to date
Difference between total funding declared vs received	-	(1.42)	(0.79)	-	- 1	(2.21)
Total included in the funding declaration (reporting tables)	-	-	-	-	-	-
SDM Payment	-	1.42	0.79	-	-	2.21





🗵 Union-wide 💦 🗖 ANSP

Ireland did not report any funding in 2022, however SESAR Deployment Manager data indicates a payment of 0.8M  $\epsilon_{2017}$  in 2022. For RP3 to date, Ireland did not declare any funding, while SESAR Deployment Manager data indicates a payment of 2.2M  $\epsilon_{2017}$ .

Terminal

Determined CAPEX by type of investment (M€2017)

Italy underspent  $2.9M \in_{2017}$  (-2.1%) in costs related to investments for en route and terminal in 2022 compared to the determined costs. However, in the monitoring reports, Italy reported an underspending of  $12M \in_{2017}$  (-12%). Italy did not explain the reason for the difference in the reported amounts. Italy planned 15 new major investments for RP3, all of which have started.

% of total

63.51

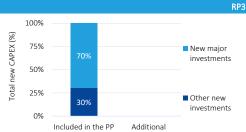
73%

27%

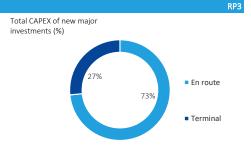
#### CAPEX FOR NEW INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

#### Determined and additional CAPEX by value of individual investments (M€2017)

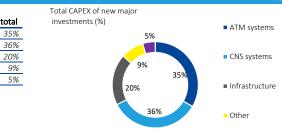
ncluded in the performance plan dditional <sup>2</sup> Dther new investments (below 5M€ each) <sup>3</sup>	344.19	% of total
New major investments (above 5M€ each) <sup>1</sup>	239.55	70%
Included in the performance plan	239.55	70%
Additional <sup>2</sup>	0	0%
Other new investments (below 5M€ each) <sup>3</sup>	104.65	30%
Included in the performance plan	104.65	30%
Additional	0	0%



Determined CAFLA. En loute and terminal (We <sub>2017</sub> )		
Total CAPEX for new major investments	239.55	
En route	176.04	

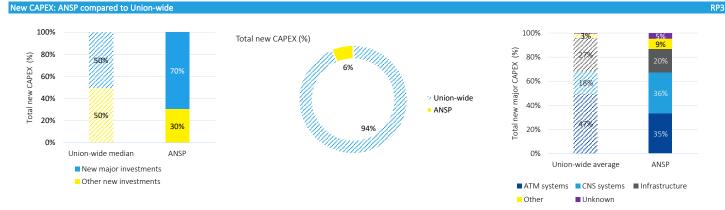


2017) 		
Total CAPEX for new major investments	271.08	% of tota
ATM systems	95.03	35
CNS systems	96.74	36
Infrastructure	54.71	20
Other	24.59	9
Unknown	13.47	5



Unknown

RP3



Unless otherwise stated, the Union-wide median values are reported as a measure of central tendency that is robust to outliers.

1. New major investments: "acquisition, development, replacement, upgrade, or leasing of fixed assets representing a total value over the whole lifetime of the assets greater than EUR 5 million in real terms" (Reg. 2019/317 art. 2 (13)).

2. Additional investments are those investments not foreseen as part of the performance plan.

3. Other new investments: new investments or replacements/upgrades of existing assets representing a total value over the whole lifetime of the asset below 5M€ in real terms.

ITALY | ENAV

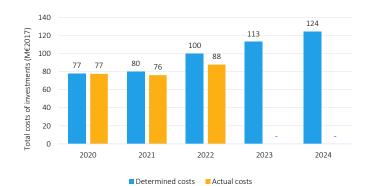
105/206

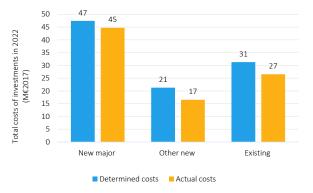
ITALY | ENAV

Determined costs: new and existing investments $(M \varepsilon_{2017})^1$	2020D	2021D	2022D	2023D	2024D	RP3 to date
Total costs	77.49	79.82	99.97	112.87	123.97	257.28
New major investments	37.58	41.68	47.43	44.46	68.39	126.69
% New major investments in total costs of investments	48%	52%	47%	39%	55%	49%
Other new investments	8.47	12.87	21.27	36.05	25.99	42.61
% Other new investments in total costs of investments	11%	16%	21%	32%	21%	17%
Existing investments	31.45	25.27	31.27	32.36	29.59	87.98
% Existing investments in total costs of investments	41%	32%	31%	29%	24%	34%

Actual costs: new and existing investments $(M \epsilon_{2017})$	2020A	2021A	2022A	2023A	2024A	RP3 to date
Total costs	77.49	76.07	87.76	-	-	241.32
New major investments	37.58	42.49	44.71	-	-	124.79
% New major investments in total costs of investments	48%	56%	51%	-	-	52%
Other new investments	8.47	10.56	16.52	-	-	35.54
% Other new investments in total costs of investments	11%	14%	19%	-	-	15%
Existing investments	31.45	23.02	26.53	-	-	80.99
% Existing investments in total costs of investments	41%	30%	30%	-	-	34%

Actual minus determined costs (M $\epsilon_{2017}$ )	2020	2021	2022	2023	2024	RP3 to date
Total difference	0	(3.76)	(12.21)	-	-	(15.96)
New major investments	0	0.82	(2.72)	-	-	(1.90)
% change of actual with respect to determined	0%	2%	-6%	-	-	-1%
Other new investments	0	(2.32)	(4.75)	-	-	(7.07)
% change of actual with respect to determined	0%	-18%	-22%	-	-	-17%
Existing investments	0	(2.26)	(4.74)	-	-	(6.99)
% change of actual with respect to determined	0%	-9%	-15%	-	-	-8%

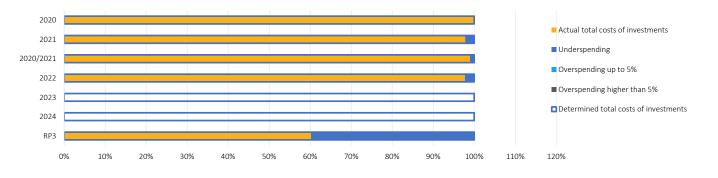




1. The performance plans include costs related to investments which comprise depreciation cost, cost of capital, and cost of leasing.

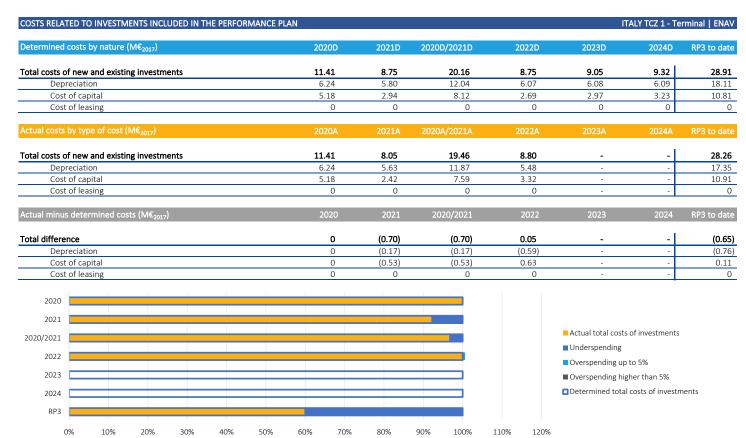
The total costs of investments included in the monitoring report do not match the total costs of investments included in the reporting tables. No explanation on the differences has been provided.

Determined costs by nature (M€ <sub>2017</sub> )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to date
Total costs of new and existing investments	134.07	117.84	251.91	114.25	115.94	117.63	366.16
Depreciation	91.26	84.94	176.20	88.77	88.98	89.12	264.96
Cost of capital	42.81	32.90	75.71	25.48	26.96	28.51	101.20
Cost of leasing	0	0	0	0	0	0	0
Actual costs by nature (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to date
Total costs of new and existing investments	134.07	115.24	249.31	111.66	-	-	360.97
Depreciation	91.26	82.38	173.64	80.16	-	-	253.80
Cost of capital	42.81	32.86	75.67	31.50	-	-	107.16
Cost of leasing	0	0	0	0	-	-	0
Actual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2020/2021	2022	2023	2024	RP3 to date
Total difference	0	(2.60)	(2.60)	(2.59)	-	-	(5.19
Depreciation	0	(2.56)	(2.56)	(8.61)	-	-	(11.16
Cost of capital	0	(0.05)	(0.05)	6.01	-	-	5.97
Cost of leasing	0	0	0	0	-		0



The total costs of investments included in the monitoring report do not match the total costs of investments included in the reporting tables. No explanation on the differences has been provided.

Italy underspent  $2.6M \in_{2017}$  in costs related to investments in en route in 2022. For RP3 to date Italy underspent  $5.2M \in_{2017}$  in costs related to investments in en route. These amounts shall be reimbursed to the airspace users through a reduction of future unit rate(s), unless the NSA decides after consultation with the users, that the ANSP shall not reimburse a part of the difference according to article 28 of Regulation (EU) 2019/317.



termined costs by nature (M€ <sub>2017</sub> )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to
tal costs of new and existing investments	16.08	14.24	30.32	14.44	14.77	15.03	44
Depreciation	11.58	10.78	22.37	11.27	11.30	11.31	3
Cost of capital	4.50	3.45	7.95	3.17	3.47	3.71	1
Cost of leasing	0	0	0	0	0	0	
tual costs by type of cost (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to
tal costs of new and existing investments	16.08	14.22	30.30	14.10	-	-	4
Depreciation	11.58	10.46	22.05	10.18	=	-	3
Cost of capital	4.50	3.76	8.26	3.92	=	-	1
Cost of leasing	0	0	0	0	-	-	
tual minus determined costs (M $\mathfrak{E}_{2017}$ )	2020	2021	2020/2021	2022	2023	2024	RP3 to
tal difference	0	(0.02)	(0.02)	(0.34)	-	-	
Depreciation	0	(0.32)	(0.32)	(1.09)	-	-	
Cost of capital	0	0.30	0.30	0.75	-	-	
Cost of leasing	0	0	0	0	-	-	
2020							
2021							
2020/2021					Actual total cost	sts of investment	S
2022					Underspending	-	
2023					<ul> <li>Overspending</li> <li>Overspending I</li> </ul>		
					Determined to	-	monto
2024					Determined to	tal costs of inves	linents

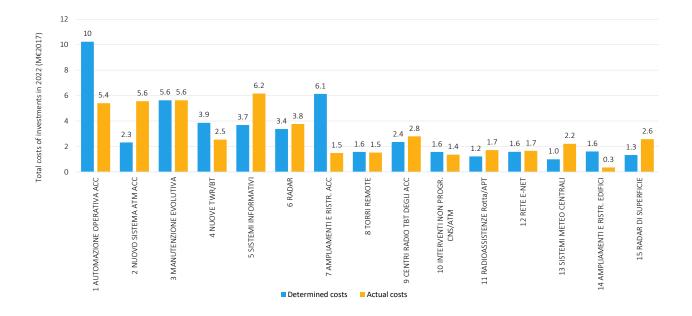
Italy established two terminal charging zones for RP3. TCZ 1 includes the Roma Fiumicino airport, while TCZ 2 includes the Milano Malpensa, Milano Bergamo, Milano Linate, and Venice Marco Polo airports.

The total costs of investments included in the monitoring report do not match the total costs of investments included in the reporting tables. No explanation on the differences has been provided.

Italy underspent  $0.3M \in_{2017}$  in costs related to investments in terminal in 2022. For RP3 to date Italy underspent  $1.0M \in_{2017}$  in costs related to investments in terminal. These amounts shall be reimbursed to the airspace users through a reduction of future unit rate(s), unless the NSA decides after consultation with the users, that the ANSP shall not reimburse a part of the difference according to article 28 of Regulation (EU) 2019/317.

STS BY NEW MAJOR INVESTMENTS						ITALY   EN
termined costs $(M \epsilon_{2017})^1$	2020D	2021D	2022D	2023D	2024D	RP3 to da
tal costs of investments	37.58	41.68	47.43	44.46	68.39	126.6
1 AUTOMAZIONE OPERATIVA ACC	4.70	9.96	10.24	8.04	7.77	24.9
2 NUOVO SISTEMA ATM ACC	10.86	5.11	2.32	5.02	6.59	18.3
3 MANUTENZIONE EVOLUTIVA	5.63	5.63	5.63	2.56	4.96	16.
4 NUOVE TWR/BT	1.48	1.65	3.86	4.42	6.60	6.
5 SISTEMI INFORMATIVI	3.76	3.12	3.68	2.39	4.08	10.
6 RADAR	0.45	0.04	3.37	3.96	7.89	3.
7 AMPLIAMENTI E RISTR. ACC	0.18	1.89	6.13	2.38	4.20	8.
8 TORRI REMOTE	2.54	1.91	1.57	2.89	5.46	6
9 CENTRI RADIO TBT DEGLI ACC	1.17	2.71	2.35	3.41	4.34	6.
10 INTERVENTI NON PROGR. CNS/ATM	1.73	3.31	1.57	2.18	4.68	6.
11 RADIOASSISTENZE Rotta/APT	1.77	1.38	1.22	1.10	3.15	4
12 RETE E-NET	1.80	1.71	1.58	1.13	2.19	5
13 SISTEMI METEO CENTRALI	1.41	2.08	0.99	1.54	1.55	4
14 AMPLIAMENTI E RISTR. EDIFICI	0.07	0.06	1.61	2.72	3.08	1
15 RADAR DI SUPERFICIE	0.02	1.10	1.32	0.72	1.86	2
tual costs (M€ <sub>2017</sub> )	2020A	2021A	2022A	2023A	2024A	RP3 to d
tal costs of investments	37.58	42.49	44.71	0	0	124
1 AUTOMAZIONE OPERATIVA ACC	4.70	8.96	5.40	-	-	19
2 NUOVO SISTEMA ATM ACC	10.86	8.02	5.56	-	-	24
3 MANUTENZIONE EVOLUTIVA	5.63	5.63	5.63	-	-	16
4 NUOVE TWR/BT	1.48	1.27	2.54	-	-	5
5 SISTEMI INFORMATIVI	3.76	4.33	6.16	-	-	14
6 RADAR	0.45	0.51	3.77	-	-	4
7 AMPLIAMENTI E RISTR. ACC	0.18	0.90	1.49	-	-	2
8 TORRI REMOTE	2.54	2.25	1.52	-	-	6
9 CENTRI RADIO TBT DEGLI ACC	1.17	2.74	2.79	-	-	6
10 INTERVENTI NON PROGR. CNS/ATM	1.73	2.74	1.36	-	-	5
11 RADIOASSISTENZE Rotta/APT	1.77	1.41	1.71	-	-	4
	1.80	0.86	1.65	-	-	4
12 RETE E-NET						
12 RETE E-NET 13 SISTEMI METEO CENTRALI	1.41	1.65	2.21	-	-	5
	1.41 0.07	1.65 0.44	0.35		-	5

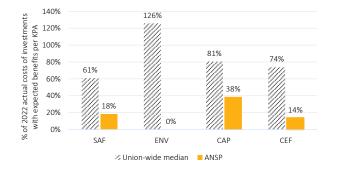
COSTS OF NEW MAJOR INVESTMENTS						ITALY   ENA
Actual minus determined costs of investments (M ${f {f e}}_{2017}$ )	2020	2021	2022	2023	2024	RP3 to date
Total difference in costs of investments	0	0.82	(2.72)	0	0	(1.90
1 AUTOMAZIONE OPERATIVA ACC	0	(1.00)	(4.84)	-	-	(5.84
2 NUOVO SISTEMA ATM ACC	0	2.91	3.24	-	-	6.15
3 MANUTENZIONE EVOLUTIVA	0	0	0	-	-	0
4 NUOVE TWR/BT	0	(0.38)	(1.32)	-	-	(1.70
5 SISTEMI INFORMATIVI	0	1.21	2.48	-	-	3.69
6 RADAR	0	0.47	0.40	-	-	0.87
7 AMPLIAMENTI E RISTR. ACC	0	(0.99)	(4.65)	-	-	(5.64
8 TORRI REMOTE	0	0.34	(0.05)	-	-	0.29
9 CENTRI RADIO TBT DEGLI ACC	0	0.04	0.44	-	-	0.48
10 INTERVENTI NON PROGR. CNS/ATM	0	(0.57)	(0.22)	-	-	(0.79
11 RADIOASSISTENZE Rotta/APT	0	0.02	0.49	-	-	0.52
12 RETE E-NET	0	(0.85)	0.08	-	-	(0.77
13 SISTEMI METEO CENTRALI	0	(0.43)	1.23	-	-	0.80
14 AMPLIAMENTI E RISTR. EDIFICI	0	0.37	(1.26)	-	-	(0.89
15 RADAR DI SUPERFICIE	0	(0.32)	1.25	-	-	0.93

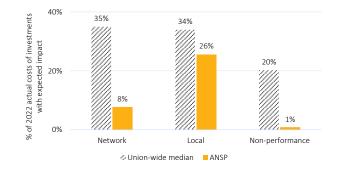


### 1. Determined costs comprise depreciation costs, cost of capital, and cost of leasing in the performance plans.

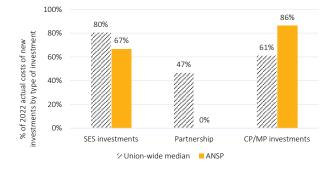
5 SISTEMI INFORMATIVI 6 RADAR 7 AMPLIAMENTI E RISTR. ACC 8 TORRI REMOTE 9 CENTRI RADIO TBT DEGLI ACC 10 INTERVENTI NON PROGR. CNS/ATM 11 RADIOASSISTENZE Rotta/APT 12 RETE E-NET	Expected benefit SAF X X	per KPA ENV	<b>САР</b> Х Х	CEF
2 NUOVO SISTEMA ATM ACC 3 MANUTENZIONE EVOLUTIVA 4 NUOVE TWR/BT 5 SISTEMI INFORMATIVI 6 RADAR 7 AMPLIAMENTI E RISTR. ACC 8 TORRI REMOTE 9 CENTRI RADIO TBT DEGLI ACC 0 INTERVENTI NON PROGR. CNS/ATM 1 RADIOASSISTENZE Rotta/APT 2 RETE E-NET		ENV	X	
2 NUOVO SISTEMA ATM ACC 3 MANUTENZIONE EVOLUTIVA 4 NUOVE TWR/BT 5 SISTEMI INFORMATIVI 6 RADAR 7 AMPLIAMENTI E RISTR. ACC 8 TORRI REMOTE 9 CENTRI RADIO TBT DEGLI ACC 10 INTERVENTI NON PROGR. CNS/ATM 11 RADIOASSISTENZE Rotta/APT 12 RETE E-NET	X			X
3 MANUTENZIONE EVOLUTIVA 4 NUOVE TWR/BT 5 SISTEMI INFORMATIVI 6 RADAR 7 AMPLIAMENTI E RISTR. ACC 8 TORRI REMOTE 9 CENTRI RADIO TBT DEGLI ACC 10 INTERVENTI NON PROGR. CNS/ATM 11 RADIOASSISTENZE Rotta/APT 12 RETE E-NET				X
4 NUOVE TWR/BT 5 SISTEMI INFORMATIVI 6 RADAR 7 AMPLIAMENTI E RISTR. ACC 8 TORRI REMOTE 9 CENTRI RADIO TBT DEGLI ACC 10 INTERVENTI NON PROGR. CNS/ATM 11 RADIOASSISTENZE Rotta/APT 12 RETE E-NET			X	X
5 SISTEMI INFORMATIVI 6 RADAR 7 AMPLIAMENTI E RISTR. ACC 8 TORRI REMOTE 9 CENTRI RADIO TBT DEGLI ACC 10 INTERVENTI NON PROGR. CNS/ATM 11 RADIOASSISTENZE Rotta/APT 12 RETE E-NET				Х
6 RADAR 7 AMPLIAMENTI E RISTR. ACC 8 TORRI REMOTE				Х
7 AMPLIAMENTI E RISTR. ACC 8 TORRI REMOTE 9 CENTRI RADIO TBT DEGLI ACC 10 INTERVENTI NON PROGR. CNS/ATM 11 RADIOASSISTENZE ROtta/APT 12 RETE E-NET				
8 TORRI REMOTE 9 CENTRI RADIO TBT DEGLI ACC 10 INTERVENTI NON PROGR. CNS/ATM 11 RADIOASSISTENZE Rotta/APT 12 RETE E-NET				
9 CENTRI RADIO TBT DEGLI ACC 10 INTERVENTI NON PROGR. CNS/ATM 11 RADIOASSISTENZE Rotta/APT 12 RETE E-NET				
10 INTERVENTI NON PROGR. CNS/ATM 11 RADIOASSISTENZE Rotta/APT 12 RETE E-NET				
11 RADIOASSISTENZE Rotta/APT 12 RETE E-NET				
12 RETE E-NET				
			Х	
13 SISTEMI METEO CENTRALI			Х	
14 AMPLIAMENTI E RISTR. EDIFICI				
15 RADAR DI SUPERFICIE	Х		Х	
New major investments	Expected impact			

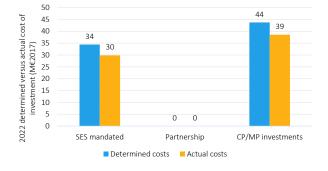
	Network	Local	Non-performance
1 AUTOMAZIONE OPERATIVA ACC			
2 NUOVO SISTEMA ATM ACC			
3 MANUTENZIONE EVOLUTIVA			
4 NUOVE TWR/BT			
5 SISTEMI INFORMATIVI		Х	
6 RADAR		Х	
7 AMPLIAMENTI E RISTR. ACC			
8 TORRI REMOTE		Х	
9 CENTRI RADIO TBT DEGLI ACC			
10 INTERVENTI NON PROGR. CNS/ATM	Х		
11 RADIOASSISTENZE Rotta/APT	Х		
12 RETE E-NET			
13 SISTEMI METEO CENTRALI			
14 AMPLIAMENTI E RISTR. EDIFICI	Х		Х
15 RADAR DI SUPERFICIE			





CTED IMPACT AND BENEFIT PER NEW MAJOR INVESTMENT						ITALY   E
New major investments	EIO Date <sup>1</sup>	Status	SES Reg.	Partnership	ATM sy	vstem
					ATM sytem	CP/ MP
1 AUTOMAZIONE OPERATIVA ACC	Unknown*	Started	Yes	No	Yes	CP
2 NUOVO SISTEMA ATM ACC	Unknown*	Started	Yes	No	Yes	CP
3 MANUTENZIONE EVOLUTIVA	Unknown*	Started	Yes	No	Yes	MP
4 NUOVE TWR/BT	Unknown*	Started	Yes	No	Yes	MP
5 SISTEMI INFORMATIVI	Unknown*	Started	No	No	No	-
6 RADAR	Unknown*	Started	No	No	Yes	MP
7 AMPLIAMENTI E RISTR. ACC	Unknown*	Started	Yes	No	No	MP
8 TORRI REMOTE	Unknown*	Started	No	No	Yes	MP
9 CENTRI RADIO TBT DEGLI ACC	Unknown*	Started	Yes	No	Yes	CP
10 INTERVENTI NON PROGR. CNS/ATM	Unknown*	Started	No	No	Yes	CP
11 RADIOASSISTENZE Rotta/APT	Unknown*	Started	No	No	Yes	MP
12 RETE E-NET	Unknown*	Started	Yes	No	Yes	CP
13 SISTEMI METEO CENTRALI	Unknown*	Started	Yes	No	Yes	CP
14 AMPLIAMENTI E RISTR. EDIFICI	Unknown*	Started	No	No	No	MP
15 RADAR DI SUPERFICIE	Unknown*	Started	Yes	No	Yes	MP

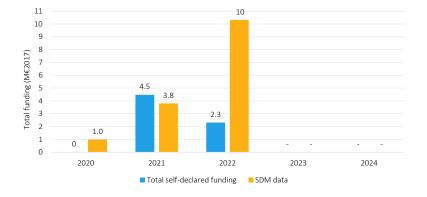


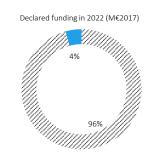


KPAs: SAF = Safety, ENV = Environment, CAP = Capacity, CEF = Cost-efficiency. 1. EOI date = Date of entry into operation 2. CP/MP = Common Project and Master Plan

\*Italy did not report the date of entry into operation for the new major investments.

PUBLIC FUNDING GRANTED FOR TOTAL CAPEX (CEF/TEN-T)						ITALY   ENAV
Actual funding declaration (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
Total funding declared	-	4.48	2.31	-	- 1	6.79
En route funding declared	-	4.48	2.31	-	-	6.79
En route funding that could not be assigned to a specific investment	-	4.48	2.31	-	-	6.79
Terminal funding	-	-	-	-	-	-
Terminal funding that could not be assigned to a specific investment	-	-	-	-	-	-
Actual funding declaration vs payments (M $\epsilon_{2017}$ )	2020	2021	2022	2023	2024	RP3 to date
Difference between total funding declared vs received	(0.98)	0.67	(8.00)	-	-	(8.30)
Total included in the funding declaration (reporting tables)	-	4.48	2.31	-	-	6.79
SDM Payment	0.98	3.80	10.31	-	-	15.09





⊘ Union-wide ■ ANSP

Italy reported  $2.3M \epsilon_{2017}$  funding in 2022. However SESAR Deployment Manager data indicates a payment of  $10.3M \epsilon_{2017}$  in 2022. For RP3 to date, Italy declared  $6.8M \epsilon_{2017}$  of funding, while SESAR Deployment Manager data indicates a payment of  $15M \epsilon_{2017}$ .

Terminal

Latvia overspent 0.4M € 2017 (6.6%) in costs related to investments for en route and terminal in 2022 compared to the determined costs. Latvia planned four new major investments for RP3, three of which have started and one has not started yet.

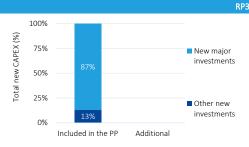
26.98

56% 44%

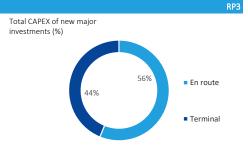
### CAPEX FOR NEW INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

### Determined and additional CAPEX by value of individual investments (M€2017)

APEX for new investments	70.98	% of total
New major investments (above 5M€ each) <sup>1</sup>	61.61	87%
Included in the performance plan	61.61	87%
Additional <sup>2</sup>	0	0%
Other new investments (below 5M€ each) <sup>3</sup>	9.37	13%
Included in the performance plan	9.37	13%
Additional	0	0%



Determined CAPEX: en route and terminal ( $M \in_{2017}$ )		
Total CAPEX for new major investments	61.61	% of total
En route	34.63	56%



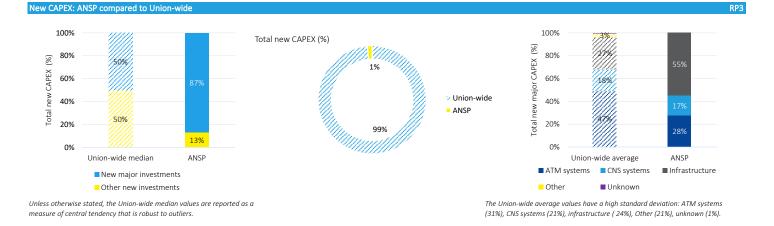
etermined CAPEX b	oy type	of inve	stment	(M€ <sub>2017</sub> )		

Total CAPEX for new major investments	61.61	% of total
ATM systems	17.26	28%
CNS systems	10.53	17%
Infrastructure	33.83	55%
Other	0	0%
Unknown	0	0%



Infrastructure

RP3



1. New major investments: "acquisition, development, replacement, upgrade, or leasing of fixed assets representing a total value over the whole lifetime of the assets greater than EUR 5 million in real terms " (Reg. 2019/317 art. 2 (13)).

2. Additional investments are those investments not foreseen as part of the performance plan.

3. Other new investments: new investments or replacements/upgrades of existing assets representing a total value over the whole lifetime of the asset below 5M€ in real terms.

LATVIA | LGS

### COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

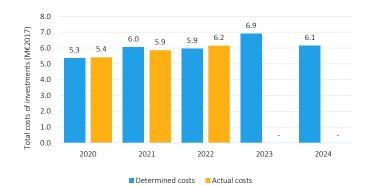
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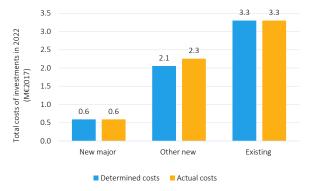
	LGS

Determined costs: new and existing investments $(M \varepsilon_{2017})^1$	2020D	2021D	2022D	2023D	2024D	RP3 to date
Total costs	5.35	6.05	5.95	6.90	6.14	17.34
New major investments	0.11	0.21	0.59	1.28	1.87	0.92
% New major investments in total costs of investments	2%	4%	10%	18%	30%	5%
Other new investments	0.28	1.70	2.06	3.12	2.38	4.04
% Other new investments in total costs of investments	5%	28%	35%	45%	39%	23%
Existing investments	4.95	4.13	3.30	2.50	1.89	12.38
% Existing investments in total costs of investments	93%	68%	55%	36%	31%	71%

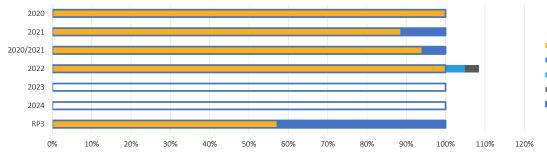
Actual costs: new and existing investments (M€ <sub>2017</sub> )	2020A	2021A	2022A	2023A	2024A	RP3 to date
Total costs	5.41	5.86	6.15	-	-	17.42
New major investments	0.11	0.21	0.59	-	-	0.92
% New major investments in total costs of investments	2%	4%	10%	-	-	5%
Other new investments	0.35	1.51	2.26	-	-	4.12
% Other new investments in total costs of investments	6%	26%	37%	-	-	24%
Existing investments	4.95	4.13	3.30	-	-	12.38
% Existing investments in total costs of investments	91%	71%	54%	=	-	71%

Actual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
Total difference	0.06	(0.19)	0.20	-	-	0.08
New major investments	0	0	0	-	-	0.00
% change of actual with respect to determined	0%	0%	0%	-	-	0%
Other new investments	0.06	(0.19)	0.20	-	-	0.08
% change of actual with respect to determined	23%	-11%	10%	-	-	2%
Existing investments	0	0	0	-	-	0.00
% change of actual with respect to determined	0%	0%	0%	-	-	0%





Determined costs by nature (M€ <sub>2017</sub> )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to date
Total costs of new and existing investments	3.30	3.74	7.04	3.57	4.06	3.71	10.61
Depreciation	2.00	2.39	4.39	2.62	3.05	2.60	7.00
Cost of capital	1.30	1.35	2.65	0.96	1.01	1.11	3.61
Cost of leasing	0	0	0	0	0	0	0
Actual costs by nature (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to date
Total costs of new and existing investments	3.30	3.31	6.61	3.88	-	-	10.48
Depreciation	2.00	2.12	4.11	2.81	-	-	6.92
Cost of capital	1.30	1.19	2.49	1.07	-	-	3.56
Cost of leasing	0	0	0	0	-	-	0
Actual minus determined costs (M $\epsilon_{2017}$ )	2020	2021	2020/2021	2022	2023	2024	RP3 to date
	_	(0.43)	(0.43)	0.30	-	-1	(0.13)
Total difference	0	(0.45)					
Total difference Depreciation	0	(0.43)	(0.27)	0.19	-	-	
Total difference Depreciation Cost of capital					-	-	(0.08



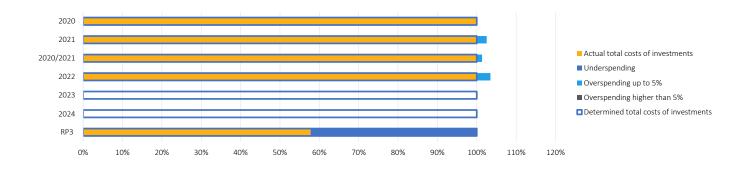


Underspending

Overspending higher than 5%

Determined total costs of investments

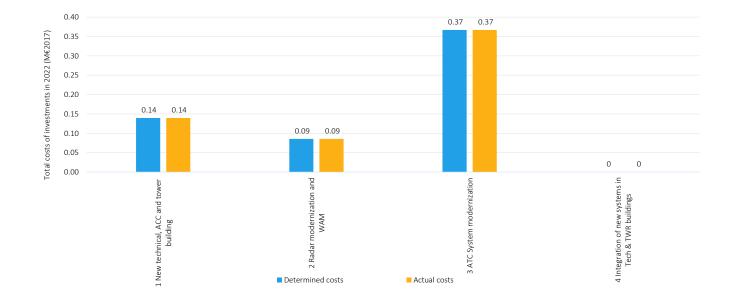
COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFOR	MANCE PLAN					LATVIA -	Terminal   LG
Determined costs by nature (M€ <sub>2017</sub> )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to date
Total costs of new and existing investments	2.05	2.31	4.36	2.20	2.52	2.51	6.55
Depreciation	1.49	1.78	3.27	1.75	2.05	1.93	5.02
Cost of capital	0.56	0.53	1.09	0.44	0.47	0.58	1.53
Cost of leasing	0	0	0	0	0	0	0
Actual costs by nature (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to date
Total costs of new and existing investments	2.05	2.37	4.41	2.27	-	-	6.69
Depreciation	1.49	1.63	3.12	1.77	-	-	4.89
Cost of capital	0.56	0.73	1.30	0.50	-	-	1.80
Cost of leasing	0	0	0	0	-	-	0
Actual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2020/2021	2022	2023	2024	RP3 to date
Total difference	0	0.06	0.06	0.08	-	-	0.13
Depreciation	0	(0.15)	(0.15)	0.02	-	-	(0.13)
Cost of capital	0	0.21	0.21	0.06	-	-	0.26



Latvia overspent 0.4M € 2017 in costs related to investments (+0.3M € 2017 in en route and +0.1M € 2017 in terminal) in 2022. For RP3 to date, determined data matches actual data.

Overspending up to 5%

COSTS BY NEW MAJOR INVESTMENTS						LATVIA   LGS
Determined costs (M€ <sub>2017</sub> ) <sup>1</sup>	2020D	2021D	2022D	2023D	2024D	RP3 to date
Total costs of investments	0.11	0.21	0.59	1.28	1.87	0.92
1 New technical, ACC and tower building	0.09	0.13	0.14	0.31	0.66	0.36
2 Radar modernization and WAM	0	0.03	0.09	0.26	0.42	0.11
3 ATC System modernization	0.02	0.06	0.37	0.71	0.74	0.45
4 Integration of new systems in Tech & TWR buildings	0	0	0	0	0.05	0
Actual costs (M€ <sub>2017</sub> )	2020A	2021A	2022A	2023A	2024A	RP3 to date
Total costs of investments	0.11	0.21	0.59	-	-	0.92
1 New technical, ACC and tower building	0.09	0.13	0.14	-	-	0.36
2 Radar modernization and WAM	0	0.03	0.09	-	-	0.11
3 ATC System modernization	0.02	0.06	0.37	-	-	0.45
4 Integration of new systems in Tech & TWR buildings	0	0	0	-	-	0
Actual minus determined costs of investments (M ${f \varepsilon}_{_{2017}}$ )	2020	2021	2022	2023	2024	RP3 to date
Total difference in costs of investments	(0.00)	0.00	0	-	-	0.00
1 New technical, ACC and tower building	(0.00)	(0.00)	0	-	-	(0.00)
2 Radar modernization and WAM	0	0.00	0	-	-	0.00
3 ATC System modernization	(0.00)	(0.00)	0	-	-	(0.00)
4 Integration of new systems in Tech & TWR buildings	0	0	0	-	-	0



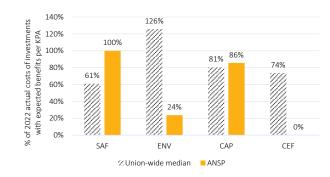
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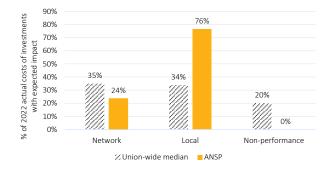
ECTED BENEFIT AND IMPACT PER NEW MAJOR INVESTMENT				LATVIA   L
# New major investments	Expected benefit			
	SAF	ENV	CAP	CEF
1 New technical, ACC and tower building	Х	Х	Х	(-X)
2 Radar modernization and WAM	Х			
3 ATC System modernization	Х		Х	
4 Integration of new systems in Tech & TWR buildings	Х	Х	Х	Х

	#	New major investments
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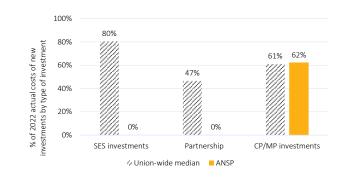
Expected impact Network Local Non-performance

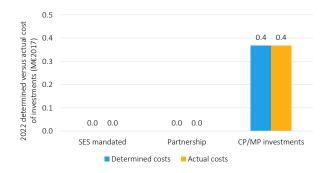
1 New technical, ACC and tower building	Х
2 Radar modernization and WAM	X
3 ATC System modernization	X
4 Integration of new systems in Tech & TWR buildings	X





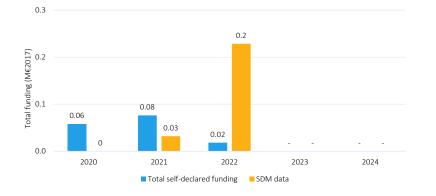
# New major investments	EIO Date <sup>1</sup>	Status	SES Reg.	Partnership	ATM sy	/stem
					ATM sytem	CP/ MP <sup>2</sup>
1 New technical, ACC and tower building	2027	Started	No	No	No	-
2 Radar modernization and WAM	2026-2029	Started	No	No	No	-
3 ATC System modernization	2027	Started	No	No	Yes	MP
4 Integration of new systems in Tech & TWR buildings	2027	Not started	No	No	Yes	MP

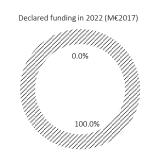




KPAs: SAF = Safety, ENV = Environment, CAP = Capacity, CEF = Cost-efficiency. 1. EOI date = Date of entry into operation 2. CP/MP = Common Project and Master Plan

PUBLIC FUNDING GRANTED FOR TOTAL CAPEX (CEF/TEN-T)						LATVIA   LGS
Actual funding declaration (M $\epsilon_{2017}$ )	2020	2021	2022	2023	2024	RP3 to date
otal funding declared	0.06	0.08	0.02	-	-	0.15
En route funding declared	0.03	0.05	0.02	-	-	0.10
En route funding that could not be assigned to a specific investment	0.03	0.05	0.02	-	-	0.10
Terminal funding	0.03	0.03	0	0	0	0.06
Terminal funding that could not be assigned to a specific investment	0.03	0.03	-	-	-	0.06
Actual funding declaration vs payments (M $\epsilon_{2017}$ )	2020	2021	2022	2023	2024	RP3 to date
Difference between total funding declared vs received	0.06	0.04	(0.21)	-	-	(0.11)
Total included in the funding declaration (reporting tables)	0.06	0.08	0.02	-	-	0.15
SDM Payment	-	0.03	0.23	-	-	0.26





≥ Union-wide ANSP

Latvia reported  $0.02M \epsilon_{2017}$  funding in 2022. However, SESAR Deployment Manager data indicates a payment of  $0.2M \epsilon_{2017}$  in 2022. For RP3 to date, Latvia declared  $0.2M \epsilon_{2017}$  of funding, while SESAR Deployment Manager data indicates a payment of  $0.3M \epsilon_{2017}$ .

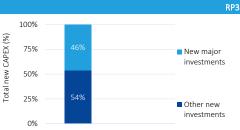
118/206

Lithuania underspent 0.2M €<sub>2017</sub> (-6.1%) in costs related to investments for en route in 2022 compared to the determined costs. Lithuania planned three new major investments for RP3, one of which has started.

### CAPEX FOR NEW INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

### Determined and additional CAPEX by value of individual investments (M€2017)

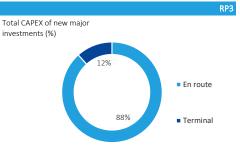
APEX for new investments	15.08	% of total
New major investments (above 5M€ each) <sup>1</sup>	6.95	46%
Included in the performance plan	6.95	46%
Additional <sup>2</sup>	0	0%
Other new investments (below 5M€ each) <sup>3</sup>	8.13	54%
Included in the performance plan	8.13	54%
Additional	0	0%



Included in the PP Additional

### Determined CAPEX: en route and terminal (M€<sub>2017</sub>)

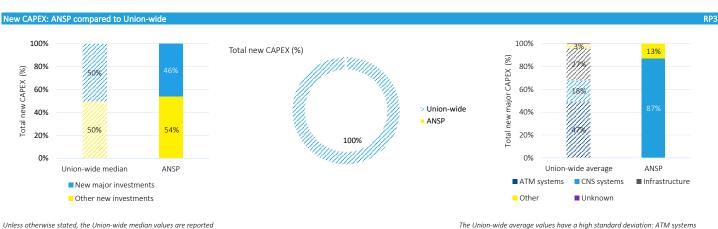
Total CAPEX for new major investments	7.56	% of total
En route	6.68	88%
Terminal	0.88	12%



# Determined CAPEX by type of investment (M $\varepsilon_{2017}$ )

Total CAPEX for new major investments	7.51	% of total
ATM systems	0	0%
CNS systems	6.55	87%
Infrastructure	0	0%
Other	0.96	13%
Unknown	0	0%





Unless otherwise stated, the Union-wide median values are reported as a measure of central tendency that is robust to outliers. The Union-wide average values have a high standard deviation: ATM systems (31%), CNS systems (21%), infrastructure ( 24%), Other (21%), unknown (1%).

1. New major investments: "acquisition, development, replacement, upgrade, or leasing of fixed assets representing a total value over the whole lifetime of the assets greater than EUR 5 million in real terms" (Reg. 2019/317 art. 2 (13)).

2. Additional investments are those investments not foreseen as part of the performance plan.

3. Other new investments: new investments or replacements/upgrades of existing assets representing a total value over the whole lifetime of the asset below 5M in real terms.

RP3

CNS systems
 Other

LITHUANIA | SE Oro Navigacija

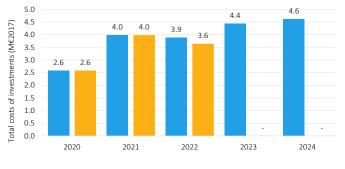
### COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

### LITHUANIA | SE Oro Navigacija

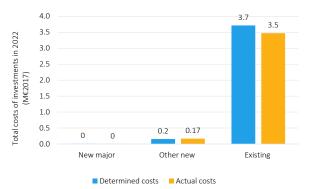
Determined costs: new and existing investments ${(M { f { f e } } _{ 2017} )}^1$	2020D	2021D	2022D	2023D	2024D	RP3 to date
Total costs	2.58	3.98	3.88	4.44	4.61	10.44
New major investments	0	0	0.00	0.12	0.30	0.004848
% New major investments in total costs of investments	0%	0%	0%	3%	7%	0%
Other new investments	0.03	0.06	0.16	0.66	1.06	0.24
% Other new investments in total costs of investments	1%	1%	4%	15%	23%	2%
Existing investments	2.56	3.92	3.71	3.66	3.25	10.19
% Existing investments in total costs of investments	99%	99%	96%	82%	70%	98%

Actual costs: new and existing investments (M€ <sub>2017</sub> )	2020A	2021A	2022A	2023A	2024A	RP3 to date
Total costs	2.58	3.98	3.64	-	-	10.20
New major investments	0	0	0.00	-	-	0.00
% New major investments in total costs of investments	0%	0%	0%	-	-	0%
Other new investments	0.03	0.04	0.17	-	-	0.23
% Other new investments in total costs of investments	1%	1%	5%	-	-	2%
Existing investments	2.56	3.94	3.47	-	-	9.96
% Existing investments in total costs of investments	99%	99%	95%	-	-	98%

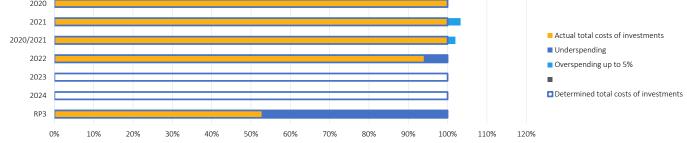
Actual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
Total difference	0	(0.00)	(0.24)	-	-	(0.24)
New major investments	0	0	(0.00)	-	-	(0.00)
% change of actual with respect to determined	0%	0%	-58%	-	-	-58%
Other new investments	0	(0.01)	0.01	-	-	(0.00)
% change of actual with respect to determined	0%	-25%	7%	-	-	-2%
Existing investments	0	0.01	(0.24)	-	-	(0.23)
% change of actual with respect to determined	0%	0%	-7%	-	-	-2%



Determined costs



Determined costs by nature (M€ <sub>2017</sub> )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to da
Total costs of new and existing investments	2.58	3.85	6.43	3.88	4.44	4.61	10.3
Depreciation	2.58	2.94	5.53	3.00	2.95	3.07	8.53
Cost of capital	0	0.91	0.91	0.87	1.50	1.54	1.78
Cost of leasing	0	0	0	0	0	0	(
Actual costs by nature (M $\epsilon_{2017}$ )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to dat
Fotal costs of new and existing investments	2.58	3.98	6.56	3.64	-	-	10.20
Depreciation	2.58	3.02	5.60	2.80	-	-	8.39
Cost of capital	0	0.96	0.96	0.84	-	-	1.8
Cost of leasing	0	0	0	0	-	-	(
Actual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2020/2021	2022	2023	2024	RP3 to dat
Total difference	0	0.13	0.13	(0.24)	-	-	(0.1
Depreciation	0	0.07	0.07	(0.21)	-	-	(0.1
Cost of capital	0	0.06	0.06	(0.03)	-	-	0.0
Cost of leasing	0	0	0	0	-	-	



Lithuania did not establish a terminal charging zone for RP3.

Lithuania underspent  $0.2ME_{2017}$  in costs related to investments in 2022. For RP3 to date Lithuania underspent  $0.1ME_{2017}$  in costs related to investments. These amounts shall be reimbursed to the airspace users through a reduction of future unit rate(s), unless the NSA decides after consultation with the users, that the ANSP shall not reimburse a part of the difference according to article 28 of Regulation (EU) 2019/317.

122/200
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COSTS BY NEW MAJOR INVESTMENTS				LI	THUANIA   SE	Oro Navigacija
Determined costs $(M \in _{2017})^1$	2020D	2021D	2022D	2023D	2024D	RP3 to date
Total costs of investments	0	0	0.00	0.12	0.30	0.00
1 Aeuronautical data management system - digitalization	0	0	0.005	0.07	0.14	0.00
2 WAM/ADS-B implementation	0	0	0	0.04	0.15	0
3 PSR-MSSR radar renewal in Vilnius	0	0	0	0	0.01	0
Actual costs (M€ <sub>2017</sub> )	2020A	2021A	2022A	2023A	2024A	RP3 to date
Total costs of investments	0	0	0.00	-	-	0.00
1 Aeuronautical data management system - digitalization	0	0	0.002	-	-	0.00
2 WAM/ADS-B implementation	0	0	0	-	-	0
3 PSR-MSSR radar renewal in Vilnius	0	0	0	-	-	0
Actual minus determined costs of investments ( $M \varepsilon_{2017}$ )	2020	2021	2022	2023	2024	RP3 to date
Total difference in costs of investments	0	0	(0.00)	-	-	(0.00)
1 Aeuronautical data management system - digitalization	0	0	(0.00)	-	-	(0.00)
2 WAM/ADS-B implementation	0	0	0	-	-	0
3 PSR-MSSR radar renewal in Vilnius	0	0	0	-	-	0

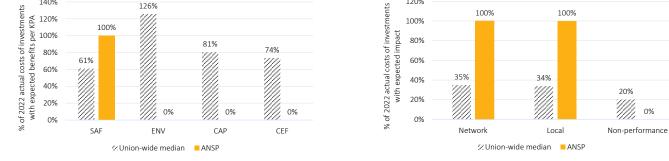


1. Determined costs comprise depreciation costs, cost of capital, and cost of leasing in the performance plans.

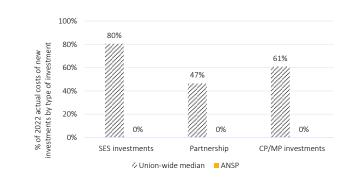
0%

PECTED BENEFIT AND IMPACT PER NEW MAJOR INVESTMENT			LITHUANIA   S	E Oro Navigaci
# New major investments	Expected benefit	: per KPA		
	SAF	ENV	CAP	CEF
1 Aeuronautical data management system - digitalization	Х			(-X)
2 WAM/ADS-B implementation	Х			Х
3 PSR-MSSR radar renewal in Vilnius	Х			Х





# New major investments	EIO Date <sup>1</sup>	Status	SES Reg.	Partnership	ATM sy	stem
					ATM sytem	CP/ MP <sup>2</sup>
1 Aeuronautical data management system - digitalization	01/12/2023	Started	No	No	No	-
2 WAM/ADS-B implementation	01/10/2024	Not started	No	No	No	-
3 PSR-MSSR radar renewal in Vilnius	2025	Not started	No	No	No	-





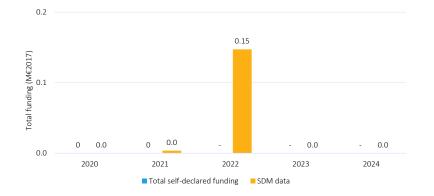
KPAs: SAF = Safety, ENV = Environment, CAP = Capacity, CEF = Cost-efficiency.

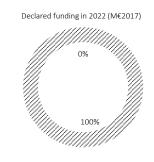
1. EOI date = Date of entry into operation

2. CP/MP = Common Project and Master Plan

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UBLIC FUNDING GRANTED FOR TOTAL CAPEX (CEF/TEN-T) LITHUANIA   SE Oro Na				Oro Navigacija		
Actual funding declaration (M $\epsilon_{2017}$ )	2020	2021	2022	2023	2024	RP3 to date
Total funding declared	-	-	-	-	- 1	-
En route funding declared	-	-	-	-	-	-
En route funding that could not be assigned to a specific investment	-	-	-	-	-	-
Terminal funding	-	-	-	-	-	-
Terminal funding that could not be assigned to a specific investment	-	-	-	-	-	-
Actual funding declaration vs payments (M $\epsilon_{ m 2017}$ )	2020	2021	2022	2023	2024	RP3 to date
Difference between total funding declared vs received	0	(0.00)	(0.15)	-	-	(0.15)
Total included in the funding declaration (reporting tables)	0	0	-	-	-	0
SDM Payment	0	0.00	0.15	-	-	0.15





⊗Union-wide ■ANSP



Belgium and Luxembourg do not currently have approved performance plans. Thus, the data within this factsheet is based on information from the latest submission of the draft performance plans. Luxembourg underspent 0.6ME<sub>2017</sub> (-21%) in costs related to investments for en route and terminal in 2022 compared to the determined costs. Luxembourg planned six new major investments for RP3, four of which have started.

### CAPEX FOR NEW INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

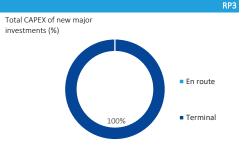
### Determined and additional CAPEX by value of individual investments (M€2017)

APEX for new investments	14.34	% of total
New major investments (above 5M€ each) <sup>1</sup>	8.21	57%
Included in the performance plan	8.21	57%
Additional <sup>2</sup>	0	0%
Other new investments (below 5M€ each) <sup>3</sup>	6.13	43%
Included in the performance plan	6.13	43%
Additional	0	0%



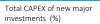
### Determined CAPEX: en route and terminal (M€2017)

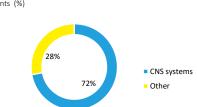
Total CAPEX for new major investments	8.21	% of total
En route	0	0%
Terminal	8.21	100%



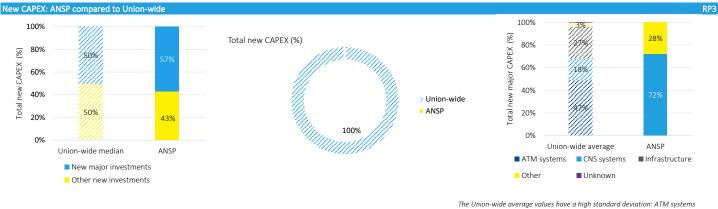
## Determined CAPEX by type of investment (M€<sub>2017</sub>)

Total CAPEX for new major investments	8.21	% of total
ATM systems	0	0%
CNS systems	5.92	72%
Infrastructure	0	0%
Other	2.29	28%
Unknown	0	0%





RP3



Unless otherwise stated, the Union-wide median values are reported as a measure of central tendency that is robust to outliers.

(31%), CNS systems (21%), infrastructure (24%), Other (21%), unknown (1%).

1. New major investments: "acquisition, development, replacement, upgrade, or leasing of fixed assets representing a total value over the whole lifetime of the assets greater than EUR 5 million in real terms" (Reg. 2019/317 art. 2 (13)).

2. Additional investments are those investments not foreseen as part of the performance plan.

3. Other new investments: new investments or replacements/upgrades of existing assets representing a total value over the whole lifetime of the asset below 5M € in real terms.

LUXEMBOURG | ANA LUX

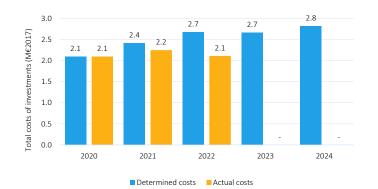
### COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

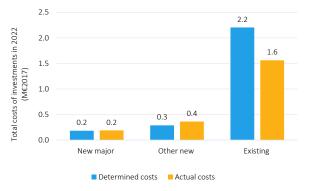
### LUXEMBOURG | ANA LUX

Determined costs: new and existing investments $\left(M {f { f { f { f { f { o} } } } }}  ight)^1$	2020D	2021D	2022D	2023D	2024D	RP3 to date
otal costs	2.09	2.42	2.67	2.66	2.82	7.18
New major investments	0.04	0.15	0.18	0.19	0.34	0.373633
% New major investments in total costs of investments	2%	6%	7%	7%	12%	5%
Other new investments	0.12	0.28	0.29	0.37	0.49	0.69
% Other new investments in total costs of investments	6%	12%	11%	14%	17%	10%
Existing investments	1.94	1.98	2.20	2.09	1.99	6.12
% Existing investments in total costs of investments	93%	82%	82%	79%	71%	85%

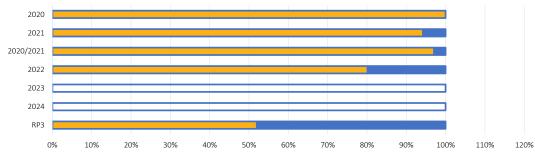
Actual costs: new and existing investments (M€ <sub>2017</sub> )	2020A	2021A	2022A	2023A	2024A	RP3 to date
Total costs	2.09	2.25	2.11	-	-	6.45
New major investments	0.04	0.10	0.19	-	-	0.32
% New major investments in total costs of investments	2%	4%	9%	-	-	5%
Other new investments	0.12	0.31	0.36	-	-	0.79
% Other new investments in total costs of investments	6%	14%	17%	-	-	12%
Existing investments	1.94	1.84	1.56	-	-	5.34
% Existing investments in total costs of investments	93%	82%	74%	-	-	83%

Actual minus determined costs (M $\varepsilon_{2017}$ )	2020	2021	2022	2023	2024	RP3 to date
Total difference	0	(0.17)	(0.56)	-	-	(0.73)
New major investments	0	(0.06)	0.01	-	-	(0.05)
% change of actual with respect to determined	0%	-38%	4%	-	-	-14%
Other new investments	(0.00)	0.03	0.07	-	-	0.10
% change of actual with respect to determined	0%	9%	26%	-	-	15%
Existing investments	0	(0.14)	(0.64)	-	-	(0.78)
% change of actual with respect to determined	0%	-7%	-29%	-	-	-13%



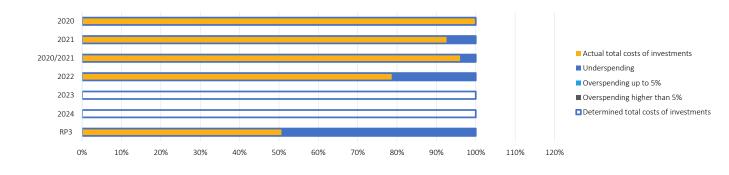


COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN					LUXEM	BOURG - En ro	oute   ANA LUX
Determined costs by nature (M€ <sub>2017</sub> )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to date
Total costs of new and existing investments	0.64	0.72	1.36	0.80	0.79	0.83	2.16
Depreciation	0.53	0.61	1.15	0.80	0.79	0.83	1.94
Cost of capital	0.11	0.11	0.21	-	-	-	0.21
Cost of leasing	0	0	0	0	0	0	0
Actual costs by nature (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to date
Total costs of new and existing investments	0.64	0.68	1.32	0.64	-	-	1.95
Depreciation	0.53	0.57	1.10	0.64	-	-	1.74
Cost of capital	0.11	0.11	0.21	-	-	-	0.21
Cost of leasing	0	0	0	0	-	-	0
Actual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2020/2021	2022	2023	2024	RP3 to date
Total difference	0.00	(0.04)	(0.04)	(0.16)	-	- [	(0.20)
Depreciation	0	(0.04)	(0.04)	(0.16)	-	-	(0.20)
Cost of capital	0	0	0	0	-	-	0
Cost of leasing	0	0	0	0	-	-	0



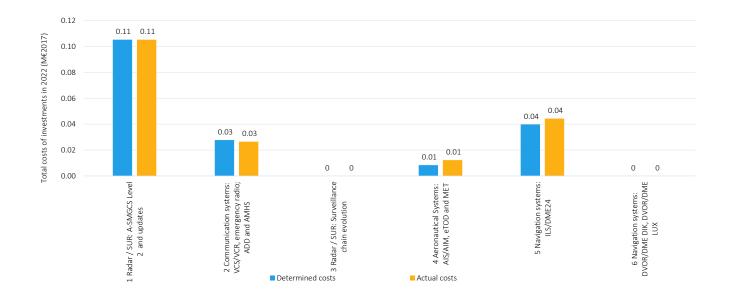
Actual total costs of investments
Underspending
Overspending up to 5%
Overspending higher than 5%
Determined total costs of investments

COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN					LUXEM	BOURG - Term	inal   ANA LUX
Determined costs by nature (M€ <sub>2017</sub> )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to date
Total costs of new and existing investments	1.46	1.69	3.15	1.87	1.87	1.99	5.02
Depreciation	1.20	1.43	2.62	1.87	1.87	1.99	4.50
Cost of capital	0.26	0.27	0.53	-	-	-	0.53
Cost of leasing	0	0	0	0	0	0	0
Actual costs by nature (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to date
Total costs of new and existing investments	1.46	1.57	3.03	1.47	-	-	4.50
Depreciation	1.20	1.30	2.50	1.47	-	-	3.97
Cost of capital	0.26	0.27	0.53	-	-	-	0.53
Cost of leasing	0	0	0	0	-	-	0
Actual minus determined costs (M $\varepsilon_{2017}$ )	2020	2021	2020/2021	2022	2023	2024	RP3 to date
Total difference	0.00	(0.13)	(0.13)	(0.40)	-	-	(0.53)
Depreciation	0.00	(0.13)	(0.13)	(0.40)	-	-	(0.53)
Cost of capital	0	0	0	0	-	-	0
Cost of leasing	0	0	0	0	-	-	0



Luxembourg underspent  $0.6M \epsilon_{2017}$  in costs related to investments ( $0.2 \epsilon_{2017}$  in en route and  $0.4M \epsilon_{2017}$  in terminal) in 2022. For RP3 to date Luxembourg underspent  $0.7M \epsilon_{2017}$  in costs related to investments. These amounts shall be reimbursed to the airspace users through a reduction of future unit rate(s), unless the NSA decides after consultation with the users, that the ANSP shall not reimburse a part of the difference according to article 28 of Regulation (EU) 2019/317.

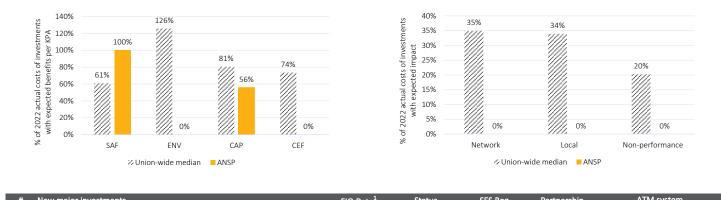
COSTS BY NEW MAJOR INVESTMENTS					LUXEMBOL	JRG   ANA LUX
Determined costs $(M \epsilon_{2017})^1$	2020D	2021D	2022D	2023D	2024D	RP3 to date
Total costs of investments	0.04	0.15	0.18	0.19	0.34	0.37
1 Radar / SUR: A-SMGCS Level 2 and updates	0	0.07	0.11	0.11	0.11	0.18
2 Communication systems: VCS/VCR, emergency radio; ADD and AMHS	0.02	0.03	0.03	0.03	0.15	0.07
3 Radar / SUR: Surveillance chain evolution	0	0	0	0	0	0
4 Aeronautical Systems: AIS/AIM, eTOD and MET	0.00	0.01	0.01	0.02	0.03	0.02
5 Navigation systems: ILS/DME24	0.02	0.05	0.04	0.04	0.04	0.11
6 Navigation systems: DVOR/DME DIK, DVOR/DME LUX	0	0	0	0	0.02	0
Actual costs (M€ <sub>2017</sub> )	2020A	2021A	2022A	2023A	2024A	RP3 to date
Total costs of investments	0.04	0.10	0.19	-	-	0.32
1 Radar / SUR: A-SMGCS Level 2 and updates	0	0.02	0.11	-	-	0.12
2 Communication systems: VCS/VCR, emergency radio; ADD and AMHS	0.02	0.02	0.03	-	-	0.06
3 Radar / SUR: Surveillance chain evolution	0	0	0	-	-	0
4 Aeronautical Systems: AIS/AIM, eTOD and MET	0.00	0.01	0.01	-	-	0.02
5 Navigation systems: ILS/DME24	0.02	0.05	0.04	-	-	0.11
6 Navigation systems: DVOR/DME DIK, DVOR/DME LUX	0	0	0	-	-	0
Actual minus determined costs of investments (M $\epsilon_{2017}$ )	2020	2021	2022	2023	2024	RP3 to date
Total difference in costs of investments	0.00	(0.06)	0.01	-	-	(0.05)
1 Radar / SUR: A-SMGCS Level 2 and updates	0	(0.05)	0	-	-	(0.05)
2 Communication systems: VCS/VCR, emergency radio; ADD and AMHS	0.00	(0.01)	(0.00)	-	-	(0.01)
3 Radar / SUR: Surveillance chain evolution	0	0	0	-	-	0
4 Aeronautical Systems: AIS/AIM, eTOD and MET	0.00	(0.00)	0.00	-	-	0.00
5 Navigation systems: ILS/DME24	0.00	0.00	0.00	-	-	0.01
6 Navigation systems: DVOR/DME DIK, DVOR/DME LUX	0	0	0			0



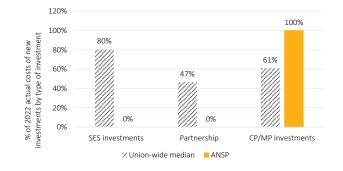
# EXPECTED BENEFIT AND IMPACT PER NEW MAJOR INVESTMENT LUXEMBOURG | ANA LUX # New major investments Expected benefit per KPA SAF ENV CAP CEF 1 Radar / SUR: A-SMGCS Level 2 and updates X X 2 Communication systems: VCS/VCR, emergency radio; ADD and AMHS X X 3 Radar / SUR: Surveillance chain evolution X X

# New major investments	Expected impact
6 Navigation systems: DVOR/DME DIK, DVOR/DME LUX	X
5 Navigation systems: ILS/DME24	Х
4 Aeronautical Systems: AIS/AIM, eTOD and MET	Х

	Expected impact		
	Network	Local	Non-performance
1 Radar / SUR: A-SMGCS Level 2 and updates			
2 Communication systems: VCS/VCR, emergency radio; ADD and AMHS			
3 Radar / SUR: Surveillance chain evolution			
4 Aeronautical Systems: AIS/AIM, eTOD and MET			
5 Navigation systems: ILS/DME24			
6 Navigation systems: DVOR/DME DIK, DVOR/DME LUX			



# New major investments	EIO Date-	Status	SES Reg.	Partnership	A TIVI S	stem
					ATM sytem	CP/ MP <sup>2</sup>
1 Radar / SUR: A-SMGCS Level 2 and updates	31/12/2021	Started	No	No	Yes	MP
2 Communication systems: VCS/VCR, emergency radio; ADD and AMHS	2021-2024	Started	No	No	Yes	MP
3 Radar / SUR: Surveillance chain evolution	31/12/2023	Not started	No	No	Yes	-
4 Aeronautical Systems: AIS/AIM, eTOD and MET	31/12/2021	Started	No	No	Yes	MP
5 Navigation systems: ILS/DME24	2021-2025	Started	No	No	Yes	MP
6 Navigation systems: DVOR/DME DIK, DVOR/DME LUX	31/12/2024	Not started	No	No	Yes	-

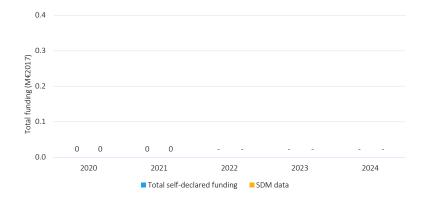


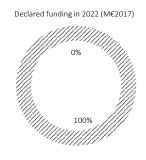


KPAs: SAF = Safety, ENV = Environment, CAP = Capacity, CEF = Cost-efficiency. 1. EOI date = Date of entry into operation 2. CP/MP = Common Project and Master Plan

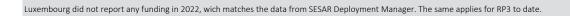
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PUBLIC FUNDING GRANTED FOR TOTAL CAPEX (CEF/TEN-T)						LUXEMBOURG   ANA LUX		
Actual funding declaration (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date		
Total funding declared	-	-	-	-	- 1	-		
En route funding declared	-	-	-	-	-	-		
En route funding that could not be assigned to a specific investment	-	-	-	-	-	-		
Terminal funding	-	-	-	-	-	-		
Terminal funding that could not be assigned to a specific investment	-	-	-	-	-	-		
Actual funding declaration vs payments (M $\epsilon_{2017}$ )	2020	2021	2022	2023	2024	RP3 to date		
Difference between total funding declared vs received	-	-	-	-	-	-		
Total included in the funding declaration (reporting tables)	-	-	-	-	-	-		
SDM Payment	-	-	-	-	-	-		





⊗ Union-wide ■ ANSP



Malta underspent 1.8M € 2017 (-42%) in costs related to investments for en route and terminal in 2022 compared to determined costs. However, the monitoring reports indicate that Malta underspent 0.5M € 2017 (-12%) compared to the determined costs. No explanation for the differences between the monitoring report and reporting tables has been provided. Malta did not plan any new major investments for RP3.

### CAPEX FOR NEW INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

### Determined and additional CAPEX by value of individual investments ( $M \varepsilon_{2017}$ )

APEX for new investments	8.29	% of total
New major investments (above 5M€ each) <sup>1</sup>	0	0%
Included in the performance plan	0	0%
Additional <sup>2</sup>	0	0%
Other new investments (below 5M€ each) <sup>3</sup>	8.29	100%
Included in the performance plan	8.29	100%
Additional	0	09



### Determined CAPEX: en route and terminal (M€2017)

Total CAPEX for new major investments	N/A	% of total
En route	N/A	N/A
Terminal	N/A	N/A

Not applicable

Determined CAPEX by type of investment (M€2017) Total CAPEX for new major investments N/A % of total ATM systems N/A N/A CNS systems N/A N/A Infrastructure N/A N/A Other N/A N/A Unknown N/A N/A

Not applicable

### New CAPEX: ANSP compared to Union-wide 100% 100% Total new CAPEX (%) Total new major CAPEX (%) 80% 80% (%) 50% 0% Total new CAPEX 60% 60% Not applicable 100% < Union-wide 40% 40% ANSP 50% 20% 20% 100% 0% 0% ANSP Union-wide median Union-wide average ANSP ATM systems CNS systems Infrastructure New major investments Other Unknown Other new investments Unless otherwise stated, the Union-wide median values are reported as a The Union-wide average values have a high standard deviation: ATM systems measure of central tendency that is robust to outliers. (31%), CNS systems (21%), infrastructure (24%), Other (21%), unknown (1%).

1. New major investments: "acquisition, development, replacement, upgrade, or leasing of fixed assets representing a total value over the whole lifetime of the assets greater than EUR 5 million in real terms " (Reg. 2019/317 art. 2 (13)).

2. Additional investments are those investments not foreseen as part of the performance plan.

3. Other new investments: new investments or replacements/upgrades of existing assets representing a total value over the whole lifetime of the asset below 5M€ in real terms.

MALTA | MATS

RP3

RP3

RP3

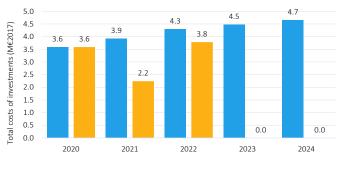
### COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

### MALTA | MATS

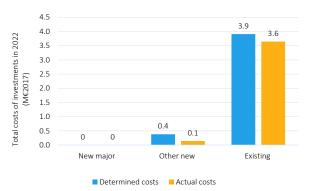
Determined costs: new and existing investments $\left(M {f \varepsilon}_{2017}  ight)^1$	2020D	2021D	2022D	2023D	2024D	RP3 to date
Total costs	3.59	3.93	4.29	4.47	4.66	11.81
New major investments	0	0	0	0	0	0
% New major investments in total costs of investments	0%	0%	0%	0%	0%	0%
Other new investments	0.11	0.46	0.38	0.13	0.27	0.95
% Other new investments in total costs of investments	3%	12%	9%	3%	6%	8%
Existing investments	3.47	3.47	3.91	4.34	4.39	10.85
% Existing investments in total costs of investments	97%	88%	91%	97%	94%	92%

Actual costs: new and existing investments (M $\epsilon_{2017}$ )	2020A	2021A	2022A	2023A	2024A	RP3 to date
Total costs	3.59	2.24	3.78	-	-	9.61
New major investments	0	0	-	-	-	0
% New major investments in total costs of investments	0%	0%	-	-	-	0%
Other new investments	0.11	0.15	0.14	-	-	0.41
% Other new investments in total costs of investments	3%	7%	-	-	-	4%
Existing investments	3.47	2.09	3.64	-	-	9.21
% Existing investments in total costs of investments	97%	93%	-	-	-	96%

Actual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
Total difference	0	(1.69)	(0.51)	-	-	(2.19)
New major investments	0	0	-	-	-	0
% change of actual with respect to determined	0%	0%	-	-	-	0%
Other new investments	0	(0.30)	(0.24)	-	-	(0.55)
% change of actual with respect to determined	0%	-67%	-63%	-	-	-57%
Existing investments	0	(1.38)	(0.27)	-	-	(1.65)
% change of actual with respect to determined	0%	-40%	-7%	-	-	-15%



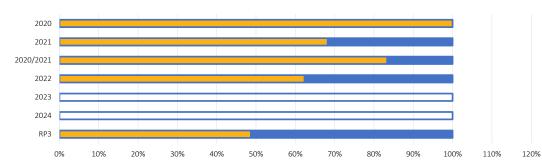
Determined costs



1. The performance plans include costs related to investments which comprise depreciation cost, cost of capital, and cost of leasing.

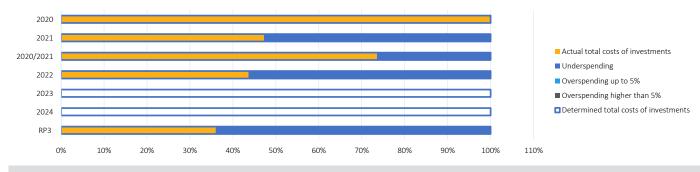
The total costs of investments included in the monitoring report do not match the total costs of investments included in the reporting tables. No explanation on the differences has been provided.

COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN						MALTA - En route   MAT		
Determined costs by nature (M€ <sub>2017</sub> )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to date	
Total costs of new and existing investments	2.82	3.16	5.98	3.46	2.54	2.71	9.44	
Depreciation	2.42	2.75	5.17	2.97	2.03	2.17	8.14	
Cost of capital	0.40	0.40	0.81	0.49	0.52	0.54	1.30	
Cost of leasing	0	0	0	0	0	0	0	
Actual costs by nature (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to date	
Total costs of new and existing investments	2.82	2.15	4.97	2.15	-	-	7.12	
Depreciation	2.42	1.81	4.23	1.82	-	-	6.05	
Cost of capital	0.40	0.34	0.74	0.33	-	-	1.07	
Cost of leasing	0	0	0	-	-	-	0	
Actual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2020/2021	2022	2023	2024	RP3 to date	
Total difference	0	(1.01)	(1.01)	(1.31)	-	-	(2.32)	
Depreciation	0	(0.94)	(0.94)	(1.14)	-	-	(2.09)	
Cost of capital	0	(0.07)	(0.07)	(0.17)	-	-	(0.23)	
Cost of leasing	0	0	0		-		0	



Actual total costs of investments
Underspending
Overspending up to 5%
Overspending higher than 5%
Determined total costs of investments

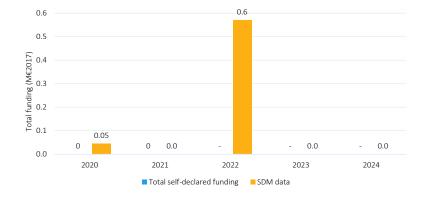
COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN							rminal   MATS
Determined costs by nature (M€ <sub>2017</sub> )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to date
Total costs of new and existing investments	0.77	0.77	1.54	0.84	0.87	0.92	2.38
Depreciation	0.68	0.69	1.37	0.74	0.76	0.80	2.11
Cost of capital	0.08	0.08	0.17	0.10	0.11	0.11	0.27
Cost of leasing	0	0	0	0	0	0	0
Actual costs by nature (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to date
Total costs of new and existing investments	0.77	0.36	1.13	0.37	-	- [	1.50
Depreciation	0.68	0.29	0.98	0.30	-	-	1.28
Cost of capital	0.08	0.07	0.15	0.06	-	-	0.22
Cost of leasing	0	0	0	-	-	-	0
Actual minus determined costs (M $\epsilon_{2017}$ )	2020	2021	2020/2021	2022	2023	2024	RP3 to date
Total difference	0	(0.41)	(0.41)	(0.47)	-	-	(0.88)
Depreciation	0	(0.39)	(0.39)	(0.44)	-	-	(0.83)
Cost of capital	0	(0.01)	(0.01)	(0.04)	-	-	(0.05)
Cost of leasing	0	0	0	-	-	-	0

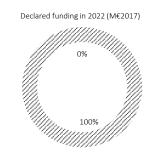


The total costs of investments included in the monitoring report do not match the total costs of investments included in the reporting tables. No explanation on the differences has been provided.

Malta underspent  $1.8ME_{2017}$  in costs related to investments (- $1.3ME_{2017}$  in en route and - $0.5ME_{2017}$  in terminal) in 2022. For RP3 to date, Malta underspent  $3.2ME_{2017}$  in costs related to investments. These amounts shall be reimbursed to the airspace users through a reduction of future unit rate(s), unless the NSA decides after consultation with the users, that the ANSP shall not reimburse a part of the difference according to article 28 of Regulation (EU) 2019/317.

PUBLIC FUNDING GRANTED FOR TOTAL CAPEX (CEF/TEN-T)					١	MALTA   MATS	
Actual funding declaration (M $\epsilon_{2017}$ )	2020	2021	2022	2023	2024	RP3 to date	
Total funding declared	-	-	-	-	-	-	
En route funding declared	-	-	-	-	-	-	
En route funding that could not be assigned to a specific investment	-	-	-	-	-	-	
Terminal funding	-	-	-	-	-	-	
Terminal funding that could not be assigned to a specific investment	-	-	-	-	-	-	
Actual funding declaration vs payments (M $\varepsilon_{2017}$ )	2020	2021	2022	2023	2024	RP3 to date	
Difference between total funding declared vs received	(0.05)	-	(0.57)	-	-	(0.62)	
Total included in the funding declaration (reporting tables)	-	-	-	-	-	-	
SDM Payment	0.05	-	0.57	-	-	0.62	





Union-wide ANSP

Malta did not report any funding in 2022, however SESAR Deployment Manager data indicates a payment of 0.6M  $\epsilon_{2017}$  in 2022. For RP3 to date, Malta did not declare any funding, while SESAR Deployment Manager data indicates a payment of 0.6M  $\epsilon_{2017}$ .

This factsheet is based on information within the latest submitted draft performance plans for the four MUAC States (not yet adopted for Belgium and Luxembourg). MUAC underspent 0.8ME<sub>2017</sub> (-12%) in 2022 in costs related to investments compared to the determined costs. MUAC planned six new major investments for RP3, one of which has started and five have not started yet.

### CAPEX FOR NEW INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

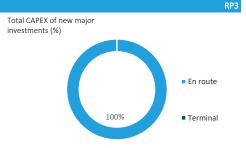
### Determined and additional CAPEX by value of individual investments (M€2017)

APEX for new investments	128.13	% of total
New major investments (above 5M€ each) <sup>1</sup>	91.62	72%
Included in the performance plan	91.62	729
Additional <sup>2</sup>	0	09
Other new investments (below 5M€ each) <sup>3</sup>	36.51	289
Included in the performance plan	36.51	289
Additional	0	09



### Determined CAPEX: en route and terminal (M€2017)

Total CAPEX for new major investments	91.62	% of total
En route	91.62	100%
Terminal	0	0%



# Determined CAPEX by type of investment (M€<sub>2017</sub>)

Total CAPEX for new major investments	91.62	% of total
ATM systems	34.50	38%
CNS systems	15.64	17%
Infrastructure	41.48	45%
Other	0	0%
Unknown	0	0%





ANSP

Infrastructure

RP3

RP3

100% 100% Total new CAPEX (%) (%) 80% 80% (%) 50% major CAPEX 2% Total new CAPEX 60% 60% > Union-wide 40% 40% Total new ANSP 50% 20% 20% 38% 98% 28%

New major investments

Union-wide median

ompared to Ur

New CAPEX: ANSP

0%



ANSP

Unless otherwise stated, the Union-wide median values are reported as a measure of central tendency that is robust to outliers.

The Union-wide average values have a high standard deviation: ATM systems (31%), CNS systems (21%), infrastructure (24%), Other (21%), unknown (1%).

Union-wide average

Unknown

ATM systems CNS systems

0%

Other

1. New major investments: "acquisition, development, replacement, upgrade, or leasing of fixed assets representing a total value over the whole lifetime of the assets greater than EUR 5 million in real terms " (Reg. 2019/317 art. 2 (13)).

2. Additional investments are those investments not foreseen as part of the performance plan.

3. Other new investments: new investments or replacements/upgrades of existing assets representing a total value over the whole lifetime of the asset below 5M€ in real terms.

MUAC | MUAC

### COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

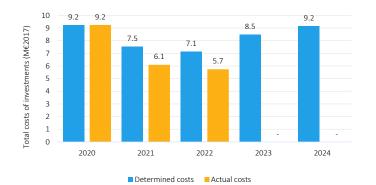
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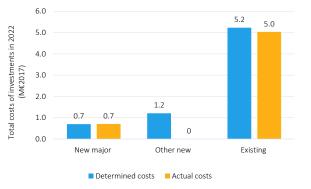
MUAC | MUAC

Determined costs: new and existing investments $\left(M \varepsilon_{_{2017}}  ight)^1$	2020D	2021D	2022D	2023D	2024D	RP3 to date
Total costs	9.24	7.52	7.13	8.47	9.16	23.90
New major investments	0.66	0.71	0.70	1.20	1.19	2.07
% New major investments in total costs of investments	7%	9%	10%	14%	13%	9%
Other new investments	0	0.55	1.21	2.52	3.84	1.76
% Other new investments in total costs of investments	0%	7%	17%	30%	42%	7%
Existing investments	8.58	6.27	5.23	4.74	4.13	20.08
% Existing investments in total costs of investments	93%	83%	73%	56%	45%	84%

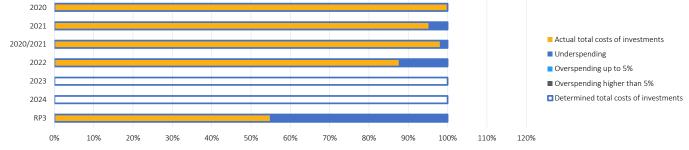
2020A	2021A	2022A	2023A	2024A	RP3 to date
9.24	6.09	5.74	-	-	21.07
0.66	0.68	0.70	-	-	2.04
7%	11%	12%	-	-	10%
0	0	0	-	-	0
0%	0%	0%	-	-	0%
8.58	5.41	5.03	-	-	19.03
93%	89%	88%	-	-	90%
	9.24 0.66 7% 0 0% 8.58	9.24         6.09           0.66         0.68           7%         11%           0         0           0%         0%           8.58         5.41	9.24         6.09         5.74           0.66         0.68         0.70           7%         11%         12%           0         0         0           0%         0%         0%           8.58         5.41         5.03	9.24         6.09         5.74         -           0.66         0.68         0.70         -           7%         11%         12%         -           0         0         0         -           0%         0%         0%         -           8.58         5.41         5.03         -	9.24         6.09         5.74         - <th< td=""></th<>

Actual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
Total difference	0	(1.43)	(1.40)	-	-	(2.83)
New major investments	0	(0.03)	0.01	-	-	(0.02)
% change of actual with respect to determined	0%	-4%	1%	-	-	-1%
Other new investments	0	(0.55)	0	-	-	(0.55)
% change of actual with respect to determined	0%	0%	0%	-	-	-100%
Existing investments	0	(0.85)	(0.20)	-	-	(1.05)
% change of actual with respect to determined	0%	-14%	-4%	-	-	-5%

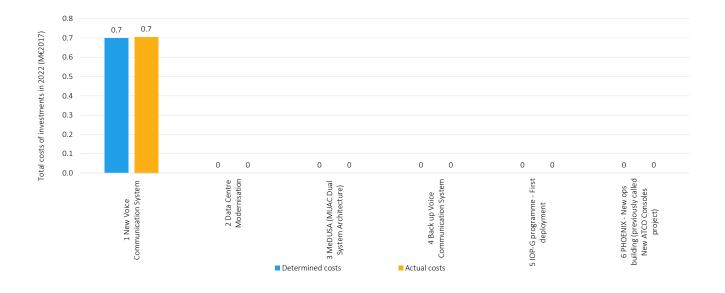




Determined costs by nature (M€ <sub>2017</sub> )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to date
Total costs of new and existing investments	9.24	6.40	15.65	6.55	7.82	8.45	22.20
Depreciation	9.10	6.17	15.27	6.25	7.47	8.03	21.52
Cost of capital	0.14	0.24	0.38	0.30	0.35	0.41	0.68
Cost of leasing	0	0	0	0	0	0	0
Actual costs by nature (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to date
Total costs of new and existing investments	9.24	6.09	15.33	5.74	-	-	21.07
Depreciation	9.10	5.92	15.02	5.57	-	-	20.59
Cost of capital	0.14	0.17	0.31	0.17	-	-	0.48
Cost of leasing	0	0	0	0	-	-	0
Actual minus determined costs (M $\epsilon_{2017}$ )	2020	2021	2020/2021	2022	2023	2024	RP3 to date
Total difference	0	(0.31)	(0.31)	(0.82)	-	-	(1.13
Depreciation	0	(0.25)	(0.25)	(0.69)	-	-	(0.93
Cost of capital	0	(0.07)	(0.07)	(0.13)	-	-	(0.19
Cost of leasing	0	0	0	0	-	-	0



COSTS BY NEW MAJOR INVESTMENTS					l	MUAC   MUAC
Determined costs $(M \epsilon_{2017})^1$	2020D	2021D	2022D	2023D	2024D	RP3 to date
Total costs of investments	0.66	0.71	0.70	1.20	1.19	2.07
1 New Voice Communication System	0.66	0.71	0.70	0.69	0.68	2.07
2 Data Centre Modernisation	0	0	0	0.51	0.51	0
3 MeDUSA (MUAC Dual System Architecture)	0	0	0	0	0	0
4 Back up Voice Communication System	0	0	0	0	0	0
5 IOP-G programme - First deployment	0	0	0	0	0	0
6 PHOENIX - New ops building (previously called New ATCO Consoles project)	0	0	0	0	0	0
Actual costs (M€ <sub>2017</sub> )	2020A	2021A	2022A	2023A	2024A	RP3 to date
Total costs of investments	0.66	0.68	0.70	-	-	2.04
1 New Voice Communication System	0.66	0.68	0.70	-	-	2.04
2 Data Centre Modernisation	0	0	0	-	-	0
3 MeDUSA (MUAC Dual System Architecture)	0	0	0	-	-	0
4 Back up Voice Communication System	0	0	0	-	-	0
5 IOP-G programme - First deployment	0	0	0	-	-	0
6 PHOENIX - New ops building (previously called New ATCO Consoles project)	0	0	0	-	-	0
Actual minus determined costs of investments (M $\varepsilon_{2017}$ )	2020	2021	2022	2023	2024	RP3 to date
Total difference in costs of investments	0	(0.03)	0.01	-	-	(0.02)
1 New Voice Communication System	0	(0.03)	0.01	-	-	(0.02)
2 Data Centre Modernisation	0	0	0	-	-	0
3 MeDUSA (MUAC Dual System Architecture)	0	0	0	-	-	0
4 Back up Voice Communication System	0	0	0	-	-	0
5 IOP-G programme - First deployment	0	0	0	-	-	0
6 PHOENIX - New ops building (previously called New ATCO Consoles project)	0	0	0	-	-	0



138/206

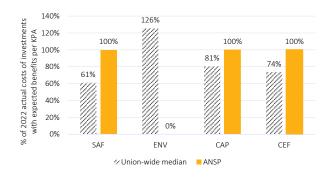
### EXPECTED BENEFIT AND IMPACT PER NEW MAJOR INVESTMENT MUAC | MUAC

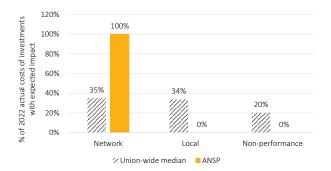
New major investments	Expected benefit per KPA					
	SAF	ENV	CAP	CEF		
1 New Voice Communication System	Х		Х	Х		
2 Data Centre Modernisation	Х	Х	Х			
3 MeDUSA (MUAC Dual System Architecture)			Х			
4 Back up Voice Communication System				Х		
5 IOP-G programme - First deployment	Х	Х		Х		
6 PHOENIX - New ops building (previously called New ATCO Consoles project)		Х	Х			

### # New major investments

	Network	Local	Non-performance
1 New Voice Communication System	Х		
2 Data Centre Modernisation			х
3 MeDUSA (MUAC Dual System Architecture)		Х	
4 Back up Voice Communication System			
5 IOP-G programme - First deployment			

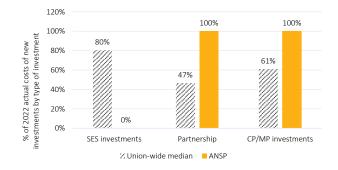
6 PHOENIX - New ops building (previously called New ATCO Consoles project)

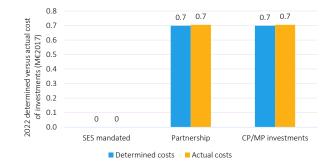




Expected impact

# New major investments	EIO Date <sup>1</sup>	Status	SES Reg.	Partnership	ATM sy	/stem
					ATM sytem	CP/ MP <sup>2</sup>
1 New Voice Communication System	2017	Started	No	Yes	Yes	MP
2 Data Centre Modernisation	2023	Not started	No	No	No	-
3 MeDUSA (MUAC Dual System Architecture)	2025	Not started	No	No	Yes	MP
4 Back up Voice Communication System	2027	Not started	No	No	Yes	MP
5 IOP-G programme - First deployment	2029	Not started	Yes	Yes	Yes	CP
6 PHOENIX - New ops building (previously called New ATCO Consoles project)	2026	Not started	No	No	No	-

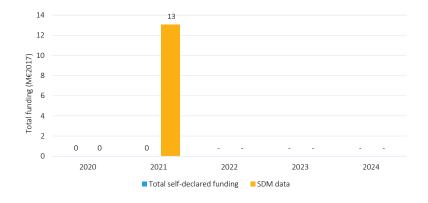


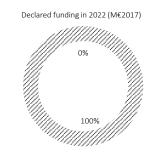


KPAs: SAF = Safety, ENV = Environment, CAP = Capacity, CEF = Cost-efficiency. 1. EOI date = Date of entry into operation

2. CP/MP = Common Project and Master Plan

PUBLIC FUNDING GRANTED FOR TOTAL CAPEX (CEF/TEN-T)					1	MUAC   MUAC
Actual funding declaration (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
Total funding declared	-	-	-	-	- 1	-
En route funding declared	-	-	-	-	-	-
En route funding that could not be assigned to a specific investment	-	-	-	-	-	-
Terminal funding	-	-	-	-	-	-
Terminal funding that could not be assigned to a specific investment	-	-	-	-	-	-
Actual funding declaration vs payments (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
Difference between total funding declared vs received	-	(13.06)	-	-	- 1	(13.06)
Total included in the funding declaration (reporting tables)	-	-	-	-	-	-
SDM Payment	-	13.06	-	-	-	13.06





⊘ Union-wide ■ ANSP

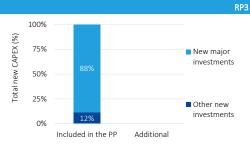
The reporting tables submitted by the Member States include the funding received at charging zone level. MUAC is included in three different charging zones (Belgium-Luxembourg, Germany, and the Netherlands), however the reporting tables do not specify the entity (ANSP) that received the funding. The SESAR Deployment Manager reports the data by ANSP, indicating a payment of  $13M \epsilon_{2017}$  for MUAC.

The actual costs related to investments of the Netherlands for en route and terminal in 2022 are in line with to the determined costs. The Netherlands planned eight new major investments for RP3, six of which have started, and two have been marked as delayed.

### CAPEX FOR NEW INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

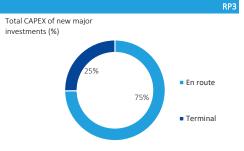
### Determined and additional CAPEX by value of individual investments (M€2017)

APEX for new investments	280.56	% of total
New major investments (above 5M€ each) <sup>1</sup>	247.97	88%
Included in the performance plan	247.97	88%
Additional <sup>2</sup>	0	0%
Other new investments (below 5M€ each) <sup>3</sup>	32.58	12%
Included in the performance plan	32.58	12%
Additional	0	0%



### Determined CAPEX: en route and terminal (M€2017)

Total CAPEX for new major investments	247.97	% of total
En route	185.50	75%
Terminal	62.48	25%



# Determined CAPEX by type of investment (M€<sub>2017</sub>)

Total CAPEX for new major investments	247.97	% of total
ATM systems	186.89	75%
CNS systems	26.37	11%
Infrastructure	34.72	14%
Other	0	0%
Unknown	0	0%

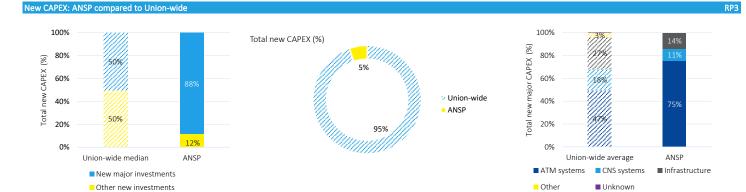


The Union-wide average values have a high standard deviation: ATM systems

(31%), CNS systems (21%), infrastructure (24%), Other (21%), unknown (1%).

Infrastructure

RP3



1. New major investments: "acquisition, development, replacement, upgrade, or leasing of fixed assets representing a total value over the whole lifetime of the assets greater than EUR 5 million in real terms " (Reg. 2019/317 art. 2 (13)).

Unless otherwise stated, the Union-wide median values are reported as a

measure of central tendency that is robust to outliers.

2. Additional investments are those investments not foreseen as part of the performance plan.

3. Other new investments: new investments or replacements/upgrades of existing assets representing a total value over the whole lifetime of the asset below 5M€ in real terms.

NETHERLANDS | LVNL

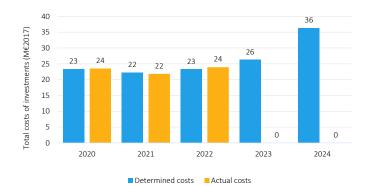
### COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

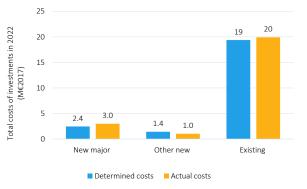
### NETHERLANDS | LVNL

etermined costs: new and existing investments $(M \boldsymbol{\varepsilon}_{2017})^1$	2020D	2021D	2022D	2023D	2024D	RP3 to date
tal costs	23.37	22.18	23.23	26.23	36.27	68.79
New major investments	4.13	1.05	2.45	5.17	15.16	7.63
% New major investments in total costs of investments	18%	5%	11%	20%	42%	11%
Other new investments	0.05	0.29	1.41	2.62	2.93	1.74
% Other new investments in total costs of investments	0%	1%	6%	10%	8%	3%
Existing investments	19.20	20.84	19.37	18.44	18.19	59.41
% Existing investments in total costs of investments	82%	94%	83%	70%	50%	86%

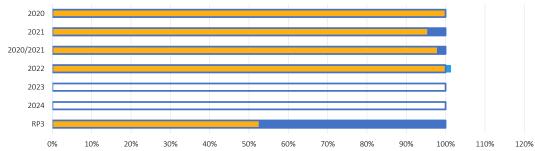
Actual costs: new and existing investments ( $M \varepsilon_{2017}$ )	2020A	2021A	2022A	2023A	2024A	RP3 to date
Total costs	23.52	21.80	23.92	-	-1	69.24
New major investments	4.28	0.98	3.00	-	-	8.25
% New major investments in total costs of investments	18%	4%	13%	-	-	12%
Other new investments	0.05	0.23	1.02	-	-	1.30
% Other new investments in total costs of investments	0%	1%	4%	-	-	2%
Existing investments	19.20	20.60	19.90	-	-	59.70
% Existing investments in total costs of investments	82%	94%	83%	-	-	86%

Actual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
Total difference	0.15	(0.38)	0.69	-	-	0.46
New major investments	0.15	(0.08)	0.55	-	-	0.62
% change of actual with respect to determined	4%	-7%	22%	-	-	8%
Other new investments	0	(0.06)	(0.39)	-	-	(0.45)
% change of actual with respect to determined	0%	-20%	-27%	-	-	-26%
Existing investments	0	(0.24)	0.53	-	-	0.29
% change of actual with respect to determined	0%	-1%	3%	-	-	0%



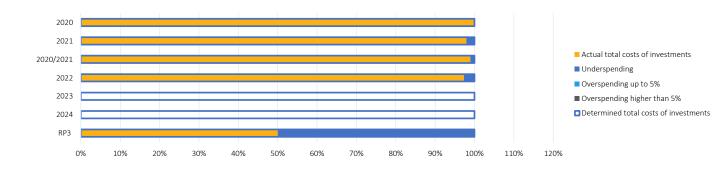


COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN	1				NET	THERLANDS - E	n route   LVNL
Determined costs by nature (M€ <sub>2017</sub> )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to date
Total costs of new and existing investments	17.44	15.76	33.20	16.47	18.53	25.50	49.67
Depreciation	17.14	15.49	32.63	16.18	17.95	24.68	48.81
Cost of capital	0.30	0.27	0.57	0.29	0.58	0.82	0.86
Cost of leasing	0	0	0	0	0	0	0
Actual costs by nature (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to date
Total costs of new and existing investments	17.44	15.02	32.46	16.68	-	-	49.13
Depreciation	17.14	14.68	31.82	16.51	-	-	48.33
Cost of capital	0.30	0.34	0.64	0.17	-	-	0.81
Cost of leasing	0	0	0	0	-	-	0
Actual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2020/2021	2022	2023	2024	RP3 to date
Total difference	0	(0.74)	(0.74)	0.21	-	- [	(0.53)
Depreciation	0	(0.81)	(0.81)	0.33	-	-	(0.48)
Cost of capital	0	0.07	0.07	(0.12)	-	-	(0.05)
Cost of leasing	0	0	0	0			0



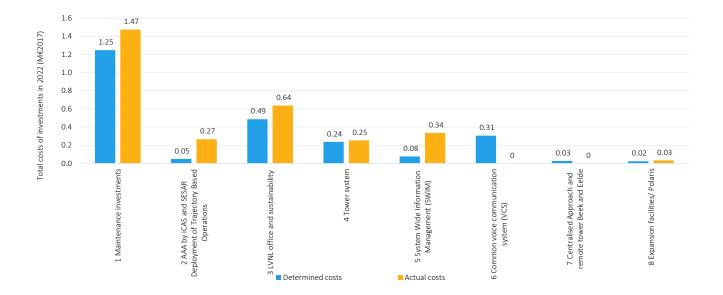
Actual total costs of investments
Underspending
Overspending up to 5%
Overspending higher than 5%
Determined total costs of investments

COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFOR	MANCE PLAN				THERLANDS - TO	ANDS - Terminal   LVNL		
Determined costs by nature (M $\epsilon_{2017}$ )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to date	
Total costs of new and existing investments	5.94	6.42	12.36	6.76	7.71	10.77	19.12	
Depreciation	5.80	6.30	12.10	6.62	7.42	10.37	18.72	
Cost of capital	0.13	0.12	0.25	0.14	0.29	0.41	0.40	
Cost of leasing	0	0	0	0	0	0	0	
Actual costs by nature (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to date	
Total costs of new and existing investments	5.94	6.29	12.22	6.58	-	-	18.81	
Depreciation	5.80	6.14	11.94	6.51	-	-	18.45	
Cost of capital	0.13	0.15	0.28	0.08	-	-	0.36	
Cost of leasing	0	0	0	0	-	-	0	
Actual minus determined costs (M $\epsilon_{2017}$ )	2020	2021	2020/2021	2022	2023	2024	RP3 to date	
Total difference	0	(0.13)	(0.13)	(0.18)	-	- [	(0.32)	
Depreciation	0	(0.16)	(0.16)	(0.11)	-	-	(0.28)	
Cost of capital	0	0.03	0.03	(0.07)	-	-	(0.04)	
Cost of leasing	0	0	0	0		-	0	



The actual costs related to investments of the Netherlands for en route and terminal in 2022 are in line with to the determined costs. For RP3 to date, the Nethermands underspent 0.8M€<sub>2017</sub> in costs related to investments. These amounts shall be reimbursed to the airspace users through a reduction of future unit rate(s), unless the NSA decides after consultation with the users, that the ANSP shall not reimburse a part of the difference according to article 28 of Regulation (EU) 2019/317.

COSTS BY NEW MAJOR INVESTMENTS					NETHER	RLANDS   LVN
Determined costs $(M \epsilon_{2017})^1$	2020D	2021D	2022D	2023D	2024D	RP3 to dat
Total costs of investments	4.13	1.05	2.45	5.17	15.16	7.63
1 Maintenance investments	1.15	0.68	1.25	3.18	4.49	3.08
2 Replacement of AAA by iCAS and SESAR Deployment of Trajectory Based Opera	1.09	0.04	0.05	0.09	7.47	1.19
3 LVNL office and sustainability	0.03	0.21	0.49	0.56	0.89	0.73
4 Tower system	1.26	0.03	0.24	0.22	0.20	1.5
5 System Wide Information Management (SWIM)	0.58	0.06	0.08	0.34	0.77	0.7
6 Common voice communication system (VCS)	0	0.01	0.31	0.72	0.70	0.3
7 Centralised Approach and remote tower Beek and Eelde	0	0.00	0.03	0.03	0.61	0.03
8 Expansion facilities/ Polaris	0.02	0.02	0.02	0.02	0.02	0.0
Actual costs (M€ <sub>2017</sub> )	2020A	2021A	2022A	2023A	2024A	RP3 to dat
Fotal costs of investments	4.28	0.98	3.00	-	-	8.2
1 Maintenance investments	1.30	0.76	1.47	-	-	3.5
2 Replacement of AAA by iCAS and SESAR Deployment of Trajectory Based Opera	1.09	0.04	0.27	-	-	1.4
3 LVNL office and sustainability	0.03	0.15	0.64	-	-	0.8
4 Tower system	1.26	0.02	0.25	-	-	1.5
5 System Wide Information Management (SWIM)	0.58	0.01	0.34	-	-	0.9
6 Common voice communication system (VCS)	0	0	0	-	-	
7 Centralised Approach and remote tower Beek and Eelde	0	0	0	-	-	
8 Expansion facilities/ Polaris	0.02	0.00	0.03	-	-	0.0
Actual minus determined costs of investments (M $\varepsilon_{2017}$ )	2020	2021	2022	2023	2024	RP3 to dat
Total difference in costs of investments	0.15	(0.07)	0.88	-	-	0.9
1 Maintenance investments	0.15	0.08	0.23	-	-	0.4
2 Replacement of AAA by iCAS and SESAR Deployment of Trajectory Based Opera	(0.00)	(0.01)	0.22	-	-	0.2
3 LVNL office and sustainability	0	(0.07)	0.15	-	-	0.0
4 Tower system	0	(0.01)	0.02	-	-	0.0
5 System Wide Information Management (SWIM)	0	(0.05)	0.26	-	-	0.2
6 Common voice communication system (VCS)	0	0	0	-	-	
7 Centralised Approach and remote tower Beek and Eelde	0	0	0	-	-	
8 Expansion facilities/ Polaris	0	(0.02)	0.01	-	-	(0.0



1. Determined costs comprise depreciation costs, cost of capital, and cost of leasing in the performance plans.

144/206

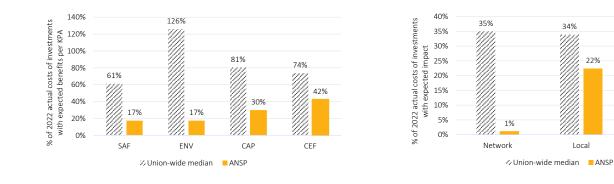
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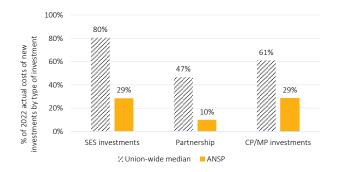
Non-performance

ECTED BENEFIT AND IMPACT PER NEW MAJOR INVESTMENT			NETH	ERLANDS   L					
# New major investments	Expected benefit	Expected benefit per KPA							
	SAF	ENV	CAP	CEF					
1 Maintenance investments									
2 Replacement of AAA by iCAS and SESAR Deployment of Trajectory Based Operations	Х	Х	Х	Х					
3 LVNL office and sustainability				Х					
4 Tower system	Х	Х	Х						
5 System Wide Information Management (SWIM)			Х	Х					
6 Common voice communication system (VCS)	Х		Х	Х					
7 Centralised Approach and remote tower Beek and Eelde				Х					
8 Expansion facilities/ Polaris			Х	Х					

# New major investments	Expected impact	
	Network Local Non-performance	
1 Maintenance investments		
2 Replacement of AAA by iCAS and SESAR Deployment of Trajectory Based Operations		
3 LVNL office and sustainability	Х	
4 Tower system		
5 System Wide Information Management (SWIM)		
6 Common voice communication system (VCS)	ХХХ	
7 Centralised Approach and remote tower Beek and Eelde	Х	
8 Expansion facilities/ Polaris	ХХХ	



# New major investments	EIO Date <sup>1</sup>	Status	SES Reg.	Partnership	ATM sy	/stem
					ATM sytem	CP/ MP <sup>2</sup>
1 Maintenance investments	2020-2024	Started	No	No	Yes	-
2 Replacement of AAA by iCAS and SESAR Deployment of Trajectory Based Opera	2023	Started	Yes	Yes	Yes	CP
3 LVNL office and sustainability	2020-2024	Started	No	No	No	-
4 Tower system	2020-2024	Started	Yes	No	Yes	CP
5 System Wide Information Management (SWIM)	2020-2024	Started	Yes	No	Yes	CP
6 Common voice communication system (VCS)	2022	Delayed	No	Yes	Yes	MP
7 Centralised Approach and remote tower Beek and Eelde	2024	Delayed	No	No	Yes	MP
8 Expansion facilities/ Polaris	2019-2024	Started	No	Yes	No	-





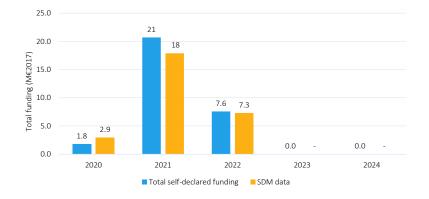
KPAs: SAF = Safety, ENV = Environment, CAP = Capacity, CEF = Cost-efficiency.

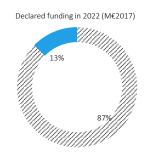
1. EOI date = Date of entry into operation

2. CP/MP = Common Project and Master Plan

The new major investments 6 and 7 have been marked as delayed, as the Netherlands did not report actual costs so far, while costs were determined for those investments.

PUBLIC FUNDING GRANTED FOR TOTAL CAPEX (CEF/TEN-T)					NETHER	RLANDS   LVNL
Actual funding declaration (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
Total funding declared	1.77	20.69	7.58	-	-	30.04
En route funding declared	2.02	18.95	5.10	-	-	26.08
En route funding that could not be assigned to a specific investment	(0.89)	18.95	5.10	-	-	23.16
Replacement of AAA by iCAS and SESAR Deployment of TBO	2.91	15.53	5.10	-	-	23.55
System Wide Information Management (SWIM)	-	0.27	5.10	-	-	5.37
Terminal funding	(0.25)	1.74	2.47	-	-	3.96
Terminal funding that could not be assigned to a specific investment	(0.25)	1.74	2.47	-	-	3.96
Actual funding declaration vs payments (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
Difference between total funding declared vs received	(1.14)	2.80	0.28	-	-	1.94
Total included in the funding declaration (reporting tables)	1.77	20.69	7.58	-	-	30.04
SDM Payment	2.91	17.89	7.30	-	-	28.10





⊘ Union-wide ■ ANSP

The Netherlands reported 7.6M€<sub>2017</sub> funding in 2022. SESAR Deployment Manager data indicates a payment of 7.3M€<sub>2017</sub> in 2022. For RP3 to date, the Netherlands declared 30M€<sub>2017</sub> of funding, while SESAR Deployment Manager data indicates a payment of 28M€<sub>2017</sub>.

Norway underspent 0.4M C2017 (-1.5%) in costs related to investments in 2022 compared to the determined costs. Norway planned two new major investments for RP3, one of which has started.

### CAPEX FOR NEW INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

### Determined and additional CAPEX by value of individual investments (M€<sub>2017</sub>)

APEX for new investments	53.57	% of total
New major investments (above 5M€ each) <sup>1</sup>	14.38	27%
Included in the performance plan	14.38	27%
Additional <sup>2</sup>	0	0%
Other new investments (below 5M€ each) <sup>3</sup>	39.20	73%
Included in the performance plan	39.20	73%
Additional	0	0%



### Determined CAPEX: en route and terminal (M€<sub>2017</sub>)

Total CAPEX for new major investments	14.38	% of total
En route	14.38	100%
Terminal	0	0%

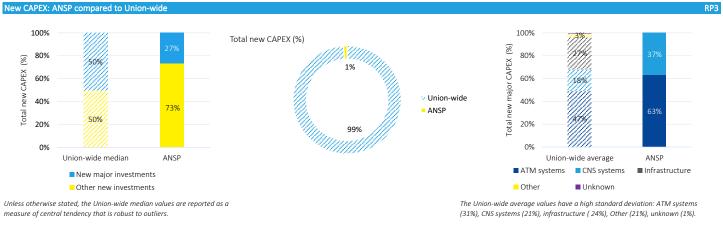


# Determined CAPEX by type of investment (M $\epsilon_{2017}$ )

Total CAPEX for new major investments	41.92	% of total
ATM systems	26.48	63%
CNS systems	15.44	37%
Infrastructure	0	0%
Other	0	0%
Unknown	0	0%



RP3



1. New major investments: "acquisition, development, replacement, upgrade, or leasing of fixed assets representing a total value over the whole lifetime of the assets greater than EUR 5 million in real terms" (Reg. 2019/317 art. 2 (13)).

2. Additional investments are those investments not foreseen as part of the performance plan.

3. Other new investments: new investments or replacements/upgrades of existing assets representing a total value over the whole lifetime of the asset below 5M€ in real terms.

NORWAY | Avinor

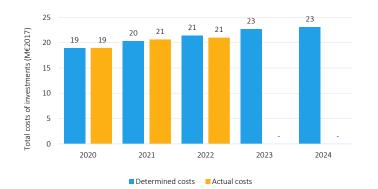
### COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

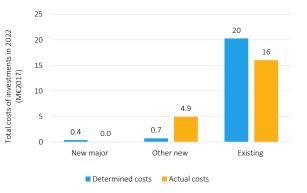
NORWAY | Avinor

Determined costs: new and existing investments $\left(M \boldsymbol{\epsilon}_{\mathtt{2017}}  ight)^1$	2020D	2021D	2022D	2023D	2024D	RP3 to date
Total costs	18.97	20.26	21.37	22.64	23.07	60.60
New major investments	0	0.05	0.38	0.81	1.74	0.43
% New major investments in total costs of investments	0%	0%	2%	4%	8%	1%
Other new investments	0	0	0.72	1.41	2.29	0.72
% Other new investments in total costs of investments	0%	0%	3%	6%	10%	1%
Existing investments	18.97	20.21	20.28	20.42	19.03	59.45
% Existing investments in total costs of investments	100%	100%	95%	90%	83%	98%

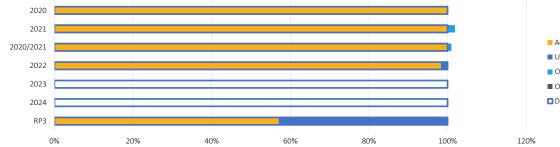
Actual costs: new and existing investments (M $\varepsilon_{2017}$ )	2020A	2021A	2022A	2023A	2024A	RP3 to date
Total costs	18.97	20.64	21.00	-	-	60.60
New major investments	0	0.05	0.04	-	-	0.09
% New major investments in total costs of investments	0%	0%	0%	-	-	0%
Other new investments	0	0	4.93	-	-	4.93
% Other new investments in total costs of investments	0%	0%	23%	-	-	8%
Existing investments	18.97	20.58	16.03	-	-	55.58
% Existing investments in total costs of investments	100%	100%	76%	-	-	92%

2020	2021	2022	2023	2024	RP3 to date
0	0.38	(0.37)	-	-	0.01
0	0.01	(0.34)	-	-	(0.34)
0%	15%	-90%	-	-	-79%
0	0	4.22	-	-	4.22
0%	0%	588%	-	-	588%
0	0.37	(4.25)	-	-	(3.87)
0%	2%	-21%	-	-	-7%
	0 0% 0% 0% 0%	0         0.38           0         0.01           0%         15%           0         0           0%         0%           0%         0%           0         0.37	0         0.38         (0.37)           0         0.01         (0.34)           0%         15%         -90%           0         0         4.22           0%         0%         588%           0         0.37         (4.25)	0         0.38         (0.37)         -           0         0.01         (0.34)         -           0%         15%         -90%         -           0         0         4.22         -           0%         0%         588%         -           0%         0.37         (4.25)         -	0         0.38         (0.37)         -         -           0         0.01         (0.34)         -         -           0%         15%         -90%         -         -           0         0         4.22         -         -           0%         0%         588%         -         -           0         0.37         (4.25)         -         -



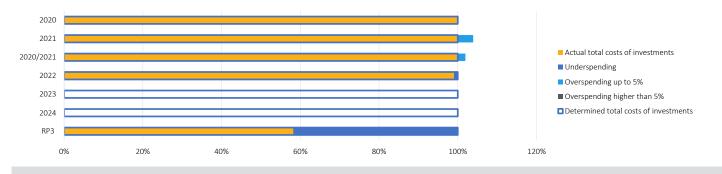


COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFOR	RMANCE PLAN					NORWAY - En	route   Avinor
Determined costs by nature (M€ <sub>2017</sub> )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to date
Total costs of new and existing investments	18.97	20.26	39.22	21.37	22.64	23.07	60.60
Depreciation	13.02	13.26	26.28	13.44	13.71	13.29	39.71
Cost of capital	5.95	6.99	12.94	7.94	8.93	9.78	20.88
Cost of leasing	0	0	0	0	0	0	0
Actual costs by nature (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to date
Total costs of new and existing investments	18.97	20.64	39.60	21.00	-	-	60.60
Depreciation	13.02	12.49	25.50	11.92	-	-	37.43
Cost of capital	5.95	8.15	14.10	9.08	-	-	23.18
Cost of leasing	0	0	0	0	-	-	0
Actual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2020/2021	2022	2023	2024	RP3 to date
Total difference	0	0.38	0.38	(0.37)	-	-	0.01
Depreciation	0	(0.78)	(0.78)	(1.51)	-	-	(2.29)
Cost of capital	0	1.15	1.15	1.14	-	-	2.30
Cost of leasing	0	0	0	0	-	-	0



Actual	total costs of investments
Unders	spending
Oversp	ending up to 5%
Oversp	ending higher than 5%
Detern	nined total costs of investment

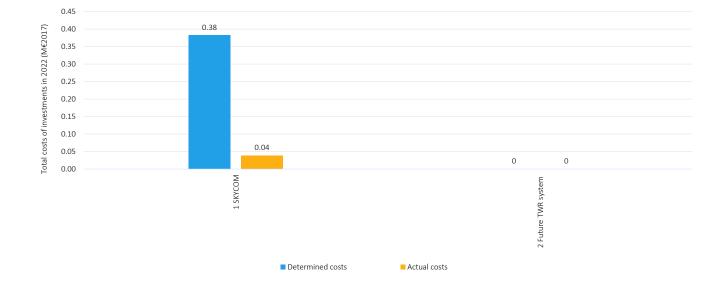
COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFOR	MANCE PLAN					NORWAY - Ter	minal   Avinor
Determined costs by nature (M€ <sub>2017</sub> )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to date
Total costs of new and existing investments	7.51	7.33	14.84	7.19	7.86	8.34	22.03
Depreciation	4.27	3.99	8.26	3.83	4.11	4.10	12.09
Cost of capital	3.24	3.34	6.58	3.36	3.75	4.24	9.94
Cost of leasing	0	0	0	0	0	0	0
Actual costs by nature (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to date
Total costs of new and existing investments	7.51	7.61	15.12	7.12	-	-	22.24
Depreciation	4.27	4.22	8.49	3.74	-	-	12.23
Cost of capital	3.24	3.39	6.63	3.38	-	-	10.01
Cost of leasing	0	0	0	0	-	-	0
Actual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2020/2021	2022	2023	2024	RP3 to date
Total difference	0	0.29	0.29	(0.07)	-	-	0.21
Depreciation	0	0.23	0.23	(0.08)	-	-	0.15
Cost of capital	0	0.05	0.05	0.01	-	-	0.07
Cost of leasing	0	0	0	0	_		0



Norway underspent  $0.4M \in_{2017}$  in costs related to investments (-0.4M  $\in_{2017}$  in en route and -0.1M  $\in_{2017}$  in terminal) in 2022. However, for RP3 to date, Norway overspent  $0.2M \in_{2017}$  in costs related to investments.

1	50	٦/	5	$\cap$	4
- 1	30	J/	Z	U	0

COSTS BY NEW MAJOR INVESTMENTS					NO	RWAY   Avinor
Determined costs (M€ <sub>2017</sub> ) <sup>1</sup>	2020D	2021D	2022D	2023D	2024D	RP3 to date
Total costs of investments	0	0.05	0.38	0.81	1.74	0.43
1 SKYCOM	0	0.05	0.38	0.78	1.69	0.43
2 Future TWR system	0	0	0	0.03	0.05	0
Actual costs (M€ <sub>2017</sub> )	2020A	2021A	2022A	2023A	2024A	RP3 to date
Total costs of investments	0	0.05	0.04	-	- [	0.09
1 SKYCOM	0	0.05	0.04	-	-	0.09
2 Future TWR system	0	0	-	-	-	0
Actual minus determined costs of investments ( $M \varepsilon_{2017}$ )	2020	2021	2022	2023	2024	RP3 to date
Total difference in costs of investments	0	0.01	(0.34)	-	-	(0.34)
1 SKYCOM	0	0.01	(0.34)	-	-	(0.34)
2 Future TWR system	0	0	-	-	-	0

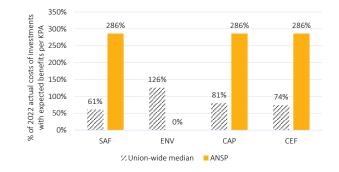


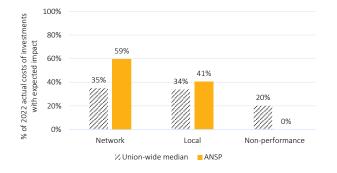
1. Determined costs comprise depreciation costs, cost of capital and cost of leasing in the performance plans.

### 151/206

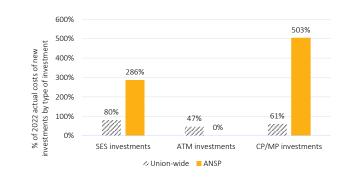
EXPECTED BENEFIT AND IMPACT PER NEW MAJOR INVESTMENT				NORWAY   Avinor
# New major investments				
	SA	E EN	IV CAP	CEF
1 SKYCOM				
2 Future TWR system				







# New major investments	EIO Date <sup>1</sup>	Status	SES Reg.	Partnership	ATM sy	stem
					ATM sytem	CP/ MP <sup>2</sup>
1 SKYCOM	01/09/2024	Started	No	No	No	MP
2 Future TWR system	Unknown	Not started	No	No	No	CP





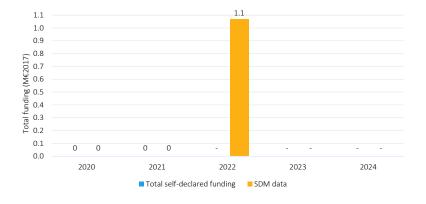
KPAs: SAF = Safety, ENV = Environment, CAP = Capacity, CEF = Cost-efficiency.

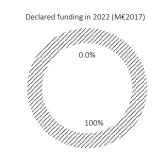
1. EOI date = Date of entry into operation

2. CP/MP = Common Project and Master Plan

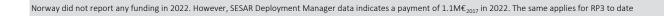
152/206

PUBLIC FUNDING GRANTED FOR TOTAL CAPEX (CEF/TEN-T)						
Actual funding declaration (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
Total funding declared	-	-	-	-	- 1	-
En route funding declared	-	-	-	-	-	-
En route funding that could not be assigned to a specific investment	-	-	-	-	-	-
Terminal funding	-	-	-	-	-	-
Terminal funding that could not be assigned to a specific investment	-	-	-	-	-	-
Actual funding declaration vs payments (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
Difference between total funding declared vs received	-	-	(1.07)	-	- 1	(1.07)
Total included in the funding declaration (reporting tables)	-	-	-	-	-	-
SDM Payment	-	-	1.07	-	-	1.07





≥ Union-wide ■ ANSP

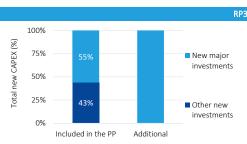


Poland overspent  $0.3M \in_{2017} (+0.6\%)$  in costs related to investments for en route and terminal in 2022 compared to the determined costs. Poland planned 12 new major investments for RP3, 11 of which have started and one is expected to start in 2024. Poland planned one additional new major investment compared to its performance plan, which has started.

### CAPEX FOR NEW INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

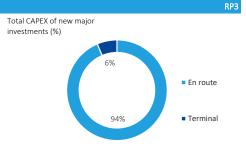
### Determined and additional CAPEX by value of individual investments (M $\varepsilon_{2017}$ )

CAPEX for new investments	223.33	% of total
New major investments (above 5M€ each) <sup>1</sup>	127.78	57%
Included in the performance plan	122.39	55%
Additional <sup>2</sup>	5.39	2%
Other new investments (below 5M€ each) <sup>3</sup>	95.56	43%
Included in the performance plan	95.56	43%
Additional	0	0%

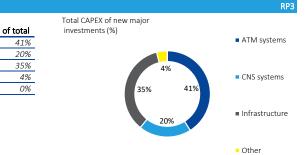


Determined CAPEX: en route and terminal ( $M \varepsilon_{2017}$ )	

Total CAPEX for new major investments	127.78	% of total
En route	119.61	94%
Terminal	8.17	6%



Determined CAPEX by type of investment (M $\varepsilon_{2017}$ )		
Total CAPEX for new major investments	122.39	%
ATM systems	50.25	
CNS systems	24.10	
Infrastructure	43.15	
Other	4.89	



New CAPEX: ANSP compared to Union-wide RP3 100% 100% Total new CAPEX (%) (%) 80% (%) 80% 50% Total new major CAPEX 4% Total new CAPEX 60% 60% Union-wide 40% 40% ANSP 50% 43% 20% 96% 20% 41% 0% Union-wide median ANSP 0% Union-wide average ANSP New major investments Other new investments ■ ATM systems ■ CNS systems ■ Infrastructure Other Unknown Unless otherwise stated, the Union-wide median values are reported

0

as a measure of central tendency that is robust to outliers.

Unknown

1. New major investments: "acquisition, development, replacement, upgrade, or leasing of fixed assets representing a total value over the whole lifetime of the assets greater than EUR 5 million in real terms" (Reg. 2019/317 art. 2 (13)).

2. Additional investments are those investments not foreseen as part of the performance plan.

3. Other new investments: new investments or replacements/upgrades of existing assets representing a total value over the whole lifetime of the asset below 5M€ in real terms.

POLAND | PANSA

### COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

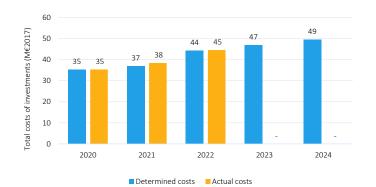
## 154/206

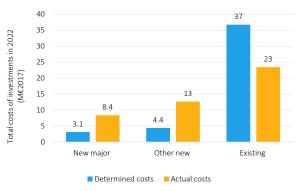
### POLAND | PANSA

Determined costs: new and existing investments $\left(M\varepsilon_{2017} ight)^1$	2020D	2021D	2022D	2023D	2024D	RP3 to date
Total costs	35.28	36.80	44.22	46.78	49.32	116.31
New major investments	0.69	1.12	3.11	5.21	8.19	4.93
% New major investments in total costs of investments	2%	3%	7%	11%	17%	4%
Other new investments	0.48	1.16	4.37	7.88	10.16	6.01
% Other new investments in total costs of investments	1%	3%	10%	17%	21%	5%
Existing investments	34.12	34.51	36.74	33.70	30.97	105.37
% Existing investments in total costs of investments	97%	94%	83%	72%	63%	91%

Actual costs: new and existing investments $(M \varepsilon_{2017})$	2020A	2021A	2022A	2023A	2024A	RP3 to date
Total costs	35.28	38.35	44.50	-	-	118.14
New major investments	0.69	5.95	8.38	-	-	15.03
% New major investments in total costs of investments	2%	16%	19%	-	-	13%
Other new investments	0.48	9.66	12.66	-	-	22.79
% Other new investments in total costs of investments	1%	25%	28%	-	-	19%
Existing investments	34.12	22.74	23.46	-	-	80.32
% Existing investments in total costs of investments	97%	59%	53%	-	-	68%

Actual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
Total difference	0	1.56	0.28	-	-	1.84
New major investments	0	4.83	5.27	-	-	10.10
% change of actual with respect to determined	0%	430%	169%	-	-	205%
Other new investments	0	8.50	8.29	-	-	16.79
% change of actual with respect to determined	0%	732%	190%	-	-	279%
Existing investments	0	(11.77)	(13.28)	-	-	(25.05)
% change of actual with respect to determined	0%	-34%	-36%	-	-	-24%





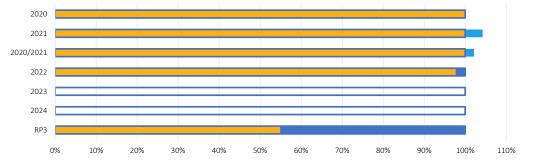
Determined costs: determined and additional investments ${(M} {f { f } }_{2017})^1$	2020D	2021D	2022D	2023D	2024D	RP3 to dat
Fotal costs of investments	35.28	36.81	44.37	47.26	49.32	35.2
Performance plan	35.28	36.80	44.22	46.78	49.32	35.2
New major investments	0.69	1.12	3.11	5.21	8.19	0.6
Other new investments	0.48	1.16	4.37	7.88	10.16	0.4
Existing investments	34.12	34.51	36.74	33.70	30.97	34.1
Additional <sup>2</sup>	-	0.02	0.14	0.48	-	0.6
Additional new major investments	-	0.02	0.14	0.48	-	0.6
Additional other new investments	-	-	-	-	-	
Actual costs: determined and additional investments ( $M \varepsilon_{2017}$ )	2020A	2021A	2022A	2023A	2024A	RP3 to dat
otal costs of investments	35.28	38.36	44.50	-	-	35.2
Performance plan	35.28	38.35	44.50	-	-	35.2
New major investments	0.69	5.95	8.38	-	-	0.6
Other new investments	0.48	9.66	12.66	-	-	0.4
Existing investments	34.12	22.74	23.46	-	-	34.1
Additional	-	0.00	0.00	-	-	0.0
Additional new major investments	=	0.00	0.00	-	-	0.0
Additional other new investments	-	-	-	-	-	
Actual versus determined costs (M€2017)	2020	2021	2022	2023	2024	RI
Total difference	-	1.54	0.14	(47.26)	(49.32)	
Performance plan	-	1.56	0.28	-	-	
New major investments	-	4.83	5.27	-	-	
Other new investments	-	8.50	8.29	-	-	
Existing investments	-	(11.77)	(13.28)	-	-	-
Additional	-	0.00	0.00	-	-	
Additional new major investments	-	0.00	0.00	-	-	
Additional other new investments	-	-	-	-	-	

155/206

1. The performance plan costs related to investments comprise depreciation cost, cost of capital and cost of leasing.

2. Additional investments are those investments not foreseen as part of the performance plan.

COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFOR	RMANCE PLAN					POLAND - En	route   PANSA
Determined costs by nature (M€ <sub>2017</sub> )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to date
Total costs of new and existing investments	30.48	31.15	61.63	37.69	40.08	42.45	99.33
Depreciation	23.17	23.47	46.64	24.64	25.54	26.61	71.28
Cost of capital	5.90	6.20	12.10	11.49	12.92	14.21	23.59
Cost of leasing	1.41	1.48	2.89	1.56	1.63	1.63	4.46
Actual costs by nature (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to date
Total costs of new and existing investments	30.48	32.48	62.96	36.81	-	-	99.77
Depreciation	23.17	24.57	47.74	23.54	-	-	71.28
Cost of capital	5.90	6.48	12.39	11.82	-	-	24.21
Cost of leasing	1.41	1.42	2.83	1.46	-	-	4.29
Actual minus determined costs (M $\varepsilon_{2017}$ )	2020	2021	2020/2021	2022	2023	2024	RP3 to date
Total difference	0	1.32	1.32	(0.88)	-	-	0.44
Depreciation	0	1.10	1.10	(1.10)	-	-	(0.00)
Cost of capital	0	0.29	0.29	0.33	-	-	0.61
Cost of leasing	0	(0.06)	(0.06)	(0.11)	-	-	(0.17)



Actual total costs of investments

Underspending

Overspending up to 5%

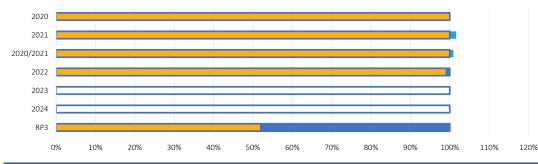
Overspending higher than 5%

Determined total costs of investments

120%

156/206

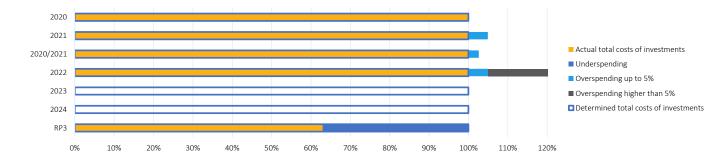
COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFOR	MANCE PLAN				POLA	ND TCZ 1 - Ter	minal   PANSA
Determined costs by nature (M $\epsilon_{2017}$ )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to date
Total costs of new and existing investments	0.99	1.30	2.29	1.63	1.71	1.95	3.92
Depreciation	0.76	0.98	1.74	1.07	1.09	1.22	2.81
Cost of capital	0.18	0.23	0.41	0.46	0.52	0.63	0.88
Cost of leasing	0.05	0.09	0.14	0.09	0.10	0.10	0.24
Actual costs by type of cost (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to date
Total costs of new and existing investments	0.99	1.32	2.32	1.61	-	-	3.92
Depreciation	0.76	1.00	1.76	1.04	-	-	2.80
Cost of capital	0.18	0.24	0.42	0.47	-	-	0.89
Cost of leasing	0.05	0.09	0.14	0.10	-	-	0.24
Actual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2020/2021	2022	2023	2024	RP3 to date
Total difference	0	0.02	0.02	(0.02)	-	-	0.00
Depreciation	0	0.02	0.02	(0.03)	-	-	(0.01)
Cost of capital	0	0.01	0.01	0.01	-	-	0.02
Cost of leasing	0	(0.00)	(0.00)	0.00	-	-	(0.00)





Determined total costs of investments

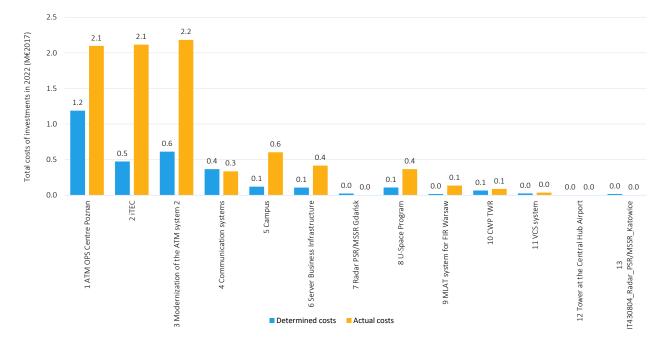
COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN POLAND TCZ 2 - Terminal | PANSA Determined costs by nature (M€2017) 2020D 2020D/2021D 2023D 2024D **RP3 to date** 3.81 4.34 8.15 4.90 4.99 4.92 Total costs of new and existing investments 13.06 Depreciation 2.90 3.26 6.15 3.20 3.27 3.25 9.36 Cost of capital 0.71 0.79 1.51 1.41 1.43 1.39 2.92 Cost of leasing 0.20 0.29 0.49 0.29 0.29 0.28 0.78 Actual costs by type of cost (M€2017) 2020A 2021A Total costs of new and existing investments 3.81 4.56 8.37 6.08 14.45 Depreciation 2.90 3.44 6.33 3.98 10.31 Cost of capital 0.71 0.84 1.55 1.78 3.33 Cost of leasing 0.20 0.28 0.49 0.31 0.80 Actual minus determined costs (M€2017) 2020/2021 RP3 to date 2024 Total difference 0 0.21 0.21 1.18 1.39 0.78 0.96 Depreciation 0 0.18 0.18 0 0.04 0.04 0.37 0.42 Cost of capital Cost of leasing 0 (0.01) (0.01) 0.02 0.02



Poland established two terminal charging zones for RP3. TCZ 1 includes the Warsaw Chopin airport, while TCZ 2 includes the Bydgoszcz, Gdańsk Im. Lecha Wałęsy, Kraków-Balice, Katowice-Pyrzowice, Lublin, Łódź, Warszawa/Modlin, Poznań-Ławica, Radom-Sadków, Rzeszów-Jasionka, Szczecin-Goleniów, Wrocław-Strachowice, Zielona Góra-Babimost, Olsztyn-Mazury airports.

COSTS BY NEW MAJOR INVESTMENTS					POI	land   Pansa
Determined costs (M€ <sub>2017</sub> ) <sup>1</sup>	2020D	2021D	2022D	2023D	2024D	RP3 to date
Fotal costs of investments	0.69	1.12	3.13	5.35	8.67	4.95
1 21440701_ATM_OPS_Centre_Poznan	0.48	0.65	1.19	1.19	1.19	2.32
2 03440701_iTEC	0.11	0.17	0.47	0.99	1.37	0.75
3 IT430900_Modernization_of_the_ATM_system_2	0.03	0.13	0.61	0.90	0.88	0.77
4 02440701_Communication_systems	0.01	0.06	0.37	0.65	0.98	0.44
5 01440701_Campus	0.06	0.06	0.12	0.42	1.35	0.24
6 IT430404_Server_Business_Infrastructure	0	0.01	0.11	0.49	0.97	0.11
7 IT430803_Radar_PSR/MSSR_Gdańsk	0.00	0.00	0.02	0.16	0.54	0.02
8 IP470701_U-Space_Program	0.01	0.03	0.11	0.18	0.25	0.15
9 IT440732_MLAT_system_for_FIR_Warsaw	0	0.00	0.02	0.09	0.41	0.02
10 IR470209_CWP_TWR	0.00	0.01	0.07	0.08	0.11	0.08
11 06440701_VCS_system	0	0.00	0.03	0.06	0.14	0.03
12 IT170202 Tower at the Central Hub Airport	0	0	0	0	0.00	0
13 IT430804_Radar_PSR/MSSR_Katowice	0	0	0.02	0.14	0.48	0.02
ctual costs (M€ <sub>2017</sub> )	2020A	2021A	2022A	2023A	2024A	RP3 to date
otal costs of investments	0.69	5.95	8.38	0	0	15.03
1 21440701 ATM OPS Centre Poznan	0.48	1.43	2.10	-	-	4.00
2 03440701 iTEC	0.11	1.35	2.12	-	-	3.57
3 IT430900 Modernization of the ATM system 2	0.03	2.08	2.18	-	-	4.29
4 02440701 Communication systems	0.01	0.10	0.34	-	-	0.44
5 01440701 Campus	0.06	0.32	0.60	-	-	0.98
6 IT430404 Server Business Infrastructure	0	0.21	0.42	-	-	0.63
7 IT430803 Radar PSR/MSSR Gdańsk	0.00	0.00	0.00	-	-	0.00
8 IP470701 U-Space Program	0.01	0.27	0.37	-	-	0.64
9 IT440732 MLAT system for FIR Warsaw	0	0.11	0.14	-	-	0.25
10 IR470209 CWP TWR	0.00	0.06	0.09	-	-	0.15
11 06440701 VCS system	0	0.02	0.04	-	-	0.05
12 IT170202 Tower at the Central Hub Airport	0	0	-	-	-	0
13 IT430804 Radar PSR/MSSR Katowice	0	0.00	0.00	-	-	0.00

COSTS OF NEW MAJOR INVESTMENTS					PO	DLAND   PANSA	
Actual minus determined costs of investments (M $\varepsilon_{2017}$ )	2020	2021	2022	2023	2024	RP3 to date	
Total difference in costs of investments	0	4.83	5.25	0	0	10.08	
1 21440701_ATM_OPS_Centre_Poznan	0	0.78	0.91	-	-	1.68	
2 03440701_iTEC	(0)	1.18	1.64	-	-	2.82	
3 IT430900_Modernization_of_the_ATM_system_2	0	1.96	1.57	-	-	3.53	
4 02440701_Communication_systems	0	0.04	(0.03)	-	-	0.01	
5 01440701_Campus	(0)	0.26	0.48	-	-	0.74	
6 IT430404_Server_Business_Infrastructure	0	0.21	0.31	-	-	0.52	
7 IT430803_Radar_PSR/MSSR_Gdańsk	0	(0.00)	(0.02)	-	-	(0.02)	
8 IP470701_U-Space_Program	(0)	0.24	0.26	-	-	0.50	
9 IT440732_MLAT_system_for_FIR_Warsaw	0	0.11	0.12	-	-	0.23	
10 IR470209_CWP_TWR	0	0.05	0.02	-	-	0.07	
11 06440701_VCS_system	0	0.01	0.01	-	-	0.02	
12 IT170202_Tower_at_the_Central_Hub_Airport	0	0	0	-	-	0	
13 IT430804 Radar PSR/MSSR Katowice	0	0.00	(0.02)	-	-	(0.01)	



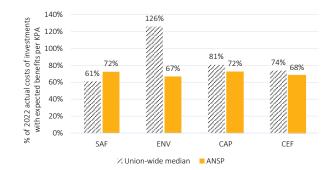
### EXPECTED BENEFIT AND IMPACT PER NEW MAJOR INVESTMENT

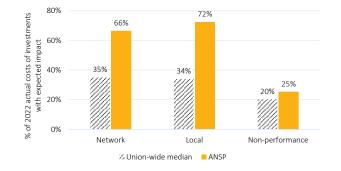
POLAND	PANSA

New major investments	Expected benefit	Expected benefit per KPA						
	SAF	ENV	CAP	CEF				
1 21440701_ATM_OPS_Centre_Poznan	Х	Х	Х	Х				
2 03440701_iTEC	Х	Х	Х	Х				
3 IT430900_Modernization_of_the_ATM_system_2								
4 02440701_Communication_systems	Х		Х					
5 01440701_Campus	Х	Х	Х	Х				
6 IT430404_Server_Business_Infrastructure	Х	Х	Х	Х				
7 IT430803_Radar_PSR/MSSR_Gdańsk								
8 IP470701_U-Space_Program	Х	Х	Х	Х				
9 IT440732_MLAT_system_for_FIR_Warsaw								
10 IR470209_CWP_TWR	Х		Х	Х				
11 06440701_VCS_system	Х		Х					
12 IT170202 Tower at the Central Hub Airport	Х		Х	Х				

### # New major investments

	1		
	Netv	vork Local	Non-performance
1 21440701_ATM_OPS_Centre_Poznan	)	х х	
2 03440701_iTEC	)	(Х	Х
3 IT430900_Modernization_of_the_ATM_system_2			
4 02440701_Communication_systems	)	(Х	
5 01440701_Campus	)	(Х	
6 IT430404_Server_Business_Infrastructure		Х	
7 IT430803_Radar_PSR/MSSR_Gdańsk			
8 IP470701_U-Space_Program	)	(Х	
9 IT440732_MLAT_system_for_FIR_Warsaw			
10 IR470209_CWP_TWR		Х	
11 06440701_VCS_system	)	(Х	
12 IT170202_Tower_at_the_Central_Hub_Airport	)	( Х	

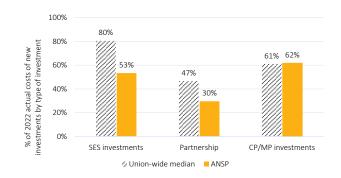


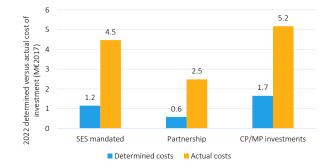


Expected impact

161/206

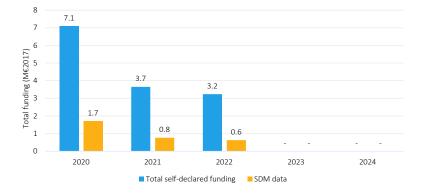
ECTED IMPACT AND BENEFIT PER NEW MAJOR INVESTMENT					P	DLAND   PA
# New major investments	EIO Date <sup>1</sup>	Status	SES Reg.	Partnership	ATM sy	rstem
					ATM sytem	CP/ MP <sup>2</sup>
1 21440701_ATM_OPS_Centre_Poznan	2021-2022	Started	No	No	No	-
2 03440701_iTEC	After RP3	Started	Yes	Yes	Yes	MP
3 IT430900_Modernization_of_the_ATM_system_2	2022	Started	Yes	No	Yes	MP
4 02440701_Communication_systems	2024	Started	No	No	No	MP
5 01440701_Campus	After RP3	Started	No	No	No	-
6 IT430404_Server_Business_Infrastructure	Recurring	Started	No	No	Yes	MP
7 IT430803_Radar_PSR/MSSR_Gdańsk	2024	Started	Yes	No	No	-
8 IP470701_U-Space_Program	After RP3	Started	No	Yes	No	-
9 IT440732_MLAT_system_for_FIR_Warsaw	After RP3	Started	Yes	No	No	-
10 IR470209_CWP_TWR	After RP3	Started	No	No	No	MP
11 06440701_VCS_system	After RP3	Started	Yes	No	No	MP
12 IT170202 Tower at the Central Hub Airport	After RP3	Not started	No	No	No	-

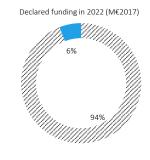




KPAs: SAF = Safety, ENV = Environment, CAP = Capacity, CEF = Cost-efficiency. 1. EOI date = Date of entry into operation 2. CP/MP = Common Project and Master Plan

ctual funding declaration (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to dat
otal funding declared	7.09	3.65	3.24	-	-1	13.9
En route funding declared	6.20	3.23	2.74	-	-	12.1
En route funding that could not be assigned to a specific investment	6.20	3.23	2.74	-	-	12.1
Terminal funding	0.89	0.42	0.49	0	0	1.8
Terminal funding that could not be assigned to a specific investment	0.89	0.42	0.49	-	-	1.8
ictual funding declaration vs payments (M $\epsilon_{2017}$ )	2020	2021	2022	2023	2024	RP3 to dat
ifference between total funding declared vs received	5.37	2.89	2.61	-	-	10.8
Total included in the funding declaration (reporting tables)	7.09	3.65	3.24	-	-	13.9
SDM Payment	1.72	0.76	0.63	-	-	3.1





⊘Union-wide ■ANSP

Poland reported  $3.2M \in_{2017}$  of funding in 2022. However SESAR Deployment Manager data indicates a payment of  $0.6M \in_{2017}$  in 2022. For RP3 to date, Poland declared  $14M \in_{2017}$  of funding, while SESAR Deployment Manager data indicates a payment of  $3.1M \in_{2017}$ .

162/206

En route Terminal

Portugal underspent 3.6M€<sub>2017</sub> (-19%) in costs related to investments for en route and terminal in 2022 compared to the determined costs. Portugal planned four new major investments for RP3, all of which have started.

% of total

80%

20%

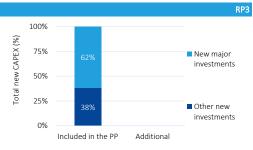
58.18

14.85

### CAPEX FOR NEW INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

### Determined and additional CAPEX by value of individual investments (M€2017)

APEX for new investments	118.08	% of total
New major investments (above 5M€ each) <sup>1</sup>	73.02	62%
Included in the performance plan	73.02	62%
Additional <sup>2</sup>	0	0%
Other new investments (below 5M€ each) <sup>3</sup>	45.06	38%
Included in the performance plan	45.06	38%
Additional	0	0%

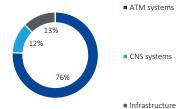


Determined CAPEX: en route and terminal ( $M \in_{2017}$ )	
Total CAPEX for new major investments	73.02

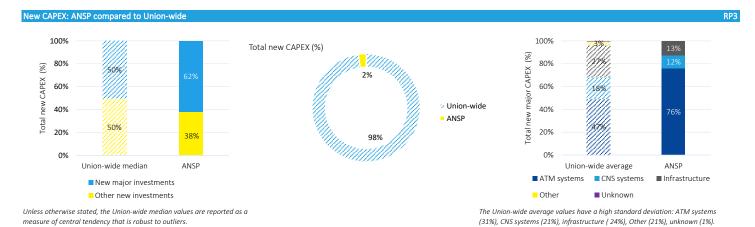


#### Determined CAPEX by type of investment (M€<sub>2017</sub>) Total CAPEX for new major investments 73.02 % of total ATM systems 55.46 76% 8.43 12% CNS systems Infrastructure 9.13 13% Other 0 0% Unknown 0 0%





RP3



1. New major investments: "acquisition, development, replacement, upgrade, or leasing of fixed assets representing a total value over the whole lifetime of the assets greater than EUR 5 million

in real terms " (Reg. 2019/317 art. 2 (13)).

2. Additional investments are those investments not foreseen as part of the performance plan.

3. Other new investments: new investments or replacements/upgrades of existing assets representing a total value over the whole lifetime of the asset below 5M€ in real terms.

PORTUGAL | NAV Portugal

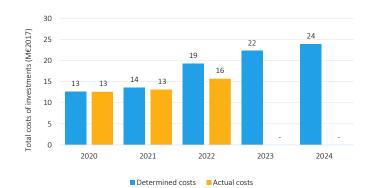
### COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

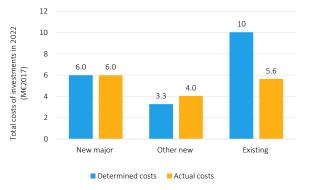
164/206

termined costs: new and existing investments $(M {f ildsymbol {}_{2017}})^1$	2020D	2021D	2022D	2023D	2024D	RP3 to date
tal costs	12.60	13.53	19.31	22.29	23.87	45.45
New major investments	0	0.83	6.00	11.88	13.04	6.83
% New major investments in total costs of investments	0%	6%	31%	53%	55%	15%
Other new investments	1.17	2.33	3.28	3.96	4.46	6.78
% Other new investments in total costs of investments	9%	17%	17%	18%	19%	15%
Existing investments	11.44	10.37	10.04	6.45	6.37	31.84
% Existing investments in total costs of investments	91%	77%	52%	29%	27%	70%

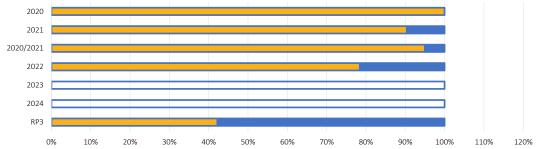
Actual costs: new and existing investments (M $\epsilon_{2017}$ )	2020A	2021A	2022A	2023A	2024A	RP3 to date
Total costs	12.60	13.13	15.68	-	-	41.41
New major investments	0	2.12	5.99	-	-	8.10
% New major investments in total costs of investments	0%	16%	38%	-	-	20%
Other new investments	1.17	2.27	4.05	-	-	7.49
% Other new investments in total costs of investments	9%	17%	26%	-	-	18%
Existing investments	11.44	8.74	5.65	-	-	25.82
% Existing investments in total costs of investments	91%	67%	36%	-	-	62%

Actual minus determined costs (M $\epsilon_{2017}$ )	2020	2021	2022	2023	2024	RP3 to date
Total difference	0	(0.41)	(3.63)	-	-	(4.04)
New major investments	0	1.28	(0.01)	-	-	1.28
% change of actual with respect to determined	0%	155%	0%	-	-	19%
Other new investments	0	(0.06)	0.77	-	-	0.71
% change of actual with respect to determined	0%	-3%	23%	-	-	11%
Existing investments	0	(1.63)	(4.39)	-	-	(6.02)
% change of actual with respect to determined	0%	-16%	-44%	-	-	-19%



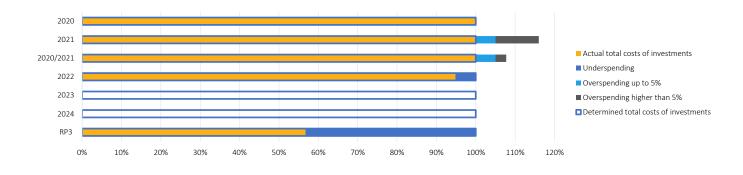


COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN					PORTUG	AL - En route	NAV Portugal
Determined costs by nature (M $\epsilon_{2017}$ )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to date
Total costs of new and existing investments	8.76	9.93	18.69	15.80	18.17	18.95	34.49
Depreciation	7.61	7.44	15.05	13.23	15.37	16.30	28.28
Cost of capital	1.15	2.49	3.64	2.57	2.80	2.65	6.21
Cost of leasing	0	0	0	0	0	0	0
Actual costs by nature (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to date
Total costs of new and existing investments	8.76	8.95	17.71	12.35	-	-	30.06
Depreciation	7.61	7.57	15.18	10.48	-	-	25.66
Cost of capital	1.15	1.38	2.53	1.87	-	-	4.40
Cost of leasing	0	0	0	0	-	-	0
Actual minus determined costs (M $\epsilon_{2017}$ )	2020	2021	2020/2021	2022	2023	2024	RP3 to date
Total difference	0	(0.98)	(0.98)	(3.45)	-	-	(4.43)
Depreciation	0	0.13	0.13	(2.75)	-	-	(2.62)
Cost of capital	0	(1.11)	(1.11)	(0.70)	-	-	(1.81)



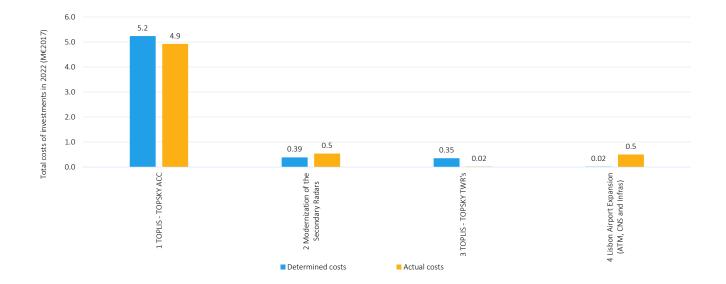
Actual total costs of investments
Underspending
Overspending up to 5%
Overspending higher than 5%
Determined total costs of investments

COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN					PORTUG	AL - Terminal	NAV Portugal
Determined costs by nature (M€ <sub>2017</sub> )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to date
Total costs of new and existing investments	3.84	3.60	7.44	3.51	4.12	4.92	10.95
Depreciation	3.11	2.92	6.03	3.01	3.46	4.05	9.04
Cost of capital	0.73	0.67	1.41	0.51	0.66	0.87	1.91
Cost of leasing	0	0	0	0	0	0	0
Actual costs by nature (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to date
Total costs of new and existing investments	3.84	4.17	8.02	3.33	-	-	11.35
Depreciation	3.11	3.25	6.36	2.87	-	-	9.23
Cost of capital	0.73	0.92	1.66	0.46	-	-	2.11
Cost of leasing	0	0	0	0	-	-	0
Actual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2020/2021	2022	2023	2024	RP3 to date
Total difference	0	0.58	0.58	(0.18)	-	-	0.39
Depreciation	0	0.33	0.33	(0.13)	-	-	0.19
Cost of capital	0	0.25	0.25	(0.05)	-	-	0.20
Cost of leasing	0	0	0	0	-	-	0



Portugal underspent  $3.6M \in_{2017}$  in costs related to investments ( $-3.4M \in_{2017}$  in en route and  $-0.2M \in_{2017}$  in terminal) in 2022. For RP3 to date, Portugal underspent  $4.0M \in_{2017}$  in costs related to investments. These amounts shall be reimbursed to the airspace users through a reduction of future unit rate(s), unless the NSA decides after consultation with the users, that the ANSP shall not reimburse a part of the difference according to article 28 of Regulation (EU) 2019/317.

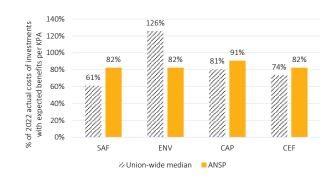
COSTS BY NEW MAJOR INVESTMENTS					PORTUGAL	NAV Portugal
Determined costs $(M \epsilon_{2017})^1$	2020D	2021D	2022D	2023D	2024D	RP3 to date
Total costs of investments	0	0.83	6.00	11.88	13.04	6.83
1 TOPLIS - TOPSKY ACC	0	0.75	5.24	10.23	10.61	5.99
2 Modernization of the Secondary Radars	0	0.04	0.39	0.83	1.07	0.43
3 TOPLIS - TOPSKY TWR's	0	0.02	0.35	0.79	0.94	0.38
4 Lisbon Airport Expansion (ATM, CNS and Infras)	0	0.01	0.02	0.03	0.43	0.03
Actual costs (M€ <sub>2017</sub> )	2020A	2021A	2022A	2023A	2024A	RP3 to date
Total costs of investments	0	2.12	5.99	-	-	8.10
1 TOPLIS - TOPSKY ACC	0	1.77	4.93	-	-	6.70
2 Modernization of the Secondary Radars	0	0.11	0.54	-	-	0.65
3 TOPLIS - TOPSKY TWR's	0	0.01	0.02	-	-	0.03
4 Lisbon Airport Expansion (ATM, CNS and Infras)	0	0.22	0.50	-	-	0.73
Actual minus determined costs of investments (M $\varepsilon_{2017}$ )	2020	2021	2022	2023	2024	RP3 to date
Total difference in costs of investments	0	1.28	(0.01)	-	-	1.28
1 TOPLIS - TOPSKY ACC	0	1.02	(0.31)	-	-	0.71
2 Modernization of the Secondary Radars	0	0.06	0.15	-	-	0.21
3 TOPLIS - TOPSKY TWR's	0	(0.01)	(0.33)	-	-	(0.34)
4 Lisbon Airport Expansion (ATM, CNS and Infras)	0	0.21	0.48	-	-	0.70

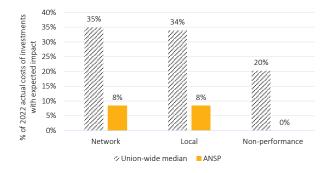


### 167/206

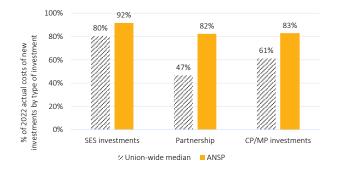
ECTED BENEFIT AND IMPACT PER NEW MAJOR INVESTMENT			PORTUGA	L   NAV Portu				
# New major investments	Expected benefit per KPA							
	SAF	ENV	CAP	CEF				
1 TOPLIS - TOPSKY ACC	Х	Х	Х	Х				
2 Modernization of the Secondary Radars								
3 TOPLIS - TOPSKY TWR's								
4 Lisbon Airport Expansion (ATM, CNS and Infras)			Х					

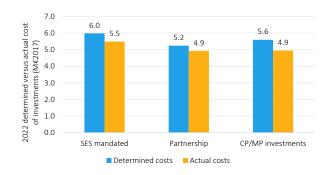
# New major investments	Expected impact		
	Network	Local	Non-performance
1 TOPLIS - TOPSKY ACC			
2 Modernization of the Secondary Radars			
3 TOPLIS - TOPSKY TWR's			
4 Lisbon Airport Expansion (ATM, CNS and Infras)	Х	Х	





# New major investments	EIO Date <sup>1</sup>	Status	SES Reg.	Partnership	ATM sy	stem
					ATM sytem	CP/ MP <sup>2</sup>
1 TOPLIS - TOPSKY ACC	2021-2022	Started	Yes	Yes	Yes	CP
2 Modernization of the Secondary Radars	2021-2023	Started	Yes	No	No	-
3 TOPLIS - TOPSKY TWR's	2021-2022	Started	Yes	No	Yes	MP
4 Lisbon Airport Expansion (ATM, CNS and Infras)	2021-2024	Started	No	No	Yes	-





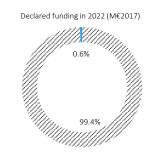
KPAs: SAF = Safety, ENV = Environment, CAP = Capacity, CEF = Cost-efficiency. 1. EOI date = Date of entry into operation

2. CP/MP = Common Project and Master Plan

1	1	0	10	$\cap$	1	
- 1	0	ö	12	U	0	

PUBLIC FUNDING GRANTED FOR TOTAL CAPEX (CEF/TEN-T)					PORTUGAL	NAV Portugal
Actual funding declaration (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
Total funding declared	0.13	0.22	0.30	-	- [	0.65
En route funding declared	0.12	0.21	0.28	-	-	0.62
En route funding that could not be assigned to a specific investment	0.12	0.21	0.28	-	-	0.62
Terminal funding	0.01	0.01	0.01	0	0	0.03
Terminal funding that could not be assigned to a specific investment	0.01	0.01	0.01	-	-	0.03
Actual funding declaration vs payments (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
Difference between total funding declared vs received	0.13	(0.13)	0.10	-	-	0.10
Total included in the funding declaration (reporting tables)	0.13	0.22	0.30	-	-	0.65
SDM Payment	-	0.36	0.20	-	-	0.56





⊘ Union-wide ■ ANSP



Portugal reported 0.3M€<sub>2017</sub> of funding in 2022. SESAR Deployment Manager data indicates a payment of 0.2M€<sub>2017</sub> in 2022. For RP3 to date, Portugal declared 0.7M€<sub>2017</sub> of funding, while SESAR Deployment Manager data indicates a payment of 0.6M€<sub>2017</sub>.

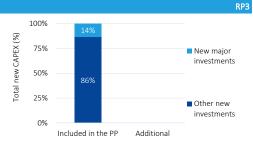
De

Romania underspent 0.3M€<sub>2017</sub> (-1.7%) in costs related to investments for en route and terminal in 2022 compared to the determined costs. Romania planned one new major investment for RP3, which has started.

### CAPEX FOR NEW INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

Determined and additional CAPEX by value of individual investments (M ${f e}_{20}$ 

APEX for new investments	54.50	% of total
New major investments (above 5M€ each) <sup>1</sup>	7.36	14%
Included in the performance plan	7.36	14%
Additional <sup>2</sup>	0	0%
Other new investments (below 5M€ each) <sup>3</sup>	47.14	86%
Included in the performance plan	47.14	86%
Additional	0	0%



etermined CAPEX: en route and terminal (M $\epsilon_{2017}$ )	

Total CAPEX for new major investments	7.36	% of total
En route	7.36	100%
Terminal	0	0%

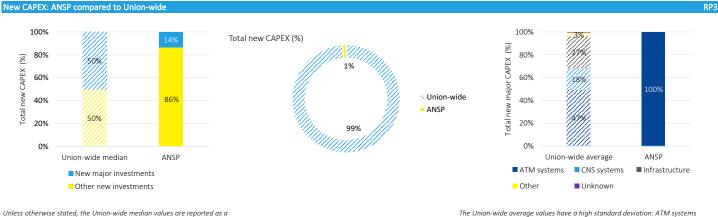


termined CAPEX by type of investment (M€ <sub>2017</sub> )		
tal CAPEX for new major investments	7.36	% of tota
ATM systems	7.36	1009
CNS systems	0	0%
Infrastructure	0	0%
Other	0	0%
Unknown	0	09





RP3



measure of central tendency that is robust to outliers.

The Union-wide average values have a high standard deviation: ATM systems (31%), CNS systems (21%), infrastructure ( 24%), Other (21%), unknown (1%).

1. New major investments: "acquisition, development, replacement, upgrade, or leasing of fixed assets representing a total value over the whole lifetime of the assets greater than EUR 5 million in real terms" (Reg. 2019/317 art. 2 (13)).

2. Additional investments are those investments not foreseen as part of the performance plan.

3. Other new investments: new investments or replacements/upgrades of existing assets representing a total value over the whole lifetime of the asset below 5M€ in real terms.

ROMANIA | ROMATSA

### COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

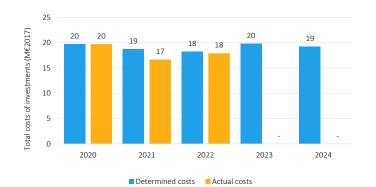
### ROMANIA | ROMATSA

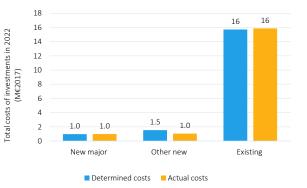
Determined costs: new and existing investments $\left(M \boldsymbol{\varepsilon}_{\texttt{2017}}  ight)^1$	2020D	2021D	2022D	2023D	2024D	RP3 to date
Total costs	19.73	18.67	18.21	19.79	19.19	56.61
New major investments	0.01	0.23	0.97	1.09	1.01	1.21
% New major investments in total costs of investments	0%	1%	5%	5%	5%	2%
Other new investments	0.16	0.85	1.53	3.59	5.30	2.53
% Other new investments in total costs of investments	1%	5%	8%	18%	28%	4%
Existing investments	19.56	17.60	15.71	15.11	12.88	52.87
% Existing investments in total costs of investments	99%	94%	86%	76%	67%	93%

2020A	2021A	2022A	2023A	2024A	RP3 to date
19.73	16.65	17.90	-	-	54.28
0.01	0.18	0.98	-	-	1.17
0%	1%	5%	=	-	2%
3.53	1.67	1.05	-	-	6.25
18%	10%	6%	-	-	12%
16.19	14.80	15.87	-	-	46.86
82%	89%	89%	-	-	86%
	19.73 0.01 0% 3.53 18% 16.19	19.73         16.65           0.01         0.18           0%         1%           3.53         1.67           18%         10%           16.19         14.80	19.73         16.65         17.90           0.01         0.18         0.98           0%         1%         5%           3.53         1.67         1.05           18%         10%         6%           16.19         14.80         15.87	19.73         16.65         17.90         -           0.01         0.18         0.98         -           0%         1%         5%         -           3.53         1.67         1.05         -           18%         10%         6%         -           16.19         14.80         15.87         -	19.73         16.65         17.90         -         -         -           0.01         0.18         0.98         -         -         -           0%         1%         5%         -         -         -           3.53         1.67         1.05         -         -           18%         10%         6%         -         -           16.19         14.80         15.87         -         -

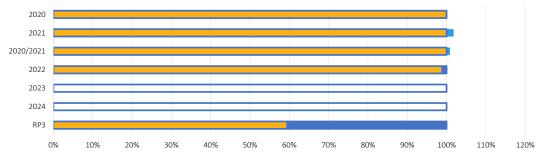
Actual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024 R	RP3 to date

ifference	0	(2.02)	(0.31)	-	-	(2.33
New major investments	(0.00)	(0.05)	0.01	-	-	(0.04
% change of actual with respect to determined	0%	-22%	1%	-	-	-3%
Other new investments	3.37	0.83	(0.48)	-	-	3.72
% change of actual with respect to determined	2145%	97%	-32%	-	-	147%
Existing investments	(3.37)	(2.80)	0.16	-	-	(6.01)
% change of actual with respect to determined	-17%	-16%	1%	-	-	-11%



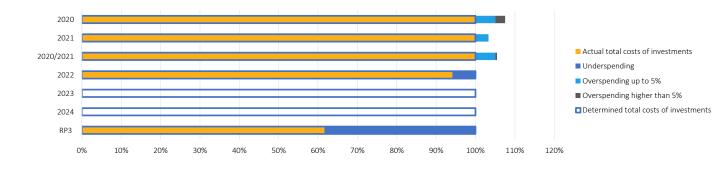


COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFO	RMANCE PLAN				RON	/IANIA - En rou	te   ROMATSA
Determined costs by nature ( $M \varepsilon_{2017}$ )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to date
Total costs of new and existing investments	17.84	16.87	34.71	16.78	18.11	17.50	51.49
Depreciation	8.84	8.80	17.64	9.99	10.27	9.86	27.64
Cost of capital	8.94	8.01	16.96	6.73	7.78	7.58	23.68
Cost of leasing	0.05	0.05	0.11	0.06	0.06	0.06	0.17
Actual costs by nature (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to date
Total costs of new and existing investments	17.84	17.16	35.01	16.55	-	-	51.56
Depreciation	8.84	8.99	17.83	10.04	-	-	27.87
Cost of capital	8.94	8.12	17.06	6.45	-	-	23.51
Cost of leasing	0.05	0.06	0.11	0.07	-	-	0.18
Actual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2020/2021	2022	2023	2024	RP3 to date
Total difference	0	0.30	0.30	(0.23)	-	-	0.07
Depreciation	0	0.19	0.19	0.04	-	-	0.23
Cost of capital	0	0.11	0.11	(0.28)	-	-	(0.17)



	Actual total costs of investments
	Underspending
	Overspending up to 5%
	Overspending higher than 5%
C	Determined total costs of investments

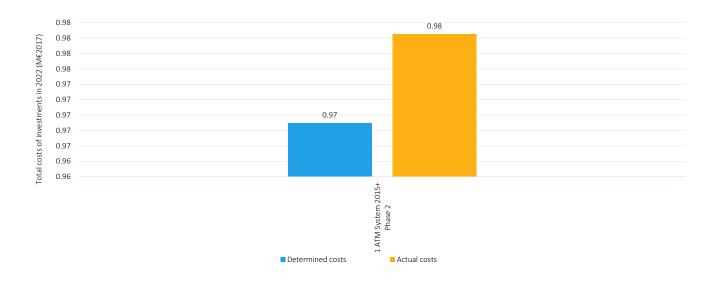
COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN						ANIA - Termir	al   ROMATSA
Determined costs by nature (M€ <sub>2017</sub> )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to date
Total costs of new and existing investments	1.89	1.81	3.69	1.43	1.68	1.70	5.13
Depreciation	0.91	1.00	1.91	0.87	0.99	1.03	2.78
Cost of capital	0.96	0.80	1.76	0.55	0.68	0.65	2.32
Cost of leasing	0.01	0.01	0.02	0.01	0.01	0.01	0.03
Actual costs by nature (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to date
Total costs of new and existing investments	2.03	1.87	3.90	1.35	-	-	5.24
Depreciation	0.91	1.02	1.93	0.86	-	-	2.79
Cost of capital	0.96	0.84	1.81	0.48	-	-	2.28
Cost of leasing	0.15	0.01	0.16	0.01	-	-	0.17
Actual minus determined costs (M $\varepsilon_{2017}$ )	2020	2021	2020/2021	2022	2023	2024	RP3 to date
Total difference	0.14	0.06	0.20	(0.08)	-	-	0.12
Depreciation	0	0.02	0.02	(0.01)	-	-	0.01
Cost of capital	0	0.04	0.04	(0.08)	-	-	(0.03)
Cost of leasing	0.14	(0.00)	0.14	(0.00)	-	-	0.14



Romania underspent 0.3M€<sub>2017</sub> in costs related to investments (-0.2M€<sub>2017</sub> in en route and -0.1M€<sub>2017</sub> in terminal) in 2022. For RP3 to date, Romania overspent 0.2M€<sub>2017</sub> in costs related to investments.

172/206

COSTS BY NEW MAJOR INVESTMENTS					ROMAN	IA   ROMATSA
Determined costs (M€ <sub>2017</sub> ) <sup>1</sup>	2020D	2021D	2022D	2023D	2024D	RP3 to date
Total costs of investments	0.01	0.23	0.97	1.09	1.01	1.21
1 ATM System 2015+ Phase 2	0.01	0.23	0.97	1.09	1.01	1.21
Actual costs (M€ <sub>2017</sub> )	2020A	2021A	2022A	2023A	2024A	RP3 to date
Total costs of investments	0.01	0.18	0.98	-	-	1.17
1 ATM System 2015+ Phase 2	0.01	0.18	0.98	-	-	1.17
Actual minus determined costs of investments (M $\varepsilon_{2017}$ )	2020	2021	2022	2023	2024	RP3 to date
Total difference in costs of investments	(0.00)	(0.05)	0.01	-	-	(0.04)
1 ATM System 2015+ Phase 2	(0.00)	(0.05)	0.01	-	-	(0.04)

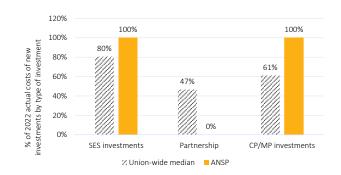


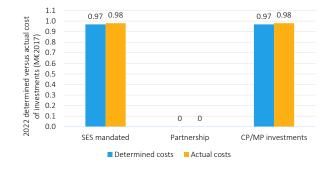
1. Determined costs comprise depreciation costs, cost of capital, and cost of leasing in the performance plans.

1	73	/20	6

New major	investments					Expected benefit	per KPA		
						SAF	ENV	CAP	CEI
1 ATM System	1 2015+ Phase 2					Х	Х	Х	
New major	investments					Expected impact			
						1			
						Network	Local	Non-performance	
1 ATM System	1 2015+ Phase 2								
140%		126%			v 40%				
of 2022 actual costs of investments with expected benefits per KPA %00 %00 %00 %00 %00 %00 %00 %00 %00 %00					% of 2022 actual costs of investments 32%	35%	34%		
estru R KP	100%	100%	100%		- %00 H SO%				
ts je 100%			81%	74%	avini 230% 25% 20% 20% 20% 20% 20% 20% 20% 20% 20% 20				
%08 fit	61%			/4%	sts = 20% —		- 1111	20%	
5 <u>9</u> 60%	-7//		///		ecte o	- 444	- 444.	4///	
ted					- 15%				
% of 2022 actual with expected %0 %0 %0 %0 %0 %0 %0 %0 %0 %0 %0 %0 %0 %					10% <u></u>	-4/1.			
20%	-////				2 ≥ 5% —	-////			
20%				111. 0%	N	////, 0%	////. 0%	6 //// 0%	

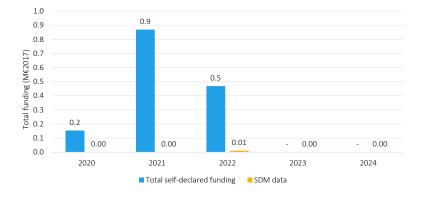
# New major investments	EIO Date <sup>1</sup>	Status	SES Reg.	Partnership	ATM sy	vstem
					ATM sytem	CP/ MP <sup>2</sup>
1 ATM System 2015+ Phase 2	30/11/2021	Started	Yes	No	Yes	CP

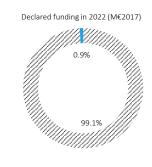




KPAs: SAF = Safety, ENV = Environment, CAP = Capacity, CEF = Cost-efficiency. 1. EOI date = Date of entry into operation 2. CP/MP = Common Project and Master Plan

PUBLIC FUNDING GRANTED FOR TOTAL CAPEX (CEF/TEN-T)					ROMAN	IA   ROMATSA
Actual funding declaration (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
Total funding declared	0.15	0.87	0.47	-	- [	1.49
En route funding declared	0.15	0.76	0.47	-	-	1.38
En route funding that could not be assigned to a specific investment	0.15	0.76	0.47	-	-	1.38
Terminal funding	0.00	0.11	0	0	0	0.12
Terminal funding that could not be assigned to a specific investment	0.00	0.11	-	-	-	0.12
Actual funding declaration vs payments (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
Difference between total funding declared vs received	0.15	0.87	0.46	-	-	1.48
Total included in the funding declaration (reporting tables)	0.15	0.87	0.47	-	-	1.49
SDM Payment	-	0.00	0.01	-	-	0.01





Union-wide ANSP



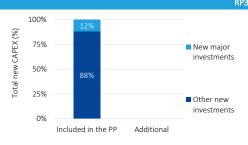
174/206

Slovakia overspent 1.7M€<sub>2017</sub> (+27%) in costs related to investments for en route in 2022 compared to the determined costs. However, in the monitoring report Slovakia reported an overspening of 0.3M€2017 (+4.1%). Slovakia planned one new major investment for RP3, which has started.

### CAPEX FOR NEW INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

### Determined and additional CAPEX by value of individual investments (M€2017)

APEX for new investments	31.35	% of total
New major investments (above 5M€ each) <sup>1</sup>	3.69	12%
Included in the performance plan	3.69	12%
Additional <sup>2</sup>	0	0%
Other new investments (below 5M€ each) <sup>3</sup>	27.66	88%
Included in the performance plan	27.66	88%
Additional	0	0%



### Determined CAPEX: en route and terminal (M€<sub>2017</sub>)

Total CAPEX for new major investments	3.69	% of total
En route	3.69	100%
Terminal	0	0%

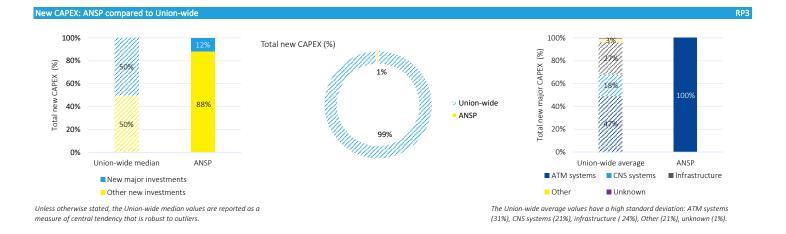


# Determined CAPEX by type of investment (M€<sub>2017</sub>) Total CAPEX for new major investments

ATM systems	3.69	100%
CNS systems	0	0%
Infrastructure	0	0%
Other	0	0%
Unknown	0	0%

### Total CAPEX of new major investments (%)





3.69

% of total

1. New major investments: "acquisition, development, replacement, upgrade, or leasing of fixed assets representing a total value over the whole lifetime of the assets greater than EUR 5 million in real terms" (Reg. 2019/317 art. 2 (13)).

2. Additional investments are those investments not foreseen as part of the performance plan.

3. Other new investments: new investments or replacements/upgrades of existing assets representing a total value over the whole lifetime of the asset below 5M in real terms.

SLOVAKIA | LPS SR

RP3

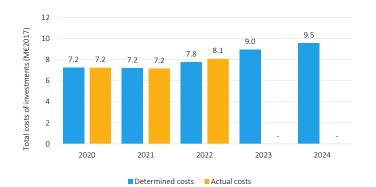
### COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

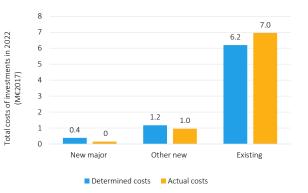
### SLOVAKIA | LPS SR

Determined costs: new and existing investments ${(M {f e}_{2017})}^1$	2020D	2021D	2022D	2023D	2024D	RP3 to date
Total costs	7.22	7.20	7.75	8.95	9.55	22.18
New major investments	0	0.07	0.38	0.53	0.52	0.45
% New major investments in total costs of investments	0%	1%	5%	6%	5%	2%
Other new investments	0.28	0.22	1.17	2.65	3.74	1.67
% Other new investments in total costs of investments	4%	3%	15%	30%	39%	8%
Existing investments	6.94	6.92	6.20	5.78	5.29	20.05
% Existing investments in total costs of investments	96%	96%	80%	65%	55%	90%

Actual costs: new and existing investments (M€ <sub>2017</sub> )	2020A	2021A	2022A	2023A	2024A	RP3 to date
Total costs	7.22	7.16	8.07	-	-	22.45
New major investments	0	0	0.15	-	-	0.15
% New major investments in total costs of investments	0%	0%	-	-	-	1%
Other new investments	0.28	0.75	0.96	-	-	1.99
% Other new investments in total costs of investments	4%	10%	-	-	-	9%
Existing investments	6.94	6.41	6.96	-	-	20.31
% Existing investments in total costs of investments	96%	90%	=	=	-	90%

2020	2021	2022	2023	2024	RP3 to date
0	(0.05)	0.32	-	-	0.27
0	0	(0.23)	-	-	(0.23)
0%	0%	-60%	-	-	-66%
0	0.53	(0.22)	-	-	0.31
0%	245%	-18%	-	-	19%
0	(0.51)	0.76	-	-	0.25
0%	-7%	12%	-	-	1%
	0 0% 0% 0% 0	0         (0.05)           0         0           0%         0%           0         0.53           0%         245%           0         (0.51)	0         (0.05)         0.32           0         0         (0.23)           0%         0%         -60%           0         0.53         (0.22)           0%         245%         -18%           0         (0.51)         0.76	0         (0.05)         0.32         -           0         0         (0.23)         -           0%         0%         -60%         -           0         0.53         (0.22)         -           0%         245%         -18%         -           0         (0.51)         0.76         -	0         (0.05)         0.32         -         -         -           0         0         (0.23)         -         -         -         -           0%         0%         -60%         -         -         -         -           0         0.53         (0.22)         -         -         -           0%         245%         -18%         -         -         -           0         (0.51)         0.76         -         -         -

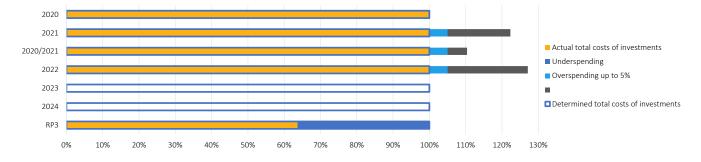




1. The performance plans include costs related to investments which comprise depreciation cost, cost of capital, and cost of leasing.

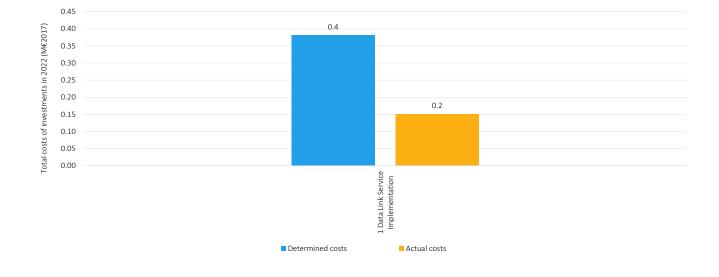
The total costs of investments included in the monitoring report do not match the total costs of investments included in the reporting tables. No explanation on the differences has been provided.

COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFOR	MANCE PLAN					SLOVAKIA - En	route   LPS SR
Determined costs by nature (M€ <sub>2017</sub> )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to date
Total costs of new and existing investments	6.66	5.79	12.45	6.35	7.45	8.00	18.79
Depreciation	4.87	4.00	8.87	4.59	5.67	6.38	13.45
Cost of capital	1.79	1.79	3.58	1.76	1.78	1.62	5.34
Cost of leasing	0	0	0	0	0	0	0
Actual costs by nature (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to date
Total costs of new and existing investments	6.66	7.08	13.74	8.07	-	-	21.81
Depreciation	4.87	5.26	10.13	6.11	-	-	16.24
Cost of capital	1.79	1.82	3.61	1.96	-	-	5.57
Cost of leasing	0	0	0	-	-	-	0
Actual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2020/2021	2022	2023	2024	RP3 to date
Total difference	0	1.29	1.29	1.72	-	-	3.01
Depreciation	0	1.26	1.26	1.53	-	-	2.79
Cost of capital	0	0.03	0.03	0.20	-	-	0.23
Cost of leasing	0	0	0	-	-	-	0



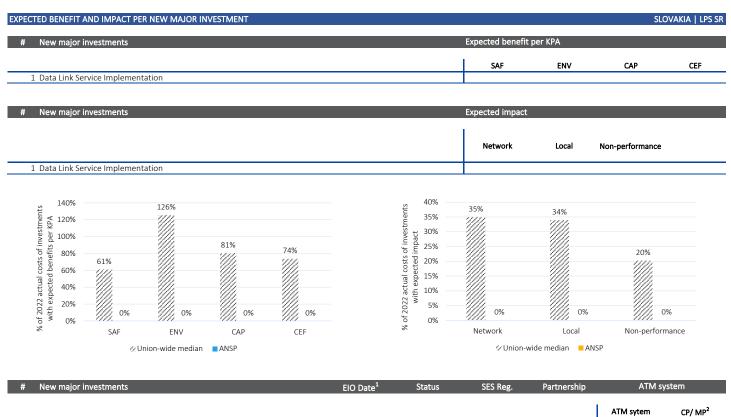
178/206

COSTS BY NEW MAJOR INVESTMENTS		SLOVAKIA   LPS SR				
Determined costs (M€ <sub>2017</sub> ) <sup>1</sup>	2020D	2021D	2022D	2023D	2024D	RP3 to date
Total costs of investments	0	0.07	0.38	0.53	0.52	0.45
1 Data Link Service Implementation	0	0.07	0.38	0.53	0.52	0.45
Actual costs (M€ <sub>2017</sub> )	2020A	2021A	2022A	2023A	2024A	RP3 to date
Total costs of investments	0	0	0.15	-	- [	0.15
1 Data Link Service Implementation	0	0	0.15	-	-	0.15
Actual minus determined costs of investments (M $\varepsilon_{2017}$ )	2020	2021	2022	2023	2024	RP3 to date
Total difference in costs of investments	0	(0.07)	(0.23)	-	-	(0.30)
1 Data Link Service Implementation	0	(0.07)	(0.23)	-	-	(0.30)



1. Determined costs comprise depreciation costs, cost of capital, and cost of leasing in the performance plans.

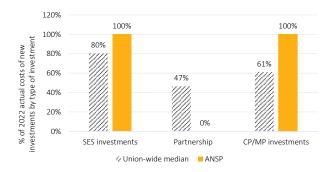
MP

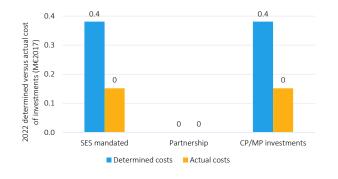


1 Data Link Service Implementation

30/04/2022 Started

ATM sytem Yes No Yes





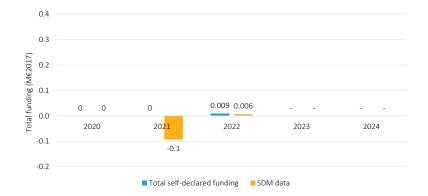
KPAs: SAF = Safety, ENV = Environment, CAP = Capacity, CEF = Cost-efficiency.

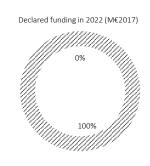
1. EOI date = Date of entry into operation

2. CP/MP = Common Project and Master Plan

180/206

PUBLIC FUNDING GRANTED FOR TOTAL CAPEX (CEF/TEN-T) SLOVAKIA   LPS SP						VAKIA   LPS SR
Actual funding declaration (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
Total funding declared	-	-	0.01	-	- 1	0.01
En route funding declared	-	-	0.01	-	-	0.01
En route funding that could not be assigned to a specific investment	-	-	0.01	-	-	0.01
Terminal funding	-	-	-	-	-	-
Terminal funding that could not be assigned to a specific investment	-	-	-	-	-	-
Actual funding declaration vs payments (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
Difference between total funding declared vs received	-	0.09	0.00	-	- 1	0.10
Total included in the funding declaration (reporting tables)	-	-	0.01	-	-	0.01
SDM Payment	-	(0.09)	0.01	-	-	(0.09)





⊗ Union-wide ■ ANSP

Slovakia reported 9K€<sub>2017</sub> funding in 2022. SESAR Deployment Manager data indicates a payment of 6K€<sub>2017</sub> in 2022. For RP3 to date, Slovakia declared 0.01M€<sub>2017</sub> of funding, while SESAR Deployment Manager data indicates a negative payment of -0.09M€<sub>2017</sub>.

Other

Unknown

Slovenia underspent 0.1ME<sub>2017</sub> (-1.9%) in costs related to investments for en route in 2022 compared to the determined costs. Slovenia did not plan any new major investments for RP3.

### CAPEX FOR NEW INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

### Determined and additional CAPEX by value of individual investments (M€2017)

APEX for new investments	18.58	% of total
New major investments (above 5M€ each) <sup>1</sup>	0	09
Included in the performance plan	0	09
Additional <sup>2</sup>	0	09
Other new investments (below 5M€ each) <sup>3</sup>	18.58	1009
Included in the performance plan	18.58	100%
Additional	0	09



# Determined CAPEX: en route and terminal ( $M \in_{2017}$ )

Total CAPEX for new major investments	N/A	% of total
En route	N/A	N/A
Terminal	N/A	N/A

Not applicable

Not applicable

# Determined CAPEX by type of investment (M€2017) Total CAPEX for new major investments N/A ATM systems N/A CNS systems N/A Infrastructure N/A

### New CAPEX: ANSP compared to Un 100% 100% Total new CAPEX (%) (%) 80% 80% (%) 50% major CAPEX 0% Total new CAPEX 60% 60% Not applicable 100% > Union-wide 40% 40% Total new ANSP 50% 20% 20% 100% 0% 0% Union-wide median ANSP Union-wide average ANSP

N/A

N/A

% of total

N/A

N/A

N/A

N/A

N/A

Unless otherwise stated, the Union-wide median values are reported as a measure of central tendency that is robust to outliers.

New major investments

Other new investments

The Union-wide average values have a high standard deviation: ATM systems (31%), CNS systems (21%), infrastructure (24%), Other (21%), unknown (1%).

Unknown

Infrastructure

ATM systems CNS systems

Other

1. New major investments: "acquisition, development, replacement, upgrade, or leasing of fixed assets representing a total value over the whole lifetime of the assets greater than EUR 5 million in real terms" (Reg. 2019/317 art. 2 (13)).

2. Additional investments are those investments not foreseen as part of the performance plan.

3. Other new investments: new investments or replacements/upgrades of existing assets representing a total value over the whole lifetime of the asset below 5M in real terms.

RP3

RP3

RP3

SLOVENIA | Slovenia Control

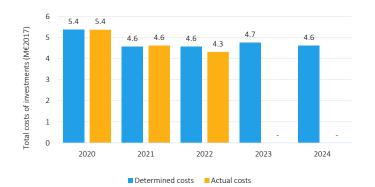
# COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

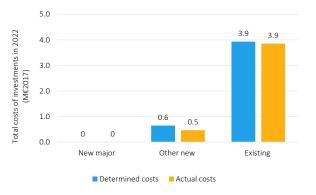
SLOVENIA | Slovenia Control

termined costs: new and existing investments $(M {f \varepsilon}_{_{2017}})^1$	2020D	2021D	2022D	2023D	2024D	RP3 to date
tal costs	5.36	4.56	4.57	4.75	4.61	14.50
New major investments	0	0	0	0	0	0
% New major investments in total costs of investments	0%	0%	0%	0%	0%	0%
Other new investments	0	0.10	0.64	1.92	2.46	0.74
% Other new investments in total costs of investments	0%	2%	14%	40%	53%	5%
Existing investments	5.36	4.46	3.93	2.83	2.15	13.76
% Existing investments in total costs of investments	100%	98%	86%	60%	47%	95%

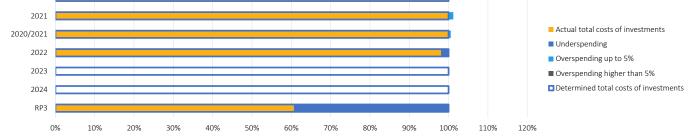
Actual costs: new and existing investments (M $\epsilon_{2017}$ )	2020A	2021A	2022A	2023A	2024A	RP3 to date
Total costs	5.36	4.61	4.31	-	-	14.29
New major investments	0	0	0	-	-	0
% New major investments in total costs of investments	0%	0%	0%	-	-	0%
Other new investments	0	0.16	0.46	-	-	0.62
% Other new investments in total costs of investments	0%	3%	11%	-	-	4%
Existing investments	5.36	4.46	3.85	-	-	13.68
% Existing investments in total costs of investments	100%	97%	89%	-	-	96%

Actual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
Total difference	0	0.05	(0.26)	-	-	(0.21)
New major investments	0	0	0	-	-	0
% change of actual with respect to determined	0%	0%	0%	-	-	0%
Other new investments	0	0.06	(0.18)	-	-	(0.12)
% change of actual with respect to determined	0%	60%	-29%	-	-	-17%
Existing investments	0.00	(0.00)	(0.08)	-	-	(0.08)
% change of actual with respect to determined	0%	0%	-2%	-	-	-0.59%





etermined costs by nature (M€ <sub>2017</sub> )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to da
otal costs of new and existing investments	5.36	4.56	9.92	4.57	4.75	4.61	14.5
Depreciation	3.80	3.27	7.07	3.24	3.31	3.16	10.3
Cost of capital	1.57	1.29	2.85	1.33	1.44	1.45	4.1
Cost of leasing	0	0	0	0	0	0	
ctual costs by nature (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to da
otal costs of new and existing investments	5.36	4.61	9.98	4.48	-	-	14.4
Depreciation	3.80	3.37	7.16	3.32	-	-	10.4
Cost of capital	1.57	1.25	2.82	1.17	-	-	3.9
Cost of leasing	0	0	0	0	-	-	
ctual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2020/2021	2022	2023	2024	RP3 to da
otal difference	0	0.05	0.05	(0.09)	-	- [	(0.0
Depreciation	0	0.09	0.09	0.08	-	-	0.1
Cost of capital	0	(0.04)	(0.04)	(0.17)	-	-	(0.2
Cost of leasing	0	0	0	0	-	-	



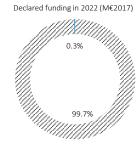
Slovenia did not establish a terminal charging zone for RP3.

Slovenia underspent  $0.1M \in_{2017}$  in costs related to investments in 2022. For RP3 to date, Slovenia underspent  $0.03M \in_{2017}$  in costs related to investments. These amounts shall be reimbursed to the airspace users through a reduction of future unit rate(s), unless the NSA decides after consultation with the users, that the ANSP shall not reimburse a part of the difference according to article 28 of Regulation (EU) 2019/317.

1	8	4	12	0	6	

PUBLIC FUNDING GRANTED FOR TOTAL CAPEX (CEF/TEN-T) SLOVENIA   Slovenia Contr						ovenia Control
Actual funding declaration (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
Total funding declared	0.40	0.04	0.14	-	- 1	0.58
En route funding declared	0.40	0.04	0.14	-	-	0.58
En route funding that could not be assigned to a specific investment	0.40	0.04	0.14	-	-	0.58
Terminal funding	-	-	-	-	-	-
Terminal funding that could not be assigned to a specific investment	-	-	-	-	-	-
Actual funding declaration vs payments (M $\varepsilon_{2017}$ )	2020	2021	2022	2023	2024	RP3 to date
Difference between total funding declared vs received	0.40	(0.00)	0.00	-	-	0.40
Total included in the funding declaration (reporting tables)	0.40	0.04	0.14	-	-	0.58
SDM Payment	0	0.04	0.14	-	-	0.18





⊘ Union-wide ■ ANSP

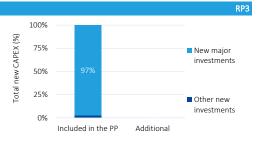


Slovenia reported 0.1M€<sub>2017 of</sub> funding in 2022, which corresponds to the data provided by the SESAR Deployment manager. For RP3 to date, Slovenia declared 0.6M€<sub>2017</sub> of funding, while SESAR Deployment Manager data indicates a payment of 0.2M€<sub>2017</sub>.

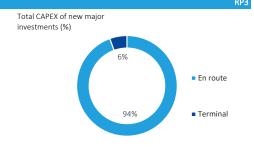
Spain underspent 4.9ME<sub>2017</sub> (-4.1%) in costs related to investments for en route and terminal in 2022 compared to the determined costs. Spain planned 11 new major investments for RP3, all of which have started.

### CAPEX FOR NEW INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

Determined and additional CAPEX by value of individual investments (M $\epsilon_{2017}$ )						
Total CAPEX for new investments	663.68	% of total				
New major investments (above 5M€ each) <sup>1</sup>	646.02	97%				
Included in the performance plan	646.02	97%				
Additional <sup>2</sup>	0	0%				
Other new investments (below 5M€ each) <sup>3</sup>	17.66	3%				
Included in the performance plan	17.66	3%				
Additional	0	0%				

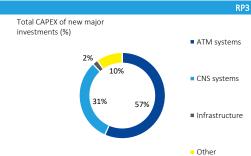


Determined CAPEX: en route and terminal (M $\epsilon_{2017}$ )						
Total CAPEX for new major investments	646.02	% of total				
En route	610.32	94%				
Terminal	35.70	6%				



# Determined CAPEX by type of investment (M $\epsilon_{2017}$ )

Total CAPEX for new investments	546.08	% of total
ATM systems	309.28	57%
CNS systems	171.84	31%
Infrastructure	11.13	2%
Other	53.83	10%
Unknown	0	0%

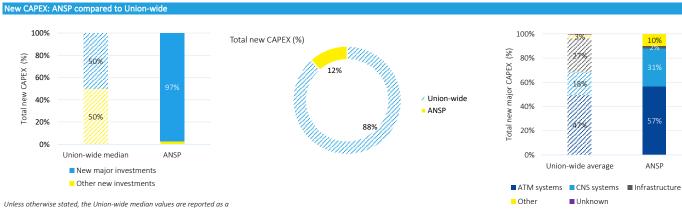


Union-wide average

Unknown

ANSP

RP3



measure of central tendency that is robust to outliers.

1. New major investments: "acquisition, development, replacement, upgrade, or leasing of fixed assets representing a total value over the whole lifetime of the assets greater than EUR 5 million in real terms" (Reg. 2019/317 art. 2 (13)).

2. Additional investments are those investments not foreseen as part of the performance plan.

3. Other new investments: new investments or replacements/upgrades of existing assets representing a total value over the whole lifetime of the asset below 5M€ in real terms.

SPAIN | ENAIRE

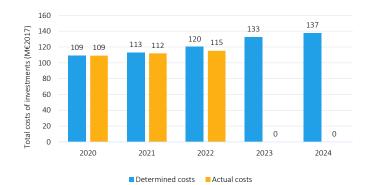
# COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

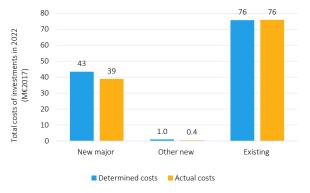
# SPAIN | ENAIRE

Determined costs: new and existing investments $\left(M\varepsilon_{2017} ight)^1$	2020D	2021D	2022D	2023D	2024D	RP3 to date
Total costs	109.06	113.00	120.13	132.64	137.43	342.18
New major investments	12.92	24.14	43.41	65.66	85.07	80.47
% New major investments in total costs of investments	12%	21%	36%	50%	62%	24%
Other new investments	0.08	0.26	1.01	1.96	2.47	1.35
% Other new investments in total costs of investments	0%	0%	1%	1%	2%	0%
Existing investments	96.05	88.60	75.71	65.01	49.89	260.36
% Existing investments in total costs of investments	88%	78%	63%	49%	36%	76%

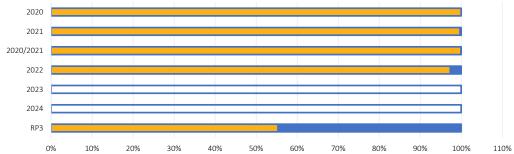
Actual costs: new and existing investments $(M \varepsilon_{2017})$	2020A	2021A	2022A	2023A	2024A	RP3 to date
Total costs	109.06	111.91	115.23	-	-	336.20
New major investments	12.92	23.43	38.92	-	-	75.27
% New major investments in total costs of investments	12%	21%	-	-	-	22%
Other new investments	0.08	0.19	0.43	-	-	0.71
% Other new investments in total costs of investments	0%	0%	-	-	-	0%
Existing investments	96.05	88.29	75.88	-	-	260.22
% Existing investments in total costs of investments	88%	79%	-	-	-	77%

Actual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
Total difference	0	(1.09)	(4.90)	-	-	(5.98)
New major investments	0	(0.71)	(4.49)	-	-	(5.20)
% change of actual with respect to determined	0%	-3%	-10%	-	-	-6%
Other new investments	0	(0.07)	(0.58)	-	-	(0.64)
% change of actual with respect to determined	0%	-26%	-57%	-	-	-48%
Existing investments	0	(0.31)	0.17	-	-	(0.14)
% change of actual with respect to determined	0%	-0.35%	0%	-	-	-0.05%





COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFOR	RMANCE PLAN				SPAIN CON	TINENTAL - En i	route   ENAIRE
Determined costs by nature $(M \epsilon_{2017})^1$	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to date
Total costs of new and existing investments	89.59	93.47	183.07	99.50	110.27	113.75	282.56
Depreciation	66.64	69.63	136.28	74.49	85.01	87.80	210.77
Cost of capital	22.95	23.84	46.79	25.00	25.26	25.95	71.79
Cost of leasing	0	0	0	0	0	0	0
Actual costs by nature (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to date
Total costs of new and existing investments	89.59	92.98	182.58	96.60	-	-	279.18
Depreciation	66.64	70.08	136.72	73.18	-	-	209.91
Cost of capital	22.95	22.90	45.85	23.42	=	-	69.28
Cost of leasing	0	0	0	-	-	-	0
Actual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2020/2021	2022	2023	2024	RP3 to date
Total difference	0	(0.49)	(0.49)	(2.89)	-	-	(3.38)
Depreciation	0	0.45	0.45	(1.31)	-	-	(0.87)
Cost of capital	0	(0.94)	(0.94)	(1.58)	-	-	(2.51)
Cost of leasing	0	0	0	-	-	-	0

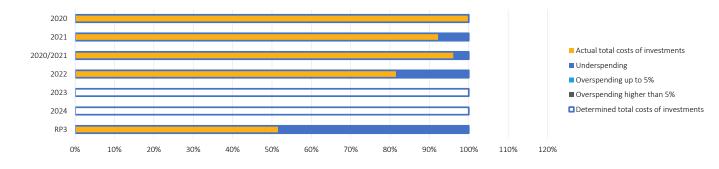


		Actual total costs of investments
		Underspending
		Overspending up to 5%
		Overspending higher than 5%
		Determined total costs of investments
%	110%	120%

termined costs by nature (M€ <sub>2017</sub> )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to da	
tal costs of new and existing investments	11.44	11.20	22.65	11.90	12.84	14.01	34.5	
Depreciation	8.51	8.12	16.63	8.41	9.12	10.05	25.0	
Cost of capital	2.93	3.09	6.02	3.49	3.72	3.95	9.5	
Cost of leasing	0	0	0	0	0	0		
tual costs by type of cost (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to da	
tal costs of new and existing investments	11.44	11.26	22.70	11.51	-	-	34.2	
Depreciation	8.51	8.47	16.98	8.77	-	-	25.	
Cost of capital	2.93	2.79	5.72	2.74	-	-	8.4	
Cost of leasing	0	0	0	-	-	-		
tual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2020/2021	2022	2023	2024	RP3 to d	
tal difference	0	0.05	0.05	(0.39)	-	-	(0.	
Depreciation	0	0.35	0.35	0.36	-	-	0.	
Cost of capital	0	(0.30)	(0.30)	(0.74)	-	-	(1.	
Cost of leasing	0	0	0	-	-	-		
2020								
2021								
020/2021						I costs of invest	ments	
2022					Undersper	-		
2023						<ul> <li>Overspending up to 5%</li> <li>Overspending higher than 5%</li> </ul>		
2024					Determine	d total costs of i	nvestments	
RP3								

Spain underspent  $2.9M \epsilon_{2017}$  in costs related to investments in the Continental en route charging zone and  $0.4M \epsilon_{2017}$  in the Gran Canaria en route charging zone in 2022. For RP3 to date, Spain en route Continental underspent  $3.4M \epsilon_{2017}$  in costs related to investments, and Spain en route Gran Canaria underspent  $0.3M \epsilon_{2017}$ . These amounts shall be reimbursed to the airspace users through a reduction of future unit rate(s), unless the NSA decides after consultation with the users, that the ANSP shall not reimburse a part of the difference according to article 28 of Regulation (EU) 2019/317.

Determined costs by nature (M€ <sub>2017</sub> )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to date
Total costs of new and existing investments	8.02	8.32	16.34	8.73	9.53	9.67	25.08
Depreciation	6.19	6.34	12.53	6.66	7.45	7.52	19.19
Cost of capital	1.83	1.98	3.81	2.08	2.09	2.16	5.89
Cost of leasing	0	0	0	0	0	0	0
Actual costs by type of cost (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to date
Total costs of new and existing investments	8.02	7.67	15.69	7.12	-	-	22.81
Depreciation	6.19	5.95	12.15	5.55	-	-	17.70
Cost of capital	1.83	1.72	3.54	1.57	-	-	5.11
Cost of leasing	0	0	0	-	-	-	0
Actual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2020/2021	2022	2023	2024	RP3 to date
Total difference	0	(0.65)	(0.65)	(1.62)	-	-1	(2.27)
Depreciation	0	(0.39)	(0.39)	(1.11)	-	-	(1.49)
Cost of capital	0	(0.27)	(0.27)	(0.51)	-	-	(0.78)
Cost of leasing	0	0	0	-	_		0



Spain underspent  $1.6M \epsilon_{2017}$  in costs related to investments in terminal in 2022. For RP3 to date, Spain underspent  $2.3M \epsilon_{2017}$  in costs related to investments. These amounts shall be reimbursed to the airspace users through a reduction of future unit rate(s), unless the NSA decides after consultation with the users, that the ANSP shall not reimburse a part of the difference according to article 28 of Regulation (EU) 2019/317.

188/206

Determined costs (M€ <sub>2017</sub> ) <sup>1</sup>	2020D	2021D	2022D	2023D	2024D	RP3 to da
Total costs of investments	12.92	24.14	43.41	65.66	85.07	80.4
1 Digital Tech	4.52	8.68	15.27	23.96	35.09	28.4
2 ENAIRE's Digital Transformation	3.40	5.59	8.54	11.28	13.26	17.5
3 Digital Network	0.71	3.20	5.78	9.62	11.71	9.7
4 Digital Airspace	2.42	3.18	5.19	7.42	9.03	10.7
5 Technical COMM evolution (&basis for future concepts such as ADSP)	1.57	1.92	4.95	7.71	8.91	8.4
6 Safety Reinforcement Action Plan ("REINFORCE")	0.05	0.52	0.90	1.33	1.52	1.4
7 CRIDA as engine of ENAIRE innovation	0.02	0.14	0.84	1.23	1.67	1.0
8 Security & Cybersecurity systems evolution plan ("PROTECT")	0.11	0.44	0.78	1.11	1.47	1.3
9 Eco-ENAIRE /Green Sky	0.01	0.19	0.51	0.99	1.07	0.7
10 Digital AIM	0.10	0.18	0.43	0.76	1.08	0.7
11 Civil-Military Coordination	0.00	0.10	0.23	0.26	0.27	0.3
ctual costs (M€ <sub>2017</sub> )	2020A	2021A	2022A	2023A	2024A	RP3 to da
otal costs of investments	12.92	23.43	38.92	-	-	75.2
1 Digital Tech	4.52	8.44	12.88	-	-	25.8
	3.40	6.00	9.43	-	-	18.8
2 ENAIRE's Digital Transformation	5.40					9.2
2 ENAIRE's Digital Transformation 3 Digital Network	0.71	2.80	5.76	-	-	
		2.80 3.16	5.76 4.64	-	-	10.2
3 Digital Network	0.71				-	10.2 5.9
3 Digital Network 4 Digital Airspace	0.71 2.42	3.16	4.64			5.
3 Digital Network 4 Digital Airspace 5 Technical COMM evolution (&basis for future concepts such as ADSP)	0.71 2.42 1.57	3.16 1.70	4.64 2.71	-	- - - - -	5. 1
3 Digital Network     4 Digital Airspace     5 Technical COMM evolution (&basis for future concepts such as ADSP)     6 Safety Reinforcement Action Plan ("REINFORCE")	0.71 2.42 1.57 0.05	3.16 1.70 0.45	4.64 2.71 0.90		- - - - - -	5. 1. 0.
3 Digital Network     4 Digital Airspace     5 Technical COMM evolution (&basis for future concepts such as ADSP)     6 Safety Reinforcement Action Plan ("REINFORCE")     7 CRIDA as engine of ENAIRE innovation	0.71 2.42 1.57 0.05 0.02	3.16 1.70 0.45 0.14	4.64 2.71 0.90 0.80	- - - -	- - - - - - - - -	5. 1. 0. 1.
3 Digital Network     4 Digital Airspace     5 Technical COMM evolution (&basis for future concepts such as ADSP)     6 Safety Reinforcement Action Plan ("REINFORCE")     7 CRIDA as engine of ENAIRE innovation     8 Security & Cybersecurity systems evolution plan ("PROTECT")	0.71 2.42 1.57 0.05 0.02 0.11	3.16 1.70 0.45 0.14 0.45	4.64 2.71 0.90 0.80 0.83	- - - -	- - - - - - - - -	

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COSTS OF NEW MAJOR INVESTMENTS					S	PAIN   ENAIRE
Actual minus determined costs of investments (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
Total difference in costs of investments	0.00	(0.71)	(4.49)	-	-	(5.20)
1 Digital Tech	0.00	(0.24)	(2.38)	-	-	(2.62)
2 ENAIRE's Digital Transformation	0.00	0.41	0.90	-	-	1.31
3 Digital Network	0.00	(0.41)	(0.01)	-	-	(0.42)
4 Digital Airspace	(0.00)	(0.01)	(0.54)	-	-	(0.56)
5 Technical COMM evolution (&basis for future concepts such as ADSP)	0.00	(0.23)	(2.24)	-	-	(2.46)
6 Safety Reinforcement Action Plan ("REINFORCE")	(0.00)	(0.07)	(0.00)	-	-	(0.08)
7 CRIDA as engine of ENAIRE innovation	(0.00)	(0.01)	(0.04)	-	-	(0.04)
8 Security & Cybersecurity systems evolution plan ("PROTECT")	(0.00)	0.01	0.05	-	-	0.06

(0.16)

0.10

(0.09)

(0.39)

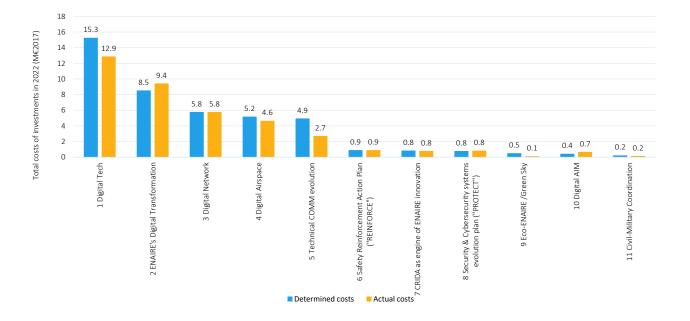
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1. Determined costs comprise depreciation costs, cost of capital, and cost of leasing in the performance plans.

10 Digital AIM

9 Eco-ENAIRE /Green Sky

11 Civil-Military Coordination

190/206

(0.55)

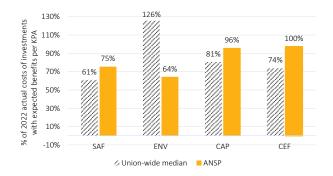
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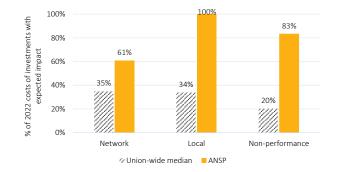
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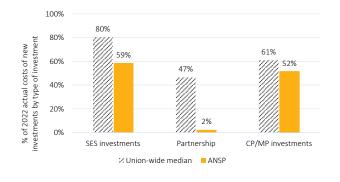
### EXPECTED BENEFIT AND IMPACT PER NEW MAJOR INVESTMENT SPAIN | ENAIRE # New major investments Expected benefit per KPA ENV САР SAF CEF 1 Digital Tech Х Х Х Х 2 ENAIRE's Digital Transformation Х Х 3 Digital Network Х Х Х Х 4 Digital Airspace Х Х Х Х 5 Technical COMM evolution (&basis for future concepts such as ADSP) Х Х Х 6 Safety Reinforcement Action Plan ("REINFORCE") Х 7 CRIDA as engine of ENAIRE innovation Х Х Х Х 8 Security & Cybersecurity systems evolution plan ("PROTECT") Х Х Х 9 Eco-ENAIRE /Green Sky Х Х 10 Digital AIM Х Х Х 11 Civil-Military Coordination Х Х Х

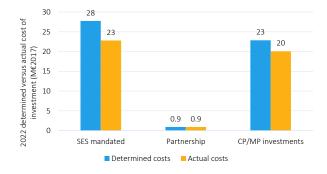
# New major investments	Expected impact		
	Network	Local	Non-performance
1 Digital Tech	X	Х	X
2 ENAIRE's Digital Transformation		Х	Х
3 Digital Network		Х	Х
4 Digital Airspace	Х	Х	
5 Technical COMM evolution (& basis for future concepts such as ADSP)	Х	Х	Х
6 Safety Reinforcement Action Plan ("REINFORCE")	Х	Х	
7 CRIDA as engine of ENAIRE innovation	Х	Х	Х
8 Security & Cybersecurity systems evolution plan ("PROTECT")	Х	Х	
9 Eco-ENAIRE /Green Sky		Х	Х
10 Digital AIM	Х	Х	Х
11 Civil-Military Coordination	Х	Х	



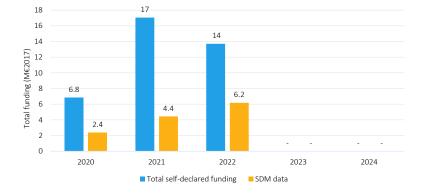


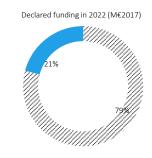
ECTED IMPACT AND BENEFIT PER NEW MAJOR INVESTMENT		SPAIN   ENA				
New major investments	EIO Date <sup>1</sup>	Status	SES Reg.	Partnership	ATM sy	/stem
					ATM sytem	CP/ MP <sup>2</sup>
1 Digital Tech	2021-2028	Started	Yes	No	Yes	CP
2 ENAIRE's Digital Transformation	2021-2028	Started	No	No	No	-
3 Digital Network	2021-2028	Started	No	No	No	-
4 Digital Airspace	2021-2028	Started	Yes	No	Yes	CP
5 Technical COMM evolution (&basis for future concepts such as ADSP)	2021-2028	Started	Yes	No	Yes	-
6 Safety Reinforcement Action Plan ("REINFORCE")	2021-2028	Started	Yes	Yes	Yes	CP
7 CRIDA as engine of ENAIRE innovation	2021-2026	Started	No	No	Yes	CP
8 Security & Cybersecurity systems evolution plan ("PROTECT")	2021-2028	Started	Yes	No	Yes	-
9 Eco-ENAIRE /Green Sky	2021-2026	Started	No	No	No	-
10 Digital AIM	2021-2028	Started	Yes	No	Yes	CP
11 Civil-Military Coordination	2021-2028	Started	Yes	No	Yes	CP





PUBLIC FUNDING GRANTED FOR TOTAL CAPEX (CEF/TEN-T)					S	PAIN   ENAIRE
Actual funding declaration (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
Total funding declared	6.83	17.05	13.71	-	-	37.59
En route funding declared	6.24	15.85	12.23	-	-	34.32
En route funding that could not be assigned to a specific investment	6.24	15.85	12.23	-	-	34.32
Terminal funding	0.59	1.20	1.48	-	-	3.27
Terminal funding that could not be assigned to a specific investment	0.59	1.20	1.48	-	-	3.27
Actual funding declaration vs payments (M $\epsilon_{2017}$ )	2020	2021	2022	2023	2024	RP3 to date
Difference between total funding declared vs received	4.44	12.61	7.54	-	-	24.58
Total included in the funding declaration (reporting tables)	6.83	17.05	13.71	-	-	37.59
SDM Payment	2.40	4.44	6.17	-	-	13.01





⊠ Union-wide ■ ANSP

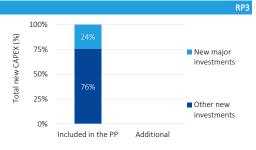
Spain reported 14M€<sub>2017</sub> in 2022. However SESAR Deployment Manager data indicates a payment of 6.2M€<sub>2017</sub> in 2022. For RP3 to date, Spain declared 38M€<sub>2017</sub> of funding, while SESAR Deployment Manager data indicates a payment of 13M€<sub>2017</sub>.

Sweden reported an overspending of 6.3M€<sub>2017</sub> (+30%) in costs related to investments for en route and terminal in 2022 compared to the determined costs. Sweden planned three new major investments for RP3, one of which has started and two have been marked as delayed. Sweden has reported additional costs compared to the approved performance plan for new major investments (Project 7 - COOPANS (Topsky) and Project 8 - SUR (surveillance)), which do not seem to have been approved by the NSA and which do not match with the reproting tables.

# CAPEX FOR NEW INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

### Determined and additional CAPEX by value of individual investments (M€2017)

APEX for new investments	109.28	% of total
New major investments (above 5M€ each) <sup>1</sup>	26.73	24%
Included in the performance plan	26.73	24%
Additional <sup>2</sup>	0	0%
Other new investments (below 5M€ each) <sup>3</sup>	82.55	76%
Included in the performance plan	82.55	76%
Additional	0	0%



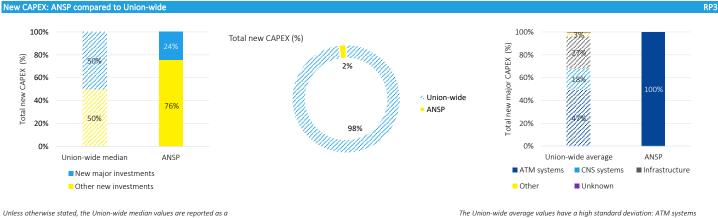
Determined CAPEX: en route and terminal ( $M \in_{2017}$ )		
Total CAPEX for new major investments	26.73	% of total
En route	23.74	89%
Terminal	2.98	11%



Determined CAPEX by type of investment (M $\epsilon_{2017}$ )		
Fotal CAPEX for new major investments	26.73	% of total
ATM systems	26.73	100%
CNS systems	0	0%
Infrastructure	0	0%
Other	0	0%
Unknown	0	0%







(31%), CNS systems (21%), infrastructure ( 24%), Other (21%), unknown (1%).

1. New major investments: "acquisition, development, replacement, upgrade, or leasing of fixed assets representing a total value over the whole lifetime of the assets greater than EUR 5 million in real terms" (Reg. 2019/317 art. 2 (13)).

2. Additional investments are those investments not foreseen as part of the performance plan.

measure of central tendency that is robust to outliers.

3. Other new investments: new investments or replacements/upgrades of existing assets representing a total value over the whole lifetime of the asset below 5M€ in real terms.

SWEDEN | LFV

RP3

### COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

	1	95/	206	
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SWEDEN | LFV

-80%

-40%

(14.15)

etermined costs: new and existing investments $\left(M {f \in}_{2017}  ight)^1$	2020D	2021D	2022D	2023D	2024D	RP3 to date
otal costs	14.06	16.31	20.81	18.53	17.22	51.17
New major investments	0.44	2.30	2.76	2.50	2.56	5.51
% New major investments in total costs of investments	3%	14%	13%	14%	15%	11%
Other new investments	1.17	1.43	7.29	7.38	8.02	9.88
% Other new investments in total costs of investments	8%	9%	35%	40%	47%	19%
Existing investments	12.45	12.58	10.75	8.64	6.64	35.78
% Existing investments in total costs of investments	89%	77%	52%	47%	39%	70%

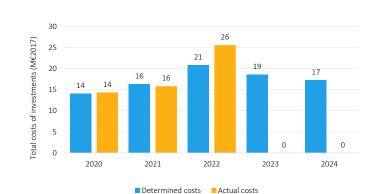
Actual costs: new and existing investments (M $\epsilon_{2017}$ )	2020A	2021A	2022A	2023A	2024A	RP3 to date
Total costs	14.33	15.80	25.54	-	-	55.67
New major investments	8.71	9.81	13.52	-	-	32.04
% New major investments in total costs of investments	61%	62%	-	-	-	58%
Other new investments	0.75	0.48	0.76	-	-	1.99
% Other new investments in total costs of investments	5%	3%	-	-	-	4%
Existing investments	4.87	5.51	11.26	-	-	21.63
% Existing investments in total costs of investments	34%	35%	-	-	-	39%

Actual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
Total difference	0.27	(0.50)	4.73	-	-	4.50
New major investments	8.26	7.51	10.76	-	-	26.53
% change of actual with respect to determined	1864%	3	389%	-	-	482%
Other new investments	(0.41)	(0.95)	(6.53)	-	-	(7.89)

-35%

(7.58)

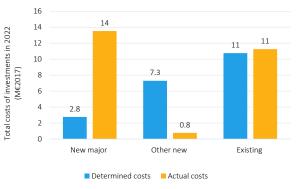
-61%



% change of actual with respect to determined

% change of actual with respect to determined

Existing investments



-90%

0.50

5%

(1)

(7.07)

1. The performance plans include costs related to investments which comprise depreciation cost, cost of capital, and cost of leasing.

The total costs of investments included in the monitoring report do not match the total costs of investments included in the reporting tables. No explanation on the differences has been provided.

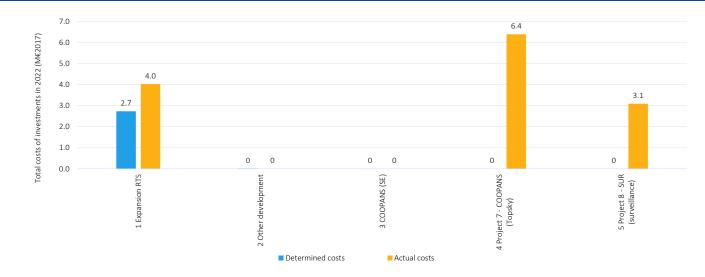
Sweden has reported additional costs compared to the approved performance plan for new major investments (Project 7 - COOPANS (Topsky) and Project 8 - SUR (surveillance)), which do not seem to have been approved by the NSA and which do not match with the reproting tables.

termined costs by nature (M€ <sub>2017</sub> )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to da
Lermined costs by nature (M€ <sub>2017</sub> )	20200	20210	20200/20210	2022D	2023D	2024D	κρά το α
al costs of new and existing investments	15.09	17.15	32.24	20.71	19.03	18.08	52.
Depreciation	13.87	14.93	28.81	15.86	16.19	15.46	44.
Cost of capital	1.21	2.21	3.43	4.85	2.84	2.62	8.
Cost of leasing	0	0	0	0	0	0	
ual costs by nature (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to d
al costs of new and existing investments	15.09	16.74	31.83	26.81	-	-	58.
Depreciation	13.87	14.19 2.54	28.07 3.76	18.72 8.09	-	-	46.
Cost of capital Cost of leasing	0	2.54	0	- 8.09	-	-	11.
ual minus determined costs (M€₂nıı7)	2020	2021	2020/2021	2022	2023	2024	RP3 to c
	2020	2021	2020/2021	2022	2025	2024	KF3 10 0
al difference	0	(0.41)	(0.41)	6.11	-	-	5.
Depreciation	0	(0.74)	(0.74)	2.86	-	-	2
Cost of capital Cost of leasing	0	0.33	0.33	3.25	-		3
	0	0	0				
2020							
2021							
					Actual total cost	ts of investments	
220/2021					Underspending		
2022					Overspending u	p to 5%	
2023					Overspending h	igher than 5%	
2024					Determined tota		ments
2024							nemes
RP3 0% 10% 20% 30% 40% STS RELATED TO INVESTMENTS INCLUDED IN THE PERFORMA	50% 60% 70%	80%	90% 100%	110% 120%		SWEDEN -	Terminal
0% 10% 20% 30% 40%		80% 2021D	90% 100% 2020D/2021D	110% 120% 2022D	2023D	SWEDEN	
0% 10% 20% 30% 40% STS RELATED TO INVESTMENTS INCLUDED IN THE PERFORMAtermined costs by nature (M€ $_{2017}$ )	NCE PLAN 2020D	2021D	2020D/2021D	2022D		2024D	RP3 to o
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0% 10% 20% 30% 40% TS RELATED TO INVESTMENTS INCLUDED IN THE PERFORMA ermined costs by nature (M€ $_{2017}$ ) al costs of new and existing investments	NCE PLAN 2020D 0.06	2021D 0.09	2020D/2021D 0.15	2022D 0.09	0.09	2024D 0.08	RP3 to o
0% 10% 20% 30% 40% TS RELATED TO INVESTMENTS INCLUDED IN THE PERFORMA ermined costs by nature (M€ <sub>2017</sub> ) al costs of new and existing investments Depreciation	NNCE PLAN 2020D 0.06 0	<b>2021D</b> <b>0.09</b> 0	2020D/2021D 0.15 0	<b>2022D</b> <b>0.09</b> 0	<b>0.09</b> 0	<b>2024D</b> <b>0.08</b> 0	RP3 to o
0% 10% 20% 30% 40% STS RELATED TO INVESTMENTS INCLUDED IN THE PERFORMA ermined costs by nature (M€ <sub>2017</sub> ) al costs of new and existing investments Depreciation Cost of capital Cost of leasing	NCE PLAN 2020D 0.06 0 0.06	<b>2021D</b> 0.09 0 0.09	2020D/2021D 0.15 0 0.15	<b>2022D</b> <b>0.09</b> 0 0.09	<b>0.09</b> 0 0.09	<b>2024D</b> 0.08 0.08	<b>RP3 to 0</b>
0% 10% 20% 30% 40% STS RELATED TO INVESTMENTS INCLUDED IN THE PERFORMA ermined costs by nature (M€ $_{2017}$ ) al costs of new and existing investments Depreciation Cost of capital Cost of leasing ual costs by nature (M€ $_{2017}$ )	NCE PLAN 2020D 0.06 0 0.06 0 2020A	2021D 0.09 0 0 0 2021A	2020D/2021D 0.15 0 0.15 0 2020A/2021A	2022D 0.09 0 0.09 0 2022A	0.09 0 0.09 0	2024D 0.08 0 0.08 0 0 0 0 0 0 0 0 0 0 0 0 0 0	RP3 to 0 0 RP3 to 0
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0%       10%       20%       30%       40%         STS RELATED TO INVESTMENTS INCLUDED IN THE PERFORMA         ermined costs by nature ( $M \mathcal{E}_{2017}$ )         al costs of new and existing investments         Depreciation       Cost of capital         Cost of leasing       Cost of leasing         ual costs by nature ( $M \mathcal{E}_{2017}$ )         al costs of new and existing investments         Depreciation       Cost of capital         Cost of capital       Cost of capital         Cost of capital       Cost of capital	NCE PLAN	2021D 0.09 0 0 0 0 2021A 0.10 0 0.10	2020D/2021D 0.15 0 0.15 0 2020A/2021A 0.16 0 0.16	2022D 0.09 0 0.09 0 2022A	0.09 0 0.09 0	2024D 0.08 0 0.08 0 0 0 0 0 0 0 0 0 0 0 0 0 0	RP3 to c 0 0 RP3 to c
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0% 10% 20% 30% 40% STS RELATED TO INVESTMENTS INCLUDED IN THE PERFORMA sermined costs by nature (M€ <sub>2017</sub> ) al costs of new and existing investments Depreciation Cost of capital Cost of leasing ual costs by nature (M€ <sub>2017</sub> ) al costs of new and existing investments Depreciation Cost of capital Cost of capital Cost of leasing ual minus determined costs (M€ <sub>2017</sub> ) al difference Depreciation Cost of capital Cost of leasing 2020 2021 2020/2021	NNCE PLAN	2021D 0.09 0 0 0 2021A 0.10 0 0.10 0 2021 2021 0.01 0 0	2020D/2021D 0.15 0 0.15 0 2020A/2021A 0.16 0 0.16 0 2020/2021 0.01 0 0.01	2022D 0.09 0 0 2022A 0.24 - 0.24 - 2022 0.15 - 0.15	0.09 0 0.09 0 2023A - - - - 2023 - - - - - - - - - - - - -	2024D 0.08 0 0 0.08 0 0 2024A - 0 2024 - 0 2024 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 -	RP3 to c           0
0% 10% 20% 30% 40% STS RELATED TO INVESTMENTS INCLUDED IN THE PERFORMA termined costs by nature (M€ <sub>2017</sub> ) al costs of new and existing investments Depreciation Cost of capital Cost of leasing ual costs by nature (M€ <sub>2017</sub> ) al costs of new and existing investments Depreciation Cost of capital Cost of capital Cost of leasing ual minus determined costs (M€ <sub>2017</sub> ) al difference Depreciation Cost of capital Cost of capital Cost of capital Cost of capital Cost of leasing 2020 2021 2020 2021 2022 2023	NNCE PLAN	2021D 0.09 0 0 0 2021A 0.10 0 0.10 0 2021 2021 0.01 0 0	2020D/2021D 0.15 0 0.15 0 2020A/2021A 0.16 0 0.16 0 2020/2021 0.01 0 0.01	2022D 0.09 0 0 2022A 0.24 - 0.24 - 2022 0.15 - 0.15	0.09 0 0.09 0 2023A - - - - 2023 - - - - - - - - - - - - -	2024D 0.08 0 0 0.08 0 0 2024A - 0 2024A - 0 2024 - 0 2024 - 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	RP3 to d           0.
0% 10% 20% 30% 40% STS RELATED TO INVESTMENTS INCLUDED IN THE PERFORMA termined costs by nature (M€ <sub>2017</sub> ) al costs of new and existing investments Depreciation Cost of capital Cost of leasing ual costs by nature (M€ <sub>2017</sub> ) al costs of new and existing investments Depreciation Cost of capital Cost of leasing ual minus determined costs (M€ <sub>2017</sub> ) al difference Depreciation Cost of capital Cost of leasing 2020 2021 2020/2021 2022/2021	NNCE PLAN	2021D 0.09 0 0 0 2021A 0.10 0 0.10 0 2021 2021 0.01 0 0	2020D/2021D 0.15 0 0.15 0 2020A/2021A 0.16 0 0.16 0 2020/2021 0.01 0 0.01	2022D 0.09 0 0 2022A 0.24 - 0.24 - 2022 0.15 - 0.15	0.09 0 0.09 0 2023A - - - - 2023 - - - - - - - - - - - - -	2024D 0.08 0 0 0.08 0 0 2024A - 0 2024 - 0 2024 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 -	RP3 to c           0<

The total costs of investments included in the monitoring report do not match the total costs of investments included in the reporting tables. No explanation on the differences has been provided.

Sweden overspent 6.3M€2017 in costs related to investments (+6.1M€2017 in en route and +0.2M€2017 in terminal) in 2022. For RP3 to date, Sweden overspent 5.9M€2017 in costs related to investments.

COSTS BY NEW MAJOR INVESTMENTS						SWEDEN   LFV
Determined costs $(M \varepsilon_{2017})^1$	2020D	2021D	2022D	2023D	2024D	RP3 to date
Total costs of investments	0.44	2.30	2.76	2.50	2.56	5.51
1 Expansion RTS	0.44	2.30	2.74	2.38	2.27	5.48
2 Other development	0	0	0.02	0.06	0.14	0.02
3 COOPANS (SE)	0	0	0.01	0.06	0.15	0.01
4 Project 7 - COOPANS (Topsky)	0	0	0	0	0	0
5 Project 8 - SUR (surveillance)	0	0	0	0	0	0
Actual costs (M€ <sub>2017</sub> )	2020A	2021A	2022A	2023A	2024A	RP3 to date
Total costs of investments	8.71	9.81	13.52	-	-	32.04
1 Expansion RTS	0.40	2.19	4.03	-	-	6.63
2 Other development	0	0	-	-	-	0
3 COOPANS (SE)	0	0	-	-	-	0
4 Project 7 - COOPANS (Topsky)	6.73	5.37	6.40	-	-	18.50
5 Project 8 - SUR (surveillance)	1.58	2.25	3.10	-	-	6.92
Actual minus determined costs of investments ( $M \varepsilon_{2017}$ )	2020	2021	2022	2023	2024	RP3 to date
Total difference in costs of investments	8.26	7.51	10.79	-	-	26.56
1 Expansion RTS	(0.04)	(0.11)	1.30	-	-	1.15
2 Other development	0	0	-	-	-	0
3 COOPANS (SE)	0	0	-	-	-	0
4 Project 7 - COOPANS (Topsky)	6.73	5.37	6.40	-	-	18.50
5 Project 8 - SUR (surveillance)	1.58	2.25	3.10	-	-	6.92

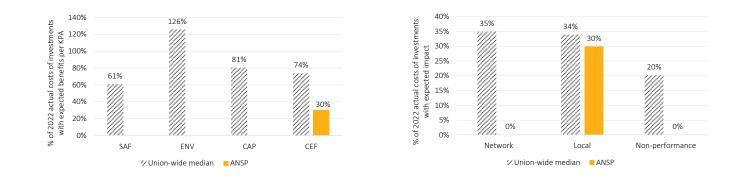


1. Determined costs comprise depreciation costs, cost of capital, and cost of leasing in the performance plans.

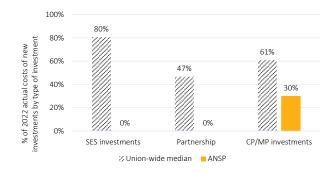
Sweden has reported additional costs compared to the approved performance plan for new major investments (Project 7 - COOPANS (Topsky) and Project 8 - SUR (surveillance)), which do not seem to have been approved by the NSA and which do not match with the reproting tables.

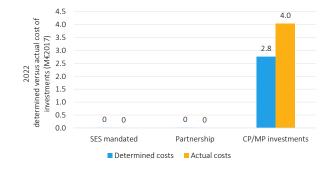
### EXPECTED BENEFIT AND IMPACT PER NEW MAJOR INVESTMENT SWEDEN | LFV Expected benefit per KPA # New major investments ENV CAP SAF CEF 1 Expansion RTS Х 2 Other development 3 COOPANS (SE) 4 Project 7 - COOPANS (Topsky) Unknown Unknown Unknown Unknown 5 Project 8 - SUR (surveillance) Unknown Unknown Unknown Unknown # New major investments Expected impact

	Network	Local	Non-performance	
1 Expansion RTS		Х		
2 Other development				
3 COOPANS (SE)				
4 Project 7 - COOPANS (Topsky)	Unknown	Unknown	Unknown	Unknown
5 Project 8 - SUR (surveillance)	Unknown	Unknown	Unknown	Unknown



# New major investments	EIO Date <sup>1</sup>	Status	SES Reg.	Partnership	AIM s'	ystem
					ATM sytem	CP/ MP <sup>2</sup>
1 Expansion RTS	2019-2021	Started	No	No	Yes	MP
2 Other development	Unknown	Delayed	No	No	Yes	MP
3 COOPANS (SE)	Unknown	Delayed	Yes	Yes	Yes	CP
4 Project 7 - COOPANS (Topsky)	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
5 Project 8 - SUR (surveillance)	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown





KPAs: SAF = Safety, ENV = Environment, CAP = Capacity, CEF = Cost-efficiency.

1. EOI date = Date of entry into operation

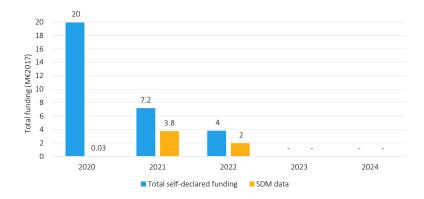
2. CP/MP = Common Project and Master Plan

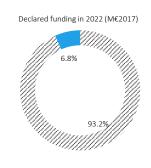
Sweden has reported additional costs compared to the approved performance plan for new major investments (Project 7 - COOPANS (Topsky) and Project 8 - SUR (surveillance)), which do not seem to have been approved by the NSA and which do not match with the reproting tables.

The new major investments 2 and 3 have been marked as delayed, as Sweden did not report actual costs so far, while costs were determined for those investments.

1	9	9	/2	0	6	

ctual funding declaration (M€2017)	2020	2021	2022	2023	2024	RP3 to dat
tual funding declaration (ME <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to dat
otal funding declared	19.95	7.17	3.82	-	-	30.9
En route funding declared	19.87	6.78	3.56	-	-	30.2
En route funding that could not be assigned to a specific investment	12.44	4.61	3.56	-	-	20.62
Expansion RTS	6.69	1.85	-	-	-	8.54
COOPANS (SE)	0.75	0.31	-	-	-	1.06
Terminal funding	0.08	0.39	0.26	0	0	0.73
Terminal funding that could not be assigned to a specific investment	0.08	0.39	0.26	-	-	0.73
ctual funding declaration vs payments (M $\epsilon_{2017}$ )	2020	2021	2022	2023	2024	RP3 to dat
ifference between total funding declared vs received	19.92	3.41	1.86	-	-	25.19
Total included in the funding declaration (reporting tables)	19.95	7.17	3.82	-	-	30.9
SDM Payment	0.03	3.76	1.96	-	-	5.75





⊠ Union-wide ■ ANSP

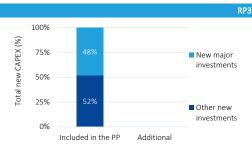
Sweden reported 3.8M  $\epsilon_{2017}$  in 2022. SESAR Deployment Manager data indicates a payment of 2.0M  $\epsilon_{2017}$  in 2022. For RP3 to date, Sweden declared 31M  $\epsilon_{2017}$  of funding, while SESAR Deployment

Switzerland underspent 3.9M  $\in_{2017}$  (-8.7%) in costs related to investments for en route and terminal in 2022 compared to the determined costs. Switzerland planned eight new major investments for RP3, all of which have started.

### CAPEX FOR NEW INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

### Determined and additional CAPEX by value of individual investments (M€2017)

APEX for new investments	214.85	% of total
New major investments (above 5M€ each) <sup>1</sup>	103.14	48%
Included in the performance plan	103.14	489
Additional <sup>2</sup>	0	09
Other new investments (below 5M€ each) <sup>3</sup>	111.71	529
Included in the performance plan	111.71	529
Additional	0	09



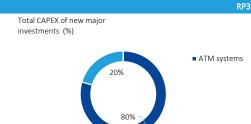
# Determined CAPEX: en route and terminal (M $\epsilon_{2017}$ )

Total CAPEX for new major investments	103.14	% of total
En route	67.21	65%
Terminal	35.93	35%



# Determined CAPEX by type of investment (M $\epsilon_{2017}$ )

Total CAPEX for new major investments	103.14	% of total
ATM systems	82.04	80%
CNS systems	21.10	20%
Infrastructure	0	0%
Other	0	0%
Unknown	0	0%



CNS systems

### New CAPEX: ANSP compared to Uni RP3 100% 100% Total new CAPEX (%) (%) 80% 80% (%) 50% Total new major CAPEX 4% Total new CAPEX 60% 60% > Union-wide 40% 40% 80% ANSP 50% 52% 20% 20% 96% 0% 0% Union-wide median ANSP Union-wide average ANSP ATM systems CNS systems Infrastructure New major investments Other Unknown Other new investments Unless otherwise stated, the Union-wide median values are reported as a The Union-wide average values have a high standard deviation: ATM systems (31%), CNS systems (21%), infrastructure (24%), Other (21%), unknown (1%). measure of central tendency that is robust to outliers.

1. New major investments: "acquisition, development, replacement, upgrade, or leasing of fixed assets representing a total value over the whole lifetime of the assets greater than EUR 5 million is used terms" (leg. 2010/211 et -2 /12))

in real terms " (Reg. 2019/317 art. 2 (13)).

2. Additional investments are those investments not foreseen as part of the performance plan.

3. Other new investments: new investments or replacements/upgrades of existing assets representing a total value over the whole lifetime of the asset below 5M€ in real terms.

SWITZERLAND | Skyguide

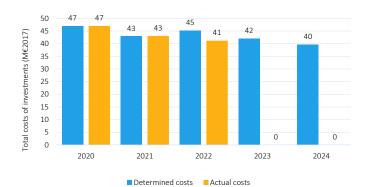
# COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN

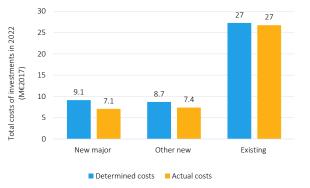
201/206

Determined costs: new and existing investments ${(M {\it f}_{2017})}^1$	2020D	2021D	2022D	2023D	2024D	RP3 to date
Total costs	47.01	42.87	45.11	42.04	39.56	134.99
New major investments	2.12	5.34	9.13	11.36	11.94	16.58
% New major investments in total costs of investments	5%	12%	20%	27%	30%	12%
Other new investments	1.95	6.11	8.71	10.92	13.23	16.76
% Other new investments in total costs of investments	4%	14%	19%	26%	33%	12%
Existing investments	42.94	31.43	27.28	19.76	14.38	101.64
% Existing investments in total costs of investments	91%	73%	60%	47%	36%	75%

Actual costs: new and existing investments ( $M \varepsilon_{2017}$ )	2020A	2021A	2022A	2023A	2024A	RP3 to date
Total costs	47.01	43.04	41.18	-	-	131.24
New major investments	2.12	7.14	7.07	-	-	16.34
% New major investments in total costs of investments	5%	17%	17%	-	-	12%
Other new investments	1.95	5.29	7.38	-	-	14.62
% Other new investments in total costs of investments	4%	12%	18%	-	-	11%
Existing investments	42.94	30.61	26.73	-	-	100.28
% Existing investments in total costs of investments	91%	71%	65%	-	-	76%

Actual minus determined costs (M $\varepsilon_{2017}$ )	2020	2021	2022	2023	2024	RP3 to date
Total difference	0	0.17	(3.92)	-	-	(3.75)
New major investments	0	1.81	(2.05)	-	-	(0.25)
% change of actual with respect to determined	0%	0.34	-23%	-	-	-1%
Other new investments	0	(0.82)	(1.33)	-	-	(2.14)
% change of actual with respect to determined	0%	(0.13)	-15%	-	-	-13%
Existing investments	0	(0.82)	(0.54)	-	-	(1.36)
% change of actual with respect to determined	0%	(0.03)	-2%	-	-	-1%

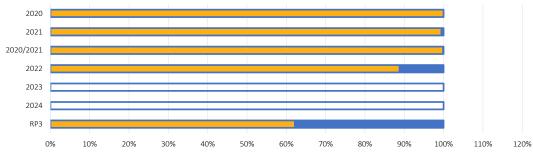




1. The performance plans include costs related to investments which comprise depreciation cost, cost of capital, and cost of leasing.

Switzerland included adjustments to the determined and actual costs of investments, under the name of "Financed outside Swiss FIR". These adjustments have been deducted from the costs of existing investments (-11MC<sub>2017</sub> in 2022 for the determined values).

COSTS RELATED TO INVESTMENTS INCLUDED IN THE PERFORMANCE PLAN					SWITZE	ERLAND - En ro	oute   Skyguide
Determined costs by nature (M€ <sub>2017</sub> )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to date
Total costs of new and existing investments	26.75	24.03	50.78	24.12	21.59	19.67	74.90
Depreciation	23.43	21.09	44.52	21.19	18.98	17.28	65.71
Cost of capital	3.32	2.94	6.26	2.93	2.61	2.38	9.19
Cost of leasing	0	0	0	0	0	0	0
Actual costs by nature (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to date
Total costs of new and existing investments	26.75	23.84	50.59	21.36	-	-	71.94
Depreciation	23.43	20.99	44.42	18.69	-	-	63.10
Cost of capital	3.32	2.85	6.17	2.67	-	-	8.84
Cost of leasing	0	0	0	0	-	-	0
Actual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2020/2021	2022	2023	2024	RP3 to date
Total difference	0	(0.19)	(0.19)	(2.76)	-	-	(2.96)
Depreciation	0	(0.10)	(0.10)	(2.50)	-	-	(2.60)
Cost of capital	0	(0.09)	(0.09)	(0.26)	-	-	(0.35)
Cost of leasing	0	0	0	0			0



0%

10%

20%

30%

40%

50%

60%

Actual total costs of investments
Underspending
Overspending up to 5%
Overspending higher than 5%
Determined total costs of investments

STS RELATED TO INVESTMENTS INCLUDED IN THE PERFORM	MANCE PLAN				SWITZE	ERLAND - Term	inal   Skygu
ermined costs by nature (M€ <sub>2017</sub> )	2020D	2021D	2020D/2021D	2022D	2023D	2024D	RP3 to c
al costs of new and existing investments	20.27	18.84	39.10	20.99	20.46	19.89	60.
Depreciation	17.06	15.61	32.67	17.88	17.55	17.19	50
Cost of capital	3.21	3.23	6.44	3.11	2.91	2.71	9
Cost of leasing	0	0	0	0	0	0	
ual costs by nature (M€ <sub>2017</sub> )	2020A	2021A	2020A/2021A	2022A	2023A	2024A	RP3 to o
al costs of new and existing investments	20.27	19.20	39.47	19.83	-	-	59
Depreciation	17.06	16.25	33.31	16.97	-	-	50
Cost of capital	3.21	2.95	6.16	2.86	-	-	9
Cost of leasing	0	0	0	0	-	-	
ual minus determined costs (M€ <sub>2017</sub> )	2020	2021	2020/2021	2022	2023	2024	RP3 to
al difference	0	0.37	0.37	(1.16)	-	-	(0
Depreciation	0	0.64	0.64	(0.92)	-	-	((
Cost of capital	0	(0.28)	(0.28)	(0.25)	-	-	(0
Cost of leasing	0	0	0	0	-	-	
2020							
2021							
020/2021				-	Actual total cos	sts of investment	S
2022					Underspending		
2023					Overspending u		
2020				_	Overspending I	nigner than 5%	
2024					Determined to		

Switzerland underspent  $3.9M \in_{2017}$  in costs related to investments (- $2.8M \in_{2017}$  in en route and  $-1.2M \in_{2017}$  in terminal) in 2022. For RP3 to date, Switzerland underspent  $3.8M \in_{2017}$  in costs related to investments. These amounts shall be reimbursed to the airspace users through a reduction of future unit rate(s), unless the NSA decides after consultation with the users, that the ANSP shall not reimburse a part of the difference according to article 28 of Regulation (EU) 2019/317.

70%

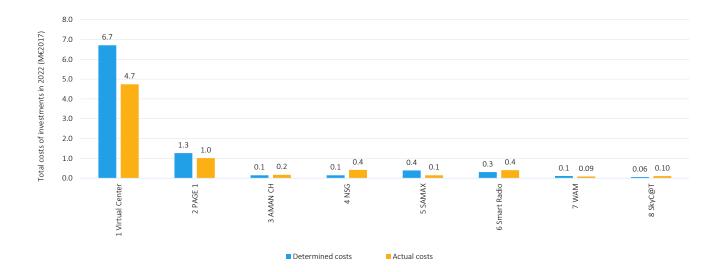
80%

90%

100%

110%

COSTS BY NEW MAJOR INVESTMENTS					SWITZERLA	ND   Skyguide
Determined costs (M€ <sub>2017</sub> ) <sup>1</sup>	2020D	2021D	2022D	2023D	2024D	RP3 to date
Total costs of investments	2.12	5.34	9.13	11.36	11.94	16.58
1 Virtual Center	1.66	4.05	6.71	7.17	7.70	12.42
2 PAGE 1	0.15	0.75	1.27	1.24	1.21	2.16
3 AMAN CH	0.07	0.12	0.15	0.89	0.94	0.34
4 NSG	0.09	0.12	0.14	0.87	0.85	0.35
5 SAMAX	0.06	0.11	0.39	0.47	0.46	0.56
6 Smart Radio	0.07	0.10	0.31	0.30	0.30	0.48
7 WAM	0.01	0.05	0.11	0.34	0.37	0.17
8 SkyC@T	0.01	0.03	0.06	0.08	0.11	0.10
Actual costs (M€ <sub>2017</sub> )	2020A	2021A	2022A	2023A	2024A	RP3 to date
Total costs of investments	2.12	7.14	7.07	-	-1	16.34
1 Virtual Center	1.66	4.64	4.74	-	-	11.04
2 PAGE 1	0.15	1.78	1.01	-	-	2.93
3 AMAN CH	0.07	0.13	0.17	-	-	0.36
4 NSG	0.09	0.20	0.42	-	-	0.71
5 SAMAX	0.06	0.08	0.15	-	-	0.28
6 Smart Radio	0.07	0.23	0.40	-	-	0.71
7 WAM	0.01	0.05	0.09	-	-	0.14
8 SkyC@T	0.01	0.04	0.10	-	-	0.16
Actual minus determined costs of investments ( $M \varepsilon_{2017}$ )	2020	2021	2022	2023	2024	RP3 to date
Total difference in costs of investments	0.00	1.81	(2.05)	-	-	(0.25)
1 Virtual Center	0.00	0.59	(1.97)	-	-	(1.39)
2 PAGE 1	(0.00)	1.03	(0.26)	-	-	0.77
3 AMAN CH	0	0.00	0.02	=	-	0.02
4 NSG	0.00	0.08	0.27	=	-	0.36
5 SAMAX	0	(0.03)	(0.24)	-	-	(0.27)
6 Smart Radio	(0.00)	0.13	0.10	-	-	0.23
7 WAM	0.00	(0.00)	(0.02)	-	-	(0.03)
8 SkyC@T	0.00	0.01	0.04	-	-	0.05



1. Determined costs comprise depreciation costs, cost of capital, and cost of leasing in the performance plans.

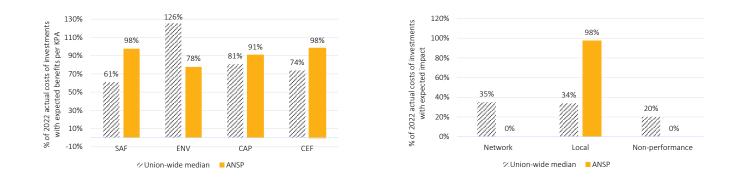
203/206

### EXPECTED BENEFIT AND IMPACT PER NEW MAJOR INVESTMENT SWITZERLAND | Skyguide Expected benefit per KPA # New major investments SAF ENV CAP CEF 1 Virtual Center Х Х Х Х 2 PAGE 1 Х Х Х 3 AMAN CH Х Х Х 4 NSG Х Х 5 SAMAX Х 6 Smart Radio Х Х Х 7 WAM Х Х Х 8 SkyC@T Х Х Х Х

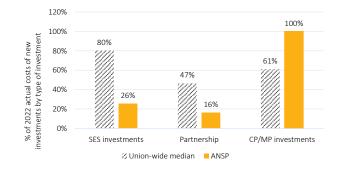
# # New major investments

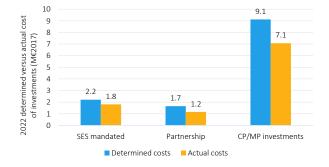
Network Local Non-performance 1 Virtual Center Х 2 PAGE 1 Х 3 AMAN CH 4 NSG х 5 SAMAX Х 6 Smart Radio Х 7 WAM Х 8 SkyC@T Х

Expected impact



# New major investments	EIO Date <sup>1</sup>	Status	SES Reg.	Partnership	ATM system	
					ATM sytem	CP/ MP <sup>2</sup>
1 Virtual Center	2024	Started	No	No	Yes	MP
2 PAGE 1	2018-2022	Started	Yes	Yes	Yes	MP
3 AMAN CH	01/05/2022	Started	Yes	No	Yes	MP
4 NSG	2022	Started	No	No	Yes	MP
5 SAMAX	2021-2022	Started	Yes	Yes	Yes	CP
6 Smart Radio	2021	Started	Yes	No	Yes	CP
7 WAM	2022-2027	Started	Yes	No	Yes	CP
8 SkyC@T	2024	Started	No	No	Yes	MP



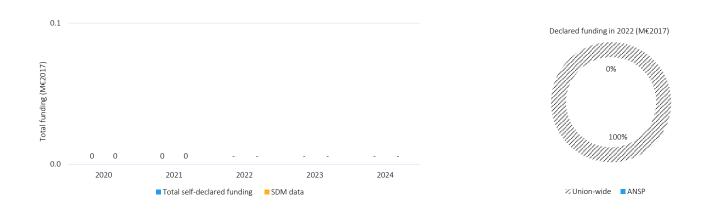


KPAs: SAF = Safety, ENV = Environment, CAP = Capacity, CEF = Cost-efficiency. 1. EOI date = Date of entry into operation

2. CP/MP = Common Project and Master Plan

205/206

PUBLIC FUNDING GRANTED FOR TOTAL CAPEX (CEF/TEN-T)					SWITZERLAND   Skyguide	
Actual funding declaration (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
Total funding declared	-	-	-	-	- 1	-
En route funding declared	-	-	-	-	-	-
En route funding that could not be assigned to a specific investment	-	-	-	-	-	-
Terminal funding	-	-	-	-	-	-
Terminal funding that could not be assigned to a specific investment	-	-	-	-	-	-
Actual funding declaration vs payments (M€ <sub>2017</sub> )	2020	2021	2022	2023	2024	RP3 to date
Difference between total funding declared vs received	-	-	-	-	-	-
Total included in the funding declaration (reporting tables)	-	-	-	-	-	-
SDM Payment	-	-	-	-	-	-



Switzerland did not report any funding in 2022, which matches with the SESAR Deployment Manager data. The same applies for RP3 to date.